Dynamic Political Investigations: Obstruction and the Optimal Timing of Accusations

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Political Investigations and Obstruction

Formal investigations are an important way for voters to learn about candidates and make informed decisions.

Voters react to the findings of these investigations

- NY Gov. Cuomo Sexual Harassment Probe (2021).

These investigations are high stakes and politicians often obstruct.

- Trump and the Mueller Investigation (2017-2019).

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- Release evidence when you find it.
- Wait to release evidence right before the election (e.g. an October Surprise).
- Release at an intermediate time.

Historic Scandals

October Surprises

- Dr. Oz dog experiments (10/3/2022)
- George W Bush DUI charges from 1976 leaked (10/31/2004)
- Congressman Foley explicit messages to underage pages (9/29/2006)

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Early Release

- Trump and Russian Election Interference (5/9/2017)
- Abu Ghraib Torture controversy (5/6/2004)
- Bill Clinton Whitewater development (7/1/1994)

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- Evidence quality and candidate's position in race generate risk preferences for the opposition which drive timing results.
- Obstruction increases incentives for October Surprises to further reduce voter welfare.

Evaluate policy experiments aimed at reducing obstruction.

- Plea Bargaining Deals
- Prolonging Investigations under strong and weak political institutions

Previous Literature

Dynamic Persuasion: Awad and Minaudier (Working Paper 2021); Ball (2019); Bizzotto. Rudiger and Vigier (2021); Che and Mierendorff (Working Paper 2020); Ely (2017); Renault, Solan and Vieille (2017); Shimko (Working Paper 2022).

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Scandals: Cameron (2002); Nyhan (2015, 2017); Gratton, Holden and Kolotilin (2018); Howell and Dziuda (2021); Ogden and Medina (Working Paper 2021).

Model

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3 agents:

- Candidate
- Investigator
- Median Voter

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Nature draws $\omega \in \{N(\text{ot guilty}), G(\text{uilty})\}$ w/ $p_0 \equiv Pr(N)$.

- Candidate knows ω.

Investigation

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If $\omega = G$, bad news shock has arrival rate $\frac{\lambda}{k_t}$. If $\omega = N$, no shock.

- Bad news shock automatically stops investigation.

Post-Investigation

Investigator's choice to stop investigation and bad news shock are publicly observable.

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At time T^E, Median voter votes for candidate or opposition.

Investigator's Payoffs

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Investigation of length T has cost cT where $c > 0$.

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Instantaneous cost of obstructing at level k_t is $\beta k_t dt$ where $\beta > 0$.

Voter's Payoffs

Utility for selecting the candidate is

$$\begin{cases} v_C & \text{if } \omega = N \\ v_C - \alpha & \text{if } \omega = G \end{cases}$$

- $\alpha > 0$ is voter's distaste for wrongdoing.

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$$v_C - (1 - p)\alpha.$$

Voter's payoff for voting for the opposition is $v_A + \varepsilon$.

- $\varepsilon \sim \mathcal{N}(0, 1)$ is Voter's private info.

Histories

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Let $H_t^\emptyset := \{\{\emptyset, \emptyset\}\}$ be the set of all histories at time t, h_t such that the investigation is still active at time t.

- Investigator and candidate can only take actions at time t following a history in $H_t^\emptyset$

Strategies

Investigator's stopping strategy -
$\sigma : [0, T^E] \times \{H_t^{\emptyset}\}_{t \in [0,T^E]} \to \{\text{stop}, \text{continue}\}$

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Voter's voting strategy $s_V : H_{T^E} \times \mathbb{R} \to \{\textit{candidate}, \textit{opposition}\}$

Equilibrium Analysis

Voter Decision Making

Definition

Let the **Candidate's Advantage**, $\Delta(p)$, be the expected difference in voter utility between the candidate and opposition for a posterior belief p:

$$\Delta(p) \equiv v_C - v_A - \alpha(1-p)$$

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Prob candidate wins election when voter has belief $p = Pr(\omega = N)$:

$$q(p) \equiv Pr(v_A + \varepsilon \leq v_C - \alpha(1-p)) = Pr(\varepsilon \leq \Delta(p)) = \Phi(\Delta(p)),$$

where Φ is the CDF of the standard normal.

