

Is turning out to vote a public good contribution?

Evidence from a new democracy[◇]

Abigail Barr

Truman Packard

Danila Serra*

University of Nottingham

The World Bank

Florida State University

October 2011

PRELIMINARY DRAFT, NOT FOR CIRCULATION

Abstract

Why do people turn out to vote? By requiring coordination and by generating positive externalities on others while involving a private cost, turning out to vote resembles a public good contribution and is therefore subject to collective action problems. While this has been established theoretically, the empirical evidence is fraught with measurement and identification problems. We investigate whether the motivations for turning out to vote are similar to those for contributing to a public good by comparing voter turnout with contributions to a public good in a very simple, clearly defined laboratory experiment. We conduct our study in a new democracy, Albania. We investigate voter turnout in two different contexts: the elections of parent class representatives in primary schools, and the 2009 parliamentary elections. We combine survey and experimental data on 1800 randomly selected parents from 180 nationally representative primary schools, with data generated by the 2008 LSMS survey, and with official district-level records on voter turn-out in the 2009 elections. Our findings suggest that turning out to vote is indeed a public good contribution: individuals' propensities to contribute to the public good in the experiment predict both their participation in the school-level elections of parent class representatives, and the district-level voter turnout in the national elections.

JEL CODES: C93, D72, H4, O12

KEYWORDS: voter turnout; public good; collective action; social capital; experiment

[◇] We thank the Institute for Development Research Alternatives (IDRA), who collected the data, and especially Auron Pasha, Enkelejda Pashaj and Adela Gjergjani for their technical excellence, and professionalism. The findings, interpretations and conclusions expressed herein are those of the authors and do not necessarily reflect the view of the World Bank Group, its Board of Directors or the governments they represent. The usual disclaimers apply.

* Corresponding author. Address: Department of Economics, Florida State University, 258 Bellamy, Tallahassee, FL 32306. Email: dserra@fsu.edu.

1. Introduction

Why do people turn out to vote?¹ By generating positive externalities on others and requiring coordination while involving a private cost, turning out to vote resembles a public good contribution and is therefore subject to a typical collective action problem.² While this has been established theoretically (see Palfrey and Rosenthal, 1983, 1985; Grafstein, 1991), the empirical evidence is fraught with measurement and identification problems. Here we ask: are the motivations behind turning out to vote the same as those behind contributing to a public good? We address this question empirically by comparing turning out to vote with choosing to contribute in a very simple, clearly defined and, hence, easily understood public goods game.

We conducted our study in Albania, a country that slowly transitioned from a communist regime to a democracy in the 90s, holding three parliamentary elections since the establishment of its constitution in 1998, with an average voter turnout of 51%.³ We investigate voter turn-out in two different contexts: the elections of parent class representatives in Albanian primary schools, and the 2009 parliamentary elections. We combine survey and experimental data on 1800 parents collected in the fall of 2008 in 180 nationally representative primary schools, with the 2008 LSMS Albanian data, and with official district-level records on voter turn-out in the 2009 elections. We measure individuals' propensities to contribute to a public good *directly* by involving our 1800 parents in a simple lab-type public goods experiment conducted in the 180 surveyed schools. We explore whether turning out to vote is essentially a public good contribution by testing whether individuals' propensities to contribute to the public good in the experiment predict both their participation in the school-level elections of parent class representatives, and the district-level voter turnout in the national election.

Our study relates to the empirical literature on voter turnout and social capital, broadly conceptualized either as a feature of "social organizations such as networks, norms and social trust

¹ Seminal work in political science (Downs, 1957) suggested that voting is an irrational act because the expected benefit of voting – i.e. the probability that one's vote is pivotal times the differential benefit generated by the preferred electoral outcome – is lower than the cost of voting. Later studies show that the paradox of voting could be solved by taking into account the intrinsic benefits – for example the satisfaction from compliance with the ethic of voting – that individuals might enjoy when voting (Riker and Ordeshook, 1968), and/or the benefits that voting generates on society, or at least on individuals with the same political preferences (Edlin, Gelman and Kaplan, 2007)

² As stated by Olson (1965) "it does not follow, because all of the individuals in a group would gain if they achieved their group objective, that they would act to achieve that objective".

³ Voter turn-out was 54.95% in 2001, 48.73% in 2005 and 50.70% in 2009 according to the International Institute for Democracy and Electoral Assistance: <http://www.idea.int>

that facilitate cooperation and coordination for mutual benefit” (Putnam, 1995),⁴ or as a feature of individuals relating to their propensities to trust and cooperate with others in social dilemmas (e.g., Fukuyama, 1995; Glaeser et al., 2002). While the former characterization, i.e. *structural* or *associational* social capital, emphasizes the existence and strength of social ties within a social organization, the latter, i.e. *behavioral* social capital highlights individuals’ propensities and willingness to develop social ties by cooperating with others for the greater good (see Uphoff, 1999).

A number of empirical studies investigate the impact of social ties and involvement in social organizations at the community level on voter turnout. Already in the early 70s, Olsen (1972) found a positive correlation between self-reported voter turnout and individuals’ involvement in social organizations using survey data from Indianapolis. More recently, a number of empirical investigations (Knack, 1992; Lake and Huckfeldt, 1998; Carlson, 1999; Ikeda and Richey, 2005) show that voter turnout is higher among individuals with more formal ties, i.e. memberships to organizations, and informal social connections.⁵ These studies, however, are problematic because members of a social network influence each other simultaneously,⁶ and individual characteristics potentially important for political participation may induce self-selection into voluntary organizations or networks. We know of only one study that is exempt from this criticism, i.e. a recent investigation by Atkinson and Fowler (2011), which estimate the impact of community participation on voter turnout in Mexico by exploiting the quasi-random variation of the saint’s fiestas celebrated in each community near an election date between 1991 and 2009. In contrast with the related literature, the authors find that the increase in community participation and interpersonal interactions due to the fiesta decrease voter turnout.⁷

On a more general note, the measurement of social capital as membership to formal organizations might be unsuitable in new democracies in Eastern Europe and the former Soviet Union, which all share long histories of totalitarian regimes. These countries are typically characterized by the lack of an active civil society, due to policies implemented by the former regime with the objective to

⁴ See also Coleman (1988).

⁵ Putnam (2000) argues that the observed fall of voter turnout in the United States is the consequence of a decline in individuals’ connectedness, as measured by their participation in voluntary social organizations.

⁶ Nickerson (2008) uses a field experiment to investigate how individuals subject to a “get out to vote” message influence their spouses’ decision to vote; the empirical findings show that voting is indeed “contagious”.

⁷ Another interesting study, which is still undergoing, is by Meghan Condon, and it relies on a field experiment conducted in primary schools in the US, and aimed at increasing social connectedness between parents, with the ultimate objective to increase voter turnout. Preliminary results (Condon, 2009) show a negative effect of the treatment on turnout, although the experiment is still ongoing.

“eliminate groups mediating between the individual and the state or to control these groups so there is no competition” (Lipset, 1993, p. 13).⁸ Therefore, behavioral measures of social capital seem to be more appropriate, at least in these countries.

The most widely used proxy for behavioral or individual-level social capital is the measure of interpersonal “generalized” trust generated by individuals’ responses to the following survey question: “Generally speaking, would you say that most people can be trusted or that you can’t be too careful in dealing with people?”. The limitations of this proxy are made clear by the study of Glaeser et al. (2000), which showed that individuals’ responses to the trust survey question are not correlated with trusting behavior in the incentivized trust game, first introduced by Berg, Dickhaut, and McCabe (1995).⁹

Contrary to previous studies, we generate a *direct* measure of behavioral social capital – i.e. individuals’ propensities to trust, coordinate and cooperate with others in social dilemmas – by involving our survey participants in a simplified version of the public good experiment first introduced by Isaac et al. (1984). In the experiment, each of 15 individuals have to decide whether to invest a voucher into a private account or a group account; while the dominant strategy is to invest in the private account, the Pareto-efficient outcome can only be reached if all participants invest in the group account. Behavior in public goods experiments has been shown to correlate with a number of outside-the-lab behaviors (Carpenter and Seki, 2011; Fehr, E. and A. Leibbrandt, 2011), and has been suggested as a superior measure of social capital as compared to survey-based proxies (Carpenter, 2002; Attanasio et al., 2009).

