

Fiscal Stress and Voluntary Contributions to Public Schools

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I. Introduction

Throughout the country, school fundraising is being taken to new levels as a weak economy threatens not only extracurricular programs but core academic offerings as well. The traditional bake sale has been replaced with celebrity fundraisers and wide-scale mail campaigns, as an increasing number of public schools and districts are appealing to their communities for private contributions to help counter dwindling local tax revenue and budget cuts at the state level. While schools on the receiving end of these contributions certainly welcome the assistance, the increasing prevalence of voluntary donations has raised concerns about the equity of allowing some schools to benefit while other schools, often in less affluent areas, do not have access to the same resources.

Yet it is unclear whether these concerns are well founded. Much of what we know about the magnitude and distribution of voluntary contributions to public schools is anecdotal. While popular press stories now abound about schools that manage to raise exceptional amounts of money, the amount raised by most schools is likely to be far more modest. For example, in their examination of the level and distribution of voluntary contributions to California public schools in the early 1990s, Brunner and Sonstelie (1997) found that while a few schools

managed to raise significant amounts of money, contributions tended to be quite small, on average. However, the prevalence of voluntary contributions has increased over the last decade, raising the possibility that contributions now have a greater impact on the distribution of revenue across communities. The purpose of this paper is to investigate that possibility by documenting the level and distribution of voluntary contributions to California's public schools in 2001.

California provides an ideal setting to examine the level and distribution of voluntary contributions for two reasons. First, while the use of voluntary contributions to fund public school programs is a relatively recent phenomenon in most states, it is a long-established practice in California. As documented by Brunner and Sonstelie (1997), the growth of private donations to public schools in California is directly related to two events: the California Supreme Court ruling in *Serrano v. Priest*, which mandated the equalization of per pupil property tax revenue across districts, and Proposition 13, the 1979 property tax initiative that capped property tax rates at 1 percent of assessed value. Combined, these events reduced the amount of tax revenue available to many school districts, particularly wealthy districts, and prohibited school districts from raising property taxes to fund school spending in the future. In response to those

restrictions, many school districts have attempted to replace lost property tax revenue with voluntary contributions. Second, California is a diverse state, both in terms of the number and size of its schools and school districts and the socioeconomic status of its student body. As a result, California provides an excellent setting to examine how the characteristics of schools and school districts affect the distribution of voluntary contributions.

The remainder of this paper is organized as follows. In section II, we discuss the sources of our data on voluntary contributions. Section III documents the size of voluntary contributions in 2001. We find that contributions have increased substantially over the past decade from approximately \$123 million in 1992 to \$238 million in 2001. Even so, we also find that voluntary contributions remain small on average: If the \$238 million in voluntary contributions were distributed equally across schools it would amount to less than \$40 per pupil. Of course, voluntary contributions are not equally distributed across schools. In section IV, we document the distribution of voluntary contributions across schools and school districts and examine how the characteristics of those schools that have been most successful in raising voluntary contributions differ from schools that have been less successful. Finally, in section V, we examine one potential explanation for why the use of voluntary contributions is not more widespread.

II. Identifying Voluntary Contributions

There are only a few wide-scale studies that examine the size and distribution of voluntary contributions to public schools. This is due, in part, to the fact that schools and school districts often do not report private contributions in their official statements of revenue and expenses and even when they do, private contributions are not singled out as a separate source of revenue. Consequently, studies that examine the distribution of dollars per pupil (e.g., Murray, Evans, and Schwab 1998) typically use data that either do not include contributions or do not identify contributions separately from other local revenue. However, as noted by Brunner and Sonstelie (1997), most contributions to public schools flow through nonprofit

organizations with tax-exempt status, and these organizations are required to report their revenue and expenses to the state and federal government. Using those reports, we have attempted to identify all nonprofits in California that direct voluntary contributions to public schools and to link each with the school or school district that it supports. Our data are from the same sources as Brunner and Sonstelie (1997), updated to 2001; therefore, we give here only a brief description of the data and refer the reader to their paper for a more detailed discussion of the methodology employed to construct the dataset.

At the school level, contributions are raised primarily by PTAs (Parent Teacher Associations), PTOs (Parent Teacher Organizations), and booster clubs. At the district level, contributions are raised primarily by local educational foundations. To identify the contributions raised by these organizations, we utilized two data sources. The first is the “Charities Database” maintained by the Registry of Charitable Trusts (RCT) of the California Attorney General’s Office. With the exception of PTAs, all tax-exempt nonprofit organizations supporting K–12 schools in California are required to register with the RCT. Using information contained in the Charities Database, we attempted to identify all nonprofit organizations (except PTAs)

supporting K–12 schools in 2001. Because the RCT’s Charities Database provides only limited information on the revenue raised by registered organizations and no information on individual PTAs, we also made use of the 2001 Master File of Tax-Exempt Organizations, maintained by the Internal Revenue Service (IRS). The IRS requires all tax-exempt organizations with annual gross revenue of \$25,000 or more, including PTAs and all other nonprofit organizations supporting K–12 schools, to file annual financial statements. The IRS Master File contains information on the revenue raised by these organizations and a unique Employer Identification Number that can be used to match the financial information contained in the IRS Master File with the data on nonprofit organizations contained in the RCT Charities Database. Thus, by combining the information contained in the RCT Charities Database with the information contained in the IRS Master File, we can identify all nonprofit organiza-

There are only a few wide-scale studies that examine the size and distribution of voluntary contributions to public schools.

tions supporting K–12 public schools in 2001. For the subset of organizations with gross revenue of \$25,000 or more, we can also identify the gross and net revenue raised by these organizations.¹

III. The Size of Voluntary Contributions

Table 1 documents the size of voluntary contributions in 1992 and 2001; the 1992 data are from Brunner and Sonstelie (1997). The left-hand column subdivides organizations into five categories: local educational foundations, PTAs/PTOs, booster clubs/other, and urban foundations. The “other” category that is reported with booster clubs includes organizations such as school alumni associations and school bingo clubs. The category “urban foundations” includes large foundations located in urban districts, such as Los Angeles Unified. While local educational foundations and urban foundations are similar in the respect that both tend to operate at the district level, local educational foundations rely heavily on individual donations, while urban foundations rely primarily on donations from businesses and corporate sponsors.

