

## **Work Hard or Pray Hard? Religion and Attitudes toward Work**

**Prince Eyi-Mensah**

Huazhong University of Science and Technology  
Department of Economics  
430074, Wuhan-Hubei  
P. R. China.

**Zhong Chunping**

Chinese Academy of Social Sciences  
Huazhong University of Science and Technology  
Hubei-Wuhan, P. R. China

### **Abstract**

*In the last couple of years there have been efforts made to bring understanding to human behavior. Economists have played a major role in that respect, through their formal arguments on issues like identifying the relationship between religion and economic attitudes. We picked a leaf out of that book and studied the impact of religion on attitudes of individuals toward work. We found that an increase in the frequency of religious service attendance by individuals promoted a positive attitude towards work. The degree of religiosity of individuals was also found to promote a positive attitude towards work. Some religious denominations were found to foster the view that work was very important but others influenced the opposite view in their followers. Hindus, Jews and Catholics all had a positive attitude toward work, while Buddhists and Orthodox Christians were influenced negatively in their view towards work. Results of the study proved robust to the frequency with which individuals prayed.*

**Keywords:** work, religion, denominations and prayer

**JEL Classification:** D03, J01, Z12

### ***1. Introduction***

In times past, economists and other researchers stayed away from labeling culture as a determinant of various phenomena under their consideration. This was because of how broad they saw the term and the difficulty associated with having such a line of thought substantiated empirically. In recent years, renewed enthusiasm coupled with the availability of data has ensured a constant flow of literature in this respect. Culture has been looked into for answers to a wide range of questions from political science to economics. For instance, how does a social norm of cooperation evolve? (Acemoglu and Jackson (2014)) Or why the sudden swell in number of females in the labor force and how much of a role does culture have to play in that? An answer to the latter question can be found in the study of Alesina et al, 2011. They reported that the current differences in norms and beliefs about the appropriate role of women in society have historical origins. Their study brought to the fore facts about how descendants of societies that traditionally practiced plough agriculture, today have lower rates of female participation in the workplace, in politics and entrepreneurial activities. Reported evidence from such studies has brought a good deal of understanding to cultural discourse.

Other studies explain how female labor participation has been and still are dependent on technology. Thus, while the innovation of the plough contributed to assigning women domestic roles, another set of innovations is getting females out of the house to join the labor force (Albanesi and Olivetti, 2009). They credited medical advancement and baby formula for the change. While these reported results may be important in helping us understand labor participation issues, a lot more remain to be explained. For instance, do other aspects of culture besides the ones already mentioned affect labor participation? Do religious practices such as service attendance influence a person's attitude towards work? How about their religion, does it affect their attitude towards work or not?

If the answer to the second question is yes, then we will like to know if the degree of influence is the same or varies across denominations.

We used data from the sixth wave of the World Values Survey (WVS) to help us answer those questions. The data had to be treated through recoding in order to make it specification friendly. Our benchmark specifications report a positive correlation between religious service attendance and attitude towards work. The likelihood of an increased frequency of religious service attendance promoting a positive outlook on work was also found controlling for health, and in separate specification controlling for the sex, age and other demographic characteristics of respondents. These findings are consistent with other documented effects of culture on economic attitudes like savings (Renneboog and Spaenjers, 2012) among others. Given the nature of our data and how representative it is of the views of individuals around the world, we divided it into sub-samples of continents. We observed the same relationship between increased frequency of religious service attendance and attitude towards work, just as before.

To better understand the situation through the advancing of answers to the remaining questions, we regressed work on religion. The results were significant and consistent with the ones we reported earlier. Results from the estimations using our sub-samples were also significant and positive. A further probe into the issue however revealed that not all denominations influence such a positive outlook on work. We believe our study is relevant, as it fused religion and labor together to explain the former's influence on the latter.

In the next section we have summarized existing literature on the subject. In section three we summarized the statistics at our disposal and gave a detailed description of our specification methodology. In section four we reported and interpreted results from our benchmark and other estimation equations. Section five estimated the influence of religious denominations on attitudes toward work. This is followed by the study's robustness test estimation in section six. Section seven offered the concluding remarks.

## **2. Related Literature**

Economists and scholars from other fields of study have all attempted answering questions on time use. The issues and trends have been on whether individuals are working more or they are making use of their time endowment doing other things? Below is a descriptive summary of some of the existing literature on the subject.

Literatures on time allocation include studies by Ghez and Becker (1975), Juster and Stafford (1985), Robinson and Godbey (1999) and Aguiar and Hurst (2006) among others. The last two share a commonality, which is the use of the same time use surveys (from 1965, 1975 and 1985 as well as additional time use information from the early 1990s). Solberg and Wong (1992) have also studied the issue of time use. They used a two-person, Gronau-type neoclassical model to analyze household time use. Each person's time use was divided into three basic activities, namely market work, home production and leisure-in addition to work related travel time. The latter was found to be an important influence on family time use.

