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Inherently Flawed? An Analysis of Private School Opt-outs in a Statewide Educational Scholarship Program

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Abstract: An ample supply of choice schools is integral to a robust private school choice program; however, widespread participation from private schools has proven elusive. Low participation rates have sparked an entire segment of the school choice literature focused on the supply side of school choice. In this paper, we examine previously unexplored explanations for low private school participation rates in a statewide educational scholarship program. Specifically, we analyze how private schools' racial demographics and the racial demographics of potential choice students impact the likelihood of participation in the Alabama Educational Scholarship Program. We find that private schools previously serving the highest percentages of White students (94% +) are significantly less likely to participate than less White schools (<86%), thereby limiting the potential supply of private schools and raising new questions about the interaction of school choice and segregation.
Keywords: school choice; private education; segregation; diversity; education policy

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¿Defectuoso por naturaleza? Un análisis de la exclusión de escuelas privadas en un programa estatal de becas educativas
Resumen: Una amplia oferta de escuelas con opción de elección es fundamental para un programa sólido de elección de escuelas privadas; sin embargo, lograr una participación generalizada de escuelas privadas ha resultado difícil. Las bajas tasas de participación han generado una línea completa de investigación en la literatura sobre elección escolar centrada en el lado de la oferta. En este artículo, examinamos explicaciones previamente no exploradas para las bajas tasas de participación de escuelas privadas en un programa estatal de becas educativas. En particular, analizamos cómo la demografía racial de las escuelas privadas y de los posibles estudiantes beneficiarios influye en la probabilidad de participación en el Programa de Becas Educativas de Alabama. Descubrimos que las escuelas privadas que anteriormente atendían al mayor porcentaje de estudiantes blancos (94% o más) son significativamente menos propensas a participar que aquellas con una menor proporción de estudiantes blancos (menos del 86%), lo que limita la oferta potencial de escuelas privadas y plantea nuevas preguntas sobre la interacción entre elección escolar y segregación.
Palabras clave: elección escolar; educación privada; segregación; diversidad; política educativa

Falhas inerentes? Uma análise da exclusão de escolas privadas em um programa estadual de bolsas educacionais
Resumo: Uma ampla oferta de escolas com opção de escolha é essencial para um programa robusto de escolha escolar privada; no entanto, a participação ampla das escolas privadas tem sido difícil de alcançar. As baixas taxas de adesão despertaram um segmento inteiro da literatura sobre escolha escolar voltado ao lado da oferta. Neste artigo, investigamos explicações até então inexploradas para as baixas taxas de participação de escolas privadas em um programa estadual de bolsas educacionais. Especificamente, analisamos como a demografia racial das escolas privadas e dos possíveis estudantes beneficiados afeta a probabilidade de participação no Programa de Bolsas Educacionais do Alabama. Descobrimos que as escolas privadas que anteriormente atendiam as maiores proporções de estudantes brancos (94% ou mais) são significativamente menos propensas a participar do que aquelas com menor proporção de estudantes brancos (menos de 86%), o que limita a oferta potencial de escolas privadas e levanta novas questões sobre a interação entre escolha escolar e segregação.
Palavras-chave: escolha escolar; educação privada; segregação; diversidade; política educacional

Inherently Flawed? An Analysis of Private School Opt-outs in a Statewide Educational Scholarship Program

Although school choice programs are popular education reform strategies, researchers have just begun examining a crucial aspect of school choice: the supply of schools. This small but growing subset within the literature seeks to understand what motivates schools to participate or refrain from participating in school choice programs. Scholars argue low school participation is a serious hindrance to the success of school choice, noting that policy design may significantly impact the supply of choice schools (Egalite, 2015; Hobbs, 2018; McShane, 2015; Stuit & Doan, 2013). Our

research is timely due to the recent expansion of voucher programs across the United States and the related political discourse that has followed (Abrams & Koutsavlis, 2023).

School choice advocates argue choice programs will increase educational options for low-income and minority students, potentially generating a new demand for private schools from a diverse student population (Garrett, 2001). We argue that because choice policies could increase private school diversity, school administrators may consider participation's impact on their schools' racial demographics when determining whether their schools will participate. This study examines that possibility and contributes to the literature by exploring how race influences private school participation in school choice programs. We examine data from the Alabama Educational Scholarship Program (AESP), where only about 36% of private schools participate in the state's tax credit scholarship program. The two primary research questions are:

1. Do private school racial demographics predict the likelihood of participation in a school choice program?
2. Do the racial identities of potential "choice" students predict the likelihood of participation in a school choice program?

We find that the most exclusively White private schools, those where 94% or more of the students are White, are significantly less likely to participate than those that are less than 86% White, even after controlling for other relevant factors. Meanwhile, we did not find that the potential choice student population significantly affected the likelihood of participation. These findings suggest that there may be inherent flaws in choice policy implementation that make the choice policy agenda problematic in achieving racial integration goals. If racially exclusive private schools fail to open their doors to diversity, it significantly limits choice programs' abilities to increase diversity in private schools.

Supplying Choice

Past research on the supply side of school choice informs our study; however, this work has primarily focused on the supply of charter schools (Bifulco & Buerger, 2015; Buerger, 2020; Ford, 2016; Ford & Andersson, 2019; Lincove et al., 2018; Saultz et al., 2015) with fewer studies on the supply of private schools (Austin, 2015; Egalite et al., 2018; Kisida et al., 2015; Stuit & Doan, 2013). Thus far, research has suggested that the designs of individual states' choice policies impact schools' participation decisions in many ways. For example, a high regulatory burden has been shown to negatively affect the supply of private schools of choice (Austin, 2015; Egalite et al., 2018; Stuit & Doan, 2013), as have state finance policies affecting charter schools (Buerger, 2020; Singleton, 2019). Alternatively, scholars have identified some mission-driven components of private schools, especially private religious schools, that encourage them to participate in order to help needy students and families (Egalite et al., 2020; Kisida et al., 2015). While one might suspect that high demand for choice programs is related to an increased supply of schools, in many cases the number of seats in choice schools, and especially in desirable choice schools, fails to meet demand levels (Lincove et al., 2018; Saultz et al., 2015).

