

One or the Other: Parent Religiosity or Private School Choice

**One or the Other: Parent Religiosity or Private School Choice
May Reduce Crime and Paternity Disputes in Milwaukee**

Marilyn Anderson Rhames

Patrick J. Wolf

Department of Education Reform

University of Arkansas

October 30, 2021

Paper prepared for presentation at the Mid-South Education Research Association Annual Conference, November 9-12, 2021. The authors gratefully acknowledge Albany State University's Center for Educational Opportunity for its grant support of this research project. All claims made in the paper are our own.

Abstract

Religious faith is one of the strongest motivators known to man. For millennia, human beings have turned to a higher power to help them cope with the challenges of life and define their values and behaviors. Millions of people have died for their faith. Yet, when it comes to public education reform and research, the influence of religion is grossly underexplored. This study takes some initial steps to change that. We analyze parent survey responses from the 2008 Milwaukee Parent Choice Program (MPCP) Longitudinal Education Growth Study Baseline Report. Our analysis compares MPCP students who were matched to students from Milwaukee Public Schools (MPS) in 2006, and it sheds light on this vital research question: Does family religiosity complement or substitute (or is neither) for private school choice in shaping the character outcomes of students regarding subsequent criminal convictions, traffic violations, fines, or paternity suits? This study finds that family religiosity tends to be a substitute for private schooling in shaping character. Either parental religiosity or private school choice serves to suppress criminal tendencies and paternity cases of students later in life, but these two factors have their strongest positive effects on student character outcomes in isolation, not in combination. Apart from avoiding paternity disputes, students appear to be most aided by having religious parents OR private school choice, not necessarily by having religious parents AND private school choice.

Religion is an unspoken word in most education policy debates. Fears of violating the Establishment Clause in the First Amendment of the US Constitution, commonly referred to as “separation of church and state,” may be the primary reason why religion and religiosity tend to be omitted variables in public education research. Though the First Amendment strictly prohibits the government from *establishing* a religion or religious mandates, its Free Exercise Clause has affirmed freedom of religion and religious expression as a fundamental right of American citizenship. The U.S. government cannot establish its own church, but it also cannot hinder U.S. citizens in practicing their chosen faith.

Religion is deeply woven into the historic fabric of public education in the U.S. The nation’s first public school, the Boston Latin School, was established in 1635 under the influence of John Cotton, a Puritan scholar and preacher who sought to codify his religious sect and classical education in the New World (BLS History, n.d.). As Hamburger (2021, p. A13) writes, “The U.S. was founded in an era when almost all schooling was private and religious.” In the 1830s and 40s, mainstream Protestant schools in New England mandated the teaching of the King James Bible, group prayer, and the singing of hymns (Glenn, 1988). Catholics established their own system of parochial schools throughout the 19th Century in response. In the late 1800s, Protestant politicians and education policymakers sought to squash Catholic education by establishing Blaine Amendments which were state laws that prohibited “sectarian” (meaning Catholic) religious schools from receiving public funding even in the most indirect or trivial ways (Berner, 2019). Many U.S. public schools continued to have an overt Judeo-Christian tenor into the 20th century (Cook, 1909). Then the 1960s saw a series of U.S. Supreme Court decisions such as *Engel v. Vitale* (1962), *Abington School District v. Schempp* (1963), and *Epperson v. Arkansas* (1968) that drastically restricted religious content in public schools, including banning teacher-led prayer and mandatory Bible reading in the classroom.

Contrary to popular belief, however, “the First Amendment’s Establishment Clause does not create a no-contact zone between religious and governmental institutions” (Berner, 2019, p. 7). In fact, in 2020, the U.S. Department of Education, with the help of the U.S. Department of Justice, updated its “Guidance on Constitutionally Protected Prayer and Religious Expression in Public Elementary and Secondary Schools” as required by the Every Student Succeeds Act (ESSA) to inform the public of the ways in which religion and

public education may legally intermingle. For instance, while teachers are prohibited from encouraging or discouraging prayer with students in their official capacity as public employees, educators “may take part in religious activities such as prayer even during their workday at a time when it is permissible to engage in other private conduct such as making a personal telephone call” (U.S. Department of Education, 2020). In addition, “students may organize prayer groups and be given access to school facilities” on par with student rights to pursue secular extra-curricular activities that are student-led (U.S. Department of Education, 2020).

Despite laws protecting some measure of religious expression in public schools, social norms have stigmatized or silenced discussions about how religion can influence matters in public education, namely how the religiosity of families might impact educational programs designed to improve student outcomes. In the spirit of neutrality, for example, the U.S. Department of Education rarely, if ever, includes family religion or religiosity as a variable in its educational research studies. Most state-level education data collection procedures also treat religion or religiosity as an irrelevant demographic characteristic. The standard operating procedure of ignoring the influence of religion in education research studies greatly hinders what we can learn about what factors motivate family and student choices and outcomes. If education researchers do not collect data on family religion or religiosity, then they will never learn the extent to which those characteristics might correlate to or even cause certain shifts in outcomes. Those motivating factors will remain in the proverbial “black box.”

The United States of America remains a nation of believers. A 2014 religious landscape study of more than 35,000 Americans in all 50 states showed that more than 75% of American families ascribe to a religious faith. Specifically, 50.2% were Protestants, 20% were Catholics, 5.9% were a mix of non-Christian religions, and 22.8% professed no religion (Pew Research Center, 2014). The 2019 PDK Poll found that 39% of K-12 public school parents self-identified as “born again/Evangelical Christians” (Rhames, 2021). Although overall religious faith has slightly waned in the U.S. in the past decade, religious observance among the faithful, especially regular church attendance, had been as high as it had ever been in the years preceding the Covid-19 pandemic (Pew Research Center, 2015).

Given the preponderance of people of faith in the U.S., it is logical that private religious schooling remains viable. In 2015, 67% of all K-12 private schools in America were religious, enrolling 78% of private school students and employing 70% of private school teachers (Broughman et al., 2017). If the primary purpose of religion is to follow God's roadmap for living a moral and righteous life, then education researchers ought to study the extent to which religiosity influences students' character development, thirst for knowledge, and long-term success. To that end, this study is the first we know of to measure the impact of family religiosity on the effects of a private school choice program compared to public schooling.

Fortunately, the authors of the Milwaukee Parental Choice Program (MPCP) evaluation baseline report did collect data on the religion and religiosity of 1,503 parents who answered those specific survey questions (Witte et al., 2008). Still, none of the subsequent longitudinal reports analyzed the responses about family religiosity (Witte, et al., 2014; Wolf et al., 2018; DeAngelis & Wolf, 2019). These unexplored data provide us with the opportunity to conduct a re-evaluation of the MPCP to specifically examine the extent to which parental religiosity moderates the Milwaukee private school voucher program's effect on student character outcomes including criminal activity and paternity suits.

