

Evaluation of the SOURCE Program: An Intervention to Promote College Application and Enrollment among Urban Youth

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Executive Summary

During the performance period 01/01/09 – 12/31/09, *The SOURCE Program: An Intervention to Promote College Application and Enrollment Among Urban Youth* completed almost all project objectives. In particular, we collected data necessary to estimate impacts; conducted impact analysis; and identified statistically significant impacts of the SOURCE Program.

As reported in the 2008 Annual report, we successfully achieved Project Objective (a): providing college-eligible high school juniors from low-income families with counseling, information and oversight as they complete the college application process. Program implementation and thus Objective (a) was completed in June 2007. The program was fully implemented as planned and displayed a high level of fidelity to program design.

In the 2009 performance period, we also completed almost all of Project Objective (b): collecting quantitative and qualitative data necessary to conduct implementation and outcome program evaluation. (For your reference, we reported in 2008 IES Annual Report that we completed all data collection and analysis necessary for the implementation study of the SOURCE Program and submitted a complete implementation report to IES 30 November 2008).

We also completed data collection and analysis necessary for estimating program impacts. We are currently conducting some additional data collection and analysis to confirm college of enrollment; examine persistence in college; and consider number of institutions attended for the full study sample. Toward this end, we are currently procuring a follow-up data set from the National Student Clearinghouse (NSC). In this reporting period, however, we completed data collection on post-program outcomes for the entire study sample from two distinct data sources (a follow-up survey and the first NSC data set), the primary data used to estimate impacts.

As reported in 2008, we relied upon three separate data sources to estimate impacts: First, BPA designed and fielded a survey conducted one year after the end of program services (corresponding to one year after sample members' expected high school graduation date). The purpose of the survey was to measure college enrollment and persistence during freshman year as well as financial aid-related outcomes. This survey had a response rate of 84.1 percent. Secondly, we collected data from LAUSD on high school graduation, course taking, GPA, and SAT outcomes of the sample (available for 99.1 percent of sample members). Lastly, we collected data from the NSC to verify and compare college enrollment to self-reported survey data for the entire sample. All of these data were used to estimate impacts included in this report.

We analyzed these data in order to determine the extent to which project outcomes were achieved as well as to contribute to the research base for program policy in the area of high school to college transitions. We are thus meeting our key project objective: assessing whether this short-term intervention is a more cost effective way to increase college enrollment among

low-income youth compared to comprehensive, long-term approaches, as discussed in the implementation study of the SOURCE Program.¹

During the 2009 reporting period, we also made several presentations about SOURCE Program outcomes at the following conferences and venues:

- a. At the Second Annual Society for Research on Educational Effectiveness (SREE) Conference, Methods that Matter, in Washington, D.C. (March 2009), we presented a paper entitled “The SOURCE Demonstration Project: Implementation and Impacts of a Program to Help Disadvantaged High School Students Enroll in College.”
- b. At the June 2009 IES Research Conference in Washington, D.C., we presented a poster on early program impacts entitled “Impacts of the SOURCE Demonstration Project: A Successful Program for Helping Disadvantaged High School Students Gain College Admission and Financial Aid.”
- c. In July 2009, we made a presentation about SOURCE Program impacts to Gates Foundation staff involved with high school-to-college transition efforts in Seattle, WA.
- d. At the November 2009 Research Conference of the Association for Public Policy Analysis and Management (APPAM) in Washington D.C.: *Evidenced Based Policy Making in the Post-Bush/Clinton Era*, we presented a more complete set of impact estimates in the paper “SOURCE: Impacts of a Program to Promote College Enrollment among Los Angeles High School Students.”

¹ Berman, J., J.M. Bos, and L.Ortiz. 2008 *Evaluation of the SOURCE Program: An Intervention to Promote College Application and Enrollment among Urban Youth: Implementation Report*. Oakland: Berkeley Policy Associates. IES Grant Award No. R305F050274.

Section A – Project Objectives Information and Related Performance Measures Data

1. Project Objective

Project Objective 2: Assess whether a short-term intervention is a more cost effective way to increase college enrollment among low-income youth.²

Explanation of Progress

Recruitment and Random Assignment

We sought to assess whether this short-term intervention could increase college enrollment among low-income youth with a random assignment study of a pilot intervention that provided advisors to eligible low-income high school students to help them navigate the college and financial aid application processes. Working with LAUSD and EdBoost, who implemented the program, we recruited over 3000 high school students enrolled in schools with the highest proportions of free and reduced lunch-eligible students. LAUSD verified the eligibility of 2499 of these students for program participation based on (a) enrollment in LAUSD; (b) high school juniors; (c) 2.5 or higher GPA; and (d) course distribution aligned with California State University (CSU) requirements. One thousand of the eligible participants were randomly assigned to the treatment condition and 1500 to control. Before being notified of their research status, another 51 control group members were randomly assigned to the program group to replace program group members whom EdBoost staff could not contact within a reasonable timeframe.

Data Collection

Participation Data

Treatment group members' participation and benchmarks were tracked via weekly advisor reporting into a program database. We tracked control group members via postcards and administered an end of high school survey to them that focused on measuring their receipt of services similar to SOURCE, i.e., college and financial aid application-related assistance. (This survey achieved an 88 percent response rate).

LAUSD Data

LAUSD provided information on high school completion, course distribution, GPA, and SAT outcomes in July 2007, shortly after expected high school graduation for the entire study sample.

NSC Data

We collected NSC data through LAUSD (who have student social security numbers) on the entire study sample in April 2008. Upon cleaning these data, we found that 453 records were missing from the data file. We ruled out the possibility that the missing students were those who

² For a discussion of other, more expensive interventions designed to increase college enrollment among low-income youth, see Berman, J., J.M. Bos, and L.Ortiz. 2008 *Evaluation of the SOURCE Program: An Intervention to Promote College Application and Enrollment among Urban Youth: Implementation Report*. Oakland: Berkeley Policy Associates. **IES Grant Award No. R305F050274.**

did not attend college. All NSC data were missing for 216 students in ten of the 56 schools in the study. In the remaining schools, there were both missing records as well as students who had complete NSC data. As previously reported, LAUSD staff suggested that either (a) the missing students graduated later than the majority of SOURCE students, or (b) the missing students had opted out of having their records included in the NSC database. Using the LAUSD high school graduation data, we found that (a) was not the case. We also re-matched our baseline data to the same NSC data that LAUSD sent and did not find any additional matches.

