Interdisciplinary Journal of Research on Religion

New Data and Measures on Societal Discrimination and Religious Minorities

Jonathan Fox[*]

Bar Ilan University
Ramat Gan, Israel

Roger Finke

Pennsylvania State University
State College, Pennsylvania

Dane R. Mataic

Pennsylvania State University
State College, Pennsylvania

[*] Jonathan.Fox@biu.ac.il

New Data and Measures on Societal Discrimination and Religious Minorities[*]

Jonathan Fox

Bar Ilan University
Ramat Gan, Israel

Roger Finke

Pennsylvania State University
State College, Pennsylvania

Dane R. Mataic

Pennsylvania State University
State College, Pennsylvania

Abstract

Previous data collections have demonstrated that the state discriminates against religions in many ways, but few offer measures on societal discrimination, and none collect data on societal discrimination using religious minorities as the unit of analysis. This study introduces and presents the Religion and State round 3 (RAS3) dataset as a comprehensive collection including a newly collected Societal Module as well as a revised Minorities Module. The Societal Module offers important new measures on societal actions against religious minorities as well as the actions of minorities against other religious groups. This data includes a wide range of discriminatory behaviors ranging from specific forms of harassment and economic discrimination to specific forms of physical violence. Each of these measures was collected for 183 nations and for 771 religious minorities which includes all minorities meeting a 0.25 percent population cutoff as well as some smaller minorities. This study reviews and evaluates the RAS3 collection and finds a high level of reliability and validity for most of the newly constructed indexes and the measures they include.

Despite a virtual absence of data on religion and state relations prior to 2000, there has been a series of collections since the turn of the century.[1] Freedom House (Marshall 2008), the Religion and State Project at Bar Ilan University (Fox 2008; 2015; 2016), the Association of Religion Data Archives (www.theARDA.com) at Penn State University (Grim and Finke 2006), and the Pew Research Center (2009) have all offered measures on the interactions between national governments and religion.[2] The time span covered, the sources used, and the number of measures have continued to increase, yet only the ARDA collection offers a measure of societal restrictions on religion (relying mostly on attitudinal measures), and only Round 2 of Religion and State offers measures of government discrimination against specific religious groups. Neither of these collections, however, offer detailed measures of societal discrimination against religious minorities at the state level or any measures for societal discrimination against specific religious minorities. Round 3 of Religion and State (RAS3) addresses these voids with a Societal Module that measures the actions of non-state actors against religions and an expanded Minorities Module that provides these measures for specific religious minorities.

The Societal Module offers important new measures on societal actions against religious minorities, as well as the actions of minority religions against other religions. The new measures cover a twenty-five-year span and offer far greater breadth than the previous "societal" measures used in the ARDA collections. Each of the measures focuses on actions taken by non-state actors, and each taps into actual behaviors. Not only are these behavioral measures easier to collect (and more reliable) than attitudinal measures, a long line of research in social psychology has found that behavioral measures are more valid.[3] The Societal Module also includes measures of attitudes directed at members of minority religions, such as feelings towards conversion and proselytizing. The addition of the attitudinal measures in the RAS3 replicates measures from the ARDA collection but includes data for an expanded period.

The RAS3 Minorities Module offers many of the same measures of societal actions but provides them for 771 religious groups within 183 countries. When the Minorities Module was introduced in RAS2, it only included measures for government discrimination against a minority. The expanded module now allows

---

[1] The data collections reviewed in this article will be disseminated free of charge from the Religion and State Project site (www.religionandstate.org) and the Association of Religion Data Archives (www.theARDA.com). The data file for minority religions will be available for download in 2019, and the societal discrimination measures and all other Religion and State 3 measures for states (nations) are currently available for download at www.thearda.com/Archive/Files/Descriptions/RAS3COMP.asp.

[2] Although the research methodologies and information sources used have also varied, the measures are highly correlated when comparable measures are available (see Grim and Finke, 2011: 14).

[3] For a brief overview on the relationship between attitudes and behavior, see Myers (1990: 34–40).

scholars to explore if all minorities or only specific minorities are facing discrimination from non-state actors. This module also includes measures on the actions taken by each religious minority against other religions.[4] By conducting a separate coding for key religious minority groups, the RAS3 Minorities Module provides new insights into the experiences and actions of individual minority religions in each country.

This paper introduces and evaluates each of these modules. After introducing the new Societal Module and the expanded Minorities Module, we review the methods used for collecting the data and assess both the measures collected and the indexes produced with these measures. We begin, however, with a brief overview of why the new measures are needed.

NECESSITY OF THE SOCIETAL AND MINORITIES MODULES

Past Religion and State (RAS) data collections have demonstrated that the state discriminates against religions in many ways. Some are subtle restrictions, others are open harassments, attacks, or arrests. Some state discrimination impacts all religions, while other forms, such as registration requirements and dress codes, can target specific minority religions. Discrimination against religious minorities, however, is not limited to the actions of the state. Non-state actors enact some of the most frequent and often severe discrimination against minorities, and minorities also enact discrimination and violence against others. Ultimately, data relying solely on state restrictions or country level measures limit our understanding of religious discrimination and restrictions.

Why Societal Discrimination Measures?

Rodney Stark and Katie Corcoran (2014: 2) recently noted that "[i]n earlier times, religious wars were fought by armies. Today they are mainly fought by civilian volunteers." In some cases, the state is unable to prevent the discriminatory or violent behaviors of these civilian volunteers; in other cases, the state is unwilling to take action or tacitly approves of the behaviors. Examples of social conflict or discrimination enacted by non-state actors are easy to find.

Countries such as India and Egypt have experienced extremely high levels of religious discrimination by non-state actors. Like state discrimination against minority religions, some societal discrimination is subtle; other discrimination is violent and even lethal. India's Ministry of Home Affairs reported 751 "communal incidents" in 2015 that were defined as violent conflicts involving religious communities. These incidents involved loosely organized vigilante groups as well

---

[4] RAS3 also includes an additional 170 new religious groups.

as more formally organized social movements, such as cow protection groups, and resulted in ninety-seven deaths and 2,264 injuries (Government of India 2016).[5] The 2016 *International Religious Freedom Report* (U.S. Department of State 2016) listed specific dates and locations in Egypt where other religious groups targeted Coptic Christians, as well as Jews and Shia Muslims. Five of the incidents resulted in deaths, and at least eight included extensive destruction of property. Beyond the most serious incidents listed, however, the report noted "numerous . . . incidents of sectarian mob violence against Coptic Christians" (15), kidnappings that "disproportionately targeted Christians" (17), and ongoing threats to the safety of religious minorities more generally. Moreover, "[d]iscrimination in private hiring continued" (19). Like in India, some of the attacks came from formally organized groups such as the Muslim Brotherhood, while others resulted from more general societal discrimination against minority religions.

Yet societal discrimination against religions is not limited to a couple of extreme cases. Forum 18 News Service has documented numerous examples of societal discrimination in Russia, the Caucasus region, and throughout virtually all of Asia.[6] The additional sources used by RAS3 confirmed these examples and found many more. An initial review of the RAS3 data has found societal discrimination against religious minorities high across Europe, with France and Germany holding the highest rates (Fox, Finke, and Eisenstein 2018). Muslim and Jewish minorities had mean rates of societal discrimination that were more than ten times higher than any other minorities. In the United States, a recent report by the Pew Research Center found that anti-Muslim hate crimes continue to increase and in 2015 featured the highest number of events since 9/11 (Kishi 2016).

The ARDA's Social Regulation Index also demonstrates the promise of measuring societal restrictions on religious groups. Although limited to attitudinal measures that fail to offer direct measures of behavioral discrimination, this index has held strong associations with many variables of interest. Past research has reported that the Social Regulation Index is a significant predictor of reduced religious freedoms (Finke and Martin 2014), increased religion-related violence (Finke and Harris 2012), increased religious persecution (Grim and Finke 2007; 2011) and increased discrimination against the membership of religious minorities (Finke, Martin, and Fox 2017). Despite these promising initial findings, however, the index has many limitations requiring attention.

---

[5] See also the 2016 International Religious Freedom Report for India, available at https://www.state.gov/j/drl/rls/irf/religiousfreedom/index.htm#wrapper.
[6] See http://www.forum18.org/.

Why a Minorities Module?