Our main questions are: Are religious parents and private schools substitutes or complements? In other words, does attending religious services one or more times a week plus enrolling in a predominantly religious private school produce clearly better life outcomes for students than for students who do just one or the other of these potentially character-building activities? In several of our statistical estimations we find that the character-enhancing effects of private school choice are clearer and stronger for children without highly religious parents. We also observe that family religiosity has a strong positive effect on the character outcomes of students in Milwaukee Public Schools. These results suggest that religious parents and private schools may be substitutes. That is, students may not necessarily need both resources; our study suggests that if they lack one, they do just as well in life if they have access to the other.

Our paper proceeds thusly. First, we describe the context of the Milwaukee Parental Choice Program. Next, we review the relevant literature on private school choice. After that, we present the competing theories regarding family religiosity as a potential moderator of private school choice character

effects. Then we describe our analytic strategy. After that, we present our empirical results. Finally, we conclude.

Background

The MPCP is the oldest urban school voucher program in the United States. The program was co-developed by Black activist and former Milwaukee Public Schools superintendent Dr. Howard Fuller as the “next step in a logical progression of the struggle” after his proposal to create a separate school district for the underserved Black families of Milwaukee narrowly failed in the Wisconsin State Senate (Fuller & Page, 2014, p. 205). Fuller then worked with Wisconsin Governor Tommy Thompson and State Assembly Member Annette Polly Williams to pass school choice legislation in 1989 (Witte & Wolf, 2017). Under the MPCP, state tax dollars are used to cover full private school tuition for low-income students who might otherwise attend public charter schools or traditional public schools in the Milwaukee Public Schools (MPS) district. The MPCP began as a pilot program limited to 337 students enrolled in seven secular private schools in 1990. The program has since grown to serve 28,583 students in 131 private schools in Milwaukee in the 2020-21 school year. If a specific grade in a specific MPCP school is oversubscribed in grades K-12, students are selected by lottery to receive a private school voucher for the school. Oversubscribed schools were a rarity during the time of the data collection for the MPCP baseline study in 2006, as participating private schools tended to recruit “choice” students until their school grades were full. Most students in the program received automatic enrollment in the participating private school of their parents’ choosing.

In 1996, the Republican-controlled Wisconsin state legislature lifted the ban on private religious schools in the choice program, allowing faith-based schools to accept school vouchers along with non-religious private schools. In 1998, the Wisconsin Supreme Court upheld that decision as constitutional (Fuller & Page, 2014), which led to a quadrupling of the number of schools participating in the MPCP over the year before (Wisconsin Department of Public Instruction, 2020; Wolf, 2012). In 2006, 82% of the private schools in MPCP identified as religious and 7.4% were classified as non-religious but following a religious tradition (Kisida, Jensen, & Wolf, 2009).

In 2008, the School Choice Demonstration Project at the University of Arkansas published the “MPCP Longitudinal Educational Growth Study Baseline Report” (Witte et al., 2008), which described the design, implementation, and baseline results for a planned five-year evaluation of the voucher program. The study matched 2,727 MPCP students one-to-one with the same number of MPS students in three stages: 1) students were exact-matched by grade and neighborhood using U.S. Census tracts; 2) students were matched within the same 5 percentile bandwidth of the Wisconsin Knowledge and Concepts Examinations (WKCE) annual standardized test; and 3) students were matched by nearest-neighbor propensity scores to break any ties. The authors argued that this process reduced possible selection bias in the MPCP portion of their sample, especially due to the student match on neighborhood, since families that live in the same neighborhood tend to share similar values and aspirations for their children’s education (Aronson, 1998; Levantahl & Brooks-Gunn, 2004; Sampson, Morenoff, & Gannon-Rowley, 2002).

At baseline, there were no significant differences in student academic performance among 6-9th graders. However, the study found that MPCP 3rd -5th graders scored slightly lower in math and reading on the state exams than their MPS counterparts. More interestingly, the research study conducted a telephone survey to which 1,783 MPCP and 1,407 matched MPS parents responded. A wide range of questions were asked, including the religious affiliation of the parents and how often they attended worship services (i.e., more than one time per week, once a week, once a month, only on religious holidays, and never). One noteworthy distinction was that “MPCP parents received more information from churches and valued religious instruction more than MPS parents” (Witte, 2008, p. 3).

Relevant Literature on School Choice

Since the baseline MPCP report was released in 2008, several research teams have used the data to evaluate various aspects of the nation’s oldest urban school voucher program. An initial study of the effect of the MPCP on student test scores reported statistically significant positive effects in reading but null effects in math in the fourth (and final) outcome year of the study (Witte et al., 2012). A follow-up publication explored the impact of high-stakes testing for the purpose of school choice accountability on test-score performance

and found that students in the MPCP voucher program grew significantly in their math scores the year after tests changed from low- to high-stakes (Witte et al., 2014). Researchers also investigated how the MPCP impacted the behavioral outcomes of young adults and found that students exposed to the voucher program in 8th or 9th grade had a reduction of about 53 percent in drug convictions, 86 percent in property damage convictions, and 38 percent in paternity suits by age 28 (DeAngelis & Wolf, 2019). Analyses of the effect of the private school choice program on high school graduation, college enrollment, and persistence in college reported consistently positive effects (Cowen et al., 2013). A follow-up analysis found that MPCP alumni who had been in 3rd-8th grade at baseline in 2006 had higher college completion rates by 2017 than the MPS students who were in the comparison group (Wolf et al., 2018).

There are numerous other private school voucher research studies outside of the Milwaukee context that show a mix of negative, null, and positive effects of these choice programs on student outcomes (Wolf, 2020). Chingos and his colleagues (2019) found that the Florida Tax Credit (FTC) scholarship that sends more than 100,000 students to private K-12 schools increased the college enrollment rates of 8th-10th graders by 10 percentage points and doubled the rate of those attending a four-year private college over non-FTC students in the state. An evaluation of the DC Opportunity Scholarship Program (OSP), the only federally funded private school voucher program for low-income students in the nation, showed that after three years in the program student outcomes in reading and math, as well as rates of school satisfaction and parental involvement, were statistically similar between the voucher and control groups. Chronic absenteeism, however, was 5.4 percentage points lower for students who participated in the DC OSP program than the control group (Webber et al., 2019). Recent evaluations of private school choice programs in Indiana (Waddington & Berends, 2018), Louisiana (Erickson, Mills & Wolf, 2021), and Ohio (Figlio & Karbownik, 2016) report negative to null test scores effects. The evaluation of the North Carolina private school choice program reports positive achievement effects (Egalite, 2020).

