A Cross-National Study on the Effects of Social Capital on Voter Turnout

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Abstract

      Social capital, as made iconic by renowned scholars such as Robert Putnam, has become an integral part of the political science discipline. Among the many factors that social capital is argued to influence, the impact that it has on political participation has been broadly studied with little consensus. In particular, the effects of social capital on voter turnout remain contested. While some work has been done to understand some of the factors that influence social capital, this study moves beyond this relationship and utilizes social capital as an explanatory variable. This research operationalizes social capital in terms of both interpersonal and societal trust and formal community membership in order to understand the effect that it has on voter turnout through a cross-national analysis of 48 democratic countries. Using the World Values Survey and IDEA, our findings show that higher levels of interpersonal and societal trust lead to higher levels of voter turnout in our list of democratic countries while formal community membership has no effect.

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Introduction

Amidst the number of increasing citation counts on social capital, Robert Putnam brought the concept into the realm of Political Science through his seminal work *Bowling Alone* (2000) (Ostrom, 2007). Since then, the number of scholars researching both the causes and effects of social capital in a myriad of fields has steadily increased.

There is a wealth of literature on the various definitions, measurements, and influences both on and of social capital. We seek to maximize the relevance of our results by building upon existing foundations in the literature. The concept of social capital as a whole is not relatively new, but many scholars attribute increased attention to it as having been populated by the works of Bourdieu (1986) and Coleman (1988), which some argue is different from the political science approach towards social capital that is often recognized through works by Putnam (1993; 1995; 1997; 2000). Although social capital has been increasingly used in the social sciences, some scholars indicate that a conceptual gap persists as a result of being unable to reach a consensus on how to define it (Bjørnskov, 2006). Our study follows Putnam's definition of social capital in *Making Democracy Work* (1993) in which he defined it as "features of social organization, such as trust, norms, and networks, that can improve the efficiency of society by facilitating co-ordinated actions" (167).

We focus on two ways to operationalize our explanatory variable social capital in this paper that are consistent with most of the literature: interpersonal and societal trust and formal community membership. Our metric of trust is a compilation of responses to questions in the World Values Survey concerning social and interpersonal trust to capture a sense of "trust in the other" (Putnam, 2000, pp. 137). Our second consideration of

formal community membership consists of the responses individuals gave to questions regarding their membership in various groups. Our dependent variable is voter turnout in legislative elections. While not the only important factor in defining democracies, voting is an integral part of participation in the democratic process that is generally more accessible and less costly than other means of political participation. Therefore, it is important to understand potential determinants of voter turnout in order to alleviate obstacles or foster encouragement.

Many scholars have pointed to the impact of social capital on various aspects of social, economic, or political life, but few have thoroughly studied the effect of social capital on voter turnout. Additionally, by examining the relationship cross-nationally as we do in our paper, our findings have the potential to find global trends beyond a single country or region. We find our study to be relevant because we do not take the potential effects of social capital for granted, nor do we assume that trends in one country will hold for the rest. We incorporate a vast number of cases while also utilizing data from accessible sources. Similarly, voter turnout is an essential aspect of democracy. Any studies that can offer useful recommendations for increasing voter turnout, especially recommendations that work cross-nationally, can contribute not only to the literature, but also to the functioning of democratic systems in the world. In writing this paper, we hope to contribute to the literature on social capital and political participation.

The specific research question that we pursue in this paper is: *How does social capital affect voter turnout in democracies?* In order to understand this relationship, we examine how social capital affects voter turnout in 48 democracies around the world. We pursue two hypotheses that are guided by previous literature. Hypothesis 1 states that by

measuring social capital solely as formal community membership in community organization, higher levels of social capital do not lead to higher levels of voter turnout in democratic countries. Hypothesis 2 states that by measuring social capital in terms of both interpersonal and societal trust and formal community membership, higher levels of social capital lead to higher levels of voter turnout in democratic countries. We test both hypotheses using data from responses on the World Values Survey (WVS) concerning formal community membership along with interpersonal and societal trust as well as percentages of voter turnout in legislative elections from the International Institute for Democratic and Electoral Assistance.

