Are public servants more honest than private workers?
A monetary incentivized experiment in Japan

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Abstract

Are workers' preferences the same in private and public sectors? To prevent fraud by civil servants, are the methods commonly used in the private sector effective in the public sector? To answer these questions, we conducted an online experiment to investigate the differences between private and public workers' dishonest behaviors. The results of the experiment indicated that public servants were more honest than private workers. The correlations between dishonesty and demographic variables differed between private workers and public servants. We found that the correlations between dishonesty and economic preferences (e.g., risk preference) are almost different between private workers and public servants. Our findings suggest that the same anti-corruption methods implemented in the private sector might not be effective in the public sector.

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1. Introduction

Corruption and dishonesty among civil servants have a major negative impact on society by increasing economic inequality (Gupta et al., 2002), loss of trust in the government (Anderson and Tverdova, 2003), worsening the working conditions of workers (Fisman and Wang, 2015) and so on.

Several anti-corruption methods used in the private sector have been adopted to prevent fraud in public services (e.g., Pollitt and Dan, 2011). For example, steps to improve the transparency of public institutions, monitoring, and establishing anti-corruption authorities have been effective in the private sector in deterring fraud. However, when these same methods are adopted by the public sector, the effectiveness of the same varies from country to country (Fisman and Golden, 2017). Why do anti-corruption methods that work in the private sector sometimes do not work in the public sector? Do the dishonest behaviors of public employees and their preferences for dishonesty differ from those of private workers?

A few studies have compared public-private dishonest behaviors. Sulitzeanu-Kenan et al. (2021) used data from field experiments in 40 countries, where experimenters pretending to be ordinary citizens gave a lost wallet and their email address to workers at the reception counter in various buildings. It was investigated whether the worker contacted the experimenters who measured the rate at which the wallets were returned. No difference was found in the return rate between the experiments conducted in public buildings and those conducted in private buildings. Hanna and Wang (2017) conducted laboratory experiments in India where they found that students who cheat in the lab were more likely to prefer public-sector jobs. Banerjee et al. (2015) too conducted laboratory experiments, where they employed a corruption game at universities in India. Students who wanted to be civil servants cheated more than those who wanted to be in the private sector. Barfort et al. (2019) conducted an online laboratory experiment, where they employed a dice-in-cup experiment at universities in Denmark. They found that students who wanted to be civil servants cheated less than those who wanted to be in the private sector.

Efficient fraud prevention methods that capture the characteristics and preferences of public servants may be needed to prevent fraud in the public sector. Buurman et al. (2012) pointed out the ‘tenure effect’ and found that the altruism of civil servants was high at the beginning of their career; however, the more they neared retirement, the less altruistic they became. To understand the dishonest preferences of civil servants as a whole, we considered asking civil servants of various ages rather than students. However, most studies have been conducted with students who aspire to be civil servants rather than civil servants, except for Sulitzeanu-Kenan et al. (2021). However, Sulitzeanu-Kenan et al.’s (2021) subjects were specifically workers at reception counters. Therefore, the study does not represent workers in many other sectors. Reception counter workers may not be representative of the institution since most receptionists in Japan are

young women, and managers are mostly older men.

We conducted a coin-flip experiment with incentives for civil servants and private workers in various sectors and ages. This is the first incentivized experimental study to compare dishonesty between public-private workers of various ages and working in various sectors.

2. Methods

An online experiment was conducted in Japan with data obtained from Cross Marketing Inc., an Internet-based research company. Participants in the online experiment were recruited through a survey company and answered all the questions online. To include equal participation of various ages and gender, 500 public workers (125 females below 40 years of age, 125 males below 40 years of age, 125 females above 40 years of age, and 125 males above 40 years of age) and 500 private workers (125 females below 40 years of age, 125 males below 40 years of age, 125 females above 40 years of age, and 125 males above 40 years of age) were selected. Only full-time and employed workers were included. The rewards were related to the participants' answers in the experiment. After the experiment, a reward was paid to each participant based on randomly selected choices. In the experiment, 'points' were used instead of currency. A total of 10 points were converted to 1 JPY. The average reward was 402.95 points.

