

The relationship between organised religion and economic growth
in South Africa

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Abstract

This study aims to establish the relationship between religious adherence and economic growth in South Africa. As an area of growing interest in academic circles, much of the literature on the subject reports a negative relationship between religion and economic growth, with some research aiming to prove a causal link between the two. In light of this research, the aim of this study is to promote a public policy debate around state support for organised religion, primarily in the form of tax exemption, considering the growing body of evidence that suggests the sector may impact negatively on the South African economy.

This study separates respondents into three distinct groups: religious participators, believers but not formal participators, and those who are neither strong believers nor participators in religious activities. Data gathered from the 2005 World Values Survey was analysed, comparing findings from respondents in South Africa to those of the other countries sampled, and looking at individual proxies for economic growth (such as income) relative to religious adherence. The outcome showed that there are significant differences in the economic behaviour of each distinct group, with global findings differing significantly from South Africa. This raises the possibility of several future studies.

Declaration

I declare that this research project is my own work. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration at the Gordon Institute of Business Science, University of Pretoria. It has not been submitted before for any degree or examination in any other university. I further declare that I have obtained the necessary authorisation and consent to carry out this research.

James Simpson

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Table of contents

CHAPTER ONE: INTRODUCTION	1
1.1 INTRODUCTION TO THE RESEARCH PROBLEM	1
1.2 CONTEXT OF THE RESEARCH	2
1.3 ORGANISED RELIGION IN THIS CONTEXT	4
1.4 SUPPORT FOR THIS TOPIC IN THE LITERATURE	7
CHAPTER TWO: LITERATURE REVIEW	8
2.1 BACKGROUND	8
2.2 INTRODUCTION TO LITERATURE REVIEW	8
2.3 RELIGION AND ECONOMIC GROWTH	10
2.4 RELIGION AND PERSONAL ECONOMIC BEHAVIOUR	15
2.5 RELIGION AND INCOME	19
2.6 RELIGION AND GENDER ROLES	22
2.7 RELIGION, INSTITUTIONS AND TRUST	24
2.8 CONCLUSION.....	27
CHAPTER THREE: RESEARCH QUESTIONS	30
3.1 PROBLEM STATEMENT.....	30
3.2 NULL HYPOTHESIS	30
3.3 SUB QUESTIONS	30
3.3.1 DOES RELIGION AFFECT INCOME LEVELS?.....	31
3.3.2 DOES RELIGION AFFECT THE PARTICIPATION OF WOMEN IN THE ECONOMY?	31
3.3.3 DOES RELIGION AFFECT THE LEVELS OF TRUST ITS ADHERENTS DISPLAY IN BOTH THEIR FELLOW CITIZENS AND THE INSTITUTIONS OF A COUNTRY?	31
CHAPTER FOUR: RESEARCH METHODOLOGY	32
4.1 PROPOSED METHODOLOGY	32
4.2 ASSUMPTIONS	32
4.3 DEFENCE OF THIS METHODOLOGY.....	33
4.4 DEFINITION OF THE UNIT OF ANALYSIS.....	34
4.5 POPULATION.....	34
4.6 SAMPLE SIZE.....	34
4.7 SAMPLING METHOD	34



4.8	RESEARCH INSTRUMENT USED	35
4.9	DETAILS OF DATA COLLECTION	36
4.10	PROCESS OF DATA ANALYSIS	37
4.10.1	GROUP ONE	37
4.10.2	GROUP TWO	38
4.10.3	GROUP THREE	38
4.10.4	ECONOMIC BEHAVIOUR	39
4.10.5	GENDER	39
4.10.6	TRUST	40
4.11	LIMITATIONS OF THE STUDY.....	40

CHAPTER FIVE: RESULTS 42

5.1	RELIGION AND INCOME – GLOBAL.....	42
5.2	RELIGION AND INCOME – SOUTH AFRICA.....	47
5.3	RELIGION AND GENDER – GLOBAL.....	50
5.4	RELIGION AND GENDER – SOUTH AFRICA	54
5.5	RELIGION AND TRUST – GLOBAL	59
5.6	RELIGION AND TRUST – SOUTH AFRICA	62

CHAPTER SIX: DISCUSSION OF RESULTS 66

6.1	INTRODUCTION	66
6.2	DOES RELIGION AFFECT INCOME LEVELS?	66
6.2.1	INCOME – GLOBAL PERSPECTIVE	66
6.2.2	INCOME – SOUTH AFRICAN PERSPECTIVE.....	70
6.3	DOES RELIGION AFFECT THE PARTICIPATION OF WOMEN IN THE ECONOMY?.....	72
6.3.1	GENDER ROLES – GLOBAL	72
6.3.2	GENDER ROLES – SOUTH AFRICA	74
6.4	DOES RELIGION AFFECT THE LEVELS OF TRUST ITS ADHERENTS DISPLAY IN BOTH THEIR FELLOW CITIZENS AND THE INSTITUTIONS OF A COUNTRY?.....	79
6.4.1	TRUST GLOBAL	79
6.4.2	TRUST SOUTH AFRICA.....	81

CHAPTER SEVEN: CONCLUSION 84

7.1	DOES RELIGION AFFECT INCOME LEVELS?	86
7.2	DOES RELIGION AFFECT THE PARTICIPATION OF WOMEN IN THE ECONOMY?.....	87
7.3	DOES RELIGION AFFECT THE LEVELS OF TRUST ITS ADHERENTS DISPLAY IN BOTH THEIR FELLOW CITIZENS AND THE INSTITUTIONS OF A COUNTRY?.....	89

7.4	RECOMMENDATIONS FOR FUTURE RESEARCH.....	90
7.4.1	DIFFERENCES BETWEEN GLOBAL AND SA FINDINGS.....	90
7.4.2	DIFFERENCES IN INCOME BETWEEN GROUPS ONE AND TWO.....	91
7.4.3	THE STRONG PERFORMANCE OF GROUP ONE IN SOUTH AFRICA.....	91
7.4.4	DIFFERENT LEVELS OF TRUST BETWEEN THE GROUPS	92

REFERENCES 94

APPENDICES 102

10.1	APPENDIX A.....	102
10.2	APPENDIX B	115
10.3	APPENDIX C: FREQUENCIES GLOBAL DATA.....	123
10.4	APPENDIX D: FREQUENCIES SOUTH AFRICA.....	134

LIST OF TABLES

Table 5.1-1	Highest Educational Value Global	44
Table 5.1-2	Propensity to Save Global	45
Table 5.1-3	Scale of Incomes Global	46
Table 5.2-1	Highest Education Level Attained SA	47
Table 5.2-2	Propensity to Save SA	48
Table 5.2-3	Scale of Incomes SA	49
Table 5.3-1	Male Executives are Better Global	51
Table 5.3-2	Men have more Right to Work Global	51
Table 5.3-3	University is more Important for Boys Global	52
Table 5.3-4	Women's Employment Status Global	53
Table 5.3-5	Women's Education Status Global	54
Table 5.4-1	Male Executives are Better SA	55
Table 5.4-2	Men have more Right to Work SA	56

Table 5.5-1 Confidence in Government Global	60
Table 5.5-2 Confidence in Justice System Global	61
Table 5.6-1 Confidence in Government SA	63
Table 5.6-2 Confidence in the Justice System SA	64
Table 5.6-3 Trust your Neighbourhood SA	64
Table 5.6-4 Trust People of another Religion SA	65
Table 6.2-1 Scale of Incomes (Combined) SA	71
Table 6.3-1 Global vs South African Female Employment	76
Table 6.3-2 Female Employee Status Ignoring Unemployment	77
Table 6.4-1 Global vs South Africa - Trust	82
Table 10.3-1 Frequencies Group One	123
Table 10.3-2 Frequencies Group Two	123
Table 10.3-3 Frequencies Group Three	124
Table 10.3-4 Group One V24	124
Table 10.3-5 Group One V186	125
Table 10.3-6 Group One V187	126
Table 10.3-7 Group One V192	127
Table 10.3-8 Group Two V24	128
Table 10.3-9 Group Two V186	129
Table 10.3-10 Group Three V24	130
Table 10.3-11 Group Three V186	131
Table 9.3-12 Group Three V187	132
Table 9.3-13 Group Three V192	133
Table 10-13 Group Three V192	145



LIST OF FIGURES

Figure 1: The Relationship between Economic Growth and Church Attendance (Barro and McCleary, 2003) 11

Figure 2: Wealth and the Importance of Religion. Source: 2007 PEW Global Attitudes Survey (2007) 13

Figure 3: Per Capita GDP and Religiosity. Source: 2007 PEW Global Attitudes Survey (2007) 13

CHAPTER ONE: INTRODUCTION

1.1 Introduction to the Research Problem

The purpose of this research is to apply recent studies linking religiosity and economic growth to the South African context, to evaluate if they hold true locally. The aim is to establish whether the net economic effect of organised religious activities in South Africa is positive or negative for participants.

The expected outcome of this research is to promote public policy debate around the benefits of organised religion in an economy, and the South African economy in particular. Religion is traditionally seen as a power for good in a country, and as such the religious sector receives tax exemption (www.sars.gov.za), government grants, and funding from initiatives such as the National Lottery. These funds are over and above those donated by the adherents of each religion. The religion sector therefore consumes significant resources, both in financial terms and in the amount of time required of practitioners at religious institutions. For the purposes of this study, a religious institution can be defined as any that has registered for tax exemption in South Africa, in line with the following requirements in SARS's Tax Exemption Guide: Religious organisations should conduct "The promotion or practice of religion which encompasses acts of worship,

witness, teaching and community service based on a belief in a deity” (www.sars.gov.za).

1.2 Context of the Research

This research comes at a time when the global economic crisis has had a significant effect on the lives of the poor in particular. The Mail & Guardian reports that the crisis may jeopardise the achievement of the Millennium Development Goals agreed to by the United Nations (UN) in 2000, to halve the world's unemployment by 2015. In addition, the crisis appears to have reversed some of the progress made in key areas, with the number of employed people globally living on \$1.25 a day or less increasing to 64% from 2008 to 2009. This annual increase of six percent brings levels exactly back to where they were 10 years ago (Parker, 2009).

Escalating food prices have had huge consequences in Sub-Saharan Africa, with an estimated 29% of the population undernourished. In South Africa the effects of food price inflation have been pronounced, with the rate at 16.1% in January 2009, almost double the overall inflation rate of the country at 8.1%. This is significant when considering that LSM 1 households in South Africa spend around 71% of their incomes on food (Nhlapo-Hlope, 2009). The poor are therefore facing rapidly increasing demands on their limited financial resources.

More worrying is that the numbers of poor people in the country are growing rather than reducing, and have been since before the economic crisis began.

TIME magazine quotes South African Institute of Race Relations statistics that an estimated 4.2 million South Africans lived on less than \$1 per day in 2005, up from 1.9 million in 1996 (Lidlow and Perry, 2009). This is compounded by our extremely high unemployment rates, with real unemployment estimated at 40% (Philp, 2009).

The South African government has launched macro-economic initiatives such as ASGISA and has invested huge resources into infrastructure development as a job-creation and poverty-alleviation strategy, with the hope that these supply-side interventions will lay the foundation for future economic growth. Their stated aim is to halve unemployment and poverty by 2014 (www.info.gov.za). In the shorter term, the government has repeatedly committed to creating 500 000 jobs by the end of 2009 (Berger, 2009).

These initiatives require significant resources in order to be successful, coming from tax revenues and foreign investment. The recession in South Africa has severely affected tax revenues, with the South African Revenue Services (SARS) reporting that it was over 12% or R20 billion behind on forecasted collections by August 2009 (Temkin, 2009). Finance Minister Pravin Gordhan expects the revenue shortfall to be around R50 – R60 billion in this fiscal year, with some economists forecasting even larger amounts (Ensor, 2009).

Some of the literature establishes that religious people are more likely to pay their taxes (Torgler, 2006), which could be seen as a positive argument for supporting the religion sector. South Africa's current shortfall is not in the

area of personal tax collection however, where contributions are in fact 4% higher than forecast, largely due to high wage settlements in government sector. It is specifically VAT receipts and corporate tax which contribute to the shortfall, down 22% and 15% respectively (Business Report, 2009), indicating that economic activity has decreased significantly.

Similarly, foreign investment into South Africa has been adversely affected by the economic crisis. There was a portfolio outflow of R57.3 billion in the third quarter of 2008 (Seria, 2009), sending the country's current account deficit soaring at the time, although the effects of this have been reduced somewhat by the country's recent reductions in import levels. This portfolio outflow is in line with World Bank reports that foreign direct investment in developing markets, less volatile than portfolio flows, decreased from \$580 billion in 2008 to a projected \$400 billion in 2009 as the economic crisis continues to affect developed nations (Mathews, 2009).

1.3 Organised Religion in this Context

Faced with both the long-term development goals of the country, and with the medium-term challenges brought about by the economic crisis, organised religion impacts South Africa in two important ways. The first is that the religion sector vies for state resources with all other sectors of the economy (Mookerjee and Beron, 2004, Miller, 2002), and the second is that it competes for resources from its adherents, both in terms of time and money (Rupasingha and Chilton, 2009, Lipford and Tollison, 2003, Miller 2002, Iannaccone, 1998).

The resources consumed by the religion sector are normally justified in the context of the benefits that religious organisations bring to their communities, their contribution to charities, and the important role they play in the wellbeing of their adherents' lives. It is difficult to establish either the inputs religious organisations receive or the output from the sector in the areas mentioned above, as the vast majority of religious organisations refuse to disclose any details of their finances. In a series of investigative articles by the Financial Mail in South Africa in December 2007, the publication did not manage to get a clear financial picture of most of the religions it approached, as the sector is under no legal obligation to disclose their finances, and most do not feel any moral obligation to do so either, even to their own congregants and donors (Smith, 2007). Smith went on to describe the oversight of the sector in South Africa as “dysfunctional and haphazard”, which is concerning given the lack of disclosure described above. Oversight falls under the Non-Profit Organisation directorate, which for example does not have a complete file on the largest church in South Africa, the Zion Christian Church. Furthermore, religions are not obliged to join the directorate in order to qualify for tax-exempt status.

Two institutions that can provide at least some information are the Rhema Ministries and the Methodist Church of South Africa. Rhema did not confirm expenditure, but announced income for the 2008 financial year at slightly over R100 million, with R68 million coming from tithes and contributions from its 40 000 congregants (equating to R1700 each) and the balance coming from book sales, bible school and satellite television revenues. The only

expenditures detailed are salaries, which accounted for roughly 52% of income, or an average of R311 000 per annum per staff member. The church lists its assets at R51.2 million (Sapa, 2009).

The Methodist Yearbook for 2008 gives some details of church income and expenditure, with 2007's financial statements included in the document. The church has an investment portfolio totalling R832.5 million, which forms the bulk of the church's assets. Buildings and properties are not listed as assets. Total income for 2007 was R36.5 million, with R6.6 million coming from contributions and R23.2 from investments. In the expenditures listed, administrative expenses total R15.5 million, which include R3.3 million in office expenses. There is no mention in the document of financial contributions to the communities in which the churches operate, which is not to say that this did not occur.

The Methodist Church describes the contributions it receives as going towards "strengthening the Methodist witness in Southern Africa" (Methodist Year Book, 2009, p.9). The document does not mention financial assistance for congregants in the areas in which the church operates. In fact, the author of the document instructs churches in areas with declining incomes that they are to rather use ordained ministers at R300 000 per annum than encourage the use of "pastors" or other cheaper substitutes, and should endeavour to continue contributing to the central church, while at the same time remaining attentive to the socio-economic challenges facing their congregants.

1.4 Support for this Topic in the Literature

Research conducted recently indicates that the popular view of religion as a positive factor in a society is not necessarily true when looking at economic factors specifically. One study conducted using data gathered on a global level in fact found that an inverse and causal relationship between regular church attendance and economic growth rates exists. The study proposes that while the values espoused by religion such as hard work and trust may lead to improvements in economic growth, regular church attendance may detract from this in cases where the religion sector consumes valuable resources without notably increasing the likelihood that its adherents work any harder or trust any more (Barro, McCleary 2003).

There has been significant research conducted in areas such as the economic model of religions, and this study aims to take that research and apply it to a South African context. It is important to clarify therefore that this study does not aim to question the positive benefits an individual might enjoy from a religious belief, but rather to focus specifically on whether the net economic effect of participating in the religion sector in South African is positive or negative for adherents and therefore the economy. Deputy Finance Minister Nhlanhla Nene has stated the need for the South African government to get value for money when purchasing goods and services (Ensor, 2009), and the service offered by the religion sector should not be exempt from this requirement.

CHAPTER TWO: LITERATURE REVIEW

2.1 Background

The primary aim of the literature review will be to establish the link between religion and economic growth in other countries, as no suitable literature was found on this topic with a focus on South Africa. There is also a bias in the literature towards American studies, focussing primarily on the Catholic and Protestant faiths, with some literature on Islamic nations and limited material on other major religions such as Buddhism and Hinduism. As South Africa is predominantly a Christian country, with approximately 84% of the population describing themselves as Christian in the 1996 census (www.state.gov), findings from this literature review are expected to be relevant to local conditions.

The literature review structure will be aligned with the three sub-questions identified in the problem statement in Chapter Three, aiming to establish the relationship between religion and economic growth, gender roles in the economy, and trust in institutions and communities.

2.2 Introduction to Literature Review

Much of the recent literature on the subject of economic growth and religion relies on data gathered by the World Values Survey (WVS), an international study including South Africa which was conducted in five waves between 1981 and 2005. The fifth wave (or 2005 wave) was completed in 2008

(www.worldvaluessurvey.org), and provides all the data used in this research.

One of the most well-known of the studies conducted using WVS data is that of Barro and McCleary in 2003, who argue that overall, a negative and causal relationship between church attendance and economic growth exists, independent of the strength of religious beliefs.

Many studies have found that religious beliefs contribute to positive economic behaviour, particularly with regards to Christian religions, but at the same time studies have established that religious people are more racist which in theory reduces trust, an important component of economic growth, and are less tolerant of working women, which affects the potential size of the economically productive workforce (Guiso, Sapienza and Zingales, 2003). Other areas in which religion can be said to have a fundamental, although more indirect role on the economy is through its support for both formal and informal institutions, in terms of prohibition and trade on holy days, or attitudes towards work, family attitudes and gender roles (Heath, Waters and Watson, 1995).

While many studies focus on inter-country levels or inter-denominational levels of economic growth or income, this paper focuses rather on the individual, determining whether economic growth in South Africa (proxied by personal income, propensity to save etc.) is affected by active affiliation to a religious organisation. Links between income and religious affiliation were established as early as the 1960s, with certain religions in the United States consistently achieving higher incomes (controlled for external variables) than others (Gockel, 1969). Focussing more on whether religious households

enjoyed different levels of income than non-religious households, later work in the 1970s and 1980s suggested that individuals allocate their time according to maximum utility, and therefore investing time in religious activities involved an opportunity cost that effectively reduced family income (Heineck, 2004). Some studies have found this not to be the case however, arguing that devoting time and resources had no direct effect on income levels (Hollander *et al.*, 2003), or proposing that investing resources in religious practices was not a wasteful practice as religion should not be seen as an inferior good (Arano and Blair, 2008).

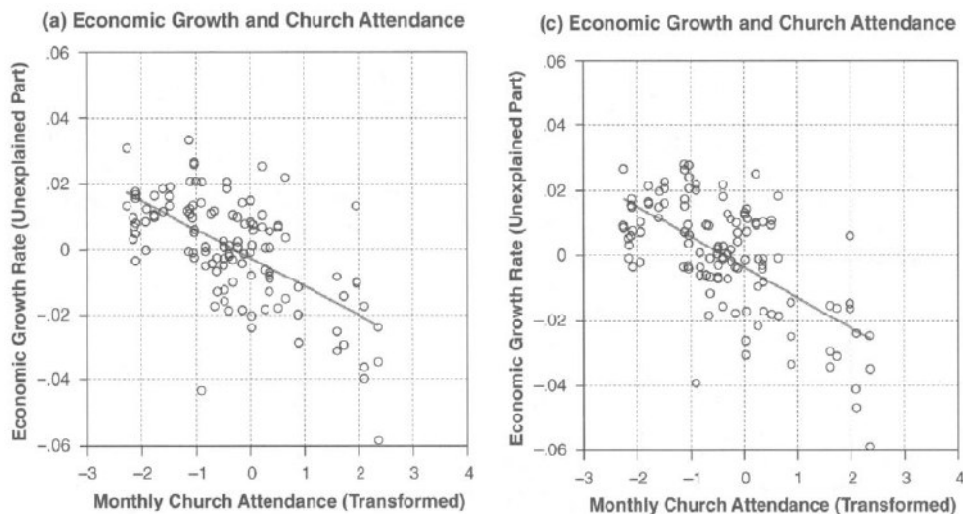
2.3 Religion and Economic Growth

The ultimate aim of this research is to establish not only whether religion is linked to economic growth, but whether levels of religious adherence, measured by attendance at religious ceremonies, has a negative relationship with economic growth in South Africa. There is significant literature to support this approach.

Barro and McCleary draw a distinction between participation in organised religion and actual religious beliefs by differentiating between monthly service attendance and stated belief in heaven and hell, and find that there is actually a positive correlation between religious beliefs and economic growth. Participating in regular religious activities however can have a negative impact on economic growth if this participation does not increase the religious beliefs of adherents. In other words, countries where high numbers of the population believe in hell but with relatively low rates of attendance of

religious ceremonies will perform better economically than countries with the same levels of belief in hell but higher rates of religious attendance. Belief in hell was found to be a slightly stronger predictor of economic performance than belief in heaven. Their results for religious attendance and economic growth (controlling for religious beliefs in the existence of heaven and hell), incorporating data from 59 countries are indicated in figure 1 below. Figure 1(a) holds constant the belief in hell, while Figure 1(c) holds constant the belief in heaven.

Figure 1: The Relationship between Economic Growth and Church Attendance (Barro and McCleary, 2003)



As early as 1776 in *The Wealth of Nations*, Adam Smith argued that the religion sector is as impacted by market forces as any other sector of an economy. This applies to the advantages gained by competition (where greater choice encourages increased religious consumption) and the drawbacks of monopolies. Religious organisations can therefore be argued to

compete for the time and resources of their congregants along with other secular pursuits (Iannaccone, 1998).

Using purchasing power parity instead of gross domestic product as a measure of a country's wealth, the PEW Research Centre found a -0.80 correlation between national wealth and religiosity, with the United States being the clear outlier in this regard (Figure 2). When comparing GDP against religion, they also found a significant negative correlation, although the statistical significance of the equation is not published in the report. Figure 3 below shows clearly that African nations show higher levels of religious belief and lower per capita GDPs. While this data looks compelling, it does not take into account the relative GDP growth rates of the various countries surveyed.

