Divine Innovation: Religion and Service Provision by Religious Organizations in India

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Extending economic analysis to the study of religion is not new and has been discussed by scholars from Adam Smith in the Wealth of Nations (1776) to Alfred Marshall in the Principles of Economics (1890). However, interest from management scholars in religion, although increasing, is still at a nascent stage. The study of religious organizations competing for adherents through the provision of services provides a rich avenue for firms to learn about innovation and change. This paper provides an understanding of how religious organizations in contemporary India have responded to income inequality by innovating their provision of religious and non-religious services. The paper consists of three parts. The first part provides a theoretical model of competition in service provision. Second, the paper examines the descriptive data from a survey of 568 religious organizations in India. Third, the paper provides statistical analysis of the survey data to examine how income inequality affects the provision of religious and non-religious services by religious organizations.

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Sriya Iyer[2], Chander Velu[3] and Tirthankar Chakravarty[4]

Abstract

This paper examines religious and non-religious service provision by religious organizations in India. We present a stylized Hotelling (1929)-style model in which two religious organizations differentiate themselves on the strength of religious beliefs in order to compete in attracting adherents. Moreover, the model predicts that economic inequality makes both organizations increase their non-religious services to retain adherents. To test this, we present unique primary survey data on the economics of religion, collected by us between 2006 and 2008 from 568 Hindu, Muslim, Christian, Sikh and Jain religious organizations spread across 7 Indian states. We use this data to provide qualitative and descriptive statistics from the survey to demonstrate that these organizations have substantially increased their provision of religious and non-religious services, and that there are significant variations according to religion. We also provide quantitative evidence based on econometric testing to highlight that religious organizations are differentiating themselves on the strength of religious beliefs with respect to other organizations, and are also providing higher education and health services as economic inequality increases in India.

Political economy or economics is a study of mankind in the ordinary business of life; it examines that part of individual and social action which is most closely connected with the attainment and with the use of the material requisites of wellbeing.

Thus it is on the one side a study of wealth; and on the other, and more important side, a part of the study of man. For man's character has been moulded by his every-day work, and the material resources which he thereby procures, more than by any other influence unless it be that of his religious ideals; and the two great forming agencies of the world's history have been the religious and the economic. Here and there the ardour of the military or the artistic spirit has been for a while predominant: but religious and economic influences have nowhere been displaced from the front rank even for a time; and they have nearly always been more important than all others put together.

Alfred Marshall, *Principles of Economics* (1890), Book 1, Chapter 1, Page 1.

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1. Introduction

Alfred Marshall's prophecy could not have been more prescient as economics today has much to offer the study of contemporary religion. In the twenty-first century the resilience of religion in both developed and developing countries has been observed by scholars investigating the economics and sociology of religion (Iannaccone 1998; Stark and Finke, 2001; Barro and McCleary 2003; Berman 2009). Religion constitutes an important source of 'spiritual capital', contributing significantly to building norms and networks among populations organized on the basis of religion. In understanding its importance, some scholars have focused on sociological theories like family socialization, social networks, and a belief in other-worldly or supernatural elements (Christiano et al., 2008). But economists and political scientists have focused their attention equally on religion as a rational response to changes in the political, ecological, and socio-economic environments in which religions operate (Iannaccone 1994; Berman 2000; Putnam and Campbell 2010). Against this background, our research asks a simple question: *How do religious organizations provide and change their religious and non-religious services in response to income inequality and the competition for adherents?*

Here we show an economic theory for differentiation of the strength of religious beliefs in the context of religious and non-religious service provision that is relevant to developing countries. In particular, how religious organizations provide their religious and non-religious services consistent with changes in income inequality and the competition for adherents. We also present a unique dataset – to the best of our knowledge, the first large-scale economic survey of religious institutions undertaken in India between 2006 and 2008. We find evidence that religious organizations of all religions in India have substantially increased their provision of religious and non-religious services and that this is related to their perception of economic inequality and competition. Counter to some historical and sociological analyses of India that have studied the many negative consequences that religion might engender, such as the phenomenon of 'communalism', we especially emphasize in this study the *positive* role of some religious organizations for socio-economic development in India today.

Studies in the economics of religion have focused on the rational-choice approach to the study of religion; the effect of religion on economic behaviour at both microeconomic and macroeconomic levels; and the relationship between religion, politics and terrorism (Azzi and Ehrenberg 1975; Iannaccone 1994; Stark and Finke 2000; Barro and McCleary 2003; Glaeser 2005; Dehejia et al. 2007; Krueger 2007; Berman 2009). Sociologists of religion have discussed the 'religion-market model' (Stark and Finke 2001). Economists have written seminal papers regarding how religious strictness might overcome free-rider problems, and especially how this can increase commitment, raise participation, and enable a group to offer greater benefits to potential members (Iannaccone 1992; Berman 2000). These theories have been tested for some countries, yet an overwhelming number of studies on the economics of religion are based on developed nations, especially using contemporary American data (Iannaccone and Berman 2008). In contrast, there is less research on the economics of religion in emerging economies such as India. The existing theories also do not address how the decision to offer a religious service might be related jointly to economic concerns like inequality and non-religious service provision.

Our study makes its contribution by providing an economic theory for the differentiation of religious beliefs in the context of religious and non-religious service provision, which is particularly relevant to developing countries. First, our economic theory takes the existing religious research forward by offering a game-theoretic model of service provision by

religious organizations showing how strength of religious beliefs differs in response to competition. In particular, how religious organizations provide their religious and non-religious services consistent with changes in income inequality and the competition for adherents. We present a simple and stylized Hotelling-style model in which two religious organizations choose a religious focal point and decide upon the non-religious services provided. From the model we demonstrate two propositions: first, that the organizations will differentiate themselves on the strength of religious beliefs; and second, that in equilibrium, economic inequality is sufficient to make both organizations increase their provision of non-religious services.

Second, we test the model's two key propositions on primary data from India. India is characterized by a multiplicity of religions, the active practice of religion, and religious conflict, which has been commented upon extensively by historians, political scientists and sociologists (Bayly 1983; Engineer 1984; Bagchi 1991; Varshney 2000; Brass 2003). One recent study explores the effect of economic growth on religious conflict in India (Bohlken and Sergenti, 2010) and another examines identity in India more closely (Sen 2005). Some estimates have suggested that there are over thirty thousand Muslim and other religious schools in India (US Department of State 2010). Yet, large-scale economic surveys of the activities of religious organizations in India are conspicuously absent.

Our study tries to redress this gap: our economic survey of religious institutions consists of rich and unique primary data from 568 religious organizations, which we collected between 2006 and 2008 in a survey spanning 7 large Indian states, which constituted a major and complex task of planning and execution. This data includes information on Hindu, Muslim, Christian, Sikh, and Jain organizations, and is collected to examine the economic and competitive behaviour of these organizations. It covers religious service provision, non-religious service provision, adherents, religious competition and other issues.

We use this data to provide support for our theoretical propositions in two ways: first, we provide qualitative and descriptive statistics from the survey that is consistent and provides initial support for our two propositions. Second, we support this with quantitative evidence based on econometric testing to illustrate the empirical regularity of the phenomena under study. In doing so, we find that of all the religious services provided by the organizations, propagation of the faith and religious education are considered the two most important activities provided by them. Muslim and Christian organizations provide more by way of religious education, which they rate as their main activity compared to Hindus. We highlight that religious organizations in India differentiate themselves on the strength of their religious beliefs with respect to other organizations. We find evidence that religious organizations of all religions in India have substantially increased their provision of non-religious services and that this is related to their perception of economic inequality and competition. Using a range of econometric methods, we show that there is a significant increase in the probability of providing higher levels of education and health services for an increase in the perception of inequality.

The remainder of this paper proceeds as follows: Section 2 provides an overview of the current literature in the economics of religion relevant to our study. Section 3 presents the model. Section 4 discusses our primary survey of religious organizations undertaken in India. Section 5 discusses the qualitative evidence and descriptive statistics including the provision of religious and non-religious services, and religious competition. This section also includes a discussion of religious organizations' perception of economic inequality. Section 6 presents

the quantitative econometric findings of the research that tests the theoretical propositions developed and the key results. Section 7 concludes the paper.

2. The Economics of Religion

Our study contributes to existing work on the rational choice approach to understanding religion, but also to understanding how religious competition matters in developing countries. Our interest is linked to both economists' and other scholars' existing interests in religion and social economics more generally (Becker and Murphy 2000; Iannaccone, Neal, Boettke and McCloskey, 2005; Putnam and Campbell 2010); and to the continuing persistence and impact of religion in developed and developing countries alike (Iannaccone and Berman 2008; Bisin and Verdier 2000; Iyer 2008). Studies in the economics of religion can be categorized into three main groups: first, those that have focused on the links between religion and economic theory; second, the effect of religion on economic behaviour at both microeconomic and macroeconomic levels; and thirdly, those that have examined more recently the relationship between religion, politics and terrorism.

Adam Smith first made reference to the church and competition between religions in *The Wealth of Nations* and in *The Theory of Moral Sentiments*. Smith considered religion as a means through which individuals enhanced the value of their human capital. He was also interested in the incentives that prompt individuals to choose to participate in religion-related activities and the effects of different religious beliefs on individual behavior (Anderson 1988). Max Weber discussed the influence of the Protestant ethic on capitalism (Weber 1904). Weber's thesis covered the Protestant ethic and modern capitalist development, which was echoed by Landes (1998), and suggests that secular ideas occasioned by capitalist development may have led to less religious attendance, for example, in north-west Europe today. However, there are also critiques of this thesis based on the view that the capitalist spirit predates the Reformation (Tawny 1926; Gorsky 2005).

First, let us examine those studies that link religion and economic theory. The broadly socio-economic view of religion, which expounds the rational-choice approach to the study of religion, is found in the work of many economists and sociologists (Azzi and Ehrenberg 1975; Iannaccone 1992; Iannaccone 1998; Montgomery 1996; Stark, Iannaccone and Finke 1996; Stark and Finke 2000; Berman 2000). The focus here is both on the supply side, in terms of the structures of religious organizations (Dehejia et al. 2007), and on the demand side, in terms of the preferences of consumers of religion (Oslington 2003). This implies that the activities of religious economies are important. Stark and Finke, for example, state: 'Religious economies are like commercial economies in that they consist of a market of current and potential customers, a set of organizations or firms seeking to serve that market, and the religion offered by various organizations' (Stark and Finke, 2000, pp. 2–3).

In this approach, individuals are rational consumers of religion who decide whether or not to believe, or in which religion to believe, based on a cost-benefit analysis and relative to their initial endowments. According to this view, people adopt religion because it is optimal for them to do so and their beliefs and activities may change over time. In a similar way, the supply of religion is explained by churches behaving like firms in a competitive market, particularly regarding service provision to attract potential customers. This idea also underlies our thinking in this paper. In this context, we think of this issue as if buyers (or individuals) and sellers (or the religions) meet in a marketplace in which supply and demand dictate allocation of adherents across religions.

Another line of research that economists have pursued is the so-called 'club models' of religion, which have contributed vitally to our understanding of how sects develop. These models are based on the idea that producing and consuming religion have all the features of a collective good and that, like other collective goods, there is potential for free-riding, lack of commitment and participation. Hence, these models look at stigmas and sacrifice as ways of screening members, and predict that more sectarian communities have tighter networks, and higher aid from members than less sectarian religious groups (Iannaccone 1992; Berman 2000; Chen 2010). The theory that we propose in this paper builds on existing theoretical research to the extent that we are also interested in how religious groups position themselves relative to other groups. However, we suggest that, particularly in emerging economies, economic inequality is an important factor that might differentiate groups on the religious spectrum.

A second group of studies explore the effect of religion on economic behaviour at both microeconomic and macroeconomic levels and are also concerned with policy debates about faith-based welfare programmes and the economic regulation of the church. One concern is also whether deregulation, or a lack of regulation of religious organizations, is imperative. Economists have commented on religious competition and why economic growth has not led to a decline in the practice of religion in rich countries (McBride 2010). There has been a renewed interest in revisiting the Weber hypothesis empirically. Recent studies examine whether religious beliefs and participation explain economic development and whether in turn it may be explained by the structure of religious groups and organizations, specifically whether or not state religions matter in terms of the implications of a monopolistic structure for the freedom of markets (Barro and McCleary 2003; Stark and Finke 2000; Barro and McCleary 2005; North and Gwin 2004; Gruber and Hungerman 2006). Some research has also highlighted the difficulty of identifying the effect of religion clearly in econometric studies and of its impact in cross-country studies (Durlauf, Kourtellos and Tan, 2011).

Macro-based studies have also examined specific hypotheses, based on certain religions. For example, research on the impact of religion on people's economic attitudes reveals that Christian religions are more positively associated with attitudes conducive to economic growth in comparison to Islamic belief (Guiso et al. 2003). One study evaluates the historical basis of conflict and the role of religion and empire in these contexts (Iyigun 2008). Other studies have attempted to understand the broader structures of religion and religious movements (Warner 1993; Gruber 2005; Glaeser 2005); the links between religion and demography (Lehrer 2009); or the influence of religion in particular parts of the world such as the Middle East (Kuran 2004; Kuran 2010) or the United States (Putnam and Campbell 2010). One recent study explores how economic distress affects religious intensity and religion as social insurance in Indonesia (Chen 2010).

A third group of studies evaluates the links between religion and politics, and more recently the economics of terrorism. Exploring the interaction between religion and politics on an international scale, Haynes (2001) notes that although religious organizations like the Islamic radicals and the Catholic Church have acted prominently in some national contexts to undermine the authority of the government, generally they are not a threat to state sovereignty. The notion of 'strategic extremism', posited by Glaeser, Ponzetto and Shapiro (2005), shows that politicians have an incentive to take an extreme stand on issues that might be proscribed by some religions, such as abortion or same-sex marriage, in order to induce their core supporters to vote and make donations. In related literature, economic perspectives on terrorism both within and across national boundaries have also been explored (Berman

and Laitin 2004; Sandler and Enders 2004; Krueger 2007; Keefer and Loayza 2008; Berman 2009).

One theme of the economics of religion literature is that many religious groups have provided social services such as education, as shown, for example, in a national study of congregations in the US (Chaves 2004). There are also examples from the developing world, such as, for example, the Hamas, which have provided spiritual services alongside social and welfare services in the regions where they operate (Berman 2009). As Berman points out, this approach emphasizes the social and economic aspects of religious communities, rather than purely the effect of religious faith.[5]

The question is why do religious organizations provide social services? Altering the interpretation of religious doctrine and practice is one channel through which religious differentiation might take place, but changing the service levels provided by religious organizations, particularly with respect to education and health, may be another channel, especially where these services are less well provided for by the state. It is important to examine this relationship between religion and service provision because some theologically strict religions argue that social services are only a means to attain spiritual ends, or to promote religious conversion. More liberal religions argue that providing social services is a moral imperative and so an end in itself, regardless of whether those who are served convert to the religion. So for some religions providing social services might simply be a moral end in itself. We argue in this paper that for others, social-service provision may arise in response to economic inequality, or even as a means of survival in multi-religious communities in which religions not undertaking social-service provision may 'fall off the cliff' so to speak, thereby witnessing evidence of declining religious adherence.

In this context, one seminal study of the vitality of religious organizations in the US argues that most religions preserve their core teachings, but introduce innovations in terms of 'how congregations provide services for members, secure resources from members, or support the core teachings of the larger institution…Although the innovations and core teachings might sometimes be in conflict – one emphasizing change and the other constancy – the most successful innovations are those that build on core teachings. Indeed religious leaders will cite the core teachings as serving as the source of inspiration for the new innovation' (Finke, 2004, p. 23). So religions might consider new products and methods that enhance the productivity and efficiency of the religious organization through the religious and non-religious services that they provide, thereby increasing their efficiency in competing for adherents.

