



## **Does Religiosity Explain Cross-National Differences in Crime?**

### **The Case of American Versus Malaysian University Students**

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#### **Abstract**

Based on self-report data of college students from Malaysia (N = 1,359) and the United States (N = 1,629), crime rates of the two samples are compared. Criminal behavior is much more common in the American sample despite the country's greater wealth. Negative binomial regression analysis reveals that the lower alcohol consumption and especially the greater religiosity of the Malaysian students help explain their lower crime rate. Theoretical implications, study limitations, and avenues for future research are discussed.

Keywords: religiosity, alcohol consumption, crime, violence, comparative research

#### **Introduction**

Research aimed at explaining cross-national variation in criminal behavior has typically focused on economic differences among countries. An exhaustive meta-analysis found that socioeconomic development and income inequality have been investigated more than any other factors as national level predictors of crime (Nivette). Theoretical developments have followed the same trend. Institutional anomie theory, a leading example, claims that countries will experience high rates of crime if citizens are not protected from the criminogenic forces of an unfettered market economy (Messner and Rosenfeld).

While there is abundant international research that suggests that economic forces do indeed affect crime (Nivette), relying solely on economic explanations seems a bit incomplete, and ignores other salient factors, especially in the case of the United States. Despite its high standard of living and its dramatic decline in violent crime, almost half of the world's nations have lower homicide rates and lower rates of other crimes than the U.S., and many of those countries are characterized by poverty and inequality (United Nations Office on Drugs and Crime). Malaysia, the developing country that will be the comparative focus of the present study, for example, has a homicide rate less than half that of the United States (2.3 versus 4.7 homicides per 100,000 population).

Criminological research has revealed that many non-economic factors influence crime. Among these are academic performance, family structure, and family dysfunction (Junger-Tas, Marshall, and Ribeaud; Farrington). While research on the link between religiosity and delinquency is underdeveloped, a recent meta-analysis reported a moderate, negative relationship, especially with drug use (Kelly et al.). Many studies to date conclude that the religiosity-crime link is modest in magnitude, or that its effects are indirectly associated via other behaviors such as alcohol use (Baier). Religiosity, however, has also mediated the effect of other variables. Jensen (2006), for example, in a study of 41 countries, found that the associations between income inequality and social welfare, on the one hand, and the rate of homicide, on the other, fell to non-significance after controlling for measures of religiosity.

When examining the impact of religious commitment, research has also pointed to the importance of the type of crime studied. Baier and Wright (2001) reported that the deterrent effects of religion on crime are greatest when examining victimless crime as opposed to person or property offenses.

The current study explores data on criminal behavior collected from college students in both the United States and Malaysia in an analysis aimed at explaining why a low-income country like Malaysia has a much lower crime rate than the U.S. More specifically, the current study utilizes an approach similar to that of Baron and Kenney where a dummy variable for the United States and Malaysia is an independent variable predicting 1) self-reported crime involvement and 2) a measure of the variety of criminal behaviors called "crime versatility." Several control measures, including a religiosity index, are entered into a step-wise regression analysis to examine their effects on the association between country and crime. Relevant research is reviewed, competing hypotheses are described, and results are reported that suggest that the greater religious involvement of Malaysians explains, in part, their lower levels of criminality.

### **Cross-National Research on Religiosity and Crime**

In the foundational period of sociology, serious attention was devoted to the role that religion plays in society. In a classical study of the social sources of suicide, Durkheim observed that countries with high levels of religious integration tended to have both low levels of suicide and high rates of homicide. He concluded that homicide was inseparable from intense emotions and that religion was an important source of this intensity. Subsequent cross-national research drifted away from a religio-cultural focus, and while the individual-level research on religiosity and crime is now more developed (Kelly et al.), the international literature remains limited. In addition, while micro-level research clearly shows a negative association between

measures of religiosity and delinquency (Kelly et al.), the cross-national research picture is mixed. In fact, a number of studies suggest that, consistent with Durkheim's view of homicide, religion *increases* crime.