As also previously discussed, LAUSD staff reviewed schools with missing records and found that most are charter schools, new schools or alternative/continuation schools. The district does not oversee charter schools and does not track students in these schools or in alternative/continuation schools. New schools may not yet be incorporated in the LAUSD system of NSC matches and post-graduation outcome tracking. LAUSD staff also suggested that some parents may have opted out of having their child's data included in the NSC database or that some students may have left LAUSD prior to graduation. Depending on the school these students attended, the school may have attempted to make an NSC match for these students, which would explain why matches are complete for most schools and incomplete for some.

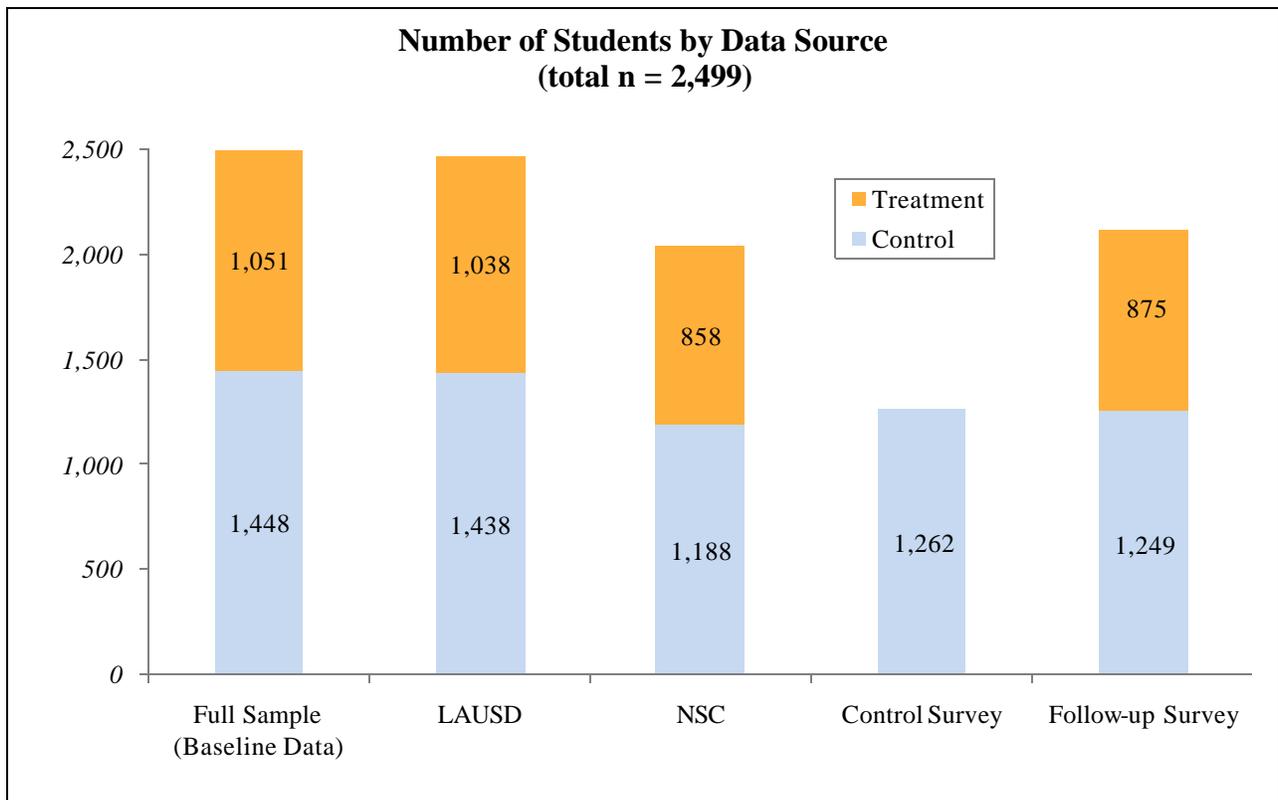
At the end of 2008, we compared the research status of the 453 students with missing NSC records and found no treatment-control group difference in the availability of these data. Because of this, and because we had survey data as an alternative source of information, we used the available NSC data in our impact analyses. At the time, we planned to work with LAUSD to update the NSC data in spring 2009. Because of personnel cutbacks, however, LAUSD was not able to provide us with an updated NSC data match, as planned. We are currently working with NSC directly to receive an updated data match on the entire study sample in order to confirm college enrollment, track persistence, and address the problem of missing data in our original NSC match. NSC has agreed to perform the data match to our study sample based on first name, last name, and date of birth and will send us a complete analysis file in January 2010.

Follow-up Survey Data

Among our most important foci during the 2009 performance period was analysis of data from the BPA-designed survey of the entire sample. This survey was conducted one year after sample members' expected high school graduation, that is, at the end of their expected first year in college. The survey focused on college selection, application, acceptance, enrollment and persistence; financial aid application, receipt and means of paying for college; employment; and satisfaction with post-high school outcomes. SRM Boulder fielded this survey between May and September 2008 to 2496 members of the study sample. We achieved an 84.1 percent response rate (82 percent of treatment group members and 85.5 percent of control group members responded).

Data Magnitude

We previously reported our data magnitude summary of each data source as follows:



