

# **Gotta' Have Faith: The Effect of Organizational Religiosity on Firm Competitive Positioning**

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## **Pre-Analysis Plan**

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### **Overview**

I use an experiment to evaluate the effect of the theoretical construct of organizational religiosity (OR) on: 1) wages; 2) contributions; and 3) the extensive margin. As a secondary outcome, I also measure the effect of OR on self-expressed worker affiliation with the firm. My experiment uses the Ross Employee Pool, a collection of approximately 10,000 individuals from across the United States as recruited by the Ross School of Business at the University of Michigan. To generate my sample for this experiment, I first sent to all members of the Ross Employee Pool a “Pre-Screen Survey”, in which they were asked a series of background questions. They were also asked to fill out the Religious Commitment Inventory-10 (RCI-10) – a peer-reviewed, ten-question survey aimed at determining individual religiosity (Worthington et al, 2003). As an incentive to fill out the “Pre-Screen Survey”, respondents were told they would be eligible to participate in focus groups for which they would be paid \$40 focusing on the question of: what are the elements that make a business religious?

This pre-screen survey generated 2,932 total responses. 202 of those responses were used for pilot studies. As such, for this experiment, the total pool from which I will generate my sample will be 2,730 individuals from across the United States. To generate my sample for this experiment, I will send emails to this pool with the subject line “Up to \$100.00 for Help with Two Tasks”. Based on pilot studies, I anticipate a response rate between 5% - 10%, or between 136 – 273 respondents. In the email, potential respondents will be invited to help the fictitious firm “Standard Logistics” make grammatical corrections to the “About” section of their mobile site, and answer questions about setting the most competitive and cost-effective wages. In exchange for their participation, potential respondents will be offered a base payment of \$5.00, and the opportunity to enter a lottery in which they can win up to \$95, for a total payment of up to \$100.

My intervention will be two different “About” sections that respondents will be asked to correct. I will have one “control condition”, which will not mention any religious elements of the organization, and one “religious” condition which will. These two conditions will be randomly assigned, and I describe them in greater detail below in the “Study Design” section. Following the intervention, I plan to generate three main outcomes and one secondary outcome. First, I will measure participant “contributions” on a 15-point scale based on their identification and corrections of 10 grammatical mistakes in the “About” section. This will be assigned 1 point for correctly identifying the mistake and 0.5 points for suggesting an accurate correction. Second, I will measure participants’ “extensive margin” by offering them the opportunity to complete an additional task for the firm. This will be a binary variable – “1” if they decide to complete the task and “0” if they do not. Third, I will measure “hypothetical wage” by asking respondents what they think a reasonable annual salary for an entry level analyst position at a company like Standard Logistics would be. Finally, my secondary outcome will be a 5-level Likert variable measuring how much respondents would want to work at a company like Standard Logistics.

I hypothesize that as individual religiosity increases, and under the “religious” condition, respondents will contribute more, be more likely to complete the additional task and demand lower hypothetical wages. I also predict that as individual religiosity increases, and under the “religious” condition, respondents will express more desire to work at a company like Standard Logistics. This study has received Institutional Review Board (IRB) approval under the ID HUM00225895 and it has been pre-registered [here](#).

## Introduction

The importance of human capital to a firm's performance has been demonstrated extensively in the literature in strategic human capital, labor economics and organizational behavior (e.g. Campbell et al., 2012; Coff, 1997; Foss and Lindenberg, 2013; Huselid et al., 1997; Koch and McGrath, 1996). As such, better understanding the organizational incentives that most significantly impact 1) the employee-firm match and 2) employee behavior, have long been a focus of researchers in these fields. And while standard economic models posit that workers are motivated only by financial rewards, it is now well-established that "non-pecuniary incentives" (NPIs) motivate employees (e.g. Gartenberg et al, 2019; Ariely et al, 2008). Researchers have studied a wide range of NPIs, such as profit-driven firms employing corporate social responsibility (CSR) programs, public service jobs and organizational values more broadly, demonstrating that they all can yield economic value for the firm by: 1) attracting a more talented and diverse workforce; 2) inducing these workers to accept lower wages at the point-of-hire; and 3) contributing more once at the firm.

