



Local Education Foundations, Parcel Taxes, and their Effects on Equity

In and Through California Public Schools

Paul Flood

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Professors Matsuoka, Shamasunder, Cha, & Dreier

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Abstract

California continually ranks among the lowest states in the US with regard to per-student funding from the State and Federal Government. However, California does fund public school districts based on an equity formula, the LCFF, which focuses funds in high-need districts, with additional money for English Learners, low-income students, foster care, and more additions for districts with high concentrations of each. As such, districts in California, specifically low-needs, wealthier districts, often resort to two different forms of local fundraising to increase this amount, namely, parcel taxes and Local Education Foundations (LEFs). As these forms of fundraising for individual districts allow them to spend more per-student than allocated by the LCFF, the possibility exists for these to fund districts past the LCFF designation, thus undoing efforts to promote equity across districts in the state. The following research shows not only the amount of funds that parcel taxes and LEFs raise in the districts where they are located, but also the demographic, economic, and school characteristics that define these districts. The resulting analysis showed that both LEFs and parcel taxes raise per-student expenditure past LCFF designations, and that they are located overwhelmingly in wealthier, more advantaged districts, thus harming efforts promoting equity from the LCFF. This points to a need to mitigate the negative effects on equity from these two sources, by either the sharing of revenue from these districts to those without either a LEF or a parcel tax, or by creating policy or incentives for less advantaged districts to set up their own LEF or initiate and pass a parcel tax.

Introduction

Education has long been recognized as a necessary condition to guarantee citizens the ability to not only compete in labor markets but also to participate in society and live a full life. Publicly funded and operated education systems have been ways for governments to their citizenry, especially for historically economically and socially disenfranchised groups for whom education is seen as a means to alleviate and make up for histories of inequality (Carter & Welner, 2013). Educational outcomes in the United States have historically been associated with achievement gaps between students toward the top of the economic ladder, and those toward the bottom (Carter & Welner, 2013). Delving into the causes of and reasons for this historic gap entails lengthy considerations of economic inequality and the societal, economic, and political conditions that have led to this; however, for the sake of this research and many others in the topics of public education funding and outcomes, this gap can be summarized as simply a result of this economic inequality, generally, and the difficulties that variable levels of poverty create for students to overcome disadvantages from outside the school that influence their ability to learn. Changing the funding gap between high and low-income districts has the potential to either mitigate or compound these societal and educational achievement discrepancies, depending on whether students and districts with high-income and advantaged backgrounds have considerably higher levels of funding.

School funding discrepancies has long been a target of policymakers seeking to close achievement gaps and promote equity in public schools. Historically, differences in spending between high and low-income school districts have arisen from policies that favor high-income districts, such as property taxes that increase funding in high property value districts, and lower funding for poorer, low property value districts (Weston, 2010). A variety of policies in the

United States have sought to mitigate these differences in the form of court cases and legislative decisions that typically revolve around themes of adequacy and equity when it comes to levels of student achievement and funding. Largely arising in the 1970's were policies centered on adequacy, which calculate a baseline level of student achievement and fund appropriately to each district given certain social and economic characteristics. These policies recognize that students from disadvantaged backgrounds require additional resources, or funding, to compete with students from more advantaged backgrounds (Carter & Welner, 2013). While adequacy policies recognize systemic advantages and disadvantages, they leave intact the positional advantage of those at the top of the economic ladder who benefit exogenously from a system of economic and social advantage. Therefore, as long as economic and social inequality persists, policies that truly seek to mitigate histories of economic inequality and disadvantage, must not only consider the amount of funds received by districts with the lowest student achievement, but this number in comparison to districts with the highest student achievement.

This paper centers on two methods of increasing funding to California public school districts, namely, Local Education Foundations (LEFs) and special taxes in the form of Parcel Taxes. These two approaches differ by the means in which they increase funding to public schools and school districts, one being private tax-exempt donations and the other public funds in the form of taxes on parcels of land. This research considers the relative advantage that enables the existence of either an LEF or parcel tax, and the resulting increase in overall funding, can worsen existing inequalities in student achievement. The research takes a quantitative approach; through in-depth investigation and calculation of investments from LEFs and funds raised from parcel taxes. I compare the funding levels across districts with and without LEFs and/or parcel taxes. I also investigate the demographic and economic characteristics of districts

with and without LEFs and/or parcel taxes, in order to see what characteristics are important in determining the likelihood or magnitude of either in districts across the state. My overarching research question is, *Given unequal levels of student achievement across districts in California, do local parcel taxes and local education foundations (LEFs) exacerbate existing societal and economic inequity through California public schools?* In addition I ask a number of sub-questions that are designed to explore not only what characteristics are important in determining which districts in California have active LEFs and parcel taxes, but also to quantify the per-pupil differences between those that do and do not use these tools to increase funding for local school districts. They will also seek to understand the characteristics of economic and social advantage that are prevalent in districts with and without these additional funding tools.

This paper first provides the political and historical context that led to LEFs and parcel taxes becoming a part of the public educational landscape in California. Next, to formulate an equity framework, the paper reviews theory around the two most popular principles regarding education funding, adequacy and equity. To understand the importance of school funding with regard to student outcomes, this relationship is considered next. The contemporary system of school funding in California is then investigated to understand parcel taxes and LEFs within this system. The relationship between parcel taxes, LEFs, and their effects on equity is then considered to understand how these sources of funding play into principles of equity in school funding. Next, the paper posits and answers sub-questions in order to paint the picture of the effects of LEF and parcel tax revenue, and the districts where they exist. Finally, in discussing and analyzing answers to sub-questions, the paper discusses the implications of parcel taxes and LEFs with regard to the overall landscape of funding and funding equity in and through California public schools.

Background

Restrictions that Led to the Emergence of LEFs and Parcel Taxes

Prior to 1971, local school districts in California primarily raised money for public schools through local property taxes and the State School Fund, which together combined for 90% of school funding, and which local property taxes were the key factor in determining the total amount of funding (Dietrick, 2009). Locally, districts could vote to increase property tax rates, which favored districts with greater property values in that they could generate more funds more easily than a poorer district, less willing or able to tax itself (Dietrick, 2009). In the historic *Serrano* case in 1971, the state Supreme Court ruled that there should be equal funding between districts, despite differences in ability to generate funds through property taxes, and that there should exist no greater than \$100 difference in per-pupil spending across districts (Dietrick, 2009). This was ensured by California redistributing property and other taxes in order to meet the less than \$100 difference. Resulting was a far more equitable system of finance which decreased the gap in spending between rich and poor districts, however total funding per schools did decline as local efforts to raise funds were restricted (Dietrick, 2009).

California's Proposition 13 which was passed by voters in 1978 with a 2-1 margin, limited the extent by which localities were able to raise money through property taxes and capped statewide property tax rate at one percent of assessed value (Meszaros, 2010). The anti-tax measure was fueled by groups who were fearful of being priced out of the state, and were historically anti-government and anti-tax (Brunner & Sonsteile, 1998). It is hard to overstate the immediate and lasting effects that Proposition 13 and its restrictions raising money through local property taxes has had on public school funding in California. In the period of time directly after Proposition 13, from 1977-1979, property taxes fell from a total of \$10.3 billion to \$5.66 billion,

a 45% reduction, marking a massive decline in the level of funding available for education spending (Sexton, 1999). Additionally, prior to Prop 13 the state provided roughly 40% of school funding, and in the years directly after, the state contributed nearly 70% (Guthrie, 1978). The inability to use property taxes past a one percent of assessed value threshold has severely reduced the pot of money for school spending since 1978. California continually ranks among the lowest states in the country with regard to per-student spending; in 2016-2017 California was ranked 41st among all 50 states (NEA, 2017).

A Brief History of Education Funding in California

Prior to 2013 California funded public schools based on the Revenue Limit system, in which each district had a base revenue limit; a unique dollar amount per pupil multiplied by the number of students enrolled in a district (Weston, 2010). Though built on a long and complex history of laws and litigation intended to promote inter-district equity, including the *Serrano* ruling, inequitable and unequal funding persisted, and districts with the same number of students often had different revenue limit funds (Weston, 2010). Apart from the equal funding districts received per-pupil, California provided additional funds from state categorical grants that targeted at-risk populations, such as foster youth and English Learners (Weston, 2010). Funding was also secured through local property taxes, which were limited after Proposition 13, and the difference between the revenue entitlement and district revenue was made up with state funds (Weston, 2010). Though state funding, and the result of the *Serrano* ruling, was intended to level the playing field so to speak, differing amounts of funding from local property taxes across districts still created inequities, especially in large school districts where the dollar amount per-

pupil could be significant, and lead to even more significant differences on the school and district level (Weston, 2010).

The previous Revenue Limit funding system in California sought to account for the differing challenges that at-risk students face in and out of the classroom through state categorical grants, however, although the amount of categorical funds increased along with a district's poverty level, funds could vary greatly for a given amount of economic disadvantage in districts (Rose & Weston, 2013). Apart from these categorical grants, by equalizing base revenue limits there was structurally very little relationship between a district's revenue limit and its percentage of disadvantaged students, although districts with more poor students did receive slightly less funding per pupil (Rose & Weston, 2013). Through a lens of equity the revenue limit system fell short; though categorical grants were intended to increase funding to less wealthy districts, largely through the compounding effects of local revenue in the form of property taxes, funds per-pupil typically were smaller in higher poverty districts (Rose and Weston, 2013). Responding to this overly-complicated and ineffective policy to achieve inter-district and statewide equity, California adopted the current Local Control Funding Formula (LCFF) which marked a large shift toward local control, funding equity, and additional support for the large share of high-need students in the state (Hill & Ugo, 2015).

Interaction between LEFs, Parcel Taxes, and the LCFF and Effects on Equity

The Serrano ruling as well as the passing of Prop 13 diminished the ability for local and state governments to raise school revenue through property taxes, and sparked efforts for people in these communities to come up with creative ways to regain a sense of local control of taxation and funding for education (Meszaros, 2010). Two methods of doing so, as mentioned above, are

parcel taxes and donations from nonprofit Local Education Foundations (LEFs). Both of these rely on citizens living in these communities to be willing and able to contribute additional funds to their public schools, which is not uniform across the state, and has the potential to compound inequity between districts, and the students they serve. In the context of the new funding system, the LCFF, which is guided by an equity framework and prioritizes spending in disadvantaged school districts, the impetus to use LEFs and parcel taxes remains. More advantaged districts receive less money from the state, and these avenues of raising funds are a way for these districts to raise per-student spending. In that the LCFF is an equity formula, districts raising money on their own to a point past LCFF designations creates the likelihood of these districts harming inter-district equity in the sense that they spend more money per-student than what the state has deemed equitable.

Literature Review

The literature review of this paper presents theory related to adequacy and equity in regard to education funding, as well as theory about the relationship of school funding and student achievement. The literature provides an overview of the framework of education funding in California, and how it currently seeks to promote equity within the state. Finally, the literature reviews education foundations and parcel taxes in California and the debate and theory around their effects on student outcomes and equity.

Discussion and Theories of Adequacy and Equity in Education Funding

Difficulties of Classroom Learning for Disadvantaged Students

Necessary to a discussion of student achievement, and the funding to reach certain levels required to provide an adequate education for all students, is an understanding of differences in student learning across economic and cultural backgrounds, and considerations needed to be able to account for these differences. Disadvantaged students face a milieu of issues out of and in school that make classroom learning more difficult, especially compared to that of more advantaged students who benefit from home environments that support their classroom education (Koski, 2006). States must ensure that programs and funding exist to account for these differences, and allow disadvantaged students to compete with their advantaged peers (Goertz, 2009). Outside factors that hamper educational attainment include family or community dysfunction, home instability and chaotic housing markets, low levels of parental and family education, and classroom factors such as class-size and teacher student ratios (Grubb, 2009). Accounting for these structural and conceptual issues is challenging, and requires that states and

districts take seriously programs, resources, and the necessary funding to support disadvantaged students in reaching higher levels of educational attainment.

History of Adequacy in Education Funding and Policy

Spurred by the 1990 Kentucky Education Reform Act, many states in the US underwent what was referred to as fiscal ‘adequacy’ school finance reforms, which sought to bring underperforming schools to adequate levels of performance through increased funding (Lafortune, 2016). The act came on the heels of a US Supreme Court case that ruled the previous education funding system in Kentucky unconstitutional and mandated education reform by stating, “each child, every child ... must be provided with an equal opportunity to have an adequate education” (Lafortune, 2016). A study conducted in 2016 shows many of these reforms increased per-student spending in low-income districts, and that the marginal productivity of funds in low-income districts was higher than that in higher-income districts, meaning that each dollar spent in low-income districts increased educational outcomes more so than in higher income districts (Lafortune, 2016). In other words, the study illustrated how reforms which increase per-student spending in high-need districts produce higher achievement for these students, helping to reduce the achievement gap between high and low income districts (Lafortune, 2016). In addition, a study conducted by the National Bureau of Economic Research used the timing of the passage of court-mandated reforms in the 1980s and 1990s and their associated type of funding formula change as exogenous shifters of school spending. The study found that increases in school spending led to increases in adult economic attainment, which rose in correlation with educational improvements (Jackson, 2015). The changes in this time constituted a new standard and realization of education reform in America; that because districts

and states serve a diverse set of students with a diverse set of needs, funding cannot be equal across schools and districts, and some students, schools, and districts require more funding than others to educate all students to a certain level of educational attainment.

Debate certainly exists around the efficacy of increasing student achievement, especially in disadvantaged districts, through increased financing. This debate mainly focuses on the idea that policymakers focus too much time and effort on the distribution of funds across schools, and not enough on the distribution of resources that are effective in improving student outcomes (Grubb, 2009). Critics do not deny the importance of adequate funding to finance these programs, but, instead focus on *how* these funds are applied to increase educational attainment. Standard considerations such as higher teacher salaries and lower pupil-teacher ratios are important, however more complex considerations such as the presence of teachers who are experts in their field, have a sense of classroom control, and are able to give individual instruction, are critical considerations to improve student outcomes (Wong, 2010). These criticisms point out that money is a necessary baseline, however by itself it cannot guarantee improvement, and must be met with complex and abstract resources to improve student achievement (Grubb, 2009).

Theories of Adequacy around School Funding

Approaching school finance through adequacy standards, as did efforts in states in the 1990s and early 2000s, constitute “standards-based” education reform, which seeks to bring all students in a district or state to a certain standard of educational achievement (Odden, 2001). Adequacy-based school funding sets an adequate standard for student outcomes and allocates differing levels of funds to districts and schools based on certain characteristics, with the hope to

achieve this standard. In this framework, the important consideration is not whether one district or school has more funds than another, but rather, whether these schools and districts have enough funds to educate students to this level of adequacy (Odden, 2001). Adequacy not only refers to the level of educational attainment, but also the level of funding and programs and resources designed to help differing students reach this level of achievement, which must change district to district, and school to school.

Theories of Equity in School Funding: Horizontal and Vertical

Literature on the levels of funds to reach an adequate education, necessarily leads to a discussion of equity. Though not totally different from ideas of adequacy, equity in the context of education and education funding considers that 1) education is increasingly a positional good, meaning one's attainment of it should be compared to that of peers to understand the true value, and 2) that if as a society we value equality of opportunity with consideration of unequal starting places, education should be an avenue to achieve this opportunity (Koski, 2006). This rings especially true when connecting relative education levels to hireability and success in the labor market, and future educational attainment (Koski, 2006). Therefore, in a society that recognizes education as an avenue to promote equality, these unequal starting places should be confronted and understood deeply when formulating policy that seeks to mitigate histories of social and economic inequality.

In discussions of equity and school funding, there exist two main principles that can frame policy analysis: horizontal equity and vertical equity (Ladd, 2008). "Horizontal equity" comes from the idea of "treating equals as equal," meaning all schools have an *equal* distribution of educational inputs. "Vertical equity" recognizes varying needs within districts, funds

appropriately, and “treats unequals as unequal” (Ladd, 2008). Horizontal equity negates the multitude of considerations that conceptualize why students from different backgrounds necessarily require differing levels of funding and programs, which is why there is little advocacy or debate among education policy experts around this version of equity (Koski, 2006). Vertical equity, however, does consider these differences and seeks to mitigate through unequal funding for unequal students. Adequacy-based school funding, therefore, seems to uphold values of vertical equity, in that it can take into account variable considerations of students, and fund appropriately. However, critics of adequacy-based funding, suggest that although adequacy-focused funding theoretically promotes vertical equity and increases educational attainment, it leaves out the important consideration of education as a positional good (Koski, 2006). That because a student or adult’s level of education is practically determined by a comparison to their cohorts, adequacy cannot bring true equity in that it leaves intact the positional advantage of students at the top compared to students at the bottom (Koski, 2006). Therefore, any definition of adequacy that is truly vertically equitable, must be considered with respect to the top of the achievement distribution to accurately reflect education as a positional good, and decrease the attainment differences between advantaged and disadvantaged students. Adequacy and equity based funding schemes are not irreconcilable, both seek to mitigate the challenges that disadvantaged students face in the classroom, however it is important to understand the theoretical limitation of adequacy in promoting true positional equity in educational outcomes.

Linking Student Achievement to Funding and Resources

Funding Formulas

Both adequacy and equity-based funding schemes require an identification of costs of programs and additional support mechanisms that address the specific needs of certain schools and districts. An implication of this is the designation of a funding formula (Odden, 2001). A funding formula provides states and districts with a framework by which to allocate funds to schools with differing needs, and then allows districts and school sites to distribute funds to programs that improve student outcomes. This method not only assumes that individual schools have the best idea of programs to serve their unique population of students, but also provides a level of funding to reach these levels of adequacy. At their core, adequacy and equity-based funding formulas seek to link spending levels with student achievement, in order to establish a causal link between the two, and provide enough funds to raise educational achievement (Picus, 2004).

The task to link student achievement and school performance to education spending is challenging. At least conceptually, a formula to increase student performance would identify a spending-per-pupil level that produces a given level of performance, adjusting for the characteristics of students and other socioeconomic characteristics of districts (Odden, 2001). The literature identifies many ways of establishing an adequate level of spending, some of which are: to use a cost function that gives insight to the relationships between certain inputs and outputs; to use successful school districts as a model for per-student spending in others; to use professional educators that identify resources that in their judgement will boost educational attainment; and to use evidence based research to identify the resources needed for a typical school to reach achievement levels (Picus, 2004).

