

18. Bureaucracy

Elliott Ash

Fiscal Policy and Inequality

Outline

Introduction

Performance Pay

Maskin and Tirole (AER 2004)

Alesina and Tabellini (AER 2007)

Politics vs. Bureaucracy in the Judiciary

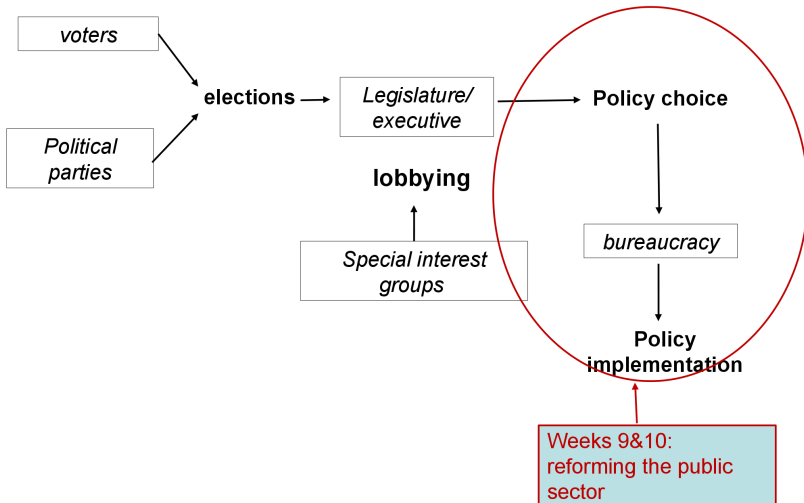
- Background on State Supreme Courts

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- Establishment of Intermediate Appellate Court

- Election System Changes

How is economic policy made?



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 - ▶ **Bureaucrats are lazy:** need performance measurement and performance pay

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- ▶ Outsourcing / contracting out of public services / privatization

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- ▶ Team Performance Pay:
 - ▶ rewards teamwork/complementarities, but causes free rider problems.

Politician Pay in Singapore

Principles for Determining Ministerial Salaries

- 4 The current framework is built on three key salary principles:
- (a) Salaries must be competitive so that people of the right calibre are not deterred from stepping forward to lead the country;
 - (b) The ethos of political service entails making sacrifices and hence there should be a discount in the pay formula; and
 - (c) There should be a “clean wage” with no hidden benefits.

The salaries should also be linked to the individual performance of political appointment holders, and the socio-economic progress of Singapore Citizens.

https://www.gov.sg/~sgpcmedia/media_releases/pmo-psd/press_release/P-20180301-1/attachment/Annex%20B%202017%20Review%20Committee%20Report.pdf

Politician Pay in Singapore

- ▶ Baseline salary indexed to 60% of median salary/wage income of top 1000 Singaporean citizens.

Variable Components	
Annual Variable Component (AVC)	Mid-year and year-end payments paid to civil servants based on Singapore's economic performance. As with current civil service practice, the AVC ranges from 0 to 1.5 months. A typical AVC is 1 month. In years of exceptional economic performance, a one-off Special Variable Payment can also be made.
Performance Bonus	Varies with individual performance and is determined by PM. It ranges from 0 to 6 months and good performers will typically get 3 months.
National Bonus	Based on four socio-economic indicators with equal weights. No bonus is paid if the minimum levels of achievement for the indicators are not met. A bonus of 3 months will be paid if the targets for the four indicators are met. A maximum bonus of 6 months will be paid if targets are far exceeded ² .

Singapore: National Bonus

10 The current National Bonus framework comprises four socio-economic indicators, namely Real Median Income Growth Rate for Singapore Citizens, Real Growth Rate of the Lowest 20th Percentile Income for Singapore Citizens, Unemployment Rate of Singapore Citizens and Real GDP Growth Rate.

