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# RELIGIOSITY AND STATE WELFARE

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## ABSTRACT

The Catholic sex abuse scandals reduced both membership and religiosity in the Catholic Church. Because government spending on welfare may substitute for the religious provision of social services, we consider whether this plausibly exogenous decline in religiosity affected several measures of the public taste towards government spending on welfare between 1990 and 2008. In places where there were more scandals, individuals state a preference for less government provision of social services. In contrast, a higher level of abuse is also associated with an increase in voting for Democratic candidates for President and state legislatures, and an increase in per capita government welfare spending, although this increase is insufficient to replace the decrease in Catholic-provided charity.



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## I. Introduction

Many religious institutions provide services to the members of their congregations with in-kind transfers, such as providing poor families with Christmas toys or Thanksgiving dinner. In fact, one of the benefits of religious participation is the insurance it provides against income shocks through these transfers and similar practices (Dehejia, DeLeire, and Luttmer, 2007). Religious institutions also provide services for the general public such as soup kitchens, medical assistance, inexpensive resale clothing, and shelters for the homeless. Government provides similar services through programs such as food stamps, Medicaid, and unemployment insurance that offer protection against income loss.

The literature strongly supports that government welfare spending crowds out religious, charitable giving: as government provides more social services, individuals donate less to the charities that provide these services. Gruber and Hungerman (2007) estimate that the New Deal reduced church charitable spending by 30 percent. Hungerman (2005) demonstrates that the reduction in public welfare spending resulting from the 1996 Welfare Reform was partially offset by the Presbyterian Church (USA) increasing their charitable endeavors for the affected populations. His estimates of crowd-out effects ranged between twenty and thirty-eight cents on the dollar. Comparing across countries, Gill and Lundsgaarde (2004) find that increased government-provided welfare weakens support for religions.

This paper explores the converse. We know that as government programs expand, private charity decreases. But if religious charity diminishes, does government provision of social services grow? We examine whether a negative information shock about one religion increases the demand for the government provision of social services. Previous research documents similar behavior by government. Becker and Lindsay (1994) show that private philanthropic contributions to public institutions of higher education crowd-out government support of these institutions dollar-for-dollar.

In the wake of the Catholic sex abuse scandals, religiosity in the U.S. declined, particularly among Catholics (Hungerman, forthcoming and Perez-Truglia and Bottan, 2011). We re-establish this fact in the analysis below. Bottan and Perez-Truglia (2011) find that the abuse scandals reduced private charitable giving as well as the number of charitable organizations, particularly among Catholics. As church and state appear to be substitutes in providing social insurance, one would expect the decline in religiosity to strengthen support for government-provided welfare.

The evidence in support of this expectation is mixed. Responses in the General Social Survey suggest that individuals living where the reports of abuse were more prevalent increase their stated opposition to government provision of social services. We then examine whether voting patterns reflect this stated preference. We find the contrasting result that the scandals increased support for Democratic Party candidates in presidential and state legislative elections. In addition, actual welfare spending increased despite the stated preferences. Using state-level data on transfers per capita for family aid, Medicaid, Social Security Insurance, and food stamps, we find that the Catholic sex abuse scandals are associated with an increase in per capita government welfare spending of 7.9 percent for every one standard deviation increase in abuse. Most of the increase in spending appears to stem from Medicaid.

The outline of the paper is as follows. First, we review the history of the Catholic sex abuse scandals and discuss the construction of our data on these scandals. In Section III we outline the relationship between private charity and state welfare and discuss the implied relationship between religion and government. In Section IV, we describe the data on religiosity, welfare spending, and presidential voting. The results are presented in Section V. We discuss the results and their policy implications in the conclusion.

## II. Catholic sex abuse scandals in the United States[1]

In 2002, Cardinal Bernard Law resigned over his mishandling of the sex abuse scandals wracking the Catholic Church in the Boston archdiocese (see the *Boston Globe's* coverage of the scandals for more detailed information). Much of this abuse occurred in the 1970s, although many victims did not report it until much later; indeed, much of the reporting occurred in the wake of the extensive 2001 coverage of the scandals in Boston. The U.S. Conference of Catholic Bishops commissioned a report summarizing information provided by the Catholic Church from its archives on perpetrators and victims of abuse. The John Jay Report, published in 2004, found that 4,392 priests (about 4 percent) participated in abuse. Settlements related to sex abuse cases have cost the Church over three billion dollars (*The Economist*, 2012).

[1] Most of this section draws from Dills and Hernández-Julián (2011).

Although the data made available to the researchers of the John Jay report (2004) by the Catholic Bishops of the United States have not been made public, alternate measures of the publicity related to these scandals are available. Like previous work, including Dills and Hernández-Julián (2011), Hungerman (forthcoming), and Bottan and Perez-Truglia (2011), this paper focuses on negative publicity about the abuse. Scandals can be damaging regardless of their veracity: a marriage may fall apart based on allegations of infidelity and the suspicion of plagiarism can lead to the end of an academic career. A false positive on a drug test can lead an employer to fire a worker.[2] Allegations of a sexual nature may be particularly damaging and difficult to repudiate.

Expanding on the work in Dills and Hernández-Julián (2011), we generate a measure of negative publicity that tabulates the number of priests and nuns in each diocese involved in sexual abuse cases. The website www.bishopaccountability.org compiles and publishes the names of priests and nuns involved in sexual abuse cases as well as their current diocese, former dioceses, and current status within the Church (still with the Church, convicted, retired, or deceased). The site is run by a small staff as an educational enterprise, and its goal is to collect documents that allege abuse within the Catholic Church, using broad requirements for including documents. The website cites and includes allegations and the documents reporting the allegations. Notes about each offender include the dates the Church was informed about an incident, whether cases were filed or settled, and information on arrests, indictments, confessions, and convictions of clergy.

We use the dates that a priest or nun was arrested, was convicted, confessed, or settled his or her case. These dates mark events likely to capture public attention through newspaper articles, press releases, or court documents; we refer to these as public notice dates.[3] As a result, we have measures of when notice was brought to each offender and at which diocese. Typically, each offender has multiple dates—separate ones for their dates of arrest, indictment, confession, etc.—sometimes more than one of these happens in a single year. We consider only the earliest such event as the initial public notice; each

[2] Barnum and Gleason (1994) estimate that one third of those identified as drug users may be falsely accused.
[3] We assume that these public events accurately convey the timing and degree of the public information, though we realize that information on allegations may be known by the parishioners prior to being made public.

offender thus has one initial public notice date.[4] We aggregate these to the diocese level and have an annual total count of initial public notices for each diocese.

The impact of these notices is likely to compound over time. A single notice in a community may not be as meaningful as when it follows a long string of bad press in an area with a long history of abuse. We use the initial public notices to generate two measures accounting for the importance of historical information. The first sums all of the initial notices that we have on record for the entire history that bishopaccountability.org covers; this is the cumulative number of initial notices documented in that place up to that year. We also generate a second measure that aggregates the initial notices for the previous four-year period, as the effect of the notices may expire after some time.

