Treasure in Heaven

RETURNS TO SCHOOLING IN CLERGY LABOR MARKETS

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> The parochial clergy are like those teachers whose reward depends partly upon their salary, and partly upon the fee or honoraries which they get from pupils; and these must always depend more or less upon their industry and reputation.
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> —Adam Smith, *The Wealth of Nations*[1]

> In America, every clergyman may be said to do business on his own account, and under his own firm. He alone is entitled to all the credit due to his exertions.
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> —Francis J. Grund, *The Americans, in Their Moral, Social, and Political Relations*[2]

Over the past few decades, there has been a notable rise in the economic analysis of religion. Economists have examined determinants of religious behavior, the economic impact of religion, and associations among religiosity and earnings rates, educational attainment, crime rates, and many other variables.[3] The study of these important questions, previously left to the other social sciences, promises to benefit the understanding of our religious environment and how religious goods affect American society.

Prior research has shown that over the past two centuries, American participation in organized religion grew from less than one-fourth to well over 70 percent.[4] During that same period, religion gained an association with a large array of welfare improvements. Moreover, more than one-third of today's charitable contributions in the United States go to religious organizations.[5] However, despite their known status as major inputs toward nonprofit-sector productivity, the study of labor markets for clergy, on whom religious output is chiefly dependent, remains limited.

Only a small and nascent literature has focused on questions involving clergy employment and the religious labor market. Jay C. Hartzell, Christopher A. Parsons, and David L. Yermack studied the compensation schemes for a sample of Methodist ministers from Oklahoma, finding that incremental financial incentives affect minister effort and result in pay-for-performance scenarios that affect overall congregational performance.[6] Beck Roselius Haney studied the relationships between clergy compensation and church structure, location, and size.[7] Michelle W. Trawick and Stephen E. Lile found that Southern Baptist clergy received higher salaries in areas with greater concentrations of Southern Baptist churches.[8] Charles Zech discovered that ministerial pay was unrelated to self-reported performance scores and that ministers from larger

communities receive more pay.[9] While these recent improvements to the literature highlight several themes surrounding clergy compensation, additional research is needed on the broader financial incentives facing clergy members.

In this report, I examine the return to education and the skill premium between clergy and all other secular wage earners. This study is primarily motivated by a well-documented rise in the return to education for American workers over recent decades.[10] Its goal is to examine clergy labor markets and establish stylized facts on clergy's return to education.

Using representative samples of the US population from Census Bureau data, I estimate the rate of return to schooling among clergy and non-clergy for 1950–2010. I find that return to schooling coefficients increase on average for both clergy and non-clergy occupations over the sample period. Non-clergy overall exhibit a higher estimated return to schooling than clergy, and the gap between clergy and non-clergy returns increases for 1950–2010.

Given that education is often a required input in clergy labor supply and that there is a documented rise in the return to schooling in non-clergy labor markets, my descriptive analysis focuses on whether clergy exhibit a rising opportunity cost in labor supply. First, I consider the potential impact of such rising opportunity costs on the composition of clergy in the United States (consistent with traditional labor market theory). Then, I discuss how rising opportunity costs may affect clergy composition under the club-good theory of religious organization. Finally, I consider the recent trend of increasing female participation in the clergy labor market and returns to education in the market for black clergy.

The remainder of this report is organized as follows. I first provide some background on the market for clergy labor and discuss the implications and results of previous literature. Then I present the data and summary statistics relevant to clergy wages. Next I describe the empirical framework and provide the basic results from the return to schooling analysis. In the final section, I consider how rising opportunity costs affect the composition of the clergy.

Previous Literature

In America's religious economy, churches and religious organizations face substantial competition in a market that rewards religious leaders for their effort and skill. Clergy act as independent providers responsible for marketing their beliefs, and religious economies often function similarly to competitive commercial economies.[11] For example, it is increasingly more common among many denominations to hire clergy based on objective criteria such as academic pedigree and performance, as opposed to subjective criteria such as "calling."[12] In this way, religious organizations act like secular firms in their hiring decisions. Clergy's ability is signaled through academic qualifications, and their performance is a function of effort and skill.

Individuals electing to enter the clergy who are sufficiently qualified and meet denominational performance standards are often rewarded and incentivized to improve their performance. Typically, rewards come in the form of higher wages and benefits, usually by moving to more prestigious congregations. These monetary and nonpecuniary rewards are no different from the increases in wages or job opportunities granted to secular workers who perform well.

At this point, it may seem as though strong intrinsic motivation and a perceived "calling" among clergy undermine the comparison of religious and secular markets. Many scholars agree, however, that economic self-interest motivates clergy and that market forces constrain churches similarly to any secular firm.[13] This report aims to analyze the economic incentives facing clergy while not forgetting the significant role of "calling" in many religions.

Religion as a Market. The literature is consistent in supporting the role of clergy self-interest and the economic similarities between religious and secular markets. Adam Smith grounded the economic analysis of religion in a largely overlooked chapter of *The Wealth of Nations* that argued for the similar comparison of churches and secular firms.[14] Adam Smith was convinced that self-interest motivates clergy, market forces constrain churches, and the benefits of

competition, constraints of monopoly, and forces of regulation press upon churches in a similar manner to any secular firm.[15]

The first grand works of the economics of religion, following Adam Smith's 1776 introduction, appeared in 1975 with Corry Azzi and Ronald Ehrenberg's individual religious choice and household allocation model.[16] Then in the 1990s, Laurence Iannaccone published his seminal work on the organizational structure of religious firms.[17]

Since then, a number of economists and social scientists have contributed to the understanding of religion in terms of an economic market. In several editions, Roger Finke and Rodney Stark propose a model of the churching of America that uses economic terminology.[18] They consider the rapid increase in religious participation among Americans to be a primary by-product of our free-market religious environment, a growing supply of energetic clergy and religious options, and a constant stream of new innovations.[19] Hartzell, Parsons, and Yermack analyze the compensation schemes and incentive structures for a sample of more than 2,000 Methodist ministers, highlighting the monetary incentives that affect ministerial compensation.[20] Ian Smith writes on the features of religious labor markets, noting that churches are major components of the nonprofit sector and share some of the distinctive features of secular nonprofits.[21]

Clergy Motivations. While spiritual factors unarguably hold significant weight in clergy motivations, their presence does not eliminate clergy responsiveness to market forces.[22] In their study on the incentive compensation of Methodist ministers, Hartzell, Parsons, and Yermack suggest that incremental financial incentives affect pastors' effort and service to parishioners.[23] They do so while acknowledging that ministers are often called to their work because of strong intrinsic motivation.

Strong intrinsic motivation and faith-based spiritual factors pose a large barrier to any analysis on religion and decision-making. In some cases, strong intrinsic motivation might negate the need for explicit financial incentives in clergy compensation schemes, as clergy can be motivated by idealism and rewards that fall outside traditional economics. Robust financial incentives could also work against a minister's credibility among congregants. In theological traditions that maintain a heavy reliance on sacrifice, lower wages could potentially bolster the appearance of a minister's motivation or commitment to his teachings.

There is clearly an agency problem such that the reward granted to clergy for their efforts should be sufficient enough to align efforts with congregant desires, however, not so large as to undermine credibility. The inability to evaluate the quality of a minister's theological claims only adds complexity to this compensation problem. Market forces, however, do affect clergy decision-making, effort, credibility, and commitment.

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Furthermore, Ian Smith notes that the importance of faith for both churches and clergy does not exclude a significant role for rational criteria and economic modeling.[24] In many lines of scholarship, the same economic models that apply to secular wage earners can be extended to the clergy. Additionally, profit and performance, in terms of clerical reward, can be measured and modeled in various ways. Numbers of

congregants, perceived credibility, rank in the organizational hierarchy, and individual degree of popularity are all nonpecuniary incentives (and performance measures) that play a role in clergy motivation.

While a religious organization's fate depends on its congregational structure, religious doctrines, evangelization techniques, and a number of other factors, clerical leadership and the incentives that motivate clerical leaders remain the most important factors in organizational success. The success of religious firms historically depends more on its clergy and less on the spiritual factors that affect decision-making. Despite the efforts of economists who study religion, the field remains largely deficient in its understanding of the incentives, allocation, and remuneration of the clergy, on whom religious organizations remain dependent.

Clergy and Education. America's documented rise in religious participation is in part a story of human actions, human organizations, and a robust devotion among American church leaders to intellectual and innovative pursuits. Theology in America's religious economy is exposed to relentless competition in a market that rewards religious leaders for their effort, skill, and knowledge. The clergy often act as independent firms responsible for actively marketing their faith, and religious economies function similarly to competitive commercial economies.

The competitive nature of the market for religion has increased the need for clergy to differentiate themselves through higher education.[25] Many denominations now provide clergy members with opportunities for formal seminary instruction, making education even more important in clergy's careers.[26] As clergy increase their career and human capital investments through seminary and professional degrees, they tend to recoup the cost of that investment through higher lifetime earnings.

