

Participation and Demand Levels for a Joint Project

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Abstract

We examine a voluntary participation problem in public good provision when each agent has a demand level for a public good. The demand level of an agent for a public good is the minimum level of the public good from which she can receive a positive benefit. We show that in the voluntary participation game, the efficient level of the public good is provided at a subgame perfect Nash equilibrium. We also show that there is a subgame perfect Nash equilibrium with efficient provision of the public good that is robust against coordination, as modeled through a strong perfect equilibrium introduced by Rubinstein (1980), and only the efficient subgame perfect Nash equilibrium is supported at the strong perfect equilibrium if every agent has only one demand level. If every agent has more than one threshold, then only the inefficient allocation may be attained at subgame perfect Nash equilibria of the voluntary participation game.

Keywords: Public good; Participation; Demand level; Threshold.

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