In the analysis below, this offender-level data is aggregated to either the diocese- or state-level. The Catholic Church is organized into dioceses and archdioceses, each administered by a bishop or archbishop. There are 175 of these in the United States, with each state and the District of Columbia having at least one. Dioceses, for the most part, follow county lines.[5] Texas, at 14, is the state with the most dioceses. The average state has approximately 3.5 dioceses.

Figure 1 presents both the cumulative sum and 4-year sum of initial public notices by year from 1990-2008 for the U.S. In the mid-1990s, a spike in public notices steepens the trend. Public notices sharply increase again in 2002 and continue rising. These data measure the timing of the allegation rather than the timing of abuse. Allegations occur around the time of abuse as well as many decades afterwards, and many cases of abuse likely remain unreported. The pattern in Figure 1 accords with the distribution of dates presented in the John Jay report (their Figure 5.2.1). Table 1 summarizes the cumulative initial public notices between 1990 and 2008. The median value of cumulative initial public notices is 22. If we split the sample in two at the median, those states with high abuse have a mean value of 113.3 notices, while those below the median have a mean value of 16.8. Figure 2 maps the variation of public notices across the United States, with the darker states having a higher number of notices. Some dioceses, such as Los Angeles, Chicago, and Boston, experience many events; nineteen of the 175 dioceses experienced no

[4] Estimates using all of the public notice dates results in qualitatively and quantitatively similar estimates. Estimates using a three year sum of initial public notices also results in qualitatively and quantitatively similar results.
[5] Ten counties cross diocese lines. In these cases, we halve the county demographic information between the two dioceses.

recorded events.[6, 7] A potential weakness of our measure is that it depends, to varying degrees, on the local level of interest. Interested locals may be more likely to participate on the bishopaccountability.org website, more completely reflecting the level of abuse. Our measures conflate public interest with the actual level of abuse in an area. This is not problematic, as long as it is clear that we are measuring scandal more than actual abuse. In fact, since our outcome likely responds to the scandal, a measure that captures some information on its severity may be beneficial.

The scandal data described above is measured at the diocese level. Some regressions are estimated at the diocesan-level. In most regressions, we aggregate these to the state level, depending on the unit of measurement available for our other variables. This is described in more detail in the following section.[8]

## III. Estimation and identification strategy

### A. Religious and Government provision of social services

Huber and Stanig (2011) model the competition between religious redistribution and governmental redistribution from the rich to the poor. In their model, the 'religious' poor and the secular poor compete for redistribution.[9] The 'religious' poor and the rich elect officials who favor low taxes and limited redistribution contra the preferences of the secular poor. A decline in 'religious' poor weakens support for redistribution through the church and strengthens support for governmental redistribution. They test this model using international variation in religiosity and their results support the model's implied comparative statics. Their model does not rely on religion affecting charitableness; church-based redistribution and governmental redistribution are substitutes.

Similarly, Scheve and Stasavage (2006) model the substitutability between religious and governmental welfare. Using international, individual-level data, they empirically test their model. They

[6] These include Amarillo, Beaumont, Biloxi, Birmingham, Colorado Springs, Dodge City, Gary, Gaylord, Grand Island, Kalamazoo, Knoxville, Lake Charles, Las Cruces, Lubbock, Rapid City, Saginaw, Shreveport, and Victoria.
[7] Excluding Los Angeles, Chicago, and Boston from the regression does not change the pattern of our results and tends to make our results more statistically significant.
[8] We generate an additional measure of the severity of the scandal based on a Lexis-Nexis count of published news items that include the words "sex," "abuse," and the name of each Diocese. Results from these estimates are largely similar to, albeit less statistically significant than, those presented and are available upon request.
[9] The 'religious' poor refers to those willing to receive charity from religious organizations, not necessarily those with religious beliefs. Hence, we place religious in quotation marks.

find that more religious countries have lower social welfare spending, though it could be the case that in places where there is more welfare spending, individuals are less motivated to join a religious organization.

Much of the literature estimating the substitutability of private and state charity relies on exogenous changes in government programs (Hungerman, 2005 and Gruber and Hungerman, 2007). These papers examine how charitable provision responds to changes in government welfare spending. Here, we consider how government welfare spending responds to a plausibly exogenous change in religiosity and its attendant decline in charitable provision.

Our data permit us to estimate how religiosity responded to the scandals in the Church. We rely on Bottan and Perez-Truglia (2011) as an intermediate step in the logic of our paper. They demonstrate how charitable donations responded to the degree of information about scandals in a particular diocese. We then extend that research by documenting how individuals' stated preference for government responds to the scandals and to what degree, as the charitable contributions diminishes, state welfare spending increases.

B. Scandals and religiosity

First, we verify the decline in religiosity in the wake of the Catholic sex abuse scandals. We estimate the effect of scandals in state *j* in year *t* on the religiosity of person *i*:

$$religiosity_{ijt} = \beta scandal_{jt} + X'\pi + Z'a + S_j + Y_t + \varepsilon_{ijt} \quad (1)$$

Scandals are measured using the two variations of initial public notices. The vector X contains a variety of the individual respondent's characteristics: marital status, a quadratic in age, sex, race, ethnicity, education, real household income, number of children, and labor force status. The vector Z contains state-level characteristics including average real income per capita, the unemployment rate, and the fractions of the population that are black, white, female, aged 18 to 24, aged 25 to 34, aged 35 to 64, and aged 65 and over. We estimate equation (1) using ordinary least squares or, in the case of binary dependent variables, linear probability models.[10]

[10] Estimates using a logit or probit are similar to the linear probability models for the Catholic and raised Catholic regressions.

Religiosity, the dependent variable, is either an indicator for whether the respondent identifies as Catholic or a measure of religious participation. The impact of the abuse scandals on religiosity has been examined previously in Hungerman (forthcoming) and Bottan and Perez-Truglia (2011), where the authors address the identification issues. Hungerman (forthcoming) in particular addresses pre-existing trends and argues that these do not drive the results. State fixed effects account for state-specific levels of religiosity and degree of Catholicism. Year dummies capture national changes in attitudes towards the Church and religion. Standard errors are clustered by state.

C. Scandals and stated preferences for government

If government and religious provision of social services are substitutes, then as people move away from the Church, they might desire a higher level of government support. The next models consider estimate several measures of the stated preference for the size of government as a function of the abuse scandals.

$$government_{ijt} = ascandal_{jt} + X'\sigma + Z'b + R_j + M_t + w_{ijt} \qquad (2)$$

The vectors X and Z remain the same as in the religiosity regression. The individual-level variables include the respondent's marital status, a quadratic in age, sex, race, ethnicity, education, real household income, number of children, and labor force status. These are necessary as these traits are correlated both with the typical preferences for government and with religious identification and intensity, and thus may also be correlated with the level of scandal. The state-level variables include real per capita income, the unemployment rate, and the fractions of the population that are black, white, female, aged 18 to 24, aged 25 to 34, aged 35 to 64, and aged 65 and over. We continue to include state fixed effects and year dummies. These fixed effects control for, for example, the possibility that states with better social services may also be more likely to have more redistributive government spending and stronger desires to out offenders. Standard errors are clustered by state.