Funding formulas establish standards of student performance or amounts of school and program funding linked to outcomes that can be calculated and applied to unique districts and schools in a state using unique characteristics of the district or school. A funding program that recognizes systemic differences and challenges in the way students from high-need districts learn, would utilize a vertical equity based funding structure that takes into account these needs, and funds appropriately.

As previously mentioned, adequacy-based funding formulas tend to promote vertical equity in that unique neighborhood and demographic characteristics are taken into account in order to raise student outcomes. A study by Vesely and Crampton (2004) reviewed vertical-equity school funding schemes in four states and found that the most common student risk factors for determining funding levels were poverty, race or ethnicity, limited English proficiency, low-levels of parental educational attainment, and single-parent status. However, varying definitions of student risk-factors in vertical-equity funding schemes show the importance of using a research-based methodology at the state and district level to examine what student risk factors contribute most to low student achievement. (Vesely and Crampton, 2004). Poverty seems to be the most accurate predictor of academic failure, especially concentrated poverty, however to again broaden the definition, the literature provides a definition of need as “those who lack the home and community resources to benefit from conventional schooling practices” (Vesely and Crampton, 2004).

Determining Risk Factors for Funding Formulas

Efforts to try to specify risk-factors have come in the form of calculations of student need based on a variety of weighting characteristics (Ladd, 2008). For example, if a student is not

English fluent, that may receive a weight of .5, which designates this student as needing 50% more funding than a student who is English fluent, in order to achieve a similar educational outcome. This could constitute vertical equity, as a similar outcome in students requires consideration and acting on of differing needs and circumstances (Ladd, 2008).

Augenblick (1997) argues for creating econometric models that control for social conditions and factors that can be helpful in crafting funding formulas that take into account spending and per-student performance. This method can calculate how new funds and programs benefit per student achievement. School funding formulas are able to promote vertical equity “...if ‘proper’ indicators of student need and coefficients are included in the formula” (Fazekas, 2012). As just stated, determining these ‘proper’ indicators is difficult, but typically revolve around promoting additional teaching time, creating and using specialized learning material, creating smaller class sizes and lowering teacher to student ratios (Fazekas, 2012).

The conditions or indicators that necessitate additional or increased funds to certain districts, schools, and students, are used to indicate which schools and districts are in need of additional support, and through not only additional funds but also resources and programs, student outcomes can be improved. The literature points out a multitude of strategies and programs to be utilized to increase educational attainment. Some of these are simple and include, additional teachers and staff in the form of vice principals, tutors, nurses, social workers, all of which seek to individualize and personalize education and care within schools and lower class sizes and teacher to student ratios (Goertz, 2009). Other efforts can be more complex and include improving teacher competency through increased training, and improving school climates and improved principal control and oversight (Grubb, 2009). However, as the literature has shown,

these resources and programs cost money, and to even begin to consider them as improving student equity, the funds must exist.

The Local Control Funding Formula and the Local Control Accountability Plan

California's Revenue Limit system was unable to achieve equity partly because of the institutional design of the programs, but also in the policy implementation. In 2013 California adopted the Local Control Funding Formula (LCFF) in response to growing frustration and inequities arising from the revenue-limit system (Warren, 2015). This policy marked a colossal shift in the way California funds its schools, with a move toward local control, funding equity, and additional support for the large share of high need students (Hill & Ugo, 2015).

The LCFF provides funding to districts through three grants: a base grant, a supplemental grant, and the concentration grant (Hill & Ugo, 2015). The base grant is similar to the base revenue-limit in the previous system; there is a standard per-pupil funding that is multiplied by the average daily attendance (ADA) of districts and schools. The other two grants are intended to focus funds in high-need districts, with additional funds for English Learners, low-income students, foster care, and more additions for districts with high concentrations of each (Hill & Ugo, 2015). The supplemental and categorical grants provide the language for vertical equity in the LCFF, and have effectively folded the previously scattered categorical grants into two funding sources (Superintendent's Final Budget, 2018-2019). Also embodied in the LCFF, as suggested by the name, is flexibility for districts to spend these funds in a relatively unrestricted manner (Snell, 2013). Districts, however, must provide the state with a Local Control Accountability Plan (LCAP) that details the goals of the district, and how they plan to achieve these (Hill & Ugo, 2015). With a short review of LAUSD's LCAP document for the 2018-2019

school year language addressing equity can be found with a number of programs to be employed at the district and school level to support high-risk students, and to be applied with an equity based funding formula (LCAP 2018). The opening statement of this document reads, “The District embraces strategies that foster opportunities and aim to close the opportunity gap for students identified by the Local Control Funding Formula” (LCAP 2018). California and the LCFF put an impetus on a district’s ability to identify their unique challenges, and create programs to meet these challenges and improve student outcomes, primarily through the LCAP document.

Structurally, the LCFF constitutes a solid framework for vertical equity; districts receive supplementary funds based on differing populations and considerations of high-risk students, and through local control, districts are able to fit these funds to the specific needs in their district. However, the literature points a structural shortfall of the LCFF; namely, in examining the LCAP document, there seems to be too much riding on it. State officials expect the document to be many things at once, “a locally determined strategic planning document, a vehicle for community engagement, a means of aligning local spending with state priorities, a check on how resource allocations (especially the supplemental and concentration grants) will benefit targeted student populations, and a source of accountability for both inputs and outcomes” (Blum, 2016). Also, it’s possible that high-need schools in relatively low-need districts will not get the funding they need, due to the way in which the LCFF is designed (Hill & Ugo, 2015). This is a concern in considering that the level of funding is calculated on a district level and has no language requiring funding to follow to schools with greater needs in a district, thus leaving issues of intra-district unaccounted for in the institutional design (Weston et al. 2015). These expectations and shortfalls have made LCAPs around the state overly complex documents, which coupled

with the LCFFs lack of accounting for differing levels of intra-district student-need, shows that although the LCFF is a significant effort in California's push for vertical equity and higher student achievement, there are structural shortfalls that prevent it from completely doing so.

Parcel Taxes and their Effects on Equity

Under section 4 of California's Proposition 13, cities, counties, and districts are allowed to impose special taxes, however a restrictively high threshold of two-thirds majority vote in favor is required for passing (Meszaros, 2010). While taxes on land tend to be progressive, meaning as the value of a home goes up so do the tax payments, Proposition 13 forbade taxes based on the value of land, therefore parcel taxes set a flat fee per parcel that is applied to all parcels in a district, making it a regressive tax and making it less likely for low-income districts to pass this kind of tax (Lee, 2016). Parcel tax revenue is especially important and useful to districts because, for the most part, the funds are unrestricted and can be used by districts as they see fit (Meszaros, 2010). Parcel taxes can also strengthen ties between community stakeholders, parents, and district officials, thus promoting government efficiency, accountability, and realistic expectations about what the local public schools can achieve (Lee, 2016). Also, for districts to be effective in implementing these special taxes and programs they support, there needs to be a clear link between these taxes and the services that they bring, so that community members feel invested in the tax and it is serving the purposes it is designed to (Lee, 2016).

The literature also discusses the socioeconomic characteristics of districts that enact parcel taxes. Income is one such characteristic, and in fact, the median household income of districts with active parcel taxes is about \$85,000 whereas those without is about \$60,000 (McGhee & Weston, 2013). Also, 44 percent of districts with median household incomes in the top 10 percent have at one point passed parcel taxes, as opposed to 7 percent of districts with

median incomes in the bottom 90 percent who have never (McGhee & Weston, 2013). Furthermore, districts that have passed parcel taxes have fewer students enrolled in free and reduced-price lunch programs and had higher average household incomes (Weston et al. 2015). Land-rich, less dense districts with relatively low ratios of parcel to student, are also more likely to have passed and enacted parcel taxes (Lee, 2016). An older study points out that districts in California that passed parcel taxes typically had higher levels of parent and voter education, higher income, higher property values, higher proportions of registered voters, higher private school attendance, and greater racial homogeneity of white and Asian students (Jones, 1996). All of this is to say that wealthier, more privileged districts, with higher median incomes, lower parcel to student ratios, and higher parental education, are more likely to have parcel taxes compared to poorer districts with lower household median incomes and higher density of students.

In considering education as a positional good, and that there is at least a moderate correlation between student achievement and the amount of money spent per-pupil, the fact that wealthier districts are not only more likely to have more funds in the form of local revenue, have greater at-home support from family members, and are more likely to pass parcel taxes, it would seem that the disparity in per-pupil funds between districts with and without parcel taxes would compound the existing inequality between these districts and the students they serve (Lee, 2016). The literature points out that, on average, districts with parcel taxes are able to increase the per-pupil funding by \$584, with actual per-pupil dollar amounts ranging from \$25 to \$4500 (McGhee & Weston, 2013). Contemporary research shows that in the wealthiest of districts, parcel taxes on average generate additional per-pupil revenue of \$666 (Weston et al. 2015). Clearly, with the previous discussion of education as a positional good, the divergence of per-

pupil spending between advantaged districts that are able and willing for a multitude of reasons to pass parcel taxes to those districts that don't, would only exacerbate inequality. This consideration is of the utmost importance to the research question and the goal of this paper; that because relatively advantaged districts are able to use these taxes to increase per-student spending, the resulting increase in student spending exacerbates the existing divergence in advantage that allowed the passing of the tax in the first place.

Local Education Foundations and their Effects on Equity

The Emergence of LEFs

The establishing and utilization of Local Education Foundations (LEFs) in California arose in a similar way as Parcel taxes through the passing Prop 13, in that the curtailing of a reliable source of revenue in the form of property taxes for school districts prompted localities to become more creative in ways to increase funding to their public schools (Anderson, 1997). In fact, other studies suggest that the establishment of LEFs was largely in response to fiscal constraints and intended to supplement local revenues (Brent & Pijanowski, 2003). Also similar to parcel taxes, LEFs increase the connection between parents and schools in that funds raised by foundations are to serve specific districts, programs, and students (Anderson, 1997).

Structure and Roles of LEFs

Local Education Foundations are non-profit tax-exempt institutions, filed in the federal tax code as 501(c)(3), that raise money for specific school districts by seeking donations from parents in the district and from other institutions (Busch, 2012). Bylaws determined by the directors of each foundation establish the rules by which LEFs are structured and operated

(Dietrick, 2009). The number of LEFs in California greatly increased after the passing of Prop 13, going from 22 in 1978, to more than 500 by the mid-90s, all of which contributed close to \$100 million worth of funding for public schools (Brunner and Sonsteile, 1998). A study on LEFs in California and New York show that the number of education foundations and the donations they receive increased along with equalization acts in education funding systems in these states, and were nearly always established to “supplement local revenues,” to improve the quality of education, and community and school relations (Brent & Pijanowski, 2003).

There are varying definitions of LEFs, however, a review of the literature brings to light a few of these definitions and shows certain shared characteristics. LEFs differ from traditional foundations in that funds raised are entirely distributed to the district. LEFs are defined as third-party non-profits organizations “positioned between a district and the community,” and “can be started by active parents or by district staff who solicit parent or community involvement to run the foundation” (Dietrick, 2009). Some districts and foundations work closely to determine funding and programming goals, where other LEFs have little communication and alignment with district goals or needs (McCormick, 2001). By law, these nonprofit foundations are required to increase funding to schools but many have a secondary purpose of promoting engagement and emotional and temporal investment from parents and stakeholders. In fact, studies suggest that parental involvement is an important consideration for LEF fundraising and operating success, therefore showing a structural inequity in that parents in low-income, disadvantaged districts, have less time to be involved in their children’s education, and certainly not enough time to aid in forming an LEF (Dietrick, 2009).

Organizationally, LEFs are structured in one of three ways: 1) as school-board controlled foundations, which are established and largely controlled by districts; 2) as an autonomous

nonprofit which operates outside the district and are directed by members who elect the leadership; or, 3) a hybrid of the previous two that is an independent foundation of the district, but in its bylaws establishes a necessary relationship between the district and the foundation to foster clear communication of goals (Dietrick, 2009). All three of these organizational types raise funds in similar ways including mail solicitation, special fundraising events, membership drives, auctions, and grant writing (Dietrick, 2009).

Determinants of LEFs and their Effects on total Funding and Equity

Research shows that wealthier districts are more likely to have active and professionally run education foundations that generate more unrestricted funding (Zimmer et al., 2003). Also, in districts where median income was below \$50,000, fewer than one-third of these had education foundations (Anderson, 1997). Other research points out that districts with LEFs have lower numbers of free reduced price lunch students, greater property wealth, and greater household income than districts without a foundation, all of which signal that foundations for the most part increase per-pupil spending in already relatively advantaged districts (Busch, 2012). The size of the district also seems to matter; nationally, suburban or small school districts with low ADA are more likely to have education foundations, as donors and parents can directly see the improvements in their districts through their dollars, and feel they have more local control of their schools (Fox, 2001). Differences do exist in the amount of funds that education foundations raise and spend, with actual dollar amounts per-pupil increasing in wealthier districts, and ranging from very small contributions to per-student spending, to large contributions that significantly increase per-pupil spending in a district (Fox, 2001). Connecting these funds to better and increased resources in these schools can be seen in the form of teacher salaries which

can, in effect, lower class sizes, increase per-pupil spending, and improve educational outcomes (Fox, 2001).

Considering LEFs outside of the frame of equity and simply in the context of the ability of districts to increase funding, it would seem they are definitely effective. Though differences exist in the ability and actual dollars raised by certain districts, it is true that if a goal of districts is to increase funding, LEFs are a solid way to do so, especially in districts with higher incomes and greater parental involvement in the school and district. In a study by Weston, research showed that over time the number of LEFs and the amount of funds they contribute to districts has increased, thus making them more and more legitimate means of increasing funding in districts (Weston et al. 2015).

Connecting LEFs to their potential effects on inter-district inequality brings to light a study by Fox (2001) which states that if districts are “able to generate so much money that there’s an appreciably better-funded core program for kids in one district over another, then clearly there is an equity issue.” This rings especially true when, again, not only considering educational attainment as a positional good that is dependent on the level of per-pupil funding, but also the existing positional advantage of the wealthier districts that, for the most part, are the districts with well-organized and well-funded education foundations (Anderson, 1997). Many foundations are robust organizations with staff dedicated to fundraising, advertising, and management, all of which help in raising funds for the district but also have been effective in advocacy for the passing of parcel taxes, again compounding inequity in school funding (Anderson, 1997). Studies show that smaller LEFs fund mini-grants, classroom projects, and instructional materials, while larger foundations are able to bankroll teacher salaries and larger

programs. The LEF investment therefore lowers teacher-student ratios by greatly increasing the per-student funding in their respective districts (Dietrick, 2009).

Previous studies that sought to calculate the increase in per-pupil spending from LEFs in California public schools have largely concluded that when broken down on a per-pupil basis, these additional funds do not produce large inequities, in fact rarely were they larger than \$40 per-pupil (Brunner and Sonsteile, 1998). However, a similar but later study had similar findings with an important caveat; where most foundations create small additions in per-pupil expenditures, there is a positive correlation between family income and amount raised (Brent and Pijanowski, 2003). A review of the literature shows many studies done in the late 1990s and early 2000s found that the effects on per-pupil expenditures from LEFs are minimal and “appear to be but a drop in the bucket when compared to government funding for education” (Dietrick, 2009). However, not only are these studies dated and conducted under very different state-wide funding situations, the fact that the studies found differences in per-pupil funding from LEFs, suggests that a time may come when the amount of money raised will have a greater per-pupil impact (Dietrick, 2009). More contemporary research shows that in the period of time leading up to 2011, the number of LEFs along with the amount of funds these foundations raise increased considerably (Weston et al. 2015). This research also points out that districts raising over \$100 per-pupil from LEFs are concentrated in wealthier, coastal metropolitan districts, with wealthier districts raising up to 15 times more than poorer districts (Weston et al. 2015). Apart from increases in funding, the literature also shows benefits from LEFs in the form of improved overall school and community relations, which can have a variety of secondary benefits to schools and students (Brent and Pijanowski, 2003).

The Problem of LEFs as Non-Profits

The designation of LEFs as tax-free 501(c)(3) nonprofits only furthers their potential for compounding inequities in inter-district funding; when individuals donate to LEFs they are able to deduct these contributions from income taxes, which constitutes a federal subsidy that favors wealthier individuals (Reich, 2005). Consider a wealthy person who is at the top of the income tax bracket who contributes funds to their local education foundation in order to see benefits accrue to the students in their community, or possibly children of their own. This person is able to write this contribution off and pay less in taxes than they otherwise would have had they not made the contribution. What this does is that because the individual who made the donation receives a lower tax bill, the actual cost of the donation to this person falls. Therefore, this means that the federal government is essentially subsidizing an individual's contribution to their local education foundation (Reich, 2005). This economic logic is true of all donations to organizations with a 501(c)(3) status, and is often a criticism of the current tax code (Reich, 2005). Typically, this "subsidy" is not thought of as being particularly harmful, and in fact it is a driving factor for private donations by individuals in that it represents a financial incentive to do so (Reich, 2005). However, when putting this in the perspective of local education foundations and their potential effect on compounding inter-district inequity, this is especially problematic in that the federal government is essentially subsidizing these organizations (Reich, 2005).

Theory of LEFs and Parcel Taxes Undoing Equity Efforts from the LCFF

The state of California, since the Serrano decision, and through the passing of the LCFF which contains prevalent language of equity, equal opportunity, and variable funding for variable needs, clearly view education as a means to improving overall equity in the state and is

committed to do so on a statewide level. The state uses a number of characteristics to designate districts as higher-need and to fund appropriately. However, as evidenced by the potential compounding of inequities through local education foundations and parcel taxes, and considering education as a positional good, the work done by the LCFF to further equity could potentially be being undermined by districts with well-funded parcel taxes and local education foundations. In fact, research shows that combining average parcel tax and LEF funds in districts could easily generate additional funds on average of \$800 per-student, compared to a district with neither (Weston et al. 2015). Therefore, to further commit itself to education as a positional good and having the potential to both compound and reduce overarching inequity, California should, as done in the LCFF, change the structure of parcel taxes and local education foundations to not compound inequity, but in fact, promote it.