Figure 2: Wealth and the Importance of Religion. Source: 2007 PEW Global Attitudes Survey (2007)

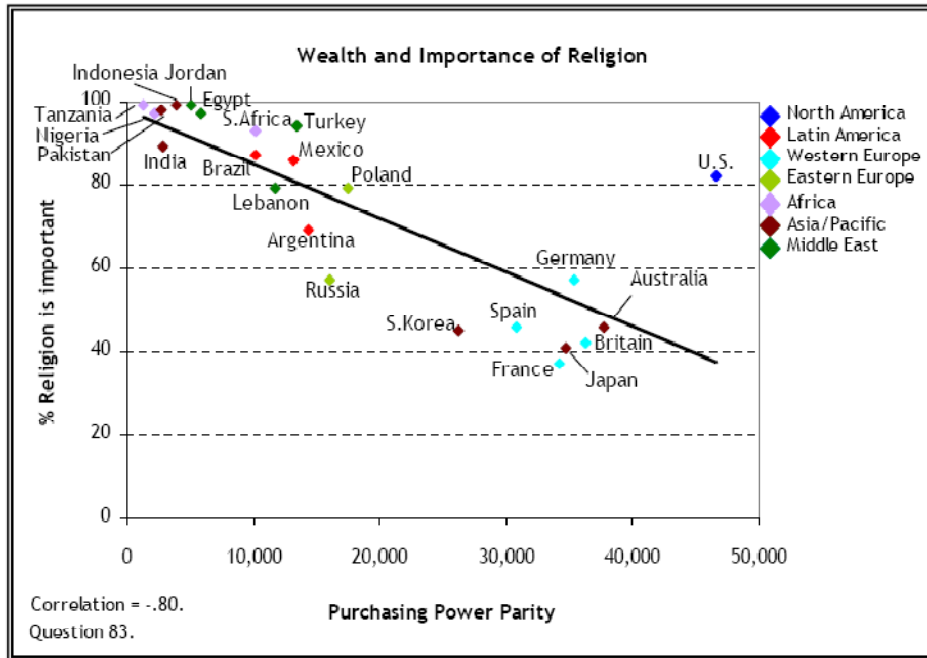
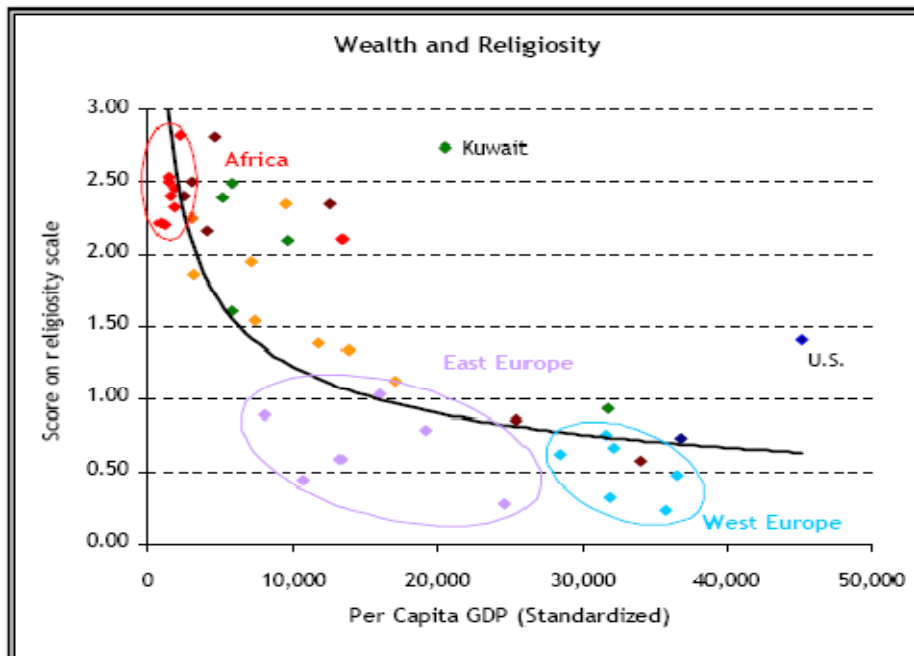


Figure 3: Per Capita GDP and Religiosity. Source: 2007 PEW Global Attitudes Survey (2007)



McCleary and Barro (2006) assess religion as both the dependent and independent variable with regards to economic growth. As the dependent variable they go on to find support for the secularization hypothesis, linking a decrease in church attendance and personal prayer to improved economic circumstances, while noting that it is a very slow process however. As the independent variable, religion is viewed consistently with Adam Smith's market model, with improved economic conditions linking to a drop in attendance of religious services, but not necessarily in conjunction with a decrease in personal religious beliefs. The findings of their 2006 research contend that attendance of organised religious activities only has a positive impact on economic growth if it significantly increases the belief in the afterlife by its participants, as it is belief in heaven and hell that most strongly predicts the positive behaviours normally associated with religious people, such as hard work and honesty.

McCleary and Barro's findings are ironic given that the secularization theory has become less popular in recent years, largely due to the ascendance of the market model which contends that despite economic improvement, increased choice in the religion sector leads to increased competition, thereby improving the quality of religious offerings available to the public and helping levels of religious adherence in societies to remain relatively constant (Mookerjee and Beron, 2004, Miller, 2002).

It is established that the religion sector consumes resources in the form of time and financial resources, and that the sector competes for these rewards with other clubs and forms of entertainment (Miller, 2002). Miller goes on to

argue that much like businesses, religions seek to influence government regulations to further their own interests. Further studies of the competition for resources by the religion sector have shown that when there are marked decreases in church attendance, there is a concurrent decrease in church donations and spending, indicating that the resources of attendees were consumed at the time of attendance (Gruber and Hungerman, 2008). Whereas the resources consumed and any value added by other market sectors is widely reported and therefore easily measurable, the same is not true for the religion sector however. (Iannaccone, 1998).

2.4 Religion and Personal Economic Behaviour

In conjunction with the increased support for the market model is a shift in understanding of the rational choice theory with regards to religion. Whereas traditionally religion was seen to fall outside of rational choice theory as it was not seen as the optimisation of a utility for maximal self interest, more contemporary publications contend that exhibiting behaviours seen to aid reward or minimise punishment in the afterlife can be seen as rational choices, therefore further explaining why religious beliefs have not reduced significantly in line with increased economic growth as the secularization theory suggests they should (Beed and Beed, 1999, Iannaccone, 1998).

Iannaccone goes on to establish that as wages increase, so individuals invest less time than poorer individuals in religious practices, compensating for this by investing larger monetary contributions. This is supported to some degree by public goods experiments, where religious people are not found to

contribute more than non-religious people to communal activities initially, but instead are likely to be more consistently over time, where non-religious people are likely to lose interest (Anderson and Mellor, 2009).

Studies on a larger scale have not supported the relationship between declining church participation and increasing contributions, however. Gruber and Hungerman (2006) compared church attendance and contributions before and after the US “blue laws”, banning trading on Sundays were lifted. Time spent on religious attendance unambiguously fell once the laws were repealed, supporting the secularization argument. Gruber and Hungerman used total church spending as a proxy for church contributions, as contributions are not reported, and found that church spending dropped significantly when the blue laws were repealed, with spend per member dropping by 6.3%.

Much research has attempted to isolate church attendance from religious beliefs, postulating that the two can be mutually exclusive. This results in attempts to measure religious intensity, admittedly an intangible element. Guiso *et al* (2003) analysed the relation between religion and six variables, including thriftiness (propensity to save), attitudes towards the free market, gender roles and fairness, while controlling for country and individual effects such as health. They found that on average Christian religions are conducive to the development of attitudes that foster economic growth, while Islam is negatively associated with growth. At the same time however, all religions were associated with more conservative attitudes towards the role of women in society.

Higher levels of intrinsic religious beliefs have been positively associated with levels of entrepreneurial activity in a country, and although this is an activity thought to be necessary for economic growth, there is not always the residual positive impact one would expect to see (Galbraith and Galbraith, 2007). More indirectly, there is evidence that religious beliefs are a positive predictor of health in poorer communities, with the assumption that healthy people are more economically productive (Koch, 2008).

Using self-reported degrees of ethical behaviour, which the authors admit poses the risk of social desirability bias, Lam and Hung (2005) found a positive correlation between religion, ethical behaviour and income in China, but only in the case of Christianity and not among traditional Chinese religious adherents. The study also found that non-religious people are less likely to describe themselves as ethical than religious respondents are.

Some statistical evidence supporting the hypothesis that certain religious beliefs foster improved work ethic, levels of honesty and higher “thrift” or the propensity to save has been established (McCleary and Barro 2006), confirming older research that Catholics earn more than non-Catholics in the US due to their perceived values of discipline, honesty, and high levels of motivation (Ewing 2000). Hollander, Kahana and Lecker (2003) find that people who engage in active participation in religious studies and practices are highly likely to apply themselves in secular studies and activities, thereby increasing their human capital value.

Further literature suggests that religious practices foster wealth creation in early adulthood in particular, which enables individuals to accumulate both wealth and assets throughout their lifetimes (Keister, 2003). Keister goes on to differentiate her findings between religions that encourage education such as the Jewish faith, and those that don't (conservative Protestants). She finds an additional benefit to participating in organised religious activities is the social contacts it provides individuals, allowing them access to information, assistance and referrals, in support of Hollander *et al.* (2003)

This social capital role, and the value it can create, is also supported by Arano and Blair (2008), who found that when looking at household-level data, time allocated to religious pursuit complements time spent earning an income. They propose that time spent on religious practices enhances social networking opportunities. Their measure of religious intensity is church attendance outside of weddings, funerals and religious holidays however, and so they admit that measuring only Sunday church attendance may limit the opportunity cost of participation, as most people would not be working on that day.

Ewing (2000) also finds links between religious faiths and trust by looking at the wage effect of being raised Catholic, and finds that Catholics earn more than their Protestant counterparts as they are considered more likely to be honest and trustworthy. Conversely, lower levels of corruption have been positively linked to the number of Protestants living in a country (Gokcekus 2008), indicating that predominantly Catholic countries are more corrupt.

The literature therefore is supportive of the theory that individuals who hold religious beliefs are more likely to perform well economically than those who do not, as they are often perceived to be more honest, ethical, and hard working. Section 2.7 aims to establish whether these personal behaviour or traits translate directly into increased personal income.

2.5 Religion and Income

It is interesting to note that the literature doesn't support the precept that religion is the domain of the poor. It is rather the style of religion that varies with income, with more conservative theologies favoured by the wealthier and better educated, while poorer and less-educated people favour more fundamentalist approaches (Iannaccone, 1998). This may encourage a self-perpetuating cycle, as fundamental religions have the strongest negative relationships with per capita income (Heath *et al.*, 1995).

The survival and growth of religious organisations depends on their access to resources, both temporal and financial, and as a result religions are dependent on the number of their adherents and their willingness to contribute money, commitment and effort (Miller, 2002). Participation and in most cases contribution is of course voluntary, and so to avoid free riders many religious organisations resemble club goods. Denominations may charge membership fees, enforce tithing such as in the Mormon religion, or restrict certain activities such as social events or attendance at church schools to contributing members only. In smaller congregations, simple social pressure to contribute may well suffice (Klick, 2006). Strict churches that call

for high levels of sacrifice from their adherence are stronger than those which do not, as they weed out free riders more effectively and stimulate increased participation in those who remain (Iannaccone, 1994).

The effects of religion on an individual's income can be related to the beliefs about salvation that a specific religion holds, or its "salvific merit", connecting the activities of a person during their lifetime to the likelihood of salvation in the afterlife. Therefore religions that preach predestination such as Calvinist Protestantism can be said to have low salvific merit, whereas Buddhism has a high salvific merit by advocating a path to follow during one's lifetime. Each of the major religions excluding Buddhism promotes work ethic and wealth accumulation, which should improve economic conditions for their adherents (McCleary and Barro, 2006). The salvific merit argument helps to explain the significant differences in income experienced by followers of various religions as reported by Lehrer in 2005, along with much of the previous literature.

When religions are viewed according to their emphasis on lifetime activities, the relationship between religion and the rational choice theory becomes more relevant. This is consistent with biblical messages around individual motivation, encouraging interrelated material and spiritual pursuits and not limiting followers to one domain of behaviour. Therefore where traditional views on self interest often conflict with views on altruism, the conflict is resolved if an individual's religious beliefs lead the person to consider altruism as acting within their self interest, in line with expected reward in the afterlife (Beed and Beed, 1999). In support of this, Hrung (2004) found that

controlling for increases in income, religious giving increases with age whereas non-religious charitable giving does not have any age effect.

Klick (2006) contends that penance for sins within the Catholic religion is attained via the church, while penance for Protestants is achieved through direct “interaction” with a deity. The Catholic belief system therefore enables the church to secure the value of any penance for itself, as well as become the recipient for any good works that the individual may wish to carry out. Klick argues that while Protestants operate differently, they may seek to trust the judgement of their church rather than themselves in how to best allocate charitable contributions, with the aim of reducing information costs. Supporting the finding that religious people are likely to donate to religious causes rather than non-religious, Hunsburger and Platonow (1985) established that in studying contributions to non-religious organisations, religious people were no more likely to contribute than less-religious people.

Using data on per-capita income in the US, Lipford and Tollison (2003) found that religious participation effectively reduces incomes through its effects on preferences and net earning potential, while high incomes discourage religious adherence. They concluded that individuals who participate actively in religious practices such as Christianity are less likely to pursue material gains, and more likely to invest in spiritual returns. Basically, participants can be said to favour afterlife income over current income, and do not favour the acquisition of material wealth.

In looking at within-country studies in the United States, a county comparison found that religious adherence is not beneficial for county income growth, particularly with regards to Catholic denominations (Rupasingha and Chilton, 2009). The study took data from 1990 to 2000, and controlling for reverse causality, found a statistically significant negative association between church attendance and local per-capita income growth, supporting Lipford and Tollison (2003).

2.6 Religion and Gender Roles

In a summary of recent literature on the subject, Mookerjee and Beron (2005) establish that countries with higher percentages of women in elected offices enjoy higher aggregate levels of governance. In addition, women in government tend to promote shifts in budget allocations towards activities focussed on social welfare issues, particularly in developing countries. Eberharter (2001) finds that in low-income households women are far more likely to contribute economically to alleviate financial pressures. The literature therefore supports the view that in a developing country such as South Africa, women should play an active role in both government and the economy.

Interestingly, much of the literature states that women are more likely than men to adhere to religious practices. This is supported by PEW research conducted in 2008 that found that 65% of American women consider religion very important in their lives, while only 44% of men state the same. The same research established the gender gap in South Africa to be 87% of women versus 75% of men. At the same time, research suggests that women who

participate in religious activities are less inclined to take paid employment (Heineck, 2004).

Religion can be said to influence the employment decisions of women through either enforcing or encouraging gender roles among adherents. To illustrate this, Arano and Blair (2008) compared women's employment levels in inter-faith marriages to households where both spouses are of the same faith, with the assumption that the level of religious adherence in a home can be assumed to be lower in a marriage between people of different faiths. They found that women in inter-faith marriages are significantly more likely to be employed. Heineck (2004) finds additional support for these conclusions using German data, adding that the labour participation decision is often dependent on the religious beliefs of the husband and not the wife. He finds that women in a relationship where neither partner is religious are more likely to be employed than where either or both partners are religious by a factor of 1.7, taking both Christian and Muslim adherents into account.

Female labour participation rates were found to have knock-on effects in Swedish society, particularly in terms of divorce rates and abortion rates (Berggren, 1997). Berggren concludes that this is due to economically active women being better able to support themselves after a divorce, and housewives being better able to handle "unexpected" children than career women. Iannaccone (1998) interprets rises in divorce rates differently however, contending that women invest less in an inter-religious marriage due to feeling reduced security and therefore a higher risk of divorce, causing them to be more likely to take employment.

Literature showing the relationship between education and gender according to religious beliefs has mixed findings, with Hajj and Panizza (2008) concluding that there is no evidence that Muslim girls in Lebanon are given fewer opportunities for education than Muslim boys, and if anything receive more opportunities. This is despite the fact that Lebanese households (both Christian and Muslim) state a preference for male children over female. PEW Research in 2007 indicated that majorities in several predominantly Muslim countries such as Pakistan, Kuwait and Bangladesh stated that men make better political leaders than women, indicating that there is some gender bias in predominantly Muslim countries, and this may be supported by a study conducted in Malawi which showed that more non-religious and Muslim women reported they had never been to school than those following the predominant Christian religions in the country (Doctor, 2005).

2.7 Religion, Institutions and Trust

Economists understand institutions to be the enforcers of the customs of a society and its rules governing behaviours given a certain context (Nelson, 2007). It should come as no surprise that institutions can therefore have a direct impact on the economic growth of a country (Rodrik, Subramanian & Trebbi, 2004). Numerous studies have linked religious institutions to the development of state structures which in turn inhibit or enable economic growth, for example linking Spain's lack of development in the 16th and 17th century to the culture of intolerance promoted by the Catholic church (Guiso *et al.*, 2003). Further to this is the link between religion and conflict, with

religious conflicts not only occurring increasingly often, but also at a higher level of intensity than non-religious conflicts (Fox, 2004). Conflict is assumed to reduce the efficacy of formal institutions in a country to operate effectively.

While most of the available literature is focussed on predominantly Christian countries, there is growing research on the effects of Islam on economic attitudes and growth. This was largely prompted by Bertrand Lewis's 2002 article titled *What Went Wrong?*, proposing that religion is not necessarily an obstacle to economic growth, except in the case of Islam. Researchers attribute Islam's reported negative impact on growth to the Qur'an's specific directives on inheritances which encourage wealth fragmentation, the Islamic concept of a legal personhood, and limitations on partnerships among other issues (Platteau, 2008).

The negative role of Islam on economic growth is refuted by Noland (2005) however, instead reporting that Muslim countries are seldom outliers relative to their peers, and where there are statistically significant differences, these are positive. He applied this to both cross-country and within-country statistical analyses. At the same time however Noland acknowledges that Muslims are relatively poor, but contends that this cannot be ascribed to Islam itself.

In predominantly Christian countries, Berggren (1997) found that religious adherents are more likely to repay debts than non-religious people, as non-payment can be seen as a form of theft. While this is in large part related to the threat of punishment in the afterlife, there is also evidence that non-

religious people in high-adherence communities are also more likely to repay debts than those who live in low adherence areas, suggesting that the “social punishment” for not repaying debt is a strong motivator too. This correlates well to findings that Christians trust others, government and the fairness of the market more than non-religious people in countries where there is a dominant religion, as is the case in Sweden (Guiso *et al.*, 2003). In general, religious people have been found to be more complaint with a country’s tax laws than non-religious people (Torgler, 2006).

Guiso *et al* (2003) find that religious people trust others, government and the legal system more than non-religious people, and are more likely to view the market’s outcomes as fair in their business practices. At the same time however, their study finds that the increase in trust is experienced only between members of the same religion, and that levels of trust towards different religions is negative particularly with regards to Catholics, Muslims and Hindus. Tan and Vogel (2008) find that the level of trust a person invests in another actually increases if the proposer believes the trustee to be religious. This only occurs if the proposer is themselves religious however.

Stultz and Williamson (2003) find that institutions are heavily affected by dominant religions in a country. For example, creditor rights are significantly higher in non-Christian countries than in Christian ones, with Catholic countries performing worst of all. Conversely, Christian countries enforce these rights far more effectively than non-Christian ones, with Protestants outperforming Catholics in the area of enforcement. Overall Stultz and Williamson found that the origins of a country’s legal framework have less

bearing on that country's creditor rights than does the dominant religion practiced in the country.

Noland (2005) quotes studies by La Porte *et al.* (1997) that define Catholicism, Orthodox Christianity and Islam as highly hierarchical religions, an argument supported by Guiso *et al.* (2003). La Porte *et al.* conclude that hierarchical religions lead to a wide range of institutional weaknesses, including weak judiciaries, increased corruption, and excessive bureaucracies. They also perform poorly economically, due to poor infrastructure, higher inflation levels and the lower level of importance of large firms in the economy.

Therefore the literature suggests an inherent contradiction in the effect of religion on institutions, as while religious individuals seem to react positively to institutions and in many cases actively support them, the dominant religious organisations in a country can often have the opposite effect. This is due either to the tenets the religion dictates to its followers in the case of Islam, or the inherent structure of the religion in a society as found with Catholicism for example. At the same time, religious adherents are often found to be more trusting of those around them, particularly in communities where the majority of the population is of the same religious group.

2.8 Conclusion

From the literature review it is apparent that there is strong support linking formal religious activity with reduced economic growth at a country level.

There is also support for the argument that participating in organised religious activities has a negative effect on an individual's income, which may be primarily due to the associated financial and temporal costs incurred in participating. At the same time however there is a wide body of research suggesting that religious people, in Christian religions in particular, benefit from an increase in the social capital they enjoy as participants, as well as the values that many religions encourage in their adherents such as honesty and a superior work ethic. This encourages high levels of trust particularly between members of the same religion, with trust being critical for economic activity.

These possibly contradictory findings are best explained by Barro and McCleary (2003), where they find that holding religious beliefs has a positive effect on an economy, but patronising religious institutions has the opposite effect, unless these institutions significantly increase the religious beliefs of their adherents. They argue that if an institution does not significantly increase religious beliefs and the positive outcomes that might come from them, then it is a drain on the economy. The question the literature review raises is therefore whether the net costs associated with religious participation, particularly in terms of the direct costs of participation and the adverse effect on female employment levels in a society, are higher or lower than the net benefits the adherents could gain from the values that many religions espouse.

It is therefore worth conducting this study in a South African context, as the country has a very religious population, and a plural religious sector, with the

resulting high levels of competition increasing the quality of the religious product available to the market. This increase in quality may result in greater demands on adherents' temporal and financial resources, at a time when the South African economy is in recession and many of its population are living below the poverty line. At the same time however, the greater quality of religious product on offer may increase the economic performance of participants, if they adapt the values traditionally associated with many religions. The literature therefore supports the proposal for more vigorous public policy debate around government's support of the religious sector. This study differentiates between religious people who attend ceremonies regularly, religious people who do not, and less-religious people who do not attend services regularly, in an attempt to isolate the personal benefits enjoyed by religious people from the benefits and costs associated with the formal religion sector.

CHAPTER THREE: RESEARCH QUESTIONS

3.1 Problem Statement

This study will explore the relationship between religious participation and belief and levels of economic growth in South Africa.

In doing so, this research aims to establish:

- The nature of the relationship between religion and economic growth in the 57 countries included in the World Values Survey (WVS) 2005 wave
- The nature of the relationship between religion and economic growth in South Africa using the same data set
- The identification of any anomalies between the global and South African data.

3.2 Null Hypothesis

The null hypothesis is therefore: There is no relationship between religious participation and belief and economic growth within countries.

