

Social Trust in Local Communities and Its Demographic, Socio-economic Predictors: The Case of Kalloni, Lesbos, Greece

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Abstract

Social capital has been recognised as an important factor for the development of local communities and relevant literature review has associated high levels of trust with economic and local development. The present article explores one of the two basic dimensions of social capital, social trust (the other being civic participation) and its association with demographic variables, such as gender, age, educational level and income as predictors of development. A study was conducted in the municipality of Kalloni, Lesbos Greece, where social trust levels were measured among 302 inhabitants. Findings revealed that educational level and income are strong predictors of social trust, with better educated and better paid individuals showing higher probabilities of being trusting towards other people.

Introduction

Social and political theorists have continuously emphasized the importance of ‘social trust’ (Tocqueville, J.S. Mill, Durkheim, Locke, Putnam, etc.). It has been known to have many social benefits (e.g., social cohesion). Most recently, trust has been identified as one of—or the main—component of social capital. Social capital constitutes—along with economic and cultural—one of the three forms of capital distinguished by Bourdieu (1986). It refers to the combined resources (actual and potential) that are connected to possession of a durable network of institutionalized relationships of mutual acquaintance and recognition (Bourdieu 1986). Since then, this definition has been constantly evolving; however, most definitions encompass two components of social capital: the structural and the cognitive (Subramanian *et al.* 2002). The *structural component* of social capital includes the extent and intensity of associational links and activity in society, whereas the *cognitive component* assesses people’s perceptions of the level of interpersonal trust, sharing, and reciprocity.

All the definitions of social capital offered so far by various researchers (Coleman 1988; Putnam 1993, 1995) inevitably lead to the conclusion that the basic prerequisite of social capital is the concept of trust and that social capital corresponds with a high prevalence of trustworthiness. Thus, social capital is widely regarded as a necessary condition of social integration, economic efficiency, and democratic stability (Arrow 1972; Coleman 1988; Ostrom 1990; Putnam 1993, 1995a & b, 2000; Fukuyama 1995). In this article, we are exploring one of the dimensions of social capital, social trust, especially at a local community level. According to Bellah *et al.* (1985), citizen involvement in the local community and its voluntary activities

teaches the “habits of the heart” of social behaviour—trust, reciprocity, solidarity, and cooperation, all of which are significant elements of local and community development.

However, trust is not easily defined, as shown by the literature on the issue (Barber 1983; Baier 1986; Gambetta 1988; Hardin 1991, 1993, 1996; Misztal 1996; Seligman 1997; Braithwaite and Levi 1998; Warren 1999). To complicate matters further, it has a constellation of synonyms—mutuality, empathy, reciprocity, civility, respect, solidarity, empathy, toleration, and fraternity. For this reason, it is of vital importance in this article to refer to the various approaches and terms used to define “trust.” Defining the term is a basic precondition for the measurement of trust, which is the basic aim of this article. Furthermore, this article aspires to go beyond the definitions and measurement given by theorists and researchers, in an attempt to identify those factors that determine trust, within the wider socio-economic context. In this way, the demographic, as well as socio-economic factors that determine social trust will be explored and correlated to levels of social trust. Research has already included a variety of such factors, such as gender, age, race, educational level, income. For the purposes of this article, the factors chosen to be associated with trust were gender, age, educational level and income. The first two are the basic demographic factors, the third represents most times the social status of a population, while income is the most common economic indicator used in the development of relevant models. Although literature review suggests that race is a strong predictor of social trust (Woolcock 1998), we did not include it in the present research, as the target population is a highly homogeneous population, consisting only of Greek citizens.

The main objectives of this article are to contribute to the research on social trust in local communities (by analyzing findings from a primary research). More specifically, an attempt is made: (i) to measure the levels of social trust in a local Greek, insular community, and (ii) to identify the demographic and socio-economic factors affecting it. The method applied here offers the possibility of identifying the socio-economic and demographic profile of the inhabitants in the area under research, who present higher levels of social trust, as well as giving the probability every individual belonging to a specific socio-economic group bears, to have high levels of trust. The article is structured as follows: firstly, the theoretical background is presented, where the notion of social trust is determined and analyzed, as well as its significance for local development. Furthermore, a literature review on the association of social trust with demographic and socio-economic factors is provided. After the theoretical background, the methodology of data collection and analysis as well as the area of the study are presented. Then, research findings follow and in the end, based on these findings, relevant conclusions are drawn and further discussion is made.

