# Catholicism and Cohabitation in Canada: A Multi-Religious Assessment of Cornwall's *Determinants of Religious Behavior Model.*

by

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## A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF

## MASTER OF ARTS

in

The Faculty of Graduate Studies

(Sociology)

## THE UNIVERSITY OF BRITISH COLUMBIA (Vancouver)

April 2013

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## Abstract

This paper examines the relationship between belief and behavior as seen in the association between Catholicism and cohabitation in Canada. It analyzes whether belief in the Catholic Church's teachings about sexuality and family life influences parishioners propensity not to cohabit to a greater extent than Protestant and secular (no religion) beliefs. Employing Cornwall's *Determinants of Religious Behavior Model* and data from the 2010 Canadian General Social Survey (Cycle 24: Time-Stress and Well-Being), it was expected that the results would indicate that belief in the Catholic Church's teachings about sexuality and family life influences parishioners propensity not to cohabit to a greater extent than beliefs in Protestant and secular (no religion) doctrines in Canada. That is, belief in the Catholic Church's teachings about sexuality and family life was expected to decrease the likelihood of cohabitation when compared with less resolute Protestant sects and secular (no religion) beliefs. The findings largely support Cornwall's model, however no support was found for the expectation that Catholics would exhibit lower rates of cohabitation compared to Protestants and those who do not affiliate with a religion.

# **Table of Contents**

Abstractii		
Ta	ble of Contentsiii	
Lis	st of Tablesv	
Lis	st of Figuresvii	
Ac	knowledgmentsviii	
1	Introduction1	
2	Review of Literature	
	2.1 Theory Literature	
	2.1.1 Theoretical Foundation (Weber and Lenski)	
	2.1.2 Religiosity and the Cornwall Model	
	2.2 Empirical Literature	
3	Methods13	
	3.1 Research Questions	
	3.2 Hypotheses	
	3.3 Research Design	
	3.4 Data	
	3.4.1 Data Information17	
	3.4.2 Population and Units of Analysis17	
	3.4.3 Sampling Technique and Sample Size17	
	3.4.4 Data Collection17	
	3.5 Weights	
	3.6 Variables (Variable Measures)	
	3.6.1 Dependent Variables: Religious Behavior (Cohabitation)	
	3.6.2 Independent Variables: Religious Variables	
	3.6.3 Control Variables: Province, Income, Country of Origin, Education, Sex, a	nd
	Age	
4	Results	
	4.1 Description of Sample	
	4.2 Dependent Variables	
	4.3 Independent Variables	
	4.4 Control Variables	
	4.5 Hypothesis Testing	
	4.6 Cross-tabulation Results	

	4.7 Bivariate Correlations Results	
	4.8 Additional Bivariate Correlations Results	
	4.9 Binary Logistic Regression Results	35
5	Analysis	40
6	Discussion	48
	6.1 Catholic Canadians' Belief and Behavior	
	6.2 Catholics' Cohabitation Rate vs. Other Religions' Cohabitation Rate	
7	Implications	54
8	Limitations & Future Research	56
9	Conclusion	58
Ref	ferences	61
Ap	pendices	66
	Appendix A: Figure 3 Direct Effects in Cornwall's Model	66
	Appendix B: Figure 4 Variable Operationalization	67
	Appendix C: Variable Information (GSS 2010 Cycle 24)	68
	Appendix D: Revised Codebook (GSS 2010 Cycle 24)	70
	Appendix E: Additional Tables	75

# List of Tables

Table 1	Cross-tabulation between Marital Status of the Respondent (MARSTAT) and Type of Partner the Respondent has within the Household (PRTYPEC)
Table 2	Count
Table 3	Principal Component Analysis of Religion Variable and Religious Strength Variables
Table 4	Correlation and Descriptive Statistics for Main Variables (Weighted by WTVAR)
Table 5	Cross tabulation between Religion and Cohabitation
Table 6	Bivariate Correlation between COHAB and RIMPORT, RATTEND 32
Table 7	Bivariate Correlation between COHAB and VOLUNT
Table 8	Bivariate Correlation for Catholics between COHAB and RIMPORT 33
Table 9	Bivariate Correlation for Catholics between COHAB and VOLUNT 33
Table 10	Bivariate Correlation for Protestants between COHAB and RIMPORT, RATTEND
Table 11	Bivariate Correlation for Protestants between COHAB and VOLUNT34
Table 12	Bivariate Correlation for No Religion between COHAB and RIMPORT, RATTEND
Table 13	Bivariate Correlation for No Religion between COHAB and VOLUNT34
Table 14	Bivariate Correlation for Other between COHAB and RIMPORT, RATTEND
Table 15	Bivariate Correlation for Other between COHAB and VOLUNT
Table 16	Bivariate Correlation between COHAB and Controls (PRV, INCM, BRTHREGC, EDU10, SEX , SEXPR, AGEGR5)
Table 17	Logistic Regression between Religious Variables and Cohabitation
Table 18	Logistic Regression between Religious Variables, Religious Strength Variables and Cohabitation

Table 19	Logistic Regression between Religious Variables, Religious Strength Variables, Control Variables and Cohabitation
Table 20	Logistic Regression between Roman Catholic/Protestant Variable and Cohabitation
Table 21	Correlation and Descriptive Statistics for All Variables (Weighted- WTVAR)
Table 22	Cross tabulation between Religion and Cohabitation (sample estimate)76
Table 23	Cross tabulation between Religion and Province (sample estimate)

# List of Figures

Figure 1	Cornwall's Determinants of Religious Behavior Model	7
Figure 2	Model for Testing the Hypotheses	35
Figure 3	Direct Effects in Cornwall's Model	66
Figure 4	Variable Operationalization	67

## Acknowledgements

I would like to thank the faculty and students of the Sociology program at UBC for helping me to attain a deeper and more comprehensive understanding of various topics of Sociology.

I especially would like to thank Dr. White for his unending support and guidance throughout the Thesis process. Dr. White was instrumental in furthering my education about religion, the family, and quantitative analysis.

I would also like to thank my entire committee, Dr. White, Dr. Yodanis, and Dr. Lauer, for their time spent on my Thesis. Their honest comments were crucial to the direction of my Thesis.

Finally I would like to thank God, my husband, parents, siblings, and close friends. Their constant love and prayers these past months helped me to remain focused and to finish this work.

## **1** Introduction

The rise of cohabitation as a normative union form can be explained by value shifts towards personal satisfaction, alternative family structures, and religious decline (Lesthaeghe, 2010, p. 213- 214; Thornton, 1985, p. 384-385). As seen in the United States, the progress brought about by modern advancements in the areas of economy, technology, education, and health, led to greater independence and opportunities in both education and in the labor force (especially for women and minorities) (Thornton, 1985, p. 381, 384). These developments can be said to have brought about the *Maslowian* ideas depicted by Lesthaeghe in *The Unfolding Story* of the Second Demographic Transition; that is the economic growth of this period led to a conversion of individuals' inclinations from "material needs" (p. 213) to "non-material needs (freedom of expression, participation and emancipation, self-realization and autonomy, recognition)" (p. 213); and so also a change from communal to individual values (Lesthaeghe, 2010, p. 213- 214). Subsequently, the emergence of new values was also accompanied by increases in contraception use, pre-marital sex, cohabitation, and divorce; as well as lower fertility and marital rates (Lesthaeghe, 2010, p. 211- 214, 246; Thornton, 1985, p. 381, 383, 384 citing Thornton and Freedman, 1983; and Mosher, 1982). Finally, as attitudes and values became more individualized, so also the way people viewed religion became more independent and more subjective to personal feelings about morality (Thornton, 1985, p. 385). Although major contradictions between societal and religious norms and values about sexuality, marriage and family came forth, such conflicts did not foster much vexation among many adherents (Thornton, 1985, p. 385). Rather, new forms of sexuality, marriage and family also appeared among many religious groups (Thornton, 1985, p. 385).

Currently the growth of cohabitation has been noted by several scholars (Manning & Smock, 2005, p. 989; Sassler, 2004, p. 491). Among the theoretical approaches for understanding cohabiting behavior, this work will focus on the theoretical constructs of Weber, Lenski and Cornwall, to explain the relationship between Catholic's beliefs and Catholic's behavior. Since the Catholic Church does not view the behaviors encompassed in cohabitation (extra-marital sex and possibly contraceptive usage) as beneficial to its adherents, not cohabiting will be regarded as religious behavior and cohabiting as non-religious behavior.

Presently, amidst the trends discussed above, some religions continue to promote traditional family values and traditional orientations to family formation. The way members of such groups then form families reflects one way these individuals respond to the contradictions between their macro societal and group-specific norms. Although the findings vary, some past studies about the family formation among adherents of such groups continue to point to the association between a number of measures of religion and issues of family life (Thornton, 1985, p. 386; Goodwin, Mosher, & Chandra, 2010, p. 10). This then raises several questions: How do members of counter-cultural groups, who do not adhere to the norms, values, and beliefs contained in these trends, behave (form families) in response to the contradictions between society and their groups' beliefs? Does religious belief still influence decision making and behavior in an era of value shifts, family transitions, and religious decline? More specifically, does belief in religions that promote traditional family values and traditional family formation structures still influence family formation patterns such as the likelihood of cohabiting?

Building upon these questions the following examines the relationship between religious belief and cohabiting behavior by assessing whether belief in the Catholic Church's teachings about sexuality and family life influences parishioners adherence to Catholicism's teachings and

2

consequently their propensity not to cohabit to a greater extent than Protestant and Secular (no religion) beliefs in Canada. In other words, does belief in the Catholic Church's teachings about sexuality and family life influence parishioners propensity not to cohabit to a greater extent than other religious beliefs in Canada? Does belief in the Catholic Church's teachings about sexuality and family life decrease the likelihood of cohabiting to a greater extent than Protestant and Secular (no religion) beliefs?

As cohabitation becomes more and more prevalent in Western countries, the answers to these questions are extremely relevant today. The results of this work will contribute to both the body of knowledge about the influence of modern values shifts, family transitions and decline of religion on family formation patterns. As well as to the body of knowledge about the ways members of groups, who do not adhere to the norms and values contained in these trends behave (form families), in response to the contradictions between society and their groups' beliefs. Furthermore, although these findings will be particularly beneficial to academics in the fields of culture, religion and family; these results could also be utilized by academics across a number of disciple, by those who study the effects of values shifts, family transitions and decline of religion. Finally, this research will serve the many groups that hold norms, values, and beliefs that are in opposition to these societal trends. It will allow such groups to observe some of the ways members respond the dichotomy between macro societal and group-specific influences and so will enable them to assess modes of aiding their members in reconciling the contradictions they face daily between larger society and their beliefs (for instance: program development to help their adherents understand *why* their group upholds their specific norms, values and beliefs).

## 2 Review of Literature

## 2.1 Theory Literature

Selected works by Weber (1930/2005), Lenski (1963) and Cornwall (1989) were utilized to guide the theoretical orientation of this work. First, the *Protestant Ethic and the Spirit of Capitalism* (2005) by Weber; and *The Religious Factor: A Sociologist's Inquiry* (1963) by Lenski, were reviewed to provide a theoretical foundation of the study of belief and behavior. Second, *The Determinants of Religious Behavior: A Theoretical Model and Empirical Test* (1989) by Cornwall, was reviewed to provide the theoretical and methodological framework of this research.

### **2.1.1 Theoretical Foundation (Weber and Lenski)**

Max Weber was first to establish a relationship between belief and financial behavior through his observation about Protestant beliefs and capitalism (Weber, 1930/2005, p. 3). In his work the *Protestant Ethic and Spirit of Capitalism*, he noted: "Business leaders and owners of capital, as well as the higher grades of skilled labour, and even more the higher technically and commercially trained personnel of modern enterprises, are overwhelmingly Protestant" (p. 3). This initial observation led him to postulate that some aspects of Protestant belief impelled behavior that was financially profitable. He termed this the *Spirit of Capitalism* (p. 37). Weber thought the "rationalism" (p. 37) of Protestant beliefs (brought about by the Reformation), led to the view that salvation was attainable through doing one's work well (that is: working with dedication and honesty) and not lavishing in the returns of work (p.xi, 37, 48, 98, 116). Thus, Protestants' hard working and pious approach to religion unintentionally resulted in Capitalism (p. 48).

Then in 1963, Lenski utilized Weber's ideas from the Sociology of Religion and conducted a set of cross-sectional interviews, to evaluate: "The impact of religion on secular institutions" (Lenski, 1963, p. 1) in Detroit. (p. 1, 8). His study, depicted in his book: The *Religious Factor* (1963), expanded Weber's analysis by postulating that religion influences all types of behavior- not just economic; as he stated: "God is concerned with the whole of men's lives... He is not merely the Lord of the Sabbath, but is equally concerned with men's activities the other six days of the week: their work, their play, their politics and their family life" (p. 1) (p. 8). To measure religion, Lenski examined two forms of "Religious commitment" (p. 18), that is: "Socio-religious group membership" (p. 18), and "Religious orientation" (p. 24). He conceptualized "Socio-religious group membership" (p. 18) by "Communal and associational aspects of religious groups" (p. 21); in this he also considered the "Degree of group involvement" (p. 22). He also conceptualized "Religious orientation" (p. 18) by "Doctrinal orthodoxy and devotionalism" (p. 25). In the end, among his results, Lenski found that religion does move individual agents and so also their social institutions (p. 320). In his own words: "Religious organizations remain vigorous and influential in contemporary American Society" (p. 319).<sup>1</sup>

## 2.1.2 Religiosity and the Cornwall Model

Cornwall (1989) builds on previous works done on religious belief and behavior to explain religious behavior among Mormons (members of the Latter- day Saints Church) (p. 572). In her *Determinants of Religious Behavior Model*, Cornwall poses a theoretical model (see Figure 1 or Appendix A for figure of model) to explain the common indicators between the two concepts with new measures (p. 572, 578- 579). She conceptualized religion with the five prominent contributors of religious behavior: "Group involvement, belief-orthodoxy, religious commitment, religious socialization, and sociodemographic characteristics" (p. 572).

<sup>&</sup>lt;sup>1</sup> See Bibby (2002) for findings about religion in Canadian society.

"First, Cornwall assessed the influence of religious belief and commitment on religious behavior. (Cornwall, 1989, p. 581) She did this in two ways. She created scales that considered "institutional" (p. 581) and "personal" (p. 581). (Cornwall et al. 1986; Cornwall, 1989, p. 581) Since her population was Mormon, she concentrated her analysis on Christian beliefs and specific Mormon beliefs (Cornwall, 1989, p. 581- 582). Then she also created scales of "spiritual commitment" (p. 582) and "Church commitment" (p. 582); she assessed attitudes about God and the religious group (Cornwall, 1989, p. 582) Second, Cornwall examined "personal community relationships" (p. 575) or the degree of group involvement through network measurements. Since people who are more involved in a group appear to be more likely to live like the group, she looked at the positions of people's ties (in- group or out-group) and at the ties' strength. (Cornwall, 1989, p. 575) Third, Cornwall evaluated the influence of socialization on religious behavior. She reviewed the parent's religion, the parent's church attendance, the role of religion in the home, church involvement as a youth, and involvement of friends in a Mormon church program. (Cornwall, 1989, p. 582- 583) Finally, Cornwall measured five socio- demographic variables. She studied marital status, education, gender, and geographic location (Cornwall, 1989, p. 583)" (Kaufmann, 2012, p. 6-7).