Ramey and Francis (2006) have looked into the issue of leisure the other side of the coin. Their study focused on showing whether leisure has increased in the last century. They reported that it had remained approximately the same just as it was during the 1900. An interpretation of their estimated results in that manner was possible only because of the re-composition of the measure of time use. They cited various reasons why they thought the existing measures were limited in giving accurate estimations of time use. So far all the literatures mentioned have findings that are country specific.

A wider approach to the discourse has come from studies like Alesina et al (2005) and Gordon (2010). These two studies are continental in scope. Both try to explain time spent on work and leisure in comparative essays (with the United States and Europe being the geographic area under their investigation). The difference between the two literatures is that, Alesina et al looked beyond European tax rates to explain the difference between work hours in US and Europe. Gordon on the other hand, argued that even if the entire decline in European hours per capita represented a voluntary transfer of work hours to pure leisure, that leisure was not worth much.

The time use studies described above among others not cited in this study have all contributed to our understanding of work and leisure. However, questions still remain as more need to be known about the behavior of individuals. For instance, why would some people have a high sense of value for work while others value leisure more? Twenge (2010) has reviewed studies that try to answer these questions using cross-generational respondents.

The cross-generational time use studies reviewed were of the time lag (Kowske et al (2006); Smola and Sutton(2002); Families and Works Institute (2006)) and cross-sectional(Davis et al (2006) and Wong et al (2008)) kind. As per the time lag studies Generation X valued leisure more and expressed a weaker work ethic than the baby boomers. What has not yet been identified is the part religion has to play in all of this? Considering the time use of various generations cannot give answers to a question like that, which leaves us with the option of having to look for answers from elsewhere.

There have been attempts made to identify the reason(s) behind some labor trends in cultural literature. Some have already been mentioned in our introductory section. Additional examples include studies by Fernandez and Fogli (2009) and Fernandez et al (2004). The former explained work and fertility behavior of second-generation American women in their study. They reported that cultural proxies have significant explanatory power even after controlling for education and spousal characteristics. They argued that a woman's decision to join the labor force is likely dependent on her husband's preferences. Fernandez et al showed that a quantitatively important explanation of whether a man's wife worked was premised on whether his own mother worked when he was growing up. While these accounts have been very insightful and contributed in no small way to the culture-labor discourse, it still does not answer the question we posed above. We believe religion holds the key to helping us understand a situation like that. This is why we chose to study the influence of religion on the attitude of individuals towards work.

### 3. Empirical strategy and Summary Statistics

#### 3.1. Specification Techniques

$$y_i = \beta_0 + x_1\beta_1 + x_2'\gamma + \varepsilon_{1i}(1)$$

$y_i$  denotes an individual's view on work,  $\beta_0$  is the constant term,  $x_1$  denotes the frequency of religious service attendance with  $\beta_1$  denoting its coefficient,  $x_2'$  denote the series of control covariates (which captured demographic characteristics such as health, age, sex, income level, social class, level of education, marital status and number of children), which makes  $\gamma$  a matrix of coefficients for the aforementioned control variables and  $\varepsilon_{1i}$  denotes our noise term. This was how the results on Table 2 and Panel A of Table 3 were estimated. For the results in Table 3 Panel B, the second term in equation 1 was changed to reflect the degree of religiosity. For the results reported by Table 4 and 5 the second term in equation 1 was changed to capture the religious denominations and the number of times respondents prayed respectively. While all our Tables (except Table 4) report the estimation of  $\beta_1$  and  $\beta_2$ , the former is the coefficient of interest. All of our estimations were done using the ordered logit method.

#### 3.2. Summary Statistics

Understanding the behavior underpinning the intertemporal choices individuals make is important. The resurgence of literature on values and attitudes is a clear manifestation of this fact. It must be added that, the availability of survey data from various organizations is also responsible for this resurgence. Our study used data from the sixth wave of the World Values Survey 2010-2012. The survey questions covered demographic characteristics, social, political, religious, and economic issues. Respondents who answered questions for this particular wave were from 52 countries and territories around the world, which makes it suitable for cross-country analysis. Table 1 has five panels, which report different summary information about the data used for our analysis. Panel A carries a tabulation of the frequency of religious service attendance by continents (Africa, Asia, Europe, South America and North America). Respondents were asked about the frequency with which they attended religious service, apart from weddings and funerals. They received a score of 1 if they answered yes to attending more than once a week, 2 to 7 if their attendance was less frequent respectively. Based on the coding suggestions we recorded it, and gave a score of 1 for never attending a religious service and greater numbers ranging from 2 to 7 for increased frequency of attendance respectively. Panel B reports a tabulation of the degree of religiosity also by continents. To ascertain the degree of religiosity, respondents were asked that: "independently of whether you attend religious services or not, would you say you are religious, not religious or an atheist?" Their answers were scored from 1 to 3 following the order of the options given. This was also recoded, with 1 being for atheist, 2 for not being religious and 3 for being religious respectively. Data summarized in Panels C and D all received this recoding treatment. Panel C reports the distribution of the religious denominations of respondents for the various continents. It was based on the question: "do you belong to a religion or a religious denomination? If yes, which one?"

