

An Exploration into Participation in a Faith-Based Prison Program

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Research Summary

The current research investigates the faith, socio-demographic, psychological, and criminal history factors associated with the decision to volunteer for a faith-based program. Operational records were combined with data collected from self-administered surveys. The results of the logistic regression model were successful in identifying factors related to program participation, including factors not included in previous studies. The findings suggest that program participants are motivated to make changes in their lives and are seeking their way in a religious sense. For example, program participants scored higher on average on the motivation for change scale used here, had higher rates of attendance in religious services since incarceration, and were more active in reading sacred scripture. Conversely, inmates who claimed higher levels of knowledge about their faith were less likely to participate in the Life Connections Program examined here.

Policy Implications

The results of the analysis suggest that certain religious characteristics are associated with participation in a faith-based program. The implication is that religious program providers need to pay attention to the match between the program content and the characteristics of their potential program participants. The results also demonstrate the need to capture differences between participants and comparison subjects on dimensions not usually included in evaluations of faith-based programs. Without knowledge of the selection process, there is no way to determine whether observed differences between program participants and “comparisons” are due to actual program effects or are an artifact of pre-existing differences between the groups.

Introduction

People of faith have consistently shown an interest in working with felons incarcerated in prisons to help bring about their rehabilitation. In fact, many terms associated with prisons, such as rehabilitation, reformatory and penitentiary, came into existence because of the reformative efforts of people of faith in the late 18th Century. The early reformers typically wanted to construct the physical architecture and the practices within the modern prison in ways that would encourage inmates to be transformed or more accurately reformed while serving their sentences (Rothman, 1995).

In recent times, faith groups have provided vital services within prisons, such as supplementing in-house ministries, mentoring inmates, providing traditional services such as Bible studies, and running programs such as release preparation. Despite these far-reaching efforts, formal rehabilitation programs were not usually associated with a faith agenda and were the domain of the medical and behavioral sciences. This has changed in the very recent past as faith groups have become involved in offering formal programs within prison to bring about not only the spiritual salvation of the inmates but their rehabilitation in the profane world as well. Prison Fellowship, for example, operates the InnerChange Freedom Initiative, a 24-hour, 7-day a week Christian prison program for the state of Texas at the Carol Vance Unit. Kairos operates several residential programs known as Kairos Horizon Communities in Florida, Ohio, Texas, and Oklahoma. While the new programs do not represent a break with the traditional roles of faith groups in prison, they do represent a new level of intensity.

The Federal Bureau of Prisons (BOP) started a pilot faith-based program known as the Life Connections Program (LCP) in 2002. The LCP is an eighteen-month, residential program. Cohorts of LCP participants begin six months apart, so there are usually three cohorts operating

concurrently at any one time at each site. To be eligible for the program, an inmate must be releasable in the U.S., have fulfilled ESL obligations, have completed or be completing GED obligations, be meeting financial responsibilities, and be within 24 to 60 months of release. High-security male inmates and female inmates have modified requirements for time from release. For high-security male inmates, there is no requirement, and for females they must be within 24 and 120 months of release. A typical cohort has between 30 and 50 inmates. A key feature of the BOP program is its explicit multi-faith accommodation. The LCP program offers a core curriculum that is taught by spiritual guides who are hired from the local religious communities. Depending upon the religious composition of the inmates in the respective LCP programs, four or five spiritual guides from different faiths -- such as Islam, Catholicism, Buddhism, Protestant denominations, and Judaism -- work with inmates of the corresponding faiths at each prison. The spiritual guides incorporate their own faith traditions within the context of teaching the core materials of textbooks and journaling exercises that all LCP inmates complete. In effect, while there are common activities for all cohort members of all faiths, each LCP cohort is in effect comprised of four or five smaller groups of inmates of similar faith that work, study, and “pray” together. The program also includes an after-prison component. Volunteers of America has a contract to identify appropriate faith groups in the release community that will support inmate reentry, and the inmates are connected with a volunteer mentor. The inmates also work with a volunteer mentor as part of the LCP program while incarcerated, but this mentor is different from the post-release mentor.

The present study was designed to examine the types of inmates who volunteer for participation in LCP. The examination of who volunteers for LCP participation in the BOP serves two related purposes. First, it helps program administrators and policy makers identify the

characteristics of inmates who are likely candidates for participation in the LCP program.

Second, it allows researchers to better understand the selection process and the attending issues of selection bias for analyses of outcomes associated with program participation. For example, future reports planned by these authors will look at the impact of program participation upon both institutional and post-release adjustment. The analyses provided here will allow these studies to be informed about the factors associated with self-selection into the program when designing a comparison of program participants and control subjects with a quasi-experimental design. Without the background work of the current analysis, the outcome studies would produce biased estimates of the effects of program participation.

The current study progresses by first examining what is known about the benefits of religion in preventing criminal behavior. The literature review highlights that there has been little formal evaluation of the effects of religious programs upon recidivism, even though there is a long and important history of religious programs in prisons. More to the point of this report, there has been little work done to either substantively understand the types of inmates who participate in religious programs or control for issues of selection when constructing comparison groups for evaluations of religious programs. The data used to conduct the analyses are described in the section following the literature review. A presentation and discussion of the findings is then presented before the paper concludes with a discussion of the general findings and their implications.