Cornwall found significant effects between all the religious measures of her model and religious behavior (Cornwall, 1989, p. 587). Notably, she found distinctions in the ways these elements influence behavior; as she explained: "Religious commitment has the strongest direct effect. Belief, personal community relationships, and religious socialization variables also influence behavior, but their influence is primarily indirect. Personal community relationships indirectly influence religious behavior by helping individuals maintain a religious world view and commitment to the norms and expectations of the religious group" (p. 572). In other words,

according to Cornwall, belief and commitment to group's norms, can be considered the best predictors of behavior, since they reflect the valuation of a group's promulgated behaviors (p. 587). Furthermore, the presence of "in-group ties" (p. 588) and gender and education attributes also seem to be crucial indicators of the relationship (p. 589).



Figure 1. Cornwall's Determinants of Religious Behavior Model (Cornwall, 1989, p. 579).

This research applies Cornwall's model by using variables that follow Cornwall's methodological categories of religion and religious behavior. Sixteen variables were selected from the 2010 Canadian General Social Survey (Cycle 24: Time-Stress and Well-Being)<sup>2</sup>, to measure religion according to: "Group involvement, belief-orthodoxy, religious commitment, religious socialization, and sociodemographic characteristics" (1989, p. 572). Furthermore, considering that behavior done in adherence to a religious doctrine or teaching is religious behavior, cohabitation was chosen to measure religious behavior. Since the Catholic Church regards the defining features of cohabitation (sexual intimacy without marriage and with the

<sup>&</sup>lt;sup>2</sup> See Appendix D for Revised Codebook.

possibility of contraceptive usage) as behavior that is not beneficial, not cohabiting would reflect adherence to the Catholic Church's teachings about sexuality.

## **2.2 Empirical Literature**

The body of knowledge about religion and cohabitation is not momentous. Nonetheless scholars have made substantial findings about: The influence of religion on attitudes towards cohabitation (Wardle [2004], Wu & Balakrishnan [1992], and Ellison, Wolfinger, & Ramos-Wada [2012]), the influence of personal religiosity on union formation (Rhoades, Stanley, & Markman [2009], Eggebeen, & Dew [2009], Wilcox, & Wolfinger [2007], Goodwin, Mosher, & Chandra [2010], Thornton, Axinn, & Xie [2007], and Thornton, Axinn, & Hill [1992]), the influence of religiosity of family on union formation (Thornton, Axinn, & Xie [2007], Manning, Cohen, & Smock [2011], Thornton, Axinn, & Hill [1992]), the influence of religiosity of geographic location on union formation (Popenoe [2009], Gault-Sherman & Draper [2012], Laplante [2006], and Le Bourdais & Lapierre Adamcyk [2004]) and the patterns of cohabitation across religious groups (Ambert [2005b], Lehrer [2000], Adamczyk, & Hayes [2012], and Thornton [1985]).

Although the findings vary it appears there is significant evidence to postulate that religious factors influence adherents' behavior in matters of sexuality and family life. Among the findings about religion and attitudes towards cohabitation, both Wu & Balakrishnan (1992) Ellison, Wolfinger, & Ramos-Wada (2012), found a negative relationship between religion and attitudes about cohabitation. In 1992, Wu & Balakrishnan identified a significant association between attitudes, religion and religiosity (p. 10). They noted that: "Quebec women and Catholics are found to be more liberal in their attitudes than non-Catholics and non-Quebec women in this study" (p. 8-9). Two decades later, in 2012, Ellison, Wolfinger, & Ramos-Wada, found a positive relationship between high levels of religiosity and holding traditional views among Latinos (p. 1). As they explained: "Latinos who attend services regularly and pray frequently also report more traditional views" (p. 1). Furthermore they found that attitudes differ across religious groups (p. 1). They detected that: "Compared with Catholics, evangelical Protestants tend to hold more conservative attitudes on family-related issues" (p. 1). Although both of these studies focused on the relationship between religion and attitudes, their findings are important because as Wardle (2004) describes in his article "Withering away of marriage: Some lessons from the Bolshevik family law reforms in Russia, 1917-1926", attitudes about matters of sexuality and family have influenced people's intimate behaviors (p. 470, 474). As he illustrates, four ideological elements aggravated people's behavior during the Bolshhevik period in Russia: "(1) belief that marriage should and would "wither away" (which devalued both marriage and parenting), (2) disrespect for and denigration of "form" in family relations, (3) rejection of traditional sexual morality, and (4) hostility to religion" (p. 470, 474). In turn, since the "Separation of the connection between religion and marriage was integral to the withering away of each institution" (p. 480), it can be inferred that the devaluation of religion and so also of religious marriage, diminished the significance of marriage, and prompted participation in other union forms (p. 470, 474, 480).

Consequently among the findings about religion and cohabitating behavior, Thornton, Axinn, & Hill (1992), Lehrer (2000), Eggebeen, & Dew (2009), Goodwin, Mosher, & Chandra (2010), Thornton, Axinn, & Xie (2007), Popenoe (2009), Manning, Cohen, & Smock (2011), Gault-Sherman & Draper (2012), also found negative associations between religious factors and cohabitation.

In the early 1990s, Thornton, Axinn, & Hill (1992), found evidence for the influence of personal religiosity on union formation: "Low levels of religious importance and participation are related to high rates of cohabitation and low rates of marriage in that less religious young people are much more likely than their more religious peers to cohabit than to marry. People without religious affiliations also opt more for cohabitation and less for marriage than do people who identify with a religious group" (p. 647). Similarly, in the late 2000s, Eggebeen & Dew (2009) and Goodwin, Mosher, & Chandra (2010) also found that aspects of personal religiosity influence the likelihood of cohabiting. Eggebeen & Dew (2009) found that the likelihood of cohabitation was smaller for Catholics who attended Church regularly and displayed "fervor" (p. 118) than for "devout" (p. 118) Conservative Protestants (p. 118). Likewise, a report about the 2002 NSFG (National Survey of Family Growth) by Goodwin, Mosher, & Chandra found that: "60% of non-Hispanic white women for whom religion was 'very important' in their daily lives were currently married, compared with 36% of white women for whom religion was 'not important.' Similar patterns in marital or cohabiting status by importance of religion were found for non-Hispanic men and women, black men, and Hispanic men and women" (2010, p. 10).

In the late 2000s support also appeared for the influence of the religiosity of family on union formation. In 2007 Thornton, Axinn, & Xie found that: "Young adults who are from more religious families and are more religious themselves have substantially higher marriage rates and lower cohabitation rates than young adults who are less religious and come from less religious families" (p. 322). Likewise, Manning, Cohen, & Smock (2011) found that: "Religious socialization was closely linked to family influence in two ways. First, some emerging adults adopted the religious beliefs of their family and had a negative perception of cohabitation. Second, some emerging adults did not always follow their parents' views and formed their own opinions regarding cohabitation outside their familial network" (p. 141).

Finally, in 2012 Gault-Sherman and Draper found that religious networks and communities and the religiosity of one's geographic location also influences union formation. Gault-Sherman and Draper (2012) found that evangelical were less likely to be cohabiting in 2000 (p. 45). Interestingly, they found that the degree of this correlation varied by geographic location and religious group (in this case Southerners and Christians exhibited higher correlations) (p. 45).

While these existing findings have brought a lot of insight into various aspects of the topic, they are greatly limited by the measures utilized to operationalize religiosity. By only focusing on a single or inadequate number of measures for religiosity, most previous studies not only yield incomplete explanations about the topics studied, but they also misrepresent the level of religiosity of the religious groups studied. For instance, in the early 1990s, Wu & Balakrishnan (1992) examined: "The attitudes towards cohabitation and marriage in Canada and... the structural variables which mold such attitudes" (p. 1) with only two religious measures. Although they made conclusions about the relationship between attitudes and "structural variables", such as religion and religiosity, their measures only assessed religious affiliation (Catholic and non- Catholic) and church attendance (p. 6-7). Likewise in the late 2000s, Wilcox & Wolfinger (2007), Rhoades, Stanley, & Markman (2009), and Goodwin, Mosher, & Chandra (2010) only included a single religious measure in their studies. Wilcox & Wolfinger (2007) only measured: "*Frequent attendance*" (p. 575)<sup>3</sup>. Rhoades, Stanley, & Markman (2009) only measured personal reports of degree of religiosity: "'All things considered,

<sup>&</sup>lt;sup>3</sup> Note Wilcox & Wolfinger (2007) modified their religious assessments by "religious denomination to account for faith-specific differences in religious participation." (p. 575).

how religious would you say that you are?' The response scale ranged from 1 (*not at all*) to 7 (*very religious*)" (p. 241). And Goodwin, Mosher, & Chandra (2010) only measured: "Importance of religion... 'Currently, how important is religion in your daily life? Would you say very important, somewhat important, or not important?"" (p. 10). Finally among the most recent studies on the topic, Ellison, Wolfinger, & Ramos-Wada's 2012 study included four measures of religiosity. Ellison, Wolfinger, & Ramos-Wada (2012) measured: "Denomination, church attendance, prayer, and beliefs about the Bible" (p. 1). Although their measures yielded more valid results, studies like Ellison, Wolfinger, & Ramos-Wada (2012) are rare, and they also lack additional factors of religiosity such as: "Religious socialization" (Cornwall, 1989, p. 572).

It then seems that the most accurate assessment of religiosity to date is Marie Cornwall's 1989 study: "The Determinants of Religious Behavior: A Theoretical Model and Empirical Test." As mentioned above, in her study Cornwall reviewed past measures used in studies about religiosity and created a model (found in Appendix A) which examined five measures of religiosity: "Group involvement, belief-orthodoxy, religious commitment, religious socialization, and sociodemographic characteristics" (p. 572). Her model enabled her to validly analyze the relationship between the multiple facets of religiosity and religious behavior among Mormon adherents (p. 572). Building upon Cornwall's study, this work applies Cornwall's model to examine religious behavior across religious groups by determining whether belief in the Catholic Church's teachings about sexuality and family life influence parishioners propensity not to cohabit to a greater extent than other religious beliefs in Canada; and whether belief in the Catholic Church's teachings about sexuality and family life decrease the likelihood of cohabiting to a greater extent than Protestant and Secular (no religion) beliefs.

## **3 Methods**

## **3.1 Research Questions**

This project began by asking: *Does religious belief still influence behavior in an era of value shifts, family transitions, and religious decline?* Or *do religious beliefs that promote traditional family values and traditional family formation structures still influence the likelihood of cohabiting amidst these trends?* 

After selecting Catholic, Protestant and Secular (no religion) adherents as the study population, Catholic adherents as the study sub-population, and cohabitation as the nontraditional religious behavior, these questions were then also modified to examine the relationship between Catholicism and cohabitation in particular. The questions were then reframed as follows: *Does belief in the Catholic Church's teachings about sexuality and family life influence parishioners adherence to Catholicism's teachings and so their propensity not to cohabit to a greater extent than other religious beliefs?* So specifically: *Does belief in the Catholic Church's teachings about sexuality and family life decrease the likelihood of cohabiting to a greater extent than Protestant and Secular (no religion) beliefs? Does belief in the Catholic Church's teachings about sexuality and family life decrease the likelihood of cohabiting to a greater extent than family life decrease the likelihood of cohabiting* 

Furthermore, as an added dimension for analysis, this study also utilized the answers to the questions above to reveal *how members of counter-cultural groups, who do not adhere to the norms and values contained in these trends, behave (form families) in response to the contradictions between society and their groups' beliefs.* 

## **3.2 Hypotheses**

The following includes two hypotheses. First, belief in the Catholic Church's teachings about sexuality and family life influences parishioners' propensity not to cohabit to a greater extent than belief in other religious doctrines in Canada. In other words, belief in the Catholic Church's teachings about sexuality and family life decreases the likelihood of cohabiting to a greater extent than belief in Protestant, and Secular (no religion) doctrines. Second, belief in the Catholic Church's teachings about sexuality and family life influences parishioners' propensity not to cohabit in Canada. In other words, using Cornwall's model, belief, commitment and group involvement in the Catholic Church's teachings about sexuality and family and family life decreases the likelihood of cohabiting.

H1: Belief in the Catholic Church's teachings about sexuality and family life decreases the likelihood of cohabiting to a greater extent than belief in other religious doctrines.

H1a: Belief in the Roman Catholic Church's teachings about sexuality and family life decreases the likelihood of cohabiting to a greater extent than belief in Protestant, and Secular (no religion) doctrine.

(Religious Affiliation [RELIGION], Belief & Commitment Scale [RIMPORT,

RATTEND], Group Involvement Scale [VOLUNT], COHAB).

H2: Belief in the Catholic Church's teachings about sexuality and family life decreases the likelihood of cohabiting.

H2a: Belief, Commitment, and Group Involvement in the Roman Catholic Church's teachings about sexuality and family life decreases the likelihood of cohabiting. (Religious Affiliation [RELIGION], Belief & Commitment Scale [RIMPORT, RATTEND], Group Involvement Scale [VOLUNT], COHAB).

### **3.3 Research Design**

The design of this study compares Catholic, Protestant and secular (no religion) in terms of their choice of cohabiting. A number of tests were conducted using SPSS software to ensure the concepts of the study were measured accurately and that the results of this work were valid and reliable.

First, several tests were conducted to arrive to the final measurements of the hypotheses proposed above. For the independent variables, a univariate frequency analysis was run to ascertain the degree of missing cases in the variables; a bivariate correlation matrix was created to depict the relationship between the variables; and the relationship between the sets of variables was carefully observed to determine the level of association between the sets of variables. These initial tests revealed that the amount of missing cases was not large; that many of the variables were not highly correlated to the other variables; that many of variables were significantly correlated to all the variables; and that the sets were found to be correlated to a small yet significant degree. These results showed to be problematic and so the variables were put into a smaller file and revised. Once the errors from the larger file were removed a factor/principal components analysis was run to determine the common factors amongst items composing scaled variables and then a reliability analysis was conducted on the components of the Belief and Commitment scale to ensure that the scale was reliable (highly associated). In the end the final measurement for the independent variables was determined to include: Religious Affiliation (RELIGION), a Belief & Commitment Scale (RIMPORT, RPRAC, RATTEND), and a Group Involvement Scale (VOLUNT).

For the dependent variables, an initial measurement was constructed that utilized MARSTAT (Marital status) and PRTYPEC (Type of partner in household). It seemed that the inclusion of both variables would be both reliable and valid by indicating whether respondents were currently cohabiting or currently not cohabiting (1 vs. 0) and whether respondents had a common-law partner in the household. But a simple frequency analysis revealed that the

15

respondents' responses regarding living with a common- law partner and having a common-law partner in their household were not equivalent. It appeared the error was a result of issues surrounding sexual orientation. Several explanations were synthesized to explain the incongruences between the responses but in the end a subsequent attempt to recode the two variables showed that the measurement was inadequate (the recode showed further frequency problems between the variables). Consequently, the measurement was re-assessed and three further issues (discussed below) were identified with the measurement. As a result, a cross-tabulation test was conducted and finally it was determined that only the third category of PRTYPEC (Type of partner the respondent has within the household) should be used to measure cohabitation accurately. The measure was named "COHAB" and it was concluded that it should include a recoded measure of the third category of PRTYPEC.

