Catholic Religious Vocations and Rational Choice: Some Evidence

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The decline in the number of Roman Catholic clergy has been well documented in both the popular and academic press. Most research argues that the decline began in the 1960's and has continued steadily since then. The decline in numbers has been confirmed for both diocesan and order priests as well as orders of religious women. This decline in clergy is in direct contrast to the increase in the number of Catholics. Schoenherr and Young (1993) document this trend for the United States concluding that the most significant reason for the decline is the decrease in the number of ordinations. Starke and Finke (2000) report similar declines for North America and Western Europe.

INTRODUCTION

The decline in the number of Roman Catholic clergy has been well documented in both the popular and academic press. Most research argues that the decline began in the 1960's and has continued steadily since then. The decline in numbers has been confirmed for both diocesan and order priests as well as orders of religious women. This decline in clergy is in direct contrast to the increase in the number of Catholics. Schoenherr and Young (1993) document this trend for the United States concluding that the most significant reason for the decline is the decrease in the number of ordinations. Starke and Finke (2000) report similar declines for North America and Western Europe.

Various explanations have been offered for this decline- from the cost of celibacy to the impact of Vatican II to alternative choices for women. Schoenner and Greeley (1974) report that the most common reason given by those who left the priesthood was the demands of celibacy. Increased opportunities for women have been offered as an explanation for the decline in the number of women religious.(Ebaugh 1993, Ebaugh, Lorence,and Chavetz 1996). Using cross national data these studies show that as the alternative career opportunities for women increase, there is a decline in the number who become members of religious orders.

Changes in the characteristics of the clergy, resulting from changes of Vatican II, have been cited by several studies as contributing to the decline number of clergy. The studies argue that many of the aspects that attracted individuals to the clergy were diminished as a result of changes encouraged by the Second Vatican Council. Many orders dropped their unique styles of dress and or living arrangements as a result of Vatican II's call for modernization. Religious life was no longer considered to be morally superior. These changes reduced the aspects of religious life that many found rewarding.(Finke 1997; Wittberg 1994; Iannocone 1994; Finke and Starke 1992) In a recent article, Stark and Finke (2000) reject the alternative opportunity arguments and find in favor of the changes in Vatican II model. They support their argument by observing that orders and dioceses that have been able to restore some of the religious rewards have been able to increase vocations.

Almost all of the existing research has applied, at some level, a benefit- cost approach to examining the decline in the number of Catholic clergy. An increase in the perceived cost of celibacy or an increase in the alternative opportunity both increase the costs of being a member of the clergy. A decline in the religious rewards associated with changes resulting from Vatican II reduce the benefits of becoming clergy. In this paper a formal benefit –cost model will be applied to the decision to enter the priesthood.

One model that may offer some insight is the occupational choice model. Occupational choice theory is well established in economics, with individuals considering the costs and rates of return of investing in the human capital needed for a particular occupation. The present value of lifetime net income is what drives the traditional occupational choice model. Individuals are assumed to compare the present values of income from various occupations and make their decisions based on this information. Freeman (1970, 71,75,76) has empirically tested the theory with accountants, engineers, MBA's, lawyers and various P.h.D.'s and found that labor supply is responsive to relative costs and relative wages.

The income in this model is not limited to money income. Economists have long recognized that any occupation includes both monetary and non-monetary aspects. Money is assumed to be a positive for all individuals. Non-monetary aspects can be either positive or negative. Whether a characteristic of an occupation is positive or negative, and to what extent, will vary across individuals. Individuals are assumed to make tradeoffs between the positives and negatives to determine the full income of the occupation. The costs of obtaining the education and training necessary for a particular occupation are also considered in the occupational choice model. Individuals would be willing to incur the cost of college and or graduate school (including the forgone earnings) if the future income and /or benefits were considered worth the costs. Individuals are assumed to make a present value calculation of the lifetime income and cost associated with a particular occupation. Alternative occupations are compared and choices are made.

The following model can represent this calculation:

$$\text{Present Value} = \sum_{i=18}^{I=n} \frac{(Y_i - C_i)^A - (Y_i - C_i)^B}{(1+r)^{i-18}}$$

Y = the full income. This income includes both monetary and non-monetary components. Salaries, health insurance, retirement accounts, job satisfaction, feeling of accomplishment, free meals, and education benefits would be examples of positive components. Dangerous or unpleasant working conditions, long hours, stress, boredom, forced travel or relocation might be negatives.