Optimal Obstruction Strategy

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Candidate's **prize** for not getting caught is the difference in his expected utility between being found guilty and being found not guilty when voter holds belief p:

$$\psi(p) \equiv B[q(p) - q(0)] + \ell$$

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Lemma

Candidate's optimal obstruction strategy at time t for an investigation of length T is:

$$k_t^*(T) = \sqrt{\frac{\lambda \psi(p_T)}{\beta}} - \lambda(T - t),$$

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Investigator wants to stop learning when the marginal benefit of learning equals the marginal cost.

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The *feasible* optimal stopping time is $T^* \equiv \min\{T^U, T^E\}$.

Equilibrium Characterization

Theorem

For p_0 sufficiently large, there exists a unique pure strategy PBE:

1. *Investigator continues for $t < T^*$ and stops for $t \geq T^*$.*
2. *Investigator and voter have belief $p_t = 0$ if shock by t, o.w:*

$$p_t = \frac{p_0}{p_0 + (1-p_0)\left[1 - t\sqrt{\frac{\lambda\beta}{\psi(p^N_{T^*})}}\right]}.$$

3. *Voter picks candidate if $\varepsilon < \Delta(p_{T^*})$, o.w. picks opposition.*
4. *Candidate's obstruction strategy $\{k_t\}_{t\in[0,T^E]}$ is:*

$$k_t = \begin{cases} \sqrt{\frac{\lambda\psi(p_{T^*})}{\beta}} - \lambda(T^* - t) & \text{if } t \leq T^* \\ \sqrt{\frac{\lambda\psi(p_t)}{\beta}} & \text{if } t > T^* \end{cases}$$

Increasing Obstruction

Question - What does it mean for the candidate to obstruct more?

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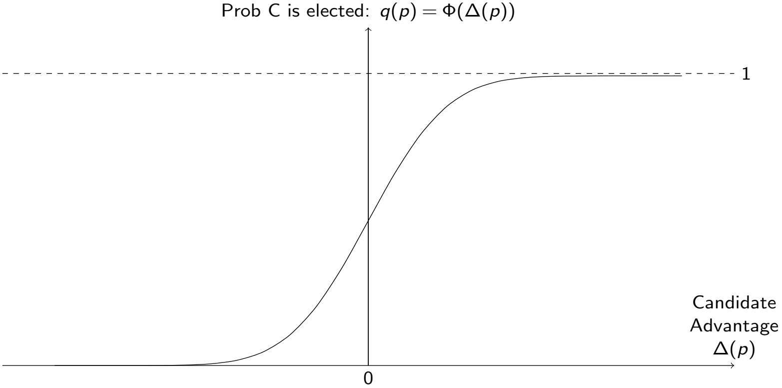
- The terminal equilibrium level of obstruction, k_T, is sufficient to understand the informativeness of the investigation.
- Higher terminal obstruction leads to less informative investigations.

Comparative Statics on Obstruction

How Does Increasing Obstruction Impact Candidate's Probability of Election?



- Recall: $\Delta(p) := v_C - v_A - \alpha(1-p)$

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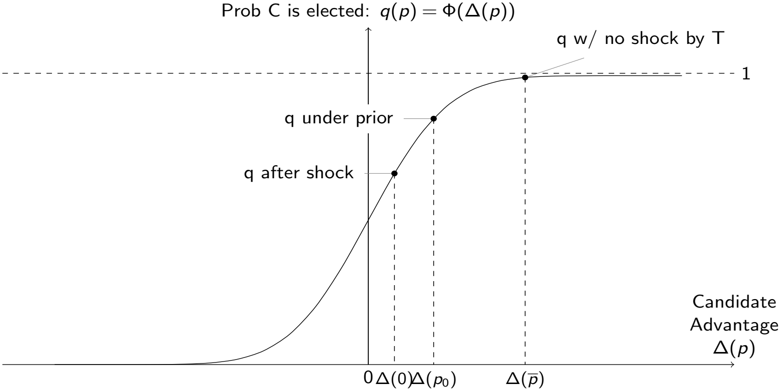