To the best of our knowledge, this is the first study that employs a public goods experiment to measure individuals’ willingness to coordinate and cooperate with each other in connection with their willingness to turn out to vote. Our empirical findings support the hypothesis that voter turnout is essentially a public good contribution. In particular, at the individual level, parents’ cooperative behavior in the public goods game predicts (self-reported) participation in the school-level elections of parent class representatives. At the school level, the proportion of parents contributing to the public good predicts voter turnout in the 2009 parliamentary elections in the district where the school is located. Finally, at the district level, the proportion of parents contributing to the public good is correlated with voter turnout in the 2009 parliamentary elections.

⁸ For instance, in Albania religious practices were officially banned in 1967, to be reinstated in the 1990s.

⁹ See also Miller and Mitamura (2003).

The school-level and district-level results are particularly noteworthy given the nature of our experimental measure of individuals' propensity to cooperate with others for the greater good.

Following this introduction, Section 2 describes the Albanian context, with special focus on the education sector. Section 3 describes our data sources and presents descriptive statistics about voter turnout, the characteristics of the surveyed parents, and the public goods experiment. Section 4 reports our empirical results, and Section 5 concludes.

2. The Albanian context

2.1 A new democracy

Albania was the last country in Europe to participate in the “third wave of democracy” (Huntington, 1991). Despite the high levels of economic growth experienced during the democratic transition, Albania remains one of the poorest in Europe, with a per capita GDP of 8,000 USD (2010 international PPP \$). Albania's relative underdevelopment can be at least partly explained by noticing that, contrary to other Eastern European countries that also underwent democratic transition in the 90s, Albania is still consolidating its democratic institutions. The new constitution, which established that the “sovereignty in the Republic of Albania belongs to the people” (article 2) and that “governance is based on a system of elections that are free, equal, general and periodic” (article 1), was adopted in 1998, and since then there have been three parliamentary elections – not without controversies due to electoral fraud, protests and boycotts from the losing party – and voter turnout has been around 50%. The slow transition experienced by Albania is due to a number of unique characteristics of its communist regime, among which: its isolation from other countries, including the Soviet bloc, for half a century; the elimination of intellectuals (including western-educated Albanians); the abolition of religious practices; and the harsh persecution of opponents to the regime. With the end of the communist regime, a new era began. According to Elbasani (2004), the recently acquired freedom was interpreted and understood by Albanians as the “unhindered pursuit of personal gains at the expense of society and public good”.

One of the consequences of the repression of civic organizations during the communist regime is the lack of an active civil society, i.e. formal and informal organizations (with or without political objectives) and voluntary community participation, in the newly formed democracy of Albania. As discussed by Talifi (2008), most of the efforts to build a civil society in Albania – primarily undertaken by donor-based NGOs – have relied on awareness campaigns and capacity building,

and have emphasized the importance of an informed society and electoral base. The inherent shortcoming of this approach is the assumption that by informing people about democratic and participatory institutions, participation will follow. The author states that “this approach of civil society has decreased rather than increased public participation in the process, because simply telling people to participate is not a good enough approach to contribute to the democratization of the country”.

2.2 The education sector

In the years that followed the transition, there was a sharp decline in the coverage and the quality of social services. School enrolment rates dropped and in some cases have still not recovered to pre-transition levels; progress in reducing mortality and morbidity has been slow. In Albania, although 99% of the adult population is literate, the quality of education is low, as shown by Albania’s performance in the 2009 Program for International Student Assessment (PISA). More than 50% of students (15 years old) performed below level 2,¹⁰ meaning that majority of 15-year-olds are likely to find it difficult “to use continuous texts unless the texts are short and clearly sign-posted; and even with such texts, they are unlikely to be able to do more than identify a main idea or find explicitly stated information.”¹¹

The Ministry of Education and Science (MoES) is the central government body responsible for implementing education policies and managing the education system. This responsibility is exercised by staff in the MoES and in twelve administration entities (REDs) functioning at the county level – there are 12 counties and 36 districts in Albania. The MoES is directly responsible for the development of curricula, the selection of textbooks, the structure of the academic year, the workload of teachers, the allocation of resources among local education institutions, and teacher training (World Bank, 2005). Although the 12 REDs are responsible for the delivery of primary and secondary education in their respective districts, they are not decentralized government units. Their directors are appointed by the MoES and have no authority with respect to the amount of funds centrally allocated to their RED.¹²

¹⁰ PISA uses a 1 to 6 reading scale, with 6 being the highest score.

¹¹ See http://www.portugal.gov.pt/pt/GC18/Documentos/ME/PISA_2009_1.pdf

¹² They REDs are responsible for the appointment and transfer of teachers, the distribution of administrative materials to schools, inspections of schools, and planning and supervising the construction of new facilities and the rehabilitation of existing ones.

Although the institutional framework currently in place, by relying on a system that assigns the task of monitoring teachers and imposing penalties for under-performance to administrative units that are not directly held to account by service recipients, is top-down in nature, the MoES has recently also been trying to improve teachers' performance and quality of education by promoting community engagement in school governance structures through parent committees and school boards.¹³ Parent committees are composed of elected parent class representatives, and school boards are composed of two or more (depending on the size of the school) parent representatives, one teacher representative, a student representative, a community representative and a RED representative. Parent class representatives are elected by the parents of pupils in their respective classes at the beginning of the school year.

3. Our data

We combine data generated by three different sources: 1) the 2009 Albania School Stakeholder Survey, which we designed and implemented; 2) the 2008 Living Standards Measurement Study (LSMS); and 3) official records of voter turnout in the 2009 parliamentary elections, collected at the district level.

We conducted the Albania School Stakeholder Survey as part of the World Bank's Accountability for Better Governance Program. The survey was primarily aimed at investigating the role that parents play in the institutional framework within which primary schools currently operate. Therefore, we collected information about parents' involvement in the school accountability system, for instance by voting in the latest elections of parent class representatives. We also recorded the extent of parents' information about the existence of participatory institutions, and other forms of direct involvement in their children's education, for instance through meetings with the head teachers, or with filing of complaints in case of problems. The data collection was implemented between October and December 2009 in a representative sample of 180 primary schools, offering grades one to nine. The sampling strategy relied on stratification at the district

¹³ School boards have always existed, but they have recently been given greater responsibilities for school governance. The main functions of the School Board are to examine and approve (by voting) the school's mid-term plan and annual plan submitted by the school director and the school's annual financial report. The board also has decisional power for the adoption of curricula and textbooks, as well as the school's budget relating to contributions from the community or other donors, or revenues from school activities. School Board members may also discuss problems relating to the performance of teachers, or school directors, following complaints from parents, students, or teachers. The MoES is currently debating whether the responsibilities of the Board should be extended to the hiring and firing of teachers.

level; the number of schools randomly selected to participate in the survey in each district depended on the number of pupils attending primary school in that district.¹⁴

In all counties but two the majority of surveyed schools were located in villages or hamlets with less than 3000 inhabitants. The average number of pupils per school in our sample is 327, although this number falls to 200 if we exclude the urban schools. The average surveyed school employs 20 teachers, although the number falls to 14 if we, once again, exclude the urban schools. For each school, three and seven students were randomly selected from grades three and six respectively. The teacher of the third graders and four teachers of the seventh graders were then randomly selected to participate in the survey, together with the parents of the selected pupils. Therefore, in each school we collected data from ten parents and five teachers, leading to total sample sizes of 1800 parents and 900 teachers.¹⁵ In designing the School Stakeholder Survey, we purposely replicated some relevant LSMS questions concerning education and social capital, with aim to be able to check the extent to which our sample of parents is representative of the Albanian adult population. As part of the survey, all parents and teachers were also involved in three behavioral games. In this paper we focus only on parents' behavior in a dichotomous public goods game.¹⁶

We combined our original data, with data from the 2008 LSMS, the third household survey conducted by the Albanian National Statistics Office, with the technical assistance of the World Bank. The LSMS sampling relies on a stratification scheme based on four regions: Coastal Area, Central Area, Mountain Area, and Tirana; and included 450 Primary Sampling Units (PSUs) and 8 households in each PSU, for a total of 3600 households. The sample was designed to be representative of Albania as a whole. The survey provides information about household characteristics, including demographics, education, as well as measures of social capital.

Finally, we collected data, from official records, on district-level voter turnout in the 2009

¹⁴ We drew our sample from the list of all public primary schools in Albania. There are 2691 public basic level schools in Albania, of which 12 percent are located in urban areas. Out of the 2691 primary schools, we defined as "eligible" those schools with five or more pupils in grade three, and ten or more students in grade seven. Only 1623 of the 2691 primary schools in the complete list met our eligibility criterion. However, only 9 percent of all Albanian public primary school pupils attend the ineligible schools. The list of eligible schools was then divided into 36 strata according to districts, and either six, four or two schools was randomly sampled from each, the number depending on the number of pupils attending primary schools in the district. Since the district of Tirana contained twice the percentage of pupils as well as twice the number of independent eligible schools, it was divided in two strata, Tirana Municipality and Tirana District, leading to a total of 37 strata.

