Funding Charter Schools: A Safe Bet?
An Analysis of Rhode Island's Charter School Investments

A Dissertation submitted
to the Graduate School
Valdosta State University

In partial fulfillment of requirements
for the degree of

DOCTOR OF PUBLIC ADMINISTRATION

in Public Administration

in the Department of Political Science
of the College of Humanities and Social Sciences

July 2024

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ABSTRACT

There are two major theories that scholars utilize and debate in the study of public education in the United States. The first theory is centered on the notion that existing school districts should be supported with additional funding and resources to improve student outcomes. This theory argues that additional resources allow traditional districts to better serve students by providing specialized teachers, additional teachers' aides, and other supplemental supports that benefit all students in the district. Conversely, proponents of charter schools argue that school choice — creating an educational market — incites competition between Local Education Agencies for both students and funding. This competition is achieved through the creation of public charter schools, which compete with traditional districts. This research focuses on the State of Rhode Island's educational funding, using publicly available longitudinal empirical data between Fiscal Years 2010 and 2019. Through the lenses of equity, efficiency and effectiveness, this research analyzes the State's return-on-investment of charter schools. The data suggest that Rhode Island charter schools disproportionately under-enroll disadvantaged students (i.e., special education, English language learners, and free and reduced lunch eligible) as compared to their sending districts and divert hundreds of millions of dollars in funding from traditional districts. However, the study does not find that this adversely impacts the sending district's average scale scores on the Rhode Island Comprehensive Assessment System (RICAS) or the Scholastic Assessment Test (SAT).

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ACKNOWLEDGEMENTS

I would like to thank my committee members, Dr. Nandan Jha, Dr. Timothy Page, and Dr. Joseph da Silva for their guidance and support on this research. Additionally, I am deeply grateful for Dr. Santiago Guerrero, Kristen Cole, and Peg Votta at the Rhode Island Department of Education, who helped me find and provided the various data sources used in this research. Lastly, I want to thank my wife Deidre and my children Jack and Chase for their tremendous understanding and encouragement over the last four years as I completed the DPA program at Valdosta State. Everyone's collective efforts have allowed me to complete this research and I am forever grateful.

Chapter I

INTRODUCTION

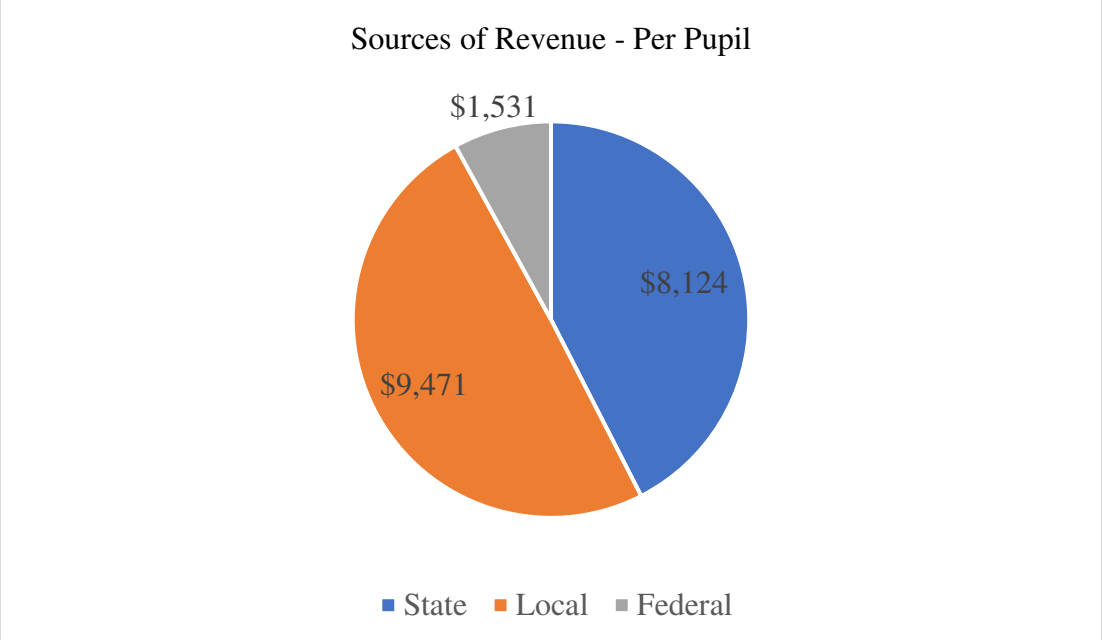
Over $2.5 billion dollars are spent on public education in Rhode Island annually, which includes local municipal contributions raised through property taxes, State Basic Education Aid distributed through a complex funding formula, and federal aid (State of Rhode Island Department of Education, 2024b). School districts and State education agencies are charged with the responsibility of ensuring the most effective use of these public funds. There are many metrics and perspectives that can be used to determine effectiveness, such as student assessments, college and career readiness, and preparing students to be productive members of society (Abrica, 2018; York et al., 2019). However, the cost to achieve any of these goals can greatly vary. This research attempts to analyze the State of Rhode Island's return-on-investment of educational funding from efficiency, effectiveness, and equity lenses, specifically the investment of charter schools.

School choice is a fundamental part of the American educational system. While all states provide students with free public education, there are a variety of other options available to parents. These other options include private independent schools, parochial schools, career and technical centers, magnate schools, regional districts, State schools, home school, virtual schools, and charter schools (US Department of Education, 2020). The cost of school choice can be borne by families, the state, the municipality, private funding, or a combination of all four (Kaplan & Ownings, 2018). In Rhode Island, families can opt to attend private schools and parochial schools (families pay), three

State-run schools (free to parents, but State pays), Career and Technical Centers in other districts (free to parents, but local district pays), open seats in other districts (families pay), or attend public charter schools, which is free to families, but the State and local districts pay (Procedure for Creation of District Charter Schools, 1995; Regional Vocational Schools, 1964).

To contextualize these costs, in Fiscal Year (FY) 2020, per pupil revenues in Rhode Island were $19,126 – twelfth highest in the nation (National Center for Education Statistics, 2021). As shown in Figure 1, just under half (49.5%) of funding was derived from local municipalities, while 42.5% was State funding and 8% represented Federal funds.

Figure 1. *Sources of Educational Revenue in Rhode Island on a Per Pupil Basis*



(National Center for Education Statistics, 2021)

Nationally, the average per pupil revenue is $15,864 with a range of $21,175. The District of Columbia has the highest revenues per student at $30,082, while Idaho ranks

51st with $9,907. The six New England states all rank in the top third with respect to per pupil revenue when compared to all the states. With the exception of Vermont, all New England states rely on local municipal funding as their primary funding source for education (National Center for Educational Statistics, 2021).

Table 1. *FY 2020 Educational Spending by State*

State	Ranking	State	Local	Federal	Total Per Pupil
Connecticut	4	$9,139	$12,608	$946	$22,694
Vermont	5	$19,677	$685	$1,503	$21,865
Massachusetts	6	$8,408	$11,248	$965	$20,620
New Hampshire	10	$6,094	$12,511	$934	$19,540
Rhode Island	12	$8,124	$9,471	$1,531	$19,126
Maine	16	$7,259	$9,312	$1,071	$17,642

(National Center for Education Statistics, 2021)

Charter School Spending

Almost $153 million dollars was spent on Rhode Island charter schools in FY 2020, including all sources of funding (State of Rhode Island Department of Education, 2024b). To make a direct comparison between public expenditures between charter schools and traditional districts, the calculations need to be standardized. (State of Rhode Island Department of Education, 2024b). This is because charter schools and regional school districts carry debt service payments on their books, whereas traditional districts have the municipality issue and carry the debt payments on the town/city side. Additionally, capital projects are typically excluded from the per pupil calculation for this same reason, as some Local Education Agencies (LEAs) carry these costs on their books, while others charge them to the municipality. Moreover, traditional districts need to have their tuition payments to other public schools of choice also removed from the per public calculation; otherwise, it can distort the data. For example, as seen in Appendix A,

Providence's per student expenditures would appear to be $1,006 higher per student than average for the state. These funds ($23M in total) are sent to charter schools as the local share. State funds are paid directly to the charter schools. Charter schools have lower expenditures per student than traditional districts. This can be attributed to a variety of factors, including the relative lack of high-cost special education students, non-unionized labor, and lower revenues (Casey, 2015). All LEAs are required to have balanced budgets each fiscal year, pursuant to Rhode Island General Laws 16-2-21.4, and charters cannot spend more than the revenues they receive (School Budgets, 1995). This requires them to offer education at a lower cost than traditional districts. This is consistent with funding nationally. As evidenced in Table 2, charters consistently receive less revenue per pupil than traditional districts. In FY 2020, charters received 22% less revenue than traditional districts. A list of common terms can be found in Appendix B.

Table 2. *Average National Charter School vs. Traditional District Spending in 2019 Dollars*

Year	Charter Schools	Traditional Districts	Difference
2006-07	$12,186	$15,859	($3,673)
2007-08	$12,340	$16,057	($3,717)
2008-09	$13,045	$16,553	($3,507)
2009-10	$13,516	$16,316	($2,801)
2010-11	$12,560	$17,415	($4,855)
2011-12	$12,436	$16,668	($4,231)
2012-13	$12,179	$17,339	($5,160)
2013-14	$12,084	$17,260	($5,176)
2014-15	$12,208	$17,237	($5,028)
2015-16	$12,415	$16,928	($4,513)
2016-17	$12,420	$17,046	($4,626)
2017-18	$12,051	$14,897	($2,846)
2018-19	$12,155	$15,276	($3,121)
2019-20	$12,600	$15,478	($2,878)

(National Center for Education Statistics, 2021)

History of Charter Schools

In 1991, Minnesota passed the first charter school legislation that allows families to have "school choice." These alternate LEAs operate as independent entities, like traditional districts. While enrollment mechanisms vary by state, most charter schools use lotteries to select students. Families decide between sending students to their local district or applying for admission to charter schools. The original intent of charter schools was to provide choice to families whose local district was failing by offering alternatives that would help improve educational outcomes. In Rhode Island, charter schools were first approved by the General Assembly in 1995 (Rhode Island Department of Education, 2014). These first charter schools were district charter schools, created by teachers and district personnel within the public school district. In 1998, the General Assembly amended state law to allow for charter schools to operate independently of the local school districts (Procedure for Creation of District Charter Schools, 1995). The independent charter schools opened in 2000 (Rhode Island Department of Education, 2014).

In Rhode Island, students attend public LEAs providing educational services for kindergarten through 12th grade (K-12). Each LEA is an independent entity that is provided State funding, overseen by a school committee or board of directors and held accountable for student outcomes. The term "LEA" encompasses traditional school districts, state-owned and operated schools, educational collaboratives, and charter schools. In Rhode Island, educational resources utilize a "funding follows the child" methodology to match LEA revenues with expenditures. Of the seven charter schools that submitted information to the National Center for Education Statistics, the average FY 2020 revenue per pupil was $17,589 (National Center for Education Statistics, 2021). If

these charter schools were a state, they would rank 17th among the 51 states (includes Washington, DC). Of note, where students attending charter schools reside has a direct impact on the type of funding received. For example, charter schools that pool students from less affluent areas had a greater proportion of State funding in 2020, whereas charter schools that enrolled students from more affluent towns received more local funding and less state funding. This is because both local and state aid follow the child, and students in more affluent communities are funded by a greater proportion of local funds. Due to the financial implications of charter schools, the General Assembly passed a law during the FY 2016 session that requires the Town or City Council of each sending municipality to approve any new charter schools (Process for Consideration of Proposed Charter or Expansion, 2016). As such, most charter schools enroll students from less affluent areas, where local leaders are less likely to thwart approval, as the primary funding sources are State dollars. This has resulted in three communities sending over 75% of all students to charter schools.

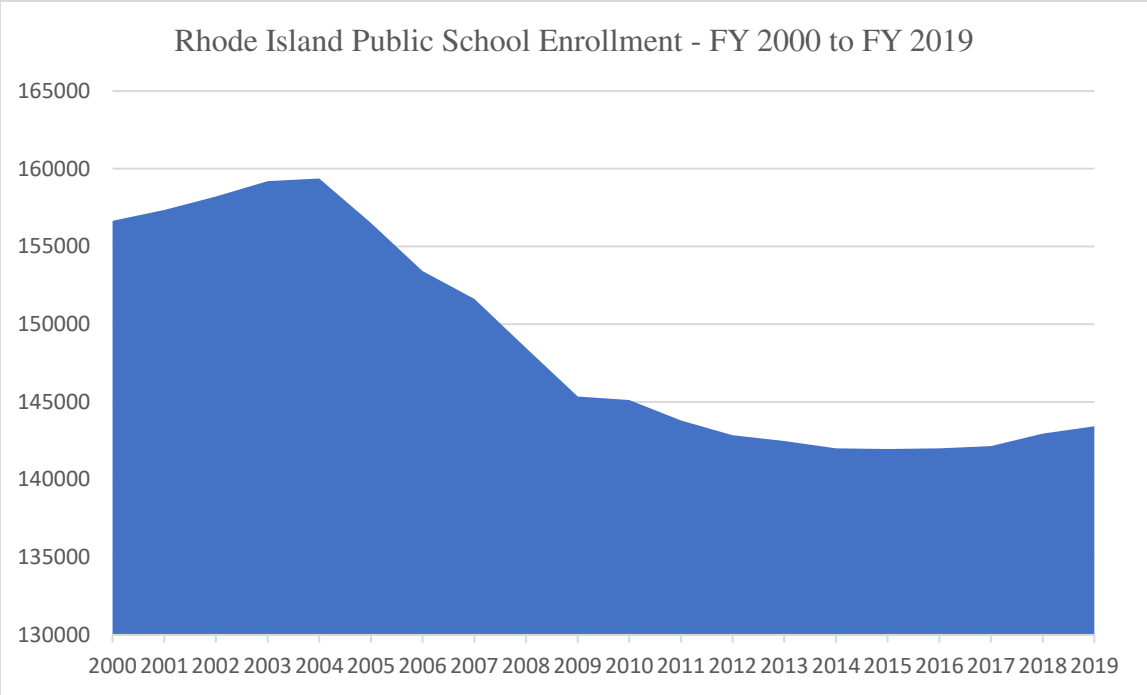
Rhode Island Student Enrollment

In Fiscal Year (FY) 2000, Rhode Island had 41 LEAs, which were composed of 36 traditional districts, three state-owned schools, and two district-run charter schools. The Rhode Island General Assembly enacted legislation in 2003 that allowed the Rhode Island Department of Education (RIDE) to approve independent charter schools. (Oversight by Commissioner, 2003).

Similar to other New England states, Rhode Island's school-aged population has declined since 2000 and the overall population is growing slower than in other parts of the country (US Bureau of the Census, 2023). This impact is evident in the State's public school enrollment trends. In FY 2000, the State had 156,647 students enrolled in public

schools; however, close to two decades later, statewide enrollment had declined by 11.5% to 138,556 students (see Figure 2). Based on this information, we could assume that this smaller group of Rhode Island students would require less State aid ($346 million based on FY 2020 spending), school facilities, school administration and other non-instructional expenses to support their teaching and learning. With an average statewide building capacity of 488 students, LEAs should have closed over 40 school facilities (Rhode Island Department of Education, 2017).

Figure 2. *Historic Statewide Enrollment*

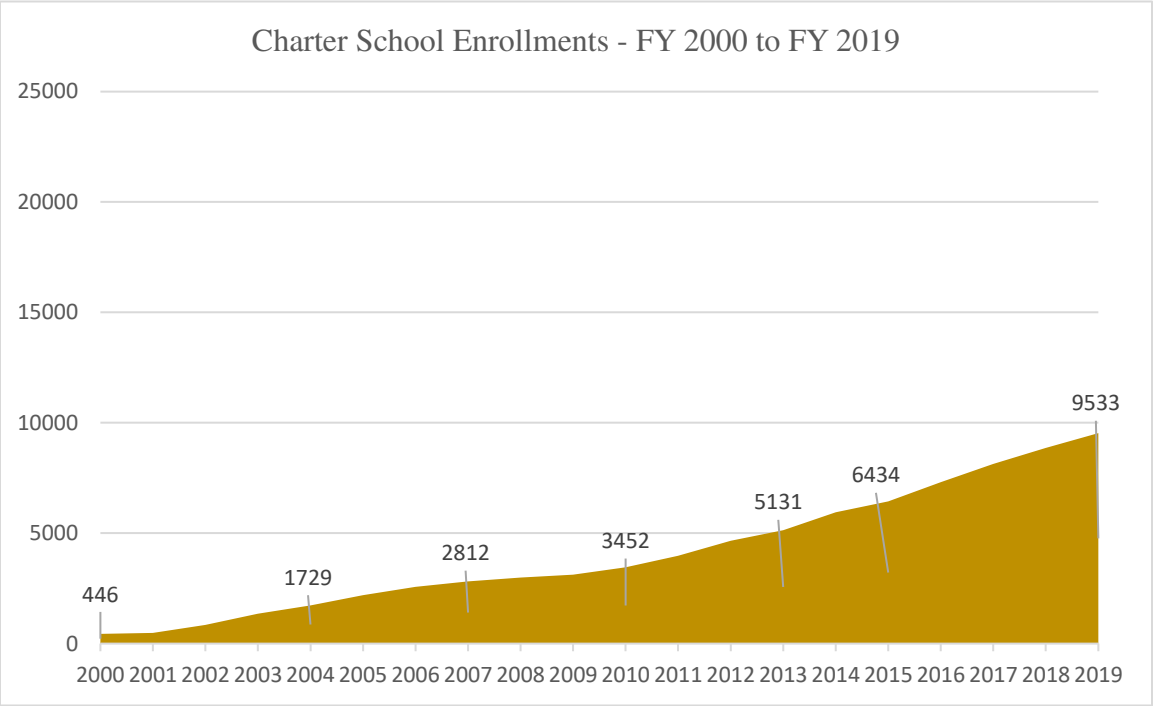


(Rhode Island Department of Elementary and Secondary Education, n.d.)

However, despite an 11.5% statewide student decline through the first quarter of the 21st century, the number of LEAs in Rhode Island increased by 56% over this same period. This presents an opportunity for further discussion or research to identify potential efficiencies. Over the last 20 years the State has approved opening 23 independent public charter schools that now enroll 7% of all students. Each of these

LEAs require additional facilities, school administration, food service, office staff, and other educational and non-instructional expenses to effectively operate a school. Simply put, students may be receiving less instructional services as a result. Charter schools enrolled 0.3% or 446 students in FY 2000 and 9,533 or 6.7% in FY 2019 (see Figure 3). This figure is expected to double in the next 5 years, as the Council on Elementary and Secondary Education approved charter expansion in December 2020.

Figure 3. *Historic Charter School Enrollment*



(Rhode Island Department of Elementary and Secondary Education, n.d.)

As seen in Table 3, by FY 2019, the number of LEAs in Rhode Island had increased with the addition of 23 entities (Rhode Island Department of Education, 2024b). The number of LEAs had increased to 64, which was comprised of 36 traditional school districts, 23 charter schools, three state-owned schools and two educational collaboratives. As a result, the State had more school buildings in 2022 than it did in the year 2000 when there were almost 20,000 more students. Many charter schools attempt to

purchase and renovate vacant schools, but this is not always possible. Competing with charter schools is the General Assembly's desire for affordable housing, as evidenced by Rhode Island General Law 45-53-10 that requires all vacant school buildings to be evaluated for affordable housing. Further, a portion of each LEA's educational funding is used to support non-instructional expenses (e.g., school administration, facilities, food service, transportation) which provide the framework that facilitates teaching and learning.

Table 3. *LEA Types in Rhode Island, 2019*

LEA Types	Number	Percentage
Traditional Districts	36	56%
Charter Schools	23	36%
State Schools	3	5%
Educational Collaboratives	2	3%
Total	64	100%

Efficiency

In 2010, the Rhode Island General Assembly adopted a complex funding formula to distribute basic education aid (Rhode Island Department of Education, 2018). As displayed in Figure 4 below, this formula is based on a variety of factors but is primarily influenced by property values, family income, student poverty status, a state share ratio, and average daily membership (Foundation Level School Support, 2010). Thus, more affluent communities receive less State aid (and need to contribute more local aid), while less affluent communities receive most of their funding from the State (Rhode Island Public Expenditure Council, 2023). Additionally, basic education aid uses a "funding follows the child" structure, requiring the State and municipalities to send payments to the LEA at which students are enrolled (The Education Equity and Property Tax Relief

Act, 2010). This can occur if a student attends a charter school, State school, collaborative, Career and Technical Center, or another district that offers different educational programs. The funding formula is continually debated and updated in Rhode Island. For example, the FY 2024 State Budget approved on June 15, 2023, included new changes to the funding formula that provide offsets for declining enrollments, reduce the high-cost special education thresholds, and include poverty stabilization funds (The Education Equity and Poverty Tax Relief Act, 2023).