Given the potential significance of NPIs to a firm's competitive positioning through its effect on employees, the profound importance of religion to people throughout history, and its ongoing impact on human decision making (e.g. Becker, 1974; Azzi and Ehrenberg, 1975; Stark and Bainbridge, 1985; Barro and McCleary, 2003), organizational religiosity (OR) is both a plausible, and significant, potential source of non-pecuniary incentives. Indeed, there is no shortage of evidence demonstrating that religion matters in business. For example, Guillen (1994) demonstrated that religious influences are important factors in determining management ideology and practice, and some of the largest corporations in the United States – such as Chik-fil-A, Marriot, Tyson Foods, and Hobby Lobby to name just a few – have significant religious elements of their organizational structure. Further, the fact that there exist a significant number of large, profitable American corporations with clear religious elements in their operating structure suggests that there may be some positive performance differentials associated with OR specifically through its effect on human capital. This paper is not the first to recognize the need for more work on religion and business, and beginning with Tracy's call in 2012, there has been more work at this intersection (e.g. Chan-Serafin and George, 2013; Filistrucchi and Prüfer, 2018; Mohliver and Ody-Brasier, 2023). To my knowledge, however, it is the first paper that seeks to establish an empirical link between the religiosity of an organization and human capital – both at the firm boundary and within it.

Specifically, the main purpose of this paper is to examine whether the theoretical construct of organizational religiosity (OR) affects 1) the hypothetical wage that they would demand from the firm; 2) the contributions of employees; or 3) their extensive margin. A related goal of the paper is to examine affinity for the more religious firm as the worker's individual religiosity increases.

To test the hypotheses in this paper I will conduct an online experiment using the Ross Employee Pool from the Ross School of Business at the University of Michigan as my main source for recruiting respondents. The Ross Employee Pool has over 10,000 workers from across the United States, and this online experiment will allow me to establish clear causal effects for the hypotheses I intend to test about OR and its effect on 1) the hypothetical wage; demands 2) employee contributions; and 3) their extensive margin. As explained above, a secondary outcome I also intend to test is the effect of OR on employee affinity for the organization. This approach has been effective in other online experiments (e.g. Burbano, 2016; Chatterji et al., 2016; Tonin and Vlassopoulos, 2015) studying the effect of other types of non-pecuniary incentives (NPIs) on worker contributions, wages, and affinity for the organization.

## Theory and Hypotheses

In the strategic human capital, economics and organizational behavior literatures, workers are defined as motivated agents with utility that depends on income and effort (Akerlof and Kranton, 2005; Burbano, 2016; Besley and Ghatak, 2005). In this model, the worker maximizes her utility by achieving the largest

possible income and exerting minimal effort (Dixit, 2002). With these assumptions in mind, one way to represent this model is as follows:<sup>1</sup>

$$U_i(w, e) = \frac{w_{ij}}{e_{ij}} \quad (1)$$

Where  $U_i$  is the utility for worker  $i$ ,  $w_{ij}$  are the wages for worker  $i$  at firm  $j$ , and  $e_{ij}$  is worker  $i$ 's effort at firm  $j$ . In this paper, I make the simplifying assumption that ability across workers is some constant. As such, effort is what will impact contributions, and hence the focus on it here. In this model, it is obvious that each worker will choose the firm that maximizes her wages and minimizes her effort, conditional on being offered a job there.

More recently, however, researchers have started to question the assumption that the worker's utility function is solely a function of wages and effort. In particular, they have become increasingly interested in non-wage attributes of work that contribute to employee utility. What this research has suggested is that some of these non-wage attributes of work do appear to enhance employee utility. Specific non-wage attributes, or non-pecuniary incentives (NPIs), that researchers have considered in this context include corporate social responsibility programs at for-profit firms (Burbano, 2016), greater opportunity to engage in research (Stern, 2004) and the social impact of public service jobs (Grant et al., 2007; Grant 2008; Grant and Hoffman, 2011). If these non-pecuniary incentives do enhance employee utility, as this research has suggested, it may be the case that they also alter the terms of the employee-employer match, determined from the employee side by the utility function above. More explicitly, consider two firms, Firm A and Firm B, identical in every aspect (and salary and job function in particular) except that Firm A has some NPI that is important to Employee 1. According to this research, Employee 1 would select into Firm A, whereas if Firm A did not have this NPI, Employee 1 would be indifferent between the two organizations.