Second, four tests were run to analyze the proposed hypotheses of this work with the derived measurements discussed above. First, a cross tabulation test was run across the three religions examined to see the overall difference in cohabitation by religion. Second, two bivariate correlations were run to ascertain whether the expected predictions were correct. Third, a total of eight additional bivariate correlations were run to examine the specific results of each religious group of this study (Roman Catholic, Protestant, No Religion and Other). Fourth, a full a model to test the hypotheses reliably and validly was constructed and four binary logistic regression analyses were run to test the model.

## 3.4 Data

This work employed the "General Social Survey Cycle 24: Time-Stress and Well-Being, 2010- Main File" data. The data set was chosen in order to measure religious belief following to Cornwall's *Determinants of Religious Behavior* Model.

## **3.4.1 Data Information**

Began in 1985, the GSS is a national survey composed of cross-sectional data aimed to inform both those examining "social trends" (Abacus Nesstar) in Canada, and policy makers. Specifically, "Cycle 24 is the fifth cycle of the GSS dedicated to collecting data on time use" (Abacus Nesstar). This can be observed in both the data's time use diary (Abacus Nesstar) and the activities section (primary and simultaneous) (Abacus Nesstar). The data set was produced by Statistics Canada's Social and Aboriginal Statistics Division; and the data XML documentation was produced by the University of British Columbia Library Data Services (Abacus Nesstar).

## **3.4.2** Population and Units of Analysis

The data measures the Canadian population at the individual level of analysis. Individuals 15 years old and older were selected. Exclusions include: Yukon, the Northwest Territories, Nunavut and "full-time residents of institutions" (Abacus Nesstar).

## 3.4.3 Sampling Technique and Sample Size

Participants were randomly selected through the use of Random Digit Dialling (RDD). An individual was asked to participate from each selected household. The sample was organized according to 27 strata from Canada's provinces. The total sample size included 15, 390 individuals (Abacus Nesstar).

## **3.4.4 Data Collection**

The data was collected through telephone surveys using *computer assisted telephone interviewing* (CATI). The interviews were carried out Monday to Friday from 9:00 am to 9:30pm, and Saturdays and Sundays from 1:30 pm to 9:00pm. Interviews were conducted in the language chosen by the participant being interviewed. Participants were asked "classification" and "core content" questions. "Classification" questions refer to questions about demographic variables; while "core content" questions refer to questions about specific life features (Abacus Nesstar). The data collection lasted from January to December of 2010. This time period included six waves of two months frames. The response rate was 55.2% (Abacus Nesstar).

## 3.5 Weights

Since boot strap weights cannot be used with SPSS software, the first and second hypotheses were weighted using a normed per weight (WVAR) to attain an unbiased sample estimate. The algorithym for the population estimate provided by Statistics Canada, wtvar= WGHT\_PER / mean of WGHT\_PER, did not work and was not supported in this work.

#### **3.6 Variables (Variable Measures)**

#### **3.6.1 Dependent Variables: Religious Behavior (Cohabitation)**

Religious behavior was measured by examining cohabitation among Secular, Roman Catholic, and Protestant adherents (hypotheses H1, H2a). The final measurement was derived in three ways. First, prior to making a new variable to measure cohabitation it was found that three issues existed when using the "living common law" category of "marital status". The first two issues came from the term "living common law" itself. Respondents might assume that living common law refers to a formal living situation which is recognized by the state or if respondents are also "separated" or "divorced" they might identify themselves under those categories (here listed as mutually exclusive) rather than as "living common law." The third issue related to the demographics of those who cohabit. Both same sex and opposite sex couples cohabit. This is problematic for this analysis because same sex cohabitation not only negates the Catholic Church's beliefs by the living structure and potential sexual activity outside of marriage, but also by the sexual orientation of the relationship. In order to maintain the focus of the hypotheses discussed above, only opposite-sex couples were included in the analysis. Second, after resolving the last pending issues a cross-tabulation test was conducted between MARSTAT (Marital status of the respondent) and PRTYPEC (Type of partner the respondent has within the household). As seen in Table 1 below, the test revealed that a total of 1289 respondents identified as "living in common-law." A closer analysis of the results indicated that under "Type of partner the respondent has within the household" 1221 of the respondents identified as having an opposite sex partner, while only 38 respondents identified as having a same sex partner or spouse. Furthermore, thirty persons who identified as "Living common-law" under marital status also checked "Respondent has no spouse/partner in the household." Note no respondents indicated that they had a same or opposite sex partner living in the household and that they were also separated or divorced.

## Table 1

Cross the human between man that that status of the Respondent (minted in the type of I at the					
the Respondent has within the Household (PRTYPEC). Count.					
Marital status	Respondent	Respondent	Respondent	Respondent	Total
of the	has no	has an	has an	has a same sex	
respondent	spouse/partner	opposite sex	opposite sex	spouse/partner	
	in the	married	common-law	in the	
	household	spouse in the	partner in the	household	
		household	household		
Married	153	7449	0	15	7617
Living				• •	1.000
common-law	30	0	1221	38	1289
Widowed	1463	0	0	0	1463
Separated	474	0	0	0	474
Divorced	1224	0	0	0	1224
Single (Never married)	3283	0	0	0	3283
Not stated	34	0	0	0	34
Don't know	6	0	0	0	6
Total	6667	7449	1221	53	

Cross-tabulation between Marital Status of the Respondent (MARSTAT) and Type of Partner

Third, it was determined that only "Type of partner the respondent has within the household" should be utilized to measure cohabitation; and more specifically, that only the third category of that variable (respondent has an opposite sex common-law partner in the household) should be selected as measuring cohabitation (thus coded 1) and that all other categories of that variable should be coded 0. The new variable was named "COHAB" (see Table 2 for frequencies). The former was done for a couple of reasons. First, it was found to alleviate the confusion with the term "Living common-law." Second, it eliminated the inconsistency between the reports of those "Living common-law" under marital status and those who checked "Respondent has no spouse/partner in the household" in PRTYPEC. Third, since the Catholic Church teaches that acting on homosexual inclinations is not moral, the analysis was intentionally focused on opposite-sex couples to eliminate potential high associations between other factors that violate Church teaching (such as homosexuality) and cohabitation which would make the results multicollinear.

 Table 2

 Frequency analysis for COHAB

	Frequency (%)
.00	13724 (89)
1.00	1598 (10)
Total (N= 15323)	15390 (100)

Note: N refers to the number of valid cases.

## 3.6.2 Independent Variables: Religious Variables

The first and second hypotheses were tested with the use of religious measures that followed Cornwall's *Determinants of Religious Behavior* Model; that is: "Group involvement, belief-orthodoxy, religious commitment" (Cornwall, 1989, p. 572). Six variables from the data were selected to achieve this end: Religious Affiliation (RELIG6), a Belief & Commitment Scale (RLR\_Q110, RLR\_Q120, RELIGATT), and Group Involvement Scale (VCG\_Q300, MAP\_Q250). To create the scales first a factor/principal components analysis of the variables was conducted to determine the common factors between the variables. Then once the common factors/principal components between the variables were determined, a reliability analysis was conducted on the components of the Belief and Commitment scale to ascertain that the association between the variables in the scale was reliable (highly associated).

Initially the measurement for the religious variables was to be composed of three independent scales for religious belief, religious commitment and group involvement. As seen in Table 3 below, the initial configuration showed to be problematic. The desired variables for each scale were not found to have similar factors or principal components. Rather it was found that Religious Affiliation and Volunteering were independent, and that Importance of belief, Religious Practice and Religious Attendance shared the same factors or principal components.

### Table 3

Principal Component Analysis of Religion Variable and Religious Strength Variables

Religion Variable and Religious Strength Variables	Component (1)
RELIGION	134
RIMPORT	+61.
	.863
RPRAC	.823
RATTEND	.801
VOLUNT	.265

Note. 2 components extracted.

Hence the variables were reconceptualised to explain the different and similar factors among the variables. First, RELIG6 or RELIGION (Religion of respondent) was selected to merely identify respondent's religious affiliation. As the factor analysis supports, one can belong to a religious group yet not practice that religion or attend church services. Following Cornwall's Model, the second hypothesis only analyzed the responses of those who reported affiliation to the Roman Catholic Church. Second, RLR\_Q110 (Importance of religious/spiritual beliefs), RELIGATT ("Religious attendance"), and RLR\_Q120 (Frequency of religious or spiritual activities), were used to create a Belief and Commitment scale (RIMPORT and RATTEND). The scale included three dimensions: importance of belief, informal commitment and formal commitment. The scale measured the degree of importance attributed to respondent's reported belief system (strength or weakness of the reported belief), the degree of informal religious commitment and the degree of formal religious commitment. These variables were measured in a single scale for three reasons. First, as explained above the factor/ principal components analysis of these variables revealed that these three variables shared the same factor to a large degree. Second, a reliability analysis of the components also indicated that scaling of the variables would yield a reliable scale (Cronbach's alpha .74). Third, the scale was also found to be a valid scale since it is speculated that a person who holds specific religious beliefs as highly important will be more likely to practice those beliefs in their daily actions and to attend church services.

Finally, VCG\_Q300 (Annual "unpaid volunteer work") and MAP\_Q250 (Hourly rate of "unpaid volunteer work" "last week") were used to create the Group Involvement Scale (VOLUNT) to measure the frequency and degree of group involvement outside of church services. This measure was independent of the other measures since it did not always include involvement an activity that was religious and so respondents who showed a high degree of group involvement did not necessarily feel very strongly about the beliefs of the group or the practices of those beliefs in private.

# **3.6.3** Control Variables: Province, Income, Country of Origin, Education, Sex, and Age

Furthermore the relationship was controlled by a number of demographic factors (see Appendix C for variable information). The control variables included: Province Variable (PRV), Income Variables (INCM), Country of Origin (BRTHREGC), Education (EDU10), Sex (SEX), Age (AGEGR5).

## 4 Results

## **4.1 Description of Sample**

The sample consisted of 15, 390 Canadian individuals (Abacus Nesstar). The respondents were 15 years old and older, male and female, of all income groups<sup>4</sup>, from all areas of Canada (expect for: Yukon, the Northwest Territories, Nunavut), and they were not "full-time residents of institutions" (Abacus Nesstar).

## **4.2 Dependent Variables**

The dependent variable in this study was "cohabitation" (COHAB). Data on this variable was available across religious groups. Conceptually "cohabitation" was defined as a union form were two persons of the opposite sex live in the same household under a common-law partnership.

The variable was measured by the type of partner the respondent has within the household. If the respondent had an opposite sex common-law partner in their household then he or she was considered to be cohabiting. If the respondent had no spouse/partner in the household, had an opposite sex married spouse in the household, or had a same sex spouse/partner in the household, then he or she was not considered to be cohabiting. Since variable was binary (1,0), means were used to give the average proportion of the sample. Table 4 shows the mean, standard deviation and correlations for COHAB.

<sup>&</sup>lt;sup>4</sup> The sample was composed of those with telephones and so those of lower income groups were initially underrepresented: "Survey estimates were adjusted (weighted) to represent all persons in the target population, including those without telephones. The characteristics of the population without telephones were examined using data from the 2009 Survey of Household Spending. Telephone ownership was high among virtually all socio-economic groups, but was lowest among the households with the lowest household income (less than \$10,000). The telephone ownership rate was 94% for this population, while it was over 97% for all other income groups" (Abacus Nesstar).

## **4.3 Independent Variables**

The independent variable for religious affiliation in this study was "religion of respondent". The original name of the variable was "religion of respondent" (RELIG6). The variable was recoded and renamed to clarify which respondents affiliated with the selected religions of this study (and if so which ones) and which respondents did not. Data on this variable was available across the type of partner the respondent has within the household. Conceptually this variable included one of the following: No religion, the Roman Catholic Church, the Protestant churches and Other. This variable was measured by respondents' reported affiliation to one of the four religious groups. Table 4 shows the mean, standard deviation and correlations for Religion.

The independent variable for the belief scale in this study was "Importance of religious/spiritual beliefs" (RIMPORT). The original name of the variable was "Importance of religious/spiritual beliefs" (RLR\_Q110). The variable was recoded and renamed into a belief and commitment scale for four reasons. First, initially the variables' responses for this scale did not correspond and so recoding was necessary to eliminate potential errors from the original coding. Second, a factor/principal components analysis of the variables revealed that Importance of belief, Religious Practice and Religious Attendance shared many common factors or principal components so a single scale would best measure these concepts. Third, a reliability analysis of the components indicated that a scale made up of these variables produced a reliable scale (Cronbach's alpha .74). Fourth, it was concluded that a scale composed of these variables would also be valid since it appears persons who hold specific religious beliefs as highly important will be more likely to practice those beliefs in their daily actions and to attend church services. Data on this variable was available across the type of partner the respondent has within the household.

Conceptually this variable was defined as the degree of importance attributed to one's religious or spiritual beliefs in the way one lives life. This variable was measured by the degree of importance the respondents attributed to their religious or spiritual beliefs in the way they live their lives. The degree of importance is presented in descending order and ranged from "very important" to "not at all important".

The independent variables for the Commitment scale (RATTEND) in this study were: "Personal religious or spiritual activities" (RLR\_Q120) and "Religious attendance" (RELIGATT). Data on these variables was available across the type of partner the respondent has within the household. Conceptually "Personal religious or spiritual activities" was defined as the spiritual commitment of the respondent. Conceptually "Religious attendance" was defined as the institutional commitment of the respondent. The Spiritual commitment variable (RLR\_Q120) was measured by respondents' reported frequency of personal religious or spiritual activities in the past twelve months. The activities included: "Prayer, meditation and other forms of worship taking place at home or in any other location." The frequency levels were also arranged in descending order and they ranged from "at least once a week" to "not at all". The Institutional commitment variable (RELIGATT) was measured by respondents' reported frequency of religious attendance. The frequency levels were also arranged in descending order and they ranged from "at least once a week" to "not at all".

The independent variables for the Group Involvement scale (VOLUNT) in this study were: "Annual unpaid volunteer work" (VCG\_Q300) and "Degree of weekly unpaid volunteer work" (MAP\_Q250). Data on these variables was available across the type of partner the respondent has within the household. Conceptually "Annual unpaid volunteer work" was defined as the respondent's annual group involvement through unpaid volunteer work. Conceptually "Degree of weekly unpaid volunteer work" was defined as the respondent's degree of group involvement through weekly unpaid volunteer work. The respondent's annual group involvement (VCG\_Q300) was measured by respondents' report of performing or not performing unpaid volunteer work during the year. The respondent's degree of group involvement (MAP\_Q250) was measured by respondents' reported degree of religious attendance weekly unpaid volunteer work. The categories were arranged in descending order and they ranged from "none" to "60 hours or more".