Figure 4. *Rhode Island Funding Formula*

(Core Instruction Amount x PK-12 Average Daily Membership ((ADM))

Core Instruction Funding

+

(Core Instruction Amount x 40% x Poverty ADM)

Student Success Factor Funding

=

Total Foundation

x

State Share Ratio

=

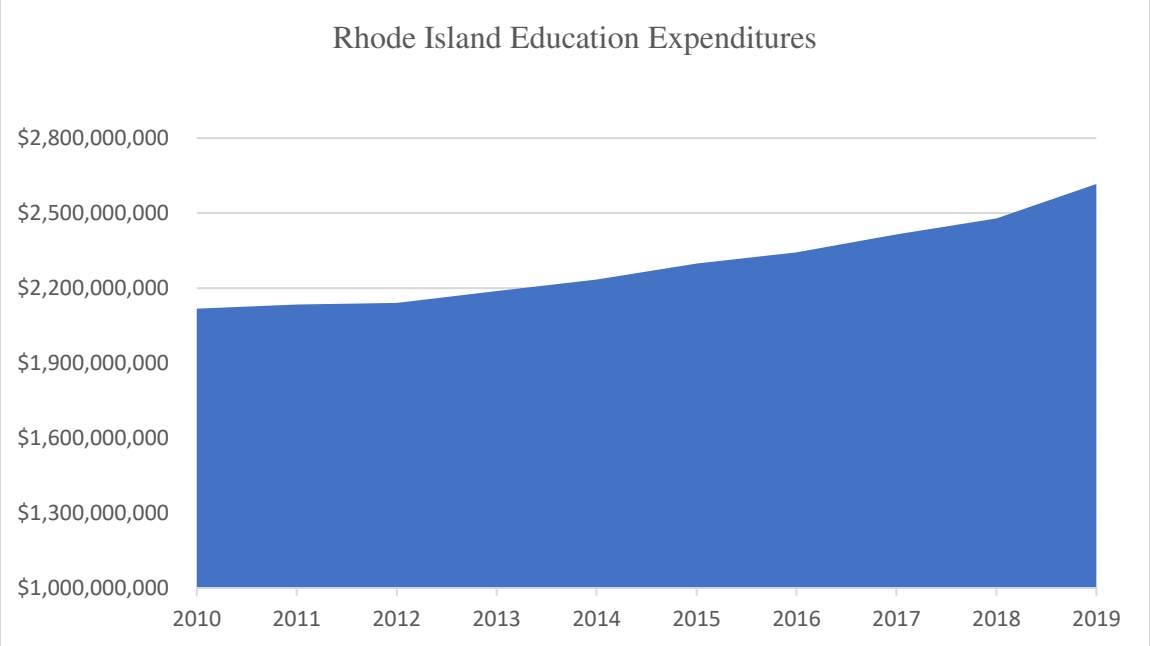
State Formula Funding

(Rhode Island Department of Education, 2018)

Equity

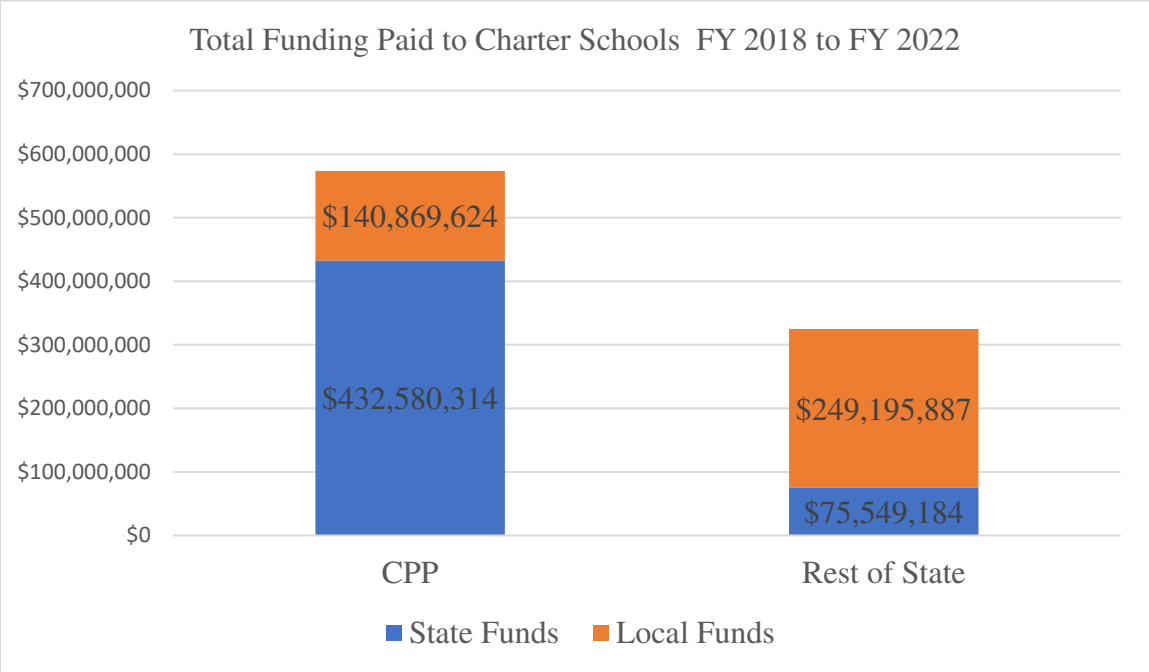
While enrollments have declined in Rhode Island, public education expenditures in education have increased by 25% or $500M between the period of Fiscal Year 2010 and Fiscal Year 2019 (see Figure 5; State of Rhode Island Department of Education, 2024b). When held constant at 2019 dollars, this increase is $133M or 5.4%. Collective bargaining agreements, inflation, the proportion of high-cost students, and increasing operational costs have greatly contributed to the rising costs. Additionally, the General Assembly has been reluctant to allow declines in State funding even with fewer students. The FY 2021 through FY 2024 State Budgets each contained hold harmless provisions that artificially increased LEAs' State funding to ensure it would not be less than the prior year even though there were fewer students. LEAs with increasing student populations receive increases in State aid, while aid to LEAs with declining populations is held constant or harmless.

Figure 5. *State of Rhode Island Total (Nominal) Educational Expenditures by Year*



(State of Rhode Island Department of Education, 2024b)

Figure 6. *State and Local Funding 5-Year Aggregate*



(State of Rhode Island Department of Education, 2024b)

A subset of this funding is allocated towards charter schools, which are growing at a much faster rate than traditional districts in Rhode Island. In the 13-year period between FY 2010 and FY 2022, charter school revenues increased by 421% (State of Rhode Island Department of Education, 2024b). Based on existing charter seats that have already been approved by the Council on Elementary and Secondary Education, funding for charter schools will likely exceed $300M by FY 2026. This includes revenues from the funding formula (state funds) and tuition (local funds) paid by sending districts. Under the state's "funding follows the child" approach both the state and local revenues follow the student to the charter school. However, communities throughout the state are primarily concerned with their local share and not state funds, which, absent a charter school, would have come to their local district (Figure 6). This is evidenced by the fact that over 75% of students who attend charter schools in Rhode Island come from the

three: Central Falls, Pawtucket, and Providence (CPP) (Rhode Island Department of Elementary and Secondary Education, n.d.). These cities are among the least affluent cities in the state and their chart schools are primarily funded by State aid. These communities have some of the lowest performing schools in the state, and many families seek alternatives (Rhode Island Department of Elementary and Secondary Education, 2024). Over 30,000 applications were sent in for 2,500 available charter school seats for the 2024-2025 school year (RI League of Charter Schools, 2024). As such, State law creates a paradoxical approach, in which less affluent districts that need the most resources are less likely to resist charter schools and the funding that will leave with these students.

Effectiveness

The purpose of these significant investments is to prepare students to contribute to society in a positive manner. As evidence, the Rhode Island Department of Education's mission statement indicates that the Department "is committed to ensuring equity in education and creating conditions for every student to think critically and collaboratively and act as creative, self-motivated, culturally and globally competent learners" (Rhode Island Department of Education, 2024a). Educational funding is still an investment, and all stakeholders should measure the effectiveness of this spending. There are a variety of ways to measure student outcomes, including graduation rates, attendance, grades, advanced placement courses, and standardized assessments. Most states, including Rhode Island, place a focus on standardized assessments, as they help provide an apples-to-apples comparison between students regardless of what school system they are enrolled in. After years of continually changing the state assessment, Rhode Island adopted the

Comprehensive Assessment System in 2019, which is the same exam that is used in Massachusetts, the top-performing state in the country. To prevent the Rhode Island Department of Education from continuing to change the assessment, the General Assembly passed legislation requiring this assessment to be in place for at least ten years (Statewide Academic Standards, 2019). While there are alternate ways to measure student outcomes, such as attendance, school engagement, and community involvement, this research will focus on statewide assessments that are more easily quantifiable and comparable between traditional districts and charter schools.

The impact of charter schools in Rhode Island will be analyzed through three lenses: equity, effectiveness, and efficiency. Throughout this report, chapters are organized by these themes, as there are multiple perspectives to consider when measuring an outcome. In the forthcoming chapters, these lenses will be expanded on, beginning with the review of relevant literature that adds helpful context to understanding charter schools in America, and then more specifically charter schools in Rhode Island.

Chapter II

LITERATURE REVIEW

There are two prevailing theoretical frameworks to support public education in the United States. The first is centered on the notion that existing districts should be supported with additional resources to improve student outcomes, as these funds better serve students by providing specialized teachers, additional teachers' aides, more modern facilities, and other supplemental supports that benefit all students within the district. There are a variety of factors that impact student performance including parental involvement, class size, teacher quality, the built environment, and socioeconomic status. While it is challenging to measure the relationship between resources and student outcomes while controlling for student backgrounds, studies have aggregated 20 years' worth of data, controlling for socioeconomic characteristics, and found that moderate increases in spending may be associated with significant increases in student achievement (Greenwald et al., 1996; Miller, 2018). However, many researchers are careful to state that simply throwing money at education is not the answer, as questions regarding how money is spent are as important as how much money is spent. For example, an additional one million dollars would have very different outcomes if spent on additional teachers instead of covering increased utility costs.

Further, many urban districts face substantial challenges as they have the most diverse and disadvantaged student populations with some of the fewest resources per pupil. In Rhode Island, the four poorest communities (i.e., Providence, Woonsocket,

Central Falls and Pawtucket) do not receive enough local funding to cover their core educational expenditures as noted in the Rhode Island Department of Education Fiscal Accountability Report. Similar to many urban areas nationally, these municipalities welcome charter schools to help solve their education problems. Zimmer and Buddin (2006) examined the effect charter schools have on student achievement, generally, and for various demographic groups in California. They found mixed overall results and that charter schools generally did not promote student achievement for racial/ethnic minority students. Research in New York City did not find evidence of a negative effect on public school student achievement when charter schools were introduced (Winters, 2012). As such, the impact of charter schools appears to vary both by student characteristics and regionally based on a variety of factors.

Proponents of school choice believe that creating an educational market incites competition between LEAs for both students and funding. This competition is achieved primarily through the creation of public charter schools, although private, parochial, magnate and State schools also compete with traditional districts. Moreover, school choice supporters indicate that charter schools provide an equitable solution to all families, as wealthier families can move to communities with desirable school districts, and in effect, already have access to school choice. As a result of changing demographics and past national policies, many of our nation's urban centers and school districts are struggling. Over the last 60 years, many affluent families have moved to suburbs with the advent of highways and in search of more space and bigger homes. Cities are left with greater concentrations of poverty. School choice affords families alternative options to their struggling school districts; many families strive to break the poverty cycle through

higher quality educational offerings (Almond, 2013). Holmes et al. (2003) find that charter schools in North Carolina increase traditional district statewide assessment scores, while a meta-analysis of national data and available literature asserts that charter school students are producing higher math results as compared to students in traditional districts (Betts & Tang, 2016). Additionally, some argue the expansion of charter schools is an extension of government competition, which forces efficiency and innovation (Boyne, 1996; Taylor, 2000). Examples would include privatizing custodial services, public works, and other services. Imberman (2011) finds mixed results on how charter schools affect traditional school districts. His research suggests that charter schools negatively (modestly, though statistically significant) impact math and language test schools at the elementary school level, though charter schools can lead to improvements for middle and high school students.

Opponents of charter schools argue that the opposite is true. They contend that taking students and their resources (i.e., state aid) away from traditional districts makes it more difficult to improve outcomes, as traditional districts have many fixed costs that are not easily reduced (Farrie & Johnson, 2015; Jones, 2018). Many charter schools are owned and operated by for-profit educational entities that create charter networks. In some cases, charter networks can be larger than traditional districts and can significantly impact traditional districts' budgets (Bruno, 2019). This effect can be mitigated in states with increasing student populations but can be devastating in states with declining enrollments (Arsen & Ni, 2012). Nationally, school choice has become part of the education fabric. While charter school migration receives most of the attention, inter-jurisdictional competition between traditional districts also occurs. Several states provide

vouchers, which further introduces private and parochial schools into the equation of school choice. While the impact of these private and non-profit entities is valuable to consider, it is not included in this research, but could be part of a future study.

Equity

Disadvantaged students are specifically classified by state agencies as they require additional support to succeed. These classifications include Free and Reduced-Price Lunch (FRL) (i.e., a measure of poverty), English language learners (ELL) and Special Education (i.e., those who have an Individualized Education Program, or IEP). Each of these types of students face different challenges or barriers, and students can appear in multiple categories. The Rhode Island School Funding Formula has different components that aim to provide funding for each of these types of categories (Rhode Island Department of Education, 2018).

Students living in poverty have a unique set of barriers that LEAs need to overcome. The most common metric used to identify the magnitude of students living in poverty is the percentage of students receiving free or reduced-priced lunch. These services are provided as malnutrition and poverty have direct links to intellectual development (Brown & Pollitt, 1996; Ross, 2010). To qualify for free meals, families can have incomes up to 130% of the poverty level, and between 130% and 185% for reduced-price meals. Family income directly influences educational outcomes, as students from these families are not as "school ready" — the student's ability to succeed academically and socially — as students from more affluent families (Wolf et al., 2017). This is due to a variety of factors beginning with parental involvement. Neymotin (2014) finds that parental involvement leads to better behavioral outcomes. Moreover, the student

achievement gap has widened with the income inequality gaps that are persistent in our society (Duncan & Murnane, 2016).

The next set of disadvantaged students, ELL, must deal with language barriers. The number of these students is rapidly growing in Rhode Island, as well as across the United States. Sheng et al. (2011) infer that ELL students have the highest risk of dropping out of school. Further compounding issues are that many ELL students also qualify for free and reduced-priced lunch, and also face the challenges that those students face. For example, parents who are not fluent in English have a more difficult time helping students with schoolwork, as content is typically disseminated in English.

The third type of disadvantaged students receive special education services, in that they have some type of learning or cognitive disability. Federal and state law requires that LEAs provide specially designed instruction to meet their needs, regardless of cost, as "disability is a natural part of the human experience" (Assistance to the States for the Education of Children with Disabilities and Preschool Grants for Children with Disabilities, 2006). These requirements are outlined under the Individuals with Disabilities Education Act (IDEA; Assistance to States for the Education of Children with Disabilities and Preschool Grants for Children with Disabilities, 2006) and the Rhode Island Regulations Governing the Education of Children with Disabilities. As part of Rhode Island's funding formula, the State provides additional funding for students who cost more than five times ($80K) what a general student would cost. Traditional districts advocate for this threshold to be lower, as virtually all high-cost special education students enroll in traditional districts and not charter schools (Rhode Island Association of School Committees). While efforts are made to integrate special education

students into the standard classrooms, many students require additional staff and other supports to succeed (World Health Organization, 2001).

The built environment has a profound impact on learning outcomes. Research shows that when all other things are equal, a high-quality learning environment can boost test scores (Hong & Zimmer, 2016). Daylighting, indoor air quality, flexible spaces and appropriate temperatures can directly benefit student outcomes. Despite the importance of these facilities, school construction has remained critically underfunded throughout the country, and the problem has compounded over time leaving hundreds of billions of dollars in school construction needs unmet (Crihfield & Piotrowski, 2000). As such, the state of Rhode Island created the School Housing Aid (typically referred to as "Housing Aid") program in 1960 with the intent of guaranteeing adequate school housing for all public-school children in the State (Foundation Level School Support, 1960). In Rhode Island, all K-12 public school districts and charter schools are eligible to receive state aid for approved school construction projects.

Housing Aid is a progressive formula that provides higher reimbursement to less affluent communities and lower reimbursement to more affluent communities. Pursuant to Rhode Island General Law § 16-7-39, the share ratio or reimbursement rate is determined by comparing a municipality's property values and school average daily membership with the property values and average daily membership of the State. The Housing Aid reimbursement rate (share ratio) ranges from a minimum of 35% to a maximum of 96%. Charter schools receive a flat reimbursement rate of 30%, regardless of where they are located, or which students enroll. In Central Falls, Veterans Elementary School and Segue Charter School are located next to each other and both enroll only

students from the city. Veterans received 96% reimbursement, while Segue receives 30% (Funding of Charter Public Schools, 1999).

Unfortunately, capital projects and deferred maintenance are some of the first expenditures that are cut when LEAs are faced with budget shortages. In Rhode Island, this can impact charter schools and districts in both similar and different ways. To contextualize facilities' needs in Rhode Island, it is useful to begin with the 2016 Rhode Island Statewide Facility Assessment that documented existing conditions in all 306 public school buildings in the State (State of Rhode Island Department of Education, 2017). As part of this assessment, each public-school facility was assigned a facility condition index (FCI) score, was provided with an identified need estimate, and listed a capacity summary. This analysis identified over $3 billion in building deficiencies in school facilities throughout Rhode Island. The Housing Aid system requires communities to complete projects before obtaining State aid. This is problematic for communities with limited resources, and it is unlikely to change due to the contemporary political and regulatory climate, further aggravating ongoing issues of school facility equity across the state. As confirmed by the Statewide Facility Assessment, both high-need districts and smaller charter schools are frequently unable to make necessary improvements to their facilities. Conversely, affluent districts and network charter schools (e.g., Achievement First, Blackstone Valley Prep) can provide students with higher quality facilities. These buildings received lower FCI scores, as part of the Statewide Facilities Assessment, which serves as a general barometer to a building's condition.

As local property taxes are primary funding source for education in the United States, this construct can create inequities between school systems (National Center for

Education Statistics, 2021). To help address the tax capacity and available resources in less affluent communities, most states have adopted funding formulas that strive to fill the shortfall or difference between districts. In Rhode Island, this formula is known as Basic Education Aid, and it shares many similarities with Housing Aid — both are defined in Chapter 16, Title 7 of the Rhode Island General Laws and share the same base formula (Foundation Level School Support, 2010). Nationally, analyses have found disparities between students and communities receiving varying levels of school construction investments (Vincent & Filardo, 2008). Not surprisingly, students from lower income communities receive half the school construction investments per student than the students enrolled in wealthier school districts receive. Further, inequities in school construction and the funding thereof aggravate equity and diversity issues throughout the country by continuing to codify existing endemic inequalities (Poverty and Race Research Action Council, 2020). Dilapidated conditions become normalized to students and teachers, subconsciously reaffirming that society does not value them.

It is critical to comprehend the interconnectedness between education, crime, poverty, housing, health, and opportunity. Local property taxes are the primary funding source for education in Rhode Island. As a result, higher income neighborhoods have better-funded school systems. In Rhode Island, well-funded school districts have a larger portion of "general" education students and have proven less likely to lose students to parallel school districts (e.g., charter schools). Students from higher resource districts are more likely to experience a host of more positive outcomes; they are more likely to perform well on standardized tests, to graduate, and to attend institutions of higher learning (Lee, 2010; Sebold & Dato, 1981). Upon graduating, students may have more

opportunities for better jobs, higher income, better access to healthy food and healthcare, and the ability to purchase houses in safer and more desirable areas. The reverse of this is also true, that students attending schools in less affluent communities face added challenges and require additional support to succeed. Before focusing on the conditions of Rhode Island schools and the Necessity of School Construction program, one must understand historical context that created the conditions witnessed today.

Most national policies between 1940 and 1970 have made urban environments much worse and perpetuate inequities felt today (Judd & Hinze, 2018). Slum clearance programs, also coined "Negro clearance" or "Black removal," disproportionately affected African Americans. In the first eight years of the program, 66% of those displaced were African Americans (Judd & Hinze, 2018). In theory, the program may have been well-intentioned, as it aimed to upgrade housing and beautify urban centers. In practice, funding was not provided to rebuild low-income housing. By 1961, clearance projects eliminated 126,000 housing units, but these were only replaced by 28,000 new units (Judd & Hinze, 2018). The result was 100,000 less housing units, which only increased the demand for low-income housing for people in poverty. As property values in many areas can be traced to the historical legacy of redlining and other practices that have targeted marginalized communities, it is readily apparent that this legacy provides contemporary LEAs with varied resource pools from which to draw (Rothstein, 2018).

Public housing projects, a hegemonic construct, were implemented to help provide homes for low-income residents; however, such housing created stress for families with low economic resources. One main flaw of public housing was that it only provided housing to those who could otherwise not afford any rent. Thus, anyone who

improved their economic status would be evicted from their public housing, incentivizing and encouraging individuals to remain in poverty (Gardenhire-Crooks et al., 2004). Moreover, corralling people with low economic resources in high-density areas likely contributed to higher levels of violence and juvenile crime (Judd & Hinze, 2018). Not only was this evident in the multi-story public developments, but also in the surrounding impoverished areas where projects were located. National policies also perpetuated the flight of affluent and middle-class families from city centers with highway planning and lending practices that encouraged higher-income individuals to move to the suburbs. While this was termed "White flight" as borrowing systems limited funding to White residents, this was also seen with other racial groups after 1968 (Rothstein, 2018). Because of the ease of highways, families with means to relocate to the suburbs did so. A byproduct of this exodus was a dwindling tax base for urban centers, leaving behind a greater share of social issues. In a sense, this flight was akin to public housing projects, but rather than keeping impoverished individuals in, it enticed affluent ones to leave. In addition to streamlining routes from suburbs to cities, haphazard highway planning also created natural barriers within cities, or were intentionally created as barriers for urban planning (Caro, 1975). The "meat axe" approach paid little consideration to urban planning and created highways regardless of local considerations. Instead of using these highways to accentuate and create urban opportunities, they reduced property values and destroyed neighborhoods (Meyer & Gomez-Ibanez, 1981).