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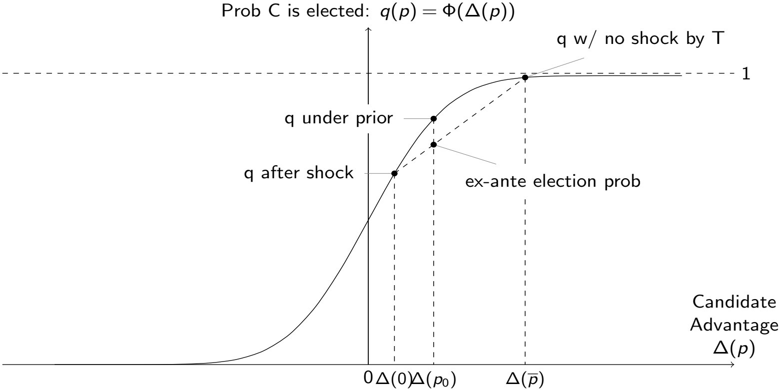

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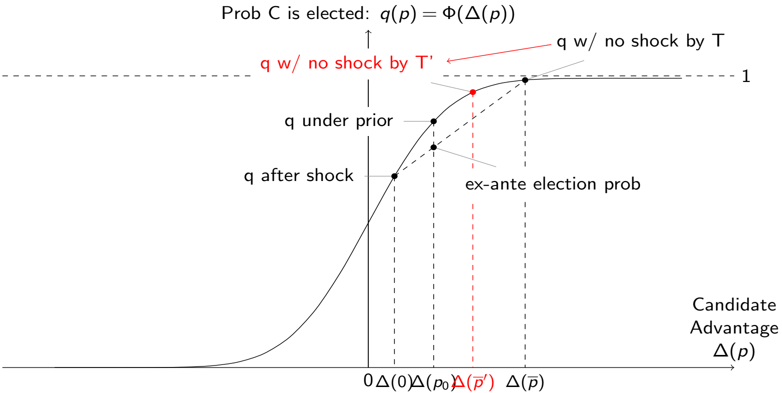

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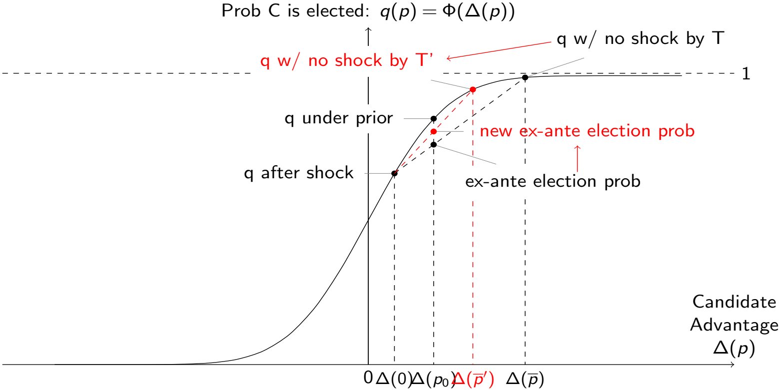

- When the candidate obstructs more, p_T is closer to p_0.
- Ratio of guilty to innocent candidates elected increases.

Strategic Timing of Accusations

Endogenous Timing of Accusations

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Opposition, potentially receives a piece of suggestive evidence:

- If $\omega = G$, gets evidence at $t = 0$ w/ prob $\gamma \in (\frac{1}{2}, 1]$. O.w. gets nothing.
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At T^A, voter & investigator form belief $p_\gamma = \frac{p_0(1-\gamma)}{p_0(1-\gamma)+(1-p_0)\gamma} < p_0$.

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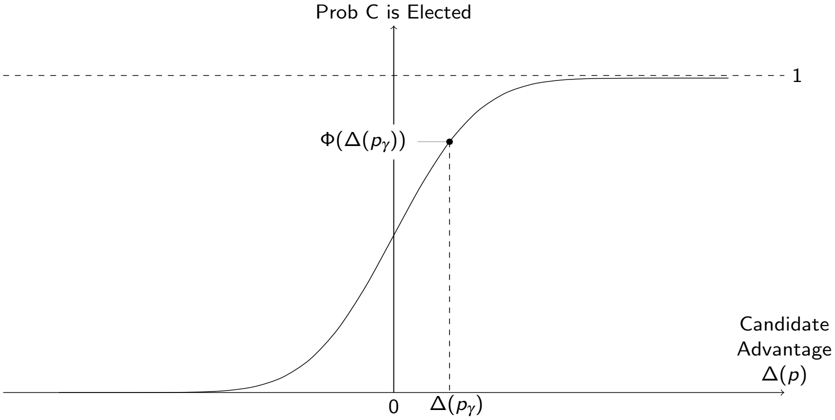
Game proceeds as before w/ investigation starting at T^A.