For each type of organization, columns 1 and 3 report the total number of organizations with gross revenue of \$25,000 or more in the 1992 and 2001 tax years, respectively. Similarly, columns 2 and 4 report the total net revenue raised by each type of organization during the 1992 and 2001 tax years.² Table 1 shows that dur-

ing the last decade, there was a large increase in both the number of organizations involved in raising private contributions and in the total amounts raised. In 1992, nonprofit organizations raised approximately \$123 million in constant 2001 dollars. By 2001, that amount had nearly doubled to over \$238 million. Not surprisingly, the sharp increase in total contributions between 1992 and 2001 was also accompanied by a sharp increase in contributions per pupil. Specifically, in 1992 there were approximately 5.1 million students enrolled in California’s public schools, implying an average contribution of \$24 per pupil, measured in constant 2001 dollars. In contrast, in 2001 there were approximately 6.1 million students enrolled in California’s public schools, implying an average contribution of \$39 per pupil. Thus, between 1992 and 2001 contributions per pupil rose by approximately 62.5 percent.

Table 2 documents the average net revenue per pupil raised by K–12 nonprofit organizations in 2001. For each type of school or school district listed in the left-hand column, column 1 shows the total number of schools or school districts operating in California during the 2001–02 school year. Among those, column 2 lists the total number with a nonprofit organization that raised over \$25,000 in gross revenue, and column 3 reports the average revenue per pupil raised by those organizations. For example, of the 6,595 elementary and middle schools in California, 1,441 (22 percent) had a nonprofit organization that raised over \$25,000 in gross revenue. Among

¹ Throughout the paper, we refer only to monetary contributions. Although many schools benefit from contributions of parental time or direct donations of materials, we are unable to measure these in-kind contributions. To our knowledge, there are no wide-scale data available on these nonmonetary donations.

² Net revenue is gross revenue minus the organization’s expenses, i.e., the amount actually spent on schools.

Table 1. Total net revenue of K–12 nonprofit organizations: 1992 and 2001 tax years

Type of organization	Nonprofit organizations with gross revenue of \$25,000 or more: 1992 tax year (constant 2001 dollars)		Nonprofit organizations with gross revenue of \$25,000 or more: 2001 tax year	
	Number	Net revenue	Number	Net revenue
Local educational foundations	294	\$36,651,156	320	\$96,972,199
PTAs/PTOs	654	45,280,218	1463	83,412,310
Booster clubs/Other	310	29,006,764	322	34,149,470
Urban foundations	6	12,323,896	13	23,890,392
Total	1,264	\$123,271,034	2,115	\$238,324,371

SOURCE: 1992 data are from Brunner and Sonstelie (1997); 2001 data are from the “Charities Database” maintained by the Registry of Charitable Trusts of the California Attorney General’s Office and the 2001 Master File of Tax-Exempt Organizations, maintained by the Internal Revenue Service.

Table 2. Net revenue per pupil, by school/district type: 2001 tax year

School level/ district level	Number of schools/ school districts	Schools/school districts with a nonprofit organization having gross revenue of \$25,000 or more		Schools/school districts with a nonprofit organization having average net revenue of \$100 per pupil or more	
		Number	Average net revenue per pupil	Number	Average net revenue per pupil
School level					
Elementary/middle	6,595	1,441	\$122	427	\$298
Junior/senior high	987	267	\$89	76	\$227
District level					
Elementary	325	64	\$219	26	\$489
Unified district	323	102	\$68	19	\$274
High school	91	16	\$42	2	\$188

NOTE: 235 elementary school districts, 3 unified school districts, and 1 high school district contain just one school. We include contributions made to single school districts in the school-level figures.

SOURCE: Authors' calculations using data from the "Charities Database" maintained by the Registry of Charitable Trusts of the California Attorney General's Office and the 2001 Master File of Tax-Exempt Organizations, maintained by the Internal Revenue Service.

these 1,441 schools, net revenue per pupil averaged \$122. Similarly, of the 325 elementary school districts in California, 64 had a nonprofit organization that raised over \$25,000 in gross revenue, and among those 64 districts average revenue per pupil was \$219.

The last two columns of table 2 focus on those schools and school districts that were particularly successful in raising contributions. Column 4 shows the total number of schools and school districts with a nonprofit organization that raised \$100 per pupil or more, while column 5 gives the average revenue per pupil raised by those organizations. Clearly, there are far fewer schools and districts in this group, but they were able to raise substantial amounts. For example, only 427 elementary and middle schools (6.5 percent) had a nonprofit organization that raised \$100 per pupil or more; among those 427 schools, contributions per pupil averaged \$298. Similarly, among the 26 elementary school districts (7.9 percent) with a nonprofit organization that raised \$100 per pupil or more, contributions per pupil averaged \$489.