Federal programs have had a long-lasting impact, particularly as they relate to the condition of school facilities. As the primary source of funding for school construction projects is typically local general obligation bonds, which are repaid by local taxpayers as

very little federal aid is provided for schools, less affluent communities are limited in how much they can borrow. This can be for a combination of reasons including lower credit ratings which increase the annual repayment amount and municipal bonding capacity both of which are limited by property values. For example, lower property values and revenue streams of a community make debt risker for investors, which increases the interest rate on borrowed funds. Additionally, states can also limit the maximum indebtedness that cities or towns can enter in, which can dictate how much can be borrowed. In Rhode Island, this limit is 3% of assessed property values — the lower the property values, the less a municipality can borrow (Maximum Aggregate Indebtedness, 2007). To further this point, in 1997, only 7% of school budget funding came from the federal government (Howell & Miller, 1997). Federal funding for school facilities is even less common. Over the last 15 years, the only federal programs that specifically targeted school construction were the Qualified School Construction Bonds, Qualified Zone Academy Bonds, and a portion of the Interest Reduction Act of 2022, which targets renewable energy. The proportion of education funding has remained stable over the last 20 years and is typically viewed as approximately 8.5% today (Congressional Budget Office, n.d.). As such, local governments disproportionately rely on property taxes and bond issuances to fund local government (Mikesell, 2018; Plumber, 2006). Municipalities issue bonds that receive reimbursement upon project completion. In simple terms, the State pays a reimbursement rate on each annual principal and interest payment.

However, this funding structure creates several challenges. Project size and scope is limited based on a municipality's bonding capacity. For instance, Providence Public

School District, the largest Local Education Agency (LEA) in the State, has over $900 million in identified facility needs but less than $600M in available bonding capacity through the end of the decade (Providence Public Schools, 2023). Central Falls, one of the poorest communities in Rhode Island, receiving 96% State reimbursement, did not submit a single project for Housing Aid reimbursement due to their lack of bonding capacity between FY 2013 and FY 2021, despite having obvious facility needs.

Providence and Central Falls particularly lose a considerable portion of their budget to charter schools. Approximately 40% of Central Falls' budget goes towards students who attend charter school (State of Rhode Island Department of Education, 2024b). As resources dwindle, it becomes more difficult to make facility improvements that can directly impact learning environments. To help counteract this, the Rhode Island Department of Education has created a series of programs including the Facility Equity Initiative, Pay-As-You-Go Equity adjustment, and Equity Boost, which have provided over $125M to the neediest communities.

Efficiency

Spending in K-12 education can be bifurcated into instructional (core) and non-instructional (none-core) expenditures (Sorenson, 2016). States can define what is considered instructional vs. non-instructional expenditures. In Rhode Island, transportation, food service, safety, building upkeep, utilities and maintenance, tuition payments, retiree benefits, and claims and settlements are considered non-core (State of Rhode Island Department of Education, 2024b). However, other states include guidance counselors, legal fees, school administration, and other expenditures that are not directly tied to teaching and learning as non-instructional (Sorenson, 2016). LEAs require a mix

of core and non-core expenditures to successfully operate schools. In FY 2022, core or instructional expenses accounted for 77% of all educational expenses in Rhode Island (Rhode Island Department of Education, 2022). Schools are required to transport, feed, heat/cool, and provide safe environments for students. The fiscal impact of each of these can have varying effects on student outcomes, as each new LEA that opens requires that almost 30% of their budgets provide for non-instructional expenses (Seashore Louis et al, 2010). Understanding this impact is important, as there are now twice as many superintendents, business managers, and food service providers in Rhode Island, with fewer overall students to educate. And while governments in general seek to consolidate to save resources and provide better services, the opposite is frequently seen in K-12 education (DeLuca, 2013). In Rhode Island, the number of LEAs has almost doubled despite incentives to regionalize districts and consolidate schools within districts (Increase School Housing Ratio, 2018).

School superintendents are the most expensive employees of a school district or charter school. According to the American Association of School Administrators national survey, the average salary of a school superintendent was $156,468 in FY 2023 (Thomas et al., 2023). This was based on responses from almost 2,500 superintendents that filled out the survey. Day et al. (2016) found a positive association between leadership and student outcomes. Redundancies in expenditures can have an adverse effect on students (Baker, 2016). As increases in funding have shown to influence student outcomes, the shift from core to non-core expenditures can be significant.

Arsen et al. (2015) reviewed traditional school districts' budget impacts in relation to charter school growth in Michigan between 1995 and 2012. Close to 80% of

budget variations could be attributed to enrollment changes due to school choice and enrollment of high-cost special education students. More importantly, their research focused on traditional districts that have been taken over by the State Department of Education. In these cases, districts were left with significantly higher shares of low-income students, which require additional resources and support to succeed. These findings are particularly useful and relevant in Rhode Island, as the two districts that send the most students to charter schools, Providence and Central Falls, are currently operated by the Rhode Island Department of Education. Both districts have the highest shares of ELL and FRL students in the State, and the largest proportions of their school budgets that pass through to charter schools. Rhode Island should be mindful of enrollment and funding challenges, as research finds that state takeovers rarely improve student outcomes (Bowmen, 2011).

Under the competition theory, both charter schools and traditional districts should strive to attract students with their performance. Arsen and Ni's (2012) review of performance data in Michigan found that charter schools did not positively impact student outcomes in traditional school districts. Rather, they found that the creation of charter schools negatively impacted the traditional school districts' budgets. This research has similarities to the conditions witnessed in Rhode Island. Annually, CPP directly sends a combined $27M in local funds to charter schools as tuition payments, while the State sends $70M to charter schools, funds that otherwise would have gone to these three districts. Combined, CPP lost $100M of educational funding in FY 2019 (State of Rhode Island Department of Education, 2024b). This figure is projected to rapidly increase with the advent of new charter school approvals. In New Jersey, the

rapid growth of charter schools adversely impacted Newark Public Schools (Farrie & Johnson, 2017). Between the 2008-2009 and 2016-2017 school years, the percentage of students attending charter schools in Newark increased from 10% to 34%. Farrie and Johnson observed a disproportionate amount of "general education" students enroll in charter schools, leaving behind high-cost, disadvantaged students. Traditional districts must then make corresponding budget cuts to account for the loss of funding. In many cases, it is difficult for traditional districts to make corresponding budget cuts. Capital improvements and deferred maintenance are some of the first expenses to be cut, which is unfortunate as facilities can greatly affect student outcomes (da Silva, 2018; Leachman et al., 2016).

Effectiveness

The U.S. Department of Education and the State Education Departments spend a considerable amount of time tracking how LEAs and schools perform, as ultimately, the most important aspect of education is student achievement (Guskey, 2013). Further, a more recent focus of education is closing achievement gaps or the difference in outcomes between student groups (Anderson et al., 2007). These gaps can occur between districts, racial and ethnic groups, gender identity groups, and economic groups. To help close the gaps, Rhode Island Department of Education launched the Learning, Equity and Accelerated Pathways (LEAP) initiative in 2021. This is important as it pertains to charter schools, as most charter schools are located in urban areas throughout the country (Cohodes, 2018). While long-term studies in aggregate show similar performance between charter schools and traditional districts, they showed a distinct improvement to low-income students of color (Ackerman & Egalite, 2017; Cohodes, 2018). In

Massachusetts, students attending nonurban charter schools showed lower achievement than their nonurban traditional district counterparts. This is primarily because baseline achievement in these urban districts is higher than the achievement baseline of urban districts (Angrist et al., 2013). However, research is generally consistent that academic gains for disadvantaged students are higher in charter schools than traditional districts (Walters, 2018). This is promising for Rhode Island, as 75% of charter school students enroll from three lower income urban areas. During the 2023-2024 school year, only 13.8% or 1,676 of 12,137 students that attended charter schools in Rhode Island were White. Conversely, 7,635 students or 63% attending charter schools qualify for free lunch, and 2,771 students or 22.8% were limited English proficient (RIDE Enrollment, Dropout, and Graduation Data).

Figure 7. *Star Rating Meaning*

(Rhode Island Department of Elementary and Secondary Education, 2024)

To help assess student achievement, the Rhode Island Department of Education annually releases accountability ratings for each school in Rhode Island. Schools are ranked between five stars and one star (see Figure 7). As the additional supports (resources) needed for disadvantaged students almost never matches the true need of these students, there is a negative association between the school's proportion of disadvantaged students and star ratings. In FY 2022, 1-star schools received 7.2% more funding than 5-star schools, despite having 15.6 times more free/reduced lunch students and 16 times more multilingual learners (see Figures 7 and 8).

Figure 8: *FY22 Star Rating, and Demographics of Students Attending Schools*

Stars	% Free/Reduced Lunch	% Multilingual Learners	% Differently Abled
1★	78%	32%	17%
2★	50%	13%	17%
3★	34%	7%	16%
4★	18%	2%	12%
5★	5%	2%	12%

(Rhode Island Department of Education, n.d.-a)

Figure 9. *FY22 Average Spending by Star Rating and School Type*

Stars	Elementary Schools	Middle Schools	High Schools	Total
1★	$ 17,439	$ 16,532	$ 16,900	$ 16,957
2★	$ 18,573	$ 16,441	$ 17,277	$ 17,556
3★	$ 17,328	$ 19,256	$ 17,532	$ 17,620
4★	$ 15,711	$ 17,175	$ 17,586	$ 16,529
5★	$ 15,977	$ 14,991	$ 15,880	$ 15,818

(Rhode Island Department of Education, 2024b)

Disadvantaged students are specifically classified by state agencies, as they require additional supports to succeed. Therefore, the enrollment composition of an LEA can have a tremendous influence on student outcomes, and as such, school choice can impact both charter schools and sending districts. Nationally, some charter schools have been criticized for potentially "cream-skimming" students. In other words, they are argued to disproportionately enroll fewer disadvantaged students, especially those receiving special education services, than traditional districts. This is possible because charter schools utilize non-transparent lotteries to determine enrollment. Lacireno-Paquet et al. (2002) explored this issue in Washington, DC, where in aggregate, data appear to infer that charter schools enroll more disadvantaged students than traditional districts. However, by disaggregating charter schools into "market oriented" and "non-market oriented" entities, more meaningful data on this practice were extracted. This differentiation is important as large network charter schools can be operated by for-profit entities, as opposed to smaller non-profits, and by their profit-making orientation, may seek out more cost-effective and lower cost students (Dynarski et al., 2017). This approach to disaggregating data is critical because most charter schools pool students

from urban areas. In Rhode Island, over 75% of students that attend charter schools enroll from three urban communities: Central Falls, Pawtucket, and Providence (collective known as CPP). Comparisons between charter schools should primarily be made between these three districts and not all LEAs in the state. Further, by disentangling charter schools, Lacireno-Paquet et al. (2002) observed "cream-skimming" of students by type of charter school in Washington, DC. Charter schools operated by for-profit educational entities enrolled 16 percent more general, low-cost students than traditional districts. As funding follows the student, this may result in an adverse financial effect on the traditional districts. In these cases, a greater proportion of high-cost students would remain in the district and educational dollars do not match the need. For example, in Rhode Island, additional funding is only provided for "extraordinary" costs four times greater than the core-foundational amount (The Education Equity and Property Tax Relief Act, 2010).

Charter Schools in Rhode Island

While charter schools are prevalent nationally, there is limited existing research with respect to public schools of choice in Rhode Island. Rhode Island, like other Northeastern states, is facing a student-aged population decline. Further, in December 2020, the Council on Elementary and Secondary Education, the governing body of the Rhode Island Department of Education, approved 5,000 new charter seats in a single year – the most in State history. While available research tends to focus on charter school impact in states with increasing student and general populations, such as California, Texas, and Florida, these studies can be particularly useful in framing the potential impact of charter school migration. In many ways, one could infer that charter school

migration observations may be more impactful in states with declining enrollments (Brown, 2004). The potential impacts of charter school migration can include alterations in enrollment composition, funding reallocation, and varying student outcomes.

Flexibility is provided to each charter school to establish their own educational vision, as well as the means to achieve the goals and objectives outlined in their charter (Establishment of Charter Public Schools, 2010). Charter schools are granted approval to operate in five-year increments. According to the Rhode Island Department of Education, charter schools have certain attributes that differentiate them from traditional districts. Charters are governed by boards of directors outside of the policies of the traditional school districts and municipalities. Because of this independence, charter schools can more freely offer innovative and unique educational delivery, as they are outside of traditional district polices as well as collective bargaining agreements. In exchange for this sovereignty, charter schools are held accountable for achievement goals, and unlike a traditional district, can have their state charter non-renewed or revoked by the Council on Elementary and Secondary Education. Lastly, charter schools do not automatically enroll students within a specific municipal boundary; rather, families apply to them as alternatives to traditional districts. These additional LEAs provide students in Rhode Island, especially those of color, with additional educational options, referred to as "school choice." Charter schools can be located in any municipality in Rhode Island and are also able to define their own catchment area (i.e., communities they draw students from). In FY 2019, charter schools drew students from 31out of 36 traditional districts.

The disproportionate concentration of students attending from three districts (i.e., CPP) occurs for a few reasons: 1. Charter schools operate with an "opt in" policy, relying

on families to voluntarily submit an enrollment application. It is more likely for a parent from a persistently low-performing district to seek alternate options. 2. Beginning in 2016, charter schools must also obtain municipal approval to operate within a city or town. This law was put into effect as municipalities wanted some say in the approval process, as schools make up a significant percentage of local budgets. This approval is easier to obtain when the traditional district is low performing. 3. The State's progressive funding formula pays most Basic Education Aid for these three communities, meaning local tuition payments have a minimal budgetary impact and meet little municipal opposition.

This existing literature analysis identifies the complexities of the American educational system. Prevailing research is mixed, with some articles supporting and others opposing the creation of charter schools. A myriad of educational theories, as well as the diversity of students and school systems further exacerbate the challenge of identifying the optimal approach to achieving student academic success. As such, subsequent chapters in this manuscript investigate the demographic composition (equity), financial impact (efficiency), and student outcomes (effectiveness) between LEA to help explore Rhode Island's educational funding decisions. The methodology of this approach is explained in the next section.

Chapter III

METHODOLOGY

This educational policy analysis strives to determine the return-on-investment of public resources of school choice within a state with declining student enrollment. Funding, enrollment, and outcomes should be triangulated and analyzed to better understand the full impact when a state considers introducing additional charter schools. This policy analysis sought to answer the following research questions based on three metrics: equity, efficiency, and effectiveness.

1. Equity – Do charter schools increase the segregation of disadvantaged students in traditional districts?

   Hypothesis – Charter schools increase the proportion of disadvantaged students in traditional districts.

State and federal education agencies separately track students that require additional support to succeed. Disadvantaged students include English Language Learners (the terms "multilingual learner" and "limited English proficiency" are also used in Rhode Island), Special Education (the term "differently abled" is also used in Rhode Island) and recipients of Free and Reduced Lunch. Collectively, these are considered disadvantaged students as they face additional barriers to produce the same outcomes as general education students. The answer to this first question is critical for two reasons. While charter schools appear to be more successful than the CPP districts, is it because they are enrolling students that are already more likely to succeed? Similarly,

does a greater proportion of disadvantaged students remain in the lower-performing districts? If so, remaining students in the traditional districts could be adversely affected, as lower cost students leave and educational resources dwindle, while the dollars needed per remaining student increases.

2. Efficiency – How does charter school expansion impact student funding?

   Hypothesis – Charter schools take instructional dollars away from traditional school districts.

Resources, both monetary and human capital, are necessary to improve teaching and learning. This question is important as low-performing districts require additional support to improve student outcomes. As dollars follow students to charter schools from traditional districts, these funds are partially used to establish necessary non-instructional frameworks to run competing LEAs. This includes additional superintendents, business managers, food service, transportation, facilities, custodians, attorneys and other duplicate roles and services in the same municipality. Understanding the impact on sending districts is useful from an efficiency perspective, as the State funds most of the cost.

3. Effectiveness – How do charter schools impact traditional districts' educational outcomes?

   Hypothesis – Charter schools negatively impact traditional district students' educational outcomes.

What are the levels of student performance, when data are disaggregated and the financial impact on sending districts is better understood?

As such, school choice should be carefully balanced within the context of statewide enrollments, as limited educational funding is divided between more LEAs serving a declining student population. Moreover, the composition of charter schools should be explored to ensure a representative sample of students from the sending district or at least to confirm that their existing enrollments do not negatively impact sending districts. As charter schools use non-transparent lotteries to select the composition of their student bodies, and only interested families apply, it may be possible a greater proportion of general education students that can produce higher outcomes at lower costs enroll.

Data Sources

This research primarily focuses on a longitudinal analysis of three public secondary data sets: Rhode Island Uniform Chart of Accounts (UCOA) (State of Rhode Island Department of Education, 2024b), Statewide Resident Average Daily Membership (RADM) March enrollment reports, and achievement data (Rhode Island Department of Elementary and Secondary Education, n.d.). The UCOA was developed to provide "apples-to-apples" comparisons between LEAs, and for the first time in State history, expenditures would be coded and reported in a uniform manner (see Appendix C). With almost 10 million annual transactions for users to sort and filter between LEAs, there are almost unlimited comparisons that may be made. This allows stakeholders, community members and the General Assembly to make informed decisions when spending and allocating limited educational dollars. The UCOA data set allows users to sort and extract specific expenditures, including special education costs, building upkeep and maintenance, school administration expenditures, and pass-through funding (i.e., "local

tuition payments"). Each UCOA account structure has 31 lines, which allows for reporting by function, funding source, program, location, object, and by job classification (see Appendix C). A copy of the Valdosta State's Institutional Review Board's approved exemption for this research project is available in Appendix D.

Efficiency

To avoid enrollment, achievement, and financial anomalies caused by the COVID pandemic, this research focuses on the period between Fiscal Year 2010 and Fiscal Year 2019. Financial data are skewed in Fiscal Year 2020 and Fiscal Year 2021 by virtual learning days that resulted in lower operating costs and one-time Federal Elementary and Secondary Emergency Relief Funds (ESSER). For the first time in years, Statewide enrollment began to increase in Rhode Island during Fiscal Year 2017 and Fiscal Year 2020, with an average annual increase of 472 students. These gains were eviscerated by a loss of 4,373 students in Fiscal Year 2021, 628 students in Fiscal Year 2022, and 1,104 in Fiscal Year 2023 (Rhode Island Department of Elementary and Secondary Education, n.d.). The General Assembly of Rhode Island has temporarily been altering the State's funding formula, as these declines have been so severe that LEAs across the state would lose over $54 million dollars if they are not artificially "held harmless" by the legislature. Lastly, the State's assessment data have been frozen since 2019. The Every Student Succeeds Act (ESSA) assigns each school a star rating – a simplified measure of a school's achievements – that have not changed in three years in Rhode Island. This most recent "normal" period also coincides with when the UCOA was adopted in Rhode Island. It is for these reasons that the period from Fiscal Year 2010 to Fiscal Year 2019 has been selected as the focus of the within research.

Rhode Island provides State education aid to each LEA based on a complex funding formula. These State funds are combined with other sources of funding (preliminary local property taxes) to provide educational funding for LEAs (see Table 4. The total funding spent on K-12 education in Rhode Island in FY 2019 was $2.6 billion, which represents a 23.5% or $500 million increase from the FY 2010 figure of $2.1 billion (State of Rhode Island Department of Education, 2024b). Held constant in 2019 dollars, real spending increased by $130M over this time. In contrast, statewide enrollment declined by 1.2% over this same time, resulting in an increased per pupil expenditure of $1,128 between FY 2010 and FY 2019.

Table 4. *Total Statewide Spending by Fiscal Year, Enrollment and Per Pupil Expenditure in Millions (2019 Dollars)*

Fiscal Year	Total Spending	Enrollment	Per Pupil
2010	$2,483	145,118	$17,112
2011	$2,425	143,793	$16,870
2012	$2,383	142,854	$16,687
2013	$2,401	142,481	$16,855
2014	$2,411	142,008	$16,984
2015	$2,479	141,959	$17,464
2016	$2,495	142,014	$17,571
2017	$2,518	142,150	$17,719
2018	$2,523	142,949	$17,655
2019	$2,616	143,436	$18,240

(State of Rhode Island Department of Education, 2024b)

Funding in Rhode Island uses a "follow the student" approach. Pursuant to this approach, students enrolling in their local district are funded in part by the State and in part by their local municipality. In line with the "funds follow the student approach," charter schools receive Basic Education Aid for students from the State, but also receive a tuition payment from the student's sending district. This approach to funding education creates two notable potential challenges in a state with declining enrollment.

