

## Perceptions of Institutions and their Effect on Social Trust in Panama

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*Research on social trust has generally linked it to membership in voluntary organizations, where participants—due to constant social interactions—are more likely to trust strangers. However, scholars in the field have devised a different theoretical framework, one which accounts for the perceptions of institutions on social trust, specifically those involved in the universal enforcement of norms (e.g. the judicial system). This research seeks to contribute to the debate through a model that empirically evaluates the effect that the perceptions individuals' hold of their institutions has on their willingness to trust strangers, while controlling for participation in voluntary organizations. To do this I will make use of 2008 data on Panama from the Latinobarómetro. The focus on a specific country allows for an analysis of the institutional context, helping one understand how the perceptions of these institutions are formed in the minds of citizens. The results show that there are significant impacts on social trust from the perceptions individuals have of institutions involved in the universal enforcement of norms.*

### Introduction

Is social trust affected by the way an individual perceives their government institutions? If institutions tasked with enforcing rules are perceived to be corrupt or inefficient, does this reduce social trust levels? The focus of this research runs contrary to the guiding theoretical framework which emphasizes social organizations and their ability to create social bonds by fostering social norms (Fukuyama 2001).

Social trust has been posited as a measure of an individual's trust in and willingness to cooperate with others (Knack 2002). Social trust is an essential aspect in regulating democratic institutions because it reduces collective action problems by creating a cohesive bond between citizens. Its positive relationship is rooted in the ability for social trust to foster a collective identity, which gives citizens a reason to voice disagreements collectively and to hold public

institutions accountable. The positive impacts from high levels of social trust have been demonstrated empirically. For instance, Knack and Keefer (1997), in a cross-country study on 29 market economies using 1990-1991 data from the World Values Survey, found a significant connection between trust levels and economic growth. High social trust can also improve governance as demonstrated in research conducted by Bjørnskov (2010), who found a significant positive relationship between social trust levels and improved governance, as measured using Transparency International's Corruption Perception Index.

Through this research I hypothesize that perceptions of institutional quality, as measured by government enforcement mechanisms (i.e. perceived institutional quality and judicial fairness), should have an effect on an individual's trust in others, while controlling for their participation in voluntary organizations. I will be using the 2008 Latinobarómetro dataset on Panama to demonstrate this relationship. This model seeks to provide an empirical analysis of social trust levels in Panama, specifically to counter an argument made by Francioni (2011), who attributes the low levels of social trust in Panama to a culture that is hesitant to implement social change. She suggests that change must be nurtured from the bottom-up through voluntary organizations. However, this argument fails to address any exogenous factors that may be affecting social trust levels, particularly the influence from corrupt politicians or institutions. If the perceptions individuals hold of institutions have an effect on social trust levels, it should then influence collective action. Therefore, factors related to the perception of government enforcement mechanisms should have a positive relationship to trust, as the government is expected to enforce norms that would reduce the likelihood of free-riding in society.

In the literature on social trust there are two guiding theoretical frameworks, which are the society-centered approach (i.e. through associational group involvement) and an institution-centered approach. The organization of this research is as follows. The first section will distinguish both of the theoretical frameworks that guide this research, the following section outlines the institutional context

of Panama, and the final section outlines the empirical model that will provide support for an institution-centered approach.

### **Society-Centered Approach**

The society-centered approach rests on the foundation that involvement in voluntary groups generates social trust. Robert Putnam popularized this approach in his 1993 book on social capital production in Italy, *Making Democracy Work*. His findings pointed to a link between the existence of dense networks of voluntary organizations and the quality of governance (Rothstein 2005, 90-92). He found that the higher the level of citizen participation, in a particular region, the more likely the region was to have efficient institutions, which he measured in terms of corruption levels. The assumption of this approach is a bottom-up effect; namely that membership in voluntary organizations increases trust levels, which in turn creates positive spillovers. This assumption stems from the notion that the greater the participation in voluntary organizations the more effective democratic institutions will be, due to the creation of a responsive citizenry (Herrerros 2004). What emerges from this is a positive feedback mechanism, where the constant social interaction with other people generates social solidarity, causing people to form pro-social dispositions (Fukuyama 2001).

