Northwestern | INSTITUTE FOR POLICY RESEARCH

Working Paper Series

WP-18-08

Randomizing Religion: The Impact of Protestant Evangelism on Economic Outcomes

Gharad Bryan
Lecturer in Economics
London School of Economics

James Choi
Professor of Finance
Yale University

Dean Karlan
Professor of Economics and Finance
IPR Associate
Co-Director of the Global Poverty Research Lab
Northwestern University

Version: February 23, 2018

DRAFT

ABSTRACT

To test the causal impact of religiosity, the researchers conducted a randomized evaluation of an evangelical Protestant Christian values and theology education program that consisted of 15 weekly half-hour sessions. They analyze outcomes for 6,276 ultra-poor Filipino households six months after the program ended. They find significant increases in religiosity and income, no significant changes in total labor supply, assets, consumption, food security, or life satisfaction, and a significant decrease in perceived relative economic status. Exploratory analysis suggests the program may have improved hygienic practices and increased household discord, and that the income treatment effect may operate through increasing grit.

A literature dating back at least to Adam Smith and Max Weber finds that religiosity is associated with a set of characteristics that promote economic success, including diligence, thriftiness, trust, and cooperation (Iannaccone 1998; Iyer 2016). More recent research has linked religiosity to positive outcomes in domains such as physical health (Ellison 1991), crime rates (Freeman 1986), drug and alcohol use (Gruber and Hungerman 2008), income (Gruber 2005), and educational attainment (Freeman 1986; Gruber 2005). However, demonstrating that religion *causes* outcomes is challenging because people choose their religion. Naturally occurring religious affiliation is likely to be correlated with unobserved personal characteristics that may be the true drivers of the observed correlations. Iannaccone (1998) writes that "nothing short of a (probably unattainable) 'genuine experiment' will suffice to demonstrate religion's causal impact."[2]

Religiosity is not a singular concept, and its causal impact will likely depend on many factors. An important distinction is noted by Johnson, Tompkin, and Webb (2008), who differentiate "organic" exposure to religion over a prolonged period of time (e.g., through one's upbringing at home) from "intentional" exposure through participation in a specific program targeting a specific set of individuals. Both are important channels of religious propagation, and the type of religiosity produced may depend on the channel. Our study is about intentionally generated religiosity[3] of a specific kind (Protestant Christian), and a significant aim of our study is to establish, in the context of a randomized controlled trial, that intentional exposure to a religious program can generate the critical first stage: an exogenous change in religiosity.

We partnered with International Care Ministries (ICM), an evangelical Protestant anti-poverty organization, to conduct an evaluation that randomly assigned invitations to attend Christian theology and values training. Although the program is specific, it is representative of an important sector that attempts to generate religiosity intentionally. There are 285 million evangelical Christians in the world, comprising 13% of Christians and 36% of Protestants (Hackett and Grim 2011). ICM's program, called Transform, normally consists of three components—Protestant Christian theology, values, and character virtues ("V"), health behaviors ("H"), and livelihood (i.e., self-employment) skills ("L")—taught over 15 weekly meetings (plus a 16th meeting for a graduation ceremony). Each meeting lasts 90 minutes, spending 30 minutes per component. ICM's

[2] A notable example of a natural experiment is Clingingsmith, Khwaja, and Kremer (2009), who study a randomized lottery in Pakistan for participation in the hajj.

[3] Gruber and Hungerman (2008), Gruber (2005), and Bottan and Perez-Truglia (2015), who use naturally occurring shocks to religious participation, are likely estimating the effect of organic exposure to religion.

leadership believes that the V curriculum lies firmly in the mainstream of evangelical belief. Since 2009, 194,000 people have participated in Transform. The basic structure of the program, using a set series of classes outside of a Sunday worship service to evangelize, is a common model. For example, over 24 million people in 169 countries have taken the evangelistic Alpha course since 1977 (Bell 2013), and Samaritan's Purse has enrolled 11 million children in about 100 countries in its evangelistic Greatest Journey course since 2010 (Samaritan's Purse 2017). Like Transform, these are courses of approximately a dozen sessions.

We randomly assigned communities to receive the full Transform curriculum (VHL), to receive only the health and livelihoods components of the curriculum (HL), to receive only the values component of the curriculum (V), or to be a no-curriculum control (C). We identify the effect of religiosity by the comparison of invited households in VHL communities to invited households in HL communities, and invited households in V communities to households in C communities that would have been invited had that community been assigned to be treated.

I. The ICM Transform Program

Transform's Values curriculum begins by teaching participants to recognize the goodness of the material world and their own high worth as God's creation. The theme then shifts towards humanity's rebellion against God and its negative consequences, while contrasting that with the message that "believers of Jesus will discover joy in sorrow, strength in weakness, timely provision in time of poverty, and peace in the midst of problems and pain." The Protestant doctrine of salvation by grace—a person cannot earn her way into heaven by performing good works, but can only be saved by putting her faith in Jesus, upon which God forgives her sins as a free act of grace—is taught. The proper response to God's grace is to do good works out of gratitude. The final section of the curriculum covers what such good works would be. They include stopping wasting money on gambling and drinking, saving money, treating everyday work as "a sacred ministry," and becoming active in a local church community. Participants are encouraged to mitigate natural disaster risk, find hope in the midst of disasters through faith, and generally see that "life's trials and troubles" are "God's pruning knife" that will result in "more fruitfulness."

The Health training focuses on building health knowledge and changing health and hygiene practices in the household. Additionally, ICM staff identify participants experiencing malnourishment and common health issues such as diarrhea, tuberculosis, and skin problems. They

then receive nutritional supplements, deworming pills, other medical treatments, and follow-up care.

The Livelihood section of the program consists of training in small business management skills, training in one of several different livelihood options (for example, an introduction to producing compost through vermiculture), and being invited to a savings group. Minor agricultural assistance is given in the form of small seed kits. These activities are intended to provide key tools for achieving a more sustainable income and smoothing economic shocks.

The health and livelihoods components are led by two employees of ICM, while the religious training is led by a local pastor following an ICM-provided curriculum. The local pastor is not compensated by ICM but does receive training and support. Six lay volunteers from the pastor's church serve as counselors who offer support and encouragement to the participants. For a small number of participants, ICM arranges treatment for serious medical needs.

The teacher's manuals used by ICM are available on the authors' websites.

II. Experimental Design

For the experiment, ICM recruited 160 pastors to each choose two communities in which (s)he did not already minister and that were at least ten kilometers away from each other. Selected communities were required to be predominantly Catholic or Protestant—which meant that Muslim-majority communities were excluded—and not to have been previously contacted by ICM.[4] Within each community, the pastor created a list of 40 households that (s)he considered the poorest and thus eligible for participation in Transform, and interacted with these households to assess their willingness to participate in the program should it be launched in their village. One member of the household—usually the female head of household or the female spouse of the male head of household—was identified as a potential invitee to Transform. ICM staff then administered a poverty verification questionnaire, based on indicators such as the quality of a home's construction materials, access to electricity, clean water and sanitation, and household income—most of which do not rely upon self-reports. The previously identified individuals in the 30 households deemed poorest, were invited to participate in the program if their community was selected for treatment.

[4] There is only one ICM base (located in Mindanao) that is close to any communities that are predominantly Muslim.

The randomization was a two-stage clustered design. In the first stage, the pastors were randomly assigned to either group VHL-C or group HL-V. In the second stage, pastors in VHL-C had one of their communities randomly assigned to receive the full Transform program (VHL) and the other to be a no-treatment control group (C). Pastors in HL-V had one of their communities randomly assigned to receive only the health and livelihoods component of Transform (HL), and the other to receive only the Christian values component of Transform (V).[5] We implemented this randomization scheme because each pastor had capacity to provide values training in only one community, and thus the scheme allowed every invited pastor to be involved in exactly one Transform implementation. Since the treatments were assigned at the community level, the estimated effect of the Values treatment on downstream economic outcomes should be interpreted as the effect of increasing religious engagement for a group of individuals in a community, rather than the effect for an isolated individual. We view this as a desirable feature, since religion is most often experienced and practiced in a communal context.

The four-month Transform program ran from February to May 2015. HL/VHL households on average attended 8.9 class sessions, and 83% attended at least one.[6] Participants in the VHL, HL, and V treatment arms also received food supplements, and ICM arranged treatment for serious medical needs (<1% of participants). We will show that the food supplements and medical treatment do not explain the V curriculum treatment effect, because the HL curriculum, which is also accompanied by food supplements and medical treatment, does not have a comparable treatment effect.

III. Data Collection

Approximately six months after Transform ended (between August 12, 2015 and January 14, 2016), we sent surveyors to the poorest 25 households selected by the pastors in each community and completed surveys in 6,276 households.[7] In order to reduce the correlation between treatment assignment and social desirability bias in survey response, we used surveyors from a nonprofit research organization unaffiliated with ICM, Innovations for Poverty Action.

[5] Both HL and V communities were also assisted by six counselors recruited by the pastors prior to the random assignment.

[6] ICM did not track attendance in the V group. If somebody was sent in the place of an invited individual, ICM recorded that individual as present. We cannot distinguish these substitute attendances from regular attendances.

[7] We sampled the 25 poorest households, rather than the full 30 identified by ICM, because of budget constraints and the programmatic importance of measuring the impact on the poorer individuals within the sample.

Surveyors attempted to interview, in descending order of preference, (a) the person previously identified as a potential Transform invitee, (b) the female head of household if the head of household was female, (c) the female spouse/partner of the male head of household, or (d) the person reporting to be responsible for health and household expense decisions. Out of 7,999 households targeted for surveying, we successfully surveyed 6,507 (81%). Insurgent violence and political opposition prevented the field teams from surveying in six communities (150 households), and some households either refused to be surveyed (60 households), could not be contacted (1,252 households), or suffered from survey data issues (30 households).

Management data and internal control checks identified five instances (out of the 157 pastors whose communities we surveyed) in which ICM and the pastor switched the assignments within a community pair, treating one with what the other was supposed to receive, and vice versa. Because of the paired randomization, we drop these five community pairs in our analysis without harming internal validity. There was also one community that was supposed to receive the V treatment but did not. We retain this community in our regressions, since the compliance issue was not present in both communities in the pair.[8] Thus, we only use data from 6,276 households in our main analyses. Appendix Table 1 shows that the attrition rate and the number of days between program end and survey date do not differ significantly across the four experimental groups.

Before the intervention, we intended to conduct a baseline survey of the 7,999 households. However, we underestimated the time it would take to conduct the baseline, and we were unable to delay the start of Transform in order to complete the baseline. Appendix Table 1 shows that the four experimental groups are well balanced on characteristics measured in the six-month survey that are unlikely to have changed in response to the treatment.

We filed a pre-analysis plan with the American Economic Association RCT Registry before seeing any follow-up data. In accordance with our first filing, we then examined the follow-up data blinded to treatment assignment and filed a supplement to the pre-analysis plan.[9]

[8] We show in Appendix Tables 2-4 the full set of analyses including the five pairs dropped in the main regressions, using the assigned treatment status for each community. Relative to Tables 1-3, the only treatment effect estimate of the V curriculum on primary outcomes that moves across the 5% or 10% significance boundaries is for perceived relative economic status, which is now significant only at the 10% level. Examining mechanisms and secondary outcomes, in the pooled specification, the negative V effect on the life orientation index loses significance even at the 10% level, while the positive V effect on grit and the negative V effect on self-control move from 10% significance to 5% significance.

[9] In accordance with the first phase of our pre-analysis plan, we analyzed the data blinded to treatment status to determine whether including available baseline observations as control variables increased the efficiency of our estimates. We did not find any efficiency gains, so we decided not to use the baseline survey in our final analysis.

IV. Outcome Variables

We divide outcomes into primary religious outcomes, primary economic outcomes, mechanisms, and secondary outcomes. Index variables are standardized so that the control group has zero mean and unit variance.

The primary religious outcomes are the intrinsic religious orientation scale and the sum of the two extrinsic religious orientation scales of Gorsuch and McPherson (1989), a general religion index that consolidates responses to nine religious belief and practice questions, and the average of two binary indicators for whether the respondent reports that "I have made a personal commitment to Jesus Christ that is still important to me today" and "I have read or listened to the Bible in the past week." These last two binary indicators are elicited using list randomization, a technique for eliciting responses to sensitive questions that conceals any given individual's response from the interviewer (Droitcour et al. 2011; Karlan and Zinman 2012). We do this to minimize experimenter demand and social desirability effects. In a list-randomized elicitation, participants are randomly selected to receive either a list of n non-sensitive statements or these same n statements plus a sensitive statement. They are asked to answer how many of the statements are true without specifying which ones are true. The difference in the average number of statements reported to be true between participants who received n statements and $n + 1$ statements is the estimated fraction of participants for whom the sensitive statement is true.

The primary economic outcomes are household expenditure on a sample of consumption goods, a food security index, household income, total household adult labor supply in hours, an index of life satisfaction, and perceived relative economic status.

The mechanism outcomes are three measures of social capital (a general trust index, a strength of social safety net index, and a participation in community activities index), three measures of a sense that one has control over one's life (a perceived stress index, the Levenson (1981) Powerful Others index modified to apply to God's control of one's life, and a locus of control index that combines the internality and chance subscales of Levenson (1981) and the World Values Survey locus of control question), three measures of optimism (the Life Orientation Test - Revised index (Scheier, Carver, and Bridges 1994), an index of expectations about one's life satisfaction and relative economic status five years in the future, and a general optimism index), the Short Grit

Scale (Duckworth and Quinn 2009), and a subset of the Brief Self-Control Scale (Tangney, Baumeister, and Boone 2004).

The secondary outcomes are an index of belief in the Protestant doctrine of salvation by grace (an outcome of interest to ICM because the doctrine is taught in the V curriculum), an asset index, a financial inclusion index, a health index, two hygienic practice variables, a home quality index, a migration and remittance index, an absence of domestic discord index, absence of domestic violence, child labor supply, and the number of children enrolled in school.

The Appendix describes in greater detail how we constructed our outcome variables.

V. Econometric Strategy

Treatment effects are estimated using ordinary least squares regressions with the following explanatory variables: treatment indicator variables, an indicator variable for the respondent's gender, an indicator variable for the respondent being married, an indicator variable for the respondent being divorced or separated, the respondent's years of educational attainment,[10] the number of adults in the household (age $\geq$ 17), the number of children in the household (age < 17), and the number of days between June 1, 2015 and the interview date. We cluster standard errors by community (the unit of randomization).

We estimate the treatment effect on list-randomized variables by stacking the responses of those who did and did not receive the sensitive statement in a regression that controls for treatment assignment indicator variables, an indicator variable for whether the individual received the sensitive statement, the interaction between receiving the sensitive statement and each treatment indicator variable, and all the other non-treatment variable controls from the main specification. The coefficients on the interaction variables are the treatment effects of interest. The control mean is estimated by calculating within the control group the difference (without adjusting for covariates) in the mean response between those who did get the sensitive statement and those who did not. When two list-randomized variables are combined to form an outcome variable, we stack

[10] Pre-school only is coded as 0.5 years, some grade 12 education without high school graduation is coded as 12 years, high school graduation is coded as 13 years, partial vocational education is coded as 14 years, complete vocational education is coded as 15 years, partial college is coded as 16 years, and college graduation is coded as 17 years. In data cleaning, we discovered 27 observations in which the respondent's name was not in the household roster, and thus respondent demographic information was missing. We code the respondent demographic variables as equaling zero for these 27 observations and control for an indicator variable equal to one if respondent demographic information is missing.

the responses for both variables into a single regression while retaining the same control variables as above. The coefficient on the interaction variables in this case are the treatment effects on the average of the two outcomes of interest.

We test for the effect of religiosity by comparing VHL to HL respondents, and V to control respondents. We do not reject the hypothesis that the V and HL curricula have additive effects when testing jointly across all outcomes of interest; the *p*-values for this test are 0.344, 0.634, 0.890, and 0.234 when looking across religious primary outcomes, all primary outcomes, all primary outcomes and mechanisms, and all outcomes, respectively. Therefore, we focus—following our pre-analysis plan—on a pooled specification that estimates the effect of being invited to receive any V curriculum, while controlling for whether the household was invited to receive any HL curriculum. This pooled specification has greater statistical power than a specification that separately estimates the VHL-versus-HL and V-versus-control effects.

Since we conducted a matched-pair randomization, our pooled specification controls for fixed effects for each pair of communities chosen by a given pastor ("community-pair fixed effects"). In our disaggregated specification, where VHL, HL, and V treatment effects are estimated separately, the estimation of the VHL treatment effect versus control also controls for community-pair fixed effects. However, the community-pair fixed effects are not possible to control for when estimating the HL and V treatment effects versus control because no pastor who selected an HL or V community also selected a control community. Thus, the disaggregated specification's treatment estimates are generated from two independently estimated regressions: one to estimate the treatment effect for VHL relative to control with community-pair fixed effects, and a second to estimate the treatment effect for HL and V relative to control with fixed effects for which of the four ICM bases the community is associated with.[11]

Because of the large number of hypotheses tested, we follow Banerjee et al. (2015): for each primary test in our pre-analysis plan we calculate a *q*-value—the minimum false discovery rate (i.e., the expected proportion of rejected null hypotheses that are actually true) at which the null hypothesis would be rejected for that test (Benjamini and Hochberg 1995; Anderson 2008),

[11] Our pre-analysis plan stated that we would control for community-pair fixed effects in all regressions. We have deviated from the plan here because it is mathematically impossible to control for community-pair fixed effects in the disaggregated specification while estimating every single treatment effect. Due to the randomized design, the inability to control for community-pair fixed effects when estimating the HL and V treatment effects relative to control does not bias our estimates, but it does reduce our statistical power.

given the other tests run within the family.[12] For the purposes of this correction, and in accordance with our pre-analysis plan, we consider the tests on primary religious outcomes to be one family (because they are a test of the study's first stage, a null result here would eliminate the justification for examining the non-religious outcomes), and the tests on primary non-religious outcomes to be another family. We implement adjustments once among the pooled specification regressions, and separately among the disaggregated specifications. In other words, the tests run within the pooled specification do not affect the *q*-values from the disaggregated specifications, and vice versa. We do not apply multiple hypothesis test corrections to our tests of hypothesized mechanisms and secondary outcomes because these analyses are exploratory.

VI. Results

The majority of our sample (69%) self-identifies as Catholic, and 21% as Protestant. The control group means in Appendix Tables 6-9 summarize the sample's baseline level of religiosity and indicate that many are not maximally religiously fervent. Table 1 shows the treatment effects on the primary religious outcomes. The pooled specification (Panel A) finds that the V curriculum, offered either on its own or in conjunction with the HL curriculum, increases all four measures of religiosity, three of them at $q < 0.01$.[13] The effect on the three significant indices ranges from 0.08 to 0.13 standard deviations. The change in the list randomization outcome—which we have lower statistical power to detect, because list-randomized questions measure the outcome of interest in only half the sample and we only have two such questions—is positive and of meaningful economic magnitude, but not statistically significant (4.8 percentage points, *se* = 3.7 percentage points, control group mean = 60.6%). The statistically significant first-stage effect of the treatment on religiosity justifies examining differences in downstream non-religious outcomes across treatment groups, to gain insight into the effects of religiosity.

We also present results for a disaggregated specification in Panel B where we estimate the impact of the V curriculum by separately comparing VHL to HL and V to control. Although the point estimates of VHL's effect on religiosity relative to HL are always positive, they are not

[12] Within each of our outcome families, let $p_1 \leq p_2 \leq \ldots \leq p_m$ be the set of ordered *p*-values that correspond to the *m* hypotheses tested. For a given false discovery rate α, let *k* be the largest value of *i* such that $p_i \leq i\alpha/m$, and reject all hypotheses with rank $i \leq k$. The *q*-value of a hypothesis, an analog to the *p*-value, is the smallest α for which the hypothesis would be rejected (Anderson 2008).

[13] Although intrinsic and extrinsic religious orientation were originally conceived of as opposing concepts on a unidimensional scale, empirical work has found the two to be orthogonal to each other (Kirkpatrick and Hood 1990).

statistically significant. On the other hand, V significantly increases extrinsic religious orientation (0.20 *sd*, *se* = 0.06, *q* = 0.013) and marginally significantly increases intrinsic religious orientation (0.12 *sd*, s*e* = 0.05, *q* = 0.059) relative to the control group. Therefore, while we report all treatment effect estimates on downstream outcomes from the disaggregated specification, we only discuss and interpret these outcomes for the V versus control comparisons, and only correct for multiple hypothesis tests within the V versus control comparisons.

In unplanned comparisons, we find no evidence that any aspect of Transform increased the share of respondents identifying as Protestants, and only marginally statistically significant evidence that the V curriculum decreased identification as a Catholic (Appendix Table 38).

