

NBER WORKING PAPER SERIES

RELIGIOUS CONVERSION ACROSS COUNTRIES

Robert J. Barro  
Rachel M. McCleary

Working Paper 32046  
<http://www.nber.org/papers/w32046>

NATIONAL BUREAU OF ECONOMIC RESEARCH  
1050 Massachusetts Avenue  
Cambridge, MA 02138  
January 2024

We attest that we have disclosed all sources of funding and relevant financial relationships. The views expressed herein are those of the authors and do not necessarily reflect the views of the National Bureau of Economic Research.

NBER working papers are circulated for discussion and comment purposes. They have not been peer-reviewed or been subject to the review by the NBER Board of Directors that accompanies official NBER publications.

© 2024 by Robert J. Barro and Rachel M. McCleary. All rights reserved. Short sections of text, not to exceed two paragraphs, may be quoted without explicit permission provided that full credit, including © notice, is given to the source.

Religious Conversion across Countries  
Robert J. Barro and Rachel M. McCleary  
NBER Working Paper No. 32046  
January 2024  
JEL No. Z12

### **ABSTRACT**

In a rational-choice approach to religious conversion, the conversion rate depends on a person's costs of switching religions and costs of having one's religion deviate from the type viewed as ideal. The International Social Survey Programme (ISSP) waves for 1991, 1998, 2008, and 2018 allow for calculations of country-wide conversion rates based on religion adherence at the time of each survey and a retrospective question that gauges adherence when the respondent was raised. The analysis applies to 8 types of religion for 58 countries (125 total observations). The rate of conversion depends positively on measures of religious pluralism, negatively on official restrictions that inhibit conversion, negatively on a history of Communism, negatively on real per capita GDP, and positively on years of schooling. These empirical findings accord with predictions from the theoretical framework.

Robert J. Barro  
Department of Economics  
Littauer Center 218  
Harvard University  
Cambridge, MA 02138  
and NBER  
rbarro@harvard.edu

Rachel M. McCleary  
Department of Economics  
Littauer Center M-14  
Harvard University  
Cambridge, MA 02138  
rachel\_mccleary@harvard.edu

The economics of religion has become a vibrant field in the social sciences. We use ideas from this field to analyze religious conversion as an individual's decision to switch from one religion to another. Within a rational-choice framework, an individual weighs the benefits and costs of changing religions.<sup>1</sup> We interpret this choice as occurring within a religion market that may offer a broad or narrow array of choices. The more pluralistic this market the greater the chance that an individual can find a religion that suits his or her tastes. This perspective fits with Adam Smith's (1790) general idea that a competitive, open market for religions would create a climate of religious vibrancy in which most individuals would be happy about their religious identity and would, therefore, participate greatly in religious activities.<sup>2</sup>

This paper uses the conceptual framework constructed by Barro, Hwang, and McCleary (2010) to study religious conversion. That study emphasized effects on conversion rates from factors that influenced the costs of switching between religions or the costs of having a religion that deviated from the one that a person viewed as best. Religious pluralism and other variables—such as regulations that restrict conversion, education, income, and a country's history of Communism—were examined within this framework.

Barro, Hwang, and McCleary (2010) used this framework to assess empirically the determinants of religious conversion across countries. The empirical analysis used survey waves of the International Social Survey Programme (ISSP) for 1991 and 1998 to measure conversion rates at the country level for 30 distinct countries (42 total observations).<sup>3</sup> The present study adds the ISSP survey waves for 2008 and 2018 to extend the sample to 58 distinct countries (125

---

<sup>1</sup>An early expression of this rational-choice approach to religious conversion is in Gartrell and Shannon (1985).

<sup>2</sup>This Smithian approach was developed in the modern literature particularly by Iannaccone (1990, 1991) and Stark and Finke (2000).

<sup>3</sup>The earlier study also used the World Values Survey (WVS) for 2001 to consider another 10 countries. However, because of problems with the WVS data related to measuring changes in religion we do not use these data in the current study.

total observations). Therefore, we have more than doubled the sample size and are also able to consider more recent experience. Moreover, although the earlier waves of the ISSP focused on rich countries, the two recent waves have expanded coverage to other places. Among the 58 countries now included, 5 are in Latin America, 5 in Africa, and 17 in Asia/Pacific (not counting Australia, Japan, and New Zealand, which are highly developed countries that are long-term members of the OECD).

One important finding is the stability of the structure that determines rates of religious conversion at the country level from 1991 to 2018. This stability applies over time and also to countries that differ greatly in levels of economic development and other characteristics.

## **I. Framework for religious conversion**

We sketch here a modified version of the theoretical model developed in Barro, Hwang, and McCleary (2010) to assess determinants of religious conversion. Suppose that  $m$  types of religion exist in a country. If the religions can be ordered by a single characteristic, such as strictness, then we can arrange the types along a line at positions 1, ...,  $m$ , one of which can represent non-religion. The extent of difference between religions corresponds to the horizontal distance.

Assume that individual  $i$  is “born” (perhaps at the end of dependent childhood at age 16) with religion adherence of type  $x_{i0}$ , corresponding to one of the available religions. Let  $x_{it}^*$  represent person  $i$ 's ideal religion at time  $t$ . This ideal type must also correspond to one of the available religions. In determining this preferred religion, the individual will consider theology and strictness along with the “quality” of religious services, social ties offered by the congregation, and other characteristics.

Because religious preferences during childhood are shaped by family influences and neighborhood upbringing,  $x_{i0}$  will typically be close to  $x_{i0}^*$ ; that is, people will typically regard their initial religious affiliation as close to ideal. However, a person's ideal religion type,  $x_{it}^*$ , tends to change over time because of changed life circumstances (such as choosing a mate with a different faith or moving to another location) or because of shifts in preferences.

Formally, we assume that  $x_{it}^*$  evolves randomly over time, with a fixed variance and no trend. Given the variance of  $x_{it}^*$ , the optimal frequency of switching religion type,  $x_{it}$ , depends on two elements: the cost of switching between one religion and another and the cost of allowing  $x_{it}$  to deviate from  $x_{it}^*$ . The latter cost corresponds to the benefit foregone by having a religion different from one's ideal type. A higher switching cost generates a lower frequency of conversion, and a larger cost of deviation results in a higher frequency of conversion.

In a simple case, the cost of changing religion for person  $i$  is a lump-sum,  $\gamma_i$ , independent of which pair of religions applies. More realistically, the cost would depend on the identity of the religions. For example, in terms of belief systems, switching to a neighboring religion is typically easier than moving to a faraway religion—a Methodist would find it easier to shift to an Evangelical faith, rather than Buddhism or Hinduism (see Stark and Finke [2000]). Some religions, such as Islam, may have high costs for anyone to leave or enter.