Whereas previous collections provided a single measure of government discrimination or favoritism for all religions in a country, the RAS2 collection introduced measures for specific religious minorities. This focus on religious minorities is important for at least two reasons. First, discrimination against religious minorities is ubiquitous and is the norm rather than the exception. Fox's (2015, 2016) analyses of Round 2 of the RAS data demonstrate this prevalence in detail. Government-based religious discrimination against religious minorities is present in most countries in the world, regardless of world region, regime, or majority religion. Second, as we illustrate below, the level of discrimination can vary sharply from one religious minority to another. Though government discrimination is often related to societal discrimination, they are conceptually distinct and require separate measures. The RAS3 includes minority-specific measures for both societal discrimination and government discrimination. Once again, we illustrate the importance of these more precise measures with an example.

Round 3 of the RAS looks at four minorities in Germany: Muslims, Jews, Orthodox Christians, and Scientologists. The Orthodox Christian minority experiences no governmental or societal discrimination. There is only one category of government-based discrimination against Jews. German law requires that animals be stunned before slaughter, a practice which is incompatible with *kosher* ritual slaughter (as well as Muslim *Halal* slaughter). Exceptions are possible but rare. Jews may, however, import kosher meat (see Needham 2012; Velarde et al. 2010).

In contrast, Muslims and Scientologists in Germany experience significant levels of government-based discrimination. Several German states ban the wearing of head coverings by Muslim women, usually in schools or if they are public servants. The state closely monitors Muslim groups that are considered extremist as well as converts to these brands of Islam. No Muslim group has achieved Public Law Corporation status, a status necessary to gain access to state funding for religion as well as other benefits. Most German states ban burial in a shroud and require a coffin. As a result, many Muslims are buried in their country of origin. Also, some German states restrict the building of mosques with minarets as well as the Muslim call to prayer.

The government-based restrictions against Scientologists in Germany follow a somewhat overlapping but different pattern. In 1995 German courts ruled that the Church of Scientology is a business rather than a religion, which prevents it from gaining tax exempt status or any other benefits given to other religions in Germany. While Germany has not banned Scientology, since 1997 both the Federal and state Offices for the Protection of the Constitution monitor its activities closely. This oversight includes collecting the names of members, which are used in citizenship

and employment proceedings. Some states include specific questions about membership in the Church of Scientology in applications for citizenship and civil service positions. In 1996 the Economics and Labor Ministry ordered all government employment offices to put an "S" notation next to the names of firms suspected of employing Scientologists; employment counselors were instructed to warn clients that Scientologists are present in these workplaces. In many states and cities, sales of public property, business permits, contracts, and applications for public sector jobs included "sect filters" in which applicants declare no connection with the Church of Scientology. This practice continues to occur despite such "sect filters" being illegal since 2006. Four major political parties have banned Scientologists from being members, a policy that German courts have upheld. Some cities, such has Hamburg, have banned street proselytizing by Scientologists. State and federal authorities routinely use printed and electronic media to denounce and warn against what they proclaim to be the "dangers of Scientology."[7]

While one would expect that societal discrimination against these minorities would be proportional to the governmental discrimination, this correlation is not fully the case. Jews, who in Germany experience almost no government-based discrimination, experience the highest levels of societal discrimination. Societal discrimination against Muslims and Scientologists, while high, is still considerably lower. Thus, while likely related, societal and governmental religious discrimination often follow separate patterns and need to be considered separately.

COLLECTING THE DATA

The design of the coding instrument and the procedures used for collecting the data help the RAS3 address the most significant limitations of previous cross-country collections. First, the RAS3 measures tap into actual discriminatory behaviors by non-state actors rather than relying solely on attitudinal measures. As noted above, this method should increase both the reliability and validity of the measures secured. Second, the RAS3 project covers a far wider range of societal discriminatory actions by including twenty-seven new measures of societal actions taken against minority religions as well as five measures of actions initiated by members of minority religions against the majority religion and five measures of minority on minority actions. This large number of measures allows the RAS3 to cover a diversity of areas, including the forms and the level of severity from harassment to physical violence or concerted attacks. Third, rather than offer a vague measure of societal restrictions against all religions, the RAS3 measures often account for both the target of the discrimination and sometimes the source. This specificity allows for far more precision in identifying the specific religious

---

[7] For examples of media coverage, see Baig 2013; Deutsche Welle 2008; Hall 2009; Purvis 2007; Spiegel Online 2007; Times Wire Reports 2002.

minorities being targeted and the type and level of discrimination they are facing. Fourth, the ARDA collection relied on a single source: the U.S. State Department Religious Freedom reports. This methodology offered more uniform standards for collecting information, but complete coverage for select areas or topics was often lacking, especially for the measures of societal discrimination. The RAS3 collection relies on a long list of sources that will be reviewed in greater detail below. Fifth, the RAS3 project offers measures for every year from 1990 to 2014, allowing for a glimpse at how societal discrimination and treatment of minority groups has changed over time. Finally, because the RAS3 Minorities Module measures the specific religious minority facing discrimination or taking actions against members of the majority group or other minorities, the data use individual religious minorities (771) as well as nations (183) as units of analysis.

Addressing each of these limitations allows us to open an entirely new line of research for understanding and explaining actions against religious minorities and the actions of these minorities. Expanding the sources used and the number of measures included allows the RAS3 collection to offer more precise measures covering a wider range of behaviors over a longer period, as well as offering measures for specific religious minorities. Focusing on specific discriminatory behaviors also eased the coding process and improved the reliability of the measures. Below we offer an overview of the procedures and sources used for the collection, we explain how the procedures used ensured reliability, and we review the specific measures included in the collection.

Procedures and Sources Used

The sources and procedures used for Round 3 of the RAS are those that have been used in previous rounds of the RAS project (Fox 2008, 2011, 2015, 2016). Each country was assigned to a research assistant who wrote a report based on a wide variety of sources. As this report covers the entire RAS project, it includes information on all aspects of government religion policy in the country as well as societal actions taken against religious minorities or by religious minorities. The sources include six types: (1) Academic sources—any academic books or articles relevant to the country, (2) government or multi-government organization reports such as the U.S. State Department International Religious Freedom Reports as well as reports from the UN and the EU, among others, (3) news sources, primarily taken form the Lexis/Nexis database, (4) reports by NGOs and human rights advocacy organizations such as Human Rights Watch, Forum 18, and Amnesty International, (5) government documents and laws from the country in question's government, and (6) Internet sources.

Previous RAS reports from Round 1 (1990 to 2002) and Round 2 (2003 to 2008) were used as a basis for the codings for the 1990–2008 period. While these reports

include significant amounts of information on societal actions, Rounds 1 and 2 of the RAS did not include coding categories for societal discrimination data. Given this limitation and in order to account for the possibility that the research assistants from Rounds 1 and 2 of the RAS project did not search as fully for societal actions, research assistants from Round 3 went over the original sources for the reports, including all of the categories listed above, for additional information.[8]

After the reports were completed and approved, coders then completed the full codesheet. They first entered values for each of the variables using nation as the unit of analysis. When this coding was completed, they entered values for each of the minority religions. For each nation the collection includes all minorities that are at least 0.25 percent of the population as well as the following categories of minorities regardless of their population size: (1) Christians in Muslim countries, (2) Muslims in Christian countries, and (3) Jews in Western democracies and other Christian-majority former Soviet countries.[9]

As was the case for the previous two rounds of RAS, several reliability checks were maintained during the coding process. The PI (Jonathan Fox) supervised and reviewed all of the country-reports written by the coder. Once approved, the report was the basis for the codings. The coders also produced fact sheets listing the reasons for each variable's coding. The PI reviewed these fact sheets in order to assure that all coders were using the same criteria.

Measuring Societal Discrimination

Past research has confirmed that religious minorities are the most frequent targets of state and societal discrimination (Fox 2016; Grim and Finke 2011; Kirkham 2013; Koesel 2014; Richardson 2004; Sanasarian 2000; Sarkissian 2015;

---

[8] We correlated three RAS2 indexes (state discrimination against minority religions, state regulation of religion, and state legislation of religion) with the three newly constructed indexes in RAS3. All three indexes correlate highly (above 0.900) for the 177 overlapping cases in 2008. Comparisons with the 2008 ARDA coding of government regulation and the RAS3 religious discrimination and regulation measures are also highly correlated (above 0.750). This correlation demonstrates that the research assistant coding between the RAS2 and 3 are highly reliable, adding additional validity to the coding of the RAS3 societal discrimination measures. See Appendix B for the reliability tests and tables corresponding to the RAS3 religious discrimination, religious regulation, and religious legislation indexes.

