

BUILDING A STRONG ADEQUACY CLAIM: AN EMPIRICAL ANALYSIS OF THE ROLE OF SCHOOL FACILITIES IN SCHOOL FINANCE LITIGATION SINCE 1989

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I. INTRODUCTION

Public education in the United States is a cornerstone of the nation's democracy¹ and serves as the infrastructure designed to support the economy and quality of life in the United States by helping to develop an educated populous.² But students' academic success and their ability to engage in the learning process is predicated upon feelings of safety.³ The role of the school facility in contributing to or diminishing the overall feelings of safety, well-being, and academic progress is extensively documented.⁴ Examples of how a school facility contributes, either positively or negatively, to the feelings of safety and well-being include indoor air quality, ventilation, heating, cooling, lighting, acoustics, and age of the building.⁵

On a typical school day, roughly one in five people in America step foot inside a school building.⁶ However, not all school facilities are created equally. The dispersity in the overall quality of school buildings between school districts is a result of numerous factors, with local fiscal capacity, in terms of net assessed value of the school district, being paramount. The money necessary for new school building construction and renovation of

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¹ Derek W. Black, *Schoolhouse Burning: Public Education and the Assault on American Democracy* 12 (2020).

² Kern Alexander & M. David Alexander, *American Public School Law* 32 (9th ed. 2019).

³ Carolyn Côté-Lussier & Caroline Fitzpatrick, *Feelings of Safety at School, Socioemotional Functioning, and Classroom Engagement*, 58 *J. Adolescent Health* 543, 544 (2016).

⁴ Mark Schneider, Nat'l Clearinghouse for Educ. Facilities, *Do School Facilities Affect Academic Outcomes?* (Nov. 2002), <https://files.eric.ed.gov/fulltext/ED470979.pdf> [<https://perma.cc/65WT-HQTR>]; see also Mary W. Filardo, Jeffrey M. Vincent, Ping Sung & Travis Stein, *Building Educ. Success Together, Growth and Disparity: A Decade of U.S. Public School Construction* (Oct. 2006), <https://files.eric.ed.gov/fulltext/ED498100.pdf> [<https://perma.cc/29DN-2Y9S>]; Edward Brooks & Spencer C. Weiler, *The Relationship Between the Condition of Colorado Elementary School Facilities and Student Achievement*, 43 *J. EDUC. FIN.* 397 (2018).

⁵ Schneider, *supra* note 4, at 1.

⁶ *Id.*; see also JOSHUA KARLINER, GREEN SCHS INITIATIVE, *THINKING BIG ABOUT ECOLOGICAL SUSTAINABILITY, CHILDREN'S ENVIRONMENTAL HEALTH AND K-12 EDUCATION IN THE USA* 3 (2005), <http://greenschools.net/downloads/little%20green%20schoolhouse%20report.pdf> [<https://perma.cc/AV2A-U7M9>].

existing facilities “comes mainly from voter-approved bond issues.”⁷ As evidence of the disparity of school buildings between school districts, “[t]he American Society of Civil Engineers (ASCE) rates the infrastructure of public schools a ‘D’ (on a graded scale of A–F) and estimates the investments needed to upgrade and properly maintain public schools is \$270 billion or more.”⁸ These infrastructure issues create inequitable learning environments, negatively impact students’ health, perpetuate unsustainable construction practices, and contribute to “society’s broader environmental and health problems.”⁹

The fact is that money spent on renovation of existing school buildings and construction of new facilities is not evenly distributed among all school districts. Instead, property-wealthy school districts typically enjoy an embarrassment of riches and have few concerns with existing facilities while property-poor school districts are forced to maintain outdated facilities since replacement or renovation is not a realistic option. This inequitable distribution of resources for facility construction and renovation leads to “the forgotten side of education funding equity—the funding of the physical environment of schools in which students learn.”¹⁰

Advocates of public education seeking to address issues of “education funding equity”¹¹ have repeatedly turned to lawsuits, in the form of school finance litigation, to seek redress. Periodically, these claims include references to facility conditions, but what is not clear is how helpful the addition of facility-related evidence in school finance litigation is in producing a victory for the plaintiffs. This study seeks to fill this gap in the collective understanding of the role of school facility conditions in school finance litigation. It measures the influence of facility claims in school-finance litigation since 1989¹² through the use of odds ratio analysis¹³ in order to answer the research question: What role do school facilities play in the outcome of school finance lawsuits during the third wave (1989 to present)?

The Article is divided into six parts. We first discuss the current state of school facilities across America. Next, we review the connection between school facilities and students receiving an adequate education. Then, we summarize landmark federal Supreme Court decisions that include references to school facilities. At this point, we explain the methodology used in this empirical study and present the findings. The findings are followed by a detailed examination of specific school finance litigation

⁷ Elizabeth Plummer, *The Effects of State Funding on Property Tax Rates and School Construction*, 25 *ECON. EDUC. REV.* 532, 532 (2006) (stating that “property tax revenues are used to cover the debt service costs . . . associated with these bonds”); *see also* SPENCER C. WEILER & GABRIEL R. SERNA, *PRACTICAL STRATEGIES FOR APPLIED BUDGETING AND FISCAL ADMINISTRATION: WHAT WORKS FOR P-12 ADMINISTRATORS* 131 (2016).

⁸ Kristine C. Hurtado, Jake B. Smithwick, Anthony E. Pesek & Kenneth T. Sullivan, *Public School Facility Underfunding: A New Tool to Maximize Construction Dollars and Improve Performance Outcomes*, 14 *INTL. J. CONSTR. EDUC. & RSCH.* 218, 218 (2018).

⁹ KARLINER, *supra* note 6, at 3.

¹⁰ *See* Faith E. Crampton, David C. Thompson & Randall S. Vesely, *The Forgotten Side of School Finance Equity: The Role of Infrastructure Funding in Student Success*, 88 *NASSP BULL.* 29, 29 (Sept. 2004).

¹¹ *Id.*

¹² 1989 is seen as the year the third wave of school finance litigation began.

¹³ For an explanation of an odds-ratio method and its particular benefits for a study of this nature, see *infra* Section IV.B.

where the conditions of school facilities are central to the plaintiffs' claims. Finally, we discuss the implications of these findings.

II. THE CURRENT STATE OF SCHOOL FACILITIES

In 2018, 53% of public schools in America required “repairs, renovations, and modernization, with the estimated cost of these needs totaling \$197 billion, or \$4.5 million per school.”¹⁴ However, property-poor school districts—or school districts with an inadequate net assessed value of the taxable portion of all the properties within their boundaries—struggle to generate the local revenue necessary to pay for the needed renovations or replacements. The disparity in opportunities between property-wealthy and property-poor school districts leads to “fundamental issues of equity across schools and school districts.”¹⁵ To better understand these issues of equity related to school facilities, we will review research on school facilities that is published every ten years and explain the inherent inequitable nature to school-facility funding.

A. SCHOOL FACILITIES: 2006

Every ten years, 21st Century School Fund reports on the state of facilities to capture the current investments in school facilities and to understand the issues with how school facilities are funded in order to influence future statutes, policies, and practices.¹⁶ The reports from 2006 and 2016 are summarized below to provide a degree of context over time related to the state of facilities in the United States.

The 2006 21st Century School Fund report first identified that school facilities are inadequately funded based on the following data. In the mid-1990s, “the General Accounting Office (GAO) estimated that \$112 billion was needed to bring the nation’s school facilities into good repair.”¹⁷ By 2006, the estimated cost soared to \$320 billion.¹⁸ These estimated expenses suggest that, over time, school-district officials are increasingly unable to address immediate facility needs; instead, officials are forced to make do with crumbling buildings.

The 2006 report also states that school districts spent more than \$500 billion on capital expenses.¹⁹ If these dollars were equally distributed across all school districts, then it would only be a matter of time before all school facility needs were properly addressed. However, “these billions of dollars spent on facilities have not been equally available to affluent and low-income communities and for minority and white students.”²⁰

The 2006 report highlights the inequitable nature of funding facility renovation or construction with a number of different and compelling

¹⁴ Hurtado et al., *supra* note 8, at 218.