Literature Review

In the past, “rehabilitation” was the term used to describe efforts to prepare inmates for release from prison, and the religious overtones of the term suggest that inmates could be changed morally after following a specific regimen. The link between penology and religion in

the United States can be traced to the 18th century (Latessa & Allen, 1997; Wright, 1987), and many students of the modern prison note that religious thought and values had a great deal of influence on developing modern, secular prison practices (Rothman, 1995; Young, Gartner, O'Connor, Larson, & Wright, 1995). During this time period, religious groups, such as the Quakers, wanted to come into prisons and rehabilitate inmates. Under Quaker philosophy, a major goal of confinement was penance through required Bible study and reflection upon one's sins (Clear & Cole, 1997; Sumter & Clear, 2005). According to Clear and Cole (1997), religious programs in the correctional setting have been the single most common form of institutional programming for inmates. The programs are used for both the management of inmates as well as rehabilitation. Clear takes this observation a step further and claims that the history of incarceration is intimately intertwined with religious movements. Current terminology for programming inmates for post-release in the community is "reentry." Some of the more recent reentry programs in prison have a religious, or what is often called a faith-based component.

Despite the pervasive role of religion in the modern prison, a review of the criminological literature identifies few studies that address theoretically or empirically how religion acts as a social control mechanism. Sixteen years ago, Garner and his colleagues (1990) reported on a systematic review of the sociological, psychological and criminal justice literature and concluded that most criminal justice researchers studied religious commitment variables only infrequently. Further, Garner, et al. wrote: "There is almost a complete absence of research on the relationship between religion and religious rehabilitation programs with recidivism" (1990: 15). More recent literature reviews on rehabilitation programs have demonstrated that religion is not evaluated as an intervention as often as would be expected given the preponderance of religious programming (Johnson, 2004). Generally speaking, the studies that do exist have found an inverse relationship

between religion and recidivism or in-prison misconduct (Johnson, 2004; Johnson, De Li, Larson, & McCullough, 2000; Johnson, Larson, & Pitts, 1997; Kerley, Matthews, & Blanchard, 2005; Young et al., 1995). Usually, though, the effect for religion was found only for the inmates who were most involved in the program, not for everyone who took the religious program (Johnson & Larson, 2003; O'Connor & Perreyclear, 2002; Sumter, 1999). The problem with these latter types of findings is that the studies do not have properly constructed comparison groups against which to compare subsets of the program participants. Instead, the only valid comparison in most of the studies is between all program participants and the comparison group. This problem, often called selection bias, is discussed in greater detail below in a review of the evaluation of the InnerChange Freedom Initiative (Johnson & Larson, 2003).

The lack of scientific attention on the role of religion in criminal justice writ large or inmate rehabilitation writ small may reflect an uneasy relationship between the sacred world of religion and the profane concerns of science. Many in the faith community openly question whether the evidence-based and logical nature of science is appropriate for dealing with religious issues. Within the social science community, Knepper (2003) expressed concern about the limits of social science in dealing with religion. Even for those in the faith community who do not emphasize the conflict between the evidence-basis of science and the faith-basis of religion, there is still often an acknowledgment that the effects of prison programs upon recidivism are irrelevant as the true goal of the programs is the spiritual enrichment of the inmates (Breuilly, O'Brien, & Palmer, 1995).

Despite the general lack of sustained theoretical development or empirical evidence, there is some research in different arenas in the field of criminal justice. For example, in a study of juvenile delinquency, Johnson et al. (2000) systematically reviewed the literature assessing the

relationship between religiosity and juvenile delinquency. Each of the articles included in the study was coded to note the role assigned to the religion variables. The authors noted that as an independent variable, religion could be treated in one of three ways: a central explanatory variable, a peripheral explanatory variable, or a covariate used for statistical control. After systematically evaluating 40 articles, Johnson et al. (2000) concluded that the findings regarding the role of religion in explaining delinquency were inconsistent.

An important part of the Johnson et al. study (2000) was the examination of the dimensionality of religiosity. Johnson et al. (2000) classified religious measures into six categories. The categories are attendance, salience (importance of God in daily life), denomination, prayer, Bible study, and religious activities.¹ Johnson et al. (2000) noted that inconsistent findings in previous studies are related to the choice of one or only a few dimensions of religiosity. They claimed that measuring religiosity in a multidimensional manner provides richer and more methodologically defensible conclusions. This point is important for a couple of reasons. One, noting that religiosity is a more complex notion than can be represented with a single dimension moves the research away from simplistic measures of religiosity, as Johnson et al. (2000) intended. For example, while extremely religious people would be expected to attend religious services at a high rate, there are other factors that affect religious attendance, such as peer pressure. This makes attendance less than ideal as a sole measure of religiosity. Second, the discussion is pertinent to drawing comparison groups when assessing the effects of religious programs. For example, prior research has often suggested that those most involved in religious programs are less likely to recidivate. However, to draw a meaningful comparison group, we need to know who in the comparison group would have participated most fully had they been

¹ Since the current study is an examination of a multi-faith program, we refer to Bible study as sacred writings or sacred texts.

involved in the program. Other dimensions of religiosity probably are helpful in identifying comparison group members in these situations.