[9] A religious minority is defined as a religious group or population which belongs to a different religion or a different denomination of the same religion (e.g., Protestants in a Catholic-majority country). While any population cut-off is arbitrary, it is necessary for at least two reasons. First, the smaller the group, the less likely it is to be present in the sources we use. Second, smaller groups are less likely to be politically relevant or influential. We believe that this study's 0.25 percent population cut-off is a reasonable compromise. Previous databases of minorities including Gurr's (1993, 2000) Minorities at Risk dataset, which includes ethnic minorities, used a 1 percent population cut-off for similar reasons.

Stark and Corcoran 2014). For this reason the majority of the RAS3 Societal Module focuses on discriminatory actions taken by social actors against minority religions. Twenty-seven of the thirty-seven new measures introduced focus on discrimination against minorities. The remaining ten items focus on discriminatory actions of religious minorities against other minority religions or against the majority religion. Each of these new measures was coded for the nation as a whole and for specific minorities.

Of the twenty-seven items used to measure societal discrimination against minority religions in a nation, eighteen of the measures tap into non-violent forms of discrimination. Some of the discrimination is enacted in an effort to prevent religious minorities from openly practicing or promoting their faith, such as preventing the construction or use of buildings for worship or preventing the written or oral dissemination of religious beliefs. Others include vandalism, verbal attacks, and other discrimination targeting a specific minority. Still other measures touched on economic discrimination against religious minorities as employees or against their businesses. All of these measures were coded using a four-category scale ranging from 0 when there are "no reported incidents of this type of action against any minorities" to 3 when the "action occurs on a substantial level to members of most or all minority religions."

The remaining nine measures of societal discrimination against religious minorities tapped into violence by the social actors. Five measured physical violence against people that was the result of their affiliation with the religious minority, including one for lethal violence. Two others measured "arson, bombing, or concerted attacks against" religious property or the property of businesses associated with a religious minority. The final two measures include threats of violence and other acts of violence. Once again, the four-category scale, ranging from "no reported incidents" to "occurs on a substantial level to members of most or all minority religions," was used to code the frequency of each discriminatory action. When combined with the non-violent discrimination measures, the RAS3 collection offers detail on the specific form of discrimination religious minorities face, the frequency of the discrimination, and the level of severity.[10]

For the remaining ten measures of societal action, religious minorities are the source rather than the target. Five measure their actions against the religious majority, and five measure their actions against other religious minorities. Each set of five measures includes three items measuring violence or terrorist actions, one measuring harassment, and one including "other" relevant acts. The response

---

[10] During our construction of the societal indexes, we also compared the violent and non-violent factors. Using both exploratory and confirmatory factor analyses, we found that the distinction within the Social Discrimination against Minorities measures is not identified by severity (e.g. non-violent or violent actions), but rather we regularly identified groupings based on the type of behavior (e.g. vandalism or harassment).

categories for minorities targeting other minorities remained the same as those used when religious minorities were the target of discrimination. The response categories measuring the frequency of the actions against a country's majority religion ranges from 0, "there are no reported incidents of this type of action against any minorities," to 3, "this action occurs on a substantial level to members of most or all minority religions."

Finally, the Societal Module includes four measures that replicate or closely resemble items included in the ARDA Social Regulation Index. Three were measures of attitudes toward nontraditional religions, such as the ability to convert or proselytize, and include four coding categories that range from 0 = "none" to 3 = "Hostile against most or all minority religions." The final measure asked if "existing religions try to shut out new religions" and is coded as "yes" or "no." Although the main focus of the RAS3 Societal Module is on discriminatory behavior of social actors, these attitudinal measures allow a close comparison between the RAS3 collection and the earlier ARDA collections.

Together, the forty-one measures of societal discrimination, harassment, prejudice, and violence offer important detail on the specific form of discriminatory behaviors and attitudes enacted by the non-state actors and the severity of the discrimination. The following section is devoted to constructing and evaluating summary indexes for each of the conceptual categories. Our initial overview will use the country-level measures.

CONSTRUCTING THE SOCIETAL INDEXES

As reviewed above, the measures for societal actions were grouped into four conceptual categories: Societal Discrimination Against Minorities, Minorities Targeting the Majority, Minorities Targeting Other Minorities, and the Societal Regulation Index. The goals of the RAS3 Societal Module are to provide both detailed individual measures on societal actions and attitudes as well as offer new summary indexes for each of these conceptual categories. Here we review the procedures we used to construct the indexes and the tests we performed to evaluate their internal reliability.

We used two accepted approaches for constructing the RAS3 Societal Module composite measures. The first is an unweighted-additive index, where each measure is summated. This methodology follows previous ARDA and RAS index construction (Grim and Finke 2006; Fox 2011). The second constructs a weighted index, where each measure is weighted based on how strongly it predicts the

conceptual index. We used factor analyses to construct a factor-weight index.[11] As we will review below, the two approaches resulted in very similar outcomes.

After computing the indexes, the reliability of each composite measure was assessed in a few related steps. We began by constructing aggregates of the individual measures between 1990 and 2014. From these aggregates we then computed a Cronbach alpha for each index and assessed whether the removal of select measures from the index increases or decreases the overall reliability. Although we tested the reliability of each index for each year between 1990 and 2014, we based the results and discussion on the average scores across all available years for the countries. This approach allows for extraneous variation, such as researcher coding, measurement, or missing countries for individual years, and it replicates the procedures found effective when evaluating the RAS2 indexes (Fox 2011). Moreover, using the average scores for 1990–2014 arguably represents each component over time more accurately than any single year as it accounts for sudden fluctuations in a country's level of societal actions and attitudes. As shown in Table A2 (Appendix A), however, the reliability scores for each index remained consistent across years and were remarkably consistent with our averages.

Societal Discrimination Against Minority Religions

The composite index measuring societal discrimination refers to the actions by non-state actors against religious minorities. Table 1 provides a list of the twenty-seven items that measure societal discrimination. These items have high internal reliability (a = 0.922) and encompass a variety of acts, including instances of non-violent or violent discrimination. The high reliability of the twenty-seven items demonstrates a relationship between each component and suggests that the variables can be combined into an index. The correlations between the unweighted-additive index and the factor-weighted index are very high (0.997) for our composite societal discrimination of religion index.

---

[11] Fox (2011) used an expert and factor-weighted index, while Grim and Finke (2006) used confirmatory factor analysis to construct a factor-weighted index; neither approach produced different outcomes.

Table 1: Societal Discrimination Against Minorities Index, 1990–2014 Aggregate

Reliability analysis of 27 variables (Cronbach alpha)	0.922				
Correlations between standard and factor weighted indexes	0.997***				

Variable	Description	Min	Max	Mean	SD
wsocdis01	Instances of societal economic discrimination against minority religions in the work place	0	3	0.377	0.699
wsocdis02	Organized boycotts of businesses owned by the minority group or denial of minority access to businesses, stores, restaurants or places of entertainment	0	2	0.038	0.243
wsocdis03	Other forms of economic discrimination. Specify	0	2	0.082	0.346
wsocdis04	Anti-religious minority propaganda, statements, articles, or shows in mainstream private media	0	3	0.514	0.797
wsocdis05	Overt anti-religious minority rhetoric from members of the majority religion's clergy	0	3	0.301	0.648
wsocdis06	Presence of anti-religious rhetoric in political campaigns or political party propaganda	0	2	0.251	0.537
wsocdis07	Vandalism against religious property including places of worship, community centers, schools, and cemeteries	0	3	0.568	0.886
wsocdis08	Vandalism against other property (e.g. businesses or homes)	0	3	0.169	0.533
wsocdis09	Anti-religious graffiti	0	3	0.344	0.708
wsocdis10	Efforts to deny access to/close religious sites including places of worship	0	3	0.109	0.456
wsocdis11	Efforts to prevent places of worship or other religious sites from being built, opened, or rented	0	2	0.158	0.459
wsocdis12	Dissemination of publications against religious minorities	0	2	0.169	0.467