A handful of school districts have instituted equalization policies that seek to minimize the potentially negative effects on equity of LEFs. An example of this happened the Santa Monica-Malibu school district, in which funds from private foundations, including local PTAs, were centralized to the district and prohibited almost all direct contributions to schools (Weston et al. 2015). Following this was a reduction in donations of nearly \$40,000 the year after the policy was enacted (Weston et al. 2015). Though a reduced incentive for parents and stakeholders to donate caused a reduction in total funding, this framework could provide a useful perspective when recommending potential equalization policies for private funds on a state-wide level.

Design, Methodology, and Guided Research Questions

Study Design

The goal of this research is to understand the financial impact of LEFs and Parcel Taxes in the state of California. Primarily, this study relies on quantitative methods, specifically cross-tabs and independent samples t-tests, to calculate the monetary effects of these two sources on school districts, as well as to understand the demographic and economic characteristics that characterize school districts with either of these sources, or both. Qualitative analysis, in the form of semi-structured interviews with selected education policy experts and individuals involved with Local Education Foundations, is also employed to provide narrative to the findings of the quantitative analysis.

Sample and Quantitative Data Selection

Identifying School Districts and their Demographic Socio-Economic Characteristics

The data for this project was gleaned from a number of different sources and aggregated into a single dataset; however, the initial data on school districts in California were taken from the open-source California Department of Education website (CDE, 2018). This dataset provided a full list of California school districts, district type, as well as the total state funding for each school district for the 2018-2019 school year, broken down into LCFF funding, special education funding, and EPA entitlements (CDE, 2018). To finalize the list of school districts, I filtered for all unified, high, and elementary school districts, excluding all county offices of education, and charter schools due to their structural differences from typical school districts. In order to fully encapsulate the total funding for a district, data were gathered on the amount of funding contributed by the Federal Government, which came from the education data website Ed-Data

(ed-data.org). Ed-data also keeps up-to-date information on a number of different school district demographic and economic characteristics. A selection of these characteristics were gathered for all school districts in the sample and included the most up-to-date information on the following variables: Average Daily Attendance (ADA), unduplicated count and percent of students on Free-and-Reduced Price Meals program, count and percent of English learners, the total percent of black students in the district, and the total percent of hispanic students in the school district. Other information on the economic characteristics of individual school districts were gathered from the 2017 ACS Community Survey, which was accessed through the American Fact Finder page on the United States Census Website (factfinder.census.gov). A search for the poverty statistics in school districts in California produced a data-set from which I gathered information on the median household income, and percentage of households under the poverty line in each school district in California. These data were gathered to paint a picture of the economic and demographic characteristics of each district.

Identifying Local Education Foundations

The focus for this project was to characterize and calculate the monetary impact of Local Education Foundations (LEFs) and Parcel Taxes in the State of California. To gather information on LEFs active in California, information provided on the website the *National Center for Charitable Statistics* (NCCS) was used. This site gathers data on all non-profit organizations in the country that file Form 990 documents with the IRS. Utilizing the dataset for the 2018 tax-year, I filtered for all non-profits in the state of California. According to the IRS tax-code, which was described in detail on the NCCS website, non-profits are given a designation by the National Taxonomy for Exempt Entities (NTEE) that is used to identify their role. Educational fundraising

organizations are given the designation B-11 and B-12. I first sorted for these two designations, which produced a short list of educational foundations. Being skeptical of the completeness of this list, I began to investigate other designations and their related non-profit organizations. I found serious inconsistencies in the NTEE designation and the related role of the non-profit, likely resulting from mistakes on the end of the organization in filing the 990 Form. From there, I decided to instead search by key words in the names of the organization. The search terms used were, “school foundation,” “schools foundation,” “education foundation,” “educational foundation,” and “academic foundation.” Once these searches were complete I had an initial list of organizations. In wanting to produce a complete a list as possible, I went back through all B-11 and B-12 organizations, and cross-referenced with this initial list and pulled out unique names of organizations, in order to find those that might not have either of these search terms in the name, but still provide funding for schools and school districts in California.

Once a list of education related foundations in California was compiled, I did a Google search for each foundation, connecting the foundation to the school district or school it supports. Guide-star, a database for all non-profits in the country, was also utilized. This process was extremely time-consuming and included research on school district websites to look or information on or connection to these foundations. The organization name and data on total revenue and assets were taken and sorted into a separate dataset that included the full list of school districts, columns for individual revenues and assets from foundations, and the sum of these for each district. Another dataset for foundations that support individual schools was compiled, however these foundations were included in the full LEF dataset according the school district they supported. Once I had finished sorting through this data, I had compiled a dataset that included the total revenue from educational foundations assigned to the districts they

support. The revenue data from this dataset was then added to the aggregated dataset that included demographic, economic, and district characteristics of all school districts. A new data-point, total revenue/ADA, was then calculated for all districts to calculate how much the revenue from these foundations increase the total funding on a per-student basis. For a number of school districts with an affiliated LEF the corresponding revenue from these sources was 0. In the findings and analysis section of the this paper for questions regarding the presence of foundations, these districts were considered LEF districts because of the affiliated LEF; however, for questions that necessitate calculations of the financial impact from LEFs, these districts were excluded so as to not negatively skew mean and median calculations.

Identifying Parcel Taxes

As the second part of this research is to understand and characterize the effects of parcel taxes on school districts in California, I used the website ballotpedia to find all active parcel taxes in the state, and this data was accessed in the first week of January. The website allows users to sort by special education parcel tax elections in a given state. The search yielded all parcel tax elections in California going back to 2008. The information for each parcel tax election available on this site varied, however for each election there was information on whether it passed, the school district it would or does fund, and the sunset date, the date the tax expires. As similar to the sorting of LEFs, a new dataset was constructed that included all school districts in California, which individual parcel taxes were assigned to, regardless of its passing. In researching the revenues from each individual active special education parcel tax, I went to the website of each school district to search for this information. Revenues from the taxes were either found as estimates, provided somewhere on the website, or specifics as found in the

operating budgets published on each districts site. Finding the specific revenues and expenditures through the district budgets was prioritized, however for districts where this was not possible I relied on the estimates. Once each parcel tax, that had been linked to the associated school district, had an assigned revenue, this data was inputted into the aggregated dataset, where another column was created for parcel tax revenue, and parcel tax revenue/ADA.

The final dataset included all unified, high, and elementary school districts in the state, as well as the associated district demographic and economic characteristics, and revenues from parcel taxes and LEFs, both the total and per-student terms.

Methodology

To answer the over-arching research question a series of sub-questions were posited in order to structure the findings of the data analysis to lead to an answer of the research question. These questions, and the over-arching question are included in the *Research Questions* section below.

To provide specific numerical answers to these sub-questions a number of statistical processes were run in SPSS. Cross-tabs were used to find districts with and without Parcel Taxes and LEFs, as well as to find districts with both. Simple descriptive statistics were used to calculate the mean, median, standard deviation, maximum, and minimum values for different variables between different groupings, such as Parcel and non-Parcel districts and LEF and non-LEF districts. To calculate statistically significant mean differences in key demographic, economic, and school district characteristics between these groups, a number of t-tests were run. These results showed variables that were statistically significantly different between groups, thus showing differing levels of relative advantage, which was key to answering the research

question. Correlations were also run between the presence and magnitude of parcel taxes and LEFs between the statistically significantly different variables between these groups. This was intended to back up the findings of statistically significant mean differences between groups.

To supplement the quantitative analysis of this research, I interviewed individuals and experts involved with Local Education Foundations, and education generally, in California. Three of these individuals were either currently or had formerly been associated or working for a Local Education Foundation, and one of these individuals is an expert on education policy, specifically in the state of California. Their responses to semi-structured interview questions helped to inform the conclusions reached in the quantitative analysis. Specifically, this included reading for themes across interviews and analyzing how these relate to and inform findings from quantitative analysis. To gain consent for these interviews interviewees were asked to read and sign Informed Consent Forms. As these interviews were conducted over the phone, forms were emailed to interviewees before the interview, and were emailed back signed before the interview.

Guided Research Questions

The primary question and sub-questions designed to answer this question are included below. Sub-questions are separated into questions designed to document LEFs and parcel taxes and their financial impacts, and questions to provide analysis to what distinguishes school districts with either, neither, or both of these funding sources.

Primary Research Question:

Given unequal levels of student achievement across districts in California, do parcel taxes and local education foundations (LEFs) exacerbate existing societal and economic inequity in and through California public schools?

Documentation Questions

Sub-question 1:

How many, and what percentage of, school districts in California have an active Local Education Foundation?

Sub-question 2:

How many, and what percentage of, school districts in California have an active parcel tax?

Sub-question 3:

How many schools in California have both a Local Education Foundation and an active parcel tax?

Sub-question 3-a:

What is the combined effect on the increase in per-pupil funding for districts with both an LEF and a parcel tax?

Analysis Questions

Sub-question 4:

Of school districts in California with a Local Education Foundation, what is the per-pupil increase in expenditure from donations on a school district? What percent increase in funding does this bring compared to existing state and federal revenue?

Sub-question 5:

Of school districts in California that have an active parcel tax, what is the per-pupil increase in expenditure from tax revenues on a school district? What percent increase in funding does this bring compared to existing state and federal revenue?

Sub-question 6:

What demographic, economic, and school district characteristics and features distinguish districts that do not have a Local Education Foundation from those that do?

Sub-question 6-a:

Of school districts with an active Local Education Foundation, what demographic, economic, and school district characteristics and features distinguish districts with and without an active Parcel Tax? And, what is the per-pupil increase in spending between these groups?

Sub-question 7:

What demographic, economic, and school district characteristics and features distinguish districts that do not have an active parcel tax from those that do?

Sub-question 7-a:

Of school districts with an active Parcel Tax, what demographic, economic, and School District characteristics and features distinguish districts with and without an active Local Education Foundation? And, what is the per-pupil increase in spending between these groups?

Results

Research Question:

Given unequal levels of student achievement across districts in California, do parcel taxes and local education foundations (LEFs) exacerbate existing societal and economic inequity through California public schools?

Documentation Questions

Results for sub-question 1:

How many, and what percentage of, school districts in California have an active Local Education Foundation?

Table 1 shows that there are 124 Local Education Foundations that have filed Form 990 documents for the 2017-2018 Fiscal Year in California public school districts. Roughly 85% of school districts in California do not have a foundation that is established under IRS regulations to provide funding for the school district, whereas roughly 15% do have such foundation.

Table 1

Presence of Local Education Foundations in California Public School Districts in the 2017-2018 Fiscal Year

LEF Status	Frequency	Percentage
0 – No LEF in district	714	85%
1 – At least one LEF in district	124	15%
Total:	838	100%

Results for sub-question 2:

How many, and what percentage of, school districts in California have an active parcel tax?

Table 2 shows that there are 755 school districts in California that have an active parcel tax, whereas there are 83 that have at least one. This shows that roughly 90% of school district have no parcel tax, and roughly 10% do.

Table 2

Presence of an active Parcel Tax in California Public School Districts in the 2018-2019 school year

Parcel Tax Status	Frequency	Percentage
0 – ‘No tax in district’	756	90%
1 – ‘At least one tax in district’	82	10%
Total:	838	100%

Results for sub-question 3:

How many schools in California have both a Local Education Foundation and an active parcel tax?

Table 3 shows there are 15 school districts in California that have both an active Local Education Foundation and a parcel tax.

Table 3

Crosstabulation for the presence of Local Education Foundations and active Parcel Taxes in California Public School Districts

Parcel tax status	LEF Status		Total
	0 - No LEF in district	1 – at least one LEF in district	
0 - No tax in district	647	109	755
1 - At least one tax in district	67	15**	83
Total	714	124	838

**There are 15 school districts with at least one LEF and at least one Parcel Tax

Results for sub-question 3-a:

What is the combined effect on the increase in per-pupil funding for districts with both an LEF and a parcel tax? What is the percentage increase in revenue/ADA considering both of these sources in relation to state and federal spending per-student?

Table 4 shows descriptive statistics on the increase in spending brought by parcel taxes and Local Education Foundations in districts that have both. As is shown in the table, districts that have both a LEF and a parcel tax raise a combined mean value of \$983 and a median value of \$686.53 per ADA. This suggests that there is likely one or a few districts that have very high LEF and/or parcel tax revenue that is skewing the data to the right, causing the higher mean and

lower median value. Table 4-a shows that in districts with both a Local Education Foundation and Parcel tax the increase in revenue associated with these two sources compared to state and federal revenue is 26.2%, a seemingly very large increase. Median % increase also shows a significant increase of 16.1%.

Table 4

Parcel Tax and Local Education Foundation Revenue for districts with both

		State and Federal Revenue/ADA, in \$ terms	Parcel tax revenue, in \$ terms	Parcel Tax Revenue/ADA, in \$ terms	LEF Revenue, in \$ terms	LEF Revenue/ADA, in \$ terms	LEF and parcel Revenue/ADA, in \$ terms
School Districts with Parcel Tax and LEF	Mean	3746.42	9777675	1299.17	1680389.14	124.02	983.00**
	Standard Deviation	2039.90	21153120	2014.49	2988639.64	183.73	1080.65
	Median	4265.26	2490000	498.05	208742	46.51	686.53**
	Minimum	578.26	708875	90.60	1018.00	0.10	117.70
	Maximum	6816.29	85000000	7461.83	10063940.00	619.47	4431.86

**The mean and median values show that parcel tax and LEF districts increase per-student spending by \$983.00 and \$686.53, respectively.

Table 4-a

Comparing state and federal revenue to increases from parcel taxes and Local Education Foundations

	Mean State and Federal Revenue/ADA, in \$ terms	Mean LEF and parcel Revenue/ADA	Mean State and Federal Revenue/ADA + mean LEF and parcel Revenue/ADA, in \$ terms	% increase in funding/ADA from mean LEF and parcel tax revenue
School Districts with Parcel Tax and LEF	3746.42	1414.91**	3746.42 + 983.00 = 4729.42	(983.00 / 3746.42) x 100 = 26.2%**
	Median State and Federal Revenue/ADA	Median LEF and parcel Revenue/ADA	Median State and Federal Revenue/ADA + median LEF and parcel Revenue/ADA	% increase in funding/ADA from median LEF and parcel tax revenue
	4265.26	686.53**	4265.26 + 686.53 = 4951.79	(686.53 / 4265.26) x 100 = 16.1%**

**The mean and median values show that districts with both a parcel tax and an LEF are able to increase per-student spending by \$1414.91 past the state and federal amounts, or a 26.2% increase, and \$686.52 past the state and federal amounts, or a 16.1% increase, respectively.

Analysis Questions

Results for sub-question 4:

Of school districts in California with a Local Education Foundation, what is the per-pupil increase in expenditure from donations on a school district? What percent increase in funding does this bring compared to existing state and federal revenue?

Table 5 shows the level of state and federal funding per ADA of school districts with an active Local Education Foundation. The mean per-pupil increase in funding from Local Education Foundations is \$123.37. The median value is significantly smaller at \$25.74,

suggesting there are a number of LEFs with a very large revenue that is skewing the data. The percent increase in per-student spending brought by Local Education Foundations on average is only an increase of 2.21% of total state and federal government revenue in a district. Though the financial impact seems small, this calculation does show that if LEFs are concentrated in wealthy relatively more advantaged districts, that these wealthy districts are becoming wealthier.

Table 5

Revenue information for districts with an active Local Education Foundation

		State and Federal Revenue/ADA, in \$ terms	Local Education Foundation Revenue, in \$ terms	Local Education Foundation Revenue/ADA, in \$ terms	Mean State and Federal Revenue/ADA + Mean LEF revenue/ADA, in \$ terms	% increase in funding/ADA from LEF revenue
Districts with an active Local Education Foundation	Mean	5574.55	859511.20	123.37	5574.55 + 123.27 = 5,697.82**	(123.37 / 5574.55) x 100 = 2.21%**
	Standard Deviation	2832.99	1653951.85	265.06		
	Median	5604.71	201030.50	25.74	Median State and Federal Revenue/ADA + Median LEF Revenue/ADA	% increase in funding/ADA from LEF revenue – median values
	Minimum	578.27	0.04	0.00	5604.71 + 25.74 = \$5630.45**	(25.74 / 5604.71) x 100 = 0.46%**
	Maximum	16591.05	10063940.00	1530.85		

**The mean and median values show that districts with an LEF are able to increase per-student spending by \$123.37 past the state and federal amounts, or a 2.21% increase, and \$25.74 past the state and federal amounts, or a 0.46% increase, respectively.

Results for sub-question 5:

Of school districts in California that have an active parcel tax, what is the per-pupil increase in expenditure from tax revenues on a school district? What percent increase in funding does this bring compared to existing state and federal revenue?

Table 6 shows the levels of state and federal funding in districts with an active parcel tax. It also shows the effects of parcel tax revenue on these districts levels of total funding. The mean value of parcel tax revenue per district is \$5,525,378, where the median is \$2,280,479, suggesting skewness in the data in that there are likely a few districts with very high levels of parcel tax revenue doing so. Using mean values, parcel taxes increase district revenue/ADA by 309.9%, whereas using median values does so by 14.73%. As stated earlier, these results show serious skewness in the data; however, both mean and median values of the increase in revenue from parcel taxes show a significant increase in the level of funding on both total and percent values.

Table 6

Revenue information for districts with an active Parcel Tax

		State and Federal Revenue/ADA, in \$ terms	Parcel Tax Revenue, in \$ terms	Parcel Tax Revenue/ADA, in \$ terms	Mean State and Federal Revenue/ADA + Mean Parcel Tax revenue/ADA, in \$ terms	% increase in funding/ADA from Parcel Tax revenue – mean values
Districts with an Active Parcel Tax	Mean	5301.48	5525378	16428.53**	5301.48 + 16428.53 = 21,730.01	(16428.53 / 5301.48) x 100 = 309.9%**
	Standard Deviation	6238.76	11356872	75935.43		
	Median	4490.23	2280479	661.35**	Median State and Federal Revenue/ADA + Median Parcel Tax revenue/ADA	% increase in funding/ADA from Parcel Tax revenue – median values
	Maximum	54895.67	85000000	617818	4490.23 + 661.35 =	(661.35 / 4490.23) x 100
	Minimum	231.54	61000	71.07	5151.58	= 14.73%**

**The mean and median values show that districts with a parcel tax are able to increase per-student spending by \$16428.53 past the state and federal amounts, or a 309.9% increase, and \$661.35 past the state and federal amounts, or a 14.73% increase, respectively.