The switching cost,  $\gamma_i$ , depends on individual and country-wide variables. One individual determinant of this cost is education. More educated people likely find it easier to change religions because they are better at learning and adjusting to new ways of thinking. More highly educated persons tend also to have more information about alternative religions and more contact with people of other religions.

At the country level,  $\gamma_i$  depends on regulations imposed by governments or organized religions. For example, as reported by Fox and Sandler (2021), legal restrictions sometimes apply to proselytizing or to inter-faith marriage. In some cases, there are direct restrictions on moving out of the majority religion or entering into minority religions. These direct restrictions often exist in predominantly Muslim countries.

The utility that an individual would get from his or her ideal type of religion,  $x_{it}^*$ , depends on the types of religions available in a country or region. For example, a person might potentially like Pentecostalism a great deal but if one's region has little representation of Pentecostalism then membership in this faith is likely to be unattractive because membership in organized religion is a communal experience. In the simple model, religions are either present or not in a country, and the total number available is represented by  $m$ . A higher  $m$  implies a wider menu of religions available and, thereby, typically a higher utility associated with a person's ideal type of religion. Therefore, an increase in  $m$  tends to raise the cost of deviations of  $x_{it}$  from  $x_{it}^*$ .

More generally, the attraction of each religion depends, at least over some range, on the size of its membership, not just on whether it exists. Empirically, we measure this effect by using an indicator of a country's religious pluralism. The specific measure is one minus the sum of squares of adherence shares of religion types (not including non-religion). The sum of squares can be interpreted as the probability of meeting a person with a religion that matches one's own in a random encounter among persons who belong to some religion. Therefore, the pluralism indicator is the probability of meeting someone of a different religion in this kind of random encounter. We think of this probability as positively related to the attractiveness of religious conversion.

The cost of deviation from one's ideal religion depends on how important formal religion is overall. For given locations of available religions, the cost of a deviation of  $x_{it}$  from  $x_{it}^*$  is greater the more important formal religion is to people. For example, among the 58 countries in our empirical sample, 15 had formerly been Communist. Communist governments sought to diminish the overall value attached to religious participation and beliefs, and this influence tends to persist for several decades after the demise of Communism (Froese and Pfaff [2001], McCleary and Barro [2006]). This effect means that the cost of a deviation of  $x_{it}$  from  $x_{it}^*$  is typically smaller in a formerly Communist country than in other countries. More specifically, we use a dummy variable that specifies whether a country had a Communist regime in place roughly 20 years in the past.

Glaeser and Sacerdote (2008) argue that education raises the benefits from participation in formal religion through social-networking effects. This argument suggests that more education would raise the cost of a given deviation of  $x_{it}$  from  $x_{it}^*$ . Empirically, we use the Barro-Lee data on school attainment (described in Barro and Lee [2015]) to measure the level of education for the typical person in a country.

The secularization hypothesis argues that higher per capita income, gauged at the country level by real per capita GDP, lowers the demand for religion, measured by participation in formal religious services and the strength of religious beliefs. From this perspective, higher per capita income reduces the cost of a deviation of  $x_{it}$  from  $x_{it}^*$ . However, there is some ambiguity in this effect because higher per capita income would tend also to raise the willingness to spend on religion even though religious participation and belief tend to decline.

Our theoretical framework for religion change is analogous to models of inventory accumulation (called [S,s] models), applied previously in many contexts, including to sluggish

adjustment of prices. These models feature two forms of costs: fixed (and possibly also variable) costs for adjusting a variable such as the level of inventories or the price level, and costs from allowing the variable (quantity of inventory or price level) to deviate from its ideal value. Optimal behavior entails letting the variable drift until it deviates from the ideal by enough—a critical gap—to warrant making a discrete adjustment.

By analogy, an individual who optimizes over choices of religion affiliation would allow  $x_{it}^*$  to evolve to some extent away from  $x_{it}$ . However, a sufficient deviation triggers the payment of the adjustment cost,  $\gamma_i$ , for changing to a new religion; that is, to convert to reset  $x_{it}$  to equal  $x_{it}^*$ .

When we apply this micro-level reasoning to the average behavior of a population, such as that of a country, we get that the frequency of change in religious affiliation will be greater the lower the typical cost of adjustment,  $\gamma_i$ , and the higher the typical cost of deviation of  $x_{it}$  from  $x_{it}^*$ . Therefore, the various elements discussed above in terms of effects on costs of adjustment or costs of allowing deviations between current and ideal religion type lead to corresponding predictions for effects on a country's frequency of religion change; that is, for the rate of religious conversion.

The empirical analysis uses the four survey waves on religion from the International Social Survey Programme (ISSP) to measure conversion rates at the country level. These surveys are anchored on the years 1991, 1998, 2008, and 2018. The religious-conversion rates are computed by comparing a respondent's religion adherence at the time of the survey with the person's religion adherence while "being raised." That is, we make use of the ISSP's retrospective information concerning the history of a person's religion adherence. A difference



between one's current and childhood religion adherence indicates that at least one change of religion type occurred between childhood and adulthood.

In calculating religious conversion, we use data from the ISSP for persons aged 30 and over at the time of each survey. As discussed in Barro, Hwang, and McCleary (2010), this age limit should isolate persons who have mostly completed their lifetime religious conversions. For example, people aged 30 or more would usually have already experienced life events often associated with religious conversion, such as marriage and the completion of formal schooling. Pew Research Center (2022, p. 13) argues that the age-30 limit may not apply so clearly to apostasy—that is, the giving up of formal religion entirely. However, since our analysis focuses on switches among types of religions, rather than apostasy, we are comfortable with applying the age-30 limit to the religion-switching data.

Operationally, we distinguish eight broad types of religions currently and retrospectively: Catholic, Protestant (broadly defined to include Mainline and Evangelical/Pentecostal), Orthodox, Jewish, Islam, Hindu, Eastern Religion (including Buddhist), and Other Religion. Therefore, we do not classify as a conversion a movement into or out of non-religion or within one of the eight broad religion types (such as among Protestant denominations).

The model delivers a set of hypotheses that can be checked empirically. A country's religious-conversion rate would be higher if:

1. The country has a higher level of religious pluralism, based on the composition of religion types.
2. The country lacks legal or religious restrictions on conversion.
3. The country lacks a history of Communism.
4. The country has higher educational attainment.

5. The country has lower real per capita GDP (although there is some ambiguity here).

## II. Empirical Setting

Table 1 applies to data from the four waves on religion from the ISSP: 1991 (13 countries), 1998 (29), 2008 (38), and 2018 (45). There are a total of 125 observations for 58 countries. Religion adherence is broken down into the eight major types of religions noted before plus non-religion. We plan in subsequent research to consider a finer division among religion types, notably to distinguish among forms of Protestantism.