Gap in the Literature

Despite the progress scholars have made in exploring the supply side of school choice, there is still more to learn, particularly when it comes to the supply side of private school choice. Rigorous research has been conducted to examine factors that influence the supply of charter schools within choice systems (Bifulco & Buerger, 2015; Buerger, 2020; Ford, 2016; Ford & Andersson, 2019;

Lincove et al., 2018; Saultz et al., 2015); however, much of the research done on the supply of private schools has been published in reports for special interest groups (DeAngelis & Hoarty, 2018; Egalite et al., 2018; Kisida et al., 2015; Suit & Doan, 2013). Our study has been informed by private and charter school supply research and significantly extends our current understanding of the factors that influence the supply of private schools within an educational scholarship program. We hope that our research design and findings will spur additional scholarly research in this currently limited literature.

Private School Choice in Alabama

In this study, we use data from Alabama to explore the primary research questions. Single-state studies are common in the school choice literature, as programs differ from state to state. Furthermore, because our primary interest was not in policy design elements such as regulations, a multi-state analysis with variation in policy designs was unnecessary. Alabama is an important state to study the interaction of race and school choice due to its history of racism, segregation, and discrimination. Furthermore, school choice in Alabama is currently understudied. However, it is also important to acknowledge that Alabama is not the only place where racial struggles have occurred and continue to exist. We hope to see additional research conducted in areas with similar choice policies and racial dynamics.

Historical School Choice in Alabama

The first school choice policies in Alabama were designed to circumvent desegregation mandates in the wake of the Supreme Court's decision in *Brown v. Board of Education* (1954) that separate is inherently unequal. Alabama was the site of numerous pivotal events during the Civil Rights Movement, including the Montgomery Bus Boycott, the March from Selma to Montgomery, and Martin Luther King Jr.'s letter from a Birmingham Jail. However, while brave activists were fighting for racial equality in the state, Alabama students continued attending racially segregated schools.

In response to the impending integration of public schools following *Brown*, Alabama implemented a tuition grant policy in 1955, which offered White students the option of transferring from public schools to private schools to avoid desegregating public schools (Hershkoff & Cohen, 1992). Alabama's original tuition grant policy allowed parents who thought that public school attendance would be "detrimental to the physical or emotional health" of their child(ren) to select a private school alternative (Hershkoff & Cohen, 1992, p. 7). The state then provided tuition payments to the selected private schools on the parents' behalf. A portion of the funding for the program came from the state legislature; however, Alabama Governor George Wallace also solicited private donations to help supplement the state's contributions and ensure that alternative schools would be available as the state witnessed the "destruction of their public schools" (Bagley, 2018, p. 106). The tuition grant program supported the creation of many exclusively White private schools, or "segregation academies," throughout the state, funding tuition for over 11,000 students in the Black Belt region alone (Bagley, 2018).

Tuition support was not the only benefit afforded to the newly created segregation academies. Segregation academies were often permitted to use public buildings as well as teachers and textbooks from public schools (Champagne, 1973; Hafter & Hoffman, 1973; Hershkoff & Cohen, 1992; Nevin & Bills, 1976). Religious segregation academies also benefited from church support and enjoyed tax-exempt status (Hafter & Hoffman, 1973). Some local school systems even allowed segregation academies to use their athletic facilities and gymnasiums (Nevin & Bills, 1976).

Though they received support from the state and local governments, parents, and other private donors, the quality of facilities and educational services offered by segregation academies were often substandard. After visiting several different segregation academies across the state, Nevin and Bills (1976) noted:

> The new schools range from structurally adequate at the top of the line down to places that don't deserve the name school. Most of the new schools are dilapidated, worn, a little dirty, short on supplies and materials, cramped, offering few opportunities for enrichment. They are, in short, the very sort of places that would enrage taxpayers if offered to children by the public schools. (p. 52)

Despite these deficiencies, segregation academies were highly attractive to White parents and, in some districts, were used to operate a fully separate white private school system (Hershkoff & Cohen, 1992).

Ultimately, in 1967, Alabama's tuition grant program was deemed unconstitutional in *Lee v. Macon County Board of Education*. The U.S. District Court for the Middle District of Alabama stated in the ruling that the tuition grant statute was "but another attempt of the State of Alabama to circumvent the principles of *Brown* by helping to promote and finance a private school system for White students not wishing to attend public schools also attended by Negroes" (*Lee v. Macon County Board of Education*, 1967). The Court ordered the state to cease offering tuition grants and other grants-in-aid to private schools.

Contemporary School Choice: The Alabama Educational Scholarship Program

In 2013, private school choice returned to Alabama when the Alabama Accountability Act (AAA) was passed. The AAA created a new private school choice program, the Alabama Educational Scholarship Program (AESP). The AESP has allowed parents of low-income students, those making up to 185% of the Federal Poverty Level, to receive scholarships to attend the private school of their choice. However, students participating in the AESP can only use scholarship funds to attend private schools that agree to participate in the program. The goals of this program are to (1) create flexibility in the educational system to better meet the diverse needs of students, (2) improve school performance, (3) encourage innovation in school systems, and (4) facilitate parental choice by providing financial assistance in the form of income tax credits and tax credit scholarships (Alabama Accountability Act [AAA], 2015). Since its inception in 2013, the program has awarded nearly 30,000 scholarships.