IV. The Distribution of Voluntary Contributions

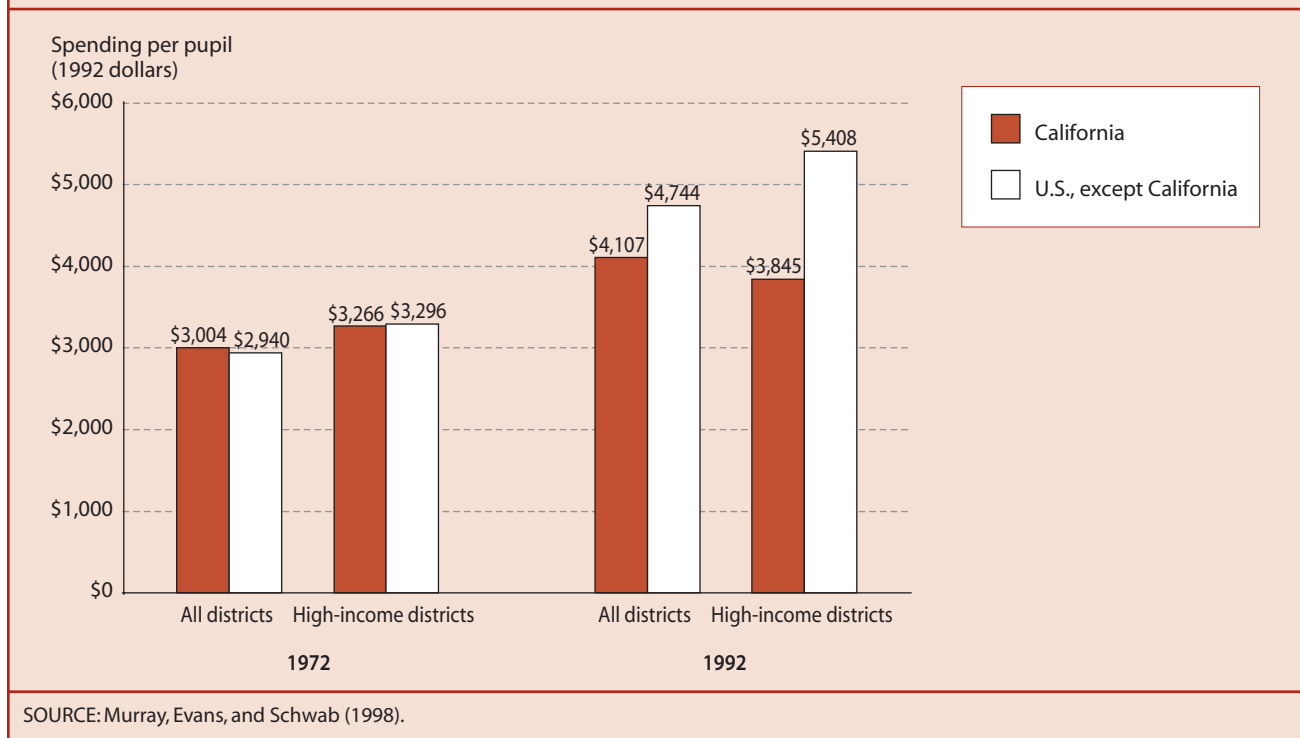
The revenue figures reported in tables 1 and 2 highlight several interesting facts. First, while the \$238 million raised by nonprofit organizations to support public

schools in California in 2001 represents a considerable sum, it nevertheless amounts to only about \$39 per pupil. Second, as table 2 makes clear, although contributions per pupil tend to be small on average, several schools and school districts have been able to raise significant amounts of private contributions. This second fact raises the question: Which schools have been most successful in raising voluntary contributions? This section addresses that question by examining the relationship between voluntary contributions and family income.

Numerous studies have shown that the demand for school spending is positively related to income.³ Furthermore, it was high-income communities that suffered the most from the relative decline in school spending that occurred in California in the aftermath of school finance reform. Specifically, before *Serrano* and Proposition 13, spending per pupil was about 10 percent higher in California than in the rest of the country. Over the next two decades, however, spending per pupil in California fell about 15 percent relative to the national average, and it was California's wealthiest communities that witnessed the largest relative decline in school spending.

Figure 1 illustrates that point. The figure gives 1972 and 1992 average spending per pupil in California and the rest of the country for all students attending unified school districts and for students attending a high-income

³ See, for example, Bergstrom and Goodman (1973), Rubinfeld (1977), and Bergstrom, Rubinfeld, and Shapiro (1982).

Figure 1. Spending per pupil in California relative to the rest of the United States: 1972 and 1992

unified school district.⁴ In 1972, high-income districts correspond to districts with a median household income of \$10,965 or more in 1970. Of all the students attending a unified school district in the United States in 1972, 25 percent attended one of these high-income districts. Similarly, in 1992, high-income districts correspond to districts with median household incomes of \$41,420 or more in 1990. Of all the students attending a unified school district in the United States in 1992, 25 percent attended one of these high-income districts. To account for differences in district size, 1972 and 1992 spending per pupil is weighted by district enrollment.⁵ In addition, for comparison purposes, 1972 spending per pupil is expressed in constant 1992 dollars.

