Vote-buying

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Setting the stage

- Politicians compete for voters; they may use targeting of public spending in that process, and we saw some evidence that such targeting can be highly effective.
- At the same time, it is also common for specific voters to be offered targeted gifts or cash in exchange for their votes.
- Vote-buying has several distinct features.
  - It is not an official policy, rather, a targeted attempt to circumvent electoral institutions.
  - It could undermine desired effects of democratic institutions.
  - Individual transfers are small, and delivered personally, thus fostering governing personal relationships may be relevant.

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Finan and Schechter, Vote-buying and reciprocity

- This paper investigates how vote-buying leverages social preferences.
- They argue that voters offered money or material goods in exchange for their votes reciprocate because they take pleasure in doing so.
- They also present evidence that middlemen, hired by local politicians in Paraguay to promote their candidacies, target more reciprocal individuals for vote payments.
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Data

- The authors employ data from a household survey conducted in 2007, and a survey of political middlemen conducted in 2010; the household survey selected households based on landholdings from 15 villages in rural Paraguay.
- Data captured include experimental evidence measuring trust, trustworthiness and risk aversion, and data on vote-buying.
- The authors then surveyed political operatives in 10 of 15 villages, interviewing 38 out of 43 middlemen working on those villages.

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Measuring vote-buying

- Household respondents were asked whether prior to the 2006 elections, any political party offered them money, food, payment of utility, medicine or other goods.
- Middlemen were asked whether they offered such gifts to the sampled households.
- The measure of vote-buying is the union of the two.
- Vote-buying is common: 26% of households report a vote payment, middlemen report offering to 46% of households; mean transfer amount is $18, compared to daily agricultural wage of $3-$4.

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Measuring reciprocity

- Measure constructed from play in 2002 trust game: first mover is given 8000 Gs and decides how much to send to the second mover, which is tripled; the second mover than decides how much to return.
- A reciprocal individual should return more when s/he is treated well, and less when s/he is treated poorly.
- Assume that when more than 50% is sent the individual feels s/he has been treated well, and when less than 50%, treated poorly.
- To measure reciprocity, we calculate average share returned when receiving half or more of the endowment, minus share returned when receiving a quarter of the endowment.
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Summary statistics

TABLE I

SUMMARY STATISTICS[a]

	Mean	Standard Deviation
Vote-buying		
Offered by either party (reported by individual, 2007)	0.258	0.438
Offered by either party (reported by middleman, 2010)	0.460	0.499
Demanded from middleman's party (reported by middleman, 2010)	0.262	0.440
Reciprocity (individual experiments, 2002)	0.043	0.076
Voting behavior (individual survey, 2007)[b]		
Voted in 2006 election	0.702	0.458
Believes the ballot is anonymous	0.535	0.499
Political sentiment	0.401	0.491
Registered voter	0.829	0.377
Votes by party	0.227	0.419
Supports Colorado party	0.557	0.497
Registered voters in the municipality (in thousands)	9.139	4.677
Perceived voting behavior (middleman survey, 2010)[c]		
Voted in 2006 election	0.888	0.315
Believes the ballot is anonymous	0.933	0.249
Political sentiment	0.362	0.481
Supports Colorado party	0.476	0.500
Household characteristics (individual survey, 2007)		
Male	0.673	0.470
Age	49.92	15.58
Years of schooling	5.054	2.980
Household wealth (in U.S. dollars)	33,356	138,833
Number of family members eligible to vote	2.849	1.163

(Continues)

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- The empirical strategy is simple: the authors test for a correlation between reciprocity and the likelihood a voter is targeted for vote-buying.
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Discussion questions

- What are the authors' main findings?
- The authors emphasize that the findings are consistent with a number of possible interpretations: what are these interpretations? Do you find one particular interpretation most plausible?
- In the absence of clear evidence in favor of one interpretation, do you find the demonstrated correlation informative?

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Evaluating Finan and Schechter's results

- What are potential sources of bias in these results?
- What if measured reciprocity is endogenous? What kind of bias do you think this would generate? (There are many possible answers.)
- What would be the ideal experiment to implement to answer the question of interest? Is it possible?
- To me, the most interesting part of this paper is what it reveals about the relationship between voters and middlemen, and the remarkable precision of information employed by the latter.

