Baseline Findings for an Evaluation of the Children's Scholarship Fund (CSF) in Los Angeles

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March 2006

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The research contained herein was commissioned by the Broad Foundation, as part of the evaluation of the Children's Scholarship Fund. Opinions expressed herein are those of the author(s) and do not necessarily reflect the views of the Children Scholarship Funds or the aforementioned private foundations.

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EVALUATION OF THE CHILDREN'S SCHOLARSHIP FUND – LOS ANGELES

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1. INTRODUCTION

Background and Context

John Walton and Ted Forstmann launched Children's Scholarship Fund (CSF) to an outpouring of demand from parents looking for better educational alternatives for their children in 1998. More than 70,000 children have benefited across the United States. In 2005, more than 24,000 children from low-income families are using CSF scholarships to attend the private school of their family's choice with approximately $30 million in CSF tuition assistance. Scholarships are awarded in various cities across the country. Recipients are attending more than 4,000 private and parochial schools (including Catholic, Christian, Jewish, Muslim, Montessori and Independent schools) across the country through the generosity of CSF's donors, the efforts of 38 partner programs.

In 1999, the Broad Foundation pledged $1.6 million dollars for four years to the Los Angeles CSF to help low income children attend private school in Los Angeles. In addition, in 2000, Broad helped LA-CSF optimize its existing program by supporting an increase in the cap for students entering high school, and permitting approximately 400 siblings to join their elder brothers and sisters at their family's chosen school. To do this, Broad underwrote four-year scholarships for an additional 590 students.

Scholarships are determined by family size, income and tuition, so that the family pays what it can afford. But every family pays some portion of their tuition. The average annual income for all CSF recipients is $24,000 with the average family contribution is $1,360 and the average CSF scholarship is $1,220.

In Los Angeles, CSF currently provides tuition support to more than 1,550 children. Funds are raised locally and then matched by the national CSF organization, highly leveraging local support. Families must pay a minimum of $500

and scholarships are 25%, 50%, or 75% of tuition, depending upon family size and income, up to a maximum of $1,950. The average scholarship is $1,372 and the families pay an average of just under $26,000 towards their children's tuition. CSF scholarship recipients attend 281 private and parochial schools across the city, including Catholic, Jewish, Muslim, and independent schools.

The evaluation of LA-CSF is important as it provides information about the effects of private school scholarship programs, which may have implications for school choice programs.

The evaluation approach involves an individual growth design that collects longitudinal data on student achievement scores and compares baseline scores against a student's own individual growth overtime on a given test. Overall, the evaluation assesses the effects of a student receiving funds from CSF and attending a private school on their standardized test score achievement growth overtime. The findings carry broader significance by expanding the information available about private school scholarship programs.

Organization of the Report

This report is divided into five sections. The first section has described the goals and context of the evaluation. Section 2 provides the methodology for the evaluation and the findings presented in the rest of the report.

Section 3 addresses the research questions of "What is the baseline achievement for the CSF and control students in third grade?" and "How does this compare to LAUSD students in third grade?" This section examines the California Achievement Test, Sixth Edition (CAT/6) test scores for the third grade year and compares these test scores to the LAUSD district as a whole, and Economically Disadvantaged students in LAUSD. The California Achievement Test, Sixth Edition (CAT/6), a norm-referenced test, was administered to LAUSD district students in Grades 3 and 7 in the spring of 2005 as part of the state's Standardized Testing and Reporting Data (STAR) system. In previous years, the CAT/6 was administered to students in Grades 2-11. This comparative analysis is conducted for the CSF study sample (N=99) and the sampled control students (N=281).

Section 4 addresses the question, "How similar is the randomly sampled control students to the CSF study sample at baseline?" This section compares demographic information, such as gender and ethnicity, at baseline to determine if

the CSF study sample and the sampled control students have statistically similar characteristics prior to the CSF recipients attending a private school with CSF funds. The final section summarizes and concludes.

2. EVALUATION APPROACH AND DESIGN

The evaluation is designed to study whether the academic achievement growth of CSF students is greater than that of students who remained in the public schools that the CSF students previously attended. Adopting a comparison group approach, the evaluation centers on the change in students individual growth over time from 3rd through 7th grade.