wsocdis13	Harassment of clergy, which does not reach the level of violence. This includes "verbal attacks"	0	2	0.098	0.408
wsocdis14	Harassment of proselytizers, which does not reach the level of violence. This includes "verbal attacks"	0	2	0.153	0.479
wsocdis15	Harassment of converts away from the majority religion, which does not reach the level of violence. This includes "verbal attacks"	0	3	0.366	0.765
wsocdis16	Harassment of other members of religious minorities, which does not reach the level of violence. This includes "verbal attacks"	0	3	0.563	0.848
wsocdis17	Expulsion or harassment so severe that it leads to a significant number of minority members leaving a town or region	0	3	0.164	0.519
wsocdis18	Organized demonstrations and public protests against religious minorities	0	3	0.077	0.370
wsocdis19	Threats of violence	0	3	0.415	0.743
wsocdis20	Physical violence targeted specifically at clergy	0	3	0.131	0.474
wsocdis21	Physical violence targeted specifically against proselytizers or people who converted away from the majority religion	0	2	0.169	0.501
wsocdis22	Physical violence against other individual members of religious minority, which is clearly due to their religious affiliation	0	3	0.464	0.817
wsocdis23	Large scale violence against members of religious minority, which is clearly due to their religious affiliation. This includes rioting and targeting of entire communities, rioting, and clashes	0	3	0.115	0.472
wsocdis24	Lethal violence against any member of minority religions due to their religious affiliation	0	3	0.208	0.584
wsocdis25	Arson, bombing, or concerted attacks against religious property	0	3	0.290	0.670

wsocdis26	Arson, bombing, or concerted attacks against property (e.g. businesses or homes) owned by a religious minority, which is clearly due to their religious affiliation	0	3	0.175	0.567
wsocdis27	Other relevant acts against minority religions. Specify	0	2	0.235	0.486

Note: $N = 183$. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. Descriptive statistics derived from average values between 1990 and 2014.

Variables coded as 0 = There are no reported incidents of this type of action against any minorities; 1 = This action occurs on a minor level to one or a few minorities but not most; 2 = This action occurs on a substantial level to members of one or a few minorities but not most or on a minor level to all or most minorities; 3 = This action occurs on a substantial level to members of most or all minority religions.

The twenty-seven items result in an unweighted-additive index with the potential to range from 0, no instances of societal discrimination of religion, to 81, where every action measured occurs on a substantial level to members of most or all minority religions. Despite this range the average societal discrimination score for the 1990–2014 aggregate is 6.70, with a range between 0 and 60. Fluctuation in the yearly societal discrimination scores is also present, with the general trend being one of ongoing increases. The average level of societal discrimination in 1990 (or the earliest year available) is a score of 6.26, while the average level in 2014 (or the latest year collected) is 8.32. The maximum societal discrimination score coded for a country across all years is 62.

Minority Actions Targeting Majority Religions

The RAS3 also provides five measures of minority actions against majority religions (see Table 2). When the five items are combined into a single index, the index has an alpha of 0.572, falling below the recommended alpha of 0.700. This low reliability is not the result of a single measure. Regardless of the measures omitted, the combination of measures used, or the year of the data used, the alpha scores remained low when using nations as the unit of analysis. Thus, at the country level, the measures of minority actions against majority religions are best used in analyses as individual measures rather than a summary index.

Table 2: Minority Actions Against Majority Religions, 1990–2014 Aggregate

Reliability analysis of 5 variables (Cronbach alpha)		0.572			
Correlations between standard and factor weighted indexes		0.993***			

Variable	Description	Min	Max	Mean	SD
wmin2maj01	Violence against members of the majority religion	0	2	0.120	0.453
wmin2maj02	Acts of terror against members of the majority religion	0	2	0.082	0.376
wmin2maj03	Harassment against members of the majority religion	0	2	0.022	0.180
wmin2maj04	Acts of vandalism, graffiti or similar against members of the majority religion	0	2	0.087	0.352
wmin2maj05	Other relevant acts against members of the majority religion. Specify	0	2	0.033	0.207

Note: $N = 183$. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. Descriptive statistics derived from average values between 1990 and 2014.

Variables coded as 0 = There are no reported incidents of this type of action; 1 = This action occurs on a minor level; 2 = This action occurs on a substantial level.

Minority Actions Targeting Other Minority Religions

Unlike the minorities targeting majority religions index, the construction of the minority actions against other minority religions index reached an acceptable level of reliability (a = 0.748) using all five measures (Table 3). The unweighted-additive index is also highly correlated with the factor-weighted index (0.985). Combining the five measures into a single index creates a potential range from 0, the religious minority is amicable with all religious minorities, to 15, where a minority religion exhibits substantial hostility toward all or most minority religions in each component. Despite the potential for a large range, the average country exhibits almost no instances of minority religions targeting another minority religion, with over 80 percent of the countries never having a minority group target another minority religion. Moreover, the average score for the 1990–2014 aggregate is only

0.42, while the highest country score is six.[12] Less than 4 percent of the countries (seven of 183) featured a score of six.[13]

Table 3: Minority Actions Against Other Minority Religions, 1990–2014 Aggregate

Reliability Analysis of 5 Variables (Cronbach alpha)		0.748			
Correlations between standard and factor weighted indexes		0.985***			

Variable	Description	Min	Max	Mean	SD
wmin2min01	Violence against members of another minority religion	0	3	0.137	0.478
wmin2min02	Acts of terror against members of another minority religion	0	3	0.027	0.244
wmin2min03	Harassment against members of another minority religion	0	2	0.115	0.410
wmin2min04	Acts of vandalism, graffiti or similar against members of another minority religion	0	2	0.104	0.413
wmin2min05	Other relevant acts against members of another minority religion. Specify	0	1	0.044	0.205

Note: $N = 183$. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. Descriptive statistics derived from average values between 1990 and 2014.
Variables coded as 0 = Amicable with all religious minorities; 1 = Minor hostility toward some religious minorities; 2 = Minor hostility toward all or most minority religions or significant hostility toward one or some minority religions; 3 = Substantial hostility toward all or most minority religions.

Societal Regulation of Religion

The final RAS3 index measuring societal pressures replicates the original Grim and Finke (2006) Social Regulation Index. When the items are combined, the composite index measures attitudes against members of minority religions (see Table 4 for an overview of the individual items). The unweighted-additive index is highly reliable with an alpha of 0.815. Further, the unweighted-additive index is highly correlated with the factor-weighted index (0.994). The unweighted-additive

---

[12] This value is also the maximum for any country when measuring the index for individual years between 1990 and 2014.
[13] The countries are Brazil, Denmark, France, United Kingdom, Iraq, Belgium, and Bosnia.

index results in a potential range of 0, no social regulation of religion, to 10, corresponding with majority religions expressing hostility against all minority religions and attempts to shut out new religions. The mean value of social regulations across all countries between 1990 and 2014 is 2.49, with more than 30 percent of the countries exhibiting a score of 3 or more.

Table 4: Societal Regulation Variables, 1990–2014 Aggregate

Reliability Analysis of 4 Variables (Cronbach alpha)		0.815			
Correlations between standard and factor weighted indexes		0.994***			

Variable	Description	Min	Max	Mean	SD
wsocreg01x[a]	Attitudes toward other or nontraditional religions	0	3	0.869	0.904
woscreg02x[a]	Attitudes toward conversion to other religions	0	3	0.705	1.054
wsocreg03x[a]	Attitudes toward proselytizing	0	3	0.738	1.078
wsocreg04x[b]	Do existing religions try to shut out new religions?	0	1	0.180	0.386

Note: N = 183. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. Descriptive statistics derived from average values between 1990 and 2014.
a. Variables coded as 0 = None; 1 = Negative but not hostile against some minority religions; 2 = Negative but not hostile against all minority religions or hostile against some but not most minority religions; 3 = Hostile against most or all minority religions
b. Variable coded as 0 = No; 1 = Yes

Recommendations for Future Research

Based on these initial tests we offer a couple of conclusions on the use of these indexes in future research. First, like past cross-national indexes on the state's restrictions on religion (Grim and Finke 2006; Fox 2011), which also assess both approaches, we recommend the use of the unweighted-additive approach. The correlations between the unweighted-additive and factor-weighted indexes are very high for each of the indexes, suggesting that the mathematical weighting does not produce a substantially different index than the simpler, unweighted-additive approach. Second, we found that the Societal Discrimination Against Minorities Index, the Minorities Targeting Other Minorities Index, and the Social Regulation Index were highly reliable, and removal of select measures did not drastically change the reliability. Each of these indexes captures an important conceptual

dimension for future research. Conversely, the Minorities Targeting the Majority was not highly reliable at the country level, and the removal of specific measures did not improve the reliability. We conclude, therefore, that the individual measures of minority actions against majority religions remain valuable for future research, but the summary index does not measure a single conceptual category and should not be used.