Sumter and Clear (2002) point out that during the 20th century many scholars have speculated about the impact religion has on prisoners. A much smaller number of scholars have added to the empirical knowledge about the effects of religion or religious programming. Several points stand out. First, there are very few studies that have examined the effectiveness of religious correctional programming. Second, of the studies that have examined the issue, inconsistencies in the findings of the studies suggest that religion operates in a multidimensional manner. Finally, consistent evidence exists that religious programming may play a role in reducing recidivism of offenders who take advantage of those programs (Sumter & Clear, 2002). Not noted by Sumter and Clear (2002), though, is another critical shortcoming of all of the previous studies, and that shortcoming is the focus of this paper.

Generally missing from analyses of the effects of faith-based programming upon recidivism is an empirical examination of the types of inmates who volunteer for treatment. While researchers have examined and discussed the types of inmates attracted to faith programs (Johnson, 2004; Johnson et al., 1997; O'Connor, 2004, 2004-2005), these informal examinations have not gone to the next step of predicting the types of inmates who volunteer for treatment. The failure to proceed to the next step is important for two reasons. First, an understanding of the types of inmates who are most likely to take advantage of voluntary faith-based programs would help policymakers and program providers plan for the provision of these services. Second, the issue of who volunteers for treatment is crucial for evaluating whether inmates benefit from faith-based programs. Like evaluations of many prison programs, evaluations of faith-based programs have to contend with the fact that program participation is voluntary. As such, inmates

who volunteer for treatment are by definition different from inmates who do not volunteer for treatment. Often, these differences are not understood, and it is even less likely that the differences are measured. Without an understanding and ability to control for self-selection, an unknown amount of bias is introduced into studies comparing outcomes between faith-based program volunteers and inmates who did not volunteer for treatment. The bias, generally known as selection bias, threatens both the internal and external validity of the findings from a study (Berk, 1983).

An example from the existing evaluation literature of religious programs underscores why the issue of selection bias is important. Johnson and Larson (2003) provided an evaluation of the InnerFaith Freedom Initiative (IFI) operated by Prison Fellowship for the state of Texas. The authors planned to base the study on a rigorous evaluation methodology, e.g., random assignment of volunteers to either receive the program or not. However, due to an insufficient number of volunteers, the research design was subverted by the practical realities of the need to place almost all volunteers into the program. The authors then had to fall back to a quasi-experimental design where they derived a comparison group of inmates who matched the program participants in key ways, such as socio-demographics and type of offense. However, the authors were not able to match the inmates on some very important dimension, such as motivation to change or degree of religiosity before entering the program. As such, it was not possible to know exactly how comparable the comparison and participant groups were in reality. When Johnson and Larson (2003) reported the results that compared all comparisons with all inmates who entered the IFI, they reported that there was no statistically significant difference in the recidivism rate for released inmates who participated in IFI. However, they did report that inmates who *completed* IFI were less likely to recidivate than the comparison inmates. However,

this comparison was based upon even less knowledge about the comparability of the group of completers and the group of all comparison subjects. To be statistically appropriate, the comparison should have been between program completers and comparison subjects who would have completed the program. However, Johnson and Larson (2003) had no empirical method to subset the comparison group in this manner, so they relied upon a comparison that is simply not statistically defensible.

The literature on religion in prison and subsequent recidivism has four consistent themes. First, religious programs in prisons have been around from the beginning of modern prisons, especially in the United States, and they remain an important source of programs in modern prisons. Second, despite the rich history and importance of religious programs, very few studies have attempted to formally document the effects of religion upon recidivism. Third, the measurement properties of religiosity are given short attention, even in studies specifically designed to assess the effect of religion. Usually, only one or a small number of religion variables are included, often with explicit recognition that the concern with religion comes from external sources instead of from criminological theory. Finally, there has been little attention given to the issues associated with voluntary selection into religious programming, and this is an important oversight (Rosenbaum, 1995). The focus on selection issues is needed to both inform program providers and to set the stage for well-grounded evaluations of the effects of religion upon prison adjustment and post-release behavior.

Data and Methods

The data for the analysis of volunteerism and program failure come from 999 inmates who completed surveys between August 2004 and May 2005. Surveys were collected from 407

inmates participating in LCP at five treatment prisons and 592 comparison subjects at five other prisons. Data collection is ongoing, but the dataset was frozen at the end of May 2005 for these analyses. The survey data were combined with information about the inmates contained in their official records at the BOP. Descriptive statistics comparing the sampled LCP participants with non-sampled LCP participants and comparison subjects are presented below. Comparison subjects were randomly chosen from the population of inmates who met the eligibility criteria for the LCP program at five deliberately selected prisons. LCP subjects were chosen by surveying all inmates in given cohorts at each of the five prisons offering the LCP program. Rather than being a random process, it is a deliberative sampling strategy to capture the population of inmates who started the LCP program after the survey instrument was completed.

