

IT'S A TRAP: A NEW ECONOMIC MODEL ADDRESSING AMERICAN PUBLIC EDUCATION

*Nikhil A. Gulati**

[I]f a nation expects to be ignorant & free, in a state of civilisation, it expects what never was & never will be. . . . [N]or can [the people] be safe . . . without information. [W]here the press is free and every man able to read, all is safe.

—Thomas Jefferson, 1816¹

INTRODUCTION

The United States arguably has the greatest collection of higher education, or postsecondary education, in the world. Of the top twenty-five universities in the world, sixteen of them call the United States home.² However, numerous measurements indicate that American primary schools fall well behind those of other countries, including numerous members of the Organisation for Economic Co-operation and Development (OECD).³ Critics of American public

* Candidate for Juris Doctor, Notre Dame Law School, 2022; Candidate for Master of Business Administration, Notre Dame Mendoza College of Business, 2022; Bachelor of Arts in Economics and International Studies, University of Michigan, 2016. I would like to thank Professor Nicole Garnett for sparking my interest in this topic and her guidance during the writing process. Thank you to my colleagues on the *Notre Dame Law Review* for their diligent effort in editing this piece and all other publications. Finally, I would like to thank my family, especially my parents, and friends for their support. All errors are my own.

1 *Thomas Jefferson to Charles Yancey, 6 January 1816*, NAT'L ARCHIVES: FOUNDERS ONLINE (Thomas Jefferson) (Jan. 6, 1816), <https://founders.archives.gov/documents/Jefferson/03-09-02-0209> [<https://perma.cc/4HMG-7FRE>].

2 *World University Rankings 2020*, TIMES HIGHER EDUC., https://www.timeshighereducation.com/world-university-rankings/2020/world-ranking#!/page/0/length/25/sort_by/rank/sort_order/asc/cols/stats [<https://perma.cc/HK5Y-CXHR>]. The American dominance of the postsecondary education market is quite astounding given the country's relatively short existence and the rest of the world's millennia-long experiments with higher education.

3 *Education*, OECD BETTER LIFE INDEX, <http://www.oecdbetterlifeindex.org/topics/education/> [<https://perma.cc/5DD6-62D4>]. The OECD is a “club of mostly rich countries,” of which the United States is a member, focused on sharing ideas and policies to foster collaboration and economic growth. See Buttonwood, *What Is the OECD?*,

education point to a number of potential causes, including the increased focus on standardized testing, the proliferation of overcrowding in declining facilities, the decline in teacher salaries, and the lack of sufficient funding from governmental sources.⁴ In addition, federal programs like the Common Core State Standards Initiative have failed to improve public education.⁵ Student performance has remained stagnant, the achievement gap between high and low performers has grown, and reading ability has declined in many states.⁶

While all these reasons have undoubtedly played a role in the decline of American primary school education, the design of the system itself deserves examination and blame. American public education is essentially a centuries-long experiment in federalism;⁷ states and local municipal governments are responsible for the creation, maintenance, and execution of their own education systems. Consequently, when one speaks about the quintessential “American public school,” she is referencing an amalgamation of thousands of local school districts. Despite this, the conversation about reform and other solutions often tends to come from national organizations espousing national solutions.⁸ These conversations are relevant to driving change, but they often focus on the education system on a national level while ignoring the incentives of local districts, communities, and citizens.

The local-centric focus of American public education has led to widespread discrepancies in the quality of education both between

ECONOMIST (July 6, 2017), <https://www.economist.com/the-economist-explains/2017/07/05/what-is-the-oecd> [<https://perma.cc/9WXX-FUMD/>].

4 Kate Barrington, *The 15 Biggest Failures of the American Public Education System*, PUB. SCH. REV. (May 28, 2019), <https://www.publicschoolreview.com/blog/the-15-biggest-failures-of-the-american-public-education-system> [<https://perma.cc/C8QM-DUR2>].

5 Phillip Pantuso, *Why Is American Education Declining?*, RIVER (Jan. 8, 2020), <https://therivernewsroom.com/why-is-american-education-declining/> [<https://perma.cc/Q3Z5-4YM6>].

6 *Id.*

7 Other scholars have referred to the governmental approach to school education as “layer-cake federalism.” See Aaron Jay Saiger, *The Last Wave: The Rise of the Contingent School District*, 84 N.C. L. REV. 857, 870 (2006) (first citing MORTON GRODZINS, *THE AMERICAN SYSTEM* 60–80 (1966); and then citing DAVID B. WALKER, *THE REBIRTH OF FEDERALISM: SLOUCHING TOWARDS WASHINGTON* 23 (1995)).

8 See, e.g., Scott Sargrad, Lisette Partelow, Jessica Yin & Khalilah M. Harris, *Public Education Opportunity Grants*, CTR. FOR AM. PROGRESS (Oct. 8, 2020), <https://www.americanprogress.org/issues/education-k-12/reports/2020/10/08/491255/public-education-opportunity-grants/> [<https://perma.cc/K48Q-UF8V>] (suggesting an increase in federal funding for school districts through a new federal grant program to decrease inequities among school districts).

states⁹ and within a single state.¹⁰ Between states, the vast differences in quality diminish the overall strength of the educational system, which negatively affects the country's economy because the "economic growth of a state is directly related to the skills of its workforce," which are "heavily dependent on the state's schools."¹¹ Within states, differences in funding across school districts create educational inequities as students in better funded districts have access to additional resources, thereby enhancing student outcomes.¹² Further, school funding is directly correlated with academic success.¹³ Equalizing quality and financing will increase student achievement across a state.¹⁴

Given that public schools are primarily a local matter, a conversation about the education system is incomplete without examining the key local stakeholders: the local voter and the local government. Participation across the country in local voting is relatively low.¹⁵ However, homeowners are active participants in local elections because of their desire to protect their own economic self-interests.¹⁶ These interests include the quality of school districts,

9 See Emma Kerr, *See High School Graduation Rates by State*, U.S. NEWS (Apr. 28, 2021), <https://www.usnews.com/education/best-high-schools/articles/see-high-school-graduation-rates-by-state> [<https://perma.cc/75P9-QFRK>] (demonstrating the wide variation in high school graduation rates by states, as Iowa had a ninety-four percent graduation rate in 2019 while Arizona only had a seventy-five percent graduation rate).

10 See Liz Bowie, *Maryland High School Graduation Rates Fall Slightly as Students Face Added Requirements*, BALTIMORE SUN (Feb. 25, 2020), <https://www.baltimoresun.com/education/bs-md-graduation-rate-decline-20200225-j5k63cu5bjeshfgid4knwgitudu-story.html> [<https://perma.cc/V45B-NAPU>] (showing that the 2019 high school graduation rate in Carroll County, Maryland, was 95.0% while the rate in Baltimore City, Maryland, was 70.3%).

11 Eric A. Hanushek, *The Economic Impact of Good Schools*, HOOVER INST. (May 3, 2016), <http://hanushek.stanford.edu/publications/economic-impact-good-schools> [<https://perma.cc/AHU5-28AV>]. It is estimated that, if every state were able to increase school performance to the level of those in Minnesota, there would be a seventy-six trillion dollar increase in American gross domestic product. *Id.*

12 Carmel Martin, Ulrich Boser, Meg Benner & Perpetual Baffour, *A Quality Approach to School Funding*, CTR. FOR AM. PROGRESS (Nov. 13, 2018), <https://www.americanprogress.org/issues/education-k-12/reports/2018/11/13/460397/quality-approach-school-funding/> [<https://perma.cc/9U79-M524>].

