



# Trust and civic engagement: evidence from six Latin American cities<sup>1</sup>

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## Abstract

Using a unique data set that combines experimental and survey data of more than 3,000 individuals of six Latin American cities, I analyze the association between revealed attitudes of Trust and Social Capital, the latter measured as Participation in Voluntary Organizations. I find no statistical association between Trust and Social Capital, contrary to established economic and sociological theories of participation.

Keywords: trust, social capital, non-profits, game theory

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## Introduction

The last decades have witnessed an increase in participation in voluntary organizations and a widening of the scope of economic activities these organizations engage in<sup>1</sup>. Some have suggested that participation has come to represent an “all-purposive elixir for the ills of society” (Uslander and Dekker, 2001).

In this sense, civic participation is relevant in sectors such as health, education, poverty reduction and the building of different forms of social capital, inherent to economic development<sup>2</sup>. Civic participation may take many forms, from providing hours or work for the construction of houses to making charitable donations.

Theoretically, civic participation is important both at the individual level and at the contextual level. At the individual level, participation leads to the acquisition of democratic skills and to the construction of a more consistent social network (Lichterman, 2005). Participation “makes people care more about the wider world” (Eliasoph, 1998). Also, the more actively one participates, the stronger are the positive side effects (Putnam, 2000).

At the macro level, the effects of participation spill over to citizens who do not participate: populations in communities with higher rates of civic participation may be characterized by wealthier, healthier, happier, less criminal, and more highly educated people (Putnam 2000; Halpern 2005). Participation then, seems to be good for economic development and democracy.

The reasons why individuals choose to engage in different forms of civic participation have been the subject of study of scholars from different disciplines. On the one hand, microeconomic theory has focused mostly on

individual preferences, beliefs, and public and private failures as key variables to explain civic participation<sup>3</sup>. First, individuals engage in civic participation because they show altruistic preferences (Katz et.al. 2005). On the other hand, individuals have different beliefs in terms of what they think about trusting others (generalized trust): higher levels of generalized trust may affect civic participation positively (more below)<sup>4</sup>. Second, market failures take the form of information asymmetries which lead to the under provision of certain goods and services. Public failures spread due to heterogeneity of preferences (Weisbrod, 1975) by which the State fails to satisfy the demand for public goods. In both market and public failures, participation (in e.g. nonprofit organizations) constitutes a vehicle by which individuals tend to obtain the goods and services that the market and the State fail to supply (more below).

Sociological theories stress cultural and historical aspects such as the importance of norms and traditions and more or less democratic forms of government. Last but not least, political theories focus on the relevance of “security” (given by the size of the public budget) and on confidence on political organizations. These latter theories also suggest a link between institutions and institutional forms such as trust and reciprocity, and participation: for example, Uslaner (2002) regards trust as a social (i.e. institutional) value which has a significant and positive effect on participation.

Warren (2004) conjectures about which type of trust (generalized or horizontal versus particularized trust) is more important to generate deeper civic orientations and argues that it is generalized trust (trust on other persons) that empowers individuals to participate more in voluntary organizations: people involved in such organizations should possess stronger civic commitments and

an interest in the common good, and should be more likely to promote reciprocity, and social inclusiveness.

From a Latin American perspective, the return to democracy during the 1980s and 1990s and the turning to the left of the political spectrum appeared to have demolished whatever barriers to social and political participation may have existed due to military rule. With democracy, higher rates of civic participation were expected (Klesner, 2007). On the other hand, however, there have been signals that return to democratic regimes have not lead to greater participation in Latin America (Pearce, 2004). Although participation in non-governmental organizations appears to have increased over the past 25 years, average participation in Latin America seems to be lower than average world participation.

If civic participation is regarded as an important component of social capital, understanding what are the relevant factors that influence participation in Latin America seems to be an important political and economic policy issue. This paper contributes to that understanding.

