The Global ARC
Global Action Research Center
Cultivating Rooted Community

# YOUTH OPPORTUNITY PASS PILOT PROGRAM ASSESSMENT YEAR 1

STRATEGIC COMMUNITY CONSULTING
UCSD SCHOOL OF INTERNATIONAL RELATIONS AND PACIFIC STUDIES

APRIL 2015

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This research is the result of a collaborative effort by the Global ARC, Strategic Community Consulting, San Diego Unified School District, and Mid-City CAN

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## EXECUTIVE SUMMARY:

In the fall of 2013 San Diego Unified School District (SDUSD) in partnership with Mid-City CAN, the City of San Diego and the Metropolitan Transit System (MTS) launched a pilot program aimed at providing 1000 high school students with free bus passes for the school year. The passes were distributed among Crawford, Hoover, Lincoln, and San Diego high schools between October 2013 and March 2014. It is important to note that the drive that ultimately resulted in the awarding of the bus passes came from a group of City Heights' residents, mostly mothers and grandmothers, who saw their children and grandchildren struggle every day to make it through school successfully. These residents, members of Mid-City CAN's "Improved Transportation for City Heights" (ITCH), brought the issue to the forefront and worked with the School Board, the City Council and MTS in order to create the political will to fund the program. This point is important because this report is a presentation of their perspective (the students and their adult caretakers - parents and grandparents) on the role access to public transit plays or can play in addressing the disparities in education that exist between the schools that they or their children attend and those in wealthier communities within the SDUSD. The members of ITCH hold a perspective on the challenges facing these youth that is unique among stakeholders. While the educational system, the juvenile justice system, the social service system, etc. all have a stake in the development of the community's youth, none have a higher one than the youth and their families. Additionally, their perspectives on the challenges facing youth in low-income communities, their children, is critical to fully and authentically addressing those challenges.

The challenges facing youth growing up in low-income communities are multi-faceted and highly complex. Academic achievement is one of the best indicators of how well youth are doing in a community. The interplay between health and educational achievement in youth is highly documented and the data on educational outcomes indicate that the youth in the communities connected to these schools are not doing well. What is important to note here is that academic achievement is not a district-wide problem. It is one that is concentrated in schools in low-income neighborhoods. In fact, SDUSD was recently recognized for having the highest graduation rate in the State, yet the average graduation rate for the schools in this project are as much 25% less than the rates at high schools in wealthier neighborhoods within the District.

This report is constructed around the Theory of Change developed by ITCH. Through their campaign to secure these passes, the residents developed an understanding of the importance of these passes to their child's education. In particular, their theory is that increasing a student's access to public transit will increase their mobility and sense of safety that, in turn, will lead to greater academic achievement and greater access to opportunity. The passes will:

- Encourage and incentivize regular school attendance
- Increase safety for children going to and from school
- Increase access to extracurricular activities and job opportunities
- Encourage and incentivize public transit ridership

If the student is viewed as one of many youth attempting to move through a competitive obstacle course in order to achieve a particular goal (high school diploma and on the path to technical school or college) then it is important to understand that not all students in the competition are carrying the same amount of weight through the obstacle course. One way to understand the differences in the educational outcomes highlighted above is to understand that the load students in low-income neighborhoods carry is often much heavier than that of their counterparts in the wealthier communities. For the members of ITCH, access to public transit was one of the ways to make the load lighter and increase their chances for success.

## FINDINGS:

ITCH's Theory of Change reflects an understanding of the complexity of issues such as academic achievement. From their close-up vantage point they can see their youth struggle every day and saw access to public transit as one concrete thing that could support the youth in their struggle. In particular, they believe that these passes will do the four things listed above. The data on attendance support this most directly and the data on safety, though less direct, suggests that treatment group students had to confront crime, bullying, and/or sexual harassment less than their counterparts in the control group. The findings on the impact of the Youth Opportunity Passes on mobility are more complex. The data indicate that the treatment group used public transit to get to and from school more than the control group. However, this pattern did not exist in the use of public transit for extra-curricular activities, employment and other non-school activities. In these cases the control group reported using public transit more than the treatment group. However, both treatment and control groups increased their use of public transit for these purposes.

As noted in the opening, the passes were distributed between October 2014 and March 2015 with nearly all distributed by December 2014. Because of the timing of the distribution of passes the findings reported here only cover a six to seven month period (November 2013 to June 2014). Because of the abbreviated time these finding should be viewed as emerging trends rather than conclusive results. The Theory of Change states that the Youth Opportunity Passes will increase mobility and safety and that increase will lead to improvement in academic achievement and expansion of opportunities. Because the latter two are contingent upon the former two, it is not reasonable to expect much change in the short period being studied. There is a natural lag-time between access to public transit and the impact of that access.

**Safety:** The Youth Opportunity Passes appears to have had an impact on student safety. While the treatment group only saw a small drop overall in witnessing and/or being victimized by crime and/or bullying (-1.0% and -0.2%) and slight increase (+0.4%) in witnessing and/or being victimized by sexual harassment, the control group saw an overall increase in witnessing and/or being victimized in crime (+2.3%), bullying (+6.2%) and sexual harassment (+4.0%). These findings suggest that the students in the treatment group had to confront crime, bullying, and/or sexual harassment less than their counterparts in the control group.