Table 1 provides matrices of religious conversion for the aggregates of countries included in each survey wave. The columns show numbers of persons associated with former religions; that is, the religion in which the survey respondents say they “were raised.” The rows show numbers associated with current religions; that is, the religion to which the respondents say they currently belong. The data shown apply to persons aged 30 and over at the time of each survey. Diagonal elements indicate persons for whom former and current religions coincide; for example, for the 2018 ISSP wave, there were 10239 persons who were Catholic while being raised and also currently (for persons aged 30 and over when surveyed). We treat these numbers as non-conversions, although there is the possibility that a person could have moved into another religion or to non-religion and then returned to the initial religion.

Off-diagonal elements in Table 1 indicate numbers of persons who made at least one change of religion between childhood and adulthood, among persons currently aged 30 and over. (Note that we cannot detect multiple conversion with these data.) We treat the shifts between religions as conversions. For example, in the 2018 ISSP wave, among the 13804 persons who were raised Catholic, 651 were Protestant at the time of the survey and, therefore, had undergone

a Catholic-to-Protestant conversion. Similarly, 18 had switched to Orthodox, 6 to Jewish, 190 to Islam, 7 to Hindu, 55 to Eastern Religions, and 433 to Other Religions. Therefore, a total of 1360 persons had switched from Catholic to another religion. The overall conversion rate for the 13804 persons who were raised Catholic was, therefore, 9.9% (the ratio of 1360 to 13804). We also see that 2205 persons raised Catholic switched to non-religion, so that the rate of apostasy for those raised Catholic was 16.0% (2205 divided by 13804). We focus in the present study on movements between different religions and do not study shifts between some religion and non-religion or the reverse.

For a given survey wave, the total number of conversions of all types for each country is the sum of all the off-diagonal elements (other than those involving non-religion) in a country-level version of Table 1. That is, we consider shifts from Catholic to Protestant, Catholic to Orthodox, ..., shifts from Protestant to Catholic, Protestant to Orthodox, ..., and so on. We define the overall conversion rate for a country for each survey wave as the ratio of the total number of conversions to the total number of persons who began with some religion (and, therefore, had a chance to undergo a religious conversion as we define it).

The resulting religious-conversion rates for each country and survey wave are shown in the first four columns of Table 2. Table 3 shows that the median conversion rates (for the observations entering into the regressions below) are similar for the four periods: 0.036 for 1991 (13 countries), 0.024 for 1998 (29), 0.028 for 2008 (38), and 0.031 for 2018 (45). (The mean conversion rates are higher, particularly for the 2018 wave, because of the few countries with very high conversion rates.) Table 2 shows that conversion rates are comparatively high for the United States (above 10% in each survey), with similar numbers applying to Chile, the United Kingdom, and New Zealand. The highest conversion rates—involving movements into

Protestantism—are in the 2008 or 2018 survey for South Korea, South Africa, Ghana, and Kenya. Low conversion rates—less than 2% in two or more surveys—apply to Cyprus, Spain, France, Croatia, Israel, Poland, Slovenia, and Turkey.

For most predominantly Muslim countries, the data on religious conversion are unavailable because the question about what religion one was raised in was typically not asked. (Possibly this omission reflects a sense that such a question would be insulting in predominantly Muslim countries.) However, Table 2 does have numbers from the 2018 ISSP survey for Algeria, Jordan, Malaysia, and Turkey, all of which have religious-conversion rates close to zero.

As in Barro, Hwang, and McCleary (2010), the regression analysis applies to the religious-conversion rate observed at the country level for each survey. Specifically, the dependent variable is the log of the religious-conversion rate (with 0.01 added to the conversion rate to allow for inclusion of a zero conversion rate). In the present study, we have four equations corresponding to the four surveys: 1991, 1998, 2008, and 2018.<sup>4</sup> The first two ISSP waves were included in the prior study, but the addition of the two most recent surveys allows for a large expansion of the sample—from 30 to 58 countries and from 42 to 125 observations.

Table 2 lists the countries in the sample. There are 21 countries that are highly developed and long-term members of the OECD, 5 in Africa, 17 in Asia/Pacific, 5 in Latin America, and 10 in Eastern Europe, all of which are former Communist countries. (Overall, there are 15 countries in the sample that are designated as Communist at some point.)

---

<sup>4</sup>As noted before, the earlier analysis included information from the World Values Survey for 2001. However, because of problems in the form of the question related to prior religion, we have excluded the WVS in our current study.

### III. Regression results

Table 3 shows means and standard deviations for the variables used in the regressions. The regression results are in Table 4. A striking finding is that the regression equations are highly stable over time—in the sense that one accepts with high p-values the hypothesis that the coefficients individually or jointly are the same for each of the four periods considered; that is, for each wave of the ISSP. (See the notes to Table 4 for details.) This stability includes constant terms, which would have changed over time if there were global trends in religious-conversion rates. We therefore present in Table 4 the regression results in which the coefficients of the independent variables, including the constant terms, are constrained to be the same for each of the four periods.

The first column of Table 4 includes five independent variables suggested by the underlying model. These variables are the indicator of religious pluralism, the dummy variable for the presence of restrictions on religious conversion around 1990, the dummy variable for the presence of Communism roughly 15-20 years prior to the survey, the log of real per capita GDP, and the average years of schooling. The last two variables are measured just before the time of each survey wave.

The estimated coefficient on religious pluralism is positive and highly statistically significant. Figure 1 shows the strong simple relation between the log of the religious-conversion rate (plus 0.01) and religious pluralism—the overall correlation is 0.61. The regression coefficient on the pluralism variable around 2.5 means that a one-standard-deviation increase in pluralism (by about 0.2 from Table 3) raises the dependent variable by 0.5. This change implies that, at an initial conversion rate of 0.03, corresponding to median conversion rates, the conversion rate would rise to 0.056; that is, by 87%. Looking at Table 2, we see that

high religious pluralism—such as in Chile, the United Kingdom, and the United States—associates with high religious conversion, whereas low pluralism—such as in Denmark, Norway, Slovenia, Sweden, and Turkey—associates with low conversion. That is, religious conversion is promoted by the existence in a country of a wide array of religion offerings that exist to a substantial extent. People do not tend to convert to a religion that has little representation in their country.

Fox and Sandler (2021) provide several measures of legal restrictions on religious conversion. The one used in Barro, Hwang, and McCleary (2010) gauges restrictions around 1990 on either proselytizing or inter-faith marriage; one or both of these restrictions applies for 18 of the 125 observations in Table 4, column 1. More direct restrictions on conversion into minority religions or out of the majority religion did not apply to any of the countries considered in that earlier study but do apply for 5 of the 125 observations in the current analysis.<sup>5</sup> As in the prior study, the results in Table 4, column 1, show a significantly negative impact on the religious-conversion rate from the presence of official restrictions related to proselytizing or inter-faith marriage. If the measure of direct restriction on conversion is added, the estimated coefficient differs insignificantly from zero. This result likely obtains because the sample has so few instances of these direct restrictions.<sup>6</sup>

Also as in the prior study, the results in Table 4, column 1, indicate a significantly negative effect on religious conversion from a history of Communism. The Communism dummy variable applies in 1970 for the 1991 survey data, in 1985 for the 1998 and 2008 surveys, and in 2000 for the 2018 survey. The interpretation, based on results in Froese and Pfaff (2001) and

---

<sup>5</sup>These restrictions are for Algeria, Jordan, Malaysia, Nepal, and Vietnam. These countries have religious-conversion data from the 2018 ISSP survey.