3.3 Sub Questions

The analysis focuses on three sub questions in order to determine the nature of religious participation and belief and economic growth:



3.3.1 Does religion affect income levels?

3.3.2 Does religion affect the participation of women in the economy?

3.3.3 Does religion affect the levels of trust its adherents display in both their fellow citizens and the institutions of a country?

CHAPTER FOUR: RESEARCH METHODOLOGY

4.1 Proposed Methodology

This research aimed to conduct a statistical analysis of data available from the World Values Survey (WVS) (which included South Africa) to illustrate the following:

- A statistically significant negative correlation between levels of income and frequency of religious service attendance, controlling for levels of religious belief. This relationship was supported by the literature.
- Using income as a proxy for individual contribution to GDP (as is done in the United Kingdom for example), financial and temporal resources acquired from followers are effectively removed from the productive economy, reducing overall GDP. This is consistent with findings from studies conducted internationally.
- A negative relationship between religious adherence and the role of women in the economy
- The nature of the relationship between religious adherence and trust in institutions and surrounding communities, with support from the literature review that higher levels of trust contribute to improved economic growth

4.2 Assumptions

- A key assumption was that it would be possible to differentiate effectively between religious people who attend services regularly and those who hold

the same levels of belief but do not attend services on a regular basis. The only measure of this in the data is the physical attendance of religious services, but this does not take into account the effects of following services on television or the consumption of religious literature.

- South Africa is a highly plural society with regards to religious practices and beliefs (Barro and McCleary 2003), and while the vast majority of the population is Christian, the direct effects of this on the country would not be as easily measured as in a country where a state-sponsored religion exists, such as Italy with the Roman Catholic church. The assumption was that results found in this environment will still be valid.

4.3 Defence of this Methodology

This method of data analysis was best suited to this research's objectives in that:

- Data collected about the independent variable – religious beliefs – in the World Values Survey was recent, applicable to the subject matter and comprehensive with a sample size of nearly 3000 people in South Africa
- The research team took every effort to ensure that the sample was split equally according to gender, geographic and age distributions
- Data gathered on the dependent variable, income levels, which in this study were used as a proxy for economic growth, was included in the same dataset as religious beliefs and practices, allowing cross tabulation down to individual level, as required by the research hypotheses

- Significant ground has been covered in this area in the international context using similar methods of data analysis and the same source of data, and there is no benefit from changing the approach when focussing on South Africa specifically.

4.4 Definition of the Unit of Analysis

The unit of analysis for this research was an individual, male or female, and aged 16 years or older, who has lived at their current place of residence for six months or more.

4.5 Population

The universe of this study consisted of male and female residents of each of the 49 countries surveyed, older than 16 years.

4.6 Sample Size

The sample size for the 2005 wave was 2988 people in South Africa, and 65 910 people in the other 56 countries surveyed, making up the Global sample.

4.7 Sampling Method

Random sampling methods were used in the selection of all respondents, with differing methods used in urban and rural areas. In urban areas, apart from obvious exclusions such as prisons and hospitals, all respondents in the universe stood a chance to be included in the sample. This was ensured

through using random selections of suburbs, streets, starting points in those streets, selection of households and finally respondents in those households. A similar approach was followed in rural and informal areas, taking into account the majority of dwellings do not have house numbers in these environments. Two call backs were permitted if the selected respondent was not available at the time of the visit.

4.8 Research Instrument Used

The data was gathered using personal face-to-face interviews, conducted in the respondent's place of residence. Interviewers asked individual questions from a set questionnaire, and captured the answers themselves.

An example of the style of questions asked, and the coding of replies, is included below. A full list of questions and answers can be found in Appendix B.

Question	Possible Answers
Question V186: Apart from weddings, funerals and christenings, about how often do you attend religious services these days?	<ul style="list-style-type: none"> • 1 More than once a week • 2 Once a week • 3 Once a month • Only on special holy days/Christmas/Easter days • Once a year • Less often • Never practically never • -1 Don't know • -2 No answer • -3 Not applicable • -4 Not asked in survey • -5 Missing; Unknown

4.9 Details of Data Collection

The data for this study consisted entirely of quantitative research based on secondary data, using data collected by the World Values Survey in 2005-2008 (www.worldvaluessurvey.org), containing representative samples from 57 countries. Raw data downloads were supported by the organisation. In terms of evaluating this data for suitability, the data complies with all guidelines laid down by Zikmund (2003), other than that the accuracy of the data cannot be verified. The risk of this is mitigated by the fact that the South African data was gathered by Ipsos-Markinor in association with the University of Stellenbosch, both reputable organisations, and that the data has been used in a large amount of recent international literature on the subject of religion and the economy. In addition, World Values Survey listed full details of the South African data collection process for 2005 on their website for public scrutiny, and these details were included verbatim in Appendix A.

The World Values Survey results were reduced to include only those that are relevant to this study, specifically focussing on religious activity and economic and demographic variables. A list of the survey questions that were used in this study are included in Appendix B along with the possible answers, in a nominal, coded scale. The study made use of descriptive statistics to summarise the findings from these questions (Zikmund, 2003). Key elements of the analysis were centred on distributions of variables such as religious attendance, sourced from the World Values Survey, cross tabulated with

economic variables such as personal and household income levels, sourced from the same data.

4.10 Process of Data Analysis

Taking the 2005 WVS results, data were analysed for all 56 countries collectively (“Global” results) as well as for South Africa specifically (“SA” results). Respondents were separated into three groupings, differentiated as follows:

4.10.1 Group One

Group One consisted of people who identified themselves as religious and with a high level of attendance of religious ceremonies. This group was identified by looking for respondents who respond consistently to the following questions:

- Question V24 – Now I am going to read out a list of voluntary organizations; for each one, could you tell me whether you are a member, an active member, an inactive member or not a member of that type of organization? Respondents identify themselves as active members of a church or religious organisation.
- Question V186 – How often do you attend religious services? Respondents reply either “once a week” or “more than once a week”.
- Question V187 – Independently of whether you go to church or not, would you say you are? Respondents identify themselves as religious person.



4.10.2 Group Two

Group two consisted of respondents who identified themselves as holding religious beliefs, but did not attend religious ceremonies on a regular basis.

The questions used to define this group were as follows:

- Question V187 – Independently of whether you go to church or not, would you say you are? Respondent identified themselves as a religious person.
- Question V192 – How important is God in your life? Please use this scale to indicate – 10 means very important and 1 means not at all important. Respondents indicated an answer of 7 or higher.
- Question V186 – How often do you attend religious services? Respondents who state they attend church once a week or more are then excluded from this group.

4.10.3 Group Three

Group Three consisted of all other remaining respondents not incorporated into Groups One or Two. Respondents in Group Three therefore neither identify themselves as regular attendees of religious ceremonies, or as people with significantly high levels of religious belief.

The three groups collectively formed the test for the null hypothesis, namely that there is no relationship between church attendance and economic growth. This was assessed using the same structure as the literature suggests, by determining if there was a significant difference in the behaviour of the three groups with respect to income, gender roles in society and trust

in institutions. In order to determine these three sets that represented the dependent variables, respondents were grouped according to their answers for questions relating to “Economic Behaviour”, “Gender” and “Trust”.

4.10.4 Economic Behaviour

As this study focussed on the individual, economic growth could not be measured in its typical macro-economic sense by taking gross domestic product into account, for example. The focus is therefore on individual economic behaviour, as determined by responses to the following questions:

- Question V251 – Family savings during past year
- Question V238 – Highest educational level attained
- Question V253 – Scale of incomes. Here is a scale of incomes. We would like to know in what group your household is, counting all wages, salaries, pensions and other incomes that come in.

4.10.5 Gender

Each Group’s attitude towards gender was established by their responses to the following questions:

- Question V44 – When jobs are scarce, men should have more right to a job than women.
- Question V63 – On the whole, men make better business executives than women do.

- Question V62A – University education is more important for a boy than for a girl.
- Question V241 – Employment Status. Female employment status was isolated.

4.10.6 Trust

The study then aimed to identify any significant differences between Groups One, Two and Three with regards to confidence in institutions, and trust. Confidence and trust were established through the following questions:

- Question V138 – Confidence: The government
- Question V137 – Confidence: Justice system
- Question V129 – Trust: People of another religion
- Question V126 – Trust: Your neighbourhood

A series of Pearson and Maximum Likelihood (ML) Chi square tests were then done to test for dependencies between the results from each group.

4.11 Limitations of the study

- Links between belief systems and economic variables were difficult to establish, as belief systems are intangible and can therefore only be measured through proxies
- Interviews were conducted in English, with possible language gaps existing for people who speak English as a second language

- There were conflicting viewpoints in the literature, particularly when considering individual economic behaviour relative to religious affiliation. For every study showing a negative link, another could be found showing a positive relationship.
- Causality between the independent and dependant variable is difficult to establish due to the high number of interdependent variables that constitute economic performance.
- The sample size was not big enough to control for variables such as age or race with smaller groups, specifically Group Two in the South African data
- The nature of the questions regarding church attendance in particular may have produced social desirability bias, as respondents exaggerate the frequency of church attendance or the level of importance of religion in their lives
- Similarly, questions on gender may have also encouraged high levels of social desirability bias, as it is not considered politically correct to voice negative opinions of women in many societies
- This study was intentionally religion agnostic, with the aim of finding economic outcomes common to all religious practices. This approach may have reduced the ability to draw conclusions from the data, as results across vastly different religious beliefs were grouped together in one set of data.

CHAPTER FIVE: RESULTS

As discussed in Chapter Four, each section of the research questions (economic behaviour, gender roles and trust) are further broken down into specific questions within the WVS study. The answers to these questions are given in the tables below, first from a Global perspective, and then looking at South Africa specifically. Each table below includes a Chi-square analysis to determine if there is a relationship between the results found for each group, with the null hypothesis stating that there is no relationship and that the results are independent of each other. In addition, each table lists the difference between the observed distributions in responses relative to the total number of respondents in each group, in order to determine the areas in which specific groups are over or under represented. A difference of -5% for Group One in a specific category, for example, indicates that 5% less respondents answered in that category than would be expected based on the total number of respondents in Group One. In other words, less respondents are represented in that specific category than one would expect if there were an even distribution of respondents across each category.

5.1 Religion and Income – Global

In table 5.1-1 below shows statistically significant differences between the three groups, and shows the start of a pattern seen fairly consistently in the analysis of the Global data, namely that if there are noticeable discrepancies between groups. Typically Group Three will exhibit at one end of the

spectrum, Group One at the other, and Group Two will bridge the gap between the two. In the table below one can see clear differences at both the lower and upper ends of the education spectrum, with respondents from Group One over-represented by 7.39% among respondents reaching incomplete primary school (Group One forms only 15.01% of all respondents in this question, but in the category “incomplete primary school” the group’s row percentage is 22.40% of respondents, which is an over-representation of 7.39%) while Group Three is under-represented in this category relative to total respondents in this question by 5.80%. The opposite situation is seen at the highest level of education, where Group Three respondents perform well among respondents who have a university education with degree.



Table 5.1-1 Highest Educational Value Global

2-Way_Summary_Table: Observed_Frequencies							
Marked_cells_have_counts<10							
	Group	Group	Group	Row	Difference		
V238: Highest_educational_level	3	1	2	Totals	3	1	2
No_formal_education	3381	954	1862	6197			
Column_Percent	8.83%	9.67%	10.61%				
Row_Percent	54.56%	15.39%	30.05%		-3.72%	0.38%	3.34%
Total_Percent	5.15%	1.45%	2.83%	9.43%			
Incomplete_primary_school	2812	1200	1346	5358			
Column_Percent	7.34%	12.17%	7.67%				
Row_Percent	52.48%	22.40%	25.12%		-5.80%	7.39%	-1.59%
Total_Percent	4.28%	1.83%	2.05%	8.15%			
Complete_primary_school	5775	1575	2223	9573			
Column_Percent	15.08%	15.97%	12.67%				
Row_Percent	60.33%	16.45%	23.22%		2.05%	1.44%	-3.49%
Total_Percent	8.79%	2.40%	3.38%	14.57%			
Inc_secondary_school: technical/vocational	2717	842	1213	4772			
Column_Percent	7.10%	8.54%	6.91%				
Row_Percent	56.94%	17.64%	25.42%		-1.34%	2.63%	-1.29%
Total_Percent	4.14%	1.28%	1.85%	7.26%			
Compl_secondary_school:technical/vocational	6467	1651	3223	11341			
Column_Percent	16.89%	16.74%	18.36%				
Row_Percent	57.02%	14.56%	28.42%		-1.26%	-0.45%	1.71%
Total_Percent	9.84%	2.51%	4.91%	17.26%			
Inc_secondary_school: university-preparatory	2561	847	1176	4584			
Column_Percent	6.69%	8.59%	6.70%				
Row_Percent	55.87%	18.48%	25.65%		-2.41%	3.47%	-1.06%
Total_Percent	3.90%	1.29%	1.79%	6.98%			
Comp_secondary_school: university preparatory	6373	1197	3206	10776			
Column_Percent	16.64%	12.14%	18.27%				
Row_Percent	59.14%	11.11%	29.75%		0.86%	-3.90%	3.04%
Total_Percent	9.70%	1.82%	4.88%	16.40%			
Some_university-level_education_without_degree	2587	570	1069	4226			
Column_Percent	6.76%	5.78%	6.09%				
Row_Percent	61.22%	13.49%	25.30%		2.94%	-1.52%	-1.41%
Total_Percent	3.94%	0.87%	1.63%	6.43%			
University-level_education_with_degree	5619	1026	2234	8879			
Column_Percent	14.67%	10.40%	12.73%				
Row_Percent	63.28%	11.56%	25.16%		5.00%	-3.45%	-1.55%
Total_Percent	8.55%	1.56%	3.40%	13.51%			
Totals	38292	9862	17552	65706			
Total_Percent	58.28%	15.01%	26.71%	100.00%			
Statistics: V238(9)xGroup(3)(WVS2005_v20090621a)							
Statistic	Chi-square	df	p				
Pearson Chi Square	703.069	df=16	p=0.0000				
M-l. Chi-square	690.4865	df=16	p=0.0000				



Table 5.1-2 Propensity to Save Global

2-Way_Summary_Table: Observed_Frequencies							
	Marked_cells_have_counts<10			Row	Difference		
	Group 3	Group 1	Group 2		3	1	2
V251: Family_savings_during_last_year	3	1	2	Totals	3	1	2
Save_money	9811	2793	3624	16228			
Column_Percent	27.17%	30.57%	21.39%				
Row_Percent	60.46%	17.21%	22.33%		2.39%	2.52%	-4.91%
Total_Percent	15.78%	4.49%	5.83%	26.10%			
Just_get_by	17431	3876	8964	30271			
Column_Percent	48.27%	42.43%	52.91%				
Row_Percent	57.58%	12.80%	29.61%		-0.49%	-1.89%	2.37%
Total_Percent	28.03%	6.23%	14.41%	48.68%			
Spent_some_savings_and_borrowed_money	4619	1365	2039	8023			
Column_Percent	12.79%	14.94%	12.04%				
Row_Percent	57.57%	17.01%	25.41%		-0.50%	2.32%	-1.83%
Total_Percent	7.43%	2.19%	3.28%	12.90%			
Spent_savings_and_borrowed_money	4250	1101	2315	7666			
Column_Percent	11.77%	12.05%	13.66%				
Row_Percent	55.44%	14.36%	30.20%		-2.63%	-0.33%	2.96%
Total_Percent	6.83%	1.77%	3.72%	12.33%			
Totals	36111	9135	16942	62188			
Total_Percent	58.07%	14.69%	27.24%	100.00%			
Statistic	Chi-square	df	p				
Pearson_Chi-square	440.6595	df=6	p=0.0000				
M-L_Chi-square	445.9542	df=6	p=0.0000				

Table 5.1-2 shows interesting discrepancies at the extremes, and goes against the trend seen elsewhere in this research in that Group Two shows more polarised findings relative to Group Three than Group One does. This is most notable among respondents who saved money in the last year, where Group Two is significantly under-represented at -4.91% of respondents. A similar pattern is visible in table 5.1-3 below, particularly in the 9th step of income earners.



Table 5.1-3 Scale of Incomes Global

2-Way_Summary_Table:_Observed_Frequencies							
Marked_cells_have_counts<10							
	Group	Group	Group	Row	Difference		
V253:_Scale_of_incomes	3	1	2	Totals	3	1	2
Lower_step	3534	1112	1689	6335			
Column_Percent	10.27%	12.21%	10.41%				
Row_Percent	55.79%	17.55%	26.66%		-1.81%	2.30%	-0.49%
Total_Percent	5.92%	1.86%	2.83%	10.61%			
Second_Step	3656	926	1897	6479			
Column_Percent	10.63%	10.17%	11.70%				
Row_Percent	56.43%	14.29%	29.28%		-1.17%	-0.96%	2.13%
Total_Percent	6.12%	1.55%	3.18%	10.85%			
Third_Step	4504	1126	2253	7883			
Column_Percent	13.09%	12.37%	13.89%				
Row_Percent	57.14%	14.28%	28.58%		-0.46%	-0.97%	1.43%
Total_Percent	7.54%	1.89%	3.77%	13.20%			
Fourth_Step	4672	1257	2227	8156			
Column_Percent	13.58%	13.81%	13.73%				
Row_Percent	57.28%	15.41%	27.31%		-0.32%	0.16%	0.16%
Total_Percent	7.82%	2.10%	3.73%	13.66%			
Fifth_Step	6327	1545	2991	10863			
Column_Percent	18.39%	16.97%	18.44%				
Row_Percent	58.24%	14.22%	27.53%		0.64%	-1.03%	0.38%
Total_Percent	10.59%	2.59%	5.01%	18.19%			
Sixth_Step	4415	1166	1939	7520			
Column_Percent	12.83%	12.81%	11.96%				
Row_Percent	58.71%	15.51%	25.78%		1.11%	0.26%	-1.37%
Total_Percent	7.39%	1.95%	3.25%	12.59%			
Seventh_Step	3366	915	1518	5799			
Column_Percent	9.79%	10.05%	9.36%				
Row_Percent	58.04%	15.78%	26.18%		0.44%	0.53%	-0.97%
Total_Percent	5.64%	1.53%	2.54%	9.71%			
Eighth_Step	2063	592	952	3607			
Column_Percent	6.00%	6.50%	5.87%				
Row_Percent	57.19%	16.41%	26.39%		-0.41%	1.16%	-0.76%
Total_Percent	3.45%	0.99%	1.59%	6.04%			
Ninth_Step	956	226	359	1541			
Column_Percent	2.78%	2.48%	2.21%				
Row_Percent	62.04%	14.67%	23.30%		4.44%	-0.58%	-3.85%
Total_Percent	1.60%	0.38%	0.60%	2.58%			
Upper_Step	906	240	392	1538			
Column_Percent	2.63%	2.64%	2.42%				
Row_Percent	58.91%	15.60%	25.49%		1.31%	0.35%	-1.66%
Total_Percent	1.52%	0.40%	0.66%	2.58%			
Totals	34399	9105	16217	59721			
Total_Percent	57.60%	15.25%	27.15%				
Statistic	Chi-square	df	p				
Pearson_Chi-square	93.41515	df=18	p=.00000				
M-l_Chi-square	92.76493	df=18	p=.00000				

5.2 Religion and Income – South Africa

Table 5.2-1 Highest Education Level Attained SA

2-Way_Summary_Table: Observed_Frequencies							
	Marked_cells_have_counts<10			Row	Difference		
	Group	Group	Group		Totals		
V238: Highest_educational_level_attained	3	1	2	Totals	3	1	2
No_formal_education	110	81	43	234			
Column_Percent	8.34%	6.89%	8.24%				
Row_Percent	47.01%	34.62%	18.38%		3.29%	-4.36%	1.08%
Total_Percent	3.65%	2.68%	1.43%	7.76%			
Incomplete_primary_school	158	142	63	363			
Column_Percent	11.98%	12.07%	12.07%				
Row_Percent	43.53%	39.12%	17.36%		-0.19%	0.14%	0.06%
Total_Percent	5.24%	4.71%	2.09%	12.03%			
Complete_primary_school	115	89	37	241			
Column_Percent	8.72%	7.57%	7.09%				
Row_Percent	47.72%	36.93%	15.35%		4.00%	-2.05%	-1.95%
Total_Percent	3.81%	2.95%	1.23%	7.99%			
Inc_secondary_school:_technical/vocational	10	10	3	23			
Column_Percent	0.76%	0.85%	0.57%				
Row_Percent	43.48%	43.48%	13.04%		-0.24%	4.50%	-4.26%
Total_Percent	0.33%	0.33%	0.10%	0.76%			
Compl_secondary_school:_technical/vocational	83	81	34	198			
Column_Percent	6.29%	6.89%	6.51%				
Row_Percent	41.92%	40.91%	17.17%		-1.80%	1.93%	-0.13%
Total_Percent	2.75%	2.68%	1.13%	6.56%			
Inc_secondary_school:_university_preparatory	526	409	197	1132			
Column_Percent	39.88%	34.78%	37.74%				
Row_Percent	46.47%	36.13%	17.40%		2.75%	-2.85%	0.10%
Total_Percent	17.43%	13.56%	6.53%	37.52%			
Comp_secondary_school:_university_preparatory	271	291	121	683			
Column_Percent	20.55%	24.74%	23.18%				
Row_Percent	39.68%	42.61%	17.72%		-4.04%	3.63%	0.42%
Total_Percent	8.98%	9.65%	4.01%	22.64%			
Some_university-level_without_degree	7	8	4	19			
Column_Percent	0.53%	0.68%	0.77%				
Row_Percent	36.84%	42.11%	21.05%		-6.88%	3.13%	3.75%
Total_Percent	0.23%	0.27%	0.13%	0.63%			
University-level_with_degree	39	65	20	124			
Column_Percent	2.96%	5.53%	3.83%				
Row_Percent	31.45%	52.42%	16.13%		-12.27%	13.44%	-1.17%
Total_Percent	1.29%	2.15%	0.66%	4.11%			
Totals	1319	1176	522	3017			
Total_Percent	43.72%	38.98%	17.30%	100.00%			
Statistic	Chi-square	df	p				
Pearson_Chi-square	24.0154	df=16	p=.08919				
M-L_Chi-square	23.99803	df=16	p=.08957				

At 3000 respondents, the South African data shows less than 10 respondents per category in some questions, particularly in tables such as 5.2-1 above with multiple categories. Responses affected by this will be highlighted in

grey in all relevant tables, and multiple categories condensed into one where required. Table 5.2-1 presents a very interesting finding in that respondents from Group One are significantly over-represented at the highest education levels relative to the other groups, with Group Three performing worst of all at both ends of the education spectrum. This is in contradiction to the Global findings, where the opposite effect was observed.