In a study by Chon of 83 countries, the importance of God and religion was positively related to homicide. Religious service attendance, by contrast, was unrelated to homicide rates. According to a study of 18 prosperous countries (Paul), the United States – a comparatively religious country – has a higher homicide rate than all the more secular nations. One cross-national study (Jensen 2001) reported a negative association between the percent of the population who are members of some denomination and the homicide rate, but the direction of the relationship turned to positive if the country was characterized by an absolutist definition of good and evil.

In another international study by Jensen (2006), the direction of the relationship between religiosity and homicide depended on the form of religious belief and practice. Specifically, countries with greater proportions of people who feel that religion is personally very important or who believe in Hell and the Devil tended to have higher rates of homicide. By contrast, nations with more benign forms of worship – higher levels of church attendance or belief in God or Heaven – experience lower levels of lethal violence. A more recent study reported findings that were just the opposite of Jensen's (Shariff and Rhemtulla). Analyzing a sample of 67 countries, the authors found that the percentage of people who believe in Hell negatively predicts national crime rates whereas belief in Heaven predicts higher crime rates. These effects remained after accounting for several covariates, and the religion measures proved to be more predictive than per capita GDP and income inequality. One important difference in this study is that, unlike Jensen, the authors use an index of ten crimes which is dominated by property crime.

One other cross-national study reported a negative association between religious involvement and criminal behavior, and unlike most studies, it did not limit itself to just homicide (Ellis and Peterson). Specifically, the researchers examined data from 13 industrial nations and found that more religious countries have lower crime rates than less religious countries, at least with respect to property crimes. The relationship was more pronounced in the case of the more overt aspects of religiosity (especially church attendance and church membership) than in the case of any specific religious beliefs.

Two other studies failed to find clear links between measures of religiosity and violent crime. In a study of 18 countries, Lester found no relationship between the publication of religious books and homicide rates. Comparing 39 developed and developing nations, the relationships between two indicators of religious commitment – the self-proclaimed importance of religion in one's daily life and religious service attendance – and rates of violent crime were not consistent across differing samples and model specifications (Lederman, Loayza, and Menendez).

Finally, two related studies have investigated the impact of religiosity on acceptance of unethical behavior. In a study of individuals from 36 nations, Stack and Kposowa found that, controlling for social bonds, economic strain, and demographic factors, religiosity was associated with less acceptance of tax fraud. Data from managers from 28 countries revealed that greater religiosity predicted less willingness to justify ethically suspicious behavior (Cullen,

Parboteeah, and Hoegl). In summary, cross-national research is too limited to draw firm conclusions, but support for the view that religion leads to more crime is stronger for homicide than non-violent crime. By contrast, the hypothesis that religion reduces crime receives more support when the focus is on less serious criminality. The latter conclusion is consistent with individual-level research that finds a stronger negative association between religiosity and crime when the behavior is minor (e.g., consensual crime, illegal drug use) (Ellis).

### **Competing Theoretical Orientations**

As indicated above, there are two broad orientations with respect to the role that religion plays in the production of crime. The first tradition sees religion as a source of intense emotionality and irrationality which at times leads to extreme behavior. Durkheim proposed that a passionate attachment to religious group life encourages violence. He did not elaborate much on this hypothesis perhaps because his principal interest was suicide, but he seemed to be thinking of inter-denominational violence, what in contemporary language would be called religiously motivated hate crime or sectarian violence. It is not clear that this theory would apply to non-violent crime, but more recently, Paul has suggested that the high rate of crime observed in the United States might be due to the irrationality generated by a culture in which large numbers of people reject evolutionary science in favor of theistic religion. He documents how the U.S., in spite of its wealth, exhibits more social dysfunction than secular countries that embrace evolutionary science over creationism. Like Durkheim, Paul does not elaborate on his theory, but he seems to be claiming that the source of dysfunctional behaviors like violence is an irrational approach to problem-solving that stems from a culture that rejects scientific thinking.

The more traditional approach takes the view that religion encourages conformity. According to Stark and Bainbridge, religious institutions generally reinforce the social and moral order. While not denying that beliefs and convictions might matter, the authors propose that the real power of religion is social; that is, the group exerts social control over the behavior of the member. How the person behaves depends on the religiousness of the group to which he or she belongs, so the focus is more on the moral community and less on the person.

