

Religion, social interactions, and cooperative attitudes: Evidence from Indonesia

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Abstract

Using the latest round of the Indonesian Family Life Survey (IFLS), I investigate how religions correlate with norms of inter- and intra-group cooperation such as helpfulness, trust, and tolerance. I consider two sources of variation related to religion that may influence cooperative norms, namely individual religiosity and social interactions within the community. I investigate these associations for different religions in Indonesia, a country where Islam is the majority religion but recognizes other world religions such as Catholicism, Protestantism, Hinduism, Buddhism, as well as Confucianism. Meanwhile, the attitudes studied here naturally fall under what Guiso et al. (2011) called “civic capital”, i.e., “those persistent and shared beliefs and values that help a group overcome the free rider problem in the pursuit of socially valuable activities”.

I find that: (i) religiosity is associated with a higher willingness to help and trust of individuals within one’s own community, but not with the (generalized) trust of strangers; (ii) however, religiosity is associated with more religious discrimination; (iii) interestingly, but consistent with the social psychology literature, religiosity is also associated with greater ethnic discrimination; and (iv) mainly among

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Muslims, religiosity is negatively associated with tolerance. The evidence, therefore, supports the notion that religion may be linked to “parochial altruism” (Bernhard et al., 2006; Choi and Bowles, 2007), which is altruism towards members of one’s own group combined with hostility towards members of the out-groups. In Indonesia, this link is strongest for Muslims.

Meanwhile, I look at social interactions by examining how religious diversity and segregation in the community are associated with cooperative attitudes. Similar to Alesina and La Ferrara (2002), I find that individuals are more trusting in more homogeneous communities. They also tend to trust their neighbors more in subdistricts where the villages are more religiously segregated. On the other hand, religious diversity is associated with more tolerance, while religious segregation is associated with less tolerance. These findings support the idea that network effects may sustain discriminative attitudes. At the same time, they also support the optimal contact hypothesis of Allport (1954) which posits that, under the right circumstances, frequent interactions with those who are dissimilar may reduce prejudice.

Keywords: religion, religious diversity, segregation, cooperation, parochial altruism, Indonesia

JEL Codes: D64, Z12

1 Introduction

For believers, religion is both a source of individual values and social identity. Since economic interactions are affected by an individual's priors, including his or her social identity, religious beliefs can influence economic outcomes (Weber, 1905; Akerlof and Kranton, 2000; McCleary and Barro, 2006). There is an increasing interest among economists in exploring the causal link between religion and economic outcomes. Guiso et al. (2006) suggest three steps to establish such a link: First, one needs to establish the direct impact of culture on expectations and preferences. The next step is to show that these beliefs and preferences have an impact on economic outcomes. The final challenge is to identify and establish the direction of causality between culture and outcomes.

This study primarily contributes to this first step. I examine the correlations between religion and cooperative attitudes such as the willingness to help, trust, and tolerance.¹ In particular, I investigate this link for different religions in a society where Islam is the majority religion. To this end, I employ the Indonesian Family Life Survey (IFLS) data to examine how religion and religious intensity correlate with cooperative attitudes in Indonesia, a country with a Muslim majority but acknowledges four other main world religions (Catholicism, Protestantism, Hinduism and Buddhism) as well as Confucianism.

There is ample evidence demonstrating how these cooperative attitudes contribute to economic outcomes. Generalized trust can improve institutional quality and reduce transaction costs, and its impacts have been shown using case studies (Putnam et al., 1993) as well as quantitative methods using cross-country data (Knack and Keefer, 1997; La Porta et al., 1997) and household-level data (Narayan and Pritchett, 1999; Maluccio et al., 2000; Carter and Castillo, 2011). Carter and Castillo (2011) provided empirical evidence of the important role of altruistic sharing norms in improving household well-being in South African communities.

Meanwhile, economic historians have documented how intolerance could stunt economic outcomes by slowing down technological progress. Landes (1998), for instance, argued that religious intolerance was responsible for scientific regress in many (Catholic) European countries. Similarly, Chaney (2008) has argued that religious tolerance and diversity contributed to scientific progress in medieval Muslim societies by facilitating inter-religious

¹All three attitudes studied here naturally fall under what Guiso et al. (2011) called "civic capital", i.e., "those persistent and shared beliefs and values that help a group overcome the free rider problem in the pursuit of socially valuable activities".

debates. However, once Islam became the *de facto* majority religion, intolerance prevailed which eventually led to the decline of intellectual enterprise in these societies

I find that: (i) religiosity is associated with a higher willingness to help and trust of individuals within one's own community, but not with the (generalized) trust of strangers; (ii) however, religiosity is associated with more religious discrimination; (iii) interestingly, but consistent with the social psychology literature, religiosity is also associated with greater ethnic discrimination; and (iv) mainly among Muslims, religiosity is negatively associated with tolerance. The evidence, therefore, supports the notion that religion may be linked to "parochial altruism" (Bernhard et al., 2006; Choi and Bowles, 2007), which is altruism towards members of one's own group and hostility towards members of the out-groups. In Indonesia, this link is strongest for Muslims.

Meanwhile, I look at social interactions by examining how religious diversity and segregation in the community are associated with cooperative attitudes. Similar to Alesina and La Ferrara (2002), I find a negative association between trust of neighbors and strangers and community diversity. Moreover, people also tend to be more trusting in more segregated communities. However, religious diversity is positively correlated with tolerance, while segregation is negatively correlated with tolerance. These findings support the idea that network effects may sustain discriminative attitudes. At the same time, they also support the optimal contact hypothesis of Allport (1954) which posits that, under the right circumstances, frequent interactions with those who are dissimilar may reduce prejudice.

The next section reviews the literature on religion and intra- and inter-group cooperation. It consists of two parts. The first part reviews literature that links religion with individual beliefs and attitudes toward social cooperation. It examines how individual religiosity is associated with different behaviors and how they differ across religions. Then, the second part examines the link between community heterogeneity and cooperation and reviews possible explanations for such findings. Section 3 then elaborates the empirical strategy to identify the link between religion and civic capital. It elaborates the data used as well as the measurements for both the dependent and independent variables. In Section 4, I report my findings. Section 5 concludes.

2 Review of the literature

2.1 Religion and the individual

Does religion increase altruism, trust, and tolerance? Since all religions teach benevolence, we would expect that it does. Moreover, we would also expect that altruism, trust, and tolerance to be increasing with the religiosity of the individual. Existing evidence, however, does not fully corroborate these expectations.

On altruism, sociological surveys based on self reports often provide evidence that people who attend religious services and pray more are more likely to contribute to charity. Social psychology studies, however, question some of these findings. Batson et al. (1993) compared between studies that used self-reports measures and those using behavioral ones to examine the link between helpfulness (or altruism) and religious involvement. They found that the positive associations often found using the former measures disappeared when behavioral measures were used. Similarly, using economic experiments, Anderson et al. (2010) did not find religious involvement to be a significant predictor of contributions in public goods games. Further evidence suggests that the positive findings based on self-reports may have been driven by stronger reputational concerns, instead of actual willingness to help, among the religious (Batson et al., 1993; Norenzayan and Shariff, 2008).

Meanwhile, there is also mixed evidence on the link between religiosity and trust. Analyses of observational data provides the evidence for the link between religiosity and trust. Using the generalized trust question from the World Value Survey (WVS) data for 66 countries, Guiso et al. (2003) found that religious people trust others more than the non-religious (although not compared to atheists). Among the religious, trust toward others is positively correlated with current religious participation, but not by whether a person is brought up religiously. Using a similar question on generalized trust, Mujani (2004) found that participation in the various Islamic rituals was positively correlated with interpersonal trust.

However, the evidence from economic experiments is more mixed. Using the standard experimental trust game, Anderson et al. (2010) did not find a link between the intensity of religious participation and trust toward anonymous partners. However, information about the partner's religious norms appears to influence trust. When the same game is implemented among (mainly Judeo-Christian) German subjects, Tan and Vogel (2008) find that information about the otherwise anonymous partner's religiosity affects be-

havior. The religious are trusted more, particularly by the religious others. Moreover, the religious trustees are also more trustworthy. The importance of information on partner's religion (or ideology) is echoed in studies using a different experimental game between kibbutzim and non-kibbutzim members (Sosis and Ruffle, 2004; Ruffle and Sosis, 2006). Sosis and Ruffle (2004) find that members of religious kibbutzims in Israel are more willing to cooperate when anonymously paired with a member of the kibbutzim than with a city resident.

The one relationship in which both observational and experimental evidence align is that between religiosity and tolerance. Results based on observational as well as behavioral evidence since Allport and Kramer (1946) first found the positive association between religious affiliation and racial prejudice are strongly in favor of finding a positive link between religiosity and intolerance (Batson et al., 1993; Hall et al., 2010; Guiso et al., 2003). More recently, experimental evidence using priming of religious concepts provide further evidence that when one's religious identity is made salient, there is greater intolerance towards members of the out-group – both in terms of religion and ethnicity (McCauley, 2009; Johnson et al., 2010; Parra, 2011).²

The next question is whether there are inter-religion differences in cooperative behavior. There is very little literature on this question. Benjamin et al. (2010) used priming to examine the impact of the salience of religious identities among Catholics, Protestants, Jews, and non-believers. After receiving religious priming, subjects were asked to play experimental games to measure their contributions to the public goods and dictator games. Among Catholics, religious priming decreased public good contributions and expectations of other's contributions, while among Protestants, it increased contributions. However, religious identity did not affect generosity in the dictator game.

With respect to trust, the cross-country analysis of observational data by Guiso et al. (2003) found that participation in religious services increases trust only among Christians. Among the Christian denominations, Putnam et al. (1993) has argued that because of its hierarchical structure, Catholicism tend to breed less interpersonal trust than Protestantism. Observational analyses using cross-country data found support for this conjecture, although this difference was smaller among younger Christians (La Porta et al., 1997; Guiso et al., 2003).³ However, such a difference is not found in the

²Moreover, McCauley (2009) also found that the effects of salient religious identities on inter-group discrimination are stronger than those of tribal ones.

³Guiso et al. (2003) show that Catholics born after the Second Vatican Council are

analysis using United States data (Alesina and La Ferrara, 2002).

Meanwhile, the link between religion and intolerance are present across all religious denominations, with a notable except of Buddhists, who are on average more tolerant than non-religious people. The least intolerant towards immigrants and other races were Hindus and Muslims, followed by Jews, Catholics and Protestants (Guiso et al., 2003).

2.2 Community heterogeneity and cooperation

The foregoing suggests a strong association between religion and in-group bias. Religious heterogeneity at the community level, hence, may influence individuals' cooperative attitudes and, consequently, its community-level aggregate. Overall, the evidence suggests a negative association between community heterogeneity and the various measures of civic engagements (Alesina and La Ferrara, 2000; Costa and Kahn, 2003), trust (Glaeser et al., 2000; Alesina and La Ferrara, 2002), and the willingness to provide public goods (Vigdor, 2004; Miguel and Gugerty, 2005) or support redistribution policies (Luttmer, 2001). Most of the literature focuses on diversity, typically measured using the fragmentation index. More recent literature, however, begins to provide evidence that segregation may play a more important role than diversity in influencing the quality of governance (Alesina and Zhuravskaya, 2011) and social capital (Uslaner, 2010; Rothwell, 2010).

Inter-group discrimination may account for the link between heterogeneity and lower cooperation (e.g., Alesina and La Ferrara, 2002). Individuals may discriminate out of either preference or prejudice (or false expectations). Social interactions can affect discrimination by, among others, facilitating statistical discrimination or through network effects (Arrow, 1998; Fafchamps, 2004). In the former, if people do not interact in groups, then those interactions would allow individuals to assess each other's qualities (or "types") based on their observable characteristics, in which religion may be one. In this case, statistical intergroup discrimination occurs only if individuals in different groups have different hidden characteristics.

On the other hand, if individuals tend to interact more within groups or networks, these interactions may result in discrimination, even when individuals do not have a preference for discrimination and there is no differential hidden characteristics across groups. Why? For one, within-network (or in-group) interactions facilitate better transmission of information (Granovetter, 2005; Fafchamps, 2004). As a result, individuals can screen the

more trusting and tolerant than their older cohorts, even though their moral values did not significantly differ from older Catholics.

“good” from the “bad” types among the in-groups better than among the out-groups.⁴ Moreover, denser networks allow for better enforcements of cooperative norms among the in-groups. Using field experiments among subjects from a slum in Kampala, Uganda, Habyarimana et al. (2007) find that better within-ethnicity enforcement of cooperative norms may be one of the key explanations for why ethnic diversity lowers public good provision.

In the presence of network effects, diversity may reduce overall level of cooperation in the community. On the other hand, diversity can also foster better intergroup cooperation by softening prejudice. The optimal contact hypothesis of Allport (1954) suggests that under optimal conditions, contacts with people who are different will break down stereotypes and reduce prejudice. Henceforth, diversity can potentially reduce discriminative trust and intolerance. A large meta-analytic study of intergroup contacts by Pettigrew and Tropp (2006) provides support for this optimal contact hypothesis.

3 Empirical strategy

At the individual level, the three main variables of interest are *religiosity*, *religion*, and the interactions between the two variables. Meanwhile, the community-level variables of interest are community-level diversity and segregation. Since the religion variables are only available in the latest wave of the IFLS, the analysis here will be cross-sectional. For all of these variables, I address the issue of the endogeneity in two ways. First, I include the standard control variables (e.g., demographic and expenditure variables) and other variables that may affect outcomes, based on the literature, at various aggregations.

Second, I also include fixed effects at different levels of aggregation. For *religiosity* and *religiosity* \times *religion* interactions, I implement community fixed effects.⁵ Meanwhile, to analyze inter-religion differences, I implement

⁴Fafchamps (2004) elaborates a game-theoretic model of trust-based exchanges in which information propagated through ethnic-based (or religion-based) social networks can act to sustain an equilibrium with discrimination among individuals with no preference for discrimination even in the absence of differential hidden characteristics across groups.

⁵In the case of *religiosity* and *religiosity* \times *religion* interactions, the household fixed effects would remove more unobservables than community fixed effects. However, at the same time, it removes the effects of religiosity that have been “institutionalized” in the household. This may result in a significant loss of information as 8,387 out of 12,680 households are homogeneous in their religiosity. Out of 8,387 households with homogeneous religiosity, 2,943 households have a single member. In terms of the number of individuals, however, about 44% of individuals in the sample live in these homogeneous-religiosity households. At any rate, I have estimated both models, and found that in terms

province fixed effects since almost half of the districts in the sample, respondents have homogeneous religion.⁶ Meanwhile, for the community heterogeneity variables, I implement both province and district fixed effects.

Despite efforts to address these sources of endogeneities, potential latent variables problems remain. For instance, household fixed effects may have absorbed some of the differences that are inherent to a family (such as genetic differences); however, they cannot eliminate intra-household unobservables such as personality differences. Given this limitation, the following results should be interpreted as correlations – albeit, precisely estimated ones. Therefore, words like “impact”, “affect” or “influence” are to be seen as exposition tools, and refer to correlations instead of causation. At the same time, these findings correspond very well with existing literature on the link between religion and cooperative behavior.

All estimates in the main paper are made using OLS.⁷ For province and district fixed effects models, standard errors are robust and clustered at the community level. For the community fixed effects model, standard errors are robust and clustered at the household level. The standard errors are robust for the household fixed effects model.

3.1 Data

The main dataset for the analysis is the Indonesian Family Life Survey (IFLS), a longitudinal, socio-economic household survey based on a sample representing 83% of the Indonesian population living in 13 out of 26 provinces in 1993. The survey collects a rich set of information on households and the communities they live in, as well as the facilities that are available to them. Until now, there are four full-sample waves of the survey (IFLS1-IFLS4), conducted in 1993, 1997, 2000, and late 2007.⁸ In subsequent waves, IFLS follows the same individuals and households, as well as their split-offs.

For this analysis, I use the fourth wave of the IFLS (IFLS4). IFLS4 added new sets of questionnaire modules that were not available in previous survey

of the variables of interests, they give qualitatively similar results.

⁶Out of 233 districts in the sample, 112 districts have homogeneous religion. In terms of the number individuals, about 33.8% of individuals live in the sample’s homogeneous-religion districts.

⁷As a robustness check (not reported), I have also implemented the ordered logit fixed effects model of Baetschmann et al. (2011) for most of the models. Overall, the results from the two estimations are similar.

⁸In 1998, an additional survey interviewing 25% of the sample, known as IFLS2+, was conducted to measure the impact of the economic crisis.

waves. These new modules include questions on religion (and religiosity), general trust, community trust, and tolerance. These questions will be the basis of the main analysis in this paper. IFLS4 will also be the main source of data for all other individual and household-level variables. In total, IFLS4 interviewed 29,060 adults in 12,688 households.