D. Scandals, Voting Patterns, and Welfare Spending

We supplement the results from people's stated preferences with information on how behavior responds to the abuse. If individuals prefer an increase in provision of government services, then we would expect them to change their voting patterns.

We estimate a diocesan-level version of the regression from part C above, replacing the dependent variable with the percentages that vote for the Democratic candidate in presidential elections and elections of representative to state legislatures and the U.S. House of Representatives. Although presidential contests only happen every four years, voters evaluate the same candidates nationwide. The data include results from every presidential election from 1992 to 2008. If, as predicted by the model, individuals respond to the scandals by preferring an increase in the government provision of social services, they would be more likely to vote for the Democratic candidate (Kiewiet, 1981; Rodríguez, 1999). We also consider elections to state legislatures and the U.S. House, which take place every two years during the same period. These elections allow for more observations. We estimate the following for diocese *d* in year *t*.

$$percentDemocrat_{dt} = \gamma scandal_{dt} + W'\theta + C_d + R_t + \mu_{dt} \qquad (3)$$

Here we seek an unbiased, causal estimate of $\gamma$. This estimate could be biased if scandals were more likely to take place in those areas where the abusers believed the community was weakening in its responsiveness to abuse. Diocesan fixed effects subsume any state fixed effects. The diocesan fixed effects capture information on each diocese's unobserved traits that correlate to its allegiance to a party, but not any diocesan-specific responsiveness in political affiliation to new information. If political attachments are weak and, in the unlikely case that potential abusers care about changing political attachment, then the estimate is biased. In other words, we assume that both the choice of the abuser to engage in crime and the choice of the victim to go public are independent of expected political responses.

The vector W includes diocesan characteristics: the real per capita income; the unemployment rate; and the percentages of the population that are Hispanic, black, white, female, aged 18 to 24, aged 25 to 34, aged 35 to 64, and aged 65 and over.

The sign of $\gamma$ in this regression may differ from that in the regression where the outcome is stated preferred government size. Respondents' stated optimal government size is not always consistent with the type of government for which they vote. People might declare that they want less government, while voting for more government. Other issues, for example, may matter more to people, so even if they want less government provision of social services, they care enough about other issues to vote for the party of more government welfare spending. The difference could also be similar to the Bradley or Wilder effect, where an individual is tempted to answer the survey or poll in the way he believes he should, while voting honestly (Langer, 1989).

To examine if there is a difference, we estimate the effect of the scandals on welfare spending per capita. We expect the decline in religiosity to result in an expansion of government-provided welfare. We estimate the following at the state-level:

$$welfare\ spending\ pc_{jt} = \delta scandal_{jt} + Z\varphi + B_j + \tau_t + \nu_{jt} \quad (4)$$

The vector Z remains the same as above, again including state-level measures of the racial, ethnic, and age composition of the communities. If the predictions from the model hold, there would be an increase in government welfare spending associated with higher levels of abuse scandals; people seek more services from the government as they move away from the church.

Following Hungerman (2005), we define our measure of government spending on welfare as state per capita expenditures on Aid to Families with Dependent Children/Temporary Assistance for Needy Families (AFDC/TANF), Supplemental Security Income (SSI), food stamps, and Medicaid.[11] We present results from regressions using total real per-capita spending on all of these categories, as well as for each category separately.[12] As robustness checks, we also examine forms of government spending that, not being welfare spending, would not be affected by religious scandals through the mechanism we hypothesize.

[11] Including an interaction of percentage Hispanic and post-1996 does not affect our results. This interaction should capture most of the impact of the policy change as it was targeted largely at the provision of benefits to non-citizens (Hungerman 2005). Also, we believe it is better to include the pre-1996 years because the welfare reform gave the states an opportunity to make modifications to their welfare policy, and we would like to capture the information generated by their policy changes.

[12] We experiment with the all income maintenance transfers from government to individuals. The results are somewhat smaller than those obtained using the sum of AFDC/TANF, SSI, and food stamps, and not statistically different from zero.

It may be the case that the local ability of government to provide social services is a factor in either the decision to abuse or the decision to make an abuse allegation. If an area's social services are weak, then victims would have fewer places to turn in the case of abuse. State fixed effects capture the average size of government during the period. However, if lower levels of social services grow more slowly, this would tend to bias downward the estimated effect of scandals.

## IV. Religiosity, Government Preferences, Voting, and Welfare Spending

To estimate the effect of scandals on religiosity, we require data on religious affiliation and participation. The General Social Survey (GSS) is an excellent source of this data; obtaining the restricted-use state identifiers allows users to match respondents to a state. The GSS samples most years between 1972 and 1994 (except for 1979, 1981, 1992), and for even numbered years since 1994. In most years, the survey population consists of 1500 respondents, though the sample size nearly doubled when the GSS became biennial in 1994. Throughout the analysis using the GSS data, we analyze data from 1990 to 2008 employing the GSS survey weights.[13]

We use principal components to generate a measure of religiosity. Three questions are used to generate this measure: one asking the strength of adherence to religion, another asking how often the respondent attends religious services, and a final one asking how often they pray. The first question asks the respondent if he or she holds a strong adherence to their stated preferred religion. 37 percent of respondents stated they held a strong adherence, 40 percent said their adherence was not very strong, 11 percent hold a somewhat strong adherence, and 13 percent have no religious preference.[14] The second question asks the respondent how often he or she attends religious services. 17 percent of respondents never attend church, 8 percent attend less than once a year, 14 percent attend yearly, 13 percent several times a year, 7 percent attend once a month, 9 percent several times a month, 5 percent nearly every week, 19 percent weekly, and 8 percent more than once a week. Our final measure of religiosity asks the respondent how often they pray. About a quarter of respondents state they pray several times a day, 30

[13] Specifically we use 1990, 1991, 1993, 1994, 1996, 1998, 2000, 2002, 2004, 2006, and 2008.
[14] Numbers may not sum to 100 due to rounding.

percent once a day, 13 percent several times a week, 7 percent once a week, 19 percent less than once a week, and 5 percent never pray.

The GSS also asks individuals their preferences on the size of government. Our measure of individual stated preference for government size is based on four questions.

The first question asks, "Some people think that the government in Washington is trying to do too many things that should be left to individuals and private businesses. Others disagree and think that the government should do even more to solve our country's problems. Still others have opinions somewhere in between. Where would you place yourself on this scale?" 41 percent of respondents answered with a 3, placing themselves in the center. 27 percent believe the government should do more (answered 1 or 2), and 32 percent believe the government does too much (answered 4 or 5).