The conclusions that are often drawn from these studies are ones based entirely on cultural factors (Nannestad 2008), attributing blame to a group or populace of a region, while discounting exogenous issues, such as poverty, corruption, or crime (i.e. structural factors) (Rose-Ackerman 2001). Another point of criticism is the lack of empirical evidence demonstrating a causal link between membership in voluntary organizations and social trust (Uslaner and Rothstein 2005; Montero, Zmerli, and Newton 2008). There are instances when voluntary organizations can be detrimental to society, as the exclusive/inclusive nature of voluntary organizations may cause members to distrust others (e.g. organizations like the Klu Klux Klan). Research by Satyanath, Voigtländer, and Voth (2013) offers support to this possibility, as they demonstrate how Nazi-party members were able to use voluntary organizations as a venue for spreading propaganda to gain support from the general populace.

### **An Institution-Centered Approach**

The institution-centered approach views trust as a result of the political context, or what Duit (2010) referred to as a “trickle-down-effect.” In this theory, what dictates social trust is a perception of fairness, a belief that public officials are conducting their office as impartial stewards. These are the perceptions people hold of the government’s ability to establish universally enforced rules (Uslaner and Rothstein 2005). The government plays a valuable role as a third-party enforcement mechanism, establishing guidelines for conduct. The importance of enforcement mechanisms in creating trust has been demonstrated through lab experiments, where research has found that the existence of enforcement mechanisms facilitated cooperative outcomes (Fehr and Fischbacher 2004; Shinada and Yamagishia 2007).

With the government serving as an enforcement mechanism, public officials become a reference group from which people judge the trustworthiness of others. This link is supported by lab experiments, such as the one conducted by Rothstein and Eek (2009). The experiment involved measuring the trust levels of Swedish and Romanian students after they were presented scenarios involving actions taken by authority figures. They found that the perception of government officials as partial and corrupt dictated a student’s trust in others. The authors concluded that trust in strangers is affected by a person’s perceived behavior of authority figures. The experiment’s purpose was to demonstrate that levels of trust are a product of systemic issues (e.g. corruption), rather than cultural factors. According to the World Values Survey, Sweden has a higher social trust level than Romania. If trust were a product of cultural factors this would bias the results, but when the scenarios were presented to the students their reactions were consistent, regardless of their cultural background.

Perceptions of fairness have an empirical link to higher levels of social trust. Through a cross-country analysis utilizing data from the World Values Survey, You (2012) found that objective measures of fairness (i.e. control of corruption, rule of law, and GINI coefficient) influenced social trust levels. Villoria, Van Ryzin, and

Lavena (2013) find a similar relationship using subjective measures from a 2009 Spanish survey data. The authors find that the perception of corruption by citizens affected their attitudes towards social trust and institutional trust. Richey (2010) finds a similar relationship in the United States, even after controlling for known determinants of trust.

In conclusion, the institution-centered approach rests on the assumption that individuals are drawing inferences from public officials. These inferences are based on whether they are engaging in unpunished deviant behavior, which can possibly undermine the legitimacy of third party enforcement mechanisms. People may begin to ask, "If public officials are able to freely engage in opportunistic behaviors, why aren't others?" These doubts become internalized, leaving an individual with no reason to cooperate due to the impression that opportunistic behavior is rampant or at least unpunished (Rothstein 2005, 121).

### **Constitutional Accountability Measures**

The executive branch is composed of the president, vice-president, and the various ministries. The president has the power to appoint and remove ministers. Through these ministries the president is able to direct and control all aspects of the state (Montenegro 2009, 48). This section will go over some of the institutional context, introducing the reader to factors that may potentially influence the perceptions citizens' hold of their politicians, which according to an institution-centered approach should affect their willingness to trust others.