In addition to IFLS, I use the 2000 Indonesian Population Census to construct the community-level religious diversity and segregation variable. The census collected information on individual religion. In principle, it has 100% coverage of the population on all indicators, although in practice, numbers for some areas were estimated due to political issues in post-transition Indonesia (Suryadinata et al., 2003, p. xxiv).

Finally, I also use the 2007 National Socio-economic Survey (*Susenas*) data to construct the regional inequality measure. *Susenas* is a repeated cross-section survey that collected household information, including household expenditure and household size, and is representative at the district level. Since 1989, the survey is fielded annually. Using these variables, I constructed the district-level gini coefficient for per-capita expenditure as a proxy of regional inequality. I use the 2007 *Susenas*, which is the closest year prior to the implementation of IFLS4.

3.2 Measures of helpfulness, trust and tolerance

IFLS4 contains a number of questions that measure different aspects of cooperative norms and attitudes. In one set of questions, respondents were asked to rate on a four-point Likert-type scale – from “strongly disagree” to “strongly agree” – the following statements:

- (i) “I am willing to help people in this village if they need it”;
- (ii) “In this village I have to be alert or someone is likely to take advantage of me”;
- (iii) “I would be willing to leave my children with my neighbors for a few hours if I cannot bring my children with along”;
- (iv) I would be willing to ask my neighbors to look after my house if I leave for a few days”.

In addition, respondents were asked to assess how safe their villages were; and how safe it was to walk around at night. This set of questions can be interpreted as measures of community norms. Responses to (i) can be interpreted as a measure of helpfulness, while responses to (ii), (iii), (iv),

TABLE 1: SUMMARY STATISTICS FOR THE TRUST AND TOLERANCE VARIABLES

	Mean	Std. dev.	Median	IQR	Min	Max
Community altruism and trust						
Willingness to help	3.15	0.38	3	0	1	4
Must be cautious	3.04	0.45	3	0	1	4
Trust neighbor to watch [...]						
children	2.68	0.57	3	1	1	4
house	2.87	0.46	3	0	1	4
Village is [...]						
generally safe	3.07	0.37	3	0	1	4
safe at night	2.99	0.38	3	0	1	4
Trust						
Trust [...] to return lost wallet						
neighbors	3.03	0.94	3	1	1	4
police	2.81	0.99	3	2	1	4
strangers	1.52	0.78	1	1	1	4
Discrimination						
Trust [...] more						
coreligionist	2.80	0.58	3	1	1	4
coethnic	2.65	0.58	3	1	1	4
Tolerance						
Tolerate non-coreligionist to live in [...]						
village.	2.80	0.54	3	0	1	4
neighborhood.	2.75	0.58	3	0	1	4
house.	2.43	0.73	3	1	1	4
Tolerate non-coreligionist to [...]						
marry a relative.	1.77	0.81	2	1	1	4
build house of worship	2.26	0.79	2	1	1	4

and the safety questions can be interpreted as measures of the level of the individuals' trust of their community.

In another set of questions, respondents were asked to imagine a scenario where they lost a wallet or a purse containing Rp. 200,000 (or approximately US\$20) along with an identity card. Respondents were then asked to assess how likely they would get the wallet back with the money intact if it were found by: (i) someone who lives close by; (ii) a policeman; and (iii) a stranger. Respondents can respond on a 4-scale measure from "very unlikely" to "very likely". Their answers provide us with a measure of trust – more specifically, as argued by Guiso et al. (2011), they are assessments of the likelihood of being cheated by different types of anonymous "opponents".

Respondents were also asked to rate on a four-point Likert-type scale the following statements about trust of people of the same ethnicity and religion: "Taking into account the diversity of ethnicities (religions) in the village, I trust people with the same ethnicity (religions) as mine more". I use answers to these questions as measures of in-group trust and ethno-religious discrimination.

Finally, as measures of religious tolerance, I use a set of questions regarding respondent attitudes towards others of a different religion (or non-coreligionists). In particular, IFLS4 asked whether respondents object to having non-coreligionists live in their village, neighborhood, or house. It also asked whether respondents would object if one of their relatives was going to marry a non-coreligionist and if people of a different religion were to build a house of worship. In all these questions, respondents can respond on a 4-scale measure, from "no objection at all" to "not acceptable".

Table 1 presents the summary statistics for these outcome variables. In general, respondents report a high level of community altruism and trust, while at the same time, maintain a high level of caution. The combination of a high level of caution with a high level of community trust appears paradoxical. However, a principal-agent model of Breuer and McDermott (2011) suggests a mechanism of which we can obtain this relationship at the societal level: All else constant, an increase in caution indirectly increases the incentives to be trustworthy while at the same time directly reduces trust. They show that the net effect of the direct and indirect channels from caution to societal trust is always positive.⁹ For the different types of trust,

⁹I find positive correlations between the community-level averages of caution and willingness to help as well as caution and trust of strangers. However, I do not find a correlation between caution and trust of neighbors.

respondents are also trusting of their neighbors and, to a lesser extent, the police. However, their trust of strangers – which is often seen as the type of trust that matters most in facilitating economic outcomes (Glaeser et al., 2000; Guiso et al., 2011) – is much lower.

Meanwhile, based on the averages of the tolerance measures, we can rank the issues captured by these measures from the most to the least contentious. Interfaith marriage is the most contentious, followed by the issue of allowing non-coreligionists to build a place of worship. Relative to these two issues, respondents are much more tolerant about allowing non-coreligionists live in the same village or neighborhood, but not so much in the same house.

TABLE 2: SUMMARY STATISTICS FOR THE REGRESSORS

	Mean	Std. dev.	Median	IQR	Min	Max
Individual-level variables						
Religiosity	2.82	0.56	3	0	1	4
Male	0.48	0.50	0	1	0	1
Age	36.87	15.62	34	22	13	100
Years of education	7.40	4.02	9	3	0	18
Received corelgn edu.	0.21	0.41	0	0	0	1
Received non-corelgn edu.	0.02	0.16	0	0	0	1
Risk aversion	2.38	1.27	3	0	-1	3
Patience	1.48	0.93	1	1	0	4
Household-level variables						
Majority religion (village)	0.94	0.23	1	0	0	1
Monthly PCE	437373	684939	286109	327101	0	5.83E+007
Community-level variables						
Urban	0.46	0.50	0	1	0	1
Village diversity	0.22	0.27	0.10	0.32	0	1.32
Within village segregation	0.04	0.06	0.02	0.05	0	0.47
Subdistrict diversity	0.26	0.27	0.17	0.35	0	1.26
Within subdistrict segregation	0.04	0.06	0.01	0.03	0	0.52
District-level variables						
District PCE gini	0.26	0.05	0.26	0.06	0.17	0.38

3.3 Religion and the measure of religiosity

Our analysis focuses on examining how religion and religious intensity correlate with social and civic capital in Indonesia. In IFLS4, each respondent was asked about his or her religion and can choose between Islam, Catholicism, Protestantism, Hindu, Buddhism, and Confucianism. For this analysis, we drop the 24 observations who answered Confucianism. Each respondent was also asked to evaluate his or her own religiosity out of a 4-scale measure

– “not religious”, “somewhat religious”, “religious” and “very religious”. These two variables and their interactions will be our main regressors of interest. Table 3 presents the distribution of religiosity overall and for each religion.

TABLE 3: DISTRIBUTION OF RELIGIOSITY

	Not religious	Somewhat religious	Religious	Very religious	Num. of obs.
All religions	0.03	0.19	0.73	0.06	28973
Islam	0.03	0.19	0.73	0.05	25890
Catholic	0.03	0.15	0.72	0.09	447
Protestant	0.02	0.15	0.76	0.07	1157
Hindu	0.01	0.05	0.77	0.17	1392
Buddhist	0	0.21	0.70	0.09	87

The religiosity question in IFLS is a self-assessment question; it is therefore useful to examine how answers to these questions relate to observed behavior. For adherents of each religion, IFLS4 asked a pair of questions on an individual’s religious practices. Muslims were asked how many times they prayed every day and whether they observed the *halal* food requirement. Christians were asked how often did they pray or read the bible and whether they actively participated in activities such as religious fellowships. Meanwhile Buddhists and Hindus were asked whether they meditated in the temple and whether they observed certain religion-related diets. I use these data to validate respondents’ self-assessments of their religiosity.

Table 4 presents the share of individuals that follow a particular religious practice for a given level of religiosity and for each religion. The pattern suggests strong correlations between self-assessment of one’s religiosity and his or her adherence to religious practices across different religions. For Muslims, the more religious a person, the more likely that he or she follows (and go beyond) the mandatory number of prayers of five times a day. However, there does not seem to be much variation with respect to keeping the *halal* diet across different religious intensities, except among the non-religious muslims. Similarly among Christians, the more religious tend to pray more frequently during the day. In addition, they are also more likely to participate actively in religious activities such as prayer fellowships. Meanwhile, more religious Hindus are more likely to frequent temples daily, and are more likely to maintain follow the no beef/red meat dietary restrictions. Similarly, more religious Buddhists are more likely to pray in the temple

TABLE 4: SHARE OF PRACTICING INDIVIDUALS FOR A GIVEN RELIGIOSITY

	Not religious	Somewhat religious	Religious	Very religious	Refused to answer
Muslim					
How many times do you pray each day?					
[$\chi^2(9, 25856) = 8.9e + 03, p = 0.00$]*					
Do not practice	0.66	0.25	0.04	0.01	0.19
Between 0 and 5	0.25	0.43	0.11	0.09	0.07
5 times	0.08	0.29	0.73	0.65	0.47
More than 5	0.01	0.02	0.11	0.25	0.07
Refused to answer	0.00	0.00	0.00	0.00	0.21
Do you eat halal food?					
[$\chi^2(3, 25856) = 140.4, p = 0.00$]*					
Yes	0.91	0.96	0.98	0.98	0.95
Num. of obs.	712	5034	18793	1352	58
Christian					
How often do you pray/read the bible?					
[$\chi^2(12, 1601) = 319.9, p = 0.00$]*					
Do not practice	0.27	0.02	0.01	0.01	0.00
Sometimes	0.41	0.31	0.12	0.05	0.00
Morning and evening	0.10	0.20	0.08	0.05	0.00
Once a day	0.15	0.17	0.28	0.23	0.50
Before each activities	0.07	0.29	0.51	0.67	0.50
Refused to answer	0.00	0.00	0.00	0.00	0.00
Do you actively participate in religious activities?					
[$\chi^2(3, 1601) = 151.8, p = 0.00$]*					
Yes	0.27	0.62	0.85	0.91	0.5
Num. of obs.	41	244	1205	120	2
Hindu					
Do you practice meditation in the temple?					
[$\chi^2(9, 1392) = 118.1, p = 0.00$]*					
Do not practice	0.38	0.04	0.01	0.00	0.00
On holy days	0.25	0.41	0.28	0.19	0.33
During the full moon	0.38	0.17	0.25	0.20	0.67
Every day	0.00	0.38	0.46	0.61	0.00
Do you have religious-related dietary restrictions?					
[$\chi^2(9, 1392) = 27.1, p = 0.00$]*					
No dietary restrictions	0.75	0.80	0.70	0.61	0.67
Some dietary restriction	0.13	0.01	0.02	0.00	0.00
No beef/red meat	0.13	0.17	0.27	0.36	0.33
Vegetarian/vegan diet	0.00	0.01	0.01	0.02	0.00
Num. of obs.	8	71	1068	242	3
Buddhist					
Do you practice meditation in the temple?					
[$\chi^2(4, 86) = 11.49, p = 0.02$]*					
Do not practice	-	0.56	0.16	0.25	0.00
On 1st & 15th of each Chinese month	-	0.22	0.39	0.25	1.00
Every day	-	0.22	0.43	0.50	0.00
Are you a vegetarian?					
[$\chi^2(2, 86) = 3.93, p = 0.14$]*					
Yes		0.00	0.13	0.25	1.00
Num. of obs.		18	61	8	1

* χ^2 calculations exclude respondents who refuse to answer the religiosity question.

daily and be a vegetarian.

TABLE 5: SHARE PARTICIPATING IN RELIGIOUS ACTIVITIES IN THE VILLAGE[†]

	Not religious	Somewhat religious	Religious	Very religious
All religions	0.29	0.41	0.61	0.70
Islam	0.28	0.40	0.59	0.66
Catholic	0.27	0.57	0.80	0.76
Protestant	0.45	0.62	0.76	0.88
Hindu	0.67	0.66	0.79	0.82
Buddhist	-	0.00	0.26	0.57

[†] Responses to whether respondents participate in any religious activity held in the village in the past 12 months.

To further validate this measure, I also consider a question from IFLS’s community participation module – which is a module that is separate from the religion module. In the community participation module, respondents were asked whether they knew of a particular activity in the village, and if they do so, whether they participated. Included in the list of activities inquired is a religious activity. Table 5 presents a summary on responses for different levels of religiosity. Participation is monotonically increasing in religiosity except between the non- and somewhat-religious Hindus, and religious and very-religious Catholics.

3.4 Community-level diversity and segregation measures

Community-level diversity may effect cooperative norms through network effects and intergroup contacts. To capture diversity, following Reardon et al. (2000), I consider the diversity index, first proposed by Theil, that uses the entropy of the discrete probability distribution of groups in the unit of analysis. That is, in community i , the entropy of the discrete probability distribution of religion in a village is calculated as follows:

$$H_i = \sum_r^R s_{ir} \ln \left(\frac{1}{s_{ir}} \right) \quad (1)$$

where s_{ir} indicates the share of population with religion r in community i . The index can take a value of between zero (perfectly homogeneous) and the natural log of the number of distinct religious groups in the community.

Meanwhile, we measure segregation using the Mutual Information Index that is also based on the entropy measure of diversity. Essentially, the Mutual Information Index measures the difference in the entropy of the community’s religious distribution with the weighted average of the entropy of the sub-communities. In their comparisons of the properties of different segregation measures, Reardon and Firebaugh (2002) and Frankel and Volij (2011) conclude that the Mutual Information Index is the most well-behaved.¹⁰ Hence, for community i and its subcommunities, indexed by n , the segregation index is calculated as:

$$M_i = H_i - \sum_{n \in N} \pi_n H_n. \quad (2)$$

where π_n is the population weight for subcommunity n . A larger value indicates a more segregated community. Like the diversity index, the segregation index can take a value of between zero and the natural log of the number of distinct groups in the community.

I use the 2000 population census to construct these indices both at the subdistrict and village level. The subdistrict segregation index compares the subdistrict entropy with the population-weighted average of the entropy of its villages. Hence, a more segregated subdistrict is one where individuals of different religions are more clustered in the different villages. Meanwhile, the village segregation index compares the village entropy with the population-weighted average of the entropy of the census tracts within the village. A more segregated village, therefore, is one where individuals of different religions are clustered in the different census tracts.

Ideally, I want to construct these indicators for all villages in the sample. However, IFLS only provides village location identifiers for the original 311 villages; for respondents who moved outside of the original villages, IFLS only provides the subdistrict location identifiers. Hence, for those who moved out of the original villages (or the “movers”), I constructed the diversity variables by first constructing diversity indices for villages in all IFLS subdistricts. I then take averages of the village-level diversity variables for each subdistrict and assign them to the movers.¹¹

¹⁰Frankel and Volij (2011) found that the Mutual Information Index did not satisfy the composition invariance property. Composition invariance property states that the segregation of a community should not change when the number of students from a particular religion in the sub-communities is multiplied by the same number across the community. However, in this analysis, segregation is used to analyze the effect of exposure on attitudes. Coleman et al. (1982) argue that this property is unnecessary in this case.

¹¹Due to issues with matching IFLS with the 2000 Census, I am not able to assign 157

3.5 Control variables

I implement the same set of control variables across outcomes, which is summarized in Table 2. In all models, I include the standard individual characteristics such as sex, age, married status, and years of education. To address potential non-linear effects of age, I include linear splines with knot points at 25, 45, and 65 years old. Similarly for education, I also introduce linear splines for years of education with knot points at 6 and 12 years of education.¹²

Meanwhile, many religion-based education institutions often function as a source of oblique socialization of religious values and beliefs. The values transmitted through these institutions in the past may affect cooperative attitudes at present. To capture this, I employ data on each individuals' education history. IFLS contains information on the types of institution managing the schools attended by the respondents, including whether it is a religion-based – to wit, Catholic, Protestant, or Buddhist, but not Hindu – institution. With this information, I construct an indicator of whether the respondent receives an education from an institution of her religion (or a “coreligion education”) or a religion-based institution that is not of her religion (or a “non-coreligion education”).¹³

The decision to cooperate can be a risky act. I therefore include the individual's measure of risk aversion. IFLS elicits risk aversion by asking respondents to choose payoffs with different risk levels, which I used to create an ordinal ordering of risk aversion.¹⁴ However, risk aversion is elicited using without real payoffs. There are some concerns about potential biases from this approach; however, the experience from the Mexican Family Life Survey suggests that such biases may not have been so severe (Strauss et al., 2009).