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Introduction

- Nichter argues that vote-buying is improbable because parties cannot observe behavior at the ballot-box, but parties can also use payments to motivate their passive supporters to turn out at the polls - and turnout is observable.
- His objective is to distinguish between turnout buying and vote buying using political data from Argentina.
- The paper presents a formal model that I will review here.

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Model assumptions

- Assume a one-dimensional policy space; i.e., individuals and politicians have preferences only for one type of good.
- X_1 is the amount of the good preferred by the political machine, X_2 is the amount preferred by the opposition, and $X_1 < X_2$.
- Parties know individuals' ideal points, and whether they are voters or nonvoters.

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Citizen utility

- Each voters' utility is given as:

$$u_i = -\frac{1}{2}(X_i - V_i)^2 + b_i$$

where X_i is voter i's position on the ideological spectrum, and V_i is a vote for the machine or the opposition.

- b_i is the value to the voter of the reward.
- Non-voters induced to vote have the following utility function, where c is the cost of voting.

$$u_i = -\frac{1}{2}(X_i' - V_i')^2 + b_i' - c$$

- The machine can monitor voting decisions with probability q.

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Timing of model

- We also assume that this is (formally) an infinitely repeated game, and the machine engages in a grim-trigger strategy: if a voter defects, that voter will never receive another payment.
- Intuitively: there are many elections, and thus a voter that receives a reward but does not turn out to vote can be penalized in a future election.
- I will simplify the model to denote all future rewards available to the voter as B. (Using a game theoretic framework, the value of these rewards can be explicitly derived).

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The voter's decision

- A nonvoter who receives a reward b' and shows up at the polls will vote for the machine if doing so provides greater utility than voting for the opposition.
- This requires:

$$-\frac{1}{2}(X_i' - X_1')^2 + b' - c > -\frac{1}{2}(X_i' - X_2')^2 + b' - c$$

$$X_i' < \frac{X_1' + X_2'}{2}$$

- In other words, a nonvoter induced to vote will vote for the machine if his/her ideological position is closer to the machine than the opposition.
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The turnout decision

- But, what if the voter accepts the payment and does not show up at all?
- If this was a one-shot decision, that would clearly be optimal for the voter.
- Remember, there are also future rewards at stake.
- The voter will turn out if this results in a higher payoff than not turning out (assume no discounting).

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- This equation suggests that the value of future rewards (i.e., the implicit benefit of cooperation), can be lower if $(X_i' - X_1')$ is smaller, or if q is higher.
- In other words, inducing voter cooperation is cheaper if the voter is closer to the ideal point of the machine, or if it is easy to monitor turnout.
- In a game theory framework, it is easy to establish that the same comparative statics apply for b.
- This suggests that politicians seeking to buy turnout should optimally target supporters (and improve their monitoring technology!)

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- The results suggest that the Peronist party is more likely to target Peronist sympathizers, consistent with turnout-buying (though not with vote-buying).
- His results also show that individuals in smaller communities, where it is presumably easier to monitor political behavior, are more likely to report receiving rewards; this, however, is a prediction of both turnout-buying and vote-buying models.

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- His results also show that individuals in smaller communities, where it is presumably easier to monitor political behavior, are more likely to report receiving rewards; this, however, is a prediction of both turnout-buying and vote-buying models.

Evaluating Nichter's conclusion

- What are the potential weaknesses of this empirical strategy?
- Could there be omitted variables? What if both Peronist sympathizers are also more reciprocal individuals?
- What if Peronist sympathizers are also easier to monitor (because they live in different neighborhoods, or pursue certain occupations)?
- Do you find the results convincing?

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Other questions

- There are a host of other interesting questions about vote-buying (a particular interest of mine).
- In many countries, turnout is extremely high, yet payments are still rampant (in many forms - not just cash).
- Do parties actually learn who voters have voted for? How many voters accept a payment and do not vote in favor of the candidate? If the latter, is this actually a negative practice we should seek to stamp out?

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Other questions, cont.

