

College of the Holy Cross  
Economics and Accounting Research Methods, Professor Justin Svec

# Prospectus

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The Effects of Ca<sup>0</sup> g<sup>0</sup> f<sup>0</sup>TM<sup>282n4/5</sup> gs<sup>280(e)</sup>-rgy(n 4)

**Introduction:**

abuse scandal in the United States in January of 2002, the Boston Globe published an article exposing Boston priest John Geoghan of his long record of sexual abuse which was followed by an extensive amount of reporting on the Catholic clergy sexual abuse scandal throughout 2002 and into 2003. This was a turning point for Catholics who began to question their dedication to their religiosity, their confidence in (i)7(c)7(s)-27( w)-69B7elho

however, rather than studying the broad nationwide change in the Catholic population throughout 2004 and 2008, I will analyze publication data state-by-state in order to evaluate how the amount of reporting in certain states impacts the declining Catholic population in that state in the year following the resurgence of scandals. I also collected data on the number of events of sexual abuse allegations state-by-state in order to evaluate how much of the decline in the Catholic population in a certain state was attributed to the publication surrounding the events and how much of the decline resulted from the actual events themselves.

### **Background:**

In both of their studies, Nick Bottan (2015) and Dan Hungerman (2011) provide evidence that, as allegations spiked in 2002 and 2003, there was a statistically significant decline in Catholic membership, church attendance, and institutional participation. Other scholars conducted further research to analyze the effects of decreased church participation on other factors measuring Catholic religiosity. Suzanne Clain (2006) supports the theory that contributions of time and money are complementary for Catholic households—church members who participate more in their church communities and attend mass more often also contribute more monetary donations to their parishes. Therefore, it would be expected for the decrease in the Catholic population throughout 2002 to be matched by a complementary decrease in funding and monetary donations provided to the Catholic church. As Catholics are leaving the church and participating less and less in parish activities, there is less incentive to donate to institutions which have proven to be corrupt and which go against the values of their faith. At the same time the nationwide decrease in Catholic participation in 2002 caused a decline in monetary support and funding to the Catholic church, many parishes were also experiencing

of these allegations (Dills 2010). These funds that were spent on settlement costs may have been able to contribute to the maintenance of funds to the Catholic church; however, other literature the intense decline in giving are more significant than the direct costs of legal expenses (Bottan 2013). The combination of both the decrease in monetary funding from a lack of church participation as well as the large settlements paid by Catholic institutions caused the finances of the church to take a hard hit in the early 2000s.

Negative publicity surrounding events of sexual abuse also initiated a decline in both the number of Catholic schools in the United States as well as the national enrollment rates at these Catholic institutions. Angela Dills reported that between 1990 and 2007, the number of Catholic schools decreased by 14% and the enrollment rates at Catholic institutions decreased by 7% due to both public disclosure and news coverage of sexual assaults at the diocesan level (Dills, 2010). As mentioned by Bottan, an apparent reason for this decline was the decreased desire of discouraged Catholic parents to send their children to Catholic schools and the decreased demand for these Catholic institutions after allegations continued to become publicized (Bottan, 2015). Dills also mentioned the decreased financial ability of the Catholic church to finance Catholic schools in certain regions. As Catholic members left the religion, their funding decreased, and they no longer supported their parishes looking to uphold private Catholic institutions. The National Catholic Educational Association provides evidence that this decreased enrollment and Catholic school participation was not short-lived starting in 2007 and trending throughout 2014 and 2018, NCEA data shows that the overall number of Catholic schools has decreased throughout the country, with some regions facing a more intense decline than others (NCEA).



significant effects actually came in the long-term period of three to eight years after the scandal, especially as more cases began to arise many years after 2002. As reiterated by Dills, the decreased funding to Catholic establishments caused Catholic institutions to be unable to pay wages to their religious employees; therefore, the long-lasting decrease in funding to the Catholic church was matched by a continuous decline in the number of religious employees working at religious establishments across the country (Bottan 2013).

These substantial long-term effects are potentially attributable to the fact that after the first allegation, an increased number of victims came out with allegations and encouraged more survivors to speak out about their abuse. Cylor Spaulding found that when priests have more time to speak out about their perspective on the events that took place and contemplate their allegations in the long-term period after they are accused, they often become inconsistent with their stories, causing Catholics to become more suspicious of clergy and more sympathetic towards victims (Spaulding, 2013). The negative effects these scandals on the number of

2002 allegations of sexual assault in the Catholic church continued to be reported and publicity surrounding these reports permeated throughout the rest of the decade and had a significant effect on the Catholic population across the country.