Answers were scored from 0 to 8, 0 for those who answered no. 1 to 8 for Catholic, Protestant, Orthodox, Jew, Muslim, Hindu, Buddhist, and others in that order. For the purpose of our analysis, we dropped the data on those who answered no and concentrated on those who answered yes and subsequently mentioned a denomination. The distribution of how frequent individuals prayed in the sample surveyed are reported in Panel D. This was based on the question: “apart from weddings and funerals, about how often do you pray?” A response of several times a day was scored 1 and other responses indicating less frequency were scored from 2 to 7. Panel E has the summary statistics of the study’s dependent variable and the demographic characteristics that were used in the control vector. The study’s dependent variable was based on the question: “for each of the following, indicate how important it is in your life. Would you say it is work?” respondents had four options from 1=very important, to 4=not at all important. This was recorded from 1=not at all important to 4=very important.

**Table 1: Summary Statistics**

Panel A: Frequency of religious service attendance					
	Africa	Asia	Europe	South America	North America
More than once a week	3,577	7,770	4,464	2,030	885
Once a week	1,337	2,964	1,735	760	327
Once a month	768	1,621	929	434	201
Only on special holy days	2,211	5,068	2,830	1,325	478
Once a year	1,157	2,673	1,596	627	368
Less often	2,217	4,710	3,118	1,129	569
Never, practically never	1,803	3,881	2,595	1,166	329
Panel B: Distribution of sample by degree of religiosity					
Religious	8,328	18,740	11,440	4,900	2,060
Not religious	3,716	7,911	4,651	2,014	894
Atheist	806	1,627	847	452	145
Panel C: Distribution of sample by denomination					
Catholic	215	309	246	20	126
Protestant	86	124	102	23	24
Orthodox (Russia/Greek/etc.)	40	68	40	21	6
Jew	514	974	558	317	44
Muslim	359	740	394	134	43
Hindu	270	407	336	97	39
Buddhist	126	206	141	42	21
Others	19	28	32	9	2
Panel D: The frequency of prayer					
Prays several times a day	3,938	8603	5,679	2512	672
Prays once a day	1880	4,074	2606	865	638
Prays several times in a week	1340	3,069	1911	698	384
Prays when attending religious service	802	1,844	981	449	255
Prays only on holy days	884	1908	1,066	521	229
Prays once a year	287	606	334	158	75
Prays less often	1,037	2,146	1200	559	197
Never prays	2,697	6,068	3,182	1,661	619
Panel E: The study’s dependent variable and some of the series of control covariates					
Series	Observation	Mean	Std. Dev.	Min	Max
Work	71494	3.465759	.810355	1	4
Health	72460	2.894052	.849659	1	4
Male	72730	.4706586	.4991418	0	1
Age – under 20	72664	.0717549	.2580835	0	1
Age – 21-30	72664	.2365683	.4249779	0	1
Age – 31-40	72664	.1983926	.3987921	0	1
Age – 41-50	72664	.1773918	.3820026	0	1
Age – 51-60	72664	.1455879	.352695	0	1
Age ≥61	72664	.1703044	.3759026	0	1
Income	70282	4.879429	2.080782	1	10
Social class	70950	2.737562	.9803737	1	5
Education	72048	5.73991	2.411218	1	9
Marital status	72526	4.313681	2.174173	1	6
Number of children	69247	1.941413	1.806768	0	8 or more

All of the control variables (except age, income and education) were giving the recoding treatment. The data on age was divided into seven sub groups. We reasoned that since our inquiry was about attitude towards work, it was important to get them based on specific age groups. It was based on a follow up question: “this means you are\_ years old.” Our control variable health was based on the question: “all in all, how would you describe your state of health these days?” (1=very good, 2=good, 3=fair, 4=poor). We created a dummy variable from the sex variable, 1 for male and 0 for female. Income as a variable was based on the question: “on this card is an income scale on which 1 indicates the lowest income group and 10 the highest income group in your country. We would like to know in what group your household is. Please, specify the appropriate number, counting all wages, salaries, pension and other incomes that come in.” “People sometimes describe themselves as belonging to the working class, the middle class, or the upper or lower class. Would you describe yourself as belonging to the (1=upper class, 2=upper middle class, 3=lower middle class, 4=working class, or 5=lower class).” That was the question upon which the variable ‘social class’ was based. Control variable ‘education’ was based on the question: “what is the highest educational level that you have attained?” (1=no formal education, 2=incomplete primary school, 3=complete primary school, 4=incomplete secondary school: technical/vocational type, 5=complete secondary school: technical/vocational type, 6=incomplete secondary: university-preparatory type, 7=complete secondary: university-preparatory type, 8=some university-level education, without degree, 9=university education, with degree). Marital status as a variable was based on the question: “are you currently 1=married, 2=living together as married, 3=divorced, 4=separated, 5=widowed, 6=single.” The last of our control variables is ‘number of children’. This was based on the question: “have you had any children? (0 if no, and respective number if yes).”