Moreover, an individual's discount factor may affect local cooperative attitudes through its effects on social capital investment (Glaeser et al.,

individuals with community-diversity indices.

¹²The coefficients for the all of the linear splines represent the slopes of the interval.

¹³To obtain this information, I made use the panel nature of the dataset to trace the education history from the first wave of IFLS (IFLS1). This introduced a minor problem, since IFLS1 conflated Buddhists and Protestant schools into a single category. In these cases, I assume that the respondent is attending a Protestant-managed school. The potential misclassification from this last assumption is miniscule, since even if all of these schools assumed to be Protestant-managed are Buddhist-managed, at most I would have misclassified 59 individuals (49 Protestants and 10 Buddhists).

¹⁴For risk aversion, I created a scale from -1 to 3 where a larger number indicates more risk aversion. I indicate as -1 individuals who are “gamble-lovers”, i.e., those who prefer a gamble over a sure payoff although the winning from the gamble equals to the sure payoff (and hence the expected payoff of the gamble is, naturally, lower than sure payoff).

2002). IFLS elicits a measure of the individual discount factor by asking respondents to choose different payoffs that give returns at different times from today. Similar to the measure of risk aversion, the discount factor is elicited without real payoffs.

At the household level, I include the per-capita log expenditure with a level spline at the median and whether the a member of the household was recently a victim of a crime. At the community level, I include an indicator of whether the community is an urban or rural one. Finally, at the district level, I include the district level gini coefficient in 2007, calculated using the *Susenias* dataset.

4 Results

4.1 Demographic and other variables

Before examining how religion is correlated with cooperative attitudes, let us first look at the coefficients for the non religion-related regressors. Tables 6 and 7 present the results from the basic specification with most of the main regressors but without any fixed effects. These tables provide a first look at the links between the different plausibly exogenous regressors and the different outcomes. As a comparison, I also include the results for the household fixed effects model in Tables 27 and 28 of the appendix.

4.1.1 Gender

Men exhibit greater willingness to help and trust their community members than women. As shown in Table 6, the coefficients for the indicator variable, *Male*, are positive and significant on the willingness to trust neighbors to watch their children and their house as well as on their assessment on whether they expect their close neighbors to return their missing wallet. Men are also more likely to perceive the village to be safe than women.

Moreover, men are also more trusting of strangers (Table 6) and exhibit less discriminative trust with regards to ethnicity and religion (Table 7). Consistent with the finding on discriminative trust, men are also generally more tolerant towards non-coreligionists. There is an exception, however. Men are not more tolerant – although they are neither less tolerant – than women on allowing non-coreligionists build their house of worship in the village. Men are also less trusting of the police.¹⁵ These effects are robust

¹⁵Guiso et al. (2003) also found negative, albeit insignificant, coefficient of being a male and trust towards the police.

TABLE 6: TRUST OF THE COMMUNITY, STRANGERS & POLICE

	Willing to help (1)	Must be cautious (2)	Trust nbr. to watch kid(s) (3)	house (4)	Village is safe generally (5)	at night (6)	neighbors (7)	strangers (8)	to return lost wallet police (9)
Religiosity	0.052*** (8.61)	0.030*** (5.08)	0.026*** (2.89)	0.017*** (2.93)	0.068*** (10.86)	0.034*** (5.91)	0.135*** (9.32)	0.026*** (2.54)	0.155*** (10.14)
Received coreligion education	-0.004 (-0.51)	0.003 (0.39)	0.010 (0.82)	0.014* (1.67)	-0.006 (-0.90)	-0.007 (-0.95)	0.038** (2.03)	0.016 (1.06)	-0.039* (-1.93)
Received non-coreligion education	0.001 (0.08)	0.020 (1.12)	-0.035 (-1.43)	-0.006 (-0.35)	0.022 (1.36)	0.036*** (2.61)	0.031 (0.74)	-0.010 (-0.30)	0.001 (0.02)
Male	0.046*** (9.13)	0.009* (1.67)	0.050*** (6.49)	0.054*** (10.11)	0.026*** (4.96)	0.109*** (16.47)	0.030*** (2.71)	0.027*** (2.61)	-0.129*** (-9.99)
Age spline: Below 25†	-0.003** (-2.41)	-0.002 (-1.58)	-0.012*** (-4.38)	-0.002 (-1.36)	0.000 (0.10)	0.007*** (5.31)	-0.001 (-0.49)	-0.004** (-2.04)	-0.022*** (-7.54)
Age spline: Between 25 and 45†	0.001*** (3.00)	-0.000 (-0.87)	0.007*** (8.21)	0.003*** (4.73)	0.002*** (4.16)	0.002*** (4.91)	0.003*** (2.92)	0.003*** (2.94)	0.005*** (4.05)
Age spline: Between 45 and 65†	-0.001* (-1.88)	-0.001 (-0.84)	-0.001 (-0.88)	-0.002*** (-2.92)	-0.001* (-1.94)	-0.000 (-0.34)	0.000 (0.15)	0.003** (2.22)	0.000 (0.06)
Age spline: Above 65†	-0.002** (-1.98)	-0.001 (-0.51)	0.000 (0.23)	0.001 (0.47)	0.000 (0.04)	-0.001 (-0.81)	0.004 (1.31)	0.004 (1.49)	0.005 (1.45)
Years edu spl.: 0-6 years†	0.007*** (4.46)	0.002 (0.91)	-0.003 (-1.17)	-0.002 (-1.07)	0.002 (1.40)	-0.003* (-1.72)	0.008* (1.74)	-0.001 (-0.21)	0.016*** (3.22)
Years edu spl.: 7-12 years†	0.009*** (4.18)	0.017*** (7.16)	-0.020*** (-5.63)	-0.009*** (-3.96)	-0.004* (-1.82)	-0.002 (-1.00)	0.018*** (3.07)	0.021*** (4.98)	0.010* (1.81)
Years edu spl.: 13-18 years†	0.001 (0.38)	-0.005 (-1.30)	-0.002 (-0.44)	0.005 (1.17)	0.003 (1.05)	0.006* (1.74)	0.023*** (2.84)	0.035*** (4.82)	-0.019** (-2.16)
Risk aversion	0.000 (0.18)	-0.003 (-1.11)	-0.010** (-2.24)	-0.005* (-1.89)	-0.002 (-0.96)	-0.007** (-2.52)	-0.001 (-0.14)	-0.017*** (-3.64)	0.014** (2.19)
Patience	0.020*** (6.72)	0.022*** (6.61)	0.001 (0.25)	0.001 (0.30)	0.003 (1.02)	-0.007*** (-2.69)	0.008 (1.12)	0.015** (2.48)	0.050*** (6.38)
Log PCE spl.: Below median†	-0.001 (-0.20)	-0.002 (-0.30)	-0.006 (-0.46)	-0.012 (-1.40)	-0.016** (-2.01)	-0.014* (-1.79)	-0.032 (-1.59)	0.014 (0.95)	-0.018 (-0.83)
Log PCE spl.: Above median†	-0.005 (-0.88)	0.007 (0.92)	-0.041*** (-3.81)	-0.037*** (-4.83)	-0.013** (-2.27)	-0.017*** (-2.75)	-0.064*** (-4.44)	-0.002 (-0.19)	-0.011 (-0.70)
Urban	-0.015 (-1.40)	0.010 (0.96)	-0.066*** (-4.07)	-0.021** (-2.07)	-0.012 (-1.10)	-0.009 (-0.93)	-0.076** (-2.55)	0.021 (1.08)	-0.023 (-0.82)
Village diversity	-0.133*** (-4.78)	-0.117*** (-4.17)	-0.132*** (-3.13)	-0.084*** (-3.32)	-0.073** (-2.39)	-0.023 (-0.84)	-0.250*** (-2.58)	-0.076 (-1.36)	-0.062 (-0.86)
Within-village segregation	0.342*** (2.35)	0.321** (2.05)	0.032 (0.18)	0.183** (2.16)	0.139 (1.15)	0.093 (0.84)	-0.291 (-0.81)	-0.251 (-1.29)	-0.663** (-2.50)
District gini (07)	-0.247*** (-2.66)	-0.055 (-0.48)	-0.454*** (-2.91)	-0.085 (-0.79)	-0.303*** (-2.64)	-0.198* (-1.73)	0.553* (1.66)	0.804*** (3.93)	0.523* (1.78)
Constant	3.059*** (30.34)	2.983*** (29.22)	3.135*** (17.89)	3.051*** (27.38)	3.134*** (32.18)	2.937*** (26.92)	2.900*** (10.93)	1.104*** (5.58)	2.849*** (9.97)
N	28231	28230	21255	28229	28228	28226	27659	26735	26187
Adj. R ²	0.023	0.013	0.045	0.015	0.022	0.037	0.022	0.014	0.023

† statistics in parentheses

‡ Spline coefficients are for the slopes of the intervals. Standard errors are clustered at the community.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

TABLE 7: DISCRIMINATIVE TRUST & TOLERANCE

	Trust [...] more		Tolerate non-corn living in [...]			Tolerate non-corn to [...]	
	coreign (1)	coethnics (2)	village (3)	neighbor (4)	house (5)	marry relative (6)	build h. worship (7)
Religiosity	0.086*** (10.03)	0.075*** (9.24)	-0.044*** (-4.89)	-0.056*** (-5.85)	-0.088*** (-6.55)	-0.069*** (-3.77)	-0.074*** (-5.98)
Received coreligion education	0.050*** (4.43)	0.039*** (3.43)	-0.019 (-1.52)	-0.029* (-1.96)	-0.062*** (-3.39)	-0.116*** (-5.50)	-0.077*** (-4.15)
Received non-coreligion education	-0.110*** (-4.10)	0.014 (0.53)	0.067*** (3.87)	0.088*** (4.92)	0.218*** (8.51)	0.337*** (9.14)	0.273*** (8.98)
Male	-0.022*** (-3.08)	-0.047*** (-7.03)	0.014** (2.18)	0.012* (1.77)	0.038*** (4.26)	0.062*** (6.41)	0.001 (0.14)
Age spline: Below 25†	-0.005*** (-3.10)	-0.004** (-2.23)	0.003* (1.86)	0.003 (1.62)	-0.001 (-0.70)	-0.006*** (-2.73)	-0.003 (-1.46)
Age spline: Between 25 and 45†	0.002*** (3.21)	0.001 (1.53)	-0.001* (-1.69)	-0.002* (-1.81)	-0.003*** (-2.92)	-0.005*** (-4.81)	-0.001 (-0.57)
Age spline: Between 45 and 65†	0.001 (1.43)	-0.000 (-0.29)	0.001 (1.43)	0.001 (0.83)	0.000 (0.15)	0.004*** (2.64)	0.001 (0.80)
Age spline: Above 65†	-0.001 (-0.51)	0.003*** (2.25)	0.001 (0.37)	0.001 (0.72)	0.000 (0.21)	0.004* (1.70)	0.004 (1.51)
Years edu spl.: 0-6 years†	-0.001 (-0.23)	-0.004* (-1.66)	0.015*** (4.32)	0.017*** (4.43)	0.008* (1.69)	-0.008 (-1.46)	-0.000 (-0.06)
Years edu spl.: 7-12 years†	-0.032*** (-9.49)	-0.041*** (-12.14)	0.020*** (6.04)	0.021*** (5.73)	0.014*** (2.83)	-0.010* (-1.81)	0.016*** (3.08)
Years edu spl.: 13-18 years†	-0.006 (-1.04)	-0.008* (-1.71)	-0.003 (-0.64)	-0.006 (-1.20)	-0.007 (-1.07)	-0.018** (-2.40)	0.001 (0.14)
Risk aversion	-0.015*** (-4.19)	-0.010*** (-2.73)	0.023*** (5.86)	0.029*** (6.27)	0.023*** (4.17)	0.007 (1.22)	0.008 (1.58)
Patience	0.010** (2.03)	-0.010** (-2.30)	0.013*** (3.06)	0.009* (1.89)	-0.007 (-1.15)	-0.010 (-1.38)	-0.002 (-0.28)
Log PCE spl.: Below median†	-0.013 (-1.25)	-0.046*** (-4.21)	0.063*** (3.83)	0.068*** (3.75)	0.057** (2.49)	0.038 (1.58)	0.045** (2.23)
Log PCE spl.: Above median†	-0.025*** (-2.58)	-0.048*** (-4.88)	0.039*** (4.55)	0.043*** (4.58)	0.027** (2.17)	0.013 (0.82)	0.037*** (2.67)
Urban	-0.025 (-1.19)	-0.054*** (-2.66)	0.070*** (3.32)	0.081*** (3.26)	0.009 (0.27)	-0.114*** (-3.21)	0.007 (0.20)
Village diversity	-0.327*** (-5.15)	-0.268*** (-4.19)	0.368*** (9.71)	0.441*** (9.51)	0.701*** (9.66)	0.765*** (8.40)	0.968*** (11.82)
Within-village segregation	0.494** (2.53)	0.127 (0.51)	-0.337** (-2.14)	-0.476** (-2.33)	-0.990*** (-2.66)	-1.135*** (-2.82)	-0.958*** (-3.37)
District gini (07)	-0.072 (-0.38)	0.003 (0.02)	-0.693*** (-3.33)	-0.829*** (-3.48)	-0.868*** (-2.64)	-1.234*** (-3.55)	-1.386*** (-3.95)
Constant	2.988*** (21.17)	3.334*** (23.28)	1.963*** (8.93)	1.899*** (7.95)	2.020*** (6.53)	1.994*** (6.03)	2.120*** (7.84)
N	28230	28230	28231	28231	28230	28230	28230
Adj. R ²	0.061	0.086	0.081	0.091	0.071	0.053	0.097

t statistics in parentheses
† Spline coefficients are for the slopes of the intervals. Standard errors are clustered at the community.
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

to the both the community and household fixed effects specifications.

The findings on interpersonal trust broadly align with what is known about gender differences in social preference. On helping behavior, the meta-analytic studies of the psychology literature by Eagly and Crowley (1986) found that men helped more than women. Meanwhile on trust, using U.S. data, Alesina and La Ferrara (2002) find that women exhibit less generalized trust. Similarly, in their survey paper of gender differences in the experimental literature, Croson and Gneezy (2009) find that in trust games, women tend to trust less or the same than men, and that their decisions to trust are more sensitive to the experimental context and social distance.

4.1.2 Age

With only a cross-section dataset, we cannot disentangle between age and cohort effects. Hence, the analysis below will confound both effects. Below, we refer to the age groups as “young adulthood” (below 25 years old), “early adulthood” (25-45 years old), “middle adulthood” (45-65 years old), and “late adulthood” (above 65 years old).

Helpfulness of neighbors differ slightly across different age groups. However, most of these differences, except of the slight decline during late adulthood, disappear once we control for household fixed effects. The willingness to trust neighbors to watch one’s children or house when away increases with age during early adulthood. Meanwhile, while the assessment of the neighbor’s trustworthiness (i.e., whether they would return one’s lost wallet) also increases with age during early adulthood, this effect disappears under the household fixed effects (Table 28 in the appendix). The assessment of the trustworthiness of a police officer decreases with age among young adults and then, increases with age up among the early adults. Except for young and late adults, the significance of the age spline disappears under household fixed effects.

Trust toward strangers increases with age from early adulthood to the middle adulthood, but these correlations are not robust to the household fixed effects. Discriminative trust is negatively associated with age among the young adults and increases with age in early adulthood. Consistent with this result, religious tolerance is also declining with age among early adults. Interestingly, tolerance with regards to inter-faith marriage increases during the late middle age. The results on discriminative trust are robust to the inclusion of the household fixed effects.

4.1.3 Education

There is a non-linear effect of education on cooperative attitudes. The willingness to help increases with years of education up until 12 years of education, and the slope is slightly steeper between 6 and 12 years of education. An additional year of education between 6 and 12 years also increases caution and reduces the willingness to entrust neighbors with one's children or house when away, and is also associated with a lower assessment of village safety. At the same time, an additional year of education is also associated with a higher assessment of the trustworthiness of one's neighbors, although this association is only robust for between 6 and 12 years of education.¹⁶

Trust of the police increases with an additional year of education up to 6 years of education. Meanwhile, an additional year of education beyond high school is negatively associated with the trust of the police.