Of all the studies conducted in Milwaukee, Florida, Indiana, Louisiana, Ohio, and Washington, DC, none of them sought to measure the impact of family religious affiliation or religiosity on the ability of school choice programs to impact student outcomes. This omission is noteworthy because most of the private

schools that opt into the school choice programs are religious schools. Might these schools be capitalizing on the religiosity of families in a way that is not achievable in secular public schools? There is great gain in knowing if a family's propensity toward religious faith might advantage or disadvantage the outcomes that result from participation in private school voucher or scholarship programs.

Theories of Family Religiosity, Schooling, and Character Outcomes

Religious experiences and commitments tend to shape the values and behaviors of people. Unlike in education, the domains of medicine and psychology are not as phobic about including religion as an appropriate and meaningful indicator variable in empirical research and practical care. Hospitals and mental health centers frequently ask patients for their religious affiliation on in-take questionnaires. VanderWeele (2017) conducted a comprehensive literature review of the impact of religion on human flourishing and found that "participation in religious services is associated with numerous aspects of human flourishing, including happiness and life satisfaction, mental and physical health, meaning and purpose, character and virtue, and close social relationships" (p. 476).

Another literature review of research studies at the intersection of faith and religion suggests that high religiosity among students is correlated with improved grades, higher academic attainment, and reduced substance abuse (Fagan, 2010). Students who attended worship services weekly had a combined math and reading GPA of 2.9 compared to 2.6 for students who never attended religious services (Regnerus, 2000). Religious practice seemed to have a greater influence on the educational achievement and attainment of students in high-poverty areas compared to those in affluent communities, as high-poverty, high-religiosity students get a much more concentrated dose of positive influence through faith engagement than more affluent students who have more options (Regnerus, 2003; Jeynes, 2003; Brown & Gary, 1991; Elder & Conger, 2000). One study found that the high school dropout rate was 19.5% for students who attended worship infrequently compared to 9.1 percent for students who frequently attended religious services (Coleman, 1988).

There may be negative correlations between religious faith and education, as well. Generally, children of conservative fundamentalists and Pentecostals are associated with the lowest educational attainment among Christian denominations due to the strong emphasis on Biblical inerrancy and other faith influences (Beyerlein, 2004; Darnell & Sherkat, 1997; Sherkat & Ellison, 1999). Worldwide, Jewish students are associated with the highest educational attainment (Pew Research Center, 2016). Regardless of the particular faith, higher levels of education, income, and social capital tends to reduce the intensity of one's religious convictions (Sherkat & Ellison, 1999; Johnson, 1997; Fan, 2008).

The home and the church pew are not the only places where young people's values and habits are formed. As Hamburger (2021) states, "Schools often seek openly to actively shape the very identity of children." (p. A13) The primary motivation of the founders of the public school movement in the U.S. in the 1830s and 40s was to shape the values and behaviors of immigrants to make them less Catholic and European and more Protestant and American (Glenn, 1988). Schools matter.

Private schools would seem to have an advantage over public ones in forming student character, since they can draw upon a wide variety of ideas and traditions, including religious ones, to influence students. Although all schools have a responsibility to impart knowledge and skills to students, private schools bring to education normative views about human nature and human flourishing, as well as clear principles of right and wrong behavior, especially if they are grounded in a religious tradition. Schools are moral communities with moral ecologies that "form a larger ecosystem of powerful cultural influences." (Hunter & Olson, 2018, p. 11). With the greater autonomy that private schools possess, compared to their public counterparts, private schools are better able to establish a strong organizational culture that shapes student values and behaviors in positive ways (Bernier, 2017; Glenn & de Groof, 2002).

The freedom of private schools to incorporate religion into their lessons and activities might be the specific source of any private school advantage in shaping student character. Vice spreads largely due to what economists call the *agency problem*. People are more likely to engage in selfish behaviors, such as shirking their responsibilities or substituting their own preferences for organizational goals, when no one is looking (Brehm & Gates, 1997; Eisenhardt, 1989). If a person honestly believes that God is watching them, always, and will

hold them accountable for their actions, the agency problem is reduced. Religious faith should positively shape the character and behavioral outcomes of young adults, especially those who live in high stress, high crime areas. Private religious schools, as institutions that seek to promote religious faith, also should positively affect the character outcomes of young adults (Brinig & Garnett, 2014; Cheng et al., 2020). Religiosity, in home and school, should reduce irresponsible behaviors such as criminal acts and sexual promiscuity.

The final theoretical question to be addressed is whether access to private schooling through a choice program is a complement to, or a substitute for, religiosity in the home. A complementary good is defined as “a product or service that adds value to another.” (BoyceWire, n.d.a) A good example is that pancakes and maple syrup complement each other. Together they make for a much more enjoyable meal than they do separately. Access to private schooling would be a complement to parent religiosity if attending private schools significantly improves the character outcomes of students who already have highly religious parents. A substitute, in contrast, is “a product or service that is used in place of another.” (BoyceWire, n.d.b) High-speed internet from your cable company and high-speed internet from your telephone company are substitute services. You only need one or the other to browse the internet. Ordering both services would provide you with no additional benefit.

This study seeks to learn if participation in Milwaukee’s private school voucher program is a complement, substitute, or neither to parent religiosity in positively influencing the character outcomes of young adults. Our null hypothesis is that attending a worship service at least once a week has no effect on the MPCP’s impact on student outcomes. Any effects of parent religiosity and private school choice on student behavioral outcomes are independent of each other. The null position is that access to private schooling is neither a complement to, nor a substitute for, parent religiosity in affecting student character. However, since religiosity can be a powerful motivating force in people’s daily lives, and private schools have greater freedom to establish a strong moral ecology in their organizations, we suspect that either of two alternative hypotheses will be conditionally affirmed. Our first alternative hypothesis is that parent religiosity and private school choice are complements: higher levels of religiosity among parents will be associated with more positive

effects of the MPCP on students' life outcomes compared to MPCP students with parents who have lower levels of religiosity (heterogeneous effects) and MPS students with high and low religiosity (the comparison group). Our second alternative hypothesis is that private school choice and parent religiosity are substitutes: lower levels of religiosity among parents will be associated with more positive effects of the MPCP on students' life outcomes compared to MPCP students with parents who have higher levels of religiosity (heterogeneous effects) and MPS students with high and low religiosity (the comparison group). The essence of our second alternative hypothesis is that students need either their home or their school to be a powerful force for character development but realize no clear benefits from experiencing both.