C = costs associated with the occupation. Included in this measure would be the costs of the education and/or training needed to obtain the occupation, continuing education, uniforms, and union dues. The difference between these two measures (Y-C) is the net income for a given year. Occupations that require years of education and or training (medical field) may have negative net incomes during the early years and positive returns in the future. The present value calculation (dividing by 1+ r raised to the year in the future) reflects the idea that people prefer things sooner rather than later.

Whether being a member of the Catholic clergy is a vocation with some occupational aspects or an occupation with a vocational component is not an argument that will be entertained here. However, there are numerous characteristics that the clergy share with other occupations. There is both education and training required of those who become clergy. Catholic clergy are compensated. Room and board, educational expenses and travel are common to all. In addition, diocesan priests receive a salary as well as stipends for services preformed. There are some characteristics that are specific to the Catholic clergy. The negative characteristics that seem to be most important would be celibacy and obedience. The positive non-monetary aspects would include lifetime employment, status and some measure of the value of religiosity.

This model leads to the following:

Number of entrants to the clergy = F $[Y^*, C^*]$

with $Y^* = Y_p - E(Y_o)$ and $C^* = C_p - C_o$

The variables in the system are defined as follows;

$Y_p - E(Y)_o$ = the differential between clergy's income and the expected income from the next best alternative . Given that clergy are guaranteed lifetime employment, alternative incomes will have to be adjusted for the probability of employment.

The $C_p - C_o$ variable is the differential between the costs of the direct investment necessary for the priesthood and the investment needed for alternative occupations. This differential is expected to have an inverse relationship with the number choosing the priesthood. The lower the initial investment in the priestly occupation relative to the investment required for other occupations, the greater the number choosing the priesthood.

METHODOLOGY

Finally, following Ebaugh, Lorence and Chafetz (1996), seminary enrollments across countries will be examined. Controlling for other factors, less developed countries should show higher levels of seminary enrollments. This would be consistent with increasing occupational opportunities as economic development occurs. Young men in developed countries face very different occupational choices than those in less developed countries. The choice between the seminary and medical school is not the same as the choice between staying poor on the family farm and studying for the priesthood.

ACROSS COUNTRIES

The modeling of the priesthood as an occupation may be done across countries. The main component of the model of the priesthood as an occupation is the difference between the full income of the priesthood and that of alternative occupations. Expected income in an alternative occupation can be viewed as the opportunity cost of becoming a priest. The alternative opportunity should be expected to vary directly with the level of economic development. The greater the level of economic development, the greater the opportunity for a high income career. The choice between the priesthood and sustenance farming is very different than the one between the priesthood and the law or other professional careers. In fact, in countries with low level of economic development, the priesthood may well be one of the only viable opportunities for a professional career. The returns to the priesthood would not be expected to vary as much across different levels of economic development. The main compensation from the priesthood is the lifetime commitment of room and board, which would tend to moderate the income differences for priests across countries.

The other component of the choice of the priesthood is the level of religiosity. As Adam Smith first noted, the degree of monopolization of a religion has been shown to correlate inversely with the level of religious commitment. The percent of the population that is Catholic has been used by Stark and McCann (1993) in their study across counties in the United States. They showed that this was a significant predictor of the percent of Catholic teenagers who become priests.

For this study, the number of seminarians per Catholic in a particular country will be examined across fifty countries. The explanatory variables are gross domestic product per capita and the percent Catholic of the particular country. The expectation is that the number of seminarians per Catholic will vary inversely with the level of economic development -the greater the opportunity costs. The number of seminarians will also vary inversely with the percent Catholic. The more monopoly power a religion has, the less intense the religious practice.