¹⁵ Cynthia L. Uline & Megan Tschannen-Moran, *The Walls Speak: The Interplay of Quality Facilities, School Climate, and Student Achievement*, 47 J. EDUC. ADMIN. 55, 56 (2008).

¹⁶ See MARY FILARDO, STATE OF OUR SCHOOLS: AMERICA’S K–12 FACILITIES (2016).

¹⁷ *Id.* at 6.

¹⁸ *Id.* at 4.

¹⁹ *Id.* at 9.

²⁰ *Id.* at 4.

figures. First, property-poor school districts,²¹ on average, invest \$4,140 per student in school construction whereas property-wealthy school districts invest \$11,500 per student.²² To give this disparity additional context, the national average for investing in school construction on a per-pupil basis is \$6,519.²³

Property-poor school districts are more likely to spend their capital funds on the most immediate and pressing repairs, such as “roof and boiler replacement, asbestos abatement, and other basic improvements.”²⁴ By contrast, property-wealthy school districts are able to spend their capital funds in ways that enhance students’ educational opportunities. Examples include upgrading “science labs, performing arts centers,” and other similar facilities.²⁵ In short, the 2006 report illuminated inequities in school facilities based on the net assessed value of the school district, and these differences serve to widen the opportunity gap between high- and low-socioeconomic students.

B. SCHOOL FACILITIES: 2016

The 2016 report begins with stressing that public education requires, on average, spending \$99 billion annually on maintenance and operations, renovations, and new construction.²⁶ However, this impressive spending pattern, which was measured over a twenty-year period, is tempered by the fact that the estimated annual cost for needed construction over this same period is \$145 billion, or a gap of \$46 billion per year.²⁷ This gap in spending is resulting in great inequity within public education between property-wealthy and property-poor school districts.

The 2016 report also emphasizes the importance of school facilities in the learning process. Specifically, facility conditions directly impact a student’s ability to learn, the health of students and staff members, and the fiscal health of the school district.²⁸ Truancy and discipline rates are negatively correlated with the condition of facilities—the nicer the building, the lower the truancy and discipline rates.²⁹ However, property-poor school districts continue to struggle to renovate and replace dilapidated facilities, despite the fact that “[n]ext to highways, K–12 public-school facilities are the nation’s largest public building sector.”³⁰

As was identified in the 2006 report, systemic inequities persist in how resources are generated to address facility needs, and these inequities put property-poor school districts at a disadvantage. Specifically, in neighboring school districts, students may experience completely different educational experiences. While some students attend school in a modern facility with state-of-the-art resources, other students are forced to learn “in buildings that

²¹ As measured by median household income by zip code.

²² FILARDO, *supra* note 16, at 24.

²³ *Id.*

²⁴ *Id.* at 22.

²⁵ *Id.*

²⁶ *Id.* at 26.

²⁷ *Id.*

²⁸ *Id.* at 5.

²⁹ *Id.* at 6.

³⁰ *Id.* at 5.

were out of date decades ago and are an embarrassment in the world's richest country."³¹

These data serve to illustrate "large and growing facility needs for elementary and secondary schools across the nation"³² that are directly attributable to the persistently inherent inequities in the funding system for school facilities.³³ Although states have, in recent years, decreased reliance on local funding for school facilities by actively providing aid to property-poor school districts,³⁴ "[e]ffectively addressing the shortfalls and inequities will require disrupting traditional approaches to planning, managing, and funding public school facilities."³⁵

The 2016 report concludes with the following aspirational statement related to school facilities: "[S]chool facilities that meet the needs of today's students, in every community, and for generations to come."³⁶ The realization of this aspiration is predicated upon reform to the funding mechanism instituted across America to finance public school facilities.

C. ISSUES OF EQUITY

Any reform effort designed to address issues of equity in the funding of school facility renovation and construction must tackle the overreliance on local property wealth. In a vast majority of school districts across the United States, school districts are required to unilaterally fund all construction expenses.³⁷ Dependence upon local contributions to fund capital projects creates inequitable learning environments and opportunities for students due to "vast differences in district property wealth within and across states."³⁸ For property-poor school districts, the lack of access to local funding for building needs is compounded by "burgeoning construction costs, increasing student enrollment, and the press for smaller class size."³⁹

Addressing all of the existing school facility issues across the nation would require hundreds of billions of dollars,⁴⁰ presenting a Herculean task well beyond the fiscal capacity of local school districts. As a result of the total amount of money required and in response to litigation,⁴¹ more states are "playing a more active role in assisting school districts" in financing school projects.⁴² State aid to support local school districts with capital expenses typically falls in the following categories: full state funding; equalization grants; general fund aid; and categorical grants.⁴³ However,

³¹ *Id.* at 28.

³² William Duncombe & Wen Wang, *School Facilities Funding and Capital-Outlay Distribution in the States*, 34 J. EDUC. FIN. 324, 324 (2009).

³³ FILARDO, *supra* note 16, at 3.

³⁴ Plummer, *supra* note 7, at 541.

³⁵ FILARDO, *supra* note 16, at 28.

³⁶ *Id.* at 30.

³⁷ Plummer, *supra* note 7, at 532; Crampton et al., *supra* note 10 ("fiscal burden falls largely upon local school districts. Serious inequities are created because school districts must, in general, rely upon local property wealth to raise funds for school infrastructure . . .").

³⁸ Crampton et al., *supra* note 10, at 34.

³⁹ Uline & Tschannen-Moran, *supra* note 15, at 55.

⁴⁰ Plummer, *supra* note 7, at 532.

⁴¹ *Id.* at 541.

⁴² *Id.*; see also Duncombe & Wang, *supra* note 32, at 344.

⁴³ Crampton et al., *supra* note 10, at 35.

despite the increased state efforts to address equity issues related to school facility construction and renovation expenses, “the current level of state funding is insufficient to support local school district infrastructure needs.”⁴⁴ Without addressing these needs, inequities will persist.

Given the blatant inequity issues with the funding for capital expenses, advocates focused on improving educational equity for all students have turned to litigation to correct systemic barriers. A vast majority of school finance litigation focuses on addressing the overall funding for public education. However, claims by plaintiffs specifically focused on school facility concerns occur periodically,⁴⁵ and the impact of these specific claims on court holdings is relatively unexamined territory in the research. School finance claims that underscore facilities may have a persuasive effect on court thinking. Indeed, unlike some of the more policy-driven claims that delve into disciplinary nomenclature of educational policy, claims centered on facilities are familiar to anyone. The inclusion of inequitable capital spending claims in school finance litigation may prove effective at addressing systemic issues because “courts find facilities evidence to be uniquely clear, poignant, and ‘judicially accessible.’”⁴⁶

III. SCHOOL FACILITIES AND ADEQUATE EDUCATION

An investment in human capital, such as teachers and principals, is the most influential way to positively impact student achievement; investments in physical capital, or the specific conditions of the school facility, have been shown to “also make . . . a significant contribution” to students’ academic performance.⁴⁷ Efforts to create healthy learning environments “pay . . . real dividends” in terms of student learning and the health of all who enter the building.⁴⁸ The benefits associated with investing in school facilities are not limited to increased student academic performance. Improved school facilities also positively impact the local amenities through “open play

⁴⁴ *Id.* at 38.

⁴⁵ Duncombe & Wang, *supra* note 32, at 326.

⁴⁶ DAVID G. SCIARRA, KOREN L. BELL, & SUSAN KENYON, SAFE AND ADEQUATE: USING LITIGATION TO ADDRESS INADEQUATE K–12 SCHOOL FACILITIES 4 (2006). As an example, in *Leandro v. State*, 488 S.E.2d 249, 260–61 (N.C. 1997), the judgment included the following:

Plaintiffs complain of inadequate school facilities with insufficient space, poor lighting, leaking roofs, erratic heating and air conditioning, peeling paint, cracked plaster, and rusting exposed pipes. They allege that their poor districts’ media centers have sparse and outdated book collections and lack the technology present in the wealthier school districts. They complain that they are unable to compete for high quality teachers because local salary supplements in their poor districts are well below those provided in wealthy districts. Plaintiffs allege that this relative inability to hire teachers causes the number of students per teacher to be higher in their poor districts than in wealthy districts. Plaintiffs allege that college admission test scores and yearly aptitude test scores reflect both the inadequacy and the disparity in education received by children in their poor districts. Plaintiffs allege that end-of-grade tests show that the great majority of students in plaintiffs’ districts are failing in basic subjects.