The legislative branch has the constitutional power to investigate the executive branch if any formal complaints are filed (Panama Const. art. 160). However, this rarely occurs as the president's political party has usually dominated the legislative branch, or has been able to do so through a political alliance with another political party. Another factor that hinders investigation is the fact that the president can entice legislators to switch political parties, through the use of government funds for projects in their constituencies (Mann 2008). The current presidential administration has become well-known for using this strategy to gain control of over

half of the senate (Asamblea Nacional de Panamá 2014). This has prompted La Prensa to create a segment in their newspaper called “*Conoce tu Tránsfuga*” (Know your Party Defector), detailing the gifts the legislators received from the president and reasons for why they switched political parties (La Prensa 2014). Party politics play a huge role in limiting legislative innovation, as the political party has the ability to remove a legislator from their position if they fail to abide by the party’s charter (Panama Const. art. 151).

The Comptroller General’s Office is an autonomous agency designated with the task of auditing and managing the expenses of public officials. However, with the president in charge of nominating a person for this position, it has become a common practice, since the previous administration, to appoint personal friends as the Comptroller General (Montenegro 2009, 67; Nadal 2011, 70). A result of this has been a failure on the part of the Comptroller to audit cost overruns that occur in Ministerial projects (Caicedo 2010).

As a result of an intrusive executive branch, the Panamanian government has not been able to improve its ranking with Transparency International Ranking, which has been rapidly declining relative to other countries (Table 1). The value for this figure ranges from 0 (high corruption) to 10 (low corruption). The table also includes a country ranking, which is a country’s position relative to the 177 countries in the report. As can be seen from the table, Panama has consistently had a ranking of about 3.5, which may not indicate much, but what is daunting is the country’s relative position. From 2004 to 2013, the country has fallen from the 62<sup>nd</sup> position to the 102<sup>nd</sup>. This indicates that Panama’s relative position in the Transparency International ranking has worsened, as other countries have been improving.

**Table 1. Transparency International Ranking of Panama**

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Ranking	62	65	84	94	85	84	73	86	83	102
Score	3.7	3.5	3.1	3.2	3.4	3.4	3.6	3.3	3.8	3.5

Source: Transparency International

**Data**

The 2008 Latinobarómetro data set will be used in this report, as it is one of the few datasets of Corporación Latinobarómetro that asked respondents about their participation in voluntary organizations and a range of questions concerning their perception of institutions. This data set features 1,000 respondents that are chosen through a multistage probability sample based on the 2000 Census. The data should represent 99.2% of the population at a confidence level of 95% with a probability weight to assure representative results (Latinobarómetro 2009).

Although the dataset includes 1,000 respondents, not every respondent answered all the questions, as options such as “don’t know” were available. These values were labeled as missing and are not included in the analysis, resulting in different sample sizes for some of the variables.

**Measures**

The outcome variable in this model is social trust, which gauges a respondent’s trust in strangers. The Latinobarómetro measures trust in a binary manner, which should capture the actual opinion of a person because the answer requires a careful decision, as there are no ambiguous options such as “it depends.” The summary statistics for all variables in the model are included in the appendix. The sections below will describe the independent variables used in the analysis.

***Perceptions of Government Agencies***

In order to assess the perceived fairness of the institutions involved in norm regulation it requires focusing on agencies that are involved in public administration and the judicial system, as partisan individuals may have less trust for an administration that is composed of an opposing political party. Therefore the inclusion of representative institutions (e.g. congress, the executive branch, etc.) would bias the results of the analysis (Rothstein 2005, 108-109).

Respondents were asked a series of questions that list individual institutions from which they must indicate their level of confidence. The institutions chosen for this measure are the judicial branch, the police, public administration, and municipal

governments, as these agencies are tasked with implementing laws. The index is then created using principal component analysis. Overall there is a generally low trust in the institutions featured in this index, as displayed in table 2.