Methods

We designed three ordinary least square regression models to examine the impact of parental religiosity on MPCP's effect on students' long-term character outcomes. The outcome variables, or y_i , consist of convictions for 9 types of crimes (felonies, misdemeanors, drug-related offences, property damage, thefts, batteries, restraining orders, resisting an officer, and total arrests) and three kinds of civil disputes (traffic violations, fines, and paternity suits).

The first indicator variable of interest is *HIRELIG*, which takes the value 1 if individual i (a parent) reported attending a religious worship service "more than one time a week" or "once a week," and takes the value of 0 if an individual reported attending religious services "once a month," "only during religious holidays," or "never." The other indicator variable of interest is *MPCP06*, which takes the value 1 if a student was attending a private school on a voucher in Milwaukee at baseline in 2006 and 0 if a student was an MPS match.

The first regression model includes the two indicator variables of interest (religiosity and MPCP) as well as student demographic variables for race, gender, grade (whether they were in 8th or 9th grade at baseline), and standardized reading and math scores. The second regression model includes all the variables in model 1 and adds parental controls for income, education level, and whether the student lived in a two-parent

household. All student and parent demographic controls are captured in the matrix X and robust standard errors are clustered by census track. The first two models follow the basic linear equation below:

$$y_i = \beta_0 + \beta_1 \text{HIRELIG}_i + \beta_2 \text{MPCP06}_i + \varphi X_i + \varepsilon_i$$

This equation allows us to determine if students in homes with high religiosity and/or students that make use of a private school voucher have life outcomes that are statistically different from students from homes with low-religiosity or students that attended schools in MPS. The model measures the direct effect of religiosity on character-influenced life outcomes, controlling for the effects of the MPCP and student background factors, as well as the direct effect of the MPCP on character-influenced life outcomes, controlling for the effects of religiosity and student background factors. Regression model 2 adds in parent controls.

The third regression model requires a slightly more complex linear equation that interacts the religiosity variable (*HIRELIG*) with the indicator variable for the private school voucher program (*MPCP06*). The outcome variables, or y_i , consist of the same set of outcomes as in the other two models, i.e., criminal convictions, and paternity suits. The following equation is for the regression model 3:

$$y_i = \beta_0 + \beta_1 \text{HIRELIG}_i + \beta_2 \text{MPCP06}_i + \beta_3 (\text{HIRELIG}_i * \text{MPCP06}_i) + \varphi X_i + \varepsilon_i$$

This model will help us determine if the effect of the MPCP on a given outcome is significantly different for students from families with high levels of religiosity compared to students from families with low levels of religiosity.

Except for the continuous measure of “fines,” our criminal and civil dispute outcome variables are regressed as both binary and count data. The modal value for all of them except “total arrests,” however, is 0, with the second-most-common value being 1. Excluding “fines,” “traffic,” and “total arrests,” the percentage of observations for which our crime and civil dispute dependent variables take any value besides 0 ranges from a low of 1.2% for property damage to a high of 12.8% for misdemeanors. This highly skewed distribution of our count-based outcome variables suggests that the main distinction among the participants in our study are between those who committed any number of instances of a particular crime and those who committed no instances of that crime. In other words, the main difference appears to be whether an observation is a 0 or anything-but-0 regarding each crime and civil dispute outcome. Thus, in addition to

conducting linear regressions on our count-based outcomes, we took the additional step of dichotomizing our count-based outcome variables by assigning the value 1 to observations in which the student had any non-0 value for that variable. We then estimate linear probability models for all three regression models, yielding changes in the likelihood of a given student observation being in the 1 category (e.g., convicted of any non-0 number of drug-related offences) linked to variation in our two variables of interest (MPCP participation and having a highly religious parent).

Table 1 captures the descriptive baseline data from 2006 that is used in this study. These data inform our variables of interest, the control variables describe a typical study population for a means-tested urban program in the Midwest, and our outcome variables prior to the dichotomization process described above.

Table 1**Descriptive statistics of all variables used in the analysis**

Variable	N	Mean	SD	Min	Max
<i>Student</i>					
MPCP 2006	2182	.50	.50	0	1
Black	2182	.70	.46	0	1
Hispanic	2182	.18	.389	0	1
Asian	2182	.04	.19	0	1
White	2182	.07	.26	0	1
Female	2182	.55	.50	0	1
Grade 8 or 9 in 2006	2182	8.73	.44	8	9
Math Z-score	1897	.01	.93	-3.13	3
Reading Z-score	1894	.08	.97	-2.97	2.54
<i>Parent</i>					
High religiosity	1503	.58	.49	0	1
Income 25k -35k	1404	.18	.39	0	1
Income 35k – 50k	1404	.14	.35	0	1
Income over 50k	1404	.11	.31	0	1
High school graduate	1509	.29	.45	0	1
Some college	1509	.33	.47	0	1
College degree	1509	.15	.35	0	1
Both parents in home	1505	.34	.47	0	1
<i>Crime Outcomes</i>					
Felonies	2178	.19	.79	0	16
Misdemeanors	2178	.27	.96	0	17
Drug-related crimes	2178	.11	.54	0	12
Property damage	2178	.01	.13	0	3
Thefts	2178	.05	.35	0	7
Disorderly conduct	2178	.07	.34	0	4
Batteries	2178	.03	.21	0	3
Restraining order	2178	.04	.21	0	3
Resisting an officer	2178	.04	.23	0	3

Total arrests	2178	1.24	2.61	0	34
<i>Civil Outcomes</i>					
Traffic	2178	.73	1.80	0	21
Fines	2178	526.05	1843.96	0	37717.84
Paternity disputes	2178	.11	.37	0	3

Though previous studies used the same baseline dataset to examine the effects of Milwaukee's school voucher program on adult criminal activity, paternity suits (DeAngelis and Wolf, 2019), and academic attainment (Wolf et al., 2018), we introduce the parental religiosity parameter and regard it as a quasi-treatment and as a treatment moderator in our analysis. Our main variable of interest, parent religiosity (*HIRELIG*), is drawn from parent surveys with both unit- and item-missing responses. Thus, our analytic sample is as much as 45% smaller than the full original sample that previous researchers used. The combination of a change in the analytic model and analytic sample leads us to generate findings regarding the direct effects of the MPCP on character outcomes that differ somewhat from those reported in previous analyses of these data.