In pursuit of our research question and two hypotheses, we begin our paper with a discussion of existing theories behind social capital and its causal mechanisms. We also discuss potential research about the impact social capital has on political participation in general and specifically on voter turnout. The theories that help explain the findings of our paper are thus guided by the presentation of existing literature. We then provide a discussion of our research design, taking particular care in defining our variables conceptually and in operationalizing them as well as the descriptive statistics we utilized. An explanation of the findings for our hypotheses is then provided along with how they are consistent with our theories. The paper concludes with the consideration of potential avenues for additional research in light of our preliminary findings.

Literature Review and Theory

There are two interpretations of the influence that social capital has on political participation. One major school of thought posits that lower levels of social capital lead to greater levels of political participation within a community. Some scholars suggest that

this stems from feelings of grievances citizens have towards their community (Gurr, 1970). Others provide a different relationship to explain the increase in political participation. Often called the *critical citizen theory* or *dissatisfied democrat theory*, these scholars argue that political participation increases when people feel dissatisfied with the performance of their democracy yet still support democratic ideals (Dalton and Welzel, 2015). Yet sentiments of negativity about the performance of government are not always argued to be a determinant of increased political participation. In *The Civic Culture*, Almond and Verba (1963) argue that political participation increases as political trust, among other factors, increases within a community. This comes from feelings of political efficacy in which citizens feel more confident that they can contribute and make a difference within their communities.

Our study is not the first to utilize social capital as an explanatory variable. Some scholars have used social capital as a factor in explaining economic performance (Putnam et. al, 1993; Fukuyama, 1995). Yet Beugelsdijk & Schaik (2005) characterize this as a spectrum in which Putnam et. al focus on the network aspect of social capital while Fukuyama focuses on trust. Nor are they the only ones to question whether only certain facets of social capital yield significant effects (Bjørnskov, 2006). Additionally, a myriad of scholars question both the sources and influences of social capital either as a whole or disaggregated. Given this wide range of literature on various issues related to social capital, we briefly focus on the literature most relevant to our definitions and the influence of social capital on voter turnout before then turning to our theory.

Our study moves beyond the factors that influence social capital and how social capital affects political participation. Rather than addressing political participation

broadly, we focus on the influence social capital has specifically on voter turnout. In defining social capital through interpersonal and societal trust and formal community membership, we theorize that higher levels of social capital lead to higher levels of voter turnout within democratic countries.

Scholars often differ in their operationalization of social capital while remaining close to the concepts of norms, membership, and trust. But the variation among decisions in how to measure these three concepts has consequences for the results found in each study. We focus on two of the three measures of social capital in our study, trust and membership, that are similar to measurements utilized by other scholars in the field (Putnam et al., 1993; Beugelsdijk & Schaik, 2005). Given the cross-national nature of our study, we do not include norms in our measurement of social capital.

We find that responses to the formal community membership component of social capital to be more susceptible to global changes than our measurement of societal and interpersonal trust. As the forms of formal community membership shift, we consider current measurements to be outdated despite being true to the components considered by Putnam. Responses on surveys regarding interpersonal and societal trust, on the other hand, are more likely to reflect contemporary changes as they assess individual sentiments rather than membership in existing structures that change over time. We test this argument by first assessing the influence that formal community membership alone may have on social capital. Then, we test social capital through the influence that interpersonal and societal trust has, by controlling for formal community membership, on voter turnout.

The explanations behind why social capital influences voter turnout are numerous. We turn towards Condon's (2009) characterization of several relevant discussions in the literature to guide our theory. On one hand, some scholars consider social capital to be a means in which networks are able to enforce norms of political participation, particularly in the realm of voter turnout (Gerber, Green, & Larimer, 2008; Huckfeldt and Sprague, 1987). On the other hand, other scholars argue that, as a result of social capital, political information is able to flow more freely and political information increases as a result (Huckfeldt, 1998; Downs, 1957).

Lastly, some scholars posit that the increase of interpersonal trust and associational membership can result in an increase in institutional trust over time (Keele, 2007) whereas others argue the opposite in that trust in services from institutions results in greater interpersonal trust (Newton, 2007). We contend that interpersonal and societal trust results in greater voter turnout as a result of individuals feeling compelled to vote as a means to ensure the protection of the people around them as they begin to trust the people around them more. Greater levels of trust in a community enhance the desire to contribute to, as well as protect, members of the community – and one of the major methods of doing so is through voting. Thus, our hypotheses for our theory is twofold:

> H1: By measuring social capital solely as formal community, higher levels of social capital do not lead to higher levels of legislative voter turnout in democratic countries
>
> H2: By measuring social capital in terms of both interpersonal and societal trust and formal community membership, higher levels of social capital lead to higher levels of voter turnout in democratic countries.