The experiment consisted of various tasks. The present experiment planned not only for the present research questions of this paper, but also for other research questions from the beginning of the plan. Especially, results of risk preferences and Public Service Motivation are also used by Hayashi et al. (2021). The coin-flip task was employed to measure dishonesty preference, Lottery choice 1 to measure high-order risk preference, Lottery choice 2 (Multiple Price List) to measure risk preference, Lottery choices 3 to measure loss averse preference, Risk Questions to measure subjective risk preference, Questions 1 to measure stereotype, Dictator game to measure altruism, Questions 2 to measure happiness, Questions 3 to measure trust for government, Public Service Motivation Questions, and Questions on demographic variables. In the above tasks, the coin-flip task and lottery choices 1, 2, and question 1 are related to rewards.

Similarly, the coin-flip task has been employed to measure dishonesty in many other studies. It is based on a dice-in-cup experiment (Fischbacher and Föllmi-Heusi, 2013). This study employed a method suitable for online experiments, Barfort et al. 's (2019) method. First, the computer screen shows "Flip a coin in your head and imagine which side (front or back) came out. If you think of the front or back, go to the next page, ", then the next screen shows "If the coin you think of is the front, you will get 100 points; if it is the back, you will get 0 points. Which side did you think of?', then participants click the "front" or "back" button. The participants play 10 rounds of the experiment. The front and back of the coin were displayed randomly at 100 points. The probability of obtaining 100 points is 50% when a person is honest. But he/she can

click the button that gives them 100 points even when they have not thought of the side on the previous page. If a person is dishonest, he/she can cheat 10 times in 10 rounds. One round out of the 10 rounds was randomly selected after all experiments were conducted, and the "points" of the round were paid to the participant. Therefore, the participants had an incentive to cheat in all 10 rounds.

The IRB approval for this experiment was obtained from Fukushima University on December 24, 2020, and the research design was registered at the registration website AsPredicted on March 15, 2021.

3. Results

3.1 Comparison of dishonest behaviors between public and private workers

In the experiment, getting 100 points amounts to one 'win'. If the participants are honest, the average win should be 5. The average win of private sector workers (N=500) is 6.302 (S.E. 0.099), and that of public workers (N=500) is 6.02 (S.E. 0.098). Figure 1 shows the average win for each sector, which indicates that both groups of workers were dishonest. Public workers show lesser wins than private workers (t-test, t=2.0295, one-sided p-value=0.0213), which indicates that public servants are more honest than private workers.