Impact Estimates

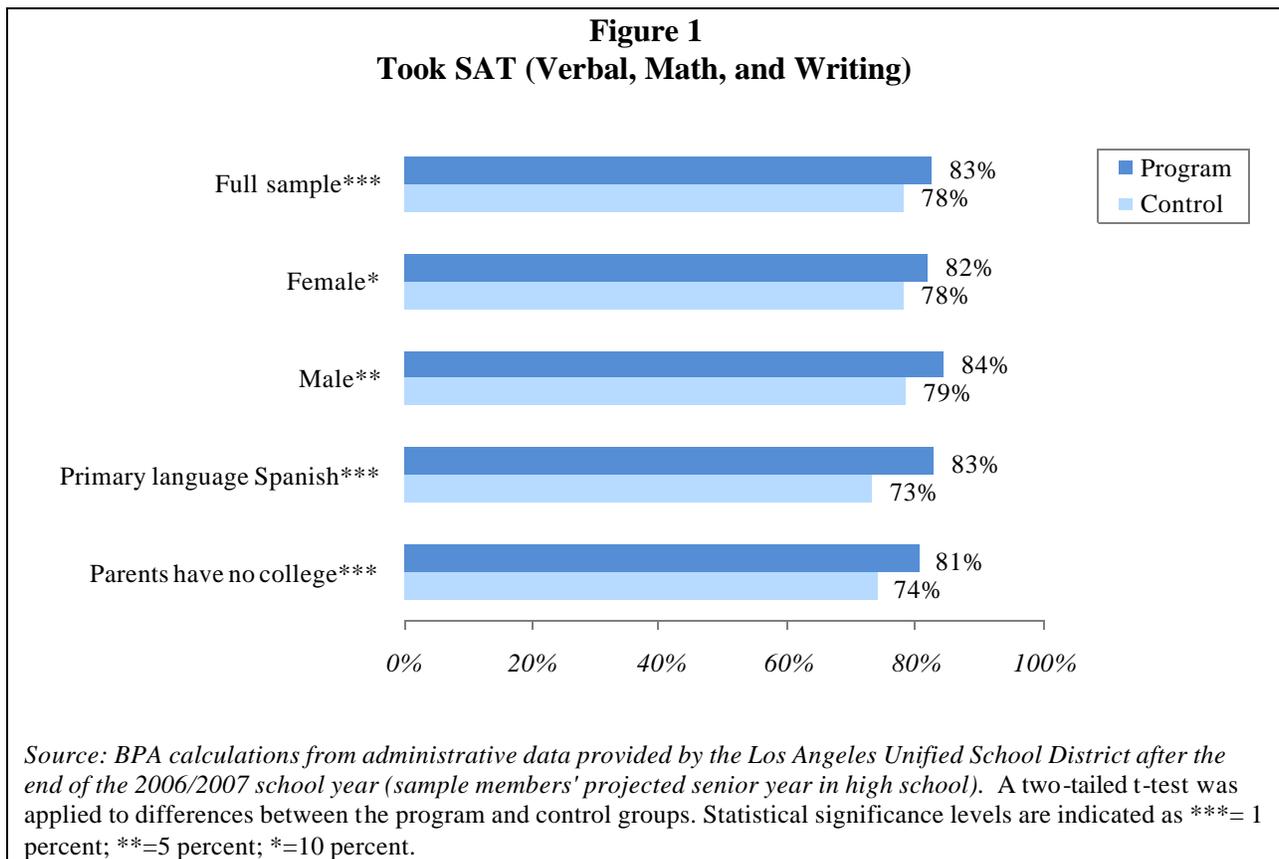
We merged the baseline, survey, NSC data, and LAUSD data, created a master data file of all data sources and conducted impact analysis. We calculated unadjusted and regression-adjusted means for all outcome variables. Unadjusted impact estimates were calculated by subtracting the unadjusted mean for the control group from the unadjusted mean for the program group, while regression-adjusted impact estimates were calculated using a linear regression model in which the outcome variable was regressed on a 0/1 SOURCE program dummy and a series of baseline covariates.³ This analysis estimated the following impacts of the SOURCE Program:

³ Covariates included race/ethnicity; whether respondent responded that they were likely to go to college at baseline; whether respondent had a sibling in college; whether either of respondent's parents is a college graduate; respondent age at random assignment; and whether Spanish was respondent's primary language.

High School and SAT Outcomes

As indicated above, LAUSD provided us with administrative data on the study sample's graduation rates, course taking, GPA, and SAT taking. Our analysis suggests that the SOURCE program did not impact sample members' graduation rates or their GPA. In future analyses, we will examine study participants' course taking⁴ to estimate impact on this priority area for CSU and UC admission, and thus for the SOURCE Program itself.

Figure 1, however, indicates that SOURCE participants increased SAT taking by 4.2 percentage points over the control group (82.5 percent of the treatment group took the SAT compared to 78.3 percent of controls). This positive impact was statistically significant at the 1 percent level. It is also important to note that for program participants whose primary language at home was Spanish and for those whose parents did not attend college, the increase in SAT taking was even more pronounced: 9.5 and 6.6 percentage points respectively. This may be an important first indication, as discussed further below, that for program participants who may have lacked resources at home regarding college and financial aid application, SOURCE was able to provide information central to these processes.



⁴ The CSU and UC systems require that students not only have a certain GPA to qualify for admission but that they also have a particular distribution of courses in math, English, history, science, language other than English, etc, the so-called A-G requirements. SOURCE advisors were trained to encourage students to complete their A-G requirements during their senior year in high school.