Student enrollment is a primary driver of funding in the State of Rhode Island, as the State's funding formula utilizes a "dollars follow the child" methodology. At various points throughout the year, LEAs provide enrollment reports to the Department of Education that are used for a variety of reasons. Daily reports are provided to measure attendance rates and chronic absenteeism. These compare the number of students enrolled to those that attend each day. So-called "October 1st data" are posted annually, which provides information for LEAs across the State. The most detailed information are the quarterly reports LEAs provide to the Finance Department within the Department of Education to help inform the State's $2.6 billion funding formula, with the March enrollment report being the most vital and the dataset that will be featured in this research. Enrollment reports provide a total and detailed breakdown of students by type (general, special education, free and reduced lunch, race/ethnicity, gender, and English language learner) by sending municipality. These data allow for a detailed analysis of charter school migration, i.e., students that are enrolled at charter schools. Prior to comparing effectiveness or achievement, enrollment and funding must be disaggregated and analyzed. For this research, charter school enrollment is the independent variable and is expected to predict the dependent variables. Educational funding and student composition were hypothesized to be affected by, or under the influence of, the independent variable (Frankfort-Nachmias et al., 2019). In other words, it is argued that as charter seats are approved by the State, funding and student composition are altered.

The research design used descriptive statistics to synthesize over 90 million financial transactions and analyze a collective 1.4 million students between FY 2010 and FY 2019. It was anticipated that these data points would be helpful in describing the

impact of charter school migration and creating a return-on-investment analysis from a State perspective.

Equity

There are two enrollment databases that can be used to analyze enrollments of LEAs. The first is the October 1st enrollments that are provided by LEAs (Rhode Island Department of Elementary and Secondary Education, n.d.). While enrollments change throughout the year, the State uses the enrollments as reported on October 1st as the official measure of that LEAs enrollment for that FY. Statewide enrollment data, categorized by both LEA and school, are available through October 1, 1999. However, the State began using student-level data in 2004 to have more accurate enrollment information. Data prior to this date are not as reliable. Additionally, the Finance Office within the Rhode Island Department of Education collects more detailed enrollment updates from LEAs throughout the year, which are provided to the General Assembly. These databases help inform the State Budget, with the March report being the most important because the General Assembly passes the State Budget in June, and the March data provide them with the most updated information that will impact the funding formula in the subsequent fiscal year. The March RADM reports provide full information on student body composition by community, including race, gender, and type of student (general or disadvantaged) (Rhode Island Department of Elementary and Secondary Education, n.d.). Additionally, these reports also provide details as to which students enrolled in charter schools, based on race, gender and type. This research focuses on the type of student and the State's return-on-investment on educational dollars.

Effectiveness

The statewide assessment tool changed three times between Fiscal Years 2010 and 2019, making this student achievement difficult to evaluate longitudinally. Instead, this research relied on percent proficiency and average scale scores, as these indicators were consistently measured during the ten-year period and could be used to assess student outcomes. Proficiency-based learning is designed to identify and address gaps in learning to provide equitable learning opportunities for every student. To increase the changes that all students succeed in meeting learning targets, educators provide more personalized learning opportunities, allowing students to learn at varying times, assess their learning when ready, and progress at their own pace. As such, proficiency-based learning is the focal component of the Rhode Island Secondary Schools Regulations.

Further, two different student assessment tools were used to compare effectiveness between charter schools and traditional districts. The first is the SAT standardized test, including the English Language Arts and Mathematics (Math) sections, which is primarily taken by 11th graders. The second measure is the Rhode Island Comprehensive Assessment System (RICAS), including the English Language Arts and Mathematics (Math) sections, that is taken by students between grades 3 and 8. Using both assessment tools and two testing subjects allows for a greater range of comparison, as some charter schools do not offer high school education (grades 9 to 12) while others do not offer elementary or middle school (K to 8). Further, the Rhode Island Department of Education sets four student achievement or proficiency levels that were adopted from the 2017 Massachusetts Comprehensive Assessment System which are as follows (Rhode Island Department of Education, 2017):

1. Exceeding Expectations – “A student who performed at this level exceeded grade-level expectations by demonstrating mastery of the subject matter.”

2. Meeting Expectations – “A student who performed at this level met grade-level expectations and is academically on track to succeed in the current grade in this subject.”

3. Partially Meeting Expectations – “A student who performed at this level partially met grade-level expectations in this subject. The school, in consultation with the student’s parent/guardian, should consider whether the student needs additional academic assistance to succeed in this subject.”

4. Not Meeting Expectations – “A student who performed at this level did not meet grade-level expectations in this subject. The school, in consultation with the student’s parent/guardian, should determine the coordinated academic assistance and/or additional instruction the student needs to succeed in this subject.”

Students who are meeting or exceeding expectations, level 1 and level 2, are considered to be proficient in that subject matter. Students that are partially meeting or not meeting expectations, level 3 and level 4, are not considered to be proficient in the subject matter. Thus, this research grouped level 1 and level 2 scores as “proficient” and level 3 and level 4 as “not proficient.” The Rhode Island Department of Education Assessment Data Portal provides information on these test results by district and school, as well as by student group category (Rhode Island Department of Education, n.d.-a). Using this aggregated data, generalizations on student achievement can be made for each

type of student (e.g., general or disadvantaged) without using individual student data. Once the baseline achievement of general and disadvantaged students is established, comparisons can be made between traditional districts and charter schools. A comparison can also be made between the two school types (charters and traditional districts), to determine if their student composition is similar. It is important to note that the division between the subcategories of ELL, special education, and FRL is not mutually exclusive, as each category also contains students of the two other subcategories. For example, the category of English language learners also contains special education and economically disadvantaged students. A review of 2017-2018 data is presented below for each of the assessment measures.

A series of chi-square tests was used in this study to help determine the effectiveness of charter schools by comparing their results to those of Central Falls, Pawtucket, and Providence (CPP). The four metrics presented in this chapter (i.e., SAT Reading and Writing, SAT Math, RICAS English, and RICAS Math) were used to compare student proficiency between the two groups. These tests were first conducted based on the existing student compositions (actual) to determine if there was a statistically significant difference between the effectiveness of charter schools and these three traditional districts. Chi-square calculations were then conducted on a theoretical enrollment distribution mirroring the sending population. In other words, if students were equitably distributed between the two groups, would there be similar educational outcomes? If the traditional districts results displayed statistically significant test score improvement, then as it was hypothesized that charter schools would negatively impact

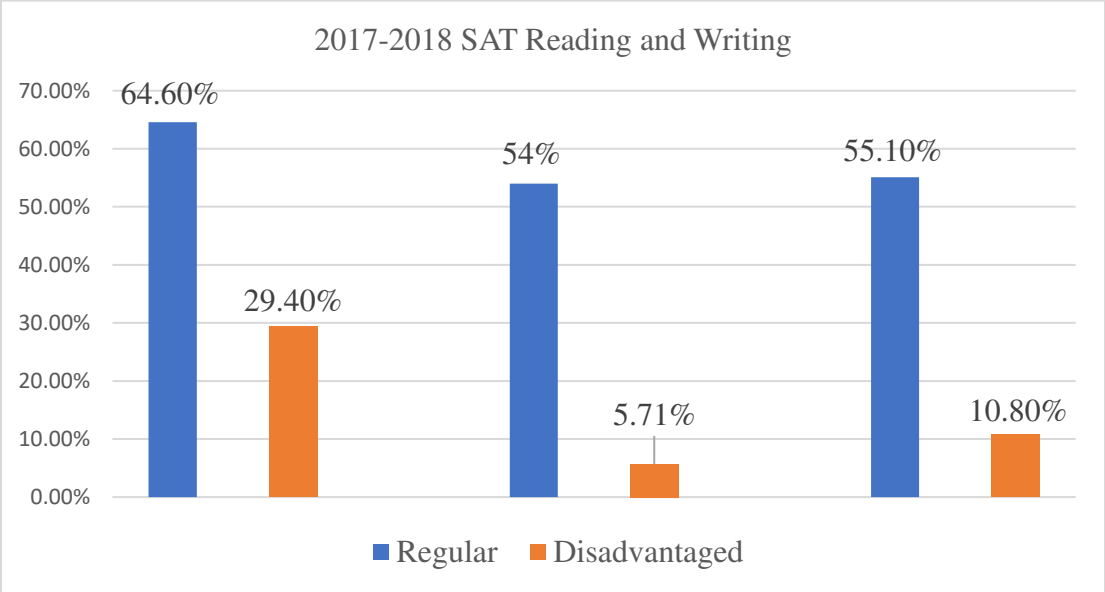
student achievement in sending districts. However, if the traditional districts' results do not show significant changes, then the null hypothesis would not be rejected.

SAT Reading and Writing

In 2017-2018, 9,718 students or 94.9% of all Rhode Island eligible students took the SAT in Reading and Writing. The proficiency percentage of all students in Rhode Island was 49.9%. The differences proficient and not proficient are more apparent when comparing the subcategories of disadvantaged students to general students. As seen in Figure 10, pronounced differences or achievement gaps are witnessed between general students and special education students. The majority or 55.1% of the 8,579 general education students that took the SAT in Reading and Writing were considered proficient. Conversely, only 10.8% of the 1,139 special education students that took the test were proficient in Reading and Writing — five times fewer. Similar disparities are seen with ELL and FRL lunch students. Of the 4,042 economically disadvantaged students, only 29.4% were considered proficient in Reading and Writing as assessed by the SAT as compared to 64.6% of the 5,676 non-economically disadvantaged students.

The State creates two subgroups of ELL students. Those that are current ELL and those that recently (within 3 years) exited this status. For this study, these two types of students were grouped together as ELL. As such, 54% of the State's 8,896 non-ELL students were proficient in Reading and Writing. Not surprisingly, Rhode Island's 882 ELL students did not fare well in Reading and Writing, with only 5.71% being considered proficient.

Figure 10: *Fiscal Year 2018 SAT Reading and Writing Percent Proficient*



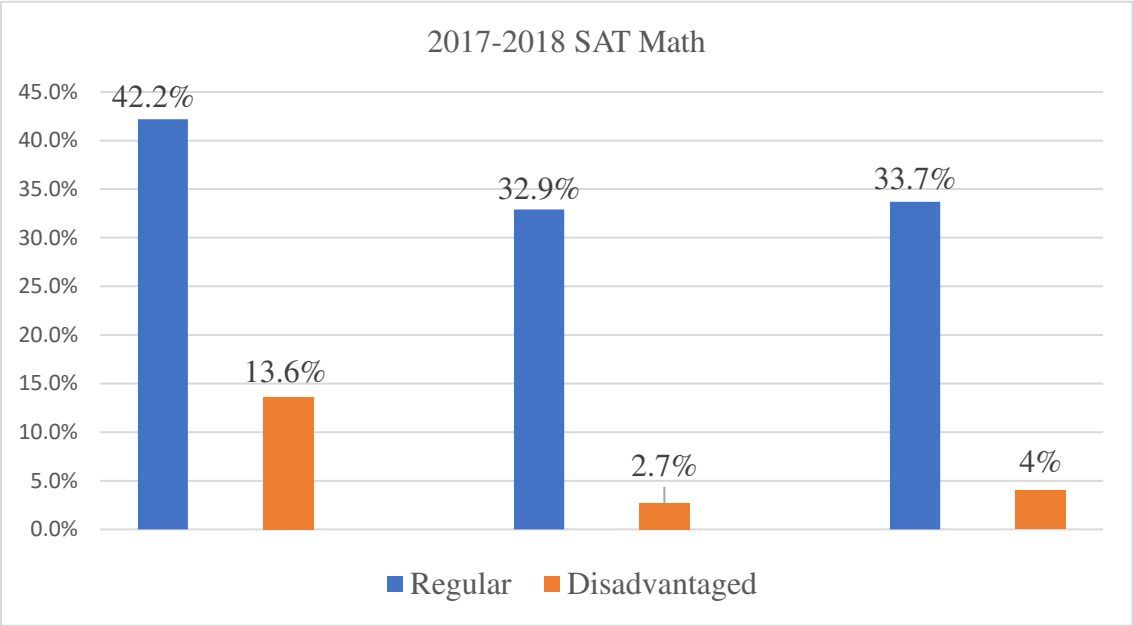
(Rhode Island Department of Education, n.d.-a)

SAT Math

In 2017-2018, 9,706 students or 94.5% of all eligible students took the SAT in Math. The proficiency percentage of all students in Rhode Island was 30.3%. Achievement in Math, as compared to SAT Reading and Writing, is lower in all categories, including for general education students. As seen in Figure 11, pronounced differences or achievement gaps are witnessed between general students and special education students. Approximately one-third, 33.7%, of the 8,584 general education students that took the SAT in Math were considered proficient. Conversely, only 4% or 45 of the 1,122 special education students that took the test were proficient in Math. Similar disparities were seen with ELL and FRL lunch students. Of the 4,039 economically disadvantaged students, only 13.6% were considered proficient in Math as compared to 42.2% of the 5,667 non-economically disadvantaged students. Lastly, 32.9%

of the 8,867 non-ELL students were considered proficient in Math, while 11 of the 839 ELL students were considered proficient in Math.

Figure 11: *FY 2018 SAT Proficiency by Student Group*



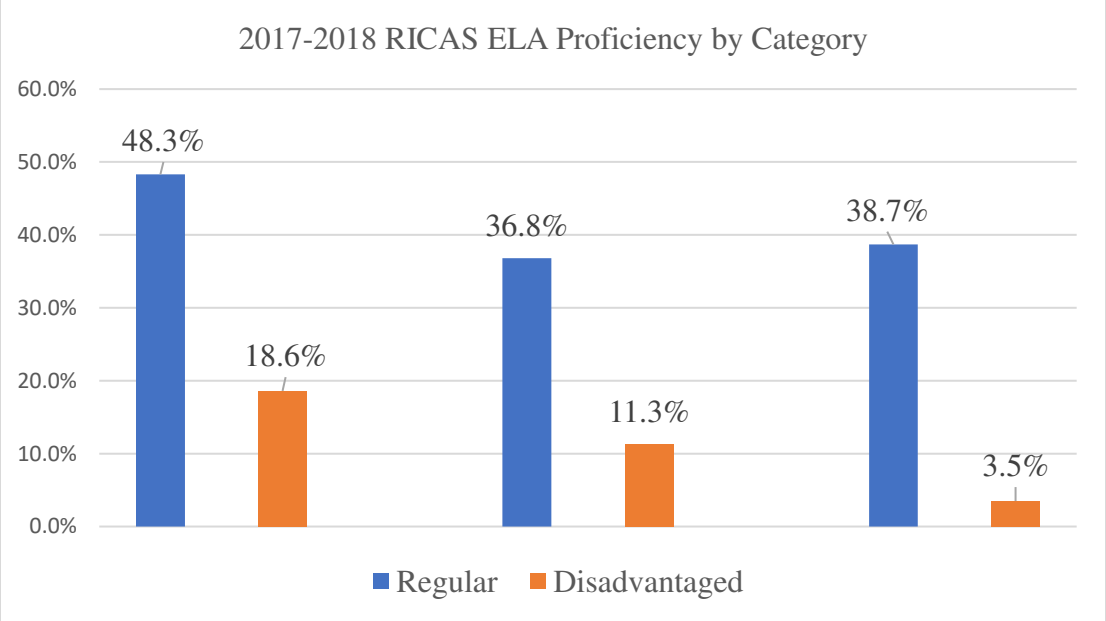
(Rhode Island Department of Education, n.d.-a)

RICAS English Language Arts/Literacy

The RICAS is administered annually to all Rhode Island students between grades 3 and 8. As such, these assessments have much larger *N* sizes than the SAT, which is limited to 11th graders for the purposes of state assessment. In 2017-2018, a total of 63,663 or 98.5% of students in grades 3 to 8 took the RICAS in English Language Arts/Literacy (ELAL). Statewide, 33.7% or 22,454 students were considered proficient in ELAL. Similar to the SAT results, there were achievement gaps between general and disadvantaged students. Specifically, 48.3% of the 32,313 non-FRL students were proficient in ELAL, whereas 18.6% of the 31,350 FRL students were considered proficient. Only 11.3% English language learners were proficient in ELAL. While the current study groups current ELL students with recent ELL students, it is important to

note that the proficiency percentage would be much lower (5.8%) if it only included current ELL students. Lastly, 38.7% of non-special education students were proficient in ELAL, whereas the percentage of proficient special education students was 3.5% — an elevenfold difference.

Figure 12: *FY 2018 RICAS ELA Proficiency by Student Group*



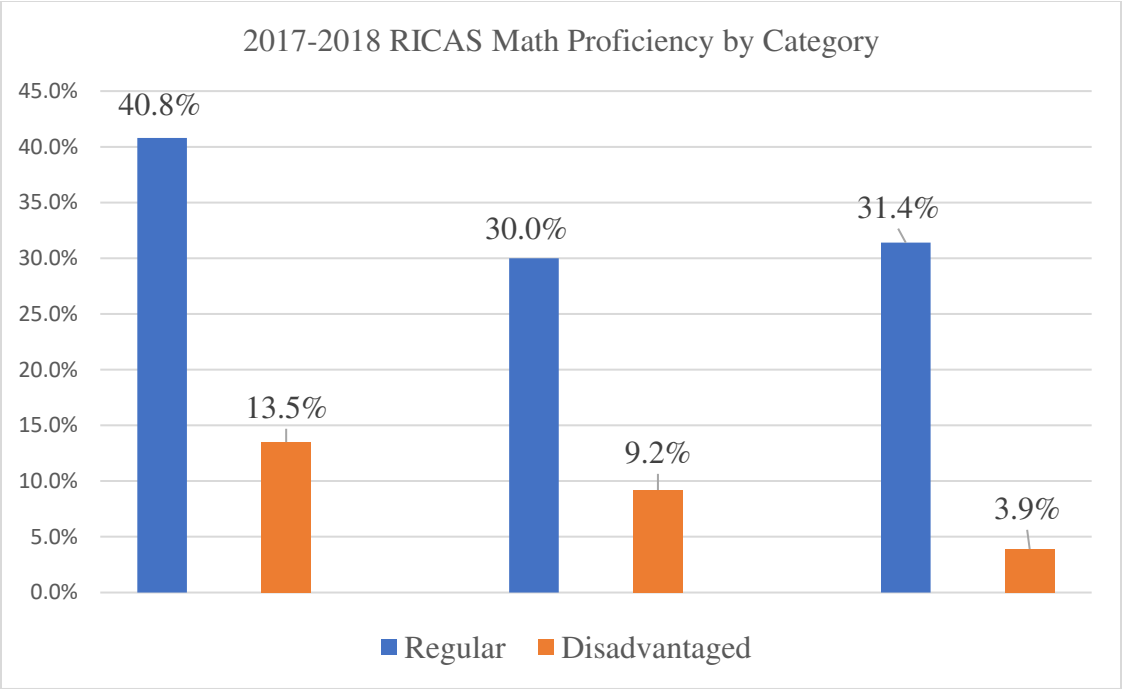
(Rhode Island Department of Education, n.d.-a)

RICAS Math

In 2017-2018, a total of 64,468 or 98.8% of all third through eighth grade students took the RICAS in Math. Statewide, 27.3% or 17,600 students were considered proficient in Math. Similar to the findings of the other assessments, there were achievement gaps between general and disadvantaged students. Specifically, 40.8% of the 32,548 non-FRL students were proficient in Math, whereas 13.5% of the 31,920 FRL students were considered proficient. Only 9.2% of the ELL students were proficient in Math. While this study group combines current ELL students with recent ELL students, it is important to

note that the percentage would be much lower (5.8%) if it only included current ELL students; it is the same percentage as seen with the ELAL. Lastly, 31.4% of non-special education students were proficient in Math, whereas the percentage of special education students was 3.9%.

Figure 13: *FY 2018 RICAS Math Proficiency by Student Group*



(Rhode Island Department of Education, n.d.-a).

Return on Investment

Further, for the four measures, SAT and RICAS, each student receives a scale score that corresponds with a performance level. For RICAS, the minimum score a student can receive for each subject matter is 440, and the maximum score is 560. Similarly for the SAT, the minimum score is 200 and the maximum score is 800 for each of these sections. Thus, to simplify and best quantify the return on investment of charter schools, per pupil expenditures are compared to achievement. This approach builds on the University of Arkansas investigation of charter school investments (DeAngelis et al.,

2019). In this working paper, National Assessment of Educational Progress (NAEP) scores are compared between charter schools and traditional districts in eight cities across the United States. However, the study does not differentiate between various student demographic groups, only funding outcomes.

This study utilizes the traditional definition of return on investment (ROI), which describes ROI as:

> A performance measure used to evaluate the efficiency of an investment or to compare the efficiency of a number of different investments. ROI measures the amount of return on an investment relative to the investment's cost. To calculate ROI, the benefit (or return) of an investment is divided by the cost of the investment, and the result is expressed as a percentage or a ratio.