Religion has also been thought to lower crime by threatening believers with punishment for misbehavior in the afterlife. Termed the “Hellfire Effect” and described by Hirschi and Rodney in the classic paper “Hellfire and Delinquency,” it is claimed that religion acts in a way similar to the criminal justice system: crime is deterred through the threat of certain and severe punishment. The principal difference is that, compared to earthly punishment, Godly punishment is not swift – it begins in the afterlife – and perhaps the sentence never ends. In contrast to Stark and Bainbridge’s focus on the social constraints imposed by the religious group, this approach explains behavior as being controlled by a person’s own beliefs and calculations concerning future punishment.

### **The Current Study**

The current study aims to contribute empirical findings to the previous research on religion and crime through an examination of whether religiosity helps explain the U.S./Malaysian crime difference via a positive or negative association with criminal behavior. Specifically, self-report data will be analyzed to see if: 1) American and Malaysian college

students differ in rates of crime and degree of religiosity; and 2) if so, does the gap in religiousness between the two countries explain, in part, the country difference in crime involvement? Statistical models also include other covariates that can be thought of as other factors that potentially explain U.S./Malaysian differences, or simply as control variables for the religiosity measure.

Prior research suggests the following variables: 1) age and sex – these are well-documented correlates of crime (Ellis, Beaver, and Wright); 2) Chinese ancestry – Malaysia has a large population of citizens of Chinese ancestry, and research suggests low rates of crime among this group (Wilson and Herrnstein); 3) family factors – the typical family in Malaysia might differ significantly from that in America, and family factors have clearly been implicated in criminal behavior (Loeber and Stouthamer-Loeber); 4) academic performance – mean academic performance might differ between the two samples, and meta-analysis found a strong link between performance and delinquency (Maguin, and Loeber); 5) personality differences – self-control and risk-taking are solidly related to a tendency to break the law (Pratt and Cullen); 6) organizational androgens – recent research suggests that prenatal androgen exposure raises the risk of adult crime (Hoskin and Ellis) and that this exposure differs by ethnicity (Manning); and 7) alcohol consumption – alcohol use is a well-documented crime antecedent (Ellis, Beaver, and Wright).

### **Data and Methods**

Data for this study were obtained from respondents living in two very different countries: Malaysia and the United States. The final Malaysian sample consisted of 1,359 Malaysian undergraduate college students enrolled at the University of Malaya in Kuala Lumpur. For the U.S. sample, data were obtained from 1,629 college students from eight universities. In both countries, students were invited in class to complete a questionnaire that would be used in a scientific study of behavior. Participants were reassured that all information would be secured and kept anonymous and confidential. Response rate data were not collected, but the vast majority of students in both countries agreed to participate. The largest American university sample also invited students to recruit anyone 18 and over to participate. Approximately 25% of the respondents from this university were non-students, but analysis revealed that they did not differ from students in their mean levels of religiosity.

For the Malaysian sample, the English-language questionnaire was translated into the native Malaysian language. To ensure that the translation carried the same meaning as the original English version, the latter questionnaire was back-translated into English until all discrepancies were eliminated. Both questionnaires were four pages in length and covered a wide variety of topics, only a few of which are employed in the present study.

The dependent variable measured criminal involvement by soliciting information from respondents with regard to how many times (if any) in their lives they had engaged in the following behaviors:

- Serious assault or beatings (needing medical treatment)
- Minor assault or beatings (not needing medical treatment)
- Sexual assault (including attempted sexual assault, molesting, rape)

Domestic or courtship violence  
Serious theft or robbery (including motor vehicle theft)  
Minor theft or robbery (including shoplifting, purse snatching, pick pocket, robbed at a ATM machine)  
Serious damage to property (major vandalism e.g. arson)  
Minor damage to property (minor vandalism, such as breaking windows in houses or cars)  
Reckless driving (e.g., road bullies, stunt driving)  
Illegal motor racing  
Bribery, fraud, or other finance-related offense  
Distribution of illegal drugs (excluding alcohol)  
Use of illegal drugs (excluding alcohol)  
Illegal gambling

Respondents were instructed to write down a “0” if they had never engaged in the activity. Answers higher than ten were recorded as ten to reduce skew. Two indexes were created: 1) a total offending index, and 2) a criminal versatility index. The first index is simply the sum of answers to the 14 crime items (Cronbach’s alpha = .71). The second index is the total number of different types of crimes committed which ranges from 0 to 14. While total offending is the more typical index of illegal behavior since it captures the depth of one’s involvement in crime, criminal versatility captures the breadth of illegal behavior, which is also considered an important dimension of criminality, and it has been shown to be the more reliable measure (Piquero et al.).