- What empirical evidence would suggest vote-buying is bad, from a normative perspective? What empirical evidence would suggest the opposite?
- Do you believe surveys that ask people about vote-buying (a practice often illegal, and generally socially sanctioned)? What other strategies could be used to conduct research about it?

Other questions, cont.

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Hsieh et al., Evidence from Venezuela's *maisanta*

- For the final paper today, I will present some evidence that there can be retaliation against households that oppose an incumbent government, suggesting that households may in some cases be inhibited from using their vote to discipline a government for fear of adverse political or economic consequences.
- The setting is Venezuela, where the Chávez government distributed in 2004 a list of opposition voters who signed a petition in 2003 to force a recall election.
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Summary statistics

TABLE 2—CHARACTERISTICS OF CHÁVEZ OPPONENTS, HOUSEHOLD SURVEYS 1997–2002

	Sample mean	*Maisanta*— Nonsigners	*Maisanta*— Petition 1/2 only
Log labor income (2000 Bolivares)	7.43 (0.80)	**0.092 (0.011)**	0.013 (0.015)
Employed (× 100)	91.5 (27.9)	−0.59 (0.31)	−0.17 (0.46)
Employed (× 100) in:			
Private formal	39.3 (48.8)	0.40 (0.69)	**2.27 (1.04)**
Public	17.1 (37.6)	**2.11 (0.55)**	−0.49 (0.93)
Informal	43.6 (49.6)	**−2.51 (0.72)**	**2.77 (1.06)**
Age	36.6 (12.2)	**2.46 (0.19)**	**3.60 (0.27)**
Years of schooling	8.29 (3.93)	**0.74 (0.06)**	−0.13 (0.09)
Female	0.37 (0.48)	**0.07 (0.01)**	0.016 (0.011)
Lives in Caracas	0.14 (0.35)	**0.05 (0.01)**	0.01 (0.01)

Notes: Maisanta defined as signing Petition 3 (Reafirmazo). Petition 1/2 defined as signing first or second petition (Consultivo or Firmazo). Bold denotes statistical significance at 95 percent confidence. Sample restricted to individuals from 1997 through 2002, above age 18, and in the labor force. $N = 122{,}473$.

Empirical strategy

- The research design is a regression discontinuity: examining the difference in earnings and employment before and after 2004 for petition signers compared to non-signers.
- Identifying assumption requires that labor market outcomes with and without treatment (petition signing) are continuous in 2004.
- Example of a violation of the identifying assumption: an abrupt change in labor market conditions that differentially affects more educated vs. less educated individuals.
- Regression equation of interest:

$$Y_{it} = \alpha SIGN_i + \sum_t \gamma_t D_t + \sum_t \beta_t D_t SIGN_i + X_{it}'\delta + \epsilon_{it}$$