## **4. Empirical Results**

### **4.1. Interpretation of Benchmark Results**

Table 2 reports a significant and positive correlation between frequency of religious service attendance and attitude towards work, controlling for a single demographic characteristic per estimation. This was not only the case for the whole sample, results from the sub samples-Africa, Asia, Europe, South America and North America-were all consistent with that earlier results. Increasing the frequency of religious service attendance made people value work more. We call for caution in drawing a causal link between the two, since these results are from single covariate specification equations.

Over all, holding the frequency of religious service attendance constant, healthy people saw work to be very important. Results from the continents sub-sample were consistent with this view. Males considered work to be very important in the whole sample and also in the sub-samples. All our sampled age groups (from under 20 to age 60) viewed work as being very important.

An increase in the education of individuals reduced their opinion on attitude to work both in the whole sample and in one of the sub-samples (North America). The relationship was however positive in the other four sub-samples. There was a negative correlation between social class and work for the whole sample. The relationship was the same for Asia, South America and the North America sub-samples. However, the correlation was positive for the sub-samples of Africa and Europe. Increases in income had a positive correlation on attitude towards work for the whole sample. It had the same influence in Africa, Asia and Europe, but the relationship was a negative one for the Americas.

Still holding the frequency of religious service attendance constant, marital status did not promote a positive view of attitude to work. That was the situation for the whole sample and two other continents (Africa and North America). In Asia, Europe and South America, it promoted the opinion that work was very important. An increase in the number of children reduced the importance people placed on work in Europe and North America. In South America the opposite held true.

It can be observed that we have stayed clear of advancing reasons for the negative relationships reported between certain control variables and its influence on attitudes toward work. This is because our control variables were likely giving a feedback, which made them uneasy to be interpreted.

Empirical Results

**Table 2: Bench Mark Specification: The Frequency of Religious Service Attendance and Its Influence on Attitude towards Work**

Independent variable(s) and control variable(s)	Dependent variable: work					
	Sub sample					
	Whole sample	Africa	Asia	Europe	South America	North America
Attendance	.1367802*** (.0035462)	.1043983*** (.0094183)	.1270336*** (.0055966)	.0425177*** (.0078231)	.090246*** (.0121489)	.042606*** (.0150922)
Observations	68466	12099	28229	17206	7746	3186
Prob > chi2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0047
Attendance	.1329827*** (.0035786)	.0962438*** (.0094994)	.1273443*** (.005627)	.0556763*** (.0079148)	.0906916*** (.0121846)	.0353165** (.0152111)
Health	.2861366*** (.0093172)	.2122269*** (.0246163)	.2033319*** (.0146971)	.355131*** (.0176175)	.0899765*** (.0349477)	.3334073*** (.0429857)
Observations	68271	12078	28131	17145	7739	3178
Prob > chi2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Attendance	.1350754*** (.003563)	.1415729*** (.0083798)	.1320212*** (.00555)	.1247026*** (.007039)	.1547253*** (.0108309)	.156016*** (.0176519)
Male	.3912665*** (.0156412)	.4487856*** (.0367607)	.3974247*** (.0242112)	.382438*** (.031294)	.325067*** (.0476649)	.2938979*** (.0753789)
Observations	68460	12833	28181	17020	7321	3105
Prob > chi2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Attendance	.1427348*** (.0036061)	.1036705*** (.0094514)	.1339672*** (.005677)	.0725043*** (.0079955)	.0928302*** (.0123337)	.074986*** (.0154399)
Age – under 20	.9307943*** (.0340633)	.3457598*** (.0994223)	.8624162*** (.0536847)	.7507617*** (.0714426)	.1239724 (.1002312)	1.243459*** (.1774049)
Age – 21-30	1.184153*** (.0246697)	.6193022*** (.0830003)	1.066517*** (.0397338)	1.079002*** (.0456429)	.6259968*** (.0953151)	1.385181*** (.1092643)
Age – 31-40	1.186192*** (.0256901)	.5291095*** (.0872488)	1.09601*** (.0402365)	1.205522*** (.0471675)	.8200516*** (.0913108)	1.381826*** (.1118733)
Age – 41-50	1.184179*** (.026345)	.5841966*** (.0941423)	1.140021*** (.0412587)	1.246299*** (.0465424)	.9005328*** (.0953151)	1.167945*** (.1038568)
Age – 51-60	.8923571*** (.0270788)	.3588771*** (.1026666)	.8842111*** (.0429142)	.9668908*** (.0456211)	.6769128*** (.1014971)	1.033747*** (.1013891)
Observations	68409	12099	28177	17202	7746	3185
Prob > chi2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Attendance	.1357087*** (.0035775)	.0993505*** (.0094437)	.1275054*** (.0056689)	.0447177*** (.0078479)	.0913691*** (.0121818)	.0250831* (.0153513)
Education	-.0000943 (.0033264)	.0838715*** (.008919)	.0459989*** (.0051105)	.0501675*** (.0069128)	.004513 (.0119382)	-.2824483*** (.0185116)
Observations	67855	12089	27722	17132	7727	3185
Prob > chi2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Attendance	.1361072*** (.003587)	.1038035*** (.0094981)	.1268541*** (.0056596)	.0433385*** (.0079757)	.0913747*** (.0122449)	.044607*** (.015281)
Social class	-.0257278*** (.008113)	.0680862*** (.0202115)	-.0075198 (.0127167)	.0886249*** (.0165231)	-.0688264*** (.0278992)	-.2294228*** (.0355913)
Observations	66999	11952	27645	16609	7658	3135
Prob > chi2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Attendance	.1366266*** (.0036027)	.1059441*** (.0094779)	.1265151*** (.0056906)	.0437035*** (.008003)	.0878831*** (.0123784)	.0453774*** (.01531)
Income	.0098801*** (.0038265)	.0049982 (.0106181)	.0090701 (.0057497)	.058661*** (.0078262)	-.0472419*** (.0126015)	-.0395874** (.0177233)
Observations	66440	11999	27256	16531	7538	3116
Prob > chi2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0015
Attendance	.1365834*** (.0035505)	.1046857*** (.0094287)	.1267624*** (.0056021)	.0383072*** (.0078627)	.085362*** (.0122305)	.0480688*** (.01515)
Marital status	-.0058618* (.0035689)	-.0498176*** (.0093785)	.0116437** (.0055471)	.0515921*** (.0069901)	.0421764*** (.0125806)	-.0917861*** (.0161366)
Observations	68308	12098	28163	17119	7742	3186
Prob > chi2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Attendance	.1363127*** (.0036661)	.1162399*** (.009739)	.1239035*** (.0059515)	.0465789*** (.0079466)	.0704974*** (.0126586)	.0481509*** (.0153376)
Number of children	.0070349 (.00457030)	-.0128921 (.0104382)	-.0017022 (.0069189)	-.0398422*** (.0120465)	.0416526*** (.0155089)	-.0419803** (.0192612)
Observations	65334	11519	26015	17118	7502	3180
Prob > chi2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0018

