

# Incentives in Public Organizations

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# Incentives in Private Sector

## Incentive Structure in Private Sector:

- High powered incentives
- Agent are made stake-holders in the output produced
- Bonus/rewards for high performance - Penalty for low performance
- Relative performance evaluations used frequently
- Contests used frequently for promotions
- Enforcement of contract terms is good

# Incentives in Public Organizations

- Low powered incentives - (Almost) Fixed wage
- Agent are not made stake-holders in the output produced
- Bonus/rewards do not play major role in salary structure
- Relative performance evaluations are used only once in a while - at the time of major promotions
- Enforcement of contract terms is poor

However,

- Salary is higher in public sector

# Why Low Incentives in Public Organization I

Self-selection based explanation:

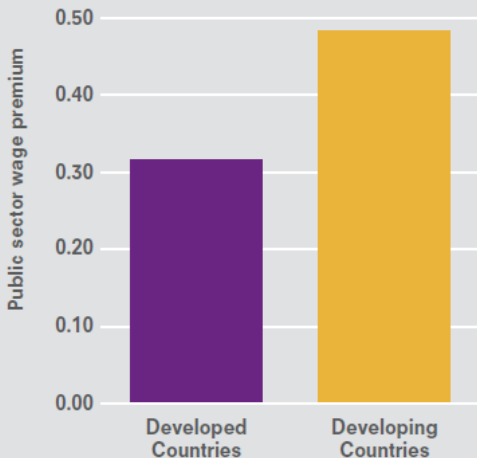
- Private Sector is 'for profit'
  - is 'for profit'
  - attracts people who are guided by monetary considerations
  - so, there is need to use Incentive Contracts to improve the outcome
- Public Sector
  - is 'not for profit'
  - provides social services
  - attracts 'motivated' agents - who want to make social contribution
  - motivated agents do not need monetary incentives

# Why Low Incentives in Public Organization II

'Efficiency wage' based explanation:

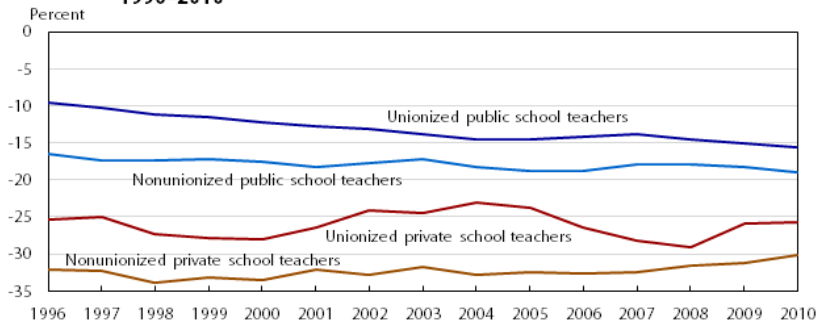
- Public Sector
  - pays efficiency wage - higher than market wage
  - efficiency wage - makes sure that the agents fear losing their job
  - So, efficiency wage - incentives agents to work hard even in absence of incentive contract

**FIGURE 1: PUBLIC SECTOR WAGE PREMIUMS ARE HIGHER IN DEVELOPING COUNTRIES**



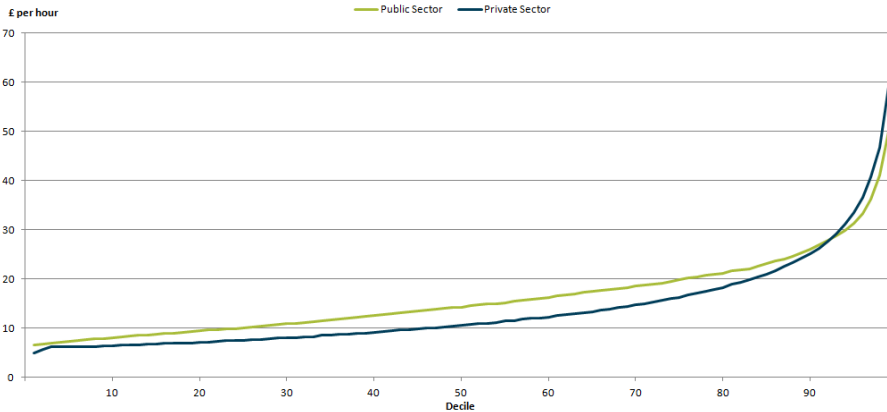
Note: Y-axis shows log annual pay (public sector less private sector) based on Finan et al. 2015 dataset. 'Developing countries' are lower and lower middle income countries while 'developed countries' include upper middle and high income countries, based

**Figure 8. Teachers' relative pay, public versus private and union versus nonunion, 1996–2010**



Note: Based on model 5 of table 2. Each year stands for a rolling 3-year average. Figures are obtained by subtracting 1 from the antilogarithm, to the base  $e$ , of the estimated dummy coefficient and multiplying the result by 100.