Payout Level	Real Median Income Growth Rate for Singapore Citizens	Real Growth Rate of Lowest 20th Percentile Income for Singapore Citizens	Unemployment Rate of Singapore Citizens	Real GDP Growth Rate
Targets				
0%	<0.5%	<0.5%	5% and above	<2%
50%	0.5% - <2%	0.5% - <2%	4.5% - <5%	2% - <3%
100%	2% - <3%	2% - <3%	4% - <4.5%	3% - <5%
150%	3% - <4%	3% - <4%	3.5% - <4%	5% - <7%
200%	4% and above	4% and above	<3.5%	7% and above

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 - ▶ effort and ability not easily observed by the employer
 - ▶ output is observable
- ▶ In this setting, two main effects of PP (payment conditioned on output):
 - ▶ Motivation: an employee of a given ability will work harder
 - ▶ Sorting: jobs with PP will become relatively more attractive to higher-ability candidates

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 - ▶ Intrinsic motivation: people are motivated by goals other than money and putting a “price” on effort may actually degrade this motivation
 - ▶ Can be costly If PP is introduced without cutting baseline wages:
 - ▶ This is likely in the public sector, where unions are stronger
 - ▶ the cost of PRP may outweigh any productivity improvements

Intrinsic Motivation

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- ▶ Intrinsic motivation “rediscovered” by economists (see survey by Gneezy et. al. 2011):
 - ▶ Several careful lab and field experiments show that financial incentives can “crowd out” intrinsic motivation
 - ▶ financial incentives only work if they are large; but then may not be cost-effective

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 - ▶ individuals in the non-profit sector are significantly more likely to donate their labour, measured by unpaid overtime, than those in the for-profit sector
 - ▶ Also, some evidence that individuals differentially select into the non-profit and for-profit sectors according to whether they donate their labour.

Performance Pay: Evidence

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 - ▶ In health, treatment targets in primary care and preventive services have shown the most improvement as a result of PP.

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- ▶ Where positive effects have been found, effect sizes are often small and may be short-lived

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- ▶ This paper studies three modes of social decision-making:
 1. Direct democracy: The public decides through referendum
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- ▶ This paper dissolves logic of political philosophy down to a couple of equations.

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- ▶ Under direct democracy, voters choose a in both periods.

Government Officials

- ▶ Under representative democracy or judicial power, an official chooses the action.
- ▶ We assume the official *knows* which action is correct (that is, preferred by society).
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$$U = \begin{cases} R + G & \text{(makes preferred choice)} \\ R & \text{(makes non-preferred choice)} \end{cases}$$

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- ▶ In the second period, he would always chooses his preferred action, so he gets $R + G$ if retained for a second period, discounted by $\beta < 1$.

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$$R + \beta(R + G)$$

to the the payoff from choosing his preferred action now and being removed from office:

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- ▶ That is, pandering occurs when

$$R + \beta(R + G) > R + G$$

$$\beta(R + G) > G$$

Expected welfare by system with pandering

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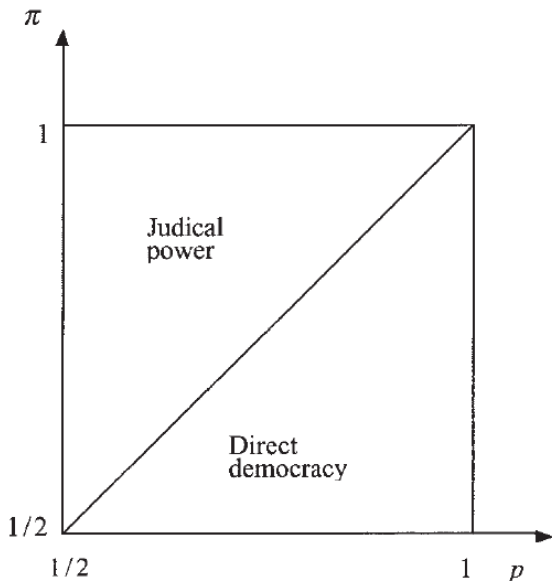
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- ▶ Under representative democracy (RD) with pandering ($\beta(R + G) > G$), the official chooses the popular action in the first period and his preferred action in the second period. The expected welfare for voters is

$$W_{RD} = p + \pi$$

- ▶ Note that RD is strictly dominated by either DD or JP, depending on whether p or π is higher.