Program Overview

The AESP makes income tax credits available to parents directly to offset the expenses associated with a child's transition from a public to a private school. Further, the program funds tax-credit scholarships through tax-deductible donations from individuals or corporations to scholarship-granting organizations (SGOs). SGOs, once they receive donations, redistribute the donations in the form of scholarships to eligible students who apply for assistance. During the program's first two years, there were eight SGOs; however, that number fluctuated over the years from a high of eight in 2013 and 2014 to a low of five in 2016. As of September 2022, six SGOs have offered scholarships for 2022-2023 (Alabama Department of Revenue, 2022a).

Tax-credit scholarships have been set at a maximum of $6,000 for elementary school students, $8,000 for middle school students, and $10,000 for high school students (AAA, 2015). For the 2020-2021 school year, the average value of a tax credit scholarship for any grade level was approximately $4,759 (Alabama Department of Revenue, 2021b), nearly $2,300 less than the average cost of private school tuition in the state, which was $7,050 (Hanson, 2021).

Individuals seeking to obtain a tax-credit scholarship have had to submit applications to an SGO to assess their eligibility. SGOs have been prohibited from discriminating based on gender, race, or disability status. Students who are zoned for failing schools, defined as the lowest performing 6% of schools in the state, have been given preference; however, most students using tax-credit scholarships have been from non-failing schools. Students have only been able to receive scholarships to attend schools where they have been accepted, and the scholarship value cannot exceed the cost of tuition and fees at the selected school. Students' choices have been limited to participating private schools, which have opted into the AESP and agreed to accept scholarship students. Further, choice may be limited by distance and transportation access, which parents must provide.

Participation Requirements

Private schools must first contact the Alabama Department of Revenue and express their intent to participate in the AESP. Next, schools must show proof of accreditation by an accepted regional accreditation agency. If a school is not accredited at the time of its application but has been in operation for at least three years and meets all the state's requirements, it may participate in the program with the understanding that accreditation must be achieved within a three-year timeframe. During the three-year period, the school must comply with various regulations. If the school does not gain accreditation in three years, it will no longer be allowed to accept scholarship students.

All schools that participate in the AESP must also demonstrate compliance with the requirements set forth in the AAA. These include (1) complying with health and safety codes, (2) holding occupancy permits where required, (3) complying with nondiscrimination policies, (4) conducting background checks on employees, (5) demonstrating compliance with the Child Protection Act of 1999, (6) administering state achievement or nationally recognized norm-referenced tests, (7) reporting the results of these tests to parents, and (8) reporting the results of these tests and scholarship student demographics and graduation rates to the Alabama Department of Revenue on a yearly basis (AAA, 2015).

During the 2020-2021 school year, a total of 152 Alabama private schools participated in the AESP. Sixty-two began participating in the program's first year, while another 51 began participating in the program's second year. The other 39 schools began participating in the program's third year or later. The 152 participating schools represent about 36% of Alabama's 423 private schools (Koplowitz, 2021). The small percentage of participating private schools limits the options available to students while also restricting the program's ability to create a competitive choice marketplace. However, it also provides an interesting research context to analyze the supply side of school choice.

Characteristics of Scholarship Recipients

Though the State of Alabama does not publish detailed records of scholarship recipient demographics, an independent evaluator who has been tasked with reviewing the program shares aggregate data as part of their biennial reports (2014-2015; 2016-2017; 2018-2019). The majority of AESP scholarship recipients during this time period have been Black (66.28%). Additionally, most scholarship students (93%) have been eligible for free or reduced-price lunches (FRPL). Table 1 displays statewide public school student demographics alongside a summary of AESP scholarship recipient demographics, revealing that Black students and students eligible for FRPL have been overrepresented in the scholarship student population compared to public school students statewide.

Table 1

Demographics from Alabama Public Schools and Private Schools Participating in the AESP

Demographic Characteristic	AESP Scholarship Students	Alabama Public School Students
Race		
Black/African American	66.28%	32.36%
White/Caucasian	17.72%	54.06%
Hispanic/Latino	10%	7.47%
Other	6.01%	6.11%
Gender		
Male	50%	51.39%
Female	50%	48.61%
FRPL Eligible	93%	52.84%

Note: The AESP student demographics utilize data from the 2014-2015, 2016-2017, and 2018-2019 AESP evaluation reports. Alabama Public School Demographics were taken from the Alabama Department of Education and the NCES Common Core of Data. Samples have been aggregated so that percentages reflect the averages over the course of the three school years for which the data is reported.

Theory and Hypotheses

When theorizing what motivates private schools to participate in a private school choice program, we view private schools and their leaders as potential "public entrepreneurs." This term is drawn from Schneider et al. (1995), who describe public entrepreneurs as those with the capacity to recognize new opportunities in the public sector and bear associated risks while also creating the networks needed to succeed in their new ventures. As public entrepreneurs, private schools that decide to participate in a new voucher program must be comfortable with a degree of uncertainty related to their participation. Ford and Andersson (2019) identify some key elements of this uncertainty, including "regulation, market pressures, resource availability, and the presence or absence of institutional supports" (p. 1044). Another uncertainty is the effect of participation on the school's student racial demographics, which may be salient in Southern states like Alabama, where racism, segregation, and discrimination are all too common.