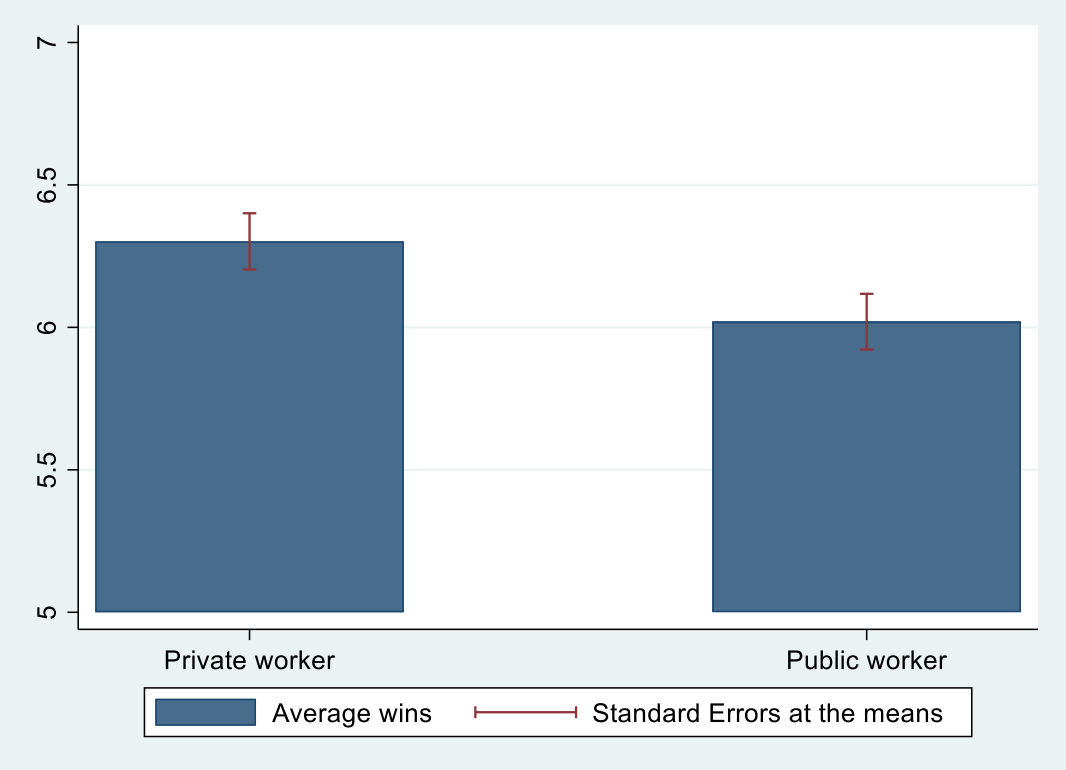

Figure 1. Average wins of public and private sector workers

Various demographic variables and results of tasks were controlled to arrive at a robust result

that public sector workers are more honest than private sector workers.

3.2 Dishonest behaviors and demographic variables

OLS (Ordinary Least Squares) regression was conducted to investigate the correlations between dishonest behaviors and demographic variables. In public workers, high dishonest behaviors (i.e., high total wins) were significantly correlated with low age. Moreover, high dishonest behaviors significantly correlate with high annual income. On the other hand, in private workers, low dishonest behaviors significantly correlate with marriage. Also, high dishonest behaviors in private workers are correlated with employment by a large company. Low dishonest behaviors in private workers correlate with being a manager or at a higher level of service.

These results show that the correlation between dishonest behaviors and demographic variables differs between public and private workers. For example, a public servant whose annual income is high and who is also a manager has a high probability of being dishonest. However, a private worker whose annual income is high and who is also a manager may be honest.

3.3 Dishonest behaviors and preference

We conducted OLS regression to investigate the correlations between dishonest behaviors and other preferences (e.g., risk preference). We controlled the demographic variables in all the OLS regressions. In the task of higher-order risk preferences, dishonest behaviors of public servants were significantly correlated with second-order risk aversion (second-order risk means variance). On the other hand, dishonest behaviors of private workers correlate with third-order risk aversion (third-order risk means skewness). In the questionnaire on subjective risk preferences, dishonest behaviors of public servants were significantly correlated with risk-taking of money. The dishonest behaviors of private workers do not correlate with any kind of subjective risk behavior. In public service motivation, dishonest behaviors of private workers correlate with high motivation for self-sacrifice (SS). Dishonest behaviors of private workers do not correlate with any kind of public service motivation.

These results indicate that the correlations between dishonest behaviors and risk preferences, as well as, public service motivation differ between public workers and private workers. One exception here is trust in the government, where the same correlation exists between public and private workers. While dishonest behaviors significantly correlate with high trust in the central government, honest behaviors significantly correlate with high trust in the local government.

4. Conclusion

Basis the results of the experiment, it was found that public servants were more honest than private workers. The correlations between dishonesty and demographic variables differed

between private workers and public servants. It was also found that the correlations between dishonesty and other economic preferences (e.g., risk preference) are almost different between private workers and public servants. Our findings suggest that the same anti-corruption methods employed in the private sector might not be effective in the public sector.

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