# Lobbying and Legislative Uncertainty

Kristy Buzard Syracuse University and The Wallis Institute kbuzard@syr.edu

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# The Questions

- 1. How does uncertainty about legislators' preferences impact
  - ▶ lobbying strategies (e.g. who to lobby, how much to 'pay')
  - probability a bill passes
- 2. Can we distentangle fundamental uncertainty about preferences from equilibrium and modeling uncertainty?
  - ⇒ Build a structural model to take to U.S. House data
- 3. Ultimately, want to identify cross-industry measures of legislative uncertainty

# Some Stylized Facts

- 1. In the U.S., about \$4 billion / yr spent on lobbying and campaign contributions
- 2. There is usually lobbying on both sides of a given issue
- 3. Moderate legislators receive more contributions than those that are ideologically extreme
- 4. Legislators about whom there is a moderate level of uncertainty are lobbied the most

Adding uncertainty to standard model captures (2) — (4)

## Literature

- ▶ Vote Buying in Legislatures: Groseclose & Snyder 1996. Banks 2000, Dal Bo 2007
- ▶ Lobbying with Uncertainty: Coates & Ludema 2001, Le Breton & Salanie 2003, Le Breton & Zaphorozhets (2007)
- ▶ Probabilistic Voting with Policy Motivation: Roemer 1994, 1997, Duggan & Fey 2011

Overview 000000 Overview



Overview

Overview

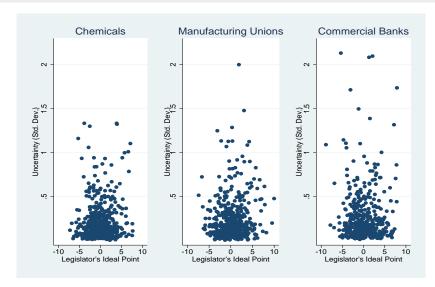
## Context

## U.S. House of Representative

- ► All roll call votes, 2005 through present
- ► Interest group lobbying on each vote
- ▶ PAC contributions, LDA lobbying data

Use multi-dimensional ideal-point estimation to identify measures of uncertainty

Overview
Overview



# Policy and Politics

## Three legislators

- ▶ Identified by location in linear preference space:  $i \in \{-0.5, 0..5\}$
- $\blacktriangleright$  Each will vote for status quo s or new proposal x
- ▶ Decision made by majority vote

Two vote buyers, A and B

 $\blacktriangleright$  A prefers x, B prefers s

Political Structure

## Timeline

## 1. Vote Buyer A

i. Chooses bribes  $a = (a_{-.5}, a_0, a_{.5})$ 

### 2. Vote Buyer B

- i. Observes a
- ii. Chooses bribes  $b = (b_{-5}, b_0, b_5)$

### 3. Legislature

- i. All legislators observe a, b
- ii. Uncertainty about preferences realized:  $\underline{\theta} = (\theta_{-.5}, \theta_0, \theta_{.5})$
- iii. Each legislator votes for her preferred policy

The Players

## Objective function:

$$W = CS_X(\tau) + \gamma(s, e)\pi_X(\tau) + CS_Y(\tau^*) + \pi_Y(\tau^*) + TR(\tau)$$

- ► S
- **▶** s:
- ▶ e:
- ▶ Optimal
  - ► Ignores
  - ► Takes

The Players

## Political Pressure

### Two potential sources

- 1. Endogenous effort choice of lobby, e
  - ▶ Lobby chooses effort to maximize profits,  $\pi(\cdot)$ , net of lobbying effort, e
  - $\triangleright$  Call lobby's optimal effort choice  $e^L$

$$e^{L} = \max_{e} \pi(\tau(\gamma(e))) - e$$

#### When:

- ▼ T
- **▶** ]
- ▶ C

#### Result...

When Vote Buyer B pays bribes to exactly two legislators, the bribes are such that the two bribed legislators' ideal points gross of bribes are equalized. Which two legislators are bribed depends on the bias parameter  $\alpha$ .

One Vote Buyer

## When ...

#### Now

- ▶ Want
- ► But

#### Result...

When Vote Buyer B pays bribes to all three legislators, the bribes are such that the legislators' ideal points gross of bribes are equalized.

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One Vote Buyer

### Result...

When Vote Buyer B pays bribes to exactly one legislator, it may be any one of the three legislators depending on the bias parameter  $\alpha$ .

#### Result...

When Vote Buyer B has a low willingness to pay, he does not bribe any legislator.

# Varying Uncertainty Across Legislators

#### Now

- ► Want
- ▶ But

### Conjecture

When there is no bias in the positions of the legislators ( $\alpha = 0$ ), the bribes of legislators whose ideal points are at the median in terms of uncertainty receive the highest relative bribes.

Results

### Result...

It is possible that neither vote buyer bribes any legislator on a given vote. This occurs when both vote buyers' willingness-topay parameters are small.

#### Result...

It is possible for both vote buyers to bribe legislators on the same vote.

- ► A
- ▶ C

## Conclusion

## Taking into account

- ► provides
- ▶ demonstrates
- ► helps