¹⁵ The survey benefited of the assistance of the MoES, which demanded full cooperation of school directors and teachers in the schools randomly selected for the study.

¹⁶ For a full description of the Albania School Stakeholder survey and behavioral experiments, see Serra, Barr and Packard (2011).

parliamentary elections.

In what follows, we describe the voter turnout data (Section 3.1); the characteristics of the surveyed parents, including survey-generated measures of their level of social capital and their involvement with their children education (Section 3.2); and, finally, parents' behavior in the public goods experiment (Section 2.3).

3.1 Voter turnout

The first column of Table 1 reports voter turnout in the 2009 parliamentary elections in the 12 Albanian counties. The second column reports the self-reported voter turnout in the elections of parent class representatives of the surveyed parents in each county.¹⁷ The overall voter turnouts in the two electoral contexts are strikingly similar – i.e., around 50% – and in only three counties the difference between voter turnout in the two elections is larger than 6%.

Table 1
Voter turn-out

	Turnout in the 2009 national elections	Parent turnout in the elections of parent class representatives in 2009
Total	0.51	0.50
County		
Berat	0.49	0.58
Diber	0.56	0.58
Durres	0.48	0.48
Elbasan	0.52	0.42
Fier	0.51	0.57
Gjirokaster	0.44	0.47
Korce	0.52	0.46
Kukes	0.61	0.56
Lezhe	0.50	0.50
Shkoder	0.49	0.33
Tirane	0.48	0.50
Vlore	0.35	0.63
Data source:	<i>Official electoral records</i>	<i>School Stakeholder Survey</i>

¹⁷ We also asked the surveyed parents whether they voted in the last national elections, and 96% said that they did. It seems clear that the self-reported information about turnout in the 2009 elections is severely biased, and therefore we do not use it in this study.

3.2 Parents' characteristics

Table 2 reports information about the characteristics of the 1800 parents randomly selected to participate in the 2009 School Stakeholder Survey, and the characteristics of the Albanians selected to participate in the 2008 LSMS. Demographics such as years of schooling (for the LSMS data we take the years of education of the adult population) and age are strikingly similar across the two samples, with educational attainment being equal to about 11 years of schooling in both samples, and average age equal to 40 years in the school-level survey and 44 in the household survey. Our measures of wealth are not comparable across surveys and samples. While the LSMS provides a measure of yearly household income, we do not have such information in the School Stakeholder Survey. Therefore, following Filmer and Pritchett (2001), we constructed an index of household socio-economic status based on parents' answer to 14 questions about whether the household owned a number of assets, such as a washing machine, a fridge, an oven, a car, a mobile phone etc. We conducted principal factor analysis on the answers to the 14 questions;¹⁸ Table 4 reports the resulting first factor, which we refer to as a household wealth indicator.

The second panel of Table 2 reports our survey-based measures of social capital.¹⁹ Following the existing literature, and replicating the LSMS questions, we collected information about: 1) membership in voluntary organizations; 2) participation in any community activity in the past year; 3) number of relatives and close friends among the surveyed parents (a measure of social ties in the community); 4) beliefs about community members' willingness to cooperate with each other in case of a water shortage; 5) a measure of generalized trust. While in the School Stakeholder survey we found that only 2% of the surveyed parents belong to a formal organization, the percentage of Albanians belonging to organizations according to the LSMS is equal to 24%, although the corresponding standard deviation is quite high. The percentage of individuals who participated in informal community activities is equal to 15% among our surveyed parents, and 11% among the Albanians surveyed in the LSMS. As for the percentage of individuals that think that community members would come together to solve a water shortage problem, we find that and 72% of parents

¹⁸ Principal factor analysis is a technique used to summarize information contained in a large number of variables in a smaller number by creating a set of mutually uncorrelated components. The first factor is the linear index of all the observed variables that captures the most common variation among them. In the case of our index of socioeconomic status, the first factor captures about 53% of the common variation among the 14 asset variables. One of the assets included in the wealth index is the ownership of a television, which is likely to be particularly important to convey information about the national elections; we found that 98% of the parents own one. The LSMS does not provide information about household ownership of all the assets reported in the School Stakeholder Survey, therefore we were not able to construct a similar wealth index.

¹⁹ Table A1 in Appendix reports the specific questions used in the two surveys to generate measures of social capital and of parental involvement with their children's education.

trust that community members would come together for the common good, against 64% in the LSMS. Finally, only 13% of the parents think that “most people could be trusted”, against 27% among the LSMS-surveyed individuals. At the school level, we were also able to collect data about social ties among the parents who participate in the survey. On average, 6% of the surveyed parents are relatives or close friends of each other, although there seems to be quite a large variation in social ties in the different schools.

Table 2
Individual Characteristics

	School Stakeholder Survey		2008 LSMS	
	Mean	SD	Mean	SD
Demographics				
Average years of education	10.98	3.25	10.73	3.36
Average age	40.17	6.39	44.22	17.58
Wealth indicator	0.00	0.92	n.a.	n.a.
Household yearly income (in 000LEK)	n.a.	n.a.	385	1,894
Survey-based measures of social capital				
Belongs to an organization (church, political group, sport etc.)	0.02	0.15	0.24	0.75
Participated in any community activity in the past year	0.15	0.35	0.11	0.31
Thinks village members would cooperate in the case of water shortage	0.72	0.45	0.64	0.48
Think that “most people can be trusted”	0.13	0.34	0.27	0.17
% of relatives or friends among other parents	0.06	0.90	n.a.	n.a.
Involvement with the pupil’s education:				
Help with homework at least once a week	0.76	0.43	0.54	0.50
Number of meetings with head teacher in the previous semester	4.52	3.3	n.a.	n.a.
Number of visits to the child's school in ????	n.a.	n.a.	8.73	3.39
If there was a problem, filed a complaint	0.21	0.41	0.22	0.42
Information about participatory institutions:				
Knows about the existence of parent class representatives	0.72	0.45	n.a.	n.a.
Knows about the existence of the school board	0.58	0.49	n.a.	n.a.
Knows about the existence of participatory institutions at the school level	n.a.	n.a.	0.68	0.47

To measure parents’ actual interest in and involvement with their children’s education, we registered how often parents help children with their homework, the number of meetings with the head teacher in the previous semester and whether they have ever filed a complaint concerning educational matters in case of a problem. The first and the last question are also part of the 2008 LSMS, so, once again we can check how our findings compare to those obtained through the

nationally representative household survey. The third panel of Table 2 shows that 76% of the parents help children with homework at least once a week (higher than the 54% generated by the LSMS data) but only 21% ever filed a complaint if there was a problem. The percentage of “complaining” parents is virtually identical in the LSMS data. On average, parents had 4 meetings with the head teacher in the previous semester. The LSMS does not provide this information; however, it does register the number of parents’ visits to the school in the past academic year, which is on average equal to 8.73. The larger number compares quite well with the average number of meetings with the head teachers obtained from the School Stakeholder Survey, which instead refers to a semester.

Finally, in the bottom panel of Table 2, we report measures of the extent to which parents are informed about parent class representatives and school board. About 28% of the surveyed parents do not know about the existence of parent class representatives, and about 42% are unaware of the existence of the school board is even higher, at 42 percent. The only comparable question in the LSMS education module refers to parents’ information about the existence of Parent-teacher associations or “other means for parents to be involved in school activities”. The percentage of informed parents (68%) is very close to the percentage of parents informed about the class parent representatives (72%).

Overall, with the exception of memberships in organizations and general trust in others, our parents’ data seem to compare well with the LSMS household data.