Many private schools are, and have historically been, exclusively White institutions. There are two potential reasons for continuing racial homogeneity within these schools. First, the White flight literature reveals that White parents often leave schools as they become "too diverse" (Bagley, 2018; Clotfelter, 1976, 2001, 2004; Coleman, 1975; Orfield & Frankenberg, 2013; Zhang & Ruther, 2021). Relatedly, the White avoidance literature reveals that White parents often avoid schools with high concentrations of non-White students (Clotfelter, 2004; Ledwith & Clark, 2007; Saporito & Lareau, 1999).

School administrators may find knowledge of these phenomena useful in reducing uncertainty when predicting how current patrons—primarily White and wealthy—of Alabama private schools will respond to the acceptance of scholarship students, who are predominantly low-income and Black (see Table 1). This understanding leads us to make two predictions regarding research question one. First, that ($H_{1.1}$) there will be a negative relationship between the percentage of White students who attend a school and the school's likelihood of participation, controlling for other factors. Second, because this concern may be salient amongst historic segregation academies, a

special class of White private schools that opened in opposition to desegregation efforts brought on by *Brown v. Board of Education* (1954) and remain segregated today, we also predict ($H_{1.2}$) historical segregation academies will be less likely to participate in choice programs than non-segregation academies, controlling for other factors. Additionally, concerns about a school's ability to maintain its current demographics might be influenced by its potential student population or those students who could feasibly enroll in the school if awarded a scholarship. This possibility leads to an additional prediction regarding research question two, (H_2) that the percentage of Black students in the (non-affiliated) local public school district where the private school is located will be negatively related to the likelihood of participation, controlling for other factors.

Data

We use data from multiple sources. First, we use data from the National Center for Education Statistics' (NCES) biennial Private School Universe Survey (PSS). The NCES first conducted the PSS during the 1989-1990 school year, with the most recently published survey at the time of writing being from the 2019-2020 school year. Though the PSS does not garner a 100% response rate on the part of private schools, it is the best source available for this project, and it is commonly used by those studying the supply side of private school choice (Austin, 2015; DeAngelis & Hoarty, 2018; DeAngelis et al., 2019; Stuit & Doan, 2013; Sude et al., 2018). There is great variation in the number of schools participating in each cycle and in the number of years any individual school participates, suggesting that schools may complete the PSS at random intervals.

For each school, we pulled data from the 2011-2012 PSS, the last survey that was conducted before the AESP was implemented. By using these data, we can measure school demographics at the time when schools initially began making participation decisions. Data from later cycles of the survey could be influenced by participation and thus allow for the possibility that the demographics reflect the results of participation rather than the motivation for participation. To account for the possibility of school closures prior to the time of our study, we cross-referenced the schools in our sample and eliminated any that had permanently closed. Additionally, we removed schools that primarily serve Pre-K students because kindergarten is the first grade level in which students are eligible to receive scholarships.

Secondly, we pulled data relevant to the AESP from the Alabama Department of Revenue, which oversees the program. We used the 2020-2021 list of participating private schools to determine school participation status at the time of study. All schools that were listed as "participating" by the Department of Revenue were coded as participating for the purposes of analysis. All other schools were coded as "not participating." Though we understand that participation may be a more dynamic decision than our data allows us to track, the decision to opt into the program is an important one that signals a school's preferences. Additionally, we used the failing school list from 2013 to capture a control variable indicating the presence of a nearby failing public school at the time of the primary participation decision. For the purposes of analysis, we operationalized a "nearby failing school" as one within a 15-minute drive of the private school using ArcGIS software to determine drive times.

Thirdly, we gathered public school district data from the NCES's Common Core of Data (CCD), conceptualizing a private school's potential student population as those students who attended a public school in the school district boundaries where the private school operated. We used ArcGIS software to map each private school inside public school district boundaries as if each private school hypothetically belonged within a given public school district. Since transportation is the responsibility of parents in choice systems, using the traditional district model is a reasonable

estimate of a private school's potential student population and the distance that parents might be willing and able to drive their children to a private school. Though we captured data for both Black and Hispanic/Latino students in the public school district, we focus on the percentage of Black students as our conceptualized "potential choice student" population, as Black students represent the largest minority group in Alabama and make up most of the scholarship student population. Additionally, we aggregated NCES public school data to the district level to capture the percentage of students eligible for FRPL, which was used as a control.

Our dataset includes observations for 188 private schools, slightly less than half of the total private schools in the state. Of those 188 schools in our dataset, 108, or 57%, have been participating in the AESP. The participation rate for schools in our dataset is notably higher (57% vs 36%) than the overall rate for the state. Though we would have liked to include the full population of private schools in our analysis, this was not possible due to data limitations. Because we are primarily interested in non-participation, this overestimation of the likelihood of participation in our dataset leads us to believe all findings presented in this paper are conservative estimates. Further, because not all private schools in the state would be eligible to participate, the 36% may underestimate the total participation rate for eligible private schools (non-pre-K). See Table 2 for descriptive statistics pertaining to participating and non-participating schools in our dataset. Prior to running analytic models of participation, we ran descriptive statistics to measure participation rates based on school characteristics. These rates are displayed in Table 3.

Our findings provide an important analysis of the impact of student demographics on private school participation; however, we note a few limitations. The primary limitation relates to data availability. We rely heavily on data from the NCES's PSS, which is a valuable data source for private school demographic data; however, it does not contain data for all private schools, and thus, our dataset includes only a sample of private schools rather than the full population. Secondly, our analysis is limited in its ability to treat the nature of participation as fluid. While schools do not appear to opt in and out of the program frequently, it is possible that some schools that opt in do not enroll new students each year, which could be viewed as a form of non-participation. Unfortunately, datasets tracking this trend are unavailable. Despite these limitations, our findings are robust to multiple model specifications, leading us to feel confident that they are not merely the result of sample selection or model specification.