Figure 14: *Return on Investment Formula*

This definition can also be expressed visually, as:

$$\text{Return on Investment} = \frac{\text{Current Value of Investment} - \text{Cost of Investment}}{\text{Cost of Investment}}$$

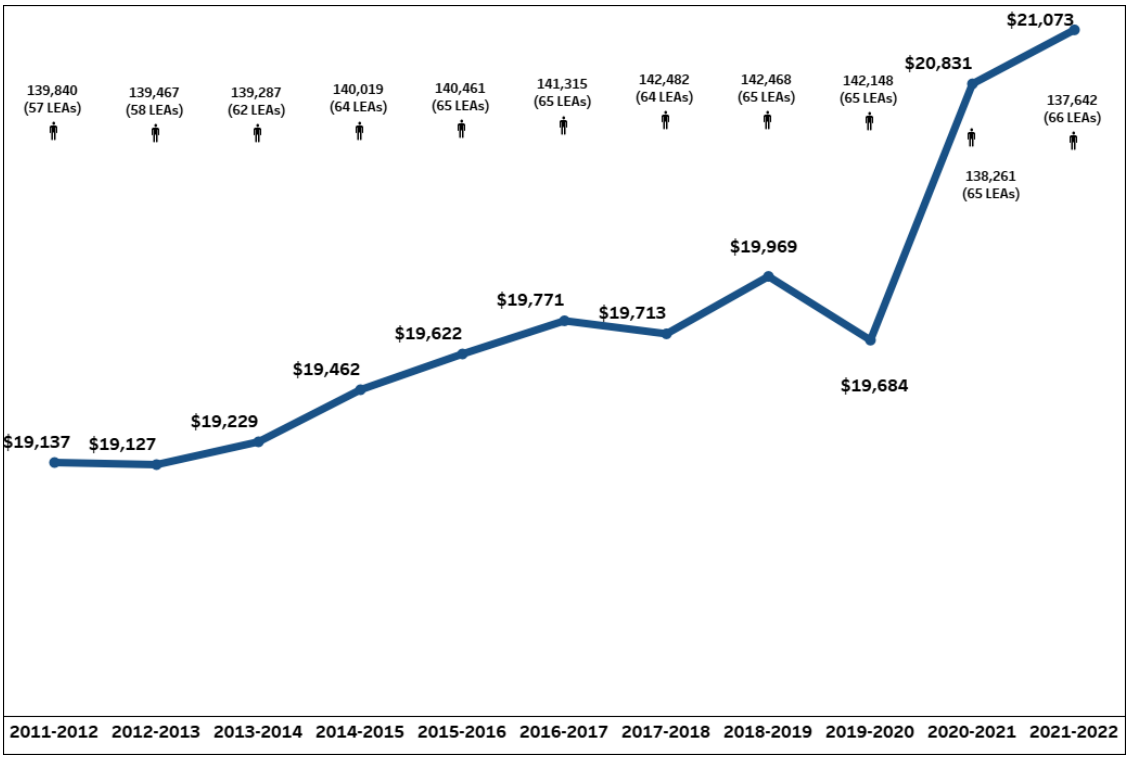
(Vipond, n.d.)

Using this framework to measure the cost effectiveness of State dollars, both RICAS and SAT scores were evaluated by each $1,000 investment in per pupil spending. This was measured at the State level, as well as the LEA level. Additionally, these analyses were then performed using a mirrored enrollment approach. In other words, if the charter schools enrolled similar percentages of disadvantaged students, as compared to the traditional school districts, what would the cost effectiveness be? If the cost-effectiveness ratios for charter schools are higher than those for traditional districts in

three instances, then State dollars allocated towards charter schools would yield a positive return on investment.

Per pupil expenditures (PPE) have increased dramatically in Rhode Island over the last ten years, as a result of a variety of factors (State of Rhode Island Department of Education, 2024b). As previously demonstrated, the total number of disadvantaged students, both as a percentage of enrollment and in aggregate, has increased. The State has additional funding mechanisms to help address the challenges that these students face. Additionally, as witnessed in Figure 15, PPE briefly decreased during the start of the pandemic, and then greatly increased because of temporary Federal Elementary and Secondary School Emergency Relief (ESSER) funds.

Figure 15: *Statewide Per Pupil Expenditures by Fiscal Year (Adjusted for Inflation)*



(State of Rhode Island Department of Education, 2024b).

While cost and enrollment data are contextualized longitudinally in this study, the return-on-investment analysis focuses on the 2017-2018 school year, prior to COVID-19. This avoids complications associated with any learning loss that occurred during the pandemic, which would skew assessment results, as well as the temporary federal funds that greatly increased PPE through September 30, 2024.

Each lens (equity, effectiveness, and efficiency) incorporates distinct variables that are a focus of this research. Declining revenues in the State and municipalities, as well as shrinking enrollments for districts, has Rhode Island headed towards a fiscal cliff. Under these conditions, each dollar spent needs to be more closely scrutinized to ensure the optimum return on investment is obtained for taxpayers. The following chapter focuses on the results of this research.

Chapter IV

RESULTS

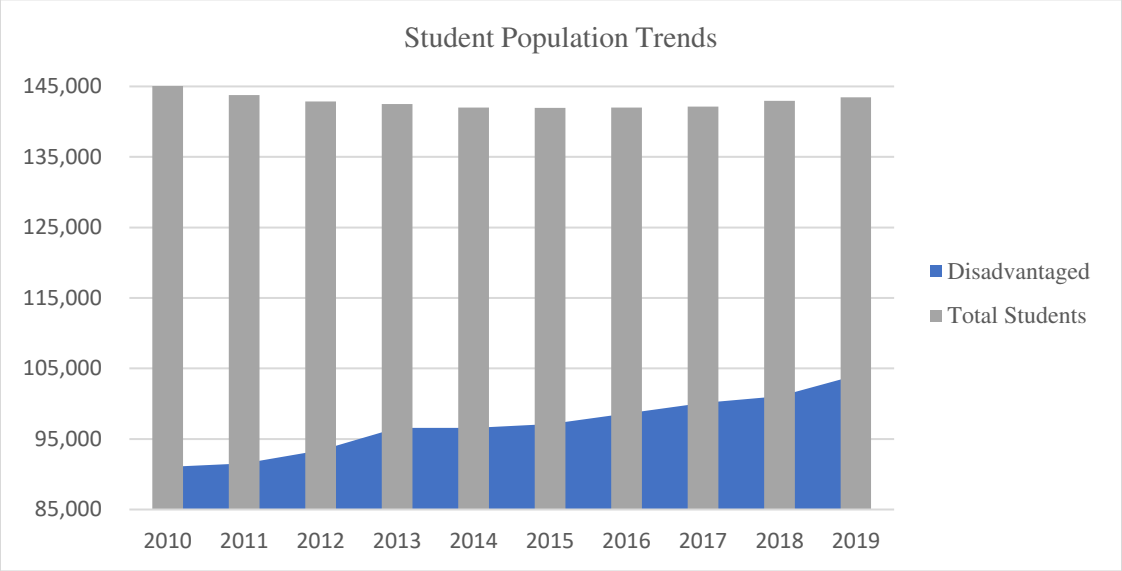
This research required in-depth exploration and analysis of complex data sets utilizing the chi-square test, which compared observed results with expected ones. Data has been analyzed at a State level and individual LEA level to help analyze the State's investment of state educational funding and educational outcomes. Exploring these three metrics allowed for a systematic analysis of Rhode Island's investment in charter schools. The focus of this policy analysis was the period of Fiscal Year 2010 (July 1, 2009 to June 30, 2010) through Fiscal Year 2019 (July 1, 2018 to June 30, 2019). This period coincides with the adoption of the Uniform Chart of Accounts and avoids the COVID-19 liminal epoch (State of Rhode Island Department of Education, 2024b). Additional data were obtained from Rhode Island's Uniform Chart of Accounts, Funding Formula, School Housing Aid, Statewide Facility Assessment, Historic Enrollments, and Accountability measures.

Equity Results

The primary data for this metric are the October 1st enrollments that are reported by each LEA, as well as the March Resident Average Daily Membership (RADM) reports that are used by the General Assembly to calculate the subsequent year's funding formula allocations. The October 1st data are used to provide an overview of enrollment data for all LEAs, including the total number of disadvantaged students. The March

RADM data provide detailed information on which communities send students to which charter schools and identifies whether those specific students are considered to be disadvantaged.

Figure 16. *Number of Students Identified as Disadvantaged from FY 2010 to FY 2019*



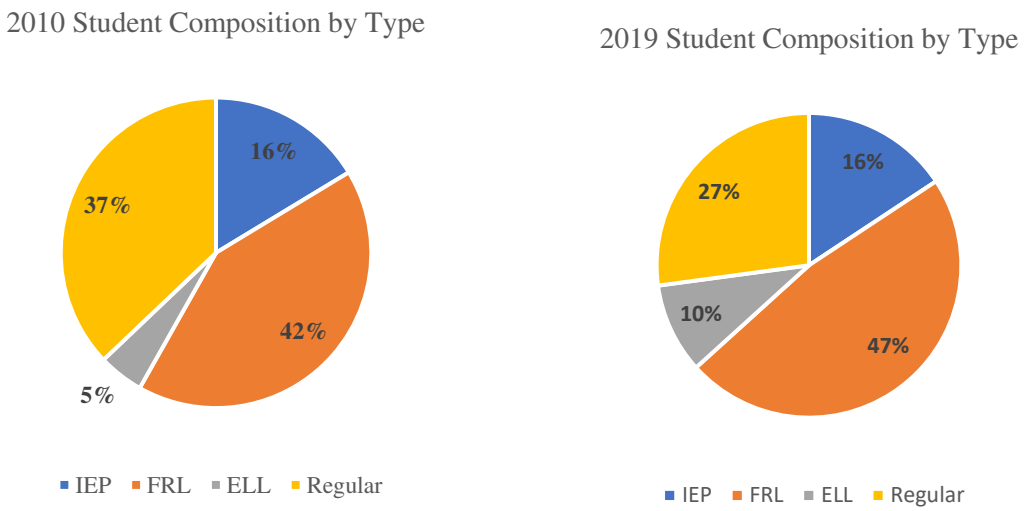
(Rhode Island Department of Elementary and Secondary Education, n.d.)

The disadvantaged student categories are not mutually exclusive, and students can be in one, two or all three categories. For a comparative total of disadvantaged students, we can sum the three categories and compare within years. In this context, when combining the three categories, the State's disadvantaged student population grew 14.3% between FY 2010 and FY 2019, while the overall student population declined 1.2% (see Figure 16). While there are slightly fewer students, the proportion of disadvantaged students has increased. This is important, as these students require additional resources to succeed.

For a variety of reasons, lower-cost general students can be more desirable to some charter schools, as charters have less funding per student to work with. This could

result in charter schools proportionately enrolling fewer special education students (IEP), English language learners (ELL), and/or free and reduced-price lunch (FRL) students than the traditional districts they pool from. The composition of the student body between charter schools and sending districts is analyzed below (see Figures 17), as the number of disadvantaged students in the State increased between FY 2010 through FY 2019 while the number of total students decreased. Specifically, the ELL population doubled over this period (from 6,832 students to 13,678 students) while the FRL population increased by 12.2% (see Figure 17).

Figure 17. *2010 and 2019 Student Body Composition Comparison*



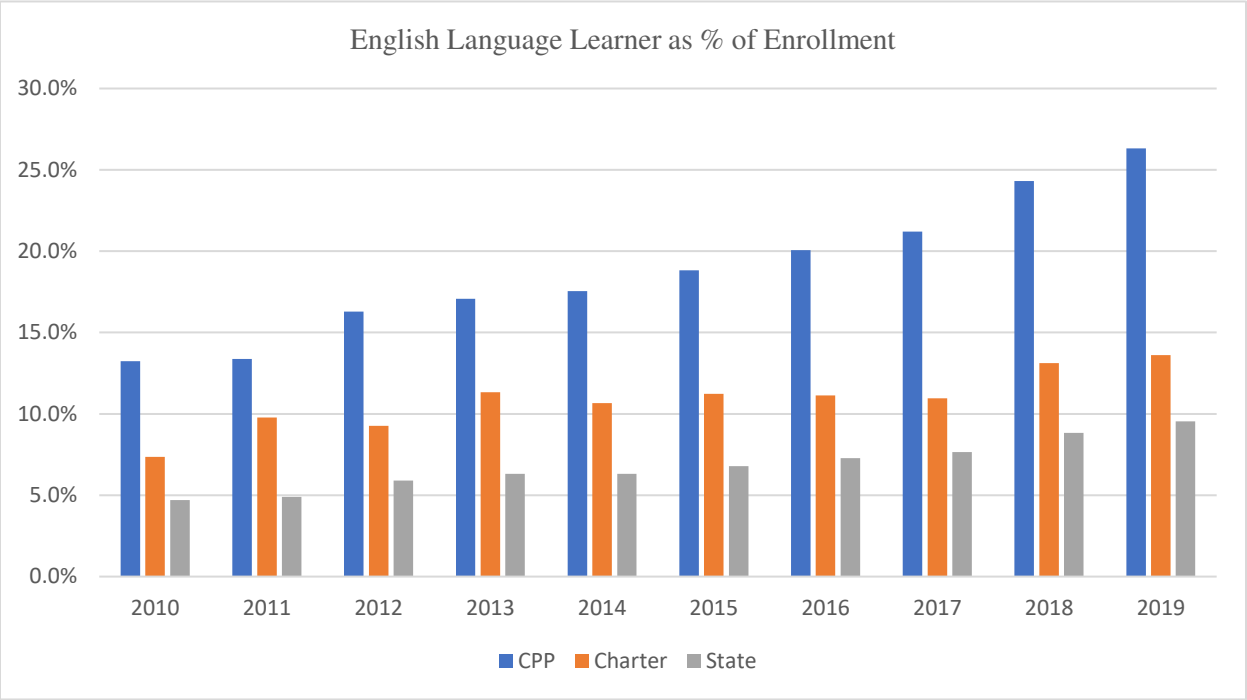
(Rhode Island Department of Elementary and Secondary Education, n.d.)

The distribution of disadvantaged students is not equally spread among districts or among charter schools. There are two important factors to keep in mind when considering total student population decline and an increase in disadvantaged students: (a) where the high-cost students are enrolling and (b) where educational resources are being allocated.

The optimal distribution would ensure that resources are allocated where they are most needed.

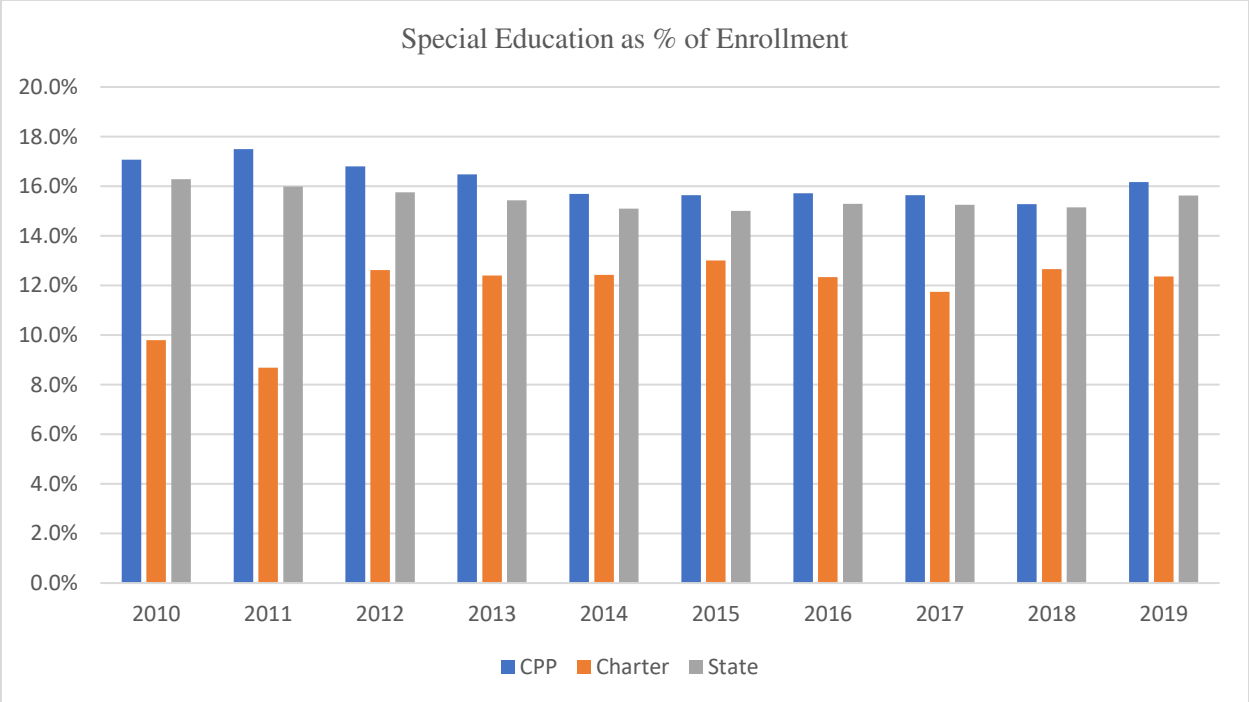
In FY 2019, the statewide student body composition distribution across all LEAs was 15.6% IEP, 47.4% FRL and 9.5% ELL (see Figures 18, 19, and 20). Comparatively, charter school composition was 12.4% IEP, 69% FRL and 13.6% ELL. At first glance it may appear as though charter schools enroll more disadvantaged students than traditional districts. However, state-level comparisons between charter schools and non-charter schools may be misleading, because 75% of charter school students enroll from the three neediest districts, as defined by state share ratio and student performance. In FY 2019, Central Falls, Pawtucket, and Providence (CPP) collectively enrolled 35,474 of all students or 25% of the total statewide enrollment, but had 26% of all special education students, 43% of all free and reduced lunch and 68% of all English language learners. CPP's FY 2019 student body composition breakdown was 16.2% IEP, 82.8% FRL, and 26.3% ELL. As a result, the orange and blue lines in the subsequent graphs should be similar. In the case of ELL students, the percentage difference between CPP and charter school enrollments has grown each year from FY 2010-2019. This trend should be watched closely, as LEP students are the fastest growing student segment in Rhode Island. Again, this growth is concentrated in CPP, and Providence anticipates that in the year 2030, 50% of all enrolled students will be considered multilingual language learners (MLL). With charter schools approved to enroll thousands of more Providence students, this differential may continue to grow.

Figure 18. *ELL as a Percent of Total Student Enrollment FY 2010 to FY 2019*



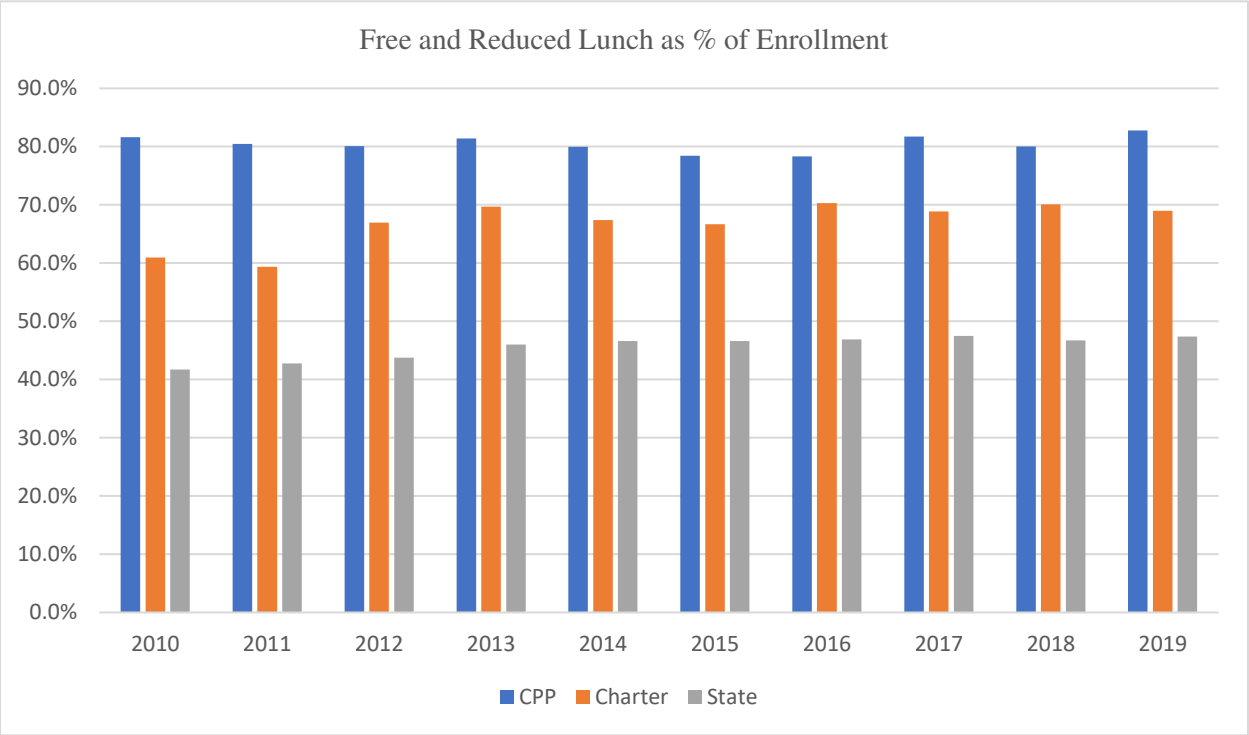
(Rhode Island Department of Elementary and Secondary Education, n.d.)

Figure 19. *IEP as a Percent of Total Student Enrollment FY 2010 to FY 2019*



(Rhode Island Department of Elementary and Secondary Education, n.d.)