Sub-question 6:

What demographic, economic, and school district characteristics and features distinguish districts that do not have a Local Education Foundation from those that do?

Table 7 shows descriptive variables for school districts with and without an active Local Education Foundation. This table shows numerical mean and median differences in variables between the two types of districts. The numerical mean differences shown in the table between groups give an idea of the difference in these variables between groups, however to test for significant differences between the two groups, an independent samples t-test is utilized for each variable. T-tests look for statistically significant differences in variables between groups. The hypotheses for these t-tests are: **H₀** - there is no statistically significant difference in a given variable between groups, and **H₁** - there is a statistically significant difference in a given variable between groups. For each independent samples t-test the confidence level is 95%, meaning the level of significance is .05. Therefore, the decision rule is that if the resulting significance level is below .05 the null hypothesis is rejected, and there is a statistically significant difference in this variable between the two groups. The results of these t-tests are summarized in Table 8.

From the t-tests shown in table there are five statistically significantly different variables between school districts with at least one LEF, and those with none. These variables are: **State and Federal Revenue/ADA**, the **Unduplicated Count % of FRPM, EL, and Foster Youth**, **District Mean Income**, **District Mean Poverty Percentage**, and **District Mean Percent FRPM student percentage**. Mean differences for all variables are listed in both tables 7 and 8. Also, individual t-tests for each variable can be found in the appendix under tables 8-a – 8-j.

Table 7

Descriptive statistics for demographic, economic, and school district characteristics and features in districts with and without a Local Education Foundation

		State and Federal Revenue/A DA	Unduplicated Count % of FRPM, EL, and Foster Youth	% Black	% Hispanic	Mean District Income	Mean District Poverty %	% FRPM	% English Learners	Parcel Tax Revenue/A DA	Parcel Tax and LEF Revenue/ADA
NO LEF	Mean	7310.79	0.60	0.03	0.44	85337.97	0.12	0.58	0.17	1859.46	1859.46
	N	714.00	714.00	714.00	714.00	707.00	714.00	714.00	714.00	714.00	714.00
	Std. Deviation	7594.74	0.25	0.05	0.29	44290.76	0.09	0.24	0.17	26125.22	26125.22
	Median	6553.84	0.63	0.01	0.38	75265.00	0.10	0.60	0.13	0.00	0.00
	Minimum	231.54	0.01	0.00	0.00	29261.00	0.00	0.00	0.00	0.00	0.00
	Maximum	140422.33	1.00	0.44	1.00	402030.00	0.50	1.00	0.92	617818.00	617818.00
LEF	Mean	5940.64	0.53	0.03	0.46	93946.26	0.10	0.47	0.17	133.62	256.99
	N	124.00	124.00	124.00	124.00	124.00	124.00	90.00	90.00	90.00	90.00
	Std. Deviation	2762.19	0.24	0.03	0.24	35124.59	0.06	0.24	0.12	528.36	578.01
	Median	5894.17	0.55	0.02	0.45	85993.00	0.09	0.44	0.15	0.00	39.77
	Minimum	578.27	0.05	0.00	0.08	40699.00	0.00	0.05	0.01	0.00	0.00
	Maximum	16591.05	0.95	0.16	0.99	233316.00	0.31	0.93	0.66	4365.94	4431.86
	Mean Difference Between Groups (LEF - NO LEF)	-1370.16	-0.08	0.01	0.02	8608.29	-0.02	-0.11	0.00	-1725.84	-1602.47
	Median Difference Between Groups (LEF - NO LEF)	-659.67	-0.09	0.01	0.07	10728.00	-0.01	-0.16	0.02	0.00	39.77

Table 8

T-tests for statistically significant differences in demographic, economic, and school district characteristics and features in districts with and without a Local Education Foundation

Variable	Significance Value	Mean Difference	Decision Rule
State and Federal Revenue/ADA	0.03	1370.16	<i>Reject the Null Hypothesis**</i>
Unduplicated Count % of FRPM, EL, and Foster Youth	0.00	0.08	<i>Reject the Null Hypothesis**</i>
% Black	0.17	-0.01	<i>Fail to Reject the Null Hypothesis</i>
% Hispanic	1.00	-0.02	<i>Fail to Reject the Null Hypothesis</i>
Mean District Income	0.01	-8608.29	<i>Reject the Null Hypothesis**</i>
Mean District Poverty %	0.03	0.02	<i>Reject the Null Hypothesis**</i>
Mean District % FRPM	0.00	0.08	<i>Reject the Null Hypothesis**</i>
mean district % English Learners	0.99	0.00	<i>Fail to Reject the Null Hypothesis</i>
Mean District Parcel Tax Revenue/ADA	0.53	1725.84	<i>Fail to Reject the Null Hypothesis</i>
Mean District Parcel Tax and LEF Revenue/ADA	0.561	1602.47	<i>Fail to Reject the Null Hypothesis</i>

**Rejecting the Null Hypothesis shows a statistically significant difference in this variable between districts with and without an LEF

Sub-question 6-a:

Of school districts with an active Local Education Foundation, what demographic, economic, and school district characteristics and features distinguish districts with and without an active Parcel Tax? And, what is the per-pupil increase in spending between these groups?

Table 9 shows descriptive variables in districts with a Local Education Foundation, broken down by districts with a parcel tax and those without. The table shows numerical mean and median differences between LEF districts with and without an active parcel tax. Similar to the previous question, independent samples t-tests are utilized to test for statistically significant differences in these variables between LEF districts with a Parcel Tax and without. The hypotheses, decision rule, and confidence intervals for these t-tests are the same as the previous; H_0 – there is no statistically significant difference between the two groups, H_1 - there is a statistically significant difference in a given variable between groups. A summary of results can be found in Table 10, and individual t-tests can be found in the appendix in tables 10-a – 10-j.

The summary table shows seven statistically significantly different variables in LEF districts with and without at least one parcel tax. These variables are: **Mean District State and Federal Revenue/ADA, mean district Unduplicated Count % of FRPM, EL, and Foster Youth, mean district Hispanic percentage, mean district Income, mean district Poverty percentage, mean district percentage of FRPM students, and the Parcel Tax and LEF Revenue/ADA.** Table 11 shows the ADA increases in spending, both numerical and percentage, for LEF districts with and without parcel taxes. The differences are both expected and meaningful; a 38% increase in ADA funding for LEF districts with a parcel tax, and only about 1.5% for those without. This shows that while LEFs alone may not create substantial increases in ADA spending, when combined with parcel taxes in districts with both, the impact is very

substantial. Additionally, because t-tests show that districts with both are wealthier, and more advantaged than just districts with just an LEF, the impact on ADA spending from both further drives apart equity between districts, in that these already relatively advantaged districts and students are able to get even further ahead because of spending from LEFs and parcel taxes.

Table 9

Descriptive statistics for demographic, economic, and school district characteristics and features in districts with a Local Education Foundation between those with at least one active Parcel Tax and those with none

Districts with at least one LEF		State and Federal Revenue/ADA	Unduplicated Count % of FRPM, EL, and Foster Youth	% Black	% Hispanic	Mean District Income	Mean District Poverty %	% FRPM	% English Learners	LEF Revenue/ADA	Parcel Taxes and LEF Revenue/ADA
No Parcel Tax	Mean	5939.21	0.52	0.03	0.46	92397.43	0.11	0.49	0.18	123.25	123.25
	N	76.00	76.00	76.00	76.00	76.00	76.00	76.00	76.00	76.00	76.00
	Std. Deviation	2818.73	0.25	0.03	0.23	35126.60	0.07	0.25	0.12	278.43	278.43
	Median	5816.30	0.51	0.02	0.44	87354.50	0.10	0.49	0.16	23.53	23.53
	Minimum	746.25	0.05	0.00	0.11	40699.00	0.02	0.05	0.01	0.00	0.00
	Maximum	16591.05	0.95	0.16	0.99	192578.00	0.31	0.93	0.66	1530.85	1530.85
At Least One Parcel Tax	Mean	3594.95	0.37	0.04	0.32	124497.57	0.06	0.33	0.14	124.02	983.00
	N	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00
	Std. Deviation	2027.47	0.20	0.04	0.17	46717.03	0.03	0.18	0.10	183.73	1080.65
	Median	4134.20	0.35	0.02	0.31	122794.50	0.05	0.35	0.09	46.51	686.54
	Minimum	578.27	0.05	0.00	0.09	67207.00	0.02	0.05	0.01	0.10	117.70
	Maximum	6816.29	0.68	0.13	0.58	233316.00	0.10	0.64	0.29	619.47	4431.86
	Mean Difference Between Groups (Parcel Tax - No Parcel Tax)	-2344.2564	-0.14910526	0.0066109	-0.13665038	32100.1372	-0.05296617	-0.15667293	-0.04248684	0.77443055	859.753515
	Median Difference Between Groups (Parcel Tax - No Parcel Tax)	-1682.1034	-0.158	-0.0035	-0.127	35440	-0.0435	-0.136	-0.069	22.9849468	663.017873

Table 10

T-tests for statistically significant difference in demographic, economic, and school district characteristics and features between LEF districts with at least one active parcel tax and those with none

Variable	Significance Value	Mean Difference	Decision Rule
Mean District State and Federal Revenue/ADA	0.004	2344.26	<i>Reject the Null Hypothesis**</i>
Unduplicated Count % of FRPM, EL, and Foster Youth	0.038	0.15	<i>Reject the Null Hypothesis**</i>
% Black	0.512	-0.01	<i>Fail to Reject the Null Hypothesis</i>
% Hispanic	0.040	0.14	<i>Reject the Null Hypothesis**</i>
Mean District Income	0.004	-32100.14	<i>Reject the Null Hypothesis**</i>
Mean District Poverty %	0.000	0.05	<i>Reject the Null Hypothesis**</i>
% FRPM	0.027	0.16	<i>Reject the Null Hypothesis**</i>
% English Learners	0.223	0.04	<i>Fail to Reject the Null Hypothesis</i>
LEF Revenue/ADA	0.992	-0.77	<i>Fail to Reject the Null Hypothesis</i>
Parcel Tax and LEF Revenue/ADA	0.011	-859.75	<i>Reject the Null Hypothesis**</i>

**Rejecting the Null Hypothesis shows a statistically significant difference in this variable between LEF districts with and without a parcel tax

Table 11

Percent and Total Increases in ADA funding in LEF districts with and without at least one active parcel tax

Districts with at least one LEF		State and Federal Revenue/ADA, in \$ terms	Parcel Taxes and LEF Revenue/ADA, in \$ terms	State and Federal Revenue/ADA + LEF and Parcel Revenue/ADA, in \$ terms	% Increase in funding/ADA from LEF and Parcel Tax Revenue
No Parcel Tax	Mean	5939.21	123.25	6062.45562	2.08%**
	Median	5816.30	23.53	5839.82586	0.40%**
Parcel Tax	Mean	3594.95	983.00	4577.95274	27.34%**
	Median	4134.20	686.54	4820.74034	16.61%**

**The mean and median values show that districts with at least one LEF and no parcel tax increase per-student spending by 2.08% and 0.40%, respectively, and that districts with at least one LEF and a parcel tax increase per-student spending by 27.34%, and 16.61%, respectively.

Sub-question 7:

What demographic, economic, and school district characteristics and features distinguish districts that do not have an active parcel tax from those that do?

Table 12 shows descriptive statistics for districts with and without at least one active Parcel Tax. Also shown are numerical mean and median differences between the two groups. There seem to be significant differences in a number of variables including State and Federal Revenue/ADA, the unduplicated count percent of FRPM, EL, and Foster youth, and mean district income; however, as in the previous results, t-tests are utilized to not only again calculate mean differences, but test for statistically significant differences between the two groups. The hypotheses, decision rule, and confidence intervals for these t-tests are the same; H_0 – there is no statistically significant difference between the two groups, H_1 - there is a statistically significant difference in a given variable between groups. The results of these T-tests can be seen in Table 13. Full results and analysis and results of t-tests can be found in tables 13-a – 13-j in the Appendix.

Table 13 shows that there are six statistically significantly different variables between districts with at least one parcel tax and those with none. These variables are: **State and Federal Revenue/ADA, Unduplicated Count % of FRPM, EL, and Foster Youth students, % Hispanic, Mean District Income, Mean District Poverty Percentage, and Percent FRPM students**. The statistically significant difference in these variables between parcel and non-parcel districts paints the pictures of these two groups; specifically, these differences in economic characteristics show that districts with an active parcel tax are wealthier, and more relatively advantaged than those without, therefore widening the gap of inequity in the state through the

increase in funding to parcel districts. The mean differences are indicated in each variable's respective table.

Table 12

Descriptive statistics for demographic, economic, and school district characteristics and features in districts with and without at least one active parcel tax

		State and Federal Revenue/ADA	Unduplicated Count % of FRPM, EL, and Foster Youth	% Black	% Hispanic	Mean District Income	Mean District Poverty %	% FRPM	% English Learners	LEF Revenue/ADA	Parcel Taxes and LEF Revenue/ADA
No Parcel Tax	Mean	7320.55	0.61	0.03	0.45	83067.34	0.12	0.58	0.18	12.96	12.96
	N	723.00	723.00	723.00	723.00	717.00	723.00	723.00	723.00	723.00	723.00
	Std. Deviation	7314.63	0.24	0.04	0.28	39364.49	0.09	0.24	0.17	97.38	97.38
	Median	6621.24	0.63	0.01	0.41	74649.00	0.10	0.60	0.13	0.00	0.00
	Minimum	321.18	0.03	0.00	0.00	29261.00	0.00	0.00	0.00	0.00	0.00
	Maximum	140422.33	1.00	0.40	1.00	402030.00	0.50	1.00	0.92	1530.85	1530.85
At Least One Parcel Tax	Mean	5294.49	0.46	0.03	0.33	119247.93	0.08	0.41	0.16	21.44	16560.67
	N	81.00	81.00	81.00	81.00	80.00	81.00	81.00	81.00	81.00	81.00
	Std. Deviation	6277.31	0.28	0.06	0.24	64232.08	0.07	0.29	0.14	87.82	76397.38
	Median	4428.58	0.41	0.01	0.26	107995.00	0.06	0.37	0.11	0.00	670.19
	Minimum	231.54	0.01	0.00	0.00	30149.00	0.00	0.01	0.00	0.00	71.07
	Maximum	54895.67	1.00	0.44	0.98	373128.00	0.36	1.00	0.56	619.47	617818.00
	Mean difference between groups (Parcel Tax - No Parcel Tax)	-2026.06	-0.15	0.01	-0.12	36180.58	-0.04	-0.17	-0.02	8.48	16547.71
	Median difference between groups (Parcel Tax - No Parcel Tax)	-2192.66	-0.23	0.00	-0.15	33346.00	-0.04	-0.23	-0.02	0.00	670.19

Table 13

T-tests for statistically significant difference in demographic, economic, and school district characteristics and features between districts with at least one parcel tax, and those with none

Variable	Significance Value	Mean Difference	Decision Rule
State and Federal Revenue/ADA	0.017	2026.06	<i>Reject the Null Hypothesis**</i>
Unduplicated Count % of FRPM, EL, and Foster Youth	0.000	0.15	<i>Reject the Null Hypothesis**</i>
% Black	0.071	-0.01	<i>Fail to Reject the Null Hypothesis</i>
% Hispanic	0.000	0.12	<i>Reject the Null Hypothesis**</i>
Mean District Income	0.000	-36180.58	<i>Reject the Null Hypothesis**</i>
Mean District Poverty %	0.000	0.04	<i>Reject the Null Hypothesis**</i>
% FRPM	0.000	0.17	<i>Reject the Null Hypothesis**</i>
% English Learners	0.381	0.02	<i>Fail to Reject the Null Hypothesis</i>
LEF Revenue/ADA	0.453	-8.48	<i>Fail to Reject the Null Hypothesis</i>
Parcel Taxes and LEF Revenue/ADA	0.055	-16547.71	<i>Fail to Reject the Null Hypothesis</i>

**Rejecting the Null Hypothesis shows a statistically significant difference in this variable between districts with and without a parcel tax

Sub-question 7-a:

Of school districts with an active Parcel Tax, what demographic, economic, and School District characteristics and features distinguish districts with and without an active Local Education Foundation? And, what is the per-pupil increase in spending between these groups?

Table 14 shows descriptive statistics for districts with at least one parcel tax, broken down by districts with at least one LEF and those with none. The table also shows numerical mean and median differences between groups with at least one LEF and those with none. There seems to be significant differences in these variables between groups, again however t-tests are used to test for statistically significant differences between the two groups. The hypotheses and confidence intervals for these t-tests are the same as the previous; H_0 – there is no statistically significant difference between the two groups, H_1 - there is a statistically significant difference in a given variable between groups. T-test results are summarized in Table 16 below, and full t-test results and analysis can be found in the Appendix under Tables 15-a – 15-j.

Table 16 show that there is only one statistically significant variable in parcel tax districts between those with at least one LEF, and this is the mean district poverty percentage. Table 16 shows the percentage funding increase in parcel tax districts between those with an LEF and those without. The mean and median increases suggest positive skewness of the data, however a surprising result is that the percentage increase in funding for non LEF districts is higher for both mean and median increases in funding. What this suggests, in conjunction with sub-question 6-a, is that the effect from LEFs on ADA spending is not as substantial as the effect from parcel taxes, which substantially widen the gap of inequity by the increase in spending being concentrated in already advantaged school district.

