Journal of Economic Behavior & Organization
Vol. 61 (2006) 181–198

JOURNAL OF Economic Behavior & Organization

www.elsevier.com/locate/econbase

Income distribution preferences and regulatory change in social dilemmas

Laurie T. Johnson [a,*], E. Elisabet Rutström [b], J. Gregory George [c]

[a] *Economics Department, University of Denver, 2000 E. Asbury, Denver, CO 80208, United States*
[b] *Department of Economics, College of Business Administration and the Institute for Simulation and Training, University of Central Florida, Orlando, FL 32816, United States*
[c] *Division of Business and Economics, Macon State College, Macon, GA 31206, United States*

Received 12 November 2004; received in revised form 2 February 2005; accepted 8 March 2005
Available online 30 May 2006

Abstract

We present results from an experiment where we elicit preferences over regulatory policies of social dilemmas for small groups. These policy choices differ only in income distribution and are made after a common group experience of an unregulated social dilemma game. We model two policies: a traditional grandfathering allocation of pollution permits and an egalitarian public trust fund. We find a sizeable fraction of our participants favor the public trust, indicating that social preferences are not sufficiently expressed during the interactive social dilemma game.

JEL classification: D01 (microeconomic behavior: underlying principles); D31 (personal income, wealth, and their distributions); D63 (equity, justice, inequality, and other normative criteria and measurement); D64 (altruism); Z13 (social norms and social capital, social networks).

Keywords: Income inequality; Social preferences; Social dilemma; Regulatory change

1. Introduction

Understanding distributional preferences is important when assessing the social welfare consequences of economic policies. Such preferences are receiving some attention in policy analysis, including those of social dilemma situations (IPCC, 2001), although it is not clear whether this

* Corresponding author. Tel.: +1 720 270 5241; fax: +1 303 871 2605.
E-mail addresses: lauriejo@du.edu (L.T. Johnson), erutstrom@bus.ucf.edu (E.E. Rutström), ggeorge@mail.maconstate.edu (J.G. George).

0167-2681/$ – see front matter
doi:10.1016/j.jebo.2005.03.012

attention merely reflects the self-interest of political actors or if it also reflects a concern for income to others. For example, some fishing communities confronted with new regulatory schemes using transferable permits experience contentious disputes over the distribution of quotas (Kaufmann et al., 1999, chapter 5). Further evidence of the potential importance of distributional concerns can be found by looking at solutions to distributional conflicts that communities devise. In irrigation and fishery commons, for example, appropriation rules stipulating equal usage are common, and sometimes lotteries have been used to assign rights to the most productive fishery spots (Schlager, 1994). In irrigation systems, users are often given equal time slots to extract water (Tang, 1994). When access rights in fishing commons are violated, they have sometimes been met with negative reciprocal acts resulting in property damage and, in some cases, even lives, with serious distributional consequences (Schlager). In all of these cases the externality generated affects only the group of users, implying that expressions of self-interest and distributional preferences are confounded.

In other social dilemmas, such as pollution emissions, the externality has broader societal effects, perhaps making it harder to reach voluntary equitable agreements. Tradable pollution permits have become a popular regulatory approach to pollution emissions, generally leading to both environmental and economic efficiency (OECD, 2004; Isaac and Holt, 1999; Cason and Plott, 1996), but the allocation of pollution permits has also generated controversy, leading to intensive lobbying by interested parties (Tietenberg and Johnstone, 2004). These controversies often revolve around distributional issues. Permit allocations generally have been made to incumbent firms, often according to some historic performance and needs, using so called grandfathering allocation schemes (Harrison, 2004; Ellerman, 2004). An alternative to grandfathering is to auction off permits, thereby transferring the rents from permit holders to the government conducting the auction. One example of using auctions to assign permits is in Alaska, where concerns for the allocation of rents motivated the establishment of the Alaska Permanent Fund,[1] and in particular its Permanent Fund Dividend program. The State of Alaska holds annual permit auctions for drilling rights and invests 25 percent of its auction revenues in a Trust Fund. The state then distributes a share of Fund investment earnings to every qualified Alaska resident each year.[2]

Following a trading approach, transferable permits have been proposed as a solution to excessive carbon emissions. Not surprisingly, the distributional consequences of such permits have generated debate at the national and international levels (Najam et al., 2003; Bovenberg and Goulder, 2001). While the Climate Stewardship Act proposed in 2003 includes some concerns regarding the allocation of permit scarcity rents, other proposals, such as Sky Trust,[3] go further and model a trust fund similar to that of the Alaska Permanent Fund. According to this proposal, carbon emission permits would be sold to companies and the income distributed to US citizens in the form of equal dividends. The US Congressional Budget Office (2000) evaluated such a redistribution mechanism as one of several ways in which the government can distribute revenues from permit sales.

Policy proposals such as Sky Trust are based on the premise that preferences over the distribution of the scarcity rents of the licenses exist and that voters (and interest groups) care about the way in which the policy solution distributes these licenses. Recent experimental work on what

[1] Alaska Permanent Fund Corporation: http://www.apfc.org.

[2] State of Alaska, Department of Revenue, Permanent Fund Dividend Division: http://www.pfd.state.ak.us.

[3] US Sky Trust Inc.: http://www.usskytrust.org.