Figure 20. *FRL as a Percent of Student Enrollment*



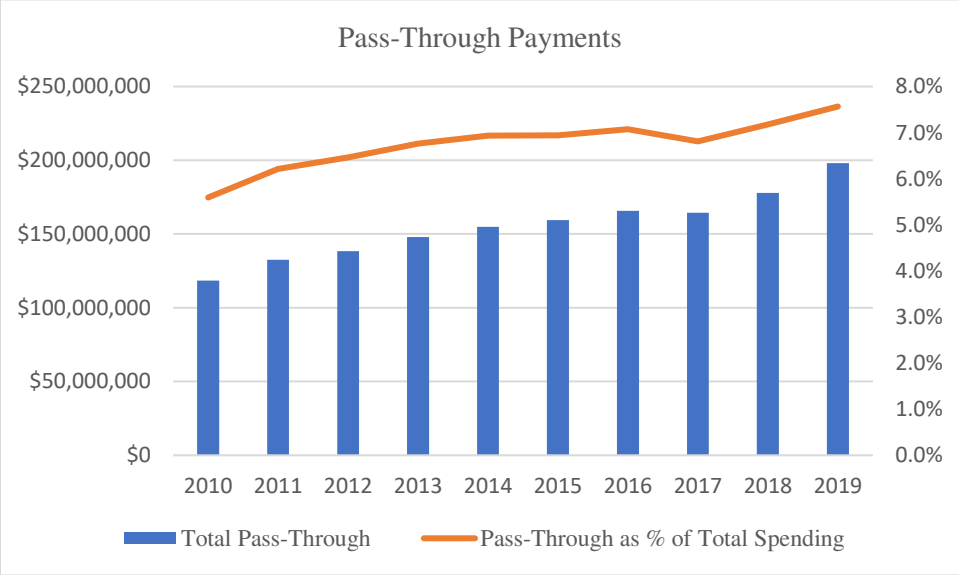
(Rhode Island Department of Elementary and Secondary Education, n.d.)

Efficiency Results

As the State's total student population declines and the proportion of higher cost disadvantaged students increases, educational resources are stretched amongst a growing number of LEAs. In FY 2000, the State's 156,647 students were served by 41 LEAs or an average of 3,820 students per LEA; whereas, in FY 2019, the State's 143,436 students were served by 64 LEAs or an average of 2,241 students per LEA (Rhode Island Department of Elementary and Secondary Education, n.d.). The UCOA data confirm that a greater portion of educational resources over time are supporting non-instructional expenses, as each LEA requires facilities, school administration, food service, and other services that do not directly impact teaching and learning (State of Rhode Island

Department of Education, 2024b). In FY 2010, 20.2% ($428M) was spent on non-instructional costs, as compared to 21.3% ($559M) in FY 2019. This figure will most likely continue to grow as new LEAs are approved. In FY 2019, the State and local municipalities contributed $137,485,412 in combined payments to charter schools (State of Rhode Island Department of Education, 2024b). Of this amount, $46,992,114 was tuition payments from the traditional districts to the charter schools. These funds are counted as part of the sending district's budget but are immediately passed through to the charter school as a tuition payment. For context, this accounts for 7.6% of Central Falls' entire budget, although this school district is located in the neediest city in Rhode Island (State of Rhode Island Department of Education, 2024b). The remaining $90,493,298 is paid directly to Central Falls from the State through Basic Education Aid.

Figure 21. *Total District Pass-Through Expenditures and % of Total Educational Spending*



(Rhode Island Department of Education, 2024b)

Fortunately, through the State's use of UCOA, which records 10 million transactions per year, this information can be studied in further detail (see Appendix E). While the total spending on education increased statewide, traditional districts' pass-through payments increased by an annual average of 6.8%, from $118,438,949 in FY 2010 to $197,946,721 in FY 2019. Pass-through funds represent tuition payments that traditional districts "pass-through" their budgets to charter schools, for outsourced high-cost special education, or for other out-of-district students. Further complicating matters, pass-through payments are counted as part of the districts' total operating budget, despite these revenues never supporting in-district students. Due to statewide enrollment declines, a portion of pass-through payments fund duplicating, non-instructional expenses in charter schools. To identify the total cost of these expenses, 16 functions from UCOA were identified: building upkeep, business operations, claims and settlements, data processing, deputies and senior district-level administration, food service, legal, libraries and media, principals and assistant principals, program management, safety, school office, superintendent, transportation, capital projects and debt service. In FY 2019, $69,426,933 or 42% of all charter school spending supported these redundant non-instructional expenses. This figure grew significantly (217%) over the ten-year period, from $17,713,425 or 0.8% of total State spending in FY 2010, up to $69,426,933 or 2.7% of total State spending in FY 2019.

In aggregate, total statewide spending on education increased by $500M or 23.5% between 2010 and 2019, while the total student population declined by 1.1% or 1,628 students. As a result, per pupil expenditures increased by 25% ($14,595 to $18,240) over this period. As shown in Figure 17, charter schools enroll fewer special education

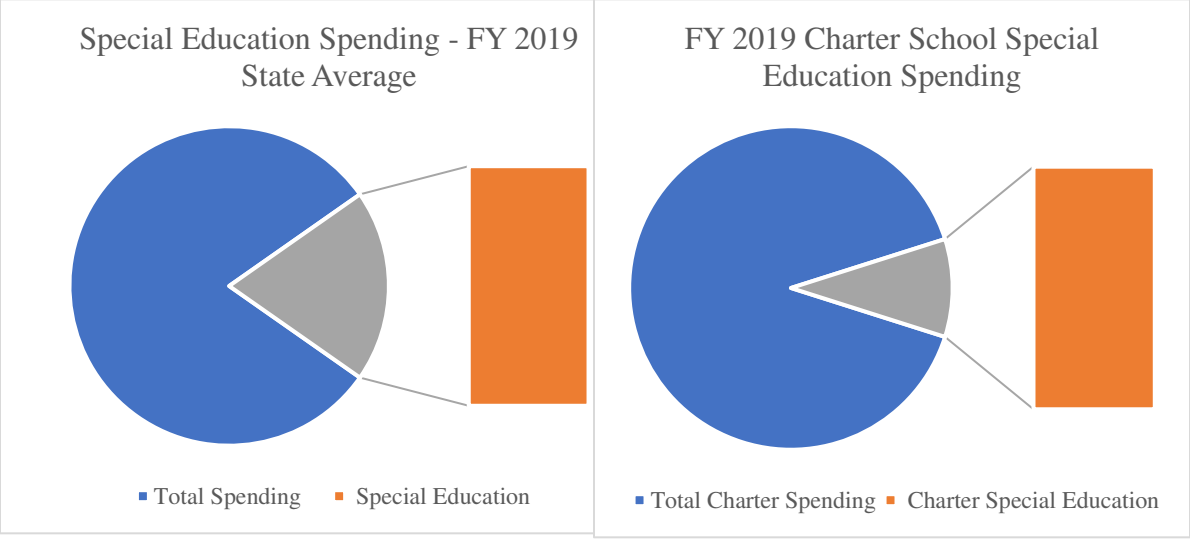
students as a percent of total enrollment compared to CPP (Central Falls, Pawtucket, and Providence) and the State as a whole. Enrollment information is corroborated with financial information (see Table 5). Based on average student body composition between FY 2010 and FY 2019, charter schools enroll more than one standard deviation fewer special education students than CPP, as shown in Table 5.

Table 5. *Special Education Enrollment as a Percent of All Enrollment (FY 2010 to FY 2019 Average)*

LEA	Percentage	(Y - Mean)	Squared
Providence	16.2	0.40	0.16
Central Falls	20.2	4.40	19.36
Pawtucket	15	-0.80	0.64
Charter Schools	11.8	-4.00	16.00
Mean	15.8		36.16
		Variance	12.05333
		Square Root	3.471791

In FY 2019, 22.3% or $584M was spent on special education in Rhode Island. Charter schools only spent an average of 10.8% of their budgets on special education, or almost 2.5 times less than non-charter schools (see Figure 14).

Figure 22. *FY 2019 Special Education Funding as Percent of Budget*



(Rhode Island Department of Education, 2024b)

In aggregate, data suggest that charter schools are enrolling a disproportionate number of "general" students compared to the districts they pool from, consistent with the hypotheses. These observations are made from an enrollment data perspective and corroborated by funding distribution. This may be problematic, as the three districts (Central Falls, Pawtucket, and Providence) that require additional resources to improve student outcomes are provided less funding to serve higher-cost students. Most higher performing districts in wealthier communities have fewer disadvantaged students to begin with and therefore have lower pass-through payments.

Charter school growth may unintentionally perpetuate inequity and disparity between traditional districts. Comparing charter schools to all traditional districts can inadvertently mask this practice, as over 75% of students that enroll in charter schools in Rhode Island reside in three urban communities. As the state increases and expedites its charter school approval process, additional research is required to fully understand the impact of charter schools and evaluate the state's return on investment of limited education dollars (see Table 6). If charter school enrollments mirrored those of sending districts, from a statistical perspective, we would expect the orange and blue bars to be similar in Figures 11, 12 and 13.

Repurposed local and State funding from traditional districts to charter schools has grown over the last decade in Rhode Island and is likely to continue to grow in future years (see Table 6). In other words, absent charter schools, traditional districts would have had $181 million additional dollars in FY 2022 to fund teaching and learning, as seen in Table 6. By Fiscal Year 2030 the total amount reallocated to charter schools is

expected to exceed $300 million. These conditions create the perfect storm of challenges for CPP: low performing schools that prompt families to seek alternatives, municipalities that do not prevent new LEAs from competing with traditional districts, higher percentages of educational resources necessary to support non-instructional expenditures, and a high concentration of disadvantaged students in traditional districts.

Table 6. *Total District Pass-Through Expenditures and State Aid Payments*

School Year	Tuition from Other Districts	Unrestricted Grants-in-Aid - State Sources	Total Tuition + State Aid
2009-2010	$10,714,284	$24,038,327	$34,752,611
2010-2011	$13,581,464	$27,699,930	$41,281,394
2011-2012	$17,823,201	$32,563,912	$50,387,113
2012-2013	$21,739,168	$32,553,217	$54,292,385
2013-2014	$26,902,558	$51,283,974	$78,186,532
2014-2015	$30,987,877	$59,056,090	$90,043,967
2015-2016	$37,270,905	$67,413,789	$104,684,694
2016-2017	$39,691,722	$75,242,478	$114,934,200
2017-2018	$49,085,875	$78,078,825	$127,164,700
2018-2019	$52,626,544	$84,447,675	$137,074,219
2019-2020	$50,087,461	$98,491,682	$148,579,142
2020-2021	$51,629,448	$107,640,546	$159,269,994
2021-2022	$56,608,572	$124,487,319	$181,095,890

(State of Rhode Island Department of Education, 2024b)

One concern is that a growing portion of State Education Aid funds additional non-instructional expenditures needed to support parallel school districts with the introduction of new charter schools. Rhode Island went from 36 LEAs in 2004 to 64 LEAs in 2021. Each new LEA requires facilities, school administration, food service, transportation, and other non-instructional expenses to provide education to students. This research aims to define and analyze non-instructional expenses for the period of FY

2010 through FY 2019. The most affected communities already do not receive enough local funding to cover their core educational expenditures. The gap between the State's average core instructional expenditures and an individual traditional school district's core instructional expenditures is highlighted in red, meaning that the three CPP sending districts are already underfunded. While Woonsocket was the least funded community in the State, their charter school impact is comparatively limited as compared to the CPP communities. These underfunded districts then pass-through their limited funding to support additional non-instructional expenditures within the municipality. For example, Central Falls' educational funding for the 4,000 students that reside within the one square mile city now pays for five superintendents (i.e., Central Falls, Segue, Learning Community, Blackstone Valley Prep, International Charter School) rather than one school superintendent. In 2019, the Central Falls district Superintendent cost the district $210,000 including benefits (State of Rhode Island Department of Education, 2024b). With these charter schools, another $1,024,304 was spent on additional superintendent salaries and benefits to serve nearly the same student population.

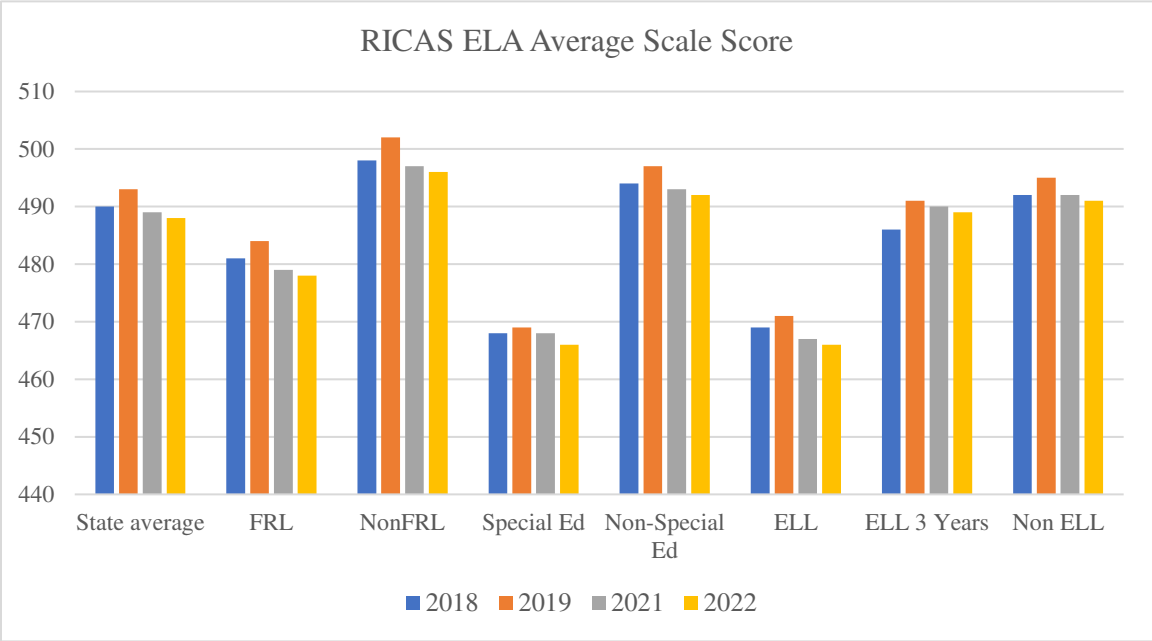
Another challenge is that traditional districts send tuition payments ("local share") from their operating budgets to charter schools. Districts must then prioritize expenditures in their declining budgets as many expenses are fixed costs. As a result, traditional districts may offer less support to students as budgets are reallocated. From a return on investment perspective, student success in charter schools would need to be significant enough to justify diluting limited educational dollars by introducing additional LEAs.

Effectiveness Results

While the first two hypotheses appear supported by available data, the research now focuses on the final pillar. The State's assessment data provide percent proficiency as well as average scale scores by type of students. To establish the cost-effectiveness of the State's investment on charter schools, and help connect investments to educational outcomes, the scale scores are divided by per pupil expenditures. During the 2017-2018 school year, the average scale score was 490 on RICAS ELA, meaning that on average, a student in Rhode Island was "partially meeting expectations" (State of Rhode Island Department of Education, 2024a). Not unexpectedly, scores vary between the types of students. FRL students scored an average of 481 points, while non-FRL students scored on average 498, one point away from the next performance indicator, "meeting expectations." In 2019-2020 the average scale score for students not living in poverty was 502 (i.e., meeting expectations), while on average students in poverty were only partially meeting expectations. Special education students scored an average of 468 points, which translates to the lowest performance metric, "not meeting expectations." In fact, in all four years displayed in Figure 23, on average special education students were not meeting proficiency expectations. Conversely, on average non-special education students scored 494 points in 2017-2018 on RICAS ELA. Lastly, English language learners obtained an average score of 469 in 2017-2018, which is also considered not meeting expectations. These students as a group improved to an average of 471 points in 2018-2019, which resulted in graduation to the next performance level of "partially meeting expectations." The State also assesses students that left ELL status three years prior. On average, these students obtained higher scores than current ELL students, with an average score of 486

points in 2017-2018, and 491 points in 2018-2019. Non-ELL students had an average score of 492 and 495, in 2017-2018 and 2018-2019, respectively.

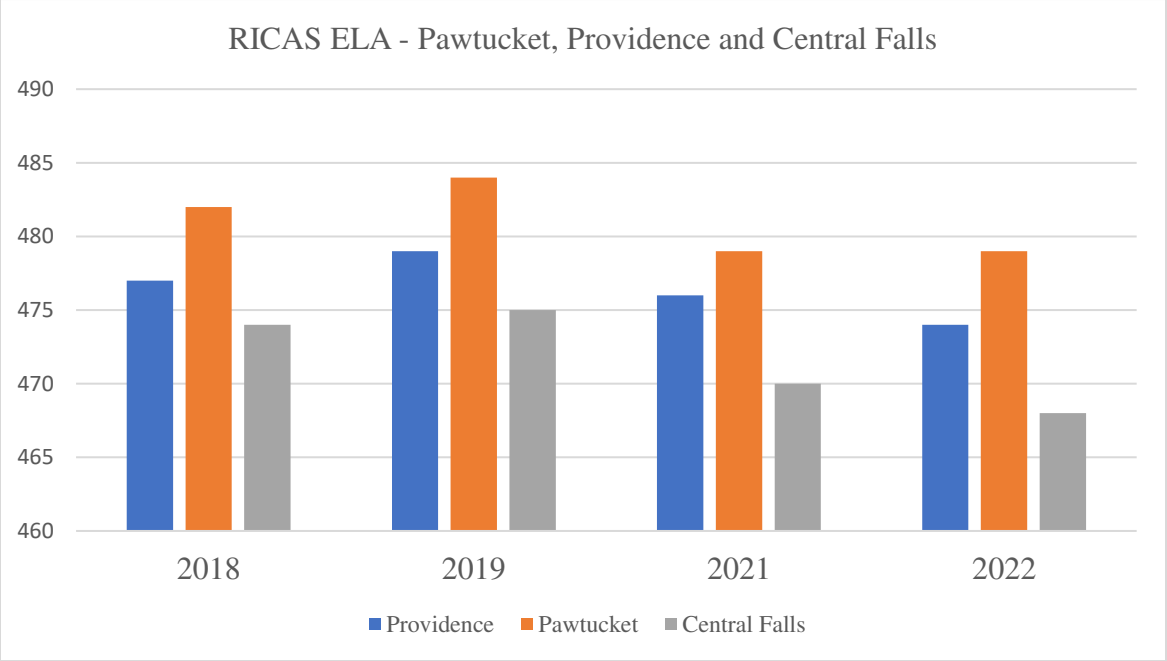
Figure 23. *RICAS ELA Average Scale Score by Student Type*



(State of Rhode Island Department of Education, 2024a)

Further, these scores are available by LEA and by student subgroup (general, IEP, ELL and FRL). Data related to the three main districts affected by charter schools, Pawtucket, Providence, and Central Falls, are displayed in Figure 24. Any gains being made before the pandemic were lost, and in 2022, the average Central Falls student was classified as "not meeting expectations," with an average RICAS ELA score of 468. Aside from this example, the average performance level was "partially meeting expectations" for students attending the three CPP districts.

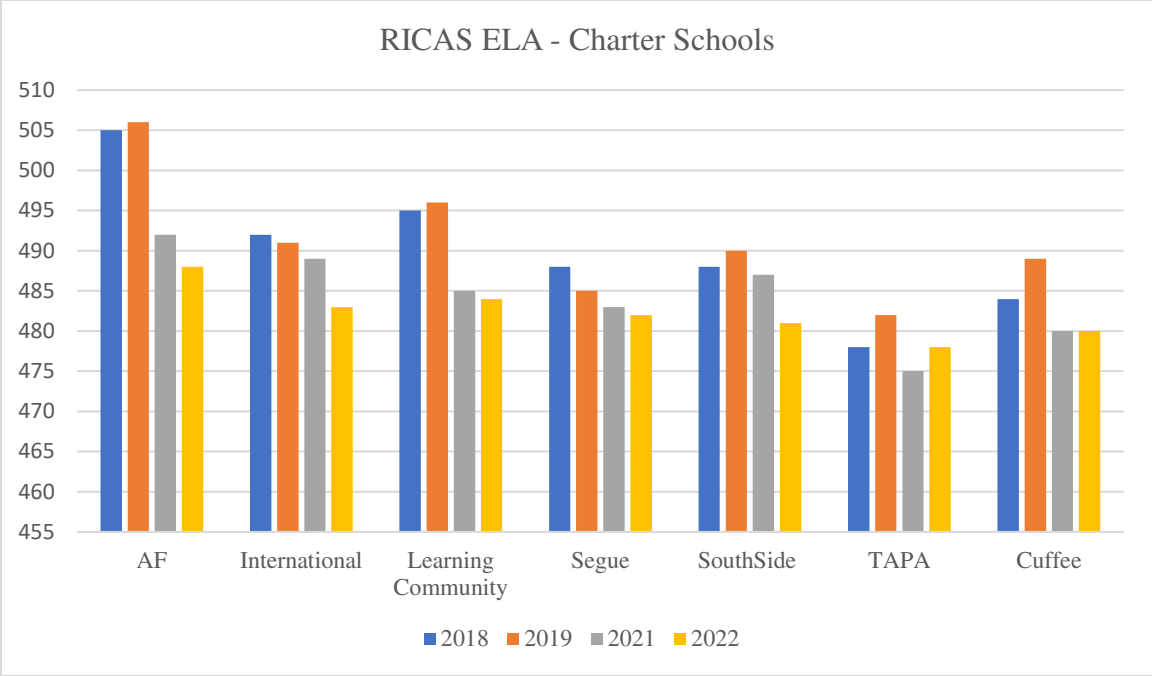
Figure 24. *RICAS ELA Scores by Year for CPP*



(State of Rhode Island Department of Education, 2024a)

Conversely, scores were much higher for charter schools. The Achievement First (AF) charter school stands out in particular, as AF students were, on average, meeting expectations in 2017-2018 and 2018-2019 (see Figure 25). The Learning Community, which enrolls Central Falls students, was very close to achieving the "meeting expectations" proficiency level (above 499) prior to COVID. There is a wide range in test scores between charter schools, as they can each enroll different types of students, from various catchment areas. When reviewing these scores, there are a few factors to consider that warrant deeper analysis. While the majority (over 80%) of students that enroll in AF are from Providence, AF also enrolls students from other communities.