Table 5.2-2 Propensity to Save SA

2-Way_Summary_Table: Observed_Frequencies							
	Marked_cells_have_counts<10						
	Group	Group	Group	Row			
V251:Family_savings_during_last_year	3	1	2	Totals	3	1	2
Saved_money	272	298	125	695			
Column_Percent	24.42%	28.01%	26.82%				
Row_Percent	39.14%	42.88%	17.99%		-2.99%	2.64%	0.37%
Total_Percent	10.29%	11.27%	4.73%	26.29%			
Just_get_by	449	432	228	1109			
Column_Percent	40.31%	40.60%	48.93%				
Row_Percent	40.49%	38.95%	20.56%		-1.64%	-1.29%	2.94%
Total_Percent	16.98%	16.34%	8.62%	41.94%			
Spent_some_savings_and_borrowed_money	142	144	48	334			
Column_Percent	12.75%	13.53%	10.30%				
Row_Percent	42.51%	43.11%	14.37%		0.38%	2.87%	-3.25%
Total_Percent	5.37%	5.45%	1.82%	12.63%			
Spent_savings_and_borrowed_money	251	190	65	506			
Column_Percent	22.53%	17.86%	13.95%				
Row_Percent	49.60%	37.55%	12.85%		7.47%	-2.69%	-4.77%
Total_Percent	9.49%	7.19%	2.46%	19.14%			
Totals	1114	1064	466	2644			
Total_Percent	42.13%	40.24%	17.62%	100.00%			
Statistic	Chi-square	df	p				
Pearson_Chi-square	26.19501	df=6	p=.00021				
M-L_Chi-square	26.4083	df=6	p=.00019				

Table 5.2-2 continues the beginnings of a trend, where South African results often contradict those of the Global group entirely. In this example, Group Three is least likely to have saved money in the last year, and most likely to have spent savings and borrowed money, with respondents from Group One saving the most.



Table 5.2-3 Scale of Incomes SA

2-Way_Summary_Table:_Observed_Frequencies							
	Marked_cells_have_counts<10			Row	Difference		
	Group	Group	Group				
V253:_Scale_of_incomes	3	1	2	Totals	3	1	2
Lower_step	217	130	75	422			
Column_Percent	17.29%	11.65%	15.12%				
Row_Percent	51.42%	30.81%	17.77%		7.65%	-8.12%	0.50%
Total_Percent	7.57%	4.53%	2.62%	14.72%			
Second_step	151	114	52	317			
Column_Percent	12.03%	10.22%	10.48%				
Row_Percent	47.63%	35.96%	15.40%		3.86%	-2.97%	-1.87%
Total_Percent	5.27%	3.98%	1.81%	11.05%			
Third_step	141	105	63	310			
Column_Percent	11.24%	9.50%	12.70%				
Row_Percent	45.48%	34.19%	20.32%		1.71%	-4.74%	3.05%
Total_Percent	4.92%	3.70%	2.20%	10.81%			
Fourth_step	138	174	73	385			
Column_Percent	11.00%	15.59%	14.72%				
Row_Percent	35.84%	45.19%	18.96%		-7.93%	6.26%	1.69%
Total_Percent	4.81%	5.07%	2.55%	13.43%			
Fifth_step	174	182	74	430			
Column_Percent	13.85%	15.31%	14.92%				
Row_Percent	40.47%	42.33%	17.21%		-3.30%	3.40%	-0.06%
Total_Percent	5.07%	5.35%	2.58%	15.00%			
Sixth_step	143	156	53	352			
Column_Percent	11.39%	13.98%	12.70%				
Row_Percent	39.50%	43.09%	17.40%		-4.27%	4.16%	0.13%
Total_Percent	4.99%	5.44%	2.20%	12.63%			
Seventh_step	137	111	47	295			
Column_Percent	10.92%	9.95%	9.48%				
Row_Percent	46.44%	37.63%	15.93%		2.67%	-1.30%	-1.34%
Total_Percent	4.78%	3.87%	1.64%	10.29%			
Eighth_step	102	98	38	238			
Column_Percent	8.13%	8.78%	7.66%				
Row_Percent	42.86%	41.18%	15.97%		-0.91%	2.25%	-1.30%
Total_Percent	3.55%	3.42%	1.33%	8.30%			
Nineth_step	29	22	5	55			
Column_Percent	2.31%	1.97%	1.01%				
Row_Percent	51.79%	39.29%	8.93%		8.02%	0.36%	-8.34%
Total_Percent	1.01%	0.77%	0.17%	1.95%			
Upper_step	23	23	6	52			
Column_Percent	1.83%	2.06%	1.21%				
Row_Percent	44.23%	44.23%	11.54%		0.46%	5.30%	-5.73%
Total_Percent	0.80%	0.80%	0.21%	1.81%			
Totals	1255	1116	495	2867			
Total_Percent	43.77%	38.93%	17.27%				
Statistic	Chi-square	df	p				
Pearson_Chi-square	39.91684	df=18	p=.00215				
M-l_Chi-square	40.86021	df=18	p=.00159				

Table 5.2-3 shows marked differences between groups particularly at the extremes, and it is therefore unfortunate that the sample size wasn't larger to capture more respondents in each category. Due to low responses, the finding that Group Two seems to perform so poorly at the upper end of the salary scale cannot be used to infer anything meaningful. The upper salary scales are combined in section 6.2 below to allow for more meaningful interpretation.

5.3 Religion and Gender – Global

The World Values Survey (WVS) data covers attitudes towards female employment and education through direct questions. In addition to this the data allows users to track employment and education status according to group, in order to assess actual attitudes towards women in the economy versus stated beliefs and attitudes. This is particularly valuable in considering gender roles as there may be a strong social desirability bias towards expressing support for women's education and right to work, particularly in many western cultures and, based on the ANC-led initiatives to achieve 50/50 representation in government, in South Africa as well.



Table 5.3-1 Male Executives are Better Global

2-Way_Summary_Table: Observed_Frequencies							
	Marked_cells_have_counts<10			Row	Difference		
	Group	Group	Group				
V63: Men make better business execs than women	3	1	2	Totals	3	1	2
Agree strongly	4985	1339	2680	9004			
Column_Percent	14.08%	13.96%	16.10%				
Row_Percent	55.36%	14.87%	29.76%		-2%	-1%	3%
Total_Percent	8.09%	2.17%	4.35%	14.60%			
Agree	8972	2536	4285	15793			
Column_Percent	25.34%	26.44%	25.74%				
Row_Percent	56.81%	16.06%	27.13%		-1%	1%	0%
Total_Percent	14.55%	4.11%	6.95%	25.62%			
Disagree	14471	4006	6577	25054			
Column_Percent	40.86%	41.77%	39.50%				
Row_Percent	57.76%	15.99%	26.25%		0%	0%	-1%
Total_Percent	23.47%	6.50%	10.67%	40.64%			
Strongly disagree	6984	1709	3108	11801			
Column_Percent	19.72%	17.82%	18.67%				
Row_Percent	59.18%	14.48%	26.34%		2%	-1%	-1%
Total_Percent	11.33%	2.77%	5.04%	19.14%			
Totals	35412	9590	16650	61652			
Total_Percent	57.44%	15.56%	27.01%	100.00%			
Statistic	Chi-square	df	p				
Pearson_Chi-square	64.27634	df=6	p=.00000				
M-l_Chi-square	63.73806	df=6	p=.00000				

Table 5.3-2 Men have more Right to Work Global

2-Way_Summary_Table: Observed_Frequencies							
	Marked_cells_have_counts<10			Row	Difference		
	Group	Group	Group				
V44: When jobs are scarce men more right	3	1	2	Totals	3	1	2
Agree	12984	3381	5533	22898			
Column_Percent	34.42%	34.39%	37.59%				
Row_Percent	55.70%	14.77%	28.53%		-2.40%	-0.37%	2.78%
Total_Percent	20.00%	5.21%	10.05%	35.25%			
Neither Agree nor Disagree	5432	1330	2851	10523			
Column_Percent	17.05%	13.53%	15.45%				
Row_Percent	50.55%	12.52%	25.93%		-7.55%	-2.62%	0.18%
Total_Percent	9.91%	2.05%	4.41%	15.35%			
Disagree	18309	5119	7985	31413			
Column_Percent	48.53%	52.08%	45.95%				
Row_Percent	58.28%	15.30%	25.42%		0.18%	0.16%	-0.33%
Total_Percent	28.20%	7.88%	12.30%	48.38%			
Totals	37725	9830	17379	54934			
Total_Percent	58.10%	15.14%	25.75%	100.00%			
Statistic	Chi-square	df	p				
Pearson_Chi-square	144.8769	df=4	p=0.0000				
M-l_Chi-square	146.96	df=4	p=0.0000				



Table 5.3-3 University is more Important for Boys Global

2-Way_Summary_Table: Observed_Frequencies							
	Marked_cells_have_counts<10			Row	Difference		
	Group	Group	Group		3	1	2
V62: University_is_more_important_for_boy	3	1	2	Totals	3	1	2
Agree_Strongly	2770	634	1164	4568			
Column_Percent	7.49%	6.51%	6.81%				
Row_Percent	60.64%	13.88%	25.48%		2.67%	-1.38%	-1.29%
Total_Percent	4.34%	0.99%	1.82%	7.16%			
Agree	5144	1285	2245	8674			
Column_Percent	13.90%	13.19%	13.14%				
Row_Percent	59.30%	14.81%	25.88%		1.33%	-0.45%	-0.89%
Total_Percent	8.06%	2.01%	3.52%	13.59%			
Disagree	17441	4817	7890	30148			
Column_Percent	47.13%	49.45%	46.18%				
Row_Percent	57.85%	15.98%	26.17%		-0.12%	0.72%	-0.60%
Total_Percent	27.32%	7.55%	12.36%	47.23%			
Strongly_Disagree	11651	3006	5787	20444			
Column_Percent	31.48%	30.86%	33.87%				
Row_Percent	56.99%	14.70%	28.31%				
Total_Percent	18.25%	4.71%	9.07%	32.03%	-39.72%	-10.55%	-17.70%
Totals	37006	9742	17086	63834			
Total_Percent	57.97%	15.26%	26.77%	100.00%			
Statistic	Chi-square	df	p				
Pearson_Chi-square	60.36431	df=6	p=.00000				
M-L_Chi-square	60.13517	df=6	p=.00000				

A clear pattern emerges from the three opinion-based questions of women's role in society when looking at the Global data. It is clear that respondents in Groups One and Two are more supportive of women's education and the right to work than those in Group Three. These stated attitudes do not fit well with the data showing the Groups' actual behaviour however, as evidenced in table 5.3-4 below where women in Group Three are far more likely to be employed in a full- or part-time capacity, and are far less likely to be housewives. Notable is the 32.41% over-representation of female Group One respondents in the unemployed category, the most significant discrepancy found anywhere in this report when considering Global data. Another interesting finding is that women in Group One show a high likelihood of being self-employed relative to the other groups. The differences between



stated attitudes and actual behaviours carry over to education as well (table 5.3-5) where Group One and to a lesser extent Group Two again perform poorly relative to Group Three at upper education levels.

Table 5.3-4 Women's Employment Status Global

2-Way_Summary_Table:_Observed_Frequencies							
	Subtable_within:V235:female						
	Marked_cells_have_counts<10						
	Group	Group	Group	Row	Difference		
V241:_Employment_status	3	1	2	Totals	3	1	2
Full_time_employee_30_hours/week_or_more	4855	1016	2624	8495			
Column_Percent	28.31%	18.65%	25.02%				
Row_Percent	57.15%	11.96%	30.89%		4.67%	-4.71%	0.03%
Total_Percent	14.85%	3.11%	8.03%	25.99%			
Part_time_employee<30_hours/week	1390	324	621	2335			
Column_Percent	8.10%	5.95%	5.15%				
Row_Percent	59.53%	13.88%	26.60%		7.05%	-2.79%	-4.26%
Total_Percent	4.25%	0.99%	1.90%	7.14%			
Self_employed	1562	817	732	3111			
Column_Percent	9.11%	15.00%	7.25%				
Row_Percent	50.21%	26.26%	23.53%		-2.27%	9.59%	-7.33%
Total_Percent	4.78%	2.50%	2.24%	9.52%			
Retired/pensioned	1878	647	1266	3791			
Column_Percent	10.95%	11.88%	12.55%				
Row_Percent	49.54%	17.07%	33.39%		-2.94%	0.40%	2.53%
Total_Percent	5.75%	1.98%	3.87%	11.60%			
Housewife_not_otherwise_employed	3880	1236	3184	8300			
Column_Percent	22.52%	22.59%	31.57%				
Row_Percent	45.75%	14.89%	38.36%		-6.73%	-1.78%	7.50%
Total_Percent	11.87%	3.78%	9.74%	25.39%			
Student	1584	540	698	2822			
Column_Percent	9.24%	9.91%	6.92%				
Row_Percent	56.13%	19.14%	24.73%		3.65%	2.47%	-6.13%
Total_Percent	4.85%	1.65%	2.14%	8.53%			
Unemployed	1515	794	778	3087			
Column_Percent	8.83%	14.58%	7.71%				
Row_Percent	49.08%	25.72%	25.20%		-3.40%	32.41%	-5.14%
Total_Percent	4.64%	2.43%	2.38%	9.44%			
Other	488	73	183	744			
Column_Percent	2.85%	1.34%	1.81%				
Row_Percent	65.59%	9.81%	24.60%		13.11%	-6.86%	-6.26%
Total_Percent	1.49%	0.22%	0.56%	2.28%			
Totals	17152	5447	10086	32585			
Total_Percent	52.48%	16.67%	30.86%	100.00%			
Column_Percent	9.24%	9.91%	5.92%				
Subtables_within:_V235:female							
Statistic	Chi-square	df	p				
Pearson_Chi-square	954.9684	df=14	p=0.0000				
M-l_Chi-square	922.3141	df=14	p=0.0000				

Table 5.3-5 Women's Education Status Global

2-Way_Summary_Table: Observed_Frequencies							
	Marked_cells_have_counts<10			Row	Difference		
	Group	Group	Group		3	1	2
	3	1	2	Totals	3	1	2
No_formal_education	1946	548	1310	3804			
Column_Percent	10.88%	9.85%	12.95%				
Row_Percent	51.16%	14.41%	34.44%		-2.15%	-2.16%	4.31%
Total_Percent	5.08%	5.55%	7.47%				
Incomplete_primary_school	1431	710	819	2960			
Column_Percent	8.00%	12.77%	8.10%				
Row_Percent	48.34%	23.99%	27.67%		-4.96%	7.42%	-2.46%
Total_Percent	3.74%	7.20%	4.57%				
Complete_primary_school	2758	927	1344	5029			
Column_Percent	15.42%	15.58%	13.29%				
Row_Percent	54.84%	18.43%	26.72%		1.54%	1.87%	-3.41%
Total_Percent	7.21%	9.40%	7.55%				
Incomplete_secondary_school: technical/vocational	1194	474	593	2261			
Column_Percent	6.67%	8.53%	5.85%				
Row_Percent	52.81%	20.96%	26.23%		-0.49%	4.40%	-3.90%
Total_Percent	3.12%	4.81%	3.38%				
Complete_secondary_school: technical/vocational	2915	948	1713	5576			
Column_Percent	16.30%	17.05%	15.94%				
Row_Percent	52.28%	17.00%	30.72%		-1.03%	0.44%	0.59%
Total_Percent	7.62%	9.51%	9.77%				
Inc_secondary_school: university_prep	1145	492	521	2158			
Column_Percent	6.40%	8.85%	5.14%				
Row_Percent	53.06%	22.80%	24.14%		-0.24%	6.23%	-5.99%
Total_Percent	2.99%	4.99%	3.54%				
Comp_secondary_school: university_prep	2860	558	1884	5302			
Column_Percent	15.99%	12.02%	18.53%				
Row_Percent	53.94%	10.52%	35.53%		0.64%	-6.04%	5.40%
Total_Percent	7.47%	5.77%	10.74%				
Some_university_level_education_without_degree	1134	298	551	1983			
Column_Percent	6.34%	5.35%	5.55%				
Row_Percent	57.19%	15.03%	27.79%		3.88%	-1.54%	-2.35%
Total_Percent	2.96%	3.02%	3.20%				
University-level_education_with_degree	2505	494	1257	4256			
Column_Percent	14.00%	8.89%	12.53%				
Row_Percent	58.86%	11.61%	29.53%		5.55%	-4.96%	-0.60%
Total_Percent	6.55%	5.01%	7.22%				
Totals	17888	5559	10112	33559			
Total_Percent	53.30%	16.56%	30.13%				

5.4 Religion and Gender – South Africa

South Africans' views on Gender roles as represented in this data are interesting given that South African respondents appear to share and in fact amplify the views of their Global peers with regard to stated beliefs, and



unlike the Global data, these stated beliefs seem to correlate with the actual behaviours observed.

Table 5.4-1 Male Executives are Better SA

2-Way Summary Table: Observed Frequencies							
	Marked_cells_have_counts<10			Row	Difference		
	Group	Group	Group				
V63:Men_make_better_executives_than_women	3	1	2	Totals	3	1	2
Agree_strongly	168	96	62	326			
Column_Percent	13.73%	8.58%	12.20%				
Row_Percent	51.53%	29.45%	19.02%		8.60%	-9.80%	1.20%
Total_Percent	5.89%	3.37%	2.17%	11.43%			
Agree	420	371	137	928			
Column_Percent	34.31%	33.15%	26.97%				
Row_Percent	45.26%	39.98%	14.76%		2.33%	0.73%	-3.06%
Total_Percent	14.73%	13.01%	4.81%	32.55%			
Disagree	352	433	163	948			
Column_Percent	28.76%	38.70%	32.09%				
Row_Percent	37.13%	45.68%	17.19%		-5.80%	6.43%	-0.63%
Total_Percent	12.35%	15.19%	5.72%	33.25%			
Strongly_disagree	284	219	146	649			
Column_Percent	23.20%	19.57%	28.74%				
Row_Percent	43.76%	33.74%	22.50%		0.83%	-5.51%	4.68%
Total_Percent	9.96%	7.68%	5.12%	22.76%			
Totals	1224	1119	508	2851			
Total_Percent	42.93%	39.25%	17.82%	100.00%			
Statistic	Chi-square	df	p				
Pearson Chi-square	50.7154	df=6	p=.00000				
M-L_Chi-square	50.90496	df=6	p=.00000				

This magnification is obvious in Table 5.4-1, where Group Three is strongly over-represented in agreeing that men make better executives than women, while Group One is similarly strongly under-represented at -9.80%. Table 5.4-3 again shows an amplification of Global results, with Group Three over-represented by a 9.68% in the category agreeing strongly that university is more important for a boy, compared to Group One that is 7.56% under-represented, with Group Two bridging the gap.

Table 5.4-2 Men have more Right to Work SA

2-Way_Summary_Table: Observed_Frequencies							
	Marked_cells_have_counts<10				Difference		
	Group	Group	Group	Row	3	1	2
V44:When_jobs_are_scarce_men_have_more_right_to_work	3	1	2	Totals	3	1	2
Agree	513	421	189	1123			
Column_Percent	39.16%	36.20%	36.07%				
Row_Percent	45.68%	37.49%	16.83%		1.97%	-1.32%	-0.65%
Total_Percent	17.12%	14.05%	6.31%	37.47%			
Neither	187	153	69	409			
Column_Percent	14.27%	13.16%	13.17%				
Row_Percent	45.72%	37.41%	16.87%		2.01%	-1.40%	-0.61%
Total_Percent	6.24%	5.11%	2.30%	13.65%			
Disagree	610	589	266	1465			
Column_Percent	46.56%	50.64%	50.76%				
Row_Percent	41.64%	40.20%	18.16%		-2.07%	1.39%	0.68%
Total_Percent	20.35%	19.65%	8.88%	48.88%			
Totals	1310	1163	524	2997			
Total_Percent	43.71%	38.81%	17.48%	100.00%			
Statistic	Chi-square	df	p				
Pearson_Chi-square	5.004371	df=4	p=.28686				
M-l_Chi-square	5.006653	df=4	p=.28662				

Table 5.4-3 University is more Important for Boys SA

2-Way_Summary_Table: Observed_Frequencies							
	Marked_cells_have_counts<10				Difference		
	Group	Group	Group	Row	3	1	2
V52:University_is_more_important_for_a_boy	3	1	2	Totals	3	1	2
Agree_strongly	95	57	28	180			
Column_Percent	7.47%	4.93%	5.37%				
Row_Percent	52.78%	31.67%	15.55%		9.68%	-7.56%	-2.12%
Total_Percent	3.22%	1.93%	0.95%	5.10%			
Agree	225	134	60	419			
Column_Percent	17.70%	11.58%	11.52%				
Row_Percent	53.70%	31.98%	14.32%		10.60%	-7.25%	-3.35%
Total_Percent	7.53%	4.54%	2.03%	14.21%			
Disagree	434	443	175	1052			
Column_Percent	34.15%	38.29%	33.59%				
Row_Percent	41.25%	42.11%	16.63%		-1.85%	2.88%	-1.04%
Total_Percent	14.72%	15.02%	5.93%	35.57%			
Strongly_disagree	517	523	258	1298			
Column_Percent	40.68%	45.20%	49.52%				
Row_Percent	39.83%	40.29%	19.88%		-3.27%	1.06%	2.21%
Total_Percent	17.53%	17.73%	8.75%	44.01%			
Totals	1271	1157	521	2949			
Total_Percent	43.10%	39.23%	17.67%	100.00%			
Statistic	Chi-square	df	p				
Pearson_Chi-square	37.05154	df=6	p=.00000				
M-l_Chi-square	36.67591	df=6	p=.00000				

In the Global data the stated attitudes of the various groups differed markedly from their actual behaviour with regards to employment status and education levels, but the same pattern is not observed in the South African data, where



the observations of actual behaviour lend credibility to the stated attitudes. Women in Group One are over-represented in the category of full-time employment for example, and perform better than their peers in the unemployed category.

