

Economic Diversity, Racial Diversity and Religious Contributions

By
James VanderHoff
Department of Economics
Rutgers University
Newark, NJ
jhv@rutgers.edu
973-353-5259
973 353 5819 [fax]
June 2012

RUTGERS UNIVERSITY WORKING PAPER #2012--001

Abstract

If the provision of more religious charity to one's own racial group drives religious giving, increased racial diversity could result in fewer religiously funded charities for minority groups. This paper analyzes contributions by Presbyterian congregations to provide insights into the effects of increasing racial diversity on religious giving. The analysis indicates that religious charitable giving is driven more by economic diversity than by racial diversity and that charitable giving is less racially motivated in predominately white congregations than in more racially diverse congregations. Also, contributions respond to marginal tax rates, state and local taxes, and congregation and religious diversity and state and local expenditures crowd out religious contributions. Our analysis suggests that increases in racial diversity will not reduce religious based charity that benefits minority groups.

Keywords: Charitable Giving, Diversity: Racial and Income

JEL Classifications: D64 - Altruism; Philanthropy, H41 - Public Goods , Z12 - Religion

Economic Diversity, Racial Diversity and Religious Contributions

1. INTRODUCTION

Racial diversity is increasing in the United States and other countries and increasing racial diversity has been associated with decreases in secular charitable giving and with increases in religious giving. But if the provision of more charity to one's own racial group drives religious giving, increased racial diversity could result in fewer religiously funded charities for minority groups. This paper investigates religious giving and racial diversity to provide insights into the effects of increasing racial diversity on religious giving.

Americans contribute considerable time and money to charitable and civic organizations: they contribute about 2% of their income to nonprofit institutions [Charitable Giving Statistics, 2011]. Several studies have shown that charitable contributions of both money and time are lower in more racially¹ diverse communities. [Alasina and La Ferrara 2005] In these communities, individuals contribute less to educational institutions, contribute less to welfare based charities [Hungerman 2008] and volunteer less in community organizations [Lipford and Yandle 2009]. Robert Putnam [2007] discusses the empirical studies of the effects of racial diversity that support "conflict" theory: more ethnic and racial diversity increases associations with one's own ethnic and racial group. Studies with international data have also found charitable activities are inversely related to racial diversity (Andreoni, et al, 2011).

However, contributions to religious institutions, over 50% of charitable giving in the United States, have been found to increase with racial diversity [Coate and VanderHoff 2009; Hungerman 2008]. These increased contributions may be attributed

¹ For simplicity, we will use "racially diverse" instead "racially/ethnically diverse" through paper even if the groups include 'Hispanic", which is an ethnic, no racial, grouping.

to two different motivations². Increased contributions to one's religious congregation could be another manifestation of conflict theory because churches are less diverse than most other organizations³. Alternatively, altruistic motivated giving may increase because racial diversity is associated with higher demand for income based charitable activities and members of congregations may increase their contributions because churches are the most widely used and, perhaps, the most efficient means to provide this charity. If the increased contributions result from altruistic giving, then income inequality and low income households will drive religious charitable giving not racial diversity. In geographical areas with more poverty and low income households, one would expect higher church contributions, holding income, racial diversity and other factors constant. This paper provides analysis of giving by Presbyterian congregations to explore these two alternative motivations for religious based giving.

Two recent studies of mainline Protestant congregations are especially relevant to this research. Coate and Vanderhoff [2009] study the effects of race and ethnic diversity in the community on religious membership, religious adherence, and religious giving. They have found that the percent of the county population non white is positively and significantly related to contributions per member by Presbyterians. They have also found these results to hold at the county level for religious adherence in mainline Protestant denominations. Hungerman [2008] analyzes Protestant congregations' expenditures on local charitable organizations. His analysis indicates that the funds donated to local charities are affected by the percent of blacks in the area: a higher percentage of black people in the community results in higher expenditures on local charities by racially diverse congregations but lower expenditures by congregations that have only white members.

² These motivations are not exclusive or exhaustive. Perhaps increases in racial diversity causes more social isolation and prompts more charitable giving due to lack of aid from family and others in the same racial group.

³ Churches are very segregated compared to other organizations. In our data, 85% of congregations report members comprised of more than 95% of a single racial group.

