THE EFFECT OF PRAYER ON GOD'S ATTITUDE TOWARD MANKIND

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This paper uses data available from the National Opinion Research Center's (NORC) survey on religious attitudes and powerful statistical methods to evaluate the effect of prayer on the attitude of God toward human beings. (*JEL* C21, Z12)

I. INTRODUCTION

This article uses data available from the National Opinion Research Center's survey on religious attitudes and powerful statistical methods to evaluate the effect of prayer on the attitude of God toward human beings.

The technique—due to Singh (1977)—is briefly described here. Let Y be God's attitude arrayed on a scale ranging from 0 to 1. This is an unobserved variable. Let X be the intensity of prayer in the population. It too is scaled between 0 and 1. The population density of prayer is summarized by a univariate density $f(X)$, which has been estimated by Father Greeley (1972).

Accept on faith that the conditional density of X given Y is of the form:

$$g(X|Y) = a(Y)\exp(XY), \tag{1}$$

where $a(Y)$ is an unknown, continuous, positive, and differentiable function. Singh demonstrates that under his conditions:

$$E(Y|X = x) = \frac{f'(x)}{f(x)},$$

where $f'(x)$ is the derivative of $f(X)$ at $X = x$. Thus, from the population distribution of prayer, we can estimate the population regression function of God's attitude as a function of prayer. For a derivation, see Singh (1977).

II. EMPIRICAL APPLICATION

Greeley estimates that $f(X)$ is bimodal for X scaled between 0 and 1. Many people almost never pray and many others pray a lot. Using Greeley's numbers, we reach the following important conclusions reported in Table 1, where "t" statistics for the Parzen (1962) kernel estimator of $f(X)$ are presented in parentheses. See Figure 1, which graphs the estimated relationship at points of evaluation.

The empirical conclusion from this analysis is important. A little prayer does no good and may make things worse. Much prayer helps a lot.

III. DISCUSSION

Using a powerful method due to Singh, we have established a relationship between God's attitude toward man and the amount of prayer

TABLE 1
Estimated Regression

	$E(Y\|X = x)$	t statistic	SE
$x = 0.0$	0.4	(3.2)	0.1
$x = 0.2$	−1.3	(4.6)	0.3
$x = 0.4$	−2.3	(6.7)	0.3
$x = 0.6$	−3.0	(9.3)	0.3
$x = 0.8$	0.0	(2.1)	0.0
$x = 1.0$	2.0	(1.8)	1.1

*The first draft of this article circulated in July 1980. It evoked a response from Father Andrew Greeley, the noted Catholic priest and sociologist, which I attach. Ivan Werning made helpful comments on the current draft.

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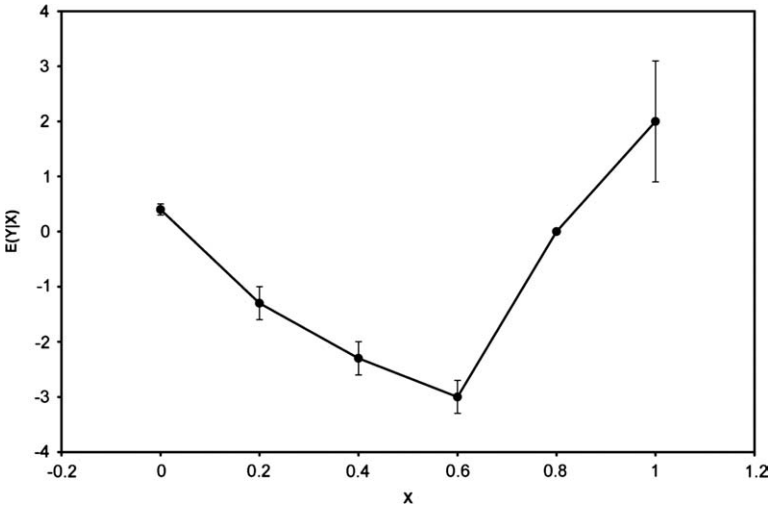
FIGURE 1
Plot of Estimated Regression



transmitted to God. The method presented here is applicable to a number of important problems. Provided conditional density (1) is assumed, we do not need to observe a variable to compute its conditional expectation with respect to another variable whose density can be estimated. For example, one can extend current empirical work in a variety of areas of economics to estimate the effect of income on happiness or the effect of income inequality on democracy. We conjecture that this powerful method can be extended to the more general case when X is not observed either.

APPENDIX

Appendix from Father Andrew Greeley (personal communication, 1983) in response to this article

DATE October 10, 1983

TO James Heckman
FROM Andrew M. Greeley
SUBJECT

Richard Robb showed me your interesting essay about the effect of prayer on God's attitude. I envy you your ingenuity of economic models. Our survey interviewers have been trying to get an interview with God for a long time but the reaction, thus far, has always been that She was not home. Econometric models are much neater!

I'm enclosing a copy of a brief memo of mine about the persistence of prayer. My colleague, Phil Morgan, has developed some log linear models which show that prayer increases with age because, the older people are, the more likely they are to believe that prayer works. This may be wishful thinking, but the fact that it's wishful thinking doesn't necessarily mean that it's not true!

And the attitude that prayer works seems to be a life cycle rather than a generational or cohort effect.

The next thing to inquire about is whether the saints are listening!

AMG/jk
cc: Richard Robb.

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