Religious Deregulation: A Key to Understanding whether Religious Plurality Leads to Strife*

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Note to Reviewer:

This paper is in its early stages and builds on previous research. Suggestions on framing additional concepts to test are especially appreciated. We look forward to your comments. In future versions, we plan to reverse code the intra-religious diversity variable so that it matches the direction of the inter-religious diversity variable. Also, some references are in the text and others in footnotes; we'll standardize in future versions. Full references are in a separate document and will be included by the conference.

Abstract

The dangers of religious pluralities are seemingly obvious. With religious conflicts occurring around the globe and a recurring part of human history, religious plurality seems to be the spark, if not the flame, that leads to raging conflicts within and between countries. Indeed, this apparent relationship serves to motivate and justify states' denying religious freedoms. The concern is that to leave diverse forms of religion unchecked and without adequate controls will result in the uprising of religions that are dangerous to both state and citizenry. This study extends previous research on religion-related conflict in three ways. First, it uses new data on nearly 200 countries to replicate the previous finding that religious pluralities do not necessarily lead to religion-related conflict; instead, higher levels of government restriction of religion (or limits on religious freedom) result in higher levels of social hostilities involving religion. Second, this study more explicitly tests the relationship between levels of religious pluralities and religious conflict; and third, it examines the degree to which low government restrictions and social hostilities result in a more religiously pluralistic society. Confirming previous research, this study finds that rather than religious plurality leading to strife, the data indicate that it is the government attempt to restrict religious freedom that tends to be the source of social strife related to religion. This study, however, does not find that religious freedom explains varying levels of religious plurality, but instead religious freedom seems affected by the level of religious plurality, at least in the relatively short time frame and other limitations of this study.

* This paper extends the work of Brian J. Grim and Roger Finke (2007 and 2011).

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French president, Nicolas Sarkozy, German Chancellor Angela Merkel, Australia's ex-prime minister John Howard, Spain's ex-premier Jose Maria Aznar, and British Prime Minister David Cameron all recently decried the policy of multiculturalism in their countries. In Cameron's February 5, 2011, speech to the Munich Security Council, he causally connected multiculturalism to religion-related terrorism, stating that under "the doctrine of state multiculturalism, we have encouraged different cultures to live separate lives, apart from each other and the mainstream. … We have failed to provide a vision of society to which they feel they want to belong" (Cameron 2011).[1]

Cameron went on to say,

> I also believe we should encourage meaningful and active participation in society, by shifting the balance of power away from the state and towards the people. That way, common purpose can be formed as people come together and work together in their neighbourhoods. It will also help build stronger pride in local identity, so people feel free to say, 'Yes, I am a Muslim, I am a Hindu, I am Christian, but I am also a Londonder or a Berliner too'. It's that identity, that feeling of belonging in our countries, that I believe is the key to achieving true cohesion (op cit).

The question remains: Can people of different religious backgrounds buy into a larger national identity in such a way that conflict is not inevitable? Is there any evidence that having religiously heterogeneous societies are less (or more) peaceful than other societies?

The dangers of religious pluralities are seemingly obvious. With religious conflicts occurring around the globe and a recurring part of human history, religious plurality seems to be the spark, if not the flame, that leads to raging conflicts within and between countries. Indeed, this apparent relationship serves to motivate and justify states' denying religious freedoms. The concern is that to leave diverse forms of religion unchecked and without adequate controls will result in the uprising of religions that are dangerous to both state and citizenry.

However, a look at the raw correlation between the level of religious plurality in countries and the level of social hostilities involving religion shows that the story is not so clear-cut. Counter-intuitively, as shown in Table 1, countries that have *less* intra-religious diversity – that is less plurality of sub-groups of major world religions such as Catholics and Protestants or Sunni and Shia – tend to have a *higher* level of social hostilities involving religion, indicating that hostilities between branches of the same religion, such as between large groups of Protestants

[1] Cameron, David. 2011. "PM's speech at Munich Security Conference." Accessed February 2011. http://www.number10.gov.uk/news/speeches-and-transcripts/2011/02/pms-speech-at-munich-security-conference-60293

and Catholics as in Northern Ireland or Sunni and Shia Muslims as in Iraq, are less often the source of hostilities than is hostility within countries where one group or another substantially dominates the religious demography of the country. In such cases, the majority tends to show hostility to smaller groups, with the tragedy of the Jewish Holocaust being a prime example.

Table 1. Level of religious plurality vs. level of social hostilities involving religion

Focus on Sub-traditions of Major World Faiths*	**Social Hostilities Involving Religion****
Countries with ***less intra***-religious diversity	2.5 (moderate)
Countries with ***more intra***-religious diversity	1.7 (low)
Correlation .250, P < .01, two-tailed	
Focus *only* on Major World Faiths*	**Social Hostilities Involving Religion****
Countries with ***less inter***-religious diversity	1.9 (low moderate)
Countries with ***more inter***-religious diversity	2.3 (moderate)
Correlation –.053, P > .5, two-tailed	

* Approximately 200 countries for which data are available are divided equally into groups with the most and least intra-religious diversity (see Grim 2005 for a description of this variable originally called 'religious homogeneity') and the most and least inter-religious diversity. See the World Religion Database (Johnson and Grim, 2008) and Johnson and Ross 2010:32-33 for a description of this variable. Both variables are also described in the Data section below.
** See *Global Restrictions on Religion* (Pew Forum, 2009) for a description of the index for social hostilities involving religion. It is also further described in the Data section.

What is the picture when the plurality considered is just among major world faiths, of the form that takes into account only the split between major world religions such as Christians and Muslims? Also as the bottom part of Table 1 somewhat surprisingly shows, inter-religious diversity does not have a significant correlation with social hostilities involving religion. For instance, Nigeria is less the typical model than Tanzania. Nigeria's population is roughly split between Muslims and Christians, and social hostilities are high (7.6 on a scale of 10). In contrast, Tanzania, whose population also has more than 30% Muslim and the remainder being predominantly Christian, has a more moderate level of social hostilities involving religion (1.7 on a scale of 10).