The primary economic outcome effects are reported in Table 1. We find no statistically significant treatment effects on consumption, food security, total adult labor supply, or life satisfaction. We have enough statistical power to reject, at the 95% confidence level, increases in these variables of more than 0.06 standard deviations and decreases of more than 0.04 standard deviations. However, we do find a statistically significant 9.2% increase in income (386 PHP ≈ 8.6 USD per month, *se* = 127 PHP ≈ 2.8 USD, control group mean = 4,213 PHP ≈ 94 USD*, q* = 0.016) in the pooled specification (Panel A).[14] In the disaggregated specification (Panel B), where we have less statistical power (the standard errors are over twice as large as in the pooled specification), the income effect is statistically significant before correcting for multiple hypothesis tests but not after (*p* = 0.045, *q* = 0.271). We also find a significant decrease in perceived relative economic status (-0.11 points on a 10-point scale, which corresponds to -0.05 *sd, se* = 0.05, *q* = 0.050) in the pooled specification. Perceived relative economic status is measured by one question that asks respondents to place themselves on a ladder of life where the top rung (10) represents the best-off people in their community and the bottom rung (1) the poorest people in their community. We discuss challenges in interpreting these results below.

In order for the V treatment effect to tell us about the effect of religiosity, the V curriculum must affect economic outcomes only through its effect on religiosity, rather than through other channels such as increased socialization with other classmates, time spent away from the home in order to attend class, the food supplements and medical treatment received, etc. The HL treatment effect estimates can be viewed as a placebo test of this assumption, since the HL curriculum also

[14] Results become more statistically significant when income is winsorized at the 95th or 99th percentile, or when we use the log of income (see Appendix Table 36).

brought participants together for classes but had no religious content. Table 1 shows that the HL curriculum had no significant effect (even without multiple testing corrections) on any of the outcomes where we found significant V curriculum effects.

Table 2 reports tests of mechanisms that might generate the primary economic effects and potentially cause further changes in the primary economic outcomes in the future. The V curriculum teaches that God's love continues during adversity, which he ultimately uses for good, so participants can find hope in the midst of hardship. Correspondingly, we find in the pooled specification (Panel A) that the V curriculum leads to increases in the sense that God is in control (Powerful Others index, 0.09 *sd*, *se* = 0.03)[15] and a marginally significant increase in grit (0.04 *sd*, *se* = 0.02). However, there is no consistent effect on the three measures of optimism. Perceived self-control falls by a marginally significant extent (-0.03 *sd*, *se* = 0.02), which could be due to the V curriculum increasing the number of behaviors participants believe to be undesirable temptations rather than an actual reduction in self-control. There is also a marginally significant reduction in perceived locus of control (-0.04 *sd*, *se* = 0.02), although subcomponent analysis finds that V recipients report that *both* personal initiative and chance play larger roles in their life (Appendix Table 21).

Finally, we examine treatment effects on secondary outcomes (Table 3). In the pooled specification, we find that the V curriculum leads to statistically significant ($p = 0.0002$) increases in hygienic behaviors not measured by list randomization (avoiding open defecation and keeping animals in a sanitary way), but no statistically significant increase in the list-randomization response regarding washing hands after using the bathroom and treating water. We note that we find via list randomization an increase in reported domestic violence, although it is only significant at the 10% level. This finding is a potentially important impact of the program that could be interpreted either as an increase in identifying behaviors as abuse or an increase in actual abuse. Although we do not observe a statistically significant change in the non-list-randomized discord index, we do observe a significant increase in one of its components, major arguments regarding

[15] Although our pre-analysis plan treats the Powerful Others index as a potential mechanism rather than a primary outcome, the increase in its value could also be seen as evidence that the V curriculum succeeded in increasing religiosity. Relative to our other primary religious outcomes, this measure may be less prone to social desirability bias.

interactions with relatives (2.2 percentage points, *se* = 0.8 percentage points, Appendix Table 33). The remainder of the secondary outcomes are not significant at the 5% level.[16]

VII. Discussion and Conclusion

A puzzle regarding the treatment effect on income is that we do not observe movement in other variables that would be expected to rise with income: total labor supply, consumption, food security, and assets. For labor supply, while there is no change in total hours, we do see a shift from agriculture to non-agricultural self-employment, livestock tending, fishing, and other employment of unclear formality (Appendix Table 13), which could increase income. Furthermore, we cannot observe labor effort per hour worked, which may increase with grit and which the V curriculum encourages as "a sacred ministry" that "merits heavenly reward." The lack of an increase in consumption and food security is unusual, as it indicates that people in extreme poverty did not consume any of an income increase.[17] However, the standard error on the consumption treatment effect means that we cannot rule out the hypothesis that half of the additional income was spent on the measured consumption goods. Income that is not spent (or lost/stolen) must accrue to savings, but we find no increase in measured assets (an index of productive, durable household, and financial assets). This may be because the income effect grew over time and was small prior to the month immediately before measurement (income is measured only over the 30 days preceding the survey), so that the increase in savings *stock* is too small to be detectable given the noisiness and incompleteness of our asset measure, even though the final month's savings *flow* is detectably higher. Alternatively, there may have been an increase in consumption of goods and services we did not measure.

Of course, it is possible that the income result is spurious despite the multiple-testing correction. Further evidence, however, seems inconsistent with this interpretation. Among the 88%

[16] We also find an unexpected, marginally significant, decrease in the index for the belief in the doctrine of salvation by grace. This may be because of the counterintuitive nature of the doctrine, which requires one to disagree with two of the three statements in our index: "I follow God's laws so that I can go to heaven" and "If I am good enough, God will cleanse me of my sins." In becoming more religiously fervent, subjects may have felt that they should agree more strongly with these pious-sounding statements despite the efforts of the V curriculum. The V curriculum also increases agreement with the third statement in the index, "I will go to heaven because I have accepted Jesus Christ as my personal savior," even though that statement is *consistent* with salvation by grace. The pattern of responses is consistent with the V curriculum increasing agreement with *all* pious-sounding statements.

[17] We did not collect data on tithing, but ICM reports that its pastors collect on average 570 PHP per month from their entire congregation, and the average congregation has about 25 adults. Thus, the gap between the income and consumption treatment effects is unlikely to be entirely explained by tithing.

of households where the individual identified as a potential Transform invitee was the survey respondent, the "any V" effect on labor income is 236 PHP ($p = 0.0006$) for the respondent herself and 164 PHP ($p = 0.151$) summed across all other household members. Hence, the labor income effect is strongly concentrated on the Transform beneficiary. It also seems unlikely that the V curriculum is causing respondents to falsely inflate reported income for social desirability reasons, since there is no V treatment effect on other economic outcomes—in particular, self-reported life satisfaction, a more subjective outcome than income that seems at least as susceptible to social desirability motives.

The negative effect on perceived relative economic status is surprising considering the positive effect on income and the lack of negative effects on other economic outcomes. The result could arise from participants realizing that Transform targeted those in extreme poverty. However, the HL treatment used the same targeting process, and we do not observe a significant negative effect on perceived relative economic status for the HL curriculum. Banerjee et al. (2015) finds that other programs that target those in extreme poverty do not generate a negative effect on perceived relative wellbeing, but their measurements occurred two years after program completion rather than six months. Alternatively, the values program, by attempting to build hope and aspiration, may make poignant to people how others are living without as much economic hardship. This awareness, combined with no change in consumption or food security, may lower their perception of their relative wellbeing.

Our work demonstrates that a randomized controlled trial is a viable tool for shifting, at a minimum, short-run attitudes towards, and practices of, religion in order to study the effect of religiosity on social and economic outcomes. As with all randomized controlled trials, our results are, strictly speaking, specific to the program we study. In this, however, we are no different from other studies, whether they use a randomized controlled trial or not. The perfect study of the causal effect of Protestantism's spread across Europe 500 years ago would at best tell us about the impact of a particular type of church (which is difficult to describe in all of its dimensions) at a particular time on a particular continent. Based on such results, a church leader in Africa, for example, would still need to take a leap of faith to believe that a similar "program" of religious growth would have the same impact in Africa in 2017. An advantage of our work is that we study a type of program that is precisely specified and happens to be common across the world today.

References

Allport, Gordon W., and J. Michael Ross. 1967. "Personal Religious Orientation and Prejudice." *Journal of Personality and Social Psychology* 5 (4):432–43. https://doi.org/10.1037/h0021212.

Anderson, Michael. 2008. "Multiple Inference and Gender Differences in the Effects of Early Intervention: A Reevaluation of the Abecedarian, Perry Preschool, and Early Training Projects." *Journal of the American Statistical Association* 103 (484):1481–95. https://doi.org/10.1198/016214508000000841.

Banerjee, Abhijit, Esther Duflo, Nathanael Goldberg, Dean Karlan, Robert Osei, William Parienté, Jeremy Shapiro, Bram Thuysbaert, and Christopher Udry. 2015. "A Multifaceted Program Causes Lasting Progress for the Very Poor: Evidence from Six Countries." *Science* 348 (6236):1260799. https://doi.org/10.1126/science.1260799.

Bell, Matthew. 2013. "Alpha: The Slickest, Richest, Fastest-Growing Division of the Church of England." *The Spectator*, November 30, 2013. https://www.spectator.co.uk/2013/11/alpha-rising/.

Benjamini, Yoav, and Yosef Hochberg. 1995. "Controlling the False Discovery Rate: A Practical and Powerful Approach to Multiple Testing." *Journal of the Royal Statistical Society. Series B (Methodological)*, 289–300.

Bottan, Nicolas L., and Ricardo Perez-Truglia. 2015. "Losing My Religion: The Effects of Religious Scandals on Religious Participation and Charitable Giving." *Journal of Public Economics* 129 (September):106–19. https://doi.org/10.1016/j.jpubeco.2015.07.008.

Clingingsmith, David, Asim Ijaz Khwaja, and Michael Kremer. 2009. "Estimating the Impact of the Hajj: Religion and Tolerance in Islam's Global Gathering." *Quarterly Journal of Economics* 124 (3):1133–70. https://doi.org/10.1162/qjec.2009.124.3.1133.

Droitcour, Judith, Rachel A. Caspar, Michael L. Hubbard, Teresa L. Parsley, Wendy Visscher, and Trena M. Ezzati. 2011. "The Item Count Technique as a Method of Indirect Questioning: A Review of Its Development and a Case Study Application." In *Wiley Series in Probability and Statistics*, edited by Paul P. Biemer, Robert M. Groves, Lars E. Lyberg, Nancy A. Mathiowetz, and Seymour Sudman, 185–210. Hoboken, NJ, USA: John Wiley & Sons, Inc. https://doi.org/10.1002/9781118150382.ch11.

Duckworth, Angela Lee, and Patrick D. Quinn. 2009. "Development and Validation of the Short Grit Scale (Grit–S)." *Journal of Personality Assessment* 91 (2):166–74. https://doi.org/10.1080/00223890802634290.

Ellison, C. G. 1991. "Religious Involvement and Subjective Well-Being." *Journal of Health and Social Behavior* 32 (1):80–99.

Freeman, Richard B. 1986. "Who Escapes? The Relation of Churchgoing and Other Background Factors to the Socioeconomic Performance of Black Male Youth from Inner-City Tracts." In *The Black Youth Employment Crisis*, edited by Richard B. Freeman and Harry J. Holzer, 353–76. Who Escapes? The Relation of Churchgoing and Other Background Factors to the Socioeconomic Performance of Black Male Youth from Inner-City Tracts. Chicago: University of Chicago Press.

Gorsuch, Richard L., and Susan E. McPherson. 1989. "Intrinsic/Extrinsic Measurement: I/E-Revised and Single-Item Scales." *Journal for the Scientific Study of Religion* 28 (3):348. https://doi.org/10.2307/1386745.

Gruber, Jonathan H. 2005. “Religious Market Structure, Religious Participation, and Outcomes: Is Religion Good for You?” *The B.E. Journal of Economic Analysis & Policy* 5 (1). https://doi.org/10.1515/1538-0637.1454.

Gruber, Jonathan, and Daniel Hungerman. 2008. “The Church vs the Mall: What Happens When Religion Faces Increased Secular Competition?” *Quarterly Journal of Economics* 123 (2):831–62. https://doi.org/10.3386/w12410.

Hackett, Conrad, and Brian J. Grim. 2011. “Global Christianity – A Report on the Size and Distribution of the World’s Christian Population.” *Pew Research Center*, December. http://www.pewforum.org/2011/12/19/global-christianity-exec/.

Iannaccone, Laurence R. 1998. “Introduction to the Economics of Religion.” *Journal of Economic Literature* 36 (3):1465–95.

Iyer, Sriya. 2016. “The New Economics of Religion.” *Journal of Economic Literature* 54 (2):395–441. https://doi.org/10.1257/jel.54.2.395.

Johnson, Byron R., Ralph Brett Tompkins, and Derek Webb. 2008. “Objective Hope: Assessing the Effectiveness of Faith-Based Organizations: A Review of the Literature.” *Baylor Institute for Studies of Religion Report*.

Karlan, Dean, and Jonathan Zinman. 2012. “List Randomization for Sensitive Behavior: An Application for Measuring Use of Loan Proceeds.” *Journal of Development Economics* 98 (1):71–75. https://doi.org/10.1016/j.jdeveco.2011.08.006.

Kirkpatrick, Lee A., and Ralph W. Hood. 1990. “Intrinsic-Extrinsic Religious Orientation: The Boon or Bane of Contemporary Psychology of Religion?” *Journal for the Scientific Study of Religion* 29 (4):442. https://doi.org/10.2307/1387311.

Kling, Jeffrey, Jeffrey Liebman, and Lawrence Katz. 2007. “Experimental Analysis of Neighborhood Effects.” *Econometrica* 75 (1):83–120.

Levenson, Hanna. 1981. “Differentiating Among Internality, Powerful Others, and Chance.” In *Research with the Locus of Control Construct*, 15–63. Elsevier. https://doi.org/10.1016/B978-0-12-443201-7.50006-3.

Samaritan’s Purse. 2017. “Along the Samaritan Road: 2016 Annual Report.” Samaritan’s Purse. https://s3.amazonaws.com/static.samaritanspurse.org/pdfs/ANNUAL_REPORT_web_download.pdf.

Scheier, Michael F., Charles S. Carver, and Michael W. Bridges. 1994. “Distinguishing Optimism from Neuroticism (and Trait Anxiety, Self-Mastery, and Self-Esteem): A Reevaluation of the Life Orientation Test.” *Journal of Personality and Social Psychology* 67 (6):1063–78. https://doi.org/10.1037/0022-3514.67.6.1063.

Tangney, June P., Roy F. Baumeister, and Angie Luzio Boone. 2004. “High Self-Control Predicts Good Adjustment, Less Pathology, Better Grades, and Interpersonal Success.” *Journal of Personality* 72 (2):271–324. https://doi.org/10.1111/j.0022-3506.2004.00263.x.

Table 1. Primary outcomes

Panels A and B show treatment effect estimates relative to control. In Panel A, "Any V" refers to the "Values only" and "Values, Health, and Livelihood" treatment groups, and "Any HL" refers to the "Health and Livelihood only" and "Values, Health, and Livelihood" treatment groups. Dependent variables are indicated in the column title. See Appendix for details on variable construction. Standard errors clustered by community are in parentheses.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Primary religious outcomes				Primary economic outcomes					
	Religion intrinsic index	Religion extrinsic index	General religion index	Religion - list randomized	Monthly consumption (PHP)	Food security index	Monthly income (PHP)	Adult weekly labor supply (hours)	Life satisfaction index	Perceived relative econ. status
Panel A: Pooled specification										
Any V	0.102	0.130	0.077	0.048	-1.1	0.010	386.1	0.926	0.019	-0.113
	(0.024)	(0.024)	(0.023)	(0.037)	(100.4)	(0.023)	(126.8)	(1.091)	(0.022)	(0.047)
Any HL	0.014	-0.021	0.001	-0.028	-103.0	-0.044	131.2	-1.822	-0.010	-0.040
	(0.024)	(0.024)	(0.023)	(0.038)	(93.3)	(0.023)	(126.3)	(1.095)	(0.022)	(0.047)
q-value for Any V	0.001	0.001	0.002	0.198	0.992	0.779	0.016	0.595	0.595	0.050
Panel B: Disaggregated specification										
VHL	0.115	0.109	0.077	0.020	-102.2	-0.033	524.4	-0.878	0.009	-0.151
	(0.034)	(0.037)	(0.031)	(0.054)	(159.5)	(0.037)	(175.0)	(1.417)	(0.028)	(0.067)
HL	0.047	0.073	-0.029	-0.002	-314.3	-0.050	287.9	-0.149	-0.031	-0.073
	(0.055)	(0.065)	(0.054)	(0.055)	(203.0)	(0.051)	(278.4)	(2.390)	(0.056)	(0.112)
V	0.123	0.204	0.052	0.070	-167.4	-0.007	574.2	2.951	-0.018	-0.133
	(0.050)	(0.064)	(0.051)	(0.057)	(209.5)	(0.050)	(285.4)	(2.321)	(0.047)	(0.119)
q-value for VHL = HL	0.393	0.653	0.147	0.653	--	--	--	--	--	--
q-value for V = C	0.059	0.013	0.416	0.393	0.638	0.886	0.271	0.529	0.850	0.529
Panel C: Summary information										
Control mean	0	0	0	0.606	5,001	0	4,213	79.58	0	3.242
# observations in VHL	1,578	1,578	1,578	1,578	1,578	1,526	1,452	1,452	1,578	1,576
# observations in HL	1,549	1,549	1,549	1,549	1,549	1,521	1,440	1,439	1,549	1,548
# observations in V	1,550	1,550	1,550	1,550	1,550	1,517	1,435	1,434	1,550	1,547
# observations in C	1,599	1,599	1,599	1,599	1,599	1,567	1,490	1,490	1,599	1,596

Table 2. Mechanisms

Panels A and B show treatment effect estimates relative to control. In Panel A, "Any V" refers to the "Values only" and "Values, Health, and Livelihood" treatment groups, and "Any HL" refers to the "Health and Livelihood only" and "Values, Health, and Livelihood" treatment groups. Dependent variables are indicated in the column title. Indexes have been coded so that more positive numbers are better. See Appendix for details on variable construction. Standard errors clustered by community are in parentheses.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	Social capital			Locus of control			Optimism				
	Trust index	Social safety net index	Community activities index	Perceived stress scale index	Powerful others index	Locus of control index	Life orientation index	Expectations index	Optimism index	Grit index	Self-control index
Panel A: Pooled specification											
Any V	0.004	0.026	0.005	-0.011	0.093	-0.035	-0.050	-0.037	0.053	0.041	-0.034
	(0.022)	(0.024)	(0.025)	(0.020)	(0.027)	(0.020)	(0.027)	(0.025)	(0.024)	(0.022)	(0.021)
Any HL	-0.023	-0.027	0.041	-0.018	0.044	-0.000	0.016	-0.016	-0.024	0.017	0.006
	(0.022)	(0.024)	(0.025)	(0.021)	(0.027)	(0.020)	(0.027)	(0.025)	(0.024)	(0.022)	(0.020)
p-value for Any V	0.865	0.282	0.851	0.596	0.001	0.075	0.065	0.133	0.029	0.065	0.095
Panel B: Disaggregated specification											
VHL	-0.019	0.000	0.045	-0.026	0.135	-0.035	-0.034	-0.055	0.030	0.056	-0.027
	(0.032)	(0.032)	(0.034)	(0.026)	(0.038)	(0.029)	(0.037)	(0.032)	(0.032)	(0.029)	(0.025)
HL	-0.023	-0.076	0.019	-0.009	0.031	-0.064	-0.046	-0.014	-0.007	0.030	0.039
	(0.043)	(0.048)	(0.058)	(0.044)	(0.060)	(0.057)	(0.068)	(0.056)	(0.061)	(0.058)	(0.047)
V	-0.018	-0.023	-0.011	-0.007	0.073	-0.085	-0.103	-0.054	0.069	0.041	-0.001
	(0.046)	(0.048)	(0.059)	(0.043)	(0.059)	(0.050)	(0.069)	(0.057)	(0.066)	(0.058)	(0.050)
p-value for VHL = HL	0.927	0.140	0.655	0.684	0.085	0.605	0.862	0.468	0.541	0.671	0.155
p-value for V = C	0.704	0.631	0.857	0.876	0.222	0.090	0.132	0.344	0.298	0.484	0.980
Panel C: Summary information											
Control mean	0	0	0	0	0	0	0	0	0	0	0
# observations in VHL	1,578	1,578	1,561	1,577	1,578	1,578	1,578	1,542	1,578	1,578	1,578
# observations in HL	1,549	1,549	1,542	1,549	1,549	1,549	1,549	1,508	1,549	1,549	1,549
# observations in V	1,550	1,550	1,534	1,549	1,550	1,550	1,550	1,518	1,550	1,550	1,550
# observations in C	1,599	1,599	1,592	1,599	1,599	1,599	1,599	1,567	1,599	1,599	1,599