**Table 2. Trust in Government Institutions**

Trust in:	Judicial Branch	Police	Public Admin	Municipal Government
Not at All	44%	36%	43%	40%
A little	38%	37%	39%	34%
Somewhat	16%	22%	14%	19%
A lot	2%	5%	4%	7%
N	946	983	940	944

Source: 2008 Latinobarómetro

To capture a respondent's perceptions of corruption a variable is included that accounts for an individual's belief in the government's ability to reduce corruption over the last two years. Respondents were asked to rate from 1 to 10 their belief that the government is enforcing the laws<sup>1</sup>. This is included in the model so as to account for the belief that the government is enforcing laws, which should increase the likelihood of trusting strangers, as there is credible belief that opportunism will be punished.

### ***Social Embeddedness Variables***

Voluntary organizations can be separated into two groups: those that are of an exclusive nature (i.e. bonding social capital) and those that are inclusive (i.e. bridging social capital). On the one hand, people join exclusive groups for personal enrichment, where they will only interact with like-minded individuals. Examples of this include: political parties, labor unions, religious groups, or sporting groups, because involvement in these groups is predicated on advancing the personal interests of group members. On the other hand,

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<sup>1</sup> The variable is recoded from ten categories into three. I do this by combining the first four categories into the low category and divide the following six into the medium and high categories. This allows for the middle and high categories to be compared to the low category in the model.

membership in community groups, volunteering, or cultural groups will make people interact with a diverse set of people, especially those that may hold different opinions. These types of groups are then more likely to foment pro-social dispositions than exclusive groups (Uslaner and Brown 2005). These two forms of voluntary group membership are grouped in the model as indices, which serve to operationalize the society-centered approach as a way of evaluating the effects from group membership on social trust. The distribution of group membership in the sample is displayed in Table 3 and as can be seen from the table there is very low involvement in inclusive organizations compared to exclusive organizations.

**Table 3. Voluntary Group Membership**

Political Party	20%
Labor Union	5%
Student Group	6%
Community Group	7%
Religious Group	19%
Volunteer	6%
Cultural Groups	5%
Sporting Groups	11%

N=1000

Source: 2008 Latinobarómetro

To account for pro-social respondents that are active in their communities, an index<sup>2</sup> is included to account for the number of times a respondent engaged in an action to resolve a community problem. Six scenarios are included in this index that account for whether a respondent assisted communal meetings, contacted a local representative, contacted a government official, contacted a legislator, contacted a media outlet, or spoken about community issues in a public forum.

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<sup>2</sup> The index was created through a simple summation. The test for internal consistency of this index was 0.94, indicating a high relationship between these six variables.

### ***Control Variables***

To account for any influences from demographic factors the model includes the usual controls, which are age, gender, and education. Education is included due to the possibility that more educated individuals have higher trust levels, as more educated individuals are in a better position to evaluate risks, thereby reducing uncertainty when dealing with strangers (Bjørnskov 2005). The inclusion of an urban residence variable should help control for any effect from environmental factors, as urban areas tend to have a higher crime rate. This prompted the inclusion of a perception of crime measure, in case fear causes people to be overly cautious around strangers and therefore less trusting (Ross, Mirowsky, Pribesh 2002).

A person's economic status may influence their trust in strangers, as economically disadvantaged people are more likely to be in a precarious state than an economically advantaged person. To measure this effect a socio-economic status index was constructed on the basis of asset ownership, the instructions for this are included in the appendix.

### **Analytic Approach**

To test the hypothesis that perceptions of institutions influence an individual's trust in others—more so than their membership in organizations—I employ a multivariate logistic regression analysis. The results are displayed as odds ratios in table 4. Missing values are dealt with using list-wise deletion, reducing the sample size from 1,000 to 785. My model takes the following form:

$$Y_i = \beta_0 + \sum \beta_g X_{gi} + \sum \beta_s X_{si} + \sum \beta_c X_{ci}$$

Where Y represents the trust that individual i has in strangers, which is a function of the perception of government agencies (g) designating the belief in the universal enforcement of norms, social embeddedness measures (s) that measure participation in social networks, and control variables (c).