The single-item predictors were operationalized as follows (all responses are self-reports): 1) age in years, and sex as male or female; 2) Chinese ethnicity versus all others; 3) current marital status of parents (married or widowed versus all other statuses); 4) current closeness to one’s family rated 1 to 10; 5) academic performance in high school rated from 1 to 10; 6) having a great deal of self-control from 0 to 10; 7) enjoying taking risks rated from 0 to 10; and 8) the number of times up to 100 that a person had consumed alcohol.

Three of the predictors are multi-item predictors. In order to measure levels of organizational testosterone, a principal components factor analysis of five androgen-promoted physical trait items – the relative length of the index and ring fingers on the right hand, called 2D:4D digit ratio (a putative marker of prenatal testosterone exposure), height, muscularity, physical strength, and athletic ability (all self-assessed) – revealed two factors. The 2D:4D digit ratio and height loaded onto the first factor, the other three loaded on a second factor. The first was labeled “bone growth factor” and the second was labeled “muscle coordination factor” (see Ellis et al for additional details).

The religiosity index is the sum of seven standardized items inquiring about the respondent’s religious involvement: 1) the strictness of parental enforcement of religious teachings; 2) the importance of religion; 3) activity in religious observances; 4) obedience to the teachings of a specific religion; 5) belief in God; 6) the degree of religious fundamentalism;

and 7) belief in immortality. The scale for the first item was 1 to 10; it was 0 to 10 for all other items. Cronbach's alpha for the index is .91.

Comparing the dichotomous variables for the two samples, males are 40.9% of the U.S. respondents, but are only 31.7% of the Malaysian sample. The two countries are very different in terms of the share of the population that is of Chinese ancestry: it is 23.2% in Malaysia, but only .2% in the U.S. Malaysians are also much more likely than those in the U.S. to have married or widowed parents; 96.5% versus 59.2%. Table 1 displays descriptive statistics for continuous variables as well as t-test results for differences in means between the Malaysian and U.S. samples (variances are assumed to be unequal). The Cohen's d statistic is also presented to assess the magnitude of the U.S./Malaysian differences. The means for both crime indexes are much higher for the U.S. sample; the difference is significant at the .001 level, and Cohen's d indicates that gaps are large.

Table 1. Descriptive Statistics, United States N = 1,629; Malaysia N = 1,359

Variables	U.S. Mean	Malaysia Mean	U.S. Std Dev	Malaysia Std Dev	Cohen's d
Total Offending Index	7.19	.86	11.49	3.63	.74*
Crime Versatility Index	1.59	.27	2.12	.92	.81*
Age	23.96	20.86	9.27	2.36	.46*
Close Family	8.14	8.60	2.05	1.70	-.24*
Academic Performance	7.86	7.28	1.64	1.57	.36*
Self-Control	7.23	7.07	2.28	2.15	.07
Taking Risks	6.02	5.94	2.85	2.50	.03
Bone Growth Factor	.37	-.47	.93	.88	.93*
Muscular Coordination Factor	.12	-.15	1.03	.94	.27*
Alcohol Consumption	34.57	.40	41.23	1.80	1.17*
Religiosity	-.36	.44	1.04	.74	-.89*

\* p < .001, two-tailed test

Turning to the predictors, the U.S. sample is somewhat older, less close to family, and better in terms of high school academic performance. The two samples do not differ in self-control or liking to take risks. Both testosterone indexes indicate that the U.S. sample has a significantly higher level of organizational androgens. The difference is large for the bone growth factor, but smaller for the muscle coordination factor. Finally, the U.S. sample consumes much more alcohol than the Malaysian sample, and conversely, U.S. respondents are much less religious.