Many denominations, however, will permit relatively low-educated clergy to serve churches that cannot pay high enough wages to attract highly educated applicants.[27] The result is increasing competitiveness among highly educated clergy searching for employment in a market saturated with low-wage options. These low-wage earners largely affect the low average wages for clergy (compared to other occupations), although the low average wage is a by-product of several factors.

Among other factors, clergy tend to be more willing to sacrifice high wages for the intrinsic benefits of the profession, high wages might undermine clergy credibility with a congregation (calling into question a minister's motivations), and religion by its nature is a credence good, making it difficult to evaluate the quality (and monetary worth) of theological claims and clergy motivations ex ante.[28] But clergy earnings likely no longer reflect the price of a college education.

Clergy earnings have likely not kept up with the earnings of other college graduates.

Return to Schooling. High educational attainment and seminary education are increasingly common among American church leaders. The clergy has historically been a highly educated profession, yet the recent labor market trend of increasing national average education applies to clergy as well. Many congregations require that ministers have a college degree, and social scientists have long acknowledged the importance of education in clergy career attainment.[29]

However, clergy earnings have likely not kept up with the earnings of other college graduates. This would suggest that the return to schooling for clergy should be lower than the equivalently specified returns for their secular counterparts. Return to schooling is an estimation of the effect additional education has on wages (or other measures of income).

Occupational Choice. Ministers regularly make utility-maximizing choices when it comes to their

work's duration and intensity.[30] These choice differences often help distinguish between the observationally effective and ineffective pastor. Ian Smith notes that pastors' choice sets, personalities, and leadership traits are often perceived to matter most in the performance outcome of churches.[31]

The heavy ties between church performance and clergy choices have led Tina Wildhagen, Charles W. Mueller, and Minglu Wang to observe that clergy hiring, in most congregational church settings, is often based on the bureaucratic and systematic scrutiny of resumes and interviews.[32] The clergy occupation in this way functions as a senior manager position in a secular firm. The hiring decisions, how the candidate is motivated and remunerated, and the implications of these factors bear on the performance of both the churches and the denominations to which they belong. Additionally, practical concerns over financial security and fair wages remain salient for many clergy.[33] The same utility-maximizing structure used for decision-making by clergy in the workplace carries over to the hiring process, remuneration contract negotiation, and the original occupational choice scenario.

Data and Descriptive Statistics

My analysis is focused on two sets of cross-sectional data: (1) US decennial census samples spanning 1950–2000 and (2) an American Community Survey (ACS) sample for 2010. All data are sourced from the IPUMS-USA database at the University of Minnesota.[34] Both the census and ACS surveys are conducted by the US Census Bureau and collect data on occupation, income, educational attainment, homeownership, and other general demographics. The ACS was inaugurated in January 2005 and is largely compatible with the long form of the decennial census. (The ACS 2010 sample is used in place of the 2010 census data for this report.[35]) The full appended sample contains over 60 million observations, of which 90,244 are clergy.

Clergy are considered all individuals who earn income by conducting religious worship or performing other spiritual functions associated with the practice of a religious faith. Because of a lack of denominational or religious classification in the data, the results should be interpreted for the clergy occupation generally, taking into account religious and denominational variances.

In my analysis, the financial variables of interest include income from wages and total personal income. Income from wages includes total pretax wage and salary income—that is, money received as an employee—for the previous 12 months. Total personal income includes pretax personal income (or losses) from all sources for the previous 12 months. While income from wages is used to analyze the specific income streams from a respondent's employer, total personal income provides a more holistic representation of the change in a respondent's total wealth in a given year. Including total personal income is more robust than an analysis of returns based on income from wages alone, as clergy often receive several different forms of direct compensation. Housing allowances, parsonages, and special occupation–related income are all forms of clergy direct compensation that prove difficult to measure from survey data.

In each sample, observations are divided into 25 distinct labor groups and six levels of school completion. The 25 occupational groups are pooled from approximately 493 individual occupations that vary across census periods. Using the Census Bureau's 2010 ACS occupation codes, I aggregated the individual occupations into larger (discipline-related) categories and standardized the codes across samples to produce a consistent classification scheme. The six levels of school completion are assigned based on a calculation for years of schooling[36] and correspond to the existing census definitions for education. The six indicator variables are (1) less than high school, (2) some high school (grades 9–11), (3) high school, (4) some college, (5) bachelor's degree, and (6) graduate degree.

Table 1 presents summary statistics for the full appended sample, with the top panel showing data organized by clergy and the bottom panel by non-clergy. The clergy observation counts include all

Table 1. Summary Statistics Variable

	1950	1960	1970	1980	1990	2000	2010
Clergy							
Observations	1,769	11,001	4,835	15,519	19,435	23,415	28,238
Mean Age	44.97	44	45.73	45.71	47.56	49.75	51.26
Percentage Male	97.4	98.03	97.2	94.06	90.1	85.79	82.03
Percentage Hispanic	1.04	1.13	1.43	1.82	1.69	2.17	2.88
Percentage Black	10.13	7.07	6.03	5.52	5.49	7.26	7.64
Non-Clergy							
Observations	165,481	3,351,411	1,732,419	5,381,382	6,195,914	6,953,466	7,401,067
Mean Age	37.66	38.59	37.85	36.44	37.84	39.29	41.69
Percentage Male	66.72	63.39	59.08	55.46	52.98	52.24	51.26
Percentage Hispanic	1.88	2.79	3.34	5.14	3.97	5.03	6.97
Percentage Black	10.31	10.16	10.05	10.14	9.25	10.17	9.29

Note: This table presents summary statistics for clergy and non-clergy from US decennial census and ACS data from 1950 to 2010. Clergy observation counts include all respondents with occupation defined "clergy" (OCC = 2040). Non-clergy observation counts include only respondents with non-missing income from wages cells. All samples, excluding 1950 and 1970, are 5-in-100 national random samples of the population. The year 1950 is a 1 percent sample, and 1970 is a 2 percent sample. Data are obtained from the IPUMS-USA database at the University of Minnesota.
Source: Author's calculations.

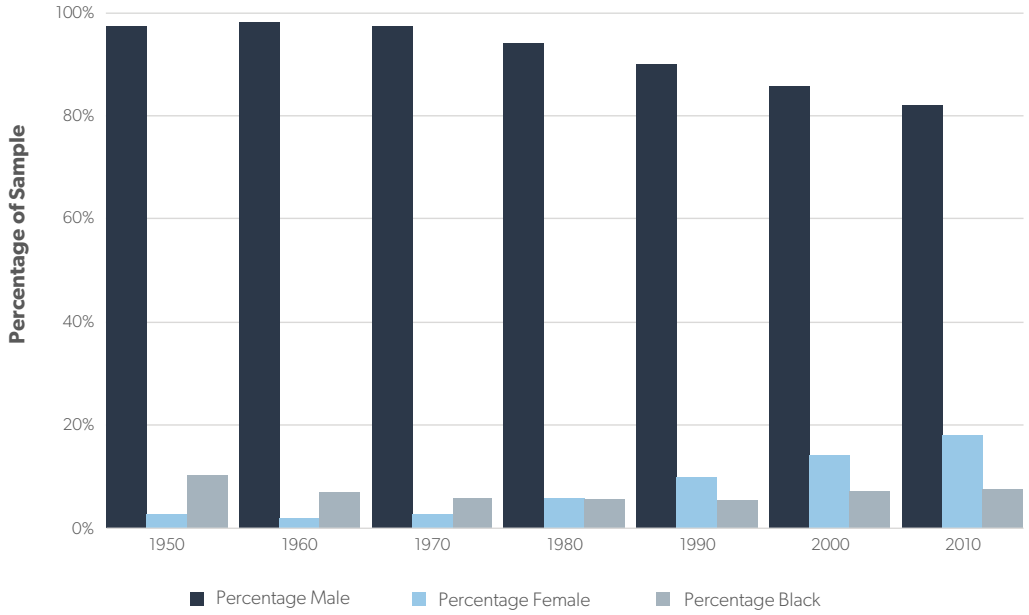
respondents with their occupation defined as "clergy" per the ACS 2010 occupation codes. The non-clergy observation counts include all other respondents with non-missing income from wages cells.

The first row of each panel indicates the number of observations present in the sample year.[37] The proportion of clergy to total respondents doubles over the sample period. This could suggest an increase in the number of operating religious congregations (in the form of churches, mosques, synagogues, etc.) in the US during the sample period. Clergy make up 0.092 percent of total respondents in 1950 and nearly two-tenths of a percent in 2010.

The second row of each panel shows summary statistics for the mean age of workers over the sample period. The mean age of both groups increases over time, with the mean age of clergy being 8.48 years older on average than non-clergy.

