

Free Transit for Low-Income Youth Experience in San Francisco Bay Area, California

Noreen McDonald, Sally Librera, and Elizabeth Deakin

In August 2002, AC Transit—the principal bus operator serving the eastern shore of the San Francisco Bay—began distributing free bus passes to low-income middle school and high school students in the transit service district. The program developed in response to grassroots community activism and growing political pressure to remove the burden of school transportation costs from low-income households. Advocates argued that school transportation costs were a barrier that prevented poor children from participating in after-school activities and, in severe cases, led to missed days of school. Funding for a pilot bus pass program was provided by the transit agency, the Metropolitan Transportation Commission, local agencies, and several nonprofit organizations. The University of California, Berkeley, was funded to carry out an evaluation of the program during the first year of the program. Before-and-after travel and activity surveys, interviews, focus group meetings, and analysis of attendance data were used in the evaluation. Findings after 1 year of implementation indicate that the free bus pass program increased student bus ridership and after-school participation but did not increase overall school attendance. Increases in bus use were greater among pass holders, in areas with high levels of bus service, and among high school students.

In August 2002, AC Transit—the main bus operator on the eastern shore of San Francisco Bay, California—began offering free bus passes to low-income middle and high school students. At the same time, the agency reduced the cost of its monthly youth pass from \$27 to \$15. This dramatic reduction in costs for student riders resulted from a grassroots advocacy campaign that successfully focused local political attention on school transportation in an area where school busing had largely been eliminated for middle school and high school students.

The creation of the program drew together state and local elected officials, youth advocates, schools, and transportation agencies. Across these diverse groups were a wide range of goals. Some of the primary goals for the program were improving social equity by lessening the financial burden on low-income families and increasing opportunities for low-income students, improving school attendance rates, increasing participation in after-school and weekend enrichment programs, and speeding boarding times by encouraging students to use passes instead of pay with cash.

The 2-year demonstration project began in fall 2002 with funding from the Metropolitan Transportation Commission (MTC) Low-Income Flexible Transportation (LIFT) program as well as from the

transit operator and several nonprofit organizations. Financial shortfalls in the AC Transit budget led to a midcourse restructuring of the program. At the end of the first year, the AC Transit Board eliminated the free bus pass for low-income students, and requested that the remaining LIFT funds be used to support a \$15 monthly pass for all youth.

This paper reports the effects of the program during the first year, particularly its effects on youth travel patterns, after-school participation, and school attendance. These findings are drawn from work conducted as part of an evaluation funded by MTC.

PROJECT BACKGROUND

In most of the AC Transit service area, school buses have been eliminated for middle and high school students. In one district where such service still exists, students must pay to ride the school bus. It means that the cost of school transportation has been shifted from school districts to families and students. Concern about the cost burden of school transportation on low-income students first arose in the West Contra Costa school district, located at the northern end of AC Transit's service area, where excessively high absenteeism rates in the schools led to a \$1 million penalty in state funding. Many people believed that an important cause of these poor attendance rates was students' inability to afford bus fare, citing decreased attendance during the last week of the month.

The idea of addressing the affordability of school transportation by subsidizing public transit arose as a grassroots effort. For example, at one West Contra Costa middle school, an office worker raised funds to purchase bus tickets that she then distributed to needy students. This process became more formal after the district received a grant in the late 1990s to purchase bus tickets and distribute them at some middle schools. After grant funding ended, the West Contra Costa Transportation Advisory Committee (WCCTAC) allocated local sales tax funds during spring 2002 to purchase bus tickets and distribute them to all middle and high schools in the district (S. Brenner, personal communication, Feb. 3, 2003). Other districts have also had programs in place to assist students who had difficulty paying the cost of transport to school. Schools purchased bus tickets and distributed them to students as needed. This service was not advertised widely and focused on students with severe problems, such as homelessness.

This situation, particularly in West Contra Costa, began to gain attention from local elected officials in the late 1990s. In 1999, Assembly Member Dion Aroner sponsored AB 537, which would have created an "alternative formula for funding home-to-school transportation in the West Contra Costa Unified School District." The bill sought to make WCC's funding comparable to that of districts operating their own yellow school bus fleets. However, the bill

Department of City and Regional Planning, University of California, Berkeley, 228 Wurster Hall #1850, Berkeley, CA 94720-1850.