For the multivariate analysis, negative binomial regression is employed since the dependent variables are crime counts that are both highly skewed (Kremelberg). The analytic strategy is to assess whether or not the inclusion of a predictor significantly reduces the observed relationship between the U.S./Malaysian dummy. If a predictor does this, then it is

assumed to be contributing to the crime difference between the two countries. To conduct a test for significant change in the U.S./Malaysian coefficient, Paternoster et al.'s significance test for the equality of regression coefficients was employed.

## **Results**

Table 2 (in the Appendix) presents the negative binomial regression coefficients for the model that has the total offending index as the dependent variable. Model 1 includes the country dummy only, and it shows that the mean involvement in crime is significantly higher in the United States. According to Model 2, age is unrelated to the total offending index. While males have much higher crime involvement than females, the U.S./Malaysian coefficient actually becomes larger (but not significantly so,  $z = 1.02$ ) with the inclusion of sex in the model (Model 3). In other words, the U.S. sample has a higher percentage of male participants, but once the factor is controlled, the U.S./Malaysian crime gap actually increases.

Model 4 displays the results when the Chinese dummy is included. Being Chinese is associated with significantly less crime, and while the country coefficient is smaller in this model than in Model 3, the reduction is not statistically significant ( $z = .40$ ). A similar pattern is observed in Model 5; having married parents is associated with less criminal behavior, and the country dummy is smaller in Model 5 than Model 4, but the difference is not significant ( $z = .93$ ). According to Model 6, respondents who are closer to their families tend to commit fewer crimes, but the inclusion of this predictor does not significantly reduce the country coefficient. Model 7 shows that academic performance in high school is not a significant predictor of illegal behavior.

Model 8 indicates that, while the coefficient is negative as expected, self-control is unrelated to the outcome variable (although it does become significant in later models). Enjoying taking risks does predict higher total offending scores (Model 9), but since the two samples do not differ in mean risk-taking (Table 1), it cannot contribute to the crime difference between the two countries. The bone growth factor is positively associated with criminal behavior (Model 10), but the reduction in the country coefficient from Model 9 to Model 10 fails to reach statistical significance ( $z = .45$ ). The other measure of organizational androgens – the muscle coordination factor – is unrelated to total offending (Model 11). Model 12 shows that alcohol consumption is positively associated with crime, and the country coefficient does shrink from  $-1.90$  in Model 11 to  $-1.70$  in Model 12, but the difference does not reach significance ( $z = 1.29$ ). Lastly, greater religiosity predicts less total offending (Model 13), and the difference in country coefficients – a drop from  $-1.70$  in Model 12 to  $-1.36$  in Model 13 – is statistically significant ( $z = 1.99$ ).

If the country coefficient in Model 1 is compared with that observed in Model 13, the combined effect of all the predictors can be evaluated. The coefficient in Model 1 of  $-2.17$  drops to  $-1.36$  in Model 13, and this difference is significant ( $z = 2.61$ ). This is a large reduction: the latter coefficient is only slightly more than half the size of the former.

Table 3 (in the Appendix) displays negative binomial coefficients for the models exploring the crime versatility index as the outcome variable. The overall results are very similar to those seen in Table 2. The noteworthy changes are the following: 1) in the final model, academic performance and the muscle coordination factor both significantly predict criminal versatility

in the expected directions; 2) inclusion of alcohol consumption significantly reduces the country coefficient from -1.15 (Model 11) to -.83 (Model 12) ( $z = 2.52$ ); and 3) the country coefficient for the first model (-1.47) drops to -.56 in the final model – a 62% reduction, which is statistically significant ( $z = 7.46$ ). In other words, inclusion of all the predictors explains a good portion of the gap between the U.S. and Malaysian criminal versatility. Alcohol consumption and religiosity are most important here since only they make significant, individual contributions to differences in criminal versatility between the two countries.