The literature reviewed above postulates a positive and significant association between trust and civic participation. In accordance to this hypothesis, this paper explores the importance of trust, measured as individuals' revealed actions towards cooperation on civic participation in Latin America.

In general, studies on the different motives for participation have been conducted by making use of surveys, e.g., the World Value Surveys, Latinobarómetro and other surveys<sup>5</sup>. In this paper, however, a unique data set is used to combine information on individual's revealed actions of trust from an experimental setting and information on attitudes and desires gathered through

surveys on the same individuals who participated in the experiments<sup>6</sup>. Accordingly, this paper attempts to avoid the problems that self-reported measures of behavior may impinge upon economic and social outcomes.

### **Empirical Studies on Trust and Participation**

Cross country studies based on survey data is the usual strategy followed by researchers to explore the association between attitudes and behavior (e.g. Trust) and civic engagement. For example, Taniguchi et.al (2014) uses the 2005 Japanese General Social Survey to analyze the effect of social and institutional trust on volunteering<sup>7</sup>. They measure volunteering as a dichotomous variable that takes the value of 1 if the individual declared to have volunteered during the previous 12 months. They find that self-reported trust is not significantly associated with volunteering.

On the other hand, using data from different waves of the World Value Survey for 81 countries, Klesner (2007) finds a positive association between self-reported measures of trust and political participation in Latin America: higher levels of interpersonal trust also promote political participation.

Within the economic security theory of participation, the work of Knack and Keefer (1997) and Halman (2003) find that wealthier (i.e. those with higher incomes) countries offer more economic means to participate, while showing higher levels of trust and reciprocity. Moreover, in his work on post-Communist societies, Rose (1994) finds that security and trust in the state are relevant prerequisites for participation, suggesting that institutional forms<sup>8</sup> and participation are directly related.

This paper improves over existing literature in several dimensions. First, a significant improvement relates to the database. The data comes from lab

experiments in six Latin American cities. The usefulness of survey data is limited by measurement error and by the question of their behavioral relevance (Fehr et al 2003). On the other hand, none of the studies which include experimental settings employs Latin American subjects and neither uses cross country data, with the exception of Klesner (2007).

Experimentally based studies attempt to overcome some of the difficulties of studies based on self-reported data but may suffer from other problems such as self-selection biases and homogeneous pools measures (Fehr et al, 2003). The main methodological difference with the previous studies is that cooperation (i.e. trust) data is derived from the behavior of individuals in laboratory experiments, which means that in a certain sense it is based in the revealed preference axiom. Second, as of today, this paper is the first to focus on one specific set of cities, namely, six Latin American cities: Bogotá, Buenos Aires, Caracas, Lima, Montevideo, and San José (Costa Rica). Most of the studies on this topic not only rely on survey data but also comprise either only one country or a set of developed or less developed countries. Little is known about the relationship between behavior and participation based on experimental studies in less developed countries. This paper is a step towards filling this gap.

## **Data and Hypotheses**

This paper estimates how trust on others (horizontal trust) affects the probability that an individual participates in voluntary organizations and the probability of the intensity of that participation.

Data were collected for a research project on Social exclusion in Latin America financed by the Inter-American Development Bank (IADB). The database is publicly available.<sup>9</sup> The IADB's project is based on a set of experiments and surveys on six Latin American cities, and collected information on three critical types of variables that fit the objects of this paper. On the one hand, information about individual's behavior was collected during the experiments, which consisted in standard public good games, a bilateral one shot trust game, and risk experiments. On the other hand, information on participation in different types of organizations was collected through survey questions to individuals participating in the experiments.

Information was gathered through convenient samples of individuals from six different cities in Latin America<sup>10</sup>. Individuals were asked if they would be willing to participate in experiments and surveys to gauge on the effect of different economic incentives on behavior. Surveys include questions regarding socio-demographic information and attitudes, beliefs and preferences with respect to social issues (exclusion, minorities, pro-social norms). In total, more than 3,100 individuals participated in 148 sessions in all the cities.