Safety is a critical issue. The Key Informants in the Alameda study named safety as the reason there was an increase in student participation in extra-curricular activities. The cost-benefit analysis conducted by Los Angeles Department of Public Health identified increased safety as one of the potential benefits of free youth passes. San Diego is the only project to have assessed the students' sense of safety directly.

**Mobility:** The findings on the impact of the Youth Opportunity Pass on mobility are more complex than seen on safety. The survey data on the use of the passes to get to and from school exhibit the same pattern as in safety, i.e., the treatment group used the passes more than the control group. This pattern, however, is not evident in the data on the use of public transit for extra-curricular activities, employment and non-school activities. In the use of public transit for going to and from school alone the treatment group shows almost no change (-1% and +1%) while the control group shows a drop of 10% and 12%. The pattern also exists for using public transit to get to and from school with friends where the treatment groups shows almost now change (+1%, 0%) and the control group shows a drop in usage (0% and -4%). In the use of public transit for other activities the control group appears to use it more than the treatment group. However, both the treatment and control groups report an increase in use of public transit (+2.2% and +8.1% respectively) which bodes well for future ridership. MTS data on the percent of Youth Opportunity Passes used from November 2013 to June 2014 support the findings on increased ridership, showing a steady growth in usage from 28% to 80% over that time. In addition, the treatment group's reliance on their parents for rides from school dropped 12% while the control group increased by 1%. This finding is consistent with the student diaries and interviews that all speak to how the passes give

them greater freedom of movement because they don't need to get rides from their parents. The large drop in reliance on parents for rides from school within the treatment group speaks to the potential to convert these youth into lifelong public transit users. At the time of day when the youth want and need to be mobile most, those with passes are choosing public transit over rides with their parents.

**Academic Achievement:** Academic Achievement was assessed by looking at attendance, grades, and participation in extra-curricular activities.

- Attendance: The data shows a connection between the Youth Opportunity Pass and attendance. A comparison using standard scores shows the treatment group's attendance rate improved relative to the control group. Attendance in first period, a measure of tardiness, showed no change for either group over the year though the treatment group as a whole had better attendance. These findings are important as other research has not been able to establish a connection between passes and attendance.

- Grades: Because of the number of variables affecting it, student Grade Point Averages did not change as expected.

- Extra-Curricular Activities: While there was an overall increase in participation in extra-curricular activities, the data did not show the same pattern as with safety and transportation to and from school. For these activities the control group used public transit as much or more than the treatment group.

**Access to Opportunity**: These data show that about a quarter of students are working and just under half are looking for work. The data on extra-curricular activities, while not showing an impact by the Youth Opportunity Pass, do report an increase in the use of public transit across both treatment and control groups of 2.7% and 8.1% respectively

## Conclusions & Recommendations:

The members of ITCH pushed for these passes because they believed that they would achieve the four things listed above and there is much in the analysis presented here to suggest they are right. In fact, there is a broad consensus across educators, parents and students that access to transportation is a key variable in improving the academic achievement of students, particularly those living in low-income neighborhoods. While no one of the studies assessing the impact of youth transit passes by themselves make an ironclad argument for continuing and/or expanding programs providing transit passes to youth, taken together they are hard to ignore. The consistency in the findings and recommendations across these studies makes a strong argument for the value of the passes and for expanding the program. Each study points to ways in which youth benefit from having the pass, whether it is increased attendance, ability to participate in extra-curricular activities, getting to and from school and/or work safely, etc., all of which contribute to academic achievement.

Just as the Theory of Change makes it clear that there is no one, single solution, the holistic perspective of the youth and their adult caretakers makes it clear that it is also impossible to isolate the impact of any one intervention on youth achievement. The Youth Opportunity Pass is one piece of a puzzle. The student travel diaries and interviews tell how a youth with a pass is able to get back and forth from school more easily and efficiently, leaving more time for other things such as homework and/or family chores. Being able to contribute to the family increases the youth's self-confidence and relieves family stress by taking on some of the responsibilities. All of this contributes to the youth being able to focus more on his/her school work which contributes to academic success.

Again, if the student is viewed as one of many youth attempting to move through a competitive obstacle course in order to achieve a particular goal (high school diploma and on the path to technical school or college) then it is important to understand that not all students in the competition are carrying the same amount of weight on their backs as they move through that obstacle course. The load students in low-income neighborhoods carry is often much heavier than that of their counterparts in the wealthier communities. In addition to limited access to the internet after school, many students in low-income neighborhoods have to deal with inadequate access to food, unhealthy housing, unsafe neighborhoods, etc. Many of these youth also have enormous family responsibilities that compete with school work for their time. For the members of ITCH, access to public transit was one of the ways to make the load lighter and increase their chances for success.

This analysis recommends that the program be expanded and that resources be committed to fully administer and assess the program. Given that this assessment only covers a six to seven month period these results should be viewed as emerging trends rather than results and the trends reported here