The choice between JP and DD under pandering



Voter learning without pandering in RD

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$$\frac{p\pi}{p\pi + (1-p)(1-\pi)}$$

- ▶ Posterior probability that politician has the same preferences as voters given observed choice b :

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- ▶ We have

$$\frac{(1-p)\pi}{p(1-\pi) + (1-p)\pi} < \pi < \frac{p\pi}{p\pi + (1-p)(1-\pi)}$$

→ Official who chose a is more likely than a randomly chosen new candidate to have the same preferences as voters.

Expected welfare without pandering

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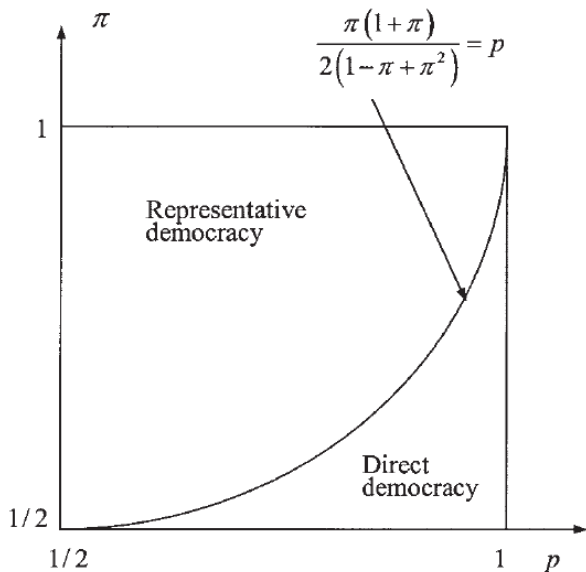
- ▶ The expected utility from RD is

$$\pi + p\pi + [p(1 - \pi) + (1 - p)\pi]\pi$$

- ▶ This is preferred to DD when

$$\begin{aligned} \pi + p\pi + [p(1 - \pi) + (1 - p)\pi]\pi &> 2p \\ p &< \frac{\pi(1 + \pi)}{2(1 - \pi + \pi^2)} \end{aligned}$$

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Policymaker and Citizens

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- ▶ Policymaker:
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- ▶ Policy outcome:

$$y = \theta + a$$

- ▶ Citizen utility $U(y) = y$

Policymaker Preferences

- ▶ Policymaker utility is

$$R(a) - C(a)$$

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- ▶ cost $C(a)$, strictly convex and increasing.
- ▶ $R(a)$ is reward, different for bureaucrat or politician.

Timing

1. society chooses politician or bureaucrat
2. **policymaker chooses a**
3. **θ is realized**
4. y is observed (not a or θ)

Bureaucrat Problem

- ▶ Bureaucrat cares about the public perception of his/her ability θ :

$$\begin{aligned}R_B(a) &= \mathbb{E}(\theta|y) \\&= \mathbb{E}(\theta + a - \hat{a}) \\&= \bar{\theta} + \mathbb{E}(a - \hat{a})\end{aligned}$$

- ▶ \hat{a} is the expected (equilibrium) effort.

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- ▶ \hat{a} is the expected (equilibrium) effort.
- ▶ FOCs for a means that bureaucrat effort a_B solves

$$1 = C'(a_B)$$

Politician Problem

- ▶ Politician wants to be re-elected, meaning voter utility exceeds a threshold W .

$$\begin{aligned} R_P(a) &= \Pr(y \geq W) \\ &= [1 - \Pr(\theta \leq \bar{\theta} + \hat{a} - a)] \end{aligned}$$

- ▶ \hat{a} is the expected (equilibrium) effort. voters recognize that expected alternative to incumbent is an average politician, so $W = \bar{\theta} + \hat{a}$.

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$$\frac{1}{\sqrt{2\pi}\sigma_\theta} = C'(a_P)$$

Bureaucrat or Politician?