Types of Races

1. Front-runner: $v_C - v_A \geq \alpha$.
2. Underdog: $v_C - v_A \leq 0$.
3. Close Race: $v_C - v_A \in (0, \alpha)$.

Case 1: Front-runner Candidate



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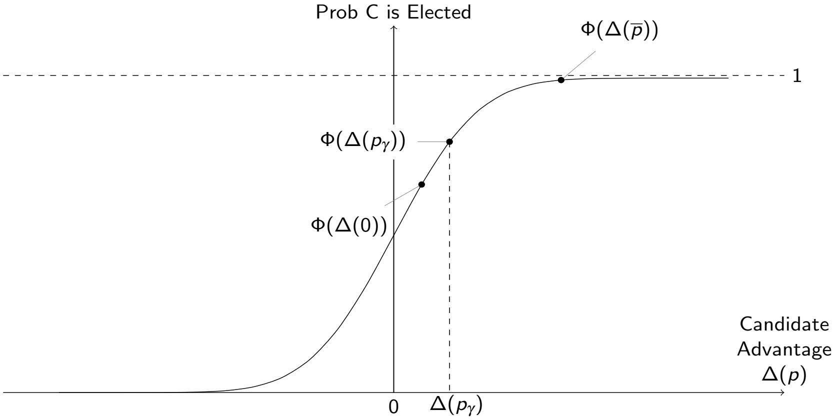

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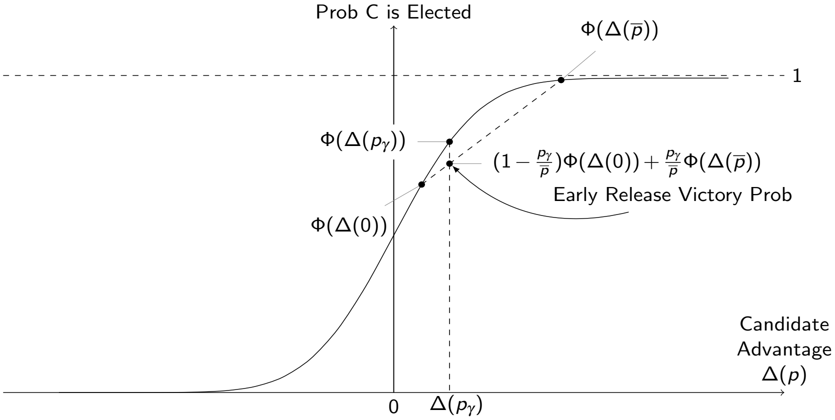

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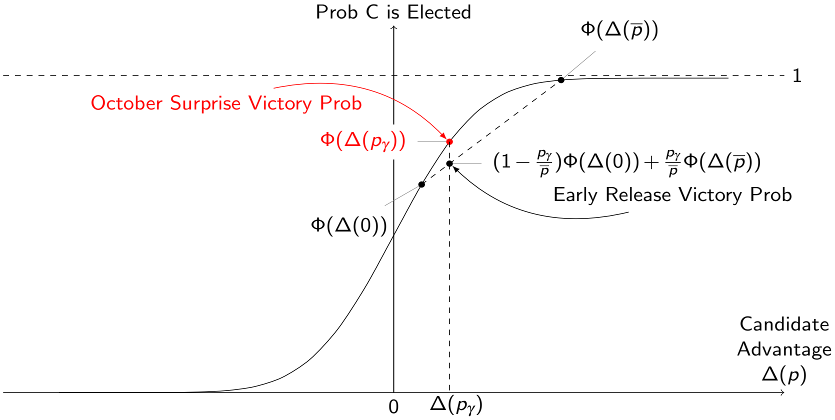
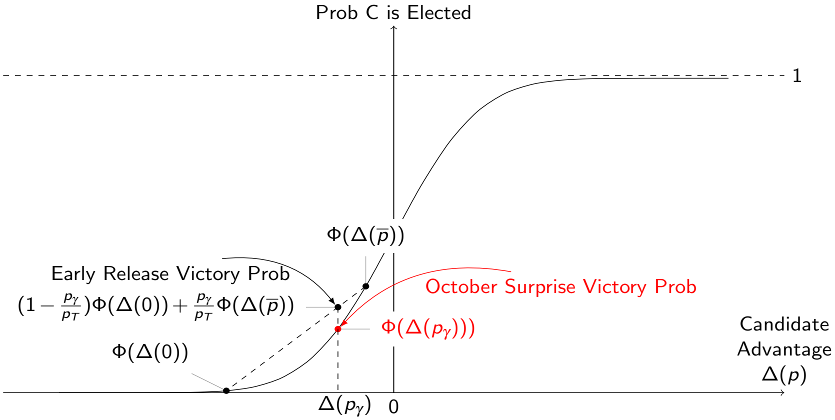