Data and Methods

Our definition of social capital works in two ways. In H1, we use various forms of formal "membership" in community organizations.[2] In H2, we expand this definition by emphasizing levels of interpersonal and societal "trust" into our definition of social capital while controlling for formal community membership. Both measurements are found through survey questions from Wave 5 of the World Values Survey (WVS), since the WVS has regularly conducted one of the largest cross-national opinion surveys since 1981. Our cases consist of the democratic countries in Wave 5 of the WVS with a score of one to five on the Freedom House Index.[3]

Measuring Voter Turnout

In order to measure legislative voter turnout[4], we use data from a voter turnout database compiled by the International Institute for Democracy and Electoral Assistance (IDEA). The IDEA database provides us with voter turnout percentages for all of the countries used in our study based on both voting age population and percentage of registered voters from the most recent national election. We find the most recent voter turnout, which range from 2010 to 2014, and we utilize the percentages of the voter

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[2] This paper focuses on only the formal/traditional communities and avoids attempting to measure other forms of membership (e.g. Internet-based groups). However, we do discuss the implications that changes in such membership can have for the measurement of social capital later in the paper.

[3] Countries that scored between one and five on the Freedom House index for the year that they were included in wave 5 of the WVS are included while countries that did not were considered non-democratic and were thus excluded from this study. We believe that information regarding voter turnout in countries that scored below five would be less meaningful, so we left those countries out of our model. We attribute this to a lack of reliable voter turnout measurements and WVS response. Focusing on countries that scored between 1 and 5 on the Freedom House Index limits the likelihood for confounding/omitted variables that could influence voter turnout.

[4] In order to maintain consistency, we used voter turnout percentages from the most recent legislative election in each country.

registration population of each country. We measure voter turnout through voter

registration population since it provides the actual percentage of registered voters that

voted in the most recent elections and is adjusted for non-citizens who can vote.[5]

Measuring Social Capital & Control Variables

In order to measure our explanatory variable of social capital, we draw data on

formal community membership and interpersonal and societal trust in 48 democratic

nations covering six continents from Wave 5 of the WVS.[6] In order to provide the

appropriate time lags, data on interpersonal and societal trust and formal community

membership (X variable) come from the time span of 2005-2009, while data for

legislative voter turnout (Y variable) comes from the time span of 2010 to 2015.

To test our hypotheses, we use eleven questions from the WVS regarding formal

community membership and seven questions regarding interpersonal and societal trust

(the full list of questions can be found in the Appendix). These questions include holistic

community survey questions along with the mean scores for membership and trust within

a community. Each question is re-coded into a $0 \rightarrow 1$ scale, with 0 representing no

community membership or trust and 1 representing 100% membership or 100% trust.

For formal community membership, the responses for each question are coded 0

for non-members, 0.5 for inactive members, and 1 for active members. People who self-

report being inactive members of a community group have a different level of belonging

than people who report being active members. Thus, the two categories are weighted

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[5] We do not use voting age population due to the potential data limitations that come from
measuring voter turnout in this manner. Voting age population includes ineligible voters, which
can become a problem in large cross-national studies as there may be large variances in ineligible
voting populations between countries.
[6] We use Wave 5 (2005-2009) of the WVS rather than Wave 6 (the most recent wave of 2010-
2014) in order to demonstrate the causal effect of social capital which would not be possible with
the latter since Wave 6 occurs simultaneously with the voting process.

differently when calculating our mean score for formal community membership. Higher

mean scores correspond to higher levels of formal community membership.

For interpersonal and societal trust, the question based on "Most people can be

trusted' has two answer choices. The response of "Most people can be trusted" receives a

score of 1 while "Need to be very careful" receives a score of 0. Each of the other six

questions that make up the mean score for interpersonal and societal trust have four

responses to choose from, in which higher mean scores correspond to higher levels of

interpersonal and societal trust. The answers are scored as follows:[7]

"Trust completely" = 1
"Somewhat" = 0.75
"Not very much" = 0.25
"No trust at all" = 0

We calculate the mean score of the answers of each question of every country,

and then we find the average of all of the means of the eleven community-based

questions and the seven trust-based questions for each democracy. We categorize them

into two groups: one for formal community membership and one for trust. Then, we run

an ordinary least squares (OLS) regression to test the effects of both on legislative voter

turnout, by first testing forma community membership and then testing interpersonal and

societal trust and using formal community membership as a control variable.