Table 5.4-4 Women's Employment Status SA

2-Way_Summary_Table: Observed_Frequencies							
	Subtable_within:_V235:female						
	Marked_cells_have_counts<10						
	Group	Group	Group	Row	Difference		
V241: Employment_status	3	1	2	Totals	3	1	2
Full_time_employee>30_hours/week	114	155	34	304			
Column_Percent	20.21%	22.54%	18.68%				
Row_Percent	37.50%	51.32%	11.18%		-1.72%	3.20%	-1.37%
Total_Percent	7.93%	10.85%	2.36%	21.14%			
Part_time_employee<30_hours/week	31	46	10	87			
Column_Percent	5.50%	5.55%	5.49%				
Row_Percent	35.63%	52.87%	11.49%		-3.59%	4.75%	-1.06%
Total_Percent	2.16%	3.20%	0.70%	5.05%			
Self_employed	19	19	7	45			
Column_Percent	3.37%	2.75%	3.85%				
Row_Percent	42.22%	42.22%	15.56%		3.00%	-5.90%	3.01%
Total_Percent	1.32%	1.32%	0.49%	3.13%			
Retired/pensioned	64	73	14	151			
Column_Percent	11.35%	10.55%	7.69%				
Row_Percent	42.38%	48.34%	9.27%		3.16%	0.22%	-3.28%
Total_Percent	4.45%	5.08%	0.97%	10.50%			
Housewife_not_otherwise_employed	39	83	23	145			
Column_Percent	6.91%	11.99%	12.64%				
Row_Percent	26.90%	57.24%	15.86%		-12.32%	9.12%	3.31%
Total_Percent	2.71%	5.77%	1.60%	10.08%			
Student	73	72	26	171			
Column_Percent	12.94%	10.40%	14.29%				
Row_Percent	42.69%	42.11%	15.20%		3.47%	-6.01%	2.65%
Total_Percent	5.08%	5.01%	1.81%	11.89%			
Unemployed	224	243	68	535			
Column_Percent	39.72%	35.12%	37.36%				
Row_Percent	41.87%	45.42%	12.71%		2.65%	-2.70%	0.16%
Total_Percent	15.58%	16.90%	4.73%	37.20%			
Totals	554	692	182	1438			
Total_Percent	39.22%	48.12%	12.55%	100.00%			
Statistic	Chi-square	df	p				
Pearson Chi-square	18.41874	df=12	p=.10358				
M-l. Chi-square	19.00485	df=12	p=.08843				

Due to numerous categories consisting of fewer than 10 respondents, Table 5.4-5 shows combined data for all education levels “Complete Secondary School: University Preparation” and above.



Table 5.4-5 Women’s Education Status SA

2-Way_Summary_Table: Observed_Frequencies							
Marked_cells_have_counts<10	Group	Group	Group	Row	Difference		
V238:Highest_educational_level_attained	3	1	2		3	1	2
No_formal_education	54	50	15	119			
Column_Percent	10.98%	7.92%	9.15%				
Row_Percent	45.38%	42.02%	12.61%		7.15%	-7.01%	-0.14%
Total_Percent	10.98%	7.92%	9.15%				
Incomplete_primary_school	52	82	10	144			
Column_Percent	10.57%	13.00%	6.10%				
Row_Percent	36.11%	56.94%	6.94%		-2.12%	7.92%	-5.80%
Total_Percent	10.57%	13.00%	6.10%				
Complete_primary_school	52	60	17	129			
Column_Percent	10.57%	9.51%	10.37%				
Row_Percent	40.31%	46.51%	13.18%		2.08%	-2.52%	0.44%
Total_Percent	10.57%	9.51%	10.37%				
Inc_secondary_school: technical/vocational	1	4	1	6			
Column_Percent	0.20%	0.63%	0.61%				
Row_Percent	16.67%	66.67%	16.67%		-21.56%	17.64%	3.92%
Total_Percent	0.20%	0.63%	0.61%				
Comp_secondary_school: technical/vocational	38	49	11	98			
Column_Percent	7.72%	7.77%	6.71%				
Row_Percent	38.78%	50.00%	11.22%		0.55%	0.97%	-1.52%
Total_Percent	7.72%	7.77%	6.71%				
Inc_secondary_school: university_prep	223	245	74	542			
Column_Percent	45.33%	38.83%	45.12%				
Row_Percent	41.14%	45.20%	13.65%		2.92%	-3.83%	0.91%
Total_Percent	45.33%	38.83%	45.12%				
Comp_secondary_school_and_above	124	154	121	399			
Column_Percent	22.36%	24.88%	25.61%				
Row_Percent	35.60%	50.81%	13.59%		-2.63%	12.58%	-24.64%
Total_Percent	22.36%	24.88%	25.61%				
Total_Percent	2.44%	6.02%	4.88%				
Totals	492	631	164	1287			
Total_Percent	38.23%	49.03%	12.74%				

Most interesting is the huge discrepancy in education levels seen between the groups. South African women in Group One are significantly over-represented in the category of women with higher levels of education and under-represented at lower levels, while Group Three shows the opposite pattern. This is in direct contradiction to the Global data. In a remarkable anomaly, the worst performer of all is Group Two however, off a reasonable sample of 121 respondents in the highest education category.

5.5 Religion and Trust – Global

The findings below represent respondents' levels of trust in their governments, institutions and communities, and the Global findings are interesting in that Group Two is more of an outlier than in many other sections of this report, where the group typically bridges the gap between Groups One and Three. Respondents in Group Two exhibit far higher levels of distrust towards governments and institutions, as well as their communities and people of other religions (see Table 5.5-4) than would be expected. It is in the final category that the group stands out the most, with Group One over-represented by 8.37% in the category "Trust Completely", while Group Two is under-represented by 7.09%. These differences represent some of the largest discrepancies in opinion between Groups One and Two found anywhere in this data.



Table 5.5-1 Confidence in Government Global

2-Way_Summary_Table:_Observed_Frequencies							
	Marked_cells_have_counts<10						
	Group	Group	Group	Row	Difference		
V138:_Confidence:_The_Government	3	1	2	Totals	3	1	2
A_great_deal	5051	1638	1942	8631			
Column_Percent	14.73%	18.48%	12.58%				
Row_Percent	58.52%	18.98%	22.50%		0.00%	3.85%	-2.85%
Total_Percent	8.62%	2.80%	3.31%	14.73%			
Quite_a_lot	11640	3133	5045	19818			
Column_Percent	33.95%	35.35%	32.67%				
Row_Percent	58.73%	15.81%	25.46%		0.21%	0.68%	0.11%
Total_Percent	19.87%	5.35%	8.51%	33.82%			
Not_very_much	12495	2993	5734	21222			
Column_Percent	36.44%	33.77%	37.13%				
Row_Percent	58.88%	14.10%	27.02%		0.36%	-1.03%	1.67%
Total_Percent	21.33%	5.11%	9.79%	35.22%			
None_at_all	5099	1098	2722	8919			
Column_Percent	14.87%	12.39%	17.53%				
Row_Percent	57.17%	12.31%	30.52%		-1.35%	-2.82%	5.17%
Total_Percent	8.70%	1.87%	4.65%	15.22%			
Totals	34285	8862	15443	58590			
Total_Percent	58.52%	15.13%	25.35%	100.00%			
Statistic	Chi-square	df	p				
Pearson_Chi-square	272.5389	df=6	p=0.0000				
M-I_Chi-square	269.3657	df=6	p=0.0000				

Table 5.5-2 Confidence in Justice System Global

	Marked_cells_have_counts<10			Row	Difference		
	Group	Group	Group		3	1	2
V137: Confidence: Justice_System	3	1	2	Totals	3	1	2
A_great_deal	6087	1851	2285	10223			
Column_Percent	17.81%	19.21%	14.88%				
Row_Percent	59.54%	18.11%	22.35%		1.79%	2.82%	-3.61%
Total_Percent	10.29%	3.13%	3.86%	17.28%			
Quite_a_lot	13323	3647	5470	22440			
Column_Percent	38.99%	37.85%	35.62%				
Row_Percent	59.37%	16.25%	24.38%		1.62%	0.96%	-1.58%
Total_Percent	22.52%	6.16%	9.24%	37.93%			
Not_very_much	10341	2981	5184	18506			
Column_Percent	30.26%	30.94%	33.75%				
Row_Percent	55.88%	16.11%	28.01%		-1.87%	0.82%	2.05%
Total_Percent	17.48%	5.04%	8.76%	31.28%			
None_at_all	4423	1157	2419	7999			
Column_Percent	12.94%	12.01%	15.75%				
Row_Percent	55.29%	14.46%	30.24%		-2.46%	-0.83%	4.28%
Total_Percent	7.48%	1.95%	4.09%	13.52%			
Totals	34174	9636	15358	59158			
Total_Percent	57.75%	15.29%	25.96%	100.00%			
Statistic	Chi-square	df	p				
Pearson_Chi-square	232.4312	df=6	p=0.0000				
M-l_Chi-square	231.7956	df=6	p=0.0000				

Table 5.5-3 Trust Your Neighbourhood Global

2-Way_Summary_Table: Observed_Frequencies							
Group	Marked_cells_have_counts<10			Row	Difference		
	Group	Group	Group		3	1	2
V126: Trust: Your_neighbourhood	3	1	2	Totals	3	1	2
Trust_completely	8427	2112	3777	14316			
Column_Percent	23.26%	21.44%	21.97%				
Row_Percent	58.86%	14.75%	26.38%		1.60%	-0.82%	-0.79%
Total_Percent	13.32%	3.34%	5.97%	22.63%			
Somewhat	19082	5119	8856	33057			
Column_Percent	52.67%	51.96%	51.51%				
Row_Percent	57.72%	15.49%	26.79%		0.46%	-0.08%	-0.38%
Total_Percent	30.16%	8.09%	14.00%	52.25%			
Not_very_much	6939	2115	3524	12578			
Column_Percent	19.15%	21.47%	20.50%				
Row_Percent	55.17%	16.82%	28.02%		-2.09%	1.25%	0.85%
Total_Percent	10.97%	3.34%	5.57%	19.88%			
No_trust_at_all	1781	506	1035	3322			
Column_Percent	4.92%	5.14%	6.02%				
Row_Percent	53.61%	15.23%	31.16%		-3.65%	-0.34%	3.99%
Total_Percent	2.81%	0.80%	1.64%	5.25%			
Totals	36229	9852	17192	63273			
Total_Percent	57.26%	15.57%	27.17%	100.00%			
Statistic	Chi-square	df	p				
Pearson_Chi-square	71.8416	df=6	p=.00000				
M-l_Chi-square	70.98054	df=6	p=.00000				



Table 5.5-4 Trust People of another Religion Global

2-Way_Summary_Table: Observed_Frequencies							
	Marked_cells_have_counts<10						
	Group	Group	Group	Row	Difference		
V129: Trust: People_of_another_religion	3	1	2	Totals	3	1	2
Trust_completely	2155	950	786	3891			
Column_Percent	6.34%	9.87%	4.80%				
Row_Percent	55.38%	24.42%	20.20%		-1.28%	8.37%	-7.09%
Total_Percent	3.59%	1.58%	1.31%	6.49%			
Somewhat	13935	4458	6480	24883			
Column_Percent	41.01%	46.44%	39.60%				
Row_Percent	56.00%	17.96%	26.04%		-0.66%	1.91%	-1.25%
Total_Percent	23.24%	7.45%	10.81%	41.50%			
Not_very_much	12461	2902	6189	21552			
Column_Percent	36.68%	30.16%	37.82%				
Row_Percent	57.82%	13.47%	28.72%		1.16%	-2.58%	1.43%
Total_Percent	20.78%	4.84%	10.32%	35.94%			
No_trust_at_all	5425	1301	2909	9635			
Column_Percent	15.97%	13.52%	17.78%				
Row_Percent	56.31%	13.50%	30.19%		-0.35%	-2.55%	2.90%
Total_Percent	9.05%	2.17%	4.85%	15.07%			
Totals	33976	9621	16354	59961			
Total_Percent	56.66%	16.05%	27.29%	100.00%			
Statistic	Chi-square	df	p				
Pearson_Chi-square	494.7453	df=6	p=0.0000				
M-l_Chi-square	482.5409	df=6	p=0.0000				

5.6 Religion and Trust – South Africa

The South African data again differs from those observed globally, in that Group Two does not stand out from the other groups in any category, but rather resumes its usual place bridging the gap between Groups One and Three. In the South African findings it is rather Group Three that is an outlier in many cases, with respondents from this group showing the lowest levels of trust in both their communities (Table 5.6-3) and, surprisingly given their stated lack of formal religious affiliation or belief, in people of other religions (Table 5.6-4). With regards to trust in other religions in the category “No trust at all”, Group Three is over-represented by 10.36%, while Group One is under-represented by 12.94% - a stark difference in outlook. Another

interesting observation is the difference between Groups One and Two in terms of trusting people from another religion. Respondents from Group Two are significantly under-represented in the category “trust completely”, compared to the strong support shown by Group One respondents.

Table 5.6-1 Confidence in Government SA

2-Way_Summary_Table:_Observed_Frequencies							
	Marked_cells_have_counts<10			Row	Difference		
	Group	Group	Group		3	1	2
V138:Confidence:The_Government	3	1	2	Totals	3	1	2
A_great_deal	374	373	160	907			
Column_Percent	28.86%	32.04%	31.43%				
Row_Percent	41.23%	41.12%	17.64%		-2.42%	1.91%	0.50%
Total_Percent	12.60%	12.56%	5.39%	30.55%			
Quite_a_lot	553	456	218	1227			
Column_Percent	42.67%	39.18%	42.83%				
Row_Percent	45.07%	37.16%	17.77%		1.42%	-2.05%	0.63%
Total_Percent	18.63%	15.36%	7.34%	41.33%			
Not_very_much	267	255	100	622			
Column_Percent	20.60%	21.91%	19.65%				
Row_Percent	42.93%	41.00%	16.08%		-0.72%	1.79%	-1.06%
Total_Percent	8.99%	8.59%	3.37%	20.95%			
None_at_all	102	80	31	213			
Column_Percent	7.87%	6.87%	6.09%				
Row_Percent	47.89%	37.56%	14.55%		4.24%	-1.65%	-2.59%
Total_Percent	3.44%	2.69%	1.04%	7.17%			
Totals	1296	1164	509	2969			
Total_Percent	43.65%	39.21%	17.14%	100.00%			
Statistic	Chi-square	df	p				
Pearson_Chi-square	7.19661	df=6	p=.30306				
M-l_Chi-square	7.24092	df=6	p=.29915				



Table 5.6-2 Confidence in the Justice System SA

2-Way_Summary_Table: Observed_Frequencies							
	Marked_cells_have_counts<10			Row	Difference		
	Group	Group	Group		3	1	2
V137:Confidence:Justice_System	3	1	2	Totals	3	1	2
A_great_deal	319	271	127	717			
Column_Percent	24.95%	23.42%	24.95%				
Row_Percent	44.49%	37.80%	17.71%		1.08%	-1.50%	0.42%
Total_Percent	10.84%	9.21%	4.31%	24.35%			
Quite_a_lot	508	521	213	1242			
Column_Percent	39.75%	45.03%	41.85%				
Row_Percent	40.90%	41.95%	17.15%		-2.51%	2.65%	-0.14%
Total_Percent	17.25%	17.70%	7.24%	42.19%			
Not_very_much	325	277	121	723			
Column_Percent	25.43%	23.94%	23.77%				
Row_Percent	44.95%	38.31%	15.74%		1.54%	-0.99%	-1.55%
Total_Percent	11.04%	9.41%	4.11%	24.55%			
None_at_all	125	88	48	252			
Column_Percent	9.85%	7.51%	9.43%				
Row_Percent	48.09%	33.59%	18.32%		4.68%	-5.71%	1.03%
Total_Percent	4.28%	2.99%	1.53%	8.90%			
Totals	1278	1157	509	2944			
Total_Percent	43.41%	39.30%	17.29%	100.00%			
Statistic	Chi-square	df	p				
Pearson_Chi-square	9.07304	df=6	p=.16952				
M-I_Chi-square	9.127687	df=6	p=.16654				

Table 5.6-3 Trust your Neighbourhood SA

2-Way_Summary_Table: Observed_Frequencies							
	Marked_cells_have_counts<10			Row	Difference		
	Group	Group	Group		3	1	2
V126:Trust:Your_neighbourhood	3	1	2	Totals	3	1	2
Trust_completely	251	259	121	631			
Column_Percent	19.10%	22.12%	23.05%				
Row_Percent	39.78%	41.05%	19.18%		-3.87%	2.15%	1.74%
Total_Percent	8.34%	8.60%	4.02%	20.96%			
Somewhat	671	634	242	1547			
Column_Percent	51.07%	54.14%	46.10%				
Row_Percent	43.37%	40.98%	15.64%		-0.28%	2.08%	-1.80%
Total_Percent	22.29%	21.06%	8.04%	51.40%			
Not_very_much	327	248	140	715			
Column_Percent	24.89%	21.18%	26.67%				
Row_Percent	45.73%	34.69%	19.58%		2.08%	-4.21%	2.14%
Total_Percent	10.86%	8.24%	4.65%	23.75%			
No_trust_at_all	65	30	22	117			
Column_Percent	4.95%	2.56%	4.19%				
Row_Percent	55.56%	25.64%	18.80%		11.91%	-13.26%	1.36%
Total_Percent	2.16%	1.00%	0.73%	3.89%			
Totals	1314	1171	525	3010			
Total_Percent	43.65%	38.90%	17.44%	100.00%			
Statistic	Chi-square	df	p				
Pearson_Chi-square	23.68405	df=6	p=.00060				
M-I.Chi-square	24.24314	df=6	p=.00047				



Table 5.6-4 Trust People of another Religion SA

2-Way_Summary_Table: Observed_Frequencies							
	Marked_cells_have_counts<10			Row	Difference		
	Group	Group	Group				
V129:Trust:People_of_another_religion	3	1	2	Totals	3	1	2
Trust_completely	156	228	47	431			
Column_Percent	12.19%	19.60%	9.27%				
Row_Percent	36.19%	52.90%	10.90%		-7.20%	13.48%	-6.29%
Total_Percent	5.29%	7.73%	1.59%	14.61%			
Somewhat	562	607	259	1428			
Column_Percent	43.91%	52.19%	51.08%				
Row_Percent	39.36%	42.51%	18.14%		-4.03%	3.09%	0.95%
Total_Percent	19.05%	20.58%	8.78%	48.41%			
Not_very_much	426	261	151	838			
Column_Percent	33.28%	22.44%	29.78%				
Row_Percent	50.84%	31.15%	18.02%		7.45%	-8.27%	0.83%
Total_Percent	14.44%	8.85%	5.12%	28.41%			
No_trust_at_all	136	67	50	253			
Column_Percent	10.63%	5.76%	9.86%				
Row_Percent	53.75%	26.48%	19.76%		10.36%	-12.94%	2.57%
Total_Percent	4.61%	2.27%	1.69%	8.58%			
Totals	1280	1163	507	2950			
Total_Percent	43.39%	39.42%	17.19%	100.00%			
Statistic	Chi-square	df	p				
Pearson_Chi-square	88.04362	df=6	p=.00000				
M-L_Chi-square	89.47629	df=6	p=.00000				

CHAPTER SIX: DISCUSSION OF RESULTS

6.1 Introduction

The findings presented in Chapter Five presents some interesting discussion points. The first of these is that there is a significant difference in the behaviour of each group in many of the proxies used for economic activity, lending credibility to the methodology used in differentiating between the various groups, and particularly Groups One and Two. Another interesting finding is that the economic effects of belonging to Groups One, Two or Three appear in many cases to be different if you are a South African than if you are from another of the countries surveyed. The findings for both Global and South African data allow us to reject the null hypothesis, as there were notable differences between groups in nearly every category of the data, and some clear trends developed. The findings are conflicting however, particularly when it comes to measures of trust. There are also very clear differences between the South African and Global results.

6.2 Does religion affect income levels?

6.2.1 Income – Global Perspective

As established in Chapter Four, income was broken down into three areas, namely education levels (with the assumption that higher levels of education

indicate higher income), likelihood to save, and income levels. With regards to education levels (Table 5.1-1), both Pearson and the Maximal Likelihood (M-L) chi square tests indicate that we can safely reject the null hypothesis that there is no relationship between each group's results, meaning that the group you belong to will have some influence on your level of education. There are some specific areas where the discrepancies between groups are notable, particularly with regards to the number of respondents from Group One at the lowest category of education, "Incomplete Primary School". Taking into account the differences in row percentages between each group relative to the Group One's total percentage, 7.39% more respondents than the overall group percentage are listed here, compared with 5.80% less in Group Three and 1.59% less in Group Two. At levels of higher education when measuring the distribution of respondents with university degrees, the opposite result was found. In this category, Group One is under-represented by 3.45%, while Group Three is over-represented by 5%. Group Two is also slightly under-represented by 1.55%. In fact, Group One is under-represented in all categories of education higher than school leavers, and in most cases Group Two falls in the middle ground between groups One and Three, indicating that church adherents are less likely to pursue higher education than their counterparts who do not attend religious ceremonies on a regular basis.

When discussing the effects of religion on education, the majority of the literature is focussed on discrepancies between the various religions, as shown when discussing Keister's 2003. Inter-religious comparisons do not

necessarily shed any light on the findings above as this study is religion agnostic, but the findings do contradict those of Hollander, Kahana and Lecker (2003), also discussed in Chapter Two, who found that people who participate in formal religious activities and study are also likely to apply themselves actively to secular study. This appears to not always be the case.

While views on the propensity to save (Table 5.1-2) differ far less between groups than education levels, chi square analyses again determines that the null hypothesis can be rejected – the group you belong to will influence your behaviour. It is notable here that the largest discrepancy is between Groups Two and Three, with members of Group Two far less likely to save money than Group Three, while there is almost no difference between the behaviours of Groups One and Three with regards to savings. Groups One and Two are both more likely to have borrowed money in the last year than Group Three however.

Table 5.1-3 again shows dependencies between the groups, this time with regards to levels of income. Although the differences are not large, there is a significant difference towards the top end of income earners, specifically the ninth step in the WVS data where Group Three is 4.44% over-represented while Groups One and Two are 0.58% and 3.85% under-represented respectively. A similar pattern emerges in the upper step to indicate that members of Group Two are less likely than Group One to be in the upper end of earners, while members of Group Three are more likely to be represented here. At the lowest step however, Group One is over-represented by 2.30%,

underperforming relative to both other groups indicating that there may be a negative relationship between religious adherence and personal income.

When viewing the Global data therefore and based on the strong performance of Group Three, these findings lend support to the school of literature indicating that religious participation has a negative impact on income, specifically countering McCleary and Barro's 2006 supposition that the fact that all major religions excluding Buddhism promote a strong work ethic and wealth accumulation should in turn lead to improved economic conditions for adherents. This is particularly interesting given the poor performance of Group Two, as the assumption is that these respondents should enjoy the benefits of religious values such as a strong work ethic, and as they do not attend religious ceremonies regularly, should not be affected by the costs of adherence. Based on these propositions, Group Two should be well represented at the upper levels of income earners, which is not the case.

Group One also performs poorly relative to Group Three, particularly with regards to education and the upper end of income earners. This indicates support for the argument that the time spent on religious rather than economic activities has a negative affect on earnings, as argued by Lipford and Tollison (2003).

6.2.2 Income – South African Perspective

Table 5.2-1 brings an interesting finding to light, in that the results represent the polar opposite of the global findings. This is a trend that develops through much of this study. Although small sample sizes affect the validity of some of the data, in South Africa members of Group One are in fact far more likely to have attained higher education levels than Group Two, while Group Three performs worst of all. This is most notable at the highest education levels, where Group One is over-represented by 13.44% while Group Three is under-represented by 12.27% and Group Two by 1.17%. Respondents with no or very limited education are also far more likely to fall within Group Three than any of the other group. These findings support Hollander, Kahana and Lecker (2003) in stating that religious adherents are also likely to pursue other studies, although their findings gained no support in the Global data, as mentioned earlier.

