

Curt Raney  
Introduction to Data Analysis  
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## **The Effect of Religiosity on Class Attendance**

### **Abstract**

This paper reports the results of a survey of college students showing that religiosity has a mild, positive effect on class attendance.

### **Introduction**

Religion is known to affect a wide range of attitudes and behavior. Studies show that religious individuals are more responsible, conforming, self-controlling, and pro-social. Religion teaches individuals values that coincide with successful adaptation to society, especially the worlds of family and work.

Religion is rarely considered relevant to schoolwork. However, the attitudes promoted by religion should relate to school in the same manner as work. One important dimension of self-control in school is class attendance. Different teachers have different attendance policies, so students are free to varying degrees to miss classes. Regardless of policies, though, missing classes can jeopardize good grades. Therefore, class attendance is an issue that students must face in their efforts to do their best. To the extent that religion inculcates values related to good work habits in young people, religious students should, on average, skip classes less often than other students.

### **Methods**

*The study* was conducted by students in a data analysis class at a liberal arts college in the mid-Atlantic region of the United States in the spring semester of

1997, 1998, and 1999. The data were collected via self-administered, written questionnaires administered to students at the college. The questionnaire contained numerous questions covering a wide range of topics, most of them related to college matters.

*The sample* was not randomly drawn. In the interests of saving time, respondents were chosen wherever they were encountered, with an unsystematic effort made to acquire a representative sample of the student body in terms of sex, age, residence, major, and other factors. Basically, the class was admonished to avoid getting all their respondents in one place or at one time. We shall proceed as if the sample was properly constructed, but readers should keep in mind that the extent to which the sample represents the student body can not be estimated.

*Measurement* of the variables was accomplished by asking the following questions:

## RELIGUS

*How religious are you? Please indicate your answer by choosing the number on the scale that best fits you. (choose one number)*

not at all 1 2 3 4 5 6 7 very  
religious religious

## SKIP

*How many classes do you skip during a typical school week?*

*classes*

## Hypothesis

If the theory is valid, SKIP and RELIGUS should be negatively correlated. Because RELIGUS is ordinal, Spearman's Rho is the correlation coefficient of choice. The classic formula for Spearman's Rho does not permit negative values. However, SPSS calculates Spearman's Rho by rank ordering respondents' scores and then calculating Pearson's correlation on the ranked data. Hence, negative values are possible, and meaningful in an ordinary sense. The absolute value of the SPSS calculation is identical to the value of Spearman's Rho as calculated by the classic formula.

## Results

**Table 1**  
Crosstabulation of RELIGUS by SKIP  
n = 908      Rho =  $-.20$       Sig. P < .001

			typical no. classes skipped weekly								Total
			0	1	2	3	4	5	6	7	
scale of religiousness	not religious at all	Count	105	54	16	8	1	5	2		191
		% within scale of religiousness	55.0%	28.3%	8.4%	4.2%	.5%	2.6%	1.0%		100.0%
	2	Count	67	33	14	10	2	2		1	129
		% within scale of religiousness	51.9%	25.6%	10.9%	7.8%	1.6%	1.6%		.8%	100.0%
	3	Count	68	27	13	2	2	2			114
		% within scale of religiousness	59.6%	23.7%	11.4%	1.8%	1.8%	1.8%			100.0%
	4	Count	74	39	12	3					128
		% within scale of religiousness	57.8%	30.5%	9.4%	2.3%					100.0%
	5	Count	120	23	12	5		2			162
		% within scale of religiousness	74.1%	14.2%	7.4%	3.1%		1.2%			100.0%
	6	Count	83	25	4	2					114
		% within scale of religiousness	72.8%	21.9%	3.5%	1.8%					100.0%
	very religious	Count	57	11	2						70
		% within scale of religiousness	81.4%	15.7%	2.9%						100.0%
Total		Count	574	212	73	30	5	11	2	1	908
		% within scale of religiousness	63.2%	23.3%	8.0%	3.3%	.6%	1.2%	.2%	.1%	100.0%

Table 1 presents a crosstabulation of SKIP by RELIGUS. The data support the hypothesis. Note that the percent of students within each religiosity level skipping no classes rises with religiosity. Note, also, that among the 19 students who skip 4 or more classes per week, 17 are below the middle point in the scale of religiosity (3, 2, or 1), and that almost half of that 17 report that they are *not religious at all*. These are not large numbers, but neither is the correlation between RELIGUS and SKIP.

Spearman's Rho between RELIGUS and SKIP is  $-.20$  ( $P < .001$ ). The coefficient of determination is a mere  $.04$ , indicating that 96% of the variation in SKIP remains unexplained. The effect of RELIGUS on SKIP is trivial, but real.

## Discussion

It would have been surprising had religion failed to have an effect on skipping classes. However, we still have to account for the fact that the effect is so much smaller than one might have anticipated. One factor that might explain the weak correlation is the skewed distribution of RELIGUS. Most students fall somewhere to the left of the midpoint of the scale. Only 70 out of 908 students (8%) claimed to be very religious, while 191 students claimed to be not at all religious (21%). The low religiosity of students shows that the sample does not compare well with national polls. For example, a 1996 MSNBC poll<sup>1</sup> showed religiosity skewed in the opposite direction, with 66% of respondents claiming that religion is *very important* in their lives, 23% claiming it is *fairly important*, and only 11% saying *not very important*. The scale is different than our survey, but its obvious that the MSNBC poll showed a widely different distribution of religiosity. Obviously, more religious students are going elsewhere than the students in our sample.

With a more nationally representative sample, the effect of religiosity on skipping classes might have been more pronounced, assuming that the religiosity of students in our sample is different in kind as well as in intensity from people in general. The issue here is not so much one of sheer numbers as it is in the meaning of religiosity to different people. For example, do religious fundamentalists fit the theory better than religious liberals? If so, and if religious fundamentalists attend other schools more often, then our *very religious* students are different than *very religious* fundamentalists. It is the more fundamental, Protestant churches that

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<sup>1</sup> By Jerry Dyer, MSNBC. ©1996 MSNBC

preach about self-control and the value of hard work. Liberal Protestant churches more often preach a social gospel stressing the importance of social justice. What other factors might further account for variation in skipping classes? Alcohol and drug habits is one area worth exploring, though it is not unconnected with religiosity. Another might be employment, illness, and other factors that interfere with full class attendance. And then, there's the student subculture itself, a variable subculture from one institution to another. Our sample comes from a school noted for its moderate party atmosphere. The extent to which students are influenced by peer attitudes varies considerably. Unfortunately, we do not have data on most of these factors.

Finally, the role of dishonesty in filling out surveys must be at least mentioned. Whenever respondents are asked for sensitive information, a certain amount of minimization creeps into their answers. Just how much can not be estimated from this data. Extrapolating from existing studies would be difficult. However, we are probably justified in assuming that some greater number of students skip at least a few more classes than the data show.

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