Table 2

Descriptive Comparison of Participating and Non-Participating Schools

Demographic Characteristic	Participating Schools (57%)	Non-Participating Schools (43%)	All Schools (100%)
School Percent White	72%	79%	75%
Total Student Population	294	195	252
Segregation Academy	34%	41%	37%
Religious Affiliation: Non-Sectarian	19%	30%	23%
Religious Affiliation: Protestant	50%	66%	57%
Religious Affiliation: Catholic	29%	1%	17%
Religious Affiliation: Islamic	1%	1%	1%
Religious Affiliation: Jewish	1%	1%	1%

Table 2

Descriptive Comparison of Participating and Non-Participating Schools

Demographic Characteristic	Participating Schools (57%)	Non-Participating Schools (43%)	All Schools (100%)
Location: City	55%	34%	46%
Location: Suburbs	14%	24%	18%
Location: Town	5%	11%	8%
Location: Rural	27%	32%	29%

Note: Statistics reported here are the averages for the specific demographic characteristics amongst the 108 participating and 80 non-participating schools in our dataset. Descriptives for the full dataset (188 schools) are also included for comparison purposes. Values were rounded to the nearest whole number.

Table 3

Participation Rates by Key School Characteristics

Variable	Number of Schools	Participation Rate
Segregation Academies	70	53%
Non-Segregation Academies	118	60%
Private School Student Population		
< 72% White	47	62%
72-85.99% White	46	67%
86-93.99% White	48	60%
94-100% White	47	40%
Public School District Population		
<23% Black District	46	52%
23-45.99% Black	46	65%
46-71.99% Black	47	43%
>72% Black	49	69%
Non-sectarian Schools	45	47%
Protestant Schools	107	51%
Catholic Schools	32	97%
Islamic Schools	2	50%
Jewish Schools	2	50%
Schools Located in Rural Areas	54	54%
Schools Located in a City	86	67%
Schools Located in the Suburbs	34	36%
Schools Located in a Town	14	27%
School Located within 15 Minutes of a Failing School	112	66%
School Declining Enrollment	55	65%

Note: Percentages were rounded to the nearest whole number.

Analysis and Results

We used a linear probability model (LPM) and a logistic regression model to analyze private school participation decisions. While both models produced similar results, the linear probability model is preferred because it has stronger statistical power and is more easily interpreted (Von Hippel, 2015). The LPM, which we focus on in our discussion of the results, takes the following form:

$$p(Participation)_i = a_0 + a_1(School\ Percent\ White)_i + a_2(Segregation\ Academy\ Status)_i +$$

$$a_3(District\ Percent\ Black)_i + a_4(School\text{-}level\ Controls)_i + a_5(District\text{-}level\ Controls)_i$$

Where the probability of participation, p, for a given school, i, is a linear function of a_1, the percentage of White students at the private school; a_2, the school's segregation academy status (0/1); a_3, the percentage of Black students in the private school's assigned public school district; a_4, a vector of school-level control variables including school size, religious affiliation, locale, proximity (within 15 minutes) to a failing school, and declining enrollment, and finally; a_5, a district-level control which included the percentage of students eligible FRPL. Results of both models are provided in Table 4.

Table 4

Results from the Primary Models of Participation

	Model 1 (Preferred) Linear Probability Model	Model 2 Logistic Regression
Variable (n=188)	Coefficient (SE)	Odds Ratio (SE)
Total Student Population	.0003 (.0001)**	1.002 (.001)**
Segregation Academy	.14 (.08)*	2.10 (.86)*
Reference Category: 94-100% White School		
< 60% White	.21 (.11)*	2.84 (1.73)*
60-84.99% White	.22 (.10)**	3.76 (1.97)**
85-93.99% White	.14 (.10)	1.84 (.95)
Reference Category:<23% Black District		
23-45.99% Black	.08 (.10)	1.59 (.82)
46-71.99% Black	-.15 (.14)	.36 (.27)
>72% Black	.17 (.16)	1.84 (.95)
Religion: Reference Category Non-sectarian		
Protestant	.11 (.09)	1.81 (.82)
Catholic	.54 (.11)***	81.69 (80.67)***
Islamic	.33 (.24)	7.03 (7.65)*
Jewish	.09 (.26)	1.57 (1.55)
Locale: Reference Category City		
Suburb	-.21 (.08)**	.30 (.16)**
Town	-.15 (.12)	.44 (.28)
Rural	-.26 (.13)	1.58 (1.01)
Percent FRPL in District	-.003 (.003)	.98 (.02)
Failing School within 15 Minutes	.06 (.07)	1.31 (.57)
School Declining Enrollment	-.001 (.09)	1.11 (.53)
_cons	.30 (.16)*	.34 (.31)

	Model 1 (Preferred) Linear Probability Model	Model 2 Logistic Regression
Variable (n=188)	Coefficient (SE)	Odds Ratio (SE)
Pseudo R^2	-	.2635
R^2	.2844	-

Note: For Model 1 and Model 2, standard errors were clustered by public school district to account for the nested nature of the data. Private schools were placed within public school districts using ArcGIS mapping to estimate a "private school district" from which potential students could reasonably be drawn based on travel distance. * $p \leq .10$ ** $p \leq .05$ *** $p \leq .01$

The logistic regression model takes the following form:

$$ln(Participation)_i = \beta_0 + \beta_1(School\ Percent\ White)_i + \beta_2(Segregation\ Academy\ Status)_i + \beta_3(District\ Percent\ Black)_1 + \beta_4 X_i(School\ and\ District\ Level\ Controls)$$

Where the probability of participation, *Participation,* is affected by several key independent variables as well as a battery of control variables. β_1 denotes the coefficient for the independent variable measuring the percentage of White students at a given school, i, β_2 denotes the coefficient for the independent variable indicating whether a school, i, was identified as a historic segregation academy (1) or not (0), β_3 denotes the coefficient of the independent variable measuring the percentage of Black students in the school's assigned public school district, and $\beta_4 X_i$ denotes the coefficient for the vector X which includes values for the various control variables used in the model.