Rows three through five show summary statistics on gender and race for both clergy and non-clergy. Row three shows a decline in the male dominance of the clergy and in all other occupations. Male clergy decline as a percentage from 97.4 percent in 1950 to 82.03 percent in 2010. Similarly, the percentage of male employees in the non-clergy group declines from 66.72 percent in 1950 to 51.26 percent in 2010. The percentage of Hispanic clergy nearly triples over the sample period, following a similar increase in the percentage of Hispanics in the non-clergy market. The percentage of black clergy declines, however, while

Figure 1. Clergy Demographics by Year, 1950–2010



Source: Author.

the proportion of black workers in the non-clergy market remains relatively constant.

Figure 1 highlights the percentage breakdown of clergy demographics by decade as detailed in Table 1. Most notably, the percentage of female clergy increases from 2.6 percent in 1950 to nearly 18 percent in 2010.

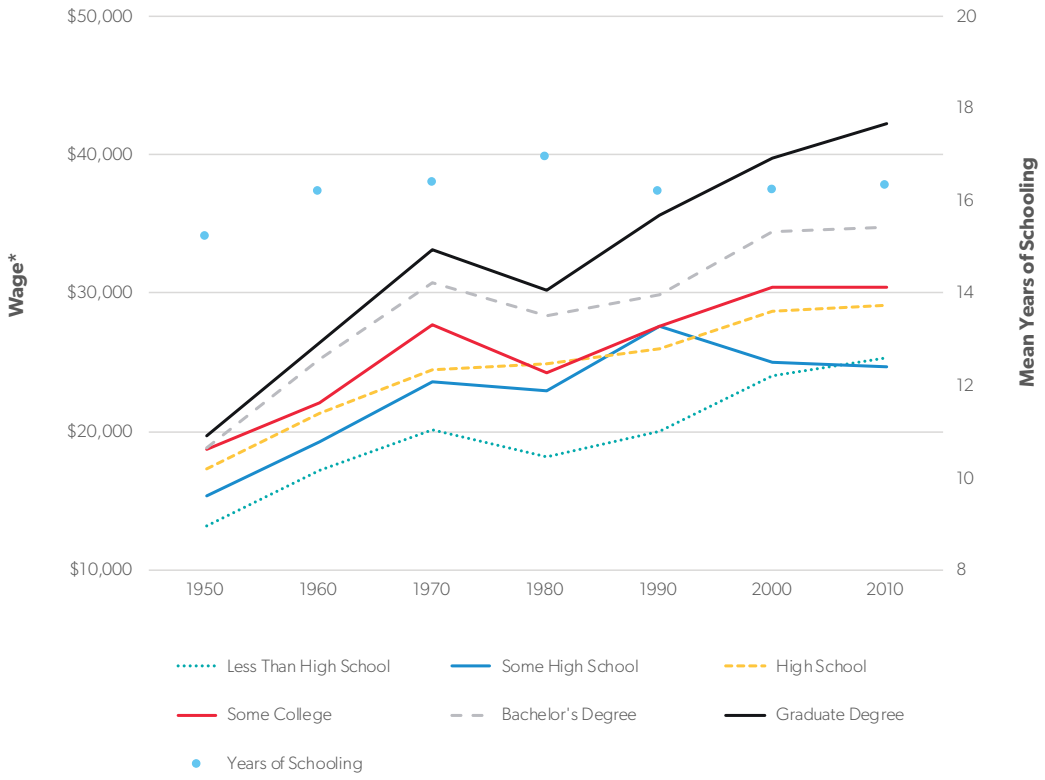
Figure 2 shows the change in mean wage (over time and inflation adjusted) for all clergy evaluated at various education levels. The mean years of schooling for all clergy in each year are bulleted and correspond to the values on the secondary y-axis. The average education level of clergy remains consistent over time at nearly 16 years of schooling.

Table 2 summarizes the relevant financial variables and years of schooling variables for both clergy and non-clergy. The table expresses income from wages and total personal income variables in contemporary dollars that are not adjusted for inflation. In the third panel of Table 2, clergy show mean years of schooling significantly higher than the non-clergy cohort. Clergy remain a highly educated profession over the entire sample period, with mean years of schooling 4.14 years higher on average than the non-clergy cohort. The years of schooling gap between clergy and non-clergy decreases, however, as non-clergy professions become more highly educated.

Basic Results

I now turn to the primary research question of the rate of return to schooling for clergy compared to non-clergy. I employ a modification of the human capital earnings function developed by Jacob Mincer to estimate returns to schooling.[38] The basic model regresses the natural logarithm of wages on years of education and a quadratic function of years of potential labor market experience. Given that a worker's experience is not directly observable, I use respondent age as a proxy for potential experience.[39] Additionally, I include simple indicator variables for male, Hispanic white, black, state of residence, and occupation group to control for state and occupation fixed effects and isolate the effect of demographic variables on wage.

Figure 2. Clergy Wages and Schooling, 1950–2010



Note: *Wages are inflated to 2010 dollars.
Source: Author.

All regressions include estimates for state indicator variables, while additional regressions control for occupation. I also regress a model with indicator variables for respondent income from wages and total personal income values that are top-coded in the sample. This final regression is intended to further distill the return to schooling coefficient by embedding potential bias from top-coded income into the model.

Methodology. The Mincer model specifies:

$$ln[w(s, x)] = \beta 0 + \beta 1s + \beta 2x + \beta 3x^2 + \varepsilon i$$

where $w(s, x)$ is income at schooling level s and potential work experience x, $\beta 1$ is the rate of return to schooling assumed to be the same for all schooling levels, and εi is a residual with zero mean (i.e., $E(\varepsilon i|s, x) = 0$). Estimating education's effect on the log of both income from wages and total personal income variables—using ordinary least squares (OLS)—results in multivariate linear regression models:

$$ln[wWageIncome] = \beta 0 + \beta 1s + \beta 2a + \beta 3a2 + \beta iV + \varepsilon i$$

$$ln[wTotalIncome] = \beta 0 + \beta 1s + \beta 2a + \beta 3a2 + \beta iV + \varepsilon i$$

where w is an income variable, $\beta 1$ is the rate of return to schooling assumed to be the same for all schooling levels, and V is a vector of demographic variables of interest thought to influence wage. Selected demographic variables include schooling level, age, sex, Hispanic white, black, state of residence, and occupation group. βi remains a residual with expected zero mean (i.e., $E(\varepsilon i|s, x) = 0$). All regressions on

Table 2. Summary Statistics for Income and Education

Income from Wages				
Year	**Mean**	**Standard Deviation**	**Total Observations**	**Percentage College**
Clergy				
1950	$2,307	1,422	385	62%
1960	$3,797	2,350	8,600	70%
1970	$6,083	4,183	3,928	71%
1980	$11,155	7,836	12,221	73%
1990	$19,797	14,081	18,106	73%
2000	$28,241	21,138	21,586	74%
2010	$37,303	26,834	26,271	75%
Non-Clergy				
1950	$2,170	1,658	165,481	6%
1960	$3,594	3,093	3,351,411	8%
1970	$5,696	5,261	1,732,419	12%
1980	$11,415	10,400	5,381,382	17%
1990	$20,728	21,888	6,195,914	21%
2000	$31,194	37,677	6,953,466	24%
2010	$42,015	50,533	7,401,067	30%
Total Personal Income				
Year	**Mean**	**Standard Deviation**	**Total Observations**	**Percentage College**
Clergy				
1950	$2,493	1,464	486	61%
1960	$4,120	2,669	10,494	68%
1970	$6,665	4,915	4,780	70%
1980	$12,765	8,698	15,166	72%
1990	$23,209	15,774	18,979	73%
2000	$34,019	26,272	22,822	73%
2010	$43,995	30,849	27,914	75%
Non-Clergy				
1950	$2,215	1,894	215,881	7%
1960	$3,532	3,545	4,489,058	8%
1970	$5,496	5,859	2,264,965	10%
1980	$11,004	11,008	7,308,647	15%
1990	$20,258	23,267	8,470,682	18%
2000	$30,836	40,725	9,611,190	21%
2010	$39,923	52,481	10,751,598	27%

(*continued on the next page*)

Table 2. Summary Statistics for Income and Education (Continued)

Years of Schooling				
Year	**Mean**	**Minimum**	**Maximum**	**Standard Deviation**
Clergy				
1950	15.19	0	18.5	3.90
1960	16.19	0	19	3.56
1970	16.38	0	19	3.36
1980	16.81	0	20	3.37
1990	16.18	0	20	2.71
2000	16.2	0	20	2.72
2010	16.31	0	20	2.60
Non-Clergy				
1950	10.1	0	18.5	3.22
1960	10.72	0	19	3.09
1970	11.55	0	19	2.95
1980	12.46	0	20	2.83
1990	12.88	0	20	2.62
2000	13.04	0	20	2.70
2010	13.5	0	20	2.69

Note: This table presents summary statistics for clergy and non-clergy from US decennial census and ACS data from 1950 to 2010. "Income from Wages" includes total pretax wage and salary income, and "Total Personal Income" includes pretax personal income (or losses) from all sources. Amounts are expressed in contemporary dollars and therefore are not adjusted for inflation. "Years of Schooling" is calculated based on the census classification scheme for the highest grade attended. Data are obtained from the IPUMS-USA database at the University of Minnesota.
Source: Author's calculations.

clergy include estimates for state indicator variables, while occupation groups are omitted. All regressions on non-clergy include estimates for state indicator variables, with occupation groups included in a separate regression for all controls.