Observed information matrix (OIM) standard errors are reported in parenthesis below the coefficients. \*\*\* indicate the coefficient is different from zero at the 1 percent level, \*\*at the 5 percent level, and \* at the 10 percent level.

**4.2. What Happens when the Control Vector is expanded?**

Panel A of Table 3 reports the specification of the opinion of work on the frequency of religious service attendance, but this time with an increase in the number of control covariates. In this panel the frequency of religious service attendance is observed as increasing individual perception on attitude to work, for the whole sample. Results from the estimated five continents subsample were consistent with that result.

When the frequency of religious service attendance and some of the other demographic characteristics were held constant, an increase in income had a mixed impact on the attitudes of individuals' towards work. When the others were held constant, a rise in social class was also found to diminish individuals' opinion of the importance of work, in the whole sample and majority of the sub samples. The situation was the same with education and marital status. We do understand that the results from our control variables may be reflecting several effects as Guiso et al (2003) have rightly stated, so we continued to stay clear of any further interpretations.

Panel B of Table 3 reports the influence of the degree of individual religiosity on their opinion of work. Overall people who claim to be religious see work to be very important, controlling for the demographic characteristics of respondents. Results from the five continents were found to be consistent with the one described earlier. Those who claimed not to be religious also had the same opinion on work. In terms of magnitude South America recorded the highest of all the continents under our consideration.

**Table 3: The Influence of Frequency of Religious Service Attendance and Individual Religiosity Claims on Attitudes toward Work-With all Our Control Variables**