Although the literature on the economics of religion encompasses both microeconomic and macroeconomic studies, it has examined competition, innovation or service provision independently. The existing theories, whether from economics or other disciplines, do not address how the decision to offer a religious service might be related to economic concerns such as inequality and non-religious service provision. Herein lies our main contribution: we bring these two sets of concerns together as our economic theory takes the existing religious

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[5] As Berman writes: 'Distinguishing between those two functions is often difficult, but the distinction is critical. Regardless of the strength of a member's faith, and regardless of the salience of a theology, an organization that can limit shirking will be more successful at mutual aid…That's why social service provision and spiritual service provision so often appear together in communities, making it difficult to distinguish commitment to beliefs from commitment to community, for community members and outside observers alike.' (Berman 2009, p. 19.)

research forward by offering a model of religion and service provision by religious organizations that also shows how the strength of religious beliefs might differ in response to competition. Specifically, how religious organizations provide their religious and non-religious services consistent with changes in income inequality and the competition for adherents amongst them. We also take our theory to data, testing it on primary data that we have collected in India.

3. The Model

To develop a model that embodies our ideas, we focus on the links between religious competition and service provision. The intuition behind our model is as follows: Suppose we begin with a simplified economy in which there are two religious organizations. Our model is applicable to a situation where there are two organizations from different religions, for example, if we were thinking about competition between Hindus and Muslims, or a situation in which there are two competing organizations belonging to the same religion, which may be more typically the case in India.

We assume that each organization is competing for adherents and that each organization tries to maximize adherents via choosing a focal point.[6] *By a focal point we mean the strength of religious beliefs*. In other models in the economics of religion, economists have talked about religious 'strictness' (Iannaccone 1994). Our focal point can be interpreted to include strictness that may also influence the strength of religious beliefs.

Each organization maximizes adherents possibly owing to political, monetary or other benefits derived from having a large number of adherents. Each organization also provides certain non-religious services that we assume the poor will value and use more than the rich, because the latter will already have them.

Our model also identifies the criteria that each adherent uses to choose membership of a religious organization. The choice is based on two factors. The first is the difference between their personal focal point relative to that of the religious organization. The second factor influencing the adherent is the wealth benefits from membership of a religious organization (we can think of this, say, as education, health, employment, or other services arising from membership of the organization). Again we assume that the poor will value these services more than the rich.

In classic economic terms, this creates a game theoretic problem in which the two religious organizations have to choose a religious focal point and decide upon the non-religious services provided. But they need to do this by taking into account each other's choices, while they are both competing for adherents in this simplified model. We also look at what happens to the problem when there is economic inequality across the population of individuals in the economy.

Let us now develop our model more formally. Our model of innovation by religious organizations is similar to Hotelling's model of price and location competition (Hotelling 1929). Let I denote a set of individuals. For individual $i \in I$, let $e_i \in [0, \infty)$ denote individual i's economic well-being, and $x_i \in [0, 1]$ denote individual i's religiousness.

Assume that x_i is uniformly distributed across all individuals over $[0,1]$, and that $e_i = e$, for all i. Two religious organizations compete for individuals in I by each of them choosing a

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[6] A focal point can also be thought of as the product space in the market for religion.

separate religious focal point $x \in [0,1]$, and a separate amount of non-religious services $s \in [0, \infty)$. The two organizations have identical pay-off functions, which are $(p - s)n$, where $p > 0$ is a given constant, and n is the number of adherents to the organization. Individual i's expected utility function is assumed to have the following form:

$$u_i = -(x_i - x)^2 + \frac{s}{e_i} \tag{1}$$

where x and s are chosen by the organization that individual i chooses to be affiliated with.

The timing of the game is as follows. The two organizations choose x (x_1 and x_2) simultaneously and then observe each other's choices of x, and choose s (s_1 and s_2) simultaneously. Individuals choose the organization that gives them a higher utility. It may be helpful to clarify here that we model the organizations as choosing their focal points first, and then their service provision levels second. The reason for our so doing is because we think that the religious focal point decision is likely to be more 'sticky' than the service provision decision. Religious organizations need to be clear where they stand 'religiously' before they can determine their service levels. Therefore, technically, the timing of the game in our model is conceptualized as similar to a standard location-price competition model from the economics of industrial organization in which firms decide first where to locate and secondly what prices to charge. In keeping with this justification, our organizations first need to decide where they stand religiously in terms of their strength of religious beliefs by choosing a religious focal point, before they can decide how many non-religious services to provide.

3.1. Characterization of Equilibrium

We will now characterize the subgame perfect equilibrium of this game. Let x_1 and x_2 denote the religious focal points chosen by the organizations. Fix any x_1 and x_2, such that $0 \le x_1 < x_2 \le 1$; we first calculate the Nash equilibrium in the subgame following (x_1, x_2). Let s_1 and s_2 denote the non-religious services chosen by the organizations. For fixed s_1, s_2, the individual who is indifferent about the two organizations should satisfy:

$$-(x - x_1)^2 + \frac{s_1}{e} = -(x - x_2)^2 + \frac{s_2}{e} \tag{2}$$

where x is the indifferent individual's religiousness. Any individual with a lower level of religiousness chooses organization 1, and any individual with a higher level chooses organization 2. Given the uniform distribution of the individuals' religiousness, solving for the x in (2), the number of adherents of organization 1 is therefore:

$$x = \left(\frac{x_1 + x_2}{2}\right) + \left(\frac{s_1 - s_2}{e}\right)\frac{1}{2(x_2 - x_1)} \tag{3}$$

And the number of adherents of organization 2 is $1 -$

Organization 1's problem is thus:

$$\max_{s_1}(p - s_1)x$$

The first order condition of this problem is:

$$s_1 = \frac{p + s_2}{2} - \frac{x_1 + x_2}{2}(x_2 - x_1)e \qquad (4)$$

Similarly, organization 2's problem is:

$$\max_{s_2}(p - s_2)(1 - x)$$

And the first order condition for organization 2 is:

$$s_2 = \frac{p + s_1}{2} - \frac{2 - x_1 - x_2}{2}(x_2 - x_1)e \qquad (5)$$

Solving for s_1 and s_2, we have:

$$s_1 = p - \frac{1}{3}(x_2 - x_1)(2 + x_1 + x_2)e$$

$$ \qquad (6)$$

$$s_2 = p - \frac{1}{3}(x_2 - x_1)(4 - x_1 - x_2)e$$

Now we calculate the equilibrium choices of x_1 and x_2. For fixed x_1 and x_2, organization 1's pay-off is:

$$\pi^1(x_1, x_2) := (p - s_1)x \qquad (7)$$

where x is given in (3), and s_1 is given in (6). To emphasize the dependence of x on x_1, x_2, s_1, and s_2, and the dependence of s_1 and s_2 on x_1 and x_2, we rewrite (7) as:

$$\pi^1(x_1, x_2) = \big(p - s_1(x_1, x_2)\big)x\big(x_1, x_2, s_1(x_1, x_2), s_2(x_1, x_2)\big)$$

By the envelope theorem, as we differentiate Π^1 with respect to x_1, we can take $s_1(x_1, x_2)$ as a constant, because the partial derivative of Π^1 with respect to s_1 is equal to 0 at the optimal $s_1(x_1, x_2)$. Moreover, in equilibrium it must be that $p \geq s_1(x_1, x_2)$. Therefore, to calculate the impact of x_1 on Π^1, it suffices to calculate $\frac{dx}{dx_1} + \frac{dx}{ds_2}\frac{ds_2}{dx_1}$. From (3):

$$\frac{dx}{dx_1} = \frac{1}{2} + \frac{s_1 - s_2}{e}\frac{1}{2(x_2 - x_1)^2}$$

From (3) and (6):

$$\frac{dx}{ds_2}\frac{ds_2}{dx_1} = \frac{1}{3}\frac{(x_1 - 2)}{(x_2 - x_1)}$$

From (6):

$$s_1 - s_2 = \frac{1}{3}e(x_2 - x_1)(2 - 2x_1 - 2x_2)$$

Hence:

$$\frac{dx}{dx_1} = \frac{1}{2} + \frac{1}{3}\frac{(1 - x_1 - x_2)}{(x_2 - x_1)}$$

The calculation shows that $\frac{dx}{dx_1} + \frac{dx}{ds_2}\frac{ds_2}{dx_1} < 0$, for all x_1, x_2, therefore, organization 1 chooses $x_1 = 0$ in equilibrium. Similarly organization 2 chooses $x_2 = 1$ in equilibrium. The two organizations maximize the differentiation of their religious focal points, to avoid competition in non-religious services.

So far in the analysis we have assumed that $x_1 < x_2$. We now argue that it is impossible to have an equilibrium in which $x_1 = x_2$. Suppose that there is. Then in the subgame conditional on $x_1 = x_2$ being chosen, the two organizations will compete away any positive profits by raising s all the way to p; otherwise one organization can always offer a few more services than its competitor and grab the whole market, thus obtaining a higher pay-off. Hence, both organizations receive zero profits in the subgame. But then organization 1 can deviate by choosing a lower x_1 and make a positive profit, because our analysis above shows that both organizations make positive profits in any subgame following $x_1 < x_2$ being chosen.

All else being equal, now we introduce economic inequality. Let $e_H = ae$ and $e_L = be$ where a and b are positive constants. Suppose the economic well-being of half of the population goes up to e_H, and the economic well-being of the other half goes down to e_L. Moreover, we assume that there is no correlation at the individual level between economic well-being and religiousness. Without loss of generality, we can assume that for each $x \in [0,1]$, there is a rich individual with e_H with probability ½, and a poor individual with e_L with probability ½; both have the same religiousness, x. We follow the same steps above to characterize the subgame perfect equilibrium of the game with inequality. Fix x_1 and x_2, let x_H denote the number of rich adherents of organization 1, and x_L denote the number of poor adherents of organization 1. The same indifference condition (2) applies to x_H and x_L separately:

$$-(x_H - x_1)^2 + \frac{s_1}{e_H} = -(x_H - x_2)^2 + \frac{s_2}{e_H}$$

$$-(x_L - x_1)^2 + \frac{s_1}{e_L} = -(x_L - x_2)^2 + \frac{s_2}{e_L}$$

Hence:

$$x_H = \frac{x_1 + x_2}{2} + \frac{s_1 - s_2}{e_H}\frac{1}{2(x_2 - x_1)}$$

$$x_L = \frac{x_1 + x_2}{2} + \frac{s_1 - s_2}{e_L}\frac{1}{2(x_2 - x_1)}$$

Hence the total number of adherents of organization 1 is:

$$\frac{x_H + x_L}{2} = \frac{x_1 + x_2 + \frac{s_1 - s_2}{2(x_2 - x_1)}\left(\frac{e_H + e_L}{e_H e_L}\right)}{2} \tag{8}$$

Organization 1's problem is:

$$\max_{s_1}(p - s_1)\left(\frac{x_H + x_L}{2}\right)$$

The first order condition of the problem is:

$$s_1 = \frac{p + s_2}{2} - (x_1 + x_2)(x_2 - x_1)\frac{e_H e_L}{e_H + e_L} \qquad (9)$$

Organization 2's objective function is:

$$\max_{s_2}(p - s_2)\left(1 - \left(\frac{x_H + x_L}{2}\right)\right)$$

The first order condition for organization 2's problem is:

$$s_2 = \frac{p + s_1}{2} - (2 - x_1 - x_2)(x_2 - x_1)\frac{e_H e_L}{e_H + e_L} \qquad (10)$$

Comparing (9) and (10) with (4) and (5), it is easy to see that the non-religious services provided by the two organizations increase in the inequality case, as shown in Figure 1, if:
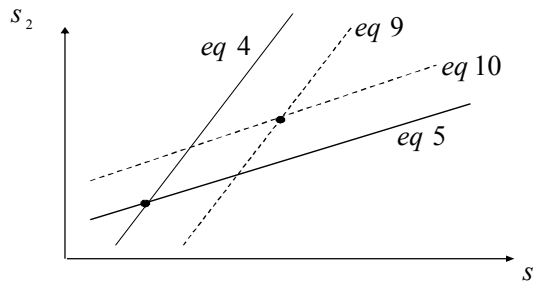
$$\frac{e_H e_L}{e_H + e_L} < \frac{e}{2}$$

Or equivalently:

$$b < \frac{a}{2a - 1}$$

Therefore, both religious organizations will provide more non-religious services if the poor remain poor enough when there is economic inequality.

Figure 1. Effects of remaining poverty on the provision of non-religious services

Finally, we calculate the equilibrium choices of x_1 and x_2, in the inequality case. Notice that if we replace $\frac{e_H e_L}{e_h + e_L}$ by $\frac{e}{2}$ in (8), (9), and (10), we get exactly (3), (4), and (5). Notice also that in the envelope theorem argument above, the partial derivatives are independent of e. Therefore, the same result carries on to the inequality case, i.e., $x_1 = 0, x_2 = 1$.

We can summarize the analysis into the following two propositions:

Proposition 1. The two religious organizations maximize the differentiation in their religious focal points regardless of economic inequality in order to minimize competition in the provision of non-religious services.

Proposition 2. When there is some economic inequality, if the poor remain poor enough, then both religious organizations will also provide more non-religious services.

Hence, we show that when we solve the model mathematically, the subgame perfect equilibrium for these religious organizations is such that it generates these two propositions describing their behavior. The intuition behind proposition 1 arises because the organizations are differentiating themselves religiously in order to minimize the amount they have to compete for providing non-religious services. And the intuition behind proposition 2 is that when economic inequality rises, religious organizations provide more non-religious services because, if the poor remain poor enough, and if there is a sizeable proportion thereof, under the assumption of diminishing marginal utility of non-religious services in an individual's economic well-being, both religious organizations will find it in their interests to provide more non-religious services to attract the poor, as the organizations are competing for more adherents among them. Our model suggests that one factor that pushes religious organizations towards more extremes is non-religious service provision: religious organizations essentially product differentiate in order to minimize competition in service provision. In the next section we discuss the survey of the religious organizations in India.

The Survey of Religious Organizations in India

As a part of this study we planned and executed, to the best of our knowledge, the first Indian survey of 568 religious organizations with a view to understanding their economic and competitive behaviour. The survey conducted between 2006 and 2008 involved extensive primary data collection and careful fieldwork using questionnaires and personal interviews. The survey involved interviews with 272 Hindu (47.9 per cent), 248 Muslim (43.7 per cent), 25 Christian (4.4 per cent), and 23 Sikh and Jain organizations (4.1 per cent) based in the Indian states of Jammu and Kashmir, Uttar Pradesh, West Bengal, Madhya Pradesh, Gujarat, Maharashtra and Karnataka, as shown in tables 1 and 2. This research involved 52 people from India helping to conduct the survey. We emphasize that, to the best of our knowledge, no previous large-scale economic surveys of religious institutions have been undertaken in India comparable to this survey.

A clustered sample of religious organizations in selected districts of each of the seven states was chosen, based on a listing of all religious organizations by the Registrar of Charities. The religious organizations consist of temples, mosques, churches, *gurudwaras*, religion-based NGOs, religion-based family trusts (*parivar*), religion-based trusts (*samitis*) and religion-based communes (*ashrams*), other religion-based groups (*mandals* and *sabhas*), and religion-based charities (*madrasas*), religion-based committees, and welfare societies.

The clustered sampling framework involves random samples within states but equal samples across them. The sample is diverse and shows that the organizations have been in existence for varying lengths of time.[7]

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[7] For example, in terms of their date of foundation although a majority of the organizations were founded in the nineteenth and twentieth centuries, some organizations were founded as early as the thirteenth century, and others were founded nine centuries later in the twenty-first century.