An additional year of education also facilitates more generalized trust of strangers, but only among those with more than elementary education. The slope of the correlation between an additional year of education and generalized trust is steeper for years of education beyond high school. An additional year of education during middle and high school is also associated with less discriminative trust with respect to both religion and ethnicity. It is also positively correlated with all tolerance measures, except for that regarding interfaith marriage – the most contentious issue when we compare the averages across the different tolerant measures (see Table 1). In fact, an additional year of education is associated with more intolerance with respect to interfaith marriage and the coefficient is significant in the household fixed-effects specification.

In contrast, an additional year of education up to the end of elementary school is positively associated with tolerance only for residential tolerance. An additional year of elementary school education is negatively associated with tolerance with respect to allowing non-coreligionists build a house of worship or marry a relative. There is no additional tolerance benefit from an additional year of education beyond high school.

¹⁶Although this, and similar results below showing that the sign for the coefficients on trust toward neighbors to be the same as those on caution, appear to be counterintuitive, they are not unreasonable. A principal-agent model by Breuer and McDermott (2011) show that although caution can directly reduce trust, it also can indirectly increase trust by increasing trustworthiness. Their model finds the net-effect of caution towards trust to be positive.

4.1.4 Risk and time preferences

Risk aversion is associated with a slight decline in community trust, but these effects are not robust to the household fixed effects. However, they are correlated with some of the measures of cooperative attitudes with the out-groups. Risk aversion is negatively correlated with the trust of strangers. Meanwhile, the correlations between risk aversion and the various measures of tolerance are sensitive to the different specifications. In the no fixed-effects model, risk aversion is positively correlated with residential tolerance. However, with the household fixed effects, risk aversion is negatively correlated with the three most contentious issues of tolerance, to wit, interfaith marriages, non-coreligionists' house of worship, and allowing non-coreligionists to live in the house.

Meanwhile, results from Glaeser et al.'s (2002) static model suggest that (local) social capital should increase with the individual discount factor. We therefore expect the discount factor to be positively correlated with community trust and altruism. However, our results here provide a mixed support for this prediction. The discount factor is correlated with some of the outcomes in the no fixed-effects model, but many of these relationships are not robust to the household fixed-effects specification. Only three relationships are robust in both specifications. A higher discount factor is associated with more willingness to help and a more cautious attitude. It is also negatively correlated with discriminative trust with regards to ethnicity.

4.1.5 Household welfare

Higher welfare is associated with less in-group bias and does not appear to be associated with community trust and altruism. Among households with more-than-median per-capita expenditure (PCE), higher welfare is correlated with a less willingness to entrust one's house or child to the neighbor.

Better welfare is also associated with less discriminative trust with respect to ethnicity and religion. Better welfare also appears to foster tolerance across all tolerance measures except with respect to interfaith marriages. However, especially among poorer respondents, some of these correlations are not robust. Among those with less than median PCE, the positive correlations on the tolerance measures disappear while the correlation between PCE and tolerance of interfaith marriages becomes negative when community fixed effects are included. Meanwhile, except with regards to allowing non-coreligionists live in one's house, the positive correlations remain among those with above-median PCE even though the magnitudes of the coefficients

are much smaller.

4.2 Religiosity and religion-based education

As previously discussed, for the analysis of religiosity, the preferred specification is one with the community fixed effects. Tables 8 and 9 present the results for this specification. Religiosity is positively correlated with cooperative attitudes involving members of the community and the in-groups, but not of the out-groups. Religiosity is positively correlated with helpfulness and willingness to trust neighbors with one’s children and property as well as a higher assessment of the neighbor’s trustworthiness. More religious people also perceive the village to be safer.

At the same time, religiosity is also positively correlated with religion-based and ethnic-based discriminative attitudes. It is uncorrelated with the trust of strangers and negatively correlated with *all* measures of tolerance (Table 9). Religiosity is also positively associated with the trust toward the police. The signs and significance of all coefficients on religiosity are robust to both community and household fixed effects, although they are smaller in the latter specification.¹⁷

Education from an institution with particular religious orientation has an impact on cooperative attitudes toward the out-groups. Having coreligion and non-coreligion education has almost no impact on local altruism or non-discriminative trust. However, having a coreligion education is associated with more trust of coreligionists, and less religious tolerance across all measures under the community fixed effects specification. In contrast, having been educated by a non-coreligion religious institution reduces religion-based discriminative attitude, and increases tolerance across all of the measures, except the least contentious one (i.e., allowing non-coreligionists to live in the same village). This latter result may be interpreted as support for Allport’s (1954) contact hypothesis.

4.3 Does the religion matter?

In addition to religiosity, I also explore whether different religions affect cooperative attitudes differently. Finding differential estimates for different

¹⁷We find that 88.2% and 2.02% of individuals who live in households with homogeneous religiosity reported themselves to be, respectively, “religious” and “very religious”, compared to 53.8% and 10.9% in the heterogeneous-religiosity households. The lower magnitudes of the coefficients in the household fixed effects therefore arrive in part from removing the effects from the more religious individuals in these homogeneous-religiosity households.

TABLE 8: RELIGIOSITY, RELIGION-BASED EDUCATION AND TRUST OF THE COMMUNITY, STRANGERS & POLICE

	Willing to help		Must be cautious		Trust nbr. to watch		Village is safe [...]		Trust [...] to return lost wallet	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
Religiosity	0.044*** (9.37)	0.026*** (4.51)	0.020** (2.46)	0.017*** (3.02)	0.052*** (10.78)	0.020*** (4.23)	0.098*** (8.33)	0.004 (0.48)	0.129*** (10.54)	
Received coreligion education	-0.008 (-1.33)	-0.002 (-0.20)	0.017 (1.49)	0.008 (1.06)	-0.004 (-0.61)	-0.009 (-1.36)	0.018 (1.24)	0.009 (0.69)	-0.008 (-0.50)	
Received non-coreligion education	-0.021 (-1.34)	0.032* (1.85)	-0.040 (-1.55)	-0.012 (-0.63)	0.007 (0.43)	0.016 (1.08)	-0.011 (-0.29)	-0.013 (-0.43)	-0.044 (-1.07)	
Community fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
N	28914	28913	21743	28912	28911	28909	28315	27395	26817	
Adj. R ²	0.088	0.059	0.120	0.056	0.097	0.101	0.116	0.070	0.093	

t statistics in parentheses

Standard errors are robust and clustered at the HH level. Included variables not shown: religiosity, sex, age spline, years of education spline, risk and time preference, the log-PCE spline, and a constant.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

TABLE 9: RELIGIOSITY, RELIGION-BASED EDUCATION AND DISCRIMINATIVE TRUST & TOLERANCE

	Trust [...] more		Tolerate non-corelgn living in [...]		Tolerate non-corelgn to [...]		
	corelgn (1)	coethnics (2)	village (3)	neighbor (4)	house (5)	marry relative (6)	build h. worship (7)
Religiosity	0.082*** (11.70)	0.050*** (7.54)	-0.035*** (-5.70)	-0.048*** (-7.60)	-0.088*** (-11.30)	-0.109*** (-11.93)	-0.075*** (-8.99)
Received coreligion education	0.024** (2.53)	0.020** (2.16)	-0.030*** (-3.88)	-0.035*** (-4.19)	-0.052*** (-4.74)	-0.048*** (-3.82)	-0.068*** (-5.75)
Received non-coreligion education	-0.117*** (-4.73)	-0.032 (-1.42)	0.025 (1.56)	0.038** (2.35)	0.113*** (4.87)	0.225*** (6.73)	0.140*** (5.09)
Community fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	28913	28913	28914	28914	28913	28913	28913
Adj. R ²	0.164	0.188	0.234	0.263	0.269	0.234	0.273

t statistics in parentheses

Standard errors are robust and clustered at the HH level. Included variables not shown: religiosity, sex, age spline, years of education spline, risk and time preference, the log-PCE spline, and a constant.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

religions is suggestive of the importance of the different religions on behavior. However, I agree with the interpretation suggested by Guiso et al. (2003) that the inter-religion differences may not necessarily reflect the true meaning of the teachings. Instead, it may very well reflect how the teachings have evolved to become the cultural traditions of adherents of these religions in Indonesia. In this sense, we examine how these religio-cultural traditions affect civic capital in Indonesia.

I approach the question in two stages. In the following, I will look at the average effects of religion. That is, controlling for religiosity (and other control variables), I examine whether the different religions of the individuals affect the intercepts of the various cooperative attitudes differently. Then, in Section 4.3.3, I examine how different religions differentially affect the link between religiosity and cooperative attitudes.

Some caveats are in order. First, as is the case in many multiethnic, multireligion countries, ethnicity and religion are not easily separable in Indonesia. In this particular context, two adherents of two of the religions are ethnically homogeneous: 88% of Hindus are Balinese and 81% of Buddhists in the sample are of Chinese descent. In addition, 86% of Hindus live in the province of Bali. Hence, the analysis cannot rule out confounding ethnicity effects. Second, the sample for Buddhists are very small – there are only 88 Buddhist respondents in the sample – and therefore, the estimates of its coefficients have low power.

4.3.1 Inter-religion differences in cooperative attitudes

Tables 10 to 12 present the results of the province fixed effects estimations. In these regressions, Islam is the omitted religion for the interaction variables. Overall, there appears to be very little inter-religion differences in terms of community and non-discriminative cooperative attitudes. However, there are significant inter-religion differences in terms of discriminative trust and tolerance and these differences are mainly between Muslims, who are the majority in the country, and the rest.

With respect to cooperative attitudes in the community, Christians are less willing to help their neighbors compared to adherents of other religions. Among the Christians, Protestants are less willing than Catholics. Meanwhile, Buddhists are less willing to trust their neighbors to watch their children or property. Hindus are less likely to assess their village to be generally safe, and Catholics are more likely to find their village safe to walk at night. There is no inter-religion difference on the three non-discriminative trust measures.

TABLE 10: INTER-RELIGION DIFFERENCES IN COMMUNITY TRUST

	Willing to help (1)	Must be cautious (2)	Trust nbr. to watch kid(s) (3)	Trust nbr. to watch house (4)	Village is safe generally (5)	Willing to help (7)	Must be cautious (8)	Trust nbr. to watch kid(s) (9)	Trust nbr. to watch house (10)	Village is safe generally (11)	Village is safe at night (12)
Catholic	-0.013 (-0.85)	-0.001 (-0.03)	-0.016 (-0.43)	-0.022 (-0.81)	0.021 (0.87)	-0.083** (-2.54)	-0.032 (-0.68)	0.029 (0.39)	0.011 (0.21)	-0.045 (-0.97)	0.025 (0.51)
Protestant	-0.030* (-1.70)	-0.028 (-1.23)	0.047* (1.94)	0.016 (0.87)	-0.015 (-0.76)	-0.128*** (-3.84)	-0.025 (-0.52)	0.055 (0.79)	0.037 (0.71)	-0.125*** (-2.80)	-0.050 (-1.06)
Hindu	0.009 (0.32)	0.012 (0.45)	0.057 (1.42)	-0.023 (-0.58)	-0.041* (-1.78)	-0.029 (-0.79)	0.001 (0.01)	0.107 (1.17)	0.087 (1.62)	-0.108** (-2.39)	-0.014 (-0.30)
Buddhist	0.000 (0.01)	0.013 (0.21)	-0.197** (-2.50)	-0.187*** (-2.98)	-0.064 (-0.92)	-0.093* (-1.70)	-0.043 (-0.54)	-0.141 (-1.30)	-0.158* (-1.93)	-0.145 (-1.64)	-0.111 (-1.45)
Majority religion in village											
... × Protestant						-0.075** (-2.37)	-0.033 (-0.73)	0.048 (0.72)	0.036 (0.74)	-0.071* (-1.69)	-0.027 (-0.59)
... × Hindu						0.148*** (2.82)	-0.046 (-0.69)	0.041 (0.45)	-0.000 (-0.01)	0.182*** (2.66)	0.110* (1.67)
... × Buddhist						0.073 (1.06)	0.018 (0.17)	-0.093 (-0.62)	-0.210* (-1.96)	0.129 (1.45)	0.060 (0.65)
Constant	3.032*** (77.90)	2.933*** (71.85)	2.938*** (37.44)	2.917*** (66.77)	2.960*** (74.52)	3.100*** (64.78)	2.965*** (50.07)	2.894*** (29.59)	2.881*** (48.28)	3.024*** (55.98)	2.785*** (45.78)
Province fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
P-val of joint test on:											
Religions	0.490	0.764	0.011	0.012	0.252	0.001	0.918	0.133	0.004	0.011	0.019
Religions × majority status	28253	28252	21272	28251	28250	28253	28252	21272	28251	28250	28248
Adj. R ²	0.047	0.028	0.064	0.029	0.040	0.048	0.028	0.064	0.029	0.041	0.056

t statistics in parentheses
 Prov. FE standard errors are robust and clustered at the community. Included variables not shown: Religiosity, receiving coreligion and non-religion education, sex, age spline, years of edu. spline, risk and time preference, log PCE spline, village diversity and segregation, and district gini.
 * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

TABLE 11: INTER-RELIGION DIFFERENCES IN GENERAL & DISCRIMINATIVE TRUST

	Trust [...] to return lost wallet			Trust [...] more			Trust [...] to return lost wallet			Trust [...] more		
	neighbors (1)	strangers (2)	police (3)	corelgn. (4)	coethnics (5)	neighbors (6)	strangers (7)	police (8)	corelgn. (9)	coethnics (10)		
Catholic	0.025 (0.42)	0.055 (1.30)	-0.030 (-0.38)	-0.318*** (-9.44)	-0.081** (-2.44)	-0.089 (-0.69)	-0.019 (-0.23)	-0.259** (-2.31)	-0.273*** (-3.37)	-0.072 (-0.97)		
Protestant	-0.019 (-0.31)	0.031 (0.95)	0.014 (0.33)	-0.193*** (-5.63)	-0.030 (-0.93)	-0.222* (-1.93)	-0.082 (-0.98)	-0.244** (-2.39)	-0.180** (-2.39)	-0.101 (-1.39)		
Hindu	0.051 (0.53)	0.021 (0.40)	0.082 (1.30)	-0.128*** (-2.80)	-0.014 (-0.31)	-0.117 (-1.03)	-0.117 (-1.33)	-0.122 (-1.10)	-0.211** (-2.30)	-0.059 (-0.62)		
Buddhist	-0.075 (-0.59)	-0.046 (-0.44)	-0.163 (-1.24)	-0.263*** (-2.96)	-0.167** (-2.13)	-0.213 (-1.37)	-0.100 (-0.75)	-0.409** (-2.45)	-0.187* (-1.74)	-0.151 (-1.46)		
Majority religion in village												
... X Protestant						-0.126 (-1.16)	-0.081 (-1.05)	-0.248*** (-2.62)	0.046 (0.65)	0.008 (0.12)		
... X Hindu						0.334* (1.86)	0.168 (1.41)	0.318** (2.57)	0.022 (0.19)	0.183 (1.64)		
... X Buddhist						0.335 (1.35)	0.265* (1.65)	0.387* (1.88)	0.164 (0.99)	0.092 (0.55)		
Constant	2.960*** (31.08)	1.518*** (20.63)	2.892*** (29.91)	2.829*** (44.89)	2.873*** (45.58)	3.074*** (21.41)	1.593*** (15.94)	3.122*** (23.79)	2.786*** (30.35)	2.862*** (32.67)		
Province fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
P-val of joint test on:												
Religions	0.909	0.648	0.483	0.000	0.035	0.213	0.468	0.056	0.018	0.541		
Religions x majority status	27679	26756	26205	28252	28252	27679	26756	26205	28252	28252		
Adj. R ²	0.071	0.040	0.061	0.107	0.128	0.071	0.040	0.061	0.108	0.129		

t statistics in parentheses
 Prov. FE standard errors are robust and clustered at the community. Included variables not shown: Religiosity, receiving coreligion and non-religion education, sex, age spline, years of edu. spline, risk and time preference, log PCE spline, village diversity and segregation, and district fixed effects. * p < 0.05, ** p < 0.01