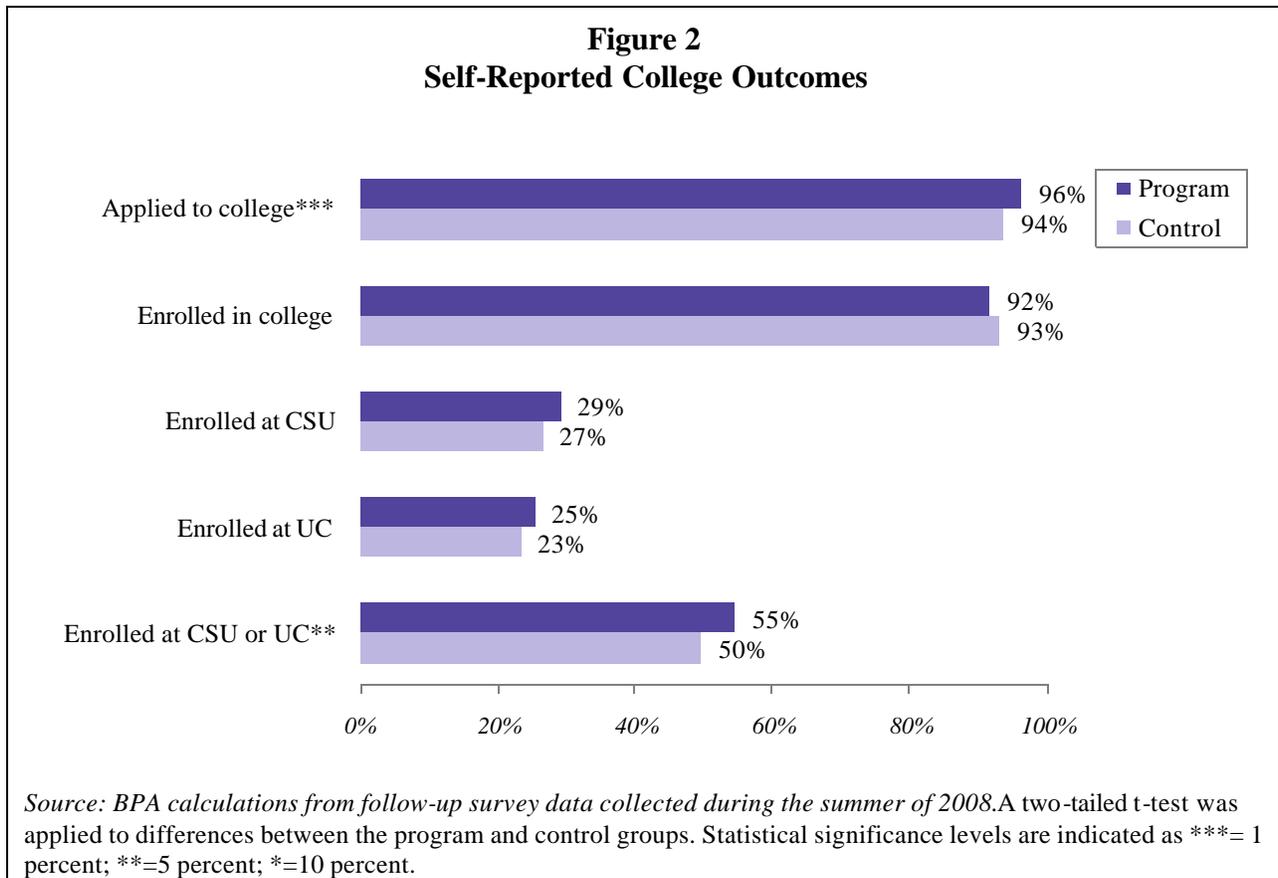
Clearly, the majority of the sample took the SAT, a key requirement for most colleges' and universities' admission processes. This rate, however, was higher among SOURCE treatment group members than among controls. SAT preparation, taking and re-taking to improve scores constituted SOURCE's first key benchmark for students during the course of the program. It is thus a positive finding that program group members were more likely to take the, which indicates that SOURCE was able to affect a major college admissions factor that it targeted.

College Application and Enrollment

Follow-up Survey Data

Figure 2 presents impact estimates for some college application and enrollment outcomes based on the self-reported data from the follow up survey. The table shows that the vast majority of *all* study sample members reported applying to college. The high number of control group members applying to and enrolling in college established a high bar for college application outcomes.

Despite the fact that 93.6 percent of control group members reported applying to college, however, SOURCE is associated with a small but statistically significant impact on this outcome (an increase of 2.6 percentage points over the control group, to 96.2 percent). Again, this is particularly important given that only 6.4 percent of control group members did not apply to college. That is to say that even in this already highly college-focused group, SOURCE was able to further reduce the size of this group from 6.4 to 3.8 percent.



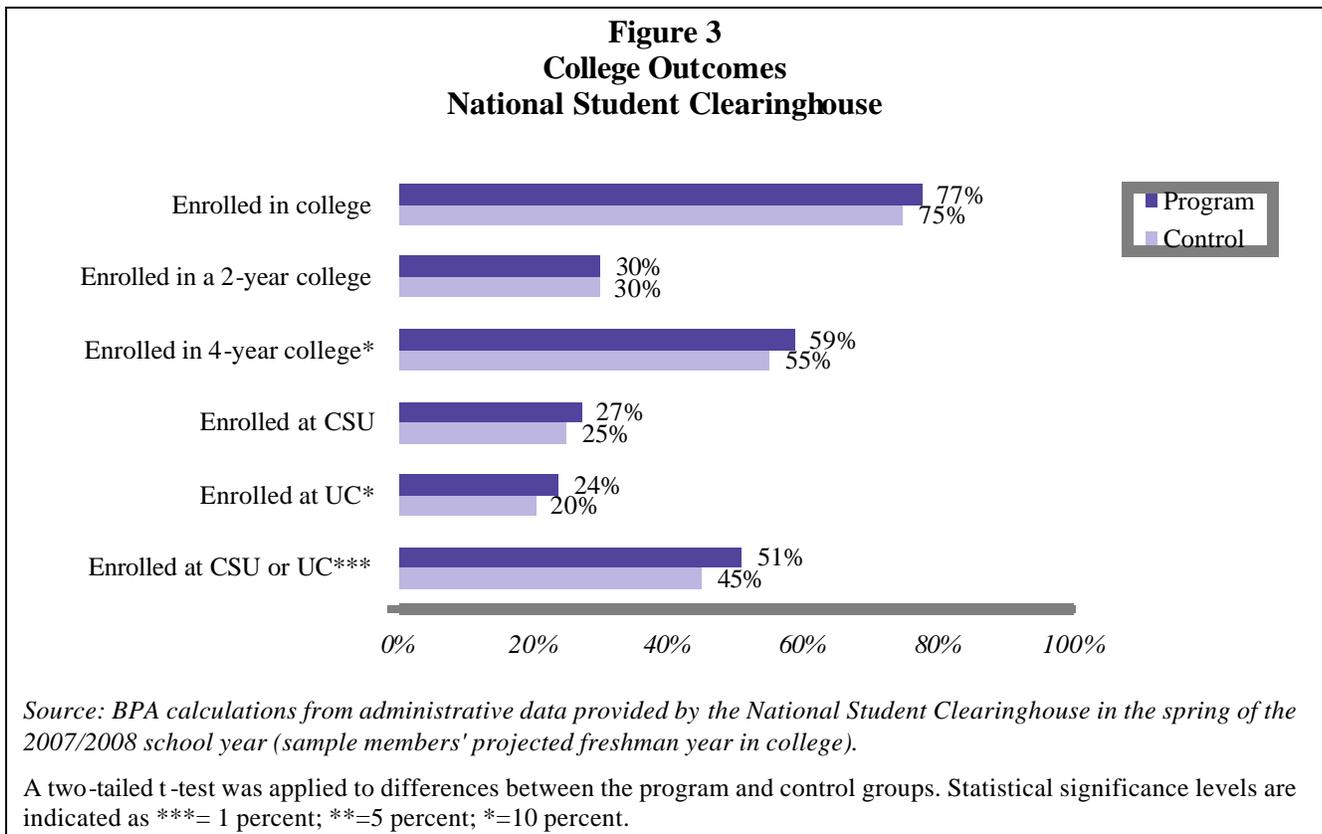
The survey data do not associate SOURCE with a statistically significant increase in college enrollment or enrollment in a CSU or UC school per se, the two public school systems to which

SOURCE Program advisors encouraged eligible students to apply. When enrollment to the CSU and UC schools are combined, however, the impact estimates suggest that SOURCE did have a statistically significant impact (of 5 percent) on enrollment in one or the other of these two systems, an important finding given SOURCE’s focus on these affordable, high quality, post-secondary educational options for California students.