3.3 The public goods experiment

We employed a public goods experiment to generate a direct measure of individuals’ propensities to coordinate and cooperate with others to solve collective action problems. Laboratory experiments facilitate the measurement of individuals’ values, beliefs and preferences that cannot be captured in survey data; they have been conducted in a number of countries and contexts, involving various populations – from university students, to children, to illiterate adults in foraging small-scale societies. Experimentally generated measures of individual preferences have been shown to correlate with individuals’ behavior in natural life in a number of contexts.²⁰ Experiments have also been used as part of surveys following randomized interventions to measure changes in

²⁰ See for instance: Carpenter and Seki, 2001; Karlan, 2005; Barr and Serneels, 2009; Serra et al., 2011. For a comprehensive review of studies that find correlations between behavior in laboratory experiments and out-of-the-lab behavior see Camerer (2011).

individuals' attitudes and preferences. For instance, Fearon, Humphrey and Weinstein (2011) employ a public goods experiment, conducted in treatment and control communities, to assess the impact of a community driven development initiative in Liberia on individuals' ability to overcome collective action problems. Similarly, Attanasio et al. (2009) employ a public good game to compare individuals' propensities to cooperate with each other in two communities in Cartagena, Colombia – one that had received conditional cash transfers for over two years, and one that hadn't.

We used a simplified version of the original public goods experiment first introduced by Isaac and Walker (1988).²¹ Specifically, we adapted the binary public goods game of Cardenas et al. (2009) to the Albanian context. All surveyed parents and teachers participated in the experiment in the school premises. Thus, each experimental session included 15 subjects. Each participant was given a voucher and had to decide whether to invest their voucher either in a group account or a private account. If an individual invested in the group account, he/she would get 100 LEK plus 100 LEK multiplied by the number of other participants investing in the group account:²²

$$E_i^G = 100 + 100N_j^G \quad \text{with } j \neq i$$

where E_i^G indicates the earnings of individual i from investing in the group account, and N_j^G indicates the total number of other participants who invested in the group account. If an individual invested in the private account, he/she would get 500 LEK plus 100 LEK multiplied by the number of other participants investing in the group account:

$$E_i^P = 500 + 100N_j^G \quad \text{with } j \neq i$$

It follows that the marginal per capita return ratio (MPCR) from investing in the group account was set equal to 0.20,²³ and the experimental parameters were such that at least 5 contributors to the group account were needed in order for each contributor to earn at least as much as he/she would earn by contributing in the private account if all the other participants did so.

Each experimental session was conducted using a large classroom where all fifteen subjects were seated at as much distance as possible from one another. A white board was used to explain all possible configurations of individual payoffs conditional on the investment decisions of the other

²¹ For a general overview of studies employing public goods experiments, see Leyard (1995) and Choudhury (2011).

²² At the time of the experiment, 1000 LEK corresponded to the daily wage of the average Albanian.

²³ In our setup: $MPCR=100/500=0.20$.

participants.²⁴ Vouchers were then distributed among participants. Each voucher had a letter P (for Private Account) and the letter G (for Group Account), and participants were asked to circle the letter corresponding to the account in which they wished to invest their voucher. The game was played only once, and there was no communication among experimental participants. The same experimental protocol was employed in all schools, with the exception of one feature of the design. In half of the schools the investment in the group account was explained by using an example relating to the education sector, and in the other half it was explained by using an example relating to farming.²⁵

Table 3

Parents' investment in the group account

	% of parents contributing to the group account	Standard Deviation
Full sample	0.75	0.43
Counties		
Berat	0.69	0.47
Diber	0.76	0.43
Durres	0.69	0.46
Elbasan	0.76	0.43
Fier	0.61	0.49
Gjirokaster	0.88	0.32
Korce	0.87	0.34
Kukes	0.84	0.37
Lezhe	0.68	0.47
Shkoder	0.71	0.46
Tirane	0.74	0.44
Vlore	0.79	0.41

About 75% of the parents invested in the group account rather than the private account. Table 3 shows the percentages of parents investing in the group account in the 12 counties. Compared to the findings of other studies employing a dichotomous public goods experiment similar to ours in the field, it might seem that our sample is constituted of a high percentage of contributors. Cardenas et al. (2009) find that the percentage of contributors to the group account in 6 Latin American capitals ranged between 12.3% in Bogota' to 47.3% in Caracas. In two different

²⁴ The field researchers were instructed to spend as much time as needed explaining the rules of the experiment and proceed to the decision-making phase of the experiment only when all the subjects showed a clear understanding of the rules of the games.

²⁵ See the instructions in Appendix for a full description of the examples employed in both versions of the public goods experiment. As we discuss in the next section, the specific example used does not seem to affect the correlation between individuals' behavior in the public goods game and their voting behavior.

neighbourhoods in Colombia, Attanasio et al. (2009) find that 6.6% and 33% of the participants invested in the group account.²⁶ However, the public goods experiments employed by both studies use a smaller MPCR – 0.10 in Cardenas et al. and 0.08 in Attanasio et al. – and require a larger number of contributors to the group account in order for each contributor to earn at least as much as he/she would earn by contributing in the private account if all the other participants did so – 10 in Cardenas et al. and 13 in Attanasio et al.²⁷ Therefore, by design, our experiment was likely to generate a higher rate of contributions to the group account.²⁸

4. Results: Is turning out to vote a public good contribution?

In this section, we first present our empirical results concerning the correlation between parents' behavior in the public goods game and their turnout in the election of parent class representatives. We then test whether behavior in the public goods game also correlates with district level turnout in the 2009 parliamentary elections.

4.1 Voter turn-out in the elections of parent class representatives

We estimate individual-level probit regressions where the dependent variable is a dummy equal to 1 if the parent participated in the latest elections of parent class representatives, and zero otherwise. Table 4 reports marginal effects for continuous explanatory variables and the effect of a change from 0 to 1 for dichotomous explanatory variables. In all regressions, we control for the 12 counties, which also host the corresponding educational directorates, and for the 4 geographical dummies usually employed to identify different cultures and economic realities within the Albanian territory, and used for stratification purposes in the LSMS. These are: the central area, the coastal area, the mountain area and the Tirana area. Moreover, in all regressions the standard errors are clustered at the school level.

²⁶ The authors relate these different percentages to the fact that in the previous two years the latter neighborhood had been receiving a conditional cash transfer that had a community engagement component.

²⁷ Due to the dichotomous nature of the public good investment in our experimental setting, there are no other studies, to the best of our knowledge, which are directly comparable to ours. In the standard public goods experiment, participants are asked to invest a fraction of their endowment into a public account. Cardenas and Carpenter (2008) review studies employing public goods experiments in the field, and report that average contribution range from 33% of endowment in Chile (Henrich and Smith, 2004) to 81% in Peru (Karlan, 2005).

²⁸ In choosing the parameters for our game, we were guided by the particular characteristics and historical background of Albania. In the fear of finding a too low level of contributions to the group account, we designed the game so that coordination among participants would not be as difficult as in previously employed versions of the dichotomous public goods experiment.

In column 1 we do not include any control beside the county dummies and the geographical area dummies. In column 2 we control for standard demographics, the urban or rural location of the surveyed school, and the distance of the parent's house from the school. In column 3 we add survey-based measures of social capital. Finally, in column 4 we add measures of parents' involvement with their children's education. The estimates in column 1 to 4 show a strong and robust correlation between parents' decision to invest in the group account in the public goods game, and their self-reported turnout in the elections of parent class representatives.

Table 4

	Dependent variable: Dummy equal to 1 if the parent voted in the elections of the class parent representatives, 0 otherwise			
	(1)	(2)	(4)	(5)
Invested in group account in the game	0.10*** (0.002)	0.090*** (0.010)	0.096*** (0.005)	0.095*** (0.005)
Age		0.004* (0.079)	0.004* (0.089)	0.003* (0.100)
Female		0.044 (0.147)	0.060** (0.044)	0.056* (0.061)
Wealth index		0.052*** (0.003)	0.045** (0.011)	0.040** (0.025)
Years of schooling		0.029*** (0.000)	0.027*** (0.000)	0.027*** (0.000)
Rural location		-0.085** (0.014)	-0.095*** (0.007)	-0.091** (0.011)
Distance from school (Km)		-0.004 (0.708)	-0.003 (0.754)	-0.004 (0.722)
Participation in community activities			0.137*** (0.001)	0.127*** (0.002)
Think that community members would cooperate			0.040 (0.176)	0.036 (0.233)
% of relatives and friends among other parents			0.199* (0.052)	0.204** (0.046)
General trust in others			-0.081* (0.060)	-0.088** (0.047)
Help pupil with homework				0.009 (0.792)
Number of meetings with head teacher				0.014*** (0.002)
Had reason to complain and did complain				0.020 (0.613)
Had reason to complain but did not complain				-0.056* (0.002)
	0.10***	0.090***	0.096***	0.095***
County fixed effects	YES	YES	YES	YES
Geographical areas dummies	YES	YES	YES	YES
Observations	1,800	1,800	1,800	1,800

Note: Robust standard errors have been clustered at the school level. P values in parentheses: *** p<0.01, ** p<0.05, * p<0.1. We report marginal effects of continuous variables and the effect of a change from 0 to 1 for dichotomous variables. In all regressions we control for three geographical areas dummy variables: coastal, center and mountain areas; Tirana is the excluded geographical area.