Both of these initial findings suggest that religious pluralities are not a source of social hostilities, but is this a false correlation that disappears when other factors are controlled for. Might there be another variable that more powerfully helps explain social hostilities involving religion such as the level of government restrictions placed on religion as argued by Grim and Finke (2007 and 2011). Also, might religious plurality itself explained by the level of government restrictions on religion?

Extending Previous Research

The history of the study of social conflict, which has been documented elsewhere (Aron 1968; Coser 1965; Dahrendorf 1959; Nisbet 1966; Parsons 1949), coincides closely with the history of "sociological thinking itself" in the words of Anthony Oberschall (1973:1). A few general

comments are useful, however, as to why religion has been a relatively neglected consideration in the sociological study of conflict. Early scholarly perspectives on social conflict were heavily influenced by the theories of Karl Marx and Emile Durkheim. Lewis A. Coser (1967) suggests that the understanding of socio-religious conflict in particular was hampered by Emile Durkheim's equation of religion with social cohesion. By focusing on the unifying function of religion, Durkheim ([1915] 1965) missed that religion can be a source of conflict (Carter 1996; Juergensmeyer 2003; Kimball 2002) as well as cohesion.[2]

Marxian conflict theory, on the other hand, took an entirely different tack on religion. Marx explained such phenomena as religion, social relations and human history as products of class struggle (Marx [1844] 1978; Marx and Engels [1848] 1978). Marx did not consider religion to be a source of cohesion, but rather a result of an oppressed society. Grace Davie captures Marx's approach to religion succinctly: "Marx described religion as a dependent variable" (2003:62), and as such, religion results from other forces rather than causes them. Not seeing religion as a change agent, Marx and Engels' proposed solution was a "new social Gospel" ([1848] 1978:498). Though Marx wrote much earlier than Durkheim, his writings became the scriptures of a socialist 'gospel' and influenced much of the scholarly work on social conflict even until the 1990s.[3] This is another part of the reason why religion has been neglected as part of social conflict studies.

Conflict theory has been used to analyze other social conflicts besides Marxian class struggle. Principle works from this perspective include works by Coser (1967) and Dahrendorf (1959).[4] Conflict has been widely studied from many perspectives, including causes such as economic growth (Hammond 1930; Olson 1963), status (Coleman 1961), scapegoating (Blalock 1967), cultural divisions of labor (Hechter 1974), caste divisions (Hechter 1978), and labor market strife compounded with race and ethnicity (Bonacich 1976). In addition there are literatures which consider interest (e.g., Oberschall 1978), identity (e.g., Sherif 1966), and social organization (e.g., Black-Michaud 1975) as important elements of social conflict.

The recent literature on social conflict is broad and growing, much of which does not specifically address or include religion as a variable. Many studies address political and economic causes (Hibbs 1973; Krain 1997; Mitchell and McCormick 1988; Poe, Tate, and Keith 1999; Rummel 1995; Zanger 2000; Ziegenhagen 1996) but do not consider religion as an actor. Matthew Krain

[2] The suggestion by Martin E. Marty that religion "motivates most killing in the world today" (1997:20) could have been made by Durkhiem given the plethora of religiously-related wars and lethal religious programs throughout European history. European history can even be framed as the history of socio-religious conflict, considering the Crusades, the Reformation (e.g., the Saint Bartholomew's Day massacre and ensuing mêlée which left tens of thousands dead) and the Inquisition. The horrendous holocaust of millions of Jews by the Nazis seems not so much an aberration as a continuation of Europe's previous history of socio-religious conflict.

[3] It also influenced religious theology, e.g., Christian Liberation Theology, which emphasized the mission to liberate the poor (cf. Smith 1991 for an analysis; cf. Gutierrez 1988 for a theological statement).

[4] Randall Collins has a summary work on conflict sociology (1974). Habermas (1975) and others developed a related line of inquiry, critical theory (cf. Horkheimer 1982).

(1997), in his study of state-sponsored mass murder, notes that psychological explanations (Charny 1982; Staub 1989), economic explanations (Sartre 1968; Gurr 1986), and internal and external upheaval explanations (Harff 1986) may all play a part. He does not, however, measure the possibility of religious-oriented causes or outcomes, in spite of addressing ethnic fractionalization. In international studies, attention focuses on a variety of explanations including game theories, dyad comparisons, etc. They do not, however, seriously address religion-related causes.[5]

In international studies, there is also a large literature related to the role of hegemony in the world political economy (Gramsci 1966, 1971; Keohane 1984; Wallerstein 1974, 1979, 1990). This literature unfortunately does not pay particular attention to the hegemonic nature of religion in spite of the fact that religions appear to have established hegemonies in certain regions of the world (Huntington 1996), and that the domination of a country by a hegemonic religion may be related to social conflict and persecution (Tocqueville [1789-1799] 1998).

Demographers also pay attention to triggers for conflict[6] as well as political action,[7] and often consider such factors as geography,[8] gender and at times religion,[9] or even seeming to rule out

[5] The study of *religious persecution,* a specific form of socio-religious conflict, is a new contribution to the broader literature on international social conflict, which has primarily focused on other causal factors, especially when 'country' (or 'national state') is the level of analysis (Singer 1961). Game theory and deterrence theory are often employed when studying international conflicts (Bueno de Mesquita 1981; Putnam 1988), focusing on models which have not always been amenable to the inclusion of cultural or religious variables. The trend within political science in the past decades has been to focus on the relationships between pairs of countries (dyads, cf. Garnham 1976), and evaluate the impact of standard predictors of conflict such as proximity, power, status, alliances, democracy, development, and militarization (e.g., Bremer 1992), the causes of peace rather than conflict (e.g., Silverson and Ward 2002), and the pacific benefits of democracy, economic interdependence, and involvement in international organizations (e.g., Oneal and Russett 1999). Individual and psychological empirical approaches have not addressed religion (e.g., Holsti 1962, Quattrone and Tversky 1988), even when moral dilemmas were part of the analysis (e.g., Shannon 2000). Research on social conflict at the country level has focused on other issues rather than religion, even when the research specifically addresses such things as ethnicity (e.g., Fearon and Laitin 2000). Some have even gone so far as to rule out religious causes altogether (e.g., McGarry and O'Leary 1995). Some empirical studies have paid attention to religion (e.g., Russett, Oneal and Cox 2000), but they do so only as general religious traditions, or civilizations, without specific measures for activities of religious brands within the countries.