This paper examines the role of economic variables, including income diversity, on two types of religious contributions: by members to their churches and by Presbyterian congregations' to local charitable organizations. The empirical models of giving include four measures of diversity: racial diversity in the community and in the congregation, income diversity in the community and religious diversity in the county. Also, the models contain measures of income, the price of the charitable contributions, state and local taxes and community characteristics. We estimate these models with data for over 8,000 congregations during the years 2005 to 2007. The estimates are used to compare the elasticities of contributions with respect to the diversity measures as well as income and price elasticities and the effects of other factors, including whether state and local spending crowds out religious contributions..

2. LITERATURE REVIEW AND EMPIRICAL MODEL

The study of contributions to religious institutions has long been of interest to economists and other social scientists. This section highlights the studies that provide the foundation for the models reported below. Laurence Iannaccone [1998] reviews theoretical and empirical research that applies economic models to explain religious behavior and examines the economic consequences of religious behavior. He presents a household model of religious activity production, constrained by time and money, that predicts church attendance and contributions are substitutable religious activities. Other researchers model religions as clubs and churches as firms. These types of models predict that attendance at services and contributions may be compliments because both represent more commitment to the church. The results of empirical research on whether attendance and contributions are substitutes or compliments are ambiguous. Sullivan [1985] and Gruber [2004] conclude these religious activities are substitutes. Brooks [2000] and others find evidence that they are compliments. Others [Dahl and Ransom 1999] assume that religious giving is positively related to religious commitment, which can be measured by attendance.

Household choice models to religious activity predict that economic variables influence religiosity. Application of these models has led to estimates of price and

income elasticities for religious contributions and activities. The price of contributions has been measured by the marginal Federal income tax rate of the first dollar given⁴. Problems with measurement of the marginal tax rate have led others to use the percent on tax payers who itemize deductions as an alternative measure on the price of contributions [Feldstein and Clotfelter, 1976]. Estimates of the price elasticity have been usually between .5% and 1.5% for charitable contributions and lower for church contributions. Income elasticity has been in the range from 1% to 2% and is found to be lower for church contributions [Helms and Thornton]. Similarly, income elasticities have been estimated for church attendance and have been found to be both positive and negative [Iannaccone, 1998]. These models also suggest that the cost of attendance, in time and money, will influence attendance.

Models of the church as producers of public goods have lead researchers to analyze whether government provided public goods crowd out church provided public goods. Ribar and Wilhelm model contributions that are motivated either by altruism or a “warm glow.” Church giving motivated by altruism is more likely to be crowded out because individuals are concerned that a certain level of charity be produced, not whether it is provided privately or publicly. The “warm glow” motive results in less crowding out because individuals receive satisfaction from the act of giving. Their empirical analysis indicates little crowding out resulting from U.S. government funding of international relief efforts. Brooks [2000] find evidence of crowding out for large amounts of government funding but “crowding in” for low levels of funding for nonprofit organizations because low levels of government support are pump priming activities which stimulate more private giving. Heutel finds evidence of crowding in of government grants, consistent with signaling. Hungerman [2005, 2008] concludes that government welfare spending reduces church contributions to local charities and that this crowding out is more pronounce in racially diverse counties. Models of churches as religious activity producers also predict that competing religious institutions increases

⁴ Gruber, 2004, discusses of elasticity estimates and marginal tax rate estimates. Auten, Selig and Clotfelter, 2002, analyze the effects of permanent and temporary income changes and tax law changes on the estimates of the elasticities. Our sample period does not contain any major tax rate changes,

religious participation, with both higher contributions and attendance [Iannacone (1991); Zaleski and Zech (1995)].

Club theoretic models of religion suggest a free rider problem: members can enjoy the benefits provided by a congregation without contributing to its support. There is evidence that this free rider problem is greater in larger congregations due to the larger costs of monitoring and imposing sanctions. Several researchers find a negative effect of congregation size on per member contributions. [Sullivan [1985] Hull and Lipford [2010]] In contrast, Lipford [1995] finds a positive relationship between the number of members in a congregation and average contributions for southern Protestants.