The evaluation approach integrates a longitudinal and a quasi-experimental design. The effects of CSF are being assessed primarily through a comparison group methodology of tracking student achievement growth over time. In the sections that follow, we provide a description of the methodology that delineates the evaluation design and explain the selection of the CSF sample and the control group sample.

Evaluation Questions

The evaluation centers around four main evaluation questions:

1—What is the baseline achievement for the CSF and control students in third grade?

2—How similar are the randomly sampled control students to the CSF recipients at baseline?

3—What is the overtime achievement trend for the CSF recipients and control students?

4—Have the CSF students outperformed other students in the private schools? Or have the control students outperformed other economically disadvantaged students in LAUSD?

Questions 1 and 2 focus on the similarity of the control students and the program students, prior to the CSF program students entering a private school. Question 3 tracks the over time achievement of the CSF recipients and the control students and examines whether their growth is statistically significant. Question 4

investigates whether the CSF students are performing similarly to other private school students over time and whether the control students are performing similarly to other economically disadvantaged students in LAUSD over time.

This report will address Questions 1 and 2 and examine the similarity of the control and CSF recipient samples. Basic descriptive statistics are computed for program and control students. The difference between the Non-CSF and CSF student characteristics and 3rd grade test scores are tested for statistical significance (at the $p = 0.01$ level) using a chi-square test or ANOVA *t*-test, as appropriate. These tests indicate the probability that the observed differences are due to chance.

The overall evaluation of CSF LA is intended to answer these four questions and thereby assess whether CSF LA is achieving its goal of providing better learning opportunities for students in LA. However, the evaluation does not indicate whether private schools in general are more effective than public schools in improving student achievement from 3rd through 7th grade, nor does it indicate whether targeting families who seek out tuition support is more effective than other programmatic approaches.

The unit of analysis for the evaluation is the individual student. Analyses are conducted comparing Non-CSF and CSF groups of students.

Evaluation Design and Comparison Group Methodology

This evaluation, along with much social science research and evaluation work, is limited in the extent to which it can attribute connections between observed processes and conditions to observed effects since there are many uncontrolled variables likely to affect the outcomes in the targeted sites. Our evaluation design, however, uses quasi-experimental methods in addition to the longitudinal tracking of students to provide a solution to this problem.

This study utilizes a quasi-experimental design to collect longitudinal data on two groups of elementary students –all who begin in grades 3 though 5 until each student reaches 7th grade. One group, called the CSF cohort, received tuition support to attend a private school from CSF, while the second group, called the Non-CSF cohort, are public school students in schools that were previously attended by CSF recipients. This type of data allows us to describe the differences in student achievement growth across students in private schools with CSF support and students who remained in the public schools previously attended by CSF recipients,

and to test for the statistical significance of the overtime growth of the two populations of students.

Furthermore, this design makes a few assumptions. The design assumes that the concern is to evaluate how *all* CSF recipients who received funding in fall of 05 -- from the most to the least advantaged at the start of the program -- changed as a result of the CSF program.

Data Collection Procedures and Sample Selection

Student Achievement Data in Private and Public Schools

Available student achievement data over time is complicated in California by the changing tests and the changing policies concerning grade levels for which the test is administered. The following tests have been administered in the spring of the designated year:

Timeframe	Name of Standardized Test
1999 - present	CST- California Standards Test
1998 - 2002	SAT9 - Stanford 9 Test (norm referenced)
2003 - present	CAT/6 - California Achievement Test, Version 6

However, since the spring of 2005 the State of California has only required the CAT/6 to be administered to 3rd and 7th graders. The state is primarily relying on the CST, which cannot be used to measure test score growth or achievement overtime. As a result, the CSF evaluation of test score growth overtime is constrained by the limited availability of norm-referenced test score data for the 3rd, 4th, and 5th graders in the Fall of 05 and thus the research questions it can answer for all three grade levels overtime. For example, the 3rd grade CSF students in the Fall 05 do not have prior year baseline CAT/6 information and therefore cannot be compared to a set of LAUSD control students. However, the CSF 4th and 5th grade students in the Fall of 05 had both taken the CAT/6 in their 3rd grade year and therefore, can be compared to a set of LAUSD control students as well as have their test scores tracked until 7th grade using the CAT/6.