Detailed Results. I find significant statistical evidence that supports a higher rate of return to schooling for non-clergy over all periods. Additionally, the gap[40] between clergy and non-clergy returns increases from 1950 to 2010 in the estimation of return to schooling on the natural log of wages. In considering total personal income as the dependent variable, the gap between clergy and non-clergy returns increases until controls for occupation are added. In controlling for occupation, the non-clergy returns experience a near-level downward shift that contributes to the absence of an increasing gap between clergy and non-clergy returns under this specification.

The basic results suggest that increased education is positively correlated with both clergy and non-clergy wages (of both definitions), that the rate of return to education for non-clergy is consistently higher than clergy across different measures of respondent income, and that the opportunity cost for selecting into the clergy occupation is increasing. In other words, increasing years of schooling yield positive income benefits for both clergy and non-clergy generally. Choosing to enter the clergy, however,

Table 3. Years of Schooling Coefficients from Regressions on Natural Log of Wages

Year	Clergy*	Non-Clergy*	Gap	Non-Clergy**	Gap
1950	0.041***	0.067***	0.026	0.056***	0.015
	(0.014)	(0.001)	(.)	(0.001)	(.)
1960	0.035***	0.088***	0.053	0.064***	0.026
	(0.003)	(0.000)	(.)	(0.000)	(.)
1970	0.035***	0.092***	0.057	0.067***	0.032
	(0.004)	(0.000)	(.)	(0.000)	(.)
1980	0.025***	0.082***	0.057	0.067***	0.042
	(0.003)	(0.000)	(.)	(0.000)	(.)
1990	0.042***	0.108***	0.066	0.085***	0.043
	(0.003)	(0.000)	(.)	(0.000)	(.)
2000	0.044***	0.110***	0.066	0.086***	0.042
	(0.002)	(0.000)	(.)	(0.000)	(.)
2010	0.053***	0.128***	0.075	0.093***	0.040
	(0.002)	(0.000)	(.)	(0.000)	(.)

Note: I estimated the effect of education on the natural log of wages using OLS. Heteroskedastic robust standard errors are in parenthesis. *Models include state-level fixed effects. **Models include indicator variables for 25 census-defined occupation groups. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.
Source: Author's calculations.

Table 4. Years of Schooling Coefficients from Regressions on Natural Log of Total Personal Income

Year	Clergy*	Non-Clergy*	Gap	Non-Clergy**	Gap
1950	0.026***	0.072***	0.046	0.060***	0.034
	(0.010)	(0.001)	(.)	(0.001)	(.)
1960	0.035***	0.092***	0.057	0.073***	0.038
	(0.002)	(0.000)	(.)	(0.000)	(.)
1970	0.037***	0.099***	0.062	0.078***	0.041
	(0.003)	(0.000)	(.)	(0.000)	(.)
1980	0.033***	0.099***	0.066	0.081***	0.048
	(0.002)	(0.000)	(.)	(0.000)	(.)
1990	0.056***	0.120***	0.064	0.094***	0.038
	(0.002)	(0.000)	(.)	(0.000)	(.)
2000	0.059***	0.124***	0.065	0.097***	0.038
	(0.002)	(0.000)	(.)	(0.000)	(.)
2010	0.060***	0.135***	0.075	0.096***	0.036
	(0.002)	(0.000)	(.)	(0.000)	(.)

Note: I estimated the effect of education on the natural log of total personal income using OLS. Heteroskedastic robust standard errors are in parenthesis. *Models include state-level fixed effects. **Models include indicator variables for 25 census-defined occupation groups. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Source: Author's calculations.

requires an increasing sacrifice over time as workers forgo the potential monetary gains associated with their alternative occupational choices.

Table 3 reports the regression results for clergy and non-clergy with log income from wages as the dependent variable. Table 4 reports similar results for clergy and non-clergy with total personal income as the dependent variable. The gap between clergy's and non-clergy's return to school is indicated in two columns on each table. The first gap column compares the basic human capital earnings function returns, while the second gap column shows the difference between returns when occupational controls are added. The coefficient for years of schooling for clergy in Table 3 ($\beta 1$) is 0.041 in 1950 and 0.053 in 2010. For non-clergy in Table 3, the coefficient for years of schooling ($\beta 1$) is higher for all sample years, at 0.067 in 1950 and 0.128 in 2010.

The rate of return to education is best interpreted as the average percentage increase in respondent income associated with a one-year increase in schooling. These results suggest that non-clergy earned 7.5 percent more than clergy in 2010 for each additional year of schooling (4.0 percent when controlling for variation in occupation). The results in Table 4 are similarly described for the log of total personal income, suggesting that non-clergy earned 7.5 percent more than clergy for each additional year of schooling in 2010 (3.6 percent when controlling for variation in occupation).

The coefficient returns from Tables 3 and 4 are shown visually in Figures 3 and 4. Figure 3 depicts the return to schooling for clergy and non-clergy with the dependent variable log of income from wages, and Figure 4 shows results for the dependent variable log of total personal income.

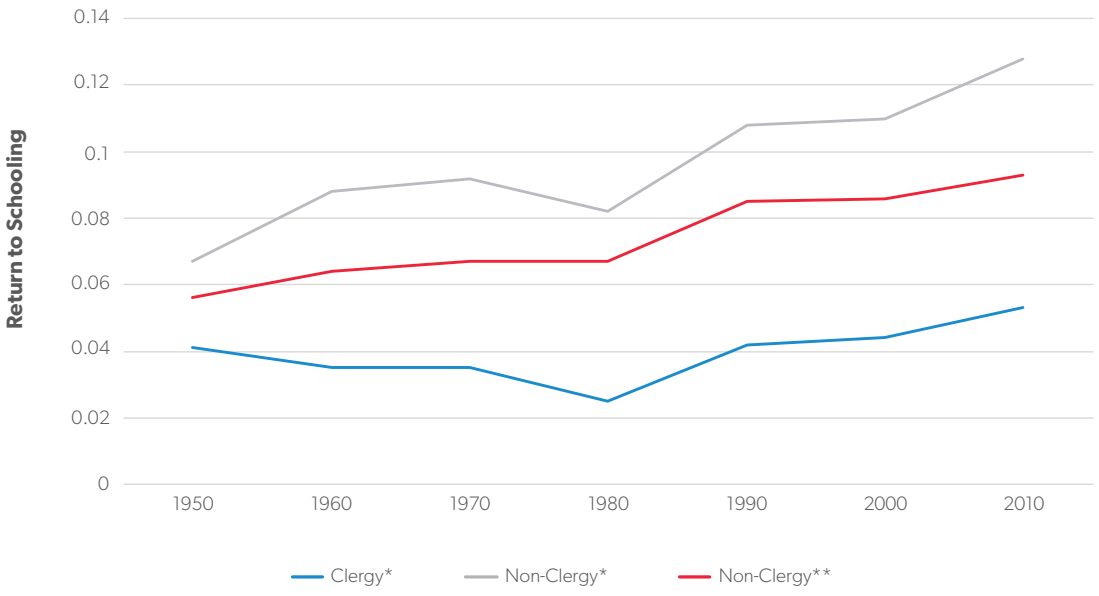
The return to schooling gap exhibits a slight off-trend disturbance in 1980 for all cases, either declining in value or remaining near constant (except for the total personal income regression controlling for occupation). This 1980 disturbance in the US wage structure is well-documented among labor economists, although much disagreement exists in the cause behind the disturbance. Lawrence Katz and Kevin Murphy adapt a simple supply-and-demand framework for changes in the US wage structure and hold that rapid growth for more educated, more skilled, and female workers appears to be the driving forces behind the 1967–83 changes.[41] More specifically, they highlight increased skill differentials from industry shifts in labor demand and skill-biased technological change as contributors toward the 1980s disturbance.