The surveys were designed to elicit information about religious background and beliefs, socio-demographics, pro-social values, and motivation for change. The overall response rate, to date, is 63.4 percent, with 63.7 percent of the LCP participants completing surveys and 63.2 percent of the comparison subjects completing surveys. The response rate is good, but it could have been better. The response rate at LCP sites was affected by not getting to the sites at the very beginning of program participation. Some potential survey participants had already dropped from the program before the surveys were administered, and these inmates accounted for the many of the survey refusals at LCP prisons. The evaluation design calls for all LCP inmates to be interviewed upon program start and again just prior to program completion. However, due to budgetary and logistic problems, the teams were late in getting to the different cohorts analyzed in this study.² Some early cohorts were missed entirely. To an unknown extent, the results are biased by not having information on these inmates. The response rate at comparison prisons was

² The failure to survey early cohorts when they started represents a failure of execution for the current research design. This does not jeopardize the design, but it does create an issue of missing data. The missing data do not appear to be pose a significant issue as most cohorts were surveyed on time.

affected by one particular prison that did not follow the established protocol. As a result, only 35.7 percent of inmates participated by completing the survey. The response rate at the remaining comparison prisons was 70.7 percent.³

Religiosity measures were used that cover five of the six dimensions discussed by Johnson et al. (2000: 39). Measures of attendance, salience, denomination, prayer and Bible study were all included. Only a measure of religious activities was not included in the present study. The key construct of religious salience (Johnson et al., 2000) is a scale measure of daily spiritual experience.⁴ The scale is comprised of five questions asking “I feel God’s presence,” “I find strength and comfort in my religion,” “I feel deep inner peace or harmony,” “I desire to be closer to or in union with God,” and “I feel God’s love for me, directly or through others.” The scale items have been previously validated and are part of the Brief Multidimensional Measure of Religiousness/Spirituality (John E. Fetzer Institute, 1999). Values for the daily spiritual experience scale range from 1 to 6 with higher scores representing higher levels of spiritual experiences. There are two measures of attendance, whether the inmate practiced a religion before incarceration and the frequency of attendance since incarceration. The frequency of attendance measure is coded on a progressive scale from a value of 1 that indicated no attendance to a value of 8 that represented attendance of more than once a week.

A third dimension of religiosity measured was category of faith or denomination.

Respondents could list themselves as Christian but not Catholic, Catholic, Islamic, other, or

³ On the related issue of item nonresponse, the analysis predicting inmates who volunteer was run on a multiply imputed dataset with five imputations as conceptualized by Schafer (Schafer, 1997) and implemented in SAS procedure MI. The results were basically the same as those for the incomplete database, so the results on the incomplete data were presented in the paper as most readers are more familiar with listwise deletion of data. With the multiple imputed data, two socio-demographic variables that are not of theoretical interest to the present study went from being marginally significant to significant at $p=.05$. The results are available upon request from the authors.

⁴ All scales used in this analysis were verified with confirmatory factor models. The scales all had desirable measurement properties. Results for the confirmatory factor analysis are available from the lead author upon request.

none. The respondents who chose Christian but not Catholic (mainly Protestants) were used for the comparison category. Four dummy variables were constructed to capture the comparison to the non-Catholic Christians, one each for Catholic, Islamic, other, and none.⁵ Another variable was included in the study that measures the religious stance of the respondent. Respondents were asked to describe their religious stance as being either fundamentalist, conservative, moderate, liberal, or other. The respondents could also indicate that they were not sure or undecided about religious stance and they could indicate not applicable. The fundamental category was selected as the comparison category, and four dummy variables were created to compare conservatives, moderates, liberals, and others to the fundamentalists. The other, not sure, and not applicable categories were coded together.⁶

The final two dimensions covered participation in prayer outside of religious services and knowledge of applicable sacred writings (what Johnson et al. called Bible study). For the prayer question, the responses ranged from one to eight with the lowest score indicating that the respondent never prayed and the top score that the respondent prayed more than once a day. Two questions were used to obtain information on knowledge of sacred writings. First, a measure was used that asked how often sacred writings are read. The responses ranged from one to eight, with the same pattern noted for prayer. The second question about sacred writings asked respondents to rate their knowledge of their religious principles and scripture. Scores ranged from one to six, with a low score reflecting a very poor evaluation and a high score indicating very good knowledge.

⁵ The Christian but not Catholic group, e.g., Protestants for the most part, was chosen as the reference group as this faith is the basis of most faith-based prison programs outside of the BOP. While comparison of any group to another can be derived from the model results presented in this paper, we only presented the comparisons with Christian but not Catholic group for this reason.

⁶ As with the other denominational question, the choice of a comparison group is somewhat arbitrary.