13 *Id.* ("A growing body of evidence shows that increased spending on education leads to better student outcomes.").

14 *Id.*

15 Only "27 percent of eligible voters vote in the typical municipal election." Zoltan L. Hajnal, Opinion, *Why Does No One Vote in Local Elections?*, N.Y. TIMES (Oct. 22, 2018), <https://www.nytimes.com/2018/10/22/opinion/why-does-no-one-vote-in-local-elections.html> [<https://perma.cc/K5A7-BV3S>].

16 See Boqian Jiang, *Homeownership and Voter Turnout in U.S. Local Elections*, 41 J. HOUS. ECON. 168, 176 (finding empirical evidence that homeowners are more likely to participate in local elections than renters because they have greater economic investment in the community). See generally WILLIAM A. FISCHEL, *THE HOMEVOTER HYPOTHESIS: HOW HOME*

property values, and land use, among other things. Homeowners thus tend to be the driving force behind regulation and policies addressing schools and land use because “the American public school system [has been] directed by local voters interested in promoting the value of their property.”¹⁷ Local governments are the mechanism by which local voters implement their preferred policies related to the local school district. As this Note will discuss, local governments have two tools—property taxes and zoning—at their disposal to improve the quality of school districts in their jurisdictions. Consequently, conversations focused on American public education must include these key stakeholders to appropriately address the issues present in today’s system.

Much has been written about the struggles of American public education and potential solutions. Given local voters’ entrenched commitment to an education system that serves their best interests and the difficulty of implementing change, it is unlikely that the current public education system will change any time soon.¹⁸ Consequently, this Note will not set forth or argue for another potential solution. Rather, this Note will contribute to the current literature by describing a novel economic model aimed at theoretically identifying which school districts would benefit most from additional sources of funding. The model could be used by state and local governments to focus their improvement efforts in a more effective, efficient manner.

This Note will argue that, when looking at the quality of a school district, there is some theoretical threshold that determines whether the use of local property tax and zoning by a local government will be effective in increasing the quality of the locality’s schools. This theoretical threshold is conceptually akin to the basic economic idea of a poverty trap.¹⁹ If a locality’s schools are above this quality threshold, the corresponding local government will be able to effectively utilize property taxes and zoning to increase the quality of its schools. However, if it is below the threshold, the local government will not be able to increase the quality of schools by only using property taxes and zoning. It is these districts that need additional, external support to

VALUES INFLUENCE LOCAL GOVERNMENT TAXATION, SCHOOL FINANCE, AND LAND-USE POLICIES (2001) (explaining the theoretical idea that homeowners’ policy preferences and political involvement are heavily influenced by the capitalization of their ownership as compared to renters).

17 WILLIAM A. FISCHER, MAKING THE GRADE: THE ECONOMIC EVOLUTION OF AMERICAN SCHOOL DISTRICTS 13 (2009).

18 See *id.* at 162–63.

19 See Aart Kraay & David McKenzie, *Do Poverty Traps Exist? Assessing the Evidence*, J. ECON. PERSPS., Summer 2014, at 127, 127–28 (explaining that a poverty trap is the idea that “current poverty might be what is causing future poverty” as individuals or countries are unable to sufficiently generate wealth because they are below some income threshold).

improve the quality of the schools and therefore improve the economic outlook for their students.

It is important to note that this Note will lay out the theoretical foundation of this economic model. The model has not been empirically verified with real life examples from school districts and local governments today. As a result, there remains room for additional literature to build upon this Note's model. Primarily, there is an opportunity for significant empirical studies to test the legitimacy of the model, and hopefully further studies and literature will be completed to build upon this idea and model.

This Note will lay out the necessary assumptions in the following order before explaining the proposed model in depth. Part I of this Note will briefly examine the history of public schools in the United States in an effort to explain how the current system evolved into its current shape. Part II examines the economic incentives and considerations that undergird local residents, governments, and school districts. Part III will focus on the intersection of property taxes and zoning—an area in which there is surprisingly little literature—and the ways communities use these local governance mechanisms to further their economic interests. Part IV of this Note will describe the model and apply the model to hypothetical situations to demonstrate the predictive power of the model. The Note will then briefly conclude.

I. THE STRUCTURE OF AMERICAN PUBLIC EDUCATION

This Part of the Note will describe the public education system in the United States. However, in order to understand how the system is set up today, one must understand the historical evolution of public education in the United States. After examining the history of public education, this Part will outline the current system of education today.

A. *The History of American Public Education*

While millions of Americans expect and depend upon free public education, access to such services is not a constitutional right.²⁰ However, the integration of free public education into American life has led some, including President Lyndon B. Johnson, to proclaim education is the fifth freedom for which America stands.²¹ A brief

20 *San Antonio Indep. Sch. Dist. v. Rodriguez*, 411 U.S. 1, 35 (1973) (“Education, of course, is not among the rights afforded explicit protection under our Federal Constitution. Nor do we find any basis for saying it is implicitly so protected.”).

21 Lyndon B. Johnson, President, Special Message to the Congress: The American Promise, March 15, 1965 (Mar. 15, 1965), <https://www.lbjlibrary.org/object/text/special-message-congress-american-promise-03-15-1965> [<https://perma.cc/SCY2-529C>]. See *gener-*

review of public education in the United States explains why Americans have come to embrace, and expect, free public education.

For nearly fifty years after gaining independence, neither the United States nor individual states outside New England had systems of public education in place.²² Despite the inclusion of state-funded education in five state constitutions, states failed to institute education systems early on.²³ At the start of the eighteenth century, the general feeling across the country was that education was a luxury and providing free education would lead to demands for other free services.²⁴ In states where schools were available, they were “neither free nor public.”²⁵

However, prior to the Revolutionary War, New England provided free schools and continued that education to those who could already read and write after independence.²⁶ These schools were funded with local taxes and fees, but they were inequitable; wealthier children could stay in school longer while poorer children had limited access.²⁷

In 1827, then-state Senator Horace Mann pushed for the creation of the Massachusetts State Board of Education.²⁸ Ten years later, Mann was appointed to be Secretary of the Board, a role he used to lobby for the adoption of a state-sponsored public school system.²⁹ Mann’s efforts culminated in the creation of the country’s first state public

ally Areto A. Imoukhuede, *The Fifth Freedom: The Constitutional Duty to Provide Public Education*, 22 U. FLA. J.L. & PUB. POL’Y 45 (2011).

22 Diana Lorenz Weggler, *Education in Early America*, NORWICH REC., Summer 2018, at 18, 19.

23 *Id.* Even early influential leaders failed to establish public education systems; in 1779, Thomas Jefferson introduced a public-education plan in Virginia that gained little traction. *Id.* Benjamin Rush and Noah Webster also failed to implement a long-lasting system in New York and Connecticut, respectively. *See also* SCHOOL: THE STORY OF AMERICAN PUBLIC EDUCATION 13 (Sarah Mondale & Sarah B. Patton eds., 2001) (2001) [hereinafter SCHOOL]. Interestingly enough, the failure to set up a system of state funded schools may partially have been the result of land grants provided by the Land Act of 1785. FISCHER, *supra* note 17, at 20–22. The Land Act provided land to private and public developers on the condition that portions of it be used to establish educational institutions. *Id.* The use of educational land grants introduced and encouraged competition among townships to attract citizens. *Id.* However, these schools were locally established and strongly protected by local voters and governments.

24 JOSEPH COTTLER, CHAMPIONS OF DEMOCRACY 56 (1938).

25 SCHOOL, *supra* note 23, at 20.

26 *Id.* These schools were severely limited, both in terms of curriculum and service. They taught limited subjects and were open for only a few months a year. *See id.* at 20–27.

