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The Failing Market of the Education System Under School Choice

Department *of* Economics



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Submitted to the Department of Economics of Allegheny College in partial fulfillment of the requirements for the degree of Bachelor of Arts.

I hereby recognize and pledge to fulfill my responsibilities as defined in the Honor Code and to maintain the integrity of both myself and the College community as a whole.

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Abstract

The purpose of this research is to analyze the outcomes and efficiency of school choice programs through the theoretical framework of market failure. School choice is a policy reform that is ever-present in current media – gaining a controversial reputation. Even though this topic is a current focus in the news, it has been the grounds for a longstanding reformation debate. From economists' and other social scientists' points of view, school choice is a policy that attempts of implementation of market theory. While generations of researchers have devoted much effort into the analysis of school choice programs, there still is no clear answer as to how school choice affects student outcomes. One consensus among research is that *if* school choice programs produce a positive effect on student achievement and outcome, it is very small. Small and even negative performance gains are common across the country's current choice programs, which sparks a question as to what factors contribute to these failing marks. Through case study analysis of two similar voucher programs with differing success rates, the Milwaukee Parental Choice Program and the Indiana Choice Scholarship Program, I will examine the presence of market failure through the mechanisms of negative externalities, market power and imperfect information.

Chapter 1: Introduction

How we invest in the education of children today affects the economic and social outcomes of tomorrow. It is no secret that the United States has never been a leader in student performance, however, according to the most recent 2016 data from the Organization for Economic Cooperation and Development (OECD), the United states is third in education spending, per capita (2020). This points to a system that is less than optimal when it comes to efficiency or performance. With that said, there is a sense of urgency to improve educational outcomes, not just for the betterment of national competition, but also for the betterment of future human capital in the country, which lends to a better future economy and quality of life for many Americans. While there is agreement on the need for reform, there is disagreement on how the country should approach its execution.

When it comes to education reform, the population seems to be polarized: one side argues outcomes and social welfare will be optimized through improving support for the public education sector, while the other side argues that public education sector has proven to be insufficient and must be held accountable through private sector competition. The notion of taking public goods (resources) and services (education) and reallocating them to the private sector has stirred up emotions of all parties involved – especially policy makers and academic researchers. Due to the nature of the topic, education reform has become a politically charged topic. These emotions tend to muddy the waters of the truth in how student outcomes are actually affected by policies such as school choice. Therefore, it is important to ask and conduct extensive research on exactly how school choice policies affect student outcomes and if taking a market-based approach to education will lead to prosperity or market failure.

Chapter 2: Literature Review

Proponents for school choice argue that by allowing the education system to resemble a marketplace where parents act in their own self-interests to obtain the good (an informative education for their child) and have control of choice, the system will become overall more efficient. Opponents' arguments are rooted in the limitations of such a system due to a fear of greater school-based segregation and a hesitation for loss of public control and funding to flow to private institutions. While there is a case for the benefits of operating through a reformed public sector, the focus of this paper is not a dispute between the two types of reform but specifically on the effects on student outcome within the bounds of reforms that operate through school choice programs.

Overall, the literature shows that there are very few improvements in student outcomes for students enrolled in school choice programs (Abdulkadiroglu, A., Pathak, P. A., & Walters, C. R., 2018; Goldhaber, 1996; Goldhaber, 1999; Jabbar, Fong, Germain, Sanchez, Sun et al., 2019). The literature finds that operating the education system as an open market does not lead to efficiency through competition nor improved outcomes. However, choice does improve parent satisfaction. Within the literature there seems to be a theme of the proposed benefits versus the actual findings once student outcomes are studied. While the proposed benefits and theory behind school choice seems bulletproof, many of the researchers find little to no significant evidence in favor of school choice mechanisms. In this section, I present the common findings on how school choice policies affect student outcomes and school competition as well as the main take-away arguments from some of the most prominent researchers of the topic.

The Purpose of Choice

It is recognized that U.S. education productivity has plummeted since the 1970's and greater action needs to take place in order to address this issue (Hoxby, 2003). School choice,

vouchers specifically, are expanding rapidly in the United States, as the number of students using educational vouchers increased 130% between 2009 and 2015 alone (Abdulkadiroglu et al., 2018, p.117). Some researchers and policy makers agree that school choice is a “symbol for respecting parental preferences, providing opportunities for children, and avoiding unnecessary government intervention and bureaucracy” (Ben-Porath, 2012, p. 172). Support for school choice is based on a variety of ideological commitments, including a preference for smaller government, less investment in public education, and more reliance on market strategies and “private sector innovation” to improve the quality of schools as well as advancing equity (Ben-Porath, 2012, p. 172). Choice not only presents the possibility for increased efficiency but also families are happier expressing choice. This points to the benefits of economic revealed preference considerations and possibility for higher or even maximized consumer utility (Abdulkadiroglu et al., 2018).

Many proponents of choice argue that improvement in educational outcomes will only be achieved when the public schools are forced to compete in the market for students with more efficient schools. This, proponents argue, should increase school accountability to the consumers of education: students and parents. However, there is much research that points out that while the effect of competition is positive, it is very small. One study in particular takes great care in controlling for a wide range of covariates that many studies neglect and finds that it is essential not to "overstate the impact of competition, that a rising tide lifts all boats, given that the effects are too small to have a major impact on educational quality and inequality on their own” (Jabbar et al., 2019, p. 22).

The opponents of choice bring up important factors that concern social welfare. Of these topics, opponents find fallacy in delegating public resources to private institutions. While many

argue that choice does not affect the resources of the public sector as there should be a balance of loss of financial responsibility (costs in educating a student) and pupil spending, other researchers have differing results: “fixed costs associated with schooling, an equal percentage loss of students and funding (implying no change in per-pupil spending) could result in significant decreases in real educational resources” (Goldhaber, 1999, p. 21). This occurrence disproportionately disadvantages schools in need of such funds. While the draining of the public sectors finances is apparent, research finds that overall, empirical work does not observe the effects of students transferring from the public sector to the private sector negatively affects the public sectors performance or makes them statistically “worse off” (Goldhaber, 1999, p. 20).

Another great concern of opponents is the evidence of greater segregation among race and income. One intention of choice policies is to combat the very issue of segregation that is observed via zip codes in the public sector. Choice is meant to remove the regulation that promotes racial and income segregation, allowing for greater freedom and a stronger opportunity for parents to express their preferences through their choice of schools regardless of the community in which they live (Ben-Porath, 2012). However, researchers have found that market forces created by school choice work against racial integration that the public sector has worked so long to improve (Ben-Porath, 2012). Choice allows communities to organize their children in “separate educational enclaves”, thus often creating limited opportunities for poor and minority children (Ben-Porath, 2012, p. 179). In analyzing this argument, it is useful to remember that “the free market, under certain conditions, guarantees efficiency but it does not guarantee equity” (Goldhaber, 1999, p.17)

Risk of MalPractice

As with the deregulation of any sector of the economy there is always fear associated with what cannot be controlled. One of the greatest hesitations with school choice is not knowing whether the proposed program or the private institutions will conduct themselves ethically or equitably. The first issue that frequently receives recognition is that school vouchers are often small relative to per pupil spending and the cost of a private school tuition (Goldhaber, 1999). This means that often students of lower socioeconomic statuses (SES) do not have the private school opportunities or access to a better education as do students whose parents can afford to subsidize the voucher with their own money. A case study of the Chilean education system has uncovered extensive evidence of private schools exploiting this very issue as a mechanism to keep away “undesirable” students (Verger, Bonal & Zancajo, 2016). Even if tuition remains within the limits of the voucher, private schools may charge additional fees to go above and beyond the voucher amount, acting as a barrier to lower-income families (Verger et al., 2016, p. 231).