Another significant difference between Global and South African behaviour is apparent when looking at respondents' propensity to save. While the variance is fairly small, South Africans in Group Three are 2.99% under-represented in category of people who saved in the last year, while Group One is 2.64% over-represented, with Group Two showing insignificant results at 0.37% over-representation. In the Global results Groups One and Three showed almost identical results in responding to this question while Group Two performed poorly, whereas the South African results seem to support McCleary and Barro (2006) and Guiso *et al* (2003) in stating that religious adherents are more likely to exhibit "thriftiness".



Unfortunately a direct analysis of income levels in South Africa is not possible due to the number of respondents. To counter this, respondents from the final three income steps were combined, with the following results:

Table 6.2-1 Scale of Incomes (Combined) SA

2-Way_Summary_Table: Observed_Frequencies							
	Marked_cells_have_counts<10						
	Group	Group	Group	Row	Difference		
V253: Scale_of_incomes	3	1	2	Totals	3	1	2
Lower_step	217	130	75	422			
Row_Percent	51.42%	30.81%	17.77%		7.65%	-8.12%	0.50%
Second_step	151	114	52	317			
Row_Percent	47.63%	35.96%	15.40%		3.86%	-2.97%	-1.87%
Third_step	141	105	63	310			
Row_Percent	45.48%	34.19%	20.32%		1.71%	-4.74%	3.05%
Fourth_step	138	174	73	385			
Row_Percent	35.84%	45.19%	18.96%		-7.93%	6.26%	1.69%
Fifth_step	174	182	74	430			
Row_Percent	40.47%	42.33%	17.21%		-3.30%	3.40%	-0.06%
Sixth_step	143	156	53	352			
Row_Percent	39.50%	43.09%	17.40%		-4.27%	4.16%	0.13%
Seventh_step	137	111	47	295			
Row_Percent	46.44%	37.63%	15.93%		2.67%	-1.30%	-1.34%
Eighth/Ninth/Upper combined	154	143	49	346			
Eighth/Ninth/Upper Row Percentage	45%	41%	14%		0.73%	2.40%	-3.10%
Totals	1255	1116	495	2867			
Total Percent	43.77%	38.93%	17.27%				

It now becomes apparent that at the high end of the income steps, Group One respondents are over-represented while Group Two is again significantly under-represented, as was found with Global income. Group One also performs well at the lowest income levels, with a marked difference to Group Three at 8.12% under-representation compared to 7.65% over-representation for Group One in the lowest income step. The differences between Groups One and Two at the upper levels are interesting in that these groups consider themselves equally religious, and therefore can be said to subscribe to the same beliefs regarding salvific merit and work ethic. Despite this, Group One

outperforms Group Two in both Global and SA data, lending support to the theory that organised religion promotes social capital as found by Arano and Blair (2008), Keister (2003) and Hollander *et al.* (2003). It is possible that the reason these findings are supported in South Africa and yet less so in the Global data is due to the large informal sector and the high proportion of the population who were disadvantaged prior to 1994, and who still have little knowledge of or access to formal sources of capital, with the result that access to a strong religious community may provide not only a source of capital but also a ready market. This supposition could be an area of future research.

Based on the findings here, there is resounding support for rejecting the null hypothesis. Patterns of behaviour observed in the Global findings strongly suggest that there are observable differences in income levels depending on religious adherence, with income levels being a proxy for GDP. Similar support exists in the South African data, where both income and education levels differed significantly between groups, albeit with a different pattern developing from that observed in the Global data.

6.3 Does religion affect the participation of women in the economy?

6.3.1 Gender Roles – Global

As discussed briefly in Chapter 5, the consistent pattern observed when viewing Global data on gender issues is that the opinions the various groups

offer regarding women's role in society are markedly different from the observed behaviour. When only considering the opinion-based questions, it is clear that respondents in Groups One and Two are more supportive of women's education and the right to work than those in Group Three. In all three opinion-based questions, represented particularly in tables 5.3-1 and 5.3-3, Group Three performs poorly, stating their belief that women do not make better executives, and are less entitled to education than men. To illustrate this, Group Three is under-represented by a significant 39.72% in the category of people who disagree strongly that university is more important for boys. Groups One and Two give much more moderate opinions in this category, where the most significant results are found.

Based on these findings it could be expected that women from families who attended religious ceremonies regularly or who professed religious beliefs would be more likely to be employed and well educated than their counterparts who are less religious, but the data in tables 5.3-4 and 5.3-5 in fact show the exact opposite, where women in Group Three are significantly more likely to be employed and well educated than women in the other two groups. Group One performs worst of all, taking into account their over-representation in the unemployed (by a remarkable 32.41%) and incomplete primary school categories, and under-representation in the full-time employment and university level education with degree categories. The 32.41% over-representation of Group One respondents in the Unemployed category represents the most significant discrepancy found anywhere in this report when considering Global data. Women in Group One are also over-

represented by 9.12% in the self-employed category, suggesting either an entrepreneurial preference (supported in the literature by Galbraith and Galbraith (2007), or a preference for working from home or on a flexible basis. Respondents in Group Two appear slightly more moderate in their differences from the expected outcomes, apart from in the housewife category where they are over-represented by 7.50%

6.3.2 Gender Roles – South Africa

The South African data is again inconsistent with Global findings when considering attitudes towards gender roles in the economy. Some differences could be expected as the country enjoys some of the highest levels of gender equality found globally, according to the Global Gender Gap Report (Hausman, Tysan and Zahidi, 2009). The data in Table 5.4-1 magnifies the data in its corresponding Global table (5.3-1), as the respondents in Group One largely disagree with the statement that men make better executives than women do. Respondents in Group Three are most likely to agree with this statement, and Group Two bridges the gap once again. The same pattern emerges over men's right to scarce jobs in Table 5.4-2 – albeit with less differences in opinion between the groups – and very strongly in table 5.4-3 when considering the importance of university education for women, where Group One performs very strongly.

Unlike in the Global data, these stated opinions carry through to actual employment status (Table 5.4-4), where women in Group One are consistently over-represented in categories showing some form of

employment relative to women from any other group, particularly Group Three. Group One is over-represented in the housewife category by 9.12%, however. In determining the number of respondents at each level of education (Table 5.4-5) it was necessary to combine all levels above “Completed Secondary School due insufficient respondents in each category. The combined results continue to support the stated views expressed in Table 5.4-3, in that women in Group One enjoy higher levels of education than their counterparts when considering South African data. Most notably, and in contradiction to the Global findings, women in Group Two are severely under-represented at higher levels of education, by a significant 24.64%. There is no immediately obvious reason for this to be the case – no mention in the literature supports this finding, and the Global results show no indication that Group Two is adversely affected in these categories, with findings for the group falling into its usual area between Groups One and Three.

It is difficult to make a direct comparison between Global and South African employment results due to the high level of unemployment South Africa has been afflicted with for some time. When comparing Global to South African results as per Table 6.3-1 below the difference becomes apparent, with all three groups in South Africa reporting unemployment levels in the mid- to high-30% range, compared to single figures to mid-teens globally.

Table 6.3-1 Global vs South African Female Employment

	Global				South Africa			
	Group 3	Group 1	Group 2	Row	Group 3	Group 1	Group 2	Row
Full_time_employee_30_hours/week_or_more	4855	1016	2624	8495	114	155	34	304
Column_Percent	28.31%	18.65%	25.02%		20.21%	22.54%	18.68%	
Part_time_employee<30_hours/week	1390	324	621	2335	31	46	10	87
Column_Percent	8.10%	5.95%	5.15%		5.50%	5.55%	5.49%	
Self_employed	1562	817	732	3111	19	19	7	45
Column_Percent	9.11%	15.00%	7.25%		3.37%	2.75%	3.85%	
Retired/pensioned	1878	647	1266	3791	64	73	14	151
Column_Percent	10.95%	11.88%	12.55%		11.35%	10.55%	7.69%	
Housewife_not_otherwise_employed	3880	1236	3184	8300	39	83	23	145
Column_Percent	22.52%	22.59%	31.57%		6.91%	11.99%	12.64%	
Student	1584	540	698	2822	73	72	26	171
Column_Percent	9.24%	9.91%	6.92%		12.94%	10.40%	14.29%	
Unemployed	1515	794	778	3087	224	243	68	535
Column_Percent	8.83%	14.58%	7.71%		39.72%	35.12%	37.36%	
Totals	17152	5447	10086	32585	554	692	182	

As mentioned in Chapter Two, Eberharter (2001) found that in poorer households there is significantly higher pressure on female members of a household to find work which may reduce the effects of religious adherence on South African employment data, considering the high levels of poverty in the country. Removing unemployed respondents from the data (in Table 6.3-2 below) and looking at the distribution of respondents as a column percentage supports this, as it appears that in South Africa there are very few differences in employment status between the various groups, with only Group Two showing any real variance from the expected frequency albeit from a small group of respondents. Where there is a significant difference across groups is when considering the number of housewives per group, with both Groups One and Two exhibiting significantly higher proportions of respondents in this category than Group Three, which is in fact under-represented by 12.32%.

These findings show support for the Global data. When removing unemployment from the analysis, as done in table 6.3-2 below, it is actually



Group Two that emerges as having the highest proportions of housewives than any other category, with Group Three exhibiting the least. These findings are consistent across both Global and South African data. Full-time employment status differs little across groups in South Africa, compared to very clear differences in observations in the Global data particularly between Groups One and Three, supporting Eberharter’s findings.

Table 6.3-2 Female Employee Status Ignoring Unemployment

	Global				South Africa			
	Group 3	Group 1	Group 2	Row	Group 3	Group 1	Group 2	Row
Full_time_employee_30_hours/week_or_more	4855	1016	2624	8495	114	155	34	304
Column_Percent	32.05%	22.18%	28.76%		33.53%	34.60%	29.82%	
Part_time_employee<30_hours/week	1390	324	621	2335	31	46	10	87
Column_Percent	9.18%	7.07%	6.81%		9.12%	10.27%	8.77%	
Self_employed	1562	817	732	3111	19	19	7	45
Column_Percent	10.31%	17.84%	8.02%		5.59%	4.24%	6.14%	
Retired/pensioned	1878	647	1266	3791	64	73	14	151
Column_Percent	12.40%	14.13%	13.87%		18.82%	16.29%	12.28%	
Housewife_not_otherwise_employed	3880	1236	3184	8300	39	83	23	145
Column_Percent	25.61%	26.99%	34.89%		11.47%	18.53%	20.18%	
Student	1584	540	698	2822	73	72	26	171
Column_Percent	10.46%	11.79%	7.65%		21.47%	16.07%	22.81%	
Totals	15149	4580	9125	28854	340	448	114	903

In concluding it is fair to say that very clear differences exist between gender roles in South African data and those found in countries included in the Global data. This pattern is seen both in the stated opinions – where South African respondents seem to hold significantly stronger views on the subject than Global counterparts, even though the opinions stated are essentially the same – and the observed behaviours, where women in Group One are notably more likely to enjoy both higher levels of education and employment in South Africa. This may be due to the high levels of unemployment and poverty found in the country, which may force women into the labour pool irrespective of their religious preferences.

Global data supports strongly the findings in the literature review, specifically those of Heineck (2004) and Arano and Blair (2008) who showed that religious women are less likely to participate in economic activities. The differences in employment status observed in South African data are best explained by Eberharter (2001) in her finding that women in poor households are far more likely to be employed, given South Africa's high levels of poverty and unemployment. It is feasible that the economic imperative of bringing in an income overcomes any religious directives concerned with women's economic behaviour.

Findings on gender therefore also support rejecting the null hypothesis, as again very clear differences between employment and education levels exist depending on which group a respondent falls into. The findings themselves are contradictory however. In viewing the Global data, there is strong evidence to support the theory that religion inhibits women from active participation in the economy, therefore limiting the potential growth of an economy. In South Africa however, it can be argued convincingly that women who are active members of a religion are beneficial to the economy.

6.4 Does religion affect the levels of trust its adherents display in both their fellow citizens and the institutions of a country?

6.4.1 Trust Global

The data in Table 5.5-1 indicates that Global respondents in Group One are significantly more trusting of their governments than Groups Two or Three, with Group Two in particular under-represented by 2.85% in the category of people who indicate a great deal of confidence in government. The differences in attitude towards government between Groups One and Two are marked, with an over-representation of respondents with no confidence in government of 5.17% for Group Two, as opposed to an under-representation of 2.82% for Group One, and Group Three bridging the gap. This exact same pattern repeats itself in table 5.5-2 indicating a greater level of trust in the Justice System among Group One respondents, with high levels of distrust among Group Two in particular. These results would indicate that religious attendance can be a positive thing for an economy under the assumption that high levels of trust in institutions can help to enable economic growth.

This scenario changes slightly when considering trust shown towards fellow citizens, with Groups One and Two less likely to trust their neighbours completely or somewhat than Group Three (Table 5.5-3). Group Two respondents are notable for their distrust of their neighbours, with an over-representation of 3.99% in the category of respondents with no trust at all.

This point is completely contradicted by the results shown in Table 5.5-4, where Group One is over-represented by 8.37% in the category indicating complete trust for people of other religions. There may be an element of positive response bias here, as the results for Group Two in this category are markedly different especially when compared to the table above relating to trust in their communities – where the two groups are fairly similar in their responses – with Group Two's under-representation of 7.09% in the category indicating complete trust.

Considering that the levels of religious beliefs of Groups One and Two are essentially the same, it seems strange that such a large discrepancy exists. As Group Two consists of religious people who do not attend religious ceremonies regularly, it is possible that in addition to including people who choose not to attend ceremonies, the group incorporates people who have no choice to attend as these services may not be offered in their areas. If the group incorporates a significant amount of religious minorities living in countries or communities that do not have formal religious organisations tailored to their beliefs, it is possible that this could lead to higher levels of distrust for the communities around them and even the institutions of the relevant countries. This will be particularly true if respondents are recent immigrants to the region and have not yet assimilated into the surrounding communities, and is supported in the literature by Guiso *et al*'s findings in 2003 that religious people tend to only exhibit higher levels of trust towards people with the same religious beliefs they hold.

6.4.2 Trust South Africa

Table 5.6-1 indicates that results for South Africa are similar to the global findings when it comes to trusting the government, with Group One respondents who indicate a great deal of confidence over-represented slightly by 1.91%. This is contradicted by the relative frequencies of those responding that they show “quite a lot” of confidence in government, where Group Three performs strongest and Group One is under-represented. The variance between actual and expected results is fairly small however and so not much can be read into this. Table 5.6-2 indicates some difference to the Global scenario, with Group One showing slightly more reserve in their confidence in the justice system than Group Two or Three, rather indicating “quite a lot” of confidence than “a great deal”.

The results are markedly different when comparing the findings relating to trust in neighbours for South Africa with those experienced globally (Table 5.6-3). In the SA data, respondents from Group One indicate far higher levels of trust than their Global counterparts, under-represented in the category “no trust at all” by 13.26%, whereas respondents from Group Three are over-represented by 11.91%. Similar results are seen in Table 5.6-4 regarding trust in other religions with Group One over-represented by 13.48%, and Group Three under-represented by 7.20% in the category “trust completely”. This result is surprising given that Group Three respondents by definition are not expected to hold strong views on religious matters.

It is interesting to note the scale of difference in opinion between global and South African respondents with regards to trust of neighbours and people of other religions. Whereas global respondents show little variance in their responses to each statement, South African respondents appear to show extremely high variance, and this is reinforced by relative numbers of respondents. For example, 5.14% of Group One respondents globally indicate no trust at all in their neighbours (Table 5.5-3), compared with only 2.56% locally (Table 5.6-3). Similarly, whereas 13.52% of Global Group One respondents indicated no trust at all in other religions, only 5.7% of South African respondents in Group One indicated the same view. When considering South African data, Group Three is notable for its lack of trust in other citizens and people of other religions, while Group One is represented very positively by this data.

Table 6.4-1 Global vs South Africa - Trust

V129: Trust: People of another religion	Global				SA			
	Group 3	Group 1	Group 2	Totals	Group 3	Group 1	Group 2	Totals
Trust_completely	2155	950	786	3891	156	228	47	431
Column_Percent	28.43%	42.20%	21.27%		53.42%	77.29%	48.45%	
No_trust_at_all	5425	1301	2909	9635	136	67	50	253
Column_Percent	71.57%	57.80%	78.73%		46.58%	22.71%	51.55%	
Totals	7580	2251	3695	13526	292	295	97	684

V126: Trust: Your neighbourhood	Global				SA			
	Group 3	Group 1	Group 2	Totals	Group 3	Group 1	Group 2	Totals
Trust_completely	8427	2112	3777	14316	251	259	121	631
Column_Percent	82.55%	80.67%	78.49%		79.43%	89.62%	84.62%	
No_trust_at_all	1781	506	1035	3322	65	30	22	117
Column_Percent	17.45%	19.33%	21.51%		20.57%	10.38%	15.38%	
Totals	10208	2618	4812	17638	316	289	143	748

When looking exclusively at the extreme responses to questions regarding trust, as represented in table 6.4-1, the differences between Groups One and Two are interesting to note, particularly as the pattern is the slightly different

among Global and South African respondents. Both Groups One and Two regard themselves as equally religious, and yet their levels of trust of other religions differ markedly, with 77.29% of South African Group One respondents stating they trust other religions completely, versus only 48.45% of Group Two respondents. Similar results are found globally. Where there is a marked difference between Global and South African results is in the proportion of Group Two respondents who state they have no trust at all in other religions, at a very high 51.55%, the worst of all three groups. Globally most Group Two respondents seem substantially more trustful, with the majority opting for responses in the middle ground. When looking at the results in this way – looking only at extremes – there is very little difference between Group Two and the other groups when considering levels of trust in the community, indicating that members of Group Two are not inherently distrustful of those around them, but are specifically distrustful of other religions. This undermines the argument that respondents in Group Two may include recent immigrants or minorities which could influence their levels of trust for communities and formal institutions around them. Understanding this dynamic could be an area of interest for future research.

The final sub question also supports rejecting the null hypothesis, based once again on notable differences between groups. It is far more difficult to draw inferences from these specific findings however as they are contradictory not only between Global and SA findings, but also to many of the other findings in this study.

CHAPTER SEVEN: CONCLUSION

In studying the literature discussion the relationship between religion and economic growth, there is significant support for the school of thought linking formal religious adherence to reduced economic growth. This is particularly relevant in studies comparing inter-country data, where higher levels of religious adherence can be shown to have a correlation with low economic growth. The most well-known study to attempt to go beyond correlation and establish causation between religious adherence and economic growth was conducted by Barro and McCleary in 2003, who found that formal religious activity only benefits an economy if it increased the belief in heaven and more specifically hell.

The literature review also establishes support for the negative correlation between religious participation and economic growth within countries, either by looking at the relative economic performance of different regions within a country or by investigating the economic behaviour of individuals themselves, with respect to their levels of income, education, and economic behaviour. The research is often contradictory when it comes to individual behaviours however, with many studies supporting the argument that Protestants have a strong work ethic, or Catholics are valued for their honesty and hard work. Similarly, Jews are found to engage in secular studies to a greater degree than many other Western religions, thereby increasing their human capital. Many studies also suggest that participating in formal religious activities

provides adherents with networking opportunities that can be valuable in their economic lives.

The focus of this study is not on inter-country comparisons but rather on individual behaviours, and specifically whether a relationship, positive or negative, can be established between an individual's level of religious adherence and their economic output. The study is undertaken with the assumption that if religious beliefs boost the individual economic outputs of adherents, then religions promoting those beliefs must be good for the country those individuals operate in. In the South African context this is particularly relevant as the country grapples with extremely high levels of unemployment and poverty, and is therefore seeking effective channels for its fiscal policy to alleviate these problems.

This study comes at a time when South African taxation revenues are well below previous years', as the economy slips into its first recession in over a decade. Government ministries have been tasked with addressing a variety of social ills, with each ministry requiring the resources to do so. In this context, this study aims to stimulate a public policy debate centred on whether religious organisations in South Africa should be subsidised by the government, in light of the body of research finding that religious organisations are often associated with lower levels of economic performance, for both countries and individuals. While safely rejecting the null hypothesis however, the findings of this study are insufficient to promote this debate.

7.1 Does religion affect income levels?

As this report focuses on individual rather than country-level data, individual variables such as income, education level and propensity to save were used as proxies for measuring economic growth. In looking at the Global data it is immediately apparent that there is a relationship between the group a respondent belongs to and many of the proxies used for economic activity. Respondents from Group One, for example, are over-represented at the lowest extremes of education levels and under-represented at the highest levels, while members of Group Three experienced the opposite effect. Group Two, following a pattern found through much of this study, bridged the gap between the two. Similarly, Group Three performed best with regard to income levels, with Groups One and Two significantly under-represented at higher income levels. In this case, Group Two was most severely affected. This is a significant result in the context of this study as it indicates that people who are religious and/or attend religious ceremonies on a regular basis are more likely to have lower education and income levels than their counterparts who are neither religious nor attend religious ceremonies.

In South Africa on the other hand the findings are completely the opposite. South African respondents who attend church regularly are more likely to have higher levels of education, while non-religious respondents perform worst of all in this category. Non-religious respondents are also the least likely to have saved any money in the last year. The findings on income are less clear cut however; Group Three is over-represented at both the upper and lower income levels, whereas respondents in Group One are less likely

to be poor, but experience mixed results when considering their representation at higher income levels.

7.2 Does religion affect the participation of women in the economy?

When considering gender issues one of the most interesting findings from this study is the extreme difference between people's stated views on women in the economy and the actual behaviour across the various groups, specifically in the Global data. Religious adherents from both Groups One and Two professed strong support for women in term of access to employment and education, but these stated opinions were inconsistent with the data on women's actual levels of employment and education. This was clearly evidenced by the number of women belonging to Group One who were unemployed – the biggest discrepancy between expected and actual results in any of the Global data. Where respondents in Group Three indicated that they were least supportive of women's economic behaviour in the opinion-based questions however, the results in fact showed that this same group in fact performed best in both categories.

South Africa can be considered a highly equitable society when it comes to gender issues, but strong differences of opinion existed between the various groups in the opinion-based questions. Although these differences were in line with those seen in the Global data – with non-religious people performing worst of all – the magnitude of the differences were far larger, particularly between Groups One and Three in many categories. Unlike in the Global

data, findings from the stated opinions matched the actual behaviours observed. As indicated in Group One's answers to questions on employment and education, women in Group One were more likely to be employed and have a relatively high level of education than their counterparts in Group Three, suggesting that regular attendance at religious ceremonies can be linked to greater numbers of women gaining involvement in economic activities. Women in Group Two perform extremely poorly at higher levels of education however.