A second question uses the same scale of 1 to 5 but asks about poverty alleviation. Responses range from 1: "the government in Washington should do everything possible to improve the standard of living of all poor Americans" to 5: "that each person should take care of himself." 45 percent of respondents rate themselves as a three, 28 percent answer with a 1 or a 2, and 27 percent with a 4 or a 5.

The third question, again using a scale from 1 to 5, focuses on health care. Answers to this question range from a 1, where the government "should see to it that people have help in paying for doctors and hospital bills" to a 5, "these matters are not the responsibility of the federal government and that people should take care of these things themselves." 31 percent of respondents agree with both statements, while 52 percent believe more in government help, and 17 percent believe more in individual responsibility.

The final question asks whether the government in Washington should "reduce the differences between the rich and the poor." The question uses a scale from 1 to 7, ranging from agreement that government should reduce the differences (1) to government should take no action (7). 46 percent of respondents answer with a 1, 2 or 3 stating that the government should do something; 34 percent believe that it should not concern itself with differences in income. The remaining 20 percent are ambivalent.

We build a principal components measure for each set of questions. Each has a mean of zero and a name that reflects the higher number. The variable 'religious' takes on a higher value for those who report more religious behavior. 'Less government' is higher for those reporting that government does too much and who value more individual responsibility. The index of religiosity and the index of small

government preferences are weakly negatively correlated, suggesting that in respondents with more religious attachment have more desire for government redistribution.

Our next outcome measure is voting patterns. We collect county level percentages of the voting population that voted for the Democratic presidential candidate. We include every county in the USA and every election from 1992 until 2008. One advantage of the federal election results is the comparability across states. A Democrat in New England is different from a Democrat in the South. We also include the outcome in representation in state legislatures and the U.S. House following every election from 1992 until 2008. Although these measures are likely to be highly correlated, 10-15 states historically have had split partisan delegations in the U.S. House and the State House with a handful of additional states having split partisan delegations between Congress and the State Legislature (Bishop and Hatch, 2012).

Finally, we collect state level data on government expenditures for 1991-2008. We use data from the Consolidated Federal Funds Report on Food Stamps expenditures and Supplemental Security Income and data from REIS on Medicaid and AFDC/TANF expenditures. Figure 3 graphs these per capita expenditures nationally over time. Per capita welfare spending rose slightly in the early 1990s, dipped somewhat in the middle of the decade, likely due to welfare reform, and increased again in the first part of the 2000s. We observe a dip in welfare spending per capita in 2006.

Table 1 presents some summary statistics on these variables. Welfare spending is higher in high-abuse states, as is support for Democratic presidential candidates. This could be driven, in part, by the fact that places that have high levels of abuse have a higher percentage of Catholics. Historically, Catholics supported Democrats (Prendergast, p. 23), although this support began to change in the 1950s as Catholics voted more Republican, at least in presidential elections. "Since the late 1960s, and particularly during the 1980s, the percentage of Catholics self-identified as Democrats has declined sharply. On the other hand, the Republican gain in adherents among Catholics during this period was far from commensurate with the Democrats' loss." (Prendergast, p. 25). Individuals in low-abuse states have stronger religious affiliations, are more likely to attend church, and are overall more likely to be religious. As reflected in the composites of these measures, individuals in low-abuse states tend to support smaller government.

## V. Results

Residents of states with more public notices about the sex abuse scandals are less likely to identify as Catholic. Table 2 presents these results. A one standard deviation increase in cumulative initial public notices (about 69 incidents), results in a 1.9 percentage point decline in the probability of self-identifying as Catholic. Coefficient estimates on incidents in the past four years are larger, but the impact of a one standard deviation increase falls to 0.9 percentage points. Given a mean level of Catholic identification of 25 percent, our estimate is that a one standard deviation increase in scandals resulted in a 3.6 to 7.6 percent fall in being Catholic. This is larger than the 3 percent decline estimated in Hungerman (forthcoming) and similar to the 5.6 percent decline in Bottan and Perez-Truglia (2011).

As a counterfactual, column (2) shows the estimated coefficients on scandals for a regression of whether the respondent was Catholic at age 16.[15] Here public notices do not have a statistically significant effect on being raised Catholic. Although public notices are associated with fewer respondents being raised Catholic, the effect is much smaller than its effect on current Catholicism and not significant at conventional levels.

Coefficient estimates on self-reported strength of affiliation are also negative, though not always significant. Columns (3) through (6) of Table 2 present results of various measures of religiosity regressed on the cumulative number of scandals. Public notices reduce religiosity, although the effects are small. Estimates using the past four years are smaller and not significant. Overall, a higher level of abuse scandals is associated with a weaker affiliation with religion, less church attendance, less prayer, and a lower level of Catholic identification. Bottan and Perez-Truglia (2011) find that, in addition, all charitable contributions decrease, as does the private provision of social services.

The GSS asks individuals to describe their preferences for government. Table 3 displays estimates from regressions of individual's stated preferences on the cumulative number of scandals. The results, though varying in magnitude and significance, are surprising: across the board, in places where the level of scandals was higher, people are more likely to state that the government does too much and that individuals should do more for themselves. This unexpected finding holds for overall size of government,

[15] Although using Catholic at age 16 addresses some of the issues regarding the endogeneity of self-identification, it does not solve it entirely. Individuals who distance themselves from Catholicism may also have recall bias or may choose to deny having ever been associated with that church.

health care, and the composite of the less government variables. The effect of abuse scandals on support for the poor and for income redistribution is rarely statistically significant although the signs on the coefficients are always positive. For the composite reported in column (5), a one standard deviation increase in the past four-years of public notices is associated with an increase of 0.05 standard deviations in their stated desire for less government.

We examine how these stated preferences are expressed in actual voting patterns in Table 4. If voting behavior is consistent with individual's stated preferences in government, we would expect that more voters would move towards the Republican candidate. However, we find the opposite result. An increase in initial public notices is associated with an increase in votes for the Democratic candidate. [16] When cumulative initial public notices increase by one standard deviation, votes for the Democrat presidential candidate increase by 3.2 percentage points. The estimates on the percent of state representatives (both state representatives and state senators) who are Democrat and on the percent of U.S. House legislators who are Democrat are also positive. A one standard deviation increase in our measure of scandals significantly increases the percentage Democrat state legislators by 3.5 percentage points and in the U.S. House by a similar amount, though not significantly. These results also hold when we use the past four years of public notices.

Along with an increase in voting for Democrats, we see an increase in the government transfers. Table 5 presents results from regressions of per capita welfare spending on the scandal measures. A one standard deviation increase in public notices increases per capita welfare spending by 7.8 cents, or about 7.9%. The results using the past four years of public notices are similar but less significant than those using cumulative notices.