Limitations

Though previous studies used the same baseline dataset to examine the effects of Milwaukee's school voucher program on adult criminal activity, paternity suits (DeAngelis and Wolf, 2019), and academic attainment (Wolf et al., 2018), we introduce the parental religiosity parameter and regard it as a quasi-treatment and as a treatment moderator in our analysis. Our main variable of interest, parent religiosity (*HIRELIG*), is drawn from parent surveys with both unit- and item-missing responses. Thus, our analytic sample is as much as 45% smaller than the full original sample that previous researchers used. The combination of a change in the analytic model and analytic sample leads us to generate findings regarding the direct effects of the MPCP on character outcomes that differ somewhat from those reported in previous analyses of these data.

Because this study uses more control variables and has a smaller sample size, it has fewer degrees of freedom and lower study power than previous analyses of the character effects of the MPCP. Study power also is reduced by the limited amount of variation in most of the dependent variables. Fortunately, 90.7% of

the young adults in our sample were never convicted of a felony by age 28. However, with little variation in the distributions of most of our dependent variables, like felonies, our analytic power is low.

As a result of low power, detecting true effects is much more difficult in this extension of the original study. To minimize the risk of committing Type II errors by failing to detect such effects, we use a 90% level of confidence as an appropriate threshold for statistical significance for this analysis. We also analyze each of the crime and paternity outcomes as both dichotomized binary variables and as count variables in their original form, since either functional form might be more efficient than the other, depending on whether the main character effect of our variables of interest is to reduce the likelihood of ever committing a crime or to reduce the number of crimes a person is likely to commit. Thus, we estimate each of our three models on dependent variables measured two different ways, for a total of six models. Since, in doing so, we are giving the data extra opportunities to demonstrate a significant association between our variables of interest and dependent variables, we interpret our findings as merely exploratory and not necessarily causal.

Results

First, we present the full results from our regression models estimating variation in the dependent variable “felonies.” Felonies are serious crimes that carry significant short-term and long-term repercussions. Thus, we present all the details regarding the relationship between our variables of interest – parent religiosity, MPCP participation, and the interaction between them – as well as the performance of all the control variables in the models. Since the performance of the control variables is highly consistent across the dependent variables, and those variables are not the focus of our study, in the interest of brevity, for the results for non-felony outcomes, we omit the information from the control variables, though they were included in the regression models that produced the findings on our variables of interest. For ease of explanation and to save space, going forward we refer to students that have parents with high or low parental religiosity as “high-religiosity students” or “low-religiosity students.”

Felonies

The independent effects of high religiosity and being in the treatment group (MPCP) on felony convictions were null. However, high religiosity did moderate the effect of the MPCP on felony outcomes.

Participating in the MPCP had a significantly larger effect on reducing subsequent criminal behavior for students with low religiosity parents than it did for students with high religiosity parents. This interaction effect between religiosity and the school choice program was statistically significant at the 90% confidence level. We used the linear combination function in Stata to derive the general treatment effects of both religiosity and the MPCP and compared all findings to the reference category of low-religiosity students in MPS.

Table 2

Felony convictions regressed on religiosity and private school choice, with student controls, parental controls, and interaction term. Count outcomes (Models 1-3) and binary outcomes (Models 4-6)

	(1) felonies	(2) felonies	(3) felonies	(4) felonies_bi	(5) felonies_bi	(6) felonies_bi
HIRELIG	-.033 (.043)	-.019 (.044)	-.090 (.07)	-.008 (.014)	.000 (.015)	.004 (.021)
MPCP06	-.022 (.041)	-.003 (.043)	-.088 (.063)	-.005 (.015)	.003 (.017)	.008 (.021)
BLACK	.17*** (.038)	.118*** (.039)	.125*** (.041)	.064*** (.015)	.041** (.017)	.041** (.017)
HISP	.037 (.031)	.025 (.038)	.032 (.038)	.021 (.014)	.016 (.018)	.016 (.018)
FEMALE	-.324*** (.044)	-.336*** (.047)	-.331*** (.046)	-.143*** (.014)	-.147*** (.014)	-.148*** (.014)
GRADE06	.061 (.039)	.053 (.043)	.054 (.043)	.021 (.015)	.016 (.016)	.016 (.016)
MATH_RR	-.011 (.024)	-.004 (.026)	-.004 (.025)	-.013 (.009)	-.011 (.009)	-.011 (.009)
READ_RR	-.038 (.025)	-.035 (.028)	-.036 (.028)	-.016* (.009)	-.015 (.01)	-.015 (.01)
Inc2535		-.029 (.042)	-.025 (.042)		.004 (.018)	.004 (.018)
Inc3550		.025 (.048)	.023 (.049)		.031 (.02)	.031 (.02)
HSGRAD_par		-.056 (.068)	-.060 (.067)		-.005 (.022)	-.004 (.022)
SOMECOLL		-.106 (.068)	-.104 (.067)		-.021 (.024)	-.021 (.024)
COLLEGE		-.096 (.077)	-.099 (.076)		-.029 (.026)	-.029 (.026)
BOTH2		-.171*** (.034)	-.172*** (.034)		-.076*** (.013)	-.076*** (.013)
HIRELIG_MPCP06			.146* (.078)			-.009 (.027)
_cons	-.259 (.33)	-.037 (.367)	-.018 (.364)	-.057 (.129)	.033 (.142)	.031 (.142)
Observations	1326	1223	1223	1326	1223	1223
R-squared	.058	.069	.07	.096	.114	.114

Standard errors are in parentheses

*** $p < .01$, ** $p < .05$, * $p < .1$

Table 3

Felonies (count): Linear combinations effects for regression in Model 3 and Model 6

Felonies (Count)	Coef.	Std. Err.	t	P>t	[95%Conf.	Interval]
HIRELIG x MPCP + HIRELIG	0.056	0.043	1.290	0.199	-0.030	0.142
HIRELIG x MPCP + MPCP	0.058	0.053	1.090	0.278	-0.047	0.163
HIRELIG x MPCP + MPCP + HIRELIG	-0.032	0.075	-0.430	0.671	-0.180	0.116
Felonies (Binary)	Coef.	Std. Err.	t	P>t	[95%Conf.	Interval]
HIRELIG x MPCP + HIRELIG	-0.005	0.020	-0.250	0.802	-0.044	0.034
HIRELIG x MPCP + MPCP	-0.001	0.022	-0.030	0.975	-0.044	0.042
HIRELIG x MPCP + MPCP + HIRELIG	0.004	0.022	0.160	0.873	-0.040	0.047

Table 4

Regression-adjusted effects of MPCP participation & religiosity on the count of felony convictions