### **4.4 Control Variables**

The control variables for geographic location in this study were: "Province of residence of the respondent" (PRV). Data on these variables were available across the independent and dependent variables of this work. Conceptually "Province of residence of the respondent" was defined as the province where a respondent resides. The province where a respondent resides (PRV) was measured by respondents' selection of one of the provinces presented. The provinces included: 10 Newfoundland and Labrador, Prince Edward Island, Nova Scotia, New Brunswick, Quebec, Ontario, Manitoba, Saskatchewan, Alberta, and British Columbia. Table 21 found in Appendix E shows the mean, standard deviation and correlations for PRV.

The control variable for income in this study was: "Annual personal income of the respondent" (INCM). Data on this variable was available across the independent and dependent variables of this work. Conceptually "Annual personal income of the respondent" was defined as the annual personal income of the respondent. The annual personal income of the respondent (INCM) was measured by respondents' selection of one of the income levels presented in the answer choices. The income levels were arranged in ascending order and they range from "no

income" to "\$100,000 or more". Table 21 found in Appendix E shows the mean, standard deviation and correlations for INCM.

The control variable for geographic origin in this study was "Country or region of birth of the respondent" (BRTHREGC). Data on this variable was available across the independent and dependent variables of this work. Conceptually this variable was defined as the geographic place (country or region) where the respondent was born. This variable was measured by respondents' selection of one of the geographic locations presented in the answer choices. The locations include: Born in Canada - province of birth = province of residence; Born in Canada - province of birth not equal to province of residence; Born in Canada - Province/Territory not sated; Born outside Canada - North America (excludes Canada, includes - Greenland, St. Pierre and Miquelon); Born outside Canada - South/Central America, Caribbean, Africa, Asia, Oceania/other; Born outside Canada - country uncodeable ; Not stated/Don't know which country respondent was born; Born outside Canada - Not stated; and Born outside Canada - Don't know. Table 21 found in Appendix E shows the mean, standard deviation and correlations for BRTHREGC.

The control variable for education in this study was "Highest level of education obtained by the respondent - 10 group" (EDU10). Data on this variable was available across the independent and dependent variables of this work. Conceptually this variable was defined as educational level of the respondent. This variable was measured by respondents' selection of one of the educational levels presented in the answer choices. The levels included: Doctorate/masters/some graduate; Bachelor's degree; Diploma/certificate from community college; Diploma/certificate from trade/technical; Some university; Some community college/CEGEP/nursing; Some trade/technical; High school diploma; Some secondary/high
school; and Elementary school/no schooling. Table 21 found in Appendix E shows the mean, standard deviation and correlations for EDU10.

The control variable for sex in this study was "Sex of respondent" (SEX). Data on this variable was available across the independent and dependent variables of this work. Conceptually SEX was defined as biological sex of the respondent. This variable was measured by respondents' selection of either male or female in the answer choices. Table 21 found in Appendix E shows the mean, standard deviation and correlations for SEX.

The control variable for age in this study was: "Age group of the respondent (groups of "5)" (AGEGR5). Data on this variable was available across the independent and dependent variables of this work. Conceptually "Age group of the respondent (groups of "5)" was defined as the specific age range of the respondent. The specific age range of the respondent (AGEGR5) was measured by respondents' selection of one of age ranges presented in the answer choices. The age ranges were arranged in ascending order and they began with "15 to 17" and ended with "80 years and over". Table 21 found in Appendix E shows the mean, standard deviation and correlations for AGEGR5.

The control variable for race in this study was "visible minority status of the respondent" (RACE). Data on this variable was available across the independent and dependent variables of this work. Conceptually this variable was defined as whether or not the respondent considers him or herself a visible minority. This variable was measured by respondents' selection of "visible minority" or "not visible minority" in the answer choices.

#### Table 4

Correlation and Descriptive Statistics for Main Variables (Weighted by WTVAR)

Main Variables	RELIGION	RIMPORT	RATTEND	VOLUNT	СОНАВ
RELIGION	1.00	0.30**	0.14**	0.00	0.02*
RIMPORT	0.30**	1.00	0.54**	0.11**	-0.13**

Main Variables	RELIGION	RIMPORT	RATTEND	VOLUNT	СОНАВ
RATTEND	0.14**	$0.54^{**}$	1.00	$0.20^{**}$	-0.20**
VOLUNT	0.00	$0.11^{**}$	$0.20^{**}$	1.00	-0.10**
COHAB	$0.02^{*}$	-0.13**	-0.20**	-0.10**	1.00
MEANS	2.81	2.81	2.62	0.28	0.10
SD	1.17	1.09	1.12	0.67	0.31
Sample Size N	14769	14828	8597	9196	15323

\*\* p < 0.01 level (2-tailed). \* p < 0.05 level (2-tailed).

*Note*: Correlation and Descriptive Statistics for All Variables can be seen in Table 21 found in Appendix E.

#### 4.5 Hypothesis Testing

This work analyzed two hypotheses to illustrate how religious differences in issues of sexuality and family life result in different cohabitation rates by religion.

The first hypothesis examined whether belief in the Catholic Church's teachings about sexuality and family life influences parishioners' propensity not to cohabit to a greater extent than belief in other religious doctrines in Canada. The second hypothesis examined whether belief in the Catholic Church's teachings about sexuality and family life influences parishioners' propensity not to cohabit in Canada.

Following Cornwall's *Determinants of Religious Behavior Model* theoretical model (see Figure 3 found in Appendix A), the direct effects of both hypotheses were measured through a religious belief and commitment scale and an independent group involvement scale (see Figure 4 found in Appendix B for the variable operationalization).

The direct effects were then tested in four ways. First, a cross tabulation test was run across the three religions examined to see the overall difference in cohabitation by religion. Second, two bivariate correlations were run to ascertain whether the expected predictions were correct. Third, a total of eight additional bivariate correlations were run to examine the specific results of each religious group of this study (Roman Catholic, Protestant, No Religion and Other). Fourth, a full a model to test the hypotheses reliably and validly was constructed and four binary logistic regression analyses were run to test the model.

### 4.6 Cross-tabulation Results

An initial cross tabulation test was run across the three religions by percentages by row to examine the overall differences in cohabitation patterns by religion. As seen in Table 5, the test showed that Catholics and those of no religion tend to cohabit more than Protestants and members of other religions (1417679 (14.1%); 852833 (13.4%)). Protestants' rate of cohabitation lies in between the rate of cohabitation of Catholics, those of no religion and those of other affiliations (478365 (6.0%)). Note that although "other" was the most ambiguous religious group, the members of this group had the lowest cohabitation rate (75871 (3.1%)). Due to the former "other" was the baseline group for this work.

# Table 5Cross tabulation between Religion and Cohabitation5

		COHABITATION		Total
		.NO	YES(%)	
	None	5531392	852833 (13.4)	6384225
	Other	2351530	75871 (3.1)	2427401
RELIGION	Protestants	7507051	478365 (6.0)	7985416
	Roman Catholics	8611199	1417679 (14.1)	10028878
Total (N= 26825920)		24001172	2824748 (10.5)	26825920

*Note:* Table 5 is based on population estimates. Also N refers to the number of valid cases. \*All differences are significant.

<sup>&</sup>lt;sup>5</sup> Table 5 is based on population estimates. For sample estimate (sample size 15390) of cross tabulation between Religion and Cohabitation see Table 22 found in Appendix E.

## 4.7 Bivariate Correlations Results

Two bivariate correlations were run to ascertain whether the expected predictions of the study were correct. The first of the two examined the correlation between "RIMPORT", "RATTEND" and "COHAB." The second examined the correlation between "VOLUNT" and "COHAB". As Tables 6 and 7 illustrate the expected predictions of this study were correct. The two correlations were found to be significant and negative indicating that the correlations were "not due to chance" and that the more religious respondents were the less they cohabited. It is important to note that although the variables were correlated they were not correlated at a high degree (-0.13, -0.20, -0.10).

# Table 6Bivariate Correlation between COHAB and RIMPORT, RATTEND.

٠ (	<b>COHAB</b> (N= 15323)
<b>RIMPORT</b> (N= 14764)	-0.13**
<b>RATTEND</b> (N= 8571)	-0.20**

\*\* p < 0.01 level (2-tailed).

## Table 7

## Bivariate Correlation between COHAB and VOLUNT

	СОНАВ	<b>VOLUNT</b> (N= 9135)
<b>COHAB</b> (N= 15323)	—	-0.10**

\*\* p < 0.01 level (2-tailed).

## 4.8 Additional Bivariate Correlations Results

A total of eight additional bivariate correlations were run to examine the particular results of each religious group of this study (Roman Catholic, Protestant, No Religion and Other). Using the filter function each religion was selected and was used to run the two correlations described above: first, "RIMPORT", "RATTEND" and "COHAB" and second, "VOLUNT" and "COHAB". Furthermore, these correlations were run both weighted and un-weighted to ensure there were no discrepancies in the data.

First, the bivariate correlations for Catholic respondents (filter 4: Catholic) were also significant and weakly negatively correlated. In other words, the correlations were "not due to chance" and high levels of religiosity resulted in low levels of cohabitation among Catholics (-0.20, -0.20, -0.10). See Tables 8 and 9.

## Table 8

## Bivariate Correlation for Catholics between COHAB and RIMPORT, RATTEND.

	СОНАВ	<b>RIMPORT</b> (N= 5430)	<b>RATTEND</b> (N= 3674)
<b>COHAB</b> (N= 5497)	—	-0.20**	-0.20**

\*\* p < 0.01 level (2-tailed).

## Table 9

## Bivariate Correlation for Catholics between COHAB and VOLUNT.

	СОНАВ	<b>VOLUNT</b> (N= 3429)
<b>COHAB</b> (N= 5497)	_	-0.10**

\*\* p < 0.01 level (2-tailed).

Second, the bivariate correlations for Protestant respondents (filter 3: Protestant) were

also significant and weakly negatively correlated. In other words, the correlations were "not due

to chance" and high levels of religiosity resulted in low levels of cohabitation among Protestants

(-0.12, -0.13, -0.10). See Tables 10 and 11.

## Table 10

## Bivariate Correlation for Protestants between COHAB and RIMPORT, RATTEND.

Ť	СОНАВ	<b>RIMPORT</b> (N= 4362)	<b>RATTEND</b> (N= 3069)
<b>COHAB</b> (N= 4377)	_	-0.12**	-0.13**

\*\* p < 0.01 level (2-tailed).

# Table 11Bivariate Correlation for Protestants between COHAB and VOLUNT.

	СОНАВ	<b>VOLUNT</b> (N= 2881)
<b>COHAB</b> (N= 4377)	_	-0.10***

\*\* p < 0.01 level (2-tailed).

Third, the bivariate correlations for respondents of no religion (filter 1: no religion) were

also significant and very weakly negatively correlated. In other words, the correlations were "not

due to chance" and high levels of religiosity resulted in low levels of cohabitation among

respondents of no religion (-0.01, -0.01, -0.05). See Tables 12 and 13.

# Table 12

## Bivariate Correlation for No Religion between COHAB and RIMPORT, RATTEND.

	СОНАВ	<b>RIMPORT</b> (N= 3458)	<b>RATTEND</b> (N= 716)
<b>COHAB</b> (N= 3500)	—	-0.01	-0.01

\*\* p < 0.01 level (2-tailed).

## Table 13

## Bivariate Correlation for No Religion between COHAB and VOLUNT.

	СОНАВ	<b>VOLUNT</b> (N= 1867)
<b>COHAB</b> (N= 3500)	_	-0.05*

\* p < 0.05 level (2-tailed).

Fourth, for the most part the bivariate correlations for respondents of other (filter 2: other)

were also significant and very weakly negatively correlated. In other words, the correlations

were "not due to chance" and high levels of religiosity resulted in low levels of cohabitation

among respondents of other religions (-0.01, -0.03, 0.10). Note the correlation between COHAB

and VOLUNT was not significant and it was positively correlated. See Tables 14 and 15.

## Table 14

## Bivariate Correlation for Other between COHAB and RIMPORT, RATTEND.

	СОНАВ	<b>RIMPORT</b> (N= 1319)	<b>RATTEND</b> (N= 1021)
<b>COHAB</b> (N= 1331)	-	-0.01	-0.03

\*\* p < 0.01 level (2-tailed).

Bivariate Correlation for Other between COHAB and VOLUNI.				
	СОНАВ	<b>VOLUNT</b> (N= $819$ )		
	001112			
<b>COHAB</b> (N= 1331)	_	0.10		

# Table 15Bivariate Correlation for Other between COHAB and VOLUNT.

#### 4.9 Binary Logistic Regression Results

A full a model was constructed to conduct the final analyses of the hypotheses (see Figure 2). The model was tested in segments through four Binary Logistic Regression Analyses (see Tables 17- 20).

log (cohab/non cohab) = B (catholic) + B (protest) + B (none) + B (rimport) + B (rprac) + B (rattend) + B (volunt) + controls.

### Figure 2. Model for Testing the Hypotheses.

The first analysis examined the religious effects of the study (see Table 17). The regression consisted of the variables for "Catholic", "Protestant", "None" and "Cohabitation". The results revealed that Catholics and those of no religion were about five times as likely ( $\beta = 5.10, \beta = 4.78$ ) to cohabit, while Protestants were nearly twice as likely to cohabit ( $\beta = 1.97$ ) than "other" groups (this work's baseline group). All the variables had significant partial effects.

The second analysis, examined the religious effects with the religious strength variables (see Table 18). The regression consisted of the variables for "RIMPORT", "RPRAC", "RATTEND", "VOLUNT" and "Cohabitation". The test revealed that Catholics and those of no religion were about four times as likely ( $\beta = 3.70$ ,  $\beta = 3.86$ ) to cohabit while Protestants were nearly twice as likely to cohabit ( $\beta = 1.75$ ) than "other" groups. All the variables except RPRAC (p = .625) had significant partial effects.

The third analysis examined the religious effects with selected controls of the study (see

Table 19). The regression did not include all the initial controls for the study in order to decrease the loss of cases due to listwise deletion. As seen in Table 16, only the controls that were significantly correlated with cohabitation were used in the regression. The regression consisted of the variables for "AGEGR5", "EDU10", "INCM", "PRV", and "Cohabitation". The test revealed that those of no religion were about four times as likely to cohabit ( $\beta$  = 4.65), while Catholics and Protestants were about three times as likely to cohabit ( $\beta$  = 2.90,  $\beta$  = 2.73) than "other" groups. Most of the variables had significant partial effects (RIMPORT, RPRAC, VOLUNT, and INCM, did not have significant levels).

#### Table 16

Bivariate Correlation between COHAB and Controls (PRV, INCM, BRTHREGC, EDU10, SEX, AGEGR5).

<u></u> ,	0110/1						
	СОНАВ	AGEGR5	BRTHREGC	EDU10	INCM	PRV	SEX
		(N= 15323)	(N=15323)	(N=	(N=	(N=	(N=
				14908)	13229)	15323)	15323)
СОНАВ	—	-0.10**	0.00	-0.03**	0.10**	0.21**	-0.00
(N=15323)							

\*\* p < 0.01 level (2-tailed).