As figure 1 illustrates, in 1972, spending per pupil in California roughly equaled that of other states. In 1992, however, spending per pupil in California was about 13 percent lower than in the rest of the country

(\$4,107 compared to \$4,744). Furthermore, relative to high-income districts in other states, California's high-income districts suffered a particularly sharp decline in spending per pupil. Specifically, in 1972 high-income districts in California spent about the same amount as high-income districts in other states. By 1992, however, that situation had changed dramatically. The average spending per pupil in California's high-income districts was \$3,845, whereas the corresponding figure for high-income districts in other states was \$5,408. Thus, by 1992, high-income districts in California were spending approximately 29 percent less than high-income districts in other states.

Figure 1 suggests that it was high-income communities that were particularly constrained by school finance reform in California. That fact, coupled with the fact that high-income communities also tend to have greater demands for school spending, suggests that contributions

⁴ We wish to thank Sheila Murray for providing the data on household income and spending per pupil used to construct figure 1. A detailed description of the data can be found in Murray, Evans, and Schwab (1998).

⁵ Weighting by district enrollment changes the unit of observation from the district to the student. Thus, weighting by district enrollment allows one to make comparisons of the number of *students* living in high-income districts rather than comparisons simply of the number of districts that are high income.

per pupil should be highest in high-income communities. Figure 2 provides evidence in favor of that hypothesis. The figure illustrates the relationship between family income in 2000 and school-level contributions in 2001. The vertical axis measures contributions per pupil for schools with contributions of \$25,000 or more, and the horizontal axis gives, for each school, the average income of families in the school's census tract. As hypothesized, contributions per pupil appear to be positively related to family income. As shown in figure 2A of the appendix, a similar relationship holds for district-level contributions and family income.

The relationship between family income and school-level contributions per pupil is examined in greater detail in table 3. The table summarizes the distribution of contributions per pupil among elementary and middle schools by quintiles of family income, where the quintiles are weighted by student enrollment. For example, of all students attending an elementary or middle school, 20 percent attended a school in which average family income was less than \$42,292, while 20 percent attended a school in which average family income was greater than or equal to \$86,321. For each income range reported

in the left-hand column, column 1 lists the number of schools with average family income within that range. The total number of schools with a nonprofit organization that raised over \$25,000 in gross revenue is shown in column 2, while column 3 reports the average revenue per pupil raised by those organizations. There is a clear difference in the contributions raised by low- and high-income schools. In schools with an average family income of \$42,292 or less, only 27 (2.4 percent) had a nonprofit that raised \$25,000 or more in 2001. Among those schools, revenue per pupil averaged just \$32. In contrast, in schools with an average family income of \$86,321 or more, 718 (50.4 percent) had a nonprofit that raised \$25,000 or more. Among those schools, revenue per pupil averaged \$135.

The disparity is even greater when looking at schools that raised \$100 or more per pupil. For each range of family income, the fourth column gives the number of schools with a nonprofit organization that raised \$100 or more per pupil in 2001, and the fifth column gives the average revenue per pupil raised by these organizations. Only 3 of the schools in the lowest income quintile were able to raise \$100 or more per pupil. In contrast,

Figure 2. Family income (2000) and school-level contributions per pupil (2001).



SOURCE: Contributions data from the "Charities Database" maintained by the Registry of Charitable Trusts of the California Attorney General's Office and the 2001 Master File of Tax-Exempt Organizations, maintained by the Internal Revenue Service; family income from the 2000 Census.

Table 3. School-level contributions per pupil, by quintiles of family income: Elementary and middle schools (pupil-weighted), 2001

2000 average family income	Number of schools	Schools with a nonprofit organization having gross revenue of \$25,000 or more		Schools with a nonprofit organization having average net revenue of \$100 per pupil or more	
		Number	Average net revenue per pupil	Number	Average net revenue per pupil
\$42,292 or less	1093	27	\$32	3	\$134
\$42,293–\$53,184	1352	84	37	7	147
\$53,185–\$65,480	1324	209	49	16	245
\$65,481–\$86,320	1377	400	59	68	157
\$86,321 and above	1425	718	135	335	263

SOURCE: Authors' calculations using data from the "Charities Database" maintained by the Registry of Charitable Trusts of the California Attorney General's Office and the 2001 Master File of Tax-Exempt Organizations, maintained by the Internal Revenue Service.

335 schools (23.5 percent) with an average family income of \$86,321 or more raised \$100 per pupil or more.

Table 3A of the appendix documents the relationship between family income and contributions to junior and senior high schools, while table 3B documents the relationship between family income and district-level contributions. Once again, there is a clear difference in the contributions raised by low- and high-income schools and school districts.

V. Voluntary Contributions and the Price of School Spending

As we have seen, some schools have been quite successful in raising voluntary contributions, particularly high-income schools that were most constrained by school finance reform. However, the question still remains: Why isn't the use of voluntary contributions more widespread? For example, even among the 1,425 elementary and middle schools with the highest income, less than 25 percent managed to raise more than \$100 per pupil. The limited use of voluntary contributions is particularly perplexing given the relatively large decline in spending per pupil high-income communities experienced over the last several decades. As we saw in figure 1, by 1992, high-income communities in California were spending approximately \$1,560 less per pupil than high-income communities in other parts of the nation.

Why haven't California's schools and school districts used voluntary contributions to close that difference? One answer is directly related to California's transfor-

mation in school finance. In other states, the source of discretionary school revenue is still the local property tax. In California, however, school finance reform and Proposition 13 have changed the source of discretionary revenue from the property tax to voluntary contributions. That change altered the marginal price of school spending, which may have decreased the demand for public school spending.