On the other side the spectrum of exploitation, there are also many voucher programs that incentivize private schools to engage in rent seeking behaviors. This is observed when a private school chooses to participate in voucher programs and charge a low tuition to gain a large population of students. This is successful because the tuition they charge undercuts competitors tuition. The problem arises when it comes to light that these schools have a more competitive price but poor educational abilities. A study of the Louisiana State Choice Program, a program that requires schools to apply for eligibility to enroll voucher students, revealed that poorly performing private schools with rapid enrollment declines would enter the voucher program charging a lower tuition relative to nearby private schools to compete for voucher students. While the tuition was higher than that of public and charter options, it was still lower than private

schools outside of the program. This allowed these underperforming schools to exploit the idea that private is better by cashing vouchers but offering a lower quality education (Abdulkadiroglu et al., 2018). The same study found that tuition was inversely related to math achievement among participating school, providing evidence that underperforming schools enter the program to make profit instead of bettering their educational resources and school quality (Abdulkadiroglu et al., 2018). These incentives encourage rent seeking behavior among participating private schools harming not only the integrity of the voucher program but more importantly student performance.

Imperfect Information

Another risky factor in enacting choice programs is the problem of imperfect information. Findings show that it can be riskier to operate under choice when there are incentives for schools not to provide adequate information, which has been shown to disproportionately affect minority groups – leading them to becoming academically worse off (Hastings & Weinstein, 2008). Further, failure in providing accessible information to families may lead to irrational choices (which can be driven by personally attributed values regarding what signals good quality). A national study shows that access to information within school choice systems may be unequally distributed across racial lines. This information asymmetry could and has been shown to result in academic and social segregation (Verger et al., 2016). Such issues have been found, again, to disproportionately affect disadvantaged families as they often experience higher rates of issues such as a lack of information or difficulties interpreting information properly (Verger et al., 2016).

There may be other driving forces that explain parents enrolling their children in schools despite their negative test scores. While it may reflect a lack of knowledge about achievement

effects it could also signal the importance of personal preference for school characteristics other than academic quality (Abdulkadiroglu et al., 2018). With that considered, there is evidence that, on an individual level, parents do make quality distinctions among schools. Studies show that parents will choose schools that show greater education achievement – the likelihood of selecting the private sector increases when achievement in the private sector is higher than that of the public sector (Goldhaber, 1996). While it is shown that parents are more likely to send their child to a private school with smaller class sizes and parents often do respond to changes in achievement, higher SES students seem to be the greatest driving force in choice (Goldhaber, 1996).

Segregation

Access to high-quality schools has been persistently unequal in the United States, in part due to historical patterns of segregation and contemporary zip-code discrimination. Zip code discrimination is the system in which most public schools segregate their students; depending on the radius in which a student lives determines what school that student will attend. This causes richer communities to attend wealthier, more resourced schools (due to the higher local tax given the higher income residents) and poorer communities to attend less wealthy, less resourced schools. Socioeconomic discrimination is a concern for policies such as school choice and while critics fear choice policy will exacerbate discrimination, proponents claim that it will attempt to combat it. While there is a lot of rhetoric that claims programs such as vouchers will equalize opportunity, research does not promote such an argument. It has been widely found that parents choosing schools for their children will choose schools that have higher socioeconomic rates and a lower minority share of students (Ladd, 2002; Goldhaber, 1996; Ben-Porath, 2012). More specifically, in all models estimated by Goldhaber (1996), the larger share of students that are

white within a school (private or public) the more likely that school is to be chosen (p. 99). As Ben-Porath (2012), found and explained, a one-percentage point increase in minority share of a school's student makeup increases the likelihood of white student choosing the private sector by twenty-seven percent (p. 177).

Empirical evidence shows that in many studies, when controlling for achievement, parents favor schools that have a higher proportion of white students. Evidence of such school segregation is demonstrated in the demographic makeups of schools within districts that operate under choice programs. In the Charlotte Mecklenburg Schools, there has been evidence of segregation among race and class lines – public schools in the district have student body makeups of eighty percent of the students being members of minority groups and over eighty percent are who are poor (Ben-Porath, 2012, p. 177). In an examination of school enrollment in Boston, it was found that parents tend to enroll their children in private schools after the public schools reached a given threshold of minority percentage enrollment (Goldhaber, 1999).

Ben-Porath (2012), finds two explanations for segregation: it is a result of white-flight and the decision of parents to self-segregate into more racially isolated schools. White flight is prompted by poverty levels and by the concentration of minority children in a school population (Ben-Porath, 2012). Self-segregation or voluntary self-separation explains that minority groups prefer to be in a community of like-members: “if white students who attend overwhelmingly white schools in environments that some consider racially isolated can succeed and excel, minority children can reach similar levels if given adequate facilities, effective curriculum and instruction . . . and culturally relevant materials” (Ben-Porath, 2012, p. 181). It was found that African American families tend to prefer schools that have around fifty percent minority students

where white families prefer a much lower minority rate – as a result, schools that are more diverse become, with time, self-separated (Ben-Porath, 2012, p. 179)

Along with racial segregation, income levels are also an important factor in school choice decisions among white families. A large analysis conducted by Stanford University concluded that the most significant perpetrator of the racial achievement gap is poverty as opposed to a school's racial composition (Reardon, Weathers, Fahle, Jang & Kalogrides, 2019). Therefore, when thinking about school segregation, there should be great consideration in creating opportunity in addressing economic equality as much as racial equality.

Student Outcome

At the apex of what has already been discussed in the school choice movement is whether or not allowing for more choice mechanisms such as vouchers can improve student outcomes. It is on this point that there is great political divide but similar empirical consensus. That is not to say that there are no conflicting results empirically, especially in the short term. For example, when it comes to vouchers, some research finds that they provide positive benefits to their users, but other studies find unanimously insignificant gains to voucher recipients (Ben-Porath, 2012). When looking at school performance over a short period of time, some research show gains in areas such as testing scores and racial achievement gaps (Hoxby, 2003). This effect is often attributed to threats of competition between schools, boosting their overall quality (Hoxby, 2003, p. 337). In theory, this is the goal of school choice. However, looking at more long-term data, it is often found that the effects of school competition on achievement are on average positive, but very small (Jabbar, Fong et al., 2019).

Voucher programs do not show to substantially increase the productivity or efficiency of schools (Ladd, 2002). Findings suggest that school choice programs generally produce zero or

small positive effects for participating students, but they almost never reduce student achievement (Abdulkadiroglu et al., 2018, p.176). Jabbar et al. (2019) finds that the lack of negative impact on outcomes might “ease critics’ concerns that competition will hurt those students left behind due to school-choice policies” (p. 22).