We estimate models of congregation members' charitable contributions and of congregation spending on local charities. The decisions about the amounts of charitable giving are made by different people who may face different incentives and motivations. The congregation members likely view their contributions as support both for their church and for charities for several reasons. Although member contributions mostly pay for clergy salaries and upkeep of the physical plant, pastors provide, in addition to serving the spiritual needs of the congregation, community services such as counseling, visitations to the sick and volunteer work in civic organizations. Congregations often own churches and other buildings that house Sunday school and various church related meetings and offices, but these buildings frequently are made available, for free or at a fee to help with maintenance, for civic community meetings and activities, including pre- and after school and weekend programs, Boy and Girl Scout activities, other children and adult clubs and educational programs, soup kitchens, temporary homeless shelters, and meeting space for various community groups⁵. Also, a portion of Presbyterian congregations' contributions goes to national and international charities designated by the congregation and national church leadership, including antipoverty programs and disaster relief. Finally, members can

⁵ Hungerman (2009) refers to studies of and lists of church facilitated charitable activities.

reduce their taxes with contributions to their church if they itemize deductions. While the extent that congregation members view their contributions as religious offerings or secular charitable giving likely varies among congregations and individual members, depending on the activities of the ministers and the non-congregational related use of the buildings, we assume some portion of the religious contributions result from altruistic or warm glow motivations.

A category of budgeted church expenditures, designated Local Mission, are contributions to local charities, education and civic groups not affiliated with the congregations. Church leaders decide how much of congregation revenues to allocate to these types of charitable and civic organizations. The extent of these expenditures varies; about 5% of congregations do not report any contributions to local charities. These charitable expenditures are not deductible from taxable income since churches are tax exempt and the level of expenditures reflect judgments and preferences of church leaders, not directly by all congregation members.

We estimate two equations based on an individual model of giving, aggregated to the congregational level:⁶

$$1. \text{CONTRIB}_{c,t} = \beta_1 \text{ATTEND}_{c,t} + \beta X_{j,t} + \beta Y_{j,t} + \epsilon_{j,t}$$

$$2. \text{LOCMIS}_{c,t} = \alpha_1 \text{ATTEND}_{c,t} + \alpha X_{j,t} + \alpha Y_{j,t} + \mu_{j,t}$$

Where $X = \{\text{community characteristics}\}$; $Y = \{\text{congregation characteristics}\}$; c denotes the congregation, j denotes the area, either zip code or county and t indicates the year: 2005, 2006 or 2007. Our dependent variables are per member contributions [CONTRIB], and per member expenditures on local charities [LOCMIS]. Model 1 is estimated with an instrumental variable procedure because preliminary analysis indicated that CONTRIB is simultaneous determined with church attendance, ATTEND. A Granger test indicates one way causation from CONTRIB to LOCMIS, so Model 2 is estimated with a Tobit procedure. Our unit of analysis is the congregation. All models

⁶ Lipford and Yandle (2009) present an interdependent utility model that yields an empirical model similar to this one.

are estimated with fixed effects for the 16 Presbyterian (USA) synods and with binary variables for the year. Preliminary analysis did not indicate correlation of the disturbance so the equations are not estimated as seemingly unrelated regressions. The variables are defined next.

3. DATA

Our three major data sources are the Presbyterian Church (USA), the Internal Revenue Service and the U. S. Census. *Ten Year Trends*, Research Services, Presbyterian Church (U.S.A.) provide data on about 11,000 congregations for the years 2005-2007. The data include: revenues from contributions, bequests, investments and other sources; expenditures for staff salaries and facilities upkeep, charitable giving to non-Presbyterian local organizations [Local Mission]; and demographic characteristics of congregation members. Our analysis uses 24276 congregation-year observations of the 32,683 observations in the data set. We eliminate about 8,400 observations with missing or unrepresentative data, including observations from congregations which report total annual contributions less than \$100 and congregations which report less than 10 members. And we eliminate 2 observations with total contributions of over \$100,000 per member because these result from one year contributions in excess of \$5 million, which are not consistent with the congregations' contributions in other years and are likely due to an input error or one large, unique gift.

Congregation characteristics include attendance as a percent of membership [ATTEND], a binary variable indicating a congregation with less than 100 members [MEMBERSLT100] and a fragmentation index to measure the racial diversity of the congregation members:

$$3. \text{ CONGDIVERSE}_{c,t} = 1 - \sqrt{\sum (\text{members}(i)_{c,t} / \text{members}_{c,t})^2}$$

Members(i) is the number of members in group i (white, black, Asian, Hispanic and others) and members is the number of members in the congregation. If there is perfect diversity with an equal number of congregation members in each racial category, our fragmentation index would equal .8 and if there is 100% of the members in one racial

group, CONGDIVERSE equals 0. This index may be thought of as the probability that a member randomly meets another member of a different racial group.