NSC Data

Figure 3 below presents impact estimates for study members’ college enrollment outcomes based on data from the National Student Clearinghouse (NSC), a non-profit entity that compiles and disseminates enrollment data from 3300 post-secondary schools, representing 92 percent of schools in the U.S. We utilized the NSC data as an additional, objective, third party verification of study participants’ college outcomes and thus a check on the self-reported survey data.

It is important to note that the rate of college enrollment captured by the NSC data is considerably lower than that reported by study participants themselves. The NSC data show 74.7 percent of control group members enrolled in college, while the survey data suggest an enrollment of 93.1 percent of control group. This discrepancy may reflect any number of factors, e.g., the fact that the NSC data cover only 92 percent of schools in the U.S. or that some of the “colleges” survey respondents reported to be enrolled in were trade schools or other types of institutions not covered by the NSC. We will examine this discrepancy further in early 2010 when we receive an updated NSC data file covering the full sample of study participants.



Despite the differences in the enrollment totals, the impact estimates with regard to college enrollment were generally consistent across the two data sources. For the sample as a whole, SOURCE increased enrollment in four-year colleges from 55 to 59 percent. Disaggregation by

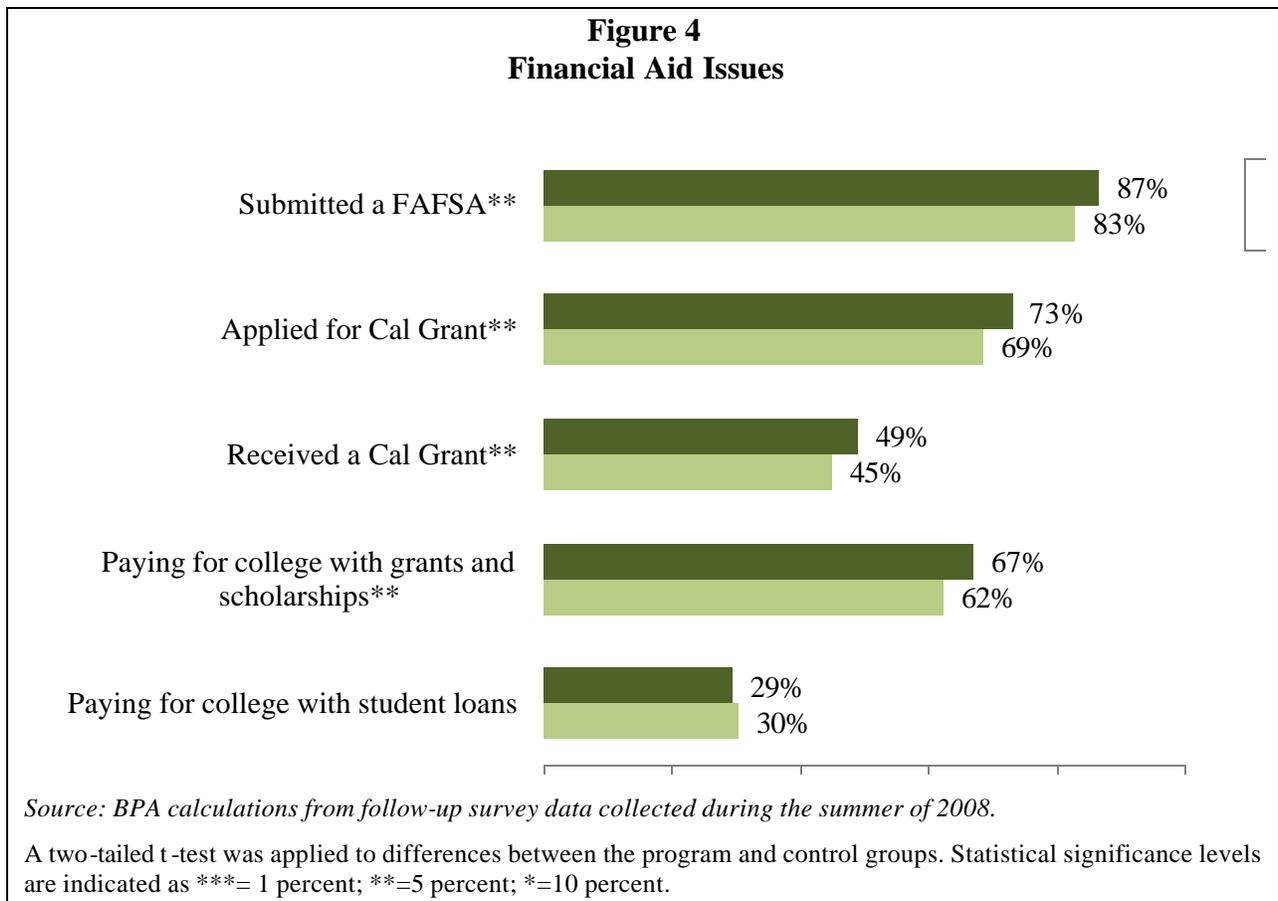
gender (not shown here) suggests that the effect on four-year college enrollment was concentrated among female students. In contrast, the positive impact on college enrollment among male students appears to have been entirely concentrated in two-year colleges. (SOURCE increased two-year college enrollment among male students from 24.9 to 33.9 percent).

While the impact estimates shown above do not suggest an impact on overall college enrollment for the full sample, they do suggest that SOURCE increased enrollment in a CSU or UC by 5.8 percentage points. This impact is important for several reasons. Most importantly, the SOURCE advisors were specifically trained to encourage students to explore the CSU and UC schools as high-quality, affordable options for post-secondary education and to meet the entry requirements for these schools. Thus, SOURCE was able to achieve a strong improvement in a key outcome it sought to affect directly.

Financial Aid Application and Receipt

This section addresses key financial aid issues for both treatment and control group members in the study. All analyses that address financial aid issues are self-reported and come from the BPA follow-up survey administered to the full sample one year after expected high school graduation.