Table 14

Descriptive statistics for demographic, economic, and school district characteristics and features in districts with at least one parcel tax between those with at least one LEF and those with none

Districts with at least one parcel tax	State and Federal Revenue/ADA		Unduplicated Count % of FRPM, EL, and Foster Youth	% Black	% Hispanic	Mean District Income	Mean District Poverty %	% FRPM	% English Learners	Parcel Tax Revenue/ADA	Parcel Tax and LEF Revenue/ADA
	Mean	N									
No LEF	Mean	5649.62	0.48	0.03	0.33	118134.36	0.09	0.43	0.17	19815.71	19815.71
	N	67.00	67.00	67.00	67.00	66.00	67.00	67.00	67.00	67.00	67.00
	Std. Deviation	6797.99	0.30	0.07	0.25	67606.91	0.08	0.30	0.14	83738.62	83738.62
	Median	4592.54	0.43	0.01	0.25	100193.50	0.06	0.37	0.11	670.19	670.19
	Minimum	231.54	0.01	0.00	0.00	30149.00	0.00	0.01	0.00	71.07	71.07
At least one LEF	Maximum	54895.67	1.00	0.44	0.98	373128.00	0.36	1.00	0.56	617818.00	617818.00
	Mean	3594.95	0.37	0.04	0.32	124497.57	0.06	0.33	0.14	858.98	983.00
	N	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00
	Std. Deviation	2027.47	0.20	0.04	0.17	46717.03	0.03	0.18	0.10	1113.65	1080.65
	Median	4134.20	0.35	0.02	0.31	122794.50	0.05	0.35	0.09	496.00	686.54
	Minimum	578.27	0.05	0.00	0.09	67207.00	0.02	0.05	0.01	90.60	117.70
	Maximum	6816.29	0.68	0.13	0.58	233316.00	0.10	0.64	0.29	4365.94	4431.86
	Mean difference (LEF - No LEF)	-2054.667	-0.111	0.004	-0.005	6363.208	-0.029	-0.097	-0.027	-18956.726	-18832.705
Median difference (LEF - No LEF)	-458.344	-0.084	0.002	0.068	22601.000	-0.005	-0.018	-0.021	-174.193	16.349	

Table 15

T-tests for significant differences in demographic, economic, and school district characteristics and features between Parcel Tax districts with at least one LEF or none

Variable	Significance Value	Mean Difference	Decision Rule
State and Federal Revenue/ADA	0.30	1815.75	<i>Fail to Reject the Null Hypothesis</i>
Unduplicated Count % of FRPM, EL, and Foster Youth	0.188	0.11	<i>Fail to Reject the Null Hypothesis</i>
% Black	0.839	0.00	<i>Fail to Reject the Null Hypothesis</i>
% Hispanic	0.945	0.00	<i>Fail to Reject the Null Hypothesis</i>
Mean District Income	0.739	6363.21	<i>Fail to Reject the Null Hypothesis</i>
Mean District Poverty %	0.017	0.03	<i>Reject the Null Hypothesis**</i>
% FRPM	0.124	0.010	<i>Fail to Reject the Null Hypothesis</i>
% English Learners	0.503	0.03	<i>Fail to Reject the Null Hypothesis</i>
Parcel Tax Revenue/ADA	0.402	18956.73	<i>Fail to Reject the Null Hypothesis</i>
Parcel Taxes and LEF Revenue/ADA	0.405	18832.70	<i>Fail to Reject the Null Hypothesis</i>

**Rejecting the Null Hypothesis shows a statistically significant difference in this variable between parcel districts with and without an LEF

Table 16

Percent and Total Increases in ADA funding in Parcel Tax districts with and without at least one active LEF

Districts with at least one parcel tax		State and Federal Revenue/ADA, in \$ terms	Parcel Taxes and LEF Revenue/ADA, in \$ terms	State and Federal Revenue/ADA + LEF and Parcel Revenue/ADA, in \$ terms	% Increase in funding/ADA from LEF and Parcel Tax Revenue
No LEF	Mean	5649.62	19815.71	25465.32	351%**
	Median	4592.54	670.19	5262.73	15%**
At least one LEF	Mean	3746.43	1414.92	5161.36	38%**
	Median	4265.26	761.05	5026.30	18%**

**The mean and median values show that districts with at least one parcel tax and no LEF increase per-student spending by 351% and 15%, respectively, and that districts with at least one LEF and a parcel tax increase per-student spending by 38%, and 18%, respectively.

Findings & Analysis

The previous section was designed to provide evidence to the sub-questions that underlie the over-arching research question: *Given unequal levels of student achievement across districts in California, do parcel taxes and local education foundations (LEFs) exacerbate existing societal and economic inequity through California public schools?* This section will unpack how results from the previous section informs the above research question.

The Status of Parcel Taxes and LEFs in California Public Schools

While the effect of LEFs in a district bring only small increases in ADA spending, an increase of 0.5% from state and federal spending, parcel taxes increase spending by nearly 15%, and when combined in a district, increase spending by 26%.

Sub-questions 1-3 provided a lay-of-the-land for Parcel Taxes and Local Education Foundations in California School Districts. In the dataset, and shown in Table 1, there are 124 school districts that have at least one active LEF, representing roughly 15% of school districts, whereas the other 85% of school districts have no affiliated LEF in the dataset. Also, Table 2 shows that there are 82 districts in the dataset that have at least one active Parcel Tax, roughly 10% of districts, whereas the other 90% of districts do not have any active Parcel Taxes. Of these school districts that have at least one active Parcel Tax, there are 15 that have at least one affiliated LEF, as shown in Table 3. Information on the demographic, economic, and school district characteristics of these districts is shown in Table 4, and the financial impact of Parcel Taxes and LEFs, both in total terms of dollars and dollars per ADA, in Table 5. Table 5-a shows the impact of these two sources in relation to the level of State and Federal Funding in these districts. This shows that districts with both an active Parcel Tax and an affiliated LEF are able to raise the per-student level of expenditure by roughly 26% of total funding from the State and

Federal governments. This combined effect is a substantial increase in funding per-student, and will be analyzed in conjunction with the funding increases from LEFs and Parcel Taxes.

Financial Impact of LEFs

The effects of Local Education Foundations alone on per-student spending, in the form of revenue/ADA in a district, do not create large differences according to the dataset. Using mean values, LEFs increase spending per ADA by \$123.37, or 2.21% of total State and Federal Revenue/ADA, and using median values the increase is merely \$25.74 per ADA, a 0.46% increase in state and federal funding. This shows that there is not only a very large positive skew in the amount of funds raised by LEFs, meaning there are likely a few very large LEFs that raise substantially more revenue than the others, but also simply that, in total, LEFs do not seem to dramatically increase spending in the school districts they fund. The skewness of this data shows that only a few schools are able to increase spending substantially through LEFs, thus widening disparities of funding equity between these districts and all others, including poorly funded LEFs and the districts with which they are associated.

Financial Impact of Parcel Taxes

The effects of parcel taxes on funding per ADA, however, are quite large. Table 7 shows the mean and median increases in spending from Parcel Tax Revenue/ADA; specifically, the mean increase in spending per ADA is \$21,730.01, or an increase in 309.9% from state and federal revenue/ADA, and the median increase is \$5151.58, or a 14.73% increase. This not only shows significantly positively skewed data, in that there are a few very lucrative parcel taxes pushing up the mean, but also in both instances, mean and median, parcel taxes increase per-

ADA spending significantly. Again, the skewness in data suggests that there are a few districts receiving large increases in spending above State and Federal levels, and that these districts drastically widen disparities of advantage through increases in funding in these wealthier, more advantaged districts.

Parcel Taxes and LEFs Filling Gaps in State Funding

Statistically significant differences in demographic, economic, and school district characteristics between these different groups of districts will be discussed to inform the overarching research question, however, one important statistically significant difference between both LEF and non-LEF districts, and parcel tax and non-parcel tax, is the State and Federal funds/ADA between districts. This relationship in the State and Federal Revenue/ADA between LEF and non-LEF districts aligns with the background section, whereby parcel taxes and LEFs in California have largely arisen out of a desire to increase spending on the district level, after the *Serrano* ruling and the passing of Prop 13 (Meszaros, 2010). Also, in an interview with the founder and former director of the oldest LEF in the state, the Pasadena Educational Foundation (PEF), Joan Fauvre, stated that at the time of the founding in 1971, the main purpose was to “bring additional local revenue to schools and the school district” (Fauvre, Joan. Interview by Paul Flood. Los Angeles, December 14, 2018). In an interview with Susan Sweeney, the founder and former Executive Director of the California Consortium of Education Foundations, she noted that LEFs began to be established in the 1970’s and 1980’s largely in response to districts’ loss of local control in raising funds resulting from the *Serrano* ruling and the passing of Proposition 13; that because of the change in the funding formula some districts began losing funds and

LEFs were a way to make up for these losses (Sweeney, Susan. Interview by Paul Flood. Los Angeles, January 29, 2019).

The contemporary shift to the LCFF in California furthers the idea of LEF districts having less money from State and Federal governments, in that, examined in the literature review, the new formula uses two grants, a supplemental grant and concentration grant, to prioritize spending in high-need districts, in order to promote vertical equity. Therefore, it follows that districts with at least one affiliated LEF, or Parcel Tax, get less money from the LCFF in that they have fewer high-need students. And also, by simply reversing the logic, districts that receive less money from the State and Federal governments have more of an impetus to raise money on their own to make up for this gap. All of this is to say that because the state of California has over the past decades used formulas to prioritize spending to high-need districts to promote vertical equity, districts who do not receive as much funds from the state are more likely to establish and raise money through a LEF.

LEFs Exist in Districts with Higher Levels of Relative Advantage

LEF districts have lower percentages of the Unduplicated Count Percent of Free and Reduced Price Meal Students, English Learner Students, and Foster Youth Students, higher mean District Incomes, and lower mean District Poverty Percentages.

The t-tests and mean differences summarized in Table 9 show variables that are statistically significantly different between LEF and non-LEF districts. These are, State and Federal Revenue/ADA, the Unduplicated Count % of FRPM, EL, and Foster Youth, District Mean Income, District Mean Poverty Percentage, and District Mean Percent FRPM student percentage. The statistically significant difference in the Unduplicated Count % of FRPM, EL, and Foster Youth students between LEF and non-LEF districts shows that districts with an

affiliated LEF have on average 8% less of these students than districts with none. The literature review showed that districts with LEFs are likely to have fewer FRPM students, and exist in already relatively advantaged districts (Busch, 2012). So, finding a statistically significant difference in the Unduplicated Count % of FRPM, EL, and Foster Youth shows that LEFs operate in more advantaged districts. Therefore, this 8% difference as well as the other mean differences of statistically significant variables, shows that **LEFs exist in relatively more advantaged districts**. Relating this to the research question, it can be said that because more advantaged district have access to higher levels of per-student funding through LEFs, vertical equity is harmed, equalizing effects of the LCFF are diminished, and disparities in relative advantage and funding are widened.

Furthermore, Table 17 below shows correlation coefficients between LEF Status and LEF Revenue/ADA between all statistically significant variables. A full correlation table with all variables in the dataset is included in the Appendix. The table shows a significant correlation coefficient between LEF Status and Unduplicated Count % of FRPM, EL, and Foster Youth students of $-.138$, and the Mean district % FRPM Students of $-.141$, at a significance level of $.01$. Whereas, there is a significant correlation coefficient between LEF Status, and State and Federal Revenue/ADA of $-.038$ and Mean District Income of $.087$, both at a significance value of $.05$. These results are in-line with the t-tests and resulting mean differences; as Federal and State Revenue/ADA increases, the likelihood of an affiliated LEF decreases, as the Unduplicated Count % of FRPM, EL, and Foster Youth students, and simply % FRPM students increase, the likelihood of having an LEF decreases. Mean District Poverty % does not show a statistically significant correlation, however the t-test does. Similar results are suggested in the correlation coefficients of these variables with the LEF Revenue/ADA; with a strong positive correlation

coefficient for the mean district income, and a weaker negative correlation for the Unduplicated Count % of FRPM, EL, and Foster Youth students, and the % FRPM students. This suggests that as income increases across districts, the larger the LEF Revenue/ADA impact is, and as relative advantage, in the form of the Unduplicated Count % of FRPM, EL, and Foster Youth students, and the % FRPM students, decreases, the smaller the impact from LEF Revenue/ADA. Relating this to the research question suggests further, that a districts relative advantage is critical in determining the existence and impact of an LEF, and that through LEFs disparities in relative advantage and funding are widened.

Table 17

Relationship of LEF Status and LEF Revenue/ADA Between Statistically Significant Variables

		State and Federal Revenue/ADA	Unduplicated Count % of FRPM, EL, and Foster Youth Students	Mean District Income	Mean District Poverty %	Mean District % FRPM Students
LEF Status	Pearson Correlation	-.083*	-.138**	.087*	-0.062	-.141**
	Sig. (2-tailed)	0.018	0.000	0.014	0.080	0.000
	N	804	804	797	804	804
LEF Revenue/ADA	Pearson Correlation	-0.056	-.089*	.127**	-0.043	-.095**
	Sig. (2-tailed)	0.111	0.012	0.000	0.219	0.007
	N	804	804	797	804	804

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

The implications of the other statistically significantly different variables between these two types of districts follow a similar logic as above. The difference in mean district income between the two groups of districts is \$8608, mean district poverty percentage is 2%, and percent FRPM students is 8%. These differences all show a greater degree of advantage that districts with at least one affiliated LEF have compared to those with none, which are very meaningful considering the importance of income and poverty in determining relative advantage. Using the same logic, if districts with affiliated LEFs are already more advantaged, then the funds from LEFs are exacerbating these existing societal inequities by increasing funding for these districts past their LCFF designation. In that the relative social advantage that exists in these districts aids in the establishing or running of an LEF, it is clear that the existing divergence of advantage and inequity is widened through LEFs. However, the increase in funding from LEF revenue shows that the magnitude of the effect of LEFs may not be so large as to create appreciable differences in student funding, thus the effect on inequity in widening the gap of relative advantage may not be dramatic.

In interviews with Susan Sweeney, the former director of the CCEF, and Joan Fauvre, the former director of the PEF, when prompted with questions about the interaction of LEFs with the passing of parcel taxes, they both remarked that LEFs are influential in pushing for and passing parcel taxes (Fauvre, Joan. Interview by Paul Flood, December 14, 2018). Joan stated that many times in the past the PEF worked closely with the district in order to pass a parcel tax, with the most recent being a failed attempt in 2010, and Susan stated that “a big part of getting these (parcel taxes) passed has been an existing relationship with LEFs and the district” (Sweeney, Susan. Interview by Paul Flood, January 29, 2019). LEFs, therefore, seem to build a sense of collective power in the district that can be utilized for improving public education generally, and

especially so in support for a parcel tax. These interviews suggest investigating the differences in both funding and demographic, economic, and school district characteristics between LEF districts with and without an active parcel tax.

Table 12 shows that LEF districts with no parcel tax increase spending per ADA by a mean value of 2.08% and a median value of 0.40%, whereas LEF districts with an active parcel tax increase spending by a mean value of roughly 27% and a median value of roughly 17%. Clearly, LEF districts with associated parcel taxes are able to increase spending per ADA much more than those without. This result suggests that although LEFs are present in wealthier more advantaged districts, substantial impacts on per-student spending are seen largely through parcel taxes in districts with LEFs.

Table 11 shows t-test results for variables between LEF districts with and without an affiliated parcel tax. The statistically significantly different variables between these two groups are: Mean District State and Federal Revenue/ADA, mean district Unduplicated Count % of FRPM, EL, and Foster Youth, mean district percentage of Hispanic students, mean district Income, mean district Poverty percentage, mean district percentage of FRPM students, and the Parcel Tax and LEF Revenue/ADA. The significant and mean differences in these variables follow the same logic as above; that evidenced through these differences, there are meaningful differences in relative advantage shown through economic, demographic, and school district characteristics between parcel and non-parcel districts that effect both the ability of an LEF district to pass a parcel tax and the resulting funding of the combination of these two sources. For example, the mean difference in mean district income is \$33,882.78, and mean district poverty percentage is 5%, representing significant economic differences between groups. With regard to the differences in funding from these two sources between groups, the level of LEF

Revenue/ADA is not statistically significantly different, however Parcel Tax and LEF Revenue shows a statistically significant difference between groups. This suggests that parcel taxes create a meaningful difference in funding between these two groups, but the LEF funds do not.

Therefore, the significant differences in demographic, economic, and school district characteristics as well as the level of funding brought by parcel taxes, show that the increase in funding for these 15 more advantaged districts with both a LEF and parcel tax is substantially different from the other districts with an LEF and no parcel tax, accounting to a mean difference of \$1239.95 between parcel and non-parcel districts.

It seems despite there being statistically significant differences in some of the economic and school district characteristics between LEF and non-LEF districts, the resulting difference in funding from LEFs is not substantial. However, in further examination of LEF districts, broken down by parcel tax status, there are statistically significant differences in economic, demographic, and school district characteristics between groups, and a large difference in the funding brought by parcel taxes. This analysis shows that LEFs exist in more advantaged districts and therefore widen the existing divergence in relative advantage, and although the total effect is seemingly small, the divergence is more pronounced when combining the funds from parcel taxes. The simple fact that impacts from LEFs, though small, are concentrated in advantaged districts, show that they widen disparities of relative advantage and inequity, and potentially lessen equalizing efforts from the LCFF.

Parcel Taxes Exist in Districts with Higher Levels of Relative Advantage

Parcel Tax Districts have lower percentages of the Unduplicated Count Percent of Free and Reduced Price Meal Students, English Learner Students, and Foster Youth Student, higher mean District Incomes, and lower mean District Poverty Percentages.

Table 13 shows the differences in selected economic, demographic, and school district characteristics between parcel tax and non-parcel tax districts, and Table 14 provides a summary of the t-tests used to test for statistically significant mean differences in these variables between these groups. These variables are State and Federal Revenue/ADA, Unduplicated Count % of FRPM, EL, and Foster Youth students, % Hispanic, Mean District Income, Mean District Poverty Percentage, and Percent FRPM students. Analysis of the demographic and economic characteristics of school districts will follow a similar logic as above, that because, as evidenced through these variables, there are differing levels of relative advantage between parcel and non-parcel districts, which are not only important in passing a parcel tax, but in fact widen the gap of inequity by increasing funding in already relatively advantaged districts.