27 *Id.* at 27.

28 Martha Mitchell, *Mann, Horace*, ENCYC. BRUNONIANA (1993), https://www.brown.edu/Administration/News_Bureau/Databases/Encyclopedia/search.php?serial=M0070 [<https://perma.cc/94EZ-GD5N>].

29 *Id.*

school system, comprised of “common” schools.³⁰ Mann “believed in the absolute right of every individual who comes into this world to an education,” and that education “must be free, universal, and democratic” without promoting a political cause.³¹ To fund this system, Mann advocated for the use of tax dollars to ensure all children had equal access to the free schools, regardless of their economic class.³² Fueling Mann’s emphasis on free public schools was his thought that “[e]ducation then, beyond all other devices of human origin, is the equalizer of the conditions of men, the great balance wheel of the social machinery.”³³ However, this idea was met with vociferous opposition, as many were concerned about state governments taking away a service traditionally provided by local governments.³⁴ Mann pushed on, and Massachusetts became the first state to create a standardized, state-organized public school system.

Public schools quickly grew popular throughout the country. In 1870, there were more than 116,000 public schools servicing more than thirty-eight million people.³⁵ A majority of these schools were single-room schools—the type of school depicted in *Little House on the Prairie*—where students of all ages were educated by a single teacher.³⁶ During this time of rapid growth, public school curriculums expanded to match the economic and social growth in America.³⁷ The number of American public schools peaked in 1920 when there were over 270,000 schools in the country.³⁸ As the population grew, the one-room school was no longer efficient as cities grew and population density increased.³⁹ Reforms pushed for a more efficient administration, resulting in the creation of “centralized and bureaucratized school administration[s],” the introduction of “expert professionals”

30 See SCHOOL, *supra* note 23, at 29–31.

31 Philip Davidson, *Horace Mann and Francis Lieber*, in THE UNFORGETTABLE AMERICANS 164, 166–67 (John A. Garraty ed., 1960).

32 See SCHOOL, *supra* note 23, at 29–31.

33 *Id.* at 29; Horace Mann, Sec. of the Bd., Mass. State Bd. of Educ., Twelfth Annual Report to the Massachusetts State Board of Education (1848), <https://genius.com/Horace-mann-twelfth-annual-report-to-the-secretary-of-the-massachusetts-state-board-of-education-1848-annotated> [<https://perma.cc/6WBJ-6887>].

34 SCHOOL, *supra* note 23, at 30.

35 *Number of Public School Districts and Public and Private Elementary and Secondary Schools: Selected Years, 1869–70 Through 2010–11*, NAT’L CTR. FOR EDUC. STAT. [hereinafter *Number of Public Schools*], https://nces.ed.gov/programs/digest/d12/tables/dt12_098.asp [<https://perma.cc/MX4C-FDNN>]; *By Decade*, U.S. CENSUS BUREAU, <https://www.census.gov/programs-surveys/decennial-census/decade.1870.html> [<https://perma.cc/M5H8-NETN>].

36 See FISCHER, *supra* note 17, at 35.

37 See SCHOOL, *supra* note 23, at 63.

38 *Number of Public Schools*, *supra* note 35.

39 See FISCHER, *supra* note 17, at 65.

to oversee the districts, and “greater efficiency in municipal affairs and the schools.”⁴⁰ Shortly thereafter, the number of school districts peaked in 1940 when there were more than 117,000 in the country.⁴¹

Since 1940, the trend has been for districts to consolidate; consolidation was driven by the shift in education to age grading and the need to satisfy local voter demands.⁴² It brought numerous benefits. First, “there are some ‘economies of scale’ in public education.”⁴³ As the number of students accessing the public education system grew, costs—measured in terms of dollars per pupil—became a serious consideration. Combining districts to serve more students provided some cost savings. However, studies show that, while there are financial benefits, consolidation has diminishing returns after reaching a certain point.⁴⁴ Second, consolidation accompanied the rise of the age-graded system, which increased labor mobility as parents could move more easily knowing their children’s education would not be disrupted.⁴⁵ The increased labor mobility is important; parents could accept new jobs or even look for better school districts while knowing their children would not fall behind as a result of the move.

As of 2011, there were only 13,588 districts operating in the country.⁴⁶ This number was relatively stable in the decade leading up to 2011 as consolidation slowed.⁴⁷ While there are still some changes in school districts, it appears that school districts across the country have reached a sort of equilibrium or more aptly described, a stalemate. Local voters are now committed to their district setups and fight to protect the systems they have in place.⁴⁸

B. *The Relationship Between Government and District*

As mentioned, the United States Constitution does not provide the right to education. Further, only a few “state constitutions explicitly recognize education to be a fundamental right.”⁴⁹ However, nearly all state constitutions “obligate[] the legislature to provide a

40 SCHOOL, *supra* note 23, at 65.

41 *Number of Public Schools*, *supra* note 35.

42 See FISCHEL, *supra* note 17, at 66–68.

43 ANDREW J. COULSON, MACKINAC CTR. FOR PUB. POL’Y, SCHOOL DISTRICT CONSOLIDATION, SIZE AND SPENDING: AN EVALUATION 3 (2007).

44 Economists estimate that consolidating districts with less than six thousand students will provide some positive savings in expenditure per pupil. After this mark, adding students to a district actually *increases* the cost per-pupil. *Id.*

45 See FISCHEL, *supra* note 17, at 76–78, 119–20.

46 *Number of Public Schools*, *supra* note 35.

47 *Id.*

48 See FISCHEL, *supra* note 17, at 162–63.

49 Trish Brennan-Gac, *Educational Rights in the States*, HUM. RTS., July 2014, at 12, 12.

system of public schools.”⁵⁰ The language employed differs by state, but for the most part, the education clauses in state constitutions establish “free,” “thorough,” or “uniform” public schools.⁵¹ In addition to employing different language, state constitutions provide different levels of specificity and direction in terms of how public schools should be set up.⁵² The employed language can have “consequences for how education is financed.”⁵³ Unsurprisingly, given the variance among states, “American education has developed into a hodge-podge quilt of different rights, access, and quality standards.”⁵⁴

Despite the different requirements set forth by state constitutions, school districts and their respective funding mechanisms have generally taken on similar forms. Primarily, “[s]chool [d]istricts are geographic entities and single purpose governmental units” that provide services at the local level.⁵⁵ School districts gained authority to provide and administer public education through grants of power from the state, which could have a duty to provide education depending on the state’s constitution.⁵⁶ Traditionally, the grant of power to local districts was quite broad without much state or federal oversight.⁵⁷ Districts had a duty to create a “sufficient number of policies to provide a map for directing activity in the school or

50 Avidan Y. Cover, Note, *Is “Adequacy” a More “Political Question” than “Equality?”: The Effect of Standards-Based Education on Judicial Standards for Education Finance*, 11 CORNELL J.L. & PUB. POL’Y 403, 404 (2002); Molly A. Hunter, *State Constitution Education Clause Language*, EDUC. JUST., <https://edlawcenter.org/assets/files/pdfs/State%20Constitution%20Education%20Clause%20Language.pdf> [<https://perma.cc/M8CK-SVR6>].

51 Hunter, *supra* note 50. Even after *Brown v. Board of Education*, the Alabama State Constitution says that “[s]eparate schools shall be provided for white and colored children, and no child of either race shall be permitted to attend a school of the other race.” ALA. CONST. art. XIV, § 256. The language used in state constitutions plays an important role in suits with education-related issues, including funding, because the state constitutions provide defendants with a protected right, and therefore standing, upon which they can sue.