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did not move forward because of potential impacts on funding formulas in other large urban school districts (E. Jewel, personal communication, Nov. 14, 2002).

The second impetus for the program was AC Transit's fare restructuring. Pacific Transit Management, working in conjunction with AC Transit staff, found that a large portion of run time on trunk lines was spent waiting for passengers to enter and exit (1). To improve operations, they suggested creating a fare structure that would encourage passengers to purchase passes. The initial evaluation indicated that students would be one of the easiest groups to target and that they were currently underutilizing monthly youth passes. The proposal was to create a \$100 annual pass and make the single ride fare for middle school and high school students the same as the adult fare. The program was designed to be revenue neutral.

Concern about the ability of low-income families to afford the up-front cost of bus passes led to discussions of creating a pilot project to offer free bus passes to this group. Because such a project would require outside funding, local elected officials were contacted. Politicians including Assembly Member Aroner, Supervisor Keith Carson of Alameda County, Supervisor John Gioia of Contra Costa County, and community groups worked together with AC Transit to structure and fund a low-income bus pass program in the East Bay. The group approached MTC for funding. Three months of sometimes difficult negotiations resulted in an agreement to provide \$2 million to fund a 2-year pilot project for low-income bus passes within the AC Transit service area. The final program structure included a \$150 annual pass, a monthly student bus pass at a reduced rate of \$15 (versus \$27), and a free bus pass for low-income students.

Initial estimates of program costs were \$3.75 million per year, including the cost of only the subsidy and not administration (1). However, without reliable data on the true size of the low-income student bus rider population, estimates were very rough. Funding came from MTC's LIFT program (\$1 million per year for 2 years), the Alameda County Congestion Management Agency (\$0.5 million), Contra Costa County Social Services (\$0.1 million per year for 2 years), Alameda County Social Services (\$0.06 million), Kaiser Permanente (\$0.05 million per year for 2 years), the Women's Foundation (\$0.02 million), and the State Street California Foundation (\$0.0095 million). AC Transit contributed \$400,000 in matching funds, devoted significant staff time, and ultimately lost substantial revenue because of the program.

Originally, the bus pass program was intended to directly link to the Free and Reduced Lunch (FRL) program (i.e., all students who qualified for FRL would automatically receive a free bus pass). Linking the bus pass program to the FRL program was attractive to AC Transit because it eliminated the need for applications; it was attractive to the schools, who hoped that the bus pass would encourage more students to apply for FRL. Historically, students are less likely to apply for FRL as they get older, even if they qualify. The decrease in applications adversely impacts school funding because Title I monies for disadvantaged students are allocated based on the number of students enrolled in the FRL program. However, there are strict confidentiality requirements in the FRL program. Concerns about and differing interpretations of the regulations caused program architects to create a separate application for the bus pass program using the same eligibility requirements as the FRL program. This decision increased the administrative burden of the program and eliminated the possibility of increasing FRL applications by linking to the bus pass. The lack of clarity on these points increased the costs and complexity of the program.

Severe budget problems at AC Transit led to reevaluation of the program after its first year. The board voted to eliminate the free bus pass for low-income students and to institute instead a reduced-fare pass. A two-tiered pricing structure based on income level was rejected because neither the schools nor the transit district could afford the cost of administering and monitoring such a program. School sites lack the resources to handle cash sales monthly, and a reduced price based on a school-issued qualification sticker raised concerns about accountability among private vendors. Thus, the second year of the program will discontinue the free bus pass and use remaining project funds to support a \$15 monthly pass for all youth.

The evaluation of AC Transit's bus pass program reflects the findings of the first year of the program, when low-income students could obtain free passes and other students could get discount passes for \$15/month.

PREVIOUS RESEARCH

The evaluation research addressed each of the arguments that supporters of the free and deeply discounted student passes had made: free and discount student passes would increase transit use, allow low-income students to improve school attendance, and lead to greater participation in after-school activities.

Although the latter two issues were emphasized by some of the pilot program's supporters and funding agencies, the research team noted that it could take many years for significant change in attendance and participation to become noticeable. Education research indicates that student attendance and participation in school activities is influenced by the long-term interaction of diverse family, academic, social, and individual factors. Short-term, single-focus policies such as the bus pass program will face significant difficulty in altering student behavior given the long-term, complex nature of its development.