Table 1. Distribution of the sample across religions

	Number	Percentage
Hindu	272	47.89
Muslim	248	43.66
Christian	25	4.40
Other	23	4.05
Total	568	100.00

Table 2. Distribution of the sample by region and religion

	Hindu	Muslim	Christian	Other	All-India	Percentage
Gujarat	51	34	3	0	88	15.49
Jammu and Kashmir	26	41	4	11	82	14.44
Karnataka	27	42	6	0	75	13.20
Maharashtra	64	11	1	2	78	13.73
Madhya Pradesh	40	30	2	3	75	13.20
Uttar Pradesh	36	52	3	1	92	16.20
West Bengal	28	38	6	6	78	13.73
Total	272	248	25	23	568	100.00

The survey included questions on basic demographics; areas of operation; adherent numbers; religious practices and religious service provision; non-religious service provision; perceptions of how all types of service provision have changed over time; sources of income and expenditure including donations and other assets; and perceptions of competitive intensity with other religious organizations.

We emphasize that this bespoke survey involved an elaborate task of planning, coordination and execution, and that the questions asked were very sensitive, as was the nature of the respondents. The states in which the survey was conducted are shown in Figure 2. Table 3 illustrates the manpower used in this survey and the main districts of India covered by the research. Jammu and Kashmir was the most difficult state in which to conduct interviews, and both more investigators and travel time were needed here than in other states.

Table 3. Summary of the religion survey research

Name of State	Number of investigators	Travel days	Average visits per interview	Districts of India covered
Maharashtra	4	8	2.4	Nashik, Mumbai
Karnataka	4	8	2.2	Bangalore, Belgaum
Madhya Pradesh	3	4	1.8	Bhopal, Gwalior, Indore
Jammu and Kashmir	13	14	2.1	Jammu, Udhampur, Srinagar, Pulwama, Awantipur, Barmulla, Kupwara, Budgam
Uttar Pradesh	13	10	3.5	Muradabad, Rampur, Bareilly, Allahabad, Balian, Varansi, Devaria, Ghazipur
West Bengal	8	7	2.2	Kolkata, Burdawan, Howrah
Gujarat	5	2	1.6	Surat, Baroda, Junagadh, Amreli, Rajkot, Ahmedabad
Total	50	53	2.3	

Figure 2. States covered by the India Religion Survey (2006–2008)

Table 3 also shows the average number of visits per interview. This varies between 1.6 and 3.5 visits per religious organization. In each organization we interviewed those who were most closely involved with the religious, administrative and organizational decision-making. In order to avoid common-method bias, on average three people were interviewed in each organization: typically a trustee, one person responsible for administration, and another who could talk about financial issues. For philosophical issues related to the religion, we talked to the temple or mosque trustees; and for managerial and employment issues, we talked to the general administration of the temple, usually an employee. For financial issues, we spoke to the treasurer or employees of the accounts section of the religious institution. In case there were any inconsistencies we went back to the relevant official to seek clarification. Each section of the questionnaire relevant to each official's jurisdiction was completed by the field investigator in the local language in which the interview was conducted, and then translated into English.

We also first conducted a pilot survey in two states in order to test-run the questionnaire before administering the actual survey in all seven states. In addition, we provided training to the field staff and conducted practice sessions with them to ensure reliability and consistency in recording responses to questions among the field staff. The questionnaire survey that was administered to the organizations consisted of a series of questions grouped into five mains sections: demographics, which covered basic information about the organizations; background changes, which included perceptions about changes in inequality; innovation in

religious and non-religious service provision; knowledge of other organizations; and questions on donations received and expenditure incurred.

Several issues arose in the sample design and in administering this survey. First, response rates were reduced if a Hindu investigator approached a Muslim organization and vice-versa. We did, for example, experience some issues with data collection in Jammu and Kashmir, where it was extremely difficult to conduct interviews. In Jammu and Kashmir some of the field staff had to make four or five visits to procure the information needed, since in keeping with our sample design, we had to interview several individuals to gather the necessary information. This also allowed us to understand better all the services and activities provided by the organization. Secondly, we used only Hindu and Muslim investigators as the Christian organizations were not opposed to responding to a non-Christian investigator.

In the sample, most of the organizations operated in a combination of rural and urban areas: there were 42 organizations (7.4 per cent) that operated in rural areas only; 377 (66.4 per cent) that operated in an urban area; and 149 organizations (26.2 per cent) that operated in both rural and urban areas. In the survey we asked direct questions on adherent numbers, as shown in Figure 3, which denotes the organizations' reported adherent numbers in 1985, 1995, 2005 and 2007. The figures provided below were cross-checked against adherent statistics held by the organizations.

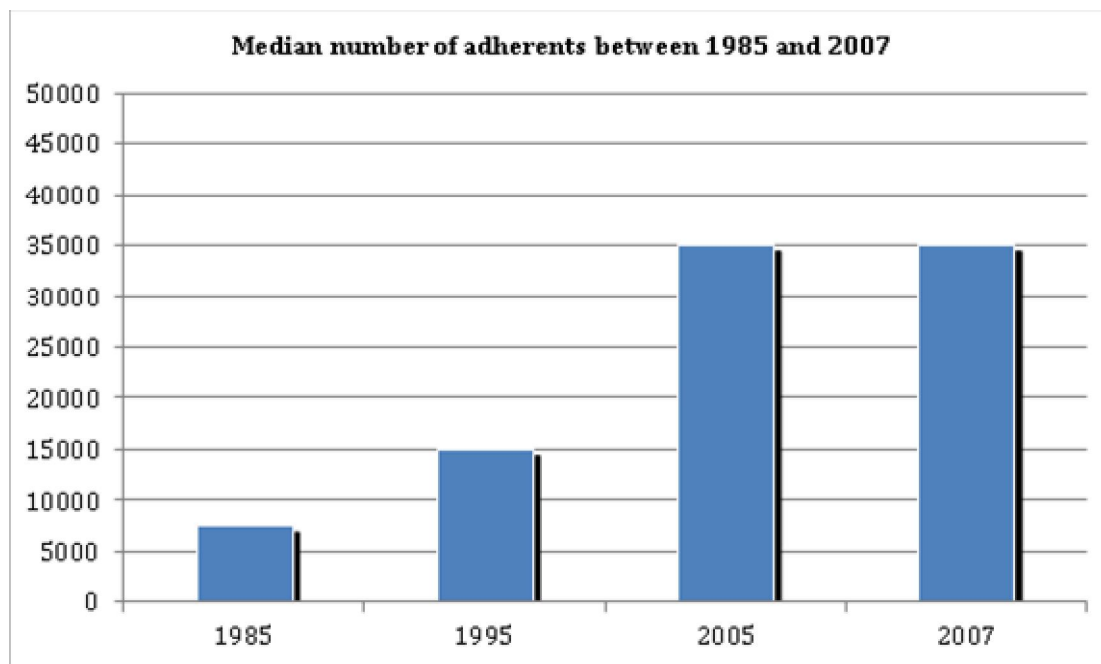Figure 3. Median number of adherents 1985–2007

Figure 3 shows religious organizations' reported median adherent numbers from between 1985 and 2007, which shows that reported adherent group size has increased overall.

In order to obtain a qualitative feel for how religion in India works today, as a first step the organizations were asked: 'What elements in your belief system (today) have received more emphasis from your organization, and which elements have received less emphasis?' The responses are shown in Figure 4.

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Figure 4. Changes in religious beliefs and practices
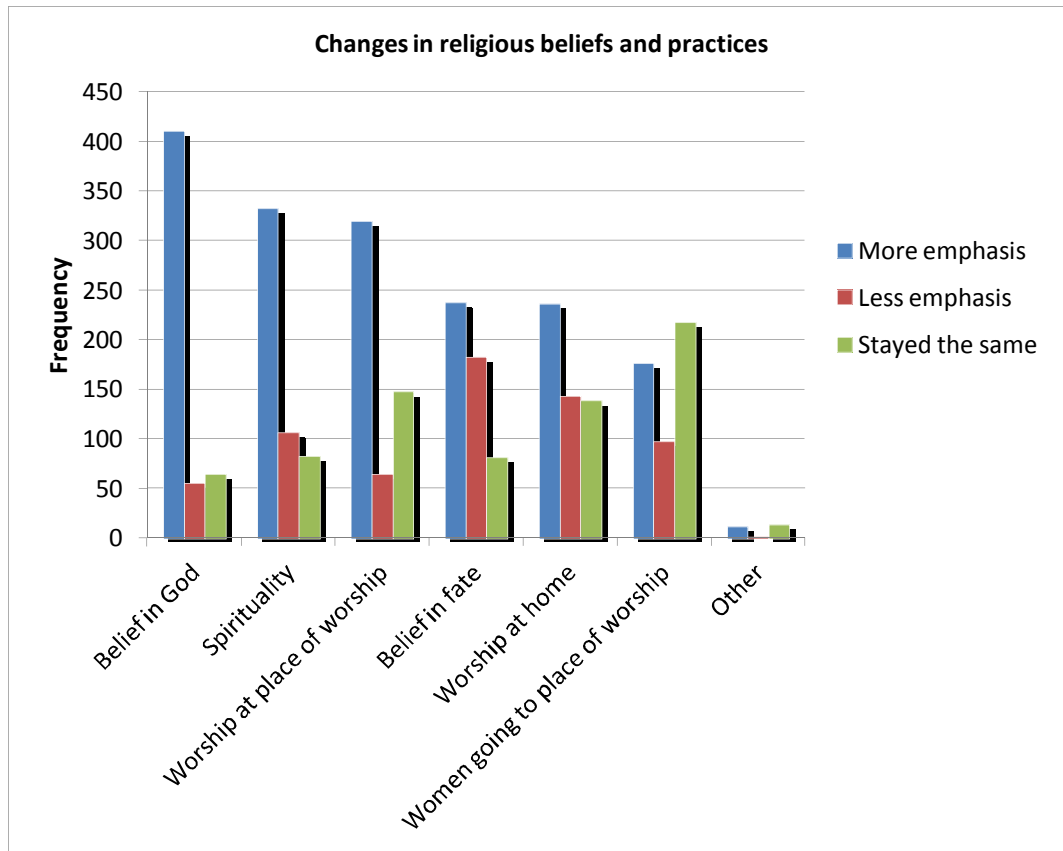
The organizations provided multiple responses to this question, which encompassed a range of religious practices, among them worship at places of worship, worship at home, and women going to places of worship; also religious beliefs including belief in God, fate and spirituality. Two aspects that received less emphasis were worship at home, and a belief in fate. In contrast, worship at places of worship, belief in God and spirituality, and women going to places of worship, all received more emphasis. This is a salient point because compared to Islam and Christianity, Hinduism typically does not emphasize communal worship. So our finding of increased reporting of worship at places of worship, and women going to places of worship, is important.

In an effort to understand how religion tied in with popular social practice, we asked which social practices associated with the religion were newly adopted and which practices had been abandoned. The organizations' responses are shown in Figure 5.

Figure 5. Changes in social practices
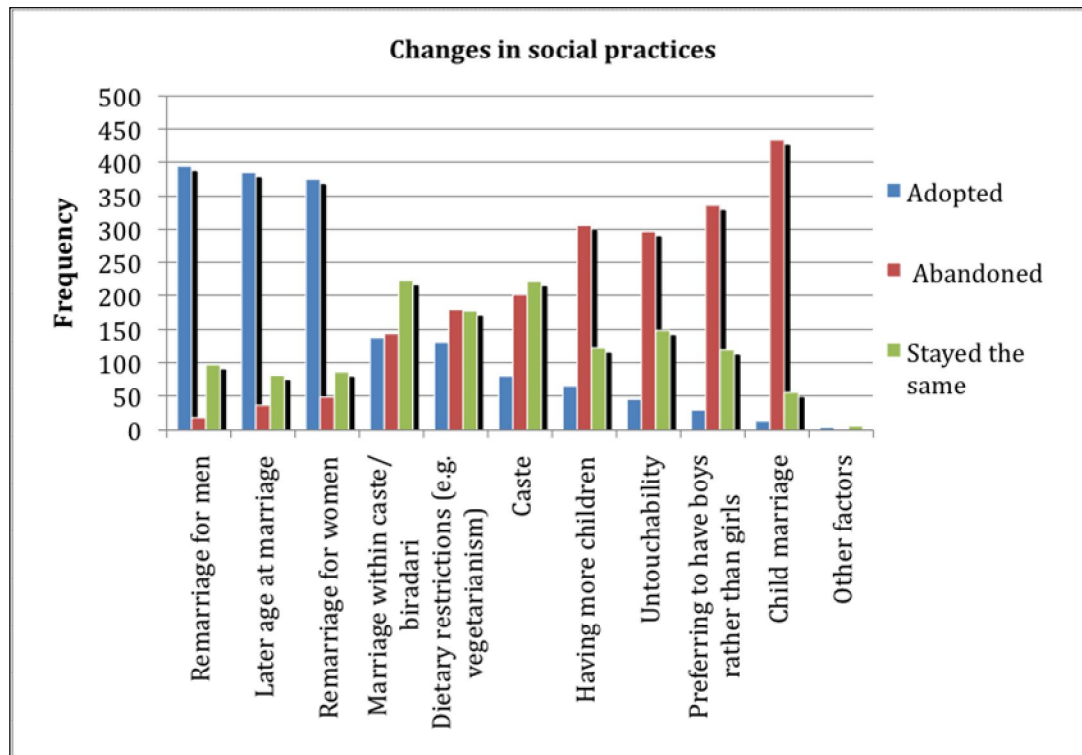
A closer look at Figure 5 suggests that the influence of caste is believed either to be declining, or staying the same. Marriage within the caste is also viewed as staying the same. A majority of organizations think that marriage at a later age occurs and that remarriage for both men and women is widely acceptable. Child marriage almost uniformly is a practice that is being increasingly abandoned. Untouchability (the practice of discrimination against the lower castes) was viewed as either having stayed the same or being increasingly abandoned. Regarding demographic matters, having large families was generally being abandoned, and the organizations believed that the preference for a son was also being abandoned. What is also interesting is that some organizations believed that the latter had stayed the same.

In this context, elucidating his experience, one of our field staff commented:

Some of them (the religious organizations) even go to the extent that they are working only to show the true path of the religion. This means they would not tolerate any change in the religious belief. But practice is different. Most of the religious Muslim leaders would not preach for use of contraceptives as it will interfere in the God's area – that it is up to God to give you more children or less. Who are we to deny his blessing with more children! They are totally against abortion and would give religious decree against those who practice it. But the ground really is quite different. And they understand it…People across the religion are now going for less children, marriage at a later age is a common phenomenon these days and inter-caste and to some extent inter-religion marriage is also coming in vogue.

In contrast, some organizations were sceptical that these changes would alter Indian society for the better; for example, at one Hindu religious organization, the priest emphasized that ideally it was important that the following three virtues were upheld for a prosperous society:*'Raja garam; baniya naram aur ladki sharam'*, which translates as *'The king should*

be bold and strong; the traders should be sincere and polite; and the girls should be full of modesty and shyness.' But, he laments: *'Now this is Kalyug (the modern age). Everything has gone upside down!'* Our field staff believe that changes to religious and social practices are also related to external changes such as market forces and globalization. They argue, for example, that the Hindu norm of *'kaala pani'* (a norm that a Hindu who crossed the seas would lose their caste and which prevented people from travelling overseas) has more or less completely died out in response to globalization and cheap air travel. As one of our respondents argued *'Now very few religious people would preach for not to cross the seas. It is something unavoidable.'* The other area that Hindu respondents frequently cited as an example of a dying practice was the end of the Sanskrit language as the lingua franca of the country. Muslim respondents pointed out that the use of images or pictures was prohibited in Islam but that no Islamic person could avoid them in the increasingly media-dominated world in which both these institutions and individuals now operated.