We use IRS data at the zip code level for tax years 2005, 2006 and 2007 to construct measures of community characteristics. This data reports statistics for all tax returns and for returns in 7 income categories: Under \$10,000; \$10,000 to \$24,999; \$25,000 to \$49,999; \$50,000 to \$74,999; \$75,000 to \$99,999; \$100,000 to \$199,999; \$200,000 or more.⁷ This data includes many income earners who do not pay income tax because they file returns for refunds and for Earned Income Credit payments. Individuals' income in the community, INCOME, is the total adjusted gross income divided by the number of returns in each zip code area. Income diversity is the Gini coefficient calculated with total adjusted gross income and the number of returns in the 7 income categories. Also, to identify an additional effect of low income, we include LOWINC, the percent of tax returns that list income as 'Under \$10,000'. Our models include two measures of the 'price' of charitable giving. We calculate the marginal tax rate from differences between two middle income groups:

$$4. \text{MTR}_{j,t} = [\text{Taxes per return } (\$75\text{k}-\$100\text{k})_{j,t} - \text{Taxes per return } (\$50\text{k}-\$75\text{k})_{j,t}] / [\text{INCOME per return } ((\$75\text{k}- \$100\text{k})_{j,t} - \text{INCOME per return } (\$50\text{k} - \$75\text{k})_{j,t})]$$

Also, we proxy for the price of giving with ITEMIZE, the percent of tax returns that report itemized deductions.

To investigate whether government expenditures crowd out religious giving, our models contain state and local taxes paid [SLTAXES]: the sum of itemized deductions for these taxes divided by the number of returns that itemize deductions. Although only about 30% of returns in our sample itemize, these returns are important because about 80% of charitable contributions come from 20% of givers and these givers are likely to itemized deductions. SLTAXES provides a measure of welfare spending by state, county and municipal governments at the zip code level. It will have both an income effect and a crowding out effect. The income effect results from lower after tax income.

⁷ The 2005 IRS data only has 6 categories; the last is "\$100,000 or more".

The magnitude of the income effect is equal to but opposite in sign of the estimated effect of income on contributions. The crowding out effect is measured by the difference between the income effect and the total effect and occurs to the extent that congregational members are motivated by altruism; when the government spends more, they need to spend less to achieve the desired level of welfare spending. Although this is a noisy measure of government welfare spending, other data support its use. State level data from the Census of Governments [2007] indicate that about 12% of state and local spending is classified as welfare spending and the states' average level of this welfare spending is 30% of state and local taxes. The correlation of our SLTAXES variable and state level data on individual taxes per household is .85 and the mean of our variable is 70% of the mean of per household state and local taxes. This difference probably reflects that either state income tax payments or state sales tax payments are deductible on federal tax returns and that most sales and local tax payers do not itemize deductions.

We measure demographics characteristics with data from the 2000 census and the American Community Surveys (ACS) (2005, 2006 and 2007). The 2000 census provides zip code level data that matches geographically, but not chronologically, the congregation and income data. The ACS provides annual data for a better chronological match with the contribution decision timeframe but these data are only reported at county level for the 800 most populous counties in the country.⁸ To evidence robustness, we estimate the models with two samples: the complete sample which uses zip code level data and the sample that includes only the big counties sampled in the ACS.

Although some congregational members likely reside in zip code areas other than the church zip code area, we use the zip code level income data from the IRS for both samples because we believe zip code data provides a better measure of congregation members' income than county data. For example, in Essex County NJ, the 2007 ACS median household income is \$53,700; the IRS average adjusted gross

⁸ The 2005 ACS reports data for only the 700 most populous counties.

incomes for two Essex County towns less than two miles apart, Millburn and Irvington, are \$121,400 and \$30,700. Contributions per member in 2007 in the Presbyterian churches in Millburn and Irvington were \$1,339 and \$434. Also, in Essex County, New Jersey, Short Hills [07078] is ranked third in the country in the zip code index constructed by Charles Murray [2012] because 79.2% of adults have a college degree and the median household income is \$261,521. Only 12 miles away driving distance, an area of Newark [07114] is ranked 23,827, only 121 from the lowest ranked, because 3.92% of adults have a college education and the median income is \$27,413.

We construct a fragmentation index with the census data on the proportions of the population in the 5 racial/ethnic groups: white, black, Asian, Hispanic or Other:

$$5. \text{RACEDIVERSE}_{j,t} = 1 - \sqrt{\sum_i (\text{population}(i)_j / \text{population}_j)^2}$$

Where $\text{population}(i)_j$ is the number of people in the i th racial group in the j th zip code area and population_j is the population in the j th zip code area. We measure education levels in the community with the percent of adults over 26 year of age with a college bachelor degree, COLGRAD. We also use the census and ACS data to calculate the percent of the population that resides in urban areas (URBAN) and the population per square mile (DENSITY).