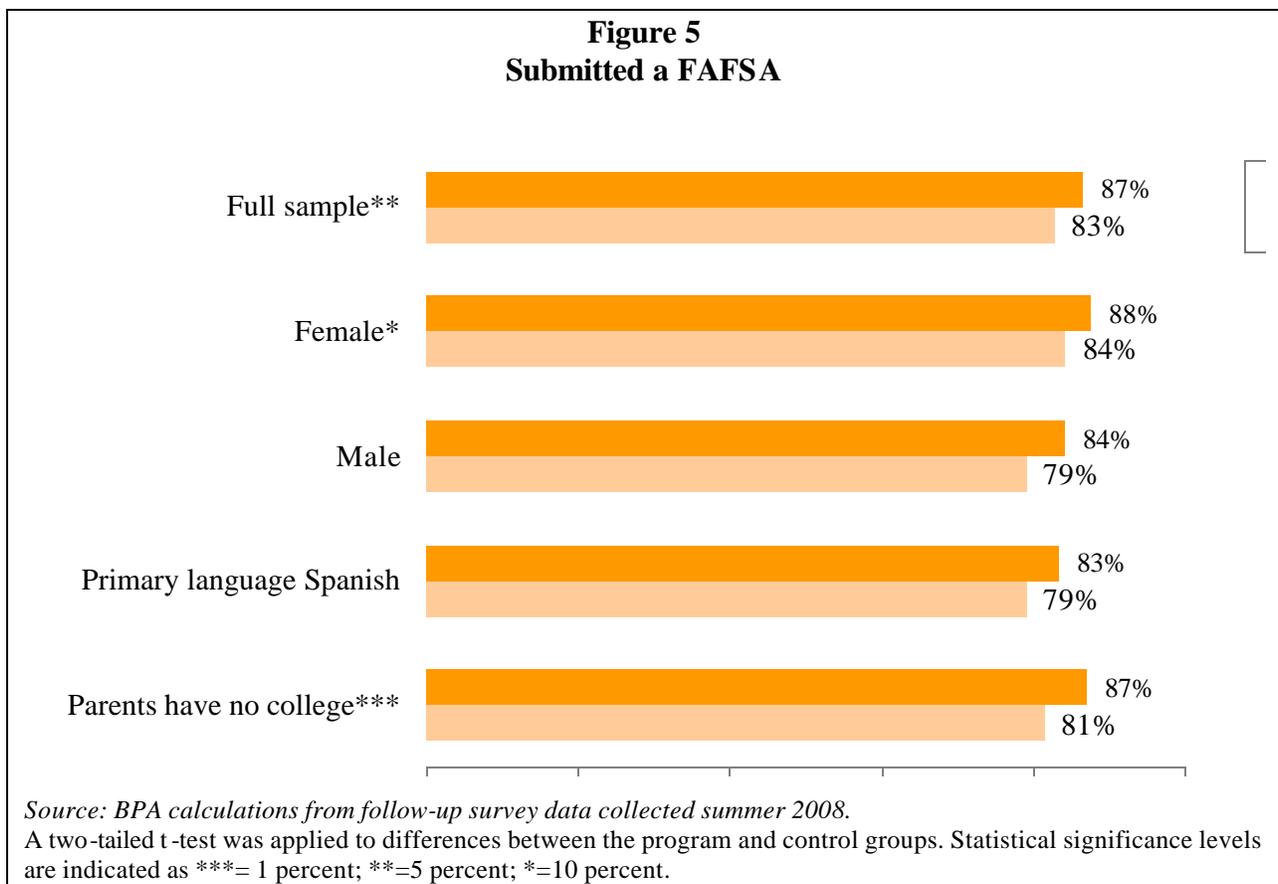
Figure 4 presents impact estimates for key financial aid-related outcomes as measured with self-reported data from BPA’s follow-up survey. It suggests that SOURCE increased the percentage of students who submitted a FAFSA by 3.9 percentage points. There also was a positive and statistically significant impact on the proportion of students applying for a Cal Grant (an increase of 4.7 percentage points), a state aid program available to California residents graduating from a California high school with a qualifying GPA, attending a qualifying California public college, and with financial need.⁵



⁵ Further information about the Cal Grant program can be found at www.calgrants.org.

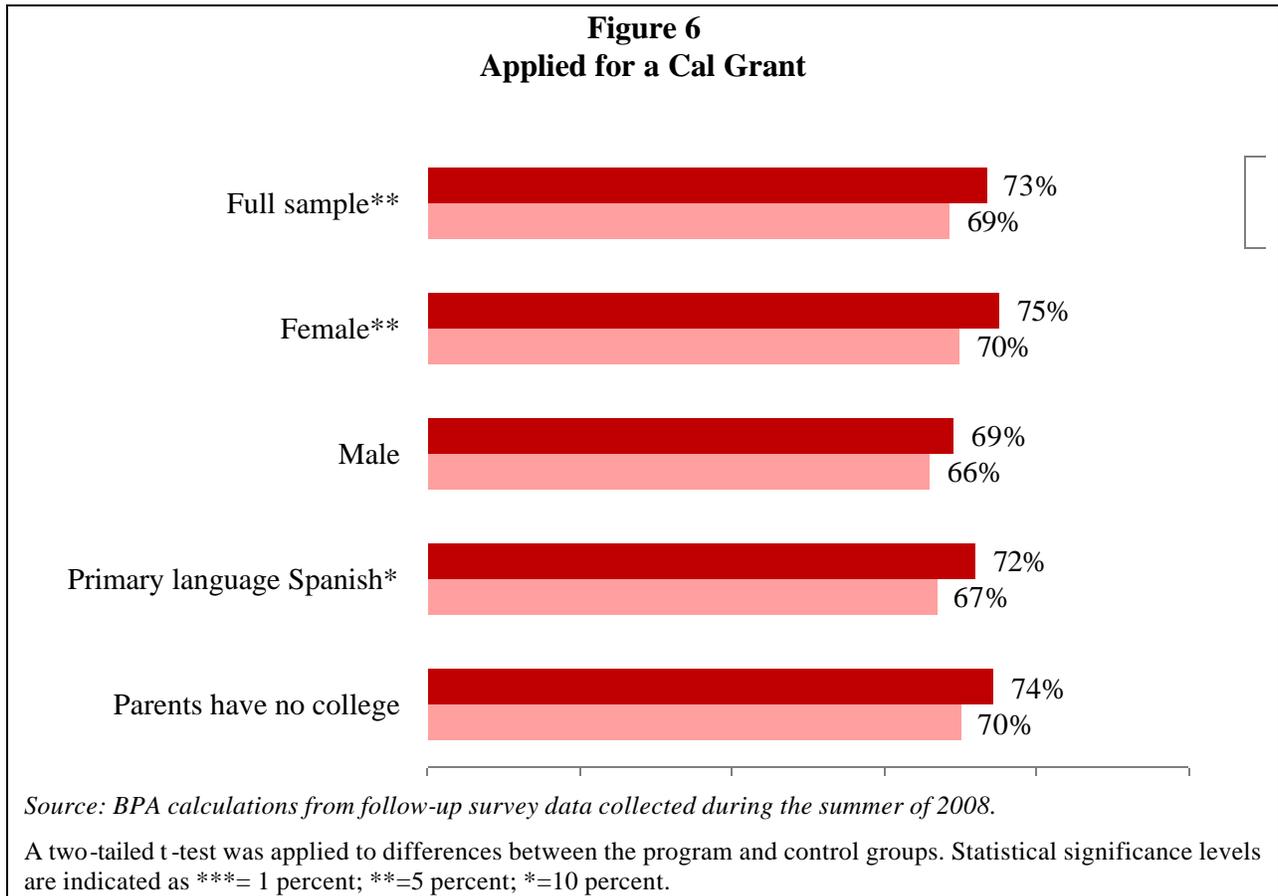
Importantly, SOURCE increased the percentage of students receiving a Cal Grant and able to pay for college with grants and scholarships by 4.5 percentage points and 4.7 percentage points, respectively. The program did not impact the percentage of students paying for college with student loans. Such loans were less of a focus of the SOURCE Program and students who received grants may not have needed to take out as many loans as those who did not. Advisors encouraged students to identify and apply for as many grants and scholarships as they were eligible for. They did not discourage loan application, as they wanted students to find a way to attend college if possible, but they did not want to push students into excessive debt either and focused on federal, rather than private, loan applications if necessary.