Against the background of these broad questions on changes in religious and social practices are the more detailed questions that we asked on religious and non-religious service provision, which are relevant to propositions 1 and 2 from our model, and which we present in the next section.

4. Qualitative Evidence on Religious and Non-Religious Services

In this section we provide qualitative evidence to support the propositions of our model. To recapitulate, proposition 1 states that the two religious organizations maximize differentiation in their religious focal points regardless of economic inequality, in order to minimize competition in the provision of non-religious services. Proposition 2 states that when there is some economic inequality, if the poor remain poor enough, then both religious organizations will also provide more non-religious services. The evidence we present is on religious services, religious competition and non-religious services. These qualitative perceptions are based on detailed field notes and discussions undertaken collectively by members of the project team, and on descriptive statistics generated by the organizations' responses to questions in the questionnaire. First, in order to examine proposition 1, we look at the strength of religious beliefs, the kinds of religious services provided, how their provision has changed over time, and religious competition in India.

4.1. Religious Beliefs, Religious Services and Religious Competition

The organizations were asked how they would describe themselves in religious terms and Table 4 illustrates the strength of religious beliefs of the religious organization, grouped by religious affiliation.

Table 4. Strength of religious beliefs by religious affiliation

|	Hindu	Muslim	Christian	Other	All-India
Very strong	100	118	10	5	233
Strong	97	80	5	8	190
Mild	33	33	6	9	81
Very mild	19	13	3	0	35
Not religion-based at all	16	3	1	1	21
Do not know	7	1	0	0	8
Total	272	248	25	23	568

The data on the strength of religious beliefs grouped by religion is also shown in Figure 6, which illustrates the percentage of organizations of a particular religion who opted for a response. The figure shows that approximately 74.5 per cent of organizations in the sample considered themselves to be very strong or strong in terms of their religiousness. Hindus and Muslims were more likely to describe themselves as very strong. Other religions were more likely to describe themselves as mild.

Figure 6. Strength of religious beliefs
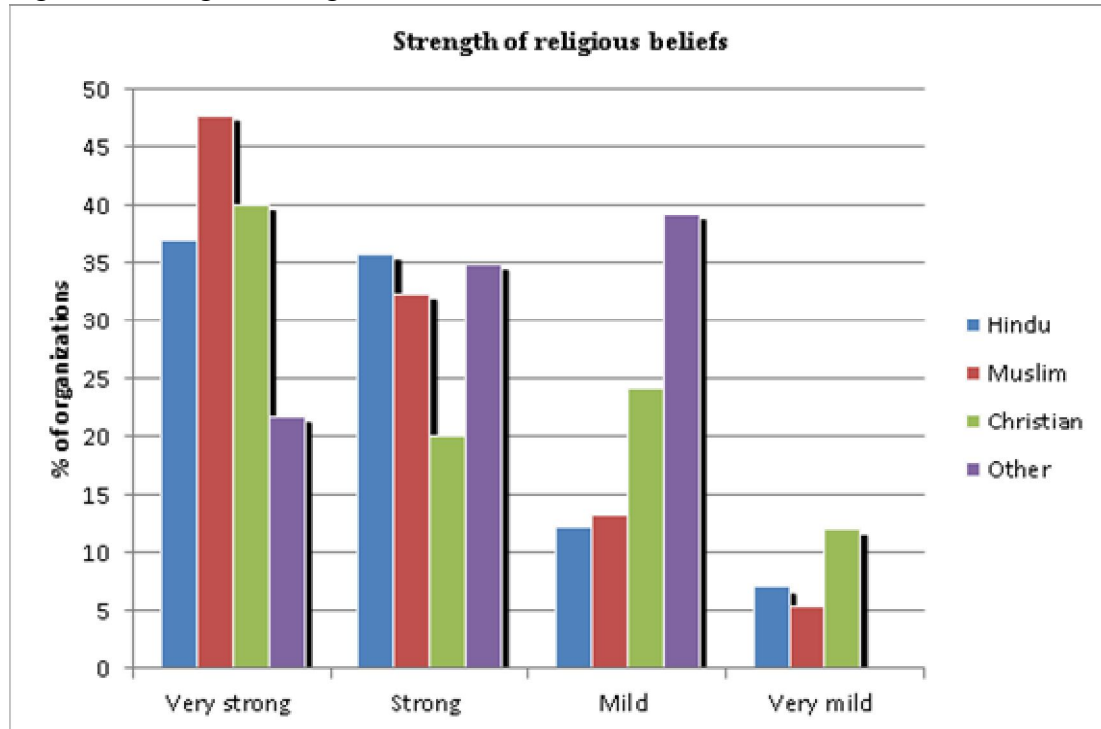
We then asked the organizations to identify what motivated them the most and their responses are grouped in Figure 7.

Figure 7. Motivation for the religious organization
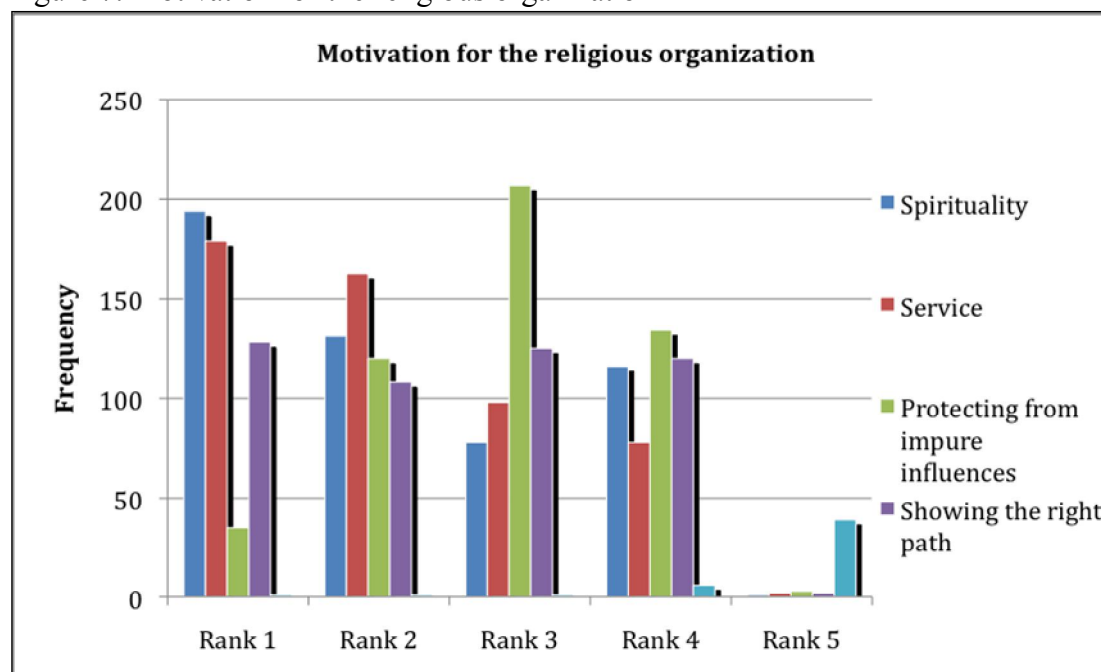
In terms of motives for their activities, religious and otherwise, a majority of organizations said that providing spirituality and social service was the *raison d'être* of their work, followed closely by showing the right path, and protection from impure influences.

Strength of religious beliefs and religious motivation may also be linked to religious organizations' provision of religious services. Our survey asked a series of questions about religious service provision. For example, we asked: 'What are the religious services provided by your organization?' By *religious services we mean any faith-based services provided by the organization*. And the main responses were propagation of the faith; weddings, funerals and divorce; religious education; and others. Of the religious services provided by the organizations, propagation of the faith and religious education were considered the two most important activities provided by them, as shown in Figure 8. Muslim and Christian organizations provided more by way of religious education, which they rated as their main activity compared to Hindus, for whom propagation of the faith was ranked as the main religious service.

Figure 8. Religious services by religion
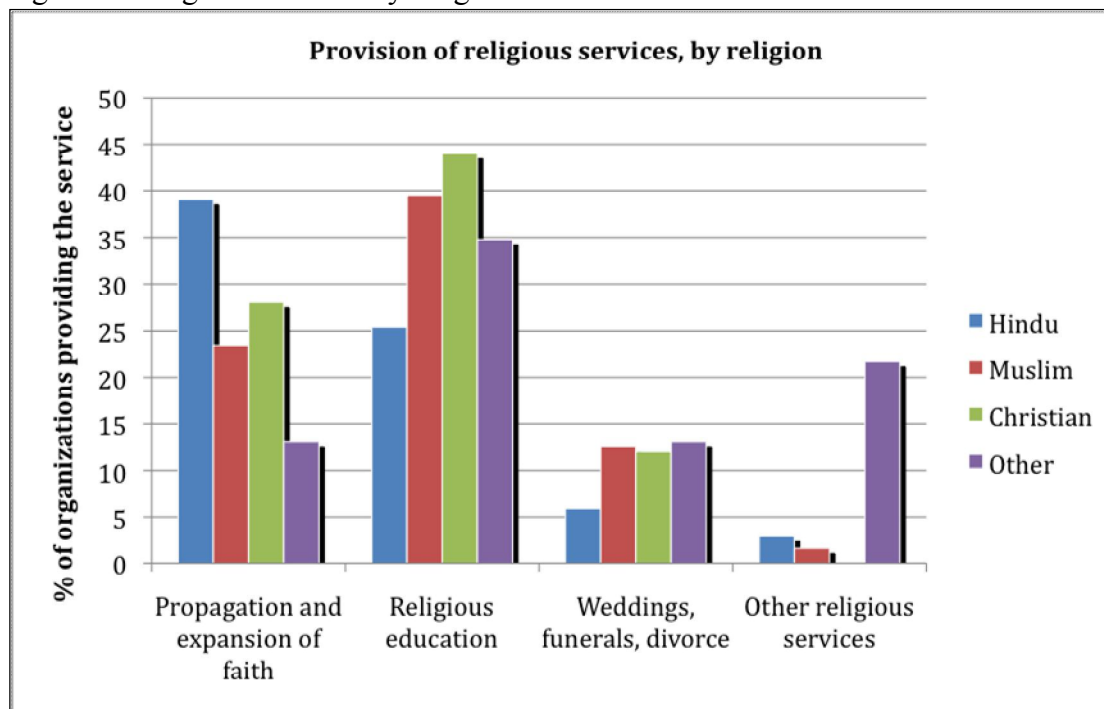
A key factor that we are interested in is how religious service provision may have changed before and after the economic liberalization of the Indian economy in 1991. Therefore, the organizations were also asked specifically to rank their religious service provision before and after 1991. The results of this are shown in figures 9 and 10 below.

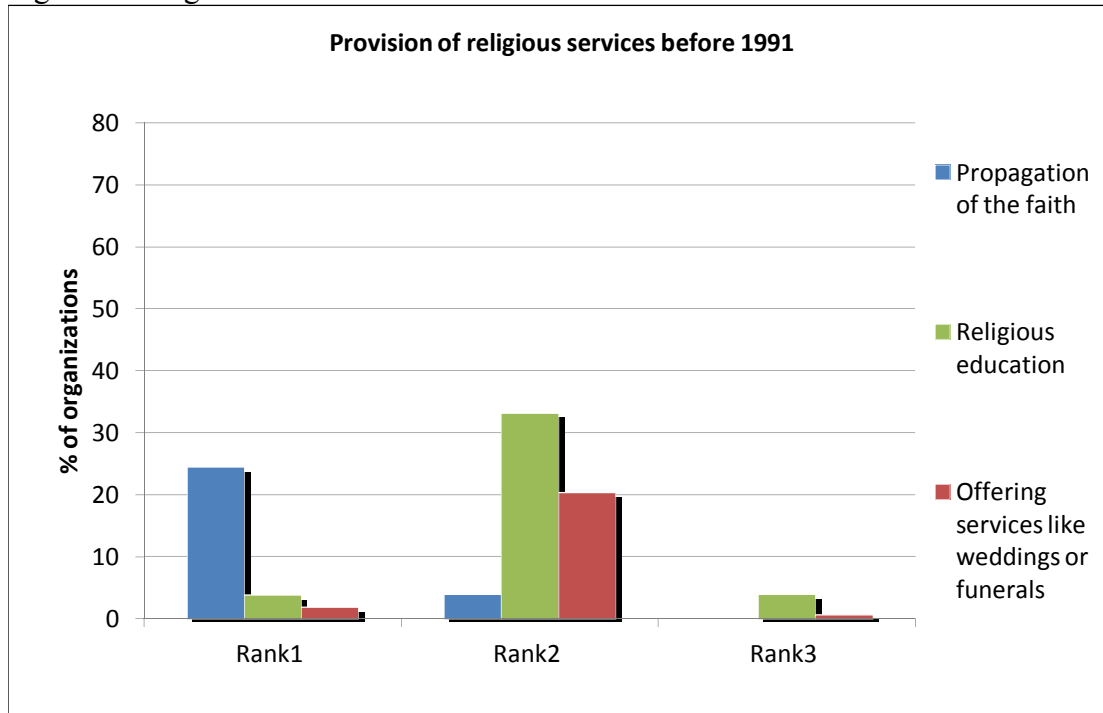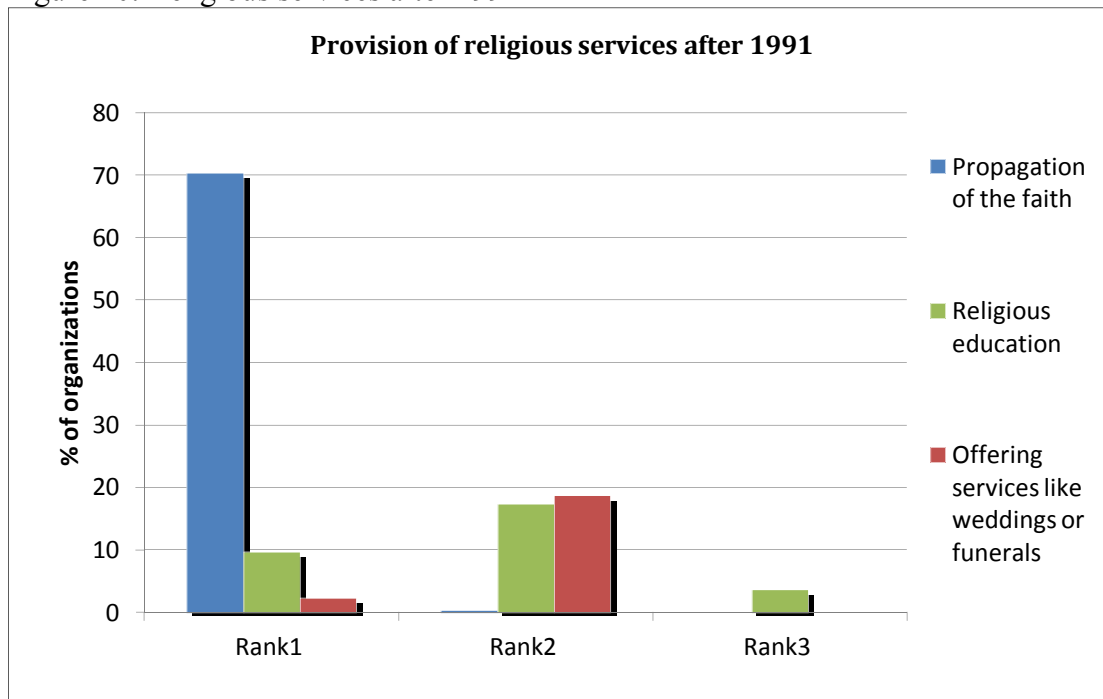Figure 9. Religious services before 1991

Provision of religious services before 1991

Figure 10. Religious services after 1991

**Provision of religious services after 1991**

Figures 9 and 10 show that before 1991 the organizations viewed their key religious services provided as faith propagation and religious education with the latter being the main religious service offered. The situation is quite dramatically altered for the post-1991 period, when propagation and expansion of the faith is regarded as the single major religious service provided, with over 70 per cent of organizations mentioning this. Religious education also continued to be important, and the percentage of organizations mentioning this at rank 1 also increased for the post-1991 period from approximately 3 to 10 per cent. About 20 per cent of the organizations mentioned offering services such as weddings and funerals at rank 2, which

stayed approximately at the 20 per cent level in both periods. Moreover, our fieldwork uncovered that the means to propagate religious services has also progressed with the times. For example, some organizations telecast through the Internet wedding and cremation ceremonies in real time for overseas relatives, and organised mass marriages for poor women to keep costs down. Others communicated with their congregations by using mobile technology services and a whole range of personal and non-personal communication and marketing channels (Iyer, Velu and Mumit 2011).