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Core result: earnings

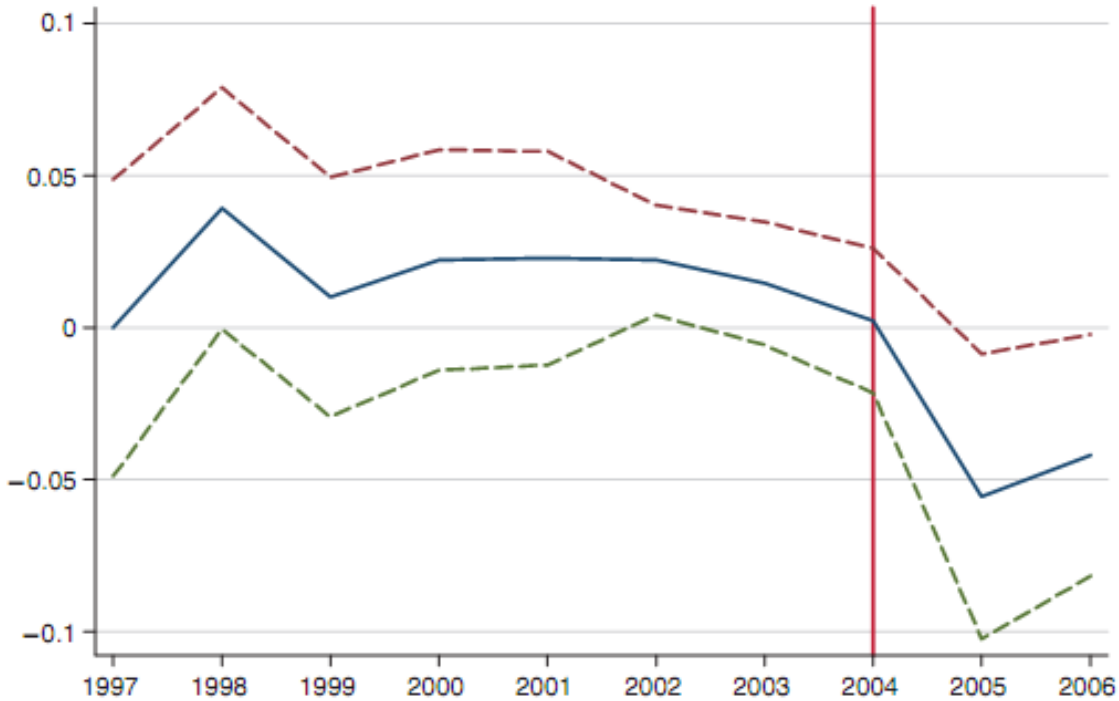

FIGURE 1. LOG EARNINGS OF *MAISANTA* (PETITION 3) SIGNERS (*relative to nonsigners*)

Core result: employment

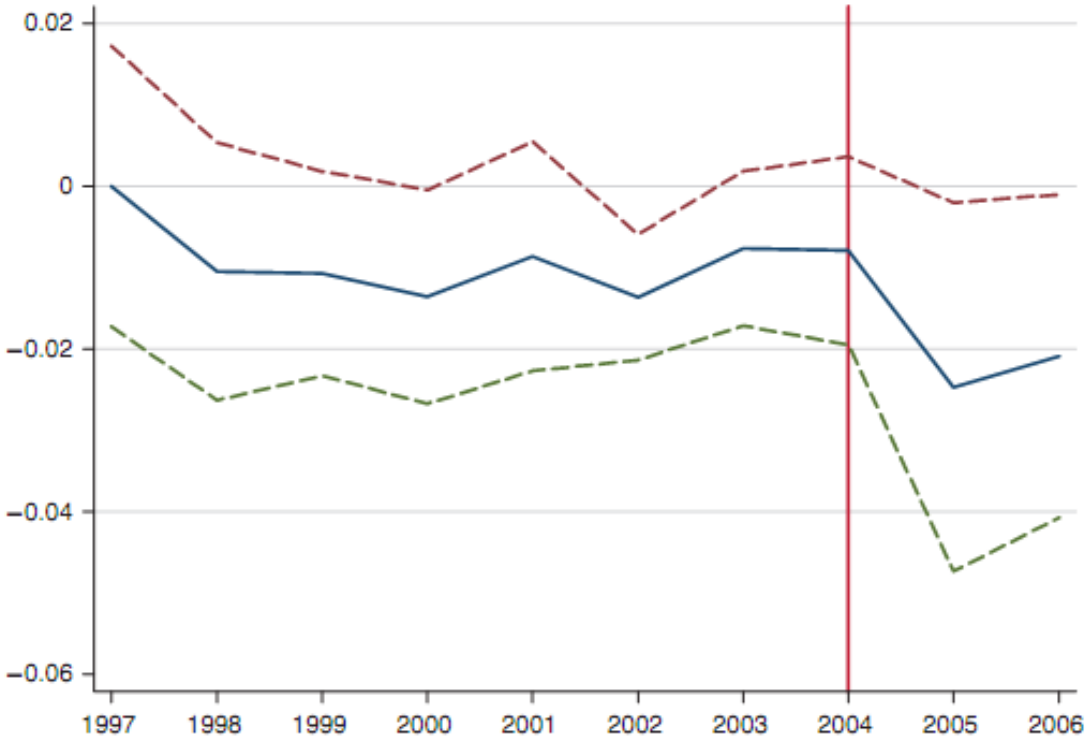

FIGURE 2. EMPLOYMENT OF *MAISANTA* (PETITION 3) SIGNERS (*relative to nonsigners*)