The county data reported in *Religious Congregations & Membership:2000*, Glenmary Research Center are used to calculate the religious diversity variable:

$$6. \text{RELIGDIVERSE}_{j,t} = 1 - \sqrt{\sum_i (\text{adherents}(i)_j / \text{adherents}_j(c))^2}$$

$\text{Adherents}(i)_j$ is the number of adherents in the i th denomination: mainline Protestant, Catholic, Orthodox Christian, evangelical Protestant, and other (see Jones et al., 2002) in the j th county and adherents_j is the total number of adherents in the j th county. We also use the proportion of adherents who are mainline Protestants (MAINPROT] as an instrument variable. National weather service data provides a measure of annual precipitation in the state (PERCIP), another instrumental variable.

Table 1 records the means, standard deviations and the percentage difference in the means for the two samples. The whole sample contains 24,276 observations and the big county sample contains 15,624 observations, which includes 25% of counties in the country and about 60% of Presbyterian congregations. The data indicate that big county congregations are larger, more racially diverse and receive more contributions. In the big counties, the average congregation includes nearly 300 members, 21% larger than members in all areas and the big counties have a lower percent of small congregations; 32% of congregations have less than 100 members compared to 42% in all areas. Congregations are slightly more diverse in the big county sample but are not diverse in either sample: CONGDIVER is .05 and .07; about 90% of congregation members are white and about 5% are black; and about 75% of congregations have at least 95% white members and about 6% have at least 95% nonwhite members. The percentage of predominately white congregations is 9% lower in the big county samples. CONTRIB are about 7% lower and LOCMIS is about 12% lower in the all counties; the average contribution are about \$1000 and church local mission expenditures are about \$60. Average Sunday worship service attendance is about 60% of membership.

Racial diversity is 42% higher in the big counties and 29% of adults are college graduates, about 50% more than in the complete sample.⁹ Income diversity, the Gini coefficient, and religious diversity are essentially the same in both samples but, in the big counties, LOWINC is about 5% less. Population density is about 34% higher and the percent of Mainline Protestant adherents is 18% less in the big counties. Both income and state and local taxes are about 13% higher in the large counties. Average adjusted gross incomes are \$59,000 and \$52,000 and tax deductions are \$6,660 and \$5,700. The marginal tax rate, MTR, is about 11% and the percent of tax payers who itemize is over 30% and is 12% higher in the big counties

⁹ RACEDIVER calculated for the zip code from the 2000 Census is .27, 12% higher; COLGRAD calculated with the zip code data is 17, 14% higher.

4. MODEL ESTIMATES

Table 2 reports the model estimates and elasticities evaluated at the sample means for the whole sample. Increases in racial diversity increase per member contributions; a 10% increase in diversity increases contributions by .7%. Income diversity also has positive effects on CONTRIB and income diversity has three times the effect of racial diversity: a 10% increase in income diversity increases contributions by 2.1%. Our analysis does not indicate that income diversity displaces the effect of racial diversity but that income diversity has a separate and larger effect.¹⁰ Additional evidence that member contributions responds to income diversity derives from the impact of LOWINC; a 10% increase in proportion of low income earners increase contributions by .3%. The estimates indicate a 10% increase in the diversity of the congregation reduces contributions by 1%.

Income has a positive effect on contributions; the elasticity is .08, consistent with previous studies¹¹. State and local tax increases lower contributions and the negative effect on contributions, -3.12, is nearly twice the magnitude of the income effect, 1.67, as expected if government spending, measured by taxes, crowding out contributions, but the hypothesis that there is no crowding out—that effects of income and taxes are equal but opposite in sign—is not rejected at conventional significance levels. The analysis indicates that congregation members respond to economic incentives. The largest influence on contributions, other than the attendance effect, comes from the price of charitable giving: a 10% increase in the MTR increases contributions by about

¹⁰ In results not reported here, the coefficient estimates are robust when excluding one diversity measure from the model. The correlation between income diversity and racial diversity is .09 for the whole sample and .04 for the big county sample.

¹¹ Helms and Thornton report income elasticity estimates for religious contributions usually between .04 and .07 and elasticities for nonreligious contributions generally between .08 and .12.