The organizations were also asked a qualitative question about whether in their opinion religious services, compared to 20 years previously, were more traditional, less traditional, or had remained the same. Their responses, broken down by religion, are shown in Figure 11.

Figure 11. Change in religious services in the last 20 years, by religion
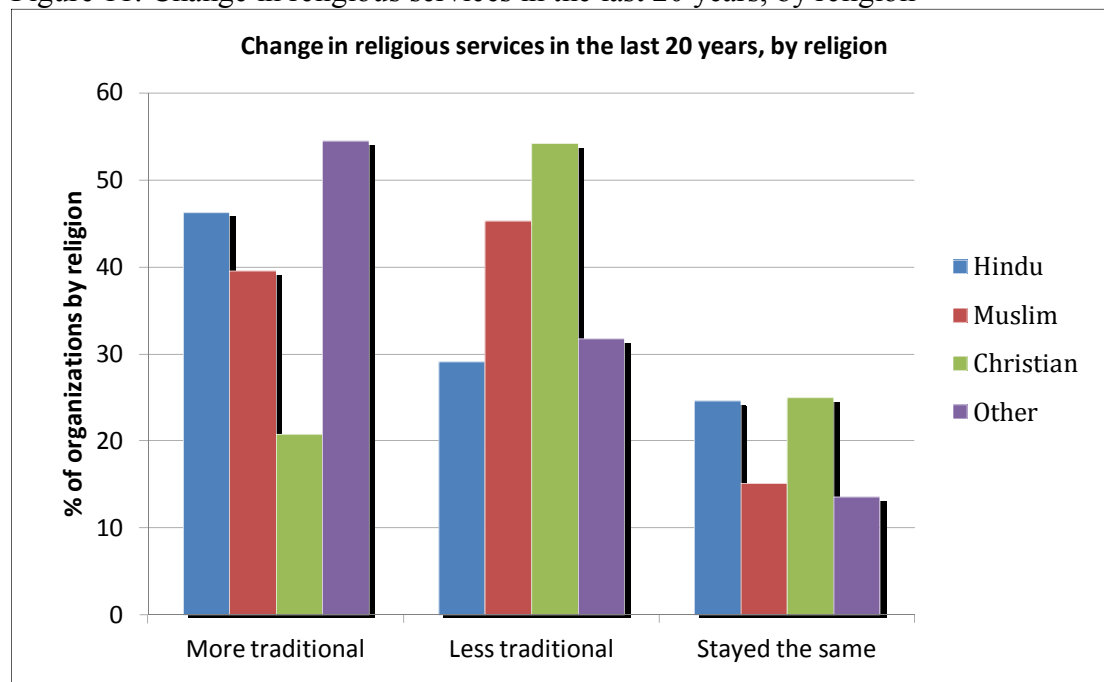
Organizations of all religious persuasions argued that religious services had become more traditional rather than less traditional over time. This suggests that changes to religious service provision were viewed as being more traditional even as wider changes in the economy were taking place. This was also a uniform perception across all religions, although the percentages for Hindus and Muslims were higher than for Christians. This is consistent and provides some initial support for Proposition 1.

Both propositions 1 and 2 from our theoretical model are based on religious competition in India. We assessed religious competition by asking organizations a range of questions about their knowledge of other organizations in the same geographical area. While not all the questions are reported in this paper, we highlight a couple of issues that are of interest to the research propositions posed by our theoretical model. Specifically, organizations were asked both about the number and size of other organizations operating in the same area. There were 150 organizations who reported 1–2 others; 136 who reported 3–5 competitors; 96 who reported 6–10; 74 who reported over 10 organizations as competitors; and 112 who did not know their competition. In order to assess the size of the competition, the organizations were asked to state how many other organizations were larger, smaller or the same size. The responses are shown in Figure 12 below.

Figure 12. Reported size of other organizations in the same geographical area

Reported size of other organizations in the same geographical area
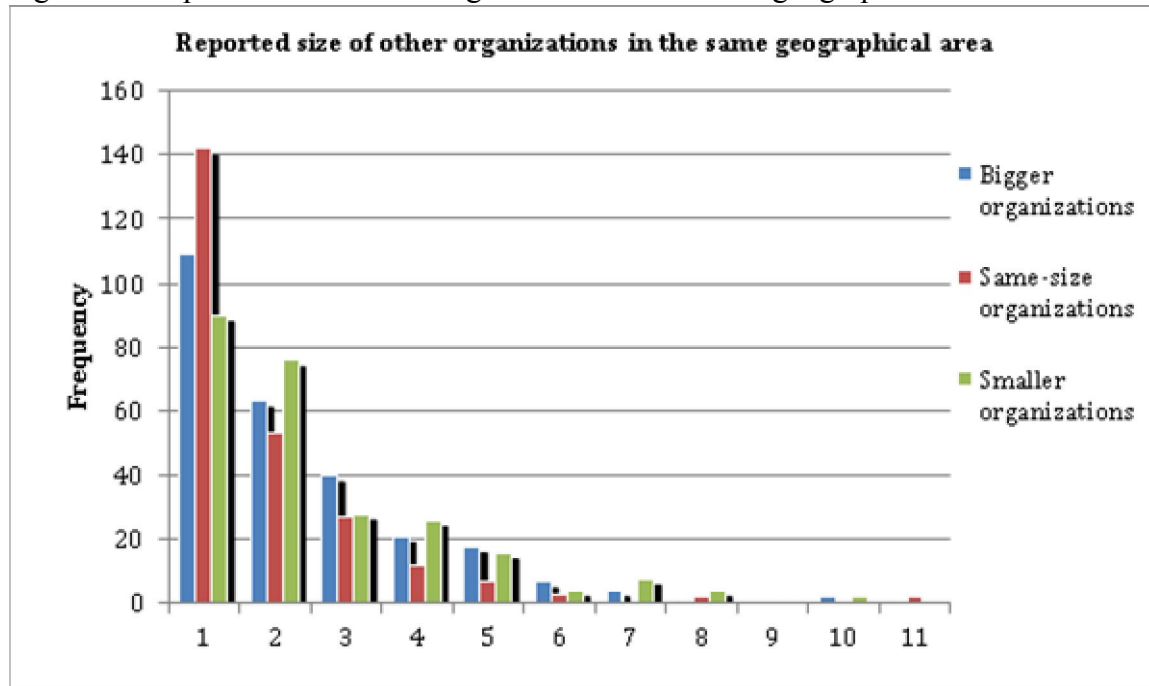
To complement the analysis in Figure 12, another question asked was whether an organization had provided a new religious service in response to other organizations in their area doing so. Many religious organizations said they did provide a new service if others did so. It was the impression of our field staff that the organizations were more inclined to answer questions about other organizations belonging to the same religion. As might be expected, all organizations described those of other religions as religiously stronger than themselves.

In order to assess how different the organizations were – in effect, whether in keeping with our model, if the focal points of these organizations diverged at all – the organizations were asked to assess how different they were to other organizations working in the same district. They were asked to indicate differences on several dimensions: religious belief, religious services, education and health services, other services, manner of organization, service orientation. The responses, grouped by religion, are shown in Figure 13 and show that religious organizations did perceive themselves as different to others on many of these dimensions.

Figure 13. Perceived differences between religious organizations in geographical vicinity
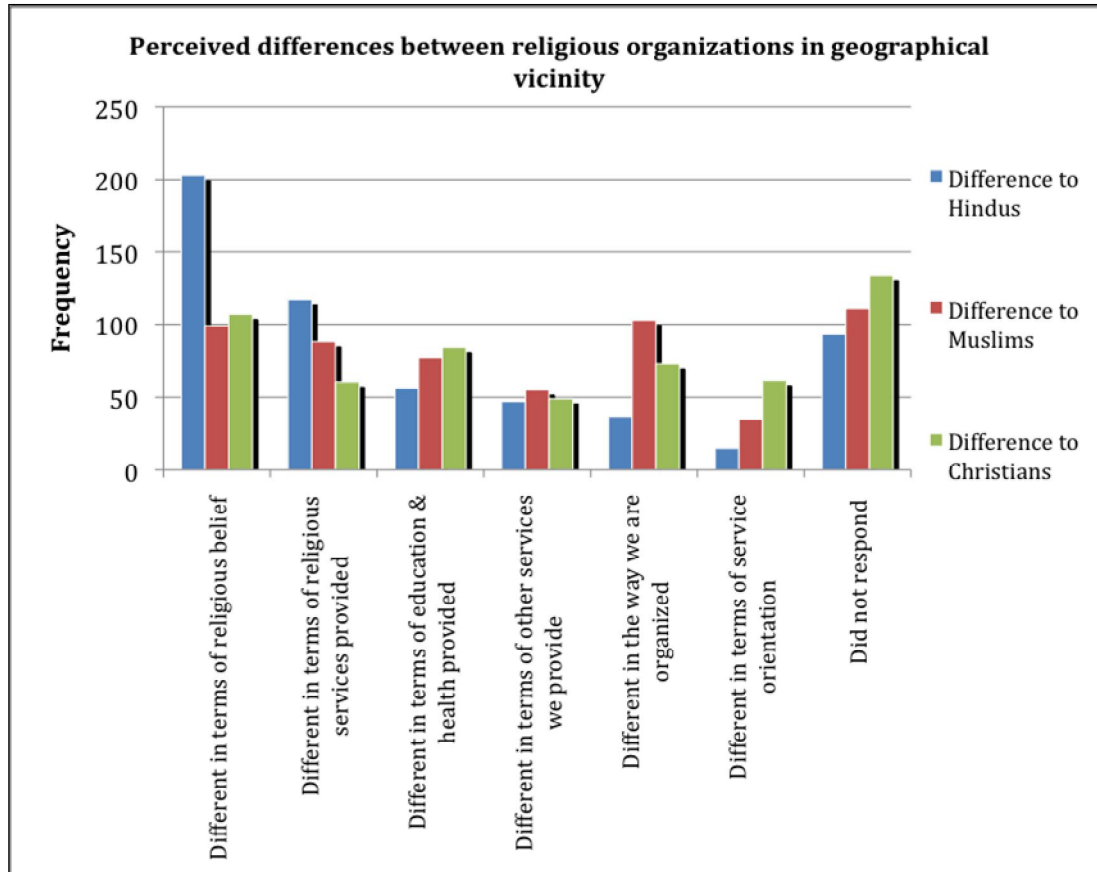

In summary, our study shows evidence of all religious organizations providing a range of religious services, changes in religious service provision after 1991, and the importance of religious competition in India today. The effect of competition was also evident in non-religious service provision, which we discuss in the next section.

4.2. Non-Religious Services

There was qualitative support for proposition 2, which aimed to assess religious competition in the context of non-religious service provision. *By non-religious services we mean those services provided by the religious organization for which there are secular substitutes that are available.* There were a range of non-religious services provided by the organizations and in the survey they were asked if they provided services including education, healthcare, employment, food distribution, childcare or others. Their responses are shown in Figure 14.

Figure 14. Non-religious services provided by the organizations

Change in non-religious services provided in the last 20 years
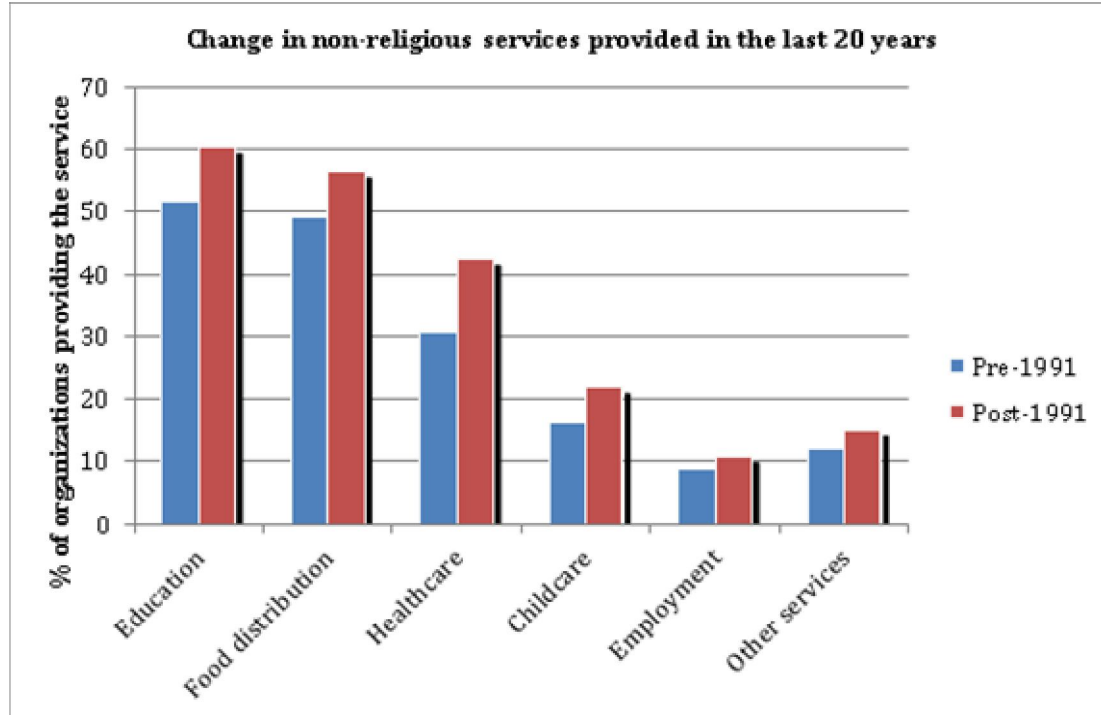
Compared to pre-1991, the organizations across the board increased their provision of all non-religious services. The most popular non-religious services provided were education, food distribution and healthcare, followed by childcare, and then, a long way behind, by employment and other services. Some of the 'other services' that religious organizations provided were quite diverse, including organizing blood donation and other medical camps, flood relief, setting up drug rehabilitation centres, operating homes for the elderly, organising group marriages for the poor, running sewing classes for women, organizing widow welfare programmes, HIV/AIDS awareness campaigns, book distribution, *sari* distribution, cow-lending and other innovative microfinance schemes, which were particularly striking.

One possibility is that non-religious services were being provided by religious organizations, possibly to compensate for the lack of public provision (Bano and Nair 2007): it is noteworthy that over half the sample provided food and over 60 per cent provided education in the post-1991 period. After the liberalization of the Indian economy in 1991, the provision of all non-religious services increased without exception. This is an important finding of the present study, and it is relevant in the context of propositions 1 and 2 of our theoretical model.