- ▶ Preference between bureaucrat and politician depends on

$$1 \geq \frac{1}{\sqrt{2\pi}\sigma_\theta}$$

$$\sqrt{2\pi}\sigma_\theta \geq 1$$

- ▶ if ability is uncertain/variable (high σ_θ), bureaucrats are preferred.
 - ▶ for example, judges or central bankers.

Imperfect monitoring

- ▶ Now assume

$$y = \theta + \varepsilon + a$$

where $\varepsilon \sim N(0, \sigma_\varepsilon^2)$.

- ▶ talent can no longer directly be inferred from outcome.

Bureaucrat problem

$$\begin{aligned} R_B(a) &= \mathbb{E}(\theta|y) \\ &= \bar{\theta} + \frac{\sigma_{\theta}^2}{\sigma_{\theta}^2 + \sigma_{\varepsilon}^2} \mathbb{E}(a - \hat{a}) \end{aligned}$$

- ▶ we have a well-known signal extraction result:
 - ▶ perception of talent is discounted by signal-to-noise ratio

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- ▶ we have a well-known signal extraction result:
 - ▶ perception of talent is discounted by signal-to-noise ratio
- ▶ Bureaucrat effort satisfies

$$\frac{\sigma_{\theta}^2}{\sigma_{\theta}^2 + \sigma_{\varepsilon}^2} = C'(a_B)$$

Politician Problem

$$\begin{aligned} R_P(a) &= \Pr(y \geq W) \\ &= [1 - \Pr(\theta \leq \bar{\theta} + \varepsilon + \hat{a} - a)] \end{aligned}$$

- FOCs for a means that politician effort a_P solves

$$\frac{1}{\sqrt{2\pi(\sigma_\theta^2 + \sigma_\varepsilon^2)}} = C'(a_P)$$

Bureaucrat or Politician?

- Preference between bureaucrat and politician depends on

$$\frac{\sigma_{\theta}^2}{\sigma_{\theta}^2 + \sigma_{\varepsilon}^2} \geq \frac{1}{\sqrt{2\pi(\sigma_{\theta}^2 + \sigma_{\varepsilon}^2)}}$$

$$\frac{\sqrt{2\pi}\sigma_{\theta}^2}{\sqrt{\sigma_{\theta}^2 + \sigma_{\varepsilon}^2}} \geq 1$$

Bureaucrat or Politician?

- ▶ Preference between bureaucrat and politician depends on

$$\frac{\sigma_{\theta}^2}{\sigma_{\theta}^2 + \sigma_{\varepsilon}^2} \geq \frac{1}{\sqrt{2\pi(\sigma_{\theta}^2 + \sigma_{\varepsilon}^2)}}$$

$$\frac{\sqrt{2\pi}\sigma_{\theta}^2}{\sqrt{\sigma_{\theta}^2 + \sigma_{\varepsilon}^2}} \geq 1$$

- ▶ Again: as ability becomes more uncertain/variable (high σ_{θ}), bureaucrats are preferred.
- ▶ As monitoring becomes more difficult (σ_{ε} increases), politician is more likely to be preferred.

Splitting the cake

- ▶ Now assume that the policymaker devotes effort

$$y = \theta + a$$

but then divvies up the output between three voters

$$y = c_1 + c_2 + c_3$$

- ▶ c_i is the payout to voter i .

Bureaucrat Problem

- ▶ Bureaucrat still wants to signal competence, so effort is same as first segment:

$$1 = C'(a_B)$$

- ▶ in terms of setting c_i , could assume that bureaucrat would follow instructions and, for example, be “fair” and distribute equally: $c_i = y/3$.