### Civic Engagement: Participation in Voluntary Organizations

The survey questions allow building measures of participation in different organizations. Individuals were asked a set of questions as to whether they belonged to any of a set of different organizations, and how many hours a month they dedicated to those participatory activities. The first question relates

to belonging to a specific voluntary organization, which measures the extent to which an individual feels attached to an organization.

On the other hand, participation intensity is important if we feel that one of the potential results of participation (e.g. reducing market failures) not only depends on whether one person belongs to one such organization but also on the frequency of participation. The more one participates, the better the expected social and economic outcomes. To take some form of intensity of participation into account, I incorporate answers to the question on how many monthly hours does he/she dedicate to activities related to voluntary organizations. Table 1 summarizes the basic data on each form of participation.

Accordingly, I consider two different types of empirical associations, one that associates a behavioral variable, e.g. trust to participation (i.e. belonging to voluntary organizations), and another that associates trust to participation intensity.

Comparing responses to results on questions about participation obtained from the World Value Surveys, two facts are revealed (Table 2): first, average participation rates have been increasing in the world over the past 25 years, and second, participation rates in Latin America are almost always (with only one exception) lower than the world average. Finally, data from the World Value Surveys also shows that average horizontal trust has increased between 1995 and 2005 from 24.17% to 25.76% of individuals asked.

### Trust Attitudes and Participation

As explained in detail below and stated above, trust is not measured here as an opinion about one's feelings with respect to other people but as revealed actions towards other individuals, in this case, as the behavior adopted in the Trust Game (next section). Although not exempt of flaws, this approach



has the advantage of eliminating the problems relate to self-declared intentions or beliefs and constitutes an innovation with respect to related literature.

Conceptually, trust is considered as an institutional form that deals not only with the relations between two persons, as in the standard Trust Game, but that is also related to relationships within and between groups, such as communities and organizations. Trust can be regarded as an institutional form that reduces transaction costs and contributes to the increase of Social Capital within a society (Fukuyama, 1995)<sup>11</sup>. Trust can also be seen as institutional mechanism through which social capital is thought to work (Haddad et. al, 2002)

As stated in the Introduction, trust may have a positive effect on participation because individuals may be more inclined to socially interact with those who they trust more. In this sense, trust may act as a factor that enhances participation instead of hampering it. In sum, this paper tests for a positive association between horizontal trust and civic participation using a novel and innovative database.

#### Personal Characteristics: Altruism.

As stated above, altruistic preferences are positively associated with participation. In the survey, individuals were asked whether they considered if people should have the moral obligation to share part of their resources with poor people. I take this as a representing the altruistic preferences of individuals. Accordingly, the hypothesis is that the more the individuals feel there is a moral obligation to share resources, the more they would be willing to engage in civic participation, which is consistent with the economic and social theories of participation outlined above.

### Other explanatory variables and controls

Last but not least, I estimate the effects of several socio-demographic variables, such as gender, age, education and income, among others.

García and Marcuello (2004) use data from a 2002 Survey run by the Centro de Investigaciones Sociológicas, to find that higher incomes, being an active catholic and a more educated individual are all associated with higher levels of participation. They also find that greater diversity is associated with lower levels of participation. These results contradict the traditional failure argument for participation (Hansman, 1980, Weisbrod, 1975). With respect to diversity, García and Marcuello (2004) argue that what is really driving their result is the fact that their variable is not measuring heterogeneity (defined as cultural, ethnic or religious) but income inequality.

## Econometric model

The econometric specification of the model is the following:

$$y_i = \alpha + \beta * Trust_i + \gamma * Personal_i + \delta * X_i + \varepsilon_i$$

The dependent variable  $y_i$  measures civic engagement, i.e participation or participation intensity (hours spent on activities) of individual “i” in voluntary organizations.  $Trust_i$  represents our key explanatory variable, horizontal trust. The variable  $Personal_i$  measures the altruistic characteristic of individuals while the variable  $X_i$  captures other control variables, such as incomes, gender and education. The last term is the error term.