There are variations in the provision of non-religious services before and after 1991 by religion, as shown in figures 15 and 16.

Figure 15. Non-religious service provision before 1991, by religion
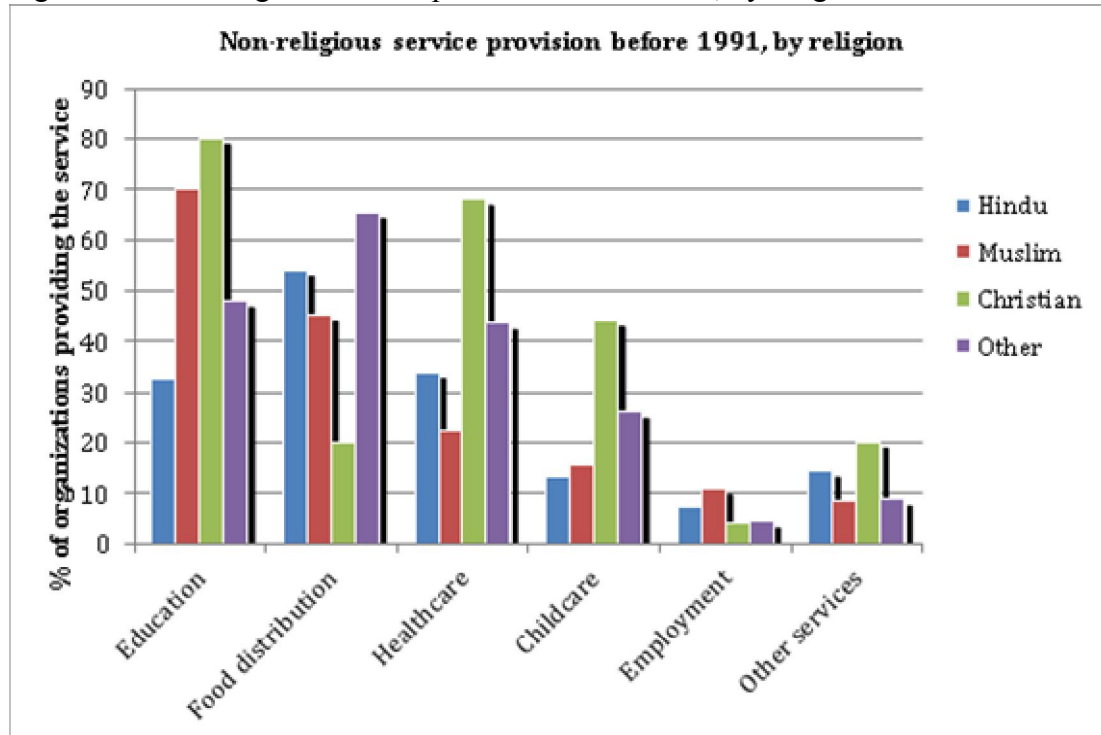
Figure16. Non-religious service provision after 1991, by religion
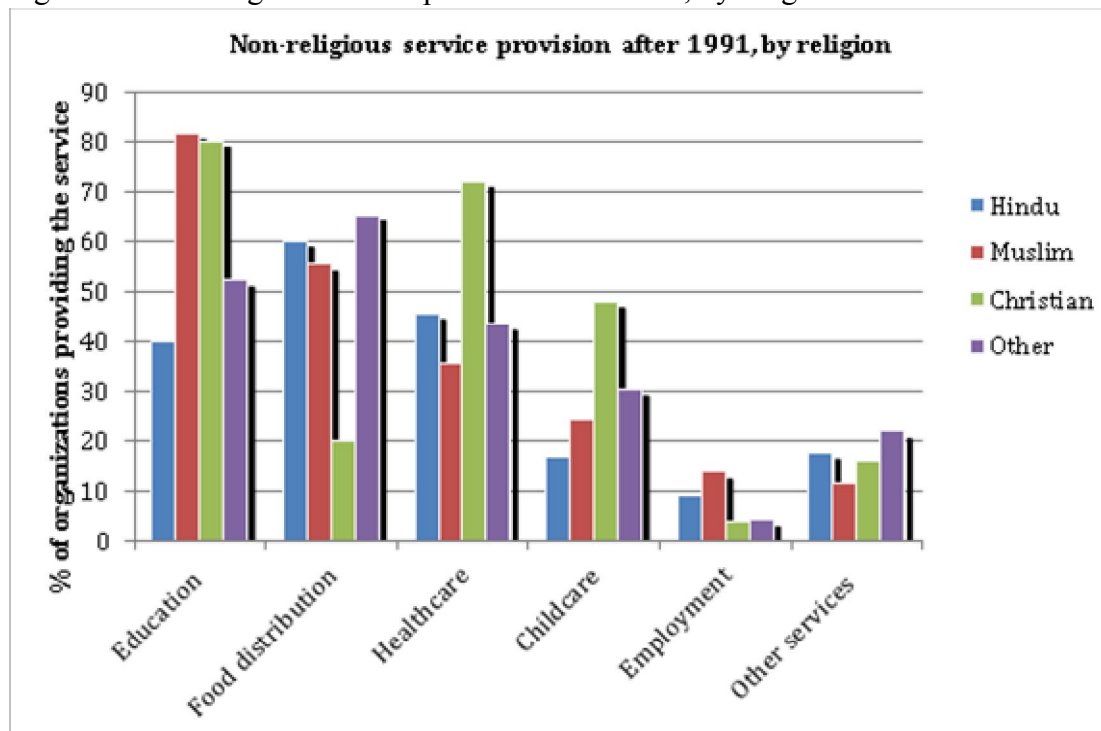
The figures show that although all religions were providing substantial education and healthcare both before and after 1991, one interesting aspect that this study has uncovered is that Hindus and Muslims were engaging more in providing education, health, employment services and food-distribution services in the post-1991 period. For those who provide this, childcare service provision also increased significantly in the post-1991 period.

The religious variations are quite striking: the Hindus mainly provided food distribution. The Muslims and Christians seemed to provide the most education services and the Hindus provided significantly less. The Christians provided education, healthcare and childcare. What is striking when looking at this graph is why the Christian and Muslim organizations provided so much more education than the Hindus? With the Christian organizations, many have been providing education through missionary and other activities since the colonial period, so this is less surprising, but nonetheless reassuring, that we find this to be the case. The fact that the Muslim organizations provided so much education is more unusual.

Economists have long been arguing that in order to explain ethnic differences in schooling (whether in India or elsewhere), you need to look at factors both on the demand and the supply side. And in the Indian context, there have been concerns about discrimination in access to schooling for minority communities on the demand side, but also supply-side issues in education, such as school quality, curricula, and so forth (Borooah and Iyer 2005). For example, Borooah and Iyer (2005) found that even after controlling for other individual, household and village-level characteristics, Muslims in India enjoyed lower primary-school enrolment than did Hindus. There is also some evidence that parents might send their children to religious schools because most, such as *madrasas*, provide free tuition and boarding. Another factor that might explain this finding is that non-religious services are structurally required in Islam through *zakat*.

So one of the findings of our study is that religious organizations of all religions were providing more non-religious services. Figures 17 and 18 show the distribution of non-religious services by state in India. They demonstrate that organizations in all states increased their provision of non-religious services in the post-1991 period. Moreover, they also show that states like Uttar Pradesh are also the states in which the religious organizations were providing more. This suggests, in line with propositions 1 and 2 in the model, that poverty and inequality might contribute towards religious organization membership.

Figure 17. Distribution of non-religious services provided before 1991, by state
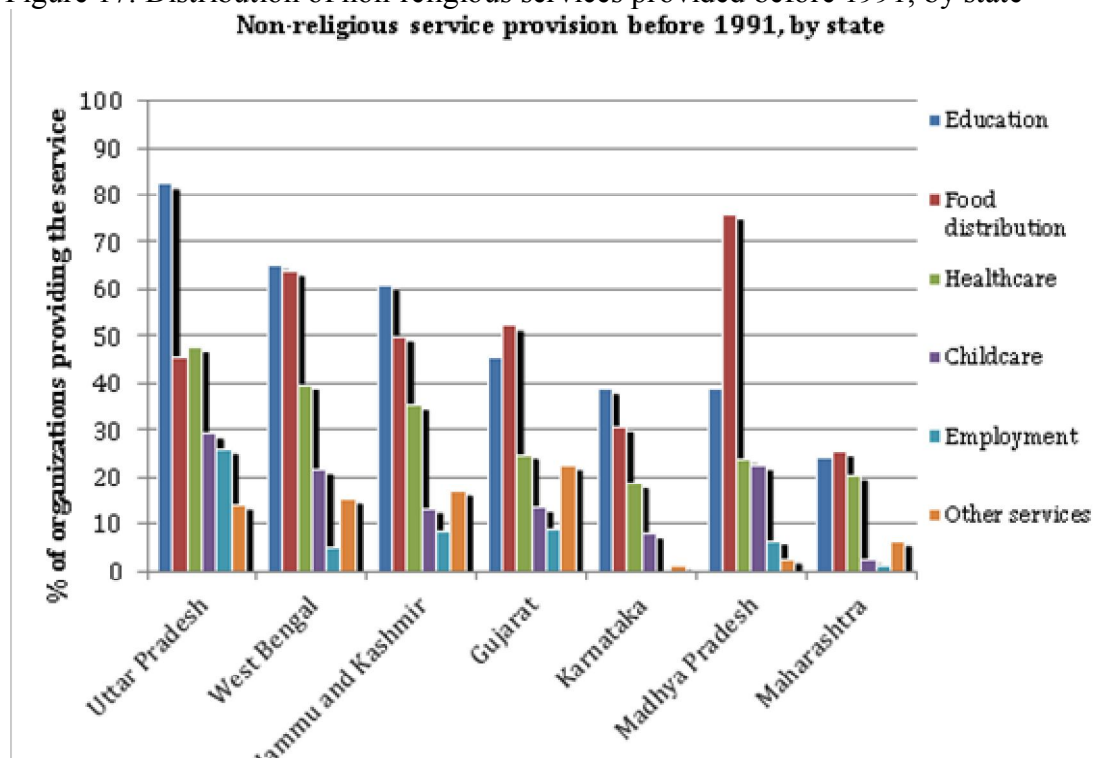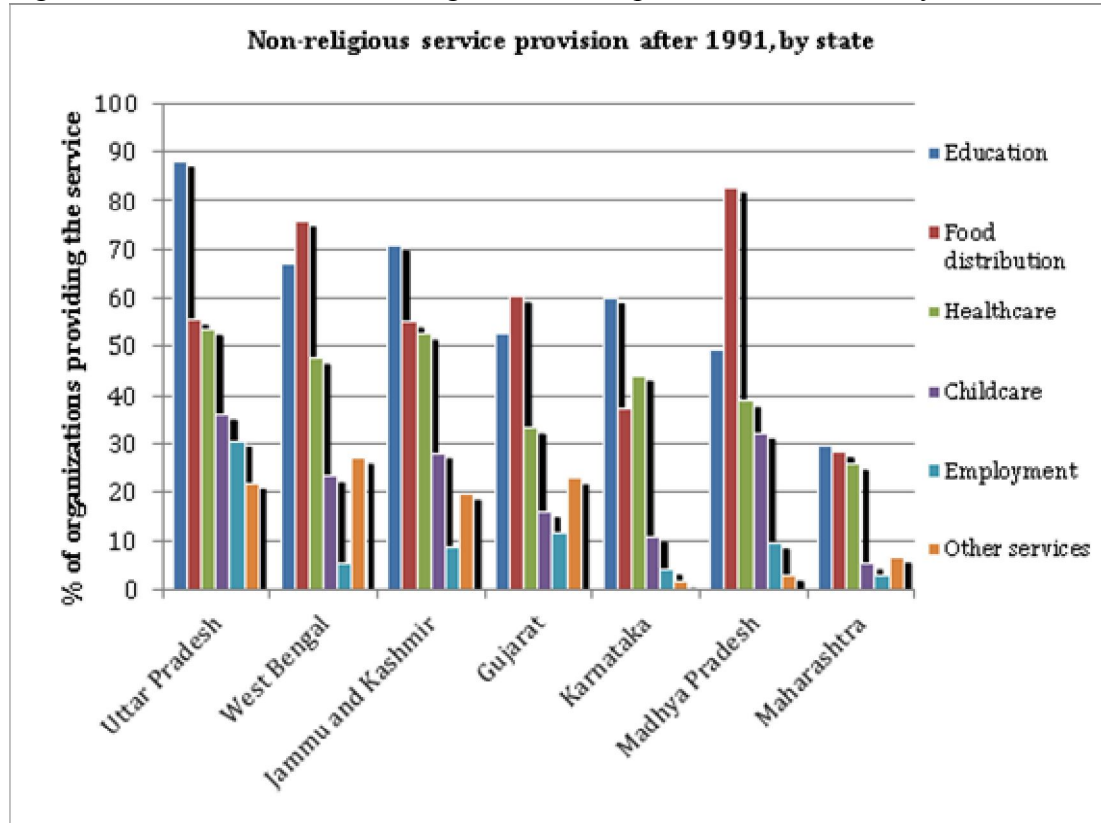
Figure 18. Distribution of non-religious services provided after 1991, by state

In addition to direct questions about the provision of non-religious services, the organizations were also asked about possible religious motives for such provision. The organizations explained that the provision of non-religious services was a key way in which to propagate and expand their faith – over 55 per cent of organizations thought this was very important in the post-1991 period, and this increased substantially relative to the pre-1991 period. This again is consistent with propositions 1 and 2.

With respect to the provision of non-religious services like education and health services, the organizations were asked if they had changed their provision of non-religious services such as education and healthcare: there were 331 (58.3 per cent) who reported that they had. They were also asked if the education and health services were now better provided for, and the costs of providing these services. There were 318 (56 per cent) people who thought these services were better provided for; 69 (12.2 per cent) who felt that they were less well provided for, and 101 (17.8 per cent) who thought that non-religious provision had stayed the same. There were 542 organizations (95.4 per cent) who felt that providing these non-religious services increased the welfare of the population in their districts.

With respect to other qualitative perceptions about changes to non-religious service provision, our fieldwork uncovered that most organizations had either introduced or were in the process of introducing computer education and computer-based learning schemes. Our field staff noted that while the main focus of non-religious service provision for most of the organizations was on education, many people were educationally backward in the key areas of operation in the organizations. More than 90 per cent of the respondents said that Indian people needed education more than any other service. Healthcare provision was the second most popular service provided after education.

Organizations differed in terms of their target groups; for example, in Jammu and Kashmir the Muslim organizations were very clear that their target was the welfare of their community. In other states religious institutions would make a point of stating that their organizations were open to everyone irrespective of religious denomination. There was little doubt that the religious organizations perceived themselves to be providing very important non-religious services for their communities. Many spoke of people having lost faith in the government and working for the uplift of their communities through their own local efforts. For example, Kashmiris – both those who belonged to less fortunate economic backgrounds, and others – spoke knowledgably and eloquently about basic issues in their lives and existence, and they were at pains to discuss these at considerable length. Also, the heads of most of the organizations in all states emphasized their secular outlook.

In summary, all religions had increased their provision of non-religious services, and there were important variations among the religions in terms of the kinds of service provided.