Theoretical Background

Defining social trust

Giddens (1990: 34) defines trust as “confidence in the reliability of a person or system, regarding a given set of outcomes or events, where that confidence expresses a faith in the probity or love of another, or in the correctness of abstract principles.” According to Woolcock (1998), trust is necessarily involved in social relationships between individuals, organizations and/or civic structures. Actually, it includes elements of confidence, expectation, motivation, cooperation, collaboration, mutual obligation and reciprocation working together in a complex social milieu. Fukuyama (1995) defines trust as the expectation that arises in a community on the part of its members and is based on commonly shared norms, as well as the belief that the others will act in mutually supportive ways. He also describes it as the mutual expectation that no party to an exchange will exploit the vulnerability of others (Fukuyama 2000). Similarly, Misztal (1996)

suggests that trust is more than just “cognitive understanding” and that behaviours resulting from trust relationships are influenced by expectations of others’ behaviour.

Cox (1997) describes trust as a “measure of the quality of relationships,” while Simmel (1950: 326) regards trust as “one of the most important synthetic forces within society.”

Relatively recent literature on trust relates and identifies it as one component—or probably the main component—of social capital, which is in turn regarded as a necessary condition for social integration, economic efficiency and democratic stability (Arrow 1972; Coleman 1988; Ostrom 1990; Putnam, 1993, 1995, 2000; Fukuyama 1995). Putnam (1993) recognizes trust as one of the features of social organization—apart from norms and networks—that can improve the efficiency of society by facilitating coordinated actions, or one of the features of social life that enable participants to act together more effectively to pursue shared objectives. He differentiates “social trust” from other types but agrees that “all the forms of social capital... are themselves coherently correlated across individuals” (Putnam, 1995a: 71). Therefore, trust in civic relationships is based on trust in interpersonal relationships.

Various forms of trust have been distinguished so far: social, civic, institutional, organizational and psychological trust (Lewicki and Bunker 1996). Kramer *et al.* (1996) study trust in terms of identity, placing special emphasis on collective trust and collective action. According to their theory, there are three bases for “identity based transformations”: cognitive, motivational and affective. These bases are very important, as they seem to influence individuals’ expectations of the possible consequences of their decisions to trust or not trust. Lewicki and Bunker (1996) think that identification-based trust is the third and last stage in the process of forming trusting relationships, after the stage of “deterrence-based trust” and “knowledge-based trust.” The former refers to the consistency of behaviour and the latter to the possibility of predicting a person’s behaviour through relationships. Therefore, identification-based trust is based on common values.

Similarly, Jones and George (1998) distinguish between conditional and unconditional trust. Conditional trust is based on knowledge (knowledge-based trust), whereas unconditional trust comes from shared values through which individuals experience trust. Despite the distinctions made in literature, no distinction will be made in this article between social, civic, institutional and organizational trust, as it is assumed that in a small community trust relationships will exist in every type of relationships (interpersonal, civic, institutional etc.). In this article, we accept the definition that trust is the individual’s belief that others will act in his/her interest or, at least, will not knowingly or willingly harm him/her (Newton 2001). The transformation of this definition to a measurement question and the relevant criticism is more explicitly analyzed in the methodological section.

Trust and local/community development

Drawing upon relevant literature, high levels of social trust (and subsequently, of social capital) in a society are believed to be strong predictors of its development and economic success (Arrow 1972; Fukuyama 1995). At least in market economies, generalized trust is considered to promote economic growth and greater investment (Knack and Keefer 1997). According to Etzioni (1988, 1996), the combined effect of trust, networks, norms, and reciprocity results in the creation of a strong community, with shared ownership over resources owned by no-one, used by all (“commons”). As long as community is strong, it obviates the problem of the opportunist. In his study of regional governments in Italy, Putnam argues that the establishment of social trust (along with the other dimensions of social capital mentioned above) is “a precondition for economic development as well as for effective government” (1993: 36).

In the same way, Knack and Keefer (1997) found a significant positive relationship between trust and growth rates. Kenyon (1998, 1999) describes “20 clues” which are present in developing small towns, among which are shared community vision, presence of a positive local

newspaper, the identification of a clear and unique identity, taking risks to make the vision happen and a local council which is seen as a facilitator rather than a regulator. However, all of these necessarily require trusting relationships to underpin them. Topolsky (1997) also identifies vision, community participation, conflict resolution, and skills and abilities improvement as essential precursors of community development. Although he is not specifically referring to trust, a number of the outcomes described cannot be achieved without the presence of trusting relationships. According to Uslaner (1998), when people trust each other, they are more likely to accommodate others' preferences and create a more pleasant society with a better quality of life. Trust may not produce wealth directly, but, yet, through tolerance, it can promote trade that in turn leads to greater prosperity. Furthermore, trustworthy people are those who keep their promises (Francois et al. 2003) and such trustworthiness is extremely valuable when relationships cannot be fully and formally circumscribed by contracts. A society with many trustworthy members allows individuals to have confidence and build relationships and is, thus, rich in social capital (Francois et al. 2003).