⁴⁷ Lorraine E. Maxwell, School Building Condition, Social Climate, Student Attendance and Academic Achievement: A Mediation Model, 46 J. ENV. PSYCH. 206, 207 (2016); see also Faith E. Crampton, Spending on School Infrastructure: Does Money Matter?, 47 J. EDUC. ADMIN. 305, 305 (2009).

⁴⁸ Douglas E. Gordon, Nat’l Clearinghouse for Educ. Facilities, *Green Schools as High Performance Learning Facilities* 1 (Sept. 2010), <https://files.eric.ed.gov/fulltext/ED512700.pdf> [<https://perma.cc/83L8-PN9Q>].

spaces, tracks for running, and perhaps even community meeting spaces,” and all of the benefits increase surrounding property values.⁴⁹

Communities that develop a comprehensive plan to invest in parks, schools, and nature areas see increases in “human health, a cleaner environment, and economic vitality for all.”⁵⁰ School districts interested in investing in physical capital typically have one of three options: bond indebtedness, pay-as-you-go, and sinking funds.⁵¹ However, given the overreliance on local property wealth to fund capital projects, these three funding options are not available to all schools and school districts at the same level. This overreliance on local property wealth creates significant inequities between school districts and adversely impacts conditions of a school facility, student achievement, and local community wealth in property-poor school districts. Too many school buildings in America require renovation and repair: one third of schools report using portable classrooms and a quarter of all schools identify environmental factors as major impediments to instruction and learning.⁵²

To further add to the issue of inequity, these data show a positive correlation between the condition of a school facility and student learning—as the condition of the building increases so does the student achievement.⁵³ Students attending school in modern facilities demonstrate positive perceptions of the school’s culture and have better attendance data.⁵⁴ Creating and maintaining school facilities that result in positive cultural perceptions, greater attendance, and, ultimately, increased academic performance requires resources. As Baker states, “aggregate per-pupil spending is positively associated with improved student outcomes.”⁵⁵

The full ramifications of the inequities of school facilities across school districts illustrate a systemic barrier imposed on certain students based on arbitrary factors, such as zip codes. Specifically, in public education’s current accountability climate, state legislatures expect local educators to meet achievement indicators on end-of-year testing, but these same policymakers rarely hold themselves accountable for providing the physical environment necessary for student achievement.⁵⁶ Or, more succinctly stated, “how can we expect students to perform at high levels in school buildings that are substandard?”⁵⁷

⁴⁹ Bruce D. Baker, *School Facilities Matter! In So Many Ways (How Could They Not?)*, (Aug. 26, 2019), <https://schoolfinance101.wordpress.com/2019/08/26/school-facilities-matter-in-so-many-ways-how-could-they-not/> [<https://perma.cc/8T6R-CDSR>].

⁵⁰ ROBERT GARCIA & AUBREY WHITE, CITY PROJECT, HEALTHY PARKS, SCHOOLS, AND COMMUNITIES: MAPPING GREEN ACCESS AND EQUITY FOR THE LOS ANGELES REGION 9 (2006), https://scag.ca.gov/sites/main/files/file-attachments/thecityprojsouthern_california_report_final_medium_res.2.pdf?1605983124 [<https://perma.cc/5LJ9-5LH2>].

⁵¹ Crampton et al., *supra* note 10, at 34.

⁵² Stephanie Riegg Cellini, Fernando Ferreira & Jesse Rothstein, *The Value of School Facility Investments: Evidence from a Dynamic Regression Discontinuity Design*, 125 Q.J. ECON. 215, 216 (2010).

⁵³ Maxwell, *supra* note 47, at 207.

⁵⁴ See Uline & Tschannen-Moran, *supra* note 15, at 66; see also Maxwell, *supra* note 47, at 212.

⁵⁵ Bruce D. Baker, Learning Pol’y Inst., *How Money Matters for Schools* 1 (Dec. 2017), <https://files.eric.ed.gov/fulltext/ED606469.pdf> [<https://perma.cc/9S95-673A>]; see also Baker, *supra* note 49 (“Newer, more efficient mechanical systems lead to reduced annual operating costs Newer, more adequate and physically appealing facilities improve teacher satisfaction and retention”).

⁵⁶ SCIARRA ET AL., *supra* note 46, at 3.

⁵⁷ Schneider, *supra* note 4, at 1.

IV. LANDMARK SUPREME COURT RULINGS

The condition of public school facilities has arisen in important Supreme Court cases.⁵⁸ We discuss those cases in this part. In particular, we focus on two seminal cases: *Brown v. Board of Education*⁵⁹ and *San Antonio v. Rodriguez*.⁶⁰ Both cases alleged poor conditions and inadequacy of the school buildings as part of their constitutional claims.

A. BROWN V. BOARD OF EDUCATION

In *Brown*, the Supreme Court revisited the legal doctrine of “separate but equal” established under *Plessy v. Ferguson*.⁶¹ *Brown* was not a school finance case, per se, but rather a constitutional challenge to *Plessy*, which permitted state-sanctioned segregation so long as the resources and opportunities were “equal.”⁶² *Brown* involved a consolidation of several cases where either state, statute, or constitutions permitted, or even required, segregation of schools based on race.⁶³ The Court narrowed its focus on the constitutionality of the doctrine set forth under *Plessy* and framed the issue in *Brown* as follows: Does the segregation of children in public schools solely on the basis of race, even though the physical facilities and other “tangible” factors may be equal, deprive the children of the minority group of equal educational opportunities?⁶⁴

The Court answered the question in the affirmative.⁶⁵

Famously, the Court wrote that separate but equal facilities are “inherently unequal.”⁶⁶ Significantly, *Brown* did not engage in an analysis about the condition of the facilities themselves. The Court instead assumed that the findings of the lower courts on this matter, which included those related to the condition of facilities, were valid.⁶⁷ The *Brown* Court’s conclusion and reasoning relied heavily on testimony related to the psychological impact of separating children in public schools on the basis of race.⁶⁸

To be sure, the poor physical conditions of schools played a central role, but differing outcomes in the lower-court decisions⁶⁹ ultimately consolidated

⁵⁸ While the focus of this case is on K-12 public school facilities, the quality of school facilities has been addressed in other Supreme Court cases relative to public college and graduate school. *See, e.g., Sweatt v. Painter*, 339 U.S. 629 (1950).

⁵⁹ *Brown v. Bd. of Educ.*, 347 U.S. 483 (1954).

⁶⁰ *San Antonio Indep. Sch. Dist. v. Rodriguez*, 411 U.S. 1 (1973).

⁶¹ *Brown*, 347 U.S. at 490–91; *see Plessy v. Ferguson*, 163 U.S. 537 (1896) (establishing the “separate but equal doctrine” at issue in *Brown*); *see also Roberts v. City of Boston*, 5 Cush.198, 209 (Mass. 1849) (predating *Plessy* and upholding separate but equal doctrine in public education under state law).

⁶² *Brown*, 347 U.S. at 490–91.

⁶³ The four cases from the lower courts are *Brown v. Bd. of Educ.*, 98 F. Supp. 797 (D. Kan. 1966); *Briggs v. Elliott*, 98 F. Supp. 529 (E.D.S.C. 1952), *vacated*, 342 U.S. 350, *remanded to* 103 F. Supp. 920; *Davis v. Cnty. Sch. Bd.*, 103 F. Supp. 337 (E.D. Va. 1952); and *Belton v. Gebhart*, 87 A.2d 862 (Del. Ch. 1952).

⁶⁴ *Brown*, 347 U.S. at 493.

⁶⁵ *Id.*

⁶⁶ *Id.* at 495 (emphasis added).