2.2%¹². Also, ITEMIZE provides independent information on the effect of the taxes on contributions; its elasticity is .1. Higher attendance increases contributions, consistent to the view that they are complimentary religious activities: 10% higher attendance increases contributions by 5%. Higher levels of education and the percent urban population have positive impacts on contributions: a 10% increase in either variable increases contributions by 1%. The estimates do not suggest a free rider effect in larger churches: small churches are estimated to contribute less per member but the effect is not statistically significant. Competition from other congregations as measured by RELIGDIVERSE decreases contributions.

For the Tobit estimates of the LOCMIS model, the estimated marginal effects and their elasticities are reported to facilitate comparison with the CONTRIB model estimates. The LOCMIS model indicates church leaders' expenditures respond more to economic diversity than do congregation members' contributions. The GINI elasticity indicates a 10% increase in diversity increases expenditures by more than 8%. Also, the percent of low income earners has a larger effect on expenditures than on contributions; the elasticity is six times higher than in the CONTRIB model. Racial diversity in the community decreases LOCMIS but racial diversity in the congregation increases LOCMIS. If both measures of racial diversity increase 10%, LOCMIS does not change.

Mission expenditures are positively related to state and local taxes. More tax deductions are associated with more charitable expenditures, opposite the effect on member contributions. This estimate suggests 'crowding in' which occurs if charities build on government initiatives or if government contributions to charities signal worthy charities. For example, church leaders contribute to school related charitable and community programs, which are funded with local taxes. Both income and marginal tax rates have positive effects and ITEMIZE has a negative effect. More religious diversity is associated with more local mission expenditures. Mission expenditures are largely

¹² Helms and Thornton estimate the price elasticity of religious contributions generally between -.23 and -.27. They use 1-MTR, so these results are comparable.

affected by member contributions. For every \$100 contributed by the congregation, the elders expend about \$7 on local charities and a 10% increase in contributions increases mission expenditures by 10.5%.

Table 3 indicates the parameter estimates are robust with changes to big county sample, with a few exceptions. For the CONTRIB model, the big county sample estimates indicate contributions is more affected by both racial and economic diversity, but the economic diversity elasticity is still close to twice the magnitude of the racial diversity elasticity. The sample provides strong evidence of crowding out: the estimates of the positive income effect are about the same with both samples but the negative tax effect is substantially larger in the big county sample and the no crowding out hypothesis is rejected at the 1% significance level. Also, attendance does not affect contributions in this sample. Travel distances are likely shorter in the populous counties, which would increase complementariness. But, perhaps the alternative uses of time are more numerous, which increases substitutability and the effects cancel out in the more populous counties. Small congregations are estimated to contribute more per member. Similarly, the LOCMIS model estimates indicate local mission expenditures are not affected by racial diversity but are affected more by income diversity and the percent of low income earners. Also, marginal tax rates do not affect mission expenditures but college graduates do.

We estimates the models with samples that include only congregations with more than 95% white members to examine if members of less diverse congregations behave differently¹³. The models indicate that predominantly white congregations' contributions are more driven by economic diversity and less by racial diversity than the more diverse congregations in both samples. Table 4 reports estimates with the complete sample, with about 4000 fewer observations. The parameter estimates are very similar to those reported in Table 3 except for the racial diversity measures. These estimates indicate

¹³ Hungerman (2009) finds white congregations contribute less in areas with larger black populations and concludes charitable expenditures are reduced with more racial diversity in white congregations. We do not use all white congregations because we want to estimate the effect of racial diversity in the congregations.

the diversity in the community has a smaller effect on contributions and diversity in the congregation increases contributions, not decreases contributions as in the whole sample. Also, the estimates indicate in the largely white congregations, economic diversity has a much larger influence than racial diversity—the GINI elasticity is almost 6 times the magnitude of the racial diversity elasticity. Similarly, in the LOCMIS regression, racial diversity of the congregation and the community has smaller effects. The estimates for the big county sample congregations that are predominantly white, reported in Table 5, show similar results. The main difference from the complete big county estimates is that racial diversity has a smaller effect on giving by both the congregation and the church leaders and economic diversity has a larger relative effect.

5. CONCLUSION

This paper provides evidence that religious charitable giving is more driven by economic diversity than by racial diversity and that charitable giving is less racially motivated in predominately white congregations than in more racially diverse congregations. The analysis indicates that income diversity has a positive effect on member contributions and the elasticity of contributions with respect to income diversity is at least twice the magnitude of the elasticity of contributions with respect to racial diversity. We also find that only income diversity, not racial diversity, affects church expenditures on local charitable organizations. Contributions respond to marginal tax rates, state and local taxes, and congregation and religious diversity and state and local expenditures crowd out religious contributions. Our analysis provides support for the view that higher religious contributions in more racially diverse communities are altruistically motivated by need for charity more than desire to support one's racial group and suggests that increases in racial diversity will not reduce religious based charity that benefits minority groups.

