

Let the People Charter

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Executive Summary

Charter schools have become a permanent feature in the landscape of America's public education. Operating with public funding based upon a charter written by the surrounding community, they presently account for 1 of every 14 public schools. Charter schools have been studied— and consequently vilified or glorified— from the standpoint of parental satisfaction, financial responsibility, disciplinary and academic outcomes, and a swath of other performance metrics. In this paper, however, I investigate the grass-roots level to examine if there are more factors at play. Rather than assessing the effectiveness of charter schools, this paper seeks to shed light on the question of what the characteristics of school districts that authorize charter schools are. I gather variables that measure several different socioeconomic as well as informal institutional characteristics of a school district to estimate the impact of those variables on a district's openness to charter schools. I include a set of socioeconomic variables, such as percentage of families in poverty, percentage of females in the workforce, and percentage of non-white households. In addition, I include several measures of the informal institutions in a school district such as the percentage of the population employed in education, healthcare, and social work, and the proportion of church adherence in the particular county. My findings confirm a few well-documented results: communities with higher levels of diversity, higher levels of poverty, and local public schools with higher dropout rates are significantly more open to the charter school option. So too, are some new discoveries, such as school districts that are more open to charter schools also have higher average educational attainment, less of the population employed in educational services, healthcare, or social services, and a slightly lower proportion of church adherence . These results add credence to the claim that charters serve diverse and impoverished populations and that public school teachers, and the unions that represent them, have a very negative sway on a district's openness to charters, while upsetting the claim that charters might cater to religiously-motivated interest groups. By adding information to the question of what kind of districts are demanding more school choice in the form of charter schools, these findings can help provide a new framework for policies that serve these subpopulations, as charter schools are shown to be the institutions that they themselves are demanding.

Introduction

Charter schools have received a lot of attention since the first school opened its doors in Minnesota during the fall of 1992. Indeed, with Alabama currently becoming the 43th state to authorize charter schools, families across the nation have deliberately decided that charter schools are here to stay. Such a widespread—and still controversial—movement has been well-researched from many different evaluations, ranging from student performance (Hoxby, Murarka, and Kang 2004 and Bifulco and Ladd 2006), parental satisfaction (Wohlstetter, Nayfack, and Mora-Flores 2008), diversity (Weiher and Tedin 2001), success in teaching civic virtues (Wolf 2007), economic impacts (Hoxby 2007), and many more. However, this paper is interested in determining which distinct communities within a school district are embracing this still fresh and innovative alternative to traditional public schools. I utilize socioeconomic data and a handful of “cultural” variables at the school district level to get a clearer picture of the type of districts that are chartering schools and sending many of their children to them.

Mainstream media gives some clues to this grass-roots approach. Current news articles about the latest battlegrounds for the charter debates reveal strong views as to which populations are in favor or against charters. Three primary critiques that emerge are concerns about lack of diversity, private religious schools being packaged as charter schools, and teachers facing reduced pay or even lost jobs due to an increase in competition amongst local educational

institutions.¹ Thus, this study seeks to assess whether these conceptions of how charters are perceived bare out in the socioeconomic and cultural composition of districts that allow charters.

My hypothesis is that the dropout rate for local public high schools will have a significant impact on whether a district is likely to offer charters. In addition, I expect to find that socioeconomic factors such as diversity and poverty will affect a districts openness to charters. Finally, I expect that the percentage of the population employed in educational services, will affect whether or not a school district welcomes charter schools.

Literature Review

There exists a plethora of academic studies covering charter schools, not to mention the entire school choice movement at large. There are a few notable field experts in this prominent national conversation. Caroline M. Hoxby, beginning with her paper “Does Competition Among Public Schools Benefit Students and Taxpayers?” (1994), has done extensive research on the school districts of metropolitan areas, primarily New York and Chicago. Though measuring different outcomes each time, her findings in general show that programs for school choice, by increasing competition amongst traditional public schools, result in modest improvements in educational outcomes and financial benefits for certain groups of students while having little impact on other groups of students. A more recent paper, “The Impact of Charter Schools on Educational Achievement” (Hoxby and Rockoff, 2004), reports:

¹ See articles: “Why does the NAACP oppose charter schools” (U.S. News), “Massachusetts Plays Host to Renewed Charter School Debate”

(U.S. News), “Separating Fact From Fiction: 21 Claims about Charter Schools” (Washington Post).

We show that, compared to their lotteried-out fellow applicants, students who apply to and attend charter schools starting in the elementary grades score about six national percentile rank points higher in both math and reading.