Table 3. Secondary outcomes

Panels A and B show treatment effect estimates relative to control. In Panel A, "Any V" refers to the "Values only" and "Values, Health, and Livelihood" treatment groups, and "Any HL" refers to the "Health and Livelihood only" and "Values, Health, and Livelihood" treatment groups. Dependent variables are indicated in the column title. Indexes have been coded so that more positive numbers are better. See Appendix for details on variable construction. Standard errors clustered by community are in parentheses.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Salvation by grace belief index	Assets index	Financial inclusion index	Health index	Hygiene index, non-list random.	Hygiene, list random.	House index	Migration and remittance index	No discord index	No domestic violence, list rand.	Child labor supply (hours)	# children enrolled in school
Panel A: Pooled specification												
Any V	-0.036	-0.027	0.020	0.000	0.092	0.043	0.030	0.027	-0.034	-0.072	0.244	-0.018
	(0.020)	(0.021)	(0.024)	(0.020)	(0.024)	(0.033)	(0.025)	(0.019)	(0.024)	(0.040)	(0.215)	(0.020)
Any HL	-0.005	-0.025	0.157	0.015	0.030	0.066	0.007	-0.015	-0.029	-0.048	0.013	-0.018
	(0.020)	(0.021)	(0.025)	(0.020)	(0.024)	(0.033)	(0.025)	(0.019)	(0.024)	(0.040)	(0.220)	(0.020)
p-value for Any V	0.079	0.211	0.396	0.985	0.000	0.191	0.239	0.153	0.164	0.078	0.256	0.376
Panel B: Disaggregated specification												
VHL	-0.040	-0.050	0.179	0.015	0.121	0.108	0.036	0.012	-0.063	-0.118	0.264	-0.035
	(0.026)	(0.031)	(0.038)	(0.028)	(0.034)	(0.049)	(0.036)	(0.031)	(0.036)	(0.055)	(0.318)	(0.027)
HL	-0.021	0.014	0.124	-0.027	0.136	0.121	0.045	-0.083	-0.036	-0.081	-0.074	-0.019
	(0.045)	(0.057)	(0.048)	(0.042)	(0.070)	(0.043)	(0.059)	(0.038)	(0.052)	(0.058)	(0.376)	(0.043)
V	-0.061	0.008	-0.010	-0.044	0.208	0.105	0.068	-0.039	-0.049	-0.120	0.116	-0.019
	(0.041)	(0.060)	(0.044)	(0.041)	(0.067)	(0.045)	(0.060)	(0.039)	(0.049)	(0.061)	(0.406)	(0.042)
p-value for VHL = HL	0.696	0.265	0.297	0.334	0.836	0.779	0.879	0.017	0.617	0.509	0.404	0.688
p-value for V = C	0.143	0.899	0.811	0.285	0.002	0.020	0.258	0.317	0.326	0.050	0.775	0.657
Panel C: Summary information												
Control mean	0	0	0	0	0	0.606	0	0	0	0.903	1.555	1.896
# observations in VHL	1,578	1,578	1,578	1,578	1578	1578	1,578	1,578	1,267	1,579	1,452	1,366
# observations in HL	1,549	1,549	1,549	1,549	1549	1549	1,549	1,549	1,297	1,550	1,439	1,341
# observations in V	1,550	1,550	1,550	1,550	1550	1550	1,550	1,550	1,263	1,551	1,434	1,365
# observations in C	1,599	1,599	1,599	1,599	1599	1599	1,599	1,599	1,331	1,600	1,490	1,410

Appendix

Randomizing Religion: The Impact of Protestant Evangelism on Economic Outcomes

Gharad Bryan, James J. Choi, Dean Karlan

This file includes the following:

1. Outcome variable construction
2. Data availability
3. Tables
   - a. Balance across treatment groups
     - Appendix Table 1: Pre-treatment characteristics (collected in 6-month survey)
   - b. Main results including communities that switched treatments
     - Appendix Table 2: Primary outcomes (including communities that switched treatment status)
     - Appendix Table 3: Mechanisms (including communities that switched treatment status)
     - Appendix Table 4: Secondary outcomes (including communities that switched treatment status)
   - c. Variable construction
     - Appendix Table 5: Outcome variable construction
   - d. Results by components
     - Appendix Table 6: Religion intrinsic index
     - Appendix Table 7: Religion extrinsic index
     - Appendix Table 8: General religion index
     - Appendix Table 9: Religion – list randomized
     - Appendix Table 10: Monthly consumption
     - Appendix Table 11: Food security index
     - Appendix Table 12: Monthly income
     - Appendix Table 13: Adult labor supply
     - Appendix Table 14: Life satisfaction index
     - Appendix Table 15: Perceived relative economic wellbeing
     - Appendix Table 16: Trust index

1. Outcome Variable Construction

Appendix Table 5 shows how we constructed our outcome variables. Unless indicated otherwise in the table, the variable listed in the first column is created by summing its components listed in the second column. Some components are made up of sub-components, which are shown to the right of the components. For variables whose name includes the word "index," if the index is found in previous academic literature, we use the construction method from that literature, which in our cases always involves simply summing the components (which are sometimes reverse-coded, as indicated in the last column). If there is no pre-existing index, we use the index construction methodology of Kling, Liebman, and Katz (2007). We first sign all variables such that higher is telling a consistent story for each component of the index. Then we standardize each component by subtracting its control group mean and dividing by its control group standard deviation. We compute the sum of the standardized components[1] and standardize the sum once again by the control group sum's standard deviation.

After data collection, we discovered an issue with our measure of intrinsic religious orientation. The indexes for intrinsic and extrinsic religious orientation were measured using one 14 question block, with eight questions constituting the intrinsic index and six constituting the extrinsic index. For each question, respondents were asked to state on a Likert scale a level of agreement with a statement. In 11 out of the 14 questions, stronger agreement corresponds to stronger religiosity. In the remaining three—all of which are part of the intrinsic index—weaker agreement corresponds to stronger religiosity. We believe that respondents did not perceive the subtle changes in the direction of the questions, causing them to use stronger agreement to express stronger religiosity even for the reversed questions.[2] Thirty-three percent of respondents answered "agree" or "strongly agree" to all 14 questions, regardless of whether the question was reversed, whereas only 0.02% of respondents answered "agree" or "strongly" to all non-reversed questions

[1] For observations without information on one or more components of the index, we impute the missing component standardized values as the mean of the non-missing components' standardized values for that individual/household.

[2] The finding that many subjects indiscriminately agree with statements to express a general support for religion goes back to the earliest research on intrinsic and extrinsic religious orientation. Allport and Ross (1967) write, "In responding to the religious items these individuals seem to take a superficial or 'hit and run' approach. Their mental set seems to be 'all religion is good.' 'My religious beliefs are what really lie behind my whole life'—Yes! 'Although I believe in my religion, I feel there are many more important things in my life'—Yes!" They classify such types as the "indiscriminately pro-religious" and find that they are likely to be less educated. This correlation would be consistent with the high prevalence of such types in our sample of the ultra-poor.

and "disagree" or "strongly disagree" to all reversed questions. (No respondents answered "disagree" or "strongly disagree" to all questions.) Agreement levels are positively correlated across all seven intrinsic orientation statements, regardless of whether greater agreement corresponds to greater religiosity or not. We conclude that our intrinsic religious orientation index should only include the five non-reversed questions, and this five-question intrinsic index is what we report in Table 1.

If we instead use the eight-question intrinsic measure, as stated in our pre-analysis plan, the point estimate of the "Any V" treatment effect on intrinsic religious orientation in the pooled regression specification is 0.04 standard deviations, and its q-value rises to 0.084. In the disaggregated regression specification, the point estimate of the V versus control effect on intrinsic religious orientation is 0.01 standard deviations ($q = 0.899$), and the point estimate of the VHL versus HL effect on intrinsic religious orientation is 0.074 standard deviations ($q = 0.330$). The q-values on the other religious outcomes are qualitatively similar regardless of whether we use the eight-question or five-question intrinsic measure. Therefore, even though the estimates of the V curriculum's effect on intrinsic religious orientation weaken when we use the eight-question measure, we still find robust first-stage effects on other measures of religiosity.

Appendix Tables 6-34 show the treatment effect estimates on each component of the outcome variables. We also include Appendix Table 35, which shows treatment effects on consumption of "temptation goods" (cigarettes and alcoholic beverages). The categories into which labor supply is decomposed in Appendix Tables 13 and 34 do not correspond exactly to the categories we asked respondents about. When we looked at the data, we realized that responses in the labor category of "other" could be manually reclassified into fishing, self-employment, and other employment with unclear formality. We have also consolidated in the table the categories of formal employment and operation of a business that is not the household's, fishing and livestock tending, and housework in an outside household and daily labor.

2. Data Availability

All data supporting the findings of this study, stripped of individual-identifying information, will be posted on the IPA and JPAL Dataverse before publication.

Appendix Table 1. Pre-treatment characteristics (collected in 6-month survey)

	Control	V	HL	VHL	C vs. V, *p* -value	C vs. HL, *p* -value	C vs. VHL, *p* -value	V vs. HL, *p* -value	V vs. VHL, *p* -value	HL vs. VHL, *p* -value	*p* -value from joint test of equality across arms
Average number of household members	5.166	5.263	5.105	5.025	0.328	0.540	0.165	0.125	0.023	0.448	0.132
	(0.068)	(0.073)	(0.073)	(0.075)							
Average number of adults (age ≥ 17) in the household	2.765	2.808	2.810	2.733	0.440	0.416	0.559	0.966	0.207	0.194	0.497
	(0.036)	(0.041)	(0.041)	(0.043)							
Average number of children (age < 17) in the household	2.385	2.430	2.287	2.279	0.587	0.265	0.203	0.096	0.062	0.928	0.184
	(0.060)	(0.057)	(0.064)	(0.058)							
% female respondents	0.832	0.849	0.833	0.834	0.444	0.967	0.923	0.520	0.518	0.963	0.863
	(0.016)	(0.016)	(0.019)	(0.017)							
% married respondents	0.794	0.741	0.786	0.771	0.018	0.712	0.281	0.052	0.210	0.488	0.102
	(0.013)	(0.018)	(0.015)	(0.016)							
Average years of education of respondent	7.737	7.772	7.727	7.654	0.917	0.976	0.808	0.894	0.724	0.833	0.988
	(0.239)	(0.225)	(0.246)	(0.248)							
% ICM Base: Koronoadal	0.246	0.232	0.234	0.241	0.849	0.865	0.951	0.984	0.896	0.913	0.997
	(0.051)	(0.050)	(0.050)	(0.050)							
% ICM Base: General Santos	0.233	0.245	0.241	0.237	0.863	0.912	0.956	0.951	0.906	0.956	0.998
	(0.047)	(0.050)	(0.050)	(0.048)							
% ICM Base: Bacolod	0.271	0.263	0.270	0.268	0.912	0.990	0.971	0.922	0.941	0.981	1.000
	(0.053)	(0.052)	(0.053)	(0.052)							
% ICM Base: Dumaguete	0.250	0.260	0.256	0.253	0.890	0.938	0.962	0.952	0.927	0.976	0.999
	(0.049)	(0.051)	(0.051)	(0.050)							
# days between June 1 2015 and interview end date	154.439	156.865	147.488	153.984	0.719	0.304	0.951	0.130	0.678	0.351	0.476
	(5.144)	(4.360)	(4.385)	(5.414)							
% households successfully interviewed	0.836	0.831	0.849	0.825	0.807	0.467	0.606	0.296	0.769	0.193	0.557
	(0.015)	(0.014)	(0.011)	(0.015)							
Number of observations	1,599	1,550	1,549	1,578							

These numbers exclude the five community pairs that did not comply with their treatment assignment. The average number of household members is not exactly equal to the sum of the average number of adults and the average number of children because of missing ages in the data. Standard errors clustered by community are in parentheses. The following educational categories are coded as corresponding to the following number of years of education: Pre-school only = 0.5, some grade 12 education without high school graduation = 12, high school graduation = 13, partial vocational education = 14, complete vocational education = 15, partial college = 16, college graduation = 17.

Appendix Table 2. Primary outcomes (including communities that switched treatment status)

	1	2	3	4	5	6	7	8	9	10
	Religion intrinsic index	Religion extrinsic index	General religion index	Religion - list randomization	Monthly consumption (PHP)	Food security index	Monthly income (PHP)	Adult weekly labor supply (hours)	Life satisfaction index	Perceived relative econ. status
Panel A: Pooled specification										
Any V	0.098***	0.129***	0.069***	0.053	4.907	0.013	380.3***	0.814	0.024	-0.105**
	(0.023)	(0.023)	(0.022)	(0.036)	(98.76)	(0.022)	(123.9)	(1.057)	(0.022)	(0.046)
	[0.001]	[0.001]	[0.003]	[0.145]	[0.961]	[0.655]	[0.014]	[0.655]	[0.539]	[0.070]
Any HL	0.011	-0.023	-0.000	-0.018	-59.151	-0.034	111.9	-1.550	-0.012	-0.033
	(0.023)	(0.023)	(0.022)	(0.036)	(91.50)	(0.022)	(123.4)	(1.070)	(0.022)	(0.046)
Panel B: Disaggregated specification										
VHL	0.108***	0.106***	0.070**	0.035	-55.32	-0.020	500.8***	-0.773	0.012	-0.136**
	(0.033)	(0.036)	(0.029)	(0.052)	(154.8)	(0.036)	(171.5)	(1.362)	(0.027)	(0.065)
HL	0.044	0.089	-0.032	0.001	-297.47	-0.033	220.4	-0.208	-0.027	-0.099
	(0.053)	(0.063)	(0.052)	(0.053)	(195.2)	(0.050)	(270.1)	(2.327)	(0.055)	(0.109)
V	0.118**	0.219***	0.041	0.068	-187.38	0.002	531.0*	2.556	-0.010	-0.155
	(0.048)	(0.062)	(0.049)	(0.055)	(202.3)	(0.049)	(277.1)	(2.249)	(0.046)	(0.116)
p-value for VHL = HL test	0.255	0.793	0.056	0.467	0.233	0.786	0.292	0.809	0.484	0.737
q-value for VHL = HL test	[0.409]	[0.794]	[0.151]	[0.534]	--	--	--	--	--	--
p-value for V = C test	0.0154	0.0005	0.4040	0.2156	0.3549	0.9704	0.0563	0.2565	0.8351	0.1806
q-value for V = C test	[0.062]	[0.005]	[0.534]	[0.409]	[0.533]	[0.971]	[0.338]	[0.514]	[0.971]	[0.514]
Panel C: Summary information										
Control group mean	0	0	0	0.609	4,995	0	4,241	79.86	0	3.236
# observations in VHL	1,646	1,646	1,646	1,646	1,646	1,594	1,520	1,520	1,646	1,644
# observations in HL	1,596	1,596	1,596	1,596	1,596	1,568	1,487	1,486	1,596	1,595
# observations in V	1,598	1,598	1,598	1,598	1,598	1,556	1,482	1,481	1,598	1,595
# observations in C	1,667	1,667	1,667	1,667	1,667	1,635	1,557	1,557	1,667	1,664

Results in this table include observations from communities that did not follow the original treatment assignment and switched treatment status. Panels A and B show treatment effect estimates relative to control. In Panel A, "Any V" refers to the "Values only" and "Values, Health, and Livelihood" treatment groups, and "Any HL" refers to the "Health and Livelihood only" and "Values, Health, and Livelihood" treatment groups. Dependent variables are indicated in the column title. See Appendix for details on variable construction. Standard errors clustered by community are in parentheses, and q -values are in brackets. The q -values in Panel A are for tests of effects relative to the control group. *, **, and *** indicate p -values less than 0.1, 0.05, and 0.01, respectively, for tests relative to the control group.

Appendix Table 3. Mechanisms (including communities that switched treatment status)

	11	12	13	14	15	16	17	18	19	20	21
	Trust index	Social safety net index	Commmunity activities index	Perceived stress scale index	Powerful others index	Locus of control index	Life orientation index	Expectations index	Optimism index	Grit index	Self-control index
Panel A: Pooled specification											
Any V	0.006	0.031	0.012	-0.008	0.093***	-0.037*	-0.034	-0.032	0.050**	0.056**	-0.040**
	(0.022)	(0.023)	(0.025)	(0.020)	(0.027)	(0.019)	(0.027)	(0.024)	(0.024)	(0.022)	(0.020)
Any HL	-0.013	-0.026	0.033	-0.019	0.032	0.000	0.012	-0.026	-0.032	0.015	0.007
	(0.022)	(0.023)	(0.025)	(0.020)	(0.027)	(0.019)	(0.027)	(0.025)	(0.023)	(0.022)	(0.020)
Panel B: Disaggregated specification											
VHL	-0.007	0.006	0.045	-0.026	0.125***	-0.036	-0.022	-0.061*	0.018	0.067**	-0.031
	(0.032)	(0.031)	(0.034)	(0.025)	(0.038)	(0.028)	(0.036)	(0.031)	(0.032)	(0.029)	(0.024)
HL	-0.010	-0.070	0.020	-0.010	0.028	-0.059	-0.056	-0.027	-0.016	0.033	0.029
	(0.043)	(0.047)	(0.057)	(0.043)	(0.059)	(0.055)	(0.066)	(0.055)	(0.060)	(0.057)	(0.046)
V	-0.014	-0.013	0.005	-0.004	0.080	-0.082*	-0.093	-0.054	0.066	0.057	-0.020
	(0.045)	(0.047)	(0.059)	(0.042)	(0.058)	(0.049)	(0.068)	(0.055)	(0.065)	(0.058)	(0.049)
p-value for VHL = HL test	0.948	0.131	0.672	0.710	0.102	0.675	0.617	0.544	0.567	0.553	0.188
p-value for V = C test	0.754	0.778	0.931	0.930	0.169	0.097	0.173	0.326	0.307	0.332	0.682
Panel C: Summary information											
Control group mean	0	0	0	0	0	0	0	0	0	0	0
# observations in VHL	1,646	1,646	1,629	1,645	1,646	1,646	1,646	1,610	1,646	1,646	1,646
# observations in HL	1,596	1,596	1,589	1,596	1,596	1,596	1,596	1,555	1,596	1,596	1,596
# observations in V	1,598	1,598	1,582	1,597	1,598	1,598	1,598	1,565	1,598	1,598	1,598
# observations in C	1,667	1,667	1,660	1,667	1,667	1,667	1,667	1,631	1,667	1,667	1,667

Results in this table include observations from communities that did not follow the original treatment assignment and switched treatment status. Panels A and B show treatment effect estimates relative to control. In Panel A, "Any V" refers to the "Values only" and "Values, Health, and Livelihood" treatment groups, and "Any HL" refers to the "Health and Livelihood only" and "Values, Health, and Livelihood" treatment groups. Dependent variables are indicated in the column title. Indexes have been coded so that more positive numbers are better. See Appendix for details on variable construction. Standard errors clustered by community are in parentheses. *, **, and *** indicate *p* -values less than 0.1, 0.05, and 0.01, respectively, for tests relative to the control group.

Appendix Table 4. Secondary outcomes (including communities that switched treatment status)

	22	23	24	25	26	27	28	29	30	31	32	33
	Salvation by grace belief index	Assets index	Financial inclusion index	Health index	Hygiene index, non-list random.	Hygiene, list random.	House index	Migration and remittance index	No discord index	No domestic violence, list rand.	Child labor supply (hours)	# children enrolled in school
Panel A: Pooled specification												
Any V	-0.036*	-0.021	0.022	-0.000	0.078***	0.043	0.040	0.026	-0.037	-0.074*	0.334	-0.022
	(0.020)	(0.021)	(0.023)	(0.020)	(0.024)	(0.033)	(0.025)	(0.019)	(0.024)	(0.040)	(0.209)	(0.019)
Any HL	-0.006	-0.021	0.143***	0.021	0.030	0.070**	0.010	-0.007	-0.028	-0.054	-0.021	-0.016
	(0.020)	(0.021)	(0.025)	(0.019)	(0.024)	(0.033)	(0.025)	(0.019)	(0.024)	(0.040)	(0.215)	(0.019)
Panel B: Disaggregated specification												
VHL	-0.043*	-0.041	0.165***	0.020	0.108***	0.111**	0.050	0.020	-0.064*	-0.127**	0.313	-0.038
	(0.025)	(0.030)	(0.038)	(0.027)	(0.034)	(0.049)	(0.036)	(0.030)	(0.034)	(0.054)	(0.306)	(0.026)
HL	-0.025	0.011	0.101**	-0.013	0.121*	0.127***	0.045	-0.062	-0.038	-0.100*	-0.076	-0.018
	(0.045)	(0.055)	(0.048)	(0.041)	(0.070)	(0.042)	(0.057)	(0.040)	(0.050)	(0.058)	(0.370)	(0.042)
V	-0.065	0.008	-0.016	-0.037	0.182***	0.108**	0.073	-0.028	-0.054	-0.135**	0.244	-0.025
	(0.041)	(0.058)	(0.044)	(0.040)	(0.067)	(0.044)	(0.059)	(0.039)	(0.048)	(0.059)	(0.396)	(0.041)
p-value for VHL = HL test	0.710	0.340	0.216	0.444	0.849	0.717	0.933	0.048	0.617	0.642	0.328	0.620
p-value for V = C test	0.113	0.898	0.719	0.359	0.007	0.014	0.213	0.475	0.266	0.023	0.539	0.547
Panel C: Summary information												
Control group mean	0	0	0	0	0	1	0	0	0	0	1	2
# observations in VHL	1,646	1,646	1,646	1,646	1,646	1,646	1,646	1,646	1,327	1,646	1,520	1,426
# observations in HL	1,596	1,596	1,596	1,596	1,596	1,596	1,596	1,596	1,342	1,596	1,486	1,384
# observations in V	1,598	1,598	1,598	1,598	1,598	1,598	1,598	1,598	1,306	1,598	1,481	1,406
# observations in C	1,667	1,667	1,667	1,667	1,667	1,667	1,667	1,667	1,390	1,667	1,557	1,472

Results in this table include observations from communities that did not follow the original treatment assignment and switched treatment status. Panels A and B show treatment effect estimates relative to control. In Panel A, "Any V" refers to the "Values only" and "Values, Health, and Livelihood" treatment groups, and "Any HL" refers to the "Health and Livelihood only" and "Values, Health, and Livelihood" treatment groups. Dependent variables are indicated in the column title. Indexes have been coded so that more positive numbers are better. See Appendix for details on variable construction. Standard errors clustered by community are in parentheses. *, **, and *** indicate p-values less than 0.1, 0.05, and 0.01, respectively, for tests relative to the control group.