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TABLE 1

MEANS AND STANDARD DEVIATIONS

Sample	Complete		Big Cnty.	% Diff.		Complete		Big Cnty.	% Diff.
CONTRIB	\$963.97		\$1031.87	-6.6%		MEMBERS	232.3	300.2	-22.7%
	\$491.34		\$505.18				267.3	430.6	
LOCMISSION	\$57.55		\$65.34	-11.9%		MEMBERT100	42	32	31.2%
	\$201.67		\$239.89				49	47	
ATTEND	61.18		60.23	1.6%		MTR	11.20	11.53	-2.9%
	27.95		25.01				1.78	1.90	
RACEDIVERSE	0.23		0.40	-41.8%		ITEMIZE	30.61	35.09	-12.8%
	0.19		0.18				13.65	13.66	
CONGDIVERSE	0.05		0.07	-24.6%		URBAN	62.90	78.81	-20.2%
	0.10		0.11				39.12	31.94	
GINI	0.53		0.53	-0.9%		COLGRAD	14.53	29.30	-50.4%
	0.07		0.07				8.44	10.10	
LOWINC	1.61		1.53	5.2%		MAINPROT	26.47	22.52	17.6%
	1.19		1.29				14.62	11.59	
RELIGDIVERSE	0.56		0.58	-3.0%		PERCIP	39.72	40.02	-0.8%
	0.11		0.10				10.53	10.46	

INCOME (\$1000s)	\$52.09		\$59.28	-12.1%		DENSITY	1218.27		1836.84	-33.7%
	\$35.73		\$42.46				4756.41		5803.69	
SLTAXES (\$1000s)	\$5.70		\$6.66	-14.4%						
	\$5.45		\$6.36							
CONGREGATION						MEMBERS				
Plus 95% White	79.47		72.70	-9.31%		% White	90.72		87.88	-3.24%
	22.10		44.55				24.50		27.34	
Plus 95% Nonwhite	5.15		6.60	21.97%		% Black	4.41		5.74	23.11%
	40.39		24.83				17.96		19.94	
OBSERVATIONS	24276									

DATA SOURCES:

Congregation data from Presbyterian (USA)

Economic variables from IRS tax return data, Census 2000 and American Communities Surveys 2005, 2006 and 2007

Community Characteristics from Census 2000 and American Communities Surveys 2005, 2006 and 2007

TABLE 2

COMPLETE SAMPLE REGRESSIONS

DEP. VARIABLE	CONTRIB			LOCMIS		
VARIABLE	COEF/ TSTAT	ELAST		VARIABLE	COEF/ TSTAT	ELAST
RACEDIVERSE	296.43**	0.07		RACEDIVERSE	-25.46*	-0.09
	15.05				-2.35	
GINI	369.29**	0.19		GINI	100.88**	0.81
	6.68				3.37	
LOWINC	18.67**	0.03		LOWINC	6.87**	0.17
	5.52				3.73	
CONGDIVERSE	-135.27**	-0.01		CONGDIVERSE	118.65**	0.09
	-4.43				7.47	
RELIGDIVERSE	-135.75**	-0.07		RELIGDIVERSE	51.55**	0.44
	-4.98				3.43	
INCOME	1.67**	0.08		INCOME	0.26**	0.21
	9.28				2.66	
SLTAXES	-3.12*	-0.02		SLTAXES	1.61*	0.14
	-2.48				2.39	
MTR	19.89**	0.22		MTR	2.16*	0.37
	10.51				2.10	
ITEMIZE	3.23**	0.10		ITEMIZE	-0.76**	-0.35
	7.37				-3.49	

URBAN	1.38**	0.08		URBAN	0.01	0.01
	13.35				0.17	
COLGRAD	5.54**	0.08		COLGRAD	-0.27	-0.06
	9.35				-0.84	
MEMBERGT100	-0.40	-0.02		MEMBERGT100	-0.27**	-0.17
	-1.64				-8.42	
ATTEND	8.59**	0.51		CONTRIB	0.07**	1.05
	6.43				21.97	
CONSTANT	-355.61**			CONSTANT	-116.83**	
	-4.52				-5.42	
Sample size	24,276					
$X^2 [\beta_{INCOME} = -\beta_{SLTAXES}] / \text{prob}$	1.62	.20				
R^2	.34			Pseudo R^2	.004	