[6] ØStby, G., Nordås, R. and Rød, J. K. (2009), Regional Inequalities and Civil Conflict in Sub-Saharan Africa. International Studies Quarterly, 53: 301–324. doi: 10.1111/j.1468-2478.2009.00535.x. Kristin M. Bakke and Erik Wibbels, Diversity, Disparity, and Civil Conflict in Federal States, *World Politics,* Vol. 59, No. 1 (Oct., 2006), pp. 1-50.

[7] Philippe Fargues, Demography and Politics in the Arab World, *Population: An English Selection,* Vol. 5, (1993), pp. 1-20.

[8] William B. Wood, Geographic Aspects of Genocide: A Comparison of Bosnia and Rwanda, *Transactions of the Institute of British Geographers,* New Series, Vol. 26, No. 1 (2001), pp. 57-75.

[9] Carla Makhlouf Obermeyer, Islam, Women, and Politics: The Demography of Arab Countries, *Population and Development Review,* Vol. 18, No. 1 (Mar., 1992), pp. 33-60.

religion.[10] This study extends previous research on the relationship of religious demography and religion-related conflict in three ways. First, it uses new data to replicate the previous finding that religious pluralities do not tend to lead to religion-related conflict; instead, higher levels of government restriction of religion (or limits on religious freedom) result in higher levels of social hostilities involving religion (Grim and Finke 2007 and 2011). Specifically, this paper attempts to replicate the finding that *the removal of government restrictions that inhibit the practice, profession, or selection of religion* (i.e., religious deregulation) lowers social hostilities involving religion. Second, this study explicitly tests whether inter- and intra-religious diversity have differing effects on the level of religion-related violence. Third, this study concludes with an examination of the degree to which low government restrictions on religion and social hostilities involving religion result in a more religiously pluralistic society.

Religious Economies Argument for Religious Pluralities Resulting from Religious Deregulation

Grim and Finke argue, from religious economies theory, that violence becomes less likely with religious deregulation regardless of other possible explanations, such as a country's religious demography, because religious grievances against the state and other religions are reduced when all religious groups can compete for the allegiance of people without the interference of the state. In fact, they propose that religious pluralities are a natural outcome of religious deregulation.

The theoretical basis for this religious economies proposition comes from two of the most prominent scholars of the eighteenth century: Voltaire and Adam Smith. In 1732, Voltaire wrote: "If there were only one religion . . . there would be danger of despotism, if there were two, they would cut each other's throats, but there are thirty, and they live in peace and happiness" (1732). A few decades later Adam Smith echoed Voltaire's concerns about religious monopolies and his assurances about plurality: "[The] active zeal of religious teachers can be dangerous and troublesome only where there is, either but one sect tolerated in the society, or where the whole of a large society is divided into two or three great sects."[11] He went on to explain, however, that the "zeal must be altogether innocent where the society is divided into two or three hundred, or perhaps into as many [as a] thousand small sects, of which no one could be considerable enough to disturb the public tranquility."[12]

On the other side of the Atlantic, Thomas Jefferson appealed to his fellow Virginians in 1784 to eliminate religious establishments and assure religious freedoms for all, he pointed to the success

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[10] Mirjam E. Sørli, Nils Petter Gleditsch and Håvard Strand, Why Is There so Much Conflict in the Middle East? *The Journal of Conflict Resolution,* Vol. 49, No. 1 (Feb., 2005), pp. 141-165.

[11] Smith ([1776] 1976:314). Smith, Adam, [1776] 1976, An Inquiry into the Nature and Causes of the Wealth of Nations, Chicago: University of Chicago Press.

[12] Smith ([1776] 1976:314).

of two states without religious establishments: Pennsylvania and New York. He explained that even without a religious establishment social order was maintained and the many sects "perform the office of a Censor" for the others "of various kinds, indeed, but all good enough; all sufficient to preserve peace and order: or if a sect arises, whose tenets would subvert morals, good sense has fair play, and reasons and laughs it out of doors, without suffering the state to be troubled with it."

Jefferson went on to conclude that based on their "experiment," Pennsylvania and New York "have made the happy discovery, that the way to silence religious disputes, is to take no notice of them" (italics added).[13] This discovery provided strong support for the predictions of scholars on the other side of the Atlantic.

Although the most immediate concerns of European and colonial writers were the many sects within Protestantism, they did not view the principle as being limited to Protestantism or Christianity. In his autobiography, Thomas Jefferson argued that the bill for establishing religious freedom "was meant to be universal" and included "within the mantle of its protection the Jew and the Gentile, the Christian and Mahometan [sic], the Hindoo [sic], and Infidel of every denomination."[14] He explained that when he wrote the preamble establishing religious freedom in Virginia, the great majority rejected an attempt to make explicit references to Jesus Christ.[15] In his "Memorial and Remonstrance against Religious Assessments," James Madison pointed to a danger in establishing Christianity because the same human authority that establishes Christianity above all other religions can also be used to exclude all Christian sects but one.

Jefferson, Madison, and each of the European scholars mentioned above recognized the potential danger of limiting religious practice to a single religion or to two or three competing religions. They argued that not only did this deny the freedoms of individuals, it also threatened the security of the state. Grim and Finke suggest that these concepts provides the starting point for a new understanding of violent religious persecution and conflict – an understanding that can also help dispel what former diplomat and scholar Thomas F. Farr calls a "dangerous disarray and

[13] Jefferson ([1787] 1954:160–161). Jefferson, Thomas, [1787] 1954, Notes on the State of Virginia, ed. William Peden, Chapel Hill: University of North Carolina Press for the Institute of Early American History and Culture, Williamsburg, Virginia.