Appendix Table 5. Outcome variable construction

Variable	Components	Sub-components (if any)	Details	Possible answers
		Panel A: Primary religious outcomes		
Religion intrinsic index	I enjoy thinking about my religion		From Gorsuch and McPherson (*8*). Index formed by adding together responses without first normalizing.	1 Strongly disagree - 5 Strongly agree
	It is important to me to spend time in private thought and prayer			1 Strongly disagree - 5 Strongly agree
	I have often had a strong sense of God's presence			1 Strongly disagree - 5 Strongly agree
	I try hard to live all my life according to my religious beliefs			1 Strongly disagree - 5 Strongly agree
	My whole approach to life is based on religion			1 Strongly disagree - 5 Strongly agree
	Although I am religious, I don't let it affect my daily life		This question not used in our main analysis	1 Strongly agree - 5 Strongly disagree
	It doesn't much matter what I believe so long as I am good		This question not used in our main analysis	1 Strongly agree - 5 Strongly disagree
	Although I believe in my religion, many other things are more important in life		This question not used in our main analysis	1 Strongly agree - 5 Strongly disagree
Religion extrinsic index	I go to religious services because it helps me to make friends		From Gorsuch and McPherson (*8*). Index formed by adding together responses without first normalizing.	1 Strongly disagree - 5 Strongly agree
	I pray mainly to gain relief and protection			1 Strongly disagree - 5 Strongly agree
	What religion offers me most is comfort in times of trouble and sorrow			1 Strongly disagree - 5 Strongly agree
	Prayer is for peace and happiness			1 Strongly disagree - 5 Strongly agree
	I go to religious services mostly to spend time with my friends			1 Strongly disagree - 5 Strongly agree
	I go to religious services mainly because I enjoy seeing people there			1 Strongly disagree - 5 Strongly agree
General religion index	To what extent do you consider yourself a religious person?		From the Brief Multidimensional Measure of Religiousness/Spirituality (21)	1 Not religious at all - 4 Very religious
	In the last month, have you tried to convince anyone else to change the way they think about God?		From ICM survey	No = 0, Yes = 1
	How many people [have you tried to convince]?		Adapted from ICM survey	Integer ≥ 0

Variable	Components	Sub-components (if any)	Details	Possible answers
		Panel A: Primary religious outcomes		
Religion – list randomized	How often do you go to religious services?			Daily = 365, More than once a week = 104, Once a week = 52, Once or twice a month = 18, Every month or so = 9, Once or twice a year = 1.5, Never = 0.
	In how many of the past 7 days did you pray privately in places other than at a place of worship?			Integer 0 – 7
	How satisfied are you with your spiritual life right now?		From ICM survey	1 Not at all satisfied - 5 Very satisfied
	The Bible is accurate in all that it teaches		From ICM survey. These 3 responses are added together before standardizing, and then given triple weight when averaging the components to construct the general religion index. Asked only of Christians.	1 Strongly disagree - 5 Strongly agree
	I believe the Bible has decisive authority over what I say and do			1 Strongly disagree - 5 Strongly agree
	I believe the Christian God—Father, Son, and Holy Spirit—is the only true God			1 Strongly disagree - 5 Strongly agree
	I have made a personal commitment to Jesus Christ that is still important to me today		Adapted from ICM survey. Both questions elicited using list randomization. Outcome variable is average of two responses.	False = 0, True = 1
	I have read or listened to the Bible in the past week			False = 0, True = 1
		Panel B: Primary non-religious outcomes		
Monthly consumption	Food consumption in the last week		Total amount spent in the last week on viand, rice/corn/beans/etc., bananas/cassava/potatoes/yams/starches/ etc., fruits/vegetables, milk/eggs, non-alcoholic beverages. Multiplied by 30/7.	Amount in PHP (1 USD ≈ 45 PHP in 2015)
	Non-food consumption in the last week		Total amount spent in the last week on alcoholic beverages, cigarettes, phone credit, transportation, clothing/shoes, soaps/cosmetics, gifts. Multiplied by 30/7.	Amount in PHP (1 USD ≈ 45 PHP in 2015)
	Average weekly celebration spending in last six months		Total amount spent on weddings, funerals, festivals, anniversaries, and birthdays in the last six months divided by 6	Amount in PHP (1 USD ≈ 45 PHP in 2015)

Variable	Components	Sub-components (if any)	Details	Possible answers
Panel B: Primary non-religious outcomes				
Food security index	No household member has gone to bed hungry in last six months		Constructed from question, "In the last 6 months, did you or any other person in this household ever go to bed hungry because there were not enough resources for food?"	No = 1; Yes = 0; Yes, but during lean season only = 0 [Lean season in the Philippines is usually July and August]
	No household member has gone to bed hungry in last six months outside of lean season		Constructed from question, "In the last 6 months, did you or any other person in this household ever go to bed hungry because there were not enough resources for food?"	No = 1; Yes = 0; Yes, but during lean season only = 1 [Lean season in the Philippines is usually July and August]
	Number of days where no household member has gone to bed hungry in past seven days		Constructed as 7 minus the number of days a member of the household has gone to bed hungry in past seven days	Integer 0 – 7
Monthly income	Total household payments received for agricultural labor on behalf of non-household member		Payments in the last 30 days	Amount in PHP (1 USD ≈ 45 PHP in 2015)
	Total household payments received for formal employment		Payments in the last 30 days	Amount in PHP (1 USD ≈ 45 PHP in 2015)
	Total household payments received for housework		Payments in the last 30 days	Amount in PHP (1 USD ≈ 45 PHP in 2015)
	Total household payments received for tending animals in an outside household		Payments in the last 30 days	Amount in PHP (1 USD ≈ 45 PHP in 2015)
	Total household payments received for operating business that is not the household's		Payments in the last 30 days	Amount in PHP (1 USD ≈ 45 PHP in 2015)
	Total household payments for daily labor		Payments in the last 30 days	Amount in PHP (1 USD ≈ 45 PHP in 2015)
	Total household payments received for other work outside the household		Payments in the last 30 days	Amount in PHP (1 USD ≈ 45 PHP in 2015)
	Total profit from household businesses		In most recent month with normal sales	Amount in PHP (1 USD ≈ 45 PHP in 2015)

Variable	Components	Sub-components (if any)	Details	Possible answers
Panel B: Primary non-religious outcomes				
Adult weekly labor supply	Total hours spent in outside agricultural labor for non-household member		During past seven days, only household members age ≥ 17	Integer
	Total hours spent in formal employment		During past seven days, only household members age ≥ 17	Integer
	Total hours spent doing housework in an outside household		During past seven days, only household members age ≥ 17	Integer
	Total hours spent tending animals in an outside household during past seven days		During past seven days, only household members age ≥ 17	Integer
	Total hours spent operating business that is not the household's		During past seven days, only household members age ≥ 17	Integer
	Total hours spent on daily labor		During past seven days, only household members age ≥ 17	Integer
	Total hours spent on other work outside the household		During past seven days, only household members age ≥ 17	Integer
Life satisfaction index	Kessler K6 nonspecific distress scale	About how often during the past 30 days did you feel nervous?	From Kessler et al. (*22*). Index formed by adding together responses without first normalizing.	1 All of the time - 5 none of the time
		About how often during the past 30 days did you feel hopeless?		1 All of the time - 5 none of the time
		About how often during the past 30 days did you feel restless or fidgety?		1 All of the time - 5 none of the time
		About how often during the past 30 days did you feel so depressed that nothing could you cheer you up?		1 All of the time - 5 none of the time
		About how often during the past 30 days did you feel that everything was difficult?		1 All of the time - 5 none of the time

Variable	Components	Sub-components (if any)	Details	Possible answers
		Panel B: Primary non-religious outcomes		
		About how often during the past 30 days did you feel worthless?		1 All of the time - 5 none of the time
	Sum of 4 Gallup World Poll questions	Did you experience enjoyment during a lot of the day yesterday?		No = 0, Yes = 1
		Did you experience happiness during a lot of the day yesterday?		No = 0, Yes = 1
		Did you experience worry during a lot of the day yesterday?		No = 1, Yes = 0
		Did you experience sadness during a lot of the day yesterday?		No = 1, Yes = 0
	Did you smile or laugh a lot yesterday?		From Gallup World Poll	No = 0, Yes = 1
	How would you describe your satisfaction with life?		Elicited using Cantril's ladder	1 Very dissatisfied - 10 Very satisfied
	Taking all things together, would you say you are…		From World Values Survey	1 Not at all happy - 4 Very happy
Perceived relative economic status	Where would you place your household on the ladder in terms of economic status?		Elicited using Cantril's ladder	1 Poorest individuals of your community - 10 Best-off members of your community
		Panel C: Mechanisms		
Trust index	In general, would you say that most people can be trusted or that most people cannot be trusted?			Most people can't be trusted = 0, Most people can be trusted = 1
	Do you think most people would try to take advantage of you if they got a chance, or would they try to be fair?		From World Values Survey	Try to take advantage of you = 0, Try to be fair = 1
	Would you say that most of the time people try to be helpful, or that they are mostly just looking out for themselves?		From General Social Survey	Looking out for themselves = 0, Try to be helpful = 1

Variable	Components	Sub-components (if any)	Details	Possible answers
		Panel C: Mechanisms		
Social safety net index	In the case where someone in your household did not have 40 PHP available for an urgent need, how likely is it that you could access this 40 PHP from a source outside your household?			1 Very unlikely - 5 Very likely
	In the case where someone in your household did not have 1000 PHP available for an urgent need, how likely is it that you could access this 1000 PHP from a source outside your household?			1 Very unlikely - 5 Very likely
	Do you discuss personal issues with anyone outside your close family?			No = 0, Yes = 1
	How often do you usually speak to this person?			Daily = 365, A few times a week = 104, Weekly = 52, A few times a month = 24, Monthly = 12, Every month or so = 9, A few times a year = 6, Yearly = 1. If there is no such person, coded as 0.
	Did anyone from the household receive any meals from another household in your local community?			No = 0, Yes = 1
	How many meals [were received]?		Top-coded at 99th percentile	Integer
	Did this household give any meals to anybody from another household in your local community?			No = 0, Yes = 1
	How many meals [were given]?		Top-coded at 99th percentile	Integer
Community activities index	Did you attend any village leaders meetings in the last 6 months?			No = 0, Yes = 1
	In the past 6 months, have you participated in any community activities?			No = 0, Yes = 1
	How frequently did you participate in community activities?			Daily = 365, A few times a week = 104, Weekly = 52, A few times a month = 24, Monthly = 12, Every month or so = 9, A few times a year = 6, Yearly = 1. If the respondent did not participate, coded as 0.

Variable	Components	Sub-components (if any)	Details	Possible answers
Panel C: Mechanisms				
Perceived stress scale index	How often have you felt that you were unable to control the important things in your life?		From Cohen et al. (*23*). Index formed by adding together responses without first normalizing.	1 Very Often - 5 Never
	How often have you felt confident about your ability to handle your personal problems?			1 Never - 5 Very Often
	How often have you felt that things were going your way?			1 Never - 5 Very Often
	How often have you felt difficulties were piling up so high that you could not overcome them?			1 Very Often - 5 Never
Powerful others index	I feel like what happens in my life is mostly determined by God		From Levenson (*13*) Powerful Others scale, modified to apply to God's control of one's life. Index formed by adding together responses without first normalizing.	1 Strongly disagree - 5 Strongly agree
	Although I might have good ability, I will not be successful without appealing to God			1 Strongly disagree - 5 Strongly agree
	My life is chiefly controlled by God			1 Strongly disagree - 5 Strongly agree
	Getting what I want requires pleasing God			1 Strongly disagree - 5 Strongly agree
	Whether or not I have an accident and hurt myself physically depends mostly on God			1 Strongly disagree - 5 Strongly agree
	In order to have my plans work, I make sure that they fit with God's plan for me			1 Strongly disagree - 5 Strongly agree
Locus of control index	Internality subscale	Whether or not I am successful depends mostly on my ability	From Levenson (*13*). Index formed by adding together responses without first normalizing.	1 Strongly disagree - 5 Strongly agree
		Whether or not I have an accident and hurt myself depends mostly on how careful I am on a daily basis		1 Strongly disagree - 5 Strongly agree
		When I make plans, I am almost certain to make them work		1 Strongly disagree - 5 Strongly agree

Variable	Components	Sub-components (if any)	Details	Possible answers
		Panel C: Mechanisms		
		How many friends I have depends on how nice a person I am		1 Strongly disagree - 5 Strongly agree
		I can pretty much determine what will happen in my life		1 Strongly disagree - 5 Strongly agree
		I am usually able to protect my personal interests		1 Strongly disagree - 5 Strongly agree
		When I get what I want it's usually because I worked hard for it		1 Strongly disagree - 5 Strongly agree
		My life is determined by my own actions		1 Strongly disagree - 5 Strongly agree
	Chance subscale	To a great extent my life is controlled by accidental happenings	From Levenson (*13*). Index formed by adding together responses without first normalizing.	1 Strongly agree - 5 Strongly disagree
		Often there is no chance of protecting my personal interests from bad luck happening		1 Strongly agree - 5 Strongly disagree
		When I get what I want, it is usually because I am lucky		1 Strongly agree - 5 Strongly disagree
		I have often found that what is going to happen will happen		1 Strongly agree - 5 Strongly disagree
		Whether or not I get into an accident and hurt myself physically is mostly a matter of luck		1 Strongly agree - 5 Strongly disagree

Variable	Components	Sub-components (if any)	Details	Possible answers
		Panel C: Mechanisms		
		It is not wise for me to plan too far ahead because many things turn out to be a matter of good or bad fortune		1 Strongly agree - 5 Strongly disagree
		Whether or not I am successful depends on whether I am lucky enough to be in the right place at the right time		1 Strongly agree - 5 Strongly disagree
		It is chiefly a matter of fate whether or not I have a few friends or many friends		1 Strongly agree - 5 Strongly disagree
	World Values Survey locus of control	Which comes closest to your view on a scale on which (1) means "everything in life is determined by fate" and (10) means "people shape their fate themselves"?	From World Values Survey	1 fate - 10 people
Life orientation index	In uncertain times, I usually expect the best		From the Life Orientation Test – Revised index by Scheier et al. (*14*). Index formed by adding together responses without first normalizing.	1 I disagree a lot - 5 I agree a lot
	If something can go wrong for me, it will			1 I agree a lot - 5 I disagree a lot
	I'm always optimistic about my future			1 I disagree a lot - 5 I agree a lot
	I hardly ever expect things to go my way			1 I agree a lot - 5 I disagree a lot
	I rarely count on good things happening to me			1 I agree a lot - 5 I disagree a lot
	Overall, I expect more good things to happen to me than bad			1 I disagree a lot - 5 I agree a lot
Expectations index	Which step [of the life satisfaction ladder] do you believe you will be on in 5 years?		Elicited using Cantril's ladder	1 Very dissatisfied - 10 Very satisfied

Variable	Components	Sub-components (if any)	Details	Possible answers
		Panel C: Mechanisms		
	Where do you think you will be on this [relative economic status] ladder 5 years from now?		Elicited using Cantril's ladder	1 Poorest individuals - 10 Best-off members
Optimism index	How optimistic are you in general, on a scale of 1 to 7?		From Scale Optimism-Pessimism-2 by Kemper et al. (*24*). Pessimism scale shown to respondents had 1 be "not at all pessimistic" and 7 be "very pessimistic"	1 Not at all optimistic - 7 Very optimistic
	How pessimistic are you in general, on a scale of 1 to 7?			1 Very pessimistic - 7 Not at all pessimistic
Grit index	New ideas and projects sometimes distract me from previous ones		From the Short Grit Scale (*15*). Index formed by adding together responses without first normalizing.	1 Very much like me - 5 Not like me at all
	Setbacks don't discourage me			1 Not like me at all - 5 Very much like me
	I have been obsessed with a certain idea or project for a short time but later lost interest			1 Very much like me - 5 Not like me at all
	I am a very hard worker			1 Not like me at all - 5 Very much like me
	I often set a goal but later choose to pursue a different one			1 Very much like me - 5 Not like me at all
	I have difficulty maintaining my focus on projects that take more than a few months			1 Very much like me - 5 Not like me at all
	I finish whatever I begin			1 Not like me at all - 5 Very much like me
	I am diligent			1 Not like me at all - 5 Very much like me
Self-control index	I have a hard time breaking bad habits		Subset of the Brief Self-Control Scale by Tangney, Baumeister, and Boone (16). Index formed by adding together responses without first normalizing.	1 Very much like me - 5 Not like me at all
	I get distracted easily			1 Very much like me - 5 Not like me at all
	I say inappropriate things			1 Very much like me - 5 Not like me at all
	I refuse things that are bad for me, even if they are fun			1 Not like me at all - 5 Very much like me

Variable	Components	Sub-components (if any)	Details	Possible answers
		Panel C: Mechanisms		
	I'm good at resisting temptation			1 Not like me at all - 5 Very much like me
	People would say that I have very strong self-discipline			1 Not like me at all - 5 Very much like me
	Pleasure and fun sometimes keep me from getting work done			1 Very much like me - 5 Not like me at all
	I do things that feel good in the moment but regret later on			1 Very much like me - 5 Not like me at all
	Sometimes I can't stop myself from doing something, even if I know it's wrong			1 Very much like me - 5 Not like me at all
	I often act without thinking through all the alternatives			1 Very much like me - 5 Not like me at all
		Panel D: Secondary outcomes		
Salvation by grace belief index	If I am good enough, God will cleanse me of my sins		Question asked only of Christians	1 Strongly agree - 5 Strongly disagree
	I follow God's laws so that I can go to heaven		Question asked only of Christians	1 Strongly agree - 5 Strongly disagree
	Which of the following best describes your belief about what happens after death?			There is no life after death = 0; I will go to heaven because I tried my best to be a good person and to live a good life = 0; I will go to heaven because I tried to be involved in my religion, pray, and live the way I think God wants me to = 0; I will go to hell = 0; I'm not sure if I will go to heaven or hell = 0; I will be reincarnated = 0; My belief is not well-described by any of these choices = 0; I will go to heaven because I have accepted Jesus Christ as my personal savior = 1

Variable	Components	Sub-components (if any)	Details	Possible answers
		Panel D: Secondary outcomes		
Assets index	Chance that you, or someone in your household, would have 40 PHP available for your use in this circumstance of urgent need?			1 Very unlikely - 5 Very likely
	Chance that you, or someone in your household, would have 1,000 PHP available for your use in this circumstance of urgent need?			1 Very unlikely - 5 Very likely
	Number of productive assets acquired in last 6 months		Number of the following acquired in the last 6 months: tractors, sewing machines and farm tools. Top-coded at 99th percentile.	Integer ≥ 0
	Value of the productive assets in the household acquired in the last 6 months		Sum of the amount paid for the above categories of assets. Top-coded at 99th percentile.	Value of assets in PHP (1 USD ≈ 45 PHP in 2015)
	Number of house assets acquired in last 6 months		Number of the following acquired in the last 6 months: TV, VTR/VHS/VCD/DVD player, radio/transistor/stereo, electric fan, refrigerator/freezer, telephone/mobile phone, sala set, bicycle or pedicab , motorcab or motorcycle, boat, washing machine, chair/stool, bed or cot, table, watch or clock, jewelry, gas stove. Top-coded at 99th percentile.	Integer ≥ 0
	Value of the house assets acquired in the last 6 months		Sum of the amount paid for the above categories of assets. Top-coded at 99th percentile.	Value of assets in PHP (1 USD ≈ 45 PHP in 2015)
	Number of productive assets (level)		Number of tractors, sewing machines, and farm tools owned. Top-coded at 99th percentile.	Integer ≥ 0
	Value of productive assets (level)		Sum of the amount paid for the above assets. Top-coded at 99th percentile.	Value of assets in PHP (1 USD ≈ 45 PHP in 2015)