Blacks. The labor market for black clergy warrants a separate analysis from the primary clergy set. Descriptively, the percentage of black clergy (as a proportion of the total number of clergy) has decreased from 1950 to 2000. (See Table 1 and Figure 1.) Black clergy made up 10.13 percent of the market in 1950, declined to 5.49 percent in 1990, and have since increased to 7.64 percent in 2010. This trend contrasts with the percentage of blacks in the population, which has remained effectively constant over the same period.[42]

Figure 5 shows the change in mean wage (over time) for black clergy evaluated at various education levels and the mean years of schooling attained by black clergy in each year. Figure 6 shows the same information for black non-clergy. As seen from the figures, the mean years of schooling for both occupational groups are increasing over time, with black clergy being more highly educated in all years. There is, most notably, a dramatic rise in mean years of schooling for black non-clergy over the period. The years of schooling coefficients for blacks increased from 1950 to 2010 in a trend similar to the entire population sample (Tables 8 and 9).

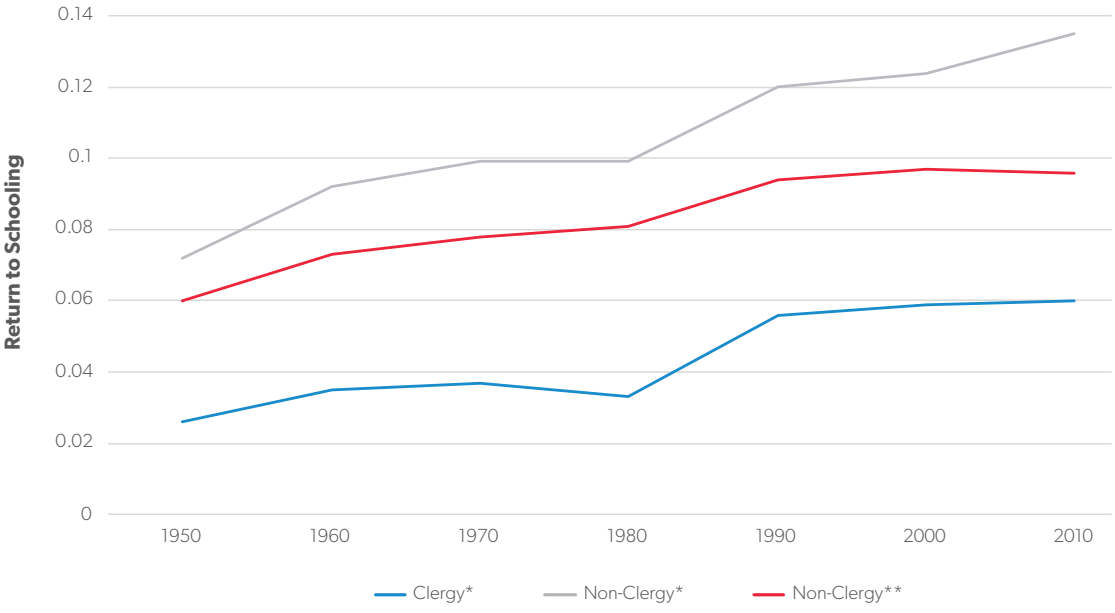
Before 1970, the results show that black clergy earned lower wages than the reference group.[43] From 1970 to 2010 the difference in income from wages earned by black clergy are not statistically different from the reference or converge to zero (Tables 5–7). Black clergy's wages were 45.1 percent less than white clergy's in 1950 and 33.5 percent less in 1960. When considering total personal income, black clergy received less than white clergy during the extended period 1950–90. This statistic decreased from 38.3 percent in 1950 to 6.7 percent in 1990. The

Figure 3. Return to Schooling for Clergy and Non-Clergy (Income from Wages), 1950–2010



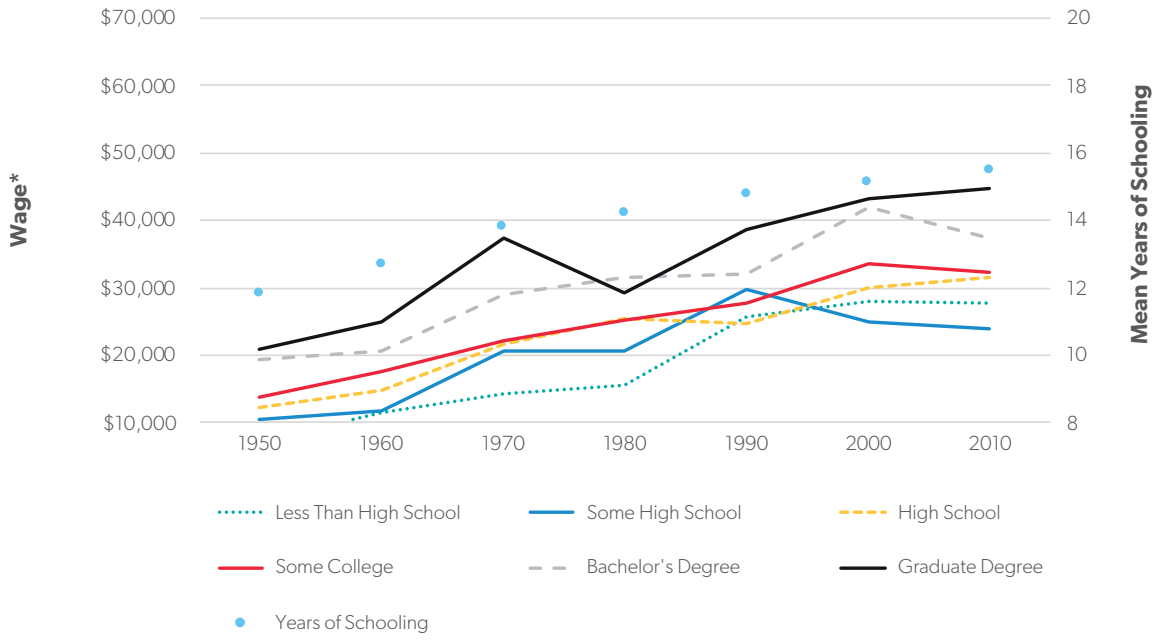
Note: *Controlling for state fixed effects. **Controlling for state and occupation fixed effects.
Source: Author.

Figure 4. Return to Schooling for Clergy and Non-Clergy (Total Personal Income), 1950–2010



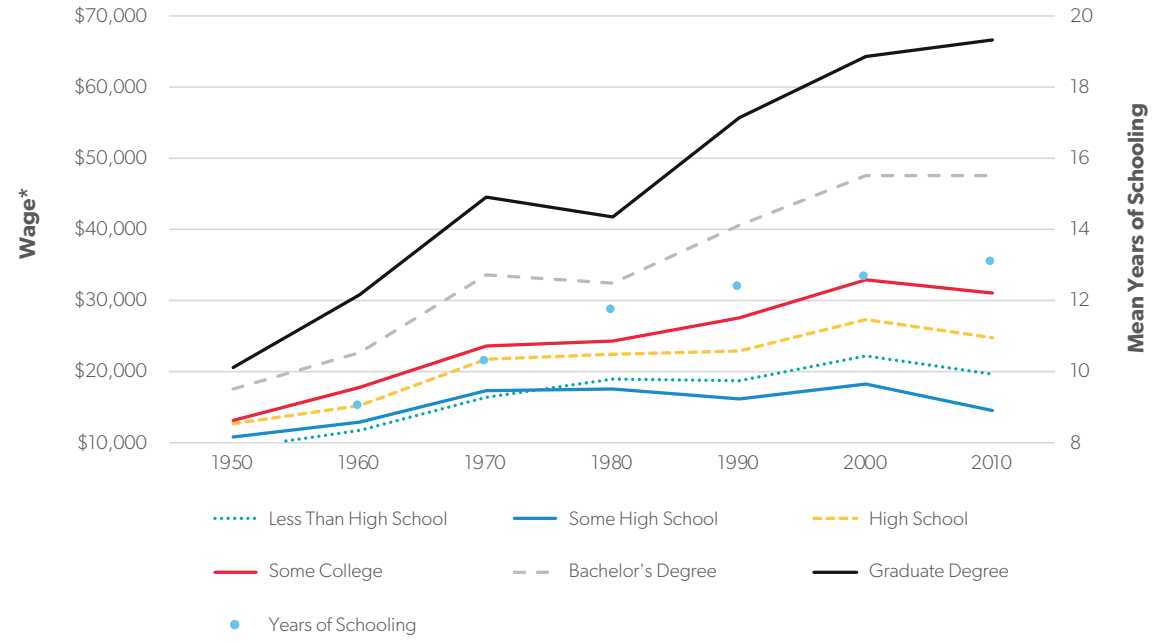
Note: *Controlling for state fixed effects. **Controlling for state and occupation fixed effects.
Source: Author.

Figure 5. Black Clergy Wages and Schooling, 1950–2010



Note: *Wages are inflated to 2010 dollars.
Source: Author.

Figure 6. Black Non-Clergy Wages and Schooling, 1950–2010



Note: *Wages are inflated to 2010 dollars.
Source: Author.