TABLE 12: INTER-RELIGION DIFFERENCES IN TOLERANCE

	Tolerate non-corign living in [...]			Tolerate non-corign living in [...]			Tolerate non-corign living in [...]			Tolerate non-corign to [...]		
	village (1)	neighbor (2)	house (3)	village (6)	neighbor (7)	house (8)	marry reltv. (4)	bld h. wrshp (5)	house (9)	marry reltv. (9)	bld h. wrshp (10)	
Catholic	0.121*** (5.52)	0.154*** (7.01)	0.437*** (15.24)	0.085* (1.95)	0.090** (1.97)	0.314*** (4.84)	0.778*** (19.49)	0.553*** (16.10)	0.601*** (8.45)	0.329*** (3.33)		
Protestant	0.103*** (5.35)	0.137*** (5.67)	0.394*** (12.25)	0.062 (1.46)	0.065 (1.42)	0.254*** (3.89)	0.676*** (16.05)	0.430*** (10.55)	0.433*** (6.08)	0.259** (2.44)		
Hindu	0.113*** (3.28)	0.154*** (3.24)	0.298*** (8.58)	0.134 (1.54)	0.093 (0.97)	0.207 (1.51)	0.670*** (8.58)	0.178** (2.04)	0.482*** (2.77)	0.225* (1.73)		
Buddhist	0.163*** (3.16)	0.192*** (3.41)	0.392*** (6.05)	0.117* (1.80)	0.115* (1.67)	0.264*** (2.99)	0.966*** (11.11)	0.531*** (6.85)	0.757*** (7.27)	0.317*** (2.79)		
Majority religion in village				-0.039 (-0.93)	-0.069 (-1.53)	-0.132*** (-2.06)			-0.193*** (-2.98)	-0.236** (-2.35)		
... × Protestant				0.053 (0.82)	0.088 (1.17)	0.175* (1.81)			0.349*** (3.36)	0.126 (0.91)		
... × Hindu				-0.041 (-0.37)	0.115 (0.99)	0.173 (0.99)			0.360 (1.62)	-0.103 (-0.50)		
... × Buddhist				0.180** (2.40)	0.229*** (2.82)	0.191* (1.79)			0.560*** (4.62)	0.159 (1.24)		
Constant	2.700*** (40.55)	2.707*** (38.83)	2.685*** (29.06)	2.735*** (37.53)	2.771*** (35.99)	2.807*** (27.54)	2.316*** (23.66)	2.514*** (26.54)	2.493*** (22.92)	2.734*** (20.80)		
Province fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
P-val of joint test on:												
Religions	0.000	0.000	0.000	0.219	0.288	0.000	0.000	0.000	0.000	0.010		
Religions × majority status	28253	28253	28252	0.056	0.045	0.258	28252	28252	0.000	0.209		
N	0.169	0.197	0.222	28253	28253	28252	28252	28252	28252	28252		
Adj. R ²	0.169	0.197	0.222	0.169	0.197	0.222	0.209	0.211	0.210	0.213		

t statistics in parentheses
 Prov. FE standard errors are robust and clustered at the community. Included variables not shown: Religiosity, receiving coreligion and non-religion education, sex, age spline, years of edu. spline, risk and time preference, log PCE spline, village diversity and segregation, and district gini.
 * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

However, in terms of discriminative trust, Muslims trust their coreligionists more compared to adherents of other religions. They are also more intolerant in all tolerant measures. Meanwhile, Catholics have the least discriminative trust with regards to religion, followed by Buddhists, Protestants, and Hindus. Buddhists and Catholics also have less ethnic bias. Catholics and Buddhists are among the most tolerant across all tolerance measures, except (in the case of Buddhists) in allowing non-coreligionists live in their house. Catholics are also more tolerant than Protestants across all measures.

4.3.2 The role of the majority status

In their cross-country analysis, Guiso et al. (2003) found that adherents of the majority religion tend to be more intolerant. The question is whether this phenomenon exists within countries. To explore this question, I include a variable that indicates whether the respondent is adhering to the majority religion in the village. In this sample, no Catholic and only 6 Buddhists live in a village where their religion is the majority religion. Our discussion will therefore focus only on the other three religions.

The right half of Tables 10 to 12 present the religion results with the majority status variables included. Protestants with a majority status in the village have greater willingness to help neighbors, assess the village to be safer and are also more trusting of neighbors compared to Protestants who are not. Meanwhile, Muslims are less trusting of the police when they are in the majority, and majority Muslims are also less trusting of the police than majority Hindus or Protestants.

Majority status in the village does not appear to significantly affect discriminative trust. However, majority status is significantly correlated with tolerance. Among Muslims, the magnitude difference between the majority and non-majority is largest on the issue of allowing non-coreligionists to build a house of worship, followed by interfaith marriages and allowing a non-coreligion live in their home. Meanwhile, majority Protestants are more tolerant about allowing interfaith marriages and non-coreligionists live in their home, as well as about interfaith-marriage compared to minority Protestants.

4.3.3 Religiosity, religious education, and religion

In Section 4.3.1, I look at how the different religions correlate with cooperative attitudes controlling for religiosity. However, as explained before, due to the homogeneity of religion for respondents living in almost half of

the districts in the sample, the estimations of inter-religion differences are made using the province fixed effects. A preferred specification to detect the inter-religion differences would be to have fixed effects at a lower level of aggregation. In addition, that model assumes that answers to the self-reported religiosity question are comparable across different religions. However, it is plausible that different religions interpret the meaning of religiosity differently.¹⁸

To address those problems, I take a different approach to identify the impact of religion on cooperative attitude. Instead of controlling for religiosity, I examine the coefficients for the interactions between religion and religiosity in the household fixed-effects model. Assuming that people rarely switch religion in Indonesia, religion can be treated as an intergenerationally transmitted attribute that is somewhat exogenous. However, for a given religion, people can choose the level of religiosity. Religiosity is, therefore, likely to be endogenous to attitudes. Suppose a personality trait, say sociability, affects both tolerance and religiosity. That is, sociable people tend to be more tolerant and, at the same time, choose a low level of religiosity if he is “transmitted” an intolerant religion. Under this interpretation, a more positive religiosity coefficient for a particular religion (compared to others) indicates that within this religion, the more tolerant tends to be more committed.

The results are shown in in Tables 13 to 14. The link between religiosity and community cooperative attitudes is weaker among Protestants compared to other believers. For willingness to help neighbors, the slope on the religiosity coefficient is more negative for Protestants compared to those of other religions. In other words, as Protestants become more religious, their reported willingness to help does not increase as much as that of adherents of other religions. Similarly, increased religiosity also does not improve the assessments of the safety in the village and trust of neighbors as much for Protestants as for adherents of other religions. In contrast, the strength of the links between religiosity and the willingness to help neighbors and the assessments of village safety for Hindus are more positive compared to those for other believers.

With regards to discriminative trust, the link between religion-based discriminative trust and religiosity is strongest among Muslims and Hindus (Table 14). Meanwhile, the link between ethnicity-based discriminative trust

¹⁸On the other hand, Table 3 suggests that the distribution of responses to the religiosity question between different religions are rather similar except for Hindus, whose distribution appears to be slightly skewed to the right, suggesting that the perception of what religiosity means may not be so different between religions.

TABLE 13: INTER-RELIGION DIFFERENCES IN THE ASSOCIATION BETWEEN RELIGIOSITY/RELIGION-BASED EDUCATION & TRUST OF THE COMMUNITY, STRANGERS & POLICE

	Willing to help (1)	Must be cautious (2)	Trust nbr. to watch (3)	house (4)	Village is safe [...] generally (5)	at night (6)	neighbors (7)	strangers (8)	police (9)
Religiosity	0.043*** (9.16)	0.024*** (4.21)	0.020** (2.37)	0.017*** (2.98)	0.052*** (10.78)	0.019*** (4.01)	0.101*** (8.57)	0.008 (0.82)	0.131*** (10.60)
... × Catholic	-0.003 (-0.33)	0.004 (0.32)	-0.006 (-0.36)	-0.001 (-0.08)	0.002 (0.28)	0.013 (1.56)	-0.016 (-0.65)	-0.037* (-1.95)	-0.025 (-0.98)
... × Protestant	-0.019*** (-3.18)	0.003 (0.44)	0.005 (0.40)	-0.005 (-0.52)	-0.022*** (-3.64)	-0.008 (-1.22)	-0.037** (-2.23)	-0.004 (-0.29)	-0.033* (-1.84)
... × Hindu	0.034*** (2.91)	0.030** (2.16)	0.004 (0.19)	0.003 (0.21)	0.020** (1.97)	0.022** (2.19)	-0.017 (-0.62)	-0.040* (-1.96)	0.014 (0.53)
... × Buddhist	0.013 (0.59)	-0.022 (-0.71)	0.002 (0.04)	-0.017 (-0.57)	-0.021 (-0.73)	-0.022 (-0.97)	0.019 (0.36)	-0.013 (-0.29)	0.077 (-1.55)
Received coreligion education	-0.009 (-1.38)	-0.002 (-0.29)	0.012 (1.09)	0.005 (0.58)	-0.007 (-1.10)	-0.011* (-1.68)	0.019 (1.21)	0.003 (0.26)	-0.003 (-0.15)
... × Catholic	0.003 (0.07)	0.047 (0.80)	-0.005 (-0.07)	0.049 (0.88)	0.061 (1.55)	0.030 (0.77)	0.021 (0.24)	0.258*** (3.02)	-0.114 (-1.16)
... × Protestant	0.031 (1.27)	-0.023 (-0.68)	0.117** (2.22)	0.074** (2.27)	0.046* (1.66)	0.040 (1.46)	-0.010 (-0.13)	-0.042 (-0.64)	-0.058 (-0.74)
... × Buddhist	0.120 (0.88)	0.433*** (2.84)	-0.890*** (-7.20)	-0.516*** (-5.26)	-0.117 (-0.99)	-0.152 (-1.41)	-0.422 (-0.96)	0.228 (1.03)	0.697 (1.38)
Received non-coreligion education	-0.022 (-1.13)	0.019 (0.90)	-0.064** (-2.03)	-0.003 (-0.14)	0.005 (0.25)	0.015 (0.87)	-0.032 (-0.68)	-0.006 (-0.15)	-0.054 (-1.04)
... × Catholic	-0.066 (-1.27)	0.039 (0.57)	0.086 (0.83)	-0.119 (-1.36)	-0.077 (-1.28)	-0.092 (-1.31)	0.206 (1.46)	0.094 (0.71)	-0.151 (-0.91)
... × Protestant	0.052 (1.16)	0.003 (0.07)	0.104 (1.47)	0.023 (0.51)	0.041 (1.01)	0.032 (0.75)	0.046 (0.43)	-0.023 (-0.29)	0.148 (1.44)
... × Hindu	-0.046 (-0.74)	0.004 (0.06)	0.124 (1.34)	0.004 (0.04)	-0.038 (-0.79)	-0.047 (-0.97)	0.168 (1.19)	-0.024 (-0.23)	0.035 (0.21)
... × Buddhist	-0.004 (-0.06)	0.206* (1.89)	-0.232 (-1.40)	-0.071 (-0.52)	0.192* (1.73)	0.160 (1.54)	-0.110 (-0.55)	-0.040 (-0.31)	0.088 (0.37)
Community fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
P-val of joint test on:									
Religions × religiosity	0.000	0.265	0.983	0.960	0.001	0.031	0.240	0.135	0.168
Religion × corelgn. edu.	0.499	0.027	0.000	0.000	0.116	0.199	0.802	0.013	0.287
Religion × non-corelgn. edu.	0.396	0.430	0.169	0.619	0.141	0.189	0.427	0.934	0.482
N	28914	28913	21743	28912	28911	28909	28315	27395	26817
Adj. R ²	0.089	0.060	0.121	0.056	0.098	0.102	0.116	0.071	0.093

t statistics in parentheses
Standard errors are clustered at HH. Included variables not shown: Sex, age spline, years of edu. spline, married status, risk and time preference, log PCE spline, and a constant.
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

TABLE 14: INTER-RELIGION DIFFERENCES IN THE ASSOCIATION BETWEEN RELIGIOSITY/RELIGION-BASED EDUCATION & DISCRIMINATIVE TRUST & TOLERANCE

	Trust [...] more		Tolerate non-coreign living in [...]			Tolerate non-coreign to [...]	
	coreign (1)	coethnics (2)	village (3)	neighbor (4)	house (5)	marry relative (6)	build h. worship (7)
Religiosity	0.090*** (12.75)	0.052*** (7.74)	-0.041*** (-6.58)	-0.055*** (-8.61)	-0.106*** (-13.38)	-0.141*** (-15.45)	-0.091*** (-10.77)
... × Catholic	-0.077*** (-4.79)	-0.001 (-0.04)	0.059*** (6.04)	0.072*** (7.36)	0.155*** (14.47)	0.246*** (13.72)	0.153*** (12.69)
... × Protestant	-0.071*** (-7.15)	-0.034*** (-3.72)	0.034*** (5.71)	0.047*** (7.21)	0.132*** (15.26)	0.207*** (15.13)	0.145*** (13.87)
... × Hindu	-0.026 (-1.50)	0.012 (0.72)	0.041*** (3.70)	0.045*** (4.39)	0.099*** (6.17)	0.230*** (11.00)	0.035** (2.16)
... × Buddhist	-0.078** (-2.19)	-0.057* (-1.81)	0.081*** (4.25)	0.085*** (3.96)	0.132*** (4.94)	0.318*** (9.82)	0.220*** (7.91)
Received coreign education	0.033*** (3.46)	0.025** (2.55)	-0.029*** (-3.56)	-0.033*** (-3.74)	-0.055*** (-4.76)	-0.058*** (-4.58)	-0.079*** (-6.42)
... × Catholic	-0.174*** (-2.88)	-0.155*** (-2.68)	-0.083* (-1.70)	-0.097** (-1.99)	-0.054 (-0.99)	0.030 (0.39)	0.153*** (3.12)
... × Protestant	-0.048 (-1.15)	0.013 (0.29)	-0.007 (-0.23)	-0.032 (-1.05)	0.006 (0.17)	0.099* (1.70)	0.037 (0.89)
... × Buddhist	-0.190 (-1.26)	-0.091 (-0.43)	0.028 (0.26)	0.028 (0.26)	-0.120 (-0.84)	0.340** (2.19)	0.037 (0.15)
Received non-coreign education	-0.098*** (-3.24)	-0.020 (-0.74)	0.027 (1.54)	0.037** (2.04)	0.100*** (3.40)	0.160*** (3.94)	0.128*** (3.66)
... × Catholic	0.098 (1.26)	-0.054 (-0.71)	-0.073 (-1.03)	-0.062 (-0.91)	-0.079 (-1.18)	-0.159 (-1.41)	-0.164* (-1.92)
... × Protestant	0.081 (1.19)	0.054 (0.89)	-0.091** (-1.96)	-0.111** (-2.47)	-0.186*** (-3.27)	-0.125 (-1.49)	-0.137** (-2.16)
... × Hindu	-0.025 (-0.30)	-0.018 (-0.18)	0.014 (0.24)	0.020 (0.36)	-0.057 (-0.68)	-0.080 (-0.64)	-0.100 (-1.03)
... × Buddhist	-0.236* (-1.66)	-0.114 (-0.80)	-0.007 (-0.07)	0.031 (0.29)	0.054 (0.44)	0.066 (0.65)	-0.184 (-1.06)
Community fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
P-val of joint test on:	0.000	0.002	0.000	0.000	0.000	0.000	0.000
Religions × religiosity	0.013	0.058	0.395	0.181	0.632	0.055	0.017
Religion × coreign. edu.	0.194	0.694	0.315	0.129	0.288	0.107	0.107
Religion × non-coreign. edu.	28913	28913	28914	28914	28913	28913	28913
N	0.169	0.188	0.236	0.265	0.278	0.256	0.282
Adj. R ²							

t statistics in parentheses
Standard errors are clustered at HH. Included variables not shown: Sex, age spline, years of edu. spline, married status, risk and time preference, log PCE spline, and a constant.
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

and religiosity is weakest among Protestants.

The results on tolerance confirm our findings from the previous analysis on inter-religion differences. As shown in Tables 14, in almost all cases, the negative link between religiosity and tolerance is present only among Muslims. Meanwhile, a comparison between the two Christian religions suggest that the link between tolerance and religiosity is somewhat more positive for Catholics compared to Protestants in all tolerance measures.¹⁹

I also use a similar strategy to examine whether having a coreligion education affect cooperative attitudes differently across different religions.²⁰ As shown before, having a coreligion education is positively correlated with discriminative trust towards coethnics and coreligionists, and less overall tolerance. Unlike adherents of the other religions, however, Catholics seem to defy this pattern: Catholics who receive a Catholic education is more likely to be more trusting of strangers and more tolerant in allowing non-coreligionists build their house of worship. However, at the same time, they are also less tolerant than other Catholics regarding allowing non-coreligionists live in the village or neighborhood. Meanwhile, Buddhists who receive a Buddhist education tend to be less trusting in the community – they are more cautious of their neighbors, and are less willing to entrust neighbors to watch their children or home. They are however even more tolerant of inter-faith marriages compared to (the already very tolerant) other Buddhists.