While that may be true for advantaged or majority students, other research finds that the positive attainment gains are seen mostly by disadvantaged groups, but many researchers argue that the likelihood of harm caused by school choice within these groups is greater than the possibility of gains (Ladd, 2002, p. 21). Children in segregated schools exhibit lower levels of educational achievement than the same children or their peers in the integrated schools of the recent past (Ben-Porath, 2012, p.178). With that considered, parents in school choice districts may choose to not engage in choice and remain in schools that are less than favorable. The consequence of opting out of choice is most harsh on impoverished families, attending impoverished schools due to zip-code segregation. The students can experience issues that worsen a segregation situation such as an unequal distribution of resources, such as financial resources and highly qualified teachers. A lack of resources such as these, show to lead to decreased educational attainment, especially in high minority populated schools (Ben-Porath, 2012).

One study of the Louisiana Scholarship Choice Program found that attending a choice accredited private school increased the likelihood of a failing score by between twenty-four and fifty percent (Abdulkadiroglu et al., 2018, p, 176). The voucher effects are more negative in earlier grades, but still reduce achievement in later grades as well (Abdulkadiroglu et al., 2018). These impacts were found to be similar across family income levels and regional locations. Issues like this emerge when parents lack proper information in making choice decisions.

However, even when given adequate information, it does not guarantee greater student outcomes.

Research on other avenues of choice, such as charters, leads to a consensus that charters do not provide better educational outcomes than their comparable public school - an Institute for Education Sciences study found that charter schools are no more or less successful than traditional public schools in improving student achievement or progress (Ben-Porath, 2012, p. 172).

While it is generally assumed that attending a school with higher academic achievement can increase a student's achievement, research finds that putting a random lower testing student thrown into a higher achieving school is not likely to create greater achievement results for that student (Hastings & Weinstein, 2008). Further, it is found that in no case is there a positive statistically significant effect favoring private schools, therefore the argument that the private sector outperforms the public appears weak (Goldhaber, 1996, p. 99). The differences in school sectors and their performance seem to be more so attributed to differences in the characteristics of students than schools themselves.

Findings in the current literature are especially interesting as there seems to be a divided consensus politically yet underwhelming results empirically. The division seems to be rooted in the difficulty in measuring the effects of school choice programs. Variables that account for changes in student outcome are most commonly changes in standardized testing scores. This can prove to be problematic as changes in test scores can be a result of many other factors outside of what school a student is attending. Even the changes in the writing of these scores can affect overall student performance. In such a politically charged environment, there is great paranoia

and hesitation surrounding the writing and results of these tests and what they really measure and communicate.

Overall, much of the research and its results go against what economic theorist would expect a market system to produce as suggested in market theory. It seems that choice does not inherently generate significantly positive outcomes or create massive inequities. This points out the importance of policy makers consideration for the impacts school choice has on student achievement and equity. Current literature does not conclude as to why the popularly proposed system of choice in America does not produce the results that it promises. Perhaps, it is the overlook of fragile factors of social welfare. Further, market failure could be used as a descriptive mechanism for the great deal of inconsistent and conflicting results regarding school choice. To explore this, I look at case studies of prominent choice programs, the Indiana Choice Scholarship Program and the Milwaukee Parental Choice Program and examine features of the policy and how consumers received it via student outcome. I explore market failure as the contributing mechanism of the underachieving findings that go against what theory says a free market should produce.

Chapter 3: Empirical Findings

Milwaukee Choice Program and the Indiana Choice Scholarship Program are two of the longest standing choice programs in the country and while these programs are similar in regard to mandate, they differ drastically in student outcome. Milwaukee boasts improving scores while students who participate in Indiana have been shown to suffer academically. In this section, I examine empirical work that outlines how school choice programs affect student outcomes in order to prelude how student outcomes may be influenced by policy that adjusts for the possibility of market failure. In examining the empirical work, I first draw attention to

researchers' findings, discuss the interpretation of the results and then highlight limitations of the research methods.

Milwaukee Parental Choice Program (MPCP)

The Milwaukee Parental Choice Program is the oldest choice program of its kind in the nation. Given its long standing, there has been extensive research conducted about the effects of school vouchers on student performance. Most famously, the School Choice Demonstration Project (SCDP) conducted extensive research on the effectiveness of the program using a wide variety of metrics and established the popular “matching methods” to compare students in the MPCP with students in Milwaukee Public Schools (MPS) who were similar in neighborhood, race, and prior achievement (Cowen et al., 2013). Among the findings from this matching analysis are that students in the MPCP were 4-7 percent more likely to graduate from high school and that students in the MPCP were found to achieve higher scores in reading but maintained similar results in math (Witte et al. 2012). Later research has found similar positive effects of the MPCP (Flanders, 2018)

Methods

To examine the effect of the Milwaukee Parental Choice Program, I draw from Flanders (2018) and Cowen, Fleming, Witte, Wolf, and Kisida's (2013) research and findings. In doing so a greater understanding of the general effects of MPCP should surface and can be drawn from to better understand policies and practices.

Flanders uses matching methods, which matches voucher students to their public counterpart, as was laid out by the SCDP. The data was provided by the Department of Public Education's WISEdash system. The WISEdash system provides information on student achievement metrics and specific student demographics such as race and economic disadvantage.

The dependent variables in Flander's (2018) work are measures of achievement on the ACT and FOREWORD exam, focusing on the subjects of English language arts and mathematics

Cowen et al.'s (2013) work also examines the effect of the MPCP, looking specifically at educational attainment regarding highest level of schooling. Cowen et al. (2013) also employs matching methods. This is accomplished by using a mixture of census and standardized exam data, matching students from the same neighborhood, within the 5 percent bandwidth of 2006 test score and student demographics. While focusing more in depth on attainment, Cowen et al. do pay attention to achievement and examines students' (grades 3-8) test scores using 2006 data from the standardized Wisconsin Knowledge and Concept Exam, with a focus on mathematics and English language arts.

Graduation

Table 1.1 High School Graduation and Postsecondary Enrollment Rates¹

	MPCP in 2006 (%)	MPS in 2006 (%)	Difference
Graduation			
On-time graduates			
2006–07 9th graders	76.0	69.0	7.1***
2006–07 8th graders	73.7	71.6	2.1
Five-year graduates (2006–07 9th graders only)	5.4	9.5	–4.1***
Ever graduated	79.0	76.0	3.0
Postsecondary enrollment			
Two years	12.1	14.0	–1.9
Four years	25.8	21.5	4.2**
Persist in 4-year (baseline 9th grade only)	21.0	17.9	3.1

Notes: *** $p < 0.01$, ** $p < 0.05$. "Sources for graduation status: Milwaukee Public Schools (MPS) enrollment database as of fall 2011; official 2010 and 2011 graduation list of all private high schools participating in the Milwaukee Parental Choice Program (MPCP); parent telephone survey regarding student status administered in the summer of 2010 and 2011. Graduation estimates weighted for nonresponse and missing data. Source for postsecondary enrollment: National Clearinghouse Data retrieved September 2011; enrollment rates are for Fall–Spring 2010 or Fall–Spring 2011" (Cowen et al., 2013).