### Dependent Variable: Participation and Participation Intensity

The post-games surveys allow us to build several measures of participation. First, participation in each voluntary organization is measured by a binary variable that takes the value of 1 when the person declares she participates in a certain type of voluntary organization, 0 otherwise.

Individuals were asked whether they participated in 13 different types of voluntary organizations. I proceeded to sum, for each individual, the number of positive responses with respect to each organization. My measure of participation is then a categorical variable that can take the values 0 through 13, where 0 means that the individual does not participate in any voluntary organization and 13 means that he participates in all of the organizations cited in the survey. Table 1 shows no individual participates in more than 7 organizations.

A second measure of participation, considers how many monthly hours are dedicated to activities related to voluntary organizations. For those

individuals who declared to participate in voluntary organizations I computed the hours dedicated to such activities. If the individual stated that he did not participate in any voluntary organization, a 0 (no hours spent) was assigned. This procedure aims at correcting for many missing values that were assigned when no number of hours was reported even when no participation was declared, which in my opinion, it would be incorrect. "Hours", then is a categorical variable which takes values from 0 to 293 (monthly hours spent in voluntary organizations) in my sample.

### Behavior: Trust Attitudes

The experimental design used in this paper takes into account the result of one activity, the Trust Game, where participants were assigned to pairs. Half played the role of player 1 and half played the role of player 2. Players never met, but were informed about some of the other player's characteristics (age, sex, education level and neighborhood of residence). This information was provided to test how some characteristics that are easily observable in the real world affect social interaction, and are used here to test their effect on participation. Both players were given an endowment in local currency. Player 1 was asked to decide how much of this endowment he would send to player 2. The options given were 0%, 25%, 50%, 75% and 100% of his endowment. The amount chosen by player 1 was trebled and sent to player 2. Player 2 was then asked to decide how much to return to player 1 for each possible offer from player 1. After making the decision, both players were asked to predict the decisions made by the other player.

Two behavioral outcomes are measured in this game: trust and reciprocity. As is well known, the Nash equilibrium of this game is that no

transfers are made among the players. Since anything that player 2 sends to player 1 is less money that s/he keeps, player 2 has no incentive to send any amount of money to player 1. Accordingly, assuming rationality, player 1 (who is reasoning by backward induction) will therefore send nothing to player 2.

However, should both players agree ex-ante to share the earnings of the game, the best player 1 could do is to send his whole endowment to player 2. Comparing the Nash equilibrium with the players' social optimum it follows that higher initial offers (by player 1) are interpreted as signals of more trust and higher returns by player 2 are interpreted as signals of more reciprocity. Because each player knows the socio-economic characteristics of the other player, this game isolates the extent of trust and reciprocity among individuals by controlling for individual's characteristics. In this paper, only attitudes towards trust on others are considered.

When dealing with measures of trust, researchers have generally relied on subjective measures stemming from international surveys, such as the World Value Surveys (WVS) and Latinobarómetro (Latin America). These subjective measures have been challenged as being true representations of trust by different scholars. Since in this paper I use revealed measures of trust, I overcome the difficulties that any subjective measure may exhibit as a potential determinant of any behavior<sup>12</sup>.

I compute Trust as the percentage of money that player 1 initially transfers to player 2. As described above, player 1 is given the chance to transfer nothing, 25%, 50%, 75% or 100% to player 2, without knowing how much money player 2 will transfer back. Thus, our measure of Trust takes values 0, 0.25, 0.50, 0.75, or 1.

Table 1 shows that the mean value of trust is 2.78, meaning that on average, players 1 transferred almost half of their income to players 2, irrespective of how players 2 would respond (i.e. transfer back to players 1). This contradicts standard economic theory, which postulates zero transfers.