* **/**** indicates significant at the 5% [1%] level
Regression estimated with SYNOD fixed effects and year binary variables

TABLE 3

BIG COUNTY SAMPLE REGRESSIONS

	CONTRIB			LOCMIS		
VARIABLE	COEF/ TSTAT	ELAST		VARIABLE	COEF/ TSTAT	ELAST
RACEDIVERSE	318.92**	0.12		RACEDIVERSE	-16.88	-0.10
	10.88				-1.01	
GINI	427.98**	0.22		GINI	128.89**	1.05
	5.63				3.12	
LOWINC	12.35*	0.02		LOWINC	7.73**	0.18
	2.54				2.81	
CONGDIVERSE	-83.82*	-0.01		CONGDIVERSE	118.59**	0.12
	-2.33				5.99	
RELIGDIVERSE	-76.14	-0.04		RELIGDIVERSE	60.88*	0.54
	-1.67				2.42	
INCOME	1.46*	0.08		INCOME	0.22	0.20
	6.80				1.86	
SLTAXES	-5.52**	-0.04		SLTAXES	2.03*	0.21
	-3.69				2.44	
MTR	25.56**	0.29		MTR	0.28	0.05

	9.50				0.18	
ITEMIZE	3.59**	0.12		ITEMIZE	-1.22**	-0.66
	6.27				-3.88	
URBAN	1.31**	0.10		URBAN	-0.05	-0.06
	8.78				-0.62	
COLGRAD	3.17**	0.09		COLGRAD	0.79**	0.36
	6.73				3.02	
MEMBERGT100	1.21**	0.04		MEMBERGT100	-.25**	-0.12
	3.82				-5.30	
ATTEND	-0.45	-0.03		CONTRIB	0.08**	1.23
	-0.26				16.91	
CONSTANT	-21.67			CONSTANT	-130.11**	
	-0.20				-4.31	
Sample size	15,624					
$X^2 [\beta_{INCOME} = -\beta_{SLTAXES}] / \text{prob}$	9.08	.003				
R^2	.13			Pseudo R^2	.003	

* [**] indicates significant at the 5% [1%] level

Regression estimated with SYNOD fixed effects and year binary variables

TABLE 4
 COMPLETE SAMPLE REGRESSIONS
 CONGREGATIONS WITH MORE THAN 95% WHITE MEMBERS

DEP. VARIABLE	CONTRIB			LOCMIS		
VARIABLE	COEF/ TSTAT	ELAST		VARIABLE	COEF/ TSTAT	ELAST
RACEDIVERSE	291.54**	0.06		RACEDIVERSE	-14.70*	-0.06
	7.31				-2.37	
GINI	603.22**	0.35		GINI	85.04**	0.90
	10.26				5.07	
LOWINC	28.86**	0.05		LOWINC	2.14*	0.07
	7.05				1.96	
CONGDIVERSE	916.12**	0.02		CONGDIVERSE	45.18	0.02
	6.82				1.33	
RELIGDIVERSE	-189.61**	-0.12		RELIGDIVERSE	8.84	0.10
	-6.67				1.09	
INCOME	1.63**	0.09		INCOME	0.14**	0.15
	8.40				2.71	
SLTAXES	-2.58	-0.02		SLTAXES	2.01**	0.44
	-1.59				3.47	
MTR	13.06**	0.16		MTR	-0.41**	-0.25
	6.46				-3.61	
ITEMIZE	3.01**	0.10		ITEMIZE	0.18	0.02
	5.09				0.44	
URBAN	0.78**	0.05		URBAN	-0.01	-0.01

	4.85				-0.40	
COLGRAD	5.14**	0.08		COLGRAD	0.31	0.09
	8.35				1.77	
MEMBERGT100	-57.02	-0.03		MEMBERGT100	-20.73**	-0.17
	-1.32				-12.04	
ATTEND	9.09**	0.59		CONTRIB	0.05**	0.92
	3.59				26.06	
CONSTANT	-383.78**			CONSTANT	-60.72**	
	-2.74				-5.07	
Sample size	19293					
χ^2 [$\beta_{\text{INCOME}} = -\beta_{\text{SLTAXES}}$] / prob	5.86	.016				
R^2	.32			Pseudo R^2	.008	

* ****** indicates significant at the 5% [1%] level
 Regression estimated with SYNOD fixed effects and year binary variables