Student Travel Patterns

Student travel patterns are known to be affected by the age and gender of the student; household vehicle availability; whether the student has a driver's license (or is of an age when friends do); distance to frequent destinations such as school; ambient conditions including weather, traffic levels, crime rates, and other safety factors; and parental attitudes and availability. For the trip to school, the availability of school busing—and for older students, the ability to drive a car to school—are important factors affecting travel patterns.

Research on student travel patterns has examined parental permission or "license" for the student to travel independently. Hillman et al. found that English schoolchildren held fewer transport licenses in 1990 than in 1971 (2). For example, 50% of junior schoolchildren (under 11) were allowed to ride buses alone in 1971, while only 14% were allowed to do so in 1991. In 1990, more students were driven at the expense of walking trips. Gender differences were also important, with boys twice as likely as the girls to make the school journey on their own or with someone of their own age (2).

A study of U.S. children found that the biggest barriers to walking and biking to school were long distances (55%), traffic danger (40%), adverse weather conditions (24%), crime danger (18%), and opposing school policy (7%) (3). Parents of younger children (5–11 years) were more concerned about traffic and crime danger than were the parents of older children (3).

A small body of literature on teenagers' attitudes toward travel hints that travel may be less of a derived demand for them than it is for adults. Two studies that conducted in-depth interviews with teenagers found that many trips are taken for social reasons (4, 5).

School Achievement and Attendance

Research indicates that students' academic performance is significantly affected by their presence in school. The Division of Assessment and Accountability of the New York City Board of Education concluded that attendance and performance are not only strongly associated but that student attendance is a strong predictor of student achievement in reading and math: After controlling for student demographics, "student attendance explained as much as 13.9 % of variation in students' reading and mathematics test scores" for elementary and middle school students in New York City (6).

The New York City Board of Education findings support the conclusions of prior studies indicating the strength of student attendance in predicting student achievement. Lamdin includes school attendance as a predictor in production function and regression models designed to explain student achievement in public schools in Baltimore, Md., and finds that attendance has a strong, positive effect on student performance on standardized exams (7). Caldas reports similar findings after running input-output analyses with Louisiana public school data: Student attendance significantly affects academic performance on standardized exams, and this effect is greater in urban areas (8).

However, research also indicates that that students' level of participation in school reflects a life-long process of adjusting to pressures and opportunities that are mediated by social, academic, economic, and personal factors. Socioeconomic standing (particularly household income), previous academic performance, parental support, and engagement in school activities are some of the factors that influence truancy (9, 10). Clearly, transportation is only one variable.

Summary

Previous research indicates that student travel is affected by time and distance, vehicle availability, weather, safety concerns, and preferences of parents as well as of students. Research also has found that school performance is affected by attendance, which increases with income and is improved for all income groups by participation in after-school activities. However, attendance is a complex issue with many interrelated factors, and students' attendance patterns develop over many years. No research was found that directly linked transit affordability and use to student attendance and participation, the questions asked in this study.

METHODOLOGY

The research question was to determine how free transit affects youth travel, school attendance, and participation in after-school activities. The study design relied on before and after surveys, interviews, focus groups, and ridership analyses to assess AC Transit's student pass program. These data were used to evaluate travel patterns, school attendance, activity participation, and other benefits and costs.

Because of time constraints and human subjects' protocols, it was not possible to follow the same students before and after the intro-

duction of the free passes (i.e., a panel study). Instead, the same schools were studied in the 2001–2002 and 2002–2003 school years. The AC Transit service area covers more than 80 schools. We sampled approximately 20% of the schools using location in the region, FRL levels, and race as criteria. The goal was to match the profile of the sample schools to the entire service area. Ultimately, 17 schools were chosen; Figure 1 is a map showing the locations of the evaluation schools chosen to represent the geographic, economic, and ethnic diversity of the AC Transit service district.

Studying the impacts of the new transit fares on youth travel patterns, after-school participation, and school attendance required the use of quantitative and qualitative methods. Surveys, focus groups, interviews, and school attendance data were used to answer the research questions. Surveys were administered before (May 2002) and after (May 2003) program implementation. Weather conditions and academic schedules were essentially the same for the two survey periods, leading to highly comparable results: 1,073 surveys were collected in 2002 and 1,234 in 2003.