Research Question 1

The first research question for this study was: do private school racial demographics impact the likelihood of participation in a school choice program? $H_{1.1}$ predicted that there would be a significant, negative relationship between the percentage of White students attending a private school and participation, with the Whitest schools being the least likely to participate as they would face the biggest potential threat to their "White" identities. To test whether the percentage of White students at a school was associated with the likelihood of participation, our key independent variable was an ordinal variable denoting whether a school was (1) <72% White, (2) 72-85.99% White, (3) 86-93.99% White, or (4) ≥94% White. Using an ordinal form of the variable allowed us to better model the data due to potential non-linear relationships. We used quartiles to determine the cut points for this variable, which resulted in every category representing approximately 25% of the observations.

Descriptive statistics provide assurance that using the quartiles to determine cut points is logical. They showed that only 40.43% of schools in the ≥94% White category participated, the lowest rate of all four groups of schools. Our models provided more robust support for our hypothesis, showing that schools that were greater than 94% White were significantly less likely to participate in the AESP than other schools. Specifically, schools that were less than 72% White were 21% more likely to participate (p=.06) than those that were ≥94% White and schools that were 72-85.99% were 22% more likely to participate (p=.03) than those that were ≥94% White. Schools between 86-93.99% White were 14% more likely to participate than those that were ≥94% White, but not significantly so (p=.168). These results suggest that school racial demographics are related to the likelihood of participation in the AESP, with the most exclusively White private schools being significantly less likely to participate than schools that were less than 86% White.

In addition to considering the racial demographics of a school's student body as a measure of implied preference for diversity, we considered a school's segregation academy status. In $H_{1.2,}$ we predicted that historical segregation academy status would be negatively related to the likelihood of participation. Our model did not support this hypothesis and instead showed that segregation academies were more likely to participate than their non-segregation academy counterparts, and the result was marginally significant (p=.09). It is interesting and surprising to note that the coefficient for this variable was positive, with segregation academies being 14% more likely to participate than non-segregation academies. Descriptive statistics also support this, revealing that segregation academies participate in the program at a relatively high rate (60%). This finding is curious and implies that historic segregation academies are now potentially more open to diversity than they were in the past. The reasons for this are impossible to determine based on our models; however, we did explore a few possible explanations.

First, we looked at descriptive statistics to see if participating segregation academies were more diverse, on average, than non-participating segregation academies. We found that segregation academies that participated in the AESP and those that did not have nearly identical percentages of White students (M=86.25%; M=87.23%), suggesting that participating segregation academies do not have significantly different racial compositions than those who did not participate. Segregation academies, however, enrolled much higher percentages of White students, on average, than non-segregation academies (M=87%, M=68%). These findings suggest that segregation academies are still largely segregated, and those that participate do not show a stronger baseline preference for diversity.

When considering alternative motivations for participation, we hypothesized that some historic segregation academies, especially those with very small enrollments, could use participation as a mechanism for survival. To determine if the impact of historic segregation academies was dependent on school size, we ran a supplementary model including an interaction between school size and segregation academy status; however, the interactive term was ultimately insignificant, suggesting that the impact of segregation academy status was independent of school size. Furthermore, descriptive statistics revealed that participating segregation academies were about 43% larger than their non-participating counterparts. Similarly, we interacted the segregation academy variable with a variable denoting declining enrollment over the past five years to see if declining enrollment could motivate higher participation amongst segregation academies. Again, we found that the interaction was insignificant, suggesting that segregation academy participation is not driven by declining or low enrollments.

We also considered the possibility that participating segregation academies might see participation as less threatening to their White identities based on the demographics of potential choosers in their service area. To account for the fact that the size of the Black youth population could mediate the effects of historic segregation academy status on the likelihood of participation, we ran an additional analysis in which we included an interaction between historic segregation academy status and the percentage of Black students in the local public school district. Again, the results showed that the interaction term was not statistically significant, leading us to conclude that the impact of school segregation academy status was not dependent on the demographics of the potential students.

While these alternative explanations for our interesting segregation academy findings are the only ones that can be tested using our dataset, we do propose that there is one final possible explanation for the high participation rates of segregation academies that relates to their histories. It is possible that segregation academies, which were made possible after *Brown* by state support in the form of tuition grants, buildings, supplies, and teachers, do not see modern versions of these historic programs as a threat to their diversity simply based on their histories. If this is the case, and

segregation academies are using Alabama's modern tax credit scholarship program to perpetuate segregation, this should be a significant concern to policymakers and deserves further investigation. Future studies should continue to investigate the participation of segregation academies, examining both their motivations for participation and the impacts thereof.