[14] Jefferson (2005:71). Jefferson, Thomas, 2005, The Autobiography of Thomas Jefferson, 1743–1790, Philadelphia: University of Pennsylvania Press.

[15] Jefferson (2005:71) wrote that any attempts at religious coercion "are a departure from the plan of the holy author of our religion." When an amendment was proposed to change the wording to "a departure from the plan of the Jesus Christ, the holy author of our religion," he reports that "the insertion was rejected by a great majority."

confusion" among many policy makers over how to constructively understand the dynamics of religion and human freedom.[16]

DATA

Grim and Finke Data at the ARDA

Grim and Finke's research used data from a data initiative of the Association of Religion Data Archives (ARDA) funded by the John Templeton Foundation primarily used data coded from the State Department's annual international religious freedom reports. The International Religious Freedom Act in 1998, legislation calling for detailed annual State Department reports on religious freedom around the globe. Additionally, the legislation set up a bipartisan commission outside of the State Department for monitoring the collection and reporting of information. The intent was to provide "honest and independent fact-finding" that would not be controlled by diplomatic considerations and would expose violations of religious freedoms to the global community.[17] The result has been that each year the State Department's Office of International Religious Freedom now provides detailed reports for nearly two hundred countries around the globe, and the independent and bipartisan U.S. Commission on International Religious Freedom critiques the reports and serves as an official watchdog.

The ARDA data and combines six items on government restrictions into a single measure called the government restrictions index (GRI) and five items into a single measure called the social restrictions index (SRI).[18] The GRI measures the restrictions placed on the practice, profession, or selection of religion by the official laws, policies, or administrative actions of the state, and the SRI measures the restrictions placed on religion by other religious groups, associations, or the culture at large. Details on how the indexes were constructed can be found in previously published work,[19] which documents that the indexes are composed of reliably coded measures, have a high level of internal reliability, and are highly correlated with similar attempts to measure restrictions of religious freedoms. These indexes give us a single measure, ranging from 0 to 10.

A potential limitation of the data is that it relies on a single source. One way to verify the findings from the study and to extent them is to address this limitation by taking into account additional sources of information.

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[16] Thomas A. Farr (2008:xi). Farr, Thomas F., 2008, World of Faith and Freedom: Why International Religious Freedom Is Vital to American National Security, New York: Oxford University Press.

[17] Hertzke (2004:230). Hertzke, Allen D., 2004, Freeing God's Children: The Unlikely Alliance for Global Human Rights, Lanham, MD: Rowman & Littlefield.

[18] In most publications, Grim and Finke refer to these indexes as the Government Regulation Index and the Social Regulation Index.

[19] See Grim & Finke (2006).

New Data from the Pew Forum

A systematic assessment and comparison of restrictions on religion worldwide requires the development of valid and reliable quantitative indicators. As an alternative to Grim and Finke's government and social restrictions indexes (2006) which were coded exclusively from State Department data, this study also uses indexes from the Pew Forum (2009) that attempt to be more comprehensive in the types of restrictions included in the indexes.

The new data come from further development the methodology that Grim and Finke used at Penn State University's Association of Religion Data Archives.[20] The goal was to devise quantifiable, objective and transparent measures of the extent to which governments and societal groups impinge on the practice of religion. The findings were used to rate 198 countries and self-governing territories on two indexes that are reproducible and can be periodically updated.

This research goes beyond the indexes developed previously in several ways. First, the new data were coded (categorized and counted) from 17 published cross-national sources, looking to the sources only for specific, well-documented facts, not for opinions or commentary.

Second, the coding involved extensive data-verification checks that reflect generally accepted best practices for such studies, such as full double-blind coding (coders do not see each other's ratings), inter-rater reliability assessments (checking for consistency among coders) and carefully monitored protocols to reconcile discrepancies between coders as the coding process occurred.

And third, the coding took into account whether the perpetrators of religion-related violence were governmental or private actors. The coding also identified how widespread and intensive the restrictions were in each country. See the Pew Forum's report for a fuller discussion of the methodology including its reliability and limitations.[21]

Good measurement entails the translation of abstract concepts (in this case, "restrictions on religion") into factual indicators. This translation requires indicators that satisfy several criteria.

First, they must be comprehensive, covering a broad range of facets of the issue, since no single indicator, or even small set of indicators, could be expected to capture all the ways in which religion might be restricted by government or in society. Moreover, individual indicators can be affected by one-time events or temporary circumstances. The use of multiple indicators, therefore, helps to ensure that a wide range of important manifestations of restrictions on religion are captured, and also helps to minimize the impact of any single indicator on the overall score.

[20] See "International Religion Indexes: Government Regulation, Government Favoritism, and Social Regulation of Religion" (2006) by Grim and Finke, published in the *Interdisciplinary Journal of Research on Religion*, Vol. 2 (Article 1).
[21] www.PewForum.org

For the index of government restrictions on religion, creating a comprehensive measure began with the identification four main ways in which such restrictions occur: (1) constitutional restrictions or restrictions based in national law or policy; (2) restrictions imposed by government officials at any level, whether codified in law or not; (3) use of force or coercion against religious groups by government agencies or their representatives; and (4) government favoritism toward particular religious groups. In each of these four areas, the research team developed multiple indicators, such as determining whether a country's constitution specifically provides for "freedom of religion," or whether it establishes a favored religion or religions. A total of 20 separate indicators make up the Government Restrictions Index. See Table 2.