Surveys were administered at the evaluation schools in representative classes (e.g., English and Social Studies) that all students are required to take. Although students had the option of not participating in the survey, the response rate was nearly 100%. The survey instrument asked about travel mode to school and after-school activities, bus payment methods, weekend bus ridership, and household demographics. The survey took approximately 10 min to complete. Analysis of survey data helped answer questions about the characteristics of students receiving the pass and youth travel patterns.

During April and May 2003, researchers conducted a series of nine focus groups with parents and students. Recruitment for these meetings was school based and focused on four schools chosen because of their variation across geography, proportion of students receiving FRL, and bus pass usage. These discussions touched on many issues but were particularly useful in understanding what types of trips students made using the bus pass and how the bus passes had affected their travel patterns and participation in after-school activities.

Interviews with after-school program coordinators and truancy officers provided perspectives on how the bus passes were affecting attendance at school and after-school programs. Researchers spoke with 14 coordinators of programs (school based and not). Interview questions focused on changes in overall student participation, the demographic characteristics of students in after-school programs, bus ridership after school, and the effect of the bus pass program on activity participation. Nine truancy officers were interviewed to better understand how the new bus fare policy was affecting students with the most severe attendance problems.

School attendance data were provided by four school districts that together account for 85% of the bus passes distributed to students in the 2002–2003 school year. This sample included the two largest districts participating in the program, Oakland and West Contra Costa, which distributed more than 75% of the free passes given to students. The four districts provided attendance rates for all students during spring 2002 and spring 2003. Only the spring semester was considered, because many schools did not distribute passes until November or December 2002. The data sets allowed for the direct comparison of changes in attendance rates for students with and without the free bus pass.

A major methodological challenge for this research is that it looks at changes during only 1 year of the program. As the review of previous research indicated, the impacts of many programs targeted at youth emerge over a long time. For example, consider a male student