## Discussion

**Table 4. Logistic Regression of Social Trust**

<b>Independent Variables</b>	<b>Odds Ratio</b>	<b>Robust Std. Err.</b>
<b>Rule of Law Enforcement (ref: low)</b>		
Medium	1.30	0.30
High	2.43**	0.76
Government Trust Index (PCA)	1.32**	0.14
<b>Progress on Corruption (ref: no)</b>		
Some	1.64	0.45
Yes	2.74***	0.74
Community Engagement Index (Scale)	1.13**	0.04
Bridging Social Capital	0.95	0.10
Bonding Social Capital	1.10	0.12
Perception of Crime	0.45***	0.09
Urban	1.64*	0.42
Gender (female)	1.22	0.23
Age	1	0
<b>Education (ref: none)</b>		
Primary	0.62	0.16
High School	0.62	0.20
University (Partial or Complete)	0.72	0.24
<b>Asset Index (ref: 20%)</b>		
40%	1.30	0.40
60%	1.12	0.35
80%	1.20	0.41
100%	1.06	0.37
<b>Intercept</b>	0.09***	0.04

N=785

Values are Weighted

Note: \* p<0.05; \*\* p<0.01; \*\*\* p<0.001

The findings in Table 4 offer support for the hypothesis and model guiding this research, which is that an individual's level of social trust is influenced by their perception of institutions, specifically institutions that deal with the rule of law. The results are still significant even after accounting for an individual's group participation, and their involvement in the community. The results are consistent even after removing outliers (see appendix)<sup>3</sup>.

As for the results of the perception of government agencies, a one unit increase in the government trust index resulted in a 32% increase in the willingness to trust others. The belief that laws are being equally applied increases the likelihood of trusting others by 143% relative to those who have a low belief that laws are being equally applied. The largest effect on trust occurs when one believes the government is tackling corruption, which increases the odds of trusting others by 174% relative to individuals that believe the government has made no progress.

From the results one can draw substantive conclusions concerning the importance of transparency and legitimacy on social order. Social trust is considered an important factor that reduces collective action problems and is a facilitator of civic engagement, which leads to a better functioning government (Fukuyama 2001; Knack and Keefer 1997). Government trust has an important impact on the way in which individuals trust others, specifically trust in the institutions that deal with enforcing laws. This is strengthened by the results from the corruption and rule of law measure, which help confirm a relationship between social trust and government enforcement mechanisms.

Of the social embeddedness variables only community engagement seemed to have a significant effect on social trust. A one-unit increase in community engagement results in a 13% increase in the odds of trusting other people. This result is most likely a product of the fact that individuals who engage in resolving community problems are more likely to be in contact with strangers and therefore they have to rely on others in order to achieve their

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<sup>3</sup> Also featured in the appendix is a scatter plot of the predicted probabilities and linear prediction of the model. To demonstrate the strength of the model at explaining the variance in social trust.

goals. Also there is the fact that individuals who choose to resolve a community problem are placing the problems of the collective above their own personal desires, making them more likely to be the type of person that would be willing to cooperate with others.

### **Concluding Remarks**

A potential problem with the outcomes of the model is the issue of reverse causality. Instead of social trust being determined by the perceptions individuals have of public institutions the reverse may be true, where those who are more likely to trust strangers will have positive views of public institutions. However, lab experiments have found that the existence of institutions increases the likelihood of social trust (cooperative behavior), which offers support for the causal mechanism guiding this research. A downside of the model is an inability to draw causal inferences, as the dataset is not cross-sectional or longitudinal. Perhaps, future datasets will make this possible or the incorporation of more countries, however, incorporating more countries may make an explanation of the institutional context more difficult.