Table 2. Government Restrictions on Religion Index

1. Does the constitution, or law that functions in the place of a constitution (basic law), specifically provide for "freedom of religion" or include language used in Article 18 of the United Nations Universal Declaration of Human Rights? [g4a]
2. Does the constitution or basic law include stipulations that in any way qualify or contradict religious freedom? [g4b]
3. Taken together, how do the constitution/basic law and other national laws and policies affect religious freedom? [g4c]
4. Does any level of government interfere with worship or other religious practices? [g3b]
5. Is public preaching by religious groups limited by any level of government? [g2a]
6. Is proselytizing limited by any level of government? [g2b]
7. Is converting from one religion to another limited by any level of government? [g3a]
8. Is religious literature or broadcasting limited by any level of government? [g2c]
9. Are foreign missionaries allowed to operate? [g2d]
10. Is the wearing of religious symbols, such as head coverings for women and facial hair for men, regulated by law or by any level of government? [g2e]
11. Has there been any intimidation of religious groups by any level of government? [g1a]
12. Has the national government displayed hostility involving physical violence toward minority or non-approved religious groups? [g1d]
13. Were there instances when the national government did not intervene in cases of discrimination or abuses against religious groups? [g1e]
14. Does the national government have an established organization to regulate or manage religious affairs? [g1g]
15. Did the national government denounce one or more religious groups by characterizing them as dangerous "cults" or "sects"? [g3f]
16. Did any level of government formally ban any religious groups? [g3d]
17. Were there instances when the national government attempted to eliminate an entire religious group
18. Did any level of government ask religious groups to register for any reason, including to be eligible for benefits such as tax exemption? [g3c]

19. Did any level of government use force toward religious groups that resulted in individuals being killed, physically abused, imprisoned, detained or displaced from their homes, or having their personal or religious properties damaged or destroyed [g1f]
20. Do some religious groups receive government access, powers or favors not provided to other groups, including constitutional recognition and funding? [g5all.t]
[nested]20-1. Does the countrys constitution or basic law recognize a favored religion or religions? [g5a]
[nested]20-2. Do all religious groups receive the same level of government access and privileges? [g5b]
[nested]20-3. Does any level of government provide funds or other resources to religious groups in the country? [g5e] Sum of g5e1 (l.school), g5e2 (l.bldgs), g5e3 (l.other) 0 to 1 scale
[further nested]20-3.a. Does any level of government provide funds or other resources for religious education programs and/or religious schools? [g5e1]
[further nested]20-3.b. Does any level of government provide funds or other resources for religious property (e.g., buildings, upkeep, repair or land)? [g5e2]
[further nested]20-3.c. Does any level of government provide funds or other resources for religious activities other than education or property? [g5e3]
[nested]20-4. Is religious education required in public schools? [g5i]
[nested]20-5. Does the national government defer in some way to religious authorities, texts or doctrines on legal issues? [g5g]
Pew Forum on Religion & Public Life, 2009 and 2011

For the measurement of social hostilities involving religion, three principal ways were identified in which social hostility toward religious groups is expressed: (1) crimes or malicious acts motivated by religious hatred or bias; (2) public religious tensions that lead to violence; and (3) religion-related terrorism and war. In each of these areas, multiple indicators were devised to capture a wide range of hostilities, from individual malicious acts to mob violence and nationwide armed conflict. A total of 13 indicators make up the Social Hostilities Index. See Table 3.

Table 3. Social Hostilities Involving Religion Index
Q1a-Q1f. Were there crimes, malicious acts or violence motivated by religious hatred or bias? [Summary]
Q1a. Was there harassment motivated by religious hatred or bias?
Q1b. Was there property damage motivated by religious hatred or bias?
Q1c. Were there detentions or abductions motivated by religious hatred or bias?
Q1d. Were people displaced from their homes due to religious hatred or bias?
Q1e. Were there physical assaults motivated by religious hatred or bias?
Q1f. Were there killings motivated by religious hatred or bias?
Q.2 Was there mob violence related to religion?
Q.3 Were there acts of sectarian or communal violence between religious groups?

Q.4 Were religion-related terrorist groups active in the country?
Q.5 Was there a religion-related war or armed conflict in the country?
Q.6 Did violence result from tensions between religious groups?
Q.7 Did organized groups use force or coercion in an attempt to dominate public life with their perspective on religion, including preventing some religious groups from operating in the country?
Q.8 Did religious groups themselves attempt to prevent other religious groups from being able to operate?
Q.9 Did individuals or groups use violence or the threat of violence, including so-called honor killings, to try to enforce religious norms?
Q.10 Were individuals assaulted or displaced from their homes in retaliation for religious activities, including preaching and other forms of religious expression, considered offensive or threatening to the majority faith?
Q.11 Were women harassed for violating religious dress codes?
Q.12 Were there incidents of hostility over proselytizing?
Q.13 Were there tensions in society over conversion from one religion to another? [s2g]
Pew Forum on Religion & Public Life, 2009 and 2011

Second, accurate measurement requires that the multiple indicators used within each of the two indexes be internally consistent. Though the indicators may focus on widely varying kinds of restrictions on religion, all of them should work in tandem to identify meaningful levels of restrictions. Put differently, countries with high levels of restrictions on religion will typically, though not always, score higher on a given indicator than countries with lower levels of restrictions. If an indicator does not follow this pattern, then it may be measuring something other than the concept of restrictions on religion.

Third, good measures also are reliable. One aspect of reliability is the extent to which different observers attempting to apply the set of indicators will get the same result. If two researchers look at the same data sources and reach different conclusions about how a country should be scored on a particular indicator, then the measure lacks reliability. Another aspect is the extent to which the score on an indicator is consistent over time, assuming that the restriction itself has not changed during that period. If a nation's constitution and laws have not changed from one year to the next, a reliable indicator of constitutional and legal restrictions on religion will yield the same result in both years.

Finally, measures must be valid. Validity refers to the extent to which the measure captures the abstract concept under examination – in this case, restrictions on religious beliefs and practices.