⁶⁷ *Id.* at 492 (“Here . . . there are findings below that the Negro and white schools involved have been equalized, or are being equalized with respect to buildings . . . and other ‘tangible’ factors.” (internal citation omitted)).

⁶⁸ *Id.* at n.11 (citing empirical studies suggesting that state-sanctioned and promoted racial segregation contributes to negative impact on the psychological well-being of Black students).

⁶⁹ *See Brown*, 347 U.S. at 495.

into *Brown*.⁷⁰ For example, the district court of Kansas found that the segregated schools had a detrimental impact on Black children, but denied relief on the ground that the “tangible” factors, including buildings, were substantially equal.⁷¹ In *Briggs v. Elliot*,⁷² consolidated into *Brown*, facilities conditions played an important role in the plaintiffs’ case and outcome. In *Briggs*, the Eastern District Court of South Carolina found that the school facilities for Black children were unequal and ordered the state to rectify the problem through an “equalization program.”⁷³ Yet *Briggs* sustained the state statute and constitutional provisions that required segregated school facilities but ordered the state to make such facilities equal.⁷⁴ Thus, while *Brown* did not itself engage in a granular facilities analysis, the issue was raised—with varying degrees of success—in the lower courts.

B. SAN ANTONIO V. RODRIGUEZ

San Antonio v. Rodriguez involved a direct challenge to Texas’s school finance system.⁷⁵ By way of background, in 1973, a group of parents and students brought suit in federal court contending that the Texas’s school finance system violated the Equal Protection and Due Process Clauses of the Fourteenth Amendment. Like most school districts at the time, Texas financed public schools primarily through local property tax revenues, supplemented by state distributions. The plaintiff-students resided in property-poor communities and, as a result, were significantly disadvantaged in their ability to raise local funds for their schools when compared to communities with higher property values.⁷⁶ This resulted in wide disparities in resources, including facilities, between school districts. The *state* school finance system attempted to ameliorate these disparities, but significant inequality and differences remained as the majority opinion recognized.⁷⁷

In a 5-4 decision, accompanied by dissents and concurrences, the Supreme Court upheld the state’s school finance system, reversing the lower court.⁷⁸ Importantly, a majority on the Court recognized wide disparities in resources and even the quality of school facilities. However, the Court did not find that wealth was a suspect class or that education was a fundamental right and, therefore, applied the rational basis test to assess the school finance system. Under this less exacting standard, so long as students were not deprived a complete denial of education opportunity, there was no constitutional violation.⁷⁹

Justice Marshall dissented, concluding that the Texas school finance system was unconstitutional.⁸⁰ Marshall specifically noted the ways in which

⁷⁰ *Brown* reached the Supreme Court under provisions allowing a direct appeal of the district court decisions to the Supreme Court. *Id.* at n.1.

⁷¹ *Id.*

⁷² *Briggs v. Elliott*, 98 F. Supp. 529 (E.D.S.C. 1952).

⁷³ *Id.* Importantly, the *Briggs* court sustained the underlying laws that permitted segregation and denied admission of Black students to the white schools when the schools were being equalized.

⁷⁴ *Briggs v. Elliot*, 103 F. Supp. 920 (E.D.S.C. 1952).

⁷⁵ *San Antonio Indep. Sch. Dist. v. Rodriguez*, 411 U.S. 1, 4–5 (1973).

⁷⁶ *Id.* at 15.

⁷⁷ *Id.* at 11 (noting “substantial disparities” between districts).

⁷⁸ *Id.* at 6.

⁷⁹ *Id.* at 18, 39.

⁸⁰ *Id.* at 72–110 (Marshall, J., dissenting).

the state school finance system manifested inequality of educational opportunity, including in the disparities between condition of facilities, among others.⁸¹ His analysis drew from prior Supreme Court cases wherein the Court specifically noted that inequality with respect to facilities in a public higher education setting may rise to an Equal Protection violation.⁸² To Marshall, the findings in those cases applied with equal force to *Rodriguez* and also raised the question of state-created segregation.⁸³ A number of litigants, including some quite recently, have embraced Marshall's arguments in an attempt to persuade federal courts to reverse *Rodriguez*. However, they have been largely unsuccessful⁸⁴ and, consequently, the focus on school finance litigation shifted to state courts.

Justice White offered another dissenting opinion concluding that the Texas finance system did not satisfy even a rational basis under an Equal Protection analysis.⁸⁵ Importantly, his analysis linked the system's reliance on property tax base to limiting school districts' ability to raise revenue sufficient to maintain school facilities.⁸⁶ He cited particular provisions in the state finance code that limited the taxing ability of districts to raise revenue for maintenance of schools that had a particular negative impact on property-poor districts.⁸⁷

C. SCHOOL FINANCE LITIGATION

School finance litigation, which began in 1971 with the *Serrano* ruling out of California, has been divided into three waves.⁸⁸ The first wave (late 1960s to 1973) consisted of plaintiff calls for equal financial allocation using the Equal Protection Clause of the Fourteenth Amendment.⁸⁹ The *Rodriguez* ruling ended the first wave. The second wave (1973 to 1989) saw legal arguments focus primarily on general equal protection provisions and included equity-based claims.⁹⁰ The cases challenging state funding formulas relied on the state equal protection clause, the state education clause, or a combination of the two to prove the state's legislature was failing to meet its constitutional obligations related to the funding of public education.⁹¹ The

⁸¹ *Id.* at 84.

⁸² *Id.*

⁸³ *Id.* at 71–72; *see also id.* at 111, 116 (Justice Marshall holding that education was a fundamental right under the Constitution).

⁸⁴ For an overview of the most recent attempts, see Bruce Meredith & Mark Paige, *Reversing Rodriguez: A Siren Call to a Dangerous Shoal*, 58 HOUS. L. REV. 355 (2020).

⁸⁵ *Rodriguez*, 411 U.S. at 68 (White, J., dissenting).

⁸⁶ *Id.* at 70.

⁸⁷ *Id.* at 67. The majority decision set aside Justice White's concerns by contending that the particular tax cap provisions cited by White were not before the Court and, therefore, could not be assessed as part of the constitutional inquiry. *Contra id.* at 50–51, n.107 (majority opinion) (setting aside Justice White's concerns by contending that the particular tax cap provisions cited by White were not before the Court and, therefore, could not be assessed as part of the constitutional inquiry).

⁸⁸ William E. Thro, *Judicial Analysis During the Third Wave of School Finance Litigation: The Massachusetts Decision as a Model*, 35 B.C. L. REV. 597, 598 (1994).

⁸⁹ Bruce D. Baker & Preston C. Green, *Can Minority Plaintiffs Use the Department of Education Implementing Regulations to Challenge School Finance Disparities?*, 173 EDUC. L. REP. 679, 680 (2003).

⁹⁰ Julie K. Underwood, *School Finance Adequacy as Vertical Equity*, 28 U. MICH. J.L. REFORM 493, 500 (1995).

⁹¹ Christopher Roellke, Preston Green & Erica H. Zielewski, *School Finance Litigation: The Promises and Limitations of the Third Wave*, 79 PEABODY J. EDUC. 104, 112 (2004). For example, in *Serrano I*, 487 P.2d 1241, 1250, the California Supreme Court modified a definition of "fiscal neutrality" provided by JOHN E. COONS, WILLIAM H. CLUNE III & STEPHEN D. SUGARMAN, PRIVATE WEALTH AND

third wave (1989 to present) consists of cases focused primarily on equity, adequacy, or a combination of the two.⁹² These third-wave cases argued a state's funding formula for public education inhibits students from accessing an equitable or adequate education based on the state's education clause.

Unfortunately, school finance litigation has not resulted in the desired reform of state aid for public education, and plaintiffs have enjoyed, at best, mixed results in terms of court rulings. In addition, there is not clear consensus concerning the percent of plaintiff victories, which could be a result of the number of cases analyzed. As an example, three recent studies found that plaintiffs in school finance claims prevailed 40% of the time,⁹³ 46% of the time,⁹⁴ and “[s]ince the 1970s, advocates have won more than half of the time.”⁹⁵

V. METHODOLOGY

In this empirical legal study, we sought to measure the influence of school facility claims in the outcomes of school finance litigation during the third wave. Specifically, we posed the following research questions:

1. What role do school facilities play in school finance litigation during the third wave (1989 to present)?
2. Does the inclusion of school facility conditions in school finance claims influence a court's ruling?