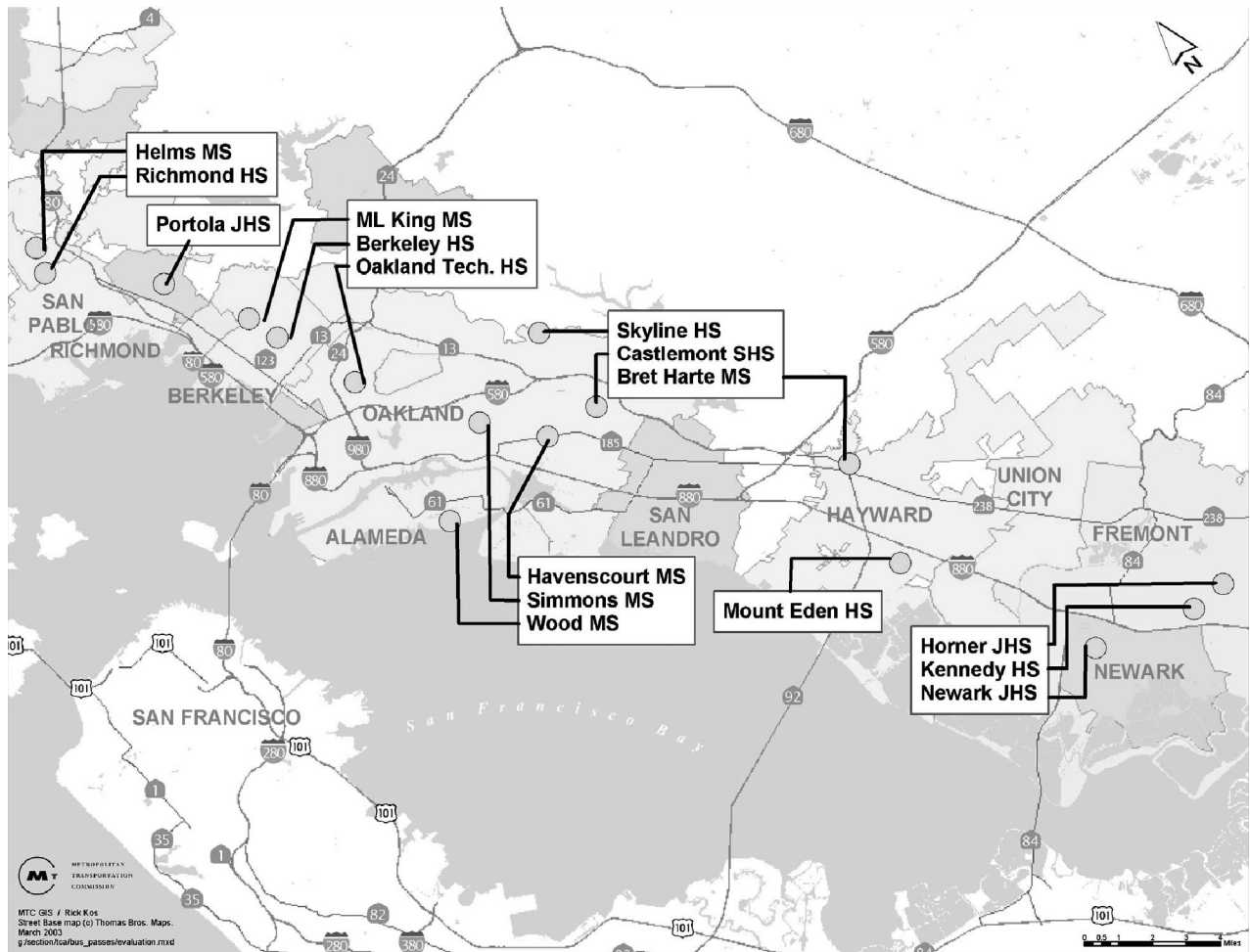


FIGURE 1 Locations of evaluation schools (MS, middle school; HS, high school; JHS, junior high school).

who originally began missing school as a seventh grader because he could not afford bus fare. Introduction of a free bus pass when this student is a senior may have no effect on his attendance because he has become used to missing school. Instead, the program may be more effective at creating good habits among younger students so that they don't develop attendance problems. Despite this caveat, it is useful for transportation planners to study youth travel behavior and the immediate effects of fare changes on behavior.

ANALYSIS

Although research suggests that a free bus pass program probably would not significantly alter student attendance in 1 year, a noticeable effect on travel behavior is a reasonable expectation. Schools reported distributing 24,046 free passes to the 100,074 students in their schools. School attendance data showed no overall increase in attendance figures over the 1-year study.

However, survey results showed that, overall, students with free bus passes increased ridership to school and in some cases reported higher ridership after school. Interview findings indicated that after-school participation did increase, suggesting a more direct relationship between the availability of a transit ride home and participation after school. Pass holders reported varying degrees of ridership

changes; significant differences exist across geographic and racial and ethnic lines, even among students of similar economic standing.

Travel Patterns

Companion surveys of more than 1,000 students in May 2002 and more than 1,200 students in May 2003 were designed and administered to examine changes in bus ridership during the first year of the pilot program. The surveys covered the general school population (i.e., students without bus passes, students with regular student bus passes, and students with free bus passes). The surveys asked students about their mode of travel to school, participation and mode of travel to after-school activities, and mode of travel home. Results showed little change in the overall proportion of students riding the bus to school, but students with free bus passes increased their bus ridership to school from 2002 to 2003.

School Travel

Although overall bus-to-school mode shares did not vary significantly in the two survey years, students receiving the free bus pass did increase their use of the public bus. The 2003 survey asked students

to report their mode to school on the survey day (2002–2003 school year) as well as their usual mode to school during the 2001–2002 school year. Because of daily variation in travel modes, one would expect the number of students reporting that they usually ride the bus to be higher than the proportion riding on any given day; survey data indicate that this is true for all students. For example, 32% of the students responding to the survey reported usually using the public bus during the previous school year; 27% reported riding the bus on the survey day. This pattern reverses for students with free bus passes (Figure 2), suggesting that students who receive free bus passes are using the bus more than they were previously.

Geographic Differences in Bus Use

There are important differences across the AC Transit service district in land use patterns and levels of bus service. In general, the northern areas of the district are denser, and land use patterns are more supportive of public transit use. The northern areas also account for the great majority of free bus passes distributed to students. We compared student bus use in the northern areas (Oakland, Berkeley, and West Contra Costa) with that in the southern portion of the district (Alameda, Hayward, Newark, and Fremont). Because middle school and high school students exhibited different mode usage patterns, each group was compared separately.