One way of assessing validity is to compare the results of the index with the views of experts. For example, are countries that score very high on the Government Restrictions Index considered by experts in the field to be the most restrictive nations? Conversely, do experts believe that certain countries have a high level of restrictions even though the index indicates that the level is

low? Another method of assessment is to compare scores on the index with other quantitative indicators of restrictions that appear to measure restrictions on religion but are not themselves included in the index. As discussed in the full methodology, the indexes correspond closely with expert assessments of countries, and they correlate strongly with other indicators of government restrictions on religion and social hostilities involving religion.

Data on Religious Plurality

Intra-Religion Diversity (High Religious Homogeneity)

Data on the degree of intra-religious diversity in each country come from quantitative coding of the 2003 U.S. State Department Reports on International Religious Freedom (Grim 2005). This is a measure of the degree to which one religious tradition dominates a country. The Herfindahl-Hirschman Index (HHI) is a widely accepted measure of market concentration. The HHI as used here is a measure of the degree to which the religious marketplace is dominated by a single religious denomination or broader religious tradition. It is calculated by summing the squared market share of each of the top 5 religious denominations or religious traditions in the country. The HHI score can be between a minimum of nearly 0 to a maximum of 10,000. The HHI is calculated for 196 different countries as describe in Figure 1.

Figure 1: Intra-Religious Diversity (Religious homogeneity)

Degree of religious homogeneity in each country:

Herfdl2 = (% Citizens belonging to 1st largest religious tradition)^2 + (% Citizens belonging to 2nd largest religious tradition)^2 + (% Citizens belonging to 3rd largest religious tradition)^2 + (% Citizens belonging to 4th largest religious tradition)^2 + (% Citizens belonging to 5th largest religious tradition) ^{2}

Note: In this calculation, the % is expressed as a whole number (99% = 99).

This means that high scores reflect low religious plurality. This measure is sensitive to differences within religious traditions, providing a breakdown of adherents beyond the main traditions, such as Catholics and Protestants within Christianity and Sunni and Shi within Islam, making this a measure that includes *intra-religion* diversity.

Inter-Religious Diversity (High Inter-Religion Diversity)

The World Religion Database (Johnson and Grim 2008) provides an *inter-religious* diversity index which takes into account *only* the major world religions in the country rather than the sub-traditions within them. The World Religion Database's Religious Diversity Index is also calculated using the HHI, except that the results are reverse-coded so that high scores indicate more religious plurality within a country.

These two measures, each coming from a different data source and providing a picture of the level of religious plurality in a country, allow the effects of religious pluralities on the level of religious conflict to be tested as well as the impact of government restrictions on religious plurality.

Other Data

The alternative arguments use demographic, social, political, and economic measures from sources such as the United Nations.[22] The intra-religious diversity (religious homogeneity) measure is one of two measures that are also used for testing Samuel Huntington's clash-of-civilizations argument (Grim 2005). The other variable measures whether a country is located on a civilization divide or contains a divide within its borders. The clash-of-civilizations argument implies that religious homogeneity should be associated with decreased conflict and civilization divides should increase conflict.

ANALYSIS OF THE DATA

Replicating the Grim-Finke Findings with Different Data

Table 5-A presents the findings of ANOVA regression using the afore-mentioned Pew Forum measure for social hostilities involving religion as of mid-2009 as the dependent variable, and, as independent variables, the Pew Forum measure of government restrictions on religion in mid-2008 and *intra-religious diversity.*

Table 5-A. Dependent Variable: Social Hostilities Index involving Religion (SHI), mid-2009

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.300	.401		.750	.455
	Government Restrictions	.512	.072	.513***	7.153	.000
	Intra-Religious Diversity	.000	.000	.141	1.967	.051

[a] The overall model is accepted and has an adjusted R-square of .304.

The results indicate that government restrictions are a highly significant predictor of social hostilities while intra-religious diversity is weaker and just misses being significant at the .05 level. These initial results indicate that when government restrictions on religion are controlled for, the correlation reported in the introduction of this study between intra-religious diversity and social hostilities involving religion loses significance.

Table 5-B shows the same general results as additional socio-economic factors are also taken into account. Indeed, intra-religious diversity is not among the four independent variables that

[22] See the American Sociological Review online supplement to Grim & Finke (2007): http://www2.asanet.org/journals/asr/2007/grim.pdf.

are significant 'predictors' of increased social hostilities involving religion: government restrictions (Beta=.474), armed conflict (.395), the betterment of women's lives (-.232), and population size (.167). (Ordered by relative strength as indicated by standardized coefficients.)

Table 5-B. Dependent Variable: Social Hostilities Index involving Religion (SHI), mid-2009

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
2	(Constant)	1.349	1.008		1.338	.184
	Government Restrictions	.465	.069	.474***	6.729	.000
	Intra-Religious Diversity	9.596E-5	.000	.113	1.693	.093
	Population size	2.275E-9	.000	.167*	2.456	.016
	Armed Conflict	.411	.072	.395***	5.677	.000
	Religion-ethnicity tie	-.104	.147	-.047	-.703	.484
	Population Growth	-15.323	17.929	-.084	-.855	.395
	Human Development Level	-1.170	1.109	-.103	-1.055	.294
	Women Better Off	-60.216	18.408	-.232**	-3.271	.001

[a] The overall model is accepted and has an adjusted R-square of .517.

And, in accord with the summary statistics presented in the introduction of this study, *inter-religious diversity* is even less significantly related to social hostilities involving religion.