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- ▶ Politician effort a_P solves

$$\frac{1}{\sqrt{2\pi}\sigma_\theta} \exp\left(-\frac{(\bar{\theta} + a_P)^2}{18\sigma_\theta^2}\right) = C'(a_P)$$

Politician Effort lower with Redistribution

- ▶ Under “splitting the cake”, politician effort is strictly less than the baseline:

$$\frac{1}{\sqrt{2\pi}\sigma_\theta} \underbrace{\exp\left(-\frac{(\bar{\theta} + a_p)^2}{18\sigma_\theta^2}\right)}_{<1} < \frac{1}{\sqrt{2\pi}\sigma_\theta}$$

- ▶ this is due to an incumbency advantage.
- ▶ perhaps counterintuitively, provides an argument for assigning redistributive tasks to bureaucrats, rather than politicians.

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- ▶ this is due to an incumbency advantage.
- ▶ perhaps counterintuitively, provides an argument for assigning redistributive tasks to bureaucrats, rather than politicians.
- ▶ depends on whether bureaucrat can be instructed/trusted to be fair.

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- Establishment of Intermediate Appellate Court

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The role of judges in capitalist society

- ▶ Economic theory implicitly assumes a system of law and adjudication
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- ▶ Economic theory implicitly assumes a system of law and adjudication
 - ▶ And adjudication requires judges.
- ▶ Judges are responsible for interpreting and enforcing “the rules of the game,” so they are significant economic policymakers.
- ▶ In this section I will share results from two recent papers in this area, Ash and MacLeod (2015) and Ash and MacLeod (2016).

Variations in Court Performance

- ▶ The quality of courts, and in particular, the speed of resolving disputes, varies considerably across countries (e.g. Djankov et al 2003).

Variations in Court Performance

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- ▶ Part of what makes for good courts is good judges.

What makes for good judging?

- ▶ The problem of selecting public officials and providing them good incentives is a difficult problem facing all modern economies.

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What makes for good judging?

- ▶ The problem of selecting public officials and providing them good incentives is a difficult problem facing all modern economies.
- ▶ There is no simple solution to the problem because high-powered incentives can lead to unexpectedly dysfunctional behavior.
- ▶ With judges, we have weak incentives because we don't want them to be biased.

Pecuniary Incentives

- ▶ One thing that motivates judges is money.
 - ▶ Increasing salaries can persuade more skilled individuals to join the judiciary.
 - ▶ It can also make people work harder out of a reciprocity motivation.

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 - ▶ Increasing salaries can persuade more skilled individuals to join the judiciary.
 - ▶ It can also make people work harder out of a reciprocity motivation.
- ▶ Eighteenth-century reforms in England that increased judge compensation were associated with improved stock market performance (Klerman and Mahoney 2005).

Political Pandering

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Political Pandering

- ▶ There is a lot of evidence that judges are motivated by their own political beliefs and by the political beliefs of the people supervising their work.
 - ▶ For example, elected judges impose harsher criminal sentences than tenured judges, because voters are impressed by these sentences (Gordon and Huber 2007).
 - ▶ Judges that have to be retained by a governor are known to favor the governor in related litigation (Shepherd 2009).

Intrinsic Motivation

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- ▶ Tenure might remove extrinsic bias, but it allows for judges' own ideological biases to be followed without accountability.
- ▶ The eighteenth-century statutes in England that increased judge salaries also gave them more secure tenure – this improved stock market performance (Klerman and Mahoney 2005).

Tenure versus Elections

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 - ▶ All federal judges in the United States have life tenure (this is the case in Europe as well)
 - ▶ But many judges in U.S. states, including state supreme court judges, are elected.
- ▶ Which is a better system?
- ▶ This is also relevant to tenure in other white-collar public-sector work, such as public school teachers, GPs, and college faculty.