Variable	Components	Sub-components (if any)	Details	Possible answers
		Panel D: Secondary outcomes		
	Number of house assets (level)		Number of the following owned: TV, VTR/VHS/VCD/DVD player, radio/transistor/stereo, electric fan, refrigerator/freezer, telephone/mobile phone, sala set, bicycle or pedicab , motorcab or motorcycle, boat, washing machine, chair/stool, bed or cot, table, watch or clock, jewelry, gas stove. Top-coded at 99th percentile.	Integer ≥ 0
	Value of house assets (level)		Sum of the amount paid for the above assets. Top-coded at 99th percentile.	Value of assets in PHP (1 USD ≈ 45 PHP in 2015)
	How much money do you have set aside in savings?			Amount in PHP (1 USD ≈ 45 PHP in 2015)
Financial inclusion index	Do you or anyone in your household currently have money set aside as savings?			No = 0, Yes = 1
	Do you—by yourself or with other people—currently have an account at a bank?			No = 0, Yes = 1
	Have you made a deposit at a financial institution in the past 6 months?			No = 0, Yes = 1
Health index	Number of serious health events in the household (past 6 months)		We top-code at the 99th percentile and multiply by -1	Integer
	Total number of workdays missed by household members due to illness in past 30 days		We top-code each household member at 30 days and multiply by -1	Integer
	Number of household members that have suffered an illness that have kept them from working (last 30 days)		We code this as the negative of the response	Integer

Variable	Components	Sub-components (if any)	Details	Possible answers
Panel D: Secondary outcomes				
Hygiene index, non-list randomized	Own or lease animals that are not kept in a separate stable			No = 1, Yes = 0
	At least one household member practices open defecation		Coded yes if primary latrine is forest, bushes, fields, bodies of water, hanging latrine, uncovered pit latrine, open pit	No = 1, Yes = 0
Hygiene, list-randomized	I treat my water before drinking it, for example by using solar disinfection, boiling it, or using a water filter		Both questions elicited using list randomization. Outcome variable is average of two components' responses	No = 0, Yes = 1
	I wash my hands after going to the bathroom			No = 0, Yes = 1
House index	Are all rooms leak-free?			No = 0, Yes = 1
	Are at least some rooms leak-free?			No = 0, Yes = 1
	Are all rooms able to be safely locked?			No = 0, Yes = 1
	Are at least some rooms able to be safely locked?			No = 0, Yes = 1
	Primary source of energy for lighting is electricity			No = 0, Yes = 1
	Primary latrine is inside the house			No = 0, Yes = 1
Migration and remittance index	Number of migrators in the household		Number of household members who have slept outside the house for more than two consecutive nights for work in the past six months	Integer
	Number of days migrators in the household were gone in the last six months			Integer
	Number of migrators who sent remittances or brought money home to the household in the last six months			Integer
	Household had at least one migrator who sent remittances or brought cash home in the last six months			No = 0, Yes = 1
	Amount received in remittances or cash brought home by household migrators in the last six months			Amount in PHP (1 USD ≈ 45 PHP in 2015)

Variable	Components	Sub-components (if any)	Details	Possible answers
		Panel D: Secondary outcomes		
No discord index	During the last one month, did you have any major arguments with your spouse or partner over spending on major household items or assets?			No = 1, Yes = 0
	During the last one month, did you have any major arguments with your spouse or partner over saving decisions?			No = 1, Yes = 0
	During the last one month, did you have any major arguments with your spouse or partner over the behavior and disciplining of children?			No = 1, Yes = 0
	During the last one month, did you have any major arguments with your spouse or partner over interactions with relatives?			No = 1, Yes = 0
	During the last one month, did you have any major arguments with your spouse or partner over alcohol consumption?			No = 1, Yes = 0
	During the last one month, did you have any major arguments with your spouse or partner over any other issues?			No = 1, Yes = 0
No domestic violence, list randomized	Someone in my household is experiencing physical abuse		Question elicited using list randomization.	No = 1, Yes = 0
Child labor supply	Total hours spent in outside agricultural labor for non-household member		During past seven days, only household members age ≤ 16	Integer
	Total hours spent in formal employment		During past seven days, only household members age ≤ 16	Integer
	Total hours spent doing housework in an outside household		During past seven days, only household members age ≤ 16	Integer
	Total hours spent tending animals in an outside household during past seven days		During past seven days, only household members age ≤ 16	Integer

Variable	Components	Sub-components (if any)	Details	Possible answers
Panel D: Secondary outcomes				
	Total hours spent operating business that is not the household's		During past seven days, only household members age ≤ 16	Integer
	Total hours spent on daily labor		During past seven days, only household members age ≤ 16	Integer
	Total hours spent on other work outside the household		During past seven days, only household members age ≤ 16	Integer
# children enrolled in school			Age ≤ 16	Integer

Appendix Table 6. Religion intrinsic index

	1	2	3	4	5	6	7	8	9
	Religion intrinsic index - 5 questions	I enjoy thinking about my religion	It is important to me to spend time in private thought and prayer	I have often had a strong sense of God's presence	I try hard to live all my life according to my religious beliefs	My whole approach to life is based on religion	Although I am religious, I don't let it affect my daily life **(not used)**	It doesn't much matter what I believe so long as I am good **(not used)**	Although I believe in my religion, many other things are more important in life **(not used)**
Panel A: Pooled specification									
Any V	0.102***	0.017	0.029*	0.033**	0.077***	0.133***	0.062***	0.029	0.079***
	(0.024)	(0.014)	(0.015)	(0.016)	(0.022)	(0.030)	(0.024)	(0.022)	(0.029)
Any HL	0.014	-0.023*	-0.005	0.014	0.043*	0.012	0.008	0.004	0.024
	(0.024)	(0.014)	(0.015)	(0.016)	(0.023)	(0.030)	(0.023)	(0.022)	(0.028)
Panel B: Disaggregated specification									
VHL	0.115***	-0.007	0.023	0.047**	0.120***	0.143***	0.070**	0.032	0.102**
	(0.034)	(0.019)	(0.021)	(0.024)	(0.031)	(0.042)	(0.033)	(0.030)	(0.046)
HL	0.047	-0.010	0.003	0.032	0.060	0.047	0.077	0.038	0.115*
	(0.055)	(0.036)	(0.030)	(0.028)	(0.051)	(0.074)	(0.056)	(0.041)	(0.064)
V	0.123**	0.028	0.028	0.049*	0.084*	0.162**	0.125**	0.057	0.154**
	(0.050)	(0.034)	(0.030)	(0.028)	(0.046)	(0.071)	(0.058)	(0.039)	(0.064)
p -value for VHL = HL test	0.246	0.932	0.532	0.648	0.254	0.208	0.909	0.889	0.849
p -value for V = C test	0.015	0.417	0.343	0.083	0.070	0.022	0.032	0.147	0.016
Panel C: Summary information									
Control group mean	0	4.570	4.710	4.701	4.341	3.766	4.236	4.530	3.868
# observations in VHL	1,578	1,578	1,578	1,578	1,578	1,578	1,578	1,578	1,578
# observations in HL	1,549	1,549	1,549	1,549	1,549	1,549	1,549	1,549	1,549
# observations in V	1,550	1,550	1,550	1,550	1,550	1,550	1,550	1,550	1,550
# observations in C	1,599	1,599	1,599	1,599	1,599	1,599	1,599	1,599	1,599

Panels A and B show treatment effect estimates relative to control. Dependent variables are indicated in the column title. Variables have been coded so that more positive numbers correspond to greater religiosity. See Appendix for details on variable construction. The variables to the right of the first column have not been standardized. Standard errors clustered by community are in parentheses. *, **, and *** indicate *p* -values less than 0.1, 0.05, and 0.01, respectively, for tests relative to the control group.

Appendix Table 7. Religion extrinsic index

	1	2	3	4	5	6	7
	Religion extrinsic index	I go to religious services because it helps me to make friends	I pray mainly to gain relief and protection	What religion offers me most is comfort in times of trouble and sorrow	Prayer is for peace and happiness	I go to religious services mostly to spend time with my friends	I go to religious services mainly because I enjoy seeing people there
Panel A: Pooled specification							
Any V	0.130***	0.151***	0.022	0.052***	0.002	0.201***	0.153***
	(0.024)	(0.032)	(0.017)	(0.019)	(0.010)	(0.035)	(0.030)
Any HL	-0.021	-0.060*	0.018	0.004	-0.005	-0.019	-0.031
	(0.024)	(0.032)	(0.017)	(0.020)	(0.010)	(0.035)	(0.031)
Panel B: Disaggregated specification							
VHL	0.109***	0.090*	0.040	0.056**	-0.004	0.183***	0.123***
	(0.037)	(0.049)	(0.027)	(0.026)	(0.017)	(0.054)	(0.044)
HL	0.073	0.045	0.053	0.037	0.003	0.114	0.076
	(0.065)	(0.084)	(0.045)	(0.044)	(0.022)	(0.094)	(0.084)
V	0.204***	0.233***	0.057	0.084**	0.008	0.301***	0.230***
	(0.064)	(0.078)	(0.047)	(0.042)	(0.020)	(0.092)	(0.084)
p -value for VHL = HL test	0.596	0.597	0.788	0.688	0.802	0.460	0.575
p -value for V = C test	0.002	0.003	0.225	0.047	0.704	0.001	0.006
Panel C: Summary information							
Control group mean	0	3.690	4.583	4.382	4.828	3.319	3.149
# observations in VHL	1,578	1,578	1,578	1,578	1,578	1,578	1,578
# observations in HL	1,549	1,549	1,549	1,549	1,549	1,549	1,549
# observations in V	1,550	1,550	1,550	1,550	1,550	1,550	1,550
# observations in C	1,599	1,599	1,599	1,599	1,599	1,599	1,599

Panels A and B show treatment effect estimates relative to control. Dependent variables are indicated in the column title. Variables have been coded so that more positive numbers correspond to greater religiosity. See Appendix for details on variable construction. The variables to the right of the first column have not been standardized. Standard errors clustered by community are in parentheses. *, **, and *** indicate *p* -values less than 0.1, 0.05, and 0.01, respectively, for tests relative to the control group.

Appendix Table 8. General religion index

	1	2	3	4	5	6	7	8
	General religion index	To what extent do you consider yourself a religious person?	In the last month, have you tried to convince anyone else to change the way they think about God?	How many people?	In how many of the past 7 days did you pray privately in places other than at a place of worship?	How satisfied are you with your spiritual life right now?	How often do you go to religious service? (number of days in a year)	ICM religion
Panel A: Pooled specification								
Any V	0.077***	0.020	0.012	0.028	0.201***	-0.013	0.937	0.121***
	(0.023)	(0.017)	(0.009)	(0.052)	(0.066)	(0.020)	(0.621)	(0.039)
Any HL	0.001	-0.004	-0.026***	0.000	-0.111*	0.011	-1.382**	0.081**
	(0.023)	(0.016)	(0.009)	(0.053)	(0.064)	(0.020)	(0.621)	(0.040)
Panel B: Disaggregated specification								
VHL	0.077**	0.016	-0.014	0.026	0.092	-0.002	-0.438	0.202***
	(0.031)	(0.023)	(0.013)	(0.070)	(0.087)	(0.024)	(0.803)	(0.050)
HL	-0.029	-0.028	-0.042**	-0.063	-0.153	0.009	-0.668	0.047
	(0.054)	(0.035)	(0.021)	(0.119)	(0.162)	(0.042)	(1.438)	(0.087)
V	0.052	-0.009	-0.002	-0.022	0.109	-0.017	1.832	0.100
	(0.051)	(0.035)	(0.020)	(0.089)	(0.150)	(0.046)	(1.412)	(0.084)
p -value for VHL = HL test	0.055	0.215	0.189	0.475	0.142	0.806	0.870	0.074
p -value for V = C test	0.312	0.790	0.933	0.801	0.469	0.718	0.196	0.232
Panel C: Summary information								
Control group mean	0	2.795	0.301	0.887	5.062	4.119	39.53	13.97
# observations in VHL	1,578	1,578	1,578	1,577	1,578	1,578	1,576	1,473
# observations in HL	1,549	1,549	1,549	1,547	1,549	1,549	1,549	1,457
# observations in V	1,550	1,550	1,550	1,548	1,550	1,550	1,548	1,455
# observations in C	1,599	1,599	1,599	1,596	1,599	1,599	1,598	1,515

Panels A and B show treatment effect estimates relative to control. Dependent variables are indicated in the column title. Variables have been coded so that more positive numbers correspond to greater religiosity. See Appendix for details on variable construction. "ICM religion" is the sum of the agreement with three statements ("The Bible is accurate in all that it teaches," "I believe the Bible has decisive authority over what I say and do," and "I believe the Christian God—Father, Son, and Holy Spirit—is the only true God") that were scored from 1 to 5, where higher numbers represent more agreement. The variables to the right of the first column have not been standardized. Standard errors clustered by community are in parentheses. *, **, and *** indicate *p* -values less than 0.1, 0.05, and 0.01, respectively, for tests relative to the control group.

Appendix Table 9. Religion - list randomized

	22	23	24
	Religion - list randomized	I have made a personal commitment to Jesus Christ that is still important to me today (list randomized)	I have read or listened to the Bible in the past week (list randomized)
Panel A: Pooled specification			
Any V	0.048	0.048	0.049
	(0.037)	(0.046)	(0.044)
Any HL	-0.028	0.013	-0.069
	(0.038)	(0.046)	(0.044)
Panel B: Disaggregated specification			
VHL	0.020	0.059	-0.019
	(0.054)	(0.066)	(0.061)
HL	-0.002	0.037	-0.041
	(0.055)	(0.069)	(0.065)
V	0.070	0.064	0.075
	(0.057)	(0.069)	(0.065)
p -value for VHL = HL test	0.653	0.720	0.710
p -value for V = C test	0.222	0.355	0.247
Panel C: Summary information			
Control group mean	0.606	0.657	0.555
# observations in VHL	1,578	1,578	1,578
# observations in HL	1,549	1,549	1,549
# observations in V	1,550	1,550	1,550
# observations in C	1,599	1,599	1,599

Panels A and B show treatment effect estimates relative to control. Dependent variables, elicited via list randomization, are indicated in the column title. If the statement in the column title is true, the observation is coded as a 1, and if false, it is coded as a 0. "Religion - list randomized" is the average of the two variables in the rightmost columns. See Appendix for details on variable construction. Standard errors clustered by community are in parentheses. *, **, and *** indicate *p* -values less than 0.1, 0.05, and 0.01, respectively, for tests relative to the control group.

Appendix Table 10. Monthly consumption

	1	2	3	4
	Monthly consumption (PHP)	Food consumption (PHP)	Non-food consumption (PHP)	Celebration spending (PHP)
Panel A: Pooled specification				
Any V	-1.078	40.07	-53.52	12.37
	(100.4)	(72.97)	(44.07)	(9.447)
Any HL	-102.960	-24.54	-72.72*	-5.69
	(93.3)	(71.40)	(37.71)	(9.659)
Panel B: Disaggregated specification				
VHL	-102.2	16.13	-126.0*	7.660
	(159.5)	(121.0)	(65.65)	(16.65)
HL	-314.3	-167.26	-115.1	-31.950*
	(203.0)	(136.4)	(100.7)	(18.65)
V	-167.4	-76.51	-75.2	-15.717
	(209.5)	(136.7)	(108.5)	(20.38)
p-value for VHL = HL test	0.309	0.232	0.901	0.034
p-value for V = C test	0.425	0.576	0.489	0.441
Panel C: Summary information				
Control group mean	5,001	3,439	1,461	100.8
# observations in VHL	1,578	1,578	1,578	1,578
# observations in HL	1,549	1,549	1,549	1,549
# observations in V	1,550	1,550	1,550	1,550
# observations in C	1,599	1,599	1,599	1,599

Panels A and B show treatment effect estimates relative to control. Dependent variables are indicated in the column title. See Appendix for details on variable construction. Standard errors clustered by community are in parentheses. *, **, and *** indicate *p*-values less than 0.1, 0.05, and 0.01, respectively, for tests relative to the control group.

Appendix Table 11. Food security index

	1	2	3	4
	Food security index	No household member has gone hungry in last six months	No household member has gone to bed hungry in last six months outside of lean season	Number of days no member of the household went to bed hungry (last 7 days)
Panel A: Pooled specification				
Any V	0.010	0.008	0.007	-0.010
	(0.023)	(0.008)	(0.008)	(0.019)
Any HL	-0.044*	-0.017**	-0.011	-0.041**
	(0.023)	(0.008)	(0.008)	(0.019)
Panel B: Disaggregated specification				
VHL	-0.033	-0.009	-0.004	-0.051
	(0.037)	(0.013)	(0.013)	(0.031)
HL	-0.050	-0.019	-0.014	-0.043
	(0.051)	(0.019)	(0.019)	(0.041)
V	-0.007	0.000	0.002	-0.023
	(0.050)	(0.018)	(0.018)	(0.041)
p -value for VHL = HL test	0.728	0.595	0.554	0.845
p -value for V = C test	0.885	0.993	0.913	0.579
Panel C: Summary information				
Control group mean	0	0.824	0.856	6.685
# observations in VHL	1,526	1,526	1,526	1,526
# observations in HL	1,521	1,521	1,521	1,519
# observations in V	1,517	1,517	1,517	1,516
# observations in C	1,567	1,567	1,567	1,565

Panels A and B show treatment effect estimates relative to control. Dependent variables are indicated in the column title. See Appendix for details on variable construction. The variables to the right of the first column have not been standardized. Standard errors clustered by community are in parentheses. *, **, and *** indicate *p* -values less than 0.1, 0.05, and 0.01, respectively, for tests relative to the control group.

Appendix Table 12. Monthly income

	1	2	3	4	5	6	7	8
	Monthly income (PHP)	Agricultural labor income (last 30 days)	Livestock and fishing income (last 30 days)	Formal employment income (last 30 days)	Self-employment income (last 30 days)	Daily labor income (last 30 days)	Employment (formality unclear) income (last 30 days)	Business profit (most recent month with normal sales)
Panel A: Pooled specification								
Any V	386.1***	87.69	26.13	45.53	124.7***	32.65	54.98**	-5.161
	(126.8)	(63.91)	(32.02)	(55.62)	(41.09)	(94.54)	(23.67)	(18.31)
Any HL	131.2	-59.09	105.58***	37.95	-46.4	53.31	33.13	-4.441
	(126.3)	(62.62)	(28.31)	(57.34)	(41.54)	(95.68)	(21.47)	(18.27)
Panel B: Disaggregated specification								
VHL	524.4***	33.78	135.0***	88.39	79.67**	80.53	86.22***	-8.884
	(175.0)	(89.86)	(51.17)	(74.19)	(31.30)	(121.9)	(30.19)	(30.93)
HL	287.9	-219.24	28.4	57.49	43.79	369.68	38.20	-49.02
	(278.4)	(150.9)	(69.94)	(120.6)	(44.09)	(243.8)	(36.43)	(37.60)
V	574.2**	-85.07	-19.7	80.35	187.09**	362.81	67.14*	-45.02
	(285.4)	(158.5)	(61.53)	(103.2)	(91.48)	(231.7)	(40.11)	(43.48)
p -value for VHL = HL test	0.390	0.101	0.214	0.808	0.444	0.216	0.236	0.270
p -value for V = C test	0.045	0.592	0.749	0.437	0.042	0.118	0.095	0.301
Panel C: Summary information								
Control group mean	4,213	1,078	163.4	645.5	113.8	1,998	110.1	123.9
# observations in VHL	1,452	1,452	1,452	1,452	1,452	1,452	1,452	1,578
# observations in HL	1,440	1,440	1,440	1,440	1,440	1,440	1,440	1,549
# observations in V	1,435	1,435	1,435	1,435	1,435	1,435	1,435	1,550
# observations in C	1,490	1,490	1,490	1,490	1,490	1,490	1,490	1,599

Panels A and B show treatment effect estimates relative to control. See Appendix for details on variable construction. Standard errors clustered by community are in parentheses. *, **, and *** indicate *p* -values less than 0.1, 0.05, and 0.01, respectively, for tests relative to the control group.