4.4 Community heterogeneity and cooperative attitudes

4.4.1 Diversity, segregation, and cooperative attitudes

We next examine how religious diversity and segregation is correlated with cooperative attitudes. The theory and evidence reviewed above suggest two channels through which community diversity and segregation may affect cooperation: Network effects and (optimal) inter-group contact. Under the former channel, under the assumption of mostly trust-based exchanges, diversity may weaken overall cooperation by weakening intra-group information transmission and norm enforcement. Moreover, denser networks may strengthen cooperation by strengthening these intra-group mechanisms. Therefore, we expect to find greater community trust in more homogeneous

¹⁹With the community fixed effects, the differences in the coefficients between the Christian religions are statistically significant for tolerance in allowing non-coreligionists live in the village and interfaith marriages, both at 10% significance.

²⁰Among the categories of religious institutions that manage private schools in IFLS, there is no school managed by a Hindu-based institution.

communities, and we expect this trust to be stronger among people living in segregated communities.

However, on the flip side, diversity means a higher likelihood of contacts with those who are different from us, and frequent contacts may break down stereotypes, increase trust, and reduce prejudice. Diversity, therefore, can lessen prejudice and this potentially facilitate greater inter-group (and overall) cooperation. Under this premise, residential segregation will likely strengthen inter-group prejudice.

In understanding the effects of heterogeneity on community trust, it is theoretically unclear which effects would dominate and is therefore an empirical matter. On the other hand, the theoretical prediction regarding discriminative trust is clearer: Diversity is expected to reduce inter-group discriminative trust and increase tolerance while segregation is expected to have the reverse effect.

Tables 15 to 17 present the coefficients for the community heterogeneity variables. I estimated two sets of regressions. The first set includes the village-level diversity and segregation indices, while the second set includes the subdistrict-level diversity and segregation indices. For both, I separately estimated each with a province fixed-effects and a district fixed-effects models.

We begin with the diversity variables. With province fixed effects, we find that village and subdistrict diversity are negatively associated with the willingness to help and trust neighbors (Tables 15 and 16). The significance of some of these associations vanished with the inclusion of the district fixed effects although the negative signs remain. Meanwhile, the diversity variables are also negatively associated with discriminative trust. With the inclusion of the district fixed effects, the significance of the village diversity variable disappears although the signs remain. Moreover, both diversity variables are positively associated with all tolerance measures, and these results are robust to the district fixed effects.

We also find differential effects of the village and subdistrict level segregation. Recall that the village segregation index refers to the extent of religious clustering in the census tracts within the village, while the subdistrict segregation index refers to the extent of religious clustering in the villages within the subdistrict. We find some within-village religious segregation effects on trust that are not robust to different specifications. Under the province fixed effects, within-village segregation is positively associated with the willingness to help and discriminative trust. Meanwhile, under the district fixed effects, within-village segregation is positively correlated with trust of neighbor. The effects on tolerance is more consistent: Village

TABLE 15: DIVERSITY, SEGREGATION AND COMMUNITY TRUST

	Willing to help		Must be cautious		Trust nbr. to watch		Village is safe [...]		Willing to help		Must be cautious		Trust nbr. to watch		Village is safe [...]	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)				
A. VILLAGE HETEROGENEITY																
Village diversity	-0.119*** (-5.66)	-0.099*** (-3.73)	-0.124*** (-2.74)	-0.092*** (-3.36)	-0.071** (-2.28)	0.011 (0.38)	-0.024 (-1.01)	0.017 (0.55)	-0.079 (-1.64)	-0.057 (-1.60)	-0.020 (-0.78)	0.027 (1.07)				
Within-village segregation	0.351*** (4.02)	0.288** (1.98)	0.043 (0.19)	0.153 (1.26)	0.120 (1.05)	0.062 (0.56)	0.085 (0.92)	-0.039 (-0.33)	0.041 (0.25)	0.051 (0.41)	-0.036 (-0.39)	0.031 (0.34)				
N	28231	28230	21255	28229	28228	28226	28231	28230	21255	28229	28228	28226				
Adj. R ²	0.047	0.028	0.064	0.030	0.040	0.055	0.075	0.051	0.093	0.045	0.071	0.075				
B. SUBDIST. HETEROGENEITY																
Subdistrict diversity	-0.079*** (-3.33)	-0.104*** (-4.31)	-0.150*** (-4.03)	-0.063*** (-2.79)	-0.037 (-1.49)	0.044* (1.80)	0.012 (0.42)	-0.027 (-0.76)	-0.151*** (-2.75)	-0.049 (-1.27)	-0.018 (-0.64)	0.061** (2.07)				
Subdistrict segregation	0.133 (1.19)	0.293*** (4.01)	0.454*** (3.24)	0.161* (1.65)	-0.001 (-0.01)	-0.077 (-0.72)	-0.121 (-1.52)	0.052 (0.49)	0.436*** (2.79)	0.124 (1.13)	0.041 (0.47)	0.046 (0.48)				
N	28231	28230	21255	28229	28228	28226	28231	28230	21255	28229	28228	28226				
Adj. R ²	0.046	0.028	0.064	0.029	0.040	0.056	0.075	0.051	0.094	0.044	0.071	0.075				
Province fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No	No				
District fixed effects	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes				

t statistics in parentheses
Standard errors are robust and clustered at the community. Included variables not shown: religiosity, sex, age spline, years of education spline, risk and time preference, log-PCE spline, urban/rural status, district gini (in the province FE model) and a constant.
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

TABLE 16: DIVERSITY, SEGREGATION AND GENERAL & DISCRIMINATIVE TRUST

	Trust [...] to return lost wallet			Trust [...] more			Trust [...] to return lost wallet			Trust [...] more		
	neighbors (1)	strangers (2)	police (3)	corelgn. (4)	coethnics (5)	neighbors (6)	strangers (7)	police (8)	corelgn. (9)	coethnics (10)		
A. VILLAGE HETEROGENEITY												
Village diversity	-0.116 (-1.64)	-0.104** (-2.26)	-0.167*** (-3.07)	-0.278*** (-5.98)	-0.173*** (-3.52)	-0.184*** (-2.71)	-0.040 (-0.80)	-0.137* (-1.90)	-0.084** (-1.99)	-0.100*** (-2.61)		
Within-village segregation	0.155 (0.51)	-0.078 (-0.42)	0.078 (0.43)	0.445*** (2.83)	0.096 (0.50)	0.815*** (3.31)	0.040 (0.23)	0.320 (1.23)	-0.108 (-0.78)	-0.085 (-0.61)		
N	27659	26735	26187	28230	28230	27659	26735	26187	28230	28230		
Adj. R ²	0.071	0.040	0.061	0.100	0.128	0.092	0.058	0.079	0.139	0.166		
B. SUBDIST. HETEROGENEITY												
Subdistrict diversity	-0.164** (-2.46)	-0.150*** (-3.46)	-0.191*** (-3.24)	-0.260*** (-6.42)	-0.132*** (-3.45)	-0.164** (-2.06)	-0.141** (-2.28)	-0.066 (-0.82)	-0.198*** (-4.19)	-0.095** (-2.17)		
Subdistrict segregation	0.343 (1.45)	0.075 (0.51)	0.323 (1.26)	0.195 (1.48)	-0.018 (-0.15)	0.710*** (2.93)	0.450** (2.39)	0.393 (1.60)	0.244* (1.81)	0.035 (0.27)		
N	27659	26735	26187	28230	28230	27659	26735	26187	28230	28230		
Adj. R ²	0.071	0.040	0.061	0.100	0.127	0.092	0.058	0.079	0.139	0.166		
Province fixed effects	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No		
District fixed effects	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes		

t statistics in parentheses
Standard errors are robust and clustered at the community. Included variables not shown: religiosity, sex, age spline, years of education spline, risk and time preference, log-PCE spline, urban/rural status, district gmi (in the province FE model) and a constant.
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

TABLE 17: DIVERSITY, SEGREGATION AND TOLERANCE

	Tolerate non-corign living in [...]			Tolerate non-corign to [...]			Tolerate non-corign living in [...]			Tolerate non-corign to [...]		
	village (1)	neighbor (2)	house (3)	marry reltv. (4)	bid h. wrshp (5)	village (6)	neighbor (7)	house (8)	marry reltv. (9)	bid h. wrshp (10)		
A. VILLAGE HETEROGENEITY												
Village diversity	0.230*** (5.63)	0.291*** (6.12)	0.467*** (7.90)	0.524*** (8.51)	0.786*** (11.23)	0.164*** (5.83)	0.219*** (7.00)	0.322*** (6.97)	0.331*** (5.64)	0.573*** (10.59)		
Within-village segregation	-0.192 (-1.32)	-0.279* (-1.79)	-0.584*** (-2.82)	-0.619** (-2.30)	-0.940*** (-3.21)	-0.055 (-0.53)	-0.195* (-1.78)	-0.360** (-2.28)	-0.139 (-0.68)	-0.536*** (-3.00)		
N	28231	28231	28230	28230	28230	28231	28231	28230	28230	28230		
Adj. R ²	0.169	0.196	0.208	0.171	0.197	0.210	0.240	0.251	0.212	0.244		
B. SUBDIST. HETEROGENEITY												
Subdistrict diversity	0.203*** (5.66)	0.262*** (6.45)	0.436*** (8.19)	0.534*** (8.98)	0.772*** (12.13)	0.186*** (5.68)	0.224*** (6.31)	0.293*** (5.56)	0.362*** (5.27)	0.595*** (9.71)		
Subdistrict segregation	-0.002 (-0.01)	-0.110 (-0.75)	-0.388* (-1.73)	-0.622** (-2.27)	-0.807*** (-2.84)	-0.131 (-1.22)	-0.201* (-1.72)	-0.277* (-1.80)	-0.311 (-1.61)	-0.801*** (-4.66)		
N	28231	28231	28230	28230	28230	28231	28231	28230	28230	28230		
Adj. R ²	0.168	0.195	0.207	0.170	0.195	0.210	0.239	0.250	0.211	0.242		
Province fixed effects	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No		
District fixed effects	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes		

t statistics in parentheses
Standard errors are robust and clustered at the community. Included variables not shown: religiosity, sex, age spline, years of education spline, risk and time preference, log-PCE spline, urban/rural status, district gini (in the province FE model) and a constant.
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

segregation is associated with less tolerance across all measures. In both specifications, it is not significant for village residential tolerance, and under the district fixed effects, it is not significant on the tolerance of interfaith marriages.

Subdistrict segregation is positively associated with trusting neighbors to watch one's children as well as the assessment of neighbors' trustworthiness. It is somewhat associated with religion-based discriminative trust or residential tolerance, but the associations are not robust to different specifications. They are, however, negatively correlated with tolerance regarding interfaith marriage and allowing non-coreligionists to build their house of worship. Tolerance of interfaith marriage lose significance under the district fixed effects model even though they maintain the signs of the coefficients.

Overall, the evidence, therefore, suggests support for Allport's optimal contact hypothesis that intergroup contact can reduce prejudice. However, it does not appear that improved intergroup relations are able to compensate the negative effect of diversity on trust, which in part might be attributable to network effects.

4.4.2 Religiosity and community heterogeneity

4.5 Cooperative attitudes by gender

The next question is whether the coefficients of our model differ by gender and, in the next section, by the different age groups. For both analyses, I consider the community fixed-effects model used above to analyze the link between religiosity and cooperative attitudes. To begin, I perform tests for pooling male and female respondents across all outcome indicators. The results, which are not reported, suggest that except for three variables (i.e., trust of neighbors, tolerance with respect to allowing non-coreligionists to live in the neighborhood and to build their house of worship), we can reject that all of the coefficients are the same between male and female.²¹

Tables 21 to 23 present the results of analysis by gender. Overall, the link between religiosity and attitudes is stronger for men than women. The extent to which individuals are more willing to entrust their house or children to their neighbors as they are more religious is larger among men than women. Similarly, the link between trust (both the non-discriminative and discriminative variants, see Table 22) and religiosity is also stronger among men. Similarly, the extent to which men become more intolerant as they

²¹The critical value for rejection is at 1% except for tolerance in allowing non-coreligionists in the village and in the house, which are rejected at 5%.

TABLE 18: RELIGIOSITY, COMMUNITY HETEROGENEITY AND COMMUNITY TRUST

	Willing to help		Must be cautious		Trust nbr. to watch		Village is safe [...]		Must be cautious		Trust nbr. to watch		Village is safe [...]	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)		
Religiosity	0.050*** (8.07)	0.027*** (3.57)	0.020* (1.93)	0.021*** (2.86)	0.056*** (8.86)	0.024*** (3.76)	0.049*** (7.21)	0.031*** (3.80)	0.023*** (1.98)	0.023*** (2.88)	0.055*** (8.15)	0.027*** (3.97)		
... X diversity (vil.)	-0.031 (-1.22)	-0.007 (-0.21)	-0.028 (-0.67)	-0.064** (-2.13)	-0.026 (-0.99)	-0.037 (-1.43)								
... X segregation (vil.)	0.044 (0.40)	0.027 (0.18)	0.151 (0.90)	0.260** (1.97)	0.059 (0.49)	0.122 (1.10)								
... X diversity (subdist.)							0.003 (0.18)	-0.020 (-0.91)	-0.037 (-1.05)	-0.031 (-1.33)	-0.005 (-0.25)	-0.028 (-1.48)		
... X segregation (subdist.)							-0.120 (-1.62)	0.035 (0.37)	0.217 (1.58)	0.096 (1.00)	0.030 (0.40)	0.038 (0.50)		
Community fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
N	28759	28758	21649	28757	28756	28754	28759	28758	21649	28757	28756	28754		
Adj. R ²	0.088	0.058	0.120	0.056	0.097	0.101	0.088	0.058	0.120	0.056	0.097	0.101		

t statistics in parentheses

Standard errors are robust and clustered at the community. Included variables not shown: religiosity, sex, age spline, years of education spline, risk and time preference, log-PCE spline, urban/rural status, district gini (in the province FE model) and a constant.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

TABLE 19: RELIGIOSITY, COMMUNITY HETEROGENEITY AND GENERAL & DISCRIMINATIVE TRUST

	Trust [...] to return lost wallet			Trust [...] more			Trust [...] to return lost wallet			Trust [...] more		
	neighbors (1)	strangers (2)	police (3)	corelgn. (4)	coethnics (5)	neighbors (6)	strangers (7)	police (8)	corelgn. (9)	coethnics (10)		
Religiosity	0.106*** (6.93)	-0.000 (-0.02)	0.123*** (7.82)	0.076*** (8.40)	0.054*** (6.22)	0.119*** (7.24)	0.004 (0.35)	0.138*** (8.20)	0.080*** (8.28)	0.060*** (6.39)		
... X diversity (vil.)	-0.115* (-1.80)	-0.033 (-0.64)	-0.002 (-0.02)	0.060 (1.59)	0.032 (0.93)							
... X segregation (vil.)	0.439 (1.55)	0.285 (1.17)	0.115 (0.38)	-0.170 (-1.00)	-0.260* (-1.67)							
... X diversity (subdist.)						-0.057 (-1.17)	0.019 (0.49)	0.005 (0.11)	0.050* (1.78)	0.001 (0.05)		
... X segregation (subdist.)						-0.101 (-0.45)	-0.124 (-0.68)	-0.302 (-1.29)	-0.319*** (-2.69)	-0.269** (-2.36)		
Community fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
N	28164	27241	26663	28758	28758	28164	27241	26663	28758	28758		
Adj. R ²	0.116	0.070	0.093	0.164	0.187	0.116	0.070	0.093	0.164	0.187		

t statistics in parentheses

Standard errors are robust and clustered at the community. Included variables not shown: religiosity, sex, age spline, years of education spline, risk and time preference, log-PCE spline, urban/rural status, district gini (in the province FE model) and a constant.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

TABLE 20: RELIGIOSITY, COMMUNITY HETEROGENEITY AND TOLERANCE

	Tolerate non-corign living in [...]			Tolerate non-corign to [...]			Tolerate non-corign living in [...]			Tolerate non-corign to [...]		
	village (1)	neighbor (2)	house (3)	marry reltv. (4)	bld h. wrshp (5)	village (6)	neighbor (7)	house (8)	marry reltv. (9)	bld h. wrshp (10)		
Religiosity	-0.049*** (-5.69)	-0.065*** (-7.28)	-0.104*** (-9.77)	-0.111*** (-9.41)	-0.076*** (-6.92)	-0.054*** (-5.79)	-0.069*** (-7.22)	-0.106*** (-9.32)	-0.117*** (-9.15)	-0.082*** (-6.97)		
... × diversity (vil.)	0.078*** (3.10)	0.093*** (3.69)	0.078*** (2.34)	0.053 (1.16)	0.008 (0.20)							
... × segregation (vil.)	-0.104 (-0.95)	-0.135 (-1.26)	-0.109 (-0.72)	-0.229 (-1.12)	-0.034 (-0.19)							
... × diversity (subdist.)						0.046** (2.17)	0.066*** (2.96)	0.056* (1.91)	0.002 (0.05)	0.013 (0.41)		
... × segregation (subdist.)						0.138 (1.42)	0.036 (0.36)	0.007 (0.05)	0.196 (1.30)	0.069 (0.46)		
Community fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
N	28759	28759	28758	28758	28758	28759	28759	28758	28758	28758		
Adj. R ²	0.235	0.264	0.270	0.235	0.273	0.235	0.264	0.270	0.235	0.273		

t statistics in parentheses
Standard errors are robust and clustered at the community. Included variables not shown: religiosity, sex, age spline, years of education spline, risk and time preference, log-PCE spline, urban/rural status, district gini (in the province FE model) and a constant.
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