Panel A: Attendance and its influence on attitude towards work						
Independent variable(s) and control variable(s)	Dependent variable: work					
	Whole sample	Africa	Asia	Europe	South America	North America
Attendance	.1273304*** (.0039007)	.0916329*** (.0101767)	.1100926*** (.0063611)	.078332*** (.0085431)	.0853231*** (.0132437)	.0478671*** (.0164371)
Health	.1936906*** (.0106733)	.1757763*** (.0272585)	.1354667*** (.0169768)	.2215963*** (.0204835)	.1138534*** (.0396)	.3372702*** (.048049)
Age – under 20	1.057114*** (.0429465)	.2179546* (.1210987)	1.051599*** (.0735917)	.833818*** (.0863048)	.3891428*** (.1261629)	.9132482*** (.204069)
Age – 21-30	1.254968*** (.0294565)	.5304665 (.1004983)	1.096413*** (.0485399)	1.054454*** (.0555866)	.8283582*** (.1030144)	1.371548*** (.1260791)
Age – 31-40	1.20829*** (.0282383)	.4899583*** (.0978712)	1.06896*** (.0451807)	1.126018*** (.0523971)	.9488501 (.1021934)	1.379965*** (.120149)
Age – 41-50	1.201176*** (.0283046)	.5877975*** (.100494)	1.130759*** (.0453878)	1.173162*** (.0500702)	.9829556*** (.1026811)	1.277896*** (.1109657)
Age – 51-60	.9221494*** (.0287685)	.4318032*** (.1069584)	.8861535*** (.046672)	.9432802*** (.0481651)	.7413353*** (.1075569)	1.131113*** (.1078204)
Male	.4252253*** (.0169089)	.7210864*** (.0483251)	.4835043*** (.0268167)	.2064*** (.0315013)	.2184275*** (.0579283)	.107506 (.0715575)
Income	-.0232877*** (.0047388)	-.0518548*** (.0135361)	-.0376659*** (.0072049)	-.0013497 (.0096901)	-.0432843*** (.014334)	.0305899 (.023105)
Social class	-.0063473 (.0102071)	.0590245** (.02553)	-.0048282 (.0162785)	.0245678 (.0209393)	-.037314 (.0316999)	-.0835822* (.0465965)
Education	-.0208177*** (.0039445)	.0538349*** (.010621)	.0363531*** (.0061875)	-.0048256 (.0081177)	.0130321 (.014683)	-.3339544*** (.0211313)
Marital status	-.0097007** (.0047062)	-.0392731*** (.0123471)	.0334576*** (.0079313)	.0375491*** (.0086486)	-.0314909*** (.0158664)	-.0275517 (.0198216)
Number of children	.094533*** (.0060164)	.0655285*** (.0143732)	.0666197*** (.0090085)	.0629474*** (.0157697)	.0938136*** (.0208464)	-.0062929 (.0240017)
Observations	61609	11298	24164	15852	7222	3073
Prob > chi2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Panel B: The influence of degree of religiosity on attitude towards work						
Independent variable(s) and control variable(s)	Dependent variable: work					
	Whole sample	Africa	Asia	Europe	South America	North America
Religious	.6828808*** (.0348311)	.7669251*** (.077588)	.6632512*** (.0539705)	.6247768*** (.0738894)	.7852003*** (.1027009)	.7432597*** (.1741998)
Not religious	.328596*** (.0361535)	.2766305*** (.0800467)	.3158397*** (.0560337)	.3192028*** (.0766564)	.4954423*** (.1073056)	.3766056** (.1796865)
Health	.2146172*** (.0108713)	.2221029*** (.025613)	.2344507*** (.0167784)	.1766568*** (.0218844)	.2285934*** (.0330989)	.2227996*** (.0535161)
Age – under 20	1.080189*** (.0437714)	.9992571*** (.1043426)	1.028337*** (.0668247)	1.242021*** (.0891509)	1.177867*** (.1369686)	.672252*** (.1985623)
Age – 21-30	1.284593*** (.0300559)	1.096436*** (.0717051)	1.235227*** (.0461538)	1.463175*** (.0604498)	1.429463*** (.0939432)	1.002146*** (.1387036)
Age – 31-40	1.244302*** (.028726)	1.010014*** (.0674219)	1.232145*** (.0441495)	1.401438*** (.058119)	1.35208*** (.0891229)	1.059105*** (.1383752)
Age – 41-50	1.219481*** (.0287091)	1.039338*** (.0673019)	1.241589*** (.044591)	1.263413*** (.0573544)	1.348303*** (.0882612)	1.085056*** (.1377146)
Age – 51-60	.9310242*** (.0291531)	.8037579*** (.0692365)	.9021442*** (.0448069)	1.048009 (.058466)	1.057717*** (.0897695)	.7135376*** (.1416221)
Male	.4347143*** (.017196)	.513648*** (.0406153)	.4342984*** (.0265711)	.4180717*** (.0345452)	.3541414*** (.0524053)	.3885231*** (.0821574)
Income	-.0248981*** (.0048017)	-.0365708*** (.0111679)	-.0143662* (.0074804)	-.0339357*** (.0096039)	-.0200392 (.0151178)	-.0337049 (.0218136)
Social class	-.0077645 (.0103218)	-.0111796 (.0245005)	-.0093116 (.016034)	-.0054263 (.0206183)	.0029701 (.0316371)	-.0332675 (.0476612)
Education	-.0343914*** (.0040099)	-.0009802 (.0094365)	-.0350309*** (.0062132)	-.0669097*** (.0080891)	-.0223742* (.0120787)	.004229 (.0196682)
Marital status	-.0098379** (.0047772)	.0095796 (.0113325)	-.0033863 (.007358)	-.020818** (.0095767)	-.0258021* (.0147186)	-.0397404* (.022838)
Number of children	.0958953*** (.0060334)	.0833152*** (.0139347)	.0757891*** (.0094146)	.1053247*** (.0118985)	.1457791*** (.019026)	.1434818*** (.0302464)
Observations	60673	11274	25018	15046	6537	2798
Prob > chi2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

OIM standard errors are reported in parenthesis below the coefficients. \*\*\* indicate the coefficient is different from zero at the 1 percent level, \*\*at the 5 percent level, and \* at the 10 percent level.