Research Question 2

For research question two, we asked: Do the racial identities of potential "choice" students impact the likelihood of participation in a school choice program? While there are choosers from different racial backgrounds across the dataset, we focus primarily on Black potential choosers, who constitute the most scholarship recipients. Further, we conceptualize a larger presence of Black potential choosers as the most salient threat to participation, given the state's history of anti-Black racism. Therefore, we have conceptualized potential choosers as the Black students in the private school's nearest public school district. We believe that because students are responsible for transportation to choice schools, the distance they would be willing/able to travel to school will be limited. While the measure is not perfect, it is the best estimate of the "choice" student population available in our dataset.

In hypothesis two, we predicted that there would be a negative relationship between the percentage of Black students in the private school's nearest public school district and the likelihood of participation. This prediction assumes that a larger population of Black potential choosers would prompt participating schools to believe that participation would increase diversity. To allow for the potential of a non-linear effect of this variable, we again use an ordinal variable denoting whether the associated public school district was (1) < 23% Black, (2) 23-45.99% Black, (3) 46-71.99% Black, or (4) ≥72% Black. Each category contained approximately 25% of the observations. The model did not provide support for hypothesis three, as none of the coefficients reached the level of statistical significance.

To test whether the racial demographics of potential students was only a significant factor when interacted with the school racial demographics, we ran an additional model that included an interaction term between the school percent White and district percent Black variables. The results, again, were insignificant. We ran subgroup analyses (see Table 5) based on the district percent Black variable as an additional robustness check. These models provided evidence that the most exclusively White schools were both substantively and statistically significantly less likely to participate than less White schools in the districts with the highest percentage of Black students, providing partial support for hypothesis two and suggesting that the threat of potential student demographics may be most salient in districts that are more than 72% Black.

The Catholic School Phenomenon

In addition to the results for the key independent variables of interest, one of our control variables had an especially interesting and noteworthy impact on the likelihood of participation. Our model revealed that Catholic schools were significantly more likely to participate in the AESP than non-sectarian schools ($p<.001$), a finding that is consistent with the current private school supply-side literature. Catholic schools were 54% more likely to participate in the AESP than non-sectarian schools ($p<.001$). Descriptive statistics demonstrated that Catholic schools had a participation rate of nearly 97%, the highest for any category of school in our dataset. It is possible that the high participation rate on the part of Catholic schools relates to the mission of Catholic schools, which often seek to serve the poor and needy. Alternatively, the hierarchical nature of the Catholic school system could be at the root of this widespread participation. This finding shows that the desire to offer a religious education to more students, especially amongst Catholics, may very well be an important predictor of participation. Future research should be conducted to explore this finding.

Table 5

Results from District Percent Black Subgroup Analysis Using a Linear Probability Model

	Model 1 <23% Black (*n*=46)	Model 2 23-45.99% Black (*n*=46)	Model 3 46-71.99% Black (*n*=47)	Model 4 ≥72% Black (*n*=49)
Variable	Coefficient (SE)	Coefficient (SE)	Coefficient (SE)	Coefficient (SE)
Total Student Population	.0007 (.0004)	.0002 (.0004)	.0003 (.0001)**	.0007 (.0002)**
Segregation Academy	**-.19 (.13)**	.05 (.19)	.33 (.14)**	.15 (.30)
Reference Category: 94-100% White School				
< 60% White	.24 (.24)	**-.27 (.19)**	.59 (.33)*	.82 (.14)***
60-84.99% White	.62 (.15)***	.03 (.18)	.46 (.23)*	.53 (.23)**
85-93.99% White	.08 (.19)	**-.16 (.17)**	.38 (.30)	.51 (.17)***
Religion: Reference Category Non-sectarian				
Protestant	.48 (.12)***	**-.10 (.20)**	**-.11 (.25)**	.24 (.24)
Catholic	.75 (.32)***	.40 (.30)	.47 (.42)	.48 (.25)*
Islamic	-	.63 (.28)**	.36 (.30)	-
Jewish	-	.26 (.22)	-	.44 (.27)
Locale: Reference Category City				
Suburbs	-.22 (.21)	-.24 (.22)	-.26 (.24)	**.18 (.12)**
Town	**.21 (.32)**	-.47 (.24)*	-.24 (.19)	**.63 (.24)****
Rural	**.25 (.19)**	-.19 (.23)	-.09 (.23)	**.80 (.25)*****
Percent FRPL in District	-.004 (.01)	-.001 (.01)	**.01 (.02)**	-.02 (.01)***
Failing School within 15 Minutes	.08 (.15)	.02 (.14)	.02 (.19)	.53 (.24)**
School Declining Enrollment	-0.19 (.15)	**.33 (.17)***	-.28 (.10)**	**.04 (.20)**
_cons	.01 (.37)	.77 (.31)**	**-.62 (1.35)**	.75 (.43)
R^2	.4315	.4480	.4574	.4344

Note: For all models, standard errors were clustered by public school districts to account for the nested nature of the data. In addition to being similar to each other, the results across the sub-groups presented in this table mirror those of the primary model (presented in Table 4) in all cases except those that have been bolded. * $p \leq .10$, ** $p \leq .05$; *** $p \leq .01$

Discussion

Private schools in the United States have historically been more White than their public school counterparts (Clotfelter, 2004; Fairlie & Resch, 2002), and in fact, many private schools in the United States were created to maintain segregation after public school systems were ordered to integrate (Bagley, 2018; Clotfelter, 2004; Nevin & Bills, 1976). Today, private schools continue to contribute to segregation in American education. This history should be considered alongside contemporary evaluations of school choice programs.