Finally, the fourth analysis specifically focused on differences in behavior among Roman Catholics (see Table 20). The responses from those of Protestant faiths were utilized to contrast the responses of Roman Catholics. RELIGION was recoded as CATHPROT to only show results between Catholics (1) and Protestants (0). Hence, the regression consisted of the variables for "Catholic", "Protestant", and "Cohabitation". The test revealed that Catholics were just as likely to cohabit as Protestants ( $\beta = 1.00$ ). Most of the variables had significant partial effects except for RPRAC (p= 0.23), INCM (p= 0.05), and cathprot (p= 0.90). The latter is important since it indicates that Catholics and Protestants' identical likelihood of cohabiting is not significant but is

due to chance.

# Table 17

Logistic Regression between Religious Variables and Cohabitation.

Religious Variables	В	S.E.	Exp(B)
Catholic	1.63	0.16	5.10**
Protestant	0.68	0.17	1.97**
None	1.56	0.16	4.78**
Constant	-3.43	0.16	0.03**

\*\* p < 0.01 level (2-tailed). \* p < 0.05 level (2-tailed).

*Note:* "Other" was excluded from this table. Cases included in the analysis, N= 14748.

# Table 18

Logistic Regression between Religious Variables, Religious Strength Variables and Cohabitation.

Religious Variables and Strength Variables	В	S.E.	Exp(B)
Catholic	1.30	0.21	3.70**
Protestant	0.56	0.23	1.75*
None	1.35	0.25	3.86**
RIMPORT	-0.22	0.07	0.80**
RPRAC	0.02	0.04	1.02
RATTEND	-0.55	0.05	0.58**
VOLUNT	-0.33	0.09	0.72**
Constant	-1.10	0.30	0.34**

\*\* p < 0.01 level (2-tailed). \* p < 0.05 level (2-tailed). *Note:* Cases included in the analysis, N= 5066.

# Table 19

Logistic Regression between Religious Variables, Religious Strength Variables, Control Variables and Cohabitation.

Religious, Religious Strength and Control Variables	В	S.E.	Exp(B)
Catholic	1.06	0.23	2.90**
Protestant	1.00	0.24	2.73**
None	1.54	0.30	4.65**
RIMPORT	-0.12	0.08	0.90
RPRAC	0.05	0.04	1.05

Religious, Religious Strength and Control Variables	В	S.E.	Exp(B)
RATTEND	-0.50	0.06	0.63**
VOLUNT	-0.15	0.09	0.90
AGEGR5	-0.23	0.02	0.79**
EDU10	0.07	0.02	1.07**
INCM	-0.03	0.02	0.97
PRV	1.44	0.12	4.22**
Constant	-0.50	0.37	0.60

\*\* p < 0.01 level (2-tailed). \* p < 0.05 level (2-tailed).

*Note:* Cases included in the analysis, N= 4411.

### Table 20

Logistic Regression between Roman Catholic/Protestant Variable and Cohabitation.

Roman Catholic/Protestant, Religious Strength and Control Variables	В	S.E.	Exp(B)
Cathprot	-0.02	0.14	1.00
RIMPORT	-0.24	0.10	0.80**
RPRAC	0.05	0.04	1.05
RATTEND	-0.45	0.10	0.64**
AGEGR5	-0.23	0.02	0.80**
EDU10	0.05	0.02	1.10*
INCM	-0.04	0.02	1.00
PRV	1.50	0.14	4.33**
VOLUNT	-0.25	0.11	0.80*
Constant	1.05	0.40	2.90**

\*\* p < 0.01 level (2-tailed). \* p < 0.05 level (2-tailed).

*Note:* Cases included in the analysis, N= 3789.

Overall, the results of the direct effects between the measures of religiosity and religious behavior were almost identical to Cornwall's results. Almost all the direct effects, expect for religious practice (and RIMPORT and VOLUNT in the third analysis), were found to be significant (Cornwall, 1989, p. 587). Moreover, this work also moved beyond Cornwall's analysis (which only focused on members of the Mormon religion), and brought to light contradictions between Cornwall's theoretical model about religious behavior and the actual behavior of religious adherents across religious groups. In this case it was found that although the Roman Catholic Church distinctively proscribes the behaviors encompassed in cohabitation (extra-marital sex and possibly contraceptive usage) the odds ratio among Roman Catholics respondents were consistently positive and were about the same as those of secular respondents in the first and second regression analysis. This directly contradicts one of Cornwall interpretations about religious behavior- belief and commitment to group's norms should best predict behavior (p. 587).

#### **5** Analysis

The results of this work reveal interesting findings about the relationship between belief and behavior across religious groups in Canada. Since the Roman Catholic Church distinctively proscribes the behaviors encompassed in cohabitation (extra-marital sex and possibly contraceptive usage) it was hypothesized that belief in the Catholic Church's teachings about sexuality and family life would influence parishioners propensity not to cohabit to a greater extent than belief in other religious doctrines in Canada; and that belief in the Catholic Church's teachings about sexuality and family life would influence parishioners propensity not to cohabit in Canada. Curiously it was found that although the majority of Roman Catholics do not cohabit (85.9%), fourteen percent of Catholics do cohabit<sup>6</sup>. This is significant because Catholic's exhibit among the highest odds of cohabitation of the religious groups studied in two of the four regression analyses (see Tables 17-20); and moreover Catholics' likelihood of cohabitation was similar to that of secular respondents (a group that is not morally opposed to cohabitation) in the first and second regression analyses. These findings contradict this work's hypotheses, aspects of Cornwall's model about religious belief and behavior; and result in several theoretical and empirical questions.

A closer analysis of the results of this work explains how the contradictions in the results emerged. The first hypothesis examined whether belief in the Catholic Church's teachings about sexuality and family life influences parishioners propensity not to cohabit to a greater extent than belief in other religious doctrines in Canada. First, a simple cross tabulation test was run across the three religions, by percentages by row, to obtain a preliminary understanding of the relationship between the religious variables and cohabitation. The test consisted of the main religious variable ("RELIGION") and of the cohabitation variable ("COHAB"). The results

<sup>&</sup>lt;sup>6</sup> See Tables 5 and 22.

brought to light an initial inconsistency between the expected results and the actual results. Catholics' rate of cohabitation was not lower than that of the other religious groups. Rather Catholic respondents and respondents of no religion held the highest rate of cohabitation (777, 14.%; 467, 13.3%). Protestants' followed with about half the rate of cohabitation (262, 6.0%); and surprisingly those of other affiliations displayed the lowest rate of cohabitation (42, 3.2%). Although this was only a preliminary test, the results granted evidence to refute the first hypothesis. This in turn raised questions about possible inconsistencies between Canadian Catholic's belief and behavior; and about the cultural and religious dynamics of Canada.

Second, two bivariate correlations were run to maintain whether the expected predictions and framework of the study were correct. The first test consisted of: "RIMPORT," "RATTEND" and "COHAB." The second consisted of: "VOLUNT" and "COHAB." In contrast to the results of the initial cross-tabulation test, the results supported both the expected predictions and the framework of the study. The strength of religiosity variables (following Cornwall's model) were found to decrease the likelihood of cohabiting. Although the correlations were not highly correlated, all the correlations were significant and negative (-0.13, -0.20, -0.10). This indicated that the correlations were "not due to chance" and that high levels of religiosity would result in low likelihoods of cohabitation. Unlike the last test, these correlations gave evidence not to refute the first hypothesis.

Third, since the two initial bivariate correlation tests only included the strength variables without the specific religious variables, eight additional bivariate correlations were run to examine the model of this study according to each religious group. Employing the filter function each religion was selected and two correlations were run for each religious group. Like the last correlations the correlation between "RIMPORT", "RATTEND" and "COHAB" was analyzed;

followed by the correlation between "VOLUNT" and "COHAB." The results also showed support for both the expected predictions and the framework of this study. The strength of religiosity variables were found to decrease the likelihood of cohabiting for each religious group analyzed<sup>7</sup>. Catholic respondents (filter 4) showed the highest likelihood of not cohabiting. Their correlations were significant and weakly negatively correlated (-0.20, -0.20, -0.10). Protestant respondents (filter 3) showed the second highest likelihood of not cohabiting. Their correlations were significant and weakly negatively correlated (-0.12, -0.13, -0.10). In contrast, respondents of no religion (filter 1) and respondents of other religions (filter 2), showed the lowest likelihoods of not cohabiting (-0.01, -0.01, -0.05; -0.01, -0.03, 0.10<sup>8</sup>). Although all the correlations were not correlated at a high level, the results did yield further evidence not to refute the first hypothesis. The results indicated that belief in the Catholic Church's teachings about sexuality and family life does influence parishioners' propensity not to cohabit to a greater extent than belief in other religious doctrines in Canada.

Finally, to ensure that the first hypothesis could not be refuted, three binary logistic regression tests were run to determine the final results of this work. The first regression examined whether there is a religious effect (religiosity) on the likelihood of cohabiting. The regression consisted of the variables for Catholics ("Catholic"), Protestants ("Protestant"), those of no religion ("None") and cohabitation ("Cohab"). Unlike the outcome of the bivariate tests, the results identified incongruence between the expected results and actual results. Although the partial effects between the religious variables and cohabitation were significant (as in Cornwall's model), the odds ratios indicated that religiosity was not found to decrease the likelihood of

<sup>&</sup>lt;sup>7</sup> VOLUNT did not decrease the likelihood of cohabitation in the fourth bivariate correlation (the bivariate correlation for respondents of other affiliations).

<sup>&</sup>lt;sup>8</sup> The bivariate correlation between COHAB and VOLUNT for respondents of other affiliations was positively correlated and not significant.

cohabiting. Rather, all the religious groups examined showed positive likelihoods of cohabiting. Catholics and those of no religion exhibited the highest likelihoods of cohabiting. They were found to be five times as likely to cohabit ( $\beta = 5.10$ ,  $\beta = 4.78$ ). In contrast, although Protestants were also likely to cohabit, their likelihood of cohabiting was much smaller. They were nearly twice as likely to cohabit ( $\beta = 1.97$ ). Interestingly, the odds of cohabiting for almost all religious groups were highest in this regression<sup>9</sup>. The former could be due to the many religious adherents who report affiliation to a religious group but are not committed or involved in the group.

The second regression examined whether religiosity and strength of religiosity affect the likelihood of cohabiting. The regression consisted of all the religious variables seen in the first regression, religious strength variables for belief and commitment ("RIMPORT", "RPRAC", "RATTEND"), group involvement "VOLUNT" and a variable for cohabitation ("Cohab"). The results of this regression also supported a mismatch between the expected results and actual results. Although the partial effects between the religious variables, religious strength variables and cohabitation were significant (except for RPRAC (p = .625)), the odds ratios indicated that religiosity and the strength of religiosity do not decrease the likelihood of cohabiting. Again, all the religious groups examined showed positive likelihoods of cohabiting. Catholics and those of no religion exhibited the highest likelihoods of cohabiting. They were found to be about four times as likely to cohabit ( $\beta = 3.70$ ,  $\beta = 3.86$ ). Protestants showed a smaller likelihood of cohabiting. They were nearly twice as likely to cohabit ( $\beta = 1.75$ ). Notably, the odds of cohabiting were lower in this regression than in the former for all religious groups. This indicates that strength of religiosity does decrease the likelihood of cohabiting (in contrast to measures of religious affiliation alone). Peculiarly, in this work although strength of religiosity decreased the likelihood of cohabiting among all religious groups, it did not eliminate the positive likelihood of

<sup>&</sup>lt;sup>9</sup> Protestants' odds of cohabiting were highest in third analysis (religious effects with selected controls).

cohabiting. This latter point could be due to demographic characteristics such as geographic region, where persons may be culturally religious.

Finally, the third regression examined whether religiosity, strength of religiosity, and demographic characteristics affect the likelihood of cohabiting. The regression consisted of all the religious and religious strength variables seen in the second regression, control variables for age ("AGEGR5"), education ("EDU10"), income ("INCM"), province ("PRV"), and a variable for cohabitation ("Cohab"). The results of this final regression followed the overall findings of the first two regressions; the actual results differed from the expected results. Although the partial effects between the religious variables, religious strength variables, control variables and cohabitation were significant for the most part (RIMPORT, RPRAC, VOLUNT, and INCM, did not have significant levels), the odd ratios indicated that religiosity, the strength of religiosity, and demographic characteristics do not decrease the likelihood of cohabiting. Once again all the religious groups examined showed positive likelihoods of cohabiting. Those of no religion exhibited the highest likelihood of cohabiting. They were about four times as likely to cohabit ( $\beta$ = 4.65). Catholics and Protestants showed similar likelihoods of cohabiting. They were about three times as likely to cohabit ( $\beta = 2.90$ ,  $\beta = 2.73$ ). The odds of cohabiting were only lower for Catholics in this regression (in contrast to the latter regression). These results indicate that demographic factors do not eliminate the positive likelihood of cohabiting. Like the results of the religious strength regression, although demographic variables decreased the likelihood of cohabiting among Catholics, the likelihood of cohabiting remained positive.

All together the three regression tests confirmed that the first hypothesis of this work should be refuted. Belief in the Catholic Church's teachings about sexuality and family life does not influence all parishioners' propensity not to cohabit to a greater extent than belief in other

44

religious doctrines in Canada. As seen in these final findings Catholics actually have a greater likelihood of cohabiting than religious groups like Protestants. Since Catholic doctrine tends to differ significantly from Protestant teachings, with Catholic doctrine prohibiting behaviors involved in cohabitation, these findings bring about many questions about the discrepancy between Catholic Canadian's clearly established beliefs and their behavior.

In light of the Roman Catholic Church's distinct position on the behaviors related to cohabitation and the behavior of some Catholic adherents in Canada found here, the second hypothesis of this study focused specifically on Catholics' likelihood of cohabiting. It examined whether belief in the Catholic Church's teachings about sexuality and family life influences parishioners propensity not to cohabit in Canada. A binary logistic regression test was run to test this final hypothesis. The regression consisted of the religious variables, religious strength variables, control variables used for the third regression test for the first hypothesis, and a variable for cohabitation. Unlike the final regression test seen above, this regression included a modified version of RELIGION. In order to focus the analysis on Catholic adherents, RELIGION was altered to only include the responses of Catholic and Protestants adherents (CATHPROT). The responses of Protestants adherents were incorporated to contrast the results of Catholic adherents with those of another religious group. Like the results of the three regressions for the first hypothesis, the results of this regression contradicted the expected results (though to a smaller degree). Although most of the partial effects between the religious strength variables, control variables, and cohabitation were significant (as in Cornwall's model), the partial effects for one of the religious strength and control variables were not significant (RPRAC (p=0.23) and INCM (p=0.05); and most importantly, the partial effects for the religious variable of this regression, cathprot, was not significant (p=0.90). Furthermore although the exclusion of all other religious groups (but Protestants) reduced Catholic's odds of cohabiting, the odds ratios indicated that religious affiliation, religious strength, and demographic characteristics did not eliminate the positive likelihood of cohabiting for Catholic or Protestant adherents. Rather, both Catholics and Protestant respondents displayed positive likelihoods of cohabiting. Catholics were just as likely to cohabit as Protestants ( $\beta = 1.00^{10}$ ). This final regression test confirmed that the second hypothesis of this work could also be refuted. Belief in the Catholic Church's teachings about sexuality and family life does not influence all parishioners' propensity not to cohabit in Canada.