Figure 25. *RICAS ELA Scores by Year for Charter Schools*



(State of Rhode Island Department of Education, 2024a)

Per Pupil Expenditures

In FY 2018, per pupil expenditures (PPE) ranged from $11,593 to $117,693 across Rhode Island LEAs (see Appendix C). The Rhode Island School for the Deaf, a State-operated school, represents an outlier, as all students require special services and total enrollment is less than 80 students. As such, using the median PPE ($16,404) rather than the average PPE ($18,636) is a more accurate reflection of what a typical LEA spends to educate students on a yearly basis. Building on the framework proposed by DeAngelis et al. (2019), these PPE expenditures can be compared to RICAS and SAT scores to help reconcile funding and student achievement.

To conduct these analyses, the scale needs to first be converted to a 0 to 120 scale, as the minimum and maximum RICAS scale scores are 440 and 560, respectively. As

such, median PPE was divided between the difference between the statewide average of 490 and the minimum of 440. In 2017-2018, LEAs spent $328 per point above 440. Table X compares Providence, Pawtucket, and Central Falls PPEs to those of charter schools that are composed of at least 75% of these districts' students. Further, some of the charter schools exclusively enroll students from one community (i.e., Central Falls to Segue, Providence to Trinity Academy for Performing Arts (TAPA) and Paul Cuffee). This allows for unique comparisons in addition to the general comparisons.

Of the ten LEAs displayed in Table 7, seven spent more per point on RICAS than the State median. Central Falls and Providence spent more per point and more per student than several of the charter schools but had lower average scale scores. Conversely, Learning Community, International Charter School and Achievement First all spent less than the statewide median and produced higher outcomes than the average State scale scores. However, the reported ratio of dollar to scale score is the average of all students and varies by subgroup.

Table 7. *Funding Spent Per Average Scale Score Point*

LEA	PPE	Score	$ Per Point
Central Falls	$16,825	474	$494.85
Providence	$17,550	477	$474.32
TAPA	$16,461	478	$433.18
Paul Cuffee	$15,820	484	$359.55
Pawtucket	$14,878	482	$354.24
Segue	$16,404	488	$341.75
SouthSide	$16,394	488	$341.54
Learning Community	$16,844	495	$306.26
International	$14,550	492	$279.81
Achievement First	$16,283	505	$250.51

Equity Results

As previously stated, disadvantaged students require additional resources to achieve academically to general education students. A second layer of special education is the severity of a student's disabilities. The State's funding formula provides LEAs with additional funding for "high-cost" special education students – students that cost five times more than the standard PPE threshold. Students that cost double, triple and quadruple the amount of a general education student did not result in additional state aid. During the 2023 General Assembly session, this threshold was lowered to four times the threshold, effective July 1, 2023. Only traditional districts receive additional funds for these high-cost special education students; thus, most of the highest cost students remain in the traditional districts. This can also be observed in Table 8 which displays the special education PPE by individual district or charter school. For almost all LEAs, these expenditures are higher than the cost of general education PPE. A few charter schools are the exception, with limited enrollment of students receiving special education. For example, the TAPA only had 22 special education students or 4.6% of its total enrollment, which is significantly lower than both the statewide average and Providence's enrollment composition.

There is a variety of factors which contribute to the fact that high-cost special education students are very seldom enrolled in charter schools. Charter schools require families to actively apply or "opt in" in order to be considered for enrollment. It is possible that families with high-cost special education students do not feel comfortable sending their children to charter schools, which may or may not have the services necessary to meet their child's educational needs. Conversely, it is possible that charter

schools choose not to enroll these high-cost students, as many charter schools operate with less resources than traditional districts. Regardless of the reason, these enrollment patterns greatly impact funding allocations. This research simulates a hypothetical mirrored enrollment between traditional districts and charter schools to determine if there would be any statistically significant differences in the average scale scores of the sending districts. That is, if students that attended charter schools were randomly assigned to these schools, rather than opting in, the proportion of disadvantaged students should be similar across traditional districts and charter schools. Under this constructed scenario, there would be no opportunity for selection bias, intended or unintended.

Using the same ROI metric, the cost to achieve an average scale score point is substantially more for the traditional districts (see Figure 14). Comparing the findings shown in Table 7 and Table 8, it is evident that Central Falls, Pawtucket and Providence each spend more than two and a half times more per point on special education students than on general education students. In FY 2017, over $132M was spent on special education students in Central Falls, Pawtucket, and Providence. In total numbers, Providence enrolled 3,778 special education students, while all the charter schools combined enrolled 1,139.

Table 8. *Special Education Funding Per Average Scale Score Point*

LEA	PPE	Score	$ Per Point
Central Falls	$20,094	459	$1,058
Providence	$22,323	460	$1,116
TAPA	$8,865	460	$443
Paul Cuffee	$11,253	468	$402
Pawtucket	$22,808	463	$992
Segue	$16,324	467	$605
SouthSide	$24,648	460	$1,232
Learning Community	$13,288	474	$391

International	$6,608	472	$207
Achievement First	$19,745	483	$459

In order to achieve similar outcomes to their general education students, Providence would need to spend an additional $18,972 per special education student to make up the 17-point scale score differential (477 vs 460). A PPE cost of $41,295 ($22,232 + $18,972) would equate to $156,012,510 in total annual special education expenditures for Providence. In FY 2024, Providence spends just over $84 million on special education, a shortfall of $71.6 million. The same general point is true with respect to both Pawtucket and Central Falls. Central Falls would need to spend an additional $15,870 per student to make up the 15-point scale score differential or $23,520,456 in total expenditures. Pawtucket would need to spend $18,848 per student to make up the 19-point scale score difference between general education and special education students. In total dollars, this equates to $63,108,840. Using this metric, CPP would collectively need an additional $158 million per year to adequately support special education students' outcomes were the same as general education students. For comparison, CPP paid $24,840,719 in tuition payments to charter schools and lost $71,907,864 in State Aid that followed students to charter schools. Combined, CPP lost $96,748,583 in funding to charter schools that would otherwise have come to them.

When conducting a chi-square test, observed or actual scale scores are compared to expected values or estimated scale scores. Related to the effectiveness of charter schools, the null hypothesis (H_o) and alternative (H_1) hypothesis are established below.

H_o: Charter school migration will not negatively impact Central Falls, Pawtucket and Providence's average scale scores.

H_1: Charter school student migration will negatively effect Central Falls, Pawtucket and Providence's average scale scores.

$X^2 = \sum (O_i - E_i)^2 / E_i$

For all calculations below, the significance level was set at $\alpha = 0.05$. To establish a baseline, the three traditional school districts (i.e., CPP) were grouped together to be compared to the charter schools they send students to. Results are provided for RICAS Math and RICAS ELA.

While the observed average scale scores have already been calculated, the estimated scale scores must be established. For this study, this was done by first determining the actual percentage of disadvantaged students in each traditional district and then deriving them to a mirrored hypothetical population of students they would have if the charter schools enrolled an exact representative sample of the sending district. The CPP districts are analyzed collectively and then individually.

Table 9: *FY 2018 RICAS Math Observed*

Meeting Expectations	CPP	Charter	Total
No	14876	1315	16191
Yes	2012	498	2510
Total	16888	1813	18701

Expected Frequencies

Meeting Expectations	CPP	Charter	Total
No	14621	1570	16191
Yes	2267	243	2510
Total	16888	1813	18701

Following the proceeds of a chi-square test, the observed frequency is subtracted from the expected frequency. The result is then squared and then divided by the result of

the value of the expected frequency. The four values for RICAS Math are 4.43, 28.62, 41.31, 266.52, for a total value of 340.88. With one degree of freedom and $p < .05$, the chi-square value is 3.841. As 340.88 is greater than 3.841, a relationship exists between student success on RICAS Math and type of LEA. In other words, students that attend charter schools, as compared to the three sending districts, do better on standardized tests, likely as a result of attending a charter school.

Table 10: *FY 2018 RICAS ELA*

Observed Frequencies

Meeting Expectations	CPP	Charter	Total
No	13848	1223	15071
Yes	2495	579	3074
Total	16343	1802	18145

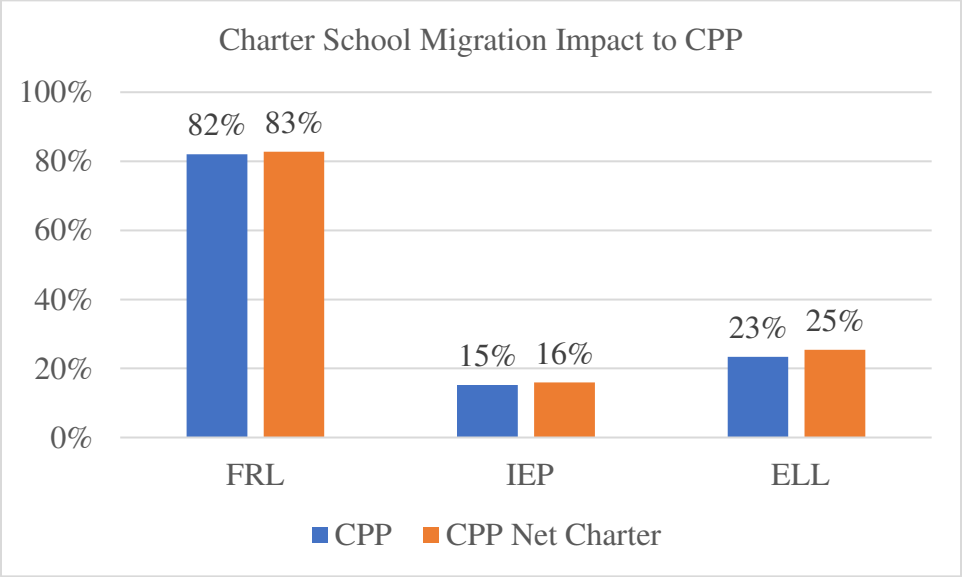
Expected Frequencies

Meeting Expectations	CPP	Charter	Total
No	13574	1497	15071
Yes	2769	305	3074
Total	16343	1802	18145

Following the proceeds of a chi-square test, the observed frequency is subtracted from the expected frequency. The result is then squared and then divided by the result of the value of the expected frequency. The four values for RICAS ELA are 5.52, 27.06, 50.06, 245.42, for a total value of 328.053. With one degree of freedom and $p < .05$, the chi-square value is 3.841. As 328.053 is greater than 3.841, a relationship also exists between student success on RICAS ELA and type of LEA. In other words, students that attend charter schools, as compared to the three sending districts, do better on standardized tests, likely as a result of attending a charter school.

In FY 2018, a total of 8,002 students who would have enrolled in CPP instead enrolled in public charter schools. CPP's total student population was 34,513 after charter school migration. Figure 26 below shows the proportional association on disadvantaged students. In all cases, the proportion of FRL, IEP and ELL increased in the sending districts after charter schools enrolled their students. However, the difference between the actual FRL students that enrolled in a charter school rather than their traditional districts (28,563) and a mirrored population (28,310) was 253 students. A similar finding is observed with special education students; 5,493 special education students remained in CPP, when an expected mirror population would have left them with 5,255 (238 students). The ELL population had the biggest difference between the actual and the expected enrollments. CPP's FY 2018 ELL enrollment was 8,771, but a mirrored charter school migration would have yielded 8,070 students – a 701 student difference.

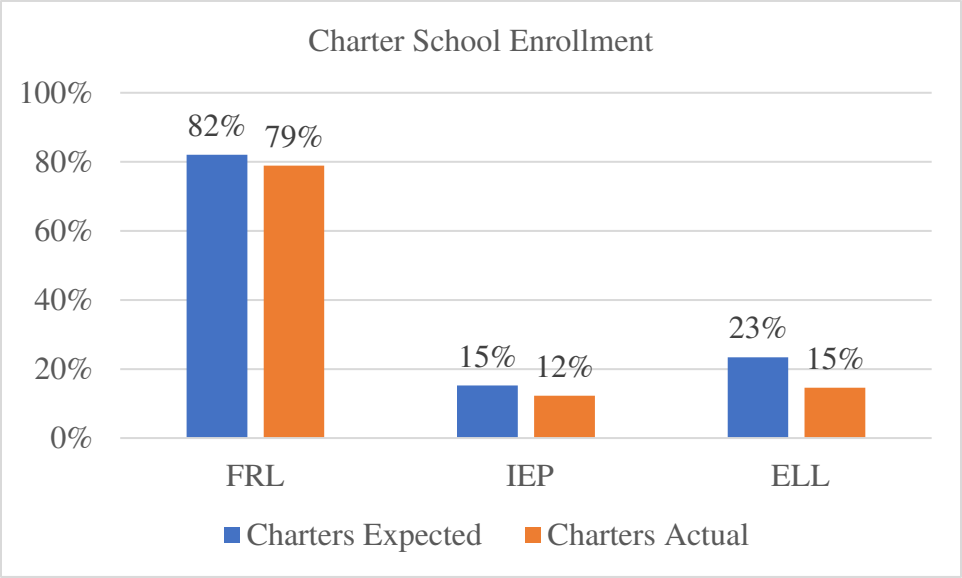
Figure 26. *Charter School Impact by Student Type for Sending Districts*



(State of Rhode Island Department of Education, 2024a)

While these differences may not be significant with a combined student population of over 40,000, the reverse is true for charter schools. As previously mentioned, total charter school enrollment in FY 2018 was 8,002 students (Rhode Island Department of Elementary and Secondary Education, n.d.). Due to the smaller populations in charter schools, the differences between the expected student enrollment and the actual student enrollment are more pronounced (see Figure 27).

Figure 27. *Charter School Enrollment Difference Between Actual and Expected*



(State of Rhode Island Department of Education, 2024a)

The City of Providence had a total of 27,813 students during FY 2018, of which 84% or 23,370 qualified for FRL. After factoring in charter school migration, the Providence Public School District (PPSD) enrolled 23,143 students from the City of Providence, of which the proportion of FRL students was 84.7%. A similar outcome can be found in IEP and ELL students, where the proportions of these students increased in PPSD because of charter schools (see Table 11).

Table 11. *Providence Actual and Expected FY 2018 Enrollments*

	Students	FRL	IEP	ELL
Providence	27,813	23,370	4,097	7,496
		84.03%	14.73%	26.95%
	Students	FRL	IEP	ELL
PPSD Net Charter (Actual)	23,143	19,611	3,553	6,795
		84.74%	15.35%	29.36%
PPSD Net Charter (Expected)	23,143	19,446	3,409	6,237
		84.03%	14.73%	26.95%
Difference in students		165	144	558
Difference as a percentage		0.85%	4.22%	8.94%

The differences between the actual charter school migration and the expected are displayed in Table 11. This information was then used to recalculate the average scale scores based on a different hypothetical student composition. Despite having several hundred fewer disadvantaged students in this simulation, the difference on each of the assessments is not statistically significant. In terms of total score, all scores are within half a point, with the exception of SAT Reading and Writing and SAT Math for the ELL populations. In these two instances, Providence's scores for those student populations would have been two points higher, but their overall average remains unchanged. When performing a chi-square test to determine if observed values are significantly different from expected values, the $p = 1$, and the chi-square value $X^2 = 0.006$, which is not significant with a p value less than 0.05.

Table 12. *FY 2018 SAT and RICAS Scores for Providence by Student Type*

Providence	Actual	Expected	Difference
RICAS ELA - ELL	476.58	476.89	-0.31
RICAS ELA - FRL	476.1	476.16	-0.06
RICAS ELA - IEP	476.34	476.45	-0.11
RICAS Math - ELL	474.66	474.97	-0.31
RICAS Math - FRL	474	474.1	-0.1
RICAS Math - IEP	474.53	474.64	-0.11
SAT Math - ELL	423.05	425.12	-2.07
SAT Math - FRL	422.84	423.11	-0.27
SAT Math - IEP	423	423.42	-0.42
SAT ELA - ELL	435.66	437.69	-2.03
SAT ELA - FRL	435.84	436.1	-0.26
SAT ELA - IEP	435.4	435.8	-0.4

The City of Central Falls had a total of 4,113 students during FY 2018. Significantly, almost 40% of Central Falls students enrolled in charter schools. Again, in all cases of types of disadvantaged students, the proportions remaining in the Central Falls School District were higher after students left to charter schools.

Table 13. *Central Falls (CF) Actual and Expected Student Enrollment*

	Students	FRL	IEP	ELL
Central Falls	4113	3754	805	1148
		91.27%	19.57%	27.91%
	Students	FRL	IEP	ELL
CF Net Charter (Actual)	2616	2463	576	839
		94.15%	22.02%	32.07%
CF Net Charter (Expected)	2616	2388	512	730
Difference in students		75	64	109
Difference as a percentage		3.16%	12.50%	14.91%

The differences between the actual charter school migration and the expected results are displayed above. This information is then used to rerun the average scale scores based on a different student composition. Despite having a higher percentage of disadvantaged students, the difference on the average scale scores of the assessments is not statistically significant. In terms of total score, all scores are within half a point, except for SAT Reading and Writing and SAT Math for the ELL populations, as well as RICAS Math FRL, which had an inverse result. In this case, the FRL students slightly outperformed the non-FRL students (see Table 13). In these two instances, Central Falls's scores for those student populations would have been almost two and a half points higher, but their overall average remains unchanged. The sample sizes for SAT Math and SAT Reading and Writing were less than 10, and as such, the data are suppressed to preserve individual student privacy.

Table 14. *SAT and RICAS Scores for Central Falls by Student Type*

Central Falls	Actual	Expected	Difference
RICAS ELA - ELL	473.47	473.97	-0.5
RICAS ELA - FRL	473.85	473.74	0.11
RICAS ELA - IEP	473.73	474.2	-0.47
RICAS Math - ELL	469.58	470.06	-0.48
RICAS Math - FRL	469.55	469.31	0.24
RICAS Math - IEP	469.36	469.76	-0.4
SAT Math - ELL	373.74	376.1	-2.36
SAT Math - FRL	Data Suppressed		
SAT Math - IEP	391.84	392.64	-0.8
SAT ELA - ELL	382.03	384.52	-2.49
SAT ELA - FRL	Data Suppressed		
SAT ELA - IEP	401.52	402.24	-0.72

Lastly, the City of Pawtucket had 10,589 school-aged children in FY 2018. Of the total population, 7,750 or 73.2% qualified for FRL. After factoring in charter school

migration, the Pawtucket district enrolled 6,489 FRL students or 74.1% of total enrollment. Just like in Providence and Central Falls, all three types of disadvantaged students had higher proportions than before charter school migration.

Table 15. *Pawtucket Actual and Expected Student Enrollment*

	Students	FRL	IEP	ELL
Pawtucket	10589	7750	1572	1297
		73.19%	14.85%	12.25%
	Students	FRL	IEP	ELL
Net Charter	8754	6489	1364	1137
		74.13%	15.58%	12.99%
	Students	FRL	IEP	ELL
Pawtucket	8754	6407	1300	1072
		73.19%	14.85%	12.25%
Difference in students		82	64	65
Difference as a percentage		1.28%	4.96%	6.04%

The differences between the actual charter school migration and the expected enrollment are displayed above. This information is then used to rerun the average scale scores based on a different student composition. Of the three communities, Pawtucket is the least affected in terms of total number or percentages of disadvantaged students as compared to Central Falls and Providence. The difference on any of the assessments is not statistically significant. In terms of total score, all scores are within half a point.

Table 16. *SAT and RICAS Scores for Pawtucket by Student Type*

Pawtucket	Actual	Expected	Difference
RICAS ELA - ELL	482.2	482.32	-0.12
RICAS ELA - FRL	482.62	482.69	-0.07
RICAS ELA - IEP	482.63	482.79	-0.16

RICAS Math - ELL	481.11	481.23	-0.12
RICAS Math - FRL	480.61	480.68	-0.07
RICAS Math - IEP	480.61	480.78	-0.17
SAT Math - ELL	414.37	414.75	-0.38
SAT Math - FRL	414.59	414.88	-0.29
SAT Math - IEP	414.52	415.04	-0.52
SAT ELA - ELL	427.53	427.91	-0.38
SAT ELA - FRL	427.15	427.52	-0.37
SAT ELA - IEP	427.43	427.8	-0.37

Chapter V

CONCLUSION

Overview

With the State of Rhode Island spending billions of dollars on K-12 education annually, despite declining student enrollment, this study analyzed the State's return on investment. This research reviewed the State's investment in charter school funding using three metrics: statewide funding (efficiency), enrollment (equity), and assessment (effectiveness). Each metric has robust public data, which allows for direct comparison and analysis of this educational problem. The goal of this policy analysis was to analyze the allocation of Rhode Island's State education aid.