¹ Reprinted from "School vouchers and student attainment: Evidence from a State-Mandated Study of Milwaukee's Parental Choice Program" by Cowen, J. M., Fleming, D. J., Witte, J. F., Wolf, P. J., & Kisida, B. (2013). Policy Studies Journal, 41(1), 147-168. doi:10.1111/psj.12006 p. 154

Cowen et al. (2013) examined how MPCP compared to MPS student attainment using matching techniques. The first take away from the study is that the authors found no statistically significant difference in the student body make-up, focusing on characteristics such as race and gender. This is important as it shows the lack of segregation, at least across racial and gender lines, in the MPCP – a great concern for the education choice marketplace.

Table 1.1 highlights the difference in graduation rates between MPCP students and that of MPS using 2006 data. What is shown here is that the MPCP students see a seven percent increase in graduation rates compared to the MPS students. It also shows that students are more likely to graduate on time, which is demonstrated by a higher four-year graduation rate and a lower five-year graduation timeframe.

Attainment

Table 1.2 Attainment Differences Controlling for Parental Characteristics²

Variables	Graduate from High School	2-Year College	4-Year College	Persist in 4-Year College
Student characteristics				
MPCP in 2006	0.16* (0.095)	-0.05 (0.090)	0.14* (0.080)	0.16 (0.106)
Black	-0.03 (0.176)	0.11 (0.173)	0.01 (0.150)	-0.14 (0.172)
Hispanic	0.18 (0.206)	0.11 (0.191)	-0.06 (0.169)	-0.20 (0.205)
Asian	1.05** (0.443)	0.06 (0.423)	0.29 (0.291)	0.11 (0.393)
Female	0.30*** (0.099)	0.01 (0.094)	0.48*** (0.089)	0.50*** (0.117)
Math 2006	0.11* (0.068)	0.02 (0.066)	0.14** (0.059)	0.17** (0.068)
Reading 2006	0.19*** (0.055)	0.05 (0.060)	0.36*** (0.065)	0.30*** (0.071)
Parent characteristics				
Two-parent home	0.16 (0.131)	0.02 (0.127)	0.08 (0.104)	-0.00 (0.128)
Inc. > \$50 K	0.26 (0.200)	0.20 (0.173)	-0.12 (0.139)	0.04 (0.183)
Inc. \$35-49 K	0.13 (0.148)	0.13 (0.137)	0.06 (0.121)	0.15 (0.145)
Inc. \$25-34 K	-0.14 (0.124)	-0.08 (0.147)	-0.06 (0.118)	0.04 (0.143)
High school degree	0.14 (0.135)	0.23 (0.141)	0.25* (0.130)	0.06 (0.166)
Some college	0.28** (0.132)	0.37*** (0.142)	0.28** (0.121)	0.05 (0.167)
College degree	0.30 (0.199)	0.38** (0.182)	0.58*** (0.157)	0.39** (0.192)
Attend church	-0.13 (0.101)	0.07 (0.098)	-0.02 (0.097)	0.10 (0.121)
Constant	0.44** (0.207)	-1.51*** (0.226)	-1.29*** (0.186)	-1.33*** (0.250)
N	1,012	1,200	1,200	842
Marginal MPCP effect	0.041	-0.009	0.038	0.043

Notes: *** $p < 0.01$; ** $p < 0.05$; * $p < 0.10$, two-tailed. "Estimates are probit coefficients. Standard errors are clustered by 2006 census tract. Sources for sector and demographic are Milwaukee Public Schools (MPS) official enrollment files, 2006-09 and enrollment confirmations from private schools in the Milwaukee Parental Choice Program (MPCP), 2006-09. Source for Benchmark achievement are MPS test files (MPS) and project-administered examinations in 2006. Source for postsecondary enrollment is the National Student Clearinghouse, enrollment verified at any time during the 2010-11 or 2011-12 academic years. Persistence in 4-year college is restricted to students who were part of the original 9th grade panel. Source for parental education, income, marital status, and religious attendance is project-administered surveys in 2006 and 2007. Estimates weighted for nonresponse and missing data. Models adjusted for baseline grade (primary 9th or 8th grade refreshed samples). Estimated marginal MPCP effect calculated based on MPCP in 2006 coefficient in corresponding column" (Cowen et al., 2013)

² Reprinted from "School vouchers and student attainment: Evidence from a State-Mandated Study of Milwaukee's Parental Choice Program" by Cowen, J. M., Fleming, D. J., Witte, J. F., Wolf, P. J., & Kisida, 2013. Policy Studies Journal, 41(1), 147-168. doi:10.1111/psj.12006 p. 159

Cowen et al. (2013) also found that when controlling for parental characteristics, students who participate in the MPCP see significant increases in educational attainment. Table 1.2 demonstrates the findings that after controlling for the greatest predictor of student attainment, which is parental attainment, students participating in the MPCP are 16 percentage points more likely to graduate from high school and 14 percentage points more likely to attend a four year college when compared to their equivalent MPS matched peers (Cowen et al., 2013). This evidence of MPCP's superior performance is not the only of its kind. Table 1.3 is taken from Flanders (2018) analysis of MPCP performance compared to MPS.

Table 1.3 ACT Scores by Sector³

Variables	ACT Scores
Choice Programs	0.678** (0.332)
Charter Schools	0.503** (0.250)
Non-White	-0.454 (0.456)
Enrollment	0.000360** (0.000153)
ELLs	-0.800 (1.772)
Economic Status	-8.284*** (0.509)
Alternative School	-0.212 (0.397)
Constant	21.77*** (0.805)
Observations	438
R-squared	0.644

Standard errors in parentheses
 *** p<0.01, ** p<0.05, *p<.1
 (Flanders, 2018)

In what Flanders (2018) refers to as an apples-to-apples comparison in which he uses peer matching methods to directly compare the performances through different measures of private school attending students and public school attending students, he finds that students participating in MPCP outscore students enrolled in MPS by .678 points on the ACT exam. Further, he finds that when controlling for factors that affect a student's attainment, charters also outperform the public sector with its students scoring, on average .503 more points on the ACT exam. Flanders (2018) also examined the differences in math and ELA proficiency between the two sectors, informed by the statewide standardized FORWARD Exam. He found that the MPCP private schools had a proficiency rate in math that was 4.3 percentage points higher and an ELA proficiency rate that

³ Adapted from "The Definitive Look at School Test Scores in Milwaukee and Wisconsin for 2018" by Flanders. 2018. Retrieved from <https://www.will-law.org/wp-content/uploads/2018/05/2018-apples-to-apples.pdf> p.10

was 5.8 percentage points higher than that of the public sector (Flanders, 2018).

Limitations

In both sets of research there is an issue of selection bias and sampling bias. Due to the limitation of publicly available data, both studies fall short in being able to account for distinct external and internal explanatory features that may contribute to the private sector outperforming the public sector. While the research makes an honest attempt to do so, there are many explanatory functions that are left unaccounted for. Further, in both cases, the data gathered from the private institutions are that only of MPCP participating students while data from the public sector is gathered on the entire student population. With that said, it is not possible to have causal conclusions or assumptions as to what sector is better, but trends can be noted and performance relative to one another at the given time of the reports.

Overall, the Milwaukee Parental Choice Program has historically and continues to outperform the public sector, boosting graduation, attainment and proficiency rates. This hints to the possibility that by introducing choice into the city of Milwaukee, the education sector has become better off as the private sector's scores and proficiency rates stay higher relative to that of the public sector. This is an instance in which we see that by allowing for public-private competition, voucher using students have become better off indicating that school choice is effective in leading to greater outcomes.