Students’ level of bus travel to school is far higher in the northern portion of the district than in the south but did not change significantly with the introduction of the free bus pass in either area. However, the introduction of the free bus pass appears to have affected bus ridership for after-school programs and trips home. For example, middle school students in the northern areas experienced a 13% increase in bus ridership to after-school activities. This increase appears to have come from walking and biking, which experienced a corresponding 13% decrease (Table 1). For trips home, high school students in the north experienced an 8% increase in bus ridership; bus ridership by high school students in the southern area decreased by 20% (Table 2).

Racial and Ethnic Differences in Bus Pass Use

Student bus usage patterns vary significantly with race and ethnicity. For example, the proportion of free bus pass holders that ride the

bus to school in the mornings varies from 26% for Asian students to 67% for Black students (Figure 3). Considering that this variation occurs among students of similar economic backgrounds, it is quite impressive. However, when one considers the trip home from school, there is much less racial variation in bus mode shares.

The survey and focus group discussions with students and parents provided evidence and insights about these differences in bus pass use. The differences appear to derive from different beliefs about when it is appropriate for children to ride the public bus by themselves; for example, Asian and Hispanic parents reportedly wanted to see for themselves that their children arrived at school in the morning; were concerned about safety at bus stops, especially after dark; and were concerned about their children traveling unsupervised on the same bus as adult strangers. Parents of other races and ethnicities expressed fewer concerns about these issues.

In addition, Asian and Hispanic students appeared to have greater ability to coordinate morning trips with parents than students of other races and ethnicities did. Parental work schedules and car availability are likely explanations for this, because Asian and Hispanic students who received free bus passes reported higher household vehicle ownership (2.3 vehicles per household) than other students who received free bus passes (1.8 vehicles per household). This difference is statistically significant at a 95% confidence level.

Weekend Ridership

Another objective of the bus pass program was to increase low-income students’ exposure to the greater surrounding area and enhance their ability to explore the East Bay. Discretionary travel is an indicator of students’ access to weekend employment and programs as well as cultural events in the AC Transit district. Weekend ridership figures for low-income students in the service area increased between 2002 and 2003. The percent of low-income students reporting frequent ridership (at least once per month) increased from 42% in 2001 to 45% in 2003, compared with 40% of all students who reported this frequency of weekend use each year. Although this increase suggests that low-income students were riding more on weekends in 2003, the change is not statistically significant.

Students with bus passes were significantly more likely than students without bus passes to report riding the bus on weekends. This pattern was consistent for students who had the free and reduced-price

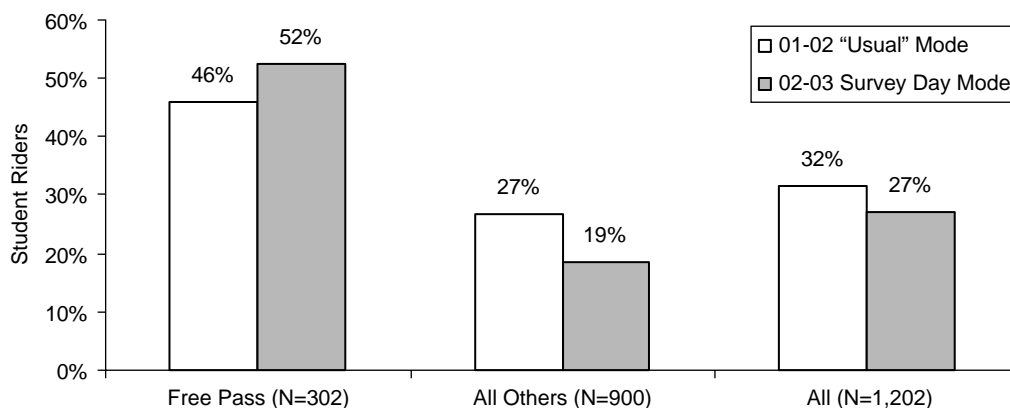


FIGURE 2 Comparison of the proportion of students riding the bus to school before and after free pass program (SOURCE: May 2003 student survey).

TABLE 1 Middle School Students' Mode Share to After-School Activities, by Geographic Area

	Northern Areas			Southern Areas			All Areas		
	2002	2003	Change	2002	2003	Change	2002	2003	Change
Bus^a	21%	34%	13% ^b	20%	15%	-5%	20%	22%	3%
Car	30%	32%	2%	41%	50%	9%	35%	40%	6%
BART	2%	1%	-2%	0%	0%	0%	2%	1%	-1%
Walked/Biked	44%	34%	-13% ^b	39%	36%	-4%	44%	37%	7% ^b
	100%	100%		100%	100%		100%	100%	
Total	N=158	N=157		N=110	N=151		N=268	N=308	

Totals may not sum to 100% because of rounding; BART, Bay Area Rapid Transit.