The marginal price of school spending is the additional amount an individual must pay to increase spending per pupil by \$1. When school spending is financed through the property tax, that additional payment manifests itself in a higher property tax payment. Specifically, when spending per pupil is financed through the property tax, the marginal price of school spending is

$$N * \frac{V}{T},$$

where N is the total number of students in a district, V is the assessed value of an individual's home, and T is the total assessed value of all property in the district. For example, consider a school district with 100 students and 100 owner-occupied homes, each with an assessed value of \$100,000. In that case, the marginal price of school spending is

$$\frac{100,000}{10,000,000} * 100, \text{ or exactly } \$1.$$

Now consider how the marginal price of school spending changes when the discretionary source of school revenue is changed from the property tax to voluntary contributions. Specifically, consider once again a district with 100 students and 100 families, with each family having

exactly one child. Suppose the district wanted to increase spending per pupil by \$1 and finance that increase with voluntary contributions. If families were to cooperate fully, each family would have to contribute \$1 to increase spending per pupil by \$1. In that case, the price of school spending would be the same as it was when spending was financed through the local property tax. However, the literature on collective action suggests that full cooperation is unlikely since each family has an incentive to “free ride” on the contributions made by other families.⁶ For example, take the extreme case where each family treats the contributions of other families as given (i.e., no cooperation) when deciding how much they will contribute. In that case, the price to a family of increasing spending per pupil by \$1 would be the number of students, namely N . While this example may be extreme, it illustrates an important point: When the source of discretionary revenue is changed from the property tax to voluntary contributions, the price of school spending is likely to rise since no enforcement mechanism exists to ensure that each family contributes.

Brunner and Sonstelie (2003) examine this issue in more detail by developing a model of partial cooperation among families in making voluntary contributions to their public schools. In their model, school size (student enrollment) represents the price parents face for increasing spending per pupil. An increase in student enrollment increases the incentive for parents to free ride and hence reduces the fraction of parents who contribute to their public school. As a result, the price of increasing spending per pupil by \$1 rises as the school size increases. Using data on voluntary contributions to California’s public schools in 1994, they find that contributions per pupil decline with an increase in school size, supporting the prediction of their model. Specifically, they obtain an estimate of the school size elasticity of demand of -0.56 . Thus, their results suggest that, all else equal, a doubling of school size would lead to a 56 percent decline in contributions per pupil. For a school of 600 students, roughly the average size elementary school in California, this would imply a marginal price of school

In Brunner and Sonstelie’s model, school size (student enrollment) represents the price parents face for increasing spending per pupil.

spending of approximately \$2, a substantially higher price than would exist if schools were financed through the local property tax.

The discussion above suggests that contributions per pupil should be inversely related to school enrollment. Figure 3 provides evidence in favor of that hypothesis. The figure illustrates the relationship between school enrollment in 2001–02 and school-level contributions. As hypothesized, contributions per pupil appear to be negatively related to school enrollment. However, it is also important to point out that the apparent strong negative relationship between the two variables may be somewhat misleading due to the censoring of contribu-

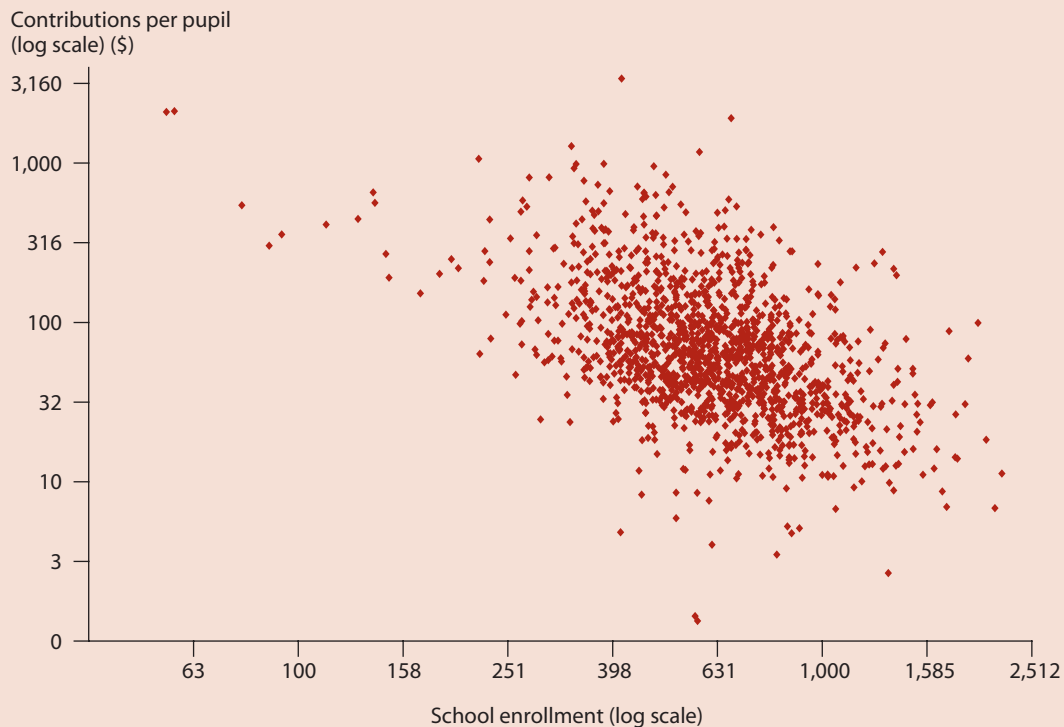
tions. Because of the IRS filing rules, we do not observe contributions unless gross revenue are above \$25,000. Consequently, among small schools, we only observe contributions if contributions per pupil are quite high. The negative relationship between the censoring point and enrollment is clearly visible in figure 3: We observe relatively few small schools with contributions, and those that we do observe have relatively high contributions per pupil.