Indiana Choice Scholarship Program (ICSP)

While Milwaukee is one of the oldest school choice programs, Indiana is the one of the largest. In 2018, Indiana provided vouchers to roughly 35,458 qualifying students state-wide. In their work, Waddington and Berends (2018) found no evidence that the Indiana Choice Scholarship Program (ICSP) increased academic achievement for those who received a voucher.

Further, they found an overall average achievement loss in mathematics with no change in ELA

Methods

Waddington and Berends (2018) examined the Indiana Choice Scholarship program by employing matching methods, as laid out by the SCDP, with the addition of a baseline measurement to demonstrate the effect of a student switching from public to private with a voucher. Their data spanned six years – from 2009 until 2015 – and contained student demographics and test scores, both of which were obtained from the Indiana Department of Education. The scores that this research uses come from students in grades 3 through 8 that attend schools within the ISP that participate in the Indiana Statewide Testing for Educational Progress Plus (ISTEP+) program with a focus on mathematics and ELA.

Achievement

Using the model and table results from Wadding and Berends, table 4 presents some interesting information regarding the effects of the ICSP on student achievement in mathematics and ELA (2018). Looking specifically at voucher receiving students, the first point of interest is that they are significantly showing that they scored higher on exams than their peers who did not receive a voucher and remained in public schools as seen in the pre-baseline and baseline years in both mathematics and ELA. This hints to the idea that students who receive vouchers are already outscoring their peers. While these students show higher scores than their peers prior to receiving a voucher, they begin to show a lesser performance in comparison to their peers after receiving the voucher. In mathematics, voucher receiving students show significant overall losses in performance as each year continues, compared to their public-school attending peers and that of the baseline score. While these losses lessen by the third year, they increase again in the fourth.

The diminishing level of achievement was not observed in ELA. However, the overall scores are lower than that of the pre-baseline and baseline, showing a significant loss in year two.

Table 1. 4 Effects of ICSP on Student Achievement⁴

A. Math achievement						
	Pre-Baseline	Baseline	First year with voucher	Second year with voucher	Third year with voucher	Fourth year with voucher
All voucher	0.088***	0.106***	-0.146***	-0.172***	-0.168***	-0.173**
[Voucher students = 3,350]	(0.016)	(0.016)	(0.011)	(0.015)	(0.024)	(0.059)
Baseline covariates	Y	Y	Y	Y	Y	Y
Baseline and pre-baseline achievement	N	N	Y	Y	Y	Y
Grade fixed effects	Y	N	Y	Y	Y	Y
Matching cell fixed effects	Y	Y	Y	Y	Y	Y
N all students	37,601	37,601	37,601	21,354	9,156	1,757
Overall r^2	0.010	0.039	0.494	0.566	0.540	0.504
One total year with voucher	0.076***	0.069***	-0.135***			
[Voucher students = 1,497]	(0.023)	(0.022)	(0.017)			
Two total years with voucher	0.097***	0.126***	-0.158***	-0.156***		
[Voucher students = 1,076]	(0.029)	(0.029)	(0.019)	(0.019)		
Three total years with voucher	0.117***	0.139**	-0.145***	-0.181***	-0.147***	
[Voucher students = 602]	(0.036)	(0.035)	(0.025)	(0.025)	(0.026)	
Four total years with voucher	0.004	0.167***	-0.245***	-0.219***	-0.246***	-0.173**
[Voucher students = 175]	(0.073)	(0.081)	(0.046)	(0.048)	(0.057)	(0.059)
B. ELA achievement						
	Pre-Baseline	Baseline	First year with voucher	Second year with voucher	Third year with voucher	Fourth year with voucher
All voucher	0.097***	0.111***	-0.002	-0.038**	0.013	0.062
[Voucher students = 3,348]	(0.015)	(0.016)	(0.011)	(0.015)	(0.023)	(0.053)
Baseline covariates	Y	Y	Y	Y	Y	Y
Baseline and pre-baseline achievement	N	N	Y	Y	Y	Y
Grade fixed effects	Y	N	Y	Y	Y	Y
Matching cell fixed effects	Y	Y	Y	Y	Y	Y
N all students	37,264	37,264	37,264	21,459	9,280	1,995
Overall r^2	0.021	0.086	0.498	0.537	0.552	0.490
One total year with voucher	0.069**	0.086***	0.009			
[Voucher students = 1,494]	(0.022)	(0.022)	(0.016)			
Two total years with voucher	0.117***	0.124***	-0.005	-0.018		
[Voucher students = 1,077]	(0.026)	(0.027)	(0.018)	(0.019)		
Three total years with voucher	0.131***	0.162***	-0.056*	-0.032*	0.021	
[Voucher students = 602]	(0.033)	(0.035)	(0.025)	(0.024)	(0.026)	
Four total years with voucher	0.022	0.077	-0.010	-0.153***	-0.009	0.061
[Voucher students = 175]	(0.073)	(0.078)	(0.042)	(0.046)	(0.045)	(0.052)

Notes: * $P \leq 0.050$; ** $P \leq 0.010$; *** $P \leq 0.001$. ISTEP+ Math and ELA achievement measured in SD units, relative to the Indiana state mean and SD within each grade and year. Number of voucher students in brackets. Robust standard errors clustered by baseline cohort (year-grade-school) are in parentheses.

Source: Authors' calculations.

⁴ Reprinted from "Impact of the Indiana Choice Scholarship Program: Achievement Effects for Students in Upper Elementary and Middle School" by Waddington, R.J. and Berends, M. 2018. J. Pol. Anal. Manage., 37: 783-808. doi:10.1002/pam.22086 p. 796

Subgroup Effects

Waddington and Berends (2018) also examined achievement across subgroups including gender, race and differing educational needs such as English language learners and special education. While losses in achievement were consistent with earlier findings from table 4, it was found that students identifying as black or other race/ethnicity saw significant losses that were comparatively greater than those of a student identifying as white or Latinx. Further these students, black and those identifying as have a race or ethnicity other than white, black or Latino/a has the greatest deficit gap compared to their matched public-school attending peers. Consistent with table 4 there was no significant evidence of improvement in mathematics or ELA for voucher receiving students.

Limitations

While Waddington and Berends (2018) pay great attention to carefully matching students and make use of longitudinal student records of student test results (the state administered the same standardized exam prior to the ICSP implementation) there are a few limitations. The greatest limitation of this study is that the ISTEP+ exam is only administered in grades 3-8, therefore there is not pre-baseline or baseline data for students under the fourth grade. This leads to the results overreaching in the conclusion as there is an issue in reliability due to over 50 percent of ISCP participants are in grades K-4. This study leaves out grades K-2, a large portion of the voucher recipient population. The other important limitation of this study is that exact matching is not a perfect science. This matter was further complicated due to policy constraints and changes, such as in 2013 when it was deemed that ICSP participants would no longer need to attend a year of public school. This created a population that was relatively unmatchable since this group of individuals would have no data on their public-school performance. Also, this work

only draws a generalization about low-income voucher receiving students. Lastly it is also important to mention that since ICSP does not randomly assign vouchers, there is the implication selection bias as the sample cannot be deemed as random.