<sup>6</sup>If the restriction on proselytizing or inter-faith marriage is omitted, the direct restriction variable becomes significantly negative.

McCleary and Barro (2006), is that Communism lowers the value attached to religious participation and beliefs and that this negative influence persists for roughly 20 years. With a reduced value attached to religion overall, individuals would have less incentive to pay the costs of changing religions and, therefore, the conversion rate falls.

We noted that the impact of real per capita GDP on the religious-conversion rate is generally ambiguous. The secularization tendency—whereby richer countries tend to be less religious—implies that richer places would spend less time on religion, thereby suggesting a negative effect of GDP on religious conversion. However, richer places might spend more money on religion, thereby implying a positive effect of per capita GDP on conversion. In the earlier study (Barro, Hwang, and McCleary [2010, Table 5]), the estimated coefficient on the log of GDP per capita was negative but statistically insignificantly different from zero. With the expanded sample considered in the present analysis (Table 4, column 1), the estimated coefficient on  $\log(\text{GDP per capita})$  is much more precisely determined than before, and the estimated coefficient is significantly negative.

Although per capita GDP and years of schooling are highly positively correlated, there is enough independent variation in these two variables to distinguish their effects empirically. As in the previous study, the estimated effect from more years of schooling (holding fixed per capita GDP) is significantly positive (though now statistically significant only at the 10% level). This result on schooling is consistent with the underlying model, which argued that more educated people are better at making changes (including in religious affiliation) and also benefit more from the social connections provided by organized religion.

Table 4, column 2 shows a marginally significant negative effect on religious conversion from a greater Islam adherence share. A possible interpretation is that the costs of moving out of

or into the Islamic faith are greater than those for other religions (and that these costs are not fully captured by the other explanatory variables). Consistent with this interpretation, the inclusion of the Islam adherence share does reduce the magnitude of the coefficient of the variable that measures restrictions on conversion. Overall, the coefficients in column 2 are similar to those in column 1.

#### **IV. Conclusions**

We showed how a simple, theory-based model can account for significant effects from a group of variables on the religious-conversions rates in 58 countries from 1991 to 2018. These results are noteworthy for being stable over time and for applying to countries at a wide range of economic development.

A major omission in the study is the failure to consider conversions across a finer group of religions that goes beyond the eight major groups that we considered. Distinguishing among forms of Protestantism will particularly be critical in understanding the key roles of Pentecostalism, neo-Pentecostalism, and other forms of Evangelicalism—modes of Christianity that have grown in recent decades primarily through religious conversion. In terms of the ISSP data, we think that the 1998 and 2008 survey waves will allow for the finer divisions among religions that can be used to study these questions.

Conversion in Africa, Asia, and to a lesser extent in Latin America is a fluid event with high mobility from one religion to another. In this regard, our study thus far is limited to types of conversion theoretically grounded in a Western model that construes a religion as consisting of theological doctrines and beliefs. As Gellner (1974, p. 156) argued, many believers “transcend their condition not by reaching out to science, but through syncretism, through the simultaneous



use of incompatible belief systems, or *doctrinal opportunism* [emphasis added].” Gellner’s observation underscores the rational-choice dimension of our model of conversion while pointing to the need to develop a model of conversion within a pluralistic religion market that fundamentally is not monotheistic and Christian. In our future work we intend to further extend our research on religious conversion to regions of the world where forms of Pentecostalism and Evangelicalism are growing the fastest.

## References

- Barrett, David B. (1982). *World Christian Encyclopedia*, 1<sup>st</sup> ed., Oxford, Oxford University Press.
- Barrett, David B., George T. Kurian, and Todd M. Johnson (2001). *World Christian Encyclopedia*, 2<sup>nd</sup> ed., Oxford, Oxford University Press.
- Barro, Robert J., Jason Hwang, and Rachel M. McCleary (2010). "Religious Conversion in 40 Countries," *Journal for the Scientific Study of Religion*, 49, March, 15-36.
- Barro, Robert J. and Jong-Wha Lee. *Education Matters: Global Schooling Gains from the 19th to the 21st Century*, Oxford, Oxford University Press, 2015.
- Barro, Robert J. and Rachel M. McCleary (2005). "Which Countries Have State Religions?" *Quarterly Journal of Economics*, 120, November, 1331-1370.
- Gellner, Ernest (1974). *Legitimation of Belief*, Cambridge, Cambridge University Press.
- Feenstra, Robert C., Robert Inklaar and Marcel P. Timmer (2015), "The Next Generation of the Penn World Table," *American Economic Review*, 105, October, 3150-3182, available for download at [www.ggdc.net/pwt](http://www.ggdc.net/pwt).
- Fox, Jonathan and Shmuel Sandler (2021). *The Religion and State Project, Round 1*, available from *The Association of Religion Data Archives (thearda.com)*.
- Froese, Paul and Steven Pfaff (2001). "Replete and Desolate Markets: Poland, East Germany, and the New Religious Paradigm," *Social Forces*, 80, December, 481-507.
- Gartrell, David C. and Zane K. Shannon (1985). "Contacts, Cognitions, and Conversion: A Rational Choice Approach," *Review of Religious Research*, 27, September, 32-48.
- Glaeser, Edward L. and Bruce I. Sacerdote (2008). "Education and Religion," *Journal of Human Capital*, 2, Summer, 188-215.
- Iannaccone, Laurence R. (1990). "Religious Participation: A Human Capital Approach," *Journal for the Scientific Study of Religion*, 29, September, 297-314.
- Iannaccone, Laurence R. (1991). "The Consequences of Religious Market Structure: Adam Smith and the Economics of Religion," *Rationality and Society*, 3, April, 156-177.
- Kornai, Janos (1992). *The Socialist System: The Political Economy of Communism*, Princeton, Princeton University Press.

McCleary, Rachel M. and Robert J. Barro (2006). "Religion and Political Economy in an International Panel," *Journal for the Scientific Study of Religion*," 45, June, 149-175.

Pew Research Center (2022). *Modeling the Future of Religion in America*, September, available at [pewresearch.org](http://pewresearch.org).

Smith, Adam (1790). *The Wealth of Nations*, 6<sup>th</sup> ed., London, A. Strahan and T. Cadell.