52 See EMILY PARKER, EDUC. COMM’N OF THE STATES, CONSTITUTIONAL OBLIGATIONS FOR PUBLIC EDUCATION 4–22 (2016) (outlining the specific language used in each state constitution).

53 *Id.* at 1.

54 Brennan-Gac, *supra* note 49, at 12.

55 *School District Boundaries*, NAT’L CTR. FOR EDUC. STAT., <https://nces.ed.gov/programs/edge/Geographic/DistrictBoundaries> [<https://perma.cc/2QYK-TVKX>].

56 Saiger, *supra* note 7, at 863–65.

57 State governments have complete authority over local governments and school districts because the state is able to delegate (and remove) its own powers. Historically, states have taken a very hands-off approach to handling school districts by decentralizing responsibility. *Id.* at 866–69.

district.”⁵⁸ More recently, state and federal oversight has increased to hold districts more accountable for their performance.⁵⁹ School districts are still primarily responsible for the administration of schools, but they now have some checks on the free exercise of their jurisdictional powers. While many of these powers are contingent on satisfying state or federal requirements or metrics, school districts still have the power to set forward policies on employment, curriculum, and other necessary items to educate students.⁶⁰

Every school district possesses certain characteristics. It is variations of these characteristics, which will be examined in this Section, that creates the variety of school district setups prevalent throughout the country today. The first characteristic is the relationship of the school district to the local municipal government and the resulting governance setup. The second is the level of grades served by the school district. The third is the geographical coverage of the local government and school district.

Turning to the relationship between the two entities, a district can either be “administratively and fiscally independent of any other government” body or “lack sufficient autonomy to be counted as [a] separate government[] and [be] classified as a dependent agency of some other government.”⁶¹ Throughout this Note, the first type of school district, where the district is a separate governmental entity, will be referred to as an “independent” district. The second type of district, where the school district is dependent on another government and attached to “a county, municipal, township, or state,”⁶² will be referred to as a “dependent” district.

In 2012, more than ninety percent of school districts were considered independent government agencies, and thirty states statutorily allowed for only these types of school districts to operate.⁶³ Sixteen states employ a “mixed” situation, where both independent and dependent school districts are used.⁶⁴ Alaska, Hawaii, Maryland, North Carolina, and the District of Columbia employ purely

58 *Id.* at 864 (quoting PATRICIA C. CONRAN, *SCHOOL SUPERINTENDENT’S COMPLETE HANDBOOK: PRACTICAL TECHNIQUES AND MATERIALS FOR THE INSERVICE ADMINISTRATOR* 3 (1989)).

59 *Id.* at 862.

60 *Id.* at 864, 889.

61 *School District Boundaries*, *supra* note 55.

62 *Id.*

63 DOUG GEVERDT, NAT’L CTR. FOR EDUC. STAT., 2012 CENSUS OF GOVERNMENTS, STATE DESCRIPTIONS: SCHOOL DISTRICT GOVERNMENTS AND PUBLIC SCHOOL SYSTEMS 10–11 (2018).

64 *Id.* at 11.

dependent school districts administered by some larger governmental body.⁶⁵

Every district contains its own group or board of governance officials, who can either be elected or appointed.⁶⁶ To make matters more confusing, every state organizes its school districts differently. For example, in 2012, Illinois had more than nine hundred districts organized as independent governments, and these districts ranged from the school district encompassing Chicago to the community college districts across the state.⁶⁷ The members of Illinois school boards were all elected by their communities, except for those serving in Chicago, who “are appointed by the Mayor with the approval of the city council.”⁶⁸ Maryland, on the other hand, rolls school districts into county and municipal governments, and the board members are either elected or appointed by the Governor.⁶⁹

In addition to varying governance setups school districts use, some school districts may provide education to different grades and ages of students. A vast majority of districts are “unified.”⁷⁰ Unified school districts “control schools for all grade levels—from kindergarten through high school—in their territory.”⁷¹ The other type of grade coverage uses a nonunified approach. In those districts, which are only employed in parts of some states, there are elementary school-only districts and then separate high school districts.⁷² In these districts, children will start their education in one district and continue to the high school district, which is oftentimes larger and encompasses multiple, smaller districts.⁷³ In a few of these nonunified districts, students get to choose the high school they attend—even if it’s outside their normal district—and their local district will pay their tuition.⁷⁴

The third characteristic of school districts is the geographic bounds of the municipal government and corresponding school districts. One geographic variation is the pure size of the district;

65 *Id.*

66 *See id.* at 13–83. A majority of “school board members are elected by people in their community to represent their values, views, and desires for the public schools in their district.” *About School Board and Local Governance*, NAT’L SCH. BDS. ASS’N, <https://www.nsba.org/About/About-School-Board-and-Local-Governance> [<https://perma.cc/BPK5-5JCE>].

67 GEVERDT, *supra* note 63, at 28.

68 *Id.*

69 *Id.* at 40.

70 *See* FISCHEL, *supra* note 17, at 159.

71 *Id.*

72 *Id.*

73 *Id.*

74 *Id.*

different regions of the country employ differently sized districts.⁷⁵ Another variation is whether the municipal government's and school district's jurisdictions cover the same geographical area. Traditionally, the country has used the county as the geographical unit to create local governments.⁷⁶ Despite this, in a majority of states outside the South, school districts are not geographically contiguous with county lines.⁷⁷ These districts will be referred to as "noncontiguous" throughout this Note.

In New England, districts are typically smaller than the county's geographical footprint because they are contiguous with townships, which hold most of the local governmental power.⁷⁸ Additionally, in the West and Midwest, school districts are drawn separately from counties, outside a few exceptions.⁷⁹ As a result, in these areas, school districts have taken odd shapes, and state maps represent jigsaw puzzles composed of hundreds of districts. This is the result of local politics and voting,⁸⁰ which will be covered further in a later Section of this Note. In the South and a handful of other states, the geographical areas enveloped by school districts and counties are the same.⁸¹ This type of district will be referred to as "contiguous."

The way school districts are established, both from a governance and geographic perspective, is quite important because the local government and school district are responsible for the policies that determine the setup and funding of a district. This last characteristic, whether the district is contiguous with the local government unit, is arguably the most important of the three characteristics described above. This is because, as previously discussed, while "[s]chool districts are clearly separate from municipalities in their functions and governance," the incentives of municipalities and districts align in a way that will be discussed later in this Note.⁸²

75 *Id.* Most notably, Southern school districts are traditionally larger than those in the rest of the country. This was the result of segregation, which required larger districts to overcome strong diseconomies of scale created by running separate schools for white and black children. *See id.* at 159–60.

76 *Id.* at 161.

77 *Id.*

78 *Id.* at 162.

79 *See id.* at 161–62. Utah and Nevada have merged their school districts into county units. *Id.* at 162.

80 *Id.* at 162–63.

81 *See id.* at 161.

82 *Id.* at 216.

C. Funding School Districts

Funding for school districts is provided by three tiers of government: federal, state, and local. In 2015–2016, states provided an average of forty-seven percent of funding, local governments provided nearly forty-five percent, and the federal government provided roughly eight percent.⁸³ Levels of funding provided by each level varied by state; Hawaii provided nearly ninety percent of all funding while South Dakota provided roughly thirty percent of funds.⁸⁴ State revenues for public education are raised from sales taxes, personal and corporate income taxes, excise taxes on items like alcohol and tobacco, and lottery revenues.⁸⁵ While state and federal revenues provide a large portion of funding, the exact amount of funding is subject to change based on policy decisions made at these levels of government.