A large part of the welfare spending in states is spent providing health care via Medicaid. We disaggregate welfare spending into four categories, and find a positive impact only on Medicaid spending, with negative and significant estimates on spending on SSI and SNAP. The overall result is that increases in scandals lead to increased welfare spending, and that increase is driven by the increase in Medicaid spending. This could be because scandals impact a relatively religious population and the added stress

[16] In addition, we estimate the impact on GSS self-reported voting, and find an increase in voting for Democrat when abuse increases, though these estimates are not significant at conventional levels. Surveys typically over report turnout (Cervantes and Gluckman, 2004).

may affect the health of some individuals (Fuchs, 2004). Scandals may worsen the health of low-income families, revealing itself in more Medicaid spending. The Catholic Church spends more than half of its revenues on health care (*The Economist, 2012*), with some of the funding providing medical services to unauthorized immigrants. A second explanation is that the Catholic Church likely responded to scandal-induced revenue declines by cutting back the direct provision of charitable health care through Catholic hospitals and clinics. The diminished access to the charitable care of the Catholic institutions leads individuals to access more care at emergency rooms at a higher cost, in the same way that increased access to health insurance lowers emergency room visits and health care costs (Miller forthcoming).

Either way, our findings reveal a pattern that seems inconsistent: although individuals respond to abuse by stating a preference for less government, their voting show the opposite, as, arguably, does the actual behavior of government.[17] One reason for the inconsistency may be the different timing of the GSS interviews and elections. GSS interviews typically occur in the first half of the year.[18] Elections later in the year and lags in changing government spending reflect changing public opinion. Further, individuals may update their preferences in response to elections and changing government spending. To test for this we include lagged real per capita welfare spending in the regressions where the stated preference for government is the outcome. Lagged real per capita welfare spending never enters significantly and including it, if anything, makes the estimate on abuse stronger. That is, more abuse has a stronger impact on feeling that government does too much. This persistent result, even when controlling for lagged government spending suggests that respondents' antipathy to government is not a function of changes in government spending since the election.

Another possibility is that one set of regressions measures an effect on the mean, while another considers changes in the median. Stated preferences in the GSS are measured in a range from 1 to 5. If most individuals move from 4 to 5, but a few move from 4 to 3, then the mean may increase while the median declines. We estimate all the governmental size preference regressions presented before by quartiles. The common conclusion from the 25$^{th}$ percentile estimates is that the effect of the scandals is larger among these more liberal respondents—they then express less desire for government. For the more

[17] One unexplored, but related question, is the relationship between transparency and crowding in and out. Do these relative elasticities change if the government is seen as the more honest, transparent, and trustworthy, or vice versa?
[18] This is true between 1990 and 2002. In 2004, interviews occurred towards the end of the year. In 2006 and 2008, interviews occurred in the middle of the year.

conservative respondents, the 75th percentile estimates, scandals only slightly move political views, also pushing respondents towards saying we spend too much.[19]

Additionally, the surveyed population differs from the voting population. People who say they want less government may not feel as strongly about the issue and may be less likely to vote. We estimate the governmental size preference regressions using the sample of self-reported voters in the GSS.[20] Estimates are typically somewhat smaller and less significant. Voters respond to the abuse scandals by only weakly increasing their stated preference for individual responsibility.[21]

We consider a fourth possible explanation in more detail below. Views on the role of government likely vary by religious identification. Further, churchgoers are more likely to vote (Pew Research Center, 2006). We consider whether those who identify with the Catholic Church are more responsive to the scandals.

A. Robustness Checks

With the theoretical implications from Huber-Stanig in mind, we split the sample by household income. The effects on religiosity are concentrated among higher-income individuals; the abuse scandals have a statistically insignificant effect among below median income raised Catholics. Estimates on the stated belief over whether we would be better off with less government are similarly sized among those raised Catholic as in the full sample. In the raised Catholic sample, below median income respondents respond more to the public notices by preferring individual responsibility although the differences with above median income respondents are not significant. These estimates fail to support the Huber-Stanig model.

We investigate how the scandals affected voting behavior among those dioceses that were more or less Catholic in 1990. In areas where the Catholic population is low, individuals may be less responsive to information on the scandal; it may seem foreign and distant, not something that is relevant to their own community. We divide dioceses in half based on the fraction of the population that is Catholic (using data from ARDA) in 1990. In the median Catholic diocese, 18.2 percent of the 1990 population was Catholic. For presidential elections and state legislators, estimated coefficients do not significantly differ between

[19] Results available upon request.
[20] Although the GSS asks respondents whether they voted in presidential elections, response rates are too high. For example, in 1992, 66 percent of respondents report voting in the presidential election although the Federal Election Commission reports that 55 percent of the voting age population turned out that year. http://www.fec.gov/pages/htmlto5.htm
[21] Results available upon request

the more and less Catholic samples, although they are larger in locations with below median Catholic populations. This is a bit surprising if one expects the abuse to have a larger impact in highly Catholic areas. For the U.S. House, voting is more responsive in more Catholic areas although the difference is not statistically significant.

Finally, in Table 6 we estimate the effect of scandals on per capita welfare spending separately for states that are highly Catholic and those that are less Catholic. We find a stronger and more significant impact in the heavily Catholic states, but none in those states that are less Catholic. The majority of the impact that the abuse scandals have on charity appears to be through Catholics, among whom we see more of an increase in per capita welfare spending.

We examine to what degree our results hold up to the inclusion of state-specific trends. Including state-specific trends maintains the direction of all our estimates, though with some loss of precision. This loss in precision is not surprising as the state specific trends capture a lot of the variation in our dependent variables. We are encouraged that, in spite of the small remaining variation after the trends are included, the overall pattern of results remains, even if the precision of each particular estimate does not. The majority of the regressions where we find significance in the results presented—in religion, stated preferences, voting, and spending—retain a similar coefficient estimate and many of the estimates remain significant. Further, if we cluster our standard errors less conservatively—by state-year, rather than by state or diocese—we retain much more of the significance in the estimates when including state-specific trends. The results including state-specific trends are available upon request.

As a final check for robustness, in Table 7 we examine two outcomes that we would not expect to be affected directly by the presence of scandal. The first is highway spending. We see no clear reason why highway spending would be directly affected by the severity of the scandal, particularly given our controls, although it may be affected indirectly though the state's changed spending in other areas as a response to the abuse. As expected, the estimates in these regressions are small and not statistically significant. A second potential outcome is spending on education. Although this measure is more likely to be positive, particularly if students transition from Catholic schools to public ones as a response to the scandal (Dills and Hernández-Julián 2011), we find a small and insignificant estimate in the cumulative measure and a negative insignificant measure on the sum of the past four years of scandals.