A number of surveys have been conducted on social trust in rural communities. House and Wolf (1978) found that the smaller the community, the higher trust levels are likely to be. The same view shares Putnam (2000: 205), who concludes that "residents of small towns and rural areas are more altruistic, honest, and trusting than other Americans. In fact, even among suburbs, smaller is better from the social capital point of view." However, in their research Knack and Keefer (1997) find no cross-national evidence to suggest any connection between social trust and either urbanization or population density. Since this study analyses a rather small community with low population density, the relative results are expected to offer evidence about the social trust level connection with the population size of the local communities.

Social trust by gender

Survey evidence on which gender exhibits higher levels of trust is divided. In their study, Croson and Buchan (1999) found that there is no significant difference in trust behaviour among men and women. In Feingold's study (1994) women score slightly but consistently higher on scales of trust. On the other hand, Chaudhuri and Gangadharan (2003) found that men exhibit higher levels of trust than women do, attributing it to a greater degree of risk aversion inherent in women. Similarly, Patterson's (1999) study in the USA has revealed that women are sometimes significantly less trusting than men, although gender seems to make little difference in other western countries (Whiteley 1999; Newton 2001).

Foeman and Pressley (1987) argue that men, as compared to women have different socialization patterns, come from different backgrounds, possess different values and, therefore, quite possibly differ in their social interaction mode as well as their levels of trusting. According to the social role theory of gender differences, social behavior differences are an outgrowth of gender roles that dictate the behaviors that are appropriate for men and women (Eagly and Wood 1991). Scharlemann *et al.* (1999) went much further, trying to explore the levels of trust and reciprocity exhibited in pairings of various gender combinations. More specifically, in male-female pairings higher levels of trust were shown, as compared to male-male and female-female pairings with the lowest levels of trust exhibited in the latter. Apart from ethnic inequalities, lack of social safety nets, unjust laws, undemocratic political processes and discrimination against minorities, Woolcock (1998) recognizes sexual discriminations as factors in communities with low sustainable, equitable and participatory economic development. Therefore, he argues, that those who are vulnerable to discrimination on the basis of their gender could be less trusting.

Social Trust by age

Various studies have been conducted on social trust in relation to age, providing evidence of life-cycle, cohort effects or both (Patterson 1999; Torcal and Montero 1999; Whiteley 1999; Putnam 2000; Newton 2001). Although patterns are not always consistent, it seems that social trust follows a U-curve, with the youngest and the oldest individuals exhibiting higher levels of distrust. Research conducted in the U.S.A. has demonstrated that older Americans are more trusting (Norris 1996; Putnam 1995a; Putnam and Yonish 1997; Rahn 1997; Uslaner 1998). Therefore, age should be positively associated with social and interpersonal trust.

Social Trust by educational level

Generally speaking, most researches have found a positive association between education and trust (Knack and Keefer 1997; Putnam 2000; Uslaner 2002). In an attempt to measure trust, Glaeser et al. (2000) found that highly educated individuals are more trusting than people of lower educational levels. This was attributed to the fact that more educated people usually associate with other educated individuals, who are, for one reason or another, more trustworthy. Alternatively, education might create individual social capital by raising social skills or because high status increases the ability to reward and punish others. According to Putnam (1995), education has a very powerful effect on trust. As a matter of fact, he admits that education is “by far the strongest correlate that I have discovered of civic engagement in all its forms, including social trust and membership in many different types of groups” (Putnam, 1995b: 667). In an attempt to attribute this finding, Putnam (1995) argues that highly educated people are more inclined to trust others, as they are more likely to be better off economically, as well as due to the confidence they have thanks to the skills, resources and inclinations imparted to them at home and in school.

