Summing Up Social Dilemmas

Social Dilemma	Types of Intervention	Length of Intervention
Externality	Pigovian tax or subsidy Regulation	Long Run
Coordination Problem	Leadership and Communication Insurance	Short Run Long Run
Commitment Problem	Enforceable contracts Limit discretion Vertical integration	Long Run

Social Dilemmas and Governance

Each of our social dilemmas also happens within government

Externalities and interest groups

Coordination failure in the bureaucracy

Commitment problems and fiscal policy

Let's see an example

OUTLINE

EXTERNALITIES AND INTEREST GROUPS

A Model of Interest Groups

1 factory owner and 2 citizens invest in lobbying

Each hour of lobbying costs \$100

If the citizens do C hours of lobbying and factory owner does F regulator sides with the citizens with probability

$$\frac{C}{C+F}$$

If both do 0 hours of lobbying, 50-50

If citizens win, each benefits 175. If factory oner wins, she benefits 250

Utilitarian Solution

If regulate, net benefits is 350

If don't regulate, net benefit is 250

Utilitarian solution is regulation
- Citizens care more, in aggregate, than does the factory owner

Thinking about equilibrium

No citizen will ever lobby more than 1 hour

The factory owner will never lobby more than 2 hours

CITIZENS NEVER INVEST, 1

If factory owner chooses 2 and other citizen chooses 1, best response is 0:

$$\frac{1}{2} \times 175 - 100 < \frac{1}{3} \times 175$$

If factory owner chooses 2 and other citizen chooses 0, best response is 0:

$$\frac{1}{3} \times 175 - 100 < 0$$

CITIZENS NEVER INVEST, 2

If factory owner chooses 1 and other citizen chooses 1, best response is 0:

$$\frac{2}{3} \times 175 - 100 < \frac{1}{2} \times 175$$

If factory owner choses 1 and other citizen chooses 0, best response is 0:

$$\frac{1}{2} \times 175 - 100 < 0$$

Citizens Never Invest, 3

If factory owner chooses 0 and other citizen chooses 1, best response is 0:

$$175 > 175 - 100$$

If factory owner chooses 0 and other citizen chooses 0, best response is 0:

$$175 - 100 < \frac{1}{2} \times 175$$

Equilibrium

Suppose neither citizen invests

Factory owner's payoff from buying 1 hour of lobbying is

$$250 - 100 = 150$$

Her payoff from not lobbying at all is

$$\frac{1}{2} \times 250 = 125$$

In the unique equilibrium, the factory0 owner invests. the citizens do not, and there is no regulation

THE CITIZENS WOULD BE BETTER OFF IF THEY BOTH INVESTED IN LOBBYING

Citizens equilibrium payoff is 0

If they both bought an hour of lobbying, they'd each make

$$\frac{2}{3} \times 175 - 100 > 0$$

They don't lobby because of a failure to internalize externalities

Concentrated vs. Diffuse Interests

Diffuse interests are hampered by internal externalities problems

This makes it hard to organize in support of even very important issues

All else equal, concentrated interests (fewer people) are better able to wield political power than diffuse interests (more people)