B. Crowding in: a back-of-the-envelope calculation

The estimates from the regressions in Table 5 imply that, in standard deviation terms, a one standard deviation increase in abuse is associated with a 7.9% increase in welfare spending per capita, or about 7.8 cents per capita. This increase in government spending could be a response to a decrease in the provision of charitable services by the Catholic Church. Since over half of the spending of the Catholic Church in the United States is in the provision of health care (*The Economist*, 2012), it is not surprising that the number estimate is no longer significant when Medicaid spending is excluded. If the Catholic ministries in the high abuse dioceses are particularly concentrated in the provision of health, such as in Catholic hospitals, then low-income individuals in these communities may have diminished access to charitable health services when the church's funding diminishes. As a result, these individuals access health services a higher cost to the state.

We then use the estimates from our regressions, along with estimates from Perez-Truglia and Bottan (2011), to generate a back-of-the-envelope calculation of the degree to which government 'crowds in' when the church diminishes its charity. Perez Truglia and Bottan (2011) estimate that one standard deviation increase in abuse leads to a decrease in total charitable contributions of about 2.4%.[22] At the mean charitable contribution in their study of $850, this is a fall of $20.40. We estimate that a one standard deviation increase in abuse increases spending by 7.8 cents per capita, giving us a low end calculation of crowding-in of 0.38 cents on the dollar.

Another possible assumption is that the entire decline occurs among Catholics. Once the Catholic Church has collected the money, surveys suggest that about 12% of the revenues go to charity (Shakely, 2012).[23] So the decline is charitable spending implied by a fall of $20.40 is $2.44 (0.12*20.4). The increase in welfare spending is a much smaller 7.8 cents, implying a crowding-in of 3 cents on the dollar.

On net, the government makes up for a small, although statistically significant fraction of the provision of charitable services by crowding in.[24] The typical crowding out estimate is that when

[22] Their regression estimates a coefficient of 4%, and the standard deviation of their measure of abuse is 0.61. The 2.4% above is the product of these two numbers.
[23] Similarly, the Faith Communities Survey of Churches (2010) finds that, on average, 10 percent of church spending is directed towards benevolence. If the decrease to contributions diminishes all categories of spending equally, then charitable spending by churches would fall by $2.40, again implying crowding-in of about 3 cents on the dollar.
[24] Other measures of scandals, in Table 4, result in smaller estimates of increased welfare spending on the order of 2 to 4 cents, implying that government makes up 0.1-1.6% of the decline in charity.

government provision increases by a dollar, charity falls 20 to38 cents (Hungerman 2005). Our estimate of crowding in is much smaller than most estimates of crowding out.

## VI. Conclusions

Although others have examined how Catholic sex abuse scandals impacted religious behavior in the United States, this paper is the first to use the tragedy to estimate crowding in. There were unexpected consequences to the abuse, which have been examined in several works we cite throughout this study. We can now add the growth of spending by government on the provision of welfare to the list. For every one standard deviation increase in abuse, we expect charitable giving for social services to decrease by about $2.4 and government spending to increase by about 7.8 cents. So although crowding in is present, its magnitude is much smaller than that of the diminished religious provision of social services.

It remains the case that increased religiosity and adherence provide more charitable contributions than would exist otherwise. If one were to extrapolate our estimates, they imply that when the support to the needy that is given by churches disappears then the government would not fund the social services back to their previous level. However, the decline in religiosity and religious giving expands the welfare state.

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Figure 1: Measures of Catholic Abuse Scandals, 1990-2008