To incorporate this verbal logic into the simple model presented in equation 1, we need to make two additions and one key assumption. First, we need to add an NPI term for the firm, increasing with employee utility. Second, we need to account for how important an NPI is to different employees. We can do this by interacting the NPI term for the firm with a measure of the importance of that NPI to the employee so that the effect of a firm's greater commitment to a given NPI will be greater for those workers who value that NPI more. Having constructed this term, I assume that it offers a *supplement* to monetary compensation for worker utility; namely, its effect on worker utility is additive. I make this assumption based on the theoretical literature on NPIs, none of which suggests an explicit tradeoff between the NPI, its importance to the individual, and monetary compensation. That is, none of the existing literature suggests a multiplicative effect (e.g. Akerlof and Kranton, 2005; Stern, 2004). With these two additions and the assumption of an additive effect, we can add the interaction term to equation (1) from above as follows:

$$U_i(NPI, w, e) = \left( \frac{a_i NPI_j + w_{ij}}{e_{ij}} \right) \quad (2)$$

Where  $a_i$  is a measure of how important the NPI is to the employee  $i$ , and  $NPI_j$  is a measure of how committed firm  $j$  is to that NPI. What is clear from this equation is that the employee can be "compensated" (i.e. get more utility) through either wages or NPIs, and that the relative appeal of these two components varies with  $a_i$  and  $NPI_j$ .

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<sup>1</sup> For the purposes of simplification, I have represented the model without the intercept term  $B_0$ . In addition, some researchers present wage as  $\ln(w_{ij})$  to incorporate the notion of diminishing marginal utility from income. Because relaxing the assumption of diminishing marginal utility has no impact on the theoretical results presented here, I offer the model without the natural log of wages.

But what about OR as an NPI? As explained above, the existing literature on NPIs has considered CSR programs, research jobs and jobs in the public sector; however, one glaring omission in the literature is that of religion. This is despite that fact that there exists extensive research in organizational theory and economics that religion may also function as an NPI (see for example Coghlan (1987); Miller (2002); Hall and Schneider (1972); Campante and Yanagizawa-Dratt (2015)). The theoretical grounding for why OR may function as an NPI for religious employees may lie in the theoretical mechanisms of: 1) supernatural compensators (e.g. Stark and Bainbridge, 1985; Stark, Iannaccone and Fink, 1996), and 2) employee-firm identity alignment (e.g. Akerlof and Kranton, 2000; 2005). As just one example, Coghlan (1987) argues that for the religious individual, the mission of the religious organization is inseparable from his sense of personal calling to God. As such, each individual's commitment to the religious organization effectively becomes inseparable from their own religious commitment, one that is perhaps the most fundamental of their lives. In short, and stemming from the work on other NPIs, if we expect these NPIs to alter the terms of the employer-employee match by their effect on employee utility, we should expect to see a similar effect from OR on the religious individual. And as such, for the purposes of this paper, we need to make two more adjustments to the model above, replacing  $NPI_j$  with  $OR_j$  and  $a_i$  with  $IR_i$ :

$$U_i(OR, w, e) = \left( \frac{IR_i OR_j + w_{ij}}{e_{ij}} \right) \quad (3)$$

Where  $IR_i$  is now a measure of how important the OR is to the employee  $i$ , and  $OR_j$  is a measure of how committed firm  $j$  is to OR. I note that in equation 3 above, I am making the key theoretical assumption that  $IR_i$  and  $OR_j$  interact to contribute to utility in a similar way as other NPIs (e.g. Stern, 2004; Akerlof and Kranton, 2005). In particular, Stern (2004) argues that scientists of higher ability place higher value on a science-oriented research environment and that “this interaction is strongly implied by the logic of priority-based reward system and the ever-increasing rewards from ‘prestige.’” In equation 3 above, I am making the same assumption as Stern (2004), simply for individuals of greater religiosity and organizations with higher OR. And while the literature on NPIs does imply this functional form, I am unaware of any work on religion in economics or strategy that provides theoretical grounding for: 1) the interaction between  $IR_i$  and  $OR_j$ ; or 2) the functional form in equation (3) more generally. As such, while I assume that this interaction works similarly to the similar interaction observed with other NPIs, future research informing this theoretical assumption would be very valuable.

This model suggests three predictions for how  $IR_i$  and  $OR_j$  will affect the terms of the employer-employee match – the first about the employee's reservation wage at the firm boundary, the second about the employee's contributions once she is inside the firm (both in terms of quality of work and willingness to take on additional tasks) and third, about affinity for the firm. And if we fix utility and vary  $IR$  and  $OR$ , we should be able to clarify these predictions. The next four hypotheses, stemming from equation 3, will do just that.