Regression results: earnings

TABLE 3—EARNINGS OF PETITION 3 (*MAISANTA*) SIGNERS, HOUSEHOLD SURVEYS 1997–2006

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Maisanta × 2005–2006	**−8.62**	**−6.52**	**−6.64**	**−6.43**	**−6.03**	**−4.54**	**−4.13**
	(1.13)	**(0.99)**	**(0.99)**	**(0.99)**	**(0.99)**	**(1.28)**	**(1.28)**
Controls:							
Demographics	No	Yes	Yes	Yes	Yes	Yes	Yes
Demographics × time trend	No	No	Yes	Yes	Yes	Yes	Yes
State fixed effects	No	No	No	Yes	Yes	Yes	Yes
Education × year effects	No	No	No	No	Yes	Yes	Yes
Occupation × year effects	No	No	No	No	No	Yes	Yes
Sector × year effects	No	No	No	No	No	No	Yes

Notes: Dependent variable is log labor income (× 100). Bold denotes statistical significance at 95 percent confidence. Entries are coefficients of the indicator variable for appearing in the *Maisanta* database (signing Petition 3) interacted with an indicator for observations in 2005–2006. All regressions include indicator variables for year, for signing Petition 3, for signing Petitions 1/2, for signing Petitions 1/2 interacted with an indicator variable for observations in 2005–2006, for signing a pro-Chávez petition, and a variable interacting the indicator for signing a pro-Chávez petition with an indicator variable for observations in 2005–2006. Demographic controls are years of schooling, a quartic in age, sex, and a Caracas indicator. Demographic × Time trend controls are interactions of a linear year trend with the demographic controls. State controls are indicator variables for state (24 states). Occupation refers to indicator variables for occupation (80 occupations in total). Sector refers to indicator variables for sector (34 sectors in total). Year effects (in columns 5–7) are indicator variables for each year. Sample consists of adults (between ages of 18 and 65) in the labor force. $N = 200{,}016$.

Regression results: earnings

TABLE 4—EARNINGS OF CHÁVEZ OPPONENTS, HOUSEHOLD SURVEYS 1997–2006

	(1)	(2)	(3)	(4)
Chávez opponent × 2005–2006				
Maisanta only	**−6.94**	**−6.06**	**−7.73**	**−6.42**
	(1.73)	**(1.52)**	**(1.79)**	**(1.58)**
Maisanta AND Petition 1/2	**−8.03**	**−6.36**	**−7.97**	**−6.49**
	(1.34)	**(1.17)**	**(1.37)**	**(1.19)**
Petition 1/2 only	1.58	−2.41	2.12	−2.39
	(1.51)	(1.32)	(1.55)	(1.36)
Chávez opponent × 2003–2004				
Maisanta only			−3.01	−1.35
			(1.80)	(1.58)
Maisanta AND Petition 1/2			0.34	−0.57
			(1.34)	(1.17)
Petition 1/2 Only			2.46	0.09
			(1.53)	(1.34)
Demographic controls	No	Yes	No	Yes

Notes: Dependent variable is log labor income (× 100). Bold denotes statistical significance at over 95 percent confidence. Entries in columns 1 and 2 are coefficients of indicator variable for only signing Petition 3, signing Petition 3 and Petition 1 or 2, and for only signing Petitions 1 or 2, all interacted with an indicator for observations in 2005–2006. Entries in columns 3 and 4 also include interactions with an indicator variable for observations in 2003–2004. All regressions include year fixed effects. Demographic controls are as described in Table 3. $N = 200{,}016$.

Discussion questions

- Do you find these results plausible? Are there other possible explanations?
- This, in a sense, is an "anti-payment": rather than seeking to incentivize voters to offer support, governments penalize those who don't.
- Are these strategies complements? Substitutes? Is one more common than the other?

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Summing up

- This lecture has presented evidence suggesting voters respond to vote payments.
- At the same time, voters in Venezuela seem to face a substantial personal financial penalty for expressing opposition to the incumbent government, albeit in an unusually polarized and not fully democratic system.
- What does this imply for our models of elections as a mechanism of accountability or candidate selection?