Table 5-C. Dependent Variable: Social Hostilities Index involving Religion (SHI), mid-2009

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.609	1.101		1.461	.147
	Government Restrictions	.485	.069	.494***	7.026	.000
	Inter-Religious Diversity	-.017	.679	-.002	-.025	.980
	Population size	2.105E-9	.000	.155*	2.218	.029
	Armed Conflict	.420	.073	.404***	5.720	.000
	Religion-ethnicity tie	-.093	.150	-.042	-.622	.535
	Population Growth	-10.331	18.377	-.056	-.562	.575
	Human Development Level	-.956	1.143	-.084	-.836	.405
	Women Better Off	-62.690	18.794	-.242**	-3.336	.001

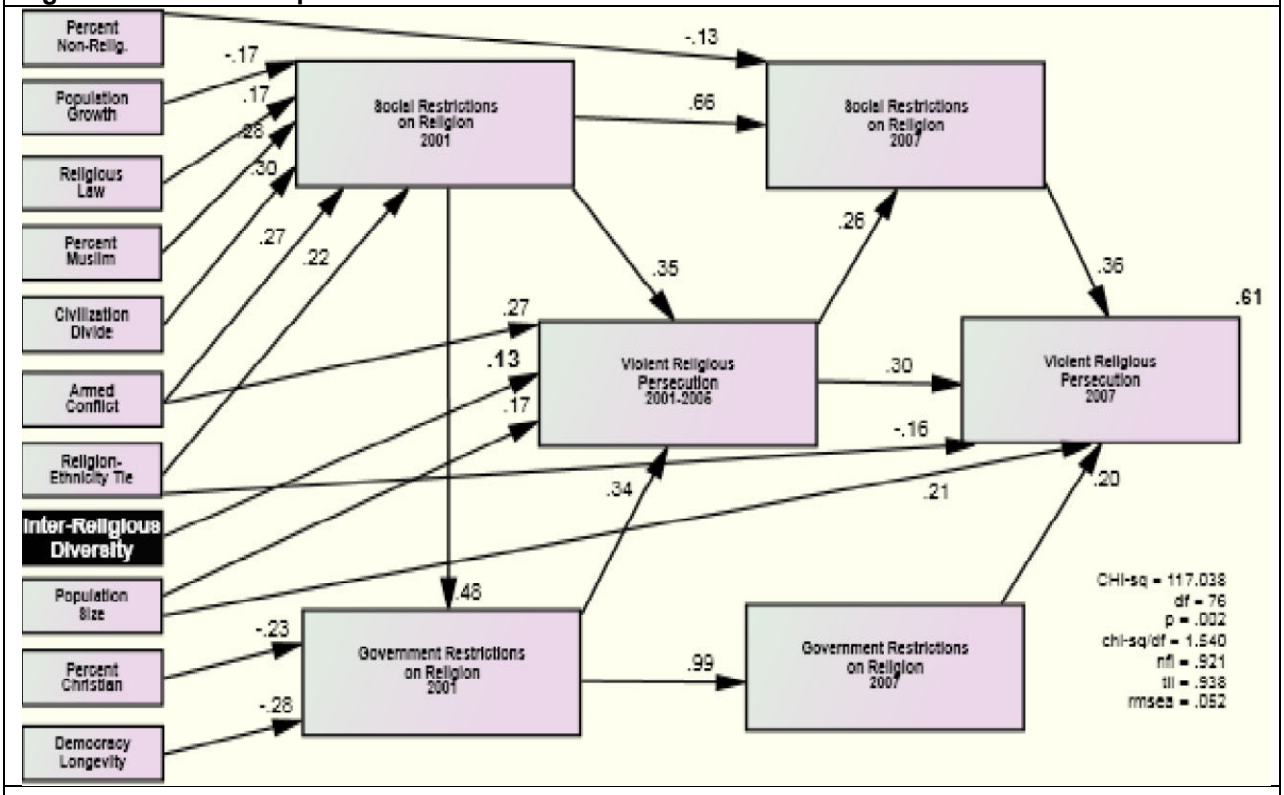
[a] The overall model is accepted and has an adjusted R-square of .505.

Further Analysis of Religious Diversity Using SEM

Moving from standard regression to structural equation modeling allows for theoretical arguments to be tested as well as over-time data to be modeled. The results are shown below, and not surprising, as with standard regression, government regulation is among the strongest predictor of religious persecution even when controlling for other possible explanations.

Of course, one of the most important questions regarding these findings is the causal order. For these findings to be better substantiated, over-time analysis is important. Using structural equation modeling allows the relationship to be tested over time, including better modeling the competing arguments that might explain the level of violent religious persecution in a country, including the impact of (and on) the level of *inter-religious diversity,* a variable not included in previous research. Using ARDA data and Pew data (recoded to exactly match the ARDA categories data where violence is separated from the restriction measures), the following model supports the theory that a state's regulation of religion is a reaction to pressures created by the social forces seeking to regulate religion. These regulatory actions contribute to religious persecution and the direct effects of inter-religious diversity are minimal.

Figure 1. Structural Equation Model Results



Model fits the data.

The only *direct* statistical relationship inter-religious diversity has within the model is a modest effect on the level of violent religious persecution in 2001-2006. Overall, however, the total impact on the ending level of violent religious persecution in 2007 is even more modest (0.05). Therefore, rather than attributing persecution to irreconcilable differences between religious traditions or more general civilizations, this test of the religious economies perspective has found that ensuring religious freedoms for all serves to defuse the potential volatility of religious plurality.

Table 6. Standardized Total Significant Effects of the Structural Equation Model

	Violent Religious Persecution (2007)
Percentage nonreligious	-0.048
Religious law	0.094
Percentage Muslim	0.152
Civilization divide	0.163
Armed conflict	0.253
Population size	0.273
Religion–ethnic tie	-0.040
Percentage Christian	-0.075
Democracy level	-0.091
Population growth	-0.093
Religious homogeneity	**0.050**
SRI: social restrictions (2001)	0.536
GRI: government restrictions (2001)	0.329
SRI: social restrictions (2007)	0.360
GRI: government restrictions (2007)	0.200
Violent religious persecution (2001–2005)	0.362

Total significant effects on violent religious persecution from structural equation model shown in Figure 1.

When looking at the two main types of restrictions in the time lag model, social and government restrictions are the strongest overall predictors of persecution; however, social restrictions become a more powerful predictor of religious persecution than government restrictions in the latter part of the first decade of the twenty-first century. This does not mean that government restrictions have decreased; rather, social restrictions may be increasing in power, though this is a very tentative finding.