It is worth noting that including the spiritual experience scale and current attendance into the statistical model of who volunteers for treatment is somewhat problematic. Since these variables are measured for LCP participants after program entry, the causal ordering between them and program participation is not as clear as could be desired. Causal sequencing is always a concern with survey data, but the concern is compounded here because of the delay in getting the surveys to LCP participants in the initial stages of data collection. Future data, where inmates are surveyed immediately upon program entry will help confirm the validity of using these two variables. They were included in these analyses because of the substantive and theoretical importance of the concepts they represent.

There were several scales used to measure the level of inmate motivation for change, feeling of self worth, and community awareness. All of these measures were created from items in the self-reported surveys. The motivation scale was developed by Prochaska and DiClemente (1986), and it is comprised of the four subscales measuring precontemplation, contemplation, action, and maintenance. The overall scale, where the four subscales are combined in a logical fashion, was used for this study. Technically, the scale can range in value from -5 to 15, with higher scores representing greater levels of overall motivation. In practice, scores below zero are infrequently found. The scale measuring self-worth was taken from work done on the Beckley Responsibility and Values Enhancement (BRAVE) project (Innes, 1999). The self-worth scale is comprised of six items that have respondents evaluate “I have much to be proud of,” “In general, I’m satisfied with myself,” “I feel like a failure” (reverse coded), “I wish I had more respect for myself” (reverse coded), “I feel I am basically no good” (reverse coded), and “I feel that I am unimportant to other people” (reverse coded). The scale values for self-worth range from a low evaluation of self-worth of 1 to the highest evaluation of self-worth at 5. A scale tapping into

plans for community integration was established from five items evaluating feelings about “I accept the current society as it is,” “I plan to do some volunteer work after release,” “I plan to help others who are in difficulty after release,” “I plan to participate in a community action program after release,” and “I plan to become an active member of my community after release.” The community integration scale also ranged in value from a low of 1 to a high of 5.

Prior criminal history was controlled with the three variables: the custody/classification score for the inmates, the number of prior incarcerations, and the history of misconduct while in the BOP. Since the count of misconduct during the current incarceration was used, it was necessary to control for the exposure period, so a variable representing the amount of time served prior to completing the survey during the current incarceration was used for the comparison subjects. For the LCP participants, the time at risk variable was the amount of time served prior to entering the LCP program. The time served variable was taken from official records. The custody score is part of the official records of the inmates, and it is a composite score calculated from the following factors: severity of the instant offense,⁷ whether the inmate has detainers from other jurisdictions, prior incarcerations, escape risk, and history of violence. Custody classification scores range from 0, representing the lowest level of risk, to 27, indicating the highest level of risk. The separate variable for number of prior incarcerations was taken from the self-reported survey data. Official data on inmate misconduct for which a guilty finding was returned was used to capture institutional adjustment. The total count of guilty incidents of prison misconduct received prior to either program entry for the LCP participants or survey completion for the comparisons was used.

The variables that represent socio-demographic background include age, race, Hispanic ethnicity, sex, education, and marital status. Age was measured as actual age, and it was taken

⁷ The instant offense is the one with the longest sentence associated with it.

from the official inmate records. Race was coded with a dummy variable representing the effect of being black, with other being the referent group. Race was also taken from official records. There were not enough respondents with a racial category other than black or white to treat separately, so the other racial group members were grouped with whites to create the comparison group. Hispanic ethnicity was treated separately from race. A dummy variable was created to compare Hispanics to non-Hispanics. Hispanic ethnicity was captured in the official inmate files. Sex was coded with a dummy variable to capture the effect of being female, so male was the referent category. Sex is part of the official inmate records. Education was measured for the period before entering prison, and it was coded with two dummy variables. The referent group for education was those inmates with less than a high school education, and the two dummies represented those with a high school diploma and those with greater than a high school diploma. Education and current marital status, the next variable discussed, were taken from the self-report data in the surveys. Never married inmates are the referent group for two dummy variables indicating whether the inmates were currently married when they completed the survey or were divorced/separated.

Statistical Methods

The data were analyzed with standard logistic regression models predicting post hoc whether inmates volunteered for treatment. A preliminary analysis was conducted for program volunteers using a conditional logistic model where the outcome was conditioned on the age, race, and sex of the inmates. Conditional logistic models have the benefit of treating unobserved but constant variables within a unit of analysis as nuisance parameters in the maximum likelihood equation. The practical result is that the effects of unobserved variables are partialled out of the parameter estimates for included covariates, thus lessening the bias in the results for

the covariates of interest that model misspecification otherwise would have created (Hosmer & Lemeshow, 2000). Since the results for the variables of interest here from the conditional logistic models were similar to the results from unconditioned logistic models, the decision was made to present only the unconditioned logistic results.⁸ The unconditional models allow for assessment of the effects of the stratifying variables used in the conditional logistic models, e.g., age, race, and sex. Model fit for the unconditioned logistic models was assessed with pseudo-R² measures, the Hosmer-Lemeshow fit statistic, and the area under the response-operator curve (ROC).