Appendix Table 13. Adult labor supply

	1	2	3	4	5	6	7
	Adult weekly labor supply (hours)	Hours in agricultural labor (last 7 days)	Hours in livestock and fishing (last 7 days)	Hours in formal employment (last 7 days)	Hours in self employment (last 7 days)	Hours in daily labor (last 7 days)	Hours in employment with unclear formality (last 7 days)
Panel A: Pooled specification							
Any V	0.926	-2.072*	0.776*	-0.114	0.986***	0.806	0.544**
	(1.091)	(1.149)	(0.439)	(0.563)	(0.272)	(1.141)	(0.234)
Any HL	-1.822*	-1.534	0.809*	-0.818	-0.350	-0.192	0.264
	(1.095)	(1.147)	(0.420)	(0.587)	(0.269)	(1.144)	(0.225)
Panel B: Disaggregated specification							
VHL	-0.878	-3.584**	1.598**	-0.889	0.634**	0.565	0.799**
	(1.417)	(1.407)	(0.636)	(0.842)	(0.311)	(1.476)	(0.338)
HL	-0.149	-2.394	0.550	-1.057	0.429	2.371	-0.047
	(2.390)	(3.158)	(0.973)	(1.357)	(0.483)	(2.842)	(0.395)
V	2.951	-3.469	1.163	-0.280	1.596**	3.652	0.290
	(2.321)	(3.096)	(1.253)	(1.320)	(0.624)	(2.748)	(0.393)
p -value for VHL = HL test	0.761	0.707	0.342	0.898	0.696	0.515	0.053
p -value for V = C test	0.204	0.263	0.354	0.832	0.011	0.185	0.461
Panel C: Summary information							
Control group mean	79.58	26.66	3.016	10.21	1.856	35.93	1.912
# observations in VHL	1,452	1,452	1,452	1,452	1,452	1,452	1,452
# observations in HL	1,439	1,439	1,439	1,439	1,439	1,439	1,439
# observations in V	1,434	1,434	1,434	1,434	1,434	1,434	1,434
# observations in C	1,490	1,490	1,490	1,490	1,490	1,490	1,490

Panels A and B show treatment effect estimates relative to control. Dependent variables are indicated in the column title. See Appendix for details on variable construction. Standard errors clustered by community are in parentheses. *, **, and *** indicate *p* -values less than 0.1, 0.05, and 0.01, respectively, for tests relative to the control group.

Appendix Table 14. Life satisfaction index

	1	2	3	4	5	6	7	8	9	10	11	12
			About how often during the past 30 days did you feel…									
	Life satisfaction index	Kessler K6 nonspecific distress scale	Nervous	Hopeless	Restless or fidgety	So depressed that nothing could you cheer you up	That everything was difficult	Worthless	How would you describe your satisfaction with life?	Taking all things together, would you say you are happy?	Did you experience the following feelings during a lot of the day yesterday? Enjoyment + happiness - worry - sadness	Did you smile or laugh a lot yesterday?
Panel A: Pooled specification												
Any V	0.019	0.078	0.030	0.020	-0.052**	-0.048**	0.018	0.057***	-0.123*	0.030**	-0.006	0.009
	(0.022)	(0.100)	(0.023)	(0.021)	(0.025)	(0.024)	(0.026)	(0.020)	(0.073)	(0.012)	(0.026)	(0.006)
Any HL	-0.010	0.291***	0.069***	0.004	0.064***	0.048**	0.057**	0.027	-0.176**	-0.021*	0.017	-0.004
	(0.022)	(0.099)	(0.022)	(0.022)	(0.024)	(0.023)	(0.026)	(0.020)	(0.075)	(0.012)	(0.026)	(0.006)
Panel B: Disaggregated specification												
VHL	0.009	0.385***	0.100***	0.026	0.015	0.003	0.079**	0.088***	-0.301***	0.009	0.009	0.004
	(0.028)	(0.123)	(0.031)	(0.025)	(0.030)	(0.031)	(0.031)	(0.029)	(0.098)	(0.015)	(0.037)	(0.009)
HL	-0.031	0.314	0.040	-0.010	0.056	0.069	0.058	0.043	-0.161	-0.026	-0.016	-0.014
	(0.056)	(0.264)	(0.050)	(0.050)	(0.066)	(0.054)	(0.072)	(0.046)	(0.161)	(0.031)	(0.058)	(0.014)
V	-0.018	0.058	-0.000	-0.009	-0.063	-0.038	0.019	0.070	-0.187	0.022	-0.039	-0.003
	(0.047)	(0.250)	(0.048)	(0.050)	(0.060)	(0.052)	(0.064)	(0.045)	(0.156)	(0.025)	(0.056)	(0.013)
p -value for VHL = HL test	0.478	0.789	0.227	0.474	0.529	0.238	0.768	0.330	0.380	0.255	0.669	0.240
p -value for V = C test	0.708	0.816	0.995	0.859	0.292	0.463	0.766	0.125	0.234	0.370	0.491	0.836
Panel C: Summary information												
Control group mean	0	21.50	3.127	3.950	3.464	3.836	3.045	4.242	5.666	3.134	0.420	0.897
# observations in VHL	1,578	1,577	1,574	1,569	1,571	1,569	1,571	1,568	1,575	1,562	1,578	1,578
# observations in HL	1,549	1,549	1,547	1,540	1,543	1,541	1,543	1,534	1,547	1,534	1,549	1,549
# observations in V	1,550	1,550	1,550	1,548	1,545	1,543	1,541	1,539	1,548	1,539	1,550	1,550
# observations in C	1,599	1,598	1,593	1,580	1,594	1,588	1,589	1,575	1,598	1,588	1,599	1,599

Panels A and B show treatment effect estimates relative to control. Dependent variables are indicated in the column title. Variables have been coded so that more positive numbers correspond to less psychological distress and higher life satisfaction. See Appendix for details on variable construction. The variables to the right of the first column have not been standardized. Standard errors clustered by community are in parentheses. *, **, and *** indicate *p* -values less than 0.1, 0.05, and 0.01, respectively, for tests relative to the control group.

Appendix Table 15. Perceived relative economic status

	1
	Where would you place your household on the ladder in terms of economic status?
Panel A: Pooled specification	
Any V	-0.113**
	(0.047)
Any HL	-0.040
	(0.047)
Panel B: Disaggregated specification	
VHL	-0.151**
	(0.067)
HL	-0.073
	(0.112)
V	-0.133
	(0.119)
p -value for VHL = HL test	0.488
p -value for V = C test	0.264
Panel C: Summary information	
Control group mean	3.242
# observations in VHL	1,576
# observations in HL	1,548
# observations in V	1,547
# observations in C	1,596

Panels A and B show treatment effect estimates relative to control. The dependent variable, indicated in the column title, has been coded so that more positive numbers correspond to higher perceived relative economic status. See Appendix for details on variable construction. Standard errors clustered by community are in parentheses. *, **, and *** indicate *p* -values less than 0.1, 0.05, and 0.01, respectively, for tests relative to the control group.

Appendix Table 16. Trust index

	1	2	3	4
	Trust index	In general, would you say that most people can be trusted or that most people cannot be trusted?	Do you think most people would try to take advantage of you if they got a chance, or would they try to be fair?	Would you say that most of the time people try to be helpful, or that they are mostly just looking out for themselves?
Panel A: Pooled specification				
Any V	0.004	0.00	0.005	-0.001
	(0.022)	(0.010)	(0.010)	(0.011)
Any HL	-0.023	-0.003	-0.002	-0.021**
	(0.022)	(0.010)	(0.009)	(0.011)
Panel B: Disaggregated specification				
VHL	-0.019	-0.003	0.003	-0.021
	(0.032)	(0.015)	(0.014)	(0.015)
HL	-0.023	0.000	0.003	-0.030
	(0.043)	(0.019)	(0.020)	(0.022)
V	-0.018	-0.005	-0.002	-0.013
	(0.046)	(0.021)	(0.022)	(0.021)
p -value for VHL = HL test	0.927	0.870	0.986	0.718
p -value for V = C test	0.704	0.811	0.932	0.533
Panel C: Summary information				
Control group mean	0	0.458	0.637	0.582
# observations in VHL	1,578	1,578	1,578	1,578
# observations in HL	1,549	1,549	1,549	1,549
# observations in V	1,550	1,550	1,550	1,550
# observations in C	1,599	1,599	1,599	1,599

Panels A and B show treatment effect estimates relative to control. Dependent variables are indicated in the column title. Variables have been coded so that more positive numbers correspond to more trust. See Appendix for details on variable construction. The variables to the right of the first column have not been standardized. Standard errors clustered by community are in parentheses. *, **, and *** indicate *p* -values less than 0.1, 0.05, and 0.01, respectively, for tests relative to the control group.

Appendix Table 17. Social safety net index

	1	2	3	4	5	6	7	8	9
	Social safety net index	Likelihood that could access 40 PHP from a source outside household for urgent need	Likelihood that could access 1,000 PHP from a source outside household for urgent need	Do you discuss personal issues with anyone outside your close family?	How often do you usually speak to this person? (number of days in a year)	Household received meals from another household in local community (last 30 days)	Number of meals received	Household gave meals to another household in local community (last 30 days)	Number of meals given
Panel A: Pooled specification									
Any V	0.026	0.018	-0.025	0.020	0.250	0.004	0.344**	0.000	0.193
	(0.024)	(0.025)	(0.033)	(0.012)	(0.573)	(0.011)	(0.162)	(0.011)	(0.182)
Any HL	-0.027	-0.028	0.044	-0.001	0.165	-0.003	-0.264	-0.010	-0.539***
	(0.024)	(0.026)	(0.033)	(0.012)	(0.570)	(0.010)	(0.164)	(0.011)	(0.185)
Panel B: Disaggregated specification									
VHL	-0.000	-0.011	0.020	0.018	0.424	0.001	0.089	-0.010	-0.337
	(0.032)	(0.033)	(0.044)	(0.016)	(0.782)	(0.014)	(0.205)	(0.015)	(0.267)
HL	-0.076	-0.064	-0.009	0.004	-0.045	-0.036	-0.393	-0.036	-0.429
	(0.048)	(0.053)	(0.071)	(0.021)	(1.287)	(0.024)	(0.333)	(0.025)	(0.472)
V	-0.023	-0.023	-0.071	0.025	-0.075	-0.022	0.206	-0.026	0.081
	(0.048)	(0.053)	(0.072)	(0.024)	(1.109)	(0.022)	(0.386)	(0.023)	(0.494)
p -value for VHL = HL test	0.140	0.346	0.692	0.496	0.696	0.136	0.159	0.302	0.846
p -value for V = C test	0.631	0.662	0.323	0.292	0.946	0.331	0.594	0.246	0.870
Panel C: Summary information									
Control group mean	0	3.617	2.359	0.387	8.480	0.557	4.497	0.683	5.260
# observations in VHL	1,578	1,578	1,578	1,552	1,530	1,535	1,531	1,536	1,489
# observations in HL	1,549	1,549	1,549	1,538	1,518	1,528	1,525	1,520	1,471
# observations in V	1,550	1,550	1,550	1,528	1,504	1,517	1,510	1,504	1,463
# observations in C	1,599	1,599	1,599	1,583	1,551	1,570	1,551	1,563	1,525

Panels A and B show treatment effect estimates relative to control. Dependent variables are indicated in the column title. Variables have been coded so that more positive numbers correspond to more access to a social safety net. See Appendix for details on variable construction. The variables to the right of the first column have not been standardized. Standard errors clustered by community are in parentheses. *, **, and *** indicate *p* -values less than 0.1, 0.05, and 0.01, respectively, for tests relative to the control group.

Appendix Table 18. Community activities index

	1	2	3	4
	Commmunity activities index	Did you attend any village leaders meetings? (last 6 months)	Have you participated in any community activities? (last 6 months)	How frequently did you participate in community activities? (number of days in a year)
Panel A: Pooled specification				
Any V	0.005	-0.019*	0.007	0.666
	(0.025)	(0.011)	(0.013)	(0.510)
Any HL	0.041	-0.001	0.014	1.354***
	(0.025)	(0.011)	(0.012)	(0.507)
Panel B: Disaggregated specification				
VHL	0.045	-0.020	0.021	1.998**
	(0.034)	(0.015)	(0.016)	(0.800)
HL	0.019	-0.024	0.011	1.658*
	(0.058)	(0.025)	(0.031)	(0.996)
V	-0.011	-0.043*	0.009	1.126
	(0.059)	(0.026)	(0.031)	(0.975)
p -value for VHL = HL test	0.655	0.852	0.750	0.748
p -value for V = C test	0.857	0.094	0.771	0.249
Panel C: Summary information				
Control group mean	0	0.651	0.527	9.165
# observations in VHL	1,561	1,554	1,546	1,533
# observations in HL	1,542	1,540	1,533	1,523
# observations in V	1,534	1,532	1,525	1,516
# observations in C	1,592	1,589	1,580	1,561

Panels A and B show treatment effect estimates relative to control. Dependent variables are indicated in the column title. Variables have been coded so that more positive numbers correspond to more involvement in community activities. See Appendix for details on variable construction. The variables to the right of the first column have not been standardized. Standard errors clustered by community are in parentheses. *, **, and *** indicate *p* -values less than 0.1, 0.05, and 0.01, respectively, for tests relative to the control group.

Appendix Table 19. Perceived stress scale index

	1	2	3	4	5
	Perceived stress scale index	How often have you felt that you were unable to control the important things in your life?	How often have you felt confident about your ability to handle your personal problems?	How often have you felt that things were going your way?	How often have you felt difficulties were piling up so high that you could not overcome them?
Panel A: Pooled specification					
Any V	-0.011	0.055**	-0.065***	-0.024	-0.005
	(0.020)	(0.023)	(0.023)	(0.022)	(0.025)
Any HL	-0.018	-0.015	0.005	-0.049**	0.022
	(0.021)	(0.023)	(0.024)	(0.022)	(0.025)
Panel B: Disaggregated specification					
VHL	-0.026	0.042	-0.061*	-0.072**	0.021
	(0.026)	(0.036)	(0.035)	(0.030)	(0.033)
HL	-0.009	0.069	-0.016	-0.079	0.010
	(0.044)	(0.057)	(0.056)	(0.054)	(0.052)
V	-0.007	0.118**	-0.064	-0.044	-0.035
	(0.043)	(0.057)	(0.052)	(0.049)	(0.053)
p -value for VHL = HL test	0.684	0.650	0.434	0.901	0.843
p -value for V = C test	0.876	0.038	0.216	0.368	0.509
Panel C: Summary information					
Control group mean	0	2.896	3.430	2.936	3.265
# observations in VHL	1,577	1,572	1,574	1,567	1,569
# observations in HL	1,549	1,543	1,543	1,536	1,539
# observations in V	1,549	1,544	1,543	1,538	1,545
# observations in C	1,599	1,596	1,593	1,583	1,590

Panels A and B show treatment effect estimates relative to control. Dependent variables are indicated in the column title. Variables have been coded so that more positive numbers correspond to less stress. See Appendix for details on variable construction. The variables to the right of the first column have not been standardized. Standard errors clustered by community are in parentheses. *, **, and *** indicate *p* -values less than 0.1, 0.05, and 0.01, respectively, for tests relative to the control group.

Appendix Table 20. Powerful others index

	1	2	3	4	5	6	7
	Powerful others index	I feel like what happens in my life is mostly determined by God	Although I might have good ability, I will not be successful without appealing to God	My life is chiefly controlled by God	Getting what I want requires pleasing God	Whether or not I have an accident and hurt myself physically depends mostly on God	In order to have my plans work, I make sure that they fit with God's plan for me
Panel A: Pooled specification							
Any V	0.093***	0.109***	0.030*	0.088***	0.022	0.049	0.057***
	(0.027)	(0.024)	(0.017)	(0.022)	(0.023)	(0.031)	(0.019)
Any HL	0.044	0.021	0.026	0.044**	0.007	0.016	0.052***
	(0.027)	(0.024)	(0.017)	(0.022)	(0.023)	(0.032)	(0.019)
Panel B: Disaggregated specification							
VHL	0.135***	0.128***	0.054***	0.131***	0.028	0.066	0.108***
	(0.038)	(0.035)	(0.020)	(0.032)	(0.032)	(0.047)	(0.027)
HL	0.031	0.037	-0.025	0.060	-0.031	0.029	0.046
	(0.060)	(0.051)	(0.037)	(0.052)	(0.048)	(0.073)	(0.041)
V	0.073	0.118**	-0.016	0.095*	-0.019	0.048	0.051
	(0.059)	(0.048)	(0.036)	(0.048)	(0.048)	(0.071)	(0.042)
p -value for VHL = HL test	0.085	0.068	0.033	0.175	0.246	0.614	0.123
p -value for V = C test	0.222	0.015	0.659	0.050	0.689	0.501	0.229
Panel C: Summary information							
Control group mean	0	4.271	4.612	4.388	4.458	3.907	4.502
# observations in VHL	1,578	1,578	1,578	1,578	1,578	1,578	1,578
# observations in HL	1,549	1,549	1,549	1,549	1,549	1,549	1,549
# observations in V	1,550	1,550	1,550	1,550	1,550	1,550	1,550
# observations in C	1,599	1,599	1,599	1,599	1,599	1,599	1,599

Panels A and B show treatment effect estimates relative to control. Dependent variables are indicated in the column title. Variables have been coded so that more positive numbers correspond to higher perception of God's role in determining outcomes in life. See Appendix for details on variable construction. The variables to the right of the first column have not been standardized. Standard errors clustered by community are in parentheses. *, **, and *** indicate *p* -values less than 0.1, 0.05, and 0.01, respectively, for tests relative to the control group.

Appendix Table 21a: Locus of control index: Internality subscale

	1	2	3	4	5	6	7	8	9	10
	Locus of control index	Internality subscale	Whether or not I am successful depends mostly on my ability	Whether or not I have an accident and hurt myself depends mostly on how careful I am on a daily basis	When I make plans, I am almost certain to make them work	How many friends I have depends on how nice a person I am	I can pretty much determine what will happen in my life	I am usually able to protect my personal interests	When I get what I want it's usually because I worked hard for it	My life is determined by my own actions
Panel A: Pooled specification										
Any V	-0.035*	0.088***	0.091***	0.015	0.070**	0.009	0.084**	0.041	0.047***	0.014
	(0.020)	(0.026)	(0.020)	(0.021)	(0.033)	(0.017)	(0.036)	(0.028)	(0.015)	(0.019)
Any HL	-0.000	-0.019	-0.023	-0.013	-0.018	-0.017	0.024	-0.006	0.015	-0.040**
	(0.020)	(0.026)	(0.021)	(0.021)	(0.031)	(0.017)	(0.036)	(0.028)	(0.015)	(0.018)
Panel B: Disaggregated specification										
VHL	-0.035	0.069*	0.068**	0.001	0.051	-0.008	0.108**	0.035	0.060***	-0.026
	(0.029)	(0.035)	(0.031)	(0.032)	(0.040)	(0.021)	(0.050)	(0.035)	(0.020)	(0.027)
HL	-0.064	0.002	0.028	-0.022	0.087	-0.042	0.014	-0.033	-0.006	-0.017
	(0.057)	(0.060)	(0.046)	(0.042)	(0.081)	(0.039)	(0.086)	(0.069)	(0.034)	(0.038)
V	-0.085*	0.103*	0.145***	0.001	0.175**	-0.022	0.067	0.011	0.025	0.033
	(0.050)	(0.056)	(0.042)	(0.043)	(0.078)	(0.038)	(0.084)	(0.066)	(0.033)	(0.038)
p -value for VHL = HL test	0.605	0.298	0.393	0.586	0.666	0.389	0.312	0.326	0.044	0.831
p -value for V = C test	0.090	0.067	0.001	0.974	0.026	0.562	0.425	0.869	0.439	0.383
Panel C: Summary information										
Control group mean	0	0	4.218	4.123	3.108	4.510	2.333	3.402	4.578	4.309
# observations in VHL	1,578	1,578	1,578	1,578	1,578	1,578	1,578	1,578	1,578	1,578
# observations in HL	1,549	1,549	1,549	1,549	1,549	1,549	1,549	1,549	1,549	1,549
# observations in V	1,550	1,550	1,550	1,550	1,550	1,550	1,550	1,550	1,550	1,550
# observations in C	1,599	1,599	1,599	1,599	1,599	1,599	1,599	1,599	1,599	1,599

Panels A and B show treatment effect estimates relative to control. Dependent variables are indicated in the column title. Variables have been coded so that more positive numbers correspond to higher perceptions of people's ability to control their life/fate. See Appendix for details on variable construction. The variables to the right of the second column have not been standardized. Standard errors clustered by community are in parentheses. *, **, and *** indicate *p* -values less than 0.1, 0.05, and 0.01, respectively, for tests relative to the control group.