Table 5. Regression Results for Clergy Sample, 1950–2010

Variable	1950	1960	1970	1980	1990	2000	2010
Years of Schooling	0.041***	0.035***	0.035***	0.025***	0.042***	0.044***	0.053***
	(0.014)	(0.003)	(0.004)	(0.003)	(0.003)	(0.002)	(0.002)
Age	0.076***	0.109***	0.115***	0.131***	0.126***	0.110***	0.119***
	(0.020)	(0.005)	(0.008)	(0.005)	(0.004)	(0.003)	(0.003)
Age^2	–0.001***	–0.001***	–0.001***	–0.001***	–0.001***	–0.001***	–0.001***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Male	0.481*	0.654***	0.430***	0.411***	0.390***	0.339***	0.383***
	(0.264)	(0.078)	(0.101)	(0.040)	(0.024)	(0.019)	(0.016)
Hispanic	–0.492	–0.146**	0.022	–0.089	–0.137***	–0.143***	–0.156***
	(0.530)	(0.059)	(0.106)	(0.060)	(0.050)	(0.036)	(0.031)
Black	–0.451***	–0.335***	–0.086	0.068*	0.056*	0.073***	–0.025
	(0.171)	(0.037)	(0.055)	(0.037)	(0.029)	(0.024)	(0.022)
R-Squared	0.24	0.17	0.19	0.13	0.17	0.16	0.18
N	385	8,600	3,928	12,221	18,106	21,586	26,271

Note: I estimated the effect of education on the natural log of wages using OLS. Heteroskedastic robust standard errors are in parenthesis. All models include census division fixed effects. *p < 0.10, ** p < 0.05, *** p < 0.01.
Source: Author's calculations.

Table 6. Regression Results for Non-Clergy Sample, 1950–2010

Variable	1950	1960	1970	1980	1990	2000	2010
Years of Schooling	0.067***	0.088***	0.092***	0.082***	0.108***	0.110***	0.128***
	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Age	0.134***	0.174***	0.168***	0.171***	0.182***	0.174***	0.200***
	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Age^2	–0.001***	–0.002***	–0.002***	–0.002***	–0.002***	–0.002***	–0.002***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Male	0.712***	0.946***	0.845***	0.733***	0.600***	0.507***	0.460***
	(0.005)	(0.001)	(0.002)	(0.001)	(0.001)	(0.001)	(0.001)
Hispanic	–0.075***	–0.050***	–0.019***	–0.039***	–0.036***	–0.028***	–0.021***
	(0.017)	(0.003)	(0.004)	(0.002)	(0.002)	(0.002)	(0.002)
Black	–0.376***	–0.413***	–0.201***	–0.150***	–0.156***	–0.135***	–0.177***
	(0.008)	(0.002)	(0.003)	(0.002)	(0.001)	(0.001)	(0.001)
R-Squared	0.30	0.38	0.39	0.33	0.34	0.34	0.36
N	165,481	3,351,411	1,732,419	5,381,382	6,195,914	6,953,466	7,401,067

Note: I estimated the effect of education on the natural log of wages using OLS. Heteroskedastic robust standard errors are in parenthesis. All models include census division fixed effects. *p < 0.10, ** p < 0.05, *** p < 0.01.
Source: Author's calculations.

Table 7. Regression Results for Non-Clergy Sample with Occupational Controls, 1950–2010

Variable	1950	1960	1970	1980	1990	2000	2010
Years of Schooling	0.056***	0.064***	0.067***	0.067***	0.085***	0.086***	0.093***
	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Age	0.102***	0.157***	0.152***	0.156***	0.169***	0.161***	0.182***
	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Age^2	–0.001***	–0.002***	–0.002***	–0.002***	–0.002***	–0.002***	–0.002***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Male	0.540***	0.889***	0.790***	0.669***	0.554***	0.440***	0.395***
	(0.006)	(0.001)	(0.002)	(0.001)	(0.001)	(0.001)	(0.001)
Hispanic	–0.018	0.015***	0.007*	–0.022***	–0.009***	–0.002	0.020***
	(0.016)	(0.003)	(0.004)	(0.002)	(0.002)	(0.002)	(0.001)
Black	–0.244***	–0.193***	–0.091***	–0.097***	–0.103***	–0.096***	–0.126***
	(0.008)	(0.002)	(0.003)	(0.002)	(0.001)	(0.001)	(0.001)
R-Squared	0.41	0.44	0.43	0.37	0.38	0.38	0.41
N	165,481	3,351,411	1,732,419	5,381,382	6,195,914	6,953,466	7,401,067

Note: I estimated the effect of education on the natural log of wages using OLS. Heteroskedastic robust standard errors are in parenthesis. All models include census division fixed effects. This model includes occupational controls. *p < 0.10, ** p < 0.05, *** p < 0.01.
Source: Author's calculations.

Table 8. Regression Results for Black Sample, 1950–2010

Variable	1950	1960	1970	1980	1990	2000	2010
Years of Schooling	0.054***	0.082***	0.099***	0.095***	0.118***	0.125***	0.137***
	(0.003)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Clergy	–0.737	0.12	0.396**	0.714***	1.234***	1.066***	1.335***
	(0.492)	(0.115)	(0.183)	(0.131)	(0.140)	(0.119)	(0.122)
Schooling x Clergy	0.053	–0.021***	–0.049***	–0.069***	–0.099***	–0.084***	–0.097***
	(0.037)	(0.008)	(0.012)	(0.008)	(0.009)	(0.008)	(0.008)
Age	0.109***	0.148***	0.142***	0.178***	0.184***	0.160***	0.187***
	(0.003)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Age^2	–0.001***	–0.002***	–0.001***	–0.002***	–0.002***	–0.002***	–0.002***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Male	0.821***	0.973***	0.711***	0.457***	0.324***	0.257***	0.179***
	(0.015)	(0.004)	(0.005)	(0.003)	(0.003)	(0.002)	(0.003)
R-Squared	0.34	0.37	0.31	0.27	0.31	0.28	0.32
N	17,108	341,130	174,425	546,213	574,277	708,636	689,325

Note: I estimated the effect of education on the natural log of wages using OLS. Heteroskedastic robust standard errors are in parenthesis. All models include census division fixed effects. *p < 0.10, ** p < 0.05, *** p < 0.01.
Source: Author's calculations.

Table 9. Regression Results for Black Sample with Occupational Controls, 1950–2010

Variable	1950	1960	1970	1980	1990	2000	2010
Years of Schooling	0.032***	0.042***	0.065***	0.072***	0.088***	0.094***	0.095***
	(0.003)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Clergy	–0.156	–0.423***	–0.162	0.276**	0.723***	0.571***	0.664***
	(0.478)	(0.113)	(0.180)	(0.128)	(0.137)	(0.118)	(0.120)
Schooling x Clergy	0.077**	0.025***	–0.008	–0.041***	–0.064***	–0.052***	–0.053***
	(0.035)	(0.008)	(0.012)	(0.008)	(0.009)	(0.008)	(0.008)
Age	0.081***	0.130***	0.136***	0.165***	0.170***	0.147***	0.171***
	(0.003)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Age^2	–0.001***	–0.001***	–0.001***	–0.002***	–0.002***	–0.002***	–0.002***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Male	0.661***	0.835***	0.647***	0.429***	0.320***	0.238***	0.172***
	(0.018)	(0.004)	(0.006)	(0.003)	(0.003)	(0.003)	(0.003)
R-Squared	0.45	0.43	0.37	0.31	0.35	0.32	0.36
N	17,108	341,130	174,425	546,213	574,277	708,636	689,325

Note: I estimated the effect of education on the natural log of wages using OLS. Heteroskedastic robust standard errors are in parenthesis. All models include census division fixed effects. This model includes occupational controls. *p < 0.10, ** p < 0.05, *** p < 0.01.
Source: Author's calculations.

result is not statistically different from zero in 2000 and 2010. These results imply a shrinking income and wage inequality that converges to zero for race comparisons among clergy.

In the non-clergy cohort, however, the inequality gap for wages (when controlling for occupation) remains significant, falling from –37.6 percent for black non-clergy in 1950 to –17.7 percent in 2010, and for total personal income falling from –34.1 percent in 1950 to –18.9 percent in 2010 (Tables 5–7). The results suggest that among non-clergy, black workers earn significantly less than the reference group (over all years and with occupation controls).

Tables 8 and 9 show the regression results detailing trends in the black labor market from 1950 to 2010. These results suggest that while years of schooling increase for black workers similar to the non-clergy cohort in the full sample, there exists an increasing premium for blacks entering the clergy post-1970 (as compared to other occupations held by black workers). As schooling increases, however, the occupational return to being a clergyman declines for black workers. When controlling for occupation, the results are consistent, showing only a magnitude decrease in the return coefficients.

