

Class Game

Step Good Game

The step-good game is similar to a prisoners' dilemma with a second Nash equilibrium at which exactly enough individuals contribute to get the good. It is a classic model of collective action problems and voter turnout.

Objective

The experiment helps students gain experience with a collective action problem and the differences between rational incentive and actual play. It can be used to motivation discussion about the difficulty of attaining some equilibria.

Time

Roughly 10-15 minutes in class, without discussion.

Administration

Show students the power point slide [step_good.pptx](#). Ask them not to communicate during the experiment (to avoid contamination). After reading the directions, answer questions from the students as a group. Then ask students to fill out their piece of paper as directed. Collect them in a box or hat. Tally the results after class. In the next class, report how many students contributed 0 and how many contributed 3 as well as the payoff for each. Then discuss why you got the results you observed, as well as rational play. Discuss the difficulties of coordinating on the equilibrium where some should contribute and others should not.

Notes

The directions for this game are identical to the Prisoners' dilemma, except for item 2 of the student directions which doubles points in the pot *only* if it reaches 75 points. I use 75 for classes with roughly 40 students.

Variations

If you are uncomfortable with the possibility of students losing points on an assignment, give them three extra credit points on the assignment up front. Then change the directions so they can either risk the three points through play of the game or keep them without loss.

As a rule of thumb, you might start with a threshold that is three times the number of students. In future semesters, vary the threshold based on whether you want to make attaining points easy or hard. Lessons about the cooperative equilibrium will remain the same.

Electronic Responses

If you want to go paperless, perhaps because your class is remote, replace the last two lines in the student directions with the following:

If you want to play, send me an email at your_email@yahoo.com. With the subject line “extra credit 2.”

Write your name (as it appears in records) “give ___” ... put a 0 or a 3 in the blank. This is the number of points you want to give to the common pot.