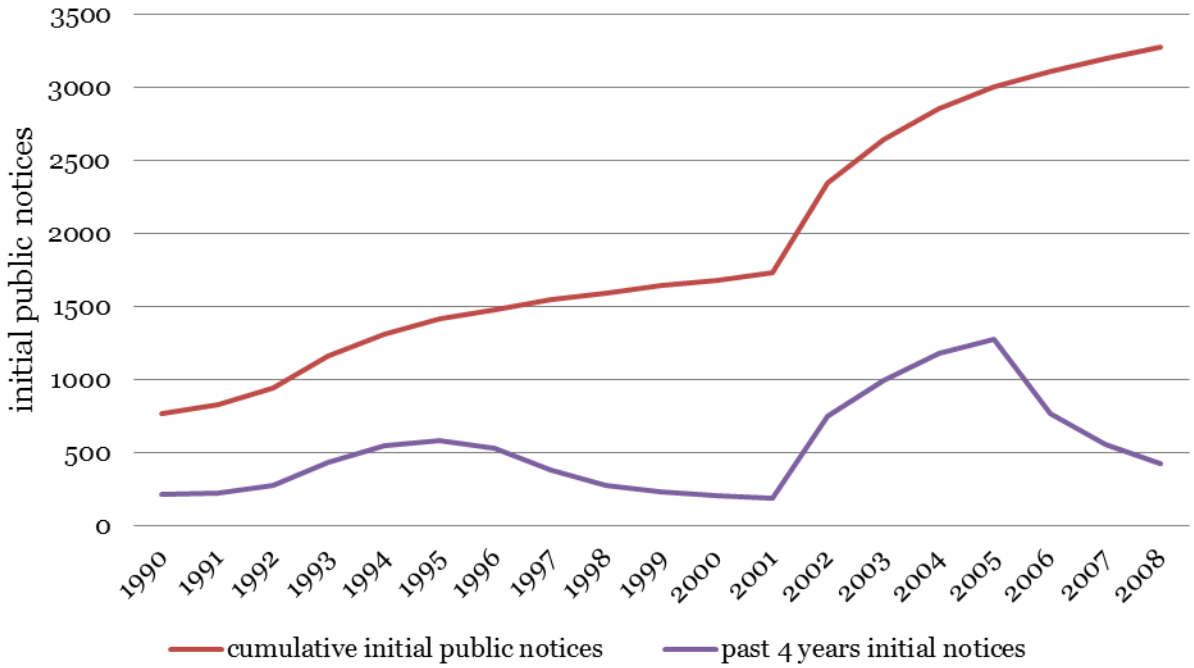

Figure 3: National Real per Capita Welfare Spending, 1991-2008

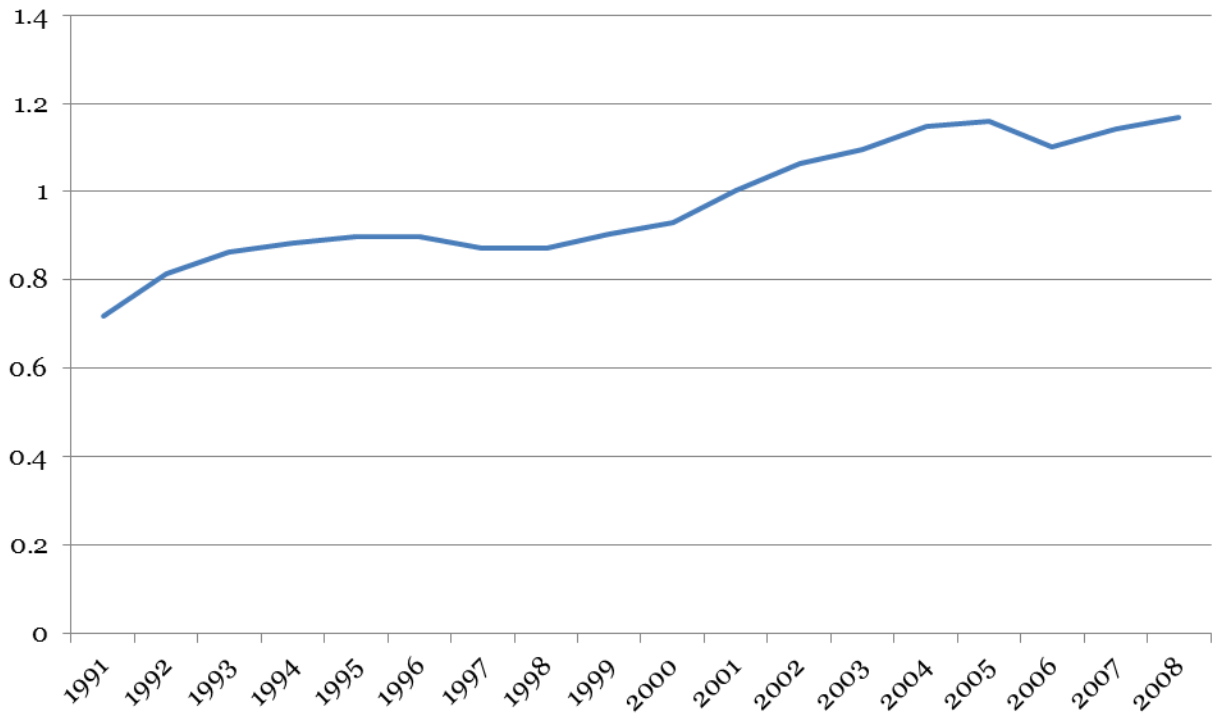

Table 1: Summary statistics of General Social Survey data and welfare spending

| | Full sample | | | High abuse states | | | Low abuse states | | | Difference | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Variable | Obs. | Mean | St. Dev. | Obs. | Mean | St. Dev. | Obs. | Mean | St. Dev. | high-low | |
| *Independent variables of interest* | | | | | | | | | | | |
| Cumul initial public notices | 23,251 | 64.8 | 68.7 | 11,516 | 113.3 | 68.2 | 11,735 | 16.8 | 12.5 | 96.5 | *** |
| Past 4 yrs public notices | 23,251 | 19.7 | 25.6 | 11,516 | 34.5 | 29.3 | 11,735 | 5.0 | 5.0 | 29.4 | *** |
| *State-level variables* | | | | | | | | | | | |
| Per capita TANF/AFDC | 900 | 0.07 | 0.05 | 521 | 0.08 | 0.05 | 379 | 0.04 | 0.03 | 0.04 | *** |
| Per capita Medicaid | 900 | 0.72 | 0.32 | 521 | 0.75 | 0.34 | 379 | 0.63 | 0.21 | 0.12 | *** |
| Per capita SSI spending | 900 | 0.11 | 0.04 | 521 | 0.12 | 0.04 | 379 | 0.10 | 0.04 | 0.02 | *** |
| Per capita food stamps | 900 | 0.08 | 0.03 | 521 | 0.08 | 0.03 | 379 | 0.08 | 0.03 | 0.00 | *** |
| Per capita welfare spending | 900 | 0.98 | 0.37 | 436 | 1.05 | 0.39 | 464 | 0.81 | 0.24 | 0.23 | *** |
| % state reps Dem | 441 | 48.34 | 15.87 | 253 | 48.14 | 15.86 | 188 | 48.99 | 15.94 | -0.85 | |
| % U.S. House Reps Dem | 443 | 52.04 | 20.00 | 255 | 53.61 | 17.49 | 188 | 47.05 | 25.88 | 6.55 | * |
| *Diocesan-level variable* | | | | | | | | | | | |
| % voting for Dem pres cand | 850 | 48.41 | 9.77 | 491 | 51.22 | 9.27 | 359 | 41.36 | 7.1 | 9.86 | *** |
| *Individual-level variables* | | | | | | | | | | | |
| Currently Catholic | 23,251 | 0.25 | 0.44 | 11,516 | 0.32 | 0.47 | 11,735 | 0.19 | 0.39 | 0.14 | *** |
| Catholic at age 16 | 23,251 | 0.31 | 0.46 | 11,516 | 0.40 | 0.49 | 11,735 | 0.23 | 0.42 | 0.17 | *** |
| strength of affiliation [1 = no religion to 4 = no strong] | 12,915 | 2.99 | 1.00 | 6,997 | 2.93 | 1.02 | 5,918 | 3.06 | 0.97 | -0.13 | *** |
| how often attends religious services [higher = more often] | 12,915 | 3.69 | 2.72 | 6,997 | 3.55 | 2.72 | 5,918 | 3.86 | 2.72 | -0.31 | *** |
| how often do you pray [higher is more often] | 12,915 | 4.20 | 1.61 | 6,997 | 4.11 | 1.65 | 5,918 | 4.30 | 1.56 | -0.19 | *** |
| Religious | 12,915 | 0.00 | 1.42 | 6,997 | 0.10 | 1.44 | 5,918 | -0.11 | 1.39 | 0.21 | *** |
| Help poor? | 13,550 | 2.94 | 1.15 | 6,472 | 2.91 | 1.16 | 7,078 | 2.97 | 1.13 | -0.06 | *** |
| govt do more or less? | 13,333 | 3.06 | 1.20 | 6,388 | 3.01 | 1.21 | 6,945 | 3.11 | 1.19 | -0.10 | *** |
| govt help pay medical care? | 13,609 | 2.43 | 1.20 | 6,502 | 2.38 | 1.21 | 7,107 | 2.47 | 1.19 | -0.10 | *** |
| govt reduce income diffs? | 13,687 | 3.76 | 1.94 | 6,530 | 3.75 | 1.95 | 7,157 | 3.77 | 1.93 | -0.02 | |
| composite of 4 vars | 12,896 | 0.00 | 1.48 | 6,194 | -0.06 | 1.50 | 6,702 | 0.06 | 1.46 | -0.12 | *** |

Weighted summary statistics using GSS weights, if applicable. Asterisks reflect the statistical significance of the difference in means for the two groups. *** p<0.01, ** p<0.05, * p<0.1