^aBus includes public bus and school bus.

^bDenotes statistical significance within a 95% confidence interval.

SOURCE: May 2002 and May 2003 student surveys.

monthly bus passes. More than 60% of each group indicated they ride often or sometimes on the weekends. Although they may influence students' weekend travel patterns, bus passes probably are not the only factor contributing to higher weekend ridership. The higher proportion of pass holders reporting weekend riding may reflect the travel characteristics of people with fewer financial resources, mainly higher bus ridership. However, only 35% of students with a reduced-price monthly bus pass who completed the survey were from low-income households; this suggests that weekend ridership extends beyond the travel characteristics associated with a lower-income population. Rather, the significant ridership reported by holders of both free and monthly bus passes suggests that owning a bus pass influences ridership for discretionary travel, and students with bus passes are more likely to ride the bus on weekends.

Attendance

School Attendance

Conversations with truancy prevention coordinators throughout the AC Transit service area reinforced the complexity of improving student attendance. Each coordinator emphasized that truancy and transportation are linked, but successful reduction of truancy demands more than a transit policy. Coordinators consistently mentioned that transportation efforts stand a better chance of curbing truancy among middle school students than effectively addressing the absenteeism of high school students. Older students are more likely to have substantial skill deficits as a result of chronic absen-

teism that make reentry into school significantly less likely. Nonetheless, officers report that truant students regularly ride the bus when they do attend school, and a bus pass program is an important component of a comprehensive policy.

To evaluate changes in student attendance rates before and after program implementation, detailed records were collected from the evaluation schools of four of the seven school districts involved in the pilot program. These records contained the 2001–2002 and 2002–2003 attendance rates for more than 10,000 students. Data analysis yielded no significant change in attendance from spring 2002 to spring 2003 among students overall. Attendance rates among bus pass holders also remained constant, even when analyzed across age, gender, and racial and ethnic groups. The lack of significant effects was not surprising, given the findings from previous research on the complex set of factors affecting school attendance. Although individual cases of improved attendance are plausible and were confirmed during focus groups and interviews, the short evaluation time and limited scope of the bus pass policy made affecting student attendance across the board an unlikely outcome of the pilot project after only 1 year.

After-School Program Attendance

Although the district records did not indicate that attendance rates increased with the introduction of the bus pass program, after-school program coordinators overwhelmingly reported significant increases in participation between spring 2002 and spring 2003. Coordinators described significant bus ridership after school, but stressed that

TABLE 2 High School Students' Mode Share to Home, by Geographic Area

	Northern Areas			Southern Areas			All Areas		
	2002	2003	Change	2002	2003	Change	2002	2003	Change
Bus^a	36%	45%	8% ^b	39%	19%	-20% ^b	37%	38%	1%
Car	30%	39%	9% ^b	49%	64%	15% ^b	34%	45%	11% ^b
BART	12%	2%	-10% ^b	1%	0%	-1%	9%	2%	-8% ^b
Walked/Biked	22%	14%	-8% ^b	11%	17%	7% ^b	20%	15%	-5%
	100%	100%		100%	100%		100%	100%	
Total	N=301	N=471		N=110	N=189		N=411	N=660	

Totals may not sum to 100% because of rounding.

^aBus includes public bus and school bus.

^bDenotes statistical significance within a 95% confidence interval.

SOURCE: May 2002 and May 2003 student surveys.