Among the other determinants of turnout, Table 4 shows that both years of schooling and household wealth increase the likelihood that a parent participates in the elections, whereas the rural location of the school lowers such likelihood. With respect to the survey-based measures of social capital, it seems that, as predicted, parents who participated in community activity and parents with more social ties with other parents involved in the study, are more likely to turn out to vote. In contrast, more “trusting” parents are less likely to turn out to vote. This might be because they trust that others will make the right decisions, and/or because they trust that teachers and school director act in the best interest of the pupils and therefore they do not recognize the benefits of parents’ involvement in the administrative process. Parents’ extent of involvement in their children’s education, as measured by the number of meetings with the head teacher in the previous semester, also seems to matter. Finally, parents who are unlikely to complain in case of problems in education matters, are less likely to participate in the elections of parent class representatives.

One important factor, which we left out from the specifications employed for the estimates displayed in Table 4, is the extent to which parents are informed about the elections of parent class representatives.

From the survey, we know whether parents know about existence of parent class representatives, and about the existence of the school board. Since parents who are uninformed inevitably did not turn out to vote, we cannot estimate probit regressions while controlling for parents’ information about parent representatives. We overcome this problem in four different ways. First, we estimate a linear probability model including parents’ information about parent class representatives. Second, we estimate probit regressions while controlling for parents’ information about the school board. This variable is highly correlated with information about parent class representatives but not perfectly collinear with voter turnout. Third, we restrict the sample to parents who are informed about the existence of the institution of parent class representatives, and fourth, we restrict the sample even further, to parents who are informed both about parent representatives and school board.

Columns 1 to 4 of Table 5 show that, although as expected information seems to be a determining factor of voter turnout – see columns 1 and 2 – parents’ willingness to cooperate with others in the public goods experiment remains a strong predictor of voter turnout in the election of parent class representatives. This result is robust to restricting the sample to the informed parents. Indeed, although the estimated coefficient becomes smaller as compared to the estimates displayed in column 4 of Table 4 - 0.7 as compared to 0.10 – it retains statistical significance at the 5.1% level

or lower. The smaller and less significant coefficient within the informed sample, suggests that those who invested in the group account were also more likely to select into the informed group.²⁹

Table 5

	Dependent variable: Dummy equal to 1 if the parent voted in the elections of the class parent representatives, 0 otherwise			
	(1)	(2)	(3)	(4)
Invested in group account in the game	0.05* (0.052)	0.09*** (0.008)	0.07* (0.051)	0.08** (0.037)
age	0.00 (0.299)	0.00 (0.101)	0.00 (0.368)	0.00 (0.601)
female	0.04* (0.060)	0.06* (0.060)	0.04 (0.172)	0.04 (0.288)
Wealth index	0.01 (0.295)	0.03* (0.069)	0.01 (0.370)	0.03 (0.112)
Years of schooling	0.02*** (0.000)	0.02*** (0.000)	0.02*** (0.000)	0.02*** (0.000)
Rural location	-0.01 (0.787)	-0.09** (0.014)	0.00 (0.996)	0.03 (0.517)
Distance from school (Km)	-0.00 (0.655)	-0.00 (0.814)	-0.00 (0.828)	0.01 (0.242)
Participation in community activities	0.06** (0.044)	0.11*** (0.005)	0.07* (0.080)	0.06 (0.230)
Think that community members would cooperate	0.05* (0.052)	0.04 (0.231)	0.07** (0.045)	0.07* (0.084)
% of relatives and friends among other parents	0.07 (0.266)	0.22** (0.028)	0.11 (0.184)	0.21** (0.041)
General trust in others	-0.01 (0.686)	-0.09** (0.037)	-0.03 (0.520)	-0.04 (0.454)
Help pupil with homework	0.01 (0.772)	0.01 (0.851)	0.01 (0.745)	-0.01 (0.857)
Number of meetings with head teacher	0.01* (0.081)	0.01*** (0.001)	0.01 (0.169)	0.01* (0.083)
Had reason to complain and did complain	0.01 (0.744)	0.03 (0.526)	0.01 (0.894)	0.04 (0.332)
Had reason to complain but did not complain	-0.05** (0.024)	-0.05 (0.105)	-0.07** (0.033)	-0.05 (0.211)
Informed about parent class representatives	0.64*** (0.000)			
Informed about the school board		0.17*** (0.000)		
Constant	-0.11 (0.363)			
County fixed effects	YES	YES	YES	YES
Geographical areas dummies	YES	YES	YES	YES
Observations	1,800	1,800	1,302	877

Note: Robust standard errors have been clustered at the school level. P values in parentheses: *** p<0.01, ** p<0.05, * p<0.1. The first column reports estimates from OLS regressions. In columns 2 to 4, we report marginal effects of continuous variables and the effect of a change from 0 to 1 for dichotomous variables. In all regressions we control for three geographical areas dummy variables: coastal, center and mountain areas; Tirana is the excluded geographical area.

²⁹ Table A2 in Appendix show that the frame used in the example employed to explain the public goods game does not affect the predictive power of the behavior in the game.

4.2 Voter turn-out in the 2009 parliamentary elections

In this section, we look at district-level voter turnout in the 2009 parliamentary elections. It is worth noting that, contrary to the elections of parent class representatives, the parliamentary elections took place six months after the School Stakeholder Survey that generated our experimental measure of individuals' propensities to cooperate with others for the greater good. Therefore, by turning to the national elections, we are able to at least partly address the potential endogeneity of our experimental proxy. Moreover, by linking individual behaviour within the context of the experiment at the school level, to the higher level voter turnout outcome, we are able to indirectly investigate whether individual behavior is linked to local-culture.

We first explore whether parents' propensities to invest in the group account in the public goods experiment at the school-level predicts voter turnout in the district in which the school is located, and then explore whether the observed correlation between the experimental measure of cooperation and voter turnout stays significant when working with aggregate, district-level data, while controlling for district characteristics generated by the 2008 LSMS Albanian household survey. Table 6 reports estimates from OLS regressions employing county fixed effects. As before, we also control for the four geographical areas that are thought of as identifier of different cultural and economic realities in Albania. In columns 2 to 4 we include the average characteristics of the parents surveyed in each school, following the structure used in Tables 4 and 5.

The empirical results displayed in Table 6 suggest that the proportion of parents willing to cooperate with others for the greater good in the school-level public goods experiment predicts voter turnout in the district in which the school is located. This result is robust to controlling for a number of observable characteristics of parents aggregated at the school level. In particular, the specification employed in column 2, includes the average years of education of the surveyed parents in each school, as well as their average wealth. Guided by a growing literature showing the negative impact that community heterogeneity has on individuals' participation in community activities (Alesina and La Ferrara, 2000), interpersonal trust (Alesina and La Ferrara, 2002), community-based monitoring of public service providers (Bjorkman and Svensson, 2010), and local public good provision (Miguel and Gugerty, 2004), we employ the standard deviation of individuals' wealth as a proxy of wealth inequality. Moreover, we include a subjective measure of

community divide based on wealth differences, i.e. the percentage of parents who think that wealth differences cause a moderate or great extent of divide within the community.³⁰

Table 6

	Dependent variable:			
	Voter turnout in the 2009 National Elections in the district where the school is located			
	(1)	(2)	(3)	(4)
% parents investing in the group account (in a school)	0.02* (0.066)	0.02* (0.065)	0.02* (0.057)	0.02* (0.066)
Rural location	0.00 (0.629)	0.00 (0.420)	0.00 (0.600)	0.00 (0.676)
Average years of schooling		0.01*** (0.002)	0.01*** (0.003)	0.01*** (0.005)
Average wealth index		-0.02*** (0.004)	-0.02*** (0.003)	-0.02*** (0.008)
Standard deviation of the wealth index		0.01 (0.248)	0.01 (0.342)	0.01 (0.376)
% parents thinking that wealth differences cause divide in the community		-0.03* (0.061)	-0.03* (0.051)	-0.03** (0.048)
% parents participating in community activities			0.00 (0.775)	0.01 (0.586)
% parents who think that community members would cooperate			0.01 (0.580)	0.01 (0.446)
% of relatives and friends among parents in the session			0.03* (0.080)	0.03 (0.107)
% parents trusting others			-0.03** (0.029)	-0.03** (0.046)
% of parents who help children with homework at least once a week				0.01 (0.235)
Average number of meetings with the head teacher				-0.00 (0.150)
% parents who had never complained in case of a problem				0.01 (0.234)
Constant	0.02* (0.066)	0.02* (0.065)	0.02* (0.057)	0.02* (0.066)
County fixed effect	YES	YES	YES	YES
Geographical areas dummies	YES	YES	YES	YES
Observations	180	180	180	180
R-squared	0.848	0.861	0.870	0.874

P values in parentheses: *** p<0.01, ** p<0.05, * p<0.1. In all OLS regressions, we control for three geographical areas dummy variables: coastal, center and mountain areas; Tirana is the excluded geographical area.