### Personal Characteristics and Other Controls

I first consider Altruistic characteristics of an individual, which here are measured by the response to the question of whether the person feels individuals should share part of their income with poor people. This variable takes the value of 1 when the individual agrees with that statement, 0 otherwise. More than 65 percent of respondents agree with sharing income with the poor.

My second control, Education, is measured by the declared years of education reported by each individual. The variable takes values ranging from 0 (no education) to 28 years of education. Higher levels of education are more participation: education has a positive effect in all forms of civic engagement (OECD, 2006) associated with positive incentives. My third control, Age, is measured by a categorical variable that takes values from 1 through 4, where each value represents an interval of years<sup>13</sup>. Next, Gender is measured by a binary variable where 1 corresponds to female. Finally, Income is categorized in three levels; low, medium and high according to neighborhood of residence in each city. The omitted category is low income. All these three controls are expected to show positive association with participation. Last but not least, fixed city effects are considered and the omitted city is San José (city number 6).

OLS regressions for Trust are run first. Because the dependent variables are categorical, OLS results may be biased. I test for robustness by running ordered Logit regressions. Since my measure of trust computes the monetary

transfers of player 1 to player 2, the total number of valid observations is reduced to approximately half of that number.

## Results

Table 3 reproduces Table A1 of Cárdenas et al (2009) which shows basic demographic characteristics and characteristics of the games in each city. Table 4 shows the ordered logit results for the effect of Trust on our measures of civic engagement<sup>14</sup>.

The second column shows the effects on civic engagement. The most relevant conclusion is that the institutional form, trust, is not significantly associated with higher levels of social capital for any level of trust. This result refutes prior conclusions of Putnam (2000) in his study of Social Capital in Italian regions and Klesner (2007).

The third column shows that Trust and intensity of participation are not significantly associated either. In sum, Trusting others more not only does not affect the odds of participating but also does not affect how intense that participation would be.

As expected, altruism increases the likelihood of participating. It does not affect intensity, however. More educated people participate more than those with less education, while older men and women participate more than the young. Finally, wealthier individuals are more likely to participate than low income people.

With respect to participation intensity, only older individuals seem to participate more. Country fixed effects are not significant (with the exception of Lima) and do not appear to affect the direct effect of revealed measures of trust on civic engagement.



Table 5 shows the results for the marginal effects of Trust on Participation and Participation intensity. The least trusting individuals (those Players 1 who do not give anything to the Player 2) are the omitted category. Table 5 confirms the results outlined in Table 4: trusting others more does not change the probability of participating in civic organizations.

## **Conclusions and Discussion**

This paper has analyzed the importance of institutional forms such as Trust, preferences, and socio economic characteristics on civic participation in Latin America. Data was gathered by combining information from a survey on appropriate samples of six Latin American cities with information on attitudes and beliefs drawn from experimental settings. Since revealed attitudes instead of self-reported measures on trust on others are considered, I overcome many of the difficulties faced by studies which rely on the latter.

The main contributions of this paper are the following: first, it uses a novel and different data base than prior studies on the subject have used which consists on experimental games, and it relates to six Latin American cities, filling the gap on this issue with respect to less developed countries.

This paper shows that an Institutional form such as Trust is not statistically associated with participation in voluntary organizations. If civic engagement is considered a form of Social Capital, this paper shows that trust is not directly associated with social capital, implying potential long term consequences for economic development. These results contradict prior theoretical and empirical studies such as Putnam (2000) and Klesner (2007) which use self-reported measures of trust instead of revealed actions as in this paper.

On the other hand, the conclusions of this research suggest that earlier theories of Civic Participation (Weisbrod, 1975; Hansmann, 1980) which postulated that trust, by reducing the relative importance of market and public failures reduce the need for civic participation, also fail to establish a correct association between the two.

Socio-demographic variables such as, education, higher incomes and age are also associated with higher levels of social capital. These conclusions tend to reinforce prior theoretical and empirical studies such as OECD (2006) on education and Delli Carpini (2000) on age. The latter effect may be associated with the changing pattern of socialization through social networks: old forms of direct participation seem to be giving ground to cyber forms, which are used basically by the young.