### **Research Question:**

This paper will aim to answer the question of how the magnitude of scandal publications within states in 2007 based on the number of articles published about the Catholic clergy sexual abuse scandal that took place in that designated location throughout the year has affected the number of self-reported Catholics in that state. Does a heightened number of articles published in the state in which Catholic clergy sexual abuse scandals took place cause more









publicized, it is likely that individuals in these areas were more inclined to leave Catholicism and move into the more mainstream practice of becoming religiously unaffiliated.

Adding to these regional findings, the National Catholic Educational Association reported a significant decline in the number of Catholic schools in the New England and Mideast

regional location makes a difference in religious affiliation and participation in this case, the NCEA data provides evidence that households in the Northeast region have become less inclined to send their children to Catholic schools in support of their Catholic parishes (NCEA). It is not surprising that a significant number of allegations and published articles came from the regions with the sharpest decline in Catholic school enrollment and incline in religious disaffiliation throughout 2007. Additionally, Hungerman (2011) provided evidence that states that were harder hit by the scandal had a larger population of Catholics leaving the Catholic church to join the Southern Baptist Church than states that were less hard-hit by scandals. These findings support

-by-region

impacts the number of Catholic participation and dedication in those regions the more reporting there is in a certain location, the more likely Catholics are to leave their faith, experiment with other denominations, and decrease their religious dedication and participation.

makes it more difficult to analyze the true effects of the scandals in 2007 on the Catholic and religiously unaffiliated population. This study will focus on a more specific period of time, comparing the number of self-identified Catholics in 2004 a year prior to and much closer to the 2007 resurgence to the number of self-identified Catholics in 2008 the year directly following these increased allegations. I will use the number of article publications released in



number of sexual abuse reports between the pre and post treatment years and what kind of effect the number of reported events had on the change in the Catholic population between 2004 and 2008. I was able to use data collected on the number of articles published in 2007 as well as data on the number of events that took place state by state in order to run regressions which allowed me to analyze how much of the decline in the Catholic population had to do with the isolated events themselves and how much of the decline had to do with the publicity and article publications after the events.

### **Model I:**

The pre-treatment year, 2004, and the post-treatment year, 2008, were analyzed in order to evaluate what kind of change took place in the Catholic population with the expectation of a decline after data was collected on events, allegations, and publicity within the three years between 2004 and 2008. I ran ordinary least squares regressions and first difference regressions in order to determine which factors contributed most to the decline in the Catholic population either the events themselves or publication surrounding the events that took place. In Tables 3, 4, and 5 below, I ran an ordinary least squares regression the statistics for which are in the middle column without accounting for the year being 2008. In the rightmost column, I added the additional specification of  $year=2008$  into the regression which transformed the variables by using a first difference regression. The coefficient estimates and standard errors are also reported below. The robust standard errors are in parentheses under each of the coefficients. Three asterisks next to the coefficient represents a significance level less than .01, two asterisks represent a significance level less than .05, and one asterisk represents a significance level less than .1.







**Table 3: Regression of Separate Total Events from 2005, 2006, and 2007 versus Regression of Total Events from 2005, 2006, and 2007 if Year is 2008**

Conditioning on three years of data provides a more precise estimate for the output variable of 2007 articles. By parsing out the years in which data on events of sexual assault across the country was collected (2005, 2006, 2007) rather than combining them all together as done in Table 4 there is more precision to the data because it makes the difference in Catholicism more true to the immediate impact of the news articles in 2007. It allows the data to be split up in a way that focuses less on the cumulative impact of the events and press coverage surrounding these events over the three years observed and focuses more on the immediate coefficient estimate is negative and statistically significant (-.0108\*\*), and, when compared to





number of events that took place year by year as done in Table 3, I combined all of the events

evaluate what kind of effect the combination of all the events would have as opposed to the three

negative (-

rightmost column in Table 3 where the total events were separated by year. This could mean that

the events that took place during the three years between 2004 and 2008 had less to do with the

cumulative effect of the combined events and more to do with the more recent events in 2007

that led to a sharp decline in 2008. As mentioned before, 2007 could have been a turning point

**Table 5: Regression of Total Events Per Capita versus Regression of Total Events Per Capita if Year is 2008**

	v1	v2	v3
		(1)	(2)
VARIABLES	catholic_diff	catholic_diff(if year==2008)	
totalevents_pc	-0.0643000 (0.1890000)		-0.0989000 (0.2340000)
articles2007	-0.0006820 (0.0043500)		-0.00704** (0.0032500)
religiousnones			<hr/>
	(0.1130000)		(0.1630000)
population	-0.0000500 (0.0000870)		0.0000017 (0.0001360)
populationhispanic	0.000834** (0.0004120)		0.00166*** (0.0003800)
Constant	1.2910000 (0.9970000)		1.7640000 (1.4820000)
Observations	96.0000000		48.0000000
R-squared	0.2610000		0.5550000

