Participation and Multiple Demand Levels for a Joint Project[*]

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Abstract. We examine a participation problem in the provision of a public good when agents have demand levels for the public good. In contrast to the results of the earlier studies such as Saijo and Yamato (1999), Healy (2010), Furusawa and Konishi (2009), and Konishi and Shinohara (2010), we have the following results: (i) there exists a Nash equilibrium that provides the public good efficiently, (ii) various levels of the public good are provided in Nash equilibria if the economy is replicated sufficiently many times in Milleron (1972)'s sense (that is, if agents are sufficiently smaller than the cost for the public good), (iii) the sets of efficient Nash, strong Nash, and coalition-proof Nash equilibria coincide under some cost-sharing rule.

Keywords: Public good; Demand levels; Participation.

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