TABLE 21: RELIGIOSITY AND COMMUNITY TRUST BY GENDER

	Male						Female					
	Willing to help (1)	Must be cautious (2)	Trust nbr. kid(s) (3)	to watch house (4)	Village is safe generally (5)	at night (6)	Willing to help (7)	Must be cautious (8)	Trust nbr. kid(s) (9)	to watch house (10)	Village is safe generally (11)	at night (12)
	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Religiosity	0.041*** (6.08)	0.024*** (2.89)	0.024** (2.04)	0.021*** (2.75)	0.054*** (7.93)	0.028*** (4.69)	0.043*** (6.27)	0.023*** (2.73)	0.012 (0.98)	0.007 (0.78)	0.051*** (7.21)	0.018** (2.27)
Received coreligion education	-0.009 (-0.89)	0.004 (0.38)	0.009 (0.50)	0.008 (0.70)	-0.007 (-0.69)	-0.007 (-0.88)	-0.011 (-1.31)	-0.006 (-0.61)	0.018 (1.16)	0.008 (0.73)	0.000 (-1.38)	-0.014 (-1.38)
Received non-coreligion education	-0.042* (-1.83)	0.062** (2.32)	0.031 (0.77)	-0.012 (-0.42)	-0.007 (-0.31)	0.005 (0.24)	0.006 (0.26)	0.025 (0.96)	-0.103*** (-2.60)	-0.015 (-0.51)	0.026 (1.22)	0.017 (0.69)
Community fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	13751	13751	9859	13750	13750	13749	15163	15162	11884	15162	15161	15160
Adj. R ²	0.090	0.046	0.108	0.043	0.093	0.073	0.080	0.066	0.124	0.052	0.101	0.120

t statistics in parentheses
Standard errors are robust and clustered at the HH level. Included variables not shown: religiosity, sex, age spline, years of education spline, risk and time preference, the log-PCE spline, and a constant.
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

TABLE 22: RELIGIOSITY AND GENERAL & DISCRIMINATIVE TRUST BY GENDER

	Male						Female					
	Trust [...] to return lost wallet (1)	neighbors (2)	strangers (3)	police (3)	corelgn. (4)	coethnics (5)	Trust [...] more (1)	neighbors (2)	strangers (3)	police (3)	corelgn. (4)	coethnics (5)
	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Religiosity	0.103*** (6.41)	0.021 (1.64)	0.134*** (7.84)	0.094*** (9.34)	0.063*** (6.66)	0.080*** (4.50)	0.114*** (6.21)	-0.012 (-0.85)	0.068*** (6.72)	0.035*** (3.54)		
Received coreligion education	0.031 (1.39)	0.000 (0.02)	0.024 (0.93)	0.027* (1.88)	0.017 (1.20)	0.009 (0.44)	-0.045* (-1.87)	0.019 (1.02)	0.026* (1.96)	0.018 (1.35)		
Received non-coreligion education	-0.098* (-1.65)	-0.074 (-1.51)	-0.133** (-2.04)	-0.104*** (-2.85)	-0.044 (-1.27)	0.051 (0.93)	0.053 (1.18)	0.053 (1.18)	-0.121*** (-3.36)	-0.021 (-0.62)		
Community fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
N	13510	13131	12886	13750	13751	14805	13931	14264	15163	15162		
Adj. R ²	0.107	0.074	0.097	0.165	0.184	0.109	0.081	0.065	0.161	0.184		

t statistics in parentheses
Standard errors are robust and clustered at the HH level. Included variables not shown: religiosity, sex, age spline, years of education spline, risk and time preference, the log-PCE spline, and a constant.
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

TABLE 23: RELIGIOSITY AND TOLERANCE BY GENDER

	Male					Female				
	Tolerate non-corign living in [...]		Tolerate non-corign to [...]			Tolerate non-corign living in [...]		Tolerate non-corign to [...]		
	village (1)	neighbor (2)	house (3)	marry (4)	bid h. wrshp (5)	village (6)	neighbor (7)	house (8)	marry (9)	bid h. wrshp (10)
Religiosity	-0.040*** (-4.68)	-0.058*** (-6.48)	-0.091*** (-8.38)	-0.115*** (-8.98)	-0.076*** (-6.49)	-0.032*** (-3.48)	-0.040*** (-4.18)	-0.089*** (-7.44)	-0.105*** (-7.68)	-0.072*** (-5.79)
Received coreligion education	-0.026** (-2.19)	-0.036*** (-2.81)	-0.042** (-2.50)	-0.061*** (-3.20)	-0.063*** (-3.56)	-0.034*** (-2.98)	-0.036*** (-2.99)	-0.059*** (-3.82)	-0.038** (-2.18)	-0.073*** (-4.39)
Received non-coreligion education	0.012 (0.55)	0.028 (1.23)	0.128*** (3.75)	0.284*** (5.76)	0.189*** (4.97)	0.042* (1.91)	0.048** (1.98)	0.118*** (3.48)	0.168*** (3.49)	0.088** (2.16)
Community fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	13751	13751	13750	13751	13751	15163	15163	15163	15162	15162
Adj. R ²	0.223	0.263	0.261	0.237	0.285	0.232	0.254	0.268	0.225	0.260

t statistics in parentheses

Standard errors are robust and clustered at the HH level. Included variables not shown: religiosity, sex, age spline, years of education spline, risk and time preference, the log-PCE spline, and a constant.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

become more religious is larger compared to that of women. If we were to take a causal interpretation, then one can interpret this as suggesting that religious commitment alters cooperative attitudes more among men than women.

Meanwhile, the gender differences in the impact of having received coreligion education are much smaller. The main gender differences are mostly with respect to tolerance indicators. The negative correlations between coreligion education and tolerance are stronger among women for tolerance in allowing non-coreligionists live in the village or in the house, and in allowing non-coreligionists build a house of worship. However, it is weaker for women with respect to tolerating inter-faith marriage.

5 Conclusion

The analysis provides evidence on the positive association between religion and in-group trust. Across religions, more religious people tend to trust neighbors and members of their communities more. In-group trust, however, is not accompanied by out-group trust: there is no correlation between religiosity and trust towards strangers. Trust towards strangers is typically understood to be the right measure of social or civic capital, as it allows cooperation across individuals from different groups (Glaeser et al., 2000; Guiso et al., 2011). Religiosity is also associated with more ethnic- and religion-based discriminative trust and more trust of the authority.

There are inter-religion differences in cooperative attitudes. Community trust is lowest among Protestants and, to some extent, Buddhists. Meanwhile, non-discriminative trust do not seem to vary by religion. However, discriminative trust and religious tolerance do vary by religion. Muslims and Hindus tend to exhibit more ethno-religious discriminative trust. Muslims are also the most intolerant among the adherents of the various religions, while Buddhists and Catholics are among the most tolerant. Meanwhile, when their religion is the majority, Protestants are most willing to help their neighbors. Meanwhile, when their religion is the majority in the village, Muslims tend to be the least tolerant compared to Protestants and Hindus.

We find a similar pattern when we examine the strength of the associations between religiosity and adherence to the different religions. The association between religiosity and community trust is, as before, weakest among Protestants and it is strongest among Hindus. With respect to discriminative trust, the associations between religiosity and ethno-religious

biases are again strongest among Muslims and Hindus. Furthermore, only among Muslims are all tolerance measures negatively associated with religiosity.

I also find that among the Christian religions, Indonesian Catholics tend to be more trusting and tolerant than Protestants. This is contrary to what might be expected if we look at the aggregate-level evidence which documented a link between lower trust and Catholicism (e.g., La Porta et al., 1997) which, it was argued, might be due to the tendency of Catholicism to breed hierarchical and not horizontal trust (Putnam et al., 1993). Guiso et al. (2003) argued that this signaled a change in Catholicism and, using cross-country evidence, provided evidence that it had become more tolerant following the Second Vatican Council. At the same time, it might also reflect how history has shaped both Catholicism and Protestantism in Indonesia.

These findings illustrate the extent of the link between religion and parochial altruism in Indonesia. In a more benign form, the link appears to be present in all religions, as evidenced by the links between religiosity and community trust and discriminative trust and altruism, but not between religiosity and generalized trust. However, the manifestation of parochial altruism appears to be strongest for the religion that is the majority in Indonesia, namely Islam.

Meanwhile, in terms of how community heterogeneity affects trust and tolerance, I find that on the one hand, religious diversity is associated with lower community trust, even after controlling for segregation. Subdistrict segregation also appears to be positively correlated with community trust. Network effects that facilitate greater in-group transmission of information and better norm-enforcement can explain these results. On the other hand, I also find robust support for the contact hypothesis. Having received a non-coreligion education is associated with less discriminative trust and greater tolerance in most of the measures here. Moreover, religious diversity is positively associated with tolerance, while segregation is negatively correlated with tolerance. Nonetheless, results on community heterogeneity must be interpreted with caution, given the potential of selection bias due to residential sorting.

These results provide a clue for understanding the link between religion and development. In many developing countries, politicians often resort to religion as a means to garner support. Indonesia is a case in point. The fall of the secular, authoritarian, and centralized government in 1998 has allowed a more important role for religion in the public space. Moreover, decentralization without a clear political commitment to separate the state and the church/mosque has allowed regions to implement policies with distinctly re-

religious flavor (Bush, 2008).²² As suggested here, this greater political space for religion can potentially exacerbate existing tensions between adherents of different religions. The relevant follow-up question, then, is to examine the causal links from these attitudes to economic outcomes, particularly those that depend on inter-group cooperation.

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²²As of 2008, Bush (2008) counted 78 district regulations in 52 districts/municipalities that are religion-based.

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A Appendix

A.1 Cooperative attitudes by age groups

To analyze how the coefficients differ by age groups, I categorize the sample into four age groups: Under 25 years old, between 25 and 45 years old, between 45 and 65 years old, and more than 65 years old. Like before, I then perform the tests for pooling across age groups under the community fixed effects specification that I used to analyze the link between religiosity and attitude. The hypothesis that the sample can be pooled is rejected at 10% for local altruism norm, at 5% for discriminative trust and tolerating non-coreligionists in the neighborhood, and at 1% for the assessment of village safety at night, trust of the police, and tolerating non-coreligionists in the village. The pooling hypothesis cannot be rejected for the remaining outcome variables. In the following, I will only look at altruism norm, trust of the police, discriminative trust, and tolerance for non-coreligionists in the village and neighborhood.

There does not appear to be a monotonic relationship between strength of the link between cooperative attitudes and religiosity as one gets older. As shown in Table 24, the link between religiosity and altruism is weakest during the early productive years, and is strongest in the old age. The link between religiosity and trust of the police is weakest at the very young age, and strongest when old. Again, here, the relationship is not monotonic, as trust slightly declines in late middle age.

Meanwhile, the strengths of the links between religiosity and religion-based and ethnic-based discriminative trusts appear to peak at late middle-age, but falter in the old age (Table 25). However, Table 26 indicates that in the case of tolerance, the negative links between religiosity and tolerance with regards to allowing non-coreligionists in the village or neighborhood were strongest among those in the youngest age group. Similar to the case with discriminative trust, the link between religiosity and tolerance tends to falter and disappear among the oldest age group.

Unlike those between religiosity and cooperative attitudes, the strengths of the relationships between coreligion education and cooperative attitudes – in particular, the discriminative kind – appear to be monotonic in age. The magnitudes of the positive links between coreligion education and discriminative trusts, and the negative links between coreligion education and tolerance tend to fall for older age groups. In fact for the two tolerance measures, those in the oldest group who received coreligion education in their youths are more tolerant than those who do not.

TABLE 24: RELIGIOSITY, TRUST OF THE COMMUNITY AND THE POLICE BY AGE GROUPS

	< 25 years old		25-44 years old		45-64 years old		≥ 65 years old	
	Willing to help (1)	Trust police (2)	Willing to help (3)	Trust police (4)	Willing to help (5)	Trust police (6)	Willing to help (7)	Trust police (8)
Religiosity	0.040*** (4.46)	0.084*** (3.57)	0.031*** (4.32)	0.144*** (7.96)	0.059*** (4.77)	0.123*** (3.83)	0.118*** (5.29)	0.150** (2.25)
Received coreligion education	-0.013 (-1.03)	-0.004 (-0.11)	-0.002 (-0.23)	-0.008 (-0.34)	0.004 (0.20)	-0.012 (-0.25)	0.060 (0.42)	0.052 (0.11)
Received non-coreligion education	-0.054 (-1.54)	0.047 (0.49)	-0.021 (-1.01)	-0.079 (-1.36)	0.038 (0.92)	-0.144 (-1.43)	0.000 (.)	0.000 (.)
Male	0.015 (1.35)	-0.199*** (-7.13)	0.050*** (7.41)	-0.123*** (-7.06)	0.051*** (4.79)	-0.057*** (-1.97)	0.064*** (2.75)	0.145** (2.13)
Age	0.000 (0.00)	-0.020*** (-3.67)	-0.000 (-0.32)	0.003* (1.65)	-0.000 (-0.17)	-0.001 (-0.31)	-0.002 (-1.19)	-0.000 (-0.01)
Years edu spl.: 0-6 years†	0.006 (1.10)	0.036* (1.91)	0.004 (1.55)	0.009 (1.22)	0.003 (1.05)	0.015* (1.84)	0.002 (0.42)	0.022 (1.48)
Years edu spl.: 7-12 years†	0.007 (1.63)	0.003 (0.34)	0.011*** (3.78)	0.015*** (1.96)	0.012** (2.35)	0.009 (0.68)	0.026*** (2.07)	0.087*** (2.48)
Years edu spl.: 13-18 years†	-0.007 (-0.84)	-0.015 (-0.75)	0.001 (0.14)	-0.028** (-2.49)	0.006 (0.71)	-0.015 (-0.66)	-0.031 (-1.11)	-0.169** (-2.25)
Married	-0.019 (-1.36)	-0.048 (-1.25)	-0.003 (-0.33)	0.011 (0.39)	0.043*** (3.26)	-0.048 (-1.17)	-0.006 (-0.26)	-0.196*** (-2.82)
Risk aversion	0.005 (1.10)	0.007 (0.61)	-0.003 (-0.87)	0.009 (1.23)	0.004 (1.07)	0.001 (0.06)	-0.001 (-0.08)	0.023 (0.94)
Patience	0.022*** (3.78)	0.042*** (3.20)	0.011*** (2.64)	0.036*** (3.50)	0.012* (1.76)	0.046*** (2.74)	-0.009 (-0.76)	0.047 (1.31)
Num. of prior migration	0.002 (0.41)	0.008 (0.50)	-0.004 (-1.37)	-0.013 (-1.64)	-0.006 (-0.94)	-0.007 (-0.38)	-0.007 (-0.50)	-0.068 (-1.47)
Log PCE spl.: Below median†	0.007 (0.43)	0.009 (0.22)	0.024** (2.27)	0.023 (0.78)	-0.000 (-0.01)	-0.120*** (-3.13)	0.015 (0.86)	-0.053 (-0.88)
Log PCE spl.: Above median†	-0.016 (-1.33)	-0.025 (-0.80)	-0.002 (-0.23)	-0.038* (-1.73)	0.006 (0.38)	0.081** (2.16)	0.018 (0.67)	0.115 (1.15)
Crime	0.035 (1.55)	-0.000 (-0.01)	0.025 (1.49)	-0.004 (-1.10)	0.035 (1.48)	-0.087 (-1.32)	-0.002 (-0.04)	-0.032 (-0.21)
Constant	2.872*** (14.53)	2.720*** (5.31)	2.700*** (20.39)	1.916*** (5.34)	2.874*** (15.67)	3.894*** (7.62)	2.671*** (10.81)	2.865*** (3.30)
Community fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	7075	6671	13581	12641	6252	5754	2005	1750
Adj. R ²	0.0792	0.117	0.0933	0.102	0.0862	0.0808	0.105	0.0551

† statistics in parentheses

† Spline coefficients are for the slopes of the intervals. Comm. FE std. err. are clustered at HH.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