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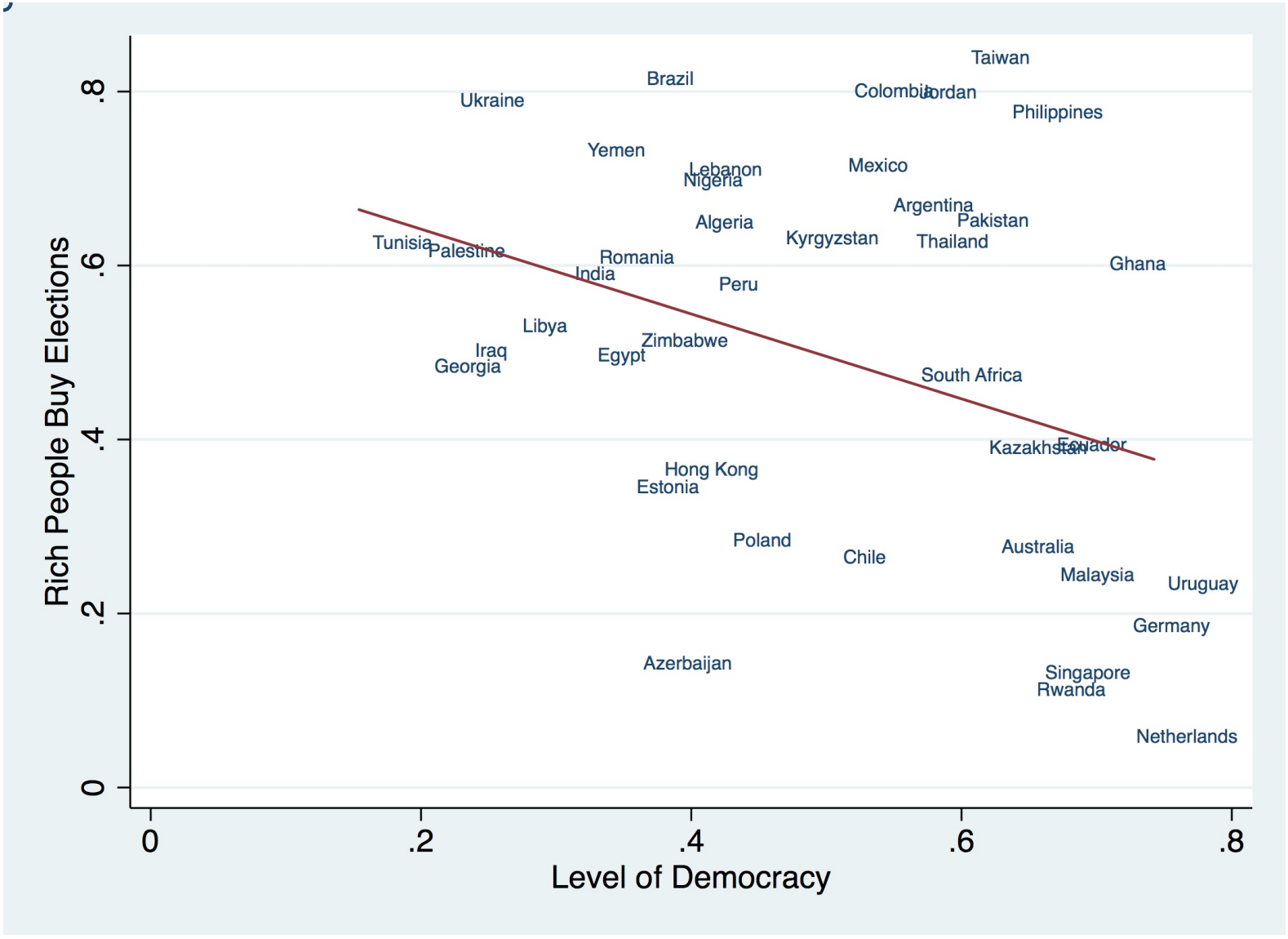
What's wrong with vote-buying?



What's wrong with vote-buying?, cont.

- The ability of vote-buying to influence politician selection is attributed, in part, to social preferences.
  - This suggests one channel through which vote-buying may affect policy is selection: it leads to the selection of worse quality politicians, or politicians whose preferences do not match the electorate.
- Importantly, however, vote-buying can also reduce voters' willingness to hold politicians accountable for their performance.