Although the results suggest that trust and civic participation are not significantly associated, one opportunity for future research would be to build a model of the determinants of trust considering explicit micro economic foundations that may improve on the reduced form analysis presented here. Alesina and La Ferrara (2000) is an attempt in this direction, but focused only on the United States of America.

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## Tables and Figures

**Table 1**

**Participation and Independent Variables**

**Summary Statistics**

Variable	No Observations	Mean	St. Dev	Min	Max
Participation	3098	.6316	.8852	0	7
Hours	3069	8.551	20.69	0	293
Trust	1525	2.784	1.127	1	5
Altruism	2962	.6532	.4760	0	1
Education	3108	11.77	3.676	0	28
Female	3108	.5553	.4970	0	1
Age	3109	2.215	1.011	1	4
Mid Income	3103	.3490	.4767	0	1
High Income	3103	.2558	.4364	0	1

**Table 2**

**Participation rates and Trust on Others in the World and in Latin America (%)**

Organizations	1981(1)	1995(1)	2005(1)	IADB-LAC(2)
Religious	9.84	17.39	21.27	14.23
Sports	n.a	12.64	13.93	14.49
Arts	3.06	8.62	9.86	6.04
Labor	1.68	5.17	5.72	3.10
Political Parties	2.02	4.77	5.78	2.52
Environmental	1.18	3.30	4.65	2.29
Professional	3.01	6.08	6.94	n.a
Charitable	5.04	5.78	7.92	4.87
Other Organizations	n.a	5.42	5.32	1.13

(1) World Value Surveys. Report individuals who declared to be active members .

(2) Reports individuals who declared to be participants.

n.a: not asked in survey



**Table 3**

**Demographic Characteristics of the Participants in the Experiments**

<b>Descriptive Statistics</b>	<b>Bogotá</b>	<b>Buenos Aires</b>	<b>Caracas</b>	<b>Lima</b>	<b>Montevideo</b>	<b>San José</b>
Average age	37	40	35	37	41	37
Percent of female population	55	53	51	52	55	54
Percentage with public education	72	82	73	83	90	89
Percentage working in the public sector	10	14	25	11	17	21
Percentage with social security	89	66	40	26	78	59
<b>Parental relationship (percentage)</b>						
Household head	44	43	25	38	45	38
Wife/Husband	22	25	26	24	20	23
Son/Daughter	25	27	32	20	25	24
Other	9	4	17	8	10	14
<b>Marital Status (percentage)</b>						
Single	34	34	44	36	30	40
Formal/Informal Union	48	52	50	51	47	45
Divorced, Widow	18	14	7	13	23	14
<b>Educational Level (percentage)</b>						
Secondary Incomplete or less	43	52	55	31	60	59
Secondary Complete	27	20	24	36	15	16
Tertiary Complete or Incomplete	30	28	20	33	25	25
<b>Socio-economic level (percentage)</b>						
Low	47	52	34	59	22	27
Middle	38	27	52	25	55	50
High	15	20	14	17	23	23
<b>Sessions</b>						
Number of Participants	567	498	488	541	580	415
Number of Sessions	28	25	25	25	28	17
Size of the group for the smallest session	12	14	14	14	14	10
Size of the group for the largest session	29	30	28	32	30	39
Average size per session	21	20	20	23	22	27