PRESENTING AND EVALUATING THE INDEXES

Thus far, we have evaluated the internal reliability of the societal indexes; we now turn to tests of criterion validity: correlations with prior indexes measuring similar concepts. The only comparable measure is the ARDA's coding of the International Religious Freedom Reports to construct their Social Regulation Index. When comparing this index to the RAS3 indexes, we will use data from 2008, the most recent ARDA collection, and will include the 177 nations present in both collections. We will also limit our comparisons to the three RAS3 indexes that had high internal reliability: Societal Discrimination Against Minorities Index, Minorities Targeting Other Minorities Index, and the Social Regulation Index.

Table 5 presents the correlations between the ARDA's Social Regulation Index and the three RAS3 constructs for 2008. The ARDA's index is highly correlated with the two RAS3 indexes measuring the majority religions actions and attitudes toward minority religions. As expected, the strongest correlation is with the RAS3's replication of the ARDA index (0.689), but the RAS3 index on Societal Discrimination Against Minorities is also highly correlated with the ARDA's index (0.561). This correlation is not the case, however, when comparing the ARDA measure to the RAS3 index on Minorities Targeting Other Minorities; the correlation was negligible (0.080) and not significant. This contrast supports our earlier discussion on the uniqueness of this measure and further confirms that the Minorities Targeting Other Minorities Index is an important measure for capturing societal dimensions originating from the religious minorities.

Table 5: Correlations of RAS3 Societal Indexes and the ARDA's Social Regulation Index

	N	Societal Discrimination Against Minority Religions Index	Minorities Targeting Other Minorities Index	Societal Regulation Index
RAS3 (1990-2014 aggregate)				
Societal Discrimination	183	1.000		
Targeting Other Minorities	183	0.330***	1.000	
Societal Regulation	183	0.590***	-0.002	1.000
ARDA Collection (2008)				
Social Regulation	177	0.561***	0.080	0.689***

Note: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. Correlations with the RAS3 were calculated using the 1990 to 2014 aggregate values, while the correlations with the ARDA's Social Regulation Index was restricted to values in 2008 for all indexes.

Moving beyond the correlations and exploring specific nations further reveals why the different indexes are needed and how they are related. Appendix A provides the scores for our indexes measuring discriminatory and violent actions by non-state actors as well as the scores of indexes measuring government actions for each country in the RAS3 (Table A1). Several examples in the table demonstrate the clear differences between societal actions and state actions. China is one of the top ten countries for government discrimination but scores low for all three of our composite measures of societal discrimination and restrictions. Conversely, other countries such as France, Croatia, and Bosnia have moderate to low scores of government discrimination but are near the top of countries in scores of societal discrimination. That is not to say that countries with high levels of societal discrimination were excluded from high levels of government discrimination. Quite the contrary, countries such as Iran, Myanmar, Pakistan, and Egypt were very high for societal discrimination and government discrimination. The country scores are not surprising, given prior trends and assessments of social regulation (Grim and Finke 2006).

The scores displayed in Appendix A and the correlations in Table 5 also suggest that each of the societal indexes are conceptually distinct. Comparing scores for specific countries demonstrate these distinctions. Many countries with the highest societal discrimination scores regularly feature almost no minority religions

targeting other minority religions (e.g. Pakistan, Croatia, Russia, Georgia, Nigeria, etc.). Conversely, the countries with the highest scores for minorities targeting other minorities routinely had moderate levels of societal discrimination. The seven countries with the highest scores for minorities targeting other minorities include France, Brazil, Belgium, Denmark, Iraq, Bosnia, and the United Kingdom. Yet only Bosnia was in the top ten of countries with the highest societal discrimination scores.

Even when comparing the two indexes measuring the majority religion's actions and attitudes toward minority religions, which hold a strong correlation of 0.590 (Table 5), important differences emerge. Some are high on both (e.g. Pakistan, Georgia, Palestinian Authority), while others feature low levels of societal discrimination but high levels of social regulation (e.g. Saudi Arabia, Somalia, Nepal). This variation is not surprising. As we outlined above, the Societal Discrimination Against Minorities index corresponds with *actions* committed by the majority religion against a minority religion. Social regulation conversely assesses societal *attitudes* against minority religions. The distinctions then are a reflection on the willingness or ability of the majority religion to carry out discriminatory actions in the presence of negative perceptions of minority religions. In some cases (e.g., Saudi Arabia), the state so closely regulates and discriminates against minority religions that non-state actions are not needed but attitudes are still highly discriminatory.

Each of the new indexes offer promise for addressing new research questions for nations that have been largely ignored in past research, such as the contradictions between low state restrictions in democracies with the presence of high societal discrimination. The RAS3 Minorities Module, however, provides an even more fine-grained assessment of the treatment and responses of religious minorities across the globe and allows us to look at specific minorities within a nation. Because this unit of analysis is new, however, we offer a similar assessment of the reliability and validity of the measures when looking at religious minorities rather than nations.

SOCIETAL DISCRIMINATION AND THE RAS3 MINORITIES MODULE

The RAS2 collection introduced a Minorities Module with measures of the state's discriminatory actions against minority religions. Not surprisingly, states often vary in the level of discrimination they show to different religious minorities (Fox 2016). The RAS3 Minorities Module, however, expands on this collection by coding the level of societal discrimination, harassment, and prejudice directed at each minority group individually, as well as the state discrimination toward specific minorities. As reviewed earlier, coders simultaneously collected the Minorities Module as they assembled the general RAS data and relied on the same reliability

checks during the coding process. We offer two additional reliability and validity checks on the measures produced. First, we compare the combined measure of state discrimination against minority religions from the RAS2 to the same measure from the RAS3. Second, we again evaluate the internal reliability of the indexes produced.

Both the RAS2 and RAS3 share the same measures of state discrimination against minorities, and this commonality allows us to compare the consistency or reliability of the coding of these measures across the two collections. Because the RAS3 offers additional countries and religious minority groups, we restricted our comparison to only the countries and groups that were present in both datasets. We further restricted our comparison to 2008 in the RAS2 and RAS3, the final year of the RAS2, and then compared the Religious Discrimination Against Minority Religions Index for each of the collections. The two composite measures of state discrimination at the minority group level were highly correlated (0.9139), further confirming the reliability in the coding between the RAS2 and RAS3.

When measuring societal discrimination, the Minorities Module includes three of the four indexes used at the national level: Societal Discrimination Against Minorities, Minorities Targeting the Majority, and Minorities Targeting Other Minorities. The items in the Social Regulation Index could not be coded at the group level, so this index could not be replicated.[14] For the remaining three indexes, however, we assess the reliability of the constructed indexes when using the religious minority as the unit of analysis.

The composite index measuring Societal Discrimination against Minorities in the Minorities Module measures the same twenty-seven items as the country level data. Two important differences should be noted, however. First, rather than corresponding to the country's overall level of Societal Discrimination Against Minorities, each of the items in the index measures the level of discrimination faced by a specific religious minority. The second difference is that rather than being coded from 0 to 3, the Minorities Module societal discrimination measures were coded on a 0 to 2 scale. Religious groups receiving a 0 correspond with no reported incidents of this type of action, while a 2 represents action that occurs on a substantial level against the specific minority religion. The twenty-seven items in the Societal Discrimination Against Minorities Index (presented in Table 6) have high internal reliability (a = 0.896). Moreover, the correlations between the unweighted-additive index and the factor-weighted index are also very high (0.990) for this index. Thus, even when accounting for the treatment of individual religious minority groups, the composite societal discrimination index is still highly reliable.

---

[14] Although the four items in the Social Regulation Index could not be coded for specific religious minorities, we did include a single item measure corresponding with the general relationship between the members of the majority religion and members of the specified minority religion. This final measure is coded on a 0 to 2 scale, ranging from amicable to substantial hostility.

Combining these twenty-seven items into a composite index produces a potential range between 0, no type of action, to 54, the action occurs on a substantial level for each item. Despite this potential range, across the twenty-four years, no religious minority had a score higher than 47. Moreover, the average societal discrimination score events experienced by a religious minority group between 1990 and 2014 is 2.16.