To summarize, what was found are two contrasting results. In Milwaukee, the choice program has boosted student achievement both in attainment via graduation and academic scoring. These results starkly contrast those of Indiana's Scholarship Choice Program, where there is an overall decline that is greater for minorities in subjects such as mathematics. The differing performance levels of each choice program is alarming given how popular and long-standing each has been operating, therefore requiring more investigation. According to market theory, both programs should have boosted student outcomes by the competitive nature of a market which leads to the inquiry of market failure. In the next section, I examine the differing policies and practices that could lead to the differing outcomes. I hypothesize that the possibility of market failure is an overall cause for the differences in outcomes.

Chapter 4: Policy

Friedman (1955) was one of the first to apply market theory to education, arguing that the cost of education should be covered by the government but parents should be able to choose the schools their children attend, whether public or private – giving parents vouchers as a way to accomplish a publicly financed education that could be delivered privately or publicly. Under this system, school competition should create an environment of innovation and educational efficiency, which should lead to increasing student outcomes. However, as seen in the Indiana Choice Scholarship Program, this does not always come to fruition. While the market theory may be idealistic in a complicated world, the general cause of its shortcomings is market failure. Further, the solution to market failure would be an increase in government regulation to

minimize or eliminate negative externalities, market power, and an information problem. To examine the possibility of market failure in the case of the ICSP, we must look to the policies and mandate of the program and contrast it with that of the more successful operation of choice, the Milwaukee Parental Scholarship Program.

Indiana Choice Scholarship Program

The Indiana Choice Scholarship Program is the largest, most expansive choice program in the country. The program was authorized in 2011, providing state paid vouchers to eligible Indiana students to offset tuition costs at participating schools (Indiana Choice Scholarship Program, 2020). What makes the program so expansive is that as of 2014, the program removed the cap on the number vouchers the state would provide to eligible students. Also, as of 2014, the ICSP expanded the criteria for eligibility (Waddington & Berends, 2018). In order to be deemed as eligible, students must satisfy both household income requirements and student eligibility criteria.

Eligibility⁵

Students:

According to the Indiana Department of Education, in order to be eligible, a student must meet the following stipulations: has legal settlement in Indiana, is at least five years of age and less than twenty-two years of age, either has been or is currently enrolled in an accredited school, is a member of a household with an annual income of not more than one hundred and fifty percent of the income qualifying for the federal free or reduced price lunch program (2020).

⁵ Information gathered from, Indiana Department of Education – Indiana Choice Scholarship Program (2020)

If those requirements have been met, there are eight “track” options a student must follow to further qualify. (1) The first track is if the student has previously received a voucher and has remained at the choice school for the entire year for which the voucher was issued. Under this track the student is allotted a looser income regulation of two hundred percent of the income qualifying for the federal free or reduced-price lunch program. (2) The next track is if a student has exited the choice program at some point. (3) The third track is for students who have previously, at any time, received a scholarship award from a Scholarship Granting Organization (SGO). (4) The fourth track that qualifies a student is if they have special education needs, an established Individualized Education Plan and meet a looser income regulation of two hundred percent of the income qualifying for the federal free or reduced-price lunch program. (5) The fifth track qualifies a student if they have attended a public school based on their residential location that has been assigned an “F” in the state’s institution grading program. (6) The sixth track that qualifies a student is if they have attended a public or charter school for two subsequent semesters prior to applying for a voucher. (7) The next track is the “sibling track” and qualifies a student if they have a sibling that has received a Choice Scholarship or an SGO Scholarship. (8) The final track that qualifies a student is the “pre-k” track which requires a student to have received an Early Education Grant to attend pre-K and then be applying for a choice scholarship at the same school in which the student attended Pre-K”. Further, under this track, there are tighter income requirements of sixty-nine percent of the income qualifying for the federal free or reduced-price lunch program (Indiana Choice Scholarship Program, 2020).

Schools:

Schools are eligible if they are a public or private elementary school or high school and meet all of the following seven requirements: (1) must be an accredited institution located in

Indiana, (2) requires eligible individuals to pay tuition or transfer tuition to attend, (3) voluntarily agrees to enroll and eligible individual and may not discriminate on the basis of race, color, or national origin, (4) must administer the Indiana statewide testing for educational progress plus (ISTEP+) program, (5) is not a charter school and (6) submits department data that is required (Indiana Choice Scholarship Program, 2020).

Further, the Indiana Choice Scholarship Program policy lays out specific consequences for Choice schools that are not performing well based on state scoring criteria. Choice schools' "A-F" grades directly affect participation eligibility. A school designated a "D" or "F" for two consecutive years will receive a one-year suspension from accepting new Choice Scholarship students. A school designated a "D" or "F" school for three consecutive years cannot accept new Choice Scholarship students until receiving a "C" or higher for two consecutive years. A school designated an "F" school for three consecutive years cannot accept new Choice Scholarship students until receiving a "C" or higher for three consecutive years (Indiana Choice Scholarship Program, 2020). Also, the school must have a written admissions policy against discrimination which must be submitted as part of the school's application to participate in the Choice Scholarship Program.

Admission standards for Choice Scholarship students may not be different than the standards used for non-Choice eligible students (Indiana Choice Scholarship Program, 2020). Administrators of eligible Choice schools are required to develop a plan for annual performance evaluations for each certificated employee. Also, all employees must pass a federal background check (Indiana Choice Scholarship, 2020).

Voucher Amounts⁶

Under the ICSP guidelines, the voucher award is given based on tuition and fees of the choice school, or the public per pupil spending of that student's current school depending on which option is the lesser amount. Then from there, the voucher will cover ninety percent of the cost if: household income is up to 69 percent of reduced lunch eligibility if the student received an Early Education Grant to attend Pre-K or if household income is up to 100 percent of reduced lunch eligibility. The voucher will cover fifty percent of the cost if household income is up to "150 percent of Reduced Lunch or income is up to 200 percent of Reduced Lunch eligibility and the student received a Choice Scholarship and was enrolled for the full preceding school year at their respective Choice school or the student has a disability that requires special education services" (Indiana Choice Scholarship, 2020).

Testing⁷

Depending on the grades served, Indiana statewide assessment tests, ISTEP+, must be administered as part of a school's participation in the Choice Scholarship Program. All students in the school who are in assessment-tested grades must complete the required assessments (Indiana Choice Scholarship, 2020).

Milwaukee Parental Choice Program

Established in 1990, the Milwaukee Parental Choice Program was the country's first private-voucher school choice program (Milwaukee Parental Choice Program, 2020). The program allows students whose families meet certain income qualifications and reside within the

⁶ Information gathered from, Indiana Department of Education – Indiana Choice Scholarship Program (2020)

⁷ Information gathered from, Indiana Department of Education – Indiana Choice Scholarship Program (2020)

boundaries of the Milwaukee Public School District the ability to attend a participating private or religious school of their choice, tuition free (Milwaukee Parental Choice Program, 2020).

Eligibility⁸

Students:

Student eligibility is based on residency, income and age. In order to be eligible, a student must reside within the Milwaukee public school district, be between the ages four and twenty on or before September first and families must be below three hundred percent of the federal poverty level (Milwaukee Parental Choice Program Statutes and Rules, 2020). Further, if a student comes from a household with married parents, their income eligibility requirement based on household size is lessened by \$7,000.