Now that is clear how the contradictions between the expected and actual results of this work emerged, the contradictions between Cornwall's postulates and the results of work can be examined further. In her study, *The Determinants of Religious Behavior: A Theoretical Model and Empirical Test* (1989), Cornwall posed that the significant direct effects between her religious measures ("group involvement, belief-orthodoxy, religious commitment, religious socialization, and sociodemographic characteristics" (p. 572)) and religious behavior ( p. 587), indicated that religious belief and commitment to one's group norms should best predict religious behavior ( p. 587); and that "in-group ties" (p. 588) also play a role in predicting religious behavior (p. 589).

Some aspects of this work's results support such postulates. Almost all the initial bivariate correlations for each religious group resulted in significant negative correlations (note these were not highly correlated and so they did not alter the conclusions of this work). Many of the effects between the measures of religiosity and religious behavior in this work and in Cornwall's study were significant. And the religious strength variables used in this study,

<sup>&</sup>lt;sup>10</sup> Note that Catholics and Protestants' like hood of cohabiting was not significant in this final regression (cathprot, p=0.90).

following Cornwall's model, did effectively decrease the odds of non-religious behavior in the second regression (see difference between Table 17 and Table 18).

Nonetheless although such aspects of the results show partial support for Cornwall's postulates, the measures of religiosity utilized in this work, following Cornwall's model (religious belief, commitment and group involvement [p. 572]), did not result in religious behavior (not cohabiting). Rather the regression results for both the first and second hypotheses illustrate that the selected measures of religiosity did not lead to a greater likelihood of religious behavior (not cohabiting) across any of the religious groups analyzed.

What then explains the divergences between Cornwall's postulates and this work's results? Why does religiosity not lead to religious behavior in Canada? Why is the behavior of some Canadian Catholics, in matters relating to sexuality and family life (such as cohabitation), incongruent with their reported religious beliefs and/or commitment to group norms? Several factors could explain such questions. First, limitations in this work (discussed at length below) could be altering the results. Second, Cornwall's model could be limited to analysis of single religion rather than groups of religions. Third, cultural factors, particular to Canada as a nation, may have a greater effect on citizen's behavior than to adherence to religious behavior. Fourth, regional factors, such as Quebec's history with the Catholic Church, could be skewing the results. Lastly, macro-processes, such as the much reported global decline of religion, could explain the persistence of testified religiosity without religious behavior.

## **6** Discussion

Beyond questions and explanations relating to the Cornwall's model several questions concerning the overall findings also exist. Why do religious beliefs, commitment to group norms and group involvement, not influence fourteen percent<sup>11</sup> of Catholic parishioners' propensity not to cohabit in Canada? Why do religious beliefs, commitment to group norms and group involvement, not influence some Catholic parishioners' propensity not to cohabit to a greater extent than belief in other religious doctrines in Canada? Specifically, why is the cohabitation rate of Protestants consistently lower than that of Catholics? A number of explanations can be formulated from existing literature about religiosity and cohabitation.

#### 6.1 Catholic Canadians' Belief and Behavior

First, as Thornton (1985) noted, the changes in family life over the past decades significantly altered the way religions' addressed family issues and so also the role of religion in people's lives (p. 381- 382). Interestingly, although the Catholic Church was one of the few religions whose "religious doctrines, teachings" (p. 381- 382) were not reformed as a result of modern transitions in family life, the behavior of Canadian Catholic adherents in such matters did change. *So why did this occur? Why does belief in the Catholic Church's teachings about sexuality and family life not influence parishioners' propensity not to cohabit in Canada?* 

The first possible explanation suggests that: "The relatively slow and reluctant adaptations of the doctrines and programs of the churches to the changes in family life may have operated to decrease both the moral authority of the churches and the religious commitment and activity of individuals" (Thornton, 1985, p. 389). In the context of this work, the former implies that the Catholic Church's failure to adapt its dogma to society's newer constructions of family life, led to a diminishing of its "moral authority" (p. 389) and of its adherents "religious

<sup>&</sup>lt;sup>11</sup> See Tables 5and 22.

commitment and activity" (p. 389). As this work's findings show this explanation does not address the posed question adequately; "religious commitment and activity" (p. 389) did not decrease among Catholic adherents in the study. Rather while adherent's behavior changed they maintained their beliefs, commitment and group involvement to the Catholic Church.

A second possible explanation poses that as values, family structures and sexual behavior changed in society, so also people's approach to religion changed (Lesthaeghe, 2010, p. 211- 214, 246; Thornton, 1985, p. 381, 383, 385, 384 citing Thornton and Freedman, 1983; and Mosher, 1982). According to this postulate, as society's values became more individualized, so also the way people viewed religion became more subjective to personal feelings about morality (Thornton, 1985, p. 385). In turn this also led to the development of alternative forms of marriage and family among many religious groups (p. 385). In relation to this work, this suggests that some Catholics have adopted a more subjective outlook towards their faith. Consequently this has led them to adopt alternative forms of family formation such as cohabitation. Although further research is needed to ascertain whether these claims are true, from a historical stand point this account could be plausible.

A third possible explanation describes how geographic factors (at the regional level) influence people's attitudes and behaviors about religion and family life. This is particularly relevant to Canada due to Quebec's religious history and unique cohabitation patterns. Unlike other regions of Canada, Quebec was distinctively Catholic until the 1960s (Le Bourdais, & Lapierre Adamcyk, 2004, p. 939- 940). Then in 1960s the Quiet Revolution erupted and slowly Quebecker's removed all elements of the Catholic Church from their lives (p. 939- 940). Among these changes was the rejection of marriage both as an institution and Sacrament (p. 939- 940). Consequently Quebec now exhibits strikingly higher rates of cohabitation than the rest of Canada. For instance in the 1990s: "Four times out of five, Quebec women opted for cohabitation to start their first union in the early 1990s, compared with one in two for their counterparts living elsewhere in Canada" (Le Bourdais, & Lapierre Adamcyk, 2004, p. 934). Similarly, according to more recent findings, Quebec's rate of cohabitation in 2004 was "nearly 2.5 times higher" (p. 931) as the rate of cohabitation in British Columbia (p. 931). Quebec's unique history then seems to imply that cultural factors- particular to Quebec as a region- take precedence over Quebecker's continued affiliation with the Catholic religion. In other words, although Quebecker's still report affiliation with the Catholic Church, their distinct sub-culture seems to result in residents' high liberal attitudes and behaviors; especially in regards to sexuality and family life (see Wu & Balakrishnan, 1992).Considering that almost half of the Catholics (45.8%) in this study's sample reside in Quebec, this explanation is very conceivable (see Table 23 found in Appendix E).

A final possible explanation points to the influence of geographic factors (at the national level) on people's attitudes and behaviors about family life. Popenoe (2009) and Liefbroer & Dourleijn (2006) both indicate that Spain and Italy's unique Catholic features influence their citizents' attitudes and behaviors about family life. For instance in the early 2000s, Popenoe (2009) noted that Spain (3%) and Italy (4%) exhibited "the lowest cohabitation rates of Western Europe" (p. 432). As he explains, Spain and Italy's distinctively low cohabitation rates are due to distinct features of both Catholic nations: "These nations can be characterized as having more traditional family structures and less reliable welfare states. Religious belief remains more prominent, and young people tend to live longer with their parents, rather than move out and cohabit. Also, the stigma against non-marital births is stronger, which tends to limit cohabitation" (p. 432). Similarly, Liefbroer and Dourleijn (2006) inferred that Spain and Italy's low

cohabitation rates may be linked to both nations' particular valuing of the family and religion (p. 219). As they describe: "The very high levels of union dissolution among cohabitors in Spain and Italy point to the potential importance of religion and family systems: both Spain and Italy are Catholic countries. It may be that the strong opposition to unmarried cohabitation by the Catholic Church leads to strong pressures on cohabitors to opt out of this living arrangement" (Liefbroer & Dourleijn, 2006, p. 219). As in the case of Spain and Italy, Catholics in Canada may be affected by attributes unique to Canada as a nation (Popenoe, 2009; Liefbroer & Dourleijn, 2006). It is very plausible that the secularism of Canada may be influencing citizens' attitudes and behaviors about family life in directions that are not consistent with the Catholic Church (such as cohabiting).

#### 6.2 Catholics' Cohabitation Rate vs. Other Religions' Cohabitation Rate

Second, although the Catholic Church has remained determined in its distinct position in matters of sexuality of family life, surprisingly it was found that the behavior of fourteen percent<sup>12</sup> of Catholics in Canada was not only inconsistent with the Church's doctrine, but as in the case of cohabitation, was actually more prevalent than the cohabitation rates of some groups that do not oppose such behavior (such as certain Protestant groups<sup>13</sup>). *So why does belief in the Catholic Church's teachings about sexuality and family life not influence all parishioners' propensity not to cohabit to a greater extent than belief in other religious doctrines in Canada? Specifically, why are the cohabitation rates of Protestant adherents consistently lower than that of Catholics adherents?<sup>14</sup>* 

A first possible explanation can be generated from past findings about Protestants and

<sup>&</sup>lt;sup>12</sup> See Tables 5and 22.

<sup>&</sup>lt;sup>13</sup> See the results of the first three regression analyses.

<sup>&</sup>lt;sup>14</sup> Since the scope of this work does not allow the inclusion of a comprehensive comparison between the Catholic Church and the other religious doctrines in Canada, the following explanations will focus on the differences between the cohabitation rates of Catholic and Protestant adherents.

cohabitation. As Ellison, Wolfinger, & Ramos-Wada (2012), and Gault-Sherman & Draper (2012), attest, Protestants have been found to have both negative attitudes towards cohabitation and low cohabitation rates (p. 1; p. 45). In 2012 Ellison, Wolfinger, & Ramos-Wada detected that: "Compared with Catholics, evangelical Protestants tend to hold more conservative attitudes on family-related issues" (p. 1). The same year, in their 2012 study about "county-level religious adherence rates and county-level cohabitation rates" (p. 45), Gault-Sherman & Draper found that higher "evangelical adherence rates" resulted in lower "percent cohabiting" (p. 45). In regards to this study, the former could indicate that the divergence between Catholic and Protestant's cohabitation rates is due to the traditional attitudes and behaviors of some Christian denominations. In other words, the likelihood of cohabitation found among the Protestants may be skewed by the influence of Protestant denominations that hold very conservative views about sexuality and family life. If that were the case then the results would demonstrate Catholic's cohabit more than certain conservative Protestant groups rather than all Protestant groups. Since the data does not allow denominational differentiation, and since contradictory findings about likelihood of cohabitation among conservative Protestants do exist (see Eggebeen & Dew (2009)), this explanation is only plausible theoretically. Further research is needed to determine whether it is valid.

A second possible explanation can be posed by applying Weber's work about Protestant beliefs and their behavior. In his work the *Protestant Ethic and Spirit of Capitalism*, Weber held that the "rationalism" (p. 37) of Protestant's beliefs about salvation, impelled Protestants to work with dedication, sincerity and modesty (not lavishing) (p.xi, 37, 48, 98, 116). Although Weber's inferences were related to financial and working behavior, in light of Protestants' lower rates of cohabitation, it can be postulated that Protestants' patterns of piousness and "rationalism" (p. 37) can also be observed in their current sexual and family behavior (p. 3). If evidence was found to prove that Protestants' rates of cohabitation are the result of their beliefs about salvation then the discrepancy between the cohabitation rate of Protestants and Catholics would not be the result of differences in belief systems (Protestants cohabiting less than Catholics because they do not hold the same beliefs about cohabitation), but the result of differences in adherence to their distinct belief systems (Protestants adhering to their belief systems to a greater propensity than Catholics). Since both of these claims lack empirical evidence further research is also needed to determine whether they are valid.

A final possible explanation is one already mentioned above to explain the dynamics between Catholic's beliefs and behaviors; that is Thornton's 1985 idea that: "The relatively slow and reluctant adaptations of the doctrines and programs of the churches to the changes in family life may have operated to decrease both the moral authority of the churches and the religious commitment and activity of individuals" (p. 389). If as Thornton suggests, a religion's failure to adapt its dogma quickly to societal changes in family result in a "decrease both the moral authority of the churches and the religious commitment and activity of the churches and the religious commitment and activity of societal changes in family result in a "decrease both the moral authority of the churches and the religious commitment and activity of individuals" (p. 389), then it can be supposed that Catholic's cohabitation rate may be higher than Protestant's cohabitation rate because of the Catholic Church's *failure to adapt* to new norms of sexuality and family life, and most Protestant Churches' ability to reform their teachings to the societal norms of the time. Although this supposition might be a possible theoretically, further empirical evidence is needed to ensure its validity and reliability.

## **7** Implications

The results of this research carry implications for both academics and counter- cultural communities. First, the fast pace transformation of family formation structures in western societies, brings attention to the vitality of studying trends such as modern values shifts, family transitions and decline of religion in the past decades. Moreover, since these trends impact society in a number of areas, the study of their effects could be conducted across a number of disciplines. Second, although the institutions of religion and family have not shown to be perfect, the persisting patterns of family decline also bring attention to previous admonitions about the severe consequences of family fragmentation, by thinkers such Zimmerman (1947) and Ogburn (1955) (White et al., 2005, p. 68- 69). Greater awareness about both the positive and negative features about the transformations of modernity needs to be made known to the general population so that decisions about family formation can become more informed. Finally, the widening gap between modern and traditional family norms, values, and beliefs only augments the dissonance between societal and counter- cultural groups beliefs about family formation. Groups who hold world views which oppose modern family formation structures should continue their efforts to help their members alleviate the contradictions they face in daily life. Programs and handouts<sup>15</sup> that instill a greater understanding about *why* the group promulgates a specific way of life could be a successful mode achieving such ends. This final point is especially relevant to the main religious group of this study, Catholics. Although the majority of Catholics in Canada do not cohabit, as a Christian church that follows the teachings

<sup>&</sup>lt;sup>15</sup> A handout like "Catholic Update: Cohabitation Before Marriage" by Champlin (2003) is a good example of a religious resource that helps religious adherents to understand their group's counter-cultural beliefs and practices. A summary of the handout can be read at: <u>http://www.americancatholic.org/Newsletters/CU/ac0603.asp</u>

of Jesus Christ, the Catholic Church in Canada has a responsibility to find their "lost sheep"<sup>16</sup> by offering greater assistance to the 14% of Catholics who do cohabit. In a manner that respects their members' free will, the Catholic Church should examine the resources they have for their Canadian adherents and determine whether the quantity and/or quality of the resources are in need of improvement. In this way followers of the Catholic Church may be able to gain a deeper understanding of the reasons *why* their Church views the behaviors associated with cohabitation as unbeneficial; and will in turn be able to make morally informed decisions about the way they live their faith in daily life.