Heliwell and Putnam (2007) argue that higher average education levels help to create a climate of trust that is self-reinforcing. If individuals know that higher education levels make others more likely to be trusting (and perhaps also more trustworthy), then they are in turn more likely to trust others. With this view seem to agree the majority of studies conducted on social trust and social participation, whose findings show that high level of education seems to be the best predictor for high levels of trust and, subsequently, social participation (Uslaner 1998). Nie et al. (1996) go much further and find in their empirical research that one’s tolerance is increased not only by one’s own education but also by the average education level of those in the surrounding community. They find that both own-education and average education have significant positive effects, with the effects of average education being even larger than those for own education. So, the higher average education of a community, the higher the levels of trust.

Social Trust by income/economic status

Using indicators of trust from the World Values Survey, Knack and Keefer (1997) found that increasing levels of general trust are associated with higher and more equal incomes, evidence also supported by other researchers (Inglehart 1999; Putnam 2000; Paxton 2002). In other studies conducted at a community level (Alesina and La Ferrara 2002), a rise in mean income could be expected to be associated with increased trust. This is true either because richer communities tip towards the high-trust equilibrium or because they spend more on local public goods. On the other hand, economic inequalities within a community may affect trust by creating a perception of injustice (Brockner and Siegel 1996) or because individuals tend to feel more comfortable interacting with individuals of similar levels of income or wealth.

Patterson's (1999) study of the relationship between trust, class and race in the USA revealed that the poorest are far less trusting than the richest, as anxiety and insecurity lead to distrust. Another theory on trust in relation to economic status argues that while all trust carries risks, it is more risky for the poor to trust than for the rich; on the one hand the poor cannot afford to lose even a little of what they have if their trust is betrayed and on the other, the rich seem to gain comparatively more benefits from trusting behaviour (Banfield 1958). In much the same way, Putnam (2000) argues that in all societies 'have-nots' are less trusting than 'haves,' probably because the latter are treated by others with more honesty and respect.' Furthermore, the hardships associated with low incomes may be contrary to the supportive environment required for nurturing trusting attitudes (Brehm and Rahn 1997). Generally, relevant evidence suggests that high levels of social trust seem to be exhibited by the 'winners' in society, as measured in terms of money, status, high levels of job and life satisfaction, and subjective happiness (Orren 1997; Newton 1999; Whiteley 1999).

Data, Methods, and Area of the Study

Background information about the survey

In 2006-2007 a survey was conducted, in an attempt to measure social capital, quality of life, employment and the values of people in the municipality of Kalloni, Lesbos. This was an effort to develop a methodological tool (questionnaire), which could measure local development in small communities, based on the bottom-up approach of local development, as supported by many scholars in the field (Robinson 1995; Babacan and Gopalkrishnan 2001; Leeming 2002; McCall 2003). For the purposes of this article, we have isolated questions of the questionnaire dealing with social trust, in order to explore their correlation with a number of independent variables.

Sample and Sampling method

A sample of 302 inhabitants of Kalloni participated in the study. The sample consisted of men and women, aged 15 and over, of various educational backgrounds, employment status and annual income. The sampling technique used was "two-stage sampling" (Rontos and Papanis 2006). The primary sampling unit was the building block, while for the allocation of the sample among building blocks, sampling with probability proportionate to the population size was used. In the second stage, inhabitants were selected with equal probability among building blocks.

Methodological tool and research design

The methodological tool used was the "Questionnaire for the measurement of Local Development" (Rontos et al., 2006), which is a quite extensive questionnaire, consisting of five sections: demographic data, employment, quality of life, values and institutions, and social capital and networks. Great number of the questions included in the questionnaire was drawn from the well-known World Values Survey (1995-1998).

In this article we explore only questions having to do with generalized social trust. Therefore, we are going to analyze respondents' replies to the question of the questionnaire: "Generally speaking, would you say that you trust most people or that you have to be careful when dealing with them?" The alternative replies were: "Generally, I trust most people" and "I have to be careful". The first reply was interpreted as "trusting" and the other as "distrusting". It is true that this way of measuring trust has been criticized by various theorists, as they argue that there may be ambiguity about what is meant by 'most people' in the question. The term covers a wider range than family members, friends and neighbors and there is the question about how far

is the circle open. Trusting individuals may extend the circle boundaries wider than low trust people, who may interpret ‘most people’ as those they actually trust. However, there is good evidence to support that this question measures confidence in strangers and is a good way of measuring generalized trust (Uslaner 1998, 2000). Moreover, trust seems to be less of an expression of an internal and unvarying personality trait, than a response of individuals to the changing external world around them. In this way, responses to this trust question tell us not about the disposition of people to be trusters or distrusters, but about how they evaluate the trustworthiness of the world they live in (Newton 2001). Furthermore, as this question relies mostly on the attitudinal dimension, it explores respondents’ actual attitudes towards other people and reflects their behaviour. As a matter of facts, Yamagishi and Yamagishi (1994) found a correspondence between trusting attitudes and trusting behaviour.