First, let's consider how OR affects the reservation wage by adopting the following simplifying assumptions: 1) an employee must achieve utility equal to exactly 4; 2) there are two firms, “A” and “B”; 3) employee religiosity will be the same across the firms; and 4) OR of Firm A is “10” and the OR of Firm B is “5”. This case is demonstrated in Table 2 below:

**Table 1**

	<b>Firm A</b>		<b>Firm B</b>	
<b>Employee 1</b>	Wages	$w_a$	Wages	$w_b$
	Effort	$e_a$	Effort	$e_b$
	IR	2	IR	2
	OR	10	OR	5
<b>Utility</b>	<b>4</b>		<b>4</b>	

This table can be expressed mathematically as follows:

$$4 = \left( \frac{(2)(10) + w_a}{e_a} \right) = \left( \frac{(2)(5) + w_b}{e_b} \right) = 4 \quad (4)$$

And since we are interested in the effect of OR on wages, holding effort constant, let's assume that the individual must exert some effort and hence take some arbitrary positive constant for effort, "10". Then, our equation becomes:

$$4 = \left( \frac{(2)(10) + w_a}{10} \right) = \left( \frac{(2)(5) + w_b}{10} \right) = 4 \quad (5)$$

And simple algebra reveals that  $w_a = 20$  and  $w_b = 30$ . In other words, for the same individual to achieve a utility of "4" at the less religious firm ("B"), she must receive wages that are 50% greater than those that she would at the more religious firm ("A"). Equivalently, in this case, given effort and a utility level of "4", the employee with IR of "2" is willing to take approximately a 33.33% discount in her wages to work for the more religious firm. This shows that a religious individual will offer a wage discount to a more religious firm.

Now let's consider the effect of greater individual religiosity on the wage discount by letting IR=3 and keeping all other values the same. This yields:

$$4 = \left( \frac{(3)(10) + w_a}{10} \right) = \left( \frac{(3)(5) + w_b}{10} \right) = 4$$

And in this case, algebra reveals that  $w_a = 10$  and  $w_b = 25$ . In other words, compared to the first case above, the more religious employee will offer wage discounts to both the more religious firm ("A") and the less religious firm ("B"). This suggests two related implications: 1) religious employees should grant wage discounts to religious firms (relative to non-religious employees); and that 2) more religious employees should grant greater wage discounts to religious firms (relative to less religious employees). This logic and these simple cases yield the following hypothesis:

**Hypothesis 1: The greater the individual religiosity of the employee, the lower wage she will demand for given contributions at firms with higher levels of organizational religiosity (OR).**

Second, let's consider how OR affects the effort by adopting the same simplifying assumptions as above; however, this time, we will hold wages constant at a value of "10". Then equation (4) from above becomes:

$$4 = \left( \frac{(2)(10) + 10}{e_a} \right) = \left( \frac{(2)(5) + 10}{e_b} \right) = 4 \quad (6)$$

Algebra reveals that  $e_a = 7.5$  and  $e_b = 5$ . In other words, for the same individual to achieve a utility of “4” at the less religious firm (“B”), she exerts effort that is approximately 33% less than the effort that she would at the more religious firm (“A”). This shows that a religious individual will offer greater effort to a more religious firm.

Now let’s consider the effect of greater individual religiosity on effort by letting  $IR=3$  as above, and keeping all other values the same. This yields:

$$4 = \left( \frac{(3)(10) + 10}{e_a} \right) = \left( \frac{(3)(5) + 10}{e_b} \right) = 4 \quad (7)$$

In this case, algebra reveals that  $e_a = 10$  and  $e_b = 6.25$ . In other words, compared to the first case above, the more religious employee will offer greater effort to both the more religious firm (“A”) and the less religious firm (“B”). This suggests not only that more religious individuals should provide greater effort to religious firms, but also that this effect should be increasing in OR. I argue that there are two main ways to exert greater effort at the firm: first, by producing higher quality output and second, by a willingness to take on additional tasks for the firm.

This logic and these simple cases yield the following two hypotheses:

**Hypothesis 2: The greater the individual religiosity of the employee, the greater her effort (in terms of quality of contributions) for a given wage at firms with higher levels of organizational religiosity (OR).**

**Hypothesis 3: The greater the individual religiosity of the employee, the greater her effort (in terms of the extensive margin) for a given wage at firms with higher levels of organizational religiosity (OR).**

I note that holding wages and effort constant, equation (3) above also yields a secondary hypothesis which I will test in this experiment; namely, that as individual religiosity increases, those employees will feel greater affinity for the firm with higher levels of OR:

**Hypothesis 4: The greater the individual religiosity of the employee, the greater her affinity for firms with higher levels of organizational religiosity (OR), all else equal.**

I note that I will also test each of these hypotheses **not accounting for individual religiosity**. My prediction that participants will give more effort (in terms of both contributions and the extensive margin), demand lower wages and have more affinity for religious organizations *irrespective of individual religiosity* is based on literature suggesting that people believe more religious people will treat them better.