Stark, Rodney and Roger Finke (2000). *Acts of Faith, Explaining the Human Side of Religion*, Berkeley CA, University of California Press.

**Table 1**

**Matrices of Religious Conversion for all Countries in each Survey Wave**

**(Data apply to persons aged 30 and over at the time of each survey)**

| <b>ISSP 1991</b>         |                         |                   |                 |               |              |              |                |              |             |              |
|--------------------------|-------------------------|-------------------|-----------------|---------------|--------------|--------------|----------------|--------------|-------------|--------------|
|                          | <b>Former religion:</b> |                   |                 |               |              |              |                |              |             |              |
|                          | <b>Catholic</b>         | <b>Protestant</b> | <b>Orthodox</b> | <b>Jewish</b> | <b>Islam</b> | <b>Hindu</b> | <b>Eastern</b> | <b>Other</b> | <b>None</b> | <b>Total</b> |
| <b>Current religion:</b> |                         |                   |                 |               |              |              |                |              |             |              |
| <b>Catholic</b>          | 5560                    | 116               | 0               | 0             | 0            | 0            | 2              | 33           | 568         | 6279         |
| <b>Protestant</b>        | 121                     | 4941              | 1               | 3             | 2            | 0            | 0              | 127          | 1307        | 6502         |
| <b>Orthodox</b>          | 2                       | 1                 | 269             | 0             | 0            | 0            | 0              | 10           | 37          | 319          |
| <b>Jewish</b>            | 0                       | 0                 | 0               | 32            | 6            | 0            | 0              | 0            | 8           | 46           |
| <b>Islam</b>             | 0                       | 1                 | 0               | 0             | 45           | 0            | 0              | 0            | 1           | 47           |
| <b>Hindu</b>             | 0                       | 0                 | 0               | 0             | 0            | 10           | 0              | 1            | 0           | 11           |
| <b>Eastern</b>           | 1                       | 2                 | 0               | 0             | 0            | 0            | 4              | 0            | 4           | 11           |
| <b>Other</b>             | 7                       | 47                | 1               | 0             | 1            | 0            | 0              | 120          | 53          | 229          |
| <b>None</b>              | 25                      | 90                | 428             | 1             | 4            | 0            | 0              | 19           | 2178        | 2745         |
| <b>Total</b>             | 5716                    | 5198              | 699             | 36            | 58           | 10           | 6              | 310          | 4156        | 16189        |
| <b>ISSP 1998</b>         |                         |                   |                 |               |              |              |                |              |             |              |
|                          | <b>Former religion:</b> |                   |                 |               |              |              |                |              |             |              |
|                          | <b>Catholic</b>         | <b>Protestant</b> | <b>Orthodox</b> | <b>Jewish</b> | <b>Islam</b> | <b>Hindu</b> | <b>Eastern</b> | <b>Other</b> | <b>None</b> | <b>Total</b> |
| <b>Current religion:</b> |                         |                   |                 |               |              |              |                |              |             |              |
| <b>Catholic</b>          | 11663                   | 264               | 2               | 10            | 2            | 1            | 9              | 143          | 1526        | 13620        |
| <b>Protestant</b>        | 117                     | 6091              | 8               | 5             | 5            | 1            | 2              | 235          | 1311        | 7775         |
| <b>Orthodox</b>          | 11                      | 3                 | 1556            | 3             | 0            | 0            | 0              | 17           | 65          | 1655         |
| <b>Jewish</b>            | 6                       | 3                 | 1               | 701           | 1            | 0            | 0              | 0            | 9           | 721          |
| <b>Islam</b>             | 2                       | 0                 | 5               | 0             | 205          | 0            | 0              | 1            | 10          | 223          |
| <b>Hindu</b>             | 0                       | 0                 | 0               | 0             | 0            | 5            | 0              | 0            | 4           | 9            |
| <b>Eastern</b>           | 0                       | 0                 | 0               | 0             | 0            | 0            | 312            | 5            | 37          | 354          |
| <b>Other</b>             | 22                      | 58                | 0               | 4             | 0            | 4            | 10             | 209          | 124         | 431          |
| <b>None</b>              | 137                     | 281               | 619             | 32            | 9            | 0            | 60             | 110          | 3044        | 4292         |
| <b>Total</b>             | 11958                   | 6700              | 2191            | 755           | 222          | 11           | 393            | 720          | 6130        | 29080        |

| ISSP 2008                |                  |            |          |        |       |       |         |       |      |       |
|--------------------------|------------------|------------|----------|--------|-------|-------|---------|-------|------|-------|
|                          | Former religion: |            |          |        |       |       |         |       |      |       |
|                          | Catholic         | Protestant | Orthodox | Jewish | Islam | Hindu | Eastern | Other | None | Total |
| <b>Current religion:</b> |                  |            |          |        |       |       |         |       |      |       |
| <b>Catholic</b>          | 17543            | 199        | 26       | 5      | 5     | 0     | 34      | 24    | 268  | 18104 |
| <b>Protestant</b>        | 576              | 8396       | 15       | 5      | 6     | 13    | 111     | 182   | 570  | 9874  |
| <b>Orthodox</b>          | 28               | 6          | 2087     | 4      | 2     | 0     | 0       | 1     | 696  | 2824  |
| <b>Jewish</b>            | 16               | 6          | 1        | 750    | 1     | 0     | 0       | 2     | 39   | 815   |
| <b>Islam</b>             | 12               | 12         | 1        | 2      | 1365  | 0     | 0       | 38    | 12   | 1442  |
| <b>Hindu</b>             | 4                | 6          | 0        | 0      | 1     | 113   | 7       | 15    | 2    | 148   |
| <b>Eastern</b>           | 30               | 23         | 2        | 0      | 0     | 1     | 1715    | 21    | 144  | 1936  |
| <b>Other</b>             | 262              | 590        | 12       | 1      | 4     | 8     | 28      | 285   | 105  | 1295  |
| <b>None</b>              | 2579             | 2036       | 47       | 15     | 56    | 9     | 265     | 198   | 3941 | 9146  |
| <b>Total</b>             | 21050            | 11274      | 2191     | 782    | 1440  | 144   | 2160    | 766   | 5777 | 45584 |