Methods of Data Analysis

Data collected are analysed by chi-square tests, where the relationship between control variables and the dependent is explored. At the second stage of data analysis, the Logistic Regression Model is used. The family of Logistic Regression provides a powerful tool for the examination of discrete decisions or views, as these models assume that all explanatory factors determine the variable examined simultaneously (Bishop *et al.* 1975; McCullagh and Nelder 1983; Nerlove and Press 1973). The general formula of the model is:

$$\text{Logit}(p) = b_0 + b_1X_1 + b_2X_2 + \dots + b_nX_n \quad (1).$$

The goal of a Logistic Regression Analysis is to find the best fitting model to describe the relationship between an outcome (dependent variable, in our case “social trust”) and a set of independent (predictor or explanatory) variables (in our case demographic features). What distinguishes the logistic regression model from the linear regression model is that the outcome variable in the logistic regression is categorical and most usually binary or dichotomous (Cox and Snell 1989; Hosmer and Lemeshow, 1989). Logistic Regression Analysis does not only identify these factors, but also explores the cases or groups of individuals with certain features that are more “trusting” than others. In this specific application of the Binomial Logistic Regression Model, the maximum likelihood approach was used and the Conditional Forward Stepwise procedure was chosen.

Moreover, a Logistic Regression Model estimates the probability with which a certain event will happen or the probability of a sample unit with certain characteristics (expressed by the categories of the predictor variables) to have the property expressed by the value 1 of the dependent variable Y_i . This property of the Logistic Regression can answer to the research question of the present article and it will be fully understood in the present application. The estimation of this probability is performed by using the cumulative logistic distribution

$$P(Y = 1) = F(b) = \frac{1}{1 + e^{-(b_0 + b_1x_1 + b_2x_2 + \dots + b_nx_n)}} \quad (2)$$

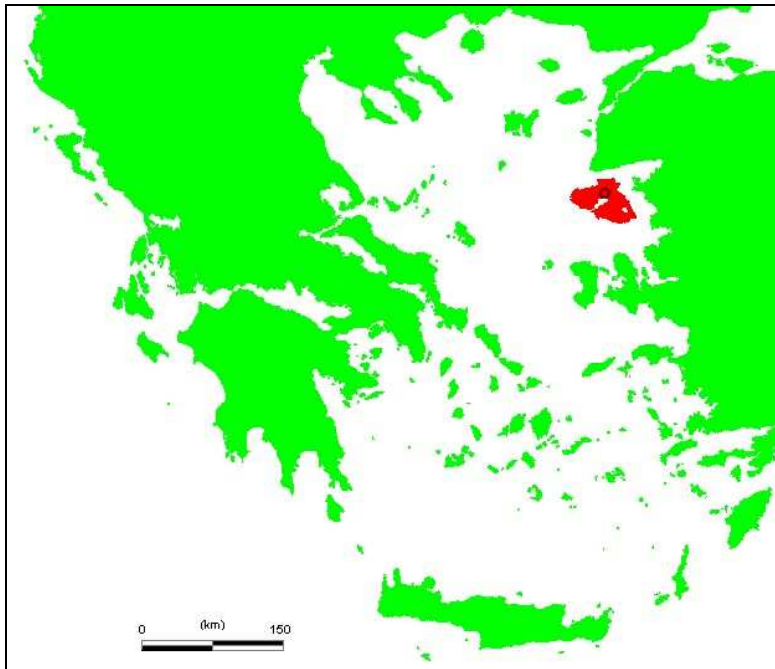
Research variables and hypotheses

The dependent variable Y is a dummy variable and represents social trust with value 1 if individuals respond that they “trust most people” and the value 0 if they respond that they “have to be careful.” Independent variables are Gender, Age, Educational Level, Type of Employment and Income. All independent variables are introduced as categorical. The categories of them are given in Table 1. If categorical variables are used instead of quantitative, the prediction capability of the model is increased, as the values and the direction of β coefficients predicted for each category of the explanatory variables have the following specific meaning. Positive coefficients indicate a higher probability of an individual to generally trust most other people, whilst negative coefficients indicate a lower probability of this kind. A second useful rule is that the higher a positive estimated coefficient of a variable’s category is, the higher the probability of an individual included into this category is to be “trusting” and the opposite. Data were analyzed with software SPSS 16.