Table 6: Construction of Societal Indexes for Minorities Module, 1990–2014 Aggregate

	Cronbach alpha	Correlations between additive and factor-weighted indexes	Min	Max	Mean	SD
Social Discrimination Against Minority Religions[a]	0.896	0.990***	0	44	2.161	4.800
Minorities Targeting Majorities[b]	0.610	0.993***	0	6	0.080	0.485
Minorities Targeting Other Minorities[c]	0.753	0.988***	0	6	0.100	0.623

Note: $N = 771$ minority groups within 183 countries. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.
a. 27 items, coded as 0 = There are no reported incidents of this type of action against the specified minority; 1 = This action occurs on a minor level; 2 = This action occurs on a substantial level.
b. 5 items, coded as 0 = There are no reported incidents of this type of action; 1 = This action occurs on a minor level; 2 = This actions occurs on a substantial level.
c. 5 items, coded as 0 = There are no reported incidents of this type of action against any minorities; 1 = This action occurs on a minor level to one or a few minorities but not most; 2 = This action occurs on a substantial level to members of one or a few minorities but not most or on a minor level to all or most minorities; 3 = This action occurs on a substantial level to members of most or all minority religions.

The composite index measuring minority actions against majority religions (Table 6) did show improved reliability. Yet the Cronbach alpha still fell below the 0.7 threshold (a = 0.610). When combined, the unweighted-additive index and factor-weighted index are also highly correlated (0.993). As an unweighted-additive index, religious minority groups can score between 0, no reported actions, to 10, minority religions target the majority religion on a substantial level across all

five actions. Although the highest score received by a minority group was 6 (Muslims in Israel), the average score for minority groups targeting the majority religion was minimal at 0.080. Essentially, minority religions do not target the majority religion. The low rate of events coded, combined with the marginal reliability of the index, raises serious concerns about using this index for future research.

The construction of the additive index measuring minority actions against other minority religions again reached a reliable level, with a Cronbach's alpha of 0.753 (Table 6), and the unweighted/weighted indexes were highly correlated (0.988). As an additive index, the scores have the potential to range between 0, minority religions do not target other minorities, to 15, minorities targeting other minorities occurs at a substantial level across all five action categories. Between 1990 and 2014, the highest score minority groups received was regularly a six. One year acted as an outlier, 1992, where Colombia featured extensive minority groups targeting other minorities. Three minority groups were outliers, with Baha'i, Jewish, and Muslim minorities scoring higher than any other group in any other country with 14, 11, and 8 respectively. These scores correspond with high levels of intergroup and minority conflict. Yet minorities targeting other minority religions remains uncommon, with over 95 percent of the minority religious groups featuring an average of zero reported incidents of targeting another minority religious group between 1990 and 2014.

Our evaluation of the indexes when using minorities as the unit of analysis are similar to our earlier assessment when using nations. The indexes for Societal Discrimination Against Minorities and for Minorities Targeting Other Minorities are highly reliable and we again recommend the use of the unweighted-additive approach for constructing the index. The index for Minorities Targeting Majority Religions index shows an improved reliability score, yet we do not recommend the use of this index.

CONCLUSIONS

Past research has found that religious minorities are the most frequent targets of religious discrimination and that much of this discrimination comes from non-state actors. Yet scholars attempting to do cross-national research at a global scale have been limited to a small group of measures for only a few years, and measures of societal discrimination for specific religious minorities were completely lacking. The data collection just reviewed addresses each of these shortcomings.

The RAS3 opens up new lines of research by providing data that offer both more breadth and more precision when measuring societal discrimination against religious minorities, and the measures are provided for specific religious minorities as well as for each nation. Drawing on many diverse sources of information, the

collection provides new measures for three conceptual categories: twenty-seven measures of societal discrimination against minority religions, five measures of societal action by members of minority religions targeting the majority religion, and five measures of minorities targeting other minorities. Each of these measures was collected for 183 nations and for the largest minorities in each country, resulting in data for 771 religious minorities.

After reviewing the procedures used to collect the data, we devoted our attention to constructing and evaluating indexes designed to measure the three new conceptual categories: Societal Discrimination Against Minorities, Minorities Targeting the Majority, and Minorities Targeting Other Minorities. We found that the twenty-seven measures of societal discrimination against minority religions had a high level of internal reliability for measurement of the overall country and that constructing the index using factor-weighting offered no advantages over the additive index. Likewise, the index for minorities targeting other minorities had strong internal reliability, and again we concluded that simply adding the items was the preferred method for constructing the index. For the index on minorities targeting majority religions, however, the internal reliability scores dropped below acceptable levels, and we concluded that it should not be used as a composite measure to assess the extent of minorities targeting majorities overall within a country. Yet the individual measures offer valuable insights. Our assessment for these three indexes was similar regardless of the unit of analysis used (i.e., nations or minorities). Finally, we constructed a fourth index that replicated the ARDA's Social Regulation Index for nations. This index also had a high reliability score.

When comparing our new indexes to past collections, the results were reassuring. For the national collection, the RAS3 Social Regulation Index was strongly correlated with the index collected by the ARDA, despite relying on many additional sources of information. For the collection using minorities as the unit of analysis, the index on state discrimination that was collected in both the RAS2 and RAS3 was virtually identical, with a correlation of 0.91. Our review of the correlations and a more detailed inspection of the measures confirms that important differences occur between the discriminatory actions of the state and those of non-state actors.

Finally, we also found that each of the societal indexes in the Minorities Module were conceptually distinct. An observation of individual minority groups and countries reinforces this position. For instance, Coptic Christians in Egypt experienced the highest average score of societal discrimination by the majority religion between 1990 and 2014. Despite this score, however, there were no reported incidents of the Coptic Christians targeting the majority religion and few reported actions of targeting other minority religions. Conversely, minority religions have targeted other religions when experiences of societal discrimination

are moderate (e.g. Muslims in the United Kingdom, Orthodox Christians in Bosnia, or Christians in Northern Nigeria).

Although the detailed accounts offered by past qualitative research and the ARDA's measures on societal restrictions have demonstrated the powerful influence of non-state actors, the RAS3 introduces a wide range of new measures on discriminatory behaviors (rather than attitudes). With measures of discriminatory behaviors ranging from specific forms of harassment and economic discrimination to specific forms of physical violence, the RAS3 collection allows researchers to focus on a specific type of discrimination being enacted or to use the additive indexes just constructed to measure a more general conceptual category. The collections reviewed also provide data on an entirely new unit of analysis: religious minorities. Using this unit of analysis allows researchers to explore how societal and government discrimination against minorities varies for different religious groups and how minority groups vary in the level of discrimination they enact on others. Together the annual RAS collections offer a diverse array of measures for multiple units of analysis from 1990 to 2014.

REFERENCES

Baig, R. 2013. "Scientology Is Still a Red Flag in Germany." *Deutsche Welle* February 22.

Deutsche Welle. 2008. "Court Rules Surveillance of Scientology Legal." *Deutsche Welle* February 12.

Finke, Roger, and Jaime Harris. 2012. "Wars and Rumors of Wars: Explaining Religiously Motivated Violence." In *Religion, Poltics, Society and the State*, edited by Jonathan Fox, 53–71. New York: Oxford University Press.

Finke, Roger, and Robert R. Martin. 2014. "Ensuring Liberties: Understanding State Restrictions on Religious Freedom." *Journal for the Scientific Study of Religion* 53(4): 687–705.

Finke, Roger, Robert R. Martin, and Jonathan Fox. 2017. "Explaining Discrimination against Religious Minorities." *Politics and Religion* 10: 389–416.

Fox, Jonathan. 2008. *A World Survey of Religion and the State*. New York: Cambridge University Press.

Fox, Jonathan. 2011. "Building Composite Measures of Religion and State." *Interdisciplinary Journal of Religion* 7(8): 1–39.

Fox, Jonathan. 2015. *Political Secularism, Religion and the State: A Time Series Analysis of Worldwide Data*. New York: Cambridge University Press.

Fox, Jonathan. 2016. *The Unfree Exercise of Religion: A World Survey of Discrimination against Religious Minorities.* New York: Cambridge University Press.

Fox, Jonathan, Roger Finke, and Marie Eisenstein. 2018. "Examining the Causes of Government-based Discrimination against Religious Minorities in Western Democracies: Societal-level Discrimination and Securitization." *Comparative European Politics.* DOI https://doi.org/10.1057/s41295-018-0134-1.

Government of India. 2016. *Ministry of Home Affairs Annual Report, 2015-16.* Available at http://mha.nic.in/sites/upload_files/mha/files/AR(E)1516.pdf.

Grim, Brian J., and Roger Finke. 2006. "International Religion Indexes: Governmental Regulation, Government Favoritism, and Social Regulation of Religion." *Interdisciplinary Journal of Research on Religion* 2(1): 1–40.