Proposition

In a front-runner race, opposition releases information immediately, at time $T^A = 0$.

Case 2: Underdog Candidate



Proposition

In an underdog race, opposition releases information at the last minute at time $T^A = T^E$, which precludes an investigation (e.g. an October Surprise.)

Case 3: Close Race

Lemma

The investigator gathers information until he reaches belief, $\overline{p}$, regardless of p_γ, unless T^E prevents her from reaching $\bar{p}$.

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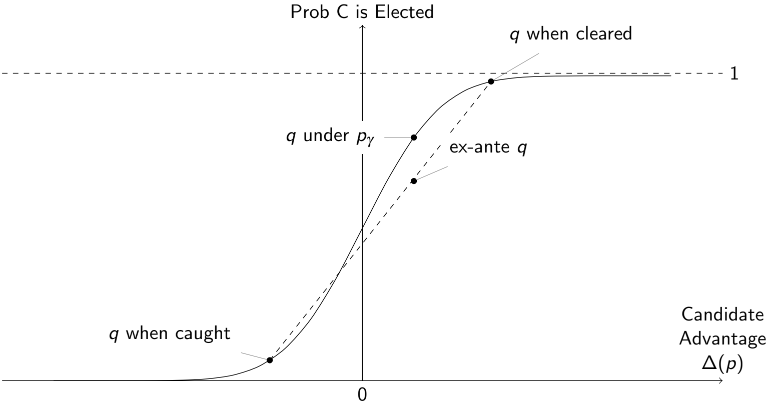

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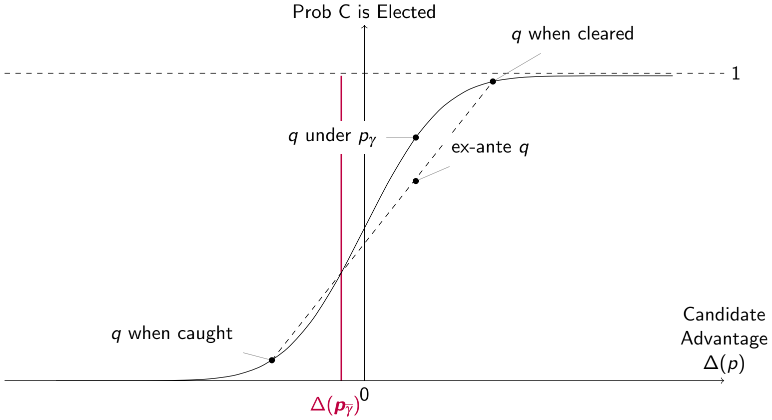

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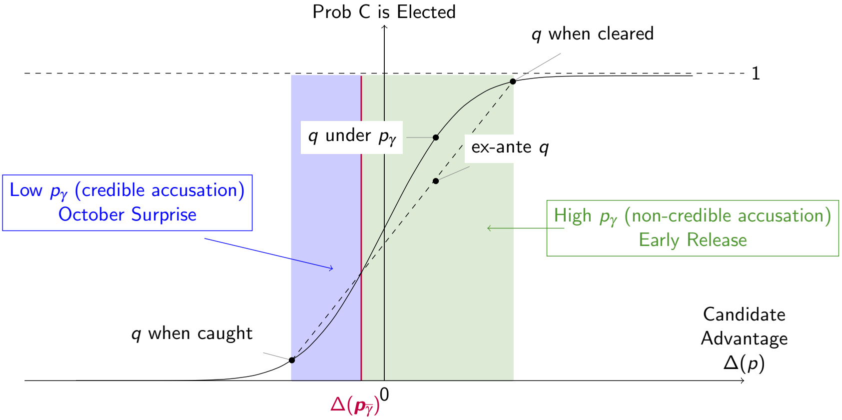
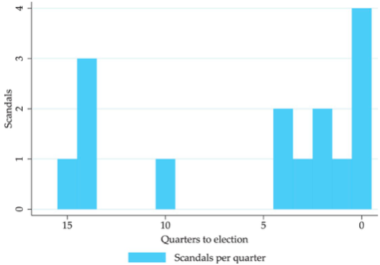