As shown in column 2, while the average years of schooling of parents predict voter turnout in the corresponding district, the estimated coefficient of average wealth presents a negative sign. The extent of community divide due to wealth differences also presents a negative sign suggesting that

³⁰ The school stakeholder survey asked parents their opinion about the extent of divide caused by differences in individuals' characteristics other than wealth, i.e. education, religion, ethnicity, land ownership. None of these variables are significant when included in the specification.

voter turnout in the district characterized by greater wealth divide at the community level.³¹ The survey-based measures of social capital are insignificant, with the exception of the proportion of “trusting” parents, which, similarly to the individual-level regressions concerning turnout in the elections of parent representatives, presents a negative and significant coefficient. Finally the aggregate measures of parents’ involvement with their children’s education are all insignificant. The estimated coefficient for the percentage of parents investing in the group account in a school, which is consistently equal to 0.02, suggests that a 10% increase in the proportion of cooperating parents in the game in a school (i.e. one more parent investing in the group account) is associated, *ceteris paribus*, with a 0.2% increase in voter turnout in the corresponding district.

Next, we engage in a very demanding estimation task. We conduct district-level OLS regressions, therefore reducing the sample size to 36 (i.e. the number of Albanian districts). Once again, we employ our experimental measure of individuals’ willingness to coordinate and cooperate with each other for the greater – aggregated at the district level – as our main explanatory variable.

Table 7

	Dependent Variable		
	District-level voter turnout in the 2009 National Elections		
	(1)	(2)	(3)
% parents investing in the group account in the district	0.16**	0.17**	0.20**
	(0.028)	(0.037)	(0.015)
ln of household income (LSMS)	-0.03**	-0.02	-0.02
	(0.025)	(0.586)	(0.571)
Standard Deviation of household income (LSMS)		-0.00	-0.00
		(0.708)	(0.635)
Average years of schooling of the adult population (LSMS)		-0.00	0.00
		(0.872)	(0.970)
Average n. of memberships to social organizations (LSMS)			-0.01
			(0.505)
% people who participate in community activities (LSMS)			0.07
			(0.112)
% people thinking that community members would cooperate in case of water shortage (LSMS)			-0.15***
			(0.008)
% of people “trusting others” (LSMS)			0.02
			(0.688)
% of parents thinking that differences in the community causes a great extent of divide (LSMS)			-0.01
			(0.601)
Constant	0.82***	0.68	0.66
	(0.000)	(0.140)	(0.134)
Observations	36	36	36
R-squared	0.900	0.901	0.953

P values in parentheses: *** p<0.01, ** p<0.05, * p<0.1. In all OLS regressions, we control for three geographical areas dummy variables: coastal, center and mountain areas; Tirana is the excluded geographical area.

³¹ Interacting average wealth and extent of divide does not change the results, i.e. the un-interacted variables conserve their significant negative sign and the interaction term is insignificant.

The results reported in Table 7 show a highly significant correlation between parents' propensities to cooperate with each other and voter turnout in the national elections. The correlation is robust to a set of district-level controls generated by the 2008 LSMS survey, including average household income, average years of education of the adult population and the four survey measures of social capital. To measure heterogeneity, we control for the percentage of respondents who believe that differences among the community cause a moderate or a great extent of divide.

The estimated coefficients for the proportion of parents investing in the group account in the public goods game at the district level, ranging from 0.16 to 0.20, suggest that a 10% increase in the proportion of cooperating parents in a district is associated, *ceteris paribus*, to a 1.6% to a 2% increase in voter turnout in that district.

5. Conclusions

The first theoretical investigations of individuals' decision to turn out to vote suggested that voting is an irrational act because the expected benefit of voting – i.e. the probability that one's vote is pivotal times the differential benefit generated by the preferred electoral outcome – is lower than the cost of voting (Downs, 1957). A decade later, Ricker and Ordeshook (1968) observed that the paradox of voting could be solved by taking into account the intrinsic benefits – for example the satisfaction from compliance with the ethic of voting – that individuals might enjoy when voting. It was not until the 1980s that more comprehensive theories of voter turnout were developed. In particular, the work of Palfrey and Rosenthal (1983, 1985) highlighted that the decision to go to vote has the characteristics of a 'participation game', i.e. voters' decisions are strategically interdependent, and the probability that one vote is pivotal is not exogenous. Rather, it is determined simultaneously with the turnout decision. Thus, the determination of one's preferred electoral outcome requires coordination among voters. Given that the electoral outcome itself is non-excludable and non-rival and the act of voting involves a private cost, turning out to vote presents the characteristics of a typical collective action problem.

Testing whether the motivations for turning out to vote resemble the motivations for contributing to a public good is empirically challenging, due to the unobservable nature of individuals' propensities to coordinate and cooperate with others for the greater good. In this paper, we employed a novel empirical strategy in the context of a newly democratized country: Albania. We

conducted a nationally representative survey of 180 primary schools, involving a total of 1800 parents, and combined our data with the 2008 World Bank's LSMS survey, and with district-level official records of voter turnout in the 2009 parliamentary elections. Contrary to previous studies that employed survey-generated measures of individuals' memberships in social organizations and/or measures of social ties and interpersonal trust to proxy for individuals' propensities to cooperate with others, we generated a *direct* measure of such propensities by involving our 1800 parents in a simple public goods laboratory experiment. We explored whether parents' willingness to cooperate in the public goods game predicts voter turnout in two different contexts: the elections of parent class representatives in the schools, and the 2009 parliamentary elections.

Our estimates confirm that individuals' decision to turn out to vote resembles the decision to contribute to a public good. Our individual-level analysis shows that parents who are willing to cooperate with others in the public goods game are significantly more likely to vote in the elections of parent class representatives. This result is robust to controlling for the extent to which parents are informed about the existence of parent class representatives and school board in the school. Our second set of regressions, implemented at the school level, investigated whether the percentage of parents cooperating in the game in each school predicts official voter turnout in the 2009 elections in the district in which the school is located. We found that the correlation between school-level cooperation among parents and district-level voter turnout is highly significant and robust to the inclusion of a large set of controls, including survey-generated measures of social capital, in the empirical specification. Finally, we aggregated our experimental proxy for individuals' propensities to cooperate at the district level and tested its correlation with voter turnout in the 2009 elections. Despite the small sample size – 36 observations – the estimates show a strong and robust correlation between the proportion of individuals willing to cooperate with each other for the greater good in a district and voter turnout in the 2009 elections, controlling for a large set of district level characteristics generated by the 2008 LSMS survey.

In summary, our estimates provide empirical support to the theoretical proposition that the motivations for turning out to vote resemble the motivations for contributing to a public good. Our results are robust to changes in the scale of the analysis – individual level, school level, and district level. Moreover, our findings pertain to two electoral contexts which substantially differ in terms of the size of the electorate, the expected benefits of voting, and the private cost involved.