### 5. The Influence of Religious Denominations on attitudes toward work

Specification results reported in Table 4 are from the estimated coefficients of those who claimed to belong to a specific religious denomination. Estimates from the control vector were not reported. The reason for this specification was to ascertain if an individual's religious denomination played any part in influencing their attitude towards work? When that was established, we also wanted to find out if the impact was the same or differed based on the faith an individual belonged to? Some interesting results are reported in the first role of Table 4, Buddhists were influenced to view work as not being very important. This was both the case for the whole sample and for the followers in Europe. This is consistent with a view reported by Guiso et al (2003) on how Buddhists see the poor. While the other religious denominations saw the poor to be lazy they begged to differ. Perhaps based on their reincarnation doctrine, they are more concerned with where they will end up in the next world, than in holding the perception of work in such high esteem.

Overall three religious denominations saw work to be very import. Among them were Hindus, Jews and Catholics. Hindus in Africa and Europe thought work was very important; Jews in Asia and Europe were of the same view so were the Catholics in all the continents except South America. The attitude of Orthodox Christians in Europe toward work was not positive. Perhaps their view of work not being very important stems from the mystical approach to their doctrines. It is possible that the rational categories and syllogistic arguments, which the Orthodox accuses, Catholics of may be responsible for the positive outlook that the latter has towards work as compared to them.

**Table 4: Religious Denominations and their Impact on Attitude towards Work**

Independent variable(s) – Religious denominations	Dependent variable: work					
	Whole sample	Sub sample				
		Africa	Asia	Europe	South America	North America
Buddhist	-.4543946** (.2152051)	-.1843067 (.4658039)	-.4228818 (.3874393)	-.6886325* (.3676811)	-.8297426 (.7618516)	-.2170148 (1.396522)
Hindu	.6699135*** (.2122707)	.9174493** (.4570438)	.6028061 (.3838966)	.7309151** (.3613538)	.2670873 (.7555579)	.0712298 (1.35225)
Muslim	.0796515 (.2093405)	.4068981 (.4501826)	-.0259844 (.3780051)	.0549214 (.3600221)	-.6869924 (.7386301)	1.264757 (1.434848)
Jew	.7100717*** (.2075696)	.640527 (.449245)	.7264029** (.374256)	.7472178** (.3566331)	.2723214 (.7285888)	1.718266 (1.435507)
Orthodox	-.3095401 (.2435321)	.0088492 (.5287271)	-.2266407 (.4260919)	-.8045258* (.4368111)	-.3934747 (.8430133)	-.1272038 (1.5028)
Protestant	.0661116 (.2247234)	.3373029 (.4839474)	-.1294449 (.4015257)	.2434446 (.3922501)	-1.26913 (.8052457)	.960177 (1.403748)
Catholic	1.17863*** (.2169851)	1.667795*** (.4720584)	.9224923** (.3895472)	1.022452*** (.3697712)	.0308069 (.8470084)	2.409426* (1.385662)
Observations	6361	1415	2468	1622	577	279
Prob > chi2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

OIM standard errors are reported in parenthesis below the coefficients. \*\*\* indicate the coefficient is different from zero at the 1 percent level, \*\*at the 5 percent level, and \* at the 10 percent level.

### 6. Robustness Test Results

Religious believers engage themselves in multiple activities in the proclamation of their faith. Besides attending religious service, they pray to the lord(s) of their faith. We therefore used this to check for the consistency or otherwise of our earlier results. Table 5 reports that an increase in the number of times an individual prayed fostered her attitude to work to be positive. Results from the sub sample were consistent with this view. Holding the frequency with which individuals prayed constant, the study's control covariates all behaved the same as the ones in the earlier sections.

**Table 5: the Frequency of Prayer and Its Impact on Individual's View on Work**

Independent variable (s) and control variable (s)	Dependent variable: work					
		Sub sample				
	Whole sample	Africa	Asia	Europe	South America	North America
Prayer	.1056092***(.031529)	.1221864***(.073714)	.0981382***(.048767)	.1015839***(.063976)	.1187508***(.094655)	.1168417***(.157872)
Health	.1913782***(.108717)	.1968331***(.256384)	.2122604***(.167502)	.1538479***(.218858)	.2084055***(.33117)	.1863791***(.539837)
Age – under 20	1.095812***(.437903)	1.009726***(.045676)	1.033215***(.667876)	1.26389***(.91259)	1.177319***(.362144)	.7814999***(.024533)
Age – 21-30	1.288307***(.300588)	1.089966***(.715415)	1.24322***(.61624)	1.455372***(.604813)	1.431014***(.937779)	1.077908***(.399201)
Age – 31-40	1.236056***(.287359)	1.024028***(.67478)	1.227578***(.441597)	1.362095***(.580047)	1.342687***(.893707)	1.095012***(.39023)
Age – 41-50	1.221971***(.287394)	1.028109***(.672025)	1.250262***(.446564)	1.246164***(.573762)	1.368287***(.884031)	1.159791***(.388418)
Age – 51-60	.9360544***(.291572)	.7992616***(.692853)	.9125501***(.448274)	1.032538***(.584342)	1.088307***(.896527)	.7605057***(.1418668)
Male	.4397064***(.171975)	.5195258***(.405732)	.4418543***(.265731)	.4207181***(.345128)	.3488366***(.52374)	.4076518***(.831912)
Income	-.026692***(.48086)	.0416279***(.111898)	.0134486*(.4838)	-.0358447***(.0096109)	.0258052*(.1816)	.0406731*(.9525)
Social class	-.0074184(.0103647)	-.0040661(.0246239)	-.0096344(.0160936)	-.003218(.0207091)	-.00476(.0317235)	-.0388589(.0480847)
Education	-.0351608***(.040245)	-.003946(.0094231)	-.0375184***(.062344)	-.0665307***(.081089)	-.0159141(.0121814)	.005314(.0200341)
Marital status	-.003321(.00478)	.0082223(.0112946)	.0045161(.0073675)	-.01075(.009605)	-.0199576(.0147)	-.0383947*(.023)