Private schools, on the other hand, choose their own tests to administer to students. As part of the evaluation, CSF requested that private schools report to them the test they planned to administer in the 05/06 school year. The majority of private schools in the LA area are administering the norm-referenced Iowa Test for

Basic Skills (ITBS), while some are administering the norm-referenced Stanford 9 (or 10). The evaluation will track CSF recipients who have taken the ITBS or the Stanford Version 9 (or Version 10). Given that public schools no longer administer either of these norm-referenced tests, the control students test scores will be tracked using norm-referenced California Achievement Test (Version 6) (CAT/6).

Moreover, given the new testing policies of 2005 to only administer the CAT/6 test in 3rd and 7th grade, the evaluation will start tracking students who entered school in the 3rd, 4th or 5th grade in the fall of 05. For the 4th and 5th grade students, their third grade CAT/6 score can be used as their baseline score (prior to entering private school) and their achievement growth can be tracked for the yeas that the attend private school. Both control and program students will be tracked until the 7th grade, the grade that the state currently requires student testing of public school students. In sum, baseline comparisons can be made using third grade scores in reading and math on the CAT/6. Overtime student growth will be compared from 3rd to 7th grade for both the 4th and 5th grade cohorts of control students using the CAT/6 and from 4th to 7th grade and from 5th to 7th grade for the ITBS and SAT cohort of CSF recipients. If an equating study becomes available for the ITBS or the SAT9/10 to the CAT/6, then the control group's overtime student growth will also be compared to the CSF's overtime student growth from 3rd to 7th grade. Control students will also be compared to the average economically disadvantaged students in LAUSD and the CSF students will be compared to the average student in their private school.

Selection of the CSF Sample

The Children's Scholarship Fund provides tuition scholarships for students with demonstrated need who wish to attend private schools. In Fall 2005, CSF funded CSF recipients in grades K-5, and by design approx. 20 percent came from private schools and 80 percent came from public schools in Los Angeles.

For students in grades 3 – 5, 54 of the 156 students came from a private school and three were missing this information. As a result, the evaluation will track 99 CSF students in grades 3 through 5 who came from public schools in the fall of 2005. Of these 99 CSF students, the majority will be administered the Iowa Test for Basic Skills (ITBS) instead of the Stanford 9 (or Stanford 10). See the Table below for counts of students by grade). Students taking either the ITBS or the SAT9 will be included in the evaluation. These 99 students will be tracked until they each

respectively reach 7th grade. This will be in the school year 2008/09. The cohort of students taking the SAT9/SAT10 is too small to provide statistically significant results, but will be tracked for informational purposes. The sample size of the students taking the ITBS is sufficient to determine statistical differences over time and as compared to the Non-CSF control students.

Table 1: CSF Recipients from public schools entering private schools in Fall 2005
By Test Given at Private School

Test Type	Student Count	Student Count By Grade	Grade level
	N	N	
SAT9/SAT10	19		
		6	3rd
		3	4th
		10	5th
ITBS	80		
		34	3rd
		33	4th
		13	5th
Total	99	99	

Source: CSF final snapshot of application process for Fall 05 as of Oct 05

Selection of the Control Sample

During the application process, parents report the name of their student's previously attended school and whether it is public or private. Of the 99 CSF recipients in the sample, there were 51 reported previously attended public schools. CSF LA generated a count of all of the students grades K-5 who were receiving CSF tuition funding and had attended these 51 public schools. Of the 51 public schools, 11 schools had at least 6 or more confirmed CSF recipients who had previously attended the school (K-5). These 11 public schools were located across 7 of the 8 LAUSD sub-districts (There were no potential control school in District 1 in the valley). A potential control school was then recruited from each of the remaining sub-districts; however only five control schools were needed and were selected based on the principal agreeing to participate in the evaluation sampling. Five schools were selected, one in each of the LAUSD sub-districts 4, 5, 6, 7 and 8. The public control schools are to remain anonymous.

During November of 2005, a total of 283 students in grades 4 and 5 were randomly sampled from across the five control schools: 161 4th graders and 122 5th graders. At a given school, approx. 40 students were sampled for a given grade with

an even number of female and male students sampled across all classrooms in the school. Cumulative files were randomly selected from all 4th and 5th grade classrooms. When a student was sampled, demographic and test score information was recorded as well as the student's LAUSD ID for obtaining test score information in the future directly from the Los Angeles Unified School District's Information Technology Department.