In particular, literature in management and strategy has argued that employees may be attracted to firms based on the belief that certain firms will treat them better (e.g. Burbano, 2016). And literature in economics and psychology examining the relationship between religion and behavior has demonstrated that more religious people tend to be less accepting of unethical behavior, volunteer more and engage in more charitable activities. (Kirchmaier, Prufer, and Trautman, 2018; Graham and Haidt, 2010). Put differently, this literature suggests that more religious people tend to treat other people better than less religious people. More importantly for the purposes of this study, research has consistently demonstrated the people *perceive* the more religious as more trustworthy (e.g. Tan and Vogel, 2008) and more moral than the less religious (Gervais, et al, 2017). Taken together, these arguments would suggest that even the less religious would prefer these more religious firms based on the expectation that they would be treated better at them. As such, I also include the following four hypotheses:

**Hypothesis 1a: Employees will demand lower wages for given contributions at firms with higher levels of organizational religiosity (OR).**

**Hypothesis 2a: Employees will give greater effort (in terms of quality of contributions) for a given wage at firms with higher levels of organizational religiosity (OR).**

**Hypothesis 3a: Employees will give greater effort (in terms of the extensive margin) for a given wage at firms with higher levels of organizational religiosity (OR).**

**Hypothesis 4a: Employees will have greater her affinity for firms with higher levels of organizational religiosity (OR), all else equal.**

### **Study design**

To test these hypotheses, I will conduct an online experiment using the Ross Employee Pool from the Ross School of Business at the University of Michigan as my main source for recruiting respondents. As explained in the “Overview” of this document, to generate my sample for this experiment, I first sent to all members of the Ross Employee Pool a “Pre-Screen Survey”, in which they were asked a series of background questions. They were also asked to fill out the Religious Commitment Inventory-10 (RCI-10) – a peer-reviewed, ten-question survey aimed at determining individual religiosity (Worthington et. al, 2003). As an incentive to fill out the “Pre-Screen Survey”, respondents were told they would be eligible to participate in focus groups for which they would be paid \$40 focusing on the question of: what are the elements that make a business religious?

This pre-screen survey generated 2,932 total responses, and 202 of those responses were used for pilot studies. As such, for this experiment, the total pool from which I will generate my sample will be 2,730 individuals from across the United States. To generate my sample for this experiment, I will send the following email to this pool:

*Originating Email: standard.logistics.co@umich.edu*

*Subject Line: Up to \$100.00 for Help with Two Tasks*

*Dear {Participant}*

*We (Standard Logistics) are looking for help with two main tasks. First, we are in process of establishing our mobile site and during the migration process, we have noticed formatting, grammar and spelling mistakes in the “About” section of our mobile site. As such, we are looking for help with editing the components of this section of our mobile site. Second, we are trying to better understand the most competitive and cost-effective wages we can set for potential employees and would like to ask you a few questions about that.*

*For these tasks, we can offer you a base payment of \$5.00, and entrance into a lottery where you can win up to \$95 additional dollars for a total of \$100. In particular, there will be three first place prizes of \$95, three second place prizes of \$50 and three third place prizes of \$25. We anticipate approximately 200 participants.*

*To be compensated for this project and to be entered into the lottery, you will need to complete all tasks and questions in the survey in contained in the link below **within seven days of receiving this email.***

*We hope you will find the time to help us and please click the link below if you can!*

*{Link}*

Based on pilot studies, I anticipate a response rate between 5% - 10%, or between 136 – 273 respondents. I describe the actual experiment (for those that click the link in the email) in the section “The Online Experiment” below.

### **The Online Experiment**

Workers that click the link will be randomly assigned to one of two conditions: either a control group with a non-religious “About” statement or the treatment group with a religious “About” statement. These two “About” statements are displayed below:

1            **Standard Logistics Mission Statement**

2            Standard Logistics is committed to operating the company in aa manner consistent with the highest  
3            ethical standards. With this core values in mind, standard Logistics seeks to maximize financial returns for  
4            it’s shareholdersby providing value-added logistics, transportation and related business services. Standard  
5            Logistics strives to meet customer requirements in the highest quality manner appropriate to each market  
6            segment that its serves. Further, standard Logistics tries to develop mutually rewarding relationships with  
7            the staff it employs, partners and suppliers. corporate activities are always conducted according to the  
8            highest ethic and professional standards