References

- Alesina, A. and E. La Ferrara (2000) "Participation in Heterogeneous Communities", *Quarterly Journal of Economics*, Vol. 115(3), p. 847-904.
- Alesina, A. and E. La Ferrara (2002) "Who trusts others?" *Journal of Public Economics*, vol. 85(2), pages 207-234.
- Alesina, A., R. Baqir and W. Easterly (1999) "Public Goods and Ethnic Divisions" *Quarterly Journal of Economics* Vol 114(4), p. 1243-1284.
- Atkinson M. and D. Fowler (2011) "The Effect of Social Capital on Voter Turnout: Evidence from Saint's Day Fiestas in Mexico", mimeo.
- Attanasio O., L. Pellerano and Ss Polanía Reyes (2009) "Building Trust? Conditional Cash Transfer Programmes and Social Capital," *Fiscal Studies*, vol. 30(2), pages 139-177, 06.
- Barr, A., C. Wallace et al. (2009) "Homo Æqualis: A Cross-Society Experimental Analysis of Three Bargaining Games", *CSAE working paper WPS/2009-02*, 2009.
- Barr, A. and P. Serneels: "Reciprocity in the Workplace", *Experimental Economics*, 12(1), 99-112, 2009.
- Berg, J., J. Dickhaut, and K. McCabe (1995) "Trust, Reciprocity, and Social History" *Games and Economic Behavior*, 10, 122-142
- Bjorkman M. and J. Svensson (2011) "When is community-based monitoring effective? Evidence from a randomized experiment in primary health in Uganda", *Journal of the European Economic Association*, 2010, vol. 8, issue 2-3, pages 571-581.
- Camerer (2011) "The promise and success of lab-field generalizability in experimental economics: A reply to Levitt and List (2007+)", in *Methods in Experimental Economics*, forthcoming.
- Cárdenas J. C., A. Chong and H. Ñopo (2009) "To What Extent Do Latin Americans Trust, Reciprocate, and Cooperate?: Evidence from Experiments in Six Latin American Countries," *Journal of LACEA Economía*, LACEA - LATIN AMERICAN AND CARIBBEAN ECONOMIC ASSOCIATION.
- Cardenas J. C. and J. Carpenter (2008) "Behavioral Development Economics: Lessons from field labs in the developing world" *Journal of Development Studies*, 44(3): 337-364.
- Carlson, N. (1999) "The Rationality of Political Culture: Social Capital and Voter Turnout." Paper presented at the annual meeting of the American Political Science Association.
- Carpenter, J. (2002) "Measuring Social Capital: Adding Field Experimental Methods to the Analytical Toolbox in Social Capital, Economic Development and the Environment" (Edward Elgar), eds. Sunder Ramaswamy, Jonathan Isham and Thomas Kelly, pp. 119-137.
- Carpenter, J. and E. Seki (2011) "Do Social Preferences Increase Productivity? Field experimental evidence from fishermen in Toyama Bay" *Economic Inquiry*, 49(2): 612-630.

- Chaudhury, A. (2011) "Sustaining cooperation in laboratory public goods experiments: a selective survey of the literature" Volume 14, Number 1, 47-83.
- Coleman, J. C. (1988). 'Social capital in the creation of human capital' *American Journal of Sociology* 94: S95-S120.
- Downs, A. (1957). *An economic theory of democracy*. New York: Harper and Row.
- Elbasani (2004) "Democratisation Processes in Albania: Appropriation or Manipulation of International Norms?" *Southeast European Politics*, 5 (1): 24-44.
- Humphreys, M., J. Fearon J. and J. Weinstein (2011) "Democratic Institutions and Collective Action Capacity", mimeo.
- Fehr E. and A. Leibbrandt (2011) "A field study on cooperativeness and impatience in the Tragedy of the Commons", forthcoming in the *Journal of Public Economics*.
- Filmer D, Pritchett LH (2001): "Estimating wealth effect without expenditure data – or tears: an application to educational enrollments in states of India", *Demography*, 38:115-32
- Fukuyama, F. (1999). *The Great Disruption. Human nature and the reconstitution of social order*, London: Profile Books.
- Glaeser E., D. Laibson and B. Sacerdote (2002) "An Economic Approach to Social Capital" *Economic Journal* 112 (2002): 437-458.
- Grafstein. 1991. An evidential decision theory of turnout. *American Journal of Political Science* 35 (November): 989-1010.
- Huntington S. P. (1991) 1991. *The Third Wave: Democratization in the Late Twentieth Century* (Norman, OK, and London: University of Oklahoma Press
- Ledyard, O. (1995). "Public goods: some experimental results". In J. Kagel & A. Roth (Eds.), *Handbook of experimental economics*. Princeton: Princeton University Press (Chap. 2).
- Lipset, S. M. (1994) "The Social Requisites of Democracy Revisited: 1993 Presidential Address" *American Sociological Review*, Vol. 59, No. 1, pp. 1-22
- Karlan, D. (2005) "Using Experimental Economics to Measure Social Capital and Predict Financial Decisions", *American Economic Review*, 95(5), pp. 1688-1699, 2005.
- Gugerty, M. K. and E. Miguel (2005), "Ethnic Diversity, Social Sanctions, and Public Goods in Kenya," *Journal of Public Economics* 89(11-12): 2325-2368.
- Olson (1965) *The logic of collective action*. Cambridge: Harvard University Press
- Olsen, M. (1972) "Social participation and voter turnout: A multivariate analysis" *American Sociological Review* 37:317-333.
- Ikeda, K. and S. Richey. 2005. "Japanese Network Capital: The Impact of Social Networks on Political Participation." *Political Behavior* 27(3): 239-260.

Knack, S. (1992) "Civic Norms, Social Sanctions, and Voter Turnout" *Rationality and Society* 4: 133

Lake and R. Huckfeldt (1998) "Social Networks, Social Capital, and Political Participation," *Political Psychology* 19: 567-584.

Palfrey, T.R., and Rosenthal, H. (1983). A strategic calculus of voting. *Public Choice* 41: 7-53.

Palfrey, T.R., and Rosenthal, H. (1985). Voter participation and strategic uncertainty. *American Political Science Review* 79: 62-78.

Putnam, R. D. (1995). 'Bowling Alone: America's Declining Social Capital', *Journal of Democracy* 6:1, Jan, 65-78.

Serra, D., A. Barr and T. Packard (2011) "Education outcomes, school governance and parents'demand for accountability : evidence from Albania," Policy Research Working Paper Series 5643, The World Bank.

Serra, D., P. Serneels and A. Barr (2001) "Intrinsic motivations and the non-profit sector: Evidence from Ethiopia", with A. Barr and P.Serneels, *Personality and Individual Preferences*, special issue on *Economics and Psychology*, vol. 52.

Talifi N. (2008) "Consolidation of Democracy: Albania" *Journal of Political Inquiry*, vol. 1.

Uphoff N. (1999) "Understanding Social Capital: Learning from the Analysis and Experiences of Participation" in Dasgupta and Seregeldin, *Social Capital: A Multifaceted Perspective*, World Bank, Washington DC, USA.

Appendix

Table A1

Survey Question	2009 School Stakeholder Survey	2008 LSMS
Measures of social capital		
Do you belong to any social clubs, community-based organizations, economic organizations (such as microfinance groups), churches, mosques, or other social group in the community?	✓	✓
In the past year, did you or any in your household participate in any communal activities, in which people came together to do some work for the benefit of the community?	✓	✓
If there was a water supply problem, for instance, how likely is that people will cooperate to try to solve the problem?	✓	✓
In general, do you believe that people can be trusted, or do you think that “you can’t be too careful”?	✓	✓
Measures of parental involvement in education		
In the last 2 weeks, how often have you or another adult in the household helped your child/children with homework?	✓	✓
How many times, in the last semester (January-May 2009), did you participate in these meetings to talk about [name]’s performance with his/her head teacher?	✓	✗
In the past year how many times have you visited the school to have meetings with school principal, teachers, or the school board?	✗	✓
Have you ever criticized, complained or made a suggestion concerning the educational services in this district in the last 2 years?	✓	✓
Did you participate in this most recent election of Parents’ Representatives in [child’s name]’s class?	✓	✗

Table A2

	Dependent variable:	
	Dummy equal to 1 if the parent voted in the elections of the class parent representatives, 0 otherwise	
	(1)	(2)
Invested in group account in the game	0.11** (0.012)	0.09* (0.059)
Farming example in the game	-0.04 (0.516)	0.02 (0.740)
Farming example x invested in the group account	-0.03 (0.646)	-0.04 (0.551)
Age	0.00 (0.101)	0.00 (0.345)
Female	0.06* (0.062)	0.04 (0.190)
Wealth index	0.04** (0.021)	0.02 (0.355)
Years of schooling	0.03*** (0.000)	0.02*** (0.000)
Rural location	-0.07** (0.042)	0.01 (0.871)
Distance from school (Km)	-0.00 (0.809)	-0.00 (0.886)
Participation in community activities	0.13*** (0.001)	0.07* (0.068)
Think that community members would cooperate	0.03 (0.308)	0.07* (0.050)
General trust in others	-0.08* (0.052)	-0.03 (0.515)
Help pupil with homework	0.01 (0.679)	0.01 (0.656)
Number of meetings with head teacher	0.01*** (0.002)	0.01 (0.180)
Had reason to complain and did complain	0.02 (0.570)	0.01 (0.875)
Had reason to complain but did not complain	-0.05* (0.093)	-0.07** (0.035)
County fixed effects	YES	YES
Geographical area dummies	YES	YES
Observations	1,800	1,302

Experimental Instructions

The Public good game

PRESENTATION TO THE GROUP

We are now ready to begin playing a game that will involve all of you. Each one of you will make his or her decision alone and in private, at the same time as everyone else. Based on the decision that you and the other participants in the game make, this game could earn you between 100 and 1900 LEK, although it is rare for people to earn 1900 LEK.