Grim, Brian J., and Roger Finke. 2007. "Religious Persecution in Cross-National Context: Clashing Civilizations or Regulated Religious Economies?" *American Sociological Review* 72: 633–58.

Grim, Brian J., and Roger Finke. 2011. *The Price of Freedom Denied: Religious Persecution and Violence.* New York: Cambridge University Press.

Gurr, Ted R. 1993. *Minorities At Risk*. Washington, DC: United States Institute of Peace Press.

Gurr, Ted R. 2000. *Peoples Versus States: Minorities at Risk in the New Century*. Washington, DC: United States Institute of Peace Press.

Hall, Allan. 2009. "Germany Fights Scientology Boost Linked to *Valkyrie* Release." *The Telegraph* January 26.

Kirkham, David M., ed. 2013. *State Responses to Minority Religions*. Burlington, VT: Ashgate Publishing Company.

Kishi, Katayoun. 2016. "Anti-Muslim Assaults Reach 9/11-Era Levels, FBI Data Show." Pew Research. Available at http://www.pewresearch.org/fact-tank/2016/11/21/anti-muslim-assaults-reach-911-era-levels-fbi-data-show/.

Koesel, Karrie J. 2014. *Religion and Authoritarianism: Cooperation, Conflict, and the Consequences.* New York: Cambridge University Press.

Marshall, Paul. 2008. *Religious Freedom in the World*. Lanham, MD: Rowman & Littlefield.

Myers, David G. 1990. *Social Psychology*. New York: McGraw-Hill Publishing Company.

Needham, Christopher. 2012. "Religious Slaughter of Animals in the EU." Library of the European Parliament. Available at http://www.europarl.europa.eu/RegData/bibliotheque/briefing/2012/120375/LDM_BRI%282012%29120375_REV2_EN.pdf.

Pew Forum on Religion & Public Life. 2009. *Global Restrictions on Religion*. Available at http://pewforum.org/Government/Global-Restrictions-on-Religion.aspx.

Purvis, Andrew. 2007. "Germany's Battle Against Scientology." *Time* December 17.

Richardson, James T., ed. 2004. *Regulating Religion: Case Studies from Around the Globe.* New York: Kluwer Academic/Plenum Publishers.

Sanasarian, Eliz. 2000. *Religious Minorities in Iran*. New York: Cambridge University Press.

Sarkissian, Ani. 2015. *The Varieties of Religious Repression: Why Governments Restrict Religion*. New York: Oxford University Press.

Spiegel Online. 2007. "German Sunday Closing Law Applies to New Scientology Center." *Spiegel Online* January 26. Available at http://www.spiegel.de/international/keep-sunday-special-german-sunday-closing-law-applies-to-new-scientology-center-a-462439.html.

Stark, Rodney, and Katie E. Corcoran. 2014. *Religious Hostility: A Global Assessment of Hatred and Terror.* Waco, TX: ISR Books.

Times Wire Reports. 2002. "German Bias Against Scientologists Claimed." *Los Angeles Times* October 12: B25.

U.S. Department of State. 2016. "International Religious Freedom Report for Egypt." Available at https://www.state.gov/documents/organization/269132.pdf.

Velarde, Antonio, Carmen Fuentes, Pedro Rodriguez, Antoni, Dalmau, Karen von Holleben, Haluk Anil, Beniamino Cenci Goga, Bernardo Catanese, Jean Pierre Frencia, Bert Lambooij, Ari Zivotofsky, Helmut Pleiter, and Tahsin Yesildere. 2010. "Assessment of the Incidence and Scale of Current Religious Slaughter Practices." Dialrel. Available at http://www.dialrel.eu/images/factsheet-assesment-practices.pdf.

Appendix A: Supplementary Tables

Table A1: Country Scores for RAS3 Indexes, 1990–2014 Aggregate

Country	Societal Discrimin-ation[a]	Targeting Other Minorities[b]	Societal Regulat-ion[c]	State Discrim-ination[d]	State Regu-lation[e]	State Legis-lation[f]
Afghanistan	10	0	17	30	12	31
Albania	0	0	0	3	6	1
Algeria	7	0	11	24	19	22
Andorra	0	0	0	0	0	6
Angola	2	0	0	4	1	4
Argentina	1	0	12	7	0	8
Armenia	5	0	21	36	5	4
Australia	1	3	13	1	1	4
Austria	1	1	16	10	2	4
Azerbaijan	5	0	8	25	38	6
Bahamas	0	0	0	0	1	3
Bahrain	5	0	13	15	17	24
Bangladesh	5	0	14	4	15	15
Barbados	1	0	1	4	4	4
Belarus	2	0	15	54	20	5
Belgium	2	6	16	11	2	7
Belize	0	0	0	1	2	7
Benin	0	0	0	0	0	4
Bhutan	0	0	2	23	11	11
Bolivia	3	0	0	5	7	9
Bosnia	0	6	29	18	2	12
Botswana	0	0	0	1	0	3
Brazil	0	6	12	5	3	5
Brunei	7	0	3	41	31	34
Bulgaria	5	0	23	28	16	7
Burkina Faso	0	0	0	0	0	1
Burundi	0	0	0	0	6	3
Cambodia	2	0	0	1	10	9
Cameroon	0	0	0	0	0	5
Canada	0	0	12	0	2	6
Cape Verde	0	0	0	0	4	5

Central African Republic	1	0	3	1	3	3
Chad	2	0	0	3	11	6
Chile	0	0	4	9	1	7
China	1	0	3	45	48	7
Colombia	1	1	3	2	2	6
Comoros	6	0	7	27	4	11
Congo-Brazzaville	0	0	0	0	3	3
Costa Rica	0	0	1	8	10	8
Croatia	3	0	29	12	2	12
Cuba	0	0	3	39	27	2
Cyprus, Greek	1	2	7	7	6	7
Cyprus, Turkish	2	0	5	12	4	4
Czech Republic	0	0	16	10	4	12
Denmark	1	6	8	6	16	17
Djibouti	3	0	5	1	10	12
Dominican Rep.	0	0	1	6	0	7
Ecuador	1	0	0	0	2	7
Egypt	10	1	60	43	23	27
El Salvador	0	0	0	4	8	3
Equatorial Guinea	0	0	0	1	10	5
Eritrea	1	0	1	17	19	4
Estonia	0	0	0	0	6	7
Ethiopia	4	1	7	12	13	8
Fiji	4	0	4	1	0	7
Finland	2	1	5	2	5	11
France	2	6	23	15	8	6
Gabon	0	0	0	2	1	6
Gambia	1	0	1	1	2	6
Gaza	7	0	16	19	18	28
Georgia	9	0	26	27	4	9
Germany	4	4	31	25	9	12
Ghana	1	0	0	2	8	10
Greece	6	1	20	22	10	14
Guatemala	1	2	2	5	7	7

Guinea	4	0	1	1	1	6
Guinea Bissau	0	0	0	0	6	4
Guyana	0	0	0	3	2	6
Haiti	0	0	4	3	13	9
Honduras	0	0	0	10	9	2
Hungary	0	0	11	2	2	9
Iceland	0	0	0	5	5	16
India	7	1	21	24	15	17
Indonesia	7	0	20	38	20	29
Iran	9	0	24	69	34	35
Iraq	9	6	20	35	29	24
Ireland	1	0	0	3	1	11
Israel	8	1	18	9	13	26
Italy	1	0	4	7	0	12
Ivory Coast	1	0	2	2	6	9
Jamaica	0	0	3	2	0	6
Japan	3	0	3	3	0	2
Jordan	8	0	6	30	21	30
Kazakhstan	2	0	3	14	23	3
Kenya	1	0	4	6	7	8
Kosovo	2	0	20	6	5	7
Kurdistan (Iraq)	0	0	1	10	14	16
Kuwait	6	0	8	33	17	29
Kyrgyzstan	7	0	1	10	21	4
Laos	2	0	2	55	18	8
Latvia	0	0	2	14	9	11
Lebanon	7	0	13	13	4	20
Lesotho	0	0	0	0	2	6
Liberia	1	0	0	0	5	4
Libya	8	0	7	19	32	21
Liechtenstein	0	0	3	5	4	3
Lithuania	1	0	5	15	6	11
Luxembourg	0	0	0	2	7	6
Macedonia	0	0	2	17	22	3
Madagascar	0	1	2	6	2	6
Malawi	0	0	0	8	1	5
Malaysia	6	0	4	33	26	36