Local governments mainly generate revenue from state and federal provided funds, taxes, and other miscellaneous sources.⁸⁶ A large majority of this local tax revenue is provided by property taxes.⁸⁷ Independent school districts may be able generate this revenue themselves, while dependent districts receive their funds from the corresponding local government unit.⁸⁸ As a result, property taxes play an integral financial role as they provide, on average, more than a third of funding to school districts.⁸⁹ While some states have limited the reliance on property taxes,⁹⁰ a sizable majority of states and school districts still depend heavily on the property tax; unsurprisingly, school district funding from property taxes has remained relatively stable for nearly four decades.⁹¹ Further, property taxes provide different yields based on the wealth of the tax base.

Property taxes are based on “the assessed value of residential and commercial ‘real’ property,” and in some areas, personal property like

83 REBECCA R. SKINNER, CONG. RSCH. SERV., R45827, STATE AND LOCAL FINANCING OF PUBLIC SCHOOLS 2 (2019).

84 *Id.* at 3–4.

85 *Id.* at 5.

86 *The State of State (and Local) Tax Policy*, TAX POL’Y CTR., <https://www.taxpolicycenter.org/briefing-book/what-are-sources-revenue-local-governments> [<https://perma.cc/7W3B-X4XT>].

87 In 2016, property taxes provided seventy-two percent of local tax revenues. SKINNER, *supra* note 83, at 4–5.

88 *Id.* at 4.

89 *Id.*; see also Andrew Reschovsky, *The Future of U.S. Public School Revenue from the Property Tax*, LAND LINES, July 2017, at 28, 28.

90 Renu Zaretsky, *School Days, School Funding Haze*, TAX POL’Y CTR. (Sept. 5, 2018), <https://www.taxpolicycenter.org/taxvox/school-days-school-funding-haze> [<https://perma.cc/6VR3-K3HQ>].

91 Reschovsky, *supra* note 89, at 28.

vehicles and livestock.⁹² As a result, variations of personal property, which are a manifestation of wealth, compared to the number of school-age children among different localities are the primary driver in a locality's ability to generate revenue for each student.⁹³ Localities are able to choose their own property tax rate—within a certain range set by the state—and have the freedom to tax their own residents at higher rates than other areas in the same state.⁹⁴ This setup allows localities to use property taxes as the primary tool to increase the money available to finance public schools.

To illustrate the strength of the property tax tool, imagine there are two adjacent, independent, contiguous school districts that sit within the same county in a state. One district is a wealthy suburb closer to a city with expensive homes, and the other is a less affluent, more rural suburb. If the tax rate is the same across both districts, the suburban district will have a greater tax base and more revenue to spend on schools. Unsurprisingly, given that the suburban district can spend more money per pupil, these students are likely to perform better and progress to higher education. The poorer suburb will likely have less funding per pupil, which is proven to lead to worse educational outcomes.⁹⁵ This funding discrepancy can have significant effects; twelve percent of variance in academic performance among American students is explainable by the student's socioeconomic status.⁹⁶

The property tax model was upheld as constitutional under the Equal Protection Clause by the Supreme Court in *San Antonio Independent School District v. Rodriguez*.⁹⁷ In that case, the least affluent school district in San Antonio was able to provide funding of \$356 per pupil while the wealthiest had nearly \$600 per pupil.⁹⁸ The Court held that the funding arrangement was legal, holding that “the absence of any evidence that the financing system discriminates against any

92 SKINNER, *supra* note 83, at 5.

93 *Id.*

94 *Id.*

95 Martin et al., *supra* note 12.

96 *Comparative Data for Top Performing Countries*, NAT'L CTR. ON EDUC. & ECON., <https://ncee.org/what-we-do/center-on-international-education-benchmarking/comparative-data-for-top-performing-countries/> [https://perma.cc/CW6B-A8CE]. This amount is nearly twice the variance in Canada and similar to the variance in China, a country known for income inequality. Thomas Piketty, Li Yang & Gabriel Zucman, *Income Inequality Is Growing Fast in China and Making It Look More Like the US*, LONDON SCH. OF ECON. BUS. REV. (Apr. 1, 2019), <https://blogs.lse.ac.uk/businessreview/2019/04/01/income-inequality-is-growing-fast-in-china-and-making-it-look-more-like-the-us/> [https://perma.cc/FB4E-9C3M].

97 411 U.S. 1, 6, 17–18 (1973).

98 *Id.* at 12.

definable category of ‘poor’ people or that it results in the absolute deprivation of education” was sufficient to uphold the system.⁹⁹ Writing for the majority, Justice Powell explained that “[i]t has simply never been within the constitutional prerogative of this Court to nullify statewide measures for financing public services merely because the burdens or benefits thereof fall unevenly depending upon the relative wealth of the political subdivisions in which citizens live.”¹⁰⁰

Since this decision, states have increased their efforts to offset the disadvantages between districts within their states. This process is known as “equalization,” which is an attempt by states to provide some degree of equal spending power or ability to raise funds across different districts.¹⁰¹ However, equalization does not lead to “absolute equality of dollars spent on behalf of every pupil in the state”; rather, state equalization is frequently used to “account for certain types of pupils whose education imposes higher than average costs” on districts.¹⁰² In practice, equalization efforts are applied based on characteristics of localities’ pupils. Such characteristics include English learners, low income, disabilities, and others.¹⁰³ State-level attempts to equalize public education are important endeavors, but equalization is another tool that a local government or district lacks control over. While some states may use equalization to determine how much money a locality raises via property taxes, localities retain primary control over the property tax and its use as a tool to raise funds for public education.¹⁰⁴

II. THE EVER-IMPORTANT ECONOMIC INCENTIVES

The way districts are set up is of great importance to students, homeowners, and local governments. Each stakeholder has its own interests that stem from the setup and decisions of a school district. First, students have an inherent interest in the school district being well funded and effective. Students’ future economic prospects are tied to the effectiveness of their primary schools, since “education is

99 *Id.* at 25.

100 *Id.* at 54.

101 SKINNER, *supra* note 83, at 9.

102 *Id.*

103 *Id.* at 11. Even though states provide additional funding to low-income districts, reports show that states need to provide more money to increase equality. For example, it is estimated that a school spending \$13,000 on impoverished school districts needs to actually spend \$20,000 to provide greater equalization. Howie Knoff, *The Impact of Inequitable School Funding: Solutions for Struggling Schools Without the Money to Fully Help Struggling Students*, AM. CONSORTIUM FOR EQUITY IN EDUC., <https://ace-ed.org/inequitable-school-funding/> [<https://perma.cc/89XA-9TZZ>].

104 See SKINNER, *supra* note 83, at 9–10.

one of the best predictors of future income.”¹⁰⁵ Students need school districts that enable them to compete for the limited spots in higher education given the growing importance of the college degree in the labor market.¹⁰⁶ In addition, college graduates are expected to earn, on average, one million dollars more in their lifetime than high school graduates.¹⁰⁷ However, students have little to no ability to pick their school district or lobby for changes within a current district or local government. Students are often stuck with the hand they are dealt, thus relying on their parents, guardians, or community to do what is best for them.

From the perspective of both homeowners and communities, “[s]chools matter for property values.”¹⁰⁸ In fact, the quality of schools may be the most important variable in a consumer’s decision-making process on where to move¹⁰⁹ and property value determination.¹¹⁰ A study, compiled by the Brookings Institution, provides further proof of the positive effect of good schools on property values.¹¹¹ Homebuyers actively seek out homes in areas with better schools, and prospective buyers may willingly forego nicer homes to live in better school districts.¹¹² By having more expensive homes, communities benefit by having a wealthier tax base, which means the districts can spend more on schools to further improve. The positive correlation between school quality and home value makes clear the importance of the variable to individual homeowners as they choose a community to live in.