Religiosity/School Sector	MPCP	MPS
High	-0.032	-0.090
Low	-0.088	Reference

See full regression and linear combination charts in Tables 2-4

*** $p < .01$, ** $p < .05$, * $p < .1$

Students in MPS with low religiosity provide the benchmark for the regression-adjusted effects of the private school voucher program and religiosity presented in Table 4. All else being equal, high-religiosity students in MPS commit an average of .090 fewer felonies than low-religiosity students in MPS. Low-religiosity students in the MPCP commit an average of .088 fewer felonies than their low-religiosity peers in MPS. Neither of these effects of religiosity nor private school choice on the accumulation of felonies are, themselves, statistically significant. The direction of the effects, however, are as expected. High-religiosity students in MPCP commit an average of .032 fewer felonies than students with low-religiosity in MPS, with the difference, again, not statistically significant. The coefficient on the interaction term from our main regression of .146 is statistically significant at the 90% confidence level. This indicates that the effect of the MPCP in reducing felonies averages .146 more for students with low-religiosity parents (-.088) than for students with high-religiosity parents (+.058). Because there were null results in our simple regressions and our linear combinations but a statistically significant finding in our interaction regression, we can only confidently assert this: *The MPCP has a stronger effect on suppressing future felony behaviors for students with low-religiosity*

parents than for students with high-religiosity parents. These results suggest that private schooling and a highly religious upbringing are not necessarily complementary in curbing felony behavior later in life. Instead, our data show that high-religiosity students who attend public school and low-religiosity students who attend private schools have the lowest felony counts as adults, suggesting the two factors might act as substitutes.

All Other Outcomes

To be succinct, we have restricted our reporting on crime, traffic, fines, paternity suits, and academic attainment outcomes to only feature our three variables of interest: 1) students with high religiosity, 2) students enrolled in MPCP schools, and 3) the interaction of religiosity and the private school choice program. All the control variables described in Table 2 were also included in these regressions, but we leave them in the background because they are not the focus of our study. The heterogeneous effects on outcomes are displayed in Table 5 below. Notice in the table that for felonies and resisting an officer, there is a positive statistically significant difference between the effect of the MPCP on the high-religiosity and low-religiosity students. This suggests a substitutionary effect of the school choice program and religiosity, as the MPCP had a greater effect on reducing crime for low-religiosity students over high-religiosity students. However, in the case of paternity suits, MPCP and high religiosity had a complementary relationship, as the difference in the effect of the two levels of religiosity in students was signed negatively. This means that the MPCP had a weaker effect on reducing out-of-wedlock births among students with low-religiosity than for their high-religiosity classmates. Other statistical significance among the high and low subgroups is also noted.

Table 5

Heterogeneous treatment effects of religiosity and the MPCP on crime and civil suits using count vs. binary measures (12 total outcomes)

	Felonies (1)		Misdemeanors (2)		Drugs (3)		Property Damage (4)	
	Count	Binary	Count	Binary	Count	Binary	Count	Binary
High religiosity in MPCP	.058 (.053)	-.001 (.022)	-.009 (.061)	-.011 (.024)	-.042 (.037)	-.017 (.017)	-.004 (.007)	-.004 (.007)
Low religiosity in MPCP	-.088 (.063)	.008 (.021)	-.075 (.070)	-.054** (.025)	-.128*** (.049)	-.040* (.021)	-.014 (.010)	-.014 (.010)
Difference	.146* (0.078)	-.009 (.027)	.066 (.096)	.044 (.035)	.086 (.064)	.023 (.027)	.011 (.014)	.011 (.014)
Observations	1223	1223	1223	1223	1223	1223	1223	1223

	Thefts (5)		Batteries (6)		Restraining Orders (7)		Resisting an Officer (8)	
	Count	Binary	Count	Binary	Count	Binary	Count	Binary
High religiosity in MPCP	.013 (.026)	-.003 (.014)	-.008 (.016)	-.004 (.012)		.022** (.010)	.020 (.016)	.017 (.011)
Low religiosity in MPCP	.001 (.014)	-.007 (.011)	-.008 (.015)	-.007 (.012)		.014 (.018)	-.020 (.021)	-.023 (.018)
Difference	.011 (.030)	.004 (.018)	.000 (.020)	.003 (.016)		.008 (.018)	.040 (.027)	.040* (.027)
Observations	1223	1223	1223	1223	1223	1223	1223	1223

	Total Arrests (9)		Traffic Citations (10)		Fines (11)		Paternity (12)	
	Count	Binary	Count	Binary	Count	Binary	Count	Binary
High religiosity in MPCP	-.066 (.169)	-.067* (.035)	-.168 (.124)	-.073** (.034)	-.168 (.124)	-.082** (.036)		-.041 (.029)
Low religiosity in MPCP	-.319* (.190)	-.093** (.035)	-.060 (.149)	-.033 (.037)	82.757 (139.83)	-.081** (.039)		.043 (.030)
Difference	.253 (.245)	.025 (.048)	-.108 (.197)	-.040 (.048)	-138.348 (211.819)	-.002 (.046)		-.065 (.038)
Observations	1223	1223	1223	1223	1223	1223	1223	1223

Standard errors are in parentheses *** $p < .01$, ** $p < .05$, * $p < .1$

*Student and parent controls as well as the religiosity \times MPCP interaction were included in the regressions, though not displayed on this table

One or the Other: Parent Religiosity or Private School Choice

Regarding the whether MPCP and/or high parent religiosity complements, substitutes, or neither, there is evidence from linear combinations that four of the 12 criminal outcomes appear to be at least partial complements and in two areas they appear to be substitutes. In the remaining six outcomes they appear to be neither, though more indirectly, through the heterogeneous effects noted in Table 5, we see a greater impact of MPCP on curbing felony and resisting an officer convictions among the low-religiosity students than the high religiosity students (substitution) and a greater effect of curbing paternity suits for the high-religiosity student over low-religiosity students (complementary).

Table 6

Statistically Significant Subgroup Effects of the MPCP and Parent Religiosity

	MPCP High Religiosity	MPCP Low Religiosity	MPS High Religiosity
Significant Reductions in Crime and Civil Suit Outcomes compared to MPS Low Religiosity	<ul style="list-style-type: none"> • Misdemeanors (-.046**) • Drugs (-.130***) • Total Arrests (-.078**) • Fines (-.087**) 	<ul style="list-style-type: none"> • Misdemeanors (-.054**) • Drugs (-.128***) • Total Arrests (-.093**) • Fines (-.081**) 	<ul style="list-style-type: none"> • Restraining Orders (-.024**) • Resisting an Officer (-.039**)

All other relevant regression charts are available from the authors upon request.