Some of the literature suggests that in economies such as South Africa's where there are high levels of poverty and unemployment, many women are forced to participate in economic activities in order to increase family income. In the South African data, incorporating high levels of unemployment and poverty, this argument is supported by the fact that once unemployed respondents are removed from the data, there are significantly smaller differences between the levels of employment across the three groups than there are in the Global data. The exception to this is in the housewife category, where respondents from Groups One and Two are more likely to be over-represented.

7.3 Does religion affect the levels of trust its adherents display in both their fellow citizens and the institutions of a country?

Global findings related to trust represent conflicting data in many respects, particularly when considering the Global findings. The findings in this section suggest that regular attendance of religious ceremonies is related to higher levels of trust in the formal institutions of a country, which should be supportive of increased economic growth. This represents the first set of Global data suggesting that religious adherence can be positive for an economy. Group One also represents the group most likely to trust completely people from other religions. This is undermined somewhat by the finding that Groups One and Two are least likely to trust the communities around them however. Another notable finding is that Group Two, normally representing the middle ground between Groups One and Three, represents the group of people least likely to trust the communities they live in.

There are once again significant differences between Global and South African data with regards to trust. Although the South African respondents indicate similar distributions of trust in government to their Global counterparts, the results are of interest when it comes to trust in the communities around them. Both Groups One and Two report themselves to hold similar religious values, but when considering their levels of trust in other religious there are marked differences between the groups. 77.29% of South

African Group One respondents state they trust other religions completely, while only 48.45% of Group Two respondents share the same view.

7.4 Recommendations for Future Research

As mentioned earlier, this study does not fulfil its initial goal to provide support for a public policy debate on government support for organised religions. While there is much supportive evidence when considering the Global data, the South African findings often indicates the exact opposite to the results found globally. The study does however highlight a number of interesting findings that warrant future research.

7.4.1 Differences between Global and SA findings

In almost every facet of this study, the Global findings differs significantly from those in South Africa. Research into the economic impact of cultural factors such as religion is growing in popularity globally, built primarily on a foundation of literature from the United States and other Western nations. Based on this study however it would appear that much of this research may not apply to South Africa, and additional research could seek to establish why. This could be due to a number of reasons – high levels of poverty and unemployment, structural elements instituted during the Apartheid era that continue to have influence (such as the predominance of female-led households in the rural areas as men were required to work on the mines), the large number of different cultures in the country, or more likely elements of all of these and more.

7.4.2 Differences in income between Groups One and Two

In analysing the Global economic behaviour of the various groups (section 5.1) some key differences between Groups One and Two emerge, showing that Group Two respondents are likely to earn less than their counterparts in Group One. This goes against much of the literature, as this group should benefit from all the same individual traits (high salvific merit, perceptions of honesty, hard work etc.) as Group One, and should be free to pursue additional economic activities they do not attend religious ceremonies regularly. Group Two was also found to be significantly less likely to save money than Group One, and more likely to have dipped into their savings in the last year. One possible hypothesis for this is that the positive benefits of social capital and strong support networks of formal religious institutions as discussed in the literature may outweigh the opportunity and participation costs associated with participating.

7.4.3 The strong performance of Group One in South Africa

Respondents in Group One significantly out-performed their counterparts in the other groups with regards to income and education levels, two critical areas in the economic development of the country. The fact that Group Two did not perform as well as Group One indicates again that it is not the personality traits believed to be fostered by religious belief that are at play, but rather belonging to a religious organisation itself that is the differentiator. Many of the religious organisations operating in South Africa are identical to their global counterparts however, and as seen in the Global data, these

same institutions do not appear to be correlated with positive economic behaviours in other countries. Why is South Africa so different?

As mentioned earlier in the study, one possibility is that a significant proportion of the population operate in the informal or semi-formal sector, and would not be considered credit worthy by any of the mainstream banks. Belonging to a religious community may therefore provide access to a potential pool of capital to develop businesses, and also to a market of potential customers outside of the individual's friends and family. Beyond the income measures, women in Group One are also far more likely to have higher levels of education in South Africa than Group Two in particular, with no obvious support in the literature for why this is so, and in contradiction to Global findings where Group Two performed relatively well. Church attendance in South Africa appears to be highly beneficial to income and education levels for both men and women, which is not the case elsewhere.

7.4.4 Different levels of trust between the groups

Trust at a community level is important to South Africa's social development, and evidence of the erosion of this trust was seen in the xenophobic attacks in many South African townships in 2008. Respondents in Groups Two and particularly Three reported significantly lower levels of trust in their communities and in other religions than did those from Group One. This goes against the literature which found that religious attendance tends to foster trust primarily in people of the same religion. Group Three in particular reported a lack of trust in people from other religions, which is counter-

intuitive as these respondents profess to not hold strong religious beliefs. In a culture as multi-polar as South Africa, and with a constant stream of immigrants arriving in the country from other African states, the factors that build trust should be explored further.

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APPENDICES

10.1 APPENDIX A

World Values Survey – South African Survey Methodology*

Principal investigator(s):

Mari Harris and Prof Hennie Kotze

Data Collection Organization:

Markinor

Survey Period: 22-11-2006-20-12-2006

Questionnaire:

The following are problems encountered by or comments made by interviewers and supervisors working on this study:

- The length of the questionnaire: almost all the respondents complained about the length that the interview was too long. Some respondents even had to stop the interview half way.

Sample:

The survey was based on a representative sample of the population; both male and female respondents aged 16 years and above and who are residents in South Africa.

Sampling procedure:

Sampling is the process of selecting certain members of a group in such a way that they will represent the universe.

Selection of respondents for the project followed a probability sampling procedure as follows:

Sampling in Urban areas

Probability sampling methods namely random sampling will be used.

All respondents in the universe had a measurable chance of being selected to form part of the sample. No institutions such as prisons, hospitals should be included in the sampling. Dwellings were selected using a Random Walk procedure. i.e. Select the first dwelling and then skip 3 dwellings and interview at the 4th dwelling. A dwelling is a stand, physical address, a structure, part of a structure or group of structures where one or more households are living. Dwellings can be formal or informal. Examples of dwellings are a house, flat, shack, a group of rondavel, huts, a room in a dwelling etc.

To select the ultimate sampling unit (USU) namely the respondent, the following steps were taken in an urban area:

- Random selection of suburbs
- Random selection of street (for urban areas)
- Random selection of starting point (lowest number ending)

- Random selection of dwelling using the left hand rule
- Random selection of a household using the Kish Grid
- Random selection of a respondent using the Kish Grid

Step 1 - Random Selection of the suburb:

Using the sample worked out already to determine how many suburbs/interviews should be done. It was suggested that between 6 and 8 interviews per Enumerator Area (EA) be done. All urban and rural areas were listed with in each province / region / district or sector separately. In other words, province 1 by district 1 urban, province 1 district 1 rural. This was done for all 9 provinces. Then we had several spreadsheets from which we selected the suburbs. Randomly select suburbs where the interviews were conducted.

By using Census demarcations, there were EAs within each suburb that were randomly selected where interviews were done.

Step 2 - Determining the street in the suburb/EA:

With the aid of detailed maps of the urban areas and street directories we were able to determine the street where selection of dwellings took place.

There are instances where the street data does not provide the street name. In this instance, interviewers had to orientate themselves using other streets that have names as well as other features on the maps. It was important that interviewers were aware that the data in their possession could have been

outdated, as people's living environments are dynamic and do change over time.

Alternatively the areas can be listed and then a street can be selected randomly.

In towns where you do not have maps, interviewers were given a letter of the alphabet (determining the street) and a number (determining the house number of the first interview). This was done prior to leaving the office.

Choose the first street, starting with given letter. For example, if the letter given to the interviewer is R, the first street starting with R may be Riebeeck Street. If there is no street starting with this letter, go to the next letter in the alphabet. For example the letter S is selected, and when in the area the interviewer finds a street with S namely, Smith Street. If there is no street with the letter S then go to a street with T. Continue using the next letter of the alphabet until you have found a street. When you get to the end of the alphabet start at A and carry on alphabetically.

Step 3 - Selection of starting point in street:

House numbers were not given to interviewers. Instead they were given a "lowest number ending in", for example, the lowest number ending in 9. In the selected street look for a house with the lowest number ending in 9, if there is a No.9 start here, if there is no Number 9, take the lowest number ending in 9 and start from there e.g. 19.

If a specified lowest number ending did not exist in the selected area the interviewer was working in, they contacted their supervisors/branch and instructions on what to do was provided.

Step 4 - Selection of dwelling:

From the house number of the first interview, i.e. the lowest number ending, the fourth house in the same street would be selected, on the same side, in ascending numbers. For example, the first house was No.9, then the second house would be No.17, the third No.25 and so on until all the dwellings have been selected.

The interviewer used the left hand rule once he/she has found the starting point, i.e. first selected dwelling. The left hand rule stipulates that you keep to the left.

Three calls must be made at a dwelling before substitution can be made. In other words if you go to the selected dwelling and no one is home at 09h00 then you must try later in the day around 15h00 and if there is still no one home then try in the evening (18h00) or the next day but at a different time. The 3 visits must be made at different times of the day, i.e. morning, afternoon and evening.

Step 5 - Selection of household:

If there was only one household at the selected dwelling then this household will be used to select a respondent from using step 6. If there were more than 1 household at the selected dwelling then the households will be listed on a

Kish grid and one household was selected from those listed using the questionnaire number and the grid. List the households in the dwelling from left to right.

Step 6 - Selection of Respondent

At the area where the interviews were being conducted, the interviewer had 1500 questionnaires to be completed by males and 1500 to be completed by females (50%/50% split). If this questionnaire was to be completed by a male member of the household, then only male members of the household were listed on the questionnaire. If the questionnaire was to be completed by a female, then only females in the household were listed on the questionnaire. All males or all females between the ages of 16+ years were listed from youngest to oldest on the grid. Using the questionnaire number and the grid, the member of the household, to participate in the survey, was selected.

NB: The listing of males and females in the selected area were alternated, i.e. a male interview followed by a female interview, male, female, male, etc. until all interviews were done. If the selected adult in the household was not available at the time of call, two additional visits were made. If these visits were unsuccessful or the selected member of the household was out of town or they were too ill or refused to be interviewed, the interviewer then proceed to the dwelling on the left and repeated the selection procedure again. A record of all visits and substitutions had been recorded on the questionnaire. This allowed for back checking and response rates to be calculated.

When counting the houses in between, the interviewers had to ensure they counted only those in which people live, i.e. households. Factories, shops, vacant dwellings, vacant land, parks etc. did not count as households, except if people live there. If a shop has a person living in the backroom then it will be included.

Universe:

Both sexes, 16 and more years

Remarks about sampling:

Selection in Flats

In the selected street, the interviewer came across a block of flats. The interviewer needs to establish the name of the block of flats and indicate this on the sketch map as well as establish which units should be selected for interviewing. You could either phone the superintendent or go to the place personally to establish the number of flats and how they are numbered. For example, in older blocks there is often continuous numbering, that is 1, 2, 3, 4, 5, etc., regardless of the floor on which the flats are. In newer blocks, however, numbering usually starts with the floor number, like 101 for a flat on the first floor, 301 for a flat on the third floor, you must select 5 (depending on the number of interviews per sample point area) flats in the following way: take the last digit of that day's date and by using this number, determine at which flat you will start interviewing. For example, if the date is the 13th – the starting point is the third flat (whatever the actual number may be), starting

the count from the ground floor upwards. In the case that today's date is the 10th, 20th or 30th then the flat number that is selected to begin with will either be 1 (for the 10th), 2 (for the 20th) or 3 (for the 30th). This is the only instance where the first digit of the date would be used. From the starting flat select every sixth flat for the second selection, third selection, fourth selection and fifth selection, always counting upwards.

If the particular block of flats did not have sufficient flats to select the required number of interviews in the way described, the interviewer continued the selection in the block of flats next door or continued with the houses if there were no other flats (unless otherwise stated). When counting, the second block of flats was treated as if it were a continuation from the previous block of flats. In other words, continue counting as if the two buildings were one building.

Sampling in Rural areas

Random selection of suburbs/EAs in rural areas.

There were generally no street names or numbers. The same procedure should be used in rural and informal settlements. This meant that the interviewer needed to identify the area within the boundaries of the selected EA or selected suburb as best as possible. The number of dwellings in the EA were counted. The number of dwellings was divided by the number of interviews that need to be completed in this area. From the point where the interviewer started counting, counts the nth number and the dwelling was selected. This was their first dwelling. For example 200 dwellings were

counted and need to do 8 interviews. This means we start at the 25th dwelling (not necessarily dwelling with number 25 on it). Then the next dwelling will be the 50th, 75th, 100th, 125th, 150th, 175th and lastly 200th. The dwellings in the selected EA/suburb were counted using the left hand rule (as far as possible) Random selection of a household using the Kish Grid (same as urban areas) Random selection of a respondent using the Kish Grid (same as urban areas).

Selection of Sectors/EAs:

Sectors are defined as sampling blocks of equal geographical dimensions with identifiable boundaries, encompassing a substantial number of people. Sectors were divided into high, medium and low density areas. Each of the sectors was thereafter randomly selected from each area using the available street maps already sectorised into different density areas. Where maps are not available, especially for rural areas, an exhaustive list of all sectors was considered. The sample allocated to each density areas i.e. high/medium and low was proportionate to the number of sectors in each group. The overall sample for the urban and rural locations determined the number of sectors selected. However, a maximum of five (05) interviews were conducted in each randomly selected sector. All sectors were selected by a simple random method via a random numbered table. A group interviewing technique was adopted for the study across all the study locations. By this design, a team of interviewers under the leadership of a supervisor moved as a group to each selected sector, and then completed the assigned quota for that sector before

moving to another sector. This afforded the supervisors the opportunity to closely monitor the interviewers under their charge.

The questionnaire was precoded using the alphabet letters A to K excluding letter 'I'.

Selection of Sampling/Entering Points within each sector:

Immediately after the selection of the sectors, the supervisors surveyed each of the selected sectors to determine the sampling/entering points of the sector. These are points where the team started their day's interviewing. These can be prominent structures such as churches, mosques, schools, hospitals, etc.

Selection of Dwelling Structure within each sector:

In each of the randomly selected sectors, the Day's Code was used to determine each interviewer's starting point, i.e. [The first house/dwelling structure to enter/approach].

A dwelling structure is defined as a floor of a distinct residential building within a sector of a town/village; where only one household occupied a multi-storey building, the entire building [and not the floor] constituted a dwelling structure. Where it is a multi-storey building with multiple occupants, counting of floors was carried out consistently from the upper floor to the ground floor in an unbroken chain from floor to floor. A fixed sampling gap of one in three (1:3) and one in five (1:5) respectively was observed after each successful call in low, medium and high density areas.

Selection of Household:

On entering a selected dwelling structure, each interviewer determined the number of households within the structure. Having done that, the interviewer then used the household selection grid to determine the household where the interview would take place. A household is defined as the collective individuals living under the same roof and having a common feeding arrangement and also with a recognised person in the household as the head of household. Only residents who have stayed in the selected household for at least six [6] months were interviewed. Visiting relations who have stayed for less than six months were not regarded as household members.

Substitution of Households:

In the case where the selected room was unoccupied, interviewers were instructed to replace with the next household. Only one substitution was allowed per dwelling structure.

Selection of Respondents:

The selection of respondents was made randomly among the male and female household members. In order to select the final person to interview within the selected household, all the male and female residents of Burkina Faso, aged 16 years and above in the selected household were listed by name and age on the respondent's selection grid on the questionnaires. The listing was done from the oldest to the youngest (males and females) and then one respondent was selected using the Kish grid – a table of randomly generated numbers.

Call Backs/Substitution Criteria:

In the case where the selected adult in the household was not available at the time of the call, interviewers were instructed to make up to two additional recalls on different times of the day including evenings when the selected respondent was said to be at home.

However, where the selected adult was not available for interviewing within the days of selection, interviewers were asked to regard such a case as a non-response situation or ineffective call. No substitution of respondents within the same household/dwelling structure was allowed.

Survey procedure:

Personal Face to Face Interview

Fieldwork:

A face-to face personal interviewing technique was used in respondents' homes using a probability sampling method. In order to ensure accurate and reliable results of fieldwork, the following quality control measures were carried out at every stage of fieldwork.

- ◆ Only used interviewers who have had training provided by the sampling expert at Markinor, Alexan Carrilho
- ◆ Organising full briefing and mock sessions before commencement of the actual fieldwork in all the study branches.

Accompaniment: The supervisors, quality control officers and field coordinators accompanied interviewers during their interviews.

Spot-Check: Despite the confidence we have in our field team, we still adopted this measure to enhance the quality of the project.

Back-Checking: Both the supervisors and quality control officers back-checked 30% of the total sample.

100% editing was carried out on the administered questionnaires.

Sample size: 2988

Weighting:

Weights are done according to community size, province, race, gender and age

* Please note that Appendix A is copied verbatim from www.worldvaluessurvey.org.

10.2 Appendix B

Questions from World Values Survey 2005-2008 to be included in this study

<p>Question V24</p> <p>Active/Inactive membership of church or religious organization</p>	<p>0 Not a member</p> <p>1 Inactive member</p> <p>2 Active member</p> <p>-1 Don't know</p> <p>-2 No answer</p> <p>-3 Not applicable</p> <p>-4 Not asked in survey</p> <p>-5 Missing; Unknown</p>
<p>Question V186</p> <p>How often do you attend religious services?</p>	<p>1 More than once a week</p> <p>2 Once a week</p> <p>3 Once a month</p> <p>4 Only on special holy days/Christmas/Easter days</p> <p>5 Once a year</p> <p>6 Less often</p> <p>7 Never practically never</p> <p>-1 Don't know</p> <p>-2 No answer</p> <p>-3 Not applicable</p> <p>-4 Not asked in survey</p>



	-5 Missing; Unknown
Question V187 Independently of whether you go to church or not, would you say you are?	1 A religious person 2 Not a religious person 3 A convinced atheist 4 Other answer -1 Don't know -2 No answer -3 Not applicable -4 Not asked in survey -5 Missing; Unknown
Question V192 How important is God in your life? (Rate out of 10)	1 Not at all important 2 2 3 3 4 4 5 5 6 6 7 7 8 8 9 9 10 Very important -1 Don't know -2 No answer -3 Not applicable -4 Not asked in survey



	-5 Missing; Unknown
Question V251 Family savings during past year	1 Save money 2 Just get by 3 Spent some savings and borrowed money 4 Spent savings and borrowed money -1 Don't know -2 No answer -3 Not applicable -4 Not asked in survey -5 Missing; Unknown
Question V238 What is the highest educational level that you have attained?	1 No formal education 2 Inadequately completed elementary education 3 Completed (compulsory) elementary education 4 Incomplete secondary school: technical/vocational type/(Compulsory) elementary education and basic vocational qualification 5 Complete secondary school: technical/vocational type/Secondary, intermediate vocational qualification 6 Incomplete secondary: university-preparatory type/Secondary, intermediate general qualification 7 Complete secondary: university-preparatory type/Full secondary, maturity level certificate 8 Some university without



	<p>degree/Higher education - lower-level tertiary certificate</p> <p>9 University with degree/Higher education - upper-level tertiary certificate</p> <p>-1 Don't know</p> <p>-2 No answer</p> <p>-3 Not applicable</p> <p>-4 Not asked in survey</p> <p>-5 Missing; Unknown</p>
<p>Question V158</p> <p>Scale of incomes</p>	<p>1 Lower step</p> <p>2 second step</p> <p>3 Third step</p> <p>4 Fourth step</p> <p>5 Fifth step</p> <p>6 Sixth step</p> <p>7 Seventh step</p> <p>8 Eighth step</p> <p>9 Ninth step</p> <p>10 Tenth step</p> <p>-1 Don't know</p> <p>-2 No answer</p> <p>-3 Not applicable</p> <p>-4 Not asked in survey</p> <p>-5 Missing; Unknown</p>



<p>Question V44</p> <p>Jobs scarce: Men should have more right to a job than women</p>	<p>1 Agree</p> <p>3 Disagree</p> <p>2 Neither</p> <p>-1 Don't know</p> <p>-2 No answer</p> <p>-3 Not applicable</p> <p>-4 Not asked in survey</p> <p>-5 Missing; Unknown</p>
<p>Question V63</p> <p>On the whole, men make better business executives than women do</p>	<p>1 Agree strongly</p> <p>2 Agree</p> <p>3 Disagree</p> <p>4 Strongly disagree</p> <p>-1 Don't know</p> <p>-2 No answer</p> <p>-3 Not applicable</p> <p>-4 Not asked in survey</p> <p>-5 Missing; Unknown</p>
<p>Question V62A</p> <p>A university education is more important for a boy than for a girl</p>	<p>1 Agree strongly</p> <p>2 Agree</p> <p>3 Disagree</p> <p>4 Strongly disagree</p> <p>-1 Don't know</p>



	<ul style="list-style-type: none">-2 No answer-3 Not applicable-4 Not asked in survey-5 Missing; Unknown
<p>Question V241</p> <p>Are you employed now or not? IF YES: About how many hours a week? If more than one job: only for the main job.</p>	<ul style="list-style-type: none">1 Full time2 Part time3 Self employed4 Retired5 Housewife6 Students7 Unemployed8 Other-1 Don't know-2 No answer-3 Not applicable-4 Not asked in survey-5 Missing; Unknown
<p>Question V138</p> <p>Confidence: The Government</p>	<ul style="list-style-type: none">1 A great deal2 Quite a lot3 Not very much4 None at all-1 Don't know-2 No answer



	<ul style="list-style-type: none">-3 Not applicable-4 Not asked in survey-5 Missing; Unknown
Question V137 Confidence: Justice System	<ul style="list-style-type: none">1 A great deal2 Quite a lot3 Not very much4 None at all-1 Don't know-2 No answer-3 Not applicable-4 Not asked in survey-5 Missing; Unknown
Question V129 Trust: People of another religion	<ul style="list-style-type: none">1 Trust completely2 Trust a little3 Not trust very much4 Not trust at all-1 Don't know-2 No answer-3 Not applicable-4 Not asked in survey-5 Missing; Unknown



<p>Question V126</p> <p>Trust: Your neighbourhood</p>	<p>1 Trust completely</p> <p>2 Trust a little</p> <p>3 Not trust very much</p> <p>4 Not trust at all</p> <p>-1 Don't know</p> <p>-2 No answer</p> <p>-3 Not applicable</p> <p>-4 Not asked in survey</p> <p>-5 Missing; Unknown</p>
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10.3 Appendix C: Frequencies Global Data

Table 10.3-1 Frequencies Group One

Frequency table: Group1 (WVS2005_v20090621)				
Category	Count	Cumulative Count	Percent	Cumulative Percent
0	56196	56196	82.73243	82.7324
1	9961	66157	14.66470	97.3971
Missing	1768	67925	2.60287	100.0000

Table 10.3-2 Frequencies Group Two

Frequency table: Group2 (WVS2005_v20090621)				
Category	Count	Cumulative Count	Percent	Cumulative Percent
0	48508	48508	71.41406	71.4141
2	17649	66157	25.98307	97.3971
Missing	1768	67925	2.60287	100.0000