Proposition

In a close race, there exists a 'credibility cutoff', $\overline{\gamma} \in (\frac{1}{2}, 1]$ s.t. A releases more credible info at the last minute ($T^A = T^E$) and less credible info early ($T^A = 0$).

Scandal Release Timing: Gratton, Holden, Kolotilin (2018)

Figure 1 Distribution of scandals implicating U.S. presidents running up for reelection, from 1977 to 2008. Data from Nyhan (2015)



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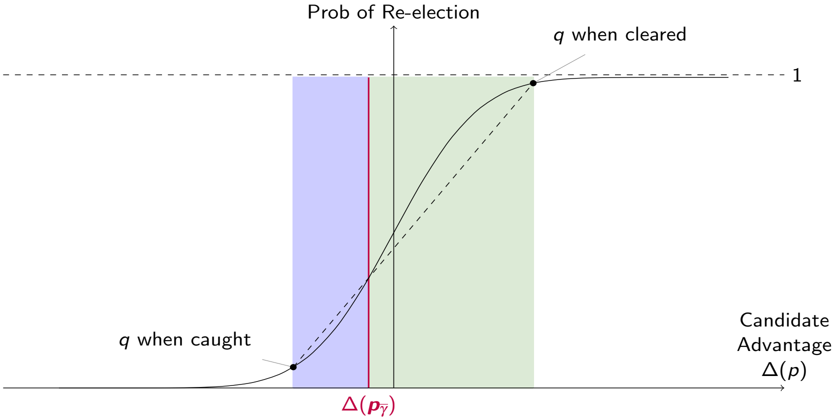
Implication - October Surprises are bad for voters.

How Does Obstruction Change the Credibility Cutoff?



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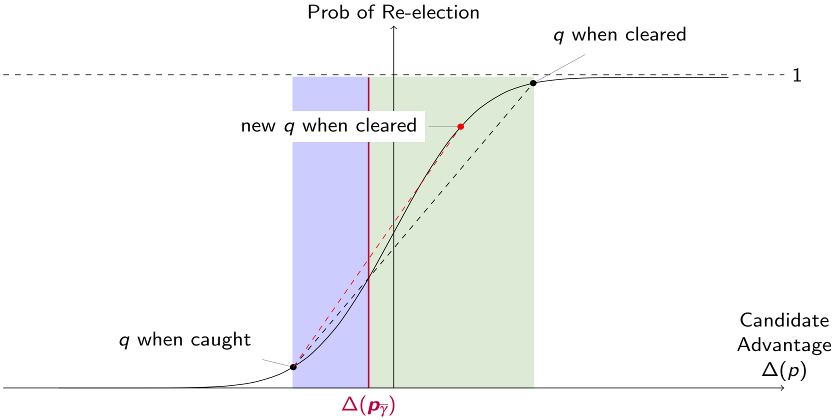

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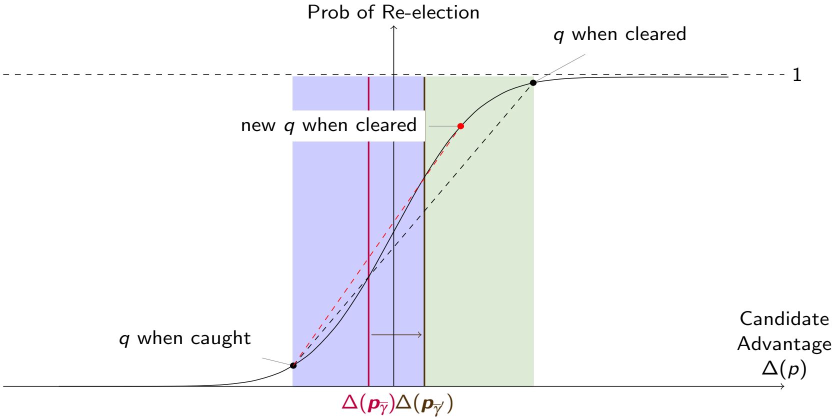

Proposition

As obstruction increases, the credibility cutoff, $\overline{\gamma}$, strictly decreases and a larger set of accusations are released as an October Surprise.