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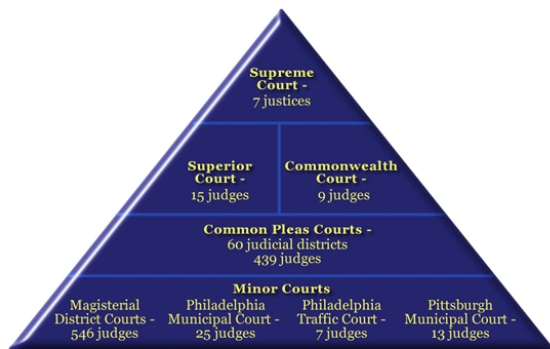
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State Supreme Courts



As of June 2008

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- ▶ State supreme court judges rule on questions of state law (rather than federal law).
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- ▶ The intermediate appeals court takes the case and may affirm, reverse, or modify the trial verdict.
- ▶ That ruling can be appealed to the state supreme court.
- ▶ Judges vote whether to affirm or reverse the lower decision
- ▶ One of the majority judges writes an opinion explaining the decision

Measuring Judge Output and Quality

- ▶ Writing decisions is the main task for these judges.
 - ▶ Output: number of opinions and length of opinions
 - ▶ Quality: citations to those opinions from future judges

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- ▶ The approach in Ash and MacLeod (2015, 2017) views the U.S. states as a set of laboratories for the exploration of the effect of law upon outcomes (see Bertrand, Duflo and Mulanathain, 2004).

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- ▶ We hold fixed as many state- and judge-level characteristics as we can, with the hope of identifying the causal effect of a public-sector reform on judges.

Econometric Specification

- ▶ Judge i , state s , year t :

$$y_{ist} = \text{TIME}_t + \text{JUDGE}_i + \text{STATE}_s \times t + Z'_{ist}\rho + \varepsilon_{ist}$$

- ▶ y_{ist} , output measure

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Intermediate Appellate Court

- ▶ The first reform we look at is the establishment of an intermediate appellate court.
- ▶ Before, state supreme court judges reviewed a case directly from trial, with mandatory review.
- ▶ After, an intermediate court reviewed the case first, and the court exercised discretionary review.
- ▶ 26 states established IAC's between 1947 and 1994:
 - ▶ FL (1956), MI (1963), AZ (1964), NM (1965), MD (1966), NC (1967), OK (1967), AL (1969), OR (1969), WA (1969), CO (1970), MA (1972), KY (1975), IA (1976), KS (1976), WI (1977), AR (1978), HI (1979), AK (1980), ID (1981), CT (1982), MN (1983), VA (1984), ND (1987), UT (1987), NE (1990).

Incentive Effects of an IAC

- ▶ When an intermediate appellate court is operating, supreme court judges have a lot of help in reviewing cases, and have more discretion in whether to accept cases for review:
 - ▶ We expect that the introduction of an intermediate appellate court will increase the time and discretion available to judges
 - ▶ They should devote more time to what they care about – which might include judging.

IAC Results

- ▶ Establishment of an IAC increased length of opinions, caselaw research, and citations
 - ▶ with more time, they spend more time on each opinion

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- ▶ There are three key judge retention schemes:
 - ▶ In partisan elections, incumbent judges face a challenger, with party affiliations on the ballot.
 - ▶ In nonpartisan elections, incumbent judges face a challenger, but party affiliations are not on the ballot.
 - ▶ Merit selection with tenure: judges are selected by a technocratic commission and then do not have to face reelection

Election System Changes

- ▶ Six states moved from contested nonpartisan elections to merit system:
 - ▶ AZ (1974), WY (1972), FL (1976), MD (1976), SD (1980), UT (1985)
- ▶ Nine states moved from contested partisan elections to system system:
 - ▶ KA (1958), IA (1962), NE (1962), IL (1964), IN (1970), CO (1966), OK (1967), TN (1971), NM (1988)

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- ▶ By measuring performance before and after these changes in tenure status, we can:
 - ▶ assess whether expert commissions select better candidates than voters
 - ▶ assess whether competitive elections incentivize higher judging effort, or whether they instead divert effort away from judging.

Electoral Rule Change Results

- ▶ Selection effects:
 - ▶ compared to elections, merit commissions select higher-quality judges, that do the same amount of work but get cited more often by future judges

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- ▶ Incentive effects:
 - ▶ Increasing tenure increases performance for the non-partisan judges but not for the partisan judges
 - ▶ These judges are basically politicians and don't seem to care as much about their work.
- ▶ This is supportive evidence for policies seeking to improve judge tenure.