Findings

Descriptive statistics are presented in Table 1 to compare the LCP survey completers to LCP participants who did not complete surveys. Variables coded as dummy variables have means that represent the proportion of individuals with the respective characteristic. The percentage of respondents with a given characteristic can be easily calculated by multiplying the proportion by 100. As can be seen in the table, people currently enrolled in the LCP program make up a larger proportion of the group who were surveyed. Respectively, LCP participants make up about 57 percent of those surveyed whereas they only make up around 26 percent of those not surveyed. On the flip side, those who were expelled from the program and withdrew made up larger percentages of the group of LCP participants who were not surveyed. Clearly, these figures are of concern, and earlier administration of surveys in the future will help capture more information from those who terminate the program before completion. Nonetheless, there were clearly early terminations captured for the present analysis.

The LCP participants who completed surveys did not differ very much from those who did not on the socio-demographic variables from the official records. The most notable

⁸ Results of the conditional logistic regression models are available upon request from the authors.

differences are noted for Hispanic ethnicity and age. A higher proportion of inmates who were Hispanic were in the not surveyed group (around 12 percent) than in the surveyed group (9 percent). Likewise, the not surveyed group was a little older (38.2 years) than the non-surveyed group (37.7 years). These differences do not seem problematic.

Results in Table 2 provide the descriptive statistics for the LCP survey participants and the comparison subject survey completers. As in Table 1, the means for the dummy variables represent the proportion of inmates with the given characteristics. So, for example, the proportion of LCP participants who participated in religious activities before coming to prison was .658. This figure is very close to the proportion of comparison subjects who practiced religion before coming to prison as the corresponding proportion is .667. In other words, about 66 percent of LCP participants practiced religion before being incarcerated and almost 67 percent of comparison subjects. For the continuous variables, such as age, the means are directly interpretable. The mean age for LCP participants was 37.7 years, which was slightly younger than comparison subjects who were 38.7 years of age on average. The scales are not as directly interpretable as they do not have a natural metric. For the Spiritual Experiences scale, for example, the LCP participants averaged 4.96 on a 6-point scale. A value of 1 means no daily spiritual experiences where a score of 6 indicates many experiences a day. So, the value for LCP participants is clearly higher than the value for the comparison subjects (4.26), but the metric is not readily apparent.

Results for the logistic models predicting volunteers for the LCP program are presented in Table 3. As can be seen there, a number of independent variables were related to whether inmates volunteered for the LCP program. Starting with the socio-demographic variables, older inmates, Hispanics, blacks, and females were less likely to volunteer for LCP participation. On

the other hand, inmates with higher rates of attendance in religious services since incarceration were more likely to participate in the program, although inmates who practiced a religion before incarceration were less likely to volunteer. The frequency of prayer was not related to program participation, but the frequency of reading sacred scripture was positively associated with participation. Inmates who felt that they had higher levels of knowledge about their faith were less likely to participate in LCP. Selected comparisons of faith groups and stance toward religion were also tested. In the denominational tests, Catholics, Muslims, other religions, and no religion groups were compared to Christians who were not Catholic. The tests demonstrated Muslim inmates were less likely to volunteer than Christians, while other non-Christian inmates were more likely than Christians to volunteer. Catholics and the no religion group did not differ from Christians. In the religious stance tests, conservative, moderate, liberal, and other response groups were compared to inmates who rated themselves as fundamentalists. Only moderates were significantly different from fundamentalists, and they were more likely to volunteer for treatment.

As expected, those inmates with higher scores on the Prochaska-DiClemente motivation scale were more likely to volunteer for LCP participation. Inmates with higher values on the scale representing desire for community integration were also more likely to be LCP participants. There was no relationship between evaluations of self-worth and participation in the LCP program. For the criminal history variables, both custody classification score and number of incarcerations were related to LCP participation. Inmates with higher custody scores were more likely to be LCP participants, but inmates with more incarcerations were less likely to be involved in LCP.

The model for volunteers provided a reasonable fit to the data. The pseudo-R² measure fell between 0.31 and 0.42 depending upon whether a generalized or an adjusted approach was taken. More importantly, the Hosmer-Lemeshow Goodness-of-Fit statistic suggested that the model produced expected values that were similar to the observed values. A probability value of 0.7662 suggested that the expected values from the model did not differ from the actually observed patterns. Finally, the ROC value of 0.834 also suggested that the modeled responses fit the observed data. Generally speaking, an ROC value that is greater than 0.70 is considered to be acceptable, although larger values are preferable when comparing models.

Discussion

The model for identifying volunteers was generally successful. Several of the variables representing different religious dimensions were related to LCP participation. Variables for the dimensions of attendance, denomination, and study of sacred texts had significant effects (refer back to Table 3). The variables for salience and prayer were not significant in this study. The effects were somewhat sensitive to which religiosity variables were included in the model. This suggests that a better developed theoretical and empirical understanding of the religiosity dimension is needed.

The results also suggest an interesting profile for the type of inmate who volunteers for the LCP program in the BOP. The program seems to have more appeal to inmates who could be characterized as seeking their way in a religious sense. These inmates are attending services regularly since entering prison, they are reading their sacred scriptures, and they tend to be more moderate or liberal in their religious stance. For want of a better term, these inmates who volunteer for the program could be called seekers. The program seems to have less appeal to inmates who are more established in their religious beliefs. Inmates who were more established

in their religious attendance before coming to prison, who are more confident about their understanding of their respective sacred texts, and who are more fundamental in their religious beliefs are less likely to be attracted to the LCP program. Having a more complete range of questions about religion allowed these profiles to emerge.