There are some important implications one can draw from this model. First, the model demonstrates that even though participation in social organizations can improve social trust, its impact is not as significant as perceiving third-party enforcement mechanisms as just. This demonstrates the importance of transparency and independent judicial systems in diminishing collective action problems. If citizens feel that their institutions are not conducting their responsibilities in an impartial manner they may be less likely to trust strangers, as they cannot rely on the government to serve as an effective arbitrator. Higher social trust levels have the ability to make democratic institutions more efficient, as the government can dedicate fewer resources to enforcing collective action. Future research could help parse out the effects from institutions themselves and the perceptions individual's hold of these institutions, so as to understand the dynamic that influences social trust.

As for the generalizability of the model, the methods section goes into extensive detail explaining the variables that would serve to

operationalize the theoretical concepts for an institution-centered approach, allowing for its replication with other countries. A downside to research on social capital has been a reliance on the World Values Survey, as this dataset features a limited number of Latin American countries, but this model provides an explanation of how the Latinobarómetro can be utilized to provide more complex data analysis on social trust in Latin America.

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**Appendix**
**Table 5. Summary Statistics for Dependent and Independent Variables**

<b>Variables</b>	<b>N</b>	<b>Mean</b>	<b>Std. Dev.</b>
Social Trust	950	0.22	0.41
<b>Government Perceptions</b>			
Government Trust Index (PCA)	911	-0.02	0.99
Rule of Law Enforcement	936		
Low		0.43	0.50
Medium		0.46	0.50
High		0.11	0.31
Progress on Corruption	963		
None		0.37	0.48
Some		0.31	0.46
Yes		0.32	0.47
<b>Social Embeddedness Variables</b>			
Bonding Social Capital	1000	-0.01	0.98
Bridging Social Capital	1000	-0.01	0.98
Community Engagement Index	1000	3.15	2.61
<b>Control Variables</b>			
Perception of Crime	1000	0.66	0.47
SES Index	965		
SES Index 20%		0.23	0.42
SES Index 40%		0.21	0.41
SES Index 60%		0.24	0.43
SES Index 80%		0.15	0.35
SES Index 100%		0.17	0.38
Urban	1000	0.77	0.42
Female	1000	0.5	0.5
Age	1000	40.51	16.53
Education	1000		

Uneducated	0.3	0.46
Primary	0.4	0.49
High School	0.16	0.36
University	0.15	0.36

### **Socio-Economic Status Index Construction**

The Latinobarómetro does not ask respondents about their income, but they do ask about the ownership of specific assets. In the dataset respondents were asked about the ownership of 14 different assets. According to Vyas and Kumaranayake (2006), capturing the variation in economic status requires only assets that have a high variation in ownership levels. These are assets that have relatively low ownership levels, compared to other remaining asset variables, and the ones that I believe are indicative of differences in wealth. The use of an asset index in this model would serve as the best method of creating an objective measure for the socio-economic status of respondents (Vyas and Kumaranayake 2006). According to Filmer and Pritchett (2001) only the first component from the PCA should be retained, as it captures the largest amount of variance and is more likely to be representative of socio-economic status. The assets that will be used in this model are computers, a washing machine, a car, a second house, hot water, a sewage system, and a shower. For comparison purposes the asset index is split into quintiles.

**Table 6. Distribution of Assets**

Asset	% of Ownership
Computer	18%
Washing Machine	76%
Car	20%
Second House	13%
Hot Water	18%
Sewage System	48%
Shower in Bathroom	61%

Source: 2008 Latinobarómetro

### **Principal Component Analysis Factor Loadings**

**Table 7. Government Trust Index**

Agencies	Factor Loadings
Judicial	0.85
Police	0.63
Public Administration	0.88
Municipal Governments	0.83

Only a single factor was extracted.

The factor accounts for 64% of the total variance.