A possible implication is that decreases in the level of social restrictions appear to be critical to lowering the level of violent religious persecution and conflict. Government deregulation alone may not be sufficient to have an impact on the level of violent religious persecution. The

measure for civilization divide does not directly predict persecution. These findings indicate that civilization divides contribute only a very small amount to the level of violent religious persecution (0.163). Overall, the model explains a substantial amount of violent religious persecution (R-sq = 0.61).

The model also shows how the religious economies model explains a key difference between the world's two largest religions – Islam and Christianity. The adoption of religious law (mostly Sharia law) and the percentage of Muslims in a country are positively associated with increased social restriction of religion. The percentage of Christians, however, is associated with less government restriction of religion. As expected, the longevity of democracy is negatively associated with government restrictions. One surprising result is that population growth is negatively associated with social restrictions and persecution. Rather than offer a post hoc explanation, we will simply note that the effect of population growth may be different depending on the type of growth involved.

Population size does, however, directly predict the level of religious persecution. The best way to interpret the influence of population size in the model is by looking at its unavoidable scale relationship to the dependent variable. That is, the likelihood of having a large number of cases of persecution is higher in a larger country. Thus, the results hold when controlling for population size.

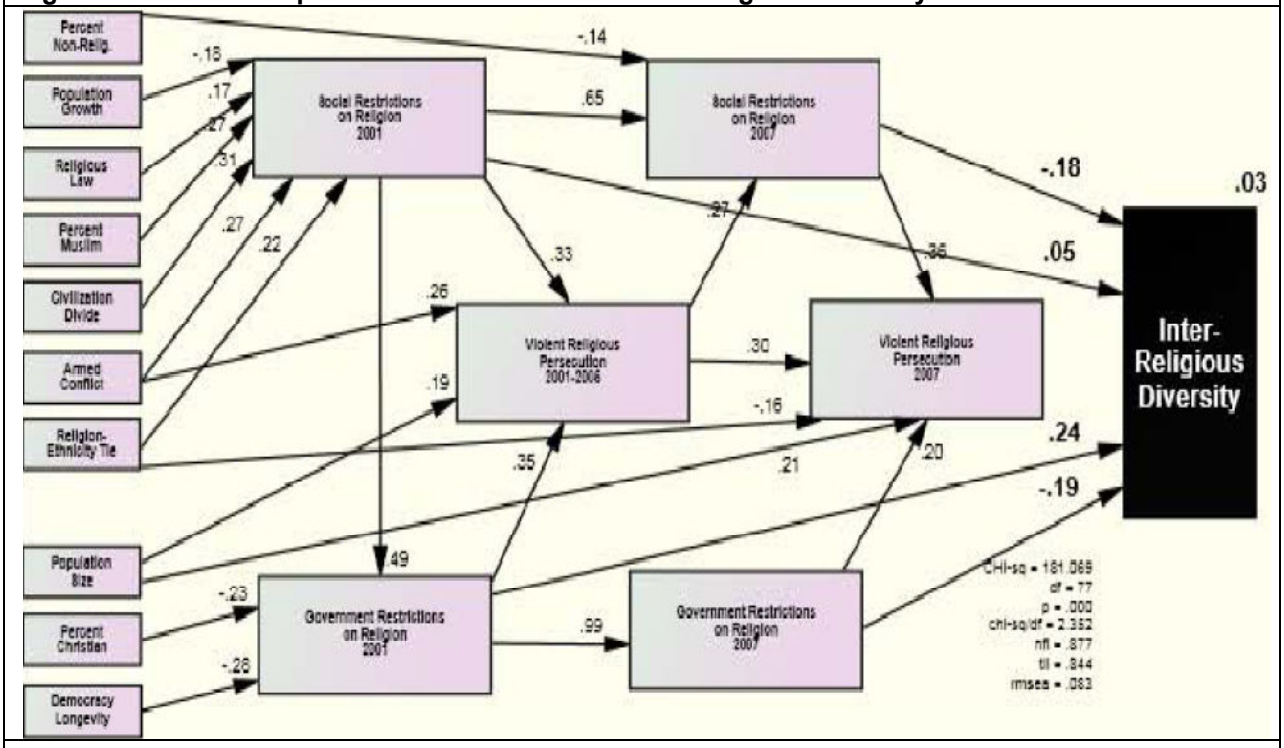
The time lag model also provides further evidence that restrictions precede persecution. When running arrows both ways in the first model, the best fit was clearly with the arrow going from restrictions to persecution, including a feedback loop.

Does Religious De-regulation lead to Religious Plurality?

The last question considered is whether the data provide evidence that religious deregulation leads to religious pluralities. Using the same structural equation model, but instead making inter-religious diversity become the final dependent variable, yields the results shown in Figure 2. The findings are that the level of religious regulation in a country is not significantly related to the level of religious diversity. The non-significant results are nonetheless given to show that the R-square is only 0.03, and the relationship is contradictory between years of government and social restrictions (positive for 2001 but negative for 2007). Additionally, regular ANOVA regression produces comparable results when using as predictors the Pew Forum measures for government restrictions on religion and social hostilities involving religion.

This does not refute the possibility that religious deregulation leads to a more religiously pluralistic society, but it does not provide evidence of this relationship.

Figure 2. Structural Equation Model Results for Inter-Religious Diversity



Model does not fit the data.

CONCLUSION

This study extended previous research on religion-related conflict in three ways. First, it used new data to replicate the previous finding that religious pluralities do not necessarily lead to religion-related conflict; instead, higher levels of government restriction of religion (or limits on religious freedom) result in higher levels of social hostilities involving religion. Second, this study more explicitly tested the relationship between levels of religious pluralities and religious conflict; and third, it examined the degree to which low government restrictions and social hostilities result in a more religiously pluralistic society. Confirming previous research, this study finds that rather than religious plurality leading to strife, the data indicate that it is the government attempt to restrict religious freedom that tends to be the source of social strife related to religion. This study, however, does not find that religious freedom explains varying levels of religious plurality, but instead religious freedom seems affected only slightly by the level of religious plurality, at least in the relatively short time frame and other limitations of this study.