| ISSP 2018                |                  |            |          |        |       |       |         |       |      |       |
|--------------------------|------------------|------------|----------|--------|-------|-------|---------|-------|------|-------|
|                          | Former religion: |            |          |        |       |       |         |       |      |       |
|                          | Catholic         | Protestant | Orthodox | Jewish | Islam | Hindu | Eastern | Other | None | Total |
| <b>Current religion:</b> |                  |            |          |        |       |       |         |       |      |       |
| <b>Catholic</b>          | 10239            | 157        | 12       | 1      | 9     | 2     | 117     | 114   | 217  | 10868 |
| <b>Protestant</b>        | 651              | 7303       | 20       | 9      | 37    | 29    | 156     | 476   | 551  | 9232  |
| <b>Orthodox</b>          | 18               | 22         | 2321     | 4      | 70    | 0     | 2       | 17    | 637  | 3091  |
| <b>Jewish</b>            | 6                | 7          | 1        | 832    | 1     | 0     | 0       | 5     | 23   | 875   |
| <b>Islam</b>             | 190              | 22         | 5        | 3      | 5854  | 9     | 8       | 32    | 41   | 6164  |
| <b>Hindu</b>             | 7                | 1          | 83       | 3      | 7     | 1192  | 4       | 75    | 6    | 1378  |
| <b>Eastern</b>           | 55               | 291        | 3        | 0      | 34    | 9     | 5339    | 266   | 434  | 6431  |
| <b>Other</b>             | 433              | 520        | 15       | 11     | 41    | 33    | 47      | 1498  | 183  | 2781  |
| <b>None</b>              | 2205             | 1859       | 56       | 33     | 86    | 10    | 357     | 452   | 5157 | 10215 |
| <b>Total</b>             | 13804            | 10182      | 2516     | 896    | 6139  | 1284  | 6030    | 2935  | 7249 | 51035 |

Note: The underlying data come from the four survey waves on religion from the International Social Survey Programme (ISSP). Former religion is the one that the respondent indicated that he or she was raised in. Current religion is the one that the respondent indicated that he or she adhered to at the time of the survey. The first two panels are from Barro, Hwang, and McCleary (2010).

**Table 2 Religious-Conversion Rates and other Variables**

| Country        | Religious-conversion rate from ISSP |       |       |       | Religious pluralism |       |       | Conversion restrictions | Communism |
|----------------|-------------------------------------|-------|-------|-------|---------------------|-------|-------|-------------------------|-----------|
|                | 1991                                | 1998  | 2008  | 2018  | 1970                | 2008  | 2018  | 1990                    | 1985      |
| Australia      | 0.054                               | --    | 0.057 | --    | 0.43                | 0.581 | --    | 0                       | 0         |
| Austria        | 0.034                               | 0.019 | 0.019 | 0.011 | 0.17                | 0.208 | 0.297 | 0                       | 0         |
| Belgium        | --                                  | --    | 0.023 | --    | 0.09                | 0.078 | --    | 0                       | 0         |
| Bulgaria       | --                                  | 0.004 | --    | 0.095 | 0.28                | --    | 0.261 | 1                       | 1         |
| Canada         | --                                  | 0.171 | --    | --    | 0.53                | --    | --    | 0                       | 0         |
| Switzerland    | --                                  | 0.055 | 0.046 | 0.049 | 0.52                | 0.600 | 0.604 | 1                       | 0         |
| Chile          | --                                  | 0.130 | 0.112 | 0.160 | 0.31                | 0.351 | 0.429 | 0                       | 0         |
| Cyprus         | --                                  | 0.007 | 0.005 | --    | 0.40                | 0.014 | --    | 1                       | 0         |
| Czech Rep.     | --                                  | 0.024 | 0.025 | 0.019 | 0.40                | 0.223 | 0.256 | 0                       | 1         |
| Denmark        | --                                  | 0.019 | 0.018 | 0.025 | 0.03                | 0.052 | 0.075 | 0                       | 0         |
| Dominican Rep. | --                                  | --    | 0.068 | --    | --                  | 0.298 | --    | 0                       | 0         |
| Algeria        | --                                  | --    | --    | 0.009 | --                  | --    | 0.019 | 1                       | 0         |
| Spain          | --                                  | 0.004 | 0.011 | 0.014 | 0.02                | 0.083 | 0.153 | 0                       | 0         |
| Estonia        | --                                  | --    | --    | 0.089 | 0.53                | --    | 0.656 | 0                       | 1         |
| Finland        | --                                  | --    | 0.026 | 0.013 | 0.03                | 0.087 | 0.167 | 1                       | 0         |
| France         | --                                  | 0.018 | 0.010 | 0.013 | 0.14                | 0.129 | 0.231 | 1                       | 0         |
| U.K.           | 0.070                               | 0.089 | 0.105 | 0.158 | 0.26                | 0.600 | 0.699 | 0                       | 0         |
| Germany        | 0.028                               | 0.042 | 0.058 | 0.025 | 0.50                | 0.576 | 0.568 | 1                       | 0         |
| Ghana          | --                                  | --    | --    | 0.335 | 0.11                | --    | 0.692 | 0                       | 0         |
| Croatia        | --                                  | --    | 0.005 | 0.012 | 0.22                | 0.105 | 0.115 | 0                       | 1         |
| Hungary        | 0.005                               | 0.026 | 0.028 | 0.044 | 0.44                | 0.406 | 0.400 | 0                       | 1         |
| Indonesia      | --                                  | --    | --    | 0.023 | --                  | --    | 0.204 | 1                       | 0         |
| Ireland        | --                                  | 0.019 | 0.024 | --    | 0.17                | 0.109 | --    | 0                       | 0         |
| Iceland        | --                                  | --    | --    | 0.091 | 0.02                | --    | 0.208 | 0                       | 0         |
| Israel         | --                                  | 0.017 | 0.009 | 0.009 | 0.25                | 0.425 | 0.294 | 1                       | 0         |
| Italy          | 0.006                               | 0.027 | 0.006 | 0.031 | 0.08                | 0.012 | 0.098 | 0                       | 0         |
| Jordan         | --                                  | --    | --    | 0.008 | --                  | --    | 0.086 | 1                       | 0         |
| Japan          | --                                  | 0.021 | 0.031 | 0.056 | 0.07                | 0.082 | 0.104 | 0                       | 0         |
| Kenya          | --                                  | --    | --    | 0.331 | --                  | --    | 0.514 | 0                       | 0         |
| Cambodia       | --                                  | --    | --    | 0.007 | --                  | --    | 0.033 | 0                       | 1         |
| Korea, Rep.    | --                                  | --    | 0.311 | 0.187 | --                  | 0.638 | 0.654 | 1                       | 0         |
| Sri Lanka      | --                                  | --    | --    | 0.031 | --                  | --    | 0.481 | 0                       | 0         |
| Lithuania      | --                                  | --    | --    | 0.009 | 0.14                | --    | 0.078 | 1                       | 1         |
| Latvia         | --                                  | 0.084 | 0.036 | --    | 0.67                | 0.671 | --    | 0                       | 1         |
| Mexico         | --                                  | --    | 0.053 | --    | --                  | 0.197 | --    | 0                       | 0         |
| Mongolia       | --                                  | --    | --    | 0.070 | --                  | --    | 0.231 | 1                       | 1         |
| Malawi         | --                                  | --    | --    | 0.002 | --                  | --    | 0.578 | 0                       | 0         |
| Malaysia       | --                                  | --    | --    | 0.020 | --                  | --    | 0.572 | 1                       | 0         |
| Netherlands    | 0.077                               | 0.092 | 0.054 | --    | 0.51                | 0.578 | --    | 0                       | 0         |