Appendix Table 21b. Locus of control index: Chance subscale and World Values Survey question

	11	12	13	14	15	16	17	18	19	20
	Chance subscale	To a great extent my life is controlled by accidental happenings	Often there is no chance of protecting my personal interests from bad luck happening	When I get what I want, it is usually because I am lucky	I have often found that what is going to happen will happen	Whether or not I get into an accident and hurt myself physically is mostly a matter of luck	It is not wise for me to plan too far ahead because many things turn out to be a matter of good or bad fortune	Whether or not I am successful depends on whether I am lucky enough to be in the right place at the right time	It is chiefly a matter of fate whether or not I have a few friends or many friends	Closest to your view on a scale on which (1) "everything in life is determined by fate" and (10) "people shape their fate themselves"
Panel A: Pooled specification										
Any V	-0.098***	-0.135***	-0.046	-0.075***	-0.058	-0.025	-0.101***	-0.029	-0.127***	-0.192**
	(0.028)	(0.032)	(0.028)	(0.028)	(0.038)	(0.030)	(0.037)	(0.026)	(0.032)	(0.079)
Any HL	0.004	-0.006	-0.019	0.008	-0.016	-0.026	0.016	0.010	0.057*	0.060
	(0.028)	(0.032)	(0.028)	(0.028)	(0.039)	(0.030)	(0.037)	(0.027)	(0.032)	(0.080)
Panel B: Disaggregated specification										
VHL	-0.094**	-0.141***	-0.065*	-0.065*	-0.075	-0.051	-0.084	-0.019	-0.069*	-0.128
	(0.038)	(0.049)	(0.037)	(0.038)	(0.050)	(0.043)	(0.055)	(0.036)	(0.041)	(0.118)
HL	-0.064	-0.044	-0.090	0.014	-0.053	-0.050	-0.078	-0.012	-0.074	-0.168
	(0.076)	(0.102)	(0.073)	(0.077)	(0.082)	(0.067)	(0.090)	(0.059)	(0.102)	(0.204)
V	-0.157**	-0.152	-0.117	-0.072	-0.102	-0.046	-0.190**	-0.057	-0.219**	-0.343*
	(0.075)	(0.103)	(0.073)	(0.069)	(0.082)	(0.071)	(0.087)	(0.057)	(0.099)	(0.181)
p -value for VHL = HL test	0.708	0.343	0.738	0.313	0.796	0.992	0.945	0.909	0.958	0.843
p -value for V = C test	0.036	0.140	0.110	0.297	0.216	0.512	0.029	0.317	0.028	0.060
Panel C: Summary information										
Control group mean	0	2.704	2.749	2.412	3.074	2.786	2.994	2.061	2.463	5.907
# observations in VHL	1,578	1,578	1,578	1,578	1,578	1,578	1,578	1,578	1,578	1,578
# observations in HL	1,549	1,549	1,549	1,549	1,549	1,549	1,549	1,549	1,549	1,549
# observations in V	1,550	1,550	1,550	1,550	1,550	1,550	1,550	1,550	1,550	1,549
# observations in C	1,599	1,599	1,599	1,599	1,599	1,599	1,599	1,599	1,599	1,599

Panels A and B show treatment effect estimates relative to control. Dependent variables are indicated in the column title. Variables have been coded so that more positive numbers correspond to lower perception of chance's ability to determine outcomes in life. See Appendix for details on variable construction. The variables to the right of the first column have not been standardized. Standard errors clustered by community are in parentheses. *, **, and *** indicate *p* -values less than 0.1, 0.05, and 0.01, respectively, for tests relative to the control group.

Appendix Table 22. Life orientation index

	1	2	3	4	5	6	7
	Life orientation index	In uncertain times, I usually expect the best	If something can go wrong for me, it will	I'm always optimistic about my future.	I hardly ever expect things to go my way	I rarely count on good things happening to me	Overall, I expect more good things to happen to me than bad
Panel A: Pooled specification							
Any V	-0.050*	-0.005	-0.081**	0.015	-0.062**	-0.008	0.002
	(0.027)	(0.017)	(0.041)	(0.018)	(0.026)	(0.029)	(0.020)
Any HL	0.016	0.006	-0.013	0.005	-0.031	0.029	0.047**
	(0.027)	(0.017)	(0.041)	(0.019)	(0.026)	(0.029)	(0.020)
Panel B: Disaggregated specification							
VHL	-0.034	0.002	-0.094*	0.020	-0.093**	0.023	0.048
	(0.037)	(0.028)	(0.056)	(0.026)	(0.036)	(0.037)	(0.029)
HL	-0.046	0.052	-0.111	0.011	-0.086	-0.066	0.072
	(0.068)	(0.048)	(0.089)	(0.046)	(0.071)	(0.107)	(0.052)
V	-0.103	0.043	-0.171*	0.030	-0.110*	-0.099	0.024
	(0.069)	(0.048)	(0.093)	(0.043)	(0.065)	(0.101)	(0.050)
p -value for VHL = HL test	0.862	0.316	0.854	0.857	0.917	0.415	0.637
p -value for V = C test	0.132	0.372	0.065	0.494	0.089	0.326	0.633
Panel C: Summary information							
Control group mean	0	4.382	3.009	4.423	2.216	2.435	4.283
# observations in VHL	1,578	1,578	1,578	1,578	1,578	1,578	1,578
# observations in HL	1,549	1,549	1,549	1,549	1,549	1,549	1,549
# observations in V	1,550	1,550	1,550	1,550	1,550	1,550	1,550
# observations in C	1,599	1,599	1,599	1,599	1,599	1,599	1,599

Panels A and B show treatment effect estimates relative to control. Dependent variables are indicated in the column title. Variables have been coded so that more positive numbers correspond to more positive expectations. See Appendix for details on variable construction. The variables to the right of the first column have not been standardized. Standard errors clustered by community are in parentheses. *, **, and *** indicate *p* -values less than 0.1, 0.05, and 0.01, respectively, for tests relative to the control group.

Appendix Table 23. Expectations index and optimism index

	1	2	3	4	5	6
	Expectations index	Which step of the life satisfaction ladder do you believe you will be on in 5 years?	Where do you think you will be on the relative economic status ladder 5 years from now?	**Optimism index**	How optimistic are you in general, on a scale of 1 to 7?	How pessimistic are you in general, on a scale of 1 to 7?
Panel A: Pooled specification						
Any V	-0.037	-0.014	-0.136**	0.053**	0.056	0.100**
	(0.025)	(0.065)	(0.059)	(0.024)	(0.039)	(0.042)
Any HL	-0.016	-0.032	-0.026	-0.024	-0.022	-0.049
	(0.025)	(0.069)	(0.059)	(0.024)	(0.038)	(0.042)
Panel B: Disaggregated specification						
VHL	-0.055*	-0.054	-0.160**	0.030	0.036	0.051
	(0.032)	(0.090)	(0.076)	(0.032)	(0.047)	(0.062)
HL	-0.014	0.006	-0.010	-0.007	-0.076	0.057
	(0.056)	(0.139)	(0.147)	(0.061)	(0.105)	(0.096)
V	-0.054	-0.084	-0.119	0.069	0.001	0.203**
	(0.057)	(0.148)	(0.140)	(0.066)	(0.116)	(0.099)
p -value for VHL = HL test	0.468	0.672	0.314	0.541	0.276	0.955
p -value for V = C test	0.344	0.569	0.393	0.298	0.990	0.040
Panel C: Summary information						
Control group mean	0	6.743	4.834	0	5.544	5.398
# observations in VHL	1,542	1,500	1,474	1,578	1,578	1,578
# observations in HL	1,508	1,467	1,444	1,549	1,549	1,549
# observations in V	1,518	1,480	1,465	1,550	1,550	1,550
# observations in C	1,567	1,541	1,494	1,599	1,599	1,599

Panels A and B show treatment effect estimates relative to control. Dependent variables are indicated in the column title. Variables have been coded so that more positive numbers correspond to higher optimism. See Appendix for details on variable construction. The variables in the second, third, fourth, and fifth columns have not been standardized. Standard errors clustered by community are in parentheses. *, **, and *** indicate *p* -values less than 0.1, 0.05, and 0.01, respectively, for tests relative to the control group.

Appendix Table 24. Grit index

	1	2	3	4	5	6	7	8	9
	Grit index	New ideas and projects sometimes distract me from previous ones	Setbacks don't discourage me	I have been obsessed with a certain idea or project for a short time but later lost interest	I am a very hard worker	I often set a goal but later choose to pursue a different one	I have difficulty maintaining my focus on projects that take more than a few months	I finish whatever I begin	I am diligent
Panel A: Pooled specification									
Any V	0.041*	-0.011	0.075***	-0.006	0.082***	-0.040	-0.013	0.059***	0.026
	(0.022)	(0.029)	(0.025)	(0.025)	(0.019)	(0.029)	(0.025)	(0.021)	(0.018)
Any HL	0.017	0.015	-0.030	0.020	0.002	0.006	0.072***	0.001	-0.014
	(0.022)	(0.028)	(0.025)	(0.025)	(0.019)	(0.029)	(0.024)	(0.021)	(0.017)
Panel B: Disaggregated specification									
VHL	0.056*	0.005	0.040	0.015	0.084***	-0.036	0.059*	0.058**	0.011
	(0.029)	(0.037)	(0.035)	(0.030)	(0.027)	(0.037)	(0.032)	(0.028)	(0.025)
HL	0.030	0.024	-0.075	0.048	0.006	-0.019	0.105*	0.029	0.010
	(0.058)	(0.069)	(0.057)	(0.061)	(0.041)	(0.069)	(0.063)	(0.052)	(0.042)
V	0.041	-0.011	0.036	-0.004	0.082**	-0.082	-0.004	0.098**	0.057
	(0.058)	(0.075)	(0.058)	(0.063)	(0.041)	(0.065)	(0.062)	(0.048)	(0.040)
p -value for VHL = HL test	0.671	0.782	0.045	0.591	0.064	0.809	0.474	0.587	0.974
p -value for V = C test	0.484	0.882	0.528	0.954	0.046	0.211	0.953	0.043	0.156
Panel C: Summary information									
Control group mean	0	3.148	3.499	3.120	4.241	3.193	3.071	4.249	4.422
# observations in VHL	1,578	1,578	1,578	1,578	1,578	1,578	1,578	1,578	1,578
# observations in HL	1,549	1,549	1,549	1,549	1,549	1,549	1,549	1,549	1,549
# observations in V	1,550	1,550	1,550	1,550	1,550	1,550	1,550	1,550	1,550
# observations in C	1,599	1,599	1,599	1,599	1,599	1,599	1,599	1,599	1,599

Panels A and B show treatment effect estimates relative to control. Dependent variables are indicated in the column title. Variables have been coded so that more positive numbers correspond to more grit. See Appendix for details on variable construction. The variables to the right of the first column have not been standardized. Standard errors clustered by community are in parentheses. *, **, and *** indicate *p* -values less than 0.1, 0.05, and 0.01, respectively, for tests relative to the control group.

Appendix Table 25. Self-control index

	1	2	3	4	5	6	7	8	9	10	11
	Self control index	I have a hard time breaking bad habits	I get distracted easily	I say inappropriate things	I refuse things that are bad for me, even if they are fun.	I'm good at resisting temptation	People would say that I have very strong self-discipline	Pleasure and fun sometimes keep me from getting work done	I do things that feel good in the moment but regret later on	Sometimes I can't stop myself from doing something, even if I know it's wrong	I often act without thinking through all the alternatives
Panel A: Pooled specification											
Any V	-0.034*	-0.043	-0.003	-0.026	0.019	-0.097***	-0.060**	0.014	-0.041	-0.004	-0.008
	(0.021)	(0.026)	(0.026)	(0.030)	(0.026)	(0.029)	(0.027)	(0.026)	(0.028)	(0.029)	(0.028)
Any HL	0.006	-0.036	-0.023	-0.020	0.039	-0.008	0.009	0.054**	0.008	0.027	-0.008
	(0.020)	(0.026)	(0.026)	(0.030)	(0.026)	(0.029)	(0.027)	(0.026)	(0.028)	(0.029)	(0.028)
Panel B: Disaggregated specification											
VHL	-0.027	-0.076**	-0.026	-0.045	0.057	-0.103**	-0.050	0.068**	-0.028	0.026	-0.015
	(0.025)	(0.037)	(0.039)	(0.037)	(0.038)	(0.040)	(0.036)	(0.030)	(0.034)	(0.038)	(0.032)
HL	0.039	-0.046	-0.030	-0.022	0.060	0.019	0.005	0.153**	0.063	0.073	0.008
	(0.047)	(0.062)	(0.065)	(0.067)	(0.077)	(0.079)	(0.069)	(0.068)	(0.064)	(0.056)	(0.064)
V	-0.001	-0.050	-0.018	-0.026	0.018	-0.062	-0.050	0.100	0.019	0.049	0.012
	(0.050)	(0.063)	(0.061)	(0.072)	(0.078)	(0.081)	(0.065)	(0.073)	(0.063)	(0.056)	(0.066)
p -value for VHL = HL test	0.155	0.615	0.957	0.728	0.962	0.103	0.436	0.198	0.153	0.442	0.722
p -value for V = C test	0.980	0.429	0.772	0.717	0.819	0.444	0.440	0.171	0.768	0.384	0.855
Panel C: Summary information											
Control group mean	0	3.032	2.863	3.014	3.135	3.358	3.219	3.136	2.947	2.961	2.946
# observations in VHL	1,578	1,578	1,578	1,578	1,578	1,578	1,578	1,578	1,578	1,578	1,578
# observations in HL	1,549	1,549	1,549	1,549	1,549	1,549	1,549	1,549	1,549	1,549	1,549
# observations in V	1,550	1,550	1,550	1,550	1,550	1,550	1,550	1,550	1,550	1,550	1,550
# observations in C	1,599	1,599	1,599	1,599	1,599	1,599	1,599	1,599	1,599	1,599	1,599

Panels A and B show treatment effect estimates relative to control. Dependent variables are indicated in the column title. Variables have been coded so that more positive numbers correspond to more self-control. See Appendix for details on variable construction. The variables to the right of the first column have not been standardized. Standard errors clustered by community are in parentheses. *, **, and *** indicate *p* -values less than 0.1, 0.05, and 0.01, respectively, for tests relative to the control group.

Appendix Table 26. Salvation by grace belief index

	1	2	3	4
	Salvation by grace belief index	If I am good enough, God will cleanse me of my sins	I follow God's laws so that I can go to heaven	I will go to heaven because I have accepted Jesus Christ as my personal savior
Panel A: Pooled specification				
Any V	-0.036*	-0.059***	-0.052***	0.019*
	(0.020)	(0.020)	(0.016)	(0.011)
Any HL	-0.005	-0.016	-0.006	0.003
	(0.020)	(0.020)	(0.016)	(0.011)
Panel B: Disaggregated specification				
VHL	-0.040	-0.073**	-0.057***	0.022
	(0.026)	(0.032)	(0.022)	(0.014)
HL	-0.021	-0.060	-0.037	0.019
	(0.045)	(0.042)	(0.039)	(0.024)
V	-0.061	-0.100**	-0.085**	0.029
	(0.041)	(0.039)	(0.036)	(0.026)
p -value for VHL = HL test	0.696	0.792	0.616	0.901
p -value for V = C test	0.143	0.011	0.019	0.268
Panel C: Summary information				
Control group mean	0	1.386	1.358	0.559
# observations in VHL	1,578	1,473	1,473	1,578
# observations in HL	1,549	1,457	1,457	1,549
# observations in V	1,550	1,455	1,455	1,550
# observations in C	1,599	1,515	1,515	1,599

Panels A and B show treatment effect estimates relative to control. Dependent variables are indicated in the column title. Variables have been coded so that more positive numbers correspond to greater belief in the doctrine of salvation by grace. See Appendix for details on variable construction. The variables to the right of the first column have not been standardized. Standard errors clustered by community are in parentheses. *, **, and *** indicate *p* -values less than 0.1, 0.05, and 0.01, respectively, for tests relative to the control group.

Appendix Table 27. Assets index

	1	2	3	4	5	6	7	8	9	10	11	12
	Assets index	Number of productive assets	Value of productive assets	Number of house assets	Value of house assets	Number of productive assets acquired in last 6 months	Value of productive assets acquired in last 6 months	Number of house assets acquired in last 6 months	Value of the house assets acquired in last 6 months	Money set aside in savings	Chance that would have 40 PHP available for urgent need	Chance that would have 1,000 PHP available for urgent need
Panel A: Pooled specification												
Any V	-0.027	-0.178***	-58.34	-0.048	305.0	-0.016**	-4.034	-0.055	-204.5	-13.58	0.081***	0.015
	(0.021)	(0.047)	(66.27)	(0.108)	(607.3)	(0.007)	(5.702)	(0.041)	(215.0)	(44.97)	(0.027)	(0.024)
Any HL	-0.025	-0.042	-129.64*	-0.080	429.3	-0.004	0.974	-0.001	-0.2	-30.47	-0.016	-0.037
	(0.021)	(0.048)	(67.01)	(0.110)	(627.3)	(0.008)	(5.771)	(0.041)	(213.1)	(43.29)	(0.027)	(0.024)
Panel B: Disaggregated specification												
VHL	-0.050	-0.218***	-185.4*	-0.129	755.6	-0.020**	-3.049	-0.055	-209.2	-38.51	0.067*	-0.019
	(0.031)	(0.056)	(96.90)	(0.162)	(901.3)	(0.010)	(7.374)	(0.047)	(320.6)	(71.37)	(0.037)	(0.030)
HL	0.014	-0.011	-138.0	0.383	1,165.1	-0.006	15.807	0.034	-16.0	-153.54	0.008	-0.033
	(0.057)	(0.162)	(191.1)	(0.265)	(1,212)	(0.023)	(16.81)	(0.118)	(497.0)	(99.2)	(0.063)	(0.060)
V	0.008	-0.163	-61.5	0.374	1,139.7	-0.020	10.288	-0.040	-208.4	-144.67	0.100*	0.032
	(0.060)	(0.164)	(208.2)	(0.266)	(1,166)	(0.023)	(17.55)	(0.113)	(493.4)	(106.3)	(0.056)	(0.055)
p -value for VHL = HL test	0.265	0.193	0.795	0.056	0.746	0.557	0.278	0.465	0.698	0.202	0.352	0.818
p -value for V = C test	0.899	0.322	0.768	0.161	0.329	0.397	0.558	0.722	0.673	0.174	0.079	0.556
Panel C: Summary information												
Control group mean	0	1.877	1,217	6.621	12,300	0.211	81.83	1.348	3,046	601.5	3.415	1.888
# observations in VHL	1,578	1,578	1,578	1,578	1,578	1,578	1,578	1,578	1,578	1,567	1,578	1,578
# observations in HL	1,549	1,549	1,549	1,549	1,549	1,549	1,549	1,549	1,549	1,529	1,549	1,549
# observations in V	1,550	1,550	1,550	1,550	1,550	1,550	1,550	1,550	1,550	1,537	1,550	1,550
# observations in C	1,599	1,599	1,599	1,599	1,599	1,599	1,599	1,599	1,599	1,581	1,599	1,599

Panels A and B show treatment effect estimates relative to control. Dependent variables are indicated in the column title. Variables have been coded so that more positive numbers correspond to more assets. Variables denoting monetary value are quoted in Philippine pesos. See Appendix for details on variable construction. The variables to the right of the first column have not been standardized. Standard errors clustered by community are in parentheses. *, **, and *** indicate *p* -values less than 0.1, 0.05, and 0.01, respectively, for tests relative to the control group.

Appendix Table 28. Financial inclusion index

	1	2	3	4
	Financial inclusion index	Do you or anyone in your household currently have money set aside as savings?	Do you -- by yourself or with other people -- currently have an account at a bank?	Have you made a deposit at a financial institution in the past 6 months?
Panel A: Pooled specification				
Any V	0.020	0.002	0.005	0.006
	(0.024)	(0.009)	(0.009)	(0.006)
Any HL	0.157***	0.052***	0.036***	0.027***
	(0.025)	(0.010)	(0.009)	(0.006)
Panel B: Disaggregated specification				
VHL	0.179***	0.055***	0.042***	0.033***
	(0.038)	(0.015)	(0.012)	(0.009)
HL	0.124**	0.029	0.038*	0.019
	(0.048)	(0.024)	(0.021)	(0.013)
V	-0.010	-0.025	0.014	-0.003
	(0.044)	(0.022)	(0.018)	(0.012)
p -value for VHL = HL test	0.297	0.288	0.852	0.300
p -value for V = C test	0.811	0.267	0.435	0.811
Panel C: Summary information				
Control group mean	0	0.265	0.143	0.059
# observations in VHL	1,578	1,578	1,504	1,493
# observations in HL	1,549	1,549	1,486	1,456
# observations in V	1,550	1,550	1,482	1,459
# observations in C	1,599	1,599	1,522	1,507

Panels A and B show treatment effect estimates relative to control. Dependent variables are indicated in the column title. Variables have been coded so that more positive numbers correspond to more financial inclusion. See Appendix for details on variable construction. The variables to the right of the first column have not been standardized. Standard errors clustered by community are in parentheses. *, **, and *** indicate *p* -values less than 0.1, 0.05, and 0.01, respectively, for tests relative to the control group.