Welfare Implications of Obstruction

Obstruction damages voter welfare through two distinct channels:

- Reduces quality of information obtained from investigation.
- Increases incentives for October Surprise and no investigation.

Policy Experiments

Plea Bargaining

Plea deal lets candidate admit wrongdoing immediately for a reduced penalty, (ℓ_1).

If candidate doesn't take deal and gets caught, later pays larger penalty, ($\ell_1 + \ell_2$).

Confessing immediately yields higher payoff than getting caught.

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Goal - Increase penalty for turning down the plea deal (ℓ_2) in order to induce confessions.

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If candidate doesn't take deal and gets caught, later pays larger penalty, $(\ell_1 + \ell_2)$.

Confessing immediately yields higher payoff than getting caught.

Goal - Increase penalty for turning down the plea deal (ℓ_2) in order to induce confessions.

- Lower p_0 makes candidate more likely to confess.

How Plea Deals Impact Voter Welfare?

Proposition

For a small increase in ℓ_2, there exists a cutoff prior $\overline{p}_0$ such that:

1. *If $p_0 > \overline{p}_0$, candidate never confesses and increases obstruction, so voter welfare decreases.*

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3. *If $p_0 < \overline{p}_0$ and $T^U > T^E$ (election is binding), candidate confesses more, non-confessors obstruct more, and investigator's effort choice is the same. Voter welfare increases.*

Intuition

Extending the Investigation Past Election Day

Suppose investigator can continue investigating after T^E.

If candidate is found guilty at time $t > T^E$:

- Election results unchanged (candidate keeps B if he won).
- Candidate faces penalty ℓ.

How Does Extending the Investigation Impact Voter Welfare?

Proposition

When T^E binds, extending the investigation beyond T^E reduces *equilibrium obstruction between $t = 0$ and $T = T^E$*, improving *voter welfare.*

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Intuition

- Prize for reaching election day without detection lower because candidate still might face penalty in the future.
- Less incentive for candidate to obstruct in the lead-up to election day.
- Better for voter.

Extension's Effect on Timing

Now consider how extending the election deadline affects the opposition's strategic timing of information release.

Corrollary

In the augmented timing model, extending the investigation beyond T^E increases *the credibility cutoff,* $\overline{\gamma}$.

- Leads to fewer October Surprises.

Weak Political Institutions

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Question: If the winner can fire the investigator, should the investigator commit to ending the investigation by T^E?

- Idea - candidate really doesn't want to lose now because that's the difference between the investigation ending and continuing.

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Question: If the winner can fire the investigator, should the investigator commit to ending the investigation by T^E?

- Idea - candidate really doesn't want to lose now because that's the difference between the investigation ending and continuing.

Answer: No.

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Candidate's obstruction choice doesn't directly control win prob.

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Lower obstruction during election cycle when investigator continues past T^E, even under weak institutions.

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How policies meant to alleviate obstruction impact voter welfare:

- Plea bargaining only helpful when voters trust accusations and the investigation is cut short by election day; o.w. is harmful.
  - Issue caused by investigator's effort substitution
- Investigating past election day helpful whenever the investigation would otherwise end close to election day.
  - Holds even when political institutions are weak.

THANK YOU FOR YOUR ATTENTION!

Optimal Stopping Time of the Investigation

I wants to stop learning when:

$$\underbrace{\overbrace{\chi}^{\text{add'l value of shock}} \times \overbrace{(1-p_t)}^{\text{Posterior of G at t}} \times \frac{\overbrace{\lambda}^{\text{inst. prob of shock given G}}}{k_t}}_{\text{Marginal Value of Learning}} = \underbrace{\overbrace{c}^{\text{instantaneous learning cost}}}_{\text{Marginal Cost of Learning}}$$

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- The optimal *unconstrained* stopping time T^U is the unique solution to the equation.