Our model also includes a set of control variables which are significant as

potential determinants of voter turnout and can be potential confounders of the

relationship between social capital and voter turnout. The control variables include

compulsory voting, which is made into a dummy variable with a 1 for compulsory voting

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[7] For all survey questions, responses of "Don't know" and "No answer" are dropped.

and a 0 for any country without compulsory voting; *levels of freedom* through the

Freedom House Index, which ranges from 1 to 5; measures of *population* for each

country provided by the *World Bank; annual GDP* from the World Bank in order to show

whether a significant increase or decrease in annual GDP in a particular country may

affect voter turnout; *electoral systems* by using a dummy for proportional representation

(PR) (Endersby and Krieckhaus 2008); *Political Trust,* which is the mean score of a

question from the WVS asking respondents how much confidence they have in their

nation's government; and *regions*.

Findings

Our findings work in relation to our theory, showing that interpersonal and

societal trust shows statistical significance while formal community membership does

not. The findings show that formal community membership alone does not provide a

sufficient definition for social capital.

	Model 1		
	Coeff.	Std. Err.	P
Membership	0.0000876	0.0001045	0.407
Comp. Voting	16.76606**	5.48208	0.004
Freedom	0.4273383	1.620537	0.793
Population	4.62E-09	1.15E-08	0.689
GDP	0.3171875	0.5031557	0.532
PR	2.011773	4.24116	0.638
Political Trust	20.76923	16.56413	0.217
Constant	47.62413***	11.1917	0
N	48		
R^2	0.229		
*=p<0.05 **=p<0.01			

Table: Regression Results (Cross-National Analysis)

Model 1 reports the results of an OLS regression using mean scores for formal community membership and legislative voter turnout. It shows the inclusion of our control variables. Results from Model 1 show that there is no substantive effect of formal community membership on legislative voter turnout (coefficient of 0.0000876) and no statistical significance (p-value of 0.407 and standard error of 0.0001). Controlling for a number of factors did not improve or worsen the relationship. There is no significant correlation between formal community membership and legislative voter turnout. [8]

|	**Model 2**		
	Coeff.	Std. Err.	P
Trust	61.44863*	27.05946	0.029
Membership	0.0000983	0.0000996	0.329
Comp. Voting	19.38537**	5.343636	0.001
Freedom	1.950301	1.681871	0.253
Population	6.03E-09	1.09E-08	0.584
GDP	0.6104958	0.4959995	0.226
PR	2.101958	4.036793	0.606
Political Trust	0.1362132	18.25623	0.994
Constant	20.57472	15.97953	0.205
N	48		
R^2	0.319		
*=p<0.05 **=p<0.01			

Table: Regression Results (Cross-National Analysis)

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[8] Social capital theorists have argued that certain forms of community membership, such as church affiliation, will have stronger effects on political participation than other forms of community membership, such as being a member of a sports group. Interestingly, even when regressing the mean score of each individual community membership indicator, not a single one had an effect on voter turnout.

Model 2 includes an OLS regression of the mean scores for interpersonal and societal trust on legislative voter turnout, incorporating the same control variables as Model 1. Model 2 reports the results and indicates a strong and statistically significant effect of interpersonal and societal trust on legislative voter turnout with a P-value of 0.029 and a coefficient of 61.449, a number of control variables, and a standard error of 27.06. The number of observations is 48. When there is a complete absence of interpersonal and societal trust within a nation, we would expect 20% voter turnout. With complete trust, we would expect 81% of voter turnout. Every 10% increase in trust would lead to an expected 6% increase in voter turnout. The results from Model 2 are consistent with H2. Higher amounts of interpersonal and societal trust in a country lead to higher rates of legislative voter turnout.

Compulsory voting also has a strong effect on voter turnout. This relationship is unsurprising and has been cited by numerous previous scholars (Birch 2009, Keaney and Rogers 2006, Quintelier et al 2011). Compulsory voting is the only control variable included in the model that returns a statistically significant result.