| Country       | Religious conversion rate from ISSP |       |       |       | Religious pluralism |       |       | Conversion restrictions | Communism |
|---------------|-------------------------------------|-------|-------|-------|---------------------|-------|-------|-------------------------|-----------|
|               | 1991                                | 1998  | 2008  | 2018  | 1970                | 2008  | 2018  | 1990                    | 1985      |
| Norway        | 0.032                               | 0.031 | 0.027 | 0.030 | 0.00                | 0.118 | 0.161 | 0                       | 0         |
| Nepal         | --                                  | --    | --    | 0.043 | --                  | --    | 0.330 | 1                       | 0         |
| New Zealand   | 0.070                               | 0.145 | 0.136 | 0.064 | 0.29                | 0.620 | 0.581 | 0                       | 0         |
| Philippines   | 0.040                               | 0.094 | 0.109 | 0.116 | 0.39                | 0.327 | 0.387 | 0                       | 0         |
| Poland        | --                                  | 0.008 | 0.010 | --    | 0.06                | --    | --    | 0                       | 1         |
| Portugal      | --                                  | 0.024 | 0.024 | -     | 0.10                | 0.037 | --    | 0                       | 0         |
| Russia        | 0.036                               | 0.085 | 0.005 | 0.082 | 0.60                | 0.135 | 0.192 | 0                       | 1         |
| Slovak Rep.   | --                                  | 0.006 | 0.007 | 0.025 | 0.32                | 0.261 | 0.263 | 0                       | 1         |
| Slovenia      | 0.006                               | 0.007 | 0.007 | 0.012 | 0.09                | 0.140 | 0.216 | 0                       | 1         |
| Sweden        | --                                  | 0.015 | 0.024 | 0.021 | 0.04                | 0.100 | 0.096 | 0                       | 0         |
| Thailand      | --                                  | --    | --    | 0.036 | --                  | --    | 0.108 | 1                       | 0         |
| Turkey        | --                                  | --    | 0     | 0     | --                  | 0.003 | 0.012 | 1                       | 0         |
| Taiwan        | --                                  | --    | --    | 0.034 | --                  | 0.187 | 0.145 | 0                       | 0         |
| Ukraine       | --                                  | --    | 0.044 | --    | 0.36                | 0.210 | --    | 0                       | 1         |
| Uruguay       | --                                  | --    | 0.137 | --    | --                  | 0.410 | --    | 0                       | 0         |
| United States | 0.120                               | 0.159 | 0.137 | 0.106 | 0.45                | 0.542 | 0.538 | 0                       | 0         |
| Venezuela     | --                                  | --    | 0.122 | 0.121 | --                  | 0.276 | 0.298 | 0                       | 0         |
| Vietnam       | --                                  | --    | --    | 0.012 | --                  | --    | 0.529 | 1                       | 1         |
| South Africa  | --                                  | --    | 0.261 | 0.539 | --                  | 0.597 | 0.664 | 0                       | 0         |

Note: Religious-conversion rate is based on questions from the four waves of the ISSP (1991, 1998, 2008, 2018) on current religion and religion while being raised. Religious pluralism is one minus the sum of squares of religion adherence among eight types: Catholic, Protestant (broadly defined), Orthodox, Jewish, Islam, Hindu, Eastern Religion (including Buddhist), and Other Religion. Conversion restriction is a dummy variable for the presence around 1990 of restrictions on proselyting or inter-faith marriage from Fox and Sandler (2021). Communism is a dummy variable for the presence of a Communist regime from Kornai (1992), extended in Barro and McCleary (2005) to 2000. The value in 1970 is the same as that for 1985 for this sample. Communism in 2000 is zero except for Vietnam for this sample.

**Table 3 Means and Standard Deviations,  
Variables in Regression Samples**

| <b>Variable</b>                   | <b>N</b> | <b>Mean {Median}</b> | <b>Std. Dev.</b> |
|-----------------------------------|----------|----------------------|------------------|
| <b>Religious-conversion rate</b>  |          |                      |                  |
| ISSP 1991                         | 13       | 0.044 [0.036]        | 0.033            |
| ISSP 1998                         | 29       | 0.050 [0.024]        | 0.050            |
| ISSP 2008                         | 38       | 0.057 [0.028]        | 0.069            |
| ISSP 2018                         | 45       | 0.071 [0.031]        | 0.104            |
| <b>Log(conversion rate + .01)</b> |          |                      |                  |
| ISSP 1991                         | 13       | -3.11 [-3.08]        | 0.69             |
| ISSP 1998                         | 29       | -3.14 [-3.38]        | 0.80             |
| ISSP 2008                         | 38       | -3.09 [-3.28]        | 0.87             |
| ISSP 2018                         | 45       | -3.01 [-3.19]        | 0.94             |
| <b>Religious pluralism</b>        |          |                      |                  |
| ISSP 1991                         | 13       | 0.323 [0.394]        | 0.189            |
| ISSP 1998                         | 29       | 0.279 [0.276]        | 0.198            |
| ISSP 2008                         | 38       | 0.286 [0.216]        | 0.220            |
| ISSP 2018                         | 45       | 0.317 [0.261]        | 0.214            |
| <b>Restrictions on conversion</b> |          |                      |                  |
| ISSP 1991                         | 13       | 0.077 [0]            | 0.277            |
| ISSP 1998                         | 29       | 0.207 [0]            | 0.412            |
| ISSP 2008                         | 38       | 0.211 [0]            | 0.413            |
| ISSP 2018                         | 45       | 0.378 [0]            | 0.490            |
| <b>Communism</b>                  |          |                      |                  |
| ISSP 1991                         | 13       | 0.231 [0]            | 0.439            |
| ISSP 1998                         | 29       | 0.276 [0]            | 0.455            |
| ISSP 2008                         | 38       | 0.211 [0]            | 0.413            |
| ISSP 2018                         | 45       | 0.022 [0]            | 0.149            |
| <b>Log(GDP per capita)</b>        |          |                      |                  |
| ISSP 1991                         | 13       | 10.15 [10.40]        | 0.62             |
| ISSP 1998                         | 29       | 10.09 [10.26]        | 0.61             |
| ISSP 2008                         | 38       | 10.16 [10.34]        | 0.86             |
| ISSP 2018                         | 45       | 9.87 [10.18]         | 1.07             |
| <b>Years of schooling</b>         |          |                      |                  |
| ISSP 1991                         | 13       | 9.97 [10.21]         | 1.56             |
| ISSP 1998                         | 29       | 10.36 [10.73]        | 1.31             |
| ISSP 2008                         | 38       | 10.73 [11.19]        | 1.57             |
| ISSP 2018                         | 45       | 10.59 [11.13]        | 2.20             |

Note: See the note to Table 2 for definitions of variables. Real GDP per capita is from Penn World Tables, version 10, as described in Feenstra, Inklaar, and Timmer (2015). Years of schooling is from barrolee.com, as described in Barro and Lee (2015).