Kalloni, Lesbos, Greece

Lesbos is a Greek island in the Northeastern Aegean Sea. With an area of 1632 km², it is the third largest island in Greece. Its population is about 90,000, a third of which lives in the capital of the island, Mytilene. The rest of the population are scattered in a number of municipalities around the island. The second biggest municipality on the island is Kalloni, which lies in the west-central part of the island, 40 km away from Mytilene (Figure 1). It stretches in a land area of 241.946 km², the second largest in Lesbos Prefecture. At the 2001 census it had a population of 8,194 inhabitants. The municipal seat is the town of Kalloni (pop. 1,732) and its largest other towns are Agra, Parakoila, Dafia, Filia, Skalochoi, Anemotia and Kerami.

Figure 1: Map of Greece and geographical position of Lesbos island and Kalloni (shown with a black circle)



Due to its position, in the middle of the island, it is a crossroad for everyone wishing to visit the north and western part of the island. Therefore, it constitutes the second commercial place on the island. Furthermore, Kalloni is a beautiful natural spot, since it is surrounded by the waters of the Kalloni Gulf and it stretches in a rich plain of 100 km², through which six rivers flow. For this reason, it is surrounded by a rich water land, where rare species of fauna and flora are to be encountered. Despite its relatively small population, Kalloni looks like a modern town, with intense commercial and administrative life. As a matter of fact, it hosts many administrative services, banks and 2-3 shopping centres, in order to meet the needs of the inhabitants of the northern and western part of the island.

The main activities of the inhabitants in Kalloni are agriculture, fishing, while a large number of people also work in the administrative services and banks. Moreover, since the 1980s tourism has seen a considerable growth and many hotels and pensions are located near the coast. A relatively significant number of cultural, sports and social clubs and organizations have been founded in Kalloni, which people can join and, thus, engage in social and cultural activities. The municipality of Kalloni presents an interesting example of an area bearing a double identity: it is both a rural and insular region, whose development prospects are a challenge for policy makers and development theorists. However, its favourable geographical position (in the centre of the island) renders it a crossroad for whoever wishes to visit the north and northwestern part of the island. For this reason, research in this particular municipality was considered to be of particular interest.

Results

Frequencies

As results from the participants' responses to the "social trust" question, 80.2% replied that they have to be careful with other people, while only 19.8% stated that they generally trust most other people. Table 1 presents the frequencies of the categories for each independent variable. 58.9% of the respondents were men and 41.1% were women. Their mean age was 38.96 years, while great part of them were lyceum (senior high school) graduates (40.2) and primary school graduates (35.1). As far as income is concerned, the greatest body of participants' income was between 600-1100 Euro.

Table 1: Frequency table

INDEPENDENT VARIABLES		FREQUENCY	%
Gender	male	178	58.9
	female	124	41.1
	Total	302	100.0
Age	15 – 20	32	10.7
	21 – 30	72	24.1
	31 – 40	63	21.1
	41 – 50	75	25.1
	50 and over	57	19.1
	Total	299	100.0
Educational level	primary school	106	35.1
	graduate	121	40.2
	lyceum graduate	74	24.5
	University graduate	30	9.7
	Total	301	100.0
Monthly Income	below 600 Euro	60	20.8
	601 – 1100 Euro	110	38.2
	1101 – 1600 Euro	78	27.1
	More than 1600	40	13.9
	Total	288	100.0

Chi-square trust associations with demographic and socio-economic factors

Results showed no statistically significant differences in trust according to gender ($\chi^2 = 0.237$, $p=0.627>0.05$). In fact, 81.1% of men and 78.9% of women turned out to be "distrusting", stating that they have to be careful when dealing with other people (table 2). Similarly, no statistical significance was revealed in trust according to age ($\chi^2=2.289$, $p=0.683>0.05$). However, the youngest and oldest age groups showed higher levels of trust to most people (28.1% and 21.8% respectively), revealing a U-curve in social trust. On the other hand, educational level seems to be a predictor of social trust ($\chi^2 =20.007$, $p=0.00<0.001$). University graduates seem to be those who trust others more (36.5%), followed by lyceum graduates (18.6 %). As far as income is concerned, results of the research revealed also statistical significance in the association of income with social trust ($\chi^2 = 22.51$, $p= 0.00<0.001$). People with higher income seem to trust other people in a higher proportion in relation to those with lower incomes. In fact, respondents with monthly income higher than 1600 Euro was the group that seemed to show the highest levels of trust towards other people (37.5%).