Graph 1 indicates a strong effect of interpersonal and societal trust unexplained by a variety of control variables on legislative voter turnout. There is a striking upward slope with countries generally clustered close to the regression line. In agreement with our theory, Japan maintains the lowest levels of trust and voter turnout while Australia, New Zealand, and Sweden show the highest levels of interpersonal and societal trust and legislative voter turnout.
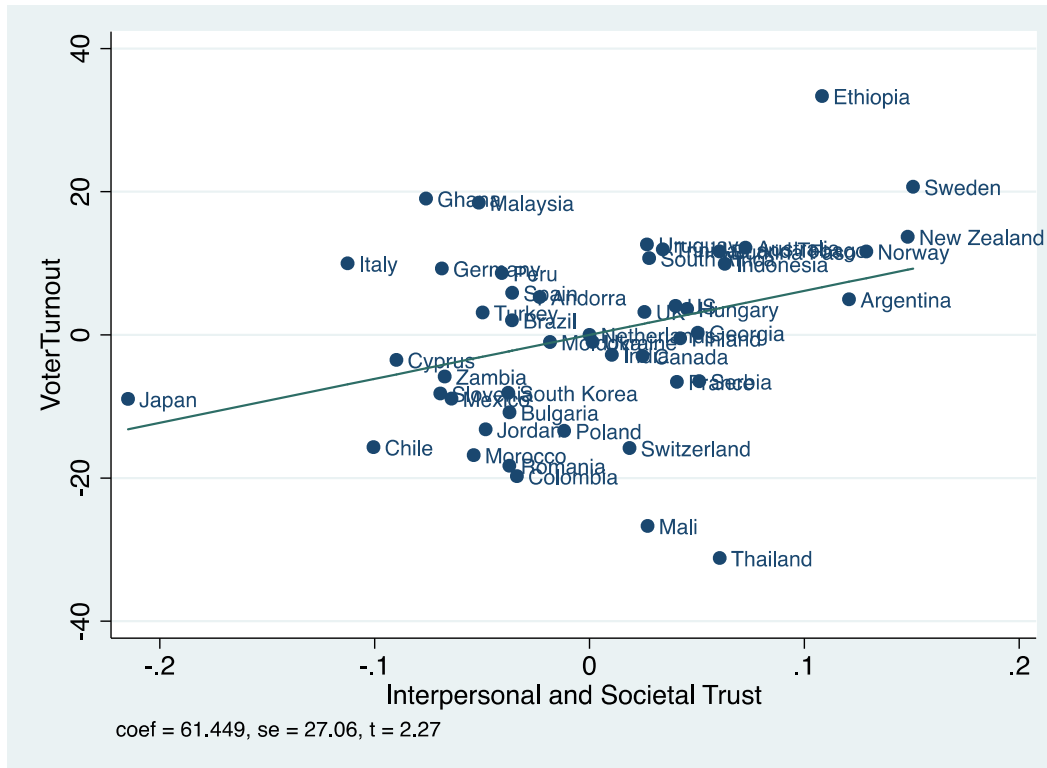
Graph 1: Trust on Voter Turnout (Unexplained by Control Variables)

      Ethiopia and Thailand are outliers in the graph, with Ethiopia showing higher legislative voter turnout in relation to interpersonal and societal levels of trust and Thailand showing lower legislative voter turnout levels in terms of interpersonal and societal trust levels. Both countries, however, provide explanations for their inconsistency. Both Ethiopia and Thailand show low levels of freedom from the Freedom House Index with a score of two. Furthermore, Thailand shows variation, which contradicts our theory due to the recent military coup which may have caused an irregularity in voter turnout percentages. Voter turnout dropped from 75% in 2011 to 46% in 2014, which may have been caused by brewing unrest in the country culminating in the most recent political election.