3. BASELINE RESULTS: WHAT IS THE BASELINE ACHIEVEMENT FOR THE CSF AND CONTROL STUDENTS IN THIRD GRADE?

The CSF program provides tuition scholarships for students with demonstrated need who wish to attend private schools. In Fall 2005, CSF funded approx 99 CSF recipients in grades 3-5, who previously attended public school. A comparison group evaluation is based on comparing two groups, who were similar at baseline and testing whether the one group who received an intervention has different performance than the group that did not receive the intervention. For the CSF evaluation, there are 58 4th and 5th grade CSF recipients and 281 4th and 5th grade control students who have 3rd grade baseline test scores. In this section, we examine the CSF and Non-CSF students' third grade test scores on the California Achievement Test, Sixth Edition (CAT/6), which is prior to the CSF student's receiving CSF funding and attending private school. We compare both the scale score and the national curve equivalent (NCE) scores (See Table 2 and 3). Next, we compare the CSF and Non-CSF test scores to the LAUSD district as a whole, and to other Economically Disadvantaged students in LAUSD (See Table 4).

The CAT/6, a norm-referenced test, was administered to LAUSD district students in Grades 3 and 7 in the spring of 2005 as part of the state's Standardized Testing and Reporting Data (STAR) system. In previous years, the CAT/6 was administered to students in Grades 2-11.

We find that the CSF recipients and the control students do not differ in their reading and math scores in third grade; they have statistically similar scale scores and NCE scores in both reading and mathematics. Approximately an 11-point difference would be statistically significant for these two groups, with the t-statistic above 1.96. The average CSF student's scale score in reading is 597 and in Math is 591. The average control student's scale score in reading is 591 and in Math is 590. These differences are not statistically significant. Moreover, the average control

student and the CSF recipient perform similarly in math and reading to an average economically disadvantaged LAUSD third grade student, with a 602 in reading and 602 in math. The average LAUSD student in third grade performs higher on average in reading and math, as compared to the economically disadvantaged student, with a 607 in reading and 606 in math. This is what was expected given that CSF funds low-income students and students in need. In sum, the Non-CSF control students and the CSF recipient students performed similarly in 3rd grade in reading and math on the CAT/6. The CSF and Non-CSF students are also more similar to the economically disadvantaged students in LAUSD, than an average student in LAUSD.

Table 2: CAT/6 Scale Scores for third grade for the CSF program and control students

	Third Grade CAT/6 Mean Scale Score Reading	Third Grade CAT/6 Mean Scale Score Math
CSF Program students (N=53)	597.3	590.7
Control students (N=281)	591.1	590.3
Comparing Program vs. Control students: T-statistic	(0.45)	(0.21)

Note: * indicates p-value<=0.05; ** indicates p-value<=0.01; *** indicates p-value of <=0.001

Table 3: CAT/6 NCE Scores for third grade for the CSF program and control students

	Third Grade CAT/6 Mean NCE Score Reading	Third Grade CAT/6 Mean NCE Score Math
CSF Program students (N=58)	36.7	38.7
Control students (N=281)	32.4	41.1
Comparing Program vs. Control students: T-statistic	(0.72)	(-1.09)

Note: * indicates p-value<=0.05; ** indicates p-value<=0.01; *** indicates p-value of <=0.001

Table 4: CAT/6 Scale Scores for third grade for the CSF program and control students

	Third Grade CAT/6 Mean Scale Score Reading	Third Grade CAT/6 Mean Scale Score Math
CSF Program students (N=53)	597.3	590.7
Control students (N=281)	591.1	590.3
LAUSD students - Spring 05	606.6	606.4
LAUSD Economically Disadvantaged Students - Spring 05	601.9	601.6

Note: * indicates p-value<=0.05; ** indicates p-value<=0.01; *** indicates p-value of <=0.001
Source: LAUSD Ed Data, through www.lausd.net

4. BASELINE RESULTS: HOW SIMILAR ARE THE CONTROL STUDENTS TO THE CSF STUDENTS AT BASELINE?

It is important to also examine if demographic characteristics of the CSF and control students are similar at baseline. In this section we examine whether the CSF recipients and the control students have statistically similar characteristics prior to the CSF families choosing to send their child to a private school with CSF funds.