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This paper

- Reports on the first laboratory experiment that demonstrates how vote-buying engenders moral hazard among elected politicians.
  - The experiments are conducted with 816 subjects in the U.S. and Kenya, testing a model of simple retrospective accountability.
  - Voters employ the reelection decision to discipline an incumbent who may expropriate rents from a common treasury.
  - There is no variation in politician quality, and no selection motive; we observe the maximum level of expropriation voters will tolerate.
  - We augment the game with vote-buying in various forms, and examine whether voters' tolerance of expropriation is altered.

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Three main findings

- Voters who receive a payment increase their willingness to allow the politician to expropriate from the common treasury.
- The effectiveness of payments is increasing in the number of payments distributed.
- In private information environments, the largest change in voter behavior is observed among subjects whose consent is solicited.

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Basic voting game: role of voters

- A "polity" in the lab is constituted by five voters and one politician.
- Each voter has a endowment y ($20 in the U.S.), taxed at 50%; tax revenue is held in common treasury.
- 30% of collective treasury is vulnerable to expropriation by the politician; any non-expropriated revenue is redistributed to voters at end of game.
- Voters pay a transition fee of $0.1y$ if they fail to reelect the incumbent; this is designed to prevent voters from anchoring on zero tolerance of expropriation.

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- Voters and politicians make simultaneous choices.
  - Each voter specifies the maximum amount s/he would allow the politician to expropriate and still reelect him/her.
  - The politician specifies the amount s/he would expropriate.
- Game roles are not assigned ex ante, and thus each subject will specify a choice as a voter and as a politician.
- Ex post, one player is selected as the politician; the politician is re-elected if s/he expropriates an amount less than or equal to the median of all voters' reelection thresholds.
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Subject preferences

- We postulate the following objective function for subjects.

$$\max \eta_1 E_i + \eta_2 \sum_{i=1}^{N} E_i + \eta_3(-\Delta^{pol} E_i) + \eta_4 E_i^{pol}$$

  where own earnings, joint earnings, the inverse of earnings inequality and the politician's earnings are weighted η_1, η_2, η_3, and η_4.

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Voting game with payments

- The game is then augmented with vote payments of $.1y$.
- The payments are separately funded, and are not drawn from the politician's salary or the common treasury.
- All subject decisions remain confidential - i.e., no violations of the secret ballot.

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Variation in payment framing

- In the lab, we employ four framings for vote payments.
  - Public information: the number and size of payments is specified, and they are described as a "payment in exchange for your vote."
  - Public gift: the payment is described as a gift.
  - Limited information: the only information provided ex ante is that some voters may receive payments in exchange for their votes.
  - This framing is implemented with and without prior solicitation of consent for the payment from the voter.
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- Subjects participate in the following activities in sequence.
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- The game where 1 voter received a payment was randomly selected.
- Voters specified maximum reelection thresholds of 5, 7, 8, 8 and 10.
- The politician expropriated 5; s/he would be reelected, and would receive salary 20 + 5 in expropriated rents, and a reelection bonus between 0 and 2.
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Subjects

- Our games include 816 subjects, 366 in Kenya and 450 in the U.S.
- The age of subjects is similar in the two sites, around 33.
- In the U.S., the subject pool was equally divided by gender, overwhelmingly unmarried, and generally highly educated.
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- The primary dependent variable of interest is the reelection threshold: this is the maximum level of expropriation at which s/he will still reelect the politician.
- We denote this threshold T_{igds}, for subject i making game decision d in game round g in session s.
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$$T_{igd} = \beta_1 P_{ig} + \beta_2 R_{igd} + \epsilon_{igd} + \phi_i$$