Other field experts, such as Angrist, Pathak, and Walters (2013), build their studies upon this existing evidence suggesting that charter schools can dramatically increase performance for minority students in high-poverty areas. Their research seeks to provide a theoretical framework in order to classify the particular student and school-level variables that result in the differences in the outcomes of students who attend charters. After accounting for student demographics and differences within the schools, Angrist et al. found that urban charter schools that implement the No Excuses philosophy generate math and English Language Arts gains of 0.21 and 0.15 standard deviations larger than the effects of regular charter schools. Their school-level variable findings were consistent with research in New York reported by Dobbie and Fryer (2011), that points to high expectations, frequent teacher feedback, high-dosage tutoring, increased instruction time, and data-driven instruction as the five key components to charter school effectiveness. They conclude from their Massachusetts sample that urban charter schools using the No-Excuses approach generate positive results, especially for minority students from high-poverty backgrounds, while non-No-Excuses schools in urban or rural settings do not generate any measurably positive results.

My paper extends the study of this movement by flipping the analysis to the demand side, to study how the unique culture and socio-economic profile of a school district have governed the district's approach to providing

their children with an education that best fits their needs. I work from the assumption that when it comes to education, many members of the community will be interested and invested in the outcomes of such developments. Such is the evidence found in the heat of recent debates. Therefore, even a measure so broad as to cover a school district will still have significance in interpreting the results for policymakers. In my analysis, I expect to find that charter schools are prevalent in school districts that are located in urban settings, exhibiting high amounts of diversity, high amounts of family poverty and a high dropout rate from traditional public schools. These findings would be consistent with previous research cited above that explains how charters are most successful in diverse and impoverished (usually urban) settings where the students without the funds to exercise school choice by means of escaping a flagging public school for a private school would seek this new option. This might also be due to the fact that the alternative options, generally being traditional public schools and private schools, are unable to serve these populations well since diverse backgrounds usually mean a unique set of needs amongst the students or even unique values. I've included the variables of female labor force participation rates, educational attainment, percent of the population employed in the educational sector, and church adherence because these have the potential to capture "school district culture" and quantify interesting characteristics of the population making the decision to authorize a charter school for their children.

Data & Methods

Knowing that educational choices are primarily a family affair, I gathered grass-roots data on households in school districts across the nation. The goal of the particular variable selection was to control for the already known

factors in addition to assessing the type of school district culture that would result in an openness to charters. My hypothesis is that districts characterized as urban, impoverished, and diverse will be more likely to have charter schools, but also that “cultural” variables such as educational attainment and church adherence might have an impact since the charter school option may or may not fit strongly with their values.

The dependent variable that captures how open a school district is to charter schools by measuring the number of students enrolled in charter schools (both estimates for the years 2010-15). The remaining eight states without charter authorization laws (as of 2015), that is, Alabama, Kentucky, Montana, Nebraska, North Dakota, South Dakota, Vermont, and West Virginia, were removed because even if the families of the school district are interested in chartering a school, the overarching state law does not allow them the freedom of this decision. This was done because no matter the “school district culture,” the community was automatically unable to send their children to a charter school due to the legal state restriction.

To measure poverty, I used the “Poverty Status in the Past 12 Months of Families” from the Census data in 5-year estimates in 2014. This metric captures the percentage of families below the poverty line by school district nation-wide. In order to measure racial diversity, I used the same 5-year estimates, but the “Selected Economic Characteristics” data from the Census. This specific variable measured the percentage of non-white householders within each school district. The rate of dropouts and the 12-level coded locale of the district was taken from the Local Education Agency (School District) Universe Survey Dropout and Completion Data (2009-10) from the NCES. Educational attainment,

measured as the percentage of the population with bachelor’s degrees or higher, was again from the same source and years but taken from the “Educational Attainment” dataset. The percentage of the population employed in educational services, health care, or social assistance, as well as the percentage of females participating in the work force, was gleaned using the “Selected Economic Characteristics” dataset again. Unfortunately, there was no available measure for weekly church attendance per school district, which would have provided an interesting “cultural” picture of each school district. But, the U.S. Religious Census in 2010 did report measurements by county, so I utilized the rate of church adherence per 1,000 people in each county, then was able to match the county with the school districts.

These variables were collected to reasonably account for all groups of a community that might be interested in whether or not a charter school is chartered in their school district. My tobit analysis confirmed some well-known results concerning the success of charters in urban, impoverished districts with high drop-out rates but sheds light on other interested parties by demonstrating their causation with charter school openness.