Table 4

## Regression Results for the Effect of Trust on Participation and Participation Intensity

Independent Variables	Dependent Variables	
	Participation	Participation Intensity
Trust2	0.029 (0.19)	-0.028 (0.31)
Trust3	0.236 (0.18)	0.162 (0.30)
Trust4	0.247 (0.21)	0.524 (0.33)
Trust 5	0.344 (0.23)	0.369 (0.38)
Altruism	0.301*** (0.12)	0.286 (0.20)
Education	0.072*** (0.02)	0.04 (0.03)
Female	-0.021 (0.11)	-0.078 (0.18)
Age	0.271*** (0.05)	0.223** (0.09)
Mid Income	0.121 (0.13)	-0.019 (0.23)
High Income	0.265* (0.15)	0.118 (0.24)
City1: Bogotá	0.058 (0.20)	0.336 (0.33)
City2: Buenos Aires	-0.135 (0.22)	0.063 (0.35)
City3: Caracas	-0.196 (0.22)	0.574 (0.36)
City4: Lima	-0.486** (0.21)	-1.003** (0.42)
City5: Montevideo	-0.264 (0.21)	0.011 (0.34)
Observations	1,441	1,432

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Table 5**  
**Regression Results for the Effect of Trust on Participation and Participation Intensity**  
**Marginal Effects**

Independent Variables	Dependent Variables		
	No participation	Highest Participation	Participation Intensity
Trust2	-0.007 (0.046)	0.000 (0.002)	0.002 (0.02)
Trust3	-0.058 (0.045)	0.000 (0.003)	-0.014 (0.027)
Trust4	-0.061 (0.052)	0.000 (0.004)	-0.052 (0.037)
Trust 5	-0.084 (0.056)	0.000 (0.005)	-0.035 (0.041)
Observations	1441	1,441	1,432

Robust standard errors in parentheses  
 \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

## Endnotes

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<sup>1</sup>One important issue concerning the building of social capital is the extent to which individuals engage in social participation, for example doing volunteering work and participating in political activities. See Alesina and La Ferrara (2000)

<sup>2</sup>García y Marcuello (2004). Of course, voluntary organizations are linked to policies associated to those sectors.

<sup>3</sup> Empirically, Dora Costa and Matthew Khan (2002) review 15 empirical articles (up to their work) dealing on how different forms of heterogeneity influence the level of civic engagement and the formation of social capital. They also perform their own analysis using data on volunteering from the Current Population Surveys (CPS) of 1974 and 1989 and from the DDB Lifestyle Surveys for the 1975-1998 years. While the review suggests a negative relation between heterogeneity and participation, their own analysis appears to confirm the economic hypothesis of a positive relation. Since their analysis is based on simple correlations, the authors suggest that more detailed analyses are needed to obtain more definite conclusions.

<sup>4</sup> Do individuals have preferences for trusting others or trust may be considered as a belief? For a nice discussion on this issue see Sapienza et.al (2013)

<sup>5</sup> Klesner (2007), Weitz-Shapiro and Winters (2008), and Taniguchi et.al (2014) are examples of survey-based studies of participation.

<sup>6</sup>The project explores trust, reciprocity, risk aversion, social attitudes, exclusion and participation for representative samples in six Latin American cities. On chapter of the project took place in Montevideo, and was conducted at Universidad ORT Uruguay. See Cardenas et.al (2008,2009)

<sup>7</sup> They also investigate the effect of Trust on Charitable Giving, which I do not consider in this paper.

<sup>8</sup> Some scholars have argued that since social trust has remained relatively stable through time, it may be considered a determinant of civic engagement. I do not attempt to gauge into causality issues in this paper, however.

<sup>9</sup> For a full description of the experimental setting and survey see Cardenas et.al (2008, 2009) and Candelo, N. et.al (2007)

<sup>10</sup> The six cities were Bogotá, Buenos Aires, Caracas, Lima, Montevideo and San José (Costa Rica). The individuals were selected based on convenient samples aimed at obtaining empirical distributions as close as possible to those of the populations of each city.

<sup>11</sup> In this sense, Trust is sometimes considered as a key component of Social Capital

<sup>12</sup> For an analysis of the pros and of survey-based data versus experimental data, see Fehr et al (2003).

<sup>13</sup> Persons between 17 and 27 years are given a value of 1, those between 28 and 38 are given a value of 2; a value of 3 is assigned to those between 39 and 59, while those between older than 60 are given a value of 4.

14OLS results are available upon request