The findings of this study add to our understanding of how race and school choice interact. Our analysis shows that some schools in Alabama, especially those that are 94% or more White, are significantly less likely to participate in school choice programs than those that are less than 86% White. Paired with previous scholars' findings in the White flight and White avoidance literatures (Bagley, 2018; Betts & Fairlie, 2003; Clotfelter, 1976, 2001, 2004; Coleman, 1975; Fairlie & Resch, 2002; Fiel, 2013; Hess & Leal, 2001; Orfield & Frankenberg, 2013; Renzulli & Evans, 2005; Zhang & Ruther, 2021), we argue that the lack of participation may be a way for the schools to avoid diversity. Previous surveys have shown that non-participating schools are concerned that participation will affect their identities; however, the specific details of those identities cannot be fully ascertained through existing survey data. Our findings indicate that maintaining racial homogeneity may be perceived as a significant aspect of the identity that non-participating schools aim to preserve. Scholars should continue exploring how schools' implied preferences for diversity impact private school participation decisions in other contexts to see if the findings emerge beyond Alabama.

Though it was not our primary task, our study also supported past scholars' findings that Catholic schools participate at a nearly universal rate (Austin, 2015; Omand, 2004; Stuit & Doan, 2013). We feel that the surprisingly large "Catholic effect" that our study revealed is worthy of further investigation. A qualitative or mixed-methods study that investigates the "Catholic effect" would provide further insight into understanding the supply side of school choice. Gaining a more comprehensive understanding of the reasons behind the high participation rate of Catholic schools in private school choice programs may yield valuable insights for policymakers seeking new strategies to increase overall participation in these programs.

One finding that did not conform to our expectations also warrants further discussion. We hypothesized that segregation academies, compared to other schools, would be less likely to participate in the AESP, thereby avoiding the potential increase in diversity that participation could bring, but our findings did not confirm this prediction, and the coefficient for the segregation academy variable was instead positive and marginally significant. The fact that these schools appear to be more open to diversity than previously thought raises the question of what factors influence their participation decisions.

One possibility is that the historical comfort these schools have with vouchers is what explains contemporary patterns. Segregation academies have had markedly different relationships with tuition grant programs than other schools. Tuition grant programs allowed them to grow and flourish in the years following *Brown*. Schools have discretion over which scholarship students they admit; thus, it is possible that segregation academies do not see participation as an action that will lead to increased diversity. In other words, they may have other gatekeeping strategies.

Also, due to segregation academies' legacy, non-White students may already be reluctant to apply to them. Parents of non-White students may not want to bear the costs of applying to a segregation academy out of fear of discrimination in the admissions process. Alternatively, non-White parents may be reluctant to apply to segregation academies out of fear that their child would

be discriminated against or feel unsafe if admitted. The history and norms surrounding segregation academies could make their participation decisions unique.

Further exploration of the segregation academy participation phenomenon is warranted. It would be a positive development if segregation academies no longer discriminate based on race and accept diverse applicants. However, it would represent a reprehensible unintended consequence of the AESP if segregation academies are using participation to perpetuate their discriminatory histories. Further research on the role of segregation academies in current private school choice programs would provide valuable information for policymakers.

Policy Implications

The findings of this study have important implications for school choice policy in Alabama and beyond. Past research on the supply side of school choice has implied that reduced regulatory burdens, reduced barriers to entry, increased scholarship amounts, and increased scholarship student eligibility would increase the supply of participating private schools (Austin, 2015; DeAngelis & Hoarty, 2018; Egalite et al., 2020; Kisida et al., 2015; Stuit & Doan, 2013). Alabama's choice policy is targeted at low-income students but already has minimal regulations and a relatively high maximum scholarship amount. Still, most private schools in the program do not participate, suggesting these policy design elements alone may not be enough. In addition to the policy design elements, we argue that the characteristics of the schools themselves may also be an important factor that limits the supply of participating private schools. This argument suggests that incremental policy changes may not be an effective way to achieve a robust choice marketplace.

A robust choice marketplace is arguably a key element in a successful school choice program. If policymakers want to overcome the currently identified barriers to participation, both at the policy and school levels, one possible supply-side policy solution stands out: mandatory participation. If practical, such a solution could successfully address the current shortage of participating schools in private school choice programs. Mandatory participation is likely unfeasible, though. The level of regulation it would infuse into choice programs would likely face political opposition. Mandatory participation requirements would also likely face significant opposition from affected private schools. Survey and interview data show that private schools strongly value their autonomy; thus, mandatory participation requirements would pose a substantial threat to them (Austin, 2015; Egalite et al., 2018; Kisida et al., 2015; Stuit & Doan, 2013). For these reasons, it is unlikely that a mandatory participation policy would ever pass the legislature.

The dearth of feasible policy solutions to the supply-side problems private school choice programs face should be concerning to policymakers. Low levels of participation in choice programs that are aimed at improving equity can significantly reduce policy effectiveness when elite private schools continue to be exclusionary. In the future, policymakers will need to get creative and continue to look for feasible solutions to existing supply-side issues facing school choice programs. Additionally, we recommend that scholars continue to expand the supply-side literature to discover additional barriers to participation and potential solutions to address them.

At the very least, it is worth acknowledging that perhaps the most feasible option for fostering diverse enrollments and educational equity is found outside the private sector. Right now, the schools that do have mandatory participation and extreme enrollment allowance regulations are public schools. Despite all the issues that public schools face, they must enroll all students in their jurisdictions, do not have exclusionary options, and are forced to participate in the rules that policymakers set out for them. Perhaps public-school choice programs are a more robust choice option for policymakers when advancing equity goals, especially since mandatory participation and robust funding schemes for private schools are unlikely policy options. Without feasible policy

solutions to overcome the exclusionary nature of private schooling, it is possible that private school choice programs are flawed from the start if the goals are to use them to pursue equity and increased diversity in the educational system.

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