To explain how we answered these two research questions, we will discuss the selection criteria used to identify lawsuits included in this analysis and how we analyzed our data.

A. SELECTION CRITERIA

In order to answer our two research questions, we first determined which funding claims would be included in our analysis. Our analysis included lawsuits that met the following selection criteria: (1) lawsuits initiated in state court systems; (2) lawsuits questioning the constitutionality of the state funding formula; (3) school-finance lawsuits that were adjudicated in 1989 or later;⁹⁶ and (4) lawsuits adjudicated by the state's highest court. There were sixty-five lawsuits included in our analysis, which are identified in Appendix A.

All school finance lawsuits included in this analysis were categorized in two manners. First, the lawsuits were divided into one of three categories, based on the outcome of the lawsuit: Plaintiff Victory, Defendant Victory, or

PUBLIC EDUCATION (1970) (“The quality of education should not be a function of district wealth, but of state wealth.”). *Id.* at 110.

⁹² Michael A. Rebell, *Educational Adequacy, Democracy, and the Courts*, in *ACHIEVING HIGH EDUCATIONAL STANDARDS FOR ALL: CONFERENCE SUMMARY* 218, 226 (Timothy Ready, Christopher Edley, Jr. & Catherine E. Snow eds., 2002); see also Spencer C. Weiler, Luke Cornelius & Edward Brooks, *Examining Adequacy Trends in School Finance Litigation*, 345 EDUC. L. REP. 1, 2 (2017).

⁹³ Karen Swenson, *School Finance Reform Litigation: Why Are Some State Supreme Courts Activists and Others Restrained?*, 63 ALB. L. REV. 1147, 1148–49 (2000).

⁹⁴ Weiler et al., *supra* note 92, at 7.

⁹⁵ Derek W. Black, *Educational Gerrymandering: Money, Motives, and Constitutional Rights*, 94 N.Y.U. L. REV. 1385, 1388 (2019).

⁹⁶ It is generally accepted that the Third Wave of School Finance Litigation began in 1989.

Mixed Results.⁹⁷ The second categorization of the lawsuits focused on the degree to which facilities were referenced in the courts' holdings: No/Minimal Reference to Facilities, Passing Reference to Facilities,⁹⁸ and Central Reference to Facilities.⁹⁹

B. STATISTICAL ANALYSIS

To answer the first research question, we categorized each school finance lawsuit based on two factors: the outcome of the lawsuit and the role of facilities in the ruling. The simple descriptive statistics will be reported in the finding section. These data are also the basis for the statistical analysis employed to answer the second research question.

To answer the second research question, we conducted an odds ratio analysis, which was performed using the statistical software R¹⁰⁰ and the epiR¹⁰¹ packages. An odds ratio analysis examines how events, or outcomes, change with different variables, or exposures.¹⁰² The equation for an odds ratio analysis is as follows:

$$\text{Odds Ratio} = \text{Odds of the event in the exposed group} \div \text{Odds of the event in the non-exposed group}$$

Odds ratio can also be represented in the following table and equation:

⁹⁷ A mixed ruling was one whereby the state's high court decision preserved some element of the plaintiffs' claim and avoided an outright dismissal. The authors assessed the holding of each case. This typically arose in the context of multiple claims asserted by the plaintiffs. A holding coded as "mixed" was one that a court may have found for dismissal (for plaintiff or defendant) on some claims yet not on others. Thus, some element of the underlying claim survived and was preserved for trial. Together, the authors assessed each case and determined if a particular case could be treated as mixed.

⁹⁸ An example of a lawsuit classified as passing reference to facilities in the ruling comes from *Columbia Falls Elementary Sch. Dist. No. 6 v. State*, 109 P.3d 257, 262–63, 312–13 (Mont. 2005) (emphasis added):

The evidence that the current system is constitutionally deficient includes the following unchallenged findings made by the District Court: school districts increasingly budgeting at or near their maximum budget authority; growing accreditation problems; many qualified educators leaving the state to take advantage of higher salaries and benefits offered elsewhere; the cutting of programs; *the deterioration of school buildings and inadequate funds for building repair and for new construction*; and increased competition for general fund dollars between special and general education.

⁹⁹ An example of a lawsuit classified as central to the claim or ruling comes from *Abbott v. Burke*, 575 A.2d 359, 362–63, 397 (1990):

These facilities do not provide an environment in which children can learn; indeed, the safety of children in these schools is threatened. For example, in 1986 in Paterson a gymnasium floor collapsed in one school, and in another school the entire building was sinking. According to East Orange's long-range facility plan there are ten schools in immediate need of roof repair, fifteen schools with heating, ventilation or air conditioning problems; two schools that need total roof replacement; nine with electrical system problems, eight with plumbing system problems; thirteen needing structural repairs; seventeen needing patching, plastering or painting; and thirteen needing asbestos removal or containment.

¹⁰⁰ THE R PROJECT. FOR STAT. COMPUTING, <https://www.r-project.org/> [<https://perma.cc/83PT-83GJ>] ("R is a language and environment for statistical computing and graphics.")

¹⁰¹ Mark Stevenson & Evan Sergeant, EPIR: TOOLS FOR THE ANALYSIS OF EPIDEMIOLOGICAL DATA (2023), <https://CRAN.R-project.org/package=epiR> [<https://perma.cc/5CLQ-AVDN>].

¹⁰² Magdalena Szumilas, *Explaining Odds Ratio*, 19 J. CANADIAN ACAD. CHILD ADOLESCENT PSYCHIATRY 227, 227 (2010).

		<i>Event (outcome of the lawsuit)</i>	
		Yes	No
<i>Exposure (role of facility in the claim or ruling)</i>	Yes	A	B
	No	C	D

$$\text{Odds Ratio} = (A/B) \div (C/D) = AD \div BC$$

In our analysis, the event was the result of the lawsuit, and the exposure was the role of school facilities in the ruling.¹⁰³ These data were compared to situations where there was no reference to the facilities in the ruling. To more thoroughly examine the odds that including facilities in a school finance lawsuit will result in a plaintiff victory, we included the mixed rulings with the plaintiff victories and reexamined the numbers. The rationale for including mixed results with plaintiff victories is that the former's ruling had aspects of the holding that sided with the plaintiffs' cases.

We determined that the application of odds ratio analysis to the study of school facilities in school finance litigation was appropriate given the scope of odds ratio. Specifically, an odds ratio analysis does not measure correlations or causations; instead, it measures the odds of an event given an exposure. We sought to study the influence of school facilities, or the exposure, on the odds of a plaintiff victory in school finance litigation, or the event. The findings from the odds ratio analysis help to answer our research questions.

VI. FINDINGS

The findings will be presented around the two research questions guiding this study.

A. WHAT ROLE DO SCHOOL FACILITIES PLAY IN SCHOOL FINANCE LITIGATION DURING THE THIRD WAVE?

The data related to the role of facilities in school finance litigation during the third wave are summarized in Table 1.

Table 1: The Role of Facilities in Court Ruling by Outcome

<i>Outcome</i>	<i>No/Minimal Reference to Facilities</i>	<i>Passing Reference to Facilities</i>	<i>Central Reference to Facilities</i>
Plaintiff victory (n=28)	5 (18%)	9 (32%)	14 (50%)
Defendant victory (n=30)	20 (67%)	5 (16.5%)	5 (16.5%)
Mixed ruling (n=7)	1 (14%)	5 (72%)	1 (14%)
Totals (N=65)	26 (40%)	19 (29%)	20 (31%)

¹⁰³ *Id.*

The data presented in Table 1 show that a majority of plaintiff victories occur when facilities are central to the ruling; whereas defendants prevail 67% of the time when the court ruling includes no reference to facilities. This data seems to suggest that the inclusion of facilities in the school finance lawsuit increases the likelihood of a plaintiff victory. As we discussed previously, we are using the court ruling as a proxy for the plaintiffs' inclusion of facility conditions in the initial claim. Court holdings will only address consideration raised in the original complaint and subsequent motions, so the inclusion of school facility issues in the court ruling occurs as a result of plaintiffs' initial filing.