Figure 4 illustrates the relationship between district enrollment and district-level contributions per pupil.

Similar to the relationship shown in figure 3, district-level contributions appear to be negatively related to student enrollment. Furthermore, for district-level contributions, the censoring of gross revenue at \$25,000 is less of a problem. Over 75 percent of all school districts have an enrollment of 1,000 students or more. For a school district with 1,000 students, the censoring of gross revenue per pupil occurs at only \$25 per pupil. Given that net revenue is on average about 60 percent of gross revenue, this would imply that censoring of net contributions per pupil occurs at only \$15.

While figures 3 and 4 suggest that contributions per pupil decline markedly with school size, those figures do not control for other factors that might be correlated with both the demand for school spending and student

⁶ See, for example, Olson (1965) and Sandler (1992).

Figure 3. School enrollment and school-level contributions per pupil: 2001–02

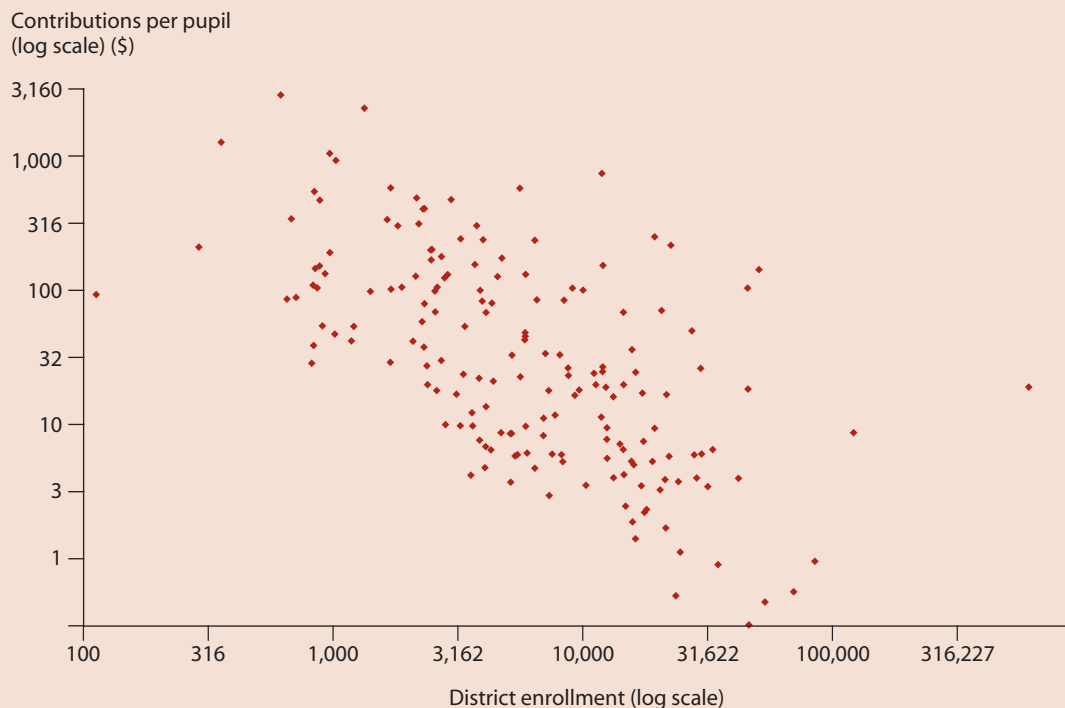
SOURCE: Contributions data from the “Charities Database” maintained by the Registry of Charitable Trusts of the California Attorney General’s Office and the 2001 Master File of Tax-Exempt Organizations, maintained by the Internal Revenue Service; school enrollment from the California Department of Education.

enrollment. For example, among elementary and middle schools with 500 students or less, the average family income in 2000 was \$74,500. In contrast, among schools with more than 500 students, the average family income in 2000 was \$66,700. Thus, the apparent negative relationship between school size and contributions per pupil could simply be due to the fact that high-enrollment schools tend to be less wealthy on average. We investigate that possibility in table 4, which isolates the enrollment relationship from income by documenting the relationship between school-level contributions and school size in high-income and low-income schools. Columns 1 through 3 provide information on the distribution of contributions per pupil among high-income schools. Columns 4 through 6 provide the same information for low-income schools. For each of the four ranges of school enrollment in the left-hand column, columns 1 through 3 list the number of schools with student enrollment within that range for high- and low-income schools, respectively. The total number of high-income schools with a nonprofit organization that raised \$25,000

or more in gross revenue is shown in column 2, while column 3 lists the average revenue per pupil raised by those organizations. Columns 4 through 6 provide the same information for low-income schools.

As table 4 makes clear, contributions are concentrated in small, high-income schools. Columns 3 and 6 show that average contributions per pupil fall significantly as enrollment increases. For example, in high-income schools, the average contribution per pupil is over four times as large in schools with an enrollment of less than 400 students than in schools with an enrollment of 800 or more (\$308 versus \$73). Furthermore, a comparison of columns 2 and 3 and columns 5 and 6 reveals that, for each enrollment range, the fraction of schools with a nonprofit that raised over \$25,000, and the average contribution per pupil among those schools, are both substantially higher in high-income schools than in low-income schools. Tables 4A and 4B in the appendix show that a similar relationship holds for junior and senior high schools, as well as for all school districts.