<sup>&</sup>lt;sup>16</sup> The lost sheep refers to a Parable told by Jesus Christ called the "Parable of the Lost Sheep." The parable can be found in the Gospel of Luke, chapter 15: "What man among you having a hundred sheep and losing one of them would not leave the ninety-nine in the desert and go after the lost one until he finds it? And when he does find it, he sets it on his shoulders with great joy and, upon his arrival home, he calls together his friends and neighbors and says to them, 'Rejoice with me because I have found my lost sheep.' I tell you, in just the same way there will be more joy in heaven over one sinner who repents than over ninety-nine righteous people who have no need of repentance" (Lk 15: 4-7). USCCB. Luke, Chapter 15. Retrieved from: http://www.usccb.org/bible/luke/15/

#### 8 Limitations & Future Research

Due to the scope of this work several aspects of this project should be addressed furthered in future research. First, this thesis employs Canadian data about one point in time (2010) and follows a specific theoretical model to measure the concepts of the project. Adaptions of this work could be conducted with the use of alternative geographic data sets, modified time frames, and different variable conceptualization. Second, the variables of the selected data set only measured those *currently* cohabiting. The use of another data set could yield results that included all who have ever cohabited. Third, although this research is focused on adherents of the Catholic Church, the data did not allow the use of "denomination- specific" (Cornwall, 1989, p. 573) variables for the other religious groups studied. Utilizing "denomination-specific" (p. 573) variables would increase the validity of the variable measurements by allowing an assessment that analyzed how the *specific* beliefs of a group influence their behavior (p. 573). This is especially important since the Catholic Church is not the only religious group that does not view the behaviors encompassed in cohabitation as beneficial to its adherents. A couple of Protestant churches, such as: some Baptist (Flanagan, & Williams, 1997) and Evangelical Lutheran (St. John Evangelical Lutheran Church) churches, and other religions, such as: Islam (Islam Awareness Homepage, 1995; BBC, 2009) and Mormonism (Thaddeus, 2009), also do not view the behaviors associated with cohabitation as favorable. Religious variables that allowed the differentiation of Protestants by denomination and those of other religions by religious group would yield more accurate conclusions about the relationship between religiosity and cohabitation among these groups. Fourth, the scope of this work only permitted the observation of how members respond to the contradictions between the macro level beliefs (societal and group-specific) influences of daily life. The findings of this study could be complemented by a

qualitative assessment of adherents' personal accounts about *why* they have chosen to adhere or reject their group's beliefs in the way they have formed their families. Finally, several questions relating to results could not be answered within this work. The results indicated that Canada may contain unique cultural dynamics that have significant effects on the behavior of religious and non-religious adherents. Furthermore, the low levels of religious behavior found in the study may be associated with global shifts in religiosity. Further research of both points could contribute to the understanding of religion in Canada and in the world at the present time.

### 9 Conclusion

Now that cohabitation is more frequent than marriage amongst 20-30 year old cohorts, understanding the ways members of counter-cultural groups reconcile the dichotomy between macro level beliefs in their family formation patterns is of great importance. This work examined the relationship between belief and behavior as seen in the association between Catholicism and cohabitation in Canada. Employing Cornwell's *Determinants of Religious Behavior Model* and data from the 2010 Canadian General Social Survey (Cycle 24: Time-Stress and Well-Being), it analyzed whether belief in the Catholic Church's teachings about sexuality and family life influences parishioners propensity not to cohabit to a greater extent than Protestant and Secular (no religion) beliefs; and whether belief in the Catholic Church's teachings about sexuality and family life influences parishioners propensity not to cohabit.

As the results indicate the findings contradict this work's hypotheses, aspects of Cornwall's model about religious belief and behavior, Weber (1930/2005) and Lenski (1963)'s theories about the influence of religion on social life, and past literature about religion and cohabitation. Belief in the Catholic Church's teachings about sexuality and family life does not influence all parishioners propensity not to cohabit to a greater extent than belief in other religious doctrines in Canada<sup>17</sup>; and belief in the Catholic Church's teachings about sexuality and family life does not influence the propensity not to cohabit of fourteen percent of Catholic parishioners in Canada.

Since the Roman Catholic Church distinctively proscribes the behaviors encompassed in cohabitation (extra-marital sex and possibly contraceptive usage) several explanations were posed to address both findings.

<sup>&</sup>lt;sup>17</sup> Some of the results indicate that belief in the Catholic Church's teachings about sexuality and family life does influence parishioners' likelihood of cohabiting to a greater extent than belief in no religion; but this is not the case for Catholics' likelihood of cohabiting and that of Protestants and members of other affiliations.

Belief in the Catholic Church's teachings about sexuality and family life may not influence all parishioners' propensity not to cohabit to a greater extent than belief in other religious doctrines in Canada (specifically in contrast to Protestant adherents) because: The likelihood of cohabitation found among the Protestants may be skewed by the influence of Protestant denominations that hold very conservative views about sexuality and family life (Catholic's may cohabit more than certain conservative Protestant groups rather than all Protestant groups) (Ellison, Wolfinger, & Ramos-Wada, 2012; Gault-Sherman & Draper, 2012); Protestants' lower rates of cohabitation may be the result of their persisting piousness and "rationalism" (Weber, 1930/2005, p. 37), if this is the case the discrepancy between the cohabitation rate of Protestants and Catholics would not be the result of differences in belief systems (Protestants cohabiting less than Catholics because they do not hold the same beliefs about cohabitation), but the result of differences in adherence to their distinct belief systems (Protestants adhering to their belief systems to a greater propensity than Catholics) (Weber, 1930/2005); and Catholic's cohabitation rate may be higher than Protestant's cohabitation rate because of the Catholic Church's failure to adapt to new norms of sexuality and family life, and most Protestant Churches' ability to reform their teachings to the societal norms of the time (Thornton, 1985).

Belief in the Catholic Church's teachings about sexuality and family life may not influence fourteen percent of parishioners' propensity not to cohabit because: The Catholic Church's failure to adapt its dogma to society's newer constructions of family life may have led to a diminishing of its "moral authority" (Thornton, 1985, p. 389) and of its adherents "religious commitment and activity" (Thornton, 1985, p. 389); some Catholics may have adopted a more subjective outlook towards their faith which led them to adopt alternative forms of family formation such as cohabitation (Lesthaeghe, 2010; Thornton, 1985, citing Thornton and Freedman, 1983; Mosher, 1982; Thornton, 1985); cultural factors- particular to Quebec as a region- might take precedence over Quebecker's continued affiliation with the Catholic religion; in other words, Quebecker's distinct sub-culture might be leading to its resident's highly liberal attitudes and behaviors; especially in regards to sexuality and family life (see Wu & Balakrishnan, 1992); and finally, as in the case of Spain and Italy, Catholics in Canada may be affected by attributes unique to Canada as a nation- the secularism of Canada may be influencing citizens' attitudes and behaviors about family life in directions that are not consistent with the Catholic Church (such as cohabiting) (Popenoe, 2009; Liefbroer & Dourleijn, 2006).

As cohabitation patterns continue to grow globally, further research of the possible explanations proposed above and about the issues associated with this topic (such as the influence of national cultural dynamics and global shifts in religiosity), will become vital in expanding the understanding of the role of religion in family formation, family formation patterns across religious and non-religious groups, and the macro trends in values shifts, family transitions and religion.

Consequently the advancement of knowledge about such topics will not only benefit scholars and researchers interested in these processes, but also the religious and non-religious communities whose members experience continued societal changes in sexuality and family life.

## References

Abacus Nesstar data repository. Metadata. Dataset: General Social Survey Cycle 24: Time-Stress and Well-Being, 2010- Main File. Retrieved from: http://nesstar.library.ubc.ca/webview/index.jspv=2&node=0&submode=ddi&study=http HYPELINK"http://nesstar.library.ubc.ca/webview/index.jsp?v=2&node=0&submode=dd i&study=http%3A%2F%2F142.103.160.70%3A80%2Fobj%2FfStudy%2FGSS24-12M0024XCBMAIN&mode=documentation&top=yes"%3A%2F%2F142.103.160.70%3 A80%2Fobj%2FfStudy%2FGSS24-12M0024XCB-MAIN&mode=documentation&top=yes

(Retrieved: February 2012).

- Adamczyk, A. & Hayes, B. E. (2012). Religion and Sexual Behaviors Understanding the Influence of Islamic Cultures and Religious Affiliation for Explaining Sex Outside of Marriage. American Sociological Review, XX(X) 1–24.
- Ambert, A.-M. (2005b). Cohabitation and marriage: How are they related? Ottawa: Vanier Institute of the Family <www.vifamily.ca>. America. Baltimore, Maryland: Johns Hopkins University Press. (Retrieved: April 23, 2012).
- BBC. (2009, September). Contraception: Islamic views on contraception. Retrieved from: http://www.bbc.co.uk/religion/religions/islam/islamethics/contraception.shtml (Retrieved: Feburary, 2013).
- Bibby R. G. (2002). *Restless Gods: The renaissance of religion in Canada*. Toronto, ON: Stoddart.
- Champlin, J.M. (2003, June). Catholic Update: Cohabitation Before Marriage. Retrieved from: http://www.americancatholic.org/Newsletters/CU/ac0603.asp

(Retrieved: Feburary, 2013).

- Cornwall, M. (1989). The Determinants of Religious Behavior: A Theoretical Model and Empirical Test. *Social Forces*, *68*(2), pg. 572-592.
- D'Antonio, W. V. (1985). The American Catholic Family: Signs of Cohesion and Polarization. *Journal of Marriage and Family*, 47(2), pp. 395-405.
- Eggebeen, D. & Dew, J. (2009). The Role of Religion in Adolescence for Family Formation in Young Adulthood. *Journal of Marriage and Family*, 71:108–121.
- Ellison, C.G., Wolfinger, N.H., & Ramos-Wada, A.I. (2012). Attitudes Toward Marriage, Divorce, Cohabitation, and Casual Sex Among Working-Age Latinos: Does Religion Matter? *Journal of Family Issues, XX*(X), 1- 28.
- Flanagan, Rev D., & Williams, Dr. E.S. (1997). Cohabitation or Marriage? http://www.belmonthouse.co.uk/Marriage,%20cohab%20and%20divorce/cohabitation.ht m (Retrieved: Feburary, 2013).
- Gault-Sherman, M. & Draper, S. (2012). What Will the Neighbors Think? The Effect of Moral Communities on Cohabitation. *Review of religious research*, *54: 45–67*.
- Goodwin, P.Y., Mosher W.D., & Chandra, A. (2010). Marriage and cohabitation in the United States: A statistical portrait based on Cycle 6 (2002) of the National Survey of Family Growth. *National Center for Health Statistics. Vital Health Statistics*, 23(28), 1-45.
- Gray, M. M., Perl, P. M., & Bruce, T. C. (2007). *Marriage in the Catholic Church: A Survey of U.S. Catholics*. Center for Applied Research in the Apostolate *Georgetown University*. Retrieved from: http://cara.georgetown.edu/Publications/tcrsubindex.html (Retrieved: February, 2012).

Islam Awareness Homepage. (1995, September). An Islamic Perspective on Sexuality.

Retrieved from: http://www.islamawareness.net/Sex/perspective.html (Retrieved: February, 2013).

- Kaufmann, M. E. (2012). "Determining Behavior: Who is more like to cohabit and why?" Sociology 501, Paper two.
- Laplante, B. (2006). The Rise of Cohabitation in Quebec: Power of Religion and Power over Religion. *Canadian Journal of Sociology*, *31*(1), 1-24.
- Le Bourdais, C., & Lapierre Adamcyk, É. (2004). Changes in conjugal life in Canada: Is cohabitation progressively replacing marriage? *Journal of Marriage and Family*, 66(4), 929-942.
- Lehrer, E. (2000). Religion as a determinant of entry into cohabitation and marriage. inThe Ties that Bind. Perspectives on Marriage and Cohabitation, edited by Linda J.Waite, 227-252. Hawthorne, NY: Aldine De Gruyter.
- Lenski, G. (1963). *The Religious Factor: A Sociologist's Inquiry*. Garden City, NY: Anchor Books.
- Lesthaeghe, R. (2010). The Unfolding Story of the Second Demographic Transition. *Population* and Development Review, 36(2), 211–251.
- Liefbroer, A. C., & Dourleijn, E. (2006). Unmarried cohabitation and union stability: testing the role of diffusion using data from 16 European countries. *Demography*, 43, 203-221.
- Manning, W. D., Cohen, J. A., & Smock, P. J. (2011). The role of romantic partners, family, and peer networks in dating couples' views about cohabitation. Journal of Adolescent Research, 26(1), 115–149.

Manning, W. D., & Smock, P. J. (2005). Measuring and modeling cohabitation: New

perspectives from qualitative data. Journal of Marriage and Family, 67, 989 – 1002.

- Popenoe, D. (2009). Cohabitation, marriage, and child wellbeing: A cross-national perspective. *Society*, *46*(5), 429-436.
- Rhoades, G. K., Stanley, S. M., & Markman, H. J. (2009). Couples' Reasons for Cohabitation: Associations With Individual Well-Being and Relationship Quality. *Journal* of Family Issues, 30 (2): 233-258.
- Sassler, S. (2004). The process of entering into cohabiting unions. *Journal of Marriage and Family*, *66*, 491 505.
- Statistics Canada. Social and Aboriginal Statistics Division. (2011). General Social Survey Cycle
  24: Time- Stress and Well-Being, 2010 [2012] [Data file]. Retrieved from
  http://abacus.library.ubc.ca/handle/10573/42685 (Retrieved: February, 2012).
- St. John Evangelical Lutheran Church. Is living together before marriage all that wrong? http://www.stjohnhubbard.com/cms/index.php?option=com\_content&view=article&id=2 4&Itemid=43 (Retrieved: February, 2013).
- Thaddeus. (2009, June). Cohabitation. Retrieved from:

http://www.whatdomormonsbelieve.com/2009/06/cohabitation/

- Thornton, A. (1985). Reciprocal Influences of Family and Religion in a Changing World. *Journal of Marriage and Family*, 47(2), 381-394.
- Thornton, A., Axinn, W. G., & Hill, D. H. (1992). Reciprocal effects of religiosity, cohabitation, and marriage. *American Journal of Sociology*, *98*(3), p. 628-651.
- Thornton, A., Axinn, W. G. & Xie, Y. (2007). *Marriage and Cohabitation*. Chicago: The University of Chicago Press.
- USCCB. Luke, Chapter 15. Retrieved from: http://www.usccb.org/bible/luke/15/ (Retrieved: February, 2013).
- Wardle, L. D. (2004). Withering away of marriage: Some lessons from the Bolshevik family law reforms in Russia, 1917-1926: Georgetown Journal of Law & Public Policy 2: 469-522.
- Weber, M. (2005). *The Protestant Ethic and the Spirit of Capitalism*. (Parsons, T., Trans.). Taylor& Francis e-Library: Routledge. (Original work published 1930).
- Weber, M. (1972). *Sociology of Religion*. Boston: Beacon Press. (Translated by Ephraim Fischoff).
- White, J.M., Larson, L.E., Golts, J. W. & Munro, B. E. (2005). *Families in Canada: Social contexts, continuities, and changes.* Toronto, ON: Pearson Education Canada Inc.
- Wilcox, W. B., & Wolfinger, N. H. (2007). Then comes marriage? Religion, race, and marriage in urban America. Social Science Research, 36, 569-589.
- Wu, Z., & Balakrishnan, T. R. (1992). Attitudes towards Cohabitation and Marriage in Canada. *Journal of Comparative Family Studies*, 23(1), 1-12.