	49)			2)	138)	2705)
Number	.0754218***(.0	.0660885***(.0	.0544297***(.0	.0833527***(.0	.1235942***(.0	.1292156***(.0
of	061903)	142294)	096866)	121547)	196016)	312138)
children						
Observa	60615	11259	24984	15049	6557	2766
tions						
Prob >	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
chi2						

OIM standard errors are reported in parenthesis below the coefficients. \*\*\* indicate the coefficient is different from zero at the 1 percent level, \*\*at the 5 percent level, and \* at the 10 percent level.

## 7. Conclusion

In this paper, we studied the influence of religion on individual's perception of work. We found that religious service attendance shapes the attitude of people towards work. Our main contribution was identifying the relationship between religion and work, and the influence of religious denominations on attitudes toward the latter.

In addition we were able to find support for those results already mentioned through our continental subsamples. That did not only help in differentiating our study from the other economics of religion studies, but helped in bringing more understanding to bare on the discourse of religion's influence on attitude towards work.

There are other areas we believe holds much promise for further research based on our analytical approach. Our analysis can be extended to study the influence of religion on the attitude of a person towards science and technology.

## References

- Acemoglu, D. and Jackson, M. O., (2014). "History, Expectations, and Leadership in the Evolution of Social Norms". The Review of Economic Studies
- Albanesi, S. and Olivetti, C., (2007). "Gender Roles and Technological Progress." NBER Working Paper 13179
- Alesina, A. F., Giuliano, P. and Nunn, N., (2011). "On the Origins of Gender Roles: Women and the Plough," NBER Working Paper No. 17098.
- Aguiar, M. and Hurst, E., (2006). "Measuring Trends in Leisure: The Allocation of Time over Five Decades." NBER.
- Becker, G. S. and Ghez, G., (1975). "The Allocation of Time and Goods Over the Life Cycle." Columbia University Press, ISBN 0-87014-514-2
- Davis, J. B., Pawlowski, S. D., and Houston, A. (2006). "Work commitments of Baby Boomers and Gen-Xers in the IT profession: Generational differences or myth?" Journal of Computer Information Systems, 46, 43–49.
- Families and Work Institute. (2006). "Generation and Gender in the Workplace." American Business Collaboration
- Fernández, R., and Fogli, A., (2009). "Culture: An Empirical Investigation of Beliefs, Work, and Fertility." American Economic Journal: Macroeconomics, 1(1): 146-77.
- Guiso, L., Sapienza, P. and Zingales, L., (2003). "People's Opium? Religion and Economic Attitudes." Journal of Monetary Economics 50, 225–282
- Juster, F. T. and Stafford, F. P., (1985). "Time, Goods, and Well-being." Published by Survey Research Center, Institute for Social Research, University of Michigan.
- Kowske, B. J., Rasch, R. and Wiley, J. (2010). "Millennials' (lack of) Attitude Problem: An Empirical Examination of Generation Effects on Work Attitudes." Journal of Business and Psychology
- Ramey, V. A. and Francis, N., (2006). "A Century of Work and Leisure." Manuscript, University of California, San Diego
- Robinson, J. and Godbey, G., (1999). "Time for Life: The Surprising Ways Americans Use Their Time."
- Smola, K. W., and Sutton, C. D. (2002). "Generational Differences: Revisiting Generational Work Value for the New Millennium." Journal of Organizational Behavior, 23, 363–382
- Solberg, J. E. and Wang, C. D., (1992). "Family Time Use: Leisure, Home Production, Market Work, and Work Related Travel." The Journal of Human Resources Vol. 27, No. 3, pp. 485-510
- Twenge, J. M., (2010). "A Review of the Empirical Evidence on Generational Differences in Work Attitudes." Journal of Business and Psychology, 25: 201-210.
- Wong, M., Gardiner, E., Lang, W., and Coulon, L. (2008). "Generational Differences in Personality and Motivation: Do they exist and what are the implications for the workplace?" Journal of Managerial Psychology, 23, 878–890