Figure 4. District enrollment and district-level contributions per pupil: 2001–02



SOURCE: Contributions data from the “Charities Database” maintained by the Registry of Charitable Trusts of the California Attorney General’s Office and the 2001 Master File of Tax-Exempt Organizations, maintained by the Internal Revenue Service; district enrollment from the California Department of Education.

We began this section by asking, why isn’t the use of voluntary contributions more widespread? The results reported in this section provide a partial answer to that question: Attempting to raise significant sums of money through voluntary contributions may be of limited appeal to all but the smallest and wealthiest schools and school districts. Specifically, the demand for public school spending depends on more than just income and preferences; it also depends on the marginal price of that spending. As a result, even among California’s wealthiest communities, contributions per pupil tend to be relatively small if school enrollment is high.

Table 5 reinforces that point. The table lists the proportion of students who benefited from the different levels of voluntary support. For example, approximately 43 percent of all students attended a school in which contributions per pupil were less than \$1. Table 5 suggests that the use of voluntary contributions is quite limited: An overwhelming majority of students attended a school in which contributions per pupil were quite small. Specifically, 90 percent of all students attended a school in

which contributions per pupil were less than \$100, and only 1.2 percent of all students attended a school with contributions per pupil of \$500 or more.

VI. Conclusion

The rise in voluntary contributions to public schools over the last few decades, and particularly the surge in contributions during recent months in response to budget cuts, has helped many schools and districts to purchase and maintain programs that would not have been otherwise possible. In California, where the school finance system does not allow local communities much flexibility in educational spending, fundraising is one of the few instruments available to parents trying to obtain a higher quality of education for their children. But when some communities are able to raise significant amounts and others are not, concerns naturally arise about the equitable distribution of funds and the resources they buy. In this paper, we set out to ascertain whether such concerns are warranted by examining the size and distribution of contributions across schools and school districts in California.

Table 4. School-level contributions per pupil and school enrollment: Elementary and middle schools, 2001

School enrollment	High-income schools (\$86,321 or above)			Low-income schools (\$42,276 or less)		
	Number of schools ¹	Schools with a nonprofit organization having gross revenue of \$25,000 or more		Number of schools ²	Schools with a nonprofit organization having gross revenue of \$25,000 or more	
		Number	Average net revenue per pupil		Number	Average net revenue per pupil
Less than 400	320	115	\$308	178	4	\$115
400–599	509	264	186	232	7	39
600–799	344	215	121	252	6	34
800 or more	252	124	73	231	10	27

¹ 20 percent of all elementary and middle school students attended one of these high-income schools.

² 20 percent of all elementary and middle school students attended one of these low-income schools.

SOURCE: Authors' calculations using data from the "Charities Database" maintained by the Registry of Charitable Trusts of the California Attorney General's Office; the 2001 Master File of Tax-Exempt Organizations, maintained by the Internal Revenue Service; and the California Department of Education.

Table 5. The distribution of students by ranges of contributions per pupil: 2001

Range of contributions per pupil ¹	Fraction of students in range
\$0–\$0.99	43.13%
\$1–\$49.99	38.62
\$50–\$99.99	8.19
\$100–\$199.99	5.82
\$200–\$499.99	3.06
\$500 and above	1.18

¹ Contributions represent the sum of school-level and district-level contributions.

NOTE: We assume district-level contributions are distributed equally, on a per pupil basis, among all schools within a district.

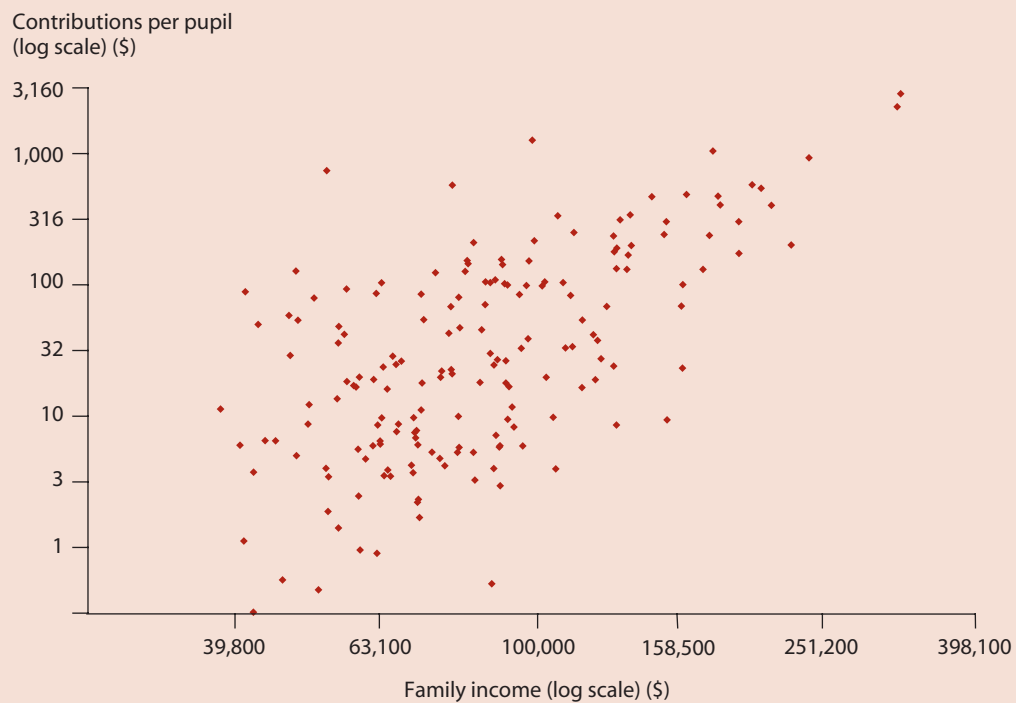
SOURCE: Authors' calculations using data from the "Charities Database" maintained by the Registry of Charitable Trusts of the California Attorney General's Office; the 2001 Master File of Tax-Exempt Organizations, maintained by the Internal Revenue Service; and the California Department of Education.