**Table 8. SES Index**

Asset	Factor 1	Factor 2
Computer	0.64	0.10
Washing Machine	0.42	-0.55
Car	0.42	0.54
Second House	0.53	0.43
Hot Water	0.59	0.34
Sewage System	0.68	-0.33
Shower in Bathroom	0.61	-0.42

Two factors were extracted, but only the first one is used in the analysis

The first factor accounts for 32% of the total variance and the second

and the second factor explains 17%.

**Table 9. Bridging Social Capital**

Groups	Factor Loadings
Community Group	0.66
Volunteer	0.70
Cultural Groups	0.69

Only a single factor was extracted.

The factor accounts for 47% of the total variance.

**Table 10. Bonding Social Capital**

Groups	Factor Loadings
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Political Party	0.60
Labor Union	0.53
Student Group	0.48
Sporting Groups	0.63
Religious Group	0.56

Only a single factor was extracted.

The factor accounts for 32% of the total variance.

**Table 11. Logistic Regression of Social Trust with Outliers Removed**

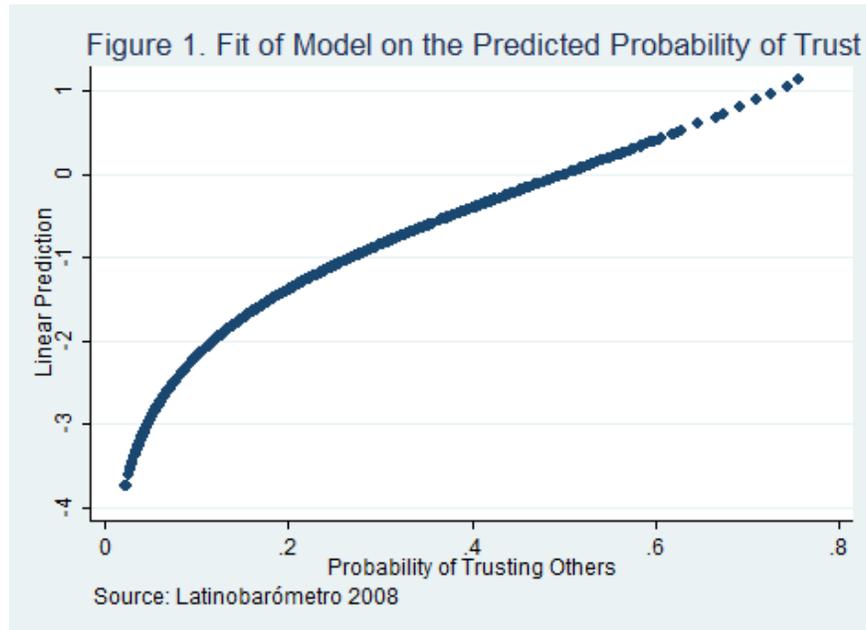
<b>Independent Variables</b>	<b>Odds Ratio</b>	<b>Robust Std. Err.</b>
<b>Rule of Law Enforcement (ref: low)</b>		
Medium	1.29	0.30
High	2.46**	0.79
Government Trust Index (PCA)	1.35**	0.14
<b>Progress on Corruption (ref: no)</b>		
Some	1.70	0.48
Yes	2.87***	0.79
Community Engagement Index (Scale)	1.15***	0.04
Bridging Social Capital	0.94	0.10
Bonding Social Capital	1.13	0.12
Perception of Crime	0.44***	0.09
Urban	1.71*	0.45
Gender (female)	1.25	0.24
Age	1	0
<b>Education (ref: none)</b>		
Primary	0.59*	0.15
High School	0.57	0.19
University (Partial or Complete)	0.72	0.24
<b>Asset Index (ref: 20%)</b>		
40%	1.35	0.42
60%	1.20	0.38
80%	1.30	0.45

100%	1.06	0.38
<b>Intercept</b>	0.08***	0.04

N=781

Values are Weighted

Note: \* p<0.05; \*\* p<0.01; \*\*\* p<0.001



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