The decision that you make in this game is strictly confidential; in order to guarantee confidentiality we ask you not to communicate with each other at any time during the game. If you talk to each other we will have to stop the game and nobody will get any money from the workshop.

At the start of this game each of you will receive a voucher. Each of you has to decide whether to invest the voucher in:

- a PRIVATE Account (P)

or

- a GROUP Account (G)

If you invest your voucher in the GROUP Account you will receive 100 LEK for every voucher that you and the other participants have invested in the GROUP Account.

If you invest your voucher on the Private Account your earnings will be determined as follows: first you will receive a fix private return of 500 LEK; second, you will also receive 100 LEK for every voucher that the other participants have decided to invest in the GROUP Account.

You will soon receive a voucher like this one on the board, only smaller. At the bottom of the voucher you will see two big letters: a letter P and a letter G. The letter P, on the left, stands for "Private Account"; the letter G, on the right, stands for "GROUP Account". If you want to invest your voucher in a Private Account you must draw a circle around the letter P. If you want to invest your voucher in the GROUP Account you must draw a circle around the letter G. We will now go through some examples.

1. Suppose that you invest your voucher in the GROUP Account, which means that you circled the letter G on your voucher. *[Write the letter P on the left of the board, and the letter G on the right, in capital letters, as in the voucher. Then, circle the letter G].* And suppose that everyone invested their voucher in the GROUP Account. *[Write 15 below the letter G and 0 below the letter P].* Then you and the each of the other participants will receive $100 \times 15 = 1500$ LEK from this game. *[Write $100 \times 15 = 1500$ in a box on the right of the number 15, below the letter G. Link the number 15 and the box with an arrow]*
2. Suppose that you invest your voucher in the GROUP Account, which means that you circled the letter G on your voucher. *[Point the letter G on the board, that you have circled before]* And suppose that, in total, two people invested their vouchers in Private Accounts and 13 people, you and 12 others, invested in the GROUP Account. *[Write the number 2 below the letter P and the number 13 below the letter G].* Then you and the other participants who invested in the GROUP Account would each receive

$100 \times 13 = 1300$ LEK [write this amount in a box on the right of the number 13, as before] from this game, and each of the participants who invested their vouchers in the Private Account will each receive 1300 LEK from the GROUP Account PLUS 500 LEK from their Private Account, making a total of 1800 LEK. [write this amount on the left of the number 2, in a box, as before]

3. Suppose that you invest your voucher in a Private Account, which means that you circled the letter P on your voucher. [Now, circle the letter P]. And suppose that, in total, 10 people, you and 9 others, invested their vouchers in Private Accounts [write 10 under the letter P] and 5 people invested in the GROUP Account. [Write 5 under the letter G]. Then, each of the participants who invested their vouchers in the GROUP Account will receive $100 \times 5 = 500$ LEK from this game [Write this amount in a box on the right of the number 5] and you and each of the other people who invested in a Private Account will receive 500 LEK from the GROUP Account PLUS 500 LEK from your Private Account, making a total of 1000 LEK. [Write this amount in a box on the left of the number 10, as before]
4. Suppose that you invest your voucher in a Private Account, which means that you circled the letter P on your voucher. And suppose that everyone invested their vouchers in Private Accounts. Then, since nobody invested in the GROUP Account, nobody gets anything from that account and everybody goes home with the 500 LEK from their Private Account.

Is it clear to everybody?

Remember that if you invest in the Group Account you get (100 x Number of people who invested in the Group Account). If instead you invest in the Private Account you get (100 x Number of people who invested in the Group Account + 500).

Let's go through more examples.

Can you answer the following questions?

5. Suppose that in total, 5 people invested their vouchers in Private Accounts. How many people invested in the Group Account? (10) [After people answer the question, write the number 5 below the letter P and the number 10 below the letter G]. Then, how much did the people who invested in the Group Account get? ($100 \times 10 = 1000$) [After people answer the question, write this amount in a box on the right of the number 10, as before]. And how much did the people who invested in the Private Account get? ($500 + 1000 = 1500$) [After people answer this question, write this amount on the left of the number 5, in a box, as before]
6. Suppose that in total, 7 people invested their vouchers in Private Accounts. How many people invested in the Group Account? (8) [After people answer the question, write the number 7 below the letter P and the number 8 below the letter G]. Then, how much did the people who invested in the Group Account get? ($100 \times 8 = 800$) [After people answer the question, write this amount in a box on the right of the number 8, as before]. And how much did the people who invested in the Private Account get? ($500 + 800 = 1300$) [After people answer this question, write this amount on the left of the number 7, in a box, as before]
7. Suppose that in total, 14 people invested their vouchers in Private Accounts. How many people invested in the Group Account? (21) [After people answer the question, write the number 14 below the letter P and the number 1 below the letter G]. Then, how much did the people who invested in the Group Account get? ($100 \times 1 = 100$) [After people answer the question, write this amount in a box on the right

of the number 1, as before]. And how much did the people who invested in the Private Account get? (500 + 100 = 600) [After people answer this question, write this amount on the left of the number 14, in a box, as before]

Is this all clear to everybody now? Are you sure?

Remember that all the participants benefit from the vouchers invested in the GROUP Account, whereas only you benefit from the voucher invested in the Private Account.

This game is designed to simulate a type of dilemma that many of us find ourselves in at various points in our lives. For example:

[School Example]: Imagine a community with its own primary school. After finishing primary school, the children go to secondary schools elsewhere and imagine a situation where only children who perform well in the final test sat in year 9 can get a scholarship. If all the parents invest resources, including time and effort, to make sure that the primary school runs well, all the children are likely to learn while in school and do well in the exam, which means that they all have a good chance of getting into the best secondary school. However, each parent knows that even if he does not invest his resources in the school, *other* parents are likely to do so; therefore his child will benefit anyway while he will still have resources to invest privately for his child, for example by paying for private lessons. So, each parent faces an incentive to keep their resources and not invest in the school; however, if all the parents decide not to invest in the school, the school will not perform well and their child's success will depend solely on their privately investment in the child's education.

So, like in the game, the dilemma for each parent is:-

- Invest in the school and benefit all children but face the risk of being the only parent investing resources in the school, and therefore being taken advantage of by the other parents

Or

- Do not invest in the school in the hope that someone else will, bearing in mind that if all parents decide not to contribute to the school all the children will be disadvantaged]

[Farming Example]: Imagine a village where a group of farmers share a water pump. If the pump breaks all of them get less water to their land. When the pump breaks, the ideal situation is for all the farmers to spend resources, including time and effort, to repair it immediately and the more of them put together resources to repair the pump the easier and quicker the mending is. However, each farmer knows that even if he does not contribute to the mending of the pump, other farmers are likely to do so. So, each farmer faces an incentive not to contribute to the mending of the pump; however if all the farmers decide not to contribute to the mending of the pump, the pump is left broken and they all suffer.

So, like in the game, the dilemma for each farmer is:-

- Contribute to the mending of the pump and benefit all farmers, but face the risk of being the only one contributing and therefore being taken advantage of by the other farmers

Or

- Do not contribute to the mending of the pump in the hope that someone else will, bearing in mind that if all the farmers decide not to contribute, everyone will suffer

Remember that we have designed this game so that the other participants in the game will never know the decisions that each of you make. The only information that we will give to all participants at the end of the game is the total number of people who invested in the GROUP Account.

We are now going to distribute one voucher to each of you. Your color and player number is written at the top. At the bottom of the voucher you will see a letter P and a letter G, just like here on the board. If you want to invest the voucher in a Private Account, you must draw a circle around the letter P. If you want to invest the voucher in the GROUP Account, you must draw a circle around the letter G.

Are there any questions on how to play this game?

[Distribute vouchers]

Please check your color and player number on the voucher. If these are not right we will not be able to pay you correctly for the game.

Then circle either the P or the G. When you are done please fold the voucher. Then raise your hand and *[name of RA]* will come and collect your voucher.