In congruity with the literature review, Table 14 shows a statistically significant difference in the mean district income between parcel tax and non-parcel tax districts (McGhee & Weston, 2013). The mean difference is reported as \$36,434.24; income in parcel tax districts is this much higher than in non-parcel tax districts. This difference is very large and is compounded by the other statistically significantly different economic variables, such as the district mean poverty percentage, which shows a difference of 4%. The literature review also shows that districts with parcel taxes are also likely to have higher percentages of students enrolled in FRPM programs (Weston et al. 2015). The dataset and results align with this finding; the mean differences for the Unduplicated Count percent of FRPM, EL, and Foster Youth and the just the percentage of FRPM students, were statistically significant, and were 15% and 17%

respectively. This result shows that parcel tax districts have substantially lower populations of high-need students, and therefore have a significantly higher degree of relative advantage compared to non-parcel districts. In these districts, funding does not have to be used for programs intended to help high-need students, but in fact can be used for enrichment programs that effectively widen the relative advantage already experienced by these districts and the students that live there. Another meaningful finding that is supported by the literature review is the fact that parcel tax districts have a statistically significantly different percentage of Hispanic students enrolled, with a 12% mean difference between groups. A previous study had found that California parcel-tax districts were more likely to have greater racial homogeneity, and this result suggests a similar finding (Jones, 1996).

Table 18 below shows correlation coefficients between Parcel Tax Status, Parcel Tax Revenue/ADA and all statistically significant variables. The table shows statistically significant correlation coefficients between Parcel Tax Status and all statistically significantly different variables between parcel and non-parcel districts, with all significant at the .01 level, except for State and Federal Revenue/ADA which is significant at the .05 level. These results are in-line with t-tests and the literature review which suggest that more advantaged districts are likely to have an affiliated parcel tax. There exists weaker statistically significant correlations between Parcel Tax Revenue/ADA and State and Federal Revenue/ADA, Unduplicated Count % of FRPM, EL, and Foster Youth, % Hispanic Students, and Mean District % FRPM Students, at the .05 significance level. These results suggest that the statistically significantly different demographic, economic, and school district characteristics are very important in the determining of the presence of a parcel tax, but not so much the total funds raised.

Table 18

Relationship of Parcel Tax Status and Parcel Tax Revenue/ADA Between Statistically Significant Variables

		State and Federal Revenue/ADA	Unduplicated Count % of FRPM, EL, and Foster Youth Students	% Hispanic Students	Mean District Income	Mean District Poverty %	Mean District % FRPM Students
Parcel Tax Status	Pearson Correlation	-.084*	-.176**	-.133**	.248**	-.139**	-.204**
	Sig. (2-tailed)	0.017	0.000	0.000	0.000	0.000	0.000
	N	804	804	804	797	804	804
Parcel Tax Revenue/ADA	Pearson Correlation	.088*	.069*	-.088*	-0.037	0.034	.073*
	Sig. (2-tailed)	0.012	0.049	0.013	0.293	0.338	0.040
	N	804	804	804	797	804	804

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Analysis of these meaningful differences between parcel tax and non-parcel tax districts show a significant difference in the statistics that seek to encapsulate the relative advantage between these two districts. Specifically, non-parcel tax districts have lower mean incomes, higher poverty percentages, and higher percentages of FRPM, EL, and Foster Youth students. Considering these differences along with the substantial mean and median percentage increase in funding brought by parcel taxes in districts where they exist, show that parcel taxes absolutely and severely exacerbate the economic and societal inequities between these two groups of districts, in that between groups there is a clear difference in the relative advantage as shown by the selected demographic and economic variables, which is only being widened and exacerbated by the differing levels of funding brought by parcel taxes.

Similar to previous analysis on the status of parcel taxes in LEF districts, analyzing the difference in LEF status for parcel districts will help to understand how these two avenues of raising funds for a school district relate to one another. Table 16 shows the results of t-tests for statistically significant differences in selected variables between parcel tax districts with or without an affiliated LEF. The results show only one statistically significant variable, mean district poverty percentage, with a mean difference of 3%. These results do not suggest substantial differences in relative advantage between parcel tax districts with and without LEFs. That being said, Table 17 shows the increase in funding for parcel tax districts with and without LEFs, and though being largely skewed in the mean value for the 'No LEF' designation, the median percent increases show an increase of 18% for districts with at least one LEF and a 15% increase for those with none. Despite being a small difference this result shows that a combination of both a parcel tax and an LEF, again, brings a higher percentage increase in funding per ADA.

Interviews Analysis

To posit an answer to the research question, an analysis of interviews conducted help to frame the conclusions reached in above sections. Interview details are included in Table 19.

Three of these interviews were conducted with experts in Local Education Foundations, one with an education policy expert, and none were conducted with an individual representing a parcel tax district, however in each interview questions regarding parcel taxes were asked. As stated previously, interview consent was given from participants through Informed Consent Forms that were distributed, signed, and returned before the interview. Additionally, approval was given for these interviews from the HSRRC at Occidental College, and the HSRRC proposal number issued was F18115.

Table 19

Interview Participants

Name	Title	Employer	Date of Interview
Joan Favvre	Founder and Former Director	Pasadena Education Foundation (PEF)	December 14, 2018
Susan Sweeney	Founder and Former Executive Director	California Consortium of Education Foundations (CCEF)	January 29, 2019
Patrick Conyers	Executive Director	Pasadena Education Foundation (PEF)	January 31, 2019
Steve Zimmer	Senior Advisor, Education Policy	Los Angeles Mayor's Office	February 13, 2019

A standard set of questions were asked for each interviewee, with some adjustments to reflect the interviewee's background on these issues, and to gain specific insights on issues related to the research. The results of these interviews are analyzed to provide expert context to the quantitative analysis from previous sections. Specifically, this consisted of reading for themes across interviews and analyzing how these relate to and inform findings from the quantitative analysis as to the role and presence of Local Education Foundations and parcel taxes in the educational landscape. These themes are: **LEFs improve public school perception and the relationship between parents and the district, the importance of LEF and district relationships in determining LEF effectiveness, LEFs are effective at filling funding gaps in districts, LEF structure and governance is variable across districts, the role of LEFs depend on the needs of the district, LEFs can help to pass parcel taxes, and that, LEFs can improve equity, rather than harm it.**

LEFs Improve Public School Perception and Relationship between Parents and the District

In interviews with both Susan Sweeney and Patrick Conyers, they spoke about how LEFs provide both an avenue for parents to be directly engaged with a school district through their dollars, and also gain a sense of agency over their child's public school education by doing so. If parents feel empowered to be active stakeholders in public education through an LEF, this can not only improve an individual's perception and relationship with a school or district, but also signal to the community that there exists a body or organization dedicated to enhancing and improving public education. This improved perception of public education can not only increase parent engagement which is critical for effective public schools, but can also increase their likelihood to give money to the affiliated LEF, thus widening the gap of relative advantage.

The Importance of LEF and District Relationships in Determining LEF Effectiveness

Another recurring theme in these same interviews with Sweeney and Conyers was the importance of the relationship between the school district and affiliated LEF in the effectiveness of the LEF. In the Pasadena Educational Foundation, of which Conyers is the Executive Director, there is direct and constant communication between the foundation and the district to create specific programming and fill budgetary holes in the district. The mission of the PEF is, “To support, enhance, and supplement, the priorities and initiatives of PUSD (Pasadena Unified School District),” and Conyers also stated that “supporting district goals is the main priority” (Conyers, Patrick. Interview by Paul Flood, January 31, 2019). These quotations show that the work of the PEF is aligned with the needs of Pasadena school district, and leads to a meaningful quotation from the interview with Sweeney, which reads, “LEFs will not succeed without the help and cooperation between parents, district, schoolboard, and foundation” (Sweeney, Susan. Interview by Paul Flood, January 29, 2019). The seemingly effective communication and relationship between the PEF and the PUSD is evidenced through the implementation of a computer science course at Pasadena High School. Conyers described that PUSD wanted to implement this type course, and that in order to make this happen the district worked with the PEF to fundraise, craft curriculum, and hire teachers. This program is now in its 8th year, and the PEF continues to fund the course materials (computers, etc.) and pay half of the teacher salaries for this course. This shows the effectiveness of LEFs when they work directly with the affiliated district to come up with programs and funding, and how these foundations along with the district can create programming that further diverges relative advantage between districts.

LEFs are Effective at Filling Funding Gaps in Districts

Tangential to the previous theme, in interviews with these experts they spoke about the effectiveness of LEFs in filling funding gaps in school districts. In conjunction with the literature review, in the interview with Sweeney she spoke about the rise of LEFs after Proposition 13, which severely limited a school district's ability to tax itself (Sweeney, Susan. Interview by Paul Flood, January 29, 2019). Also, in the interview with Joan Favre, founder of the PEF, she stated that the Foundation was started to counteract losses in local revenue during the time of Proposition 13 (Favre, Joan. Interview by Paul Flood, December 14, 2018). These quotes show that the PEF and many LEFs were started because of losses in funding, and a need to return to these levels, however not seemingly out of a desire to create new programming and drastically raise funding. The above mission of the PEF aligns with this, in that the Foundation seeks to support district goals and initiatives. Sweeney also spoke about an apparent misconception of LEFs as being able to bankroll school districts and solve all of their problems, but rather that they are able to "come in as a band-aid for certain issues" (Sweeney, Susan. Interview by Paul Flood, January 29, 2019). This goes to show that though LEFs do increase funding in districts, the uses of money are in-line with district goals, and often seek to replace losses in funding from other sources.

According to the dataset and Results section LEFs exist in more advantaged districts, and because of the LCFF which funds districts based on a number of economic and demographic characteristics, it therefore makes sense that LEFs exist in these more advantaged districts in order to make up for the lower levels of funding for each student.

LEF Structure and Governance is Variable Across Districts

Interviews also evidenced variable characteristics of LEFs across the state with regard to governance, type of districts served, and interaction with districts. According to Sweeney there are Foundations that operated on the elementary, high, and unified school district level, as well as on the school-site level, which is backed up in the dataset and shows all these types of districts. From above, the PEF is a Foundation that works directly with the district to prioritize funding and programming, however in the interview with Conyers he stated that there are other districts that are simply “cutting checks” for the districts they serve (Conyers, Patrick. Interview by Paul Flood, January 31, 2019). In this interview Conyers also spoke about the PEF “runs the gamut” for fundraising (Conyers, Patrick. Interview by Paul Flood, January 31, 2019). They raise money through direct mail solicitation of funds from parents, engaging the corporate community for donations, and through a full-time grant writer that has in the past received money from local and national non-profit and government organizations. Conyers stated that having a full-time grant-writer is a unique feature of the PEF and that this has allowed the organization to reach many of the funding and programming goals more easily. Engaging the corporate community, Conyers stated, has led local business leaders to be more involved and invested in public education, which corresponding to the first theme can improve the image of public education, generally. By the same token, Conyers stated, engaging parents for money and input can do the same. However, he also stated that because Pasadena is a mostly low-income city, this part of their fundraising is the smallest.

The Role of LEFs Depends on the Needs of the District

Similar to the previous theme, Sweeney stated how the role of an LEF in a district largely depends on the needs of that district, and that in districts that work closely with their affiliated LEF, Superintendents, the Board, and the LEF work closely to devise priorities and “discuss what the community would be willing/able to support” (Sweeney, Susan. Interview by Paul Flood, January 29, 2019). For districts with an LEF the programming and subsequent fundraising largely depends on what the community, made up of parents, businesses, and local non-profits, want to support. Therefore, in order for an LEF to be effective at raising money and creating programming it needs to be able to communicate with the community about what the goals of the Foundation are, and that in order to reach these it needs support from the community. Ever-more important then, is how the LEF shapes both perception and confidence of public education in a district, and fosters communication with the district to work together in creating effective programming and fund-raising goals.

LEFs Can Help to Pass Parcel Taxes

A critical concept that was brought up in interviews and directly relates to a piece of the quantitative analysis was the importance of LEFs in the passing of Parcel Taxes. Both Fauvre and Sweeney when prompted with questions about the role of LEFs in passing parcel taxes, both stated that the improved connection and relationship between parents, the community, and the school district is often vital to passing a parcel tax. Previous analysis showed how LEFs can create a sense trust from community members, in that an organization that truly has a district’s best interest in mind to improve public education. Therefore, in campaigns for parcel taxes, if LEFs are able to show public support and articulate how a parcel tax fits into the efforts to

improve public education, this connection can be vital in getting community members to approve the tax. LEFs can act as incubators of support for a parcel tax campaign, and if a LEF has a strong relationship with the district and community members this support can be crucial.

Though a small number of school districts in the dataset had both an affiliated LEF and active parcel tax, the percentage increase in funding in these districts was considerable, and between LEF districts with and without a parcel tax, those with a parcel tax are able to increase ADA spending by close to \$900, as shown in Table 10. Findings from quantitative analysis showed that LEFs do not increase ADA spending substantially, however parcel taxes do, especially when combined in districts in both. This theme sheds light on the less tangible benefits of LEFs, which include increased communication, parental involvement, and community support, that can lead to large changes in funding levels through parcel taxes, or can simply improve public education through this increased parental and community support and accountability.

LEFs Can Improve Equity, Rather than Harm It

A vital theme from these interviews that relates to the research question is the fact that interviewees saw LEFs as either promoting equity in California public schools, or not having much of an effect that could exacerbate inequity. Fauvre stated simply that LEFs are “effective ways to raise revenue to help under-funded schools” (Fauvre, Joan. Interview by Paul Flood, December 14, 2018). This is in-line with the dataset which showed that LEFs exist, raise, and donate funds in districts with significantly lower levels of state and federal funding per ADA. In the interview with education policy expert and Senior Education Advisor to the Mayor of LA, Steve Zimmer, he stated that funds from LEFs are often distributed equitably within a district,

and are often spent in the higher-needs schools in the district (Zimmer, Steve. Interview by Paul Flood, February 13, 2019). Zimmer stated that even in wealthier districts, there are often underfunded, high-need, schools which are likely to receive more money from LEFs than the wealthier schools. Since the LCFF funds based on district characteristics, so if there are relatively disadvantaged schools in a relatively advantaged district it is possible that they do not receive enough funding to promote vertical equity within the district and across the state. Also, when asking about the LCFF, Zimmer spoke about the limitation of the formula in its reliance on the LCAP, which according to him, does not have enough standardized language to support intra-district equity. Therefore, the possibility exists in districts with this situation for LEFs to increase funding to these relatively disadvantaged schools within a relatively advantaged district, thus promoting equity.

Limitations

The limitations of this research revolve largely around limitations in data gathering and analysis. Namely, in finding the amount of funds that districts raised from parcel taxes, for a handful of taxes, estimates of revenue were used that were found on district websites or reported budgets. For many of the districts with parcel taxes, actual revenues were able to be found from budgets listed on the district website, but for when the information was not clear, estimates were found in either reporting of the parcel tax in local news outlets, or in district websites. However, for districts where both an estimate and an actual were available, there was little divergence between the two, showing that this limitation may not be too limiting.

Another issue with data collection was in the sorting and selection of LEFs. The method employed was to search by key words in the name of every non-profit in the dataset, which were, “school foundation,” “schools foundation,” “education foundation,” “educational foundation,” and “academic foundation.” The IRS designation for educational fundraising groups, B11 and B12, was also used to find LEFs. The list of foundations found with key word searches was compared with the B11 and B12 designations, and non-duplicated foundations were taken out for further analysis and sorting. This method of selecting LEFs did produce a substantive list of foundations, however the total number was only 124, which seemed low given the number of school districts in California. The foundations that were analyzed may not be representative of all in the state, but at the very least they provide an up-to-date sample that can be analyzed with regard to the entire state.

Another limitation of the LEF data was with regard finding the actual amount of money donated to a district. The revenue of these foundations, which was reported in the 990 Forms, was used to understand the contributions. This number does not necessarily report how much of this revenue was actually donated to the affiliated district, as some of this revenue likely funds operations of the foundation. So, when reporting and calculating the effects of LEF revenue compared to district spending, it is likely that the data is biased upwards, which would make the conclusions from LEF Revenue less meaningful than reported. However, given the fact that the calculated magnitude of LEF Revenue, and its associated increase in spending from state and federal sources, was already quite low this bias does not seem particularly limiting. There were also a fair number of LEFs that reported 0 revenue, in which case the revenue value was removed for calculations on the effects on increases in revenue, however were left in for analysis of having a LEF. The case could be that these foundations are active and donating to districts,

just not reporting any revenue, or just the opposite, they are not active but still file 990 Forms. In either case, this inconsistency in revenue data was a limitation in fully understanding the financial impacts of foundations.

Another limitation of this research is with regard to the simple fact that the data gleaned for LEFs was cross-sectional using the 2018 FY, meaning it did not look at this data over time. Although the research was designed to look at the role that these two funding streams play in California school districts today, it seems likely that there are foundations that did not report 990 Forms for the 2018 FY and are still in operation, donating to school districts. Also, simply looking at the change in foundations over time would be interesting to understand the historical impacts of LEFs, but that was not a part of this research.

A final limitation, which is much more big picture, is that in making claims about the effects of LEFs and Parcel Taxes, I was almost entirely limited to the data I collected, and the four interviews I conducted. Though these interviews did give somewhat of an inside look at LEFs and the work that they do, it would have been beneficial to the research to visit districts and specific school sites where LEF and Parcel Tax dollars are being spent, to see the actual effects of these funding streams.

Policy Recommendations

As shown in the above research and analysis, LEFs and Parcel Taxes are effective ways for school districts in California to raise additional funds past the State and Federal levels. However, as was the crux of this research, there are differing levels of relative advantage that allow certain districts to make use of these two sources of funding, and as a result widen the discrepancy of relative advantage and worsen existing societal inequity as shown through increases in funding for these districts. Therefore, policies arising from this research should be designed to promote the establishing of LEFs and parcel taxes in all districts, or to mitigate some of the negative effects on equity caused by them.