Table 2: Trust levels by gender, age, educational level and income and test X² results

INDEPENDENT VARIABLES		TRUST			
		Generally, I trust most people (%)	I have to be careful (%)	PEARSON X ²	STAT. SIGN.
Gender	male	18.9	81.1	0.237	0.627
	female	21.1	78.9		
Age	15 – 20	28.1	71.9	2.289	0.683
	21 – 30	18.6	81.4		
	31 – 40	20.6	79.4		
	41 – 50	16.0	84.0		
	50 and over	21.8	78.2		
Educational level	primary school graduate	9.5	90.5	20.007	0.00
	lyceum graduate	18.6	81.4		
	University graduate	36.5	63.5		
Monthly Income (in €)	below 600	13.3	86.7	22.51	0.00
	601 – 1100	8.4	91.6		
	1101 – 1600	28.6	71.4		
	More than 1600	37.5	62.5		

Logistic Regression Model

The model has a strong explanatory function, with *generalized likelihood ratio test statistic* being $X^2 = 147.232$, $df=5$, $p = 0.00 < 0.001$. The equation's well fitting is also indicated by the statistical insignificance of Hosmer and Lemeshow Test ($\chi^2 = 6.238$, $df = 7$, $p = 0.512 > 0.05$). Statistical significance appears in educational level (wald stat=12.597, $p=0.002 < 0.01$) and income (wald stat=14.737, $p=0.002 < 0.01$) (Table 3). Conditional Forward Stepwise procedure keeps the rest explanatory variables as statistically insignificant's out of the model (i.e. age, gender).

Primary school graduates and lyceum graduates appear to have negative coefficients b ($b_1 = -1.44$ and $b_2 = -0.888$, which means that b coefficient of the reference educational level category (university graduates) is positive ($b_3 = 2.328$). Therefore, individuals having graduated university tend to be more trusting towards most other people, in comparison to individuals of lower educational levels. In general, the more education rises, the more does trust also rise. Actually, according to the present application, university graduates are the only group that tends to have positive trust attitude.

Similarly, lower and middle-income people seem to have higher probability of being distrusting: coefficients b for the categories of individuals with income below 1600 are negative (table 3), which reveals a lower probability of these categories to generally trust most other people. On the contrary, individuals with high income seem to have higher levels of trust in other people. Actually, individuals that belong to the highest income group (more than 1600 €) seem to have higher levels of trust, as b coefficient of this group is estimated positive and equal to 2.673.

Table 3: Detailed empirical results from estimation of the Logistic Regression Model

Independent variables in model and categories		b	S.E.	Wald	df	Sig.	Exp(B)
Step 1	education level			80.376	2	.000	
	primary school graduate	-2.420	.369	43.040	1	.000	.089
	lyceum graduate	-1.544	.253	37.336	1	.000	.213
	University graduate *						
Step 2	education level			12.597	2	.002	
	primary school graduate	-1.440	.469	9.431	1	.002	.237
	lyceum graduate	-.888	.326	7.437	1	.006	.411
	University graduate *						
	Monthly Income (in €)			14.737	3	.002	
	below 600	-.724	.488	2.208	1	.137	.485
	601 – 1100	-1.533	.407	14.157	1	.000	.216
	1101 – 1600	-.416	.290	2.061	1	.151	.659
	More than 1600 *						

a. Variable(s) entered on step 1: education level.

b. Variable(s) entered on step 2: monthly income.

c. Variables not in equation: Age and Gender

* Reference variable

The implication of formula 2 on the b coefficients estimated by the logistic regression model can produce the exact probabilities of the values combination of the two variables that approve statistical significance to be trusting towards most other people (table 4).

Table 4: Probabilities of socio-economic groups to be trusting towards most other people according to Logistic Regression Model's results

Education level	Monthly income (in €)			
	below 600	601 – 1100	1101 – 1600	More than 1600
primary school graduate	0.10296	0.04865	0.13508	0.19150
lyceum graduate	0.16622	0.08158	0.21337	0.29147
University graduate	0.32642	0.17758	0.39736	0.50

It is interesting that in primary school graduates with less than 600€ monthly income in the area of study, the probability to be trusting towards most other people is estimated equal to 0.10296 (or 10.296 %), while in university graduates with an income higher than 1600 € per month that probability rises to 0.50 (or 50 %). With some exceptions, probability of this kind is increasing as we move towards combinations of higher education and income level (table 4).