4.3. Economic Inequality

Some of the questions we asked in the survey related to the subjective evaluations of inequality and poverty by the organizations. We use the responses to these questions to provide support for propositions 1 and 2. The survey asked a series of questions on how the organizations perceived background changes in the economy more widely. A series of questions ascertained the organizations' views about poverty and inequality. First, the organizations were asked: 'What are the most important economic changes that you think have happened?' They provided a range of qualitative responses including that the area was now better developed, that awareness had increased, that there were better education and employment opportunities, that 'big malls and big shops have opened', that 'Brahmins had become richer', that 'everyone carries a mobile', that 'farmers are quitting farming', and that there was an increase in real-estate activity, but equally an increase in slum areas. Others pointed out that there was much development in the IT sector and that 'multi-storey buildings have come up' in addition to new roads and services and an 'increase in mall culture', but as one temple trustee appositely put it, 'Mumbai has developed but Dharavi has not!' Others pointed out the positive aspects that 'poor people can now manage two square meals a day'.

Responses to questions on background economic and other changes provide qualitative support for proposition 1. A majority of organizations agreed that there was an observable increase in income and overall standard of living of the general population. The overall sense about their economic status was that poverty had decreased but that economic inequality had increased. The perceived changes in income inequality are consistent with other studies, which have commented recently on the increase in income inequality in the post-1991 economic reform period in India (Sarkar and Mehta 2010). In terms of poverty, an estimate by the World Bank in 2005 showed that India had approximately 42 per cent of its population living below the international poverty line of $1.25 a day (Chen and Ravallion 2008).

In order to assess these changes more closely, the organizations were asked: 'How do you think the economic position of the population you serve has changed in the past 10 years?' A majority of the organizations believed that the economic position of the population they were serving had improved (83.3 per cent), followed by others who thought it had stayed the same (13 per cent), and 3.5 per cent who thought it had become worse. This is consistent with the qualitative observations as well.

We then asked them questions about their perceptions of inequality, such as: 'How do you think economic inequality has changed in your district over the past 20 years?'; 'How do you think that poverty has changed in your district in the past 20 years?'; and 'What are the most important economic changes that you think have happened in your area in the last 5 years?' It should be clarified that when thinking about poverty and inequality the respondents were evaluating the income of the poor relative to the income of the middle-class and the rich.

The responses in Figure 19 show that a majority of the sample believed that economic inequality had either increased (46.1 per cent) or stayed the same (21.8 per cent). The split was not dissimilar across the various religious groups. A similar question on poverty showed that a majority of the organizations perceived that poverty had decreased (43.5 per cent).

Figure 19. Economic inequality and poverty in the last 20 years
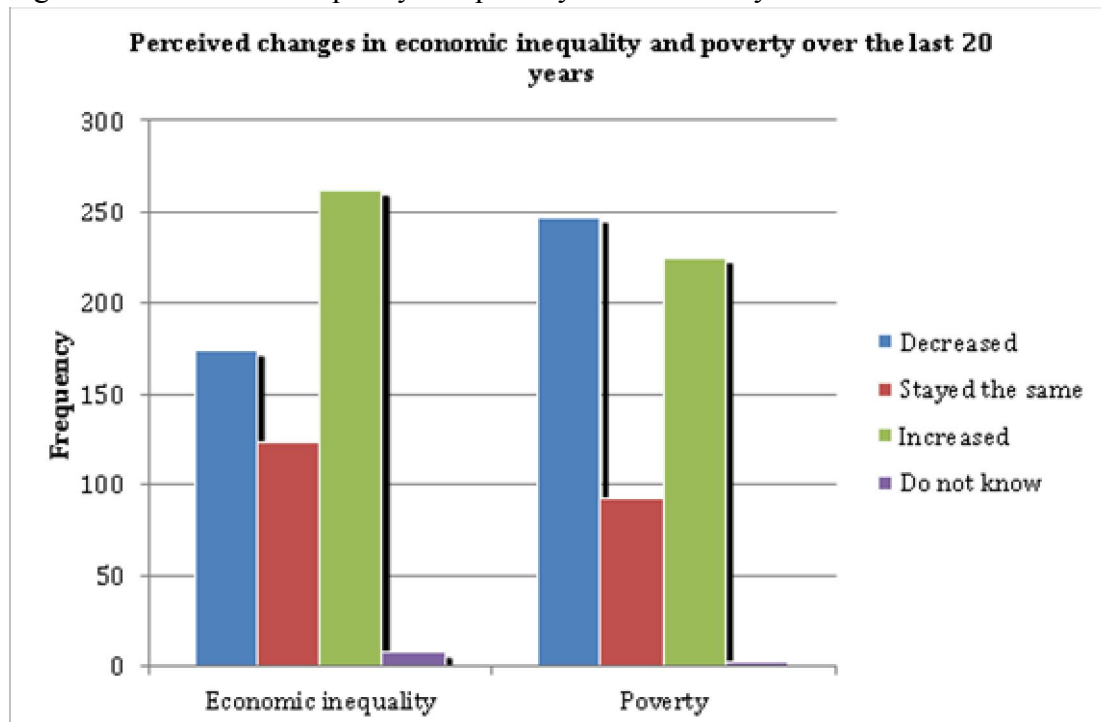
Economic inequality was perceived to have increased; poverty was believed to have decreased over time. The finding from the previous section that non-religious service provision increased during a period when the perception of economic inequality increased is consistent with proposition 2.

In summary, the qualitative and descriptive statistics from the survey is consistent with and provides initial support for both propositions 1 and 2. In the next section, we use our survey data to econometrically test propositions 1 and 2 in order to demonstrate the empirical regularity of our findings.

5. Econometric Testing of the Propositions

The econometric analysis consists of testing the two propositions identified by the theoretical model.

Proposition 1. The two religious organizations maximize the differentiation in their religious focal points regardless of economic inequality in order to minimize competition in the provision of non-religious services.

Proposition 2. When there is some economic inequality, if the poor remain poor enough, then both religious organizations will also provide more non-religious services.

For proposition 1, our dependent variable is the strength of religious beliefs. Consistent with our theoretical model, this variable measures the strength of religious beliefs, and can include the inherent strictness of a religious organization (Iannaccone 1994). As discussed in Section 5.1, we asked organizations directly how they would subjectively evaluate themselves in religious terms, and this is the measure of religiosity that we are using in this study. In this sense we focus more on the strength of religious belief rather than on the theological content of religion.

The independent variables used in the empirical analysis, along with the variable definitions, are shown in Table 5. These variables include a range of religion and state effects, the age of the organizations, the number of adherents for the organization, and perceptions of whether an increase in inequality had been observed.

Table 5. Variable definitions

Variable name	Variable definition
orgrel	Strength of religious beliefs
impeduhth	Changes in health and education services since 1991 $\in \{-1, 0, 1\}$
econineq20	Whether economic inequality has changed over the last 20 years $\in \{-1, 0, 1\}$
adherents	Number of adherents of the organization
age	Age of the organization
Muslim	Whether the organization is Muslim
Christian	Whether the organization is Christian
Hindu	Whether the organization is Hindu
Gujarat	Whether the state is Gujarat
Jammu and Kashmir	Whether the state is Jammu & Kashmir
Maharashtra	Whether the state is Maharashtra
Karnataka	Whether the state is Karnataka
Uttar Pradesh	Whether the state is Uttar Pradesh
West Bengal	Whether the state is West Bengal

First, let us consider proposition 1, which states that the two religious organizations maximize the differentiation in their religious focal points regardless of economic inequality, in order to minimize competition in the provision of non-religious services.

We note that, in line with our theoretical model, although our survey was conducted across seven Indian states, the empirical analysis was conducted at the level of the individual religious organization in order to capture the local market for religion. Consequently, our empirical evidence for proposition 1 relies on three analyses: first, goodness-of-fit tests for the dispersion on the strength of religious beliefs; second, the distribution of the intensity of religiosity by the perception of inequality; and third, Ordered Logit regressions to test for the effects of religious competition on the religiosity of the organization, after controlling for a range of variables including state and religion-fixed effects. We elaborate on these analyses below.

5.1. Goodness-of-fit Tests for Dispersion on the Strength of Religious Beliefs

We argue that the analysis depends upon the religious organizations being spread across the spectrum of strength of their religious beliefs. In order to establish this, we conducted goodness-of-fit tests, technically empirical discrepancy of distributions tests, for the categorical variable on the strength of religious beliefs variable (*orgrel*), along the lines of Read and Cressie (1988). This method was used by Rysman and Greenstein (2005) to test if agents in discrete locations (states or 'belief bins') were more agglomerated or dispersed than would be predicted by random choice. Their idea was to compare the log-likelihood of the sample based on a multinomial probability density function with the log-likelihood of the sample as predicted by random choice, i.e. if the mass were being placed on the support points uniformly. An LR-test allows us to check whether this difference is significant and the sign of the test statistic points to either excess dispersion or excess agglomeration. More familiar in these cases is the Pearson χ^2-test, which was proposed for similar situations by Ellison and Glaeser (1997) and is able to reject the null of random choice, but is unable to point towards either agglomeration or dispersion.

Furthermore, tests can be based on analytical asymptotic critical values or they can be based on simulated critical values based on MC simulations or complete enumerations (Jann 2008). More specifically, these are tests of hypotheses relating to the parameters of the multinomial distribution with k categories, $\boldsymbol{\pi} = (\pi_1, \dots, \pi_k)'$, which has the probability mass function:

$$\mathbb{P}(\boldsymbol{X} = \boldsymbol{x}) = \frac{n!}{\pi_1! \dots \pi_k!} \pi_1^{x_1} \dots \pi_k^{x_k}$$

Where the random vector $\boldsymbol{X} = (X_1, \dots, X_k)'$ has as elements the non-negative random variables $X_i \in \{0, \dots, n\}, i \in \{1, \dots, k\}$ which count the number of times category i is observed in the sample ($\sum_{i=1}^{k} X_i = n$) and n is the sample size. We test the null:

$$H_0: \pi = \pi_0$$

where $\pi_0 = (\pi_{01}, \dots, \pi_{0k})'$ is a pre-specified probability vector.

The Pearson and the LR belong to the family of empirical discrepancy of distributions statistics defined by the Cressie–Read power divergence family of statistics:

$$2n\mathbb{I}^\lambda \left(\frac{\boldsymbol{X}}{n}, \boldsymbol{\pi_0} \right) = \frac{2}{\lambda(\lambda + 1)} \sum_{i=1}^{k} X_i \left(\left(\frac{X_i}{E_i} \right)^\lambda - 1 \right); \lambda \in \mathbb{R}$$

where $E_i = n\pi_{0i}, i \in \{1, \dots, k\}$. For $\lambda = 1$ (where the statistic is defined by continuity at 1), this is Pearson's χ^2-statistic, and for $\lambda = 0$, it is the LR-statistic. Additionally, Cressie and Read (1984) recommend using $\lambda = \frac{2}{3}$ when no knowledge of the alternative is available. Tests can be based on the χ^2_{k-1} asymptotic distribution of the family of statistics under the null that the two parameter vectors are equal. See Cressie and Read (1984) for a pioneering treatment of these tests.

Rysman and Greenstein (2005) show that while the classical Pearson goodness-of-fit test is able to discriminate between the uniform distribution of mass ($\pi_{01} = \dots = \pi_{0k} = \frac{1}{k}$) and

alternatives, it cannot indicate the direction of deviation from the null. This is their primary reason for recommending the LR test in this scenario.

We report the results of our tests on the dependent variable (the strength of religious beliefs) in Table 6 without covariates and in Table 7 with covariates.

Table 6. Goodness-of-fit tests on the dependent variable (without covariates)

Goodness-of-fit test		
	Statistic	p-value
Pearson's χ^2	154.9	0.0064
Likelihood Ratio (LR)	162.1537	0.0054
Cressie–Read	156.1762	0.0062
Freeman–Tukey	170.0932	0.0046

Based on the positive and significant LR test statistic, we conclude that religious organizations are dispersed more widely than would be expected if they were choosing their strength of religious beliefs independently of each other. *This suggests that religious organizations in India are choosing to maximize the differences in the strength of their religious beliefs with respect to other organizations.*

We generalize the above tests to their conditional (on covariates) versions.[8] The theoretical extension is not straightforward and the relevant theory is derived in Andrews (1988a, 1988b) and Vuong and Wang (1993). The key aspect of testing conditional fit lies in the construction of appropriate data-dependent cells for the tests. The Andrews method relies on the ability to construct data-dependent cells, which are chosen from a Vapnik-Cervonenkis class of sets. Several ways are suggested in Andrews (1988a), which involve various combinations of appropriately discretized outcome and covariates; since our outcome variable is naturally categorical, we use k-means clustering to split the covariates into categories independently for each category of the outcome variable. The predicted probabilities for these cells are then compared with the cell counts, and an independent non-parametric bootstrap is used to generate p-values for these statistics.

Details of an asymptotic χ^2-distribution are given in Andrews (1988a, 1988b), but we compute them using the bootstrap, the relevant theory for which is given in Vuong and Wang (1993). Predicted probabilities are obtained by fitting a multinomial logit model by maximum likelihood.

Table 7. Goodness-of-fit tests (with covariates)

Goodness-of-fit Test		
	Statistic	p-value
Pearson's χ^2	124.4	0.003
Likelihood Ratio (LR)	136.2	0.0021
Cressie–Read	127.3	0.0029
Freeman–Tukey	147.05	0.0011

We note that the results are not substantially qualitatively altered and that the dispersion of the strength of religious beliefs is robust to the inclusion of covariates in the model.

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[8] The covariates used are the same as in the Ordered Logit regressions to test proposition 1 (reported below).

To test the second part of proposition 1 we also need to examine whether the maximization of religious focal points holds regardless of economic inequality. This is shown in Figure 20. In the figure we split the sample by perception of inequality (whether the organization said that inequality had increased, decreased or stayed the same) and it shows that the distribution of choices of religiosity is not wholly different across categories of perception of inequality, i.e. the bars are roughly declining in the same proportion.

Figure 20. Distribution of the intensity of religious beliefs among religious organizations
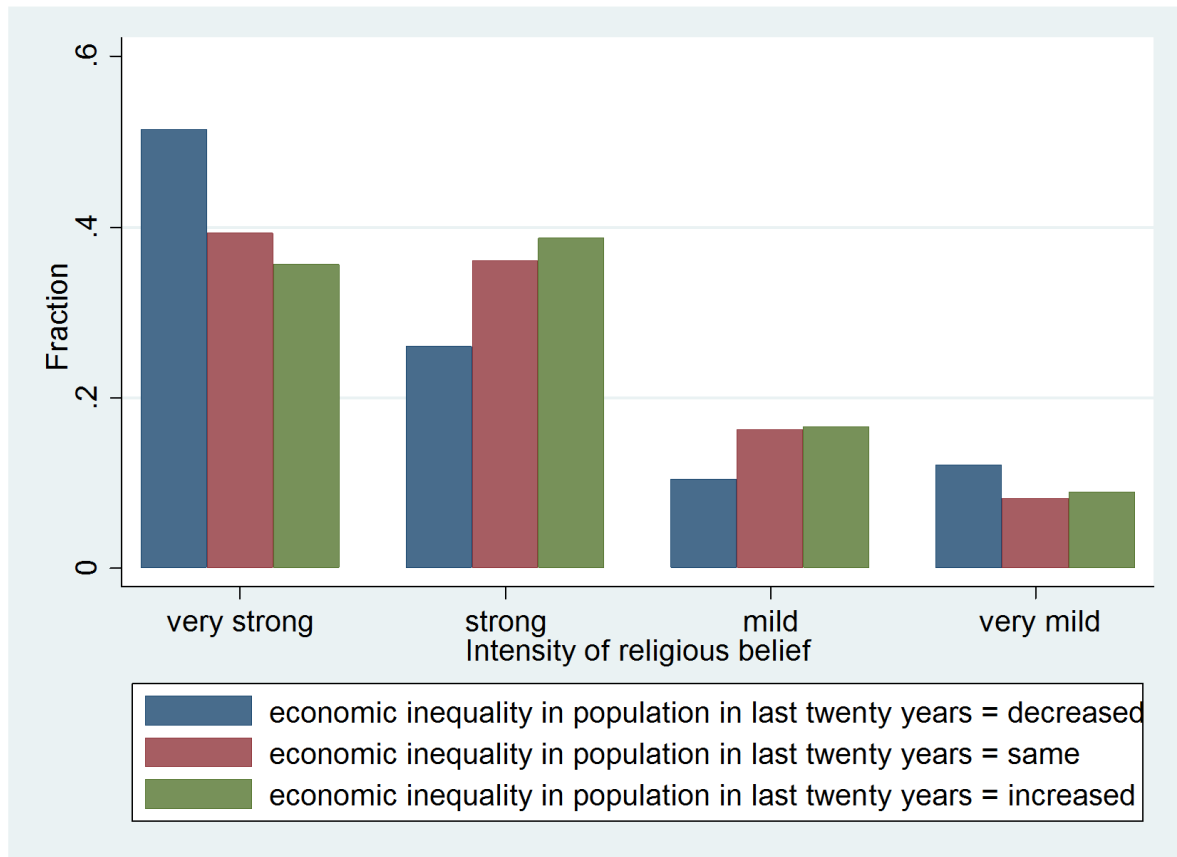
In Figure 20 we observe that the distribution of strength of religious beliefs across categories of the variable showing whether economic inequality has changed over the past 20 years is positively skewed. So together the goodness-of-fit tests and the figure demonstrate proposition 1: that the two religious organizations maximize the differentiation in their religious focal points regardless of economic inequality.