Since Charles Tiebout introduced the idea of the “consumer-voter” in his seminal 1956 paper, the importance of consumers to communities has been clear.¹¹³ Tiebout argued that a consumer dis-

105 Martin et al., *supra* note 12, at 6.

106 *Id.* at 6 (“During the [Great Recession] recovery, [ninety-five] percent of the jobs created went to workers with postsecondary education or training.”).

107 *Id.* at 6–7.

108 FISCHER, *supra* note 17, at 3.

109 *Id.* at 1, 3 (arguing that schools provide nonmonetary value because they provide a sense of community and social capital).

110 See Lisa Barrow & Cecilia Elena Rouse, *Using Market Valuation to Assess Public School Spending*, 88 J. PUB. ECON. 1747 (2004). “We find that, on average, additional school spending is valued by potential residents.” *Id.* at 1767. This study estimates that an increase in one dollar per pupil in spending increases housing values by about thirty dollars, on average. *Id.* at 1761.

111 JONATHAN ROTHWELL, HOUSING COSTS, ZONING, AND ACCESS TO HIGH-SCORING SCHOOLS 1 (2012) (discovering that housing is roughly two-and-a-half times more expensive when located closer to well-rated schools as compared to low-rated schools).

112 See Sarah Max, *Good Schools, Bad Real Estate*, WALL ST. J. (June 25, 2010), <https://www.wsj.com/articles/SB10001424052748704009804575308951902854896> [https://perma.cc/CMA8-8P8C].

113 Charles M. Tiebout, *A Pure Theory of Local Expenditures*, 64 J. POL. ECON. 416, 416 (1956); see also Peter Mieszkowski & George R. Zodrow, *Taxation and the Tiebout Model: The*

plays her preferred community characteristics by “picking [the] community which best satisfies [her] preference pattern for public goods.”¹¹⁴ The consumer will move to the community that provides the ideal bundle of public goods, assuming that consumers have perfect mobility.¹¹⁵ Tiebout’s description of the interplay between consumers and communities analogizes communities to companies who are competing with one another for customers, which take the form of residents. Communities thus compete on the public goods they provide their residents, like parks, highways, and other public amenities. While Tiebout mentions that schools may be part of the calculus,¹¹⁶ schools are not public goods in the classic sense.¹¹⁷ However, despite this, public education has economic merit as a “good for the public” and deserves to be considered, at the very least, a quasi-public good.¹¹⁸

Two key assumptions in Tiebout’s model are that consumers are “fully mobile and will move to that community where their preference patterns, which are set, are best satisfied,” and consumers “are assumed to have full knowledge of differences among revenue and expenditure patterns and to react to these differences.”¹¹⁹ Given these assumptions, when this system operates efficiently, discontented consumers can find an interested consumer to move into or purchase their property with little to no effort.¹²⁰ The last thing that bears mention is that Tiebout’s model assumed the presence of a “head tax,” in which each individual would pay some fee to the municipality to access the services provided.¹²¹ This model of “head taxes” views taxes as the price of public goods. Those who can afford the taxes can access the public good, allowing them to derive its benefit.

Tiebout’s model of consumer and community behavior has been built on by subsequent scholars. The next logical addition to the

Differential Effects of Head Taxes, Taxes on Land Rents, and Property Taxes, 27 J. ECON. LIT. 1098, 1098–99 (1989).

114 Tiebout, *supra* note 113, at 418.

115 *Id.* at 424.

116 *Id.* at 418.

117 COREY A. DEANGELIS, IS PUBLIC SCHOOLING A PUBLIC GOOD? AN ANALYSIS OF SCHOOLING EXTERNALITIES 2–3 (Cato Inst. Pol’y Analysis No. 842, 2018), <https://www.cato.org/publications/policy-analysis/public-schooling-public-good-analysis-schooling-externalities> [<https://perma.cc/WT9S-U3QV>].

118 *Id.* (first citing Henry M. Levin, *Education as a Public and Private Good*, 6 J. POL’Y ANALYSIS & MGMT. 628 (1987); and then citing Chris Lubienski, *Whither the Common Good? A Critique of Homeschooling*, 75 PEABODY J. EDUC. 207 (2000)). For an argument against considering education as a public good (and an argument for why education should not be government-provided at all), see Milton Friedman, *The Role of Government in Education, in ECONOMICS AND THE PUBLIC INTEREST* (Robert A. Solo ed., 1955).

119 Tiebout, *supra* note 113, at 419.

120 *Id.* at 420.

121 *Id.* at 417–18; see also Mieszkowski & Zodrow, *supra* note 113, at 1098–99.

model was the change from the theoretical head tax to property taxes, which are used to provide both public goods and quasi-public goods, including education. Wallace Oates introduced the key property tax consideration in 1969; he argued that consumers will weigh the utility gained from public goods and public education with the cost of these benefits.¹²² This model argues that property taxes *must* be accompanied with utility-creating public goods that lead to increases in property values if consumers are to be willing to pay more in higher property taxes.¹²³ The property tax plays a key role, because without it, Tiebout's model would only "be a formula for musical suburbs, with the poor following the rich in a never-ending quest for a tax base."¹²⁴ To simplify things, "[t]he property tax acts as an efficient price for the public service."¹²⁵

The addition of a property tax to the Tiebout model has led to debate about whether the property tax is a distortionary tax on capital or a benefit tax. The traditional view of property taxes is that owners of property bear no real tax burden because they pass the tax onto their renters.¹²⁶ In this view, property taxes are regressive because those who do not own property, and who are generally poorer, are forced to spend a greater proportion of their income on taxes while renting than the owners of the capital.¹²⁷ The new view argues that all property owners bear some tax burdens, and as a result, the tax is progressive because the wealthy obtain a greater portion of their wealth from property ownership.¹²⁸ Today, the traditional and new views are considered to be variations of the same idea that the property tax produces distortionary effects and reduces the return on capital.¹²⁹

The third view is the benefit view, to which Tiebout's model seems to subscribe. Property taxes are a benefit or "user charge for local services received."¹³⁰ In order for a property tax to be converted into a benefit tax, certain circumstances, namely the presence of zoning,

122 Wallace Oates, *The Effects of Property Taxes and Local Public Spending on Property Values: An Empirical Study of Tax Capitalization and the Tiebout Hypothesis*, 77 J. POL. ECON. 957, 959-60 (1969).

123 *Id.* at 967.

124 Bruce W. Hamilton, *Zoning and Property Taxation in a System of Local Governments*, 12 URB. STUD. 205, 205 (1975).

125 *Id.* at 206.

126 Robert W. Wassmer, *Property Taxation, Property Base, and Property Value: An Empirical Test of the "New View,"* 46 NAT'L TAX J. 135, 135-36 (1993) (citing DICK NETZER, *ECONOMICS OF THE PROPERTY TAX* (1966)).

127 *Id.*

128 *Id.* at 136.

129 Mieszkowski & Zodrow, *supra* note 113, at 1140-41.

130 *Id.* at 1099.

must be present.¹³¹ This Note assumes that the benefit view is true; property taxes provide benefits to the residents, assuming they live within a locality. In addition, this Note will further examine the requisite zoning component of the benefit view of property taxes.

Given that this model also assumes consumers are mobile, communities that increase property taxes and fail to offset the costs with greater benefits will see consumers “vote with their feet” and leave the community.¹³² An exodus of residents harms a community in two ways. First, it reduces the tax base which the local government relies on to provide public goods. Second, an exodus of consumers signals to potential new residents that the community is flailing, much like a ship taking on water.