1            **Standard Logistics Mission Statement**

2            Standard Logistics honors the Lord in all it does by operating the company in aa manner consistent with  
3            Biblical principles. With this core values in mind, standard Logistics seeks to maximize financial returns for  
4            it’s shareholdersby providing value-added logistics, transportation and related business services. Standard  
5            Logistics strives to meet customer requirements in the highest quality manner appropriate to each market  
6            segment that its serves. Further, standard Logistics tries to develop mutually rewarding relationships with  
7            the staff it employs, partners and suppliers. corporate activities are always conducted according to the  
8            highest ethic and professional standards|

This randomization process followed a randomization design comparable to other field experiments testing the effect of other NPIs on worker contributions and wages (Burbano, 2016; Chatterji et al., 2016; Tonin and Vlassopoulous, 2015).

After being exposed to either the treatment or control condition, the main experiment will have four central parts. First, workers will be asked to identify and correct 10 grammatical and spelling mistakes in the “About” statement. They will receive 1 point for correctly identifying the mistake and 0.5 points for accurately correcting it. Second, they will be asked if they would like to help Standard Logistics with an additional task. In this task, they will be presented with the three images and slogans and then will be asked to select their favorite along with a brief description of why they selected the image you did along with any other comments they may have (i.e. perhaps other combinations and/or slogans). Third, workers will be told that “The average salary in our region for entry-level corporate analyst positions at companies like ours is approximately \$65,000 and Standard Logistics typically offers salaries for entry-level analyst positions between \$62,500 - \$67,500”. They will then be told (in the same question) that Standard Logistics is currently reassessing this range, and given what they know about Standard Logistics, and the work they have done for the company, they will be asked to select a reasonable annual salary for this position between \$50,000 - \$80,000. Finally, workers will be asked to what extent do they agree with the



statement that “Standard Logistics is the kind of company that I would like to work for.” The answer for this question will be a 5-level Likert variable from “Strongly disagree” to “Strongly agree”.

### Analysis plan

**Dependent variables:** This study will have four main dependent variables. First, *Contributions<sub>i</sub>* will measure there score (out of 15) for correctly identifying the grammatical and spelling mistakes in the “About” statements. Recall that 1 point will be assigned for correctly identifying the mistake and 0.5 points will be assigned for accurately correcting it. Second, *ExtensiveMargin<sub>i</sub>* will measure whether or not participants chose to do the additional task. Third, *Wage<sub>i</sub>* will measure they hypothetical annual salary that participants think would be reasonable for an entry-level analyst position given what they know about Standard Logistics and the work that they have completed for the firm. Finally, *Affinity<sub>i</sub>* will measure the extent to which participants think that Standard Logistics is the kind of company that I would like to work for.” Recall that this question will be a 5-level Likert variable from “Strongly disagree” to “Strongly agree”.

**Independent variables:** My treatment variable *Condition<sub>i</sub>* captures whether a subject *i* received the “control” condition, or the “religious” condition. The variable *IR<sub>i</sub>* measures the individual religiosity of the subject, according to the answers the given subject provided when answering the Religious Commitment Inventory-10 (RCI-10).

**Individual Attributes:** In the experiment itself (which will be conducted on Qualtrics), I will also ask for other background information from the participants, including: gender, age, education, important attributes in choosing a job, and annual wage.

To assess whether my randomization procedures achieved a balance between the treatment and control groups, I intend to use participants’ individual attributes.

**Estimation:** To assess the effect of higher OR on “Contributions”, I plan to estimate the following two pre-registered equations:

$$Contributions_i = \beta_0 + \beta_1 Condition_i + \epsilon_i \quad (1)$$

$$Contributions_i = \beta_0 + \beta_1 Condition_i + \beta_2 IndividualReligiosity_i + \beta_3 Condition_i \times IndividualReligiosity_i + \epsilon_i \quad (2)$$

The term  $\beta_1$  represents the average treatment effect of the “religious” relative to the “control” condition. The terms  $\beta_0$  and  $\epsilon_i$  are the intercept and the random error term, respectively. In the second equation, the term  $\beta_3$  is the difference in the average treatment effect of the “religious” condition as individual religiosity increases. To assess the effect of OR on “Extensive Margin”, “Wage” and “Affinity”, respectively, I will estimate the same two equations, simply replacing the dependent variable with *ExtensiveMargin<sub>i</sub>*, *Wage<sub>i</sub>* and *Affinity<sub>i</sub>*, respectively.

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