COUNTRY	SEM/CATH	GNP/CAP	CATH/TOT
THAILAND	11.19	1840	0.00
EGYPT	7.00	640	0.00
INDIA	6.17	310	0.02
KOREA	5.80	6790	0.07
MALI	5.77	310	0.11
INDONESIA	4.79	670	0.03
HONDURAS	4.46	580	0.05
SIERRA LEONE	4.11	160	0.03
BURKINA Faso	3.51	300	0.10
SENAGAL	3.46	780	0.05
NIGERIA	3.23	320	0.10
BANGLADESH	3.00	220	0.00
NIGER	2.99	280	0.00
ZIMBABWE	2.73	570	0.09
SRI LANKA	2.64	540	0.07
KENYA	2.59	310	0.23
CAMEROON	2.42	820	0.30
TOGO	2.39	390	0.23
IRELAND	2.17	12210	0.95
CEN. AFR. REP.	2.12	410	0.18
MAURITATANIA	2.00	530	0.00
BENIN	1.75	410	0.22
JAMAICA	1.68	1340	0.04
FINLAND	1.67	21970	0.00
TUNISIA	1.43	1720	0.00
COLOMBIA	1.36	1330	0.95
BOTSWANA	1.35	2790	0.04
DENMARK	1.29	26000	0.01
PHILIPPINES	1.25	770	0.86
ITALY	1.16	20460	0.96
UNITED STATES	1.13	23240	0.22
MALAYSIA	1.06	2730	0.03
COSTA RICA	.99	1960	0.95
SWEDEN	.99	27010	0.02
SPAIN	.88	13970	0.95
PORTUGAL	.80	7450	0.94
PARAGUAY	.77	1380	0.96
AUSTRIA	.76	22380	0.80
CHILE	.70	2730	0.82
GREECE	.66	7290	0.01
BOLIVIA	.63	680	0.86
SWITZERLAND	.59	36080	0.47
AUSTRALIA	.56	17260	0.29
EL SALVADOR	.49	1170	0.96
VENEZUELA	.48	2910	0.95
CANADA	.47	20710	0.46
BELGIUM	.42	20880	0.86
NETHERLANDS	.34	20480	0.37
URUGUAY	.33	3340	0.80
FRANCE	.33	22260	0.83

SOURCES: GNP DATA IS FROM 1994 WORLD BANK DEVELOPMENT REPORT.
SEM/CATH AND CATH/POP WERE CREATED FROM DATA FROM THE CATHOLIC ALMANAC.
ALL DATA IS FOR 1992

OLS Regressions

The following equation is estimated using ordinary least squares:

$$SEM/CATH = b + b_2\,GNP/CAPITA + b_3\,CATH/POP$$

With SEM/CATH = seminarians per ten thousand Catholics
 GNP/CAPITA = gross national product per person
 CATH/POP = Catholic population divided by total population

The regression results are as follows:

$$\text{SEM/CATH} = 3.65 \quad - .000069 \text{ GNP/CAP} \quad - 2.55 \text{ CATH/TOT}$$
$$\text{(t)} \qquad (10.0) \qquad\qquad (-2.70) \qquad\qquad\qquad (-3.97)$$
$$R^2 = 34.8$$

The Results

The data are reported in the table. The number of seminarians per 10,000 Catholics range from a high of 11.19 in Thailand to a low of .33 in France and Uruguay. Per capita GNP ranges from Switzerland's $ 36,080 to Sierra Leone's $160. Of the 16 countries with the highest number of seminarians per Catholic, 13 are from low-income countries ($675 or less) and the remaining three are from middle income countries (more than $675 but less than $8365). Eight of the sixteen countries with the fewest seminarians per Catholic are high income (more than $8356 per capita). The other eight are middle income countries. None are lower income.

The percent Catholic ranges from 96% (Italy, Paraguay, and El Salvador) to several countries with less than 1%(Finland, Thailand, Tunisia, Egypt, Mauritania, Niger, and Bangladesh). None of the sixteen countries with the highest number of seminarians per Catholic have a Catholic population greater than 23% of the total. The mean percent Catholic for the top 16 countries is 5.9%. Twelve of the sixteen countries with the fewest seminarians have a Catholic population of 89% or more. The mean percent for the bottom 16 is 70.9%.

The gross national product has the expected sign and is significant at the one per cent level. The level of economic development is inversely related to the number of young men studying for the priesthood, consistent with the occupational choice model. The greater the real income of alternative occupations, the fewer choosing the priesthood. The significance of the religiosity variable- percent Catholic- is also consistent with modeling the decision as an occupational choice. The greater the value placed on religiosity, the greater the real income of the Catholic priesthood.

The monetary rewards of the priesthood may be of little or no interest to some who become priests. This may explain Stark and Finke's findings of variations across dioceses and orders. A reduction of the value of clergy as an occupation choice reduces the potential pool of Catholic clergy. Those who place a higher value on the religious aspect of the decision may dominate the group who are considering becoming members the Catholic clergy. They would then tend towards dioceses and orders that have a greater emphasis on the religious aspect of the priesthood.

Overall, modeling the decision to become a Catholic priest as one of occupational choice is supported by the data. This is not to say that priests (or other Catholic clergy) become priests for the money. By the same token, individuals whose primary motivation is money do not dominate social work, education and numerous other occupations. Most occupations involve both monetary and non-monetary benefits and costs. It is the summation of the benefits and costs that determine the value of alternative choices.

The argument of this paper is not that the priesthood is an occupation, no different than that of a plumber or professor. The argument is instead that the priesthood has occupational as well as vocational components. Changes in both may offer the best explanation for changes in the number of Catholic clergy.

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