The answer to the first research question is somewhat nuanced. Overall, school facilities, as either a passing reference or central to the ruling, appear in 60% of the cases included in this analysis. The thirty-nine cases that include some reference to facilities resulted in twenty-three plaintiff victories, ten defendant victories, and six mixed rulings. By contrast, there are twenty-six cases with no or minimal reference to facilities. The plaintiffs only prevailed in five of these cases, defendants won twenty of these cases, and one case had a mixed ruling.

B. DOES THE INCLUSION OF SCHOOL FACILITY CONDITIONS IN SCHOOL FINANCE CLAIMS INFLUENCE A COURT'S RULING?

In order to answer this research question, we ran the odds ratio analysis on the data around the inclusion of school facilities in the court's holding. The odds ratio data related to the potential influence of facilities on the outcome of a school finance lawsuit are summarized in Table 2.

Table 2: Odds Ratio Analysis Findings, Central Reference to Facilities in Courts' Holdings

<i>Measurement</i>	<i>Finding</i>
Odds Ratio	9.33
95% CI	2.37 – 36.70
Significance	p<0.01

These findings show that court holdings where facilities are central to the ruling are 9.33 times more likely to result in a plaintiff victory than court holdings with no reference to school facilities. In addition, the p-value is well within the acceptance significance parameters.

We next examined the influence on these findings when we combined "passing reference to facilities" with "central reference to facilities." The results from this second analysis of odds ratio are reported in Table 3.

Table 3: Odds Ratio Analysis Findings, Central and Passing Reference to Facilities in Courts' Holdings

<i>Measurement</i>	<i>Finding</i>
Odds Ratio	8.36
95% CI	2.48 – 28.19
Significance	p<0.01

The findings reported in Table 3, when compared to Table 2, illustrate a decline in the odds that the inclusion of facilities in the ruling will result in a plaintiff victory, but only slightly. Once again, these findings are significant and show that a passing or central reference to facilities are 8.36 times more likely to result in a plaintiff victory than school finance lawsuits with no or minimal references to facilities.

The findings reported in Tables 2 and 3 help to answer the second research question and demonstrate that when school facilities are central to the ruling, plaintiffs are 9.33 times more likely to prevail. The inclusion of facilities in a court's ruling makes it more likely the plaintiffs will prevail in the lawsuit. In addition, the stronger the reference to school facilities in the ruling, the more likely the plaintiffs are to receive a favorable ruling. Given that school finance lawsuits are designed to challenge "the constitutionality of a state's funding efforts" for public education,¹⁰⁴ the importance of a favorable ruling for the plaintiffs cannot be overstated.

VII. FACILITY REFERENCES FROM THIRD WAVE LAWSUITS

In this part, we highlight representative cases from the dataset where plaintiffs contended inadequate facilities as a central part of their claim. We summarize court treatment and salient references to facilities and context to these cases in which plaintiffs succeeded and in the minority of cases where defendants prevailed. A comprehensive listing of cases included in our analysis can be found in Appendix A.

A. FACILITY REFERENCES AS CENTRAL TO COURT RULING, PLAINTIFF VICTORY

The quality of and disparities between school facilities formed the core issue of the plaintiffs' complaint in *Roosevelt Elementary School District v. Bishop*,¹⁰⁵ decided by the Arizona Supreme Court. The issue squarely before the *Roosevelt* court was "whether a statutory financing scheme for public education that is itself the cause of gross disparities in school facilities complies with the "general and uniform" requirement" of the state's education clause.¹⁰⁶ The court answered in the affirmative.¹⁰⁷

The *Bishop* court highlighted facility disparities that varied "enormously from district to district."¹⁰⁸ The undisputed record before it revealed that some school facilities were "unsafe, unhealthy," and violated safety codes.¹⁰⁹ Yet other school districts had the benefit of "indoor swimming pools, domed stadiums, [and] science laboratories," among others.¹¹⁰ The court explained these "substantial" disparities as a function of the state school finance system

¹⁰⁴ Spencer C. Weiler & Scott R. Bauries, *Special Education's Lessons for Educational Reform Litigation*, 6 EDUC. L. & POL'Y REV. 126, 126 (2021).

¹⁰⁵ *Roosevelt Elementary Sch. Dist. No. 66 v. Bishop*, 179 Ariz. 233 (1994).

¹⁰⁶ *Id.* at 235.

¹⁰⁷ *Id.*

¹⁰⁸ The case was before the state supreme court on an appeal from a motion granting summary judgment in favor of the state-defendants, although the court treated the issue as a motion for judgment as a matter of law. *Id.*

¹⁰⁹ *Id.*

¹¹⁰ *Id.*

that relied heavily on local property wealth,¹¹¹ even though the state did attempt to equalize some of the property valuation differences. In the end, the school finance system that produced such wide disparities violated the state constitutional requirement that the legislature maintain a school system that is “general and uniform.”¹¹²

Evidence of poor school facilities supported a successful challenge to the constitutionality of Wyoming’s school finance formula in *Campbell County School District v. State*.¹¹³ In *Campbell*, plaintiffs challenged the constitutionality of four specific provisions of the school finance system, including the state’s capital construction feature.¹¹⁴ That feature allowed districts to sell bonds to fund facility renovation and construction costs.¹¹⁵ Wyoming also imposed certain practical and legal limits around the total amount a district could raise through bonding. Specifically, bonding capacity of a district was determined by its property valuation, with higher property valuation allowing for greater amounts to be bonded, and the Wyoming constitution prohibited bonding beyond ten percent of the assessed value of the district.¹¹⁶ In effect, property-poor districts were limited in their ability to bond for the purposes of capital improvements.

The Wyoming Supreme Court found that the capital construction feature was unconstitutional.¹¹⁷ The *Campbell* court linked educational equality and school facilities, writing that “deficient physical facilities deprive students of equal educational opportunity and any financing system that allows such deficient facilities to exist is unconstitutional.”¹¹⁸ In its conclusion, the court noted that the state assessment of school capital assessment estimated the need for renovations, repairs, and new construction at almost \$275 million and that the legislature had failed to meet that need.¹¹⁹

In *Abbott v. Burke*, the condition of school facilities was central to plaintiff challenges to the state’s finance system.¹²⁰ By way of background, the New Jersey state legislature enacted the Comprehensive Educational Improvement and Financing Act (“CEIFA”) to address constitutional inadequacies for certain districts (“Special Needs Districts”) identified in prior litigation. CEIFA created substantive standards (for example, components of education programming and standards) and also fiscal standards (for example, level of funding required to meet substantive standards).¹²¹

¹¹¹ *Id.* at 236 (“The quality of a district’s capital facilities is directly proportional to the value of real property within the district.”); *see also id.* at 242 (noting that, under the then-current school finance system, 45% of the school district revenue relied on local property taxes and accordingly would invariably produce disparities).

¹¹² *Id.* at 237, 242–43.

¹¹³ *Campbell Cnty. Sch. Dist. v. State*, 907 P.2d 1238 (Wyo. 1995).

¹¹⁴ *Id.* at 1244. The plaintiffs specifically challenged four other components of the state finance system as well.

¹¹⁵ *Id.* at 1255.

¹¹⁶ *Id.* at 1249–50.

¹¹⁷ *Id.* at 1275.

¹¹⁸ *Id.*

¹¹⁹ *Id.* at 1274.

¹²⁰ *Abbott v. Burke*, 693 A.2d 417 (N.J. 1997). This case was part of the long line of *Abbott* cases.

¹²¹ *Id.* at 424, 426.