## **Discussion**

Although the idea that religiosity has an effect on criminality has been the subject of criminological research in the past, empirical support of its deterrent effect has not been entirely consistent (Baier and Wright). Although a majority of studies in meta-analytic research do find a deterrent effect (Johnson et al.), the most common finding is that religious commitment has a moderate, negative effect on crime. Effects are stronger in studies of non-violent offenses, drug offending in particular, and in studies that have smaller samples and those that are more racially diverse (Baier and Wright). Studies also find that the deterrent effect of religion is greatest where aggregate levels of religiosity are high, consistent with a moral-community hypothesis (Regnerus). Other research has specifically examined the effect of religiosity for Christian and Muslim subjects and found that religiosity had a significant negative effect on violent behaviors for Christians; for Muslims, a similar relationship emerged, although it was not as pronounced and did not reach statistically significant levels (Baier). This study also found that for both Christians and Muslims, correlates other than religiosity were better predictors of violent behavior.

The current study examined criminal involvement in samples of college students from a predominantly Christian country (U.S.) and a predominantly Muslim country (Malaysia) and uncovered large gaps in both total offending rates and crime versatility based on 14 different offense measures, where the U.S. sample reported much higher offending levels than the Malaysian sample. Several factors were included as independent variables in negative binomial regression models to examine which, if any, could explain the cross-national gaps in self-reported offending. Several notable findings resulted; in the model predicting total offending, most of the independent variables that reached significance were in the expected direction, however, age, academic performance and the factor measuring muscle coordination were not significant predictors of offending. The addition of all of these predictors to the model reduced the between country coefficient, however, none individually significantly mediated the between country differences in offending as noted by the  $z$  scores for equality of coefficients tests. The exception to this, however, was the measure for our religiosity index; higher scores on religiosity were significantly associated with less offending, and this variable was the only predictor to significantly reduce the country coefficient ( $z = 1.99$ ). In other words, the higher religiosity of the Malaysian sample as compared to the U.S. sample can account for a significant amount of the difference in offending levels between the two, and therefore can partially explain the higher total offending in the United States.

Turning to our examination of offending versatility, the results shown in Table 3 are similar to those found in our model of total offending in Table 2. The predictors of crime versatility are in the expected direction and collectively, they significantly reduce the gap in

offending versatility between the two countries. However, in this model, both our religiosity measure and alcohol consumption individually result in significant reductions to the between country difference in crime versatility. Overall these results are both similar to previous research (Baier) in that we found religiosity to have a significant effect of reducing criminality, and our findings show that a sample of predominantly Muslim subjects (close to 70% of the Malaysian sample was of the Muslim faith) have higher religiosity scores than a predominantly Christian sample (roughly 79% of the U.S. sample were of the Christian faith).

A limitation of the current study is that these results may or may not be generalizable to national populations due to the sample consisting almost entirely of college students. Previous research, however, has shown that the use of college samples in empirical research has not influenced the effect size of religiosity's deterrent impact (Baier and Wright). Furthermore, there were no significant differences in the education levels of the samples studied here, and academic performance had a significant negative effect on crime versatility but no influence on total offending. It could also be argued that cross national differences in legal definitions might account for differences in reported offending levels. In an attempt to account for this and provide a more standardized examination of the effects of religiosity on criminality, we consolidated offenses into a total offending index.

The study is also limited by the weaknesses inherent in self-report data. While research has found self-reports of criminal behavior to be adequately reliable and valid, accurate recall can be a problem, particularly when asking about lifetime offending, and about minor illegal activities (Thornberry and Krohn).

In addition to adding to empirical research on the role of religiosity in offending behavior, the current study provides some preliminary insight into the factors that may contribute to the differences in offending behavior in these two countries, as well as extending research on national crime comparisons. Previous research has found other correlates to be better predictors of criminality than religiosity, and the effect of religiosity on crime has sometimes been found to be both mediated and/or further explained by other factors. Baier, for example, found that lower levels of alcohol consumption can explain some of religiosity's deterrent effect for both Christians and Muslims, but that this effect is more pronounced for Muslims. Furthermore, his research revealed that higher religiosity in Christians is associated with lower levels of violent media consumption, and that the opposite is true for Muslims. Therefore, religiosity may deter crime and violence in different ways dependent on other predictors of both crime and religiosity and on the type of religion to which one belongs.