Table 10.3-3 Frequencies Group Three

Frequency table: Group3 (WVS2005_v20090621a)				
Category	Count	Cumulative Count	Percent	Cumulative Percent
1	9961	9961	14.66470	14.6647
3	56196	66157	82.73243	97.3971
Missing	1768	67925	2.60287	100.0000

Table 10.3-4 Group One V24

Summary Frequency Table (WVS2005_v20090621a) Marked cells have counts > 10 (Marginal summaries are not marked)					
	Group1	V24 Not a member	V24 Inactive member	V24 Active member	Row Totals
Count	0	37855	13084	3738	54677
Column Percent		100.00%	100.00%	27.29%	
Row Percent		69.23%	23.93%	6.84%	
Total Percent		58.56%	20.24%	5.78%	84.59%
Count	1	0	0	9961	9961
Column Percent		0.00%	0.00%	72.71%	
Row Percent		0.00%	0.00%	100.00%	
Total Percent		0.00%	0.00%	15.41%	15.41%
Count	All Grps	37855	13084	13699	64638
Total Percent		58.56%	20.24%	21.19%	

Table 10.3-5 Group One V186

Summary Frequency Table (WVS2005_v20090621a)							
Marked cells have counts > 10 (Marginal summaries are not marked)							
	Group1	V186 more than once a week	V186 once a week	V186 once a month	V186 only holy days	V186 once a year	V186 less often
Count	0	6439	7100	6926	9504	3310	6650
Column Percent		56.63%	58.53%	100.00%	100.00%	100.00%	100.00%
Row Percent		12.58%	13.88%	13.54%	18.57%	6.47%	13.00%
Total Percent		10.53%	11.61%	11.33%	15.55%	5.41%	10.88%
Count	1	4931	5030	0	0	0	0
Column Percent		43.37%	41.47%	0.00%	0.00%	0.00%	0.00%
Row Percent		49.50%	50.50%	0.00%	0.00%	0.00%	0.00%
Total Percent		8.07%	8.23%	0.00%	0.00%	0.00%	0.00%
Count	All Grps	11370	12130	6926	9504	3310	6650
Total Percent		18.60%	19.84%	11.33%	15.55%	5.41%	10.88%

Table 10.3-6 Group One V187

Summary Frequency Table (WVS2005_v20090621a) Marked cells have counts > 10 (Marginal summaries are not marked)					
	Group1	V187 A religious person	V187 Not a religious person	V187 A convinced atheist	Row Totals
Count	0	36845	14323	3038	54206
Column Percent		79.70%	96.99%	99.41%	
Row Percent		67.97%	26.42%	5.60%	
Total Percent		57.52%	22.36%	4.74%	84.62%
Count	1	9387	445	18	9850
Column Percent		20.30%	3.01%	0.59%	
Row Percent		95.30%	4.52%	0.18%	
Total Percent		14.65%	0.69%	0.03%	15.38%
Count	All Grps	46232	14768	3056	64056
Total Percent		72.17%	23.05%	4.77%	



Table 10.3-7 Group One V192

Summary Frequency Table (WVS2005_v20090621a)												
Marked cells have counts > 10 (Marginal summaries are not marked)												
	Group1	V192 Not at all	V192 2	V192 3	V192 4	V192 5	V192 6	V192 7	V192 8	V192 9	V192 Very	Row Totals
Count	0	4254	1760	1763	1318	3975	3075	3855	5041	4197	25680	54918
Column Percent		98.75%	99.72%	98.99%	98.80%	96.74%	96.33%	94.32%	91.31%	85.50%	75.97%	
Row Percent		7.75%	3.20%	3.21%	2.40%	7.24%	5.60%	7.02%	9.18%	7.64%	46.76%	
Total Percent		6.56%	2.72%	2.72%	2.03%	6.13%	4.74%	5.95%	7.78%	6.48%	39.62%	84.74%
Count	1	54	5	18	16	134	117	232	480	712	8123	9891
Column Percent		1.25%	0.28%	1.01%	1.20%	3.26%	3.67%	5.68%	8.69%	14.50%	24.03%	
Row Percent		0.55%	0.05%	0.18%	0.16%	1.35%	1.18%	2.35%	4.85%	7.20%	82.13%	
Total Percent		0.08%	0.01%	0.03%	0.02%	0.21%	0.18%	0.36%	0.74%	1.10%	12.53%	15.26%
Count	All Grps	4308	1765	1781	1334	4109	3192	4087	5521	4909	33803	64809
Total Percent		6.65%	2.72%	2.75%	2.06%	6.34%	4.93%	6.31%	8.52%	7.57%	52.16%	



Table 10.3-8 Group Two V24

Summary Frequency Table (WVS2005_v20090621a)					
Marked cells have counts > 10					
(Marginal summaries are not marked)					
	Group2	V24	V24	V24	Row
		Not a member	Inactive member	Active member	Totals
Count	0	24910	8684	13699	47293
Column Percent		65.80%	66.37%	100.00%	
Row Percent		52.67%	18.36%	28.97%	
Total Percent		38.54%	13.43%	21.19%	73.17%
Count	2	12945	4400	0	17345
Column Percent		34.20%	33.63%	0.00%	
Row Percent		74.63%	25.37%	0.00%	
Total Percent		20.03%	6.81%	0.00%	26.83%
Count	All Grps	37855	13084	13699	64638
Total Percent		58.56%	20.24%	21.19%	

Table 10.3-9 Group Two V186

Summary Frequency Table (WVS2005_v20090621a) Marked cells have counts > 10 (Marginal summaries are not marked)							
	Group2	V186 more than once a week	V186 once a week	V186 once a month	V186 only holy days	V186 once a year	V186 less often
Count	0	11370	12130	3376	4456	2022	3893
Column Percent		100.00%	100.00%	48.74%	46.89%	61.09%	58.54%
Row Percent		24.97%	26.64%	7.41%	9.79%	4.44%	8.55%
Total Percent		18.60%	19.84%	5.52%	7.29%	3.31%	6.37%
Count	2	0	0	3550	5048	1288	2757
Column Percent		0.00%	0.00%	51.26%	53.11%	38.91%	41.46%
Row Percent		0.00%	0.00%	22.77%	32.38%	8.26%	17.68%
Total Percent		0.00%	0.00%	5.81%	8.26%	2.11%	4.51%
Count	All Grps	11370	12130	6926	9504	3310	6650
Total Percent		18.60%	19.84%	11.33%	15.55%	5.41%	10.88%



Table 10.3-10 Group Three V24

Summary Frequency Table (WVS2005_v20090621a)					
Marked cells have counts > 10 (Marginal summaries are not marked)					
	Group3	V24 Not a member	V24 Inactive member	V24 Active member	Row Totals
Count	1	0	0	9961	9961
Column Percent		0.00%	0.00%	72.71%	
Row Percent		0.00%	0.00%	100.00%	
Total Percent		0.00%	0.00%	15.41%	15.41%
Count	3	37855	13084	3738	54677
Column Percent		100.00%	100.00%	27.29%	
Row Percent		69.23%	23.93%	6.84%	
Total Percent		58.56%	20.24%	5.78%	84.59%
Count	All Grps	37855	13084	13699	64638
Total Percent		58.56%	20.24%	21.19%	

Table 10.3-11 Group Three V186

Summary Frequency Table (WVS2005_v20090621a)							
Marked cells have counts > 10 (Marginal summaries are not marked)							
	Group3	V186 more than once a week	V186 once a week	V186 once a month	V186 only holy days	V186 once a year	V186 less often
Count	1	4931	5030	0	0	0	0
Column Percent		43.37%	41.47%	0.00%	0.00%	0.00%	0.00%
Row Percent		49.50%	50.50%	0.00%	0.00%	0.00%	0.00%
Total Percent		8.07%	8.23%	0.00%	0.00%	0.00%	0.00%
Count	3	6439	7100	6926	9504	3310	6650
Column Percent		56.63%	58.53%	100.00%	100.00%	100.00%	100.00%
Row Percent		12.58%	13.88%	13.54%	18.57%	6.47%	13.00%
Total Percent		10.53%	11.61%	11.33%	15.55%	5.41%	10.88%
Count	All Grps	11370	12130	6926	9504	3310	6650
Total Percent		18.60%	19.84%	11.33%	15.55%	5.41%	10.88%



Table 10.3-12 Group Three V187

Summary Frequency Table (WVS2005_v20090621a)					
Marked cells have counts > 10					
(Marginal summaries are not marked)					
	Group3	V187 A religious person	V187 Not a religious person	V187 A convinced atheist	Row Totals
Count	1	9387	445	18	9850
Column Percent		20.30%	3.01%	0.59%	
Row Percent		95.30%	4.52%	0.18%	
Total Percent		14.65%	0.69%	0.03%	15.38%
Count	3	36845	14323	3038	54206
Column Percent		79.70%	96.99%	99.41%	
Row Percent		67.97%	26.42%	5.60%	
Total Percent		57.52%	22.36%	4.74%	84.62%
Count	All Grps	46232	14768	3056	64056
Total Percent		72.17%	23.05%	4.77%	



Table 10.3-13 Group Three V192

Summary Frequency Table (WVS2005_v20090621a)												
Marked cells have counts > 10 (Marginal summaries are not marked)												
	Group3	V192 Not at all	V192 2	V192 3	V192 4	V192 5	V192 6	V192 7	V192 8	V192 9	V192 Very	Row Totals
Count	1	54	5	18	16	134	117	232	480	712	8123	9891
Column Percent		1.25%	0.28%	1.01%	1.20%	3.26%	3.67%	5.68%	8.69%	14.50%	24.03%	
Row Percent		0.55%	0.05%	0.18%	0.16%	1.35%	1.18%	2.35%	4.85%	7.20%	82.13%	
Total Percent		0.08%	0.01%	0.03%	0.02%	0.21%	0.18%	0.36%	0.74%	1.10%	12.53%	15.26%
Count	3	4254	1760	1763	1318	3975	3075	3855	5041	4197	25680	54918
Column Percent		98.75%	99.72%	98.99%	98.80%	96.74%	96.33%	94.32%	91.31%	85.50%	75.97%	
Row Percent		7.75%	3.20%	3.21%	2.40%	7.24%	5.60%	7.02%	9.18%	7.64%	46.76%	
Total Percent		6.56%	2.72%	2.72%	2.03%	6.13%	4.74%	5.95%	7.78%	6.48%	39.62%	84.74%
Count	All Grps	4308	1765	1781	1334	4109	3192	4087	5521	4909	33803	64809
Total Percent		6.65%	2.72%	2.75%	2.06%	6.34%	4.93%	6.31%	8.52%	7.57%	52.16%	

10.4 Appendix D: Frequencies South Africa

Table 10.4-1 South Africa Frequencies

Frequency table: Group (WVS2005_v2009062)				
Category	Count	Cumulative Count	Percent	Cumulative Percent
0	1319	1319	43.66104	43.6610
1	1177	2496	38.96061	82.6216
2	525	3021	17.37835	100.0000
Missing	0	3021	0.00000	100.0000



Table 10.4-2 Group One V24

Summary Frequency Table (WVS2005_v20090621a) Marked cells have counts > 10 (Marginal summaries are not marked)					
	Group1	V24 Not a member	V24 Inactive member	V24 Active member	Row Totals
Count	0	558	956	330	1844
Column Percent		100.00%	100.00%	21.90%	
Row Percent		30.26%	51.84%	17.90%	
Total Percent		18.47%	31.65%	10.92%	61.04%
Count	1	0	0	1177	1177
Column Percent		0.00%	0.00%	78.10%	
Row Percent		0.00%	0.00%	100.00%	
Total Percent		0.00%	0.00%	38.96%	38.96%
Count	All Grps	558	956	1507	3021
Total Percent		18.47%	31.65%	49.88%	

Table 10.4-3 Group One V186

Summary Frequency Table (WVS2005_v20090621a) Marked cells have counts > 10 (Marginal summaries are not marked)							
	Group1	V186 more than once a week	V186 once a week	V186 once a month	V186 only holy days	V186 once a year	V186 less often
Count	0	85	343	451	179	34	316
Column Percent		17.49%	30.65%	100.00%	100.00%	100.00%	100.00%
Row Percent		4.61%	18.60%	24.46%	9.71%	1.84%	17.14%
Total Percent		2.81%	11.35%	14.93%	5.93%	1.13%	10.46%
Count	1	401	776	0	0	0	0
Column Percent		82.51%	69.35%	0.00%	0.00%	0.00%	0.00%
Row Percent		34.07%	65.93%	0.00%	0.00%	0.00%	0.00%
Total Percent		13.27%	25.69%	0.00%	0.00%	0.00%	0.00%
Count	All Grps	486	1119	451	179	34	316
Total Percent		16.09%	37.04%	14.93%	5.93%	1.13%	10.46%

Table 10.4-4 Group One V187

Summary Frequency Table (WVS2005_v20090621a) Marked cells have counts > 10 (Marginal summaries are not marked)					
	Group1	V187 A religious person	V187 Not a religious person	V187 A convinced atheist	Row Totals
Count	0	1227	520	32	1779
Column Percent		51.55%	95.94%	94.12%	
Row Percent		68.97%	29.23%	1.80%	
Total Percent		41.51%	17.59%	1.08%	60.18%
Count	1	1153	22	2	1177
Column Percent		48.45%	4.06%	5.88%	
Row Percent		97.96%	1.87%	0.17%	
Total Percent		39.01%	0.74%	0.07%	39.82%
Count	All Grps	2380	542	34	2956
Total Percent		80.51%	18.34%	1.15%	

Table 10.4-5 Group One V192

Summary Frequency Table (WVS2005_v20090621a)												
Marked cells have counts > 10												
(Marginal summaries are not marked)												
	Group1	V192 Not at all	V192 2	V192 3	V192 4	V192 5	V192 6	V192 7	V192 8	V192 9	V192 Very	Row Totals
Count	0	10	8	11	24	76	84	142	238	195	1038	1826
Column Percent		90.91%	100.00%	91.67%	96.00%	87.36%	96.55%	82.08%	74.61%	60.75%	53.07%	
Row Percent		0.55%	0.44%	0.60%	1.31%	4.16%	4.60%	7.78%	13.03%	10.68%	56.85%	
Total Percent		0.33%	0.27%	0.37%	0.80%	2.53%	2.80%	4.73%	7.94%	6.50%	34.61%	60.89%
Count	1	1	0	1	1	11	3	31	81	126	918	1173
Column Percent		9.09%	0.00%	8.33%	4.00%	12.64%	3.45%	17.92%	25.39%	39.25%	46.93%	
Row Percent		0.09%	0.00%	0.09%	0.09%	0.94%	0.26%	2.64%	6.91%	10.74%	78.26%	
Total Percent		0.03%	0.00%	0.03%	0.03%	0.37%	0.10%	1.03%	2.70%	4.20%	30.61%	39.11%
Count	All Grps	11	8	12	25	87	87	173	319	321	1956	2999
Total Percent		0.37%	0.27%	0.40%	0.83%	2.90%	2.90%	5.77%	10.64%	10.70%	65.22%	



Table 10.4-6 Group Two V24

Summary Frequency Table (WVS2005_v20090621a)					
Marked cells have counts > 10					
(Marginal summaries are not marked)					
	Group2	V24	V24	V24	Row
		Not a member	Inactive member	Active member	Totals
Count	0	385	604	1507	2496
Column Percent		69.00%	63.18%	100.00%	
Row Percent		15.42%	24.20%	60.38%	
Total Percent		12.74%	19.99%	49.88%	82.62%
Count	2	173	352	0	525
Column Percent		31.00%	36.82%	0.00%	
Row Percent		32.95%	67.05%	0.00%	
Total Percent		5.73%	11.65%	0.00%	17.38%
Count	All Grps	558	956	1507	3021
Total Percent		18.47%	31.65%	49.88%	

Table 10.4-7 Group Two V186

Summary Frequency Table (WVS2005_v20090621a)							
Marked cells have counts > 10							
(Marginal summaries are not marked)							
	Group2	V186 more than once a week	V186 once a week	V186 once a month	V186 only holy days	V186 once a year	V186 less often
Count	0	486	1119	276	100	18	180
Column Percent		100.00%	100.00%	61.20%	55.87%	52.94%	56.96%
Row Percent		19.47%	44.83%	11.06%	4.01%	0.72%	7.21%
Total Percent		16.09%	37.04%	9.14%	3.31%	0.60%	5.96%
Count	2	0	0	175	79	16	136
Column Percent		0.00%	0.00%	38.80%	44.13%	47.06%	43.04%
Row Percent		0.00%	0.00%	33.33%	15.05%	3.05%	25.90%
Total Percent		0.00%	0.00%	5.79%	2.62%	0.53%	4.50%
Count	All Grps	486	1119	451	179	34	316
Total Percent		16.09%	37.04%	14.93%	5.93%	1.13%	10.46%



Table 10.4-8 Group Two V187

Summary Frequency Table (WVS2005_v20090621a)					
Marked cells have counts > 10					
(Marginal summaries are not marked)					
	Group2	V187 A religious person	V187 Not a religious person	V187 A convinced atheist	Row Totals
Count	0	1855	542	34	2431
Column Percent		77.94%	100.00%	100.00%	
Row Percent		76.31%	22.30%	1.40%	
Total Percent		62.75%	18.34%	1.15%	82.24%
Count	2	525	0	0	525
Column Percent		22.06%	0.00%	0.00%	
Row Percent		100.00%	0.00%	0.00%	
Total Percent		17.76%	0.00%	0.00%	17.76%
Count	All Grps	2380	542	34	2956
Total Percent		80.51%	18.34%	1.15%	

Table 10.4-9 Group Two V192

Summary Frequency Table (WVS2005_v20090621a)											
Marked cells have counts > 10											
(Marginal summaries are not marked)											
	Group2	V192 Not at all	V192 2	V192 3	V192 4	V192 5	V192 6	V192 7	V192 8	V192 9	V192 Very
Count	0	11	8	12	25	87	87	140	248	256	1600
Column Percent		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	80.92%	77.74%	79.75%	81.80%
Row Percent		0.44%	0.32%	0.49%	1.01%	3.52%	3.52%	5.66%	10.02%	10.35%	64.67%
Total Percent		0.37%	0.27%	0.40%	0.83%	2.90%	2.90%	4.67%	8.27%	8.54%	53.35%
Count	2	0	0	0	0	0	0	33	71	65	356
Column Percent		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	19.08%	22.26%	20.25%	18.20%
Row Percent		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	6.29%	13.52%	12.38%	67.81%
Total Percent		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.10%	2.37%	2.17%	11.87%
Count	All Grps	11	8	12	25	87	87	173	319	321	1956
Total Percent		0.37%	0.27%	0.40%	0.83%	2.90%	2.90%	5.77%	10.64%	10.70%	65.22%

Table 10.4-10 Group Three V186

Summary Frequency Table (WVS2005_v20090621a)							
Marked cells have counts > 10							
(Marginal summaries are not marked)							
	Group3	V186 more than once a week	V186 once a week	V186 once a month	V186 only holy days	V186 once a year	V186 less often
Count	1	401	776	0	0	0	0
Column Percent		82.51%	69.35%	0.00%	0.00%	0.00%	0.00%
Row Percent		34.07%	65.93%	0.00%	0.00%	0.00%	0.00%
Total Percent		13.27%	25.69%	0.00%	0.00%	0.00%	0.00%
Count	3	85	343	451	179	34	316
Column Percent		17.49%	30.65%	100.00%	100.00%	100.00%	100.00%
Row Percent		4.61%	18.60%	24.46%	9.71%	1.84%	17.14%
Total Percent		2.81%	11.35%	14.93%	5.93%	1.13%	10.46%
Count	All Grps	486	1119	451	179	34	316
Total Percent		16.09%	37.04%	14.93%	5.93%	1.13%	10.46%

Table 10.4-11 Group Three V24

Summary Frequency Table (WVS2005_v20090621a)					
Marked cells have counts > 10 (Marginal summaries are not marked)					
	Group3	V24 Not a member	V24 Inactive member	V24 Active member	Row Totals
Count	1	0	0	1177	1177
Column Percent		0.00%	0.00%	78.10%	
Row Percent		0.00%	0.00%	100.00%	
Total Percent		0.00%	0.00%	38.96%	38.96%
Count	3	558	956	330	1844
Column Percent		100.00%	100.00%	21.90%	
Row Percent		30.26%	51.84%	17.90%	
Total Percent		18.47%	31.65%	10.92%	61.04%
Count	All Grps	558	956	1507	3021
Total Percent		18.47%	31.65%	49.88%	

Table 10-12 Group Three V187

Summary Frequency Table (WVS2005_v20090621a) Marked cells have counts > 10 (Marginal summaries are not marked)					
	Group3	V187 A religious person	V187 Not a religious person	V187 A convinced atheist	Row Totals
Count	1	1153	22	2	1177
Column Percent		48.45%	4.06%	5.88%	
Row Percent		97.96%	1.87%	0.17%	
Total Percent		39.01%	0.74%	0.07%	39.82%
Count	3	1227	520	32	1779
Column Percent		51.55%	95.94%	94.12%	
Row Percent		68.97%	29.23%	1.80%	
Total Percent		41.51%	17.59%	1.08%	60.18%
Count	All Grps	2380	542	34	2956
Total Percent		80.51%	18.34%	1.15%	

Table 10-13 Group Three V192



Summary Frequency Table (WVS2005_v20090621a)												
Marked cells have counts > 10 (Marginal summaries are not marked)												
	Group3	V192 Not at all	V192 2	V192 3	V192 4	V192 5	V192 6	V192 7	V192 8	V192 9	V192 Very	Row Totals
Count	1	1	0	1	1	11	3	31	81	126	918	1173
Column Percent		9.09%	0.00%	8.33%	4.00%	12.64%	3.45%	17.92%	25.39%	39.25%	46.93%	
Row Percent		0.09%	0.00%	0.09%	0.09%	0.94%	0.26%	2.64%	6.91%	10.74%	78.26%	
Total Percent		0.03%	0.00%	0.03%	0.03%	0.37%	0.10%	1.03%	2.70%	4.20%	30.61%	39.11%
Count	3	10	8	11	24	76	84	142	238	195	1038	1826
Column Percent		90.91%	100.00%	91.67%	96.00%	87.36%	96.55%	82.08%	74.61%	60.75%	53.07%	
Row Percent		0.55%	0.44%	0.60%	1.31%	4.16%	4.60%	7.78%	13.03%	10.68%	56.85%	
Total Percent		0.33%	0.27%	0.37%	0.80%	2.53%	2.80%	4.73%	7.94%	6.50%	34.61%	60.89%
Count	All Grps	11	8	12	25	87	87	173	319	321	1956	2999
Total Percent		0.37%	0.27%	0.40%	0.83%	2.90%	2.90%	5.77%	10.64%	10.70%	65.22%	