

# Crowding In with Joint Production of a Public Good: Evidence from Volunteerism in National Parks

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## **Abstract**

How does government provision of a public good affect private provision? Unlike the standard model for a privately provided public good, which predicts crowding out, we show how a generalized model with joint production of a public good admits the possibility for both crowding in and out. The result depends on the degree of complementarity or substitutability between the jointly produced characteristics. We test implications of the model with a unique panel data set on volunteer hours within the National Park Service. Consistent with predictions of the model, we find statistically significant and economically meaningful crowding in. Specifically, we estimate that the value of volunteer hours that are crowded in by public funding in parks produces an average return of 24.8 percent. Moreover, the crowding in is even greater in cases where we expect the complementarity to be stronger between the joint products of park enjoyment and conservation benefits. The results provide what to our knowledge are some of the first theoretically consistent estimates of crowding in when it comes to private provision of a public good. The results also contribute to our understanding of how policies may promote the efficient provision of public goods and of ways to identify underlying motives for charitable behavior.