We find that although contributions are highest in high-income schools and school districts, the majority of students attend schools where contributions per pupil are relatively small. Even in the richest communities, fewer than a quarter of the schools raise more than \$100 per pupil. This can be explained, in part, by the fact that when school spending is financed through voluntary contributions, the marginal price of that spending increases with the number of students. Therefore, larger schools, even if higher income, will have a more difficult time raising significant contributions. Not surprisingly then, we see contributions primarily concentrated in schools that are both wealthy and small.

Thus, although it is true that a small number of schools raise large amounts of voluntary contributions and it is likely that such schools will continue to receive much media attention, it does not appear that these contributions have led to large inequalities in the distribution of revenue across most schools. Furthermore, because the voluntary nature of private donations means that they are subject to free-riding, which increases the price of spending per pupil for larger districts, it seems unlikely that contributions will ever be the source of wide-scale disruptions in the distribution of revenue across communities.

Appendix

Figure 2A. Family income (2000) and district-level contributions per pupil (2001)



SOURCE: Authors' calculations using data from the "Charities Database" maintained by the Registry of Charitable Trusts of the California Attorney General's Office and the 2001 Master File of Tax-Exempt Organizations, maintained by the Internal Revenue Service.

Table 3A. School-level contributions per pupil, by quintiles of family income: Junior and senior high schools (pupil-weighted), 2001

2000 average family income	Number of schools	Schools with a nonprofit organization having gross revenue of \$25,000 or more		Schools with a nonprofit organization having average net revenue of \$100 per pupil or more	
		Number	Average net revenue per pupil	Number	Average net revenue per pupil
Less than \$44,129	197	26	\$34	1	\$103
\$44,130–\$54,151	210	30	57	6	160
\$54,152–\$67,832	199	51	50	8	175
\$67,833–\$87,756	185	59	80	12	132
\$87,757 and above	183	100	120	47	227

SOURCE: Authors' calculations using data from the "Charities Database" maintained by the Registry of Charitable Trusts of the California Attorney General's Office and the 2001 Master File of Tax-Exempt Organizations, maintained by the Internal Revenue Service.

Table 3B. District-level contributions per pupil, by quintiles of family income: All school districts (pupil-weighted), 2001

2000 average family income	Number of schools	Schools with a nonprofit organization having gross revenue of \$25,000 or more		Schools with a nonprofit organization having average net revenue of \$100 per pupil or more	
		Number	Average net revenue per pupil	Number	Average net revenue per pupil
Less than \$51,824	250	20	\$8	1	\$124
\$51,825–\$60,925	147	19	33	1	685
\$60,926–\$64,782	46	14	20	0	—
\$64,783–\$82,177	135	38	20	3	418
\$82,178 and above	156	91	80	42	216

SOURCE: Authors' calculations using data from the "Charities Database" maintained by the Registry of Charitable Trusts of the California Attorney General's Office and the 2001 Master File of Tax-Exempt Organizations, maintained by the Internal Revenue Service.

Table 4A. School-level contributions per pupil and school enrollment: Junior and senior high schools, 2001

School enrollment	High-income schools (\$87,757 or above)			Low-income schools (\$44,129 or less)		
	Number of schools ¹	Schools with a nonprofit organization having gross revenue of \$25,000 or more		Number of schools ²	Schools with a nonprofit organization having gross revenue of \$25,000 or more	
		Number	Average net revenue per pupil		Number	Average net revenue per pupil
Less than 1,199	41	10	\$216	80	4	\$42
1,200 – 1,799	47	24	195	34	7	35
1,800 – 2,499	64	47	101	35	9	18
2,500 or more	31	19	94	48	6	45

¹ 20 percent of all junior and senior high school students attended one of these high-income schools.

² 20 percent of all junior and senior high school students attended one of these low-income schools.

SOURCE: Authors' calculations using data from the "Charities Database" maintained by the Registry of Charitable Trusts of the California Attorney General's Office and the 2001 Master File of Tax-Exempt Organizations, maintained by the Internal Revenue Service, and the California Department of Education.

Table 4B. District-level contributions per pupil and district enrollment: All school districts, 2001

School enrollment	High-income schools (\$82,178 or above)			Low-income schools (\$51,824 or less)		
	Number of schools ¹	Schools with a nonprofit organization having gross revenue of \$25,000 or more		Number of schools ²	Schools with a nonprofit organization having gross revenue of \$25,000 or more	
		Number	Average net revenue per pupil		Number	Average net revenue per pupil
Less than 2,000	42	21	\$536	126	3	\$50
2,000–3,999	38	26	161	53	4	67
4,000–7,999	26	13	86	31	2	7
8,000 or more	50	31	45	71	13	8

¹ 20% of all students attended one of these high-income districts.

² 20% of all students attended one of these low-income districts.

SOURCE: Authors' calculations using data from the "Charities Database" maintained by the Registry of Charitable Trusts of the California Attorney General's Office and the 2001 Master File of Tax-Exempt Organizations, maintained by the Internal Revenue Service, and the California Department of Education.

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