Maldives	5	0	0	65	31	23
Mali	1	0	0	1	3	6
Malta	0	0	2	1	2	11
Mauritania	5	0	0	18	10	16
Mauritius	2	0	0	2	1	5
Mexico	3	0	14	8	19	4
Moldova	8	0	15	19	9	10
Mongolia	3	0	1	5	2	3
Montenegro	2	0	3	7	5	8
Morocco	6	0	4	24	17	18
Mozambique	0	0	0	4	8	4
Myanmar (Burma)	5	0	23	48	34	15
Namibia	0	0	0	0	3	3
Nepal	8	0	2	13	6	5
Netherlands	2	3	11	1	3	8
New Zealand	1	0	0	0	1	7
Nicaragua	0	0	0	1	2	7
Niger	3	0	0	0	10	2
Nigeria	6	0	25	15	5	21
North Korea	0	0	0	33	51	3
Norway	2	0	2	12	5	14
Oman	4	0	2	21	24	27
Pakistan	10	0	50	43	13	31
Palestinian Authority (West Bank)	8	0	25	20	15	22
Panama	0	0	1	3	8	8
Papua New Guinea	0	0	1	0	3	7
Paraguay	0	1	0	12	6	8
Peru	0	0	1	6	5	11
Philippines	0	1	3	0	5	9
Poland	2	0	10	6	5	14
Portugal	0	0	1	3	9	7
Qatar	6	0	2	39	22	28
Romania	5	0	19	23	5	10
Russia	5	0	26	35	18	9
Rwanda	0	0	0	3	8	2
Saudi Arabia	9	0	10	77	41	46

Senegal	2	0	0	0	3	10
Serbia (Yugoslavia)	2	0	6	12	8	10
Sierra Leone	0	0	1	0	2	6
Singapore	0	0	0	14	17	6
Slovak Republic	0	0	6	15	3	11
Slovenia	1	0	3	2	3	7
Solomon Islands	1	0	1	0	0	6
Somalia	9	0	8	13	3	15
South Africa	2	0	9	0	0	2
South Korea	1	2	1	0	3	4
South Sudan	1	0	1	2	0	3
Spain	1	0	3	9	0	11
Sri Lanka	7	3	16	5	1	12
Sudan	9	0	16	43	15	26
Suriname	0	0	0	0	2	5
Swaziland	2	0	1	1	2	7
Sweden	0	3	13	11	6	14
Switzerland	2	0	6	11	8	11
Syria	5	0	6	20	39	22
Taiwan	0	0	2	1	3	3
Tajikistan	2	0	1	5	34	5
Tanzania	0	0	1	2	9	9
Thailand	0	0	4	8	16	18
Timor	6	0	13	9	1	6
Togo	0	0	0	6	4	4
Trinidad & Tobago	0	0	0	2	4	8
Tunisia	7	0	4	25	31	12
Turkey	8	0	20	22	41	10
Turkmenistan	4	0	1	33	44	11
UAE	2	0	2	27	19	27
UK	2	6	13	6	7	13
USA	2	3	18	4	1	5
Uganda	0	0	1	6	2	2
Ukraine	2	0	13	5	13	4
Uruguay	1	0	1	0	1	2
Uzbekistan	2	0	1	41	51	8

	a	b	c	d	e	f
Vanuatu	2	0	0	0	1	5
Venezuela	1	0	3	11	5	8
Vietnam	3	0	4	35	52	4
Western Sahara	6	0	4	24	17	18
Yemen	8	0	13	26	19	24
Zaire (Dem Rep Congo)	1	0	0	0	2	5
Zambia	0	0	0	1	5	7
Zanzibar	2	0	13	1	12	9
Zimbabwe	0	0	2	3	7	9

Note: Scores calculated for 183 countries from the Religion and State, Round 3 collection aggregated between 1990 and 2014.

a. Societal Discrimination Against Minorities Index: potential scores range between 0 and 81.

b. Minority Actions Against Other Minority Religions Index: potential scores range between 0 and 15.

c. Societal Regulation Index: potential scores range between 0 and 10.

d. State Religious Discrimination Index: potential scores range between 0 and 108.

e. State Religious Restrictions Index: potential scores range between 0 and 87.

f. State Religious Legislation Index: potential scores range between 0 and 52.

Table A2: Results from Cronbach Alpha Tests for RAS3 Societal Composite Measures, By Year

Year	N	Societal Discrimination	Targeting Majority Religion	Targeting Other Minority Religion	Societal Regulation
1990 or earliest	183	0.9229	0.6072	0.7175	0.8180
1990	159	0.9163	0.5974	0.7156	0.8125
1991	173	0.9196	0.5839	0.7054	0.8127
1992	174	0.9203	0.5472	0.7055	0.8187
1993	175	0.9191	0.5343	0.7034	0.8192
1994	175	0.9186	0.5198	0.7101	0.8192
1995	176	0.9222	0.5622	0.7333	0.8197
1996	176	0.9219	0.5636	0.7333	0.8197
1997	176	0.9243	0.5772	0.7333	0.8197
1998	176	0.9193	0.5984	0.7265	0.8197
1999	176	0.9224	0.5651	0.7340	0.8197
2000	176	0.9171	0.5864	0.7539	0.8197
2001	176	0.9195	0.5607	0.7505	0.8197
2002	177	0.9209	0.5742	0.7479	0.8198
2003	176	0.9203	0.5889	0.7749	0.8184
2004	178	0.9195	0.5456	0.7506	0.8203
2005	178	0.9226	0.5629	0.7654	0.8203
2006	181	0.9225	0.5698	0.7450	0.8153
2007	181	0.9239	0.5777	0.7516	0.8150
2008	182	0.9234	0.5684	0.7512	0.8133
2009	182	0.9251	0.5611	0.7486	0.8133
2010	182	0.9232	0.5568	0.7507	0.8137
2011	183	0.9224	0.5487	0.7341	0.8131
2012	182	0.9260	0.5750	0.7470	0.8157
2013	182	0.9213	0.5760	0.7352	0.8120
2014	182	0.9207	0.5980	0.7373	0.8139
2014 or latest	183	0.9203	0.5983	0.7374	0.8138

Appendix B: Reliability Tests and Tables of the RAS3 Indexes

Table B1: Construction of State Discrimination, Regulation, and Legislation of Religion, 1990–2014 Aggregate

	Cronbach alpha	Correlations between additive and factor-weighted indexes	Min	Max	Mean	SD
State Discrimination Against Minority Religions[a]	0.9383	0.995***	0	77	12.45	14.91
State Regulation of Religion	0.8892	0.969***	0	52	10.24	11.42
State Legislation of Religion[c]	0.9196	0.971***	0	46	10.306	8.167

Note: $N = 183$ countries. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

a. 36 items, coded as 0 = Not significantly restricted for any or the government does not engage in this practice; 1 = The activity is slightly restricted or the government engages in a mild form of this practice for some minorities; 2 = The activity is slightly restricted for most or all minorities, the government engages in a mild form of this practice or the activity is sharply restricted for some of them, or the government engages in a severe form of this activity for some of them; 3 = The activity is prohibited or sharply restricted or the government engages in a severe form of this activity for most or all minorities.

b. 29 items, coded as 0 = No restrictions; 1 = Slight restrictions including practice restrictions or the government engages in this activity rarely and on a small scale; 2 = Significant restrictions including practical restrictions or the government engages in this activity occasionally and on a moderate scale; 3 = The activity is illegal or the government engages in this activity often and on a large scale.

c. 52 items, coded as 1 if such a law or policy was present and a 0 if not.

Table B2: Correlations of RAS3 Societal Indexes and the ARDA's Social Regulation Index

	N	State Discrimination Against Minority Religions	State Regulation of Religion	State Legislation of Religion
RAS3 (1990–2014 aggregate)				
State Discrimination Against Minority Religions	183	1.000		
State Regulation of Religion	183	0.718***	1.000	
State Legislation of Religion	183	0.613***	0.399***	1.000
RAS2 (2008)				
State Discrimination Against Minority Religions	177	0.972***		
State Regulation of Religion	177		0.944***	
State Legislation of Religion	177			0.961***
ARDA Collection (2008)				
Government Regulation Index	177	0.790***	0.762***	0.542***

Note: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. Correlations with the RAS3 were calculated using the 1990 to 2014 aggregate values, while the correlations with the RAS2 and the ARDA's Social Regulation Index were restricted to values in 2008 for all indexes.