From the last section, we know that the CSF and control students in 4th and 5th grade are similar in terms of their third grade achievement on the CAT/6 in reading and math. Table 5 compares the two groups in terms of their gender, race, home language, and whether they received free and reduced lunch. We report the average household size and average household income of the CSF recipients; this information was not available for the control students. We report the average daily attendance in 3rd grade for the control students; this is however not available for the CSF recipients.

Overall, we find that the two groups are very similar. The control students are 51.9 percent male and the CSF students are 47.6 percent male. In terms of race, the control students are 83 percent Hispanic, 14 percent African American, 0.4 percent White and 2.5 percent Asian. The CSF students are 69.3 percent Hispanic, 28 percent African American and 2.6 percent White. This indicates that there are more African American students who receive CSF funding then attend their previous public school; no Asian students from these public schools have received a CSF tuition grant. However, these differences in racial composition are not statistically significant. Due to this difference in percent Hispanics, we will retroactively collect English Language Learner information about both groups to make sure that we capture any potential variation. Additionally, both the CSF and Control groups have 29 percent speaking Spanish in the home.

Nearly all the students in both groups were receiving free and reduced lunch in public school, 97.9 and 100 percent respectively. The CSF student has on average 3.9 people in the household and has an average household income of $22,473. The average household income for all of the CSF-LA recipient families is $26,000. The control students also had an average daily attendance at school in the third grade of 162 days out of 170. The attendance data was not available for the CSF students. Finally, all off these statistics were run also by grade level and not statistical differences were found across the groups.

This data indicates the sampled control students and the Fall 05 CSF recipients in 3rd, 4th and 5th grade are similar in terms of demographic characteristics and in terms of their third grade performance in reading and math. This indicates that the comparative quality of the control group and the CSF sample are high and should provide a good basis for comparison in the future.

Table 5: Demographic Characteristics of CSF program and control students

	CSF Students (N=99)	Control Students (N=283)
Percent male	47.6	51.9
Ethnicity: Percent Hispanic	69.3	83.0
Percent African American	28.0	14.1
Percent White	2.6	0.4
Percent Asian	0.0	2.5
Home Language: Percent Spanish	29.3	29.7
Percent Receiving Free Reduced Lunch	97.9	100
Average Household size	3.9 people	Not Available
Average Household income	$22,473	Not Available
Average Daily Attendance in 3rd grade	Not Available	162 days

Note: * indicates p-value<=0.05; ** indicates p-value<=0.01; *** indicates p-value of <=0.001

5. CONCLUSION

This evaluation is designed to study the whether the academic achievement growth of CSF students overtime is greater than that of students who remained in the public schools that the CSF recipients had previously attended. Adopting a comparison group approach, the evaluation centers on the change in students individual growth over time from 3rd through 7th grade.

The evaluation includes all of the CSF students in 3rd, 4th and 5th grade in the fall of 05 who previously attended a pubic school in Los Angeles. A group of control students were sample from the schools that these CSF recipients previously attended. This report compares the two groups to determine their similarity in 3rd grade, prior to CSF. In sum, we found that the two groups are statistically similar in terms of their third grade performance in reading and math on the CAT/6 as well as in terms of their demographic characteristics, such as race, home language, gender, and poverty status. This indicates that the comparative quality of the control group and the CSF sample are high and should provide a good basis for comparison in the future.

The evaluation is limited in several aspects. First, public and private schools administer different standardized tests. Private schools are primarily administering the ITBS or the SAT 9, while public schools are administering the CAT/6. This limits the analysis to comparing individual student achievement growth over time and does not allow for comparing the average growth of the groups to each other. Second, the sample size of the CSF recipients is small, albeit it is the census sample. If there is substantial or even moderate attrition from the CSF program, then it may not be possible to determine small effects in the test scores overtime. The control samples are sufficiently large even accounting for attrition.

Most importantly, the control and program groups are similar across key background characteristics, such as gender and poverty, and also in terms of academic performance, specifically third grade performance in reading and math.