Appendix Table 29. Health index

	1	2	3	4
	Health index	Negative of number of serious health events in the household (last 6 months)	Negative of number of household members that have suffered an illness that has kept them from working (last 30 days)	Negative of total number of workdays missed due to illness (last 30 days)
Panel A: Pooled specification				
Any V	0	-0.024	0.003	0.166
	(0.020)	(0.015)	(0.008)	(0.105)
Any HL	0.015	0.019	0.002	0.049
	(0.020)	(0.015)	(0.008)	(0.109)
Panel B: Disaggregated specification				
VHL	0.015	-0.005	0.005	0.210
	(0.028)	(0.023)	(0.011)	(0.137)
HL	-0.027	0.024	-0.017	-0.293
	(0.042)	(0.027)	(0.018)	(0.215)
V	-0.044	-0.020	-0.016	-0.203
	(0.041)	(0.032)	(0.016)	(0.215)
p -value for VHL = HL test	0.334	0.318	0.263	0.018
p -value for V = C test	0.285	0.523	0.319	0.345
Panel C: Summary information				
Control group mean	0	-0.313	-0.125	-1.247
# observations in VHL	1,578	1,577	1,527	1,527
# observations in HL	1,549	1,548	1,519	1,517
# observations in V	1,550	1,548	1,512	1,510
# observations in C	1,599	1,590	1,563	1,561

Panels A and B show treatment effect estimates relative to control. Dependent variables are indicated in the column title. Variables have been coded so that more positive numbers correspond to better health. See Appendix for details on variable construction. The variables to the right of the first column have not been standardized. Standard errors clustered by community are in parentheses. *, **, and *** indicate *p* -values less than 0.1, 0.05, and 0.01, respectively, for tests relative to the control group.

Appendix Table 30. Hygiene indices

	1	2	3	4	5	6
	Hygiene index - non-list randomized	Animals kept in sanitary way	No household members practice open defecation	**Hygiene index - list randomized**	I wash my hands after going to the bathroom (list randomized)	I treat my water before drinking it (list randomized)
Panel A: Pooled specification						
Any V	0.092***	0.024**	0.038***	0.043	0.032	0.055
	(0.024)	(0.010)	(0.011)	(0.033)	(0.041)	(0.044)
Any HL	0.030	-0.001	0.022*	0.066**	0.041	0.092**
	(0.024)	(0.010)	(0.011)	(0.033)	(0.041)	(0.044)
Panel B: Disaggregated specification						
VHL	0.121***	0.022	0.060***	0.108**	0.072	0.144**
	(0.034)	(0.014)	(0.016)	(0.049)	(0.058)	(0.065)
HL	0.136*	0.037	0.055*	0.121***	0.096*	0.146**
	(0.070)	(0.027)	(0.031)	(0.043)	(0.058)	(0.057)
V	0.208***	0.066**	0.074***	0.105**	0.086	0.124**
	(0.067)	(0.027)	(0.028)	(0.045)	(0.055)	(0.060)
p -value for VHL = HL test	0.836	0.588	0.870	0.779	0.694	0.976
p -value for V = C test	0.002	0.016	0.009	0.020	0.116	0.040
Panel C: Summary information						
Control group mean	0	0.700	0.648	0.606	0.657	0.555
# observations in VHL	1578	1578	1578	1578	1578	1578
# observations in HL	1549	1549	1549	1549	1549	1549
# observations in V	1550	1550	1550	1550	1550	1550
# observations in C	1599	1599	1599	1599	1599	1599

Panels A and B show treatment effect estimates relative to control. Dependent variables are indicated in the column title. Variables have been coded so that more positive numbers correspond to better hygiene. See Appendix for details on variable construction. The variables to the right of the first column have not been standardized. Standard errors clustered by community are in parentheses. *, **, and *** indicate *p* -values less than 0.1, 0.05, and 0.01, respectively, for tests relative to the control group.

Appendix Table 31: House index

	1	2	3	4	5	6	7
	House index	All rooms leak-free	At least some rooms leak-free	All rooms able to be safely locked	At least some rooms able to be safely locked	Primary energy source for lighting is electricity	Primary latrine is inside the house
Panel A: Pooled specification							
Any V	0.030	0.003	0.002	-0.011	0.004	0.014	0.020**
	(0.025)	(0.010)	(0.007)	(0.011)	(0.010)	(0.013)	(0.009)
Any HL	0.007	0.005	-0.008	0.004	0.004	0.004	0.002
	(0.025)	(0.010)	(0.007)	(0.011)	(0.010)	(0.013)	(0.009)
Panel B: Disaggregated specification							
VHL	0.036	0.008	-0.006	-0.008	0.008	0.018	0.022*
	(0.036)	(0.014)	(0.009)	(0.014)	(0.014)	(0.019)	(0.012)
HL	0.045	-0.027	0.013	0.000	-0.000	0.041	0.022
	(0.059)	(0.021)	(0.017)	(0.023)	(0.025)	(0.036)	(0.019)
V	0.068	-0.028	0.021	-0.019	-0.002	0.055	0.041**
	(0.060)	(0.021)	(0.016)	(0.023)	(0.026)	(0.034)	(0.018)
p -value for VHL = HL test	0.879	0.107	0.282	0.729	0.734	0.515	0.988
p -value for V = C test	0.258	0.178	0.199	0.418	0.947	0.111	0.020
Panel C: Summary information							
Control group mean	0	0.320	0.871	0.275	0.580	0.665	0.109
# observations in VHL	1,578	1,578	1,578	1,578	1,578	1,578	1,578
# observations in HL	1,549	1,549	1,549	1,549	1,549	1,549	1,549
# observations in V	1,550	1,550	1,550	1,550	1,550	1,550	1,550
# observations in C	1,599	1,599	1,599	1,599	1,599	1,599	1,599

Panels A and B show treatment effect estimates relative to control. Dependent variables are indicated in the column title. Variables have been coded so that more positive numbers correspond to better house quality. See Appendix for details on variable construction. The variables to the right of the first column have not been standardized. Standard errors clustered by community are in parentheses. *, **, and *** indicate *p* -values less than 0.1, 0.05, and 0.01, respectively, for tests relative to the control group.

Appendix Table 32: Migration and remittance index

	1	2	3	4	5	6
	Migration and remittance index	Number of migrators in the household	Number of days migrators were away (last 6 months)	Number of migrators who sent remittances or brought money home (last 6 months)	Household had at least one migrator send remittances or bring money home (last 6 months)	Amount received in remittances or cash brought home (PHP - last 6 months)
Panel A: Pooled specification						
Any V	0.027	0.022**	1.565*	0.007	0.003	10.13
	(0.019)	(0.010)	(0.891)	(0.008)	(0.006)	(77.68)
Any HL	-0.015	-0.002	-0.458	-0.008	-0.005	-78.91
	(0.019)	(0.010)	(0.884)	(0.008)	(0.006)	(70.71)
Panel B: Disaggregated specification						
VHL	0.012	0.021	1.081	-0.001	-0.002	-73.88
	(0.031)	(0.015)	(1.470)	(0.013)	(0.009)	(110.1)
HL	-0.083**	-0.036**	-2.356	-0.031*	-0.028***	-124.15
	(0.038)	(0.018)	(2.009)	(0.016)	(0.011)	(175.4)
V	-0.039	-0.010	-0.522	-0.014	-0.020*	-27.00
	(0.039)	(0.019)	(1.967)	(0.016)	(0.012)	(174.9)
p -value for VHL = HL test	0.017	0.003	0.086	0.070	0.021	0.755
p -value for V = C test	0.317	0.596	0.791	0.360	0.094	0.877
Panel C: Summary information						
Control group mean	0	0.176	12.680	0.141	0.104	709.500
# observations in VHL	1,578	1,578	1,568	1,574	1,572	1,504
# observations in HL	1,549	1,549	1,540	1,547	1,545	1,515
# observations in V	1,550	1,550	1,543	1,549	1,548	1,503
# observations in C	1,599	1,599	1,583	1,597	1,593	1,549

Panels A and B show treatment effect estimates relative to control. Dependent variables are indicated in the column title. Variables have been coded so that more positive numbers correspond to higher migration and remittances. See Appendix for details on variable construction. The variables to the right of the first column have not been standardized. Standard errors clustered by community are in parentheses. *, **, and *** indicate *p* -values less than 0.1, 0.05, and 0.01, respectively, for tests relative to the control group.

Appendix Table 33. No discord index and no domestic violence

	1	2	3	4	5	6	7	8
		During the last 1 month, did you have any major arguments with your spouse or partner over… (higher = fewer arguments)						
	No discord index	Spending on major household items or assets?	Saving decisions?	The behavior and disciplining of children?	Interactions with relatives?	Alcohol consumption?	Any other issues?	**Someone in my household is experiencing physical abuse (list randomization - higher = less abuse)**
Panel A: Pooled specification								
Any V	-0.034	-0.002	-0.007	-0.003	-0.022***	-0.012	-0.003	-0.072*
	(0.024)	(0.011)	(0.011)	(0.012)	(0.008)	(0.009)	(0.009)	(0.040)
Any HL	-0.029	-0.029***	0.002	-0.011	-0.012	-0.001	0.004	-0.048
	(0.024)	(0.011)	(0.011)	(0.012)	(0.008)	(0.009)	(0.008)	(0.040)
Panel B: Disaggregated specification								
VHL	-0.063*	-0.030*	-0.004	-0.013	-0.034***	-0.014	0.001	-0.118**
	(0.036)	(0.016)	(0.015)	(0.016)	(0.011)	(0.014)	(0.011)	(0.055)
HL	-0.036	-0.036	-0.006	-0.025	0.007	0.010	-0.012	-0.081
	(0.052)	(0.023)	(0.022)	(0.024)	(0.016)	(0.021)	(0.019)	(0.058)
V	-0.049	-0.013	-0.017	-0.017	-0.008	0.001	-0.021	-0.120**
	(0.049)	(0.021)	(0.020)	(0.024)	(0.016)	(0.019)	(0.020)	(0.061)
p -value for VHL = HL test	0.617	0.799	0.942	0.627	0.013	0.257	0.473	0.509
p -value for V = C test	0.326	0.538	0.403	0.482	0.606	0.977	0.316	0.050
Panel C: Summary information								
Control group mean	0	0.716	0.745	0.530	0.859	0.782	0.826	0.903
# observations in VHL	1,267	1,266	1,267	1,266	1,267	1,266	1,266	1,579
# observations in HL	1,297	1,297	1,297	1,297	1,295	1,296	1,295	1,550
# observations in V	1,263	1,262	1,262	1,261	1,263	1,263	1,262	1,551
# observations in C	1,331	1,330	1,331	1,331	1,331	1,331	1,330	1,600

Panels A and B show treatment effect estimates relative to control. Dependent variables are indicated in the column title. Variables have been coded so that more positive numbers correspond to less discord and abuse. See Appendix for details on variable construction. The variables to the right of the first column have not been standardized. Standard errors clustered by community are in parentheses. *, **, and *** indicate *p* -values less than 0.1, 0.05, and 0.01, respectively, for tests relative to the control group.

Appendix Table 34. Child labor supply and and children enrolled in school

	1	2	3	4	5	6	7	8
	Child labor supply (hours)	Hours in agricultural labor (last 7 days)	Hours in livestock and fishing (last 7 days)	Hours in formal employment (last 7 days)	Hours in self employment (last 7 days)	Hours in daily labor (last 7 days)	Hours in employment with unclear formality (last 7 days)	**Number of children enrolled in school**
Panel A: Pooled specification								
Any V	0.244	0.015	-0.047	0.006	-0.049	0.268	0.051	-0.018
	(0.215)	(0.104)	(0.042)	(0.045)	(0.032)	(0.173)	(0.032)	(0.020)
Any HL	0.013	-0.083	0.013	-0.024	-0.042	0.194	-0.045	-0.018
	(0.220)	(0.104)	(0.041)	(0.045)	(0.031)	(0.178)	(0.032)	(0.020)
Panel B: Disaggregated specification								
VHL	0.264	-0.077	-0.031	-0.019	-0.087*	0.475*	0.004	-0.035
	(0.318)	(0.134)	(0.045)	(0.051)	(0.046)	(0.277)	(0.043)	(0.027)
HL	-0.074	-0.014	0.032	0.025	-0.020	-0.055	-0.043	-0.019
	(0.376)	(0.192)	(0.080)	(0.091)	(0.081)	(0.281)	(0.039)	(0.043)
V	0.116	0.025	-0.033	0.057	-0.020	0.033	0.055	-0.019
	(0.406)	(0.232)	(0.075)	(0.087)	(0.079)	(0.328)	(0.070)	(0.042)
p -value for VHL = HL test	0.404	0.750	0.398	0.624	0.343	0.075	0.275	0.688
p -value for V = C test	0.775	0.913	0.656	0.512	0.797	0.920	0.439	0.657
Panel C: Summary information								
Control group mean	1.555	0.437	0.075	0.066	0.094	0.846	0.038	1.896
# observations in VHL	1,452	1,452	1,452	1,452	1,452	1,452	1,452	1,366
# observations in HL	1,439	1,439	1,439	1,439	1,439	1,439	1,439	1,341
# observations in V	1,434	1,434	1,434	1,434	1,434	1,434	1,434	1,365
# observations in C	1,490	1,490	1,490	1,490	1,490	1,490	1,490	1,410

Panels A and B show treatment effect estimates relative to control. Dependent variables are indicated in the column title. See Appendix for details on variable construction. Standard errors clustered by community are in parentheses. *, **, and *** indicate *p* -values less than 0.1, 0.05, and 0.01, respectively, for tests relative to the control group.

Appendix Table 35. Consumption of temptation goods

	1	2
	Consumption of alcoholic beverages (last week × 30 / 7, PHP)	Consumption of cigarettes (last week × 30 / 7, PHP)
Panel A: Pooled specification		
Any V	-1.994	0.125
	(1.545)	(1.468)
Any HL	3.984**	-1.038
	(1.555)	(1.469)
Panel B: Disaggregated specification		
VHL	2.032	-0.824
	(2.220)	(2.093)
HL	1.632	1.341
	(3.539)	(3.345)
V	-3.567	2.647
	(2.557)	(3.327)
p -value for VHL = HL test	0.913	0.525
p -value for V = C test	0.1640	0.4268
Panel C: Summary information		
Control group mean	21.88	36.79
# observations in VHL	1,566	1,556
# observations in HL	1,531	1,510
# observations in V	1,528	1,502
# observations in C	1,582	1,566

Panels A and B show treatment effect estimates relative to control. Dependent variables are indicated in the column title. See Appendix for details on variable construction. Standard errors clustered by community are in parentheses. *, **, and *** indicate *p* -values less than 0.1, 0.05, and 0.01, respectively, for tests relative to the control group.

Appendix Table 36: Income treatment effect robustness checks

	1	2	3	4
	Monthly income (PHP)	Monthly income (PHP) - winsorized 99th percentile	Monthly income (PHP) - winsorized 95th percentile	Log of monthly income (PHP)
Panel A: Pooled specification				
Any V	386.1***	356.4***	276.9***	0.102***
	(126.8)	(100.9)	(80.28)	(0.023)
	[0.016]	[0.003]	[0.004]	[0.001]
Any HL	131.2	83.5	26.0	-0.005
	(126.3)	(100.3)	(80.10)	(0.023)
Panel B: Disaggregated specification				
VHL	524.4***	441.2***	301.6***	0.097***
	(175.0)	(141.9)	(112.1)	(0.032)
HL	287.9	287.0	288.8	0.045
	(278.4)	(226.1)	(186.0)	(0.056)
V	574.2**	591.3**	565.2***	0.154***
	(285.4)	(230.2)	(186.8)	(0.053)
p -value for VHL = HL test	0.390	0.494	0.945	0.343
q -value for VHL = HL test	--	--	--	--
p -value for V = C test	0.045	0.011	0.003	0.004
q -value for V = C test	[0.271]	[0.065]	[0.017]	[0.024]
Panel C: summary information				
Control group mean	4,213	4,095	3,831	7.962
# observations in VHL	1,452	1,452	1,452	1,353
# observations in HL	1,440	1,440	1,440	1,359
# observations in V	1,435	1,435	1,435	1,349
# observations in C	1,490	1,490	1,490	1,393

Panels A and B show treatment effect estimates relative to control. See Appendix for details on variable construction. The dependent variable is shown in the columns. Standard errors clustered by community are in parentheses, and *q* -values are in brackets. The *q* -values in Panel A are for tests of effects relative to the control group. The *q* -values in each column represent what the *q* -value on the income treatment effect would be if the effect on income as defined in the column heading were tested along with the other primary economic outcomes. The *q* -values in a given column are computed independently of the *q* -values in the other columns. *, **, and *** indicate *p* -values less than 0.1, 0.05, and 0.01, respectively, for tests relative to the control group.

Appendix Table 37. Summary statistics on religious affiliation by treatment group

Treatment group	Religion	mean	sd	min	max
C	Catholic	0.700	0.458	0	1
	Muslim	0.008	0.087	0	1
	Iglesia Filipina Independiente	0.022	0.147	0	1
	Iglesia Ni Cristo	0.009	0.097	0	1
	Jehovah's Witness	0.006	0.079	0	1
	Protestant (Evangelical, Baptist, etc.)	0.209	0.407	0	1
	Mormon	0.003	0.056	0	1
	Other	0.042	0.201	0	1
V	Catholic	0.689	0.463	0	1
	Muslim	0.005	0.072	0	1
	Iglesia Filipina Independiente	0.018	0.134	0	1
	Iglesia Ni Cristo	0.023	0.151	0	1
	Jehovah's Witness	0.001	0.036	0	1
	Protestant (Evangelical, Baptist, etc.)	0.206	0.405	0	1
	Mormon	0.002	0.044	0	1
	Other	0.055	0.227	0	1
HL	Catholic	0.712	0.453	0	1
	Muslim	0.002	0.044	0	1
	Iglesia Filipina Independiente	0.007	0.084	0	1
	Iglesia Ni Cristo	0.020	0.141	0	1
	Jehovah's Witness	0	0	0	0
	Protestant (Evangelical, Baptist, etc.)	0.200	0.400	0	1
	Mormon	0.003	0.051	0	1
	Other	0.056	0.230	0	1
VHL	Catholic	0.665	0.472	0	1
	Muslim	0.001	0.036	0	1
	Iglesia Filipina Independiente	0.036	0.186	0	1
	Iglesia Ni Cristo	0.016	0.125	0	1
	Jehovah's Witness	0.003	0.050	0	1
	Protestant (Evangelical, Baptist, etc.)	0.213	0.410	0	1
	Mormon	0.003	0.056	0	1
	Other	0.064	0.244	0	1
Total	Catholic	0.692	0.462	0	1
	Muslim	0.004	0.063	0	1
	Iglesia Filipina Independiente	0.021	0.143	0	1
	Iglesia Ni Cristo	0.017	0.130	0	1
	Jehovah's Witness	0.003	0.051	0	1
	Protestant (Evangelical, Baptist, etc.)	0.207	0.405	0	1
	Mormon	0.003	0.052	0	1
	Other	0.054	0.226	0	1

These summary statistics are calculated using only the religious affiliation of survey respondents (and not of other household members). The statistics exclude five community pairs that did not comply with their treatment assignment.

Appendix Table 38: Treatment effects on probability of identifying as Catholic or Protestant

	1	2
	Catholic (dummy)	Protestant (dummy)
Panel A: Pooled specification		
Any V	-0.027*	0.004
	(0.015)	(0.012)
Any HL	-0.004	-0.004
	(0.015)	(0.013)
Panel B: Simple specification		
Values, Health and Livelihood (VHL)	-0.032	0.000
	(0.020)	(0.016)
Health and Livelihood (HL)	0.007	-0.004
	(0.039)	(0.035)
Values (V)	-0.017	0.003
	(0.038)	(0.032)
p -value for VHL = HL test	0.334	0.910
p -value for V = C test	0.654	0.920
Panel C: summary information		
Control group mean	0.700	0.209
Number of observations in VHL	1,568	1,568
Number of observations in HL	1,537	1,537
Number of observations in V	1,539	1,539
Number of observations in C	1,585	1,585

Panels A and B show treatment effect estimates relative to control. The dependent variable is either an indicator variable for the survey respondent self-identifying as Catholic or the survey respondent self-identifying as Protestant, as indicated in the column title.See Appendix for details on variable construction. Standard errors clustered by community are in parentheses, and q-values are in brackets. *, **, and *** indicate p-values less than 0.1, 0.05, and 0.01, respectively, for tests relative to the control group.