TABLE 25: RELIGIOSITY AND DISCRIMINATIVE TRUST BY AGE GROUPS

	< 25 years old		25-44 years old		45-64 years old		≥ 65 years old	
	Trust [...] more coreign. (1)	coethnic (2)	Trust [...] more coreign. (3)	coethnic (4)	Trust [...] more coreign. (5)	coethnic (6)	Trust [...] more coreign. (7)	coethnic (8)
Religiosity	0.080*** (5.85)	0.041*** (3.16)	0.071*** (6.72)	0.044*** (4.30)	0.103*** (6.10)	0.071*** (4.12)	0.055* (1.82)	0.027 (1.00)
Received coreigion education	0.041** (2.20)	0.032* (1.66)	0.031** (2.31)	0.012 (0.95)	-0.008 (-0.31)	0.036 (1.39)	-0.329* (-1.66)	-0.051 (-0.36)
Received non-coreigion education	-0.082 (-1.31)	0.036 (0.61)	-0.108*** (-3.23)	-0.060* (-1.89)	-0.132** (-2.25)	0.004 (0.08)	0.000 (.)	0.000 (.)
Male	0.014 (0.86)	-0.011 (-0.69)	-0.036*** (-3.66)	-0.064*** (-6.58)	-0.019 (-1.31)	-0.025* (-1.68)	0.005 (0.17)	-0.037 (-1.30)
Age	-0.008*** (-2.63)	-0.003 (-0.90)	0.001 (0.67)	-0.001 (-0.71)	0.000 (0.16)	-0.002* (-1.77)	-0.004* (-1.68)	-0.002 (-0.76)
Years edu spl.: 0-6 years†	-0.005 (-0.50)	-0.005 (-0.60)	-0.004 (-1.14)	-0.004 (-1.21)	-0.002 (-0.63)	-0.006* (-1.66)	-0.011 (-1.60)	-0.008 (-1.26)
Years edu spl.: 7-12 years†	-0.039*** (-6.45)	-0.040*** (-6.89)	-0.029*** (-6.71)	-0.036*** (-8.29)	-0.022*** (-2.94)	-0.041*** (-5.50)	0.016 (0.85)	0.002 (0.12)
Years edu spl.: 13-18 years†	-0.012 (-0.98)	-0.025** (-2.18)	-0.007 (-1.10)	-0.002 (-0.32)	0.003 (0.22)	-0.005 (-0.36)	-0.068 (-1.53)	-0.062* (-1.68)
Married	0.020 (0.96)	0.044** (2.15)	-0.017 (-1.10)	0.027* (1.77)	-0.004 (-0.22)	-0.029 (-1.47)	0.004 (0.15)	0.018 (0.62)
Risk aversion	0.006 (0.95)	0.003 (0.53)	-0.002 (-0.54)	0.002 (0.48)	-0.007 (-1.16)	-0.008 (-1.35)	-0.003 (-0.32)	-0.017* (-1.71)
Patience	0.016* (1.94)	-0.003 (-0.34)	0.000 (0.05)	-0.018*** (-3.03)	-0.009 (-0.96)	-0.013 (-1.57)	0.016 (1.00)	0.012 (0.80)
Num. of prior migration	-0.010 (-1.06)	-0.010 (-1.22)	-0.012** (-2.40)	-0.013*** (-2.87)	-0.019* (-1.74)	-0.020* (-1.93)	-0.042* (-1.70)	-0.018 (-0.88)
Log PCE spl.: Below median†	-0.023 (-1.00)	-0.070*** (-3.09)	0.024 (1.63)	-0.034** (-2.33)	-0.006 (-0.32)	-0.008 (-0.46)	0.029 (1.22)	0.014 (0.56)
Log PCE spl.: Above median†	-0.034* (-1.88)	-0.006 (-0.29)	-0.021 (-1.64)	-0.018 (-1.46)	-0.023 (-1.06)	-0.008 (-0.36)	-0.032 (-0.66)	0.015 (0.34)
Crime	-0.036 (-1.11)	-0.033 (-1.05)	-0.038 (-1.53)	-0.032 (-1.40)	-0.015 (-0.41)	-0.008 (-0.23)	-0.091 (-1.30)	-0.076 (-1.04)
Constant	3.077*** (10.55)	3.559*** (12.38)	2.398*** (13.15)	3.097*** (17.34)	2.707*** (11.49)	2.880*** (12.12)	2.679*** (7.83)	2.732*** (8.42)
Community fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	7075	7075	13580	13580	6252	6252	2005	2005
Adj. R ²	0.158	0.169	0.154	0.194	0.183	0.200	0.185	0.173

t statistics in parentheses

† Spline coefficients are for the slopes of the intervals. Comm. FE std. err. are clustered at HH.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

TABLE 26: RELIGIOSITY AND TOLERANCE BY AGE GROUPS

	< 25 years old		25-44 years old		45-64 years old		≥ 65 years old	
	Tol. non-corign. in village (1)	neighbor (2)	Tol. non-corign. in village (3)	neighbor (4)	Tol. non-corign. in village (5)	neighbor (6)	Tol. non-corign. in village (7)	neighbor (8)
Religiosity	-0.043*** (-3.76)	-0.066*** (-5.25)	-0.025*** (-2.71)	-0.036*** (-3.85)	-0.031* (-1.94)	-0.046*** (-2.77)	-0.014 (-0.51)	-0.023 (-0.87)
Received coreligion education	-0.060*** (-3.85)	-0.061*** (-3.72)	-0.034*** (-3.00)	-0.042*** (-3.53)	-0.012 (-0.54)	-0.005 (-0.20)	0.291** (2.49)	0.290*** (2.65)
Received non-coreligion education	0.003 (0.06)	0.034 (0.76)	0.033 (1.49)	0.048** (2.20)	0.060* (1.79)	0.081** (2.37)	0.000 (.)	0.000 (.)
Male	-0.001 (-0.11)	-0.022 (-1.58)	0.002 (0.23)	0.005 (0.59)	0.030** (2.14)	0.036** (2.42)	0.067** (2.26)	0.045 (1.47)
Age	0.006** (2.38)	0.005* (1.74)	-0.002** (-2.36)	-0.003*** (-2.73)	0.002 (1.26)	0.001 (0.75)	0.003 (1.24)	0.003 (1.35)
Years edu spl.: 0-6 years [†]	0.029*** (2.71)	0.028*** (2.81)	0.015*** (3.67)	0.020*** (4.71)	0.007* (1.81)	0.006 (1.42)	-0.000 (-0.07)	-0.000 (-0.01)
Years edu spl.: 7-12 years [†]	0.012** (2.44)	0.013** (2.56)	0.017*** (4.50)	0.015*** (3.83)	0.020*** (3.24)	0.021*** (3.11)	0.030* (1.70)	0.032* (1.82)
Years edu spl.: 13-18 years [†]	0.006 (0.69)	0.006 (0.62)	-0.001 (-0.20)	-0.002 (-0.28)	-0.001 (-0.08)	-0.014 (-1.23)	0.000 (0.01)	-0.009 (-0.27)
Married	-0.055*** (-3.04)	-0.060*** (-3.15)	-0.013 (-0.98)	0.001 (0.04)	0.007 (0.36)	0.028 (1.33)	-0.032 (-1.04)	-0.033 (-1.05)
Risk aversion	0.001 (0.27)	0.005 (0.82)	0.005 (1.30)	0.006 (1.61)	-0.001 (-0.16)	-0.001 (-0.18)	0.004 (0.41)	0.014 (1.26)
Patience	0.010 (1.56)	0.002 (0.24)	0.012** (2.48)	0.014*** (2.80)	0.008 (1.02)	0.011 (1.23)	-0.006 (-0.36)	-0.011 (-0.71)
Num. of prior migration	0.010 (1.30)	0.008 (1.10)	0.007** (1.98)	0.011*** (3.09)	-0.001 (-0.16)	0.011 (1.20)	-0.004 (-0.21)	0.015 (0.71)
Log PCE spl.: Below median [†]	0.050** (2.38)	0.027 (1.23)	0.010 (0.69)	0.009 (0.61)	-0.002 (-0.13)	-0.000 (-0.02)	0.049* (1.77)	0.017 (0.59)
Log PCE spl.: Above median [†]	-0.000 (-0.02)	0.012 (0.83)	0.019* (1.75)	0.020* (1.79)	0.008 (0.41)	0.026 (1.27)	0.031 (0.67)	0.019 (0.38)
Crime	0.042* (1.82)	0.030 (1.21)	0.032 (1.64)	0.029 (1.50)	0.003 (0.09)	-0.036 (-1.08)	0.019 (0.25)	-0.011 (-0.15)
Constant	2.016*** (7.55)	2.356*** (8.39)	2.684*** (15.12)	2.653*** (14.74)	2.699*** (11.75)	2.670*** (9.98)	1.911*** (4.99)	2.218*** (5.54)
Community fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	7075	7075	13581	13581	6252	6252	2005	2005
Adj. R ²	0.225	0.248	0.220	0.247	0.238	0.269	0.305	0.358

t statistics in parentheses

[†] Spline coefficients are for the slopes of the intervals. Comm. FE std. err. are clustered at HH.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

A.2 Additional tables (Not for publication)

In the following pages, I include some of the tables that are referred to in the main text.

TABLE 27: TRUST OF THE COMMUNITY, STRANGERS & POLICE - HH FE

	Willing to help (1)	Must be cautious (2)	Trust nbr. kid(s) (3)	to watch house (4)	Village is safe [...] generally (5)	Trust [...] at night neighbors (6)	Trust [...] neighbors strangers (7)	to return lost wallet police (9)
Religiosity	0.043*** (6.86)	0.016** (2.10)	0.026** (2.11)	0.017** (2.19)	0.048*** (7.13)	0.015** (2.24)	0.080*** (5.16)	0.114*** (6.75)
Received coreligion education	-0.008 (-0.89)	0.010 (0.98)	-0.002 (-0.16)	0.001 (0.13)	-0.008 (-1.00)	-0.003 (-0.34)	-0.012 (-0.63)	0.004 (0.19)
Received non-coreligion education	-0.011 (-0.51)	0.025 (1.05)	-0.066* (-1.78)	-0.015 (-0.51)	0.025 (1.33)	0.040* (1.94)	-0.039 (-0.77)	0.009 (0.17)
Male	0.045*** (9.00)	0.016*** (2.68)	0.046*** (5.38)	0.052*** (8.63)	0.023*** (4.78)	0.102*** (20.98)	0.030** (2.54)	-0.116*** (-8.67)
Age spline: Below 25 [†]	-0.001 (-0.58)	-0.001 (-0.74)	-0.002 (-0.44)	0.001 (0.57)	0.000 (0.15)	0.008*** (4.75)	0.005 (1.48)	-0.019*** (-4.79)
Age spline: Between 25 and 45 [†]	-0.000 (-0.19)	-0.001* (-1.68)	0.005*** (3.65)	0.002*** (2.80)	0.001** (2.12)	0.001** (2.19)	0.001 (0.36)	0.003 (1.52)
Age spline: Between 45 and 65 [†]	-0.000 (-0.58)	-0.000 (-0.14)	0.002* (1.66)	-0.001 (-0.58)	-0.001 (-0.88)	0.001 (0.72)	0.000 (0.20)	-0.002 (-0.77)
Age spline: Above 65 [†]	-0.003* (-1.88)	-0.000 (-0.17)	-0.002 (-0.76)	0.000 (0.10)	-0.002 (-1.19)	-0.004*** (-2.63)	0.003 (0.60)	0.009* (1.85)
Years edu spl.: 0-6 years [†]	0.006*** (3.10)	0.002 (0.73)	0.004 (0.99)	0.002 (0.74)	0.003 (1.47)	-0.004** (-2.03)	0.010* (1.86)	0.013** (2.12)
Years edu spl.: 7-12 years [†]	0.010*** (3.85)	0.013*** (3.85)	-0.006 (-1.15)	-0.003 (-0.80)	-0.005* (-1.89)	-0.005* (-1.94)	0.017*** (2.73)	0.012* (2.84)
Years edu spl.: 13-18 years [†]	0.002 (0.40)	-0.001 (-0.20)	-0.006 (-0.71)	0.007 (1.22)	0.007* (1.73)	0.010** (2.10)	-0.002 (-0.23)	-0.041*** (-3.59)
Risk aversion	0.002 (0.93)	0.002 (0.49)	0.003 (0.67)	-0.001 (-0.28)	0.002 (0.85)	0.000 (0.04)	-0.006 (-0.96)	0.001 (0.16)
Patience	0.009** (2.38)	0.014*** (3.12)	0.004 (0.67)	0.001 (0.21)	-0.003 (-0.94)	-0.005 (-1.45)	0.005 (0.70)	0.010 (1.09)
Constant	2.961*** (72.94)	2.971*** (60.64)	2.555*** (25.20)	2.747*** (54.44)	2.902*** (70.87)	2.739*** (63.06)	2.602*** (27.15)	2.876*** (26.86)
Household fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	28914	28913	21743	28912	28911	28909	28315	27395
Adj. R ²	0.170	0.139	0.243	0.170	0.196	0.177	0.255	0.222

[†] statistics in parentheses

[†] Spline coefficients are for the slopes of the intervals. Standard errors are clustered at the community.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

TABLE 28: DISCRIMINATIVE TRUST & TOLERANCE - HH FE

	Trust [...] more		Tolerate non-corign living in [...]			Tolerate non-corign to [...]	
	coreign (1)	coethnics (2)	village (3)	neighbor (4)	house (5)	marry relative (6)	build h. worship (7)
Religiosity	0.059*** (6.28)	0.032*** (3.48)	-0.022*** (-2.61)	-0.034*** (-3.97)	-0.064*** (-6.20)	-0.083*** (-6.96)	-0.053*** (-4.70)
Received coreligion education	0.014 (1.12)	0.024** (1.97)	-0.020** (-1.97)	-0.017 (-1.57)	-0.009 (-0.67)	-0.005 (-0.34)	-0.042*** (-2.74)
Received non-coreligion education	-0.070** (-2.23)	0.012 (0.39)	-0.007 (-0.34)	0.017 (0.80)	0.026 (0.87)	0.069* (1.78)	0.026 (0.75)
Male	-0.038*** (-5.32)	-0.063*** (-8.82)	0.023*** (3.62)	0.018*** (2.76)	0.038*** (4.59)	0.048*** (5.17)	0.008 (0.93)
Age spline: Below 25†	-0.008*** (-3.41)	-0.005** (-2.13)	0.003 (1.63)	0.001 (0.66)	-0.002 (-0.87)	-0.009*** (-3.12)	-0.002 (-0.81)
Age spline: Between 25 and 45†	0.004*** (3.95)	0.002** (2.32)	-0.004*** (-4.32)	-0.005*** (-5.09)	-0.006*** (-5.17)	-0.006*** (-4.74)	-0.004*** (-3.04)
Age spline: Between 45 and 65†	0.001 (0.76)	0.001 (0.65)	-0.000 (-0.13)	-0.001 (-0.72)	-0.001 (-1.09)	0.003* (1.75)	-0.000 (-0.25)
Age spline: Above 65†	-0.001 (-0.22)	0.001 (0.59)	0.000 (0.05)	0.002 (0.69)	-0.001 (-0.19)	0.000 (0.02)	0.003 (0.86)
Years edu spl.: 0-6 years†	0.003 (0.89)	0.004 (1.33)	0.006** (2.29)	0.008*** (2.61)	0.001 (0.32)	-0.008* (-1.89)	-0.002 (-0.56)
Years edu spl.: 7-12 years†	-0.027*** (-6.72)	-0.035*** (-8.84)	0.019*** (5.70)	0.017*** (4.84)	0.014*** (3.25)	-0.010* (-1.91)	0.008* (1.70)
Years edu spl.: 13-18 years†	-0.003 (-0.46)	-0.003 (-0.51)	-0.008 (-1.54)	-0.006 (-0.97)	0.005 (0.64)	0.000 (0.01)	0.000 (0.00)
Risk aversion	0.001 (0.31)	0.005 (1.24)	0.002 (0.73)	-0.001 (-0.21)	-0.011** (-2.54)	-0.011** (-2.37)	-0.009* (-1.88)
Patience	0.002 (0.40)	-0.014*** (-2.62)	0.004 (0.91)	0.002 (0.48)	-0.003 (-0.43)	-0.006 (-0.86)	-0.008 (-1.28)
Constant	2.824*** (47.25)	2.740*** (46.05)	2.729*** (52.95)	2.776*** (50.78)	2.697*** (40.84)	2.341*** (30.96)	2.526*** (34.59)
Household fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	28913	28913	28914	28914	28913	28913	28913
Adj. R ²	0.259	0.269	0.334	0.352	0.389	0.375	0.374

t statistics in parentheses

† Spline coefficients are for the slopes of the intervals. Standard errors are clustered at the community.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$