These two models, and the others that follow, are ingenious ways to think about how communities select public goods and market them to consumers. However, the major shortcoming with these theories is a core assumption that consumers are mobile, which is not always the case. In reality, a majority of consumers are not mobile and are thus unable to leave communities when the quality of public goods declines or taxes rise. Consumers often lack the liquidity necessary to move, lack the skills needed to find a suitable job, or lack the desire to uproot their lives and families to move to another city. Furthermore, the sheer costs of selling and buying a home and then moving into a new home provide additional barriers to mobility.¹³³ In addition to the buy-side barriers that consumers must overcome, consumers must be able to overcome the various barriers to entry established by communities, like zoning.

III. THE ROLE OF ZONING

Zoning has long been a tool employed by municipalities to shape their communities in a specific way, or to minimize losses from less than efficient land uses.¹³⁴ In the context of this Note’s model, zoning is any type of land use restriction that requires residents to consume a minimum amount of housing.¹³⁵ Often, this type of zoning takes the

131 *Id.* at 1140.

132 Illinois is currently a real-life example of consumers voting with their feet. Working-age consumers are moving out of Illinois, in part because of high property taxes. See J. Scott Moody, *Policy Lessons from Illinois’ Exodus of People and Money*, ILL. POL’Y, <https://www.illinoispolicy.org/reports/policy-lessons-from-illinois-exodus-of-people-and-money-2/> [<https://perma.cc/GZR4-6SNY>].

133 See Roger P. Alford & Benjamin H. Harris, *Anticompetition in Buying and Selling Homes*, REGULATION, Summer 2021, at 28, 28.

134 See WILLIAM A. FISCHER, ZONING RULES! THE ECONOMICS OF LAND USE REGULATION 129–31 (2015).

135 Hamilton, *supra* note 124, at 206.

form of ordinances that require all new developments be single family homes. Zoning in this sense plays an important role because it “allows communities to control the composition of [their] property tax base.”¹³⁶ This type of zoning, where communities control the property tax base, is called fiscal zoning.¹³⁷ Without fiscal zoning, consumers would be able to freely move between communities to maximize their own utility. So, for example, a move from a poorer to wealthier district would increase the consumer’s utility because they can access better public services—including education—that are better funded via a larger tax base.¹³⁸ Given the incentive for consumers to move to richer districts, fiscal zoning is a necessary mechanism for communities to control movement into the community. The use of fiscal zoning eliminates the free rider problem because consumers cannot move to a better area and build a house without being able to afford the property or the property taxes.¹³⁹

In conjunction with this idea about fiscal zoning, the long-lasting nature of property taxation requires planners to take a forward-looking approach to land use regulation.¹⁴⁰ The use of a property tax without zoning is of little use because zoning makes it hard for things to change.¹⁴¹

In the context of school districts, fiscal zoning is employed to carry out a different, yet equally important task: maintaining equilibrium once communities have identified the optimal bundle of public goods and communities have reached their self-defined optimal number of residents. Fiscal zoning is thus a ruthless solution; localities use it “to make sure that homebuyers . . . have to pay enough for housing to generate the property taxes that would pay for the schools.”¹⁴²

IV. THE THEORETICAL THRESHOLD MODEL

This Section of the Note will introduce a new economic model that state and local governments could use to identify which school districts may need additional, more focused policies to improve the quality of schools. This Part will proceed by quickly laying out the assumptions of this model, explaining the mechanics, and describing

136 FISCHEL, *supra* note 134, at 131.

137 See William A. Fischel, *Fiscal Zoning and Economists’ Views of the Property Tax* 4–5 (Lincoln Inst. for Land Stud., Working Paper No. WP14WF1, 2013).

138 See Hamilton, *supra* note 124, at 206.

139 Fischel, *supra* note 137, at 5. For further discussion of the free rider problem and the limit it places on Tiebout’s model, see generally James M. Buchanan & Charles J. Goetz, *Efficiency Limits of Fiscal Mobility: An Assessment of the Tiebout Model*, 1 J. PUB. ECON. 25 (1972).

140 FISCHEL, *supra* note 134, at 133.

141 *Id.* at 134.

142 Fischel, *supra* note 137, at 5.

theoretical applications of the model. This Note will primarily explain the theoretical mechanics of the model, rather than completing an entire empirical study.

A. Assumptions

This Section will turn to the model briefly mentioned in the Introduction. The model is built on a few key assumptions. First, as outlined above,¹⁴³ a local government's primary tool to improve the quality of their schools is the property tax. Since this is one piece of policy that the municipality has complete control over, it can use the tax as a lever of sorts to either increase or decrease the funding available. Second, a local government can also utilize fiscal zoning to limit the flow of new residents into the community.¹⁴⁴ The use of fiscal zoning alone will not lead to significant improvements in school district quality. However, when the property tax lever is coupled with fiscal zoning, a local government can make changes to the property tax rate followed by changes in zoning laws to preserve the current landscape of residents and development.

Third, residents within a locality primarily care about the quality of their school districts for the reasons outlined above.¹⁴⁵ They will act either to improve their school districts or to preserve the quality that a district currently has. If a consumer becomes dissatisfied and seeks utility elsewhere, that resident can vote with her feet and move to another district, assuming she has the means to do so.¹⁴⁶ Fourth, local governments will enact policies and act in a way to improve or protect the quality of school districts, even if the local district is independent and noncontiguous with the local government. Fifth, the model only applies to states that heavily rely on property taxes to fund their schools. Consequently, the model is inapplicable to states that do not use the traditional funding formulas or setup like Hawaii¹⁴⁷ or Illinois.¹⁴⁸

143 See *supra* Section I.C.

144 See *supra* Part III.

145 See *supra* text accompanying notes 105–12.

146 See *supra* text accompanying notes 110–32.

147 Hawaii has a single, unified statewide school district that is administered by a governor-appointed nine person school board. There are no local school districts. Grace Chen, *Education Under the Sun: An Overview of Public Schools in Hawaii*, PUB. SCH. REV. (June 10, 2019), <https://www.publicschoolreview.com/blog/education-under-the-sun-an-overview-of-public-schools-in-hawaii> [<https://perma.cc/A2CK-UEM7>].

148 Illinois still relies heavily on property taxes, but it has increased the state funding to low-income areas using an 'evidence based' approach. Natasha Korecki, *Illinois Overhauls System for Funding Public Schools*, POLITICO (Aug. 29, 2017), <https://www.politico.com/story/2017/08/29/illinois-public-schools-funding-242144> [<https://perma.cc/GMZ3-CR3P>].

B. *The Model*

Now that the assumptions have been laid out, this Section will introduce and examine the proposed model. The basic idea is that there is some theoretical threshold in the quality (“quality threshold”) of a school district that determines the ability of a municipality to improve the district using property taxes and zoning. Like a poverty trap, if the school district is below this threshold, it will not be able to improve in quality. The quality of a school district can be measured using a number of proxies, including graduation rate, secondary education attainment rate, or standardized test scores. This list is not exhaustive; prospective homeowners will use a number of quality metrics when evaluating school districts, and these metrics can be applied to this model.