Conclusion

Administrators, teachers, and students all bring their religious commitments to school, whether those commitments are big, small, or non-existent. This study provides a rare glimpse into the impact that parental religious fervor may have on students' long-term life outcomes, particularly among children who participated in a private school voucher program in Milwaukee in 8th and 9th grades in 2006. These students were closely matched with Milwaukee Public School students, and we analyze their criminal, civil, and education attainment data from when they were 25 to 28 years old. With 89.4% of the participating private schools at the time being religiously affiliated or secular but following a religious tradition, it is most appropriate to question which families are best served by such a school voucher program based on long-term outcomes: highly religious families or families with little to no religiosity?

The results of this study suggest that the students in this sample—of which 70% are low-income, urban, African American students—benefit most by having either parental religiosity at home or access to school choice among predominately religious private schools (that is, the MPCP). In other words, of the ten percent or less of the sample that went on to acquire criminal records, fines, and traffic violations, they were disproportionately among the students who had little to no ties to a religious community and attended public school (that is, MPS). These students had “neither/nor”—neither religiosity nor private school choice. The emergent theory of this study is that students who have “either/or”—either religiosity or private school choice are statistically predicted to have better life outcomes than those who do not have those character-building resources. This theory was affirmed in the heterogeneous effects in the felony regression, which showed that students with low-religiosity in the MPCP had statistically significantly fewer felonies than the high-religiosity students in the MPCP. This emergent theme can also be applied to the finding that high-religiosity students in MPS were statistically significantly less likely to have a restraining order place on them or have a resist an officer compared to low-religiosity MPS students.

Paternity suits are the one unique case in which having high religiosity and private school choice is clearly complementary, not substitutionary. High-religiosity MPCP students had the lowest, statistically significant rate of being named in a paternity suit compared to low-religiosity students in both MPS and the MPCP. This suggests that a “double dose” of religion at home and potentially religion and character formation at a private school worked together to suppress unplanned and contested out-of-wedlock births. Moreover, having “either/or”—religion or private school choice—may have contributed to an increase of these unwanted pregnancies, which exceeded the reference group which had “none,” though these findings were not statistically significant.

Of the 12 studied outcomes, three of them had null results among all the variables of interest.

The findings in this study are not always straightforward with a clear path that affirms the “either/or” theory, yet the theory presents itself often enough to be taken seriously. More research is needed to further explore the impact that family religiosity and religious faith can have on private school choice programs as well as other highly studied educational interventions. Now is the time for the research

community to re-assess our assumptions about when and how religious faith can appropriately influence outcomes in education. When we begin asking new and different questions, we may discover just how much religious faith matters in schools—and in life.

References

- Abington School District v. Schempp*, 374 U.S. 203 (1963)
- Aronson, D. (1998). Using sibling data to estimate the impact of neighborhoods on children's educational outcomes. *Journal of Human Resources*, 33(4), 915-946.
- Berner, A. R. (2019). *The case for educational pluralism in the U.S.* John Hopkins University.
- Berner, A. R. (2017). *No one way to school: Pluralism and American public education.* New York, NY: Palgrave Macmillan.
- Beyerlein, K. (2004). Specifying the impact of conservative Protestantism on educational attainment. *Journal for the Scientific Study of Religion*. 43(4), 505-518.
- Boston Latin School. (n.d.). *BLS history*. History - BLS History. Retrieved from: https://bls.org/apps/pages/index.jsp?uREC_ID=206116&type=d.
- BoyceWire. (n.d.a). [Complementary goods definition](#).
- BoyceWire. (n.d.b). [What are substitute goods?](#)
- Brehm, J., & Gates, S. (1997). *Working, shirking, and sabotage*. Ann Arbor, MI: University of Michigan Press.
- Brinig, M. F., & Garnett, N. S. (2014). *Lost classroom, lost community: Catholic schools' importance in urban America*. Chicago: University of Chicago Press.
- Broughman, S.P., Rettig, A., and Peterson, J. (2017). Characteristics of Private Schools in the United States: Results From the 2015–16 Private School Universe Survey First Look (NCES 2017-073). U.S. Department of Education. Washington, DC: National Center for Education Statistics. Retrieved from <http://nces.ed.gov/pubsearch>.
- Brown, D.R., Gary, L.E. (1991). Religious socialization and educational attainment among African Americans: An empirical assessment. *The Journal of Negro Education* 60(3), 411-426.
- Cheng, A., Wolf, P.J., Wang, W., & Wilcox, W.B. (2020, September). [The Protestant family ethic: What do Protestant, Catholic, private, and public schooling have to do with marriage, divorce, and non-marital childbearing?](#) Institute for Family Studies, American Enterprise Institute, Washington, DC.

- Chingos, M.M., Monarrez, T., & Kuehn, D. (2019). The effects of the Florida Tax Credit Scholarship Program on college enrollment and graduation: An update. Urban Institute.
- Coleman, J. (1988). Social capital in the creation of human capital. *American Journal of Sociology* 9, S114.
- Cook, J. W. (1909, April 2). Statements of Prof. L. A. Vigness Criticized by Dr. John W. Cook. *The United Lutheran*, 2(13), 196-197.
- Cowen, J.M., Fleming, D.J., Witte, J.F., Wolf, P.J., & Kisida, B. (2013, Winter) [School vouchers and student attainment: Evidence from a state-mandated study of Milwaukee's parental choice program](#). *Policy Studies Journal*, 41(1), 147-167.
- Darnell A., & Sherkat, D.E. (1997). The impact of Protestant fundamentalism on educational attainment. *American Sociological Review*, Vol. 62, 306-315.
- DeAngelis, C. & Wolf, P.J. (2019). Private school choice and character: more evidence from Milwaukee. *The Journal of Private Enterprise* 35(3), 2020, 13-48.
- Egalite, A. J., Stallings, D. T., & Porter, S. R. (2020). An analysis of North Carolina's Opportunity Scholarship Program on student achievement. *AERA Open*, 6(1), 1-15.
- Eisenhardt, K. M. (1989). Agency theory: An assessment and review. *Academy of Management Review*, 14(1): 57-74.
- Elder, G.H., Jr., Conger, R.D. (2000). *Children of the land: Adversity and success in rural America*. Chicago: University of Chicago Press.
- Engel v. Vitale*, 370 U.S. 421 (1962)
- Epperson v. Arkansas*, 393 U.S. 97 (1968)
- Erickson, H. H., Mills, J. N., & Wolf, P. J. (2021). [The effects of the Louisiana Scholarship Program on student achievement and college entrance](#). *Journal of Research on Educational Effectiveness*, 14(4): 861-899.
- Fagan, P.F. (2010, September 2). Religion practice and educational attainment. Marriage & Religion Research Institute. Retrieved from <https://marri.us/wp-content/uploads/Religious-Practice-and-Educational-Attainment.pdf>