Overall, the data suggest a premium for less-educated blacks who choose to enter the clergy over all other occupations held by similarly educated blacks in the sample. While a more rigorous evaluation of these next trends is warranted, it also appears that black clergy (at the mean) earn the same or more than their educationally equivalent counterparts of other races post-1980 (Tables 5–7). Additionally, from 1970 until 2010, highly educated black clergy appear to earn a slight premium on all other clergy of the same education cohort.[44]

Women. In recent decades, the labor market for clergy has seen a rapid rise in feminization. The percentage of women clergy (as a proportion of the total number of clergy) increased dramatically from 1950 to 2010. (See Table 1 and Figure 1.) In 1950, female clergy

accounted for 2.6 percent of the market, and by 2010, 18 percent of clergy in the US were female. The majority of this increase took place in the decades since 1980 when females accounted for only 5.4 percent of the market. While shifts in theology, organizational leadership, and other progressive factors have certainly played a role in the ordination of more women into the clergy occupation, decreasing opportunity costs for female clergy (and rising opportunity costs for male clergy) could also explain the rise in female participation rates.

Tables 10 and 11 show the regression results detailing trends in the female labor market from 1950 to 2010. Over 1980–2010, female labor force participants saw an increase in their return to schooling from 9.4 to 13.5 percent. (These values experience a level shift decline when controlling for occupation.) During this same period, females experienced an average occupational premium of 64 percent for entering the clergy (Table 10). This occupational premium declines as schooling increases. When controlling for occupation, the clergy premium is not statistically different from zero, and female clergy still receive a negative return on each additional year of schooling. Figures 7 and 8 show the change in mean wage (over time and inflation adjusted) for all females evaluated at various education levels. Figure 7 includes data on clergy, while Figure 8 shows data for non-clergy.

The data also suggest that male clergy earn significantly more than female clergy. Males earn 47.2 percent more than female clergy on average over the sample period, decreasing from 65.4 percent in 1960 to 38.3 percent in 2010. When considering total personal income, the data are similar, decreasing from 83.2 percent in 1960 to 41.8 percent in 2010. Additionally, this gender-based income disparity is lower for clergy than non-clergy for all sample years. In their recent work, Guido Matias Cortes, Nir Jaimovich, and Henry E. Siu show that gains in the high-skilled labor market have not been equally distributed across genders.[45]

Looking at education, the mean years of schooling for female clergy and non-clergy are increasing over the sample period. Female clergy are historically more highly educated than female non-clergy. Before 1980, female clergy were (at the mean) less educated than male clergy, but since 1980 the education gap among clergy has nearly disappeared.

Discussion and Conclusion

With this report, I examine the financial incentives facing clergy members and provide a descriptive study of clergy compensation relative to other occupations, examining changes in the returns to schooling. I find significant statistical evidence that supports a higher rate of return to schooling for non-clergy overall and an increasing gap between clergy and non-clergy returns over the sample period. Additionally, the data suggest that the clergy could be a substitute for schooling for less-educated African Americans and that the rise of women selecting into the occupation could be partially explained by decreasing opportunity cost for female clergy.

In discussing the results, I highlight the cases where clergy exhibit a rising opportunity cost in labor supply. The issues surrounding this rise include the effects on clergy composition in the US and the impacts rising opportunity costs bear on the markets for black and female clergy. Additionally, these results open a conversation into whether overall church quality is declining in the US and whether the church should be concerned about the exodus of potential talent and leadership.

In analyzing the report's general result of a higher rate of return to schooling for non-clergy and an increasing gap between clergy and non-clergy returns, there exist two competing theories. One possible conclusion, in line with the traditional labor market theory, suggests that rising opportunity cost for clergy would result in a decline and exodus of talent. Another theory considers the role of sacrifice and stigma in the clergy occupation. While both theories yield different conclusions, they are not necessarily mutually exclusive.

Traditional labor market theory suggests that rising opportunity cost for clergy would hurt the quality of individuals selecting into the profession.

Table 10. Regression Results for Female Sample, 1950–2010

Variable	1950	1960	1970	1980	1990	2000	2010
Years of Schooling	0.097***	0.115***	0.105***	0.094***	0.120***	0.121***	0.135***
	(0.002)	(0.000)	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)
Clergy	0.034	0.680***	0.179	0.625***	0.614***	0.570***	0.751***
	(0.906)	(0.263)	(0.322)	(0.197)	(0.148)	(0.119)	(0.102)
Schooling x Clergy	–0.014	–0.068***	–0.016	–0.060***	–0.059***	–0.057***	–0.068***
	(0.080)	(0.020)	(0.021)	(0.012)	(0.009)	(0.007)	(0.006)
Age	0.093***	0.119***	0.114***	0.126***	0.148***	0.154***	0.181***
	(0.002)	(0.000)	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)
Age^2	–0.001***	–0.001***	–0.001***	–0.001***	–0.002***	–0.002***	–0.002***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
R-Squared	0.17	0.18	0.18	0.16	0.22	0.26	0.30
N	55,074	1,226,993	708,872	2,397,591	2,915,125	3,324,383	3,611,709

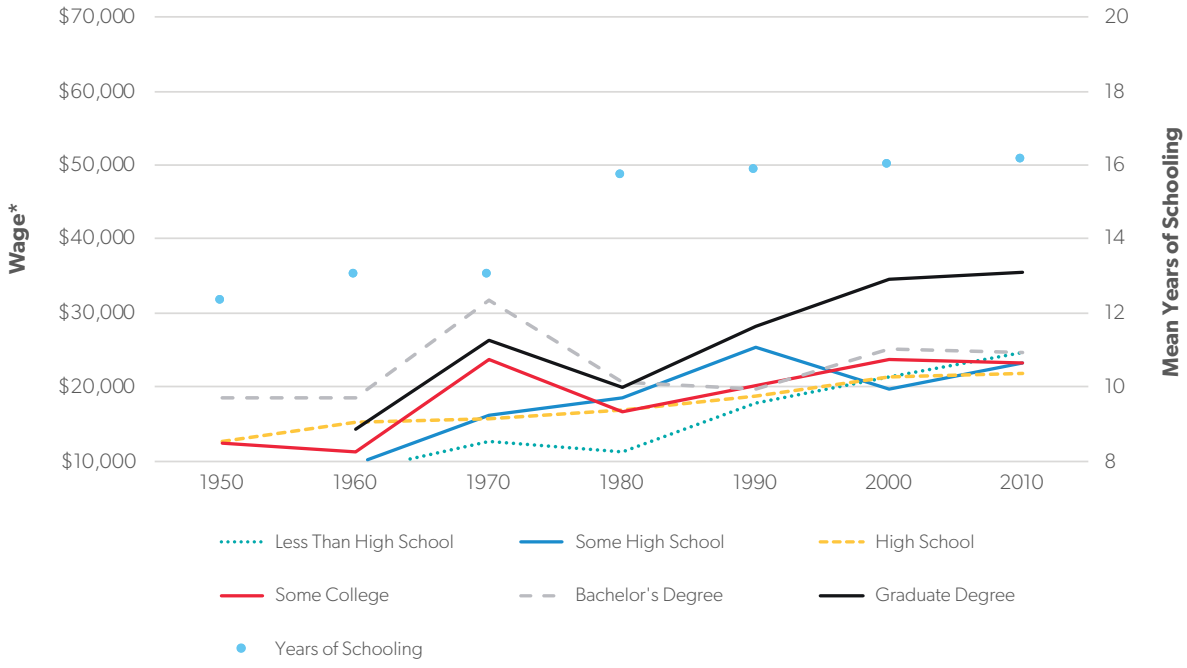
Note: I estimated the effect of education on the natural log of wages using OLS. Heteroskedastic robust standard errors are in parenthesis. All models include census division fixed effects. *p < 0.10, ** p < 0.05, *** p < 0.01.
Source: Author's calculations.

Table 11. Regression Results for Female Sample with Occupational Controls, 1950–2010

Variable	1950	1960	1970	1980	1990	2000	2010
Years of Schooling	0.058***	0.054***	0.058***	0.067***	0.092***	0.093***	0.096***
	(0.002)	(0.000)	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)
Clergy	0.376	–0.222	–0.746**	0.182	0.174	0.132	0.136
	(0.880)	(0.263)	(0.323)	(0.195)	(0.148)	(0.118)	(0.101)
Schooling x Clergy	0.026	–0.001	0.035	–0.031**	–0.029***	–0.027***	–0.027***
	(0.078)	(0.019)	(0.021)	(0.012)	(0.009)	(0.007)	(0.006)
Age	0.069***	0.105***	0.100***	0.110***	0.133***	0.139***	0.161***
	(0.002)	(0.000)	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)
Age^2	–0.001***	–0.001***	–0.001***	–0.001***	–0.001***	–0.001***	–0.002***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
R-Squared	0.36	0.29	0.26	0.22	0.28	0.32	0.36
N	55,074	1,226,993	708,872	2,397,591	2,915,125	3,324,383	3,611,709

Note: I estimated the effect of education on the natural log of wages using OLS. Heteroskedastic robust standard errors are in parenthesis. All models include census division fixed effects. This model includes occupational controls. *p < 0.10, ** p < 0.05, *** p < 0.01.
Source: Author's calculations.