Future research should endeavor to uncover other predictors that may, through religiosity, deter or exacerbate propensities for offending. Ellis, for example, found that belief in an afterlife with divine punishment, at least among persons who consider themselves members of an organized religion, is associated with lower crime rates. As stated earlier, Malaysia is a predominantly Muslim country and the U.S. is principally a Christian nation. Further research is needed to uncover whether type of religion, in addition to religiosity, is a relevant predictor of criminality and can explain lower crime rates in some countries across the globe. For example, Groves, Newman, and Corrado reported that Islamic countries do not differ from other countries in rates of crimes, once adjustment is made for level of

economic development. In this vein, what role does religiosity or type of religion play in explaining cross-national differences in crime rates?

Given our finding of higher religiosity scores in the Malaysian sample than in the U.S. sample, and the finding that religiosity reduced the between country coefficient, thereby accounting for some of the difference in total offending and offending diversity, future studies should test the moral-community hypothesis at more aggregate levels of the community (Baier and Wright). The findings here are based on samples of university students, so studies on a larger sample of community members in a cross-national comparison may provide more support for the idea that the deterrent effect of religion is highest where aggregate religiosity is also high.

Findings from the present study reinforce the view that religious commitment is a relevant component in the study of crime. While the importance of religion was emphasized in seminal works on deviant behavior, and most theories of crime implicitly suggest a role for religiosity (Akers), the research literature has remained underdeveloped. The continued study of the nature of the religiosity-crime relationship seems warranted, especially when one considers that faith-based approaches to rehabilitation are quite common in the U.S. criminal justice system (Johnson). Studies like the present one will inform strategies that look to religious involvement as a way to reduce criminality, not only in the U.S. but in other societies as well, and will provide a better empirical basis on which to develop more comprehensive theories of crime.

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**Appendix**

Table 2. Negative Binomial Regression Coefficients, DV = Total Offending Index, N = 1,629 Americans, 1,359 Malaysians (standard errors in parentheses)

Predictors	1	2	3	4	5	6	7	8	9	10	11	12	13
Malaysia	-2.17*** (.09)	-2.15*** (.09)	-2.30*** (.09)	-2.18*** (.10)	-2.05*** (.10)	-2.04*** (.10)	-2.04*** (.10)	-2.04*** (.10)	-1.98*** (.10)	-1.91*** (.11)	-1.90*** (.11)	-1.70*** (.11)	-1.36*** (.13)
Age		.006 (.006)	.002 (.006)	.001 (.006)	-.001 (.006)	-.001 (.006)	-.002 (.006)	-.002 (.006)	.003 (.006)	.003 (.006)	.003 (.006)	-.007 (.006)	-.001 (.006)
Sex			1.27*** (.09)	1.28*** (.09)	1.29*** (.09)	1.28*** (.09)	1.27*** (.09)	1.29*** (.09)	1.23*** (.09)	1.13*** (.10)	1.12*** (.10)	1.08*** (.10)	1.02*** (.10)
Chinese				-.62*** (.17)	-.62*** (.17)	-.63*** (.17)	-.62*** (.17)	-.65*** (.17)	-.67*** (.17)	-.70*** (.17)	-.70*** (.17)	-.74*** (.17)	-.92*** (.17)
Married Parents					-.33** (.10)	-.29** (.10)	-.29** (.10)	-.30** (.10)	-.32** (.10)	-.30** (.10)	-.30** (.10)	-.26** (.10)	-.29** (.10)
Family Close						-.09*** (.02)	-.09*** (.02)	-.08*** (.02)	-.09*** (.02)	-.09*** (.02)	-.09*** (.02)	-.09*** (.02)	-.07** (.02)
Academic Performance							-.02 (.02)	-.02 (.02)	-.03 (.02)	-.03 (.02)	-.03 (.02)	-.03 (.02)	-.02 (.02)
Self-Control								-.03 (.02)	-.07*** (.02)	-.07*** (.02)	-.07*** (.02)	-.06*** (.02)	-.05** (.02)
Risk-Taking										.10*** (.02)	.10*** (.02)	.10*** (.02)	.10*** (.02)
Bone Growth Factor										.13* (.06)	.13* (.06)	.14* (.06)	.16** (.07)