The *Abbott* court found CEIFA unconstitutional with respect to its (lack of) funding for facilities, in particular.¹²² The court wrote that CEIFA “completely fails to address one of the most significant problems” facing these schools: “dilapidated, unsafe, and overcrowded facilities.”¹²³ Significantly, the court linked the quality of facilities to state education constitutional rights and equal educational opportunity. Without sufficient funding for facilities, students would not receive the opportunity to satisfy the substantive education requirements identified in CEIFA.¹²⁴ The court held that the quality of facilities was a state obligation and could not be dependent on a local municipality’s willingness of ability to raise taxes to fund capital projects.¹²⁵

In *Campaign for Fiscal Equity, Inc. v. State*, the issue of facilities played a pivotal role in the plaintiffs’ case and victory. However, unlike *Abbott*, the *CFE* court framed the facilities issue as one of overcrowding. Put another way, physical space constraints created overcrowded classes and use of non-classroom space (for example, auditoriums, libraries) for purposes of typical classroom instruction subtracted from the quality of education.¹²⁶ The court sympathized with plaintiff arguments highlighting the disrepair of schools, but it also found that on the record in the case it could not link that disrepair to student performance.¹²⁷ However, the court did view the overcrowding as a facility issue and linked these deficiencies to students’ educational experience.¹²⁸

B. FACILITY REFERENCES AS CENTRAL TO COURT RULING, DEFENDANT VICTORY

A minority of cases in the data set¹²⁹ revealed that even when facility claims were central to the plaintiffs’ constitutional argument, the state finance system was upheld. For example, in *Lewis E. v. Spagnolo*, plaintiffs alleged that the school facilities were in “wretched disrepair” among other allegations concerning the quality of education and that the school finance system violated the state’s education clause.¹³⁰ The state supreme court rejected the plaintiffs’ arguments regarding the state education clause, holding that the issue of standards and quality of education was beyond the

¹²² *Id.* at 439.

¹²³ *Id.* at 437.

¹²⁴ *Id.* at 438 (finding that the state’s education clause obligated the state to provide facilities for children sufficient to enable them to “achieve the substantive standards” CEIFA set forth). It is interesting to note that, in setting the context for its decision, the *Abbott* court cited Jonathan Kozol’s *Savage Inequalities*, a book that detailed the conditions of public schools in urban settings. *Id.* at 433.

¹²⁵ *Id.* (“The quality of the facilities cannot depend on the district’s willingness or ability to raise taxes or to incur debt.”).

¹²⁶ *Campaign for Fiscal Equity, Inc. v. State*, 801 N.E.2d 326, 334–36 (N.Y. Ct. App. 2003).

¹²⁷ *Id.*

¹²⁸ *Id.* at n.4 (commenting on the overcrowding of classrooms and schools and writing that “[w]hether this fact stems from overcrowding or from the design of some old school buildings, its direct impact on pedagogy is self-evident and it counts against the State in any assessment of the facilities input”).

¹²⁹ There was a total of 21 cases out of 65 where facilities were central to the ruling. Of these 21 cases, 5 holdings sided with the defendants, or 16.5%. See Table 1 for more details.

¹³⁰ *Lewis E. v. Spagnolo*, 710 N.E.2d 798, 801 (Ill. 1999) (arguing that the state’s system of school finance resulted in poor quality instruction and outcomes and violated state and federal due process clauses).

courts' jurisdiction.¹³¹ In effect, the court concluded that the issue of education finance was one of policy, therefore under the legislature's domain, and did not find a violation of the education clause, unless the plaintiffs could demonstrate a denial of access.¹³² Other courts rejected plaintiff claims asserting poor facilities as a central part of the claim on similar separation of power arguments.¹³³

VIII. DISCUSSION

As we shift to discuss the implications of these findings, this part is divided into three sections. We will first focus the discussion on the implications of the odds ratio analysis findings. Next, we will examine the inclusion of school facilities in the recent flurry of school finance lawsuits filed in the federal court system. Finally, we explore why courts may be more open to ruling in favor of plaintiffs' claims when school facilities are included.

A. IMPLICATIONS OF ODDS RATIO ANALYSIS

As was reported in Tables 2 and 3, courts' rulings with either a passing or central reference to facilities are significantly more likely to result in favorable plaintiff rulings than court rulings with no or minimal reference to facilities. The implications of these findings should be clear. Future school finance lawsuits are far more likely to result in plaintiff victories if school facilities are central to the court's holding. In order to ensure that school facilities are central to the court's ruling, attorneys for the plaintiffs have to make school facilities central to their claims when initiating future litigation.

We are not suggesting that plaintiffs should automatically include school facility complaints in their claims. If school facilities are not an issue in a particular case, then plaintiffs should not include facility-related arguments in school finance lawsuits. However, in states where school building disparities exist between school districts, our findings suggest plaintiffs will be more likely to receive a favorable ruling from the state's highest court.

A word of caution related to odds ratio analysis. The data reported in our study are not guaranteeing that plaintiffs will prevail when school facilities are central to the court's ruling. Rather, this data illustrates that plaintiffs were more likely to win school finance lawsuits when facilities are central to the court's ruling. As we reported in Table 1, when facilities were central to the court ruling, defendants only prevailed in 16.5% of these cases.

¹³¹ *Id.* at 801. However, the claim of inadequate facilities was central to the plaintiffs' state and federal due process claims. In this context, they argued that the poor facilities amounted to a violation of state and federal due process rights because, due to the state's compulsory attendance laws, subjected students to dangerous and unsafe conditions. *Id.* at 804–05. The court rejected those claims. *Id.* at 810–11.

¹³² *Id.* However, the claim of inadequate facilities was central to the plaintiffs' state and federal due process claims. In this context, they argued that the poor facilities amounted to a violation of state and federal due process rights because, due to the state's compulsory attendance laws, the facilities subjected students to dangerous and unsafe conditions. *Id.* at 803–05. The court rejected those claims. *Id.* at 810–11.

¹³³ *See, e.g.,* *Neb. Coal. for Educ. Equity & Adequacy v. Heineman*, 731 N.W.2d 164, 183 (Neb. 2007) (“The landscape is littered with courts that have been bogged down in the legal quicksand of continuous litigation and challenges to their states’ school funding systems. Unlike those courts, we refuse to wade into that Stygian swamp.”); *see also* *Paynter v. State*, 735 N.Y.S.2d 337 (N.Y. App. Div. 2001).

B. FACILITY CLAIMS AND FEDERAL RIGHT TO EDUCATION: *GARY B.*

While beyond the scope of the data here, the issue of facilities played a role in the case of *Gary B. v. Whitmer*.¹³⁴ In that case, students in Detroit attempted to establish a federal right to literacy under the U.S. Constitution. In essence, the *Gary B.* plaintiffs contended that the right to literacy was so intricately linked to other constitutional rights, such as the freedom of speech under the First Amendment, that it was constitutionally protected.¹³⁵ In making their case, plaintiffs cited the quality of school facilities as a limiting factor that interfered with their right to literacy.¹³⁶ Indeed, plaintiffs introduced specific examples of crumbling infrastructure to demonstrate that children could not effectively learn in such conditions, thereby linking directly the conditions of the building to their alleged constitutional deprivation.¹³⁷ While the plaintiffs' complaint alleged non-facility claims, including a lack of basic materials or qualified teachers, the court did note the evidence that plaintiffs were expected to learn in impossible conditions.¹³⁸ It is worth noting that the issue of facilities played an important role in the plaintiffs' case surviving a motion to dismiss and rebutting defendants' argument that the allegations were merely a "generalized grievance."¹³⁹ Ultimately, the case settled, resulting in millions of dollars for the Detroit schools.¹⁴⁰

C. FACILITY ARGUMENTS ALLOW COURTS TO AVOID POLICY DEBATES PROPERLY RESERVED FOR LEGISLATURES

The findings presented in this study beg the following question: What is it about facility-centered claims that contributes to a plaintiff victory? Facility-centered claims, or those that leverage the quality of facility arguments, are distinct from those that may make arguments based in educational policy matters. This distinctiveness may appeal to courts that might shy away from making rulings based on policy matters that are typically reserved for legislatures.¹⁴¹ Likewise, assessing facility claims does not require any particular degree of expertise, unlike assessing the particular relationship between certain inputs and outputs. Moreover, there is both factual and intuitive understanding that the conditions of the place where someone works or learns has an impact on the quality of the work produced.