Table 2: Scandals' effect on Catholicism and religiosity

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| | Currently Catholic | Catholic at age 16 | strength of affiliation | how often attends religious services | how often do you pray | religious principal component |
| | | | | higher reflects more religious behavior | | |
| Cumulative initial public notices | -0.000278* | -7.60e-05 | -0.00129*** | -0.00217** | -0.00168** | -0.00180*** |
| | (0.000146) | (0.000233) | (0.000298) | (0.000974) | (0.000762) | (0.000539) |
| R-squared | 0.124 | 0.150 | 0.084 | 0.121 | 0.164 | 0.159 |
| Past 4 years initial public notices | -0.000355** | -0.000254 | -0.000670 | 0.00138 | 0.000664 | 0.000155 |
| | (0.000169) | (0.000347) | (0.000620) | (0.00182) | (0.00116) | (0.000741) |
| R-squared | 0.124 | 0.150 | 0.083 | 0.12 | 0.163 | 0.159 |
| | 23,251 | 23,251 | 12,915 | 12,915 | 12,915 | 12,915 |

All regressions include individual-level controls for marital status, age, age squared, education, sex, race, Hispanic, real household income, number of children, and labor force status. State fixed effects and year dummies included. Regressions weighted using GSS population weights. Standard errors clustered by state in parentheses. The sample includes 23,251 observations in 48 states. *** p<0.01, ** p<0.05, * p<0.1

Table 3: Survey support for government and scandals

| | (1) | (2) | (3) | (4) | (5) |
|---|---|---|---|---|---|
| | Help poor? | should govt do more or less? | should govt help pay for medical care? | Should govt reduce income differences? | composite of previous four variables |
| | Larger dependent variables reflect responses of government does/spends too much or individuals should help themselves | | | | |
| Cumulative initial public notices | 0.000610 | 0.000992* | 0.000692* | 2.87e-05 | 0.00103 |
| | (0.000431) | (0.000520) | (0.000409) | (0.000884) | (0.000725) |
| R-squared | 0.094 | 0.102 | 0.071 | 0.104 | 0.158 |
| Past 4 years initial public notices | 0.00183* | 0.00262*** | 0.00170** | 0.000998 | 0.00301** |
| | (0.000938) | (0.000891) | (0.000818) | (0.00130) | (0.00122) |
| R-squared | 0.095 | 0.102 | 0.071 | 0.104 | 0.158 |
| Observations | 13,550 | 13,333 | 13,609 | 13,687 | 12,896 |

All regressions include individual-level controls for marital status, age, age squared, education dummies, sex, race, Hispanic, real household income, number of children, and labor force status. State fixed effects and year dummies included. Regressions weighted using GSS population weights. Standard errors clustered by state in parentheses. The sample includes 48 states. *** p<0.01, ** p<0.05, * p<0.1

Table 4: Scandals, percent voting for the Democratic presidential candidate, percent of state legislators from the Democratic Party, and percent of representatives in the U.S. House of Representatives from the Democratic Party

| | (1) | (2) | (3) |
|---|---|---|---|
| | Percent voting for Democratic presidential candidate | Percent Democratic state legislators | Percent Democratic U.S. House representatives |
| Cumulative initial public notices | 0.0470* | 0.0503** | 0.0486 |
| | (0.0272) | (0.0188) | (0.0459) |
| R-squared | 0.936 | 0.911 | 0.695 |
| Past 4 years initial public notices | 0.0670*** | 0.0743*** | 0.0696 |
| | (0.0204) | (0.0223) | (0.0445) |
| R-squared | 0.935 | 0.909 | 0.693 |
| Observations | 850 | 490 | 493 |

All regressions include state-level controls for real income per capita, the unemployment rate, the percent Hispanic, black, and white, the percent female, and the percents aged 18-24, 25-34, 35-64, and 65 and over. Year dummies and diocesan fixed effects (column 1) or state fixed effects (columns 2 and 3) included. Regressions weighted by number of votes. Standard errors clustered by diocese in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table 5: Scandals and per capita welfare spending

| | (1) | (2) | (3) | (4) | (5) |
|---|---|---|---|---|---|
| | TANF per capita | Medicaid pc | SSI pc | SNAP pc | sum of previous 4 variables |
| Cumulative initial public notices | -7.87e-05 | 0.00123** | 6.72e-05*** | -8.38e-05* | 0.00114** |
| | (4.94e-05) | (0.000462) | (2.13e-05) | (4.42e-05) | (0.000517) |
| R-squared | 0.966 | 0.960 | 0.984 | 0.908 | 0.965 |
| Past 4 years initial public notices | -4.51e-05 | 0.00115 | 7.76e-05** | -0.000149*** | 0.00104 |
| | (4.47e-05) | (0.000769) | (2.98e-05) | (3.46e-05) | (0.000804) |
| R-squared | 0.965 | 0.955 | 0.983 | 0.909 | 0.962 |
| Observations | 900 | 900 | 900 | 900 | 900 |

All regressions include state-level controls for real income per capita, the unemployment rate, the percent Hispanic, black, and white, the percent female, and the percents aged 18-24, 25-34, 35-64, and 65 and over. Year dummies and state fixed effects included. Regressions weighted by number of votes. Standard errors clustered by diocese in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table 6: Effects of scandals on per capita welfare spending by Catholic density of state

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| | Per capita welfare spending | | | |
| | above median Catholic pop in 1990 | | below median Catholic pop in 1990 | |
| Cumulative initial public notices | 0.00144** | | -0.000370 | |
| | (0.000523) | | (0.000600) | |
| Past 4 years initial public notices | | 0.00133 | | -0.000106 |
| | | (0.000825) | | (0.000654) |
| Observations | 450 | 450 | 450 | 450 |
| R-squared | 0.971 | 0.967 | 0.948 | 0.948 |

All regressions include state-level controls for real income per capita, the unemployment rate, the percent Hispanic, black, and white, the percent female, and the percents aged 18-24, 25-34, 35-64, and 65 and over. Year dummies included. In Panel A, state fixed effects are included, regressions are weighted by population, and standard errors are clustered by state. In Panel B, diocesan fixed effects are included, regressions are weighted by vote, and standard errors are clustered by diocese in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table 7: Scandals and educational appropriations and highway spending

| | (1) | (2) | (3) |
|---|---|---|---|
| | Real per capita welfare spending (col. 5 of previous table) | Education Appropriations per FTE | Total Highway Spending |
| Cumulative initial public notices | 0.00114** | -0.788 | 171.5 |
| | (0.000517) | (2.230) | (721.6) |
| R-squared | 0.965 | 0.889 | 0.910 |
| Past 4 years initial public notices | 0.00104 | -1.677 | -423.4 |
| | (0.000804) | (2.844) | (572.5) |
| R-squared | 0.962 | 0.889 | 0.911 |
| Observations | 900 | 950 | 950 |
| mean of dependent var | $0.98 | $7,991 | $461,463 |

All regressions include state-level controls for real income per capita, the unemployment rate, the percent Hispanic, black, and white, the percent female, and the percents aged 18-24, 25-34, 35-64, and 65 and over. Year dummies and state fixed effects included. Regressions weighted by number of votes. Standard errors clustered by diocese in parentheses. *** p<0.01, ** p<0.05, * p<0.1