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Muscle Coordination Factor											.01 (.05)	.00 (.05)	.04 (.05)
Alcohol Consumption												.016*** (.001)	.006*** (.001)
Religiosity													-.24*** (.05)
Intercept	-.08 (.07)	-.22 (.15)	.38* (.15)	-.11 (.20)	-.07 (.20)	.70** (.27)	.83** (.32)	.98** (.33)	.58 (.33)	.50 (.34)	.51 (.34)	.63 (.34)	.17 (.35)
LR chi-square	433.12***	434.20***	648.96***	662.19***	672.32***	691.23***	691.85***	695.10***	737.81***	742.77***	742.78***	762.57***	788.87***

\* p < .05, \*\* p < .01, \*\*\* p < .001, two-tailed test

Table 3. Negative Binomial Regression Coefficients, DV = Crime Versatility Index, N = 1,629 Americans, 1,359 Malaysians (standard errors in parentheses)

Predictors	1	2	3	4	5	6	7	8	9	10	11	12	13
Malaysia	-1.47*** (.07)	-1.44*** (.07)	-1.32*** (.07)	-1.29*** (.07)	-1.17*** (.08)	-1.15*** (.08)	-1.22*** (.08)	-1.21*** (.08)	-1.22*** (.08)	-1.18*** (.08)	-1.15*** (.09)	-.83*** (.09)	-.56*** (.10)
Age		.008 (.005)	.008 (.004)	.008 (.004)	.007 (.004)	.006 (.004)	.003 (.004)	.003 (.004)	.007 (.004)	.007 (.004)	.008 (.004)	-.008 (.005)	-.002 (.005)
Sex			.95*** (.07)	.95*** (.07)	.95*** (.07)	.93*** (.07)	.89*** (.07)	.91*** (.07)	.84*** (.07)	.80*** (.07)	.74*** (.08)	.68*** (.08)	.65*** (.08)
Chinese				-.13 (.11)	-.12 (.11)	-.16 (.11)	-.15 (.11)	-.19 (.11)	-.13 (.11)	-.14 (.11)	-.14 (.11)	-.16 (.11)	-.34** (.11)
Married Parents					-.31*** (.08)	-.28*** (.08)	-.27*** (.08)	-.28*** (.08)	-.26*** (.08)	-.26*** (.08)	-.27*** (.08)	-.16* (.08)	-.17* (.08)
Family Close						-.07*** (.02)	-.06*** (.02)	-.05** (.02)	-.05** (.02)	-.05** (.02)	-.05** (.02)	-.06*** (.02)	-.04* (.02)
Academic Performance							-.10*** (.02)	-.09*** (.02)	-.09*** (.02)	-.09*** (.02)	-.10*** (.02)	-.08*** (.02)	-.07*** (.10)
Self-Control								-.04** (.01)	-.07*** (.01)	-.07*** (.01)	-.08*** (.02)	-.07*** (.01)	-.06*** (.01)
Risk-Taking									.09*** (.01)	.09*** (.01)	.08*** (.01)	.07*** (.01)	.07*** (.01)
Bone Growth Factor										.06 (.04)	.07 (.04)	.08* (.04)	.08* (.04)

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Muscle Coordination Factor											.07*	.06	.09*
											(.04)	(.04)	(.04)
Alcohol Consumption												.01***	.01***
												(.001)	(.001)
Religiosity													-.23***
													(.04)
Intercept	.28***	.11	.75***	.66***	.68***	1.24***	1.91***	2.10***	1.73***	1.69***	1.77***	1.96***	1.50***
	(.05)	(.11)	(.11)	(.14)	(.14)	(.20)	(.24)	(.25)	(.25)	(.26)	(.26)	(.25)	(.26)
LR chi-square	447.08***	450.45***	649.09***	650.29***	664.96***	680.53***	703.12***	712.37***	762.67***	764.54***	768.57***	875.75***	913.44***

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\* p < .05, \*\* p < .01, \*\*\* p < .001, two-tailed test