In order to refine and test the final part of proposition 1 on competition effects, we estimate Ordered Logit regressions. These Ordered Logit regressions are estimated both with and without state and religion-fixed effects to examine whether competition between organizations in the provision of a service also affects distribution of the strength of religious beliefs. We report the marginal effects for the Ordered Logit regression, which shows whether an organization's religiosity is affected by the presence of other religious organizations in the area whose service provision affects the decision of the organization.

We run an Ordered Logit regression of the religiosity variable on the age, number of adherents, total annual expenditure, the perception of economic inequality and the variable determining services provided because other organizations have provided it, together with state and religion-fixed effects. As tables 8 and 9 show, the marginal effect of a religious

organization having an effect on another organization's service provision positively affects the probability of an organization being stronger in its religious beliefs. And it negatively affects the probability of being a less religious organization. As tables 8 and 9 show, this effect is robust to the inclusion of state and religion-fixed effects.

Table 8. Marginal effects for the Ordered Logit model with fixed effects

Average change in the strength of religious belief	Provide a new service because others do so
Prob (orgrel = Very mild)	-0.0614***
	(0.006)
Prob (orgrel = Mild)	-0.0821*
	(0.004)
Prob (orgrel = Strong)	-0.0237**
	(0.056)
Prob (orgrel = Very strong)	0.1671***
	(0.003)

Note: p-value reported in parentheses

Table 9. Marginal effects for the Ordered Logit model without fixed effects

Average change in the strength of religious belief	Provide a new service because others do so
Prob (orgrel = Very mild)	-0.0449**
	(0.036)
Prob (orgrel = Mild)	-0.0643**
	(0.029)
Prob (orgrel = Strong)	-0.0291**
	(0.045)
Prob (orgrel = Very strong)	0.1383**
	(0.025)

Note: p-value reported in parentheses

Together, therefore, our results provide support for proposition 1 that the religious organizations are maximizing the differentiation in the strength of their religious beliefs in order to minimize competition on non-religious services, regardless of economic inequality. As we demonstrate, our empirical evidence for proposition 1 relies on goodness-of-fit tests for the dispersion on the strength of religious beliefs; on the distribution of the intensity of religiosity by the perception of inequality; and on Ordered Logit regressions to test for the

effects of religious competition on religiosity, after controlling for a range of variables including state and religion-fixed effects.

5.2. Non-religious Service Provision and Economic Inequality

Proposition 2 states that when there is some economic inequality, if the poor remain poor enough, then both religious organizations will also provide more non-religious services. To test proposition 2 we use a range of models such as the Ordered Logit model, which we estimate with and without fixed effects. First, we use an Ordered Logit model with the variable changes in health and education services since 1991 as the outcome variable. Our primary independent variable of interest is the perception of inequality. In all the specifications below, we include the age and number of adherents of the religious organizations as covariates.

We run an Ordered Logit regression of the improvements in education and health in the past 20 years on the age of the organization, the number of adherents in 2007, and the economic inequality variable. The fit and coefficients of the Ordered Logit model are obtained. To interpret this model, we calculate the marginal effect of a change in the variables of interest on the outcome. These are tabulated in Table 10. Note that the results in each row are from a separate regression.

Table 10 has straightforward interpretations. It shows the average changes in the probability of providing either more, less or the same amount of education and health services when the perception of economic inequality changes from one category to the other. So, for example, in Table 27, the average probability of providing *more* education and health services *increases* by 0.2495 if an organization perceives inequality to have increased rather than to have stayed the same. Similarly, the probability of providing less education and health services decreases by -0.1298 when inequality increases. These are also economically meaningful numbers, i.e. the changes in probabilities are fairly substantial. The results for the case of increased inequality are all meaningful at the 1 per cent level of significance. This provides support for proposition 2 since we observe a consistent relationship between non-religious services increasing when there is some inequality.

The Ordered Logit model, however, imposes the restrictive proportional odds assumption, which implies that the coefficient of interest is the same for all the cut-off points. The Brant test evaluates a fundamental restriction of the Ordered Logit model, whereby the regression coefficients are restricted to be equal across choices. The Brant test is used to check whether this assumption holds in this case, and at the 5 per cent level of significance this test rejects the null of proportional odds. Therefore, we re-estimate our model in two further ways to check if our results are robust to dropping the proportional odds assumption. The Multinomial Logit model is more general but ignores the ordering in the response variable. The average marginal effects for this model are reported in Table 11.

One disadvantage of the Multinomial Logit model is that it is over-parameterized in that it allows all variables to vary across all categories. The Generalised Ordered Logit model allows for certain covariates to violate the proportional odds assumptions, which are decided on the basis of a backward stepwise selection using LR-tests. This has the advantage of parsimony, but the final chosen model is fairly arbitrary. The average marginal effects for this model are reported in Table 12.

Both the Multinomial Logit and the Generalised Ordered Logit model provide support for the proposition that non-religious services increase in the presence of some inequality. Therefore, overall, we find strong support for proposition 2. The average change in the probability of providing higher levels of education and health services for an increase in the perception of inequality changes little across all the models, and remains large, positive and significant.

Table 10. Marginal effects for the Ordered Logit model

Average change in probability of providing education and health services	Change in inequality	
	Stayed the same to increased	Decreased to increased
Prob (impeduhth = Better provided for)	0.2495***	0.2817***
	(0.000)	(0.000)
Prob (impeduhth = Stayed the same)	-0.1196***	-0.1300***
	(0.003)	(0.002)
Prob (impeduhth = Less well provided for)	-0.1298***	-0.1517***
	(0.001)	(0.001)

Note: *p*-value reported in parentheses

Table 11. Marginal Effects for the Multinomial Logit model

Average change in probability of providing education and health services	Change in inequality	
	Stayed the same to increased	Decreased to increased
Prob (impeduhth = Better provided for)	0.2962***	0.2636***
	(0.000)	(0.000)
Prob (impeduhth = Stayed the same)	-0.2539***	-0.1144**
	(0.000)	(0.015)
Prob (impeduhth = Less well provided for)	-0.0422	0.1492**
	(0.419)	(0.011)

Note: *p*-value reported in parentheses

Table 12. Marginal effects for the Generalized Ordered Logit model

Average change in probability of providing education and health services	Change in inequality	
	Stayed the same to increased	Decreased to increased
Prob (impeduhth = Better provided for)	0.2967***	0.2696***
	(0.000)	(0.000)
Prob (impeduhth = Stayed the same)	-0.2543***	-0.1332**
	(0.000)	(0.000)
Prob (impeduhth = Less well provided for)	-0.0424	-0.1364*
	(0.470)	(0.001)

Note: *p*-value reported in parentheses

In summary, the regressions collectively support the proposition that the religious organizations maximize the differentiation of the strength of religious beliefs and that more non-religious services are provided as inequality is perceived to increase.

5.3. Robustness of Results

To check the robustness of our results, the Ordered Logit models were re-estimated with state and religion fixed effects, shown in tables 13 and 14. This is important to ensure that the results are not confounded by characteristics of the particular states surveyed. The excluded categories for the fixed effects are 'Madhya Pradesh' and 'Other Religions'. The Ordered Logit results did not change qualitatively in the fixed-effects estimation. Similarly, the Multinomial Logit results are still significant. All estimation results are reported with clustered robust standard errors, with clusters being interactions of state and religion categories, using the clustering strategies proposed by Cameron, Gelbach and Miller (2011).[9] What this suggests is that even with the inclusion of state- and religion-fixed effects, the organizations provide more non-religious services when inequality is perceived to increase.

Concerns about endogeneity biases are not directly addressed in this study – the nature and sensitivity of the survey questions and its bespoke nature make standard instrumental variables (IV) approaches unavailable. Endogeneity potentially arises in our case from several sources, including unmeasured factors like political affiliations and financial wealth. Further, as suggested in Bertrand and Mullainathan (2001), since we are dealing with subjective responses, biases might exist due to cognitive processes affecting responses (such as those arising from imperfect recall) and systematic under- and over-reporting in responses. Although systematic mean shifters in responses have, to some extent, been addressed by the inclusion of state- and religion-level fixed effects, more careful treatment calls for embedding in a measurement error framework, which also usually requires IV solutions, which, as noted above, are unavailable.

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[9] These strategies are for clustering standard errors in the Ordered Logit model on two non-nested clusters simultaneously. We have also estimated the logit models with the clustering performed only on states, and only on religions, and our results show even greater significance for the variables of interest, but we report the results with clustering based on the more stringent interactions of state and religion only.

Recent literature has focused on the non-classical measurement error framework where the measurement errors – the deviation of responses from true underlying measures – are plausibly correlated with the measure itself. Alternatives to IV solutions exist, but typically involve being more nuanced in interpreting the nature of cognitive biases and generally yield only bounds on parameters rather than point-identified causal effects. We note that the framework introduced in Hyslop and Imbens (2001), and further investigated in Hoderlein and Winter (2010), which involves agents reporting an optimal prediction of the survey question based on an information set, is a mechanism we find promising as a model applicable in the present study. We leave investigation of this avenue for future research, while remaining optimistic that the robustness of our results to several parametric specifications will carry over to the more sophisticated econometric approaches delineated above.

Table 13. Marginal effects for the Ordered Logit model with fixed effects

Average change in probability of providing education and health services	Change in inequality	
	Stayed the same to increased	Decreased to increased
Prob (impeduhth = Better provided for)	0.1043*	0.0943*
	(0.072)	(0.075)
Prob (impeduhth = Stayed the same)	-0.445*	-0.0408
	(0.077)	(0.110)
Prob (impeduhth = Less well provided for)	-0.0597*	-0.0535*
	(0.082)	(0.057)

Note: *p*-value reported in parentheses

Table 14. Marginal effects for the Multinomial Logit model with fixed effects

Average change in probability of providing education and health services	Change in inequality	
	Stayed the same to increased	Decreased to increased
Prob (impeduhth = Better provided for)	0.1433**	0.0739
	(0.022)	(0.155)
Prob (impeduhth = Stayed the same)	-0.1399***	-0.0403
	(0.000)	(0.384)
Prob (impeduhth = Less well provided for)	-0.0034	-0.0335
	(0.954)	(0.427)

Note: *p*-value reported in parentheses

On balance, what we find is that the average change in the probability of providing higher levels of education and health services for an increase in the perception of inequality remains large, significant and positive. So if organizations perceived that inequality had increased, they also said that education and health services were better provided for. The empirical testing of the two propositions indicates that in keeping with the predictions of our theory, organizations are differentiating themselves on the strength of religious beliefs. But regardless of this, as economic inequality increases, all organizations provide more education and health services.

6. Conclusion

Consider this view from the field – *'Yahan bhukha jagtaa hai par koi bhukha sota nahi'*, translated as '*People wake up on an empty stomach here but no one will go to bed on an empty stomach.*' And so the words of a Sufi scholar discussing the practice of 'langar' or the community kitchen of his mosque, which undertakes a community feeding programme, epitomises the vital nature of non-religious service provision by religious organizations in India today. If we examine the history of India's religions, all of them – Hinduism, Islam, Jainism, and Buddhism – arose in response to the perceived inequalities in society and by a desire on the part of those propagating the religion to deal with the social problems that emerged in various historical periods. Such lessons underlie the crucial role of the socio-economic consequences of religiosity and service provision, which has played a key role in the operations of Indian religious organizations in the past.

This paper has examined the economics of religion in India in the present day. In particular, we highlight the provision of religious and non-religious services such as education and health by religious organizations as a way of retaining adherents in a situation where economic growth and income inequality are both increasing. To illustrate this theoretically, we presented a simple and stylized Hotelling-style model in which two religious organizations choose a religious focal point and decide upon the non-religious services provided. We showed in the model two central predictions. First, that the organizations will differentiate themselves on the strength of religious beliefs. Second, that in equilibrium,

economic inequality alone is sufficient to make both organizations increase their provision of non-religious services.

To examine the issue empirically, we present our unique primary survey data collected between 2006 and 2008 in India from 568 Hindu, Muslim, Christian, Sikh and Jain religious organizations spread across 7 major Indian states. Using our theoretical model, and testing the two key propositions from it on our survey data, we highlight that religious organizations in India are choosing to differentiate themselves on the strength of religious beliefs with respect to other organizations. We find evidence that organizations of all religions in India have substantially increased their provision of religious and especially non-religious services, and that this is related to their perception of economic inequality and poverty. Using a range of econometric methods we also showed that the average change in the probability of providing higher levels of education and health services for an increase in the perception of inequality changes little across all the models, and remains large, positive, significant and robust.

Our study also highlights variations between religions in both religious service provision and non-religious service provision. For example, of all the religious services provided by the organizations, propagation of the faith and religious education were considered the two most important activities provided by them. Muslim and Christian organizations provided more by way of religious education compared to the Hindus. For the post-1991 period, especially for the Hindus, propagation and expansion of the faith was regarded as the single major religious service provided.

Non-religious service provision shows that all religions without exception have increased their provision of all non-religious services in the post-1991 period. Although all religions have provided substantial education and healthcare before and after 1991, this study uncovered that Hindus and Muslims have been increasingly engaging in providing education, healthcare, employment and food distribution services in the post-1991 period. Another qualitative aspect is how creative many religious organizations are with respect to the kinds of non-religious services they provide – be it basic school education; healthcare, including blood donation, vaccination and eye camps; computer-based learning schemes; food distribution; cow-lending schemes; mass marriages; or religious book distribution.

We acknowledge that while this study presents one argument for why service provision has increased among religious organizations in India so rapidly, there may also be other possible explanations. For example, there could be changes in religious regulation, increased missionary work from outside the country, other factors related to economic growth, and so forth. While our study does not have evidence on these other factors, we do acknowledge that the growth of religion and service provision in India has complex roots, grounded in the history, politics and sociology of the subcontinent. Religious organizations across India, irrespective of religion, are playing a very important role in local communities by providing education, health, or other services. And this is a very *positive* role that they play in their communities, by contributing to both religious and non-religious activities that build social capital and address economic necessity. In this study the links we highlight between the sacred and the secular demonstrate simply how one economic channel, economic inequality, may interact to influence religious and non-religious service provision by religious organizations in India.

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