- Fan C.S. (2008). Religious participation and children's education: A social capital approach. *Journal of Economic Behavior & Organization*, Vol. 65, 303-317.
- Figlio, D. N., & Karbownik, K. (2016, July). *Evaluation of Ohio's EdChoice Scholarship Program*. Washington, DC: Thomas B. Fordham Institute.
- Fuller, H. & Page, L.P. (2014). *No struggle no progress: A warrior's life from black power to education reform*. Milwaukee, WI: Marquette University Press.
- Glenn, C. L., Jr. (1988). *The myth of the common school*. Amherst, MA: University of Massachusetts Press.
- Glenn, C. L., Jr., & de Groof, J. (2002). *Finding the right balance: Freedom, autonomy and accountability in education*. Utrecht, The Netherlands: LEMMA.
- Hamburger, P. (2021). Is the public school system constitutional? *Wall Street Journal*, October 23/24, A13.
- Hunter, J. D., & Olson, R. S. (2018). *The Content of Their Character: Inquiries into the Varieties of Moral Formation*. Finstock & Tew Publishers.
- Jeynes, W. (2003). The effect of religious commitment on the academic achievement of urban and other children. *Education and Urban Society* 36(44), 44-62.
- Johnson, D.C. (1997). Formal education vs. religious belief: Soliciting new evidence with multinomial logit modeling. *Journal for the Scientific Study of Religion*, Vol 36(2), 231- 246.
- Kisida, B., Jensen, L., & Wolf, P. J. (2009). *The Milwaukee parental choice program: Descriptive report on participating schools*. Retrieved from <https://files.eric.ed.gov/fulltext/ED508638.pdf>
- Leventhal, T., & Brooks-Gunn, J. (2004). A randomized study of neighborhood effects on low-income children's educational outcomes. *Developmental Psychology*, 40(4), 488-507.
- PKD Poll. (2019). Frustration in the schools: Teachers speak out about pay, funding, and feeling valued. *Phi Delta Kappan International*. Retrieved from <https://kappanonline.org/51st-annual-pdk-poll-publics-attitudes-toward-the-public-schools/>
- Pew Research Center. (2016, December 13). *Religion and education around the world*. Pew Research Center's Religion & Public Life Project. <https://www.pewforum.org/2016/12/13/religion-and-education-around-the-world/>.

Pew Research Center (2015). U.S. public becoming less religious: Modest drop in overall rates of belief and practice, but religiously affiliated Americans are as observant as before. Retrieved from

<https://www.pewforum.org/2015/11/03/u-s-public-becoming-less-religious/>.

Pew Research Center (2014). *Religious Landscape Study*. Retrieved from <https://www.pewforum.org/religious-landscape-study/>

Regnerus, M.D. (2000). Shaping schooling success: religious socialization and educational outcomes in metropolitan public schools. *Journal for the Scientific Study of Religion* 39(3), 363-370.

Regnerus, M.D. (2003). Staying on track in school: Religious influences in high- and low-risk settings. *Journal for the Scientific Study of Religion* 42(4), 633-649.

Rhames, M.A. (2021, August 23). [Are evangelical Christians abandoning public schools?](#) *Phi Delta Kappan*

Sampson, R. J., Morenoff, J. D., & Gannon-Rowley, T. (2002). Assessing 'neighborhood effects': Social processes and new directions in research. *Annual Review of Sociology*, Vol. 28, 443-478.

Sherkat, D.E., & Ellison, C.G. (1999). Recent developments and current controversies in the sociology of religion. *Annual Review of Sociology*, Vol. 25, 363-394.

United States. National Commission on Excellence in Education. (1983). *A nation at risk: The imperative for educational reform*.

U.S. Department of Education. (2020). [Guidance on Constitutionally Protected Prayer and Religious Expression in Public Elementary and Secondary Schools](#).

Waddington, R. J. & Berends, M. (2018). Impact of the Indiana Choice Scholarship Program: achievement effects for students in upper elementary and middle school. *Journal of Policy Analysis and Management*, 37(4), 783-808.

Webber, A., Rui, N., Garrison-Mogren, R., Olsen, R. B., Gutmann, B. (2019). Evaluation of the DC opportunity scholarship program: Impacts three years after students applied. National Center for Education Evaluation and Regional Assistance.

Wisconsin Department of Public Instruction (2020). MPCP facts and figures for 2020-21 as of October 2020.

Retrieved from https://dpi.wi.gov/sites/default/files/imce/parental-education-options/Choice/Data_and_Reports/2020-21/2020-21_mpcp_facts_and_figures.pdf

Wisconsin Department of Public Instruction (2020). Milwaukee Parental Choice Program membership and payment history, in total, 1990-91 to 2020-21. Retrieved from

https://dpi.wi.gov/sites/default/files/imce/parental-education-options/Choice/Data_and_Reports/2020-21/2020-21_mpcp_payment_history.pdf

Witte, J.F., Carlson, D., Cowen, J.M., Fleming, D.J., & Wolf, P.J. (2012, February). *The MPCP longitudinal educational growth study fifth year report* (Milwaukee Evaluation Report #29). School Choice Demonstration Project, University of Arkansas, Fayetteville, AR.

Witte, J.F., & Wolf, P. J. (2017). *The Wisconsin role in the school choice movement* (EDRE Working Paper No. 2017-12). Economics Research Network, Department of Education Reform, College of Education and Health Professions, University of Arkansas, Fayetteville, AR.

Witte, J.F., Wolf, P. J., Cowen, J. M., Carlson, D. E., & Fleming, D. J. (2014). High-stakes choice: Achievement and Accountability in the Nation's Oldest Urban Voucher Program. *American Educational Research Association* and SAGE.

Witte, J.F., Wolf, P.J., M Cowen, J., Fleming, D., & Lucas-McLean, J. (2008). MPCP Longitudinal Educational Growth Study Baseline Report. School Choice Demonstration Project Milwaukee Evaluation Report #5.

Wolf, P.J. (2020, July 1). *Private school choice programs: What do we know about their effects on outcomes for disadvantaged students?* A background paper for the Hoover Education Success Initiative, Stanford University, Palo Alto, CA.

Wolf, P.J. (2012, February). *The comprehensive longitudinal evaluation of the Milwaukee parental choice program: Summary of final reports* (Milwaukee Evaluation Report #36). School Choice Demonstration Project, University of Arkansas, Fayetteville, AR.

Wolf, P. J., Witte, J. F., & Kisida, B. (2018). Do voucher students attain higher levels of education? Extended evidence from the Milwaukee Parental Choice Program. Urban Institute, Washington, DC.

VanderWeele, T.J. (2017). Religious communities and human flourishing. *Association for Psychological Science*, Vol. 26(5), 476-481.