Source: Authors' analysis of CPS data, 1996–2012.





# Performance of Public Organization I

## Poor Performance:

- Employees do not show up at work regularly
- While at work do not put in enough efforts
- Quality and quantity of public services is poor

## Why above explanations might not work:

- When employees cannot be fired - the Efficiency wage argument does not work
- When unemployment is high - the self-selection argument does not work



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Sep 17, 2015 - Graduates, postgraduates and even PhD holders are among the 23 lakh people who responded to an advertisement seeking applications for 368 posts of peons in the Uttar Pradesh government secretariat. ... There were also more than 250 doctorates among the applicants, officials said.

### PhD holders among 25 lakh applicants for Group D jobs in West Bengal

[timesofindia.indiatimes.com](http://timesofindia.indiatimes.com) > [India News](#)

Jan 30, 2017 - PhD holders among 25 lakh applicants for Group D jobs in West Bengal ... lakh people had applied for 368 posts of peons in the Uttar Pradesh ...

### 23 lakh apply for 368 peon posts in Uttar Pradesh - The Hindu

[www.thehindu.com](http://www.thehindu.com) > [News](#) > [States](#) > [Other States](#)

Sep 17, 2015 - Over 23 lakh candidates, including 2.22 lakh engineers and 255 Ph.D. ... Minister in Uttar Pradesh government, the process of recruitment may ...

### This state received 25 lakh applications, including PhDs for posts of ...

[indiatoday.intoday.in/education/story/phd...25-lakh-apply-guard...jobs/.../871009.ht...](http://indiatoday.intoday.in/education/story/phd...25-lakh-apply-guard...jobs/.../871009.ht...)

Jan 31, 2017 - This state receives 25 lakh applications, including PhDs for peon, ... 25 lakh jobs in Punjab - Arunachal University of Studies plans to set up ...

### Uttar Pradesh: Engineers and PhDs among 23 lakh applicants for 368 ...

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Sep 16, 2015 - Uttar Pradesh: Engineers and PhDs among 23 lakh applicants for 368 ... admitted that

# Low Incentives in Public Organizations: Explanations I

- Output are social services
- So, employees/agents cannot be made stake-holders in the output produced
- Moreover, the outputs are hard to measure
- So, it is difficult to design incentive contracts
- Enforcement of contract terms is poor
- Moreover, due to multi-tasking, incentive contracts can be counter productive

For example: Incentives for teachers to improve test scores of students

- US - Teachers served sugary drinks for exam
- India??



# Indian Experience with API I

API:

- Academic Performance Indicator
- Used since 2009-10
- Quantifies research related activities
- Scores for research output
  - Journal publications,
  - Books
  - Conference presentations, etc.
- Minimum scores for appointment and promotion of teachers at College/University

Result??

# Application: Low incentives within Organizations I

Assume

- Two tasks;  $i = 1, 2$
- Two outputs:  $q_i(t_i, \epsilon_i) = t_i + \epsilon_i$ , where  $i = 1, 2$ .
- Principal's payoff:  $V(q_1, q_2, w) = v_1(t_1) + v_2(t_2) - w$ ;
- $\psi = \psi(\bar{t}) = \psi(t_1 + t_2)$ , where  $\bar{t} = t_1 + t_2$
- Assume: only  $q_1$  is measurable. So,  $w = s_1 q_1 + t$

Let

$$\pi^1 = \max_{t_1 \leq \bar{t}} \{v_1(t_1) - \psi(t_1)\} \quad (0.1)$$

$$\pi^2 = \max_{t_2 \leq \bar{t}} \{v_2(t_2) - \psi(t_2)\} \quad (0.2)$$

$$\pi^{12} = \max_{t_1, t_2 | t_1 + t_2 \leq \bar{t}} \{v_1(t_1) + v_2(t_2) - \psi(\bar{t})\} \quad (0.3)$$

## Application: Low incentives within Organizations II

### Proposition

Suppose,  $P$  owns the assets, the agent's choice has to meet  $t_1 + t_2 = \bar{t}$  and  $\pi^{12} \geq \max\{\pi^1, \pi^2\}$ , then  $s_1 = 0$ .

Note  $s_1 > 0 \Rightarrow t_2 = 0$  and  $t_1$  will solve  $t_1 = \bar{t}$ . Moreover, the  $P$ 's profit will be  $v_1(\bar{t}) - \psi(\bar{t}) - \frac{r}{2}s_1^2\sigma_1^2$ . But,

$$v_1(\bar{t}) - \psi(\bar{t}) - \frac{r}{2}s_1^2\sigma_1^2 < \pi^1 \leq \pi^{12}.$$