Schools:

To participate, private schools must adhere to mandatory academic standards, administer the state test, adhere to 1,050 hours of direct student instruction through first to sixth grade and 1137 hours of instruction to grades seven through twelve, admit students on a random basis and cannot charge tuition above the amount of the voucher or use their own admission standards. Further, to be eligible, all of the private school's teachers must have a teaching license, a bachelor's degree, or a degree or educational credential higher than a bachelor's degree, including a masters or doctorate, from a nationally or regionally accredited institution of higher education (Milwaukee Parental Choice Program Statutes and Rules, 2020). Also, administrators must have at least a bachelor's degree from a nationally or regionally accredited institution of higher education or a teaching license or administrator's license.

⁸ Information gathered from the Wisconsin Department of Public Instruction – Milwaukee Parental Choice Program Statutes and Rules (2020)

If a teacher or school administrators fail to meet the general qualifications for their position, an exception to maintain their employment can be made if they have been actively working or teaching at the institution for five years. The exception allows them to maintain their position if they apply for and get approved for a waiver through the Wisconsin Department of Public Instruction. In order to have the application for the temporary waiver approved, the employee must submit a plan for meeting the educational standards including the name of the institution of higher education at which the individual will be pursuing and the anticipated completion date for the degree (Milwaukee Parental Choice Program Statutes and Rules, 2020).

In order to participate, schools must also provide a complete anticipated budget for the first period of participation in the program showing that the private school will have a positive cash flow in each month of the period and no operating deficit. It is also required that the school provide estimated revenues, costs, a schedule of monthly cash flow and backup funding sources in case of over estimation of enrollment (Milwaukee Parental Choice Program Statutes and Rules, 2020).

Voucher Amount⁹

Under the Milwaukee Parental Choice Program, as long as the student meets the income requirements, the voucher amounts are a set \$8,046 for Pre-k through eighth grade students and \$8,692 for high schoolers. Schools on the special needs program receive about \$12,000 but can exceed that under certain circumstances (Milwaukee Parental Choice Program Statutes and Rules, 2020). The participating schools must accept the voucher as full payment for tuition. The exception to this rule is that private schools may charge students in an additional amount or the

⁹ Information gathered from the Wisconsin Department of Public Instruction – Milwaukee Parental Choice Program Statutes and Rules (2020)

full tuition price (given that tuition is above the amount of the voucher) if the students are in grades nine through twelve and the family income of the student exceeds two hundred and twenty percent of the federal reduced lunch limit (Milwaukee Parental Choice Program Statutes and Rules, 2020).

Testing¹⁰

The Milwaukee Parental Choice Program requires that all of its participants receive state standardized tests. The required tests include: The Wisconsin Forward Exam for English Language Arts and Mathematics for grades three through eight, the Wisconsin Forward Exam for Science for grades four and eight, the Wisconsin Forward Exam for Social Studies for grades four, eight and ten, the ACT Aspire for ninth and tenth grade and the ACT With Writing in for eleventh grade (Assessment Requirements for Schools Participating in a Parental Choice Program, 2020).

Having laid out the policies of the ICSP and the MPCP, it is clear that they have differing mandates in governance and operations. While ICSP policies are much wordier and lengthy and has more specifications, those specification are much looser in overall governance and regulation than that of the MCPC. Further, the MCPC policies, regulations and expectations are much more straightforward and accessible to both families and institutions. This is only important when considering the difference in overall student achievement – realizing that participants in the ICSP are showing deficits in achievement and progress while the opposite is true for the MCPC. I suggest that the market failure seen in the ICSP are descendent of these deregulated policies and the policies themselves or lack thereof perpetuate greater market failure. In the next section I will

¹⁰ Information gathered from the Wisconsin Department of Public Instruction – Milwaukee Parental Choice Program Statutes and Rules (2020)

examine these features in more detail with the intent to explain the differences in policy a contributing force in the deficiency modeled by the ICSP.

Chapter 5: Market Failure of the Indiana Choice Scholarship Program

In theory, school choice voucher programs should eliminate financial barriers to entry to quality schooling, generating a competitive education environment through which should increase overall school performance. This simplified explanation of the process was demonstrated by the Indiana Choice Scholarship Program and the Milwaukee Parental Choice Program, but the results of an improved education were not emulated by Indiana. Given that school choice can be understood as an applied attempt at market-theory, it is also understood that when outcomes are adverse under market theory, the cause can be pinned to market failure. Often the solution to market failure is an increase in government regulation and policy and interestingly enough, the MPCP which succeeded in boosting student outcomes under school choice is highly regulated, especially in comparison to the ICSP. With this evidence of increased policy and regulation correlating with higher outcomes, there is reason to believe that market failure is preset and the driving force behind the ICSP's performance.

Market failure as defined by Bator as the failure of a more or less idealized system to sustain "desirable" activities or to stop "undesirable" activities" (1954). In the scenario of school choice, the desirable activity would be a sustenance of positive student achievement and a prevention of falling student achievement. What is seen in the Indiana Choice Scholarship Program is failure in sustaining desirable outcomes and preventing undesirable ones, which is an urgent matter and must be addressed, as it affects the future quality of human. The Indiana

Choice Scholarship Program shows evidence of market failure through negative externalities, an information problem and market power.

Negative Externalities

The most obvious case of market failure in the ICSP is observed through negative externalities. Negative externalities can be defined as any situation where there are costs that are external to the centralized cost-revenue calculations in terms of prices (Bator, 1954). In the case of the ICSP, these costs are social costs that leave third parties such as the students and society worse off. From the student's perspective, their parents placed them into a program where they pay the cost of a subordinate education leaving them worse off when it comes to their abilities to attain greater opportunities and actively participate in society. From the perspective of the society, outcomes of voucher programs that lead to adverse outcomes lower the value of human capital as a result. Also, as discussed, there is evidence that adverse outcomes disproportionately affect already disparaged groups and therefore perpetuating inequality and inequity within society itself – leaving the bottom SES individuals and minorities in the bottom of society and creating low social mobility for these groups. The ICSP has attempted a free market but failed to achieve Pareto efficiency – leaving participants worse off than had they not received the voucher. Further, this is more serious when realizing that the deficit in performance, while negative across the board, disproportionality affects students of color especially students identifying as black as discussed in the previous chapter. The negative externality of creating a worse educational outcome for students is especially dire as the implementation of the program's very goal was to do the exact opposite. The program creates a situation where social costs seem to outweigh the private cost.

Further, as with any choice program, there is the social cost of removing resources from the in-need public sector, creating worse educational experience for both student and teachers. With the decreased resources, teachers are left with less incentive and room to innovate in order to compete with private institutions, again, becoming worse off due to the political nature rather than an equal competitive one.

Focusing on competition, there is no governing policy that creates equity in the admissions process for the ICSP where MPCP has a random lottery that admits students. The choice market in education, especially one with admittance guidelines like that of the ICSP, gives the private sector incentive to engage in activities such as creaming. Creaming takes place when a school actively chooses to only admit the brightest students, which is an advantage that the public sector does not have, creating an anticompetitive environment. This leaves students in need of an educational opportunity (those with lower testing scores or unequally advantaged) deprived and underachieving.

