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Why churches need free-riders: Religious capital formation and religious group survival

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ABSTRACT

Prevailing theory claims that churches thrive when they overcome the free-rider problem. However, this paper argues that religious organizations need free-riders in a dynamic setting. If individuals' contributions to congregations increase as their exposure to religion increases, then allowing potential members to free-ride temporarily may increase future membership and contribution levels. Free-riders thus comprise a risky but necessary investment by the church. Strict churches screen out riskier investments yet still allow some free-riding, while ultra-strict churches screen out all but members' children. This new theory yields predictions consistent with stylized empirical facts.

1. Introduction

Economic theories of collective religious production derive primarily from Iannaccone (1992, 1994).[1] He observes that many religious goods are collectively produced and thus susceptible to free-riding. Because churches have difficulty identifying and excluding free-riders directly, they resort to an indirect method to obtain high contributions from their members: members may be required to undertake observable behaviors—such as wearing distinctive clothing or abstaining from certain forms of consumption— that generate costly stigmas but serve to signal commitment to the group. Those who would be free-riders are screened out of the religious group. This *stigma-screening theory* accurately predicts that strict churches with these requirements will have fewer free-riders, higher contributions, and higher quality religious goods than non-strict churches.[2] The seemingly irrational behaviors required by strict churches can thus be understood as a way to screen out free-riders and thrive in the religious marketplace.

However, other evidence suggests that the stigma-screening theory is incomplete. Strict churches still have free-riders, which suggests that stigma-screening falls far short of eliminating free-riding. Moreover, many religious groups, contrary to the spirit of screening and exclusion implied by the stigma-screening theory, are very welcoming to individuals who contribute little or nothing to the group. Perhaps most puzzling of all is that these groups might expend costly resources reaching out to these individuals, resources that could be spent on the internal production of goods that could be consumed by contributing members. Why do churches—even strict ones—allow or even welcome free-riders? Does their presence undermine the stigma-screening theory?

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[1] The economic research on religious organization is one of many areas of the research on the economics of religions. E.g., an individual's utility may depend on actions related to afterlife benefits (e.g., Azzi and Ehrenberg, 1975) or be due to a rational addiction to religion (e.g., Iannaccone, 1990); religious suppliers may behave as rent-seeking monopolists (e.g., Ekelund, 1996) or as producers of club goods (e.g., Iannaccone, 1992; 1994); and regulations may inhibit both religious pluralism and religious participation. (e.g., McBride, 2008). Iannaconne's argument that the collective nature of religious production creates a religious free-riding problem is the primary one considered in the field. However, we note that there could be other factors that reinforce the problem. Noteably, many religious services are not priced, and allowing open access to private religious goods can create an additional incentive to free-ride.

[2] The vitality of strict churches was first noted by Kelley (1972) and then developed theoretically by Iannaccone (1994). Empirical evidence confirms that members of strict churches donate more money on an average to their churches (e.g., Hoge, 1996; Iannaccone, 1994; Olson and Perl, 2001), and that donations are less skewed in strict churches than in other churches so that the higher average contributions in strict churches is due to everyone contributing more and not just a smaller proportion of very large contributors (Iannaccone, 1994; Olson and Perl, 2005). These two facts imply that strict churches have relatively fewer free-riders than other churches, which, in turn, provides an explanation for why strict churches grow faster than non-strict churches (Iannaccone, Olson, and Stark, 1995).

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This paper argues that a church's optimal strategy in a dynamic setting is to manage but not eliminate all free-riding. The argument relies on the notion of religious capital, i.e., an individual's set of skills, experience, knowledge, and familiarity tied to a specific religious group's doctrine, structure, and norms (Iannaccone, 1990). As religious capital grows, so does an individual's marginal value of participation and their willingness and ability to contribute to the group. By allowing some individuals, who are not yet willing to contribute, to consume the religious goods today, the church makes an investment in their religious capital with the hope that they contribute in the future. Indeed, because contributors are not born but must be produced, a church *must* allow a degree of free-riding to survive over time; otherwise its stock of high capital contributors will eventually be depleted.

This logic reconceptualizes the prevailing stigma-screening theory by placing it in a dynamic context. A church's investment in members is risky because not all individuals who consume the good become contributors. The investment is also costly because the free-riders consume church resources and decrease average contributions, thereby decreasing the quality of the church's religious services. Hence, a church does not want just anyone to free-ride; it prefers to invest in individuals with higher expected returns on the investment. By increasing the cost of membership, the church screens out those less likely to form high religious capital. Whereas the original theory states that requiring members to undertake stigmatizing behavior screens out free-riders, the new theory developed here states that the behavioral requirements screen out those *more likely to remain* free-riders. Moreover, this new theory accounts for different kinds of strict church strategies by distinguishing strict churches like the Jehovah's Witnesses and Seventh-day Adventists that seek converts from the ultra-strict groups like the Amish and Hasidic Jews that focus on growth through internal fertility. This distinction between strict and ultra-strict is ignored in previous theory.