There were other attitudinal measures associated with volunteering for the LCP program, including self-reported motivation for change. The motivation for change scale was robust to different model specifications. This finding replicates the importance of the change assessment instrument developed by Prochaska and DiClemente (1986) for other BOP programs, including drug treatment and sex offender treatment (Jones, Pelissier, & Klein-Saffran, 2005; Pelissier, 2004a, 2004b). Inmates who were more motivated to make changes in their lives were more likely to participate in the LCP program. The consistency of the Prochaska and DiClemente scale in predicting volunteers for such widely different programs is encouraging. Intuitively, it stands to reason that inmates who volunteer for programming when there is no reduction in sentence are somehow more motivated to bring about positive changes in their lives. Having a tool that is consistently picking up these differences is essential for dealing with the issue of selection bias, e.g., accounting for differences in the types of inmates who volunteer for programs. Somewhat surprisingly, LCP participants did not differ from comparison subjects on the scale of self worth nor the scale of desire for community integration after release.

Conclusions

It is instructive to examine the implications of the findings presented here. For program volunteers, it appears that LCP participants share some characteristics with participants in other BOP programs. In particular, inmates with higher values on the Prochaska-DiClemente motivation scale were more likely to volunteer for the Life Connections Program as was also true

for residential drug abuse prevention treatment (DAP) and the sex offender treatment program (SOTP) (Jones et al., 2005; Pelissier, 2004a, 2004b). Program participation did not just depend upon these more global measures, it was also related to program-specific factors that would probably have little or no relevance to predicting participation in other types of programs. In this case, the program-specific factors were largely related to the dimensions of religiosity.

From these findings, it is clear that measures of motivation and religious orientation are necessary for understanding differences between groups of inmates who volunteer for religious programs and those who do not. More importantly, the study demonstrated that the characteristics that lead inmates to volunteer for the LCP program are not evenly distributed in the comparison and program groups. For example, the average probability of LCP participation for the program group was 0.61 according to the model used here. For the comparison group, the average probability of volunteering for LCP participation was much lower at 0.29. If the factors that account for program participation are also related to outcomes such as prison adjustment or recidivism, then evaluations of religious programs that do not statistically account for these differences are at extreme peril of producing results that are biased in ways not understood or acknowledged. To date, there are no evaluation studies of religious programs that attempt to control for the selection bias. This study does point to a method of addressing the problem of selection bias, e.g., the propensity score approach championed by Rosenbaum and his colleagues that relies upon the predicted probability of program participation to adjust for bias (Rosenbaum, 1995; Rosenbaum & Rubin, 1983).

There are several important policy implications that follow from this study. First, program evaluations for religious programs need to meet rigorous standards if they are to produce meaningful and useful results. It is simply not feasible to construct comparison groups

without giving consideration to the processes that lead inmates to volunteer for programs.

Second, a one-size fits all approach to program evaluations in prisons is not feasible. In well-designed evaluations, it is probably necessary to account for universal differences between inmates who do and do not volunteer for programs as well as factors that are more specific to the program. Finally, the results suggest that program providers need to examine these types of analyses to get a handle on the connection between their program content and the types of inmates attracted into the program. Program attractiveness may not be as universal as sometimes assumed, even for a group that is already a sub-group of the larger prison population. Such an understanding can lead to informed program changes if changes are deemed necessary and/or desirable. In other words, religious program providers need to understand their client base.

Table 1. Comparison of Surveyed and Non-Surveyed LCP Participants

	Not Surveyed			Surveyed		
	Mean	N	Std. Dev.	Mean	N	Std. Dev.
LCP Participant*	0.256	425	0.437	0.572	407	0.495
LCP Completer*	0.228	425	0.420	0.297	407	0.457
LCP Expelled*	0.167	425	0.373	0.049	407	0.216
LCP Withdrew (Voluntary)*	0.320	425	0.467	0.063	407	0.244
LCP Incomplete (Involuntary)*	0.028	425	0.165	0.007	407	0.085
Female*	0.167	425	0.373	0.174	407	0.379
Age	38.247	424	9.501	37.780	407	9.196
Hispanic*	0.122	425	0.328	0.090	407	0.287
Black*	0.569	425	0.495	0.530	407	0.499

* Indicates a dummy variable where the “yes” category, given by the variable name, is coded with 1.