Results Summary

Based on the data evaluated and the results of three chi-squared tests, the null hypothesis is not rejected. While in almost all cases there was a slight deviation in scoring on the RICAS and SAT between CPP and what the scores would have been hypothetically, if the charter students had attended the traditional school districts, none of the results were statistically significant. A slight funding shift was determined when reanalyzing the PPE. This occurs because the cost to educate special education students is greater than non-special education students. Providence, Pawtucket, and Central Falls would have ended up with an additional $687,312, $507,520, and $209,216 in additional total funding if students were not attending charter schools in municipalities. Converted to PPE, this would provide Providence with an additional $29.69 per student, Pawtucket

with $57.97 per student and Central Falls with $79.97 per student. Performing a return on investment calculation makes these communities slightly more efficient but is not enough to unequivocally state that this funding alone would have also provided a higher result for CPP. However, this part of the study was limited to FY 2018 data and should be replicated in the future before the study results can be generalized, as the total number of students enrolling in charter schools in Rhode Island will likely double over the upcoming years. With the ESSER federal funds expiring in Fall 2024, both municipalities and districts will need to pay close attention to expenditures that have been temporarily addressed by the influx of COVID-related funding. From the perspective of the sending district, the State allowing students to enroll in charter schools does not appear to significantly impact test results or indicate a negative return on investment. The student body composition of charter schools should be closely monitored in the years to come, as the delta between general and disadvantaged students has been growing, and presumably will continue to increase so long as charter schools continue to disproportionately enroll general instead of disadvantaged students.

At least as of FY 2018, the State's return on investment, from an equity, effectiveness, and efficiency perspective did not yield negative results. While sending districts lost resources and a disproportional number of general education students, the impacts on students' academic outcomes appeared to be negligible. However, with an overall downward trajectory of student numbers Statewide and an increase in charter school expansion, student outcomes warrant monitoring in future years. Many districts in Rhode Island are beginning to layoff teachers, guidance counselors, and other staff as ESSER funds expire on September 30, 2024. With a high likelihood of fewer students,

fewer resources, and a larger concentration of disadvantaged students in the traditional school districts over the next several years, charter school investments may yield different results.

Equity

The first hypothesis that charter schools cause segregation of disadvantaged students appears to be correct. Enrollment data indicate that charter schools enroll more disadvantaged students than traditional school districts in aggregate. However, over 75% of charter schools enroll from three municipalities: Central Falls, Pawtucket, and Providence. As such, this research focused on these three communities, which also represent the lowest academically performing districts in the State and the LEAs with the largest percentage of minority and disadvantaged students. Specifically, the proportions of ELL and special education students were significantly higher in the sending CPP districts than the charter schools. If the State required random assignment of charter school seats, we would expect that charter school enrollment would mirror or closely align with the student body composition of sending districts. In practice, parents must actively apply to or opt into a charter school. This policy makes it likely that only students with engaged parents invested in their educational outcomes, and able to navigate the charter school lottery process, are considered for charter schools. Families, especially newly arrived immigrants, may not be aware of educational choices other than the traditional school district. Moreover, charter schools may not be equipped to accommodate special education students with complex needs, who then largely remain in traditional districts.

Efficiency

The impact of charter schools from a financial perspective is undeniable. In FY 2022, over $181 million dollars were diverted to charter schools in the form of tuition payments and direct State aid payments. On March 1, 2024, the Providence Public School District (PPSD) sent displacement notices to 20% of all teachers, due to the expiration of ESSER funding and declining enrollments. Over $100 million of funds sent to charter schools would have otherwise gone to PPSD. There is no guarantee that PPSD would have made better decisions or use of this money had it not gone to charter schools. However, as the PPSD student population is expected to decline to 16,500 in the year 2029-2030, while the charter enrollment will continue to grow, the long-term fiscal impact to the district will be undeniable.

Effectiveness

While these three districts perform lower than charter schools, as measured by star ratings and assessment results, and their scoring was negatively associated by charter school enrollments, the results were not statistically significant. Even in the most extreme cases of a 2-point variation in the average scale score, most students would have remained in the not proficient category. These three communities face other challenges such as having the least expensive rents and property values, which limits local support, as well as the highest concentration of disadvantaged students (specifically FRL and ELL). While charter schools do not take their "fair share" of these types of students, they do not appear to meaningfully negatively impact academically the three sending districts. With the amount of students enrolling in charter schools projected to double by 2025, statewide enrollments continuing to decline, and the upcoming expiration of federal

dollars, the State should observe the impact of lower cost students leaving and creating a greater proportion of disadvantaged students in the already struggling districts. While this research did not necessarily find that this occurred during the period observed, this will become more high stakes in the upcoming decade. Providence Public School District is expected to have a 32% student enrollment decline between 2019 and 2029, while charter schools will increase by equal amounts.

In states with declining student populations, the impact is a zero-sum game as students that enroll in charter schools impact sending districts. While outside the scope of this research project, it is important to note that enrollments have continued to decline, and the number of LEAs have continued to increase. In FY 2022, total statewide enrollment declined to 138,566 students while charter schools were approved to enroll additional students. Overall, statewide enrollments have declined by 20,809 students or 13% between FY 2004 and FY 2022, yet the State has more buildings and school administrators in 2022 serving fewer students (Rhode Island Department of Elementary and Secondary Education, n.d.). Charter schools operate as parallel school districts within a municipality, and like traditional districts, charter schools also require administration, facilities, and other non-instructional expenditures to operate effectively. Resources, including both monetary and human capital, are necessary to improve teaching and learning. Rhode Island, like many states, also has a teacher shortage. Districts and charter schools compete for the same pool of students. Understanding the full impact on sending districts will be useful from an efficiency perspective as the State funds the majority of the cost. Ultimately, the State's education funding return on investment is measured by student outcomes and performance, and charter schools produce better outcomes than the

three CPP sending districts. When calculating a hypothetical set of test scores, the districts based on an expected enrollment — which would send additional disadvantaged students to charter schools — the new average scale scores were slightly higher though not statistically significantly higher, and students would have still been considered on average "partially meeting expectations" or not proficient.

While various statewide assessment measures have been used over the past decade, the Rhode Island Department of Education has identified several "failing" or "lowest performing" charter schools. From a public resource investment perspective, in these cases, diverting limited educational dollars to low performing charter schools may not be the optimal use of educational funds.

Limitations to the Study

The data analyzed as part of this study were primarily between FY 2010 and FY 2019, in part to capture a decade of information and avoid data obtained during the COVID pandemic. Additionally, the effectiveness or assessment focus was on a single year, FY 2018. This allowed for an in-depth analysis of the assessment data. The study also focused on the educational impact from the perspective of sending districts, rather than the outcomes of the charter schools. Charter schools in Rhode Island typically expand by one grade at a time, starting at kindergarten. As a result, many of them had sample sizes less than 10 students for each of the categories. This data is suppressed at the State level so that it is not identifiable. Beginning in 2024, many of these schools will have full enrollments and can be analyzed via the same return on investment metric.

While over 75% of all students that enroll in charter schools across the state come from CPP, this research does not include the other 25% of charter school students that

come from the other cities and towns in Rhode Island. There are several high performing traditional districts such as Cumberland, Lincoln, and South Kingstown with 4- and 5-star schools that lose hundreds of students and millions of dollars to lower performing charter schools. These traditional school districts are smaller in scale and not as significant, in terms of total dollars, when compared to Central Falls, Pawtucket and Providence. Moreover, the charter schools that these communities send students to were approved prior to 2016, before recent legislative changes required the City or Town Council to approve a charter school. This change in statute has effectively limited the creation of any new schools in any community where the local funding share is larger than the state funding share, because city/town councils are less concerned with State funds than with local funds. Thus, the impact to the wealthier communities is capped, whereas the impact on Central Falls, Pawtucket and Providence will likely continue to grow. Additionally, because the number of charter schools that can open are set in State statute, and the State is approaching the cap, the Rhode Island Department of Education is also prioritizing the creation of charter schools that pool from low performing districts. The combination of these factors strongly suggests that all future charter school approvals will be limited to these three communities.

Recommendations for Future Research

With charter school enrollments continuing to increase (over 13,000 students in FY 2024, up from 8,800 in FY 2018), continually assessing the State's educational investments will be important. Further, all recent charter school applications for additional seats continue to focus on Central Falls, Pawtucket and Providence. The amount of funding these communities send to charter schools will continue to grow in the

subsequent years, while the municipalities already underfund the traditional school districts. Future research should repeat the analysis conducted in this study using analysis FY 2024 assessment data, as the effects of COVID have lessened in the three to five years after the pandemic began. This FY 2024 assessment information will be available in October 2024. Many of the charter schools did not have enough students to have their results published and should also have these data available then. This will allow the study to determine whether charter school assessment data is inflated because of the specific types of students they enroll. With a larger portion of students enrolling in charter schools, and an observable trend that a greater proportion of disadvantaged students are remaining in the sending districts, this information should be reviewed on an ongoing basis.

Policy Implications

The timeliness of this information will be valuable to decision makers in the upcoming years, which is especially critical now that temporary ESSER funding will expire in September 2024. These resources have allowed districts to avoid making budgetary cuts over the last four years, despite declining enrollments. In Spring 2024, the Providence Public School District laid off over 300 employees in order to balance the budget. For the first time in history, the Providence City Council is beginning to question continually approving charter schools.

The Rhode Island General Assembly has committed to revisiting the funding formula during the 2025 session. Based on this research, the following recommendations will be provided to them.

First, lower the high-cost special education categorical cost threshold to three times the core amount and provide full funding. This recommendation accomplishes two things. The percentage of special education students is growing in traditional districts, but not in charter schools. By providing this funding, it minimizes the debate about charter schools and traditional school districts and their enrollment patterns. The high-cost students would be fully funded by the state, regardless of where they attend. The second benefit is that it addresses a disincentive that currently exists regarding special education. The districts that best support special education students become more desirable to those that seek these services, which means more families move into these communities. Costs for these students are greater than for general students, and at the moment, this cost is primarily borne by the municipality.

Second, mirror Massachusetts' charter school transition aid. This allows the state to provide additional funding to the district that loses a student to a charter school. Under the existing policy, an elementary school that loses three students from 4th grade class, and now has 21 students instead of 24, still has the same amount of fixed costs despite $60,000 less revenue. A three-year funding transition allows the traditional districts to better plan or seek additional funding from the municipality.

Third, ensure that all new charter applications and renewals require a minimum enrollment of ELL students. This is the fastest growing segment of students in Rhode Island. The largest disparity in enrollments between charter schools and CPP are in this category. Providence is projected to have 50% ELL enrollment in 2030, and the charter schools that pool from this population should also have a similar proportion. During the 2024 General Assembly session, the legislature amended to include a new factor of 20%

additional aid for ELL students (The Education Equity and Property Tax Relief Act, 2024). Charter schools will receive more funding if they enroll more ELL students.

Fourth, modify the existing accountability ratings to calculate funding for ELL students separately. The current structure creates a disincentive for enrolling ELL students. Charter schools who rely on star ratings to attract new families are less likely to enroll ELL students that may lower their scores. This occurs because the current structure in Rhode Island scores schools at the lowest of their factors, based on the various subgroups (general, IEP, FRL, and ELL). However, only in cases where the sample size is greater than 10 per grade does this subgroup get included in the calculation. During fall of 2023, traditional high schools in Providence, Lincoln and Middletown had enough ELL students to qualify in their calculation. These schools went from 4 and 5 stars down to 2 stars. Reporting ELL students separately ensures an apples-to-apples comparison between schools in the state (i.e., between those with MLL students and those without) and reduces disincentive any disincentive that a charter school might have to enrolling these students.

Closing Remarks

Charter schools are here to stay, as they have become part of the nation's and State's educational fabric. The concept of school choice is difficult to argue against, as long as "failing" schools and districts persist. In these cases, charter schools provide an alternative for families that would otherwise send their children to low performing schools. Without an option, many of the systemic issues in our country become cyclical: low-income individuals are often limited to living in certain communities that do not provide access to high quality schools. As educational outcomes are directly tied to

college and career readiness, students attending low performing schools are more likely to have lower future earning potential. These future parents will then be limited in where they can live and where their children will go to school, repeating the cycle.

While this research found that charter schools diverted hundreds of millions of dollars from traditional districts, it did not find that charter schools likely negatively impacted the assessment results (average scale scores) of Central Falls, Pawtucket, and Providence. In certain cases, the assessment results of several charter schools are commendable, based on a high proportion of disadvantaged students. For a variety of reasons, they garner higher student performance than even traditional districts with lower proportions of disadvantaged students. However, this research does not confirm that charter schools are an ideal use of educational dollars or the optimal approach to improving student outcomes.

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Appendix A

2017-2018 Per Pupil Expenditures by Local Education Agency (LEA)

2017-2018	
Academy for Career Exploration (ACES)	$17,412
Achievement First Rhode Island	$16,283
Barrington	$15,000
Beacon Charter School	$12,379
Blackstone Academy	$13,524
Blackstone Valley Prep	$12,690
Bristol Warren	$17,362
Burrillville	$15,316
Central Falls	$16,825
Chariho	$17,486
Coventry	$15,357
Cranston	$15,896
Cumberland	$13,705
Davies Career and Tech	$20,250
East Greenwich	$15,677
East Providence	$16,902
Exeter-West Greenwich	$19,326
Foster	$17,982
Foster-Glocester	$17,686
Glocester	$16,909
Highlander	$15,824
International Charter	$14,550
Jamestown	$20,807
Johnston	$18,099
Kingston Hill Academy	$15,388
Learning Community	$16,844
Lincoln	$17,355
Little Compton	$24,759
MET Career and Tech	$18,327
Middletown	$17,796
Narragansett	$21,634
NEL/CPS Construction Career Academy	$15,776
New Shoreham	$41,339
Newport	$20,624
North Kingstown	$16,748
North Providence	$16,125
North Smithfield	$15,151
Paul Cuffee Charter Sch	$15,820
Pawtucket	$14,878

Portsmouth	$16,360
Providence	$17,550
R.I. Sch for the Deaf	$117,693
Rhode Island Nurses Institute Middle College	$14,403
RISE Prep Mayoral Academy	$11,593
Scituate	$17,311
Segue Institute for Learning	$16,404
Sheila Skip Nowell Leadership Academy	$15,423
Smithfield	$16,671
South Kingstown	$19,739
SouthSide Charter School	$16,394
The Compass School	$15,621
The Greene School	$15,651
The Hope Academy	$11,720
Times2 Academy	$14,911
Tiverton	$17,278
Trinity Academy for the Performing Arts	$16,461
Urban Collaborative	$18,577
Village Green Virtual	$13,080
Warwick	$19,335
West Warwick	$16,197
Westerly	$20,857
Woonsocket	$14,367

Appendix B

Definitions of Common Terms

Charter School: Rhode Island's charter schools are public schools authorized by the State of Rhode Island to operate independently from many state and local district rules and regulations. Each charter public school is able to establish educational strategies that meet the specific student achievement goals and objectives outlined in each school's charter.

Disadvantaged Students: Students whose ability to learn is hindered by conditions outside of their control. This term includes receiving special education services and/or free/reduced price lunch, and English language learners.

District Charter School: Established by an existing district, using public school personnel and collective bargaining agreements. The district charter school operates within a public school district.

English Language Learner (ELL): Also known as limited English proficient (LEP), or multilingual learner (ML). These are students whose first language is not English.

Free and Reduced Lunch (FRL): Students from low-income families may qualify for free or reduced lunch prices.

Independent Charter School: Established by non-profit organizations and operate outside of the traditional school district.

Local Education Agency (LEA): Encompasses traditional districts, charter schools, state schools, and collaboratives.

Mayoral Charter School: Established by mayor or elected town administrators, who serve as the chair of their school board. Mayor charter schools may elect to opt out of

statutory requirements to pay prevailing wages, retirement or provide teachers with tenure.

Non-Charter School: Traditional districts, state schools, and collaboratives.

Non-Instructional Expenditures: Educational expenditures not directly tied to teaching and learning. Examples include school administration, custodial services, utilities, food service, guidance counselors, and building upkeep.

Resident Average Daily Membership (RADM): The number of days that the students are enrolled members of the local education agency (LEA), regardless of attendance; RADM is a full-time equivalent (FTE) count grouped by resident community.

School Choice: Allows students to attend LEAs other than their local school district. This can include public charter schools, state schools, neighboring school districts, career and technical centers, home school, or collaboratives. Some states provide vouchers that subsidize or cover the cost of tuition of independent private and parochial schools.

Special Education (IEP): Also known as differently abled (DA). Students that receive special education services require additional attention or individual education plans (IEP) to succeed.

State Education Aid Funding Formula: The formula includes a core instruction amount for all students, which funds several academic components of the student's day; a poverty factor adjustment to the core, which provides additional funding to support student needs beyond core services; and a state share ratio, which is calculated using municipal property values, median family income, and student poverty status. All data elements are recalculated annually.

Uniform Chart of Accounts (UCOA): The UCOA standardized account-code structure allows every district, charter public school and state operated school to use the same account codes and methods for tracking revenue and expenses in their daily accounting. This not only allows for an apples-to-apples comparison between districts, but also helps districts in their financial decision-making processes to ensure that their investments are driven toward improving instruction and advancing learning (State of Rhode Island Department of Education, 2024b).

Appendix C

Uniform Chart of Accounts, Account Structure

Segment	Description	Numbering Methodology Rules	Length	Reportable	Optional
1	ID Field	User-defined	1		1
2	Fund/Subfund	Fixed	8	8	
3	Location	Fixed and Validated	5	5	
4	Function	Fixed	3	3	
5	Program	Fixed	2	2	
6	Subject	Fixed and Validated	4	4	
7	Object	Fixed and User-defined	5	5	
8	Job Classification	Fixed and Validated	4	4	
9	District Defined	User-defined	2 - ??		2 - ??
	TOTAL		34 - ??	31	3 - ??

The content of each Segment and examples of each are provided below:

Description	Contents	Examples
ID Field	User-defined	
Fund	Type of Source of money	Federal or State Agency
Sub-Fund	Source of money	Title 1, Rhode Island Foundation
Location	School or Department for which money is being used	ABC Elementary, Superintendents Office
Function	Activity for which money is being used	Face-to-Face Teaching, Transportation
Program	Broad Objective for which money is being used	Regular Education, Special Education

Description	Contents	Examples
Subject	Curriculum or Detailed Objective for which money is being used	Foreign Language, Baseball, and Chorus
Object	Budget Classification for which money is being used	Assets, Liabilities, and Equity; Local Taxes, Grants, and Food Services; and Salaries, Benefits, and Telephone
Job Classification	Job Classification for which money is being used for Compensation and Benefits only	Teachers, Aides, Principals, Controllers, and Custodians
District Defined	User-defined	

Appendix D

IRB Exempt Approval

Institutional Review Board (IRB)
for the Protection of Human Research Participants

Graduate Student Research
IRB Oversight Screening Determination Report

Project Title: RI's Charter School Investments.

Name: Mario Carreno

Department: Public Administration

E-mail: mcarreno@valdosta.edu

Telephone: 305-773-1428

Faculty Advisor: Dr. Nandan Jha

Please indicate the academic purpose of the proposed research:

- ☒ Doctoral Dissertation
- ☐ Master's Thesis
- ☐ Other:

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*You answered "**NO**" to all questions on the IRB Oversight Screening Form; therefore, your research **is not** subject to IRB oversight. A copy of this report should be included as part of the dissertation documents.*

1. ☐ **YES** ☒ **NO** **Will you utilize *existing identifiable private* information about living individuals?** "Existing" information is data that were previously collected for some other purpose, either by the researcher or, more commonly, by another party. "Identifiable" means that the identities of the individuals can be ascertained by the researcher by name, code number, pattern of answers, or in some other way, regardless of whether or not the researcher needs to know the identities of the individuals for the proposed research project. "Private" information includes information about behavior that occurs in a context in which an individual can reasonably expect that no observation or recording is taking place or information provided for specific purposes that the individual can reasonably expect will not be made public (e.g., a medical record or student record).

Note: If you are using data that: (1) are publicly available; (2) were collected from individuals anonymously (i.e., no identifying information was included when the data were first collected); (3) will be de-identified before being given to the researcher, (i.e., the owner of the data will strip identifying information so that the researcher cannot ascertain the identities of individuals); or (4) do not include any private information about the individuals, regardless of whether or not the identities of the individuals can be ascertained, your response to Question 1 should be NO.

2. ☐ **YES** ☒ **NO** **Will you *interact* with individuals to obtain data? "**Interaction" includes communication or interpersonal contact between the researcher and the research participant, such as testing, surveying, interviewing, or conducting a focus group. It does not include observation of public behavior when the researcher does not participate in the activities being observed.

3. ☐ **YES** ☒ **NO** **Will you *intervene* with individuals to obtain data? "**Intervention" includes manipulation of the individual or his/her environment for research purposes, as well as using physical procedures (e.g., measuring body composition, using a medical device, collecting a specimen) to gather data for research purposes.

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Elizabeth W. Olphie 10.03.2023

Elizabeth W. Olphie, IRB Administrator Date

Thank you for submitting an IRB application.

Please direct questions to irb@valdosta.edu or 229-259-5045.