Earlier research using a "rational choice" or related approaches to religion[3] acknowledges that accommodating potential contributors serves a dynamic purpose, yet it has not constructed a general theory of free-riding and religious capital formation. Miller (2002) uses a "strategic management perspective" in claiming that "Reducing the demands placed upon potential customers eases them into a religious organization" thereby fostering membership growth (445). I draw inspiration from Miller's work but develop this key idea in a greater depth and in new directions. Specifically, I distinguish different types of free-riders of interest to the group (potential recruits and children), include the possibility of risky (probabilistic) religious capital formation, and examine growth strategies of both medium and high-strictness groups. McBride (2007) identifies many of the practices and policies of the Church of Jesus Christ of Latter-day Saints (Mormon) as investments in less-committed members' religious capital but does not generalize his idea. That free-riders play a role in the dynamic growth of megachurches has been noted and examined by Thumma and Travis (2007) and von der Ruhr and Daniels (2012). My argument here explicitly and formally combines *dynamic* religious capital formation with *static* stigma-screening in a more general church setting. It explains why churches need not eliminate free-riding so much as they must strategically manage it by maintaining a certain type of heterogeneity in the membership. Stigma-screening, which homogenizes membership in a different dimensions, serves a complementary purpose.

After briefly reviewing the original theory and evidence on free-riding in churches in Section 2, Section 3 presents a verbal description of the new theory and how it relates to the original theory. Section 4 then presents a formal game-theoretic model of free-riding and religious capital formation. Similar to the original theory, the new theory predicts the empirical facts mentioned earlier, i.e., that strict churches will have a smaller proportion of free-riders than easy-going churches and that contributions in strict churches will be less skewed than in easy-going churches. Yet, it also makes a new prediction that both strict and non-strict churches will welcome certain types of free-riders, and that ultra-strict and strict groups will have different membership compositions. Section 5 concludes with a brief discussion of the key insights.

2. Assessing the stigma-screening theory

While some private religious goods, such as the communion with deity associated with prayer, meditation, and other personal devotional activities, are produced and consumed by an individual, many religious goods are produced collectively. The financial contributions of many people are needed to build and maintain a meetinghouse and fund various religious activities such as social events or proselytizing, clergy salaries, and more. Other contributions in time and emotional effort create shared religious fervor, build meaningful bonds among members, reinforce members' religious beliefs, and may even help reduce certain financial obligations (e.g., members can perform basic maintenance on the building to reduce operational costs) so that funds can be spent for other activities. But because of the positive externality present, it is rational for an individual to free-ride on others' contributions.[4] If this incentive exists for many members and if they all free-ride, then the church will receive relatively low contributions and, consequently, produce low quality religious goods and services.

Iannaccone (1992) and Iannaccone (1994) recognized that churches are limited in their ability to identify and exclude free-riders and argued that many churches have developed a second-best method to limit free-riding. The stigmatizing and often peculiar behaviors required by strict churches, such as wearing distinctive clothing, abstaining from certain foods or drinks, and moving to a commune, all raise an individual's cost of membership by raising the cost of secular activities. A classification of American denominations into six strictness levels is provided in Table 1. The stricter the church, the larger and more extensive the behavioral expectations for church members. Because these behaviors are easier to observe than other actions associated with religious effort, a church can condition membership and access to the church's goods on compliance with these observable behaviors. These behavioral requirements limit free-riding if the associated costs are relatively lower for religiously committed individuals than for free-riders. By sufficiently raising the cost of membership, the free-riders will screen themselves out of the group, and as long as the cost is not prohibitively high, the committed types will sort into the group. This solution leaves participating members better off than without the stigma-screening although they are suffering the stigma.

[3] Warner (1993) characterizes the rational choice approach to religious as a new paradigm. See (Chaves, 1995; Demerath, 1995; Ellison, 1995; Iannaccone, 1995), and the essays in Young (1997) for descriptions, defenses, and critiques of the rational choice approach. Iannaccone (1998) reviews the work by economists. Not all researchers fully agree with the new view. To some, the once dominant secularization hypothesis, exemplified by Berger's 1967 *Sacred Canopy* thesis which predicted a decline in religion with modernization, has transformed into a neo-secularization theory (Yamane, 1997), which, according to a popular undergraduate text, is less a predictive theory than a useful descriptive concept about the many ways religion changes in response to modernization (Roberts, 2004). Others hold fast to a traditional secularization hypthesis (e.g., Bruce, 2002).

[4] It is useful here to clarify what I mean by free-riding. One definition of free-riding is consuming while contributing zero to production – literally riding for free. Of course, many people, so-called *cheap-riders*, consume while contributing very small but non-zero amounts. Any definition assumes a threshold below which a contribution is considered free-riding. This threshold is not simply a one-to-one consumption-to-contrtibution ratio because even high contributors in the presence of positive externalities receive benefits that far exceed their individual contributions. In the model below, free-riding will be explicitly defined, but for the sake of discussion, I assume that such a meaningful threshold exists.