The way the threshold “works” can be described using hypotheticals. Assume there is a town with an above average, dependent school district. The town likely has a high property tax or a wealthy resident pool that it depends on to finance its schools. Now that the town has an above average school district, it can start to change things to solidify this competitive advantage. For example, the town could zone more areas as single-family residential zones or industrial zones to limit future development and population growth. In addition, the town could start to decrease property taxes, which in turn would increase the property values of the residential homes.¹⁴⁹ As time goes on, the property values in the area would continue to increase because of the high-quality schools and low property taxes, and wealthier residents would move in. This influx of wealth would increase the tax base the district has for its schools, thus increasing the amount of money spent per student. The town could continue to implement more restrictive zoning laws and decrease property taxes in this way, until it has the best school district in the state or region. This cycle could continue as long as the municipal government can do so within the legal limits of zoning. The model predicts that, once the school district has surpassed the theoretical threshold, there will be an increase in fiscal zoning as the community tries to protect and maintain its tax base.

This hypothetical district would be extremely desirable for consumers because the bundle of public goods it provides is what many people seek. The schools will position students for long term success, and the town’s setup seems to be poised to remain stable for years to come. However, like many wealthy school districts in the country

149 See Oates, *supra* note 122.

today, this hypothetical town will likely lack a large proportion of low-income households or new, nonwealthy residents.

Now, let us tweak the hypothetical. There is an adjacent town that has below-average schools in its district. This town must take a different approach to try and attract customers. First, the town could lower its property taxes to increase the value of the properties. This should have a positive effect on the property values and will hopefully attract wealthier residents. However, there is a chance that the below-average schools do not provide enough of an incentive for people to move there. Consequently, the community will fail to draw the wealthy residents it hoped to attract. The town is now faced with a decision: continue a race to the bottom by lowering property taxes and hope new residents demand property, or change the zoning laws to allow for more multifamily homes in an effort to grow the revenue base by increasing the number of individuals taxed. Either way, the town is in a difficult position. It risks lowering the property tax rate too much to a point where it does little good. On the other hand, it risks increasing the number of students accessing the school system, and thus lowering the per-student spending on education.

These two hypotheticals are meant to serve as indicators of how fiscal zoning, property taxes, and school districts intertwine. When a school district is in an advantageous position, that is, above average, it can afford to both lower the property tax rate and employ more restrictive zoning laws. When a school district is less attractive, the town has to loosen its zoning regulations or lower taxes with the hope that the supply of residents increases enough that the tax revenues increase to the point where the level of schools rise. In the current funding environment, rich districts are able to use tools like fiscal zoning and income taxes to reinforce their competitive advantages at the expense of poorer districts. The "expense" takes the form of negative externalities; the poorer district is forced to internalize the costs of having less money per pupil available, and as a result, lower quality education. As demonstrated, this threshold model is similar to a poverty trap. If a district is below the threshold level, it cannot generate the necessary revenues to increase the quality of schools with the tools at its disposal. As a result, there must be additional sources of funding.

These two hypotheticals are purposely simplified by ignoring the characteristics of the school district. Turning to the characteristics, the first one to examine is how the model works with different types of district governance. In dependent districts, the model predicts that the local government would be active in adjusting the property tax to find a suitable taxation rate to raise money for the schools. If the district is above the threshold, the model predicts that the municipal

government—which envelops the school district—would also pass fiscal zoning ordinances to limit the flow of new people trying to access the schools. If the district is below the threshold, the local government will likely be limited in what it can do to try and increase the quality of schools. In addition, there would likely be active communication between the local government and the district to create policies focused on improving the quality of the schools.¹⁵⁰

Alternatively, in independent districts, the model would be applied similarly but would operate differently. In an independent district, the local municipal government would not have direct control over the school district. As a result, if a district was suboptimal, there would need to be efforts by the municipal government to adjust the tax rate to increase the tax base and funding for the school district. Since the two government entities are separate, there may be less direct communication and cooperation between the local government and school district. As a result of this, in the absence of such focused communication, it is likely that individual voters will play a key role in pushing for changes of property taxes and zoning. Voters would thus elect local government officials who support their policies to improve schools using property taxes and zoning.

The geographic coverage characteristic adds a layer of complexity into the model. In contiguous districts, the same group of resident-voters are served by both the local government and district. As a result, voters in the same districts likely have the goals and incentives to vote for governmental representatives who will use property tax and fiscal zoning to increase the quality of the school. However, when the two are noncontiguous, the mechanics of the model become significantly more complex. Since one local government will likely contain more than one school district, the voters who participate in the municipal government will live in different school districts. Voters will have different incentives and self-interests and push for different policy reforms. Predicting the change in property taxes or fiscal zoning would be more difficult in these areas because the outcome will be decided by a political process full of conflicting desires.

Given this model, we would expect to see an increase in fiscal zoning in communities that have surpassed the quality threshold. This

150 There is some evidence of dependent school districts communicating with local governments in Georgia. Collaboration and communication are seemingly limited by the legal separations between the local government and school districts. PAULA SANFORD, ROBERT K. CHRISTENSEN, ILKA MCCONNELL & BETSY MCGRIFF, VINSON INST. OF GOV'T, LOCAL GOVERNMENTS AND SCHOOL SYSTEMS: PARTNERING FOR BETTER COMMUNITIES 25 (2015). However, there was communication between the municipal government and school districts when it came to land use planning for the siting of new school buildings. *See id.* at 26–34.

is the result of the motivations of both the local government and the voters. They both believe fiscal zoning is necessary to maintain the quality of schools that were reached. As a result, in every type of district and municipality, the incentives and investment of parties into the quality of schools will push the communities to decrease property taxes while also increasing fiscal zoning to prevent free riders from diminishing the quality of the tax base and schools.

CONCLUSION

American public education is in a precarious position. Many school districts are underfunded, and students across the country do not have access to the education they need. Potential solutions that have been set forth focus on national solutions while ignoring the local voters and communities. However, as outlined above, discussions about school districts require serious consideration of local voters and local governments.

This consideration stems from the important role the quality of local schools plays in property values and the Tiebout model, which sets forward the idea that consumers vote with their feet. In response to these economic considerations, this Note argues for the introduction of a new economic model to assist local and state governments in identifying which districts can benefit from extra help. The model set forth the idea of a theoretical threshold, much like a poverty trap, to help stratify districts. If a district sits above the quality threshold, the use of property taxes and fiscal zoning by the municipal government will provide positive results and increase the quality of the district's schools. However, if the district is below that threshold, the use of property taxes and fiscal zoning alone will not be enough to improve the quality of the schools. This model predicts that there will be an increase in fiscal zoning by municipal governments if the corresponding school district is above the quality threshold. The use of fiscal zoning would limit the types of consumers who have access to the district because property would be more expensive.

This Note hopes to contribute to the current literature by introducing this new model and its accompanying theoretical underpinnings. Like a poverty trap, the idea is basic, yet it can be quite powerful if properly employed by state and local governments. Within every state, there are school districts that struggle with securing enough funding to provide students with proper education or even keep schools open.¹⁵¹ States can use this model to identify these strug-

151 Every summer and winter, schools in Baltimore City are forced to close because the facilities lack the proper air conditioning and heating systems due to limited funding. See Christine Hauser, *Baltimore City Schools Are Without Heat, Prompting Protests from Teachers and*

gling districts and channel additional funding to improve educational outcomes for students. With this model in hand, school districts can hopefully improve and escape the trap that currently haunts them.

Parents, N.Y. TIMES (Jan. 4, 2018), <https://www.nytimes.com/2018/01/04/us/baltimore-schools-winter-heating.html> [<https://perma.cc/5ABD-XP36>]; Lillian Reed, *About 35 Baltimore-area Schools Without Air Conditioning Dismiss Early Amid June Heat Wave*, BALT. SUN (June 7, 2021), <https://www.baltimoresun.com/education/bs-md-schools-close-heat-20210607-20210607-2big6ph46nct3ftc435zvdfr4-story.html> [<https://perma.cc/LQ4G-7592>].