Figure 7. Female Clergy Wages and Schooling, 1950–2010



Note: *Wages are inflated to 2010 dollars.
Source: Author.

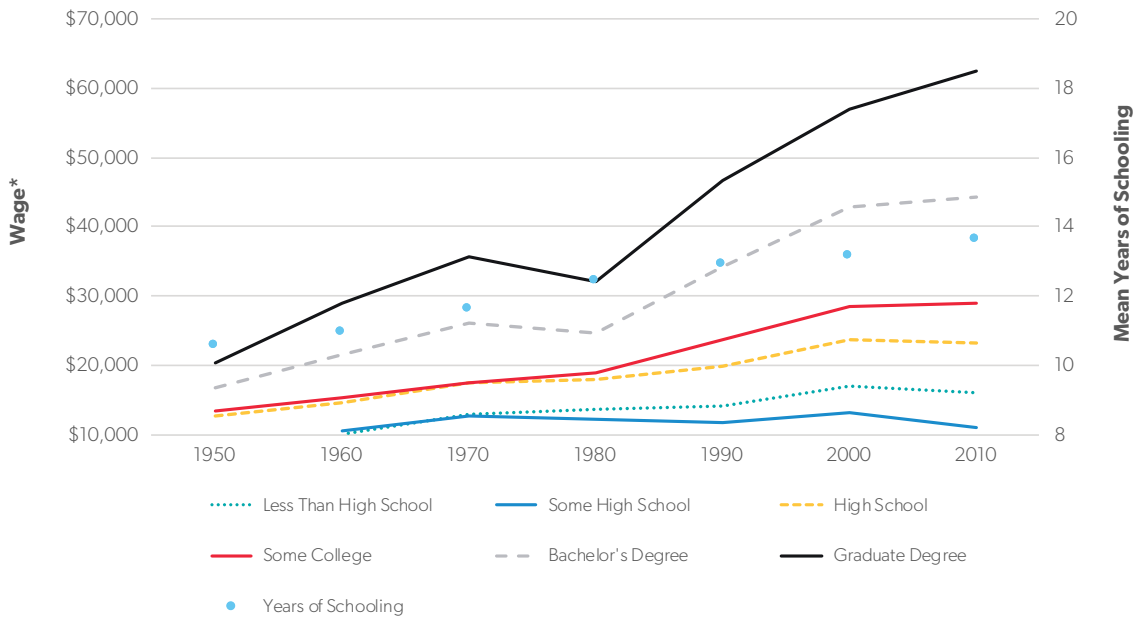
Ministers and potential clergy regularly make utility-maximizing decisions regarding the duration and intensity of their work.[46] Additionally, practical concerns over financial security and fair wages remain salient for many clergy.[47] Therefore, the potential highest-quality clergy likely choose other occupations with more lucrative income benefits, never even entering the labor market for clergy. And if the clergy of today are of lower quality than those in the past, then declines in American church attendance over time could have been a direct result.

An alternative theory arises out of the club-good theory of religious organizations.[48] Under this approach to explaining religious behavior, churches are clubs that produce a public good for their members; think of high-quality worship services and teaching, opportunities to do good works for others, and a form of social insurance among members. Such clubs are prone to abuse by free riders, people who consume the church's product without contributing to it. To combat free riding, churches require (or at least use strong social pressure to expect) sacrifices from their members. In this way, church members willing to incur the cost of the sacrifice are those who participate most vigorously in generating the church's product, increasing the overall value of the club good by more than the personal cost of the sacrifice.

The outcome suggested by the club theory of churches is that an increasing opportunity cost of joining the clergy could screen less-committed individuals out of the occupation; they become bankers and lawyers instead. As a result, only the most devoted and highest-quality ministers end up in the profession. Both the traditional labor market approach and the club-goods approach offer plausible explanations of the consequences of the increased opportunity cost of entering the ministry; whether one dominates the other in reality is an empirical question that needs to be taken to the data.

For the African American church, the data suggest a premium for less-educated blacks who choose to enter the clergy. In this way, the clergy occupation

Figure 8. Female Non-Clergy Wages and Schooling, 1950–2010



Note: *Wages are inflated to 2010 dollars.
Source: Author.

functions as a substitute for additional years of schooling for blacks. Black labor force entrants on the margin can maximize their income by entering the clergy instead of pursuing more education. While a more rigorous evaluation of these trends is warranted, it also appears that black clergy (at the mean) earn the same or more than their educationally equivalent counterparts of other races post-1980. Additionally, from 1970 until 2010, highly educated black clergy appear to earn a slight premium on all other clergy of the same education cohort. These general results could indicate that African American congregations place a higher value on their clergy (of all educational attainment and when compared to other congregations).

Rising opportunity costs could also help explain the rise in female ordination. The data suggest a dramatic increase in the number of women selecting into the clergy occupation, as the proportion of female clergy increases over time. While some denominations prohibit or discourage hiring women, such as Roman Catholics and conservative Protestants, females represent nearly a third of students training in Protestant seminaries, and the percentage of congregations led by women is expected to rise.[49] The large gap in return to schooling for men (and their increasing opportunity cost) could increase the demand for female clergy, especially in smaller, lower-paying congregations. Additionally, increasing return to schooling for clergy as a whole, combined with a rise in nondiscriminatory denominations, could make the clergy more favorable than the previous occupational choices of women.

Further research into clergy labor markets could provide substantial insights into the state of American churches and other religious organizations. With clergy compensation and return to schooling more specifically, the potential conclusions from these results play an important role in the conversations of whether overall church quality is declining in the US and whether the church should be concerned about the exodus of talent to other professions. A decline in

the quality of clergy could help explain the increasing lack of identification with religion among Americans.

On the other hand, ministers might respond to a higher opportunity cost by becoming more entrepreneurial, taking advantage of new technologies to build bigger churches able to pay more and somewhat make up the pay gap incurred by entering the ministry. Similarly, smaller churches lacking the resources to pay more might change to female ministers, especially those whose spouses also earn high salaries.

Despite a small number of top entrepreneurial ministers who serve large congregations and amass a large following, clergy's income has almost always been less than other highly educated professions. While few choose to enter the clergy simply because of the monetary and nonpecuniary benefits, as Becky McMillan and Matthew Price acknowledge, the issue of clergy compensation cannot simply be ignored.[50] With these results, should it surprise us when high-ability, highly talented, and achievement-oriented college students overlook the ministry when making occupational decisions? The results from this report establish the stylized facts necessary to approach this question and many of the larger compositional problems facing the state of American religion.

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25. In this report, the primary empirical question centers around return to schooling. It is important to distinguish between a return to schooling and a return on investment. Return to schooling refers to the increase in wage received from additional education. It is in no way the same as return on educational investment, which refers to the gain (loss) associated with the cost of attending school. This sentence discusses return on investment as an illustrative concept to link trends of increased competitiveness and educational differentiation among clergy.

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32. Wildhagen, Mueller, and Wang, "Factors Leading to Clergy Job Search in Two Protestant Denominations."

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35. Public-use microdata samples for the 2010 census have yet to include variables related to education and earnings.

36. Years of schooling are calculated based on the census classification scheme for highest grade attended. Grade levels correspond to a single year of schooling, and numerical values 0 (for no schooling) through 12 (high school graduates) are assigned. Each degree conferred beyond high school is assigned a value calculated as the average number of years to complete the degree + 12 years (i.e., one year of college = 13; bachelor's degree conferred = 16; and master's degree conferred = 18).

37. Note that sample percentages are labeled in the column header.

38. Jacob A. Mincer, *Schooling, Experience, and Earnings* (Cambridge, MA: National Bureau of Economic Research, 1974), 83–96.

39. Potential experience is traditionally calculated: *Experience = Age – Schooling – 6*.

40. "Gap" refers to the difference between returns for clergy and non-clergy for each year evaluated in the sample. The numerical representation of each gap represents the forgone (opportunity) cost of selecting into the clergy (or the premium of non-clergy returns to schooling over clergy returns) as opposed to all other occupations (holding all else constant).

41. Lawrence F. Katz and Kevin M. Murphy, "Changes in Relative Wages, 1963–1987: Supply and Demand Factors," *Quarterly Journal of Economics* 107, no. 1 (February 1992): 35–78, https://scholar.harvard.edu/files/lkatz/files/changes_in_relative_wages_1963-1987_supply_and_demand_factors.pdf.

42. Historically, blacks represent 10 percent of the total representative samples in each year. See Table 1.

43. The reference group for all regressions on the black sample is non-Hispanic whites.

44. "Highly educated" refers to respondents in the cohorts having obtained bachelor's or graduate degrees. For a visual representation of this statement from the data, compare Figures 2 and 5.

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48. Iannaccone, "Sacrifice and Stigma."

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