One policy that could seek to mitigate some of the negative effects on equity from LEFs could be some sort of revenue-sharing system between a district with an affiliated LEF and a neighboring school district without one. This could take many forms. One iteration could be simply that a district with a LEF give a certain amount of their revenue each year to a higher-needs district. Ideally, these districts would be in close geographic proximity to each other, so that the effects of the donated LEF revenue could be seen by individuals in the neighboring district. Another iteration could be to use the shared revenue to set up a LEF in the neighboring district and have it eventually become self-sustaining and fundraising. Of course, the issue remains that the relative disadvantage in this district could impede the effectiveness of fundraising and programming in this district, however if a relationship was formed beyond just financial contributions, so that the neighboring district and LEF could help the district set up, run, and fundraise for the LEF it might become self-sustaining. Referring back to the idea that LEFs improve relationships between the community and school district because members of the community feel a direct sense of power in improving public education, this idea of revenue-

sharing would likely impede a LEF's ability to fundraise effectively as community members may not donate as much, or at all, if they know a portion of their donation would go to another district. Therefore, it is imperative that if revenue-sharing is employed, that aggregate benefits to public education be made clear that would arise from this sharing of revenue, in order to limit the loss in donations from the donating district. Additionally, in communicating with the community of the donating district the plans for helping set-up and run and run a LEF in the neighboring district, it should be made clear the plan for eventual self-sustaining and running of the new LEF by the other district. By using the relative advantage of one district to aid another, less-advantaged, neighboring district to set up an LEF, the negative effects on equity could be minimized and the positive effects of increased connection between the district and the community and the increases in funding could be maximized.

The above recommendation, however, lacks a certain enforceability, or incentive for the advantaged districts to do so. Therefore, either on the county or state level, a program to incentivize districts to engage in this type of outreach might be effective. This could be in the form of financial support of the collaboration, or support from the County or State in the form of an individual whose job it is to foster this communication and support for the new LEF in the disadvantaged district. The hope is, again, that eventually this new LEF will become self-sustaining, and the collaboration between districts and LEFs could fade away because of the newly surfaced connection between the district and the community.

A similar, if not same, program could be designed for parcel taxes. Districts who have passed and are funded by parcel taxes, could share the funds from these taxes directly to the district, or have these funds be used to help a neighboring, less-advantaged district, to get a parcel tax on the ballot and hopefully pass. Again, the feasibility of this recommendation seems

weak; however, if the State or County were to set up programs encouraging this collaboration, the negative effects on equity could be partially mitigated, and the positive effects of a parcel tax on the per-student spending could be maximized.

In that parcel taxes are regressive, they are more burdensome for individuals with less income, and less so for individuals with more income, it is logical that the data shows parcel taxes existing in wealthier, more advantaged districts. Therefore, a possibly useful policy recommendation could be to lower the threshold to pass a parcel tax from a 2/3 majority to something lower. This could not only make it more likely for parcel taxes to be passed in lower-income less advantaged school districts, but also make it more likely for them to be placed on the ballot to begin with.

Another policy recommendation, that is certainly more ambitious, but also much more concrete is the current initiative in California to repeal the part of Proposition 13 that caps property taxes on commercial businesses the same way it does for residential buildings. This initiative is referred to as the split roll, in that it splits the current language of Prop 13 between residential and commercial properties. This initiative, is estimated by the Legislative Analyst's Office to bring in an additional \$6-\$10 billion worth of revenue to public schools (Koseff, 2018). If this ballot measure were to pass it would drastically increase levels of funding in California public schools and would likely reduce much of the impetus to for districts to raise money from LEFs or to pass Parcel Taxes. Additionally, in that the state currently funds school districts using the equity formula in the LCFF, the increase in funding would necessarily be directed to districts with the greatest need, thus increasing funding across the board and furthering equity in California's public school system.

Conclusion

The goal of this research was to calculate the financial impact of LEFs and Parcel Taxes in California public schools, and to understand the types of school districts they exist in, in order to determine whether they exacerbate existing inequality in the state and education system. Results show that both LEFs and Parcel Taxes exist in wealthier, more advantaged districts, as evidenced by the statistically significant group differences for both parcel and non-parcel and LEF and non-LEF groups in the following demographic variables: Unduplicated Count % of Free and Reduced Price Meal, English Learner, and Foster Youth students, Mean District Poverty Percentage, and Mean District Income. The financial impact calculated from LEFs was not a substantial increase from the federal and state level of funding, with an increase of roughly half a percentage point; however, the impact from parcel taxes was calculated to be a 14.73% increase in per-student spending from the federal and state level, a very substantial increase.

The literature review contextualized the negative effects on equity that LEFs and Parcel Taxes can impose on a public education system if the funds from these two sources are concentrated in more advantaged districts. Specifically, in that low-income, systematically disadvantaged children, need extra resources to overcome disadvantages that make learning more difficult, and that the LCFF and state efforts recognize this, and fund to address this, the effects of LEFs and parcel taxes widen inequities between advantaged and less advantaged students by raising the total level of funding per-student in advantaged districts past the LCFF designation. Therefore, because the data shows that LEFs and Parcel Taxes are found in wealthier, more advantaged districts, and that the financial impacts of both create appreciable differences in per-student spending, it can be concluded that LEFs and Parcel Taxes widen disparities of funding,

undo equity efforts from the LCFF, and exacerbate societal and economic inequities in and through California public schools.

As the state of California shows, through a commitment to the LCFF, education as a means to alleviate societal and economic inequalities, the impacts of LEFs and parcel taxes are undoing or diminishing some of the positive effects on equity brought by the LCFF. If California wants to further commit the public education system as an equalizer to an economic and social system rife with inequality, the divergence in per-student funding from LEFs and parcel taxes that is concentrated in advantaged districts, must be addressed.

Next Steps/Future Research

To continue to understand the effects of LEFs and parcel taxes on equity in California public schools, future research should seek to mitigate some of the limitations discussed in the previous section. Firstly, future research could take a temporal look at LEFs and Parcel Taxes, to not only look at the presence and impacts of LEFs over time, but to also see how the passing of parcel taxes interacts with the establishment of LEFs, and vice-versa.

Future research could also seek to strengthen the dataset with regard to actual donations from LEFs, and with actual revenue contributions from parcel taxes. Additionally, if research could compile a more complete list of LEFs in the state, this could strengthen the calculations of the impacts of LEF donations on per-student spending, and also give a fuller picture of the status of LEFs in California school districts.

Finally, as this research took a very big-picture look at the effects of LEFs and parcel taxes in California, further research could investigate closely the interactions between LEFs and districts, the actual programming the associated foundation provides, and to understand how the foundations improve the connection between the district and the community. The same should be done for parcel taxes, to investigate community support leading up to the passing of a parcel tax, the impacts of the funds from the tax, and how, if at all, the tax improves the image of public education and the relationship between the community and the school district.

This research project gives a good lay-of-the-landscape of LEFs and Parcel Taxes in California, specifically with regard to the types of districts they are in, which shows that both of these sources are widening the gap of inequity in and through California public schools.

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Appendix

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Table 8-a

T-test for significant difference of State and Federal Revenue/ADA between LEF and non LEF Districts

		Levene's Test for Equality of Variances		t-test for Equality of Means			
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference
State and Federal Revenue/ADA	Equal variances assumed	1.25	0.26	2.15	802.00	0.03	1370.16
	Equal variances not assumed			4.21	293.25	0.00	1370.16

Levene's test for equality of variance suggests that the two distributions have about the same variance, therefore the significance value will be read from the top line. Table 8-a shows a significance value of 0.03, which is lower than .05, meaning the null hypothesis can be rejected and there is a statistically significant difference in State and Federal Revenue/ADA between districts with at least one LEF and those without.

Table 8-b

T-test for significant difference of Unduplicated Count % of FRPM, EL, and Foster Youth students between LEF and non LEF Districts

		Levene's Test for Equality of Variances		t-test for Equality of Means			
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference
Unduplicated Count % of FRPM, EL, and Foster Youth	Equal variances assumed	0.03	0.87	3.95	802.00	0.00	0.08
	Equal variances not assumed			3.94	112.40	0.00	0.08

Levene's test for equality of variance suggests that the two distributions have about the same variance, therefore the significance value will be read from the top line. Table 8-b shows a significance value of .00, which is significantly lower than .05. Therefore the null hypothesis is rejected, meaning there is a statistically significant difference in the unduplicated count percent of FRPM, EL, and Foster Youth Students between districts with at least one LEF and those with none.

Table 8-c

T-test for significant difference of % Black Students between LEF and non LEF Districts

		Levene's Test for Equality of Variances		t-test for Equality of Means			
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference
% Black	Equal variances assumed	0.06	0.81	-1.38	802.00	0.17	-0.01
	Equal variances not assumed			-1.72	132.71	0.09	-0.01

Levene's test for equality of variance suggests that the two distributions have about the same variance, therefore the significance value will be read from the top line. Table 8-c shows significance values above .05, meaning this t-test fails to reject the null hypothesis, and there is no statistically significant difference in the % of black students in districts with at least one LEF and those with none.

Table 8-d

T-test for significant difference of % Hispanic Students between LEF and non LEF Districts

		Levene's Test for Equality of Variances		t-test for Equality of Means			
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference
% Hispanic	Equal variances assumed	13.55	0.00	0.00	802.00	1.00	-0.02
	Equal variances not assumed			0.00	126.70	1.00	-0.02

Levene's test for equality of variance suggests that the two distributions have about the same variance, therefore the significance value will be read from the top line. Table 8-d shows significance values above .05, meaning this t-test fails to reject the null hypothesis, and there is no statistically significant difference in the % of hispanic students in districts with at least one LEF and those with none.

Table 8-e

T-test for significant difference of Mean District Income between LEF and non LEF Districts

		Levene's Test for Equality of Variances		t-test for Equality of Means			
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference
Mean District Income	Equal variances assumed	0.15	0.70	-2.46	795.00	0.01	-8608.29
	Equal variances not assumed			-2.74	120.78	0.01	-8608.29

Levene's test for equality of variance suggests that the two distributions have about the same variance, therefore the significance value will be read from the top line. Table 8-e shows a significance value of .010, which is lower than .05. Therefore the null hypothesis is rejected, suggesting that there is a statistically significant difference in the mean district income between districts with at least one LEF and those with none.

Table 8-f

T-test for significant difference of Mean District Poverty Percentage between LEF and non LEF Districts

		Levene's Test for Equality of Variances		t-test for Equality of Means			
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference
Mean District Poverty %	Equal variances assumed	8.52	0.00	1.75	802.00	0.08	0.02
	Equal variances not assumed			2.24	135.23	0.03	0.02

Levene's test for equality of variance suggests unequal variance between the two distributions, therefore significance levels will be read from the bottom row. Table 8-f shows a significance value of .03 with equal variances not assumed. This is below .05 and therefore the null hypothesis is rejected, suggesting a statistically significant difference in the mean district poverty percentage between districts with and without a Local Education Foundation.

Table 8-g

T-test for significant difference of Mean District Percent of students on FRPM between LEF and non LEF Districts

		Levene's Test for Equality of Variances		t-test for Equality of Means			
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference
Mean District % FRPM	Equal variances assumed	0.13	0.72	4.04	802.00	0.00	0.08
	Equal variances not assumed			4.04	112.57	0.00	0.08

Levene's test for equality of variance suggests equal variance between the two distributions, therefore significance levels will be read from the top row. Table 8-g shows a significance value of .00 with equal variances assumed. This is below .05 and therefore the null hypothesis is rejected, suggesting a statistically significant difference in the mean district percent of students on FRPM between districts with and without a Local Education Foundation.

Table 8-h

T-test for significant difference of mean district percent of English Learners between LEF and non LEF Districts

		Levene's Test for Equality of Variances		t-test for Equality of Means			
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference
mean district % English Learners	Equal variances assumed	11.60	0.00	0.01	802.00	0.99	0.00
	Equal variances not assumed			0.02	138.05	0.99	0.00

Levene's test for equality of variance suggests unequal variance between the two distributions, therefore significance levels will be read from the bottom row. Table 8-h shows significance values above .05, meaning this t-test fails to reject the null hypothesis, and there is no statistically significant difference in the mean district percentage of English Learner students in districts with at least one LEF and those with none.

Table 8-i

T-test for significant difference of mean district parcel tax revenue/ADA between LEF and non LEF Districts

		Levene's Test for Equality of Variances		t-test for Equality of Means			
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference
Mean District Parcel Tax Revenue/ADA	Equal variances assumed	1.47	0.23	0.63	802.00	0.53	1725.84
	Equal variances not assumed			1.76	717.57	0.08	1725.84

Levene's test for equality of variance suggests equal variance between the two distributions, therefore significance levels will be read from the top row. Table 8-i shows significance values above .05, meaning this t-test fails to reject the null hypothesis, and there is no statistically significant difference in the mean district parcel tax revenue/ADA in districts with at least one LEF and those with none.

Table 8-j

T-test for significant difference of mean district parcel tax and LEF revenue/ADA between LEF and non LEF Districts

		Levene's Test for Equality of Variances		t-test for Equality of Means			
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference
Mean District Parcel Tax and LEF Revenue/ADA	Equal variances assumed	1.383	0.240	0.582	802	0.561	1602.47
	Equal variances not assumed			1.636	718.462	0.102	1602.47

Levene's test for equality of variance suggests equal variance between the two distributions, therefore significance levels will be read from the top row. Table 8-j shows significance values above .05, meaning this t-test fails to reject the null hypothesis, and there is no statistically significant difference in the mean district parcel tax and LEF revenue/ADA in districts with at least one LEF and those with none.

Table 10-a

T-test for statistically significant difference of State and Federal Revenue/ADA between LEF districts with at least one active parcel tax and those with none

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Mean District State and Federal Revenue/ADA	Equal variances assumed	1.161	0.284	2.967	88	0.004	2344.26	790.03
	Equal variances not assumed			3.715	23.391	0.001	2344.26	631.00

Levene's test for equality of variance suggests equal variance between the two distributions, therefore significance levels will be read from the top row. Table 10-a shows a significance level of below .05, therefore the null hypothesis is rejected, and there is a statistically significant difference in the State and Federal Revenue/ADA between LEF districts with and without at least one parcel tax.

Table 10-b

T-test for statistically significant difference of Unduplicated Count % of FRPM, EL, and Foster Youth between LEF districts with at least one active parcel tax and those with none

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Mean District Unduplicated Count % of FRPM, EL, and Foster Youth	Equal variances assumed	1.113	0.294	2.102	88	0.038	0.15	0.07
	Equal variances not assumed			2.414	20.853	0.025	0.15	0.06

Levene's test for equality of variance suggests equal variance between the two distributions, therefore significance levels will be read from the top row. Table 10-a shows a significance level of below .05, therefore the null hypothesis is rejected, and there is a statistically significant difference in the Unduplicated Count % of FRPM, EL, and Foster Youth between LEF districts with and without at least one parcel tax.

Table 10-c

T-test for statistically significant difference of the Percentage of Black students between LEF districts with at least one active parcel tax and those with none

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Mean District % Black	Equal variances assumed	3.653	0.059	-0.658	88	0.512	-0.01	0.01
	Equal variances not assumed			-0.527	15.603	0.606	-0.01	0.01

Levene's test for equality of variance suggests equal variance between the two distributions, therefore significance levels will be read from the top row. Table 10-c shows a significance level of above .05, therefore the null hypothesis cannot be rejected, and there is no statistically significant difference in the percentage of black students in LEF districts with and without at least one parcel tax.

Table 10-d

T-test for statistically significant difference in the Percentage of Hispanic students between LEF districts with at least one active parcel tax and those with none

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Mean District % Hispanic	Equal variances assumed	2.464	0.120	2.086	88	0.040	0.14	0.07
	Equal variances not assumed			2.635	23.691	0.015	0.14	0.05

Levene's test for equality of variances suggests equal variance between the two distributions, therefore significance values should be read from the top row. Table 10-d shows a significance level of below .05, therefore the null hypothesis is rejected and there is a statistically significant difference in the percentage of Hispanic students in LEF districts with and without at least one parcel tax.

Table 10-e

T-test for statistically significant difference in Mean District Income between LEF districts with at least one active parcel tax and those with none

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Mean District Income	Equal variances assumed	0.728	0.396	-2.978	88	0.004	-32100.14	10780.67
	Equal variances not assumed			-2.447	15.819	0.026	-32100.14	13119.71

Levene's test for equality of variance suggests equal variance between the two distributions, therefore significance levels will be read from the top row. Table 10-e shows a significance level of below .05, therefore the null hypothesis can be rejected and there is a statistically significant difference in the Mean District Income in LEF districts with and without at least one active parcel tax

Table 10-f

T-test for statistically significant difference in Mean District Poverty Percentage between LEF district with at least one active parcel tax and those with none

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Mean District Poverty %	Equal variances assumed	7.742	0.007	2.946	88	0.004	0.05	0.02
	Equal variances not assumed			5.142	49.788	0.000	0.05	0.01

Levene's test for equality of variances suggests unequal variance between the two distributions, therefore significance values should be read from the bottom row. Table 10-f shows a significance level of below .05, therefore the null hypothesis is rejected and there is a statistically significant difference in the Mean District Poverty Percentage in LEF districts with and without at least one parcel tax.

Table 10-g

T-test for statistically significant difference in percent FRPM between LEF district with at least one active parcel tax and those with none

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
% FRPM	Equal variances assumed	3.049	0.084	2.253	88	0.027	0.16	0.07
	Equal variances not assumed			2.758	22.654	0.011	0.16	0.06

Levene's test for equality of variance suggests equal variance between the two distributions, therefore significance levels will be read from the top row. Table 10-g shows a significance level of below .05, therefore the null hypothesis can be rejected and there is a statistically significant difference in the Percent FRPM students in LEF districts with and without at least one active parcel tax.

Table 10-h

T-test for statistically significant difference in Percent English Learners between LEF districts with at least one active parcel tax and those with none

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
% English Learners	Equal variances assumed	0.029	0.866	1.228	88	0.223	0.04	0.03
	Equal variances not assumed			1.379	20.319	0.183	0.04	0.03

Levene's test for equality of variance suggests equal variance between the two distributions, therefore significance levels will be read from the top row. Table 10-h shows a significance level below .05, therefore the null hypothesis is rejected and there is a statistically significant difference between the percent of English Learners in LEF districts with and without at least one active parcel tax.

Table 10-i

T-test for statistically significant difference in LEF Revenue/ADA between LEF districts with at least one active parcel tax and those with none

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
LEF Revenue/ADA	Equal variances assumed	0.130	0.719	-0.010	88	0.992	-0.77	77.53
	Equal variances not assumed			-0.013	25.534	0.990	-0.77	58.58

Levene's test for equality of variance suggests equal variance between the two distributions, therefore significance levels will be read from the top row. Table 10-i shows a significance level above .05, therefore the null hypothesis cannot be rejected and there is not a statistically significant difference between LEF Revenue/ADA in LEF districts with and without at least one active parcel tax.