## Appendices

Appendix A:



Figure 3. Direct Effects in Cornwall's Model.

## **Appendix B:**



Figure 4. Variable Operationalization.

## Appendix C: Variable Information (GSS 2010 Cycle 24).

## **Independent Variables: Religious Variables**

## A) Religious Affiliation

**RELIG6** Religion of respondent - 6 categories (religion, Roman Catholic, United Church, and Protestant)

## **B) Belief & Commitment Scale**

**RLR\_Q110** How important are your religious or spiritual beliefs to the way you live your life? Would you say they are. (Importance of religious/spiritual beliefs)

## I- Informal: "Spiritual" (individual level)

**RLR\_Q120** In the past 12 months, how often did you practice religious or spiritual activities on your own? This may include prayer, meditation and other forms of worship taking place at home or in any other location.

# *II-Formal: "Church"*(*p.* 582) (*Institutional level*) [*Commitment to group*] i) Church Attendance (Services and activities)

**RELIGATT** Religious attendance of the respondent.

## C) Group Involvement (Voluntarism)

**VCG\_Q300** In the past 12 months, did you do unpaid volunteer work for any organization? **MAP\_Q250** Last week, how many hours did he/she volunteer his/her time on behalf of a group or organization, without pay?

## **Dependent Variable: Religious Behavior Variable**

## A) Cohabitation

**COHAB** Type of partner the respondent has within the household. Respondent has an opposite sex common-law partner in the household.

## **Control Variables**

Province:

**PRV** Province of residence of the respondent.

## Income:

**INCM** Annual personal income of the respondent.

## Country of Origin:

**BRTHREGC** Country or region of birth of the respondent.

## Education:

EDU10 Highest level of education obtained by the respondent - 10 groups.

Sex: SEX Sex of respondent.

*Age:* **AGEGR5** Age group of the respondent (groups of 5).

## Appendix D: Revised Codebook (GSS 2010 Cycle 24).

**Independent Variable: Religious Variables** 

#### A) Religious Affiliation

RLR_Q100 What, if any, is your religion	? (Page 762)	
RELIG6 Religion of respondent - 6 catego	ries (Page 510, 511	l <b>, 595</b> )
Variable Name: RELIG6 Position: 2521 L	ength: 1	
Religion of respondent - 6 categories.	FREQ	WTD
1 No religion	3,198	6,420,724
2 Roman Catholic	5,165	10,083,061
3 United Church	1,502	1,876,093
4 Protestant	3,999	6,133,100
5 Other	906	2,371,687
6 Para-religious groups or unknown	29	57,899
8 Not stated	489	931,119
9 Don't know	102	201,927
	15,390	28,075,610

#### **B) Belief & Commitment**

**RLR\_Q110** How important are your religious or spiritual beliefs to the way you live your life? Would you say they are: (**Page 509, 510, 595, 761**)

Variable Name: RLR\_Q110 Position: 2519 Length: 1

How important are your religious or spiritual beliefs to the way you live your life?

FREQ	WTD
5,679	9,168,144
4,706	8,329,306
2,241	4,700,864
2,222	4,851,918
426	803,104
116	222,274
15,390	28,075,610
	FREQ 5,679 4,706 2,241 2,222 426 116 ====== 15,390

**RLR\_Q120** In the past 12 months, how often did you practice religious or spiritual activities on your own? This may include prayer, meditation and other forms of worship taking place at home or in any other location. (**Page 509**, **510**, **595**, **761**)

Variable Name: RLR\_Q120 Position: 2520 Length: 1

In the past 12 months, how often did you practice religious or spiritual activities on your own? This may include prayer, meditation and other forms of worship taking place at home or in any other

location.	FREQ	WTD
1 At least once a week?	6,774	11,245,767
2 At least once a month?	1,272	2,345,662
3 A few times a year?	1,540	2,873,002
4 At least once a year?	529	1,032,611
5 Not at all?	4,736	9,601,512
8 Not stated	454	843,732
9 Don't know	85	133,324
	======	28 075 610
	15,590	28,075,010

## **RELIGATT** Religious attendance of the respondent.

## Section: Religion of Respondent (REL)

Variable Name: RELIGATT Position: 25	518 Length: 1	
Religious attendance of the respondent.	FREQ	WTD
1 At least once a week	3,072	5,028,701
2 At least once a month	1,524	2,572,633
3 A few times a year	2,846	5,187,869
4 At least once a year	1,379	2,894,931
5 Not at all	6,141	11,555,689
8 Not stated	402	778,727
9 Don't know	26	57,060
	======	
	15,390	28,075,610

#### **C)** Group Involvement

## VCG\_Q300 In the past 12 months, did you do unpaid volunteer work for any organization? (Page 304, 305, 528,582, 753)

#### Section: Volunteering (VCG)

Variable Name: VCG\_Q300 Position: 2026 Length: 1

In the past 12 months, did you do unpaid volunteer work for any organization?

	FREQ	WTD
1 Yes	5,943	10,573,672
2 No	9,224	17,113,173
8 Not stated	186	327,265
9 Don't know	37	61,500
	15,390	28,075,610

## MAP\_Q250 Last week, how many hours did he/she volunteer his/her time on behalf of a group or organization, without pay? (Page 361, 586, 756)

Variable Name: MAP\_Q250 Position: 2192 Length: 1

Last week, how many hours did he/she volunteer his/her time on behalf of a group or organization, without pay?

	FREQ	WTD
0 None	6,862	13,751,256
1 Less than 5 hours	974	1,798,739
2 5 to 14 hours	544	932,548
3 15 to 29 hours	123	221,950
4 30 to 59 hours	30	54,768
5 60 hours or more	8	16,861
7 Not asked	6,484	10,536,509
8 Not stated	244	511,952
9 Don't know	121	251,027
	======	
	15,390	28,075,610

#### Dependent Variable: Religious Behavior Variable

**COHAB** Type of partner the respondent has within the household. Respondent has an opposite sex common-law partner in the household.

	FREQ	WTD
0 Respondent has no spouse/partner in the household	6,667	10,754,438
0 Respondent has an opposite sex married spouse in the household	7,449	14,282,206
1 Respondent has an opposite sex common-law partner in the household	1,598	2,915,929
SM Respondent has a same sex spouse/partner in the household	67	123,037

**COHAB** Type of partner the respondent has within the household. Respondent has an opposite sex common-law partner in the household.

	FREQ	WTD
	===== 15,390	28,075,610
Controls Variables		
<b>PRV</b> Province of residence of the respondent. Variable Name: PRV Position: 73 Length: 2		
Province of residence of the respondent.		
1	FREQ	WTD
0 Newfoundland and Labrador	957	432,872
0 Prince Edward Island	489	117,788
0 Nova Scotia	963	791,038
0 New Brunswick	833	635,607
1 Quebec	3,599	6,565,452
0 Ontario	4,340	10,889,740
0 Manitoba	965	985,035
0 Saskatchewan	1,042	833,042
0 Alberta	1,311	2,972,087
0 British Columbia	2,213	3,852,949
	15,390	======================================
<i>Income:</i> <b>INCM</b> Annual personal income of the respondent. <i>Variable Name:</i> <b>INCM</b> <i>Position:</i> 2530 <i>Length:</i> 2 Annual personal income of the respondent		
Annual personal income of the respondent.	FREO	WTD
01 No income	799	1 983 926
02 Less than \$5,000	481	1 244 069
03 \$5 000 to \$9 999	712	1 484 979
04 \$10 000 to \$14 999	990	1 731 651
05 \$15,000 to \$19,999	967	1.528.707
06 \$20,000 to \$29,999	1.835	3.065.711
07 \$30.000 to \$39.999	1.804	3.107.934
08 \$40.000 to \$49.999	1.397	2,426,614
09 \$50.000 to \$59.999	1,059	1,965,095
10 \$60.000 to \$79.999	1,429	2,577,467
11 \$80,000 to \$99,999	709	1,390,077
12 \$100,000 or more	901	1,737,618
98 Not stated	1,720	2,809,593
99 Don't know	587	1,022,170
	15,390	28,075,610
Country of Origin:	2	
Variable Name: BRTHREGC Position: 2488 Length: 2	)	
Country or region of birth of the respondent.	FD	FO WTD

	TREQ	WID
01 Born in Canada - province of birth =province of residence	9,856	17,697,018
02 Born in Canada - province of birth not equal to province of residence	2,532	3,859,158
03 Born in Canada - Province/Territory not sated	5	9,235

Country	or region	of birth	of the	respondent.

	FREO	WTD
04 Born outside Canada - North America (excludes Canada includes - G	reenland St Pier	rre and Miquelon)
04 Dorn outside Canada - North America (excludes Canada, metudes - 0	1 216	2 208 867
05 Dam autaida Canada South/Control Amarica Caribbaan Africa Aci	1,510	2,298,807
05 Born outside Canada - South/Central America, Carlobean, Africa, Asi	a, Oceania/other	2 450 447
	1,301	3,459,447
06 Born outside Canada - country uncodeable	3	3,388
07 Not stated/Don't know which country respondent was born	318	614,856
98 Born outside Canada - Not stated	57	132,504
Country or region of birth of the respondent.		
	FREQ	WTD
99 Born outside Canada - Don't know	2	1,136
	15,390	28,075,610
	,	, ,
Education:		
<b>EDU10</b> Highest level of education obtained by the respondent - 10 group	ns	
Variable Name: <b>FDU10</b> Position: 2139 Length: 2	20.	
Highest level of education obtained by the respondent 10 groups	FREO	WTD
01 Destorets/mesters/some graduate	1 069	1 026 151
02 D 1 1 1 1	1,008	1,920,131
02 Bachelor's degree	2,702	5,223,981
03 Diploma/certificate from community college	2,311	4,177,701
04 Diploma/certificate from trade/technical	1,979	3,345,165
05 Some university	922	1,950,858
06 Some community college/CEGEP/nursing	620	1,407,545
07 Some trade/technical	579	1,013,398
08 High school diploma	2,109	3,691,877
09 Some secondary/high school	2,223	3,885,980
10 Elementary school/no schooling	473	689,054
98 Not stated	339	650,496
99 Don't know	65	113,404
	======	========
	15 390	28 075 610
	10,000	20,070,010
Sar		
SEX Say of respondent		
SEA SEX OF RESpondent.		
Variable Name. SEA Fosition. 49 Lengin. 1		
Sex of respondent.	EDEO	
	FREQ	WID
I Male	6,701	13,854,955
2 Female	8,689	14,220,655
	======	
	15,390	28,075,610
Age:		
AGEGR5 Age group of the respondent (groups of 5).		
Variable Name: AGEGR5 Position: 46 Length: 2		
Age group of the respondent (groups of 5).		
	FREO	WTD
01 15 to 17	488	1.394.345
02 18 to 19	273	818.171
03 20 to 24	616	2 293 526
04 25 to 29	852	2,295,520
05 30 to 34	1 072	2,302,427
06 35 to 30	1,072	2,332,302
07.40  to  44	1,170	2,330,272
U/ 40 t0 44	1,233	2,429,370

rige group of the respondent (groups of 5).
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	FREQ	WTD
08 45 to 49	1,416	2,757,722
09 50 to 54	1,552	2,601,453
10 55 to 59	1,517	2,260,174
11 60 to 64	1,512	1,950,841
12 65 to 69	1,171	1,433,734
13 70 to 74	890	1,084,315
14 75 to 79	693	860,112
15 80 years and over	885	1,151,365
	====== 15,390	28,075,610

## **Appendix E: Additional Tables**

## Table 21

Correlation and Descriptive Statistics for All Variables (Weighted-WTVAR)

Main Variable	RELIGI ON	RIMP ORT	RATTE ND	VOLU NT	COH AB	PR V	INC M	BRTHR EGC	EDU 10	SEX	AGEG R5
s	011	0	1,12			·		200	10		I.U
RELIGI ON	1.00	0.30**	0.14**	0.00	0.02*	0.25 **	0.03 **	-0.03**	0.05 **	0.10 **	0.20**
RIMPO RT	0.30**	1.00	0.54**	0.11**	- 0.13* *	- 0.14 **	-0.01	0.10**	- 0.02 *	0.15 **	0.25**
RATTE ND	0.14**	0.54**	1.00	0.20**	- 0.20* *	- 0.14 **	- 0.10 **	0.10**	0.01	0.10 **	0.20**
VOLUN T	0.00	0.11**	0.20**	1.00	- 0.10* *	- 0.10 **	0.06 **	-0.01	- 0.10 **	- 0.04 **	0.10**
СОНАВ	0.02*	-0.13**	-0.20**	- 0.10**	1.00	0.21 **	0.10 **	0.00	- 0.03 **	- 0.00	- 0.07**
PRV	0.25**	-0.14**	-0.14**	- 0.10**	0.21* *	1.00	- 0.03 **	-0.04**	0.00	0.00	0.02**
INCM	0.03**	-0.01	-0.10**	0.10**	0.08* *	- 0.03 **	1.00	-0.03**	- 0.40 **	- 0.24 **	0.30**
BRTHR EGC	-0.03**	0.10**	0.10**	-0.01	0.00	- 0.04 **	- 0.03 **	1.00	- 0.06 **	0.02 **	0.00
EDU10	0.05**	-0.02*	0.01	- 0.08**	- 0.03* *	0.00	- 0.40 **	-0.10**	1.00	- 0.00	0.01
SEX	0.10**	0.15**	0.07**	- 0.04**	-0.00	0.00	- 0.24 **	0.02**	-0.00	1.00	0.04**
AGEGR 5	0.20**	0.25 **	0.20**	0.10**	- 0.10* *	0.02 **	0.30 **	0.00	0.01	0.04 **	1.00
MEANS	2.81	2.81	2.62	0.28	0.10	0.23	6.71	2.47	4.94	1.51	7.56
SD	1.17	1.09	1.12	0.67	0.31	0.42	3.20	6.80	2.81	0.50	3.71
Sample Size N	14769	14828	8597	9196	15323	153 90	132 90	15390	1497 1	153 90	15390

\*\* p < 0.01 level (2-tailed). \* p < 0.05 level (2-tailed).

# Table 22Cross tabulation between Religion and Cohabitation (sample estimate)

		CO	HABITATION	Total
		.NO	YES(%)	
	None	3032	467 (13.3)	3499
	Other	1289	42 (3.2)	1331
RELIGION	Protestants	4115	262 (6.0)	4377
	Roman Catholics	4720	777 (14.1)	5497
Total (N= 14704)		13156	1548 (10.5)	14704

Note: N refers to the number of valid cases.

## Table 23

## Cross tabulation between Religion and Province (sample estimate)

Religion	Province (Quebec)	Total
Roman Catholic	2532 (45.8)	5527
Total (N=14769)	2532 (45.8)	5527

Note: N refers to the number of valid cases.