Results

The analysis that I ran was a tobit regression, which accounts for the 8,567 charter-less districts out of my total observation group of 9,074 districts, thus balancing the severely censored data around zero. Again, the results of the tobit estimation regressions below are only reported for the 42 states who had authorized charter schools in 2015, and therefore the school districts are able to

Table 1: Tobit Estimation of Charter Schools

Percent of non-white householders	38.32** (17.10)	Percent of females in the labor force	9.56 (29.14)
Percent of families in poverty	137.15*** (55.88)	Percent of population employed in education, health services, or social work	-316.48*** (104.94)
Percent of population with BA or higher	63.99*** (24.81)	Percent of church adherents by county	-1.64* (0.0001)
Rate of dropouts from traditional public schools	120.67** (51.21)	Locale of the district	-252.57*** (77.89)
Constant	-2184.81	R-squared	0.0299

Robust standard errors in parentheses

**** 1% significance, ** 5% significance, * 10% significance
9,074 observations*

authorize a charter school should they so desire. To reiterate, my purpose in running this regression is to determine what socioeconomic characteristics and informal institutions are present in school districts that have charter schools. The table above displays the results.

The most striking feature of this regression that the poverty measure generates such a positive, statistically significant (at the 1% level) coefficient. This is interpreted to mean that a 1% increase in family poverty within a school district corresponds to 137 more students in charters. The same direction of impact holds true for a 1% increase in nonwhite householders (increasing in the number of students in charters by 38) and the percent of the population with a BA or higher (63 more students). Unsurprisingly, there is a very strong relationship between the drop-out rate at the local traditional public schools and the number of charter schools within a district. For instance, in a district with a 11% drop-out rate as compared to a district with a 10% drop-out rate, the number of students attending charter schools would be greater by about 120 students.

Turning an eye toward the variables negatively impacting the warmth of a district towards charters, the percentage of the population employed in education, locale of the school district and the church adherence per 1,000 people impact the number of students in charter schools within the school district negatively. In reality, this would mean that for every 1% increase in education employees, about 316 less students would be in charter schools within that school district. Finally, the beta coefficient on the local of the district displays the fact that charters are much more prevalent in urban settings, an unsurprising finding since the sheer number of students served is increased.

Policy Implications

When it comes to implementing policy, we would do well to heed an old philosopher's advice about staying near to the mean—neither hailing charter schools as the savior for all educational woes but also acknowledging that they definitely provide benefits to the school districts who make the deliberate decision to authorize them and send their children to them. There are three conclusions

based on the evidence that I'd like to address, and then draw out two policy responses based on the evidence. The first conclusion is that charter schools have a strong presence in districts that hold much diversity, poverty, higher levels of educational attainment, and failing traditional public schools. Since charter schools don't build themselves, we can reasonably assume that these populations are demanding them. Secondly, charters are significantly more unlikely in districts with a high number of people employed in education. This could potentially confirm that teachers unions are very hostile to such mechanisms of school choices. Thirdly, church adherence has a very small, negative impact on the district's openness to charters, thus demonstrating that positions arguing that charters are used by religious interest groups to promote their beliefs using public funds is unsubstantiated. The two reasonable policy claims that I draw from my conclusions are: 1) Charter models that have been proven to produce good outcomes for populations of high diversity and high poverty are to be supported, since charter schools are the desired policy option for many of these populations that other remedial policies are aimed toward, and 2) charters are strongly favored by a diverse collection of subpopulations, adding those who are well-educated to the above groups, thus pointing to the fact that this form of education may align with unifying principles of families within

school districts across the nation. As the call for local community engagement is on the rise, perhaps charter schools present an excellent vehicle for members of the community to yoke themselves to work on improving the education of their children and our nation's posterity.

Conclusion

In conclusion, this paper was aimed at extending the scope of the school choice debate to school district level determinants that would reveal the characteristics of those school districts that are authorizing charter schools in hopes of illustrating a clearer picture of the families that are building charters and sending their children to them. My research shows that charter schools are the desired fit for districts with high diversity, high drop-out rates, high poverty, and high educational achievement, and more unlikely to be found in districts with large amounts of the population employed in the education sector and large amounts of church adherence. This causes us to examine our assumptions for the kind of families who send their children to these schools—it follows that minorities, the educated, and the impoverished alike are attracted by charters. To conclude, this study provides a small signal to policymakers that these groups of people are interested and invested in this form of school choice.

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