Table 10-j

T-test for statistically significant difference in Parcel Tax and LEF Revenue/ADA between LEF districts with at least one active parcel tax and those with none

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Parcel Tax and LEF Revenue/ADA	Equal variances assumed	19.522	0.000	-6.052	88	0.000	-859.75	142.06
	Equal variances not assumed			-2.959	13.320	0.011	-859.75	290.58

Levene's test for equality suggests unequal variances, therefore significance values will be read from the bottom row. Table 10-j shows a significance level that is less than .05, therefore the null hypothesis is rejected and there is a statistically significant difference in the Parcel Tax and LEF Revenue/ADA in LEF districts with and without an active parcel tax.

Table 13-a

T-test for statistically significant difference in State and Federal Revenue/ADA between districts with at least one parcel tax and those with none

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
State and Federal Revenue/ADA	Equal variances assumed	0.000	0.994	2.396	802	0.017	2026.06	845.72
	Equal variances not assumed			2.706	105.919	0.008	2026.06	748.65

Levene's test for equality of variances suggests equal variances, therefore significance values will be read from the top row. Table 13-a shows a significance value of less than .05, therefore the null hypothesis is rejected and there is a statistically significant difference in the State and Federal Revenue/ADA between districts with at least on parcel tax and those with none.

Table 13-b

T-test for statistically significant difference in the Unduplicated count % of FRPM, EL, and Foster Youth students between districts with at least one parcel tax and those with none

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Unduplicated Count % of FRPM, EL, and Foster Youth	Equal variances assumed	7.957	0.005	5.076	802	0.000	0.15	0.03
	Equal variances not assumed			4.449	93.325	0.000	0.15	0.03

Levene's test for equality of variances suggests unequal variances between groups, therefore significance values will be read from the bottom line. Table 13-b shows a significance value of less than .05, therefore the null hypothesis is rejected and there is a statistically significant difference in the unduplicated count percent of FRPM, EL, and Foster Youth students in districts with at least one parcel tax and those with none.

Table 13-c

T-test for statistically significant difference in the percentage of black students between districts with at least one parcel tax and those with none

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
% Black	Equal variances assumed	8.177	0.004	-1.807	802	0.071	-0.01	0.01
	Equal variances not assumed			-1.303	87.932	0.196	-0.01	0.01

Levene's test for equality of variances suggests unequal variances between groups, therefore the significance value should be read from the bottom line. Table 13-c shows a significance value above .05, therefore the null hypothesis cannot be rejected and there is not a statistically significant difference in the percentage of black students in districts with at least one parcel tax and those with none.

Table 13-d

T-test for statistically significant difference in the percentage of hispanic students between districts with at least one parcel tax and those with none

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
% Hispanic	Equal variances assumed	7.329	0.007	3.804	802	0.000	0.12	0.03
	Equal variances not assumed			4.312	106.161	0.000	0.12	0.03

Levene's test for equality of variances suggests unequal variances between the two groups, therefore significance values should be read from the bottom line. Table 13-d shows a significance values of less than .05, therefore the null hypothesis is rejected and there is a statistically significant difference in the percentage of Hispanic students in school districts with at least one active parcel tax and those with none.

Table 13-e

T-test for statistically significant difference in the mean district income between district with at least one parcel tax and those with none

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Mean District Income	Equal variances assumed	26.635	0.000	-7.223	795	0.000	-36180.58	5008.77
	Equal variances not assumed			-4.936	85.743	0.000	-36180.58	7330.29

Levene's test for equality of variances suggests unequal variances between groups, therefore significance levels should be read from the bottom row. Table 13-e shows a significance level of less than .05, therefore the null hypothesis is rejected and there is a statistically significant difference in the mean district income between districts with at least one parcel tax and those with none.

Table 13-f

T-test for statistically significant difference in the mean district poverty percentage between district with at least one parcel tax and those with none

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Mean District Poverty %	Equal variances assumed	6.596	0.010	3.988	802	0.000	0.04	0.01
	Equal variances not assumed			4.620	107.720	0.000	0.04	0.01

Levene's test for equality of variances suggests unequal variances between groups, therefore significance values will be read from the bottom row. Table 13-f shows a significance value of less than .05 the null hypothesis is rejected and there is a statistically significant difference in the district mean poverty percentage between districts with at least one parcel tax and those with none.

Table 13-g

T-test for statistically significant difference in the percent FRPM students between district with at least one parcel tax and those with none

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
% FRPM	Equal variances assumed	8.474	0.004	5.896	802	0.000	0.17	0.03
	Equal variances not assumed			5.077	92.722	0.000	0.17	0.03

Levene's test for equality of variance suggests unequal variances between groups, therefore significance values should be read from the bottom row. Table 13-g shows a significance value of less than .05, therefore the null hypothesis is rejected and there is a statistically significant difference in the percent of FRPM between districts with at least one parcel tax and those with none.

Table 13-h

T-test for statistically significant difference in the percent EL students between district with at least one parcel tax and those with none

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
% English Learners	Equal variances assumed	2.322	0.128	0.876	836	0.381	0.02	0.02
	Equal variances not assumed			1.012	107.859	0.314	0.02	0.02

Levene's test for equality of variances suggests equal variances between groups, therefore significance values should be read from the bottom row. Table 13-h shows a significance value of greater than .05, therefore the null hypothesis cannot be rejected and there is no statistically significant difference in the percent of English learners between districts with at least one parcel tax and those with none.

Table 13-i

T-test for statistically significant difference in LEF Revenue/ADA between districts with at least one parcel tax and those with none

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
LEF Revenue/ADA	Equal variances assumed	1.558	0.212	-0.750	802	0.453	-8.48	11.30
	Equal variances not assumed			-0.815	103.345	0.417	-8.48	10.41

Levene's test for equality of variances suggests equal variance between the two groups, therefore significance values should be read from the bottom row. Table 13-i shows a significance value of above .05, therefore the null hypothesis cannot be rejected and there is no statistically significant difference in the LEF Revenue/ADA between districts with at least one parcel tax and those with none.

Table 13-j

T-test for statistically significant difference in LEF and Parcel Tax Revenue/ADA between districts with at least one parcel tax and those with none

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Parcel Taxes and LEF Revenue/ADA	Equal variances assumed	108.471	0.000	-5.853	802	0.000	-16547.71	2827.20
	Equal variances not assumed			-1.949	80.000	0.055	-16547.71	8488.60

Levene's test for equality of variances suggests unequal variance between the two groups, therefore significance values should be read from the bottom row. Table 13-j shows a significance value of slightly greater than .05, therefore the null hypothesis cannot be rejected and there is no statistically significant difference in Parcel Taxes and LEF Revenue/ADA in districts with at least one parcel tax and those with none. However, the significance value is very close to .05, and in assuming equal variances there is a statistically significant difference, therefore despite being statistically insignificantly different, this difference will be used to understand differences between these two groups later on.

Table 15-a

T-test for significant difference in State and Federal Revenue/ADA between Parcel Tax districts with at least one LEF or none

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
State and Federal Revenue/ADA	Equal variances assumed	0.96	0.33	1.05	81.00	0.30	1815.75	1724.20
	Equal variances not assumed			1.87	77.61	0.06	1815.75	969.60

Levene's test for equality of variances suggests equal variance between the two groups, therefore significance values should be read from the top row. Table 15-a shows a significance value of above .05, therefore the null hypothesis cannot be rejected and there is not statistically significant difference in State and Federal Revenue/ADA between parcel tax districts with at least one LEF and those with none.

Table 15-b

T-test for significant difference in Unduplicated Count % of FRPM, EL, and Foster Youth between Parcel Tax districts with at least one LEF or none

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Unduplicated Count % of FRPM, EL, and Foster Youth	Equal variances assumed	4.884	0.030	1.328	79	0.188	0.11	0.08
	Equal variances not assumed			1.686	25.903	0.104	0.11	0.07

Levene's test for equality of variances suggests unequal variance between the two groups, therefore significance values should be read from the bottom row. Table 15-b shows a significance value of above .05, therefore the null hypothesis cannot be rejected and there is not statistically significant difference in the Unduplicated count % of FRPM, EL, and Foster Youth students between parcel tax districts with at least one LEF and those with none.

Table 15-c

T-test for significant difference in percent Black students between Parcel Tax districts with at least one LEF or none

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
% Black	Equal variances assumed	0.012	0.914	-0.203	79	0.839	0.00	0.02
	Equal variances not assumed			-0.264	27.103	0.793	0.00	0.01

Levene's test for equality of variances suggests equal variance between the two groups, therefore significance values should be read from the top row. Table 15-c shows a significance value of above .05, therefore the null hypothesis cannot be rejected and there is not statistically significant difference in the percent of Black students between parcel tax districts with at least one LEF and those with none.

Table 15-d

T-test for significant difference in percent Hispanic students between Parcel Tax districts with at least one LEF or none

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
% Hispanic	Equal variances assumed	3.578	0.062	0.069	79	0.945	0.00	0.07
	Equal variances not assumed			0.090	27.578	0.929	0.00	0.05

Levene's test for equality of variances suggests equal variance between the two groups, therefore significance values should be read from the top row. Table 15-d shows a significance value of above .05, therefore the null hypothesis cannot be rejected and there is not statistically significant difference in the percent of Hispanic students between parcel tax districts with at least one LEF and those with none.

Table 15-e

T-test for significant difference in Mean District Income between Parcel Tax districts with at least one LEF or none

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Mean District Income	Equal variances assumed	1.144	0.288	-0.335	78	0.739	-6363.21	19007.08
	Equal variances not assumed			-0.424	26.086	0.675	-6363.21	15004.81

Levene's test for equality of variances suggests equal variance between the two groups, therefore significance values should be read from the top row. Table 15-e shows a significance value of above .05, therefore the null hypothesis cannot be rejected and there is not statistically significant difference in the Mean District Income between parcel tax districts with at least one LEF and those with none.

Table 15-f

T-test for significant difference in Mean District Poverty Percentage between Parcel Tax districts with at least one LEF or none

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Mean District Poverty %	Equal variances assumed	5.483	0.022	1.370	79	0.175	0.03	0.02
	Equal variances not assumed			2.452	62.996	0.017	0.03	0.01

Levene's test for equality of variance suggests unequal variances between groups, therefore significance values should be read from the bottom row. Table 15-f shows a significance value of less than .05, therefore the null hypothesis is rejected and there is a statistically significant difference in the Mean District Poverty Percentage between parcel tax districts with at least one LEF and those with none.

Table 15-g

T-test for significant difference in Percent FRPM students between Parcel Tax districts with at least one LEF or none

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
% FRPM	Equal variances assumed	7.386	0.008	1.161	79	0.249	0.10	0.08
	Equal variances not assumed			1.582	29.669	0.124	0.10	0.06

Levene's test for equality of variances suggests unequal variance between the two groups, therefore significance values should be read from the bottom row. Table 15-g shows a significance value of above .05, therefore the null hypothesis cannot be rejected and there is not statistically significant difference in the Percent FRPM students between parcel tax districts with at least one LEF and those with none.

Table 15-h

T-test for significant difference in Percent EL students between Parcel Tax districts with at least one LEF or none

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
% English Learners	Equal variances assumed	1.105	0.296	0.673	79	0.503	0.03	0.04
	Equal variances not assumed			0.836	24.941	0.411	0.03	0.03

Levene's test for equality of variances suggests equal variance between the two groups, therefore significance values should be read from the top row. Table 15-h shows a significance value of above .05, therefore the null hypothesis cannot be rejected and there is not statistically significant difference in the Percent EL students between parcel tax districts with at least one LEF and those with none.

Table 15-i

T-test for significant difference in Parcel Tax Revenue/ADA between Parcel Tax districts with at least one LEF or none

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Parcel Tax Revenue/ADA	Equal variances assumed	2.379	0.127	0.843	79	0.402	18956.73	22492.25
	Equal variances not assumed			1.852	66.112	0.068	18956.73	10234.63

Levene's test for equality of variances suggests equal variance between the two groups, therefore significance values should be read from the top row. Table 15-i shows a significance value of above .05, therefore the null hypothesis cannot be rejected and there is not statistically significant difference in the Parcel Tax Revenue/ADA between parcel tax districts with at least one LEF and those with none.

Table 15-j

T-test for significant difference in Parcel Tax and LEF Revenue/ADA between Parcel Tax districts with at least one LEF or none

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Parcel Taxes and LEF Revenue/ADA	Equal variances assumed	2.388	0.126	0.837	79	0.405	18832.70	22492.23
	Equal variances not assumed			1.840	66.105	0.070	18832.70	10234.38

Levene's test for equality of variances suggests equal variance between the two groups, therefore significance values should be read from the top row. Table 15-j shows a significance value of above .05, therefore the null hypothesis cannot be rejected and there is not statistically significant difference in the Parcel Tax and LEF Revenue/ADA between parcel tax districts with at least one LEF and those with none.

Correlation table of all economic, demographic, and school district characteristics:

Correlations

State Aid/ADA	State Aid/ADA	state_and_federal/ADA	undup_cou nt_percent	free_and_educ ce_meals_percent	percent_en gish_lean ers	percent_bia ck	percent_bis panic	mean_inco me_distri ct	poverty_pe rcentage_d strict	LEF_status	revenue/AD A	parceltax_s tatus	parcel_ s_and_LEF_revenue/AD A
Pearson Correlation	1	.985**	.259	.230**	0.067	.071*	.136**	-.246**	.220*	-.083*	-0.056	-.089*	.071*
Sig. (2-tailed)		0.000	0.000	0.000	0.057	0.045	0.000	0.000	0.000	0.018	0.111	0.011	0.044
N	804	804	804	804	804	804	804	797	804	804	804	804	804
Pearson Correlation	.985**	1	.255*	.225*	0.057	0.064	.127**	-.245**	.209*	-.076*	-0.057	-.084*	.088*
Sig. (2-tailed)	0.000		0.000	0.000	0.107	0.072	0.000	0.000	0.000	0.032	0.104	0.017	0.012
N	804	804	804	804	804	804	804	797	804	804	804	804	804
Pearson Correlation	.259*	.255*	1	.950**	.591*	.501*	.591*	.652**	.606*	-.138*	-.089*	-.176**	.069
Sig. (2-tailed)	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0.000	0.012	0.012	0.000	0.050
N	804	804	804	804	804	804	804	797	804	804	804	804	804
Pearson Correlation	.230**	.225*	.950**	1	.501*	.141*	.611**	-.672**	.592**	-.141*	-.095*	-.204*	.073*
Sig. (2-tailed)	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.000	0.040
N	804	804	804	804	804	804	804	797	804	804	804	804	804
Pearson Correlation	.067	.057	.591*	.501*	1	-.011	.794**	-.199*	.439**	0.000	0.013	-0.028	-0.047
Sig. (2-tailed)	0.107	0.107	0.000	0.000		0.755	0.000	0.000	0.000	0.990	0.716	0.186	0.186
N	804	804	804	804	804	804	804	797	804	804	804	804	804
Pearson Correlation	.071*	.064	.146*	.141*	-.011	1	0.064	-.069	.083*	0.049	0.003	0.064	-0.032
Sig. (2-tailed)	0.045	0.072	0.000	0.000	0.755		0.069	0.053	0.018	0.169	0.927	0.071	0.358
N	804	804	804	804	804	804	804	797	804	804	804	804	804
Pearson Correlation	.136**	.127**	.659**	.611**	.794**	0.064	1	-.324**	.474**	0.000	-0.031	-.133**	-.088*
Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	0.069		0.000	0.000	1.000	0.374	0.000	0.013
N	804	804	804	804	804	804	804	797	804	804	804	804	804
Pearson Correlation	-.246**	-.245**	-.652**	-.672**	-.199*	-.069	-.324**	1	-.567**	.087*	.127**	.248**	-0.037
Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	0.053	0.000		0.000	0.014	0.000	0.000	0.293
N	804	804	804	804	804	804	804	797	804	804	804	804	804
Pearson Correlation	0.000	0.000	0.000	0.000	0.000	0.053	0.000	0.000	0.000	0.014	0.000	0.000	0.293
Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	0.053	0.000	0.000	0.000	0.014	0.000	0.000	0.293
N	804	804	804	804	804	804	804	797	804	804	804	804	804
Pearson Correlation	.220*	.209*	.606*	.592**	.439**	.083*	.474**	-.567**	1	-.062*	-0.043	-.139*	0.034
Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	0.018	0.000	0.000		0.080	0.219	0.000	0.341
N	797	797	797	797	797	797	797	797	797	797	797	797	797
Pearson Correlation	-.083*	-.076*	-.138*	-.141*	0.000	0.049	0.000	.087*	-.062*	1	.404*	0.065	-0.022
Sig. (2-tailed)	0.018	0.032	0.000	0.000	0.990	0.169	0.000	0.014	0.080		0.000	0.067	0.531
N	804	804	804	804	804	804	804	0.014	0.080	1.000	0.000	0.067	0.531
Pearson Correlation	-0.056	-0.057	-.089*	-.095**	0.013	0.003	-.031	-.127**	-.043	.404*	1	0.026	-0.009
Sig. (2-tailed)	0.111	0.104	0.012	0.007	0.716	0.927	0.374	0.000	0.219	0.000	0.000	0.453	0.733
N	804	804	804	804	804	804	797	0.000	0.219	0.000	0.000	0.453	0.879
Pearson Correlation	0.011	0.017	0.000	0.000	0.432	0.071	0.000	0.000	0.000	0.067	0.453	0.000	0.000
Sig. (2-tailed)	0.043	0.012	0.000	0.000	0.071	0.000	0.000	0.000	0.000	0.067	0.453	0.000	0.000
N	804	804	804	804	804	804	797	0.000	0.000	0.067	0.453	0.000	0.000
Pearson Correlation	.071*	.088*	.099*	.073*	-0.047	-0.032	-.088*	-0.037	0.034	-0.022	-0.009	.202*	1.000*
Sig. (2-tailed)	0.044	0.012	0.050	0.041	0.186	0.358	0.013	0.299	0.341	0.561	0.879	0.000	1.000*
N	804	804	804	804	804	804	797	804	804	804	804	804	804

** . Correlation is significant at the 0.01 level (2-tailed).
* . Correlation is significant at the 0.05 level (2-tailed).