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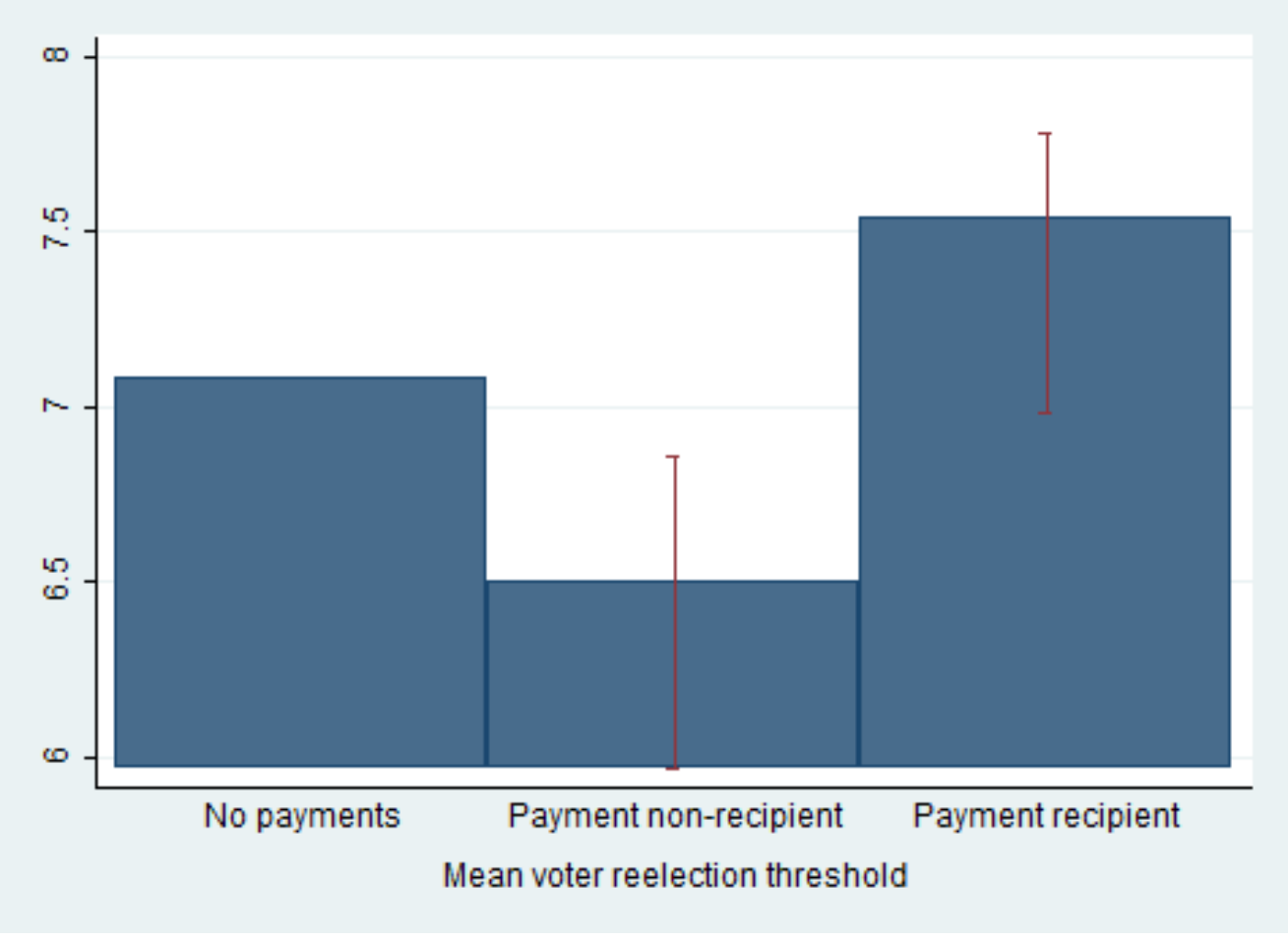
Voter reelection thresholds



Primary results

	Voter reelection threshold	
	(1)	(2)
Payment	-.582	-.670
	(.202)***	(.221)***
Recipient	1.039	.964
	(.153)***	(.158)***
Net effect of payment	.457	.294
	(.193)**	(.199)
Mean	7.07	7.07
Fixed effects		Subject
Obs.	2136	2136

Interpreting the results

- The coefficient on payments is negative and significant; the coefficient on recipient is positive and significant.
- The net effect on payment recipients is an increase in the reelection threshold of between .3 and .5 (i.e., more lenient treatment of the politician).
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