

Corruption Game

Overview

In this experiment, you will be playing the role of either a firm (F) or a government inspector (I). The firm produces lithium-ion batteries for use in electric cars and has been one of the more profitable firms in the country. However, a new government law limiting CO₂ emissions threatens to eat into the firm's profits. The government inspector is in charge of monitoring these CO₂ emissions and making sure firms comply. Citizens are strongly in favor of the environmental law, as air pollution is a major health hazard in the country. The firm's profits will be higher if it does not have to comply with the new regulations.

Game Rules

All players will start out with an initial endowment of \$40 and the game will proceed in four stages. In Stage 1, the firm has to decide whether it will offer a bribe (B) to the inspector. If the firm does decide to offer the bribe, the game will move on to Stage 2. Otherwise, the game will go straight to Stage 4. In Stage 2, the firm must decide how large of a bribe to offer the inspector. Bribes must be an integer amount between \$1 and \$10. Once the bribe amount is settled upon, the game moves to Stage 3. In this stage the inspector must decide whether to accept the bribe or not. The game then moves to Stage 4. There are three possible scenarios that may characterize Stage 4:

Firm does not offer a bribe in Stage 1

In this scenario the inspector must decide whether to enforce the regulations on the firm (H for honest) or to cover up for the firm (C for corrupt). The end-game wealth to both players will depend on what the inspector does:

	Honest (H)	Corrupt (C)
Firm	50	70
Inspector	50	45

Notice that the firm's wealth will be higher if the inspector is corrupt. However, in the absence of a bribe, the inspector is worse off when corrupt, implying that he or she has to incur some cost to cover up for the firm.

Firm offers a bribe of B in Stage 1 and the inspector accepts in Stage 3.

As before, the payoffs to both players will depend on what the inspector does. After accepting the bribe, the inspector must decide whether to be honest and enforce the regulations on the firm (H) or to be corrupt and cover up for the firm. The firm must factor in not only the cost of the bribe (B), but also a transaction cost of \$2 whenever the bribe is made. The inspector will receive $3*B$ for accepting the bribe, reflecting the higher marginal utility of wealth for the relatively poor inspector. The payoffs to both players are given below across a range of different bribe amounts.

Bribe	1	2	3	4	5
Firm	H=47, C=67	H=46, C=66	H=45, C=65	H=44, C=64	H=43, C=63
Inspector	H=53, C=48	H=56, C=51	H=59, C=54	H=62, C=57	H=65, C=60
Bribe	6	7	8	9	10
Firm	H=42, C=62	H=41, C=61	H=40, C=60	H=39, C=59	H=38, C=58
Inspector	H=68, C=63	H=71, C=66	H=74, C=69	H=77, C=72	H=80, C=75

The firm's payoff is always higher when the inspector is corrupt, while the inspector always earns more by being honest (or in this case being honest to the public whilst cheating the firm!) The larger the bribe offered

by the firm, the lower the payoff to the firm but the greater the likelihood that the inspector will accept the bribe.

Firm offers a bribe of B in Stage 1 and the inspector rejects in Stage 3.

In this instance, the payoffs will depend on whether or not the inspector wants to punish (P) the firm. To do so, the inspector will lose \$2 of their own wealth, while the public punishment of the firm will cause its wealth to fall by 12. The payoffs in this scenario are:

	Honest	Punish
Firm	48	36
Inspector	50	48

The inspector earns \$2 less by choosing to punish the firm while the firm pays a heavy penalty of \$12 if they get punished.

Negative Externality

Corruption affects everyone, not just the firm and the inspector. In this particular case, you can think of corruption as leading to more air pollution, which affects everyone. For the purpose of this game, there will be a penalty of \$3 assessed to ALL players for each inspector who chooses to be corrupt. There will be 15 inspectors, so at worst, your final payout will be reduced by \$45 assuming all inspectors are corrupt. If 4 inspectors are corrupt, everyone's payout will be reduced by \$12.

Scoring

At the end of Stage 4, we will collect data on the decisions made by firms and inspectors. Stage 4 payouts will be computed and then your final payout will be determined as your Stage 4 payout minus a deduction equal to \$3 times the number of corrupt inspectors. We will play several rounds and your rankings will be determined by your ending wealth. Bonus quiz points will be apportioned depending on your performance in the game.

Role _____

Round	Bribe=? or H/C?	Stage 4 Payout	Deduction	End-Round Wealth
1				
2				
3				
4				
5				
6				