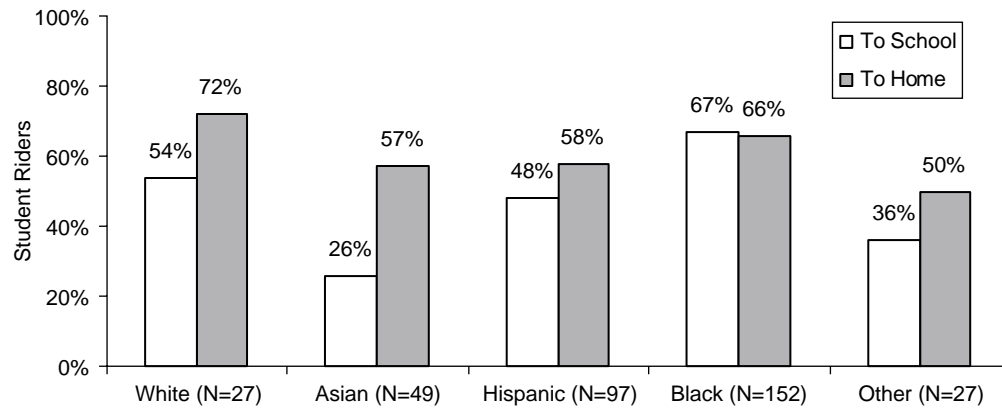


FIGURE 3 Bus mode share to school for bus pass holders, 2003 (SOURCE: May 2003 student survey).

safety concerns and student age are major factors influencing mode choice. Similar to truancy officers' interpretation of student attendance, after-school program coordinators stressed that many factors contribute to a strong program but consistently named transportation as a key component.

Each of the coordinators interviewed directed an after-school program for middle or high school students at a school or a community center in 2002–2003. Although coordinators were largely unable to identify which students were using bus passes after school, nearly all coordinators described the majority of their students as qualifying for the FRL program and therefore for free bus passes as well. Most after-school program organizers described at least half of their students as riding the bus to or from their programs, and ridership figures for high school students were higher than those for middle school students.

Coordinators cited many challenges in increasing after-school attendance, but primarily transportation and funding. High school coordinators were more likely to mention transportation as a top priority, particularly because many high school programs are not school based. Middle school coordinators explained that the free bus pass program makes student involvement easier because students are more likely to stay after school when they do not have to plan ahead and arrange transportation to do so. High school program coordinators indicated the free bus pass program was an incentive for students to participate in programs or work off campus after school.

Coordinators also emphasized that transportation cost is not the only factor affecting bus ridership, which in turn affects after-school participation. When asked about ridership after school hours, many site leaders—particularly those working with younger students—cited bus stop safety as a major issue, especially when programs end close to dark during the winter months. About half of middle school coordinators described the bus stop closest to their site as unsafe after dark, and some reported concerns about safety during daylight hours as well. Middle school coordinators cited examples of students who were not allowed to stay after school unless they had secured a ride home. High school coordinators were less likely to report concerns about safety, but several leaders did describe the closest bus stop as unsafe after dark.

After-school program coordinators noted that student participation is challenged by various factors, ranging from program costs to peer pressure to competing individual responsibilities. Yet transportation remains at the top of the list when program coordinators

describe the most important factors in building a solid program. Coordinators' input highlights the need for not simply free transit but a safe alternative to travel in a private vehicle. Although evidence suggests after-school participation increased with the introduction of the free bus passes, the effectiveness of the program was likely mediated by other factors, particularly site safety.

CONCLUSION

Increased discretionary and nondiscretionary bus ridership among holders of the free bus passes and increased after-school participation among all students support the claim that AC Transit's free bus pass project broadened academic and cultural opportunities for low-income students in its service area. However, the researchers' findings after 1 year of program implementation indicate that the free bus pass program has not uniformly affected bus ridership, attendance, or program participation for pass holders. Rather, varying changes in ridership among free bus pass holders indicate that the effect of the free bus pass program significantly depends on its interaction with other demographic or cultural factors.

Ridership after school among free bus pass holders residing in the denser, more transit-accessible northern portion of the AC Transit service area rose significantly with the introduction of the free bus pass, yet low-income students in the southern school districts decreased bus ridership after school hours. Similarly, varied ridership patterns across low-income students of different racial and ethnic groups suggest that bus ridership extends beyond the issue of cost and incorporates larger cultural interpretations of safety and independence.

Just as ridership is affected by the interaction of many factors, interview findings and attendance analysis support previous findings that student attendance is a complex issue that demands comprehensive, long-term policies to affect significant change. After-school coordinators repeatedly mentioned that transportation is crucial to participation in after-school activities, but neighborhood safety is an obstacle for bus ridership that is not addressed by the availability of a free bus pass. Truancy prevention coordinators stressed the multitude of factors that contribute to chronic absenteeism and the need for transportation elements in a broader attendance policy.

This analysis and previous research clearly indicate that a multiple-year research design is needed to understand the full impacts of this

program and that these results will vary considerably given the broader cultural, environmental, and academic factors in place.

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