Figure 5 summarizes impact estimates on key subgroups with regard to FAFSA submission. While we found an impact on the full sample, the figure suggests that SOURCE had its greatest impact on FAFSA submission for students whose parents had not attended college, increasing submission by 5.6 percentage points.⁶ This is an important finding, given that some of the previous research that motivated the creation of the SOURCE Program suggested that it was a lack of knowledge about *how* to apply to college and for financial aid that prevented otherwise eligible students from applying for and enrolling in college. It also suggests that students whose parents had not attended college lacked at least some of the necessary information about how to apply, and that the SOURCE Program appeared to have helped fill this gap.



⁶ As shown in the chart, this impact is statistically significant at the 1 percent level.

Figure 6 shows impact estimates of the SOURCE Program on Cal Grant application. It shows an impact on application for the Cal Grant program, increasing it by 4.7 percentage points over the control group. When disaggregated by gender, however, SOURCE increased female – but not male – application by a statistically significant 5.3 percent. It also had a sizeable positive and statistically significant impact (5.4 percentage points) on Cal Grant application for students whose primary language at home was Spanish.



Following an increase in Cal Grant application, Figure 7 provides impact estimates that suggest that SOURCE increased actual receipt of a Cal Grant by 4.5 percentage points. As was the case for FAFSA and Cal Grant application, the positive impact for Cal Grant receipt was particularly pronounced among female students, for whom SOURCE increased Cal Grant receipt by 6.3 percentage points.

SOURCE also had a statistically significant impact on Cal Grant receipt among those whose primary language is Spanish (6.9 percentage points) and on those whose parents did not attend college (5.3 percentage points).