**Table 4 Regressions for Convergence Rate**

| <b>Independent variable</b>             | <b>(1)</b>           | <b>(2)</b>           |
|---|----------------------|----------------------|
| <b>Constant</b>                         | -2.19***<br>(0.62)   | -1.95***<br>(0.63)   |
| <b>Religious pluralism</b>              | 2.51***<br>(0.25)    | 2.44***<br>(0.25)    |
| <b>Restrictions on conversion</b>       | -0.55***<br>(0.12)   | -0.45***<br>(0.13)   |
| <b>Communism</b>                        | -0.97***<br>(0.14)   | -0.98***<br>(0.14)   |
| <b>log(GDP per capita)</b>              | -0.212***<br>(0.080) | -0.225***<br>(0.080) |
| <b>Years of schooling</b>               | 0.076*<br>(0.039)    | 0.068*<br>(0.039)    |
| <b>State religion</b>                   | --                   | --                   |
| <b>Regulation of religion</b>           | --                   | --                   |
| <b>Islam adherence share</b>            | --                   | -0.51*<br>(0.29)     |
| <b>R-squared</b>                        | 0.59                 | 0.60                 |
| <b>Standard error of equation</b>       | 0.56                 | 0.55                 |
| <b>Number of countries/observations</b> | 58/125               | 58/125               |

\*\*\*Significant at 0.01, \*\*significant at 0.05, \*significant at 0.10.

#### Notes to Table 4

The sample combines all of the countries/observations available for the four waves of the ISSP survey: 1991, 1998, 2008, 2018. Estimation is by OLS. Standard errors of estimated coefficients are in parentheses.

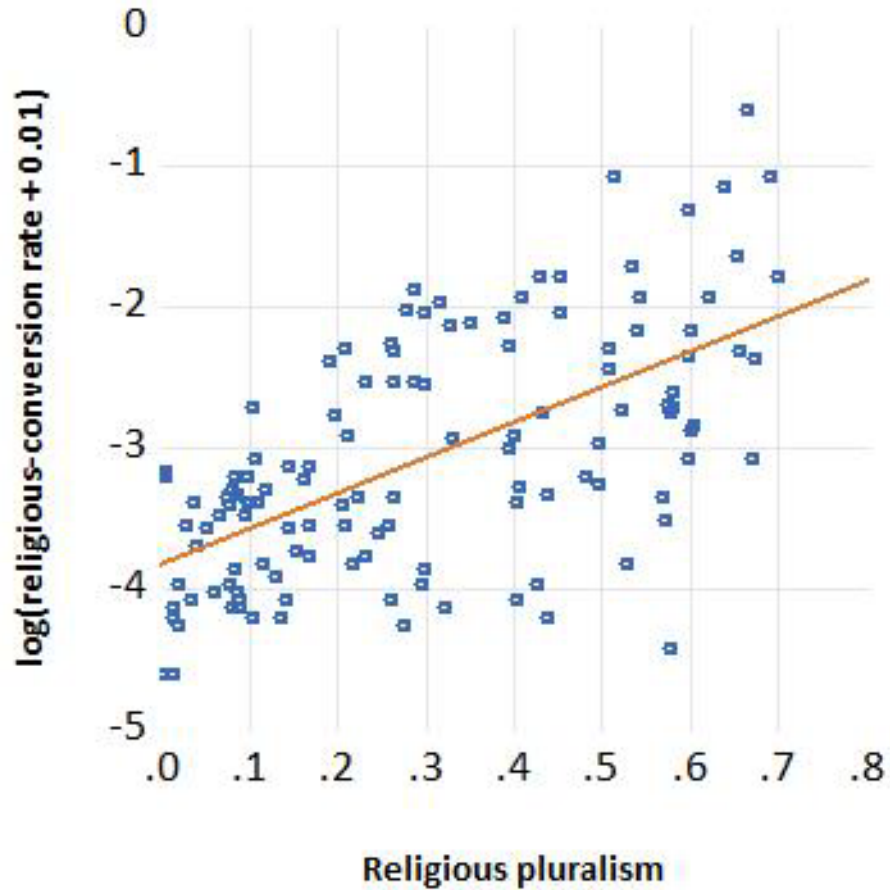
This analysis uses an eight-way breakdown of religion affiliation: Catholic, Protestant (viewed broadly), Orthodox, Jewish, Islam, Hindu, Eastern religion (including Buddhist), and Other Religion. The dependent variable is  $\log(\text{religious conversion rate} + 0.01)$ . (The inclusion of the small value, 0.01, allows for taking the log when the convergence rate equals zero.) The conversion number equals persons aged 30 and over at the time of the survey whose religious affiliation at that time differed from that while being raised (excluding persons with no religion at either time). The conversion rate is the ratio of the conversion number to the number of persons who had some religious affiliation while being raised. Religious pluralism is one minus the sum of squared values of the religion-adherence shares (out of the population with some religion). For the first two periods, religion adherence applies in 1970, based on data from Barrett (1982) and Barrett, Kurian, and Johnson (2001). For the last two periods, religion adherence comes from the corresponding ISSP survey. The Islam adherence shares are also from these sources.

Conversion restriction is a dummy variable for the presence around 1990 of restrictions on proselyting or inter-faith marriage from Fox and Sandler (2021). Dummy variables for the presence of Communism are for 1970, 1985, 1985, and 2000. The underlying classification is from Kornai (1992), extended in Barro and McCleary (2005) to 2000. Real per capita GDP in 1990, 1995, 2005, and 2015 is from Penn-World Tables, version 10, as described in Feenstra, Inklaar, and Timmer (2015). Years of schooling for 1990, 1995, 2005, and 2015 are from Barro-lee.com, as described in Barro and Lee (2015).

For the regression in column 1, the p-values for equality of coefficients across the four periods are 0.61 for all six coefficients jointly, 0.42 for the constant term, 0.28 for religious pluralism, 0.97 for restrictions on conversion, 0.82 for Communism, 0.47 for  $\log(\text{per capita GDP})$ , and 0.45 for years of schooling.

Figure 1

Religious-Conversion rate versus Religious Pluralism



Note: The scatter diagram applies to the 125 observations corresponding to the regressions in Table 4, column 1. The vertical axis has the dependent variable from the regression, as described in the notes to Table 4. The horizontal axis has the religious-pluralism variable, also described in the notes to Table 4.