This regression was run taking into account the per capita effect on the number of total events. The reason this added per capita variable is important is because it takes into consideration the population across individual states. In states where there is a higher population, there will automatically be more cases of sexual assault since the Catholic church is more densely populated and therefore has a higher amount of clergy and laypeople within the state. In state where more sexual abuse events occur, there are more articles published about these events and more press coverage surrounding these events all across the state. A higher number of articles published within more densely populated states will therefore have a more significant effect on the number of Catholics leaving the church than states in which there are less Catholics and therefore less events and less publicity and press coverage surrounding scandals. The



After I ran this regression, I added an additional control variable which accounted for the actual, isolated events that took place in each state within the years 2005, 2006, and 2007 between the pre and post treatment years. This control variable allows for the number of events themselves to be factored into the declining Catholic population in order to evaluate how much of the decline in Catholicism was attributed to the isolated event of sexual abuse and how much of the decline was influenced by the publication and press coverage that was aired to the public after these events took place. The difference-in-

without using events as a control variable, and the data in the rightmost column, labeled  
while controlling  
for the number of events in each state. By adding this additional control variable, there is a better  
understanding of whether the isolated occurrence of the event had a more statistically significant  
and negative effect on the Catholic population or whether the articles published and the press  
coverage surrounding the events throughout 2007 had a more significant effect on the declining  
where events were factored in as a control variable is more negative (-1.199) than the

population; therefore, around 30% of the population in states with a higher number of article publications reported themselves Catholic. In 2008, after increased publication, states with a lower amount of publications faced a -.922 percent decline, which is less of a decline than when events were not controlled for, whereas states with a higher level of reporting faced an additional -1.199 decline, which is a more negative and drastic decline when compared to the regression run without events as a control. When events were not controlled for, states with more highly publicized allegations faced a -2.02% decline; however, when events were controlled for, states with more publicity surrounding sexual abuse in the Catholic church faced a more negative -2.12% decline in their Catholic population.

**Conclusion:**

The ordinary least squares regression run in Tables 3, 4, and 5 shows that the events that took place throughout the years in between the pre and post treatment years had a significant and negative effect on the difference in Catholicism by analyzing the coefficient estimate applied to each of the three regressions, it was clear from the more negative coefficients in each of the rightmost columns of the three tables that the events and publication surrounding the events had a direct and specific influence on the declining Catholic population beyond just a general change in the number of self-reported Catholics between the years 2004 and 2008. The negative coefficient proves that this decline was indeed a result of both the combination of the events and the press coverage that surrounded these events. The difference-in-difference regression run in Table 6 answers more specifically the question of how much of this decline could be attributed to the number of events and how much of the decline was a result of the publicity and press coverage aired after the events.





the incentive for Catholics in that state to leave their faith. By combining press coverage with the additional effect that the isolated occurrence of the events has on the Catholic population, it is clear that controlling for events leads to a more negative and drastic decline in the Catholic population and therefore prove to have a significant and lasting effect on the number of self-reported Catholics.

## Bibliography

Bottan, Nicolas L., and Ricardo Perez-

*Journal of Public Economics*  
129 (2015): 106–19. <https://doi.org/10.1016/j.jpubeco.2015.07.008>.

*Bishop Accountability: Abuse Tracker*, [www.bishop-accountability.org/AbuseTracker/](http://www.bishop-accountability.org/AbuseTracker/).

*American Journal of Economics and Sociology* 58, no. 4 (July 3, 2006): 923–46.  
<https://doi.org/10.1111/j.1536-7150.1999.tb03401.x>.

Dills, Angela K., and Rey Hernández-

*Economic Inquiry* 50, no. 1 (2010): 143–52. <https://doi.org/10.1111/j.1465-7295.2010.00342.x>.

Hu

Catholic Sex- *American Economic Journal: Economic Policy*, 2011.  
<https://doi.org/10.3386/w17589>.

*Gallup.com*, Gallup, 8 Nov. 2018, [news.gallup.com/poll/12091/tracking-religious-affiliation-state-state.aspx](http://news.gallup.com/poll/12091/tracking-religious-affiliation-state-state.aspx).

Research Institute, September 6, 2017. <https://www.ppri.org/wp-content/uploads/2017/09/PRRI-Religion-Report.pdf>.

Kosmin, Barry A., and Ariela Keysar. *American Nones: The Profile of the No Religion Population*. Paramount Market Publishing, 2008.

Kosmin, Barry A., and Ariela Keysar. *American Religious Identification Survey: Summary Report*. Paramount Market Publishing, 2009.

*National Catholic Educational Association*, Advanced Solutions International, Inc.

Smith, Gregory. *America's Changing Religious Landscape*. Pew Research Center, 2015, <https://www.pewforum.org/2015/05/12/americas-changing-religious-landscape/>.

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