Table 2. Descriptive Statistics for Variables Used in Analysis

	LCP Participants			LCP Comparisons		
	Mean	N	Std. Dev.	Mean	N	Std. Dev.
Spiritual Experience Scale	4.956	403	1.085	4.260	585	1.523
Practiced religion	0.658	398	0.474	0.667	568	0.471
Frequency of service, current	6.703	405	1.795	4.890	582	2.652
Currently Catholic*	0.083	407	0.277	0.130	592	0.336
Currently Islamic*	0.152	407	0.359	0.138	592	0.345
Currently other religion*	0.213	407	0.410	0.118	592	0.323
Currently no religion*	0.020	389	0.142	0.132	559	0.339
Frequency of prayer	7.347	406	1.360	6.353	586	2.344
Frequency of sacred readings	6.652	406	1.708	4.862	587	2.546
Knowledge of own religion	4.385	402	1.238	3.971	558	1.463
Conservative, fundamental referent*	0.180	398	0.385	0.160	572	0.367
Moderate, fundamental referent*	0.306	398	0.461	0.256	572	0.437
Liberal, fundamental referent*	0.120	398	0.326	0.145	572	0.352
Other, fundamental referent*	0.185	398	0.389	0.283	572	0.450
Scale of Self Worth	4.118	406	0.687	4.027	582	0.778
Community Integration Scale	3.988	406	0.605	3.700	581	0.736
Prochaska Motivation Scale	9.553	405	2.082	8.237	575	2.407
Total misconduct findings	1.424	403	3.020	1.266	592	3.126
Custody classification score	10.928	407	4.749	9.350	590	5.211
Number of incarcerations	1.757	391	1.120	1.782	571	1.226
Actual Age in Years	37.763	407	9.196	38.729	591	10.297
Hispanic*	0.090	407	0.287	0.113	592	0.317
Black*	0.530	407	0.499	0.576	592	0.494
Female*	0.174	407	0.379	0.297	592	0.457
High school equivalent*	0.145	405	0.353	0.164	589	0.371
More than high school*	0.338	405	0.473	0.293	589	0.455
Currently married*	0.276	401	0.447	0.304	587	0.460
Currently divorced*	0.296	401	0.457	0.258	587	0.438
Time at risk	3.283	403	3.315	3.227	590	3.327

* Indicates a dummy variable where the “yes” category, given by the variable name, is coded with 1.

Table 3. Factors Predicting LCP Program Participants

<i>Parameter</i>	<i>Estimate</i>	<i>Odds Ratio</i>	<i>Stand. Error</i>	<i>Chi-Square</i>	<i>Pr > ChiSq</i>
Intercept: group=1	-4.8376	-----	1.0601	20.8229	<.0001
Spiritual Experience Scale	0.0535	1.055	0.0974	0.3016	0.5829
Practiced religion	-0.6117	0.542	0.2062	8.7982	0.0030
Frequency of service, current	0.3051	1.357	0.0521	34.3157	<.0001
Currently Catholic*	-0.5372	0.584	0.3157	2.8955	0.0888
Currently Islamic*	-0.6713	0.511	0.2695	6.2056	0.0127
Currently other religion*	0.7296	2.074	0.2582	7.9842	0.0047
Currently no religion*	-0.5509	0.576	0.5624	0.9596	0.3273
Frequency of prayer	0.0201	1.020	0.0685	0.0860	0.7693
Frequency of sacred readings	0.3079	1.361	0.0605	25.9338	<.0001
Knowledge of own religion	-0.1709	0.843	0.0854	4.0074	0.0453
Conservative, fundamental referent*	0.0104	1.010	0.2868	0.0013	0.9710
Moderate, fundamental referent*	0.7049	2.024	0.2686	6.8901	0.0087
Liberal, fundamental referent*	0.5457	1.726	0.3226	2.8612	0.0907
Other, fundamental referent*	0.2907	1.337	0.3075	0.8939	0.3444
Scale of Self Worth	0.0887	1.093	0.1312	0.4566	0.4992
Community Integration Scale	0.1510	1.163	0.1620	0.8687	0.3513
Prochaska Motivation Scale	0.2322	1.261	0.0453	26.2207	<.0001
Total misconduct findings	0.00529	1.005	0.0385	0.0189	0.8908
Custody classification score	0.0283	1.029	0.0210	1.8184	0.1775
Number of incarcerations	-0.2059	0.814	0.0893	5.3140	0.0212
Actual Age in Years	-0.0251	0.975	0.0119	4.4131	0.0357
Hispanic*	-0.6898	0.502	0.3250	4.5064	0.0338
Black*	-0.4512	0.637	0.2110	4.5738	0.0325
Female*	-1.7338	0.177	0.2596	44.6103	<.0001
High school equivalent*	-0.3074	0.735	0.2607	1.3905	0.2383
More than high school*	0.3147	1.370	0.2106	2.2333	0.1351
Currently married*	-0.1285	0.879	0.2352	0.2984	0.5849
Currently divorced*	0.2791	1.322	0.2367	1.3903	0.2384
Time at risk	-0.0193	0.981	0.0339	0.3237	0.5694

* Indicates a dummy variable where the "yes" category, given by the variable name, is coded with 1.

Table 3 – Continued.

Area Under ROC Curve				
<i>c</i>				0.834
<i>Hosmer and Lemeshow Goodness-of-Fit Test</i>				
<i>Chi-Square</i>	<i>DF</i>	<i>Pr > ChiSq</i>		
4.9190	8	0.7662		
<i>R-Square</i>	0.3091	<i>Max-rescaled R-Square</i>	0.4153	

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