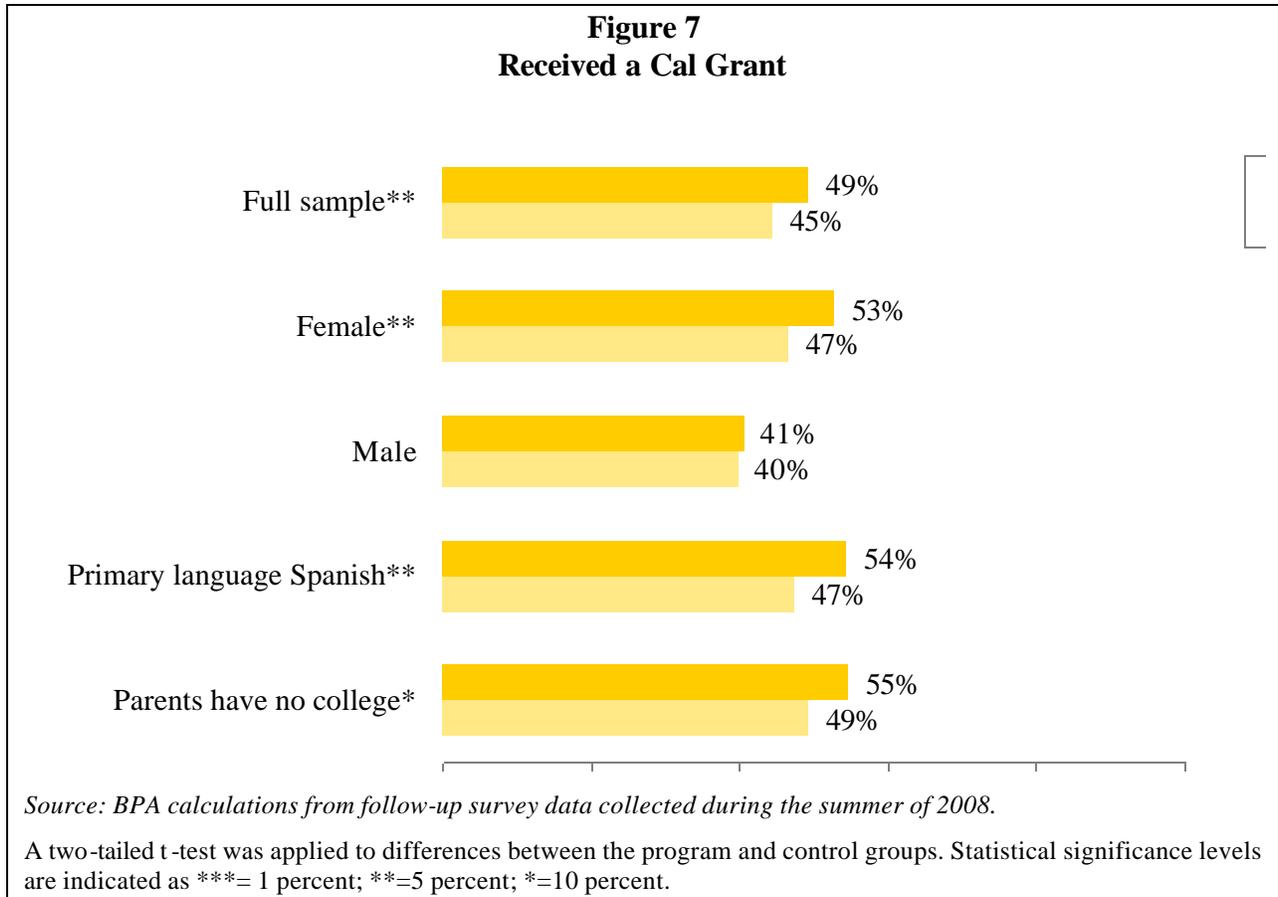
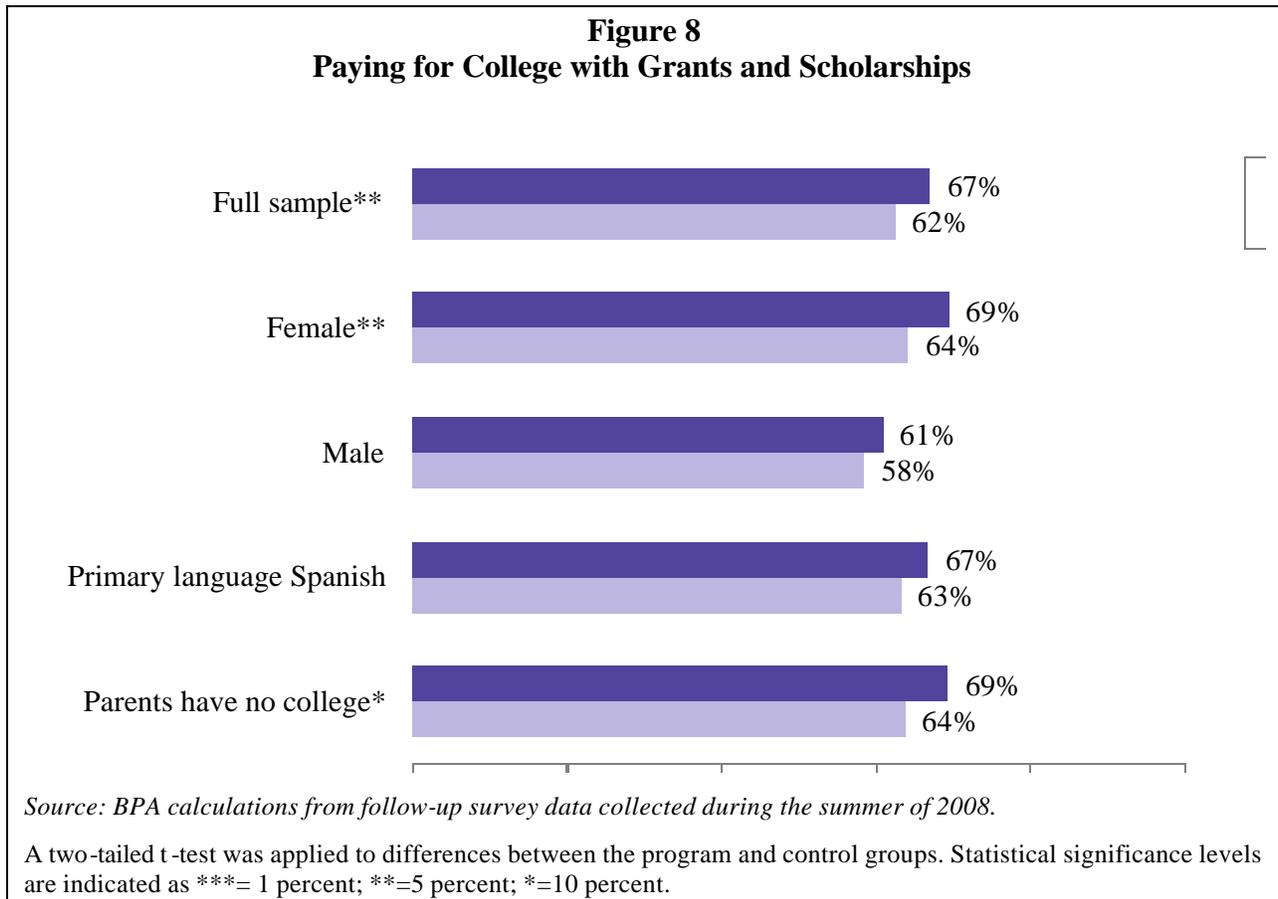


Figure 8 addresses how students were paying for college. The impact estimates suggest that not only did SOURCE increase receipt of a Cal Grant, but it also increased the number of students reporting the ability to pay for college with grants and scholarships by some 4.7 percentage points over the control group in the full sample. Disaggregating by gender shows again more impact for female participants. Here too the impact estimates suggest that this extended to students whose parents did not attend college, increasing grants and scholarships by 5.5 percentage points over the control group.



As suggested, impact estimates do not show a program impact on the issue of paying for college with student loans, either for the full sample or for any of the key subgroups (gender; Spanish; parents with no college).

Summary and Next Steps

This report indicates that the SOURCE program had a statistically significant impact on the college preparation, application, enrollment and financial application and receipt outcomes of the LAUSD students who participated in the program. The program appears to have positively impacted their SAT taking, enrollment in the University of California or California State University, and FAFSA and other financial aid application and receipt, when compared with the control group.

For our final report (September 30, 2010), we plan to complete our analysis of the updated match with NSC data to verify college enrollment and measure program effects on persistence in college. In order to assess the relationship between moderating implementation factors and outcomes, we also plan to examine advisor versus student location (by zip code) in relation to college and financial aid outcomes. Next, we plan to pursue further subgroup analysis that may help further determine whether the impacts of SOURCE varied by additional demographic characteristics beyond the ones identified in this report (student gender, primary language Spanish, and parents with no college). Lastly, we plan to prepare several manuscripts for peer-reviewed publication.