Discussion and Conclusions

One of the major problems governments have to face nowadays is the reduction of trust that has occurred in local communities (Woolcock 1998). It is argued that the main reason for this is the progressive withdrawal of government services from the regions, as well as the failure by politicians at all levels of government to listen to and respond to the needs of local communities. An attempt was made in this article to identify levels of social trust within small communities, such as the case of Kalloni Lesvos, as well as develop a predictive model, based on socio-demographic features, which would determine the 'trusting' and 'not trusting' members in a community.

Findings from this research revealed that although Kalloni is a relatively small rural community on an island, a kind of place where social trust is found to be higher in several studies (House and Wolf 1978; Putnam 2000), social bonds among its inhabitants do not seem to be very strong. As a matter of fact, social trust levels are very low: the vast majority (80.2%) declared that they have to be careful with other people, while only 19.8% stated that they generally trust most other people. A similar survey conducted in 2006 by us in a national level, where the same question for trust on a sample of 862 units were used, shown that a higher percentage of 26,5 % generally trust most other people (Papanis et al 2006). Additionally, European Social Survey conducted for Greece in 2003 (National Centre of Social Research 2003) using the same question, shown similar but not fully compared levels of social trust. In a scale of 0-10, the 63.6 % presents low trust levels (0-4), another 15.1 % have a median level (5) and only the 21.3 % presents higher levels of trust (6-10).

Kalloni looks like as a modern town but its insular character, which by some researches incorporates isolation (Mergos et al 2003), seems to have a negative impact on social trust's level. This fact is not very encouraging and for this reason, it should be taken into account when designing policies for this area. Literature reviewed in the theoretical section indicates that low levels of social trust prevent economic growth and investments and maybe this is a serious explanation for the unfavorable sectoral structure of the economy of Kalloni, dominated by the decreasing primary sector.

Furthermore, results reveal that social trust does not associate widely or strongly with all the usual set of economic and socio-demographic variables, but there is a slight tendency for it to be found in individuals bearing certain characteristics. Generally speaking, our findings coincide with the general conclusion of other relevant researches conducted (e.g. Knack and Keefer 1997; Putnam 2000; Uslaner 2002) that high levels of trust are more likely to be found among the "winners" in society, rather than the "losers." More specifically, social trust associates positively with high income and high educational level and, therefore, probably higher social status. Analysis based on logistic regression indicated that University degree holders present a higher probability to generally trust most other people than secondary and primary school graduates. In fact, the method verifies that the higher the educational level, the higher the trust level. Trust level association with the income level is in the same direction. The higher the income, the higher the trust level is. A reservation should be kept here as two of the income values (>600 € and 1101-1660 €) are of no statistical significance. Combinations of the two factors give interesting results. Combinations of higher level of education and income results in higher probabilities of a person to generally trust most other people. So, a primary school graduate with income less than 600 € per month has a probability to generally trust most other people equal to 10.296 % in comparison to a university degree holder with a monthly income higher than 1,600 € who presents a probability of this kind equal to 50 %.

On the other hand, no statistical significance was found between age and social trust. However, the youngest and oldest people seem to have higher levels of trust, finding which is consistent with those revealed by other researchers (Norris 1996; Putnam 1995a; Putnam and Yonish 1997; Rahn 1997; Uslaner 1998). Moreover, although women tend to be more trusting than men (21.1% versus 18.9% for men), the differences are so slight, that no statistical significance was revealed. Taking into account all those mentioned above, it is evident that the two prominent predictors of social trust are educational level and income. On the other hand, local development policy makers should take into account that strong social capital, and more specifically high levels of social trust constitute one of the most valuable assets for the development of a region or community. Based on that idea, policies should focus on the "not haves" rather than those having and on the "losers" of the society instead of the "winners." Only through implementation of efficient social policies, will social trust levels rise, social cohesion be achieved and communities become places where sustainable local development policies can be implemented. Education has turned out once again to be the main drive both for individual and

community growth, as it not only increases directly the opportunities for personal success and higher social status, but also enhances social trust. For this reason, governments have to place special emphasis on designing and implementing efficient educational policies, where all citizens—even in the most remote areas—will have access to knowledge resources. In addition, more efficient economic policies have to be implemented, aiming at a fairer distribution of income among citizens. This will turn out to be a good practice for transforming local communities into places of social cohesion and high levels of social trust.

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