¹³⁴ *Gary B. v. Whitmer*, 957 F.3d 616, 620–21 (6th Cir. 2020) (finding students in Detroit schools were denied a *federal* guarantee to a Constitutional minimum of education that provided access to literacy instruction).

¹³⁵ *Id.* at 620–21, 646.

¹³⁶ *Id.* at 624.

¹³⁷ *Id.* at 626–27.

¹³⁸ *Id.* at 625–26.

¹³⁹ *Gary B. v. Snyder*, 313 F. Supp. 3d 852, 863 (E.D. Mich. 2018). An alternate theory under the Fourteenth Amendment may have also asserted an interference with the Fourteenth Amendment's protection against government's ability to interfere with a person's liberty interest. In broad strokes, such an argument might allege that state compulsory attendance laws require students to be institutionalized in decrepit facilities that violate basic safety codes and standards.

¹⁴⁰ Jennifer Chambers & Beth LeBlanc, *Settlement for Detroit Schools Literacy Lawsuit Eyes Nearly \$100 Million in Funding*, DETROIT NEWS (May 14, 2020, 7:01 PM), <https://www.detroitnews.com/story/news/local/michigan/2020/05/14/whitmer-announces-late-night-settlement-detroit-right-literacy-case/5189089002/> [https://perma.cc/QX3G-BGY].

¹⁴¹ See, e.g., *Neb. Coal. for Educ. Equity & Adequacy v. Heineman*, 731 N.W.2d 164, 183 (Neb. 2007); *Gary B.*, 957 F.3d at 662.

Put another way, courts can safely rule on facility issues without fearing criticism that they are judicially active or encroaching on policy matters under the legislature's jurisdiction.

IX. CONCLUSION

We began this study by stating that public education is a cornerstone of healthy democracy.¹⁴² In order for public education to fulfill its role as a foundation of American democracy, state-funding formulas must ensure that adequate and equitable resources are made available to all school districts within each state. However, state funding formulas often fail to distribute resources in an adequate and equitable manner. As a result, sixty-five school finance lawsuits challenging the constitutionality of states' funding formulas have been filed in forty-four states since 1989. We sought to measure the role of school facilities in these school funding claims.

The data reported in this study demonstrate that facilities have been included in a majority, but not all, of the sixty-five school finance lawsuits analyzed. The data also showed that the inclusion of facilities in funding claims significantly increases the odds of a plaintiff victory from the state's highest court. Looking forward, we recommend that future school funding lawsuits should, whenever possible, include valid facility claims.

¹⁴² BLACK, *supra* note 1, at 12.

APPENDIX A: LIST OF ADEQUACY CASES

State	Case	Year Adjudicated	Citation
Alabama	Alabama Coalition for Equity [ACE] v. Hunt	1993	624 So.2d 107
Alaska	Matanuska-Susitna Borough v. State of Alaska	1997	931 P.2d 391
Arizona	Roosevelt Elementary School District no. 66 v. Bishop	1994	877 P.2d 806
Arizona	Hull v. Albrecht	1997	950 P.2d 1141
Arkansas	Tucker v. Lake View Sch. Dist. No. 25	1996	917 S.W.2d 530
Arkansas	Lake View v. Huckabee	2002	351 Ark. 31
Colorado	Lobato v. State	2009	218 P.3d 358
Colorado	Dwyer v. State	2015	357 P.3d 185
Connecticut	Sheff v. O'Neill	1996	678 A.2d 1267
Connecticut	Connecticut Coalition for Justice in Ed. Funding, Inc. v. Rell	2018	327 Conn. 650
Florida	Coalition for Adequacy and Fairness in School Funding v. Chiles	1996	680 So.2d 400
Idaho	Idaho Schools for Equal Educational Opportunity v. Evans	1993	850 P.2d 724
Idaho	Idaho Schools for Equal Educational Opportunity v. State	1998	132 Idaho 559
Illinois	Committee for Educational Rights v. Edgar	1996	174 Ill. 2d 1
Illinois	Lewis E v. Spagnolo	1999	710 N.E.2d 798

Illinois	Carr v. Koch	2012	981 N.E.2d 326
Indiana	Bonner v. Daniels	2009	907 N.E.2d 516
Iowa	King v. State	2012	818 N.W.2d 1
Kansas	Unified School Dist. No. 229 v. State	1994	885 P.2d 1170
Kansas	Montoy v. State of Kansas	2005	120 P.3d 306
Kansas	Gannon v. State	2016	368 P.3d 1024
Kentucky	Rose v. Council for Better Education, Inc.	1989	790 S.W.2d 186
Maine	School Administrative District No. 1 v. Commissioner	1995	659 A.2d 854
Massachusetts	McDuffy v. Secretary	1993	615 N.E.2d 516
Massachusetts	Hancock v. Commissioner of Ed.	2005	822 N.E.2d 1134
Minnesota	Skeen v. State	1993	505 N.W.2d 299
Minnesota	Cruz-Guzman v. State	2018	916 N.W.2d 1
Mississippi	Clarksdale Municipal School District v. Mississippi	2017	233 So.3d 299
Missouri	The Committee for Educational Equity v. State	2009	294 S.W.3d 477
Montana	Helena Elementary School District No. 1 v. State	1989	769 P.2d 684
Montana	Columbia Falls Public School District No. 6 v. State	2005	109 P.3d 257

Nebraska	Gould v. Orr	1993	506 N.W.2d 349
Nebraska	Nebraska Coalition for Educational Equity and Adequacy v. Heineman	2007	731 N.W.2d 164
New Hampshire	Claremont School District v. Governor	1997	703 A.2d 1353
New Hampshire	Londonderry School District SAU #12 v. State	2008	958 A.2d 930
New Hampshire	Contoocook Valley School District (ConVal) v. State	2021	2021 N.H. LEXIS 40
New Jersey	Abbott v. Burke	1990	575 A.2d 359
New Jersey	Abbott v. Burke	1997	693 A.2d 417
New Jersey	Abbott v. Burke	1998	153 N.J. 480
New York	Reform Educational Financing Inequities Today (REFIT) v. Cuomo	1995	86 N.Y.2d 279
New York	Campaign for Fiscal Equity, Inc. v. State	2003	801 N.E.2d 326
North Carolina	Leandro v. North Carolina	1997	488 S.E.2d 249
North Carolina	Hoke County Board of Education v. North Carolina	2004	599 S.E.2d 365
North Carolina	Silver v. Halifax County Board of Commissioners	2018	821 S.E.2d 755
North Dakota	Bismarck Public School District #1 v. State	1994	511 N.W.2d 247
Ohio	DeRolph v. Ohio	1997	677 N.E.2d 733
Oklahoma	Oklahoma Education Association v. State	2007	158 P.3d 1058

Oregon	Coalition for Equitable School Funding v. State	1991	811 P.2d 116
Pennsylvania	William Penn School District v. Pennsylvania	2017	642 Pa. 236
Rhode Island	City of Pawtucket v. Sundlun	1995	662 A.2d 40
South Carolina	Abbeville County School District v. South Carolina	1999	515 S.E.2d 535
South Carolina	Abbeville v. State	2014	410 S.C. 619
South Dakota	Olson v. Guindon	2009	771 N.W.2d 318
South Dakota	Davis v. State	2011	804 N.W.2d 618
Texas	Edgewood Independent School District v. Kirby	1989	777 S.W.2d 391
Texas	Neeley v. West Orange Cove	2005	176 S.W.3d 746
Texas	Morath v. Texas Taxpayers and Student Fairness Coalition	2016	490 S.W.3d 826
Vermont	Brigham v. State	1997	692 A.2d 384
Virginia	Scott v. Commonwealth	1994	443 S.E.2d 138
Washington	Federal Way School District v. State	2009	167 Wn.2d 514
Washington	McCleary v. State	2012	269 P.3d 227
Wisconsin	Kukor v. Grover	1989	148 Wash. 2d 469
Wisconsin	Vincent v. Voight	2000	236 Wis. 2d 588
Wyoming	Campbell County School District v. State	1995	907 P.2d 1238

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Wyoming	Campbell County School District v. State	2008	181 P.3d 43
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