	Model 3		
	Coeff.	Std. Err.	P
Trust	37.74645*	16.62199	0.029
Membership	0.0000983	0.0000996	0.329
Comp. Voting	19.38537*	5.343636	0.001
Freedom	1.950302	1.681871	0.253
Population	6.03E-09	1.09E-08	0.584
GDP	0.6104958	0.4959995	0.226
PR	2.101957	4.036793	0.606
Political Trust	-0.1362138	18.25623	0.994
Constant	30.20888*	13.12539	0.027
N	48		
R^2	0.319		
*=p<0.05 **=p<0.01			

Table: Regression Results (Cross-National Analysis)

Model 3 shows an adjustment from Model 2 so that the score for interpersonal and societal trust in Japan, which has the lowest levels of trust, corresponds to 0 while Sweden, which has the highest levels of trust, corresponds to 1. The results of Model 3 indicate that moving from 15% interpersonal and societal trust in Japan to 77% interpersonal and societal trust in Sweden corresponds to a 37% increase in voter turnout. Not only is the predicted increase in voter turnout substantive in Model 2, but Model 3 shows that the actual increase in voter turnout from the country with the lowest trust to the country with the highest trust has a strong substantive effect on voter turnout. (The graph corresponding to Model 3 can be found in the Appendix).

Conclusion

In order to assess the influence that social capital has on legislative voter turnout, we began this paper with a review of the relevant literature. This review guided us in the development of potential explanatory theories and a research design. Our findings suggest that legislative voter turnout is significantly influenced by the interpersonal and societal trust component of social capital, but not by the formal community membership component.

Model 2 reports a predicted 61% increase in voter turnout when a society moves from having a complete absence of interpersonal and societal trust to complete trust. An even more interesting result is obtained in Model 3, which reports that moving from the country in our study with the lowest levels of interpersonal and societal trust, Japan, to the country with the highest levels of trust, Sweden, constitutes a 37% increase in voter turnout. This result has strong implications for Japan and other countries that have relatively low voter turnout percentages. Improving interpersonal and societal trust is one avenue for improving voter participation. Notably, interpersonal and societal trust differs from trust in government; building community relationships in a society can greatly improve rates of participation in the democratic process. We do not expect Japan to increase interpersonal and societal trust to Sweden's levels overnight, but with even a slight increase in interpersonal and societal trust, there is an expected increase in voter turnout. When Japanese political and societal leaders discuss strengthening democracy, building interpersonal and societal trust should be a major part of the conversation.

Formal community membership is found to have no significant effect on voter turnout. This may lead some to the conclusion that social capital then has no significant

effect on voter participation. However, Robert Putnam and other social capital scholars viewed community membership as creating positive, reciprocal networks. We believe that those positive networks are reflected in the levels of interpersonal and societal trust. People who score high on trust tend to have positive, reciprocal relationships and networks within the community. These networks may not be captured in the operationalization of formal community membership for two reasons: 1) the creation and spread of online social networking and other community groups and 2) the difficulty in capturing informal community membership. Only one of the ten questions that make up our community membership score captured informal community membership: "do you feel like part of you local community?" Further studies that can better capture new forms of community membership and informal community membership will be better positioned to test the effect of community membership on voter participation. However, even given our data limitations, finding a strong effect of interpersonal and societal trust on voter turnout demonstrates the importance of positive, reciprocal relationships to democratic participation.

   We understand that our study bears some limitations as a result of our chosen research design and available data. The quantitative measurement of social capital has long been debated among scholars who seek to utilize it as a variable. Our decision to use responses from the World Values Survey to assess formal community membership is limited in the sense that it does not incorporate more recent forms of community membership such as social networking sites and other groups in the online community. Modernization has led people to participate as members of different types of groups (based online), which does not deter from the definition of social capital but instead

creates greater avenues for the creation of social networks and membership opportunities than before. Indicators of informal community membership are also largely absent in the WVS survey data. Future studies can benefit from using data regarding more informal forms of membership or widening the scope of groups considered relevant. Modern forms of membership, such as through online groups; provide an additional area of consideration that can expand upon the common means of operationalizing social capital.

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Appendix

Appendix A: WVS questions for Formal Community Membership

V211	I see myself as part of my local community
V24	Membership of church or religious organization
V25	Membership of sport or recreation
V26	Membership of art, music, educational
V27	Membership of labour unions
V28	Membership of political party
V29	Membership of environmental organization
V30	Membership of professional organization
V31	Membership of charitable/humanitarian organization
V32	Membership consumer organisation
V33	Membership of any other organization

Appendix B: WVS Questions for Interpersonal and Societal Trust

V23	Most people can be trusted
V125	How much you trust: Your family
V126	How much you trust: Your neighborhood
V127	How much you trust: People you know personally
V128	How much you trust: People you meet for the first time
V129	How much you trust: People of another religion
V130	How much you trust: People of another nationality

Appendix C: Corresponding Graph to Model 3