Another area that leads to the poor performance of the ICSP is the regulations for teachers. Unlike Milwaukee, ICSP does not require teachers or administrators in the private sector to have a degree or license to teach in the state of Indiana. This could be directly related to the loss in performance seen by students who switch to the private sector with a voucher.

Information Problem

As seen in the ICSP policy, the information may be inaccessible to some parties that lack the agency to make sense of family qualifications and eligibility— the information needed to apply to receive information about the program is complicated and may come off as hard to understand. This is a result of poor regulation that neglects to account for accessibility. Also, a critique and problem in both choice programs is that there is not a comprehensive way of

identifying a school that may best meet a students' needs. In doing this, it creates an environment where some populations of in-need students face a great barrier to entry as the information is not clear and accessible to them creating an issue of imperfect information. This scenario leads to further negative externalities as populations that lack agency, usually minorities and low socioeconomic statuses families, are left abandoned in a resource drained education environment perpetuating their disparagement and overall creating a social welfare concern.

Market Power

The Milwaukee Parental Choice Program has specific policies in place to prevent schools from having market power – demonstrated by the requirement to provide the state with a budget and outline of their financial plan for the following years. The budget and financial plan is required for schools to participate and must be approved in order to prove that schools are not planning on using voucher students as a profit-making mechanism. Also, in the MPCP, there is a set voucher price that schools must accept as full price. This deters schools from seeking to make a profit from state vouchers and also prevents the school from charging anti-competitive tuitions under the pretext of receiving state vouchers. There is no policy in effect in the ICSP that prevents rent seeking behavior and abuse of market power. This incentivizes low to moderate performing private schools, commonly religious institutions that have been operating at a deficit, to accept voucher students for rent seeking purposes. In other words, private institutions that operate at a less than desirable threshold academically are likely to experience a financial burden when enrollment plunges, but these institutions have the opportunity to open their doors to voucher students with the purpose of lightening the burden and even make a profit, instead of providing a superior education experience. For example, National Public Radio reported that many Indiana religious institutions operated at a deficit (which is a hint to a private institution's

desirability and likely performance) until accepting voucher students (Turner, 2017). This can lead to vouchers being awarded to underachieving schools compared to the public sector creating an inefficient market.

As mentioned, there is also the issue of cherry-picking or creaming students from the public sector. Due to the market power that private schools have, especially as portrayed as a superior option, schools in the ICSP have the ability to pick only the best students for admittance where the public sector does not have such power. This issue is illuminated in the MCPC due to the policy of random assignment in which the private sector is stripped of this ability.

There is strong evidence of market failure in multiple avenues in the Indiana Choice Scholarship Program. The most evident cause of the market failure, when compared to the Milwaukee Parental Choice Program, is the lack of and poor execution of government regulations. In some areas, the MPCP fails to have in place regulations that protect the integrity of a school system while in others it has regulations that are too tedious and onerous for a parents to understand. Such issues creates asymmetric information and makes room for schools to exploit families lack of knowledge and understanding. The Milwaukee Parental Choice Program is one of the most successful and may be considered one of the most regulated choice programs in the country (Wisconsin-Milwaukee Parental Choice Program, 2020). The degree of regulation is often a critique of the MPCP as it takes away the autonomy of the private sector, however it may be the very reason why the MPCP is so successful. In order to make a Choice Program more efficient it requires heavy regulation, but in doing so, the very nature of the private sector is disrupted and even revoked. Therefore, evidence leads to the conclusion that school choice is only successful in a heavily regulated atmosphere thus creating, by the nature of regulation, another form of the public sector – only with more wealth.

Chapter 6: Conclusion

Whether school choice is the best option for education reform in the United States has become a popular, politically charged topic. Both opposing and supporting parties are concerned about the future of education. One branch of the economic literature on school choice predicts that student outcomes should receive a big boost from a competitive, privatized environment. But the empirical evidence does not support this theory. What literature does find is an underwhelming conclusion: a school choice or market-based education system has negative to very small positive impacts on student outcomes and performance.

School choice in its simplest form is the application of market principles to the educational system. Therefore, to understand and consider the product of school choice in the form of student outcomes, it is only logical to employ a market theory frame of reference. In doing so, a theme of underperformance emerges as the result of market failure. In examining the MPCP and the ICSP, two voucher programs with vastly different outcomes, the greatest difference is that of policy. This signals that greater and better regulation – the solution to market failure – is the differing factor. Therefore, if school choice is to boost student outcomes and be an equitable option for education, high regulation is necessary to avoid market failure – or in the term's education, leaving students behind and worse off.

These considerations are vitally important as the education of the country's youth is what will drive future human capital and social welfare – if groups of students are neglected with a subordinate, unequitable education it is possible to harm the future society. The decisions made regarding an education reform should take into consideration that the greatest school success is present under an optimal level of regulation that is somewhere between the public education system and highly regulated choice system. Neither of which is commonly present throughout the education system.

One concern in a regulated market-based education system is the possibility of undoing the private sector – forcing it to take on more qualities of that of the public sector. The requirement and even prospect of great regulation threatens the very autonomy and sovereignty that private institutions are founded on. It may not be in societies best interest to infringe upon these intuitional values and rights. Under these circumstances, there should be a concern for the incentives of private institutions to participate in a voucher system to ensure there is not an attempt to use pretext of being deemed “the better option” to demonstrate an abuse market power in charging higher, anticompetitive tuition. This also leads to the question of who school choice benefits most – the students or the private institutions that get to capitalize on vouchers.

This poses of a question of the cost benefit analysis in regulating an expensive voucher system versus deregulating and increasing resources to public sector – perhaps this would be an enriching topic to further examine in future research Another suggestion for future research, stemming from a limitation from this study, is to look at the competitiveness between private and public institutions under a choice program to further analyze the effectiveness of school choice under a market theory framework.

Other limitations of this particular study are that I have only examined two programs with a market failure theoretical framework therefore, any generalization that is concluded is overreaching. This study also assumes the limitations of previous researcher’s work as it is informed primary on the data and empirical findings of Flanders (2018), Cowen et al. (2013) and Waddington and Berends (2018). As discussed, these limitations are almost exclusively issues with random sampling that limit the works ability to draw conclusions regarding student performance as an indicator of program performance

This research opens the door for further conversation regarding the prospect of education reformation through school choice. What has been found is evidence of market failure as the link to an underachieving (in terms of student outcomes and performance) voucher program. This could be addressed through greater regulation and stricter policies as demonstrated by the MCPC. This work leaves room for further exploration of the aspects of market failure such as the negative externality of social costs of the dislocation of students from a private to public education or greater ways in which voucher programs leave the education system vulnerable for demonstrations of market power and asymmetrical information.

It is important to conclude this research in addressing the polarizing nature of the topic of school choice. What is clear about the prospect is that it does, in theory, have the power to force the education system to improve through competition, pushing out schools that leave, usually minority, students with an inferior education. However, in fully understanding the proposed benefits, before imposing a reformation it must be carefully considered who is this competition at the expense of? Is it truly inadequate schools or is it the students who are already socially and societally disadvantaged? The benefit of increasing the value of human capital through an improved, more efficient education system may not outweigh the social cost of leaving already “left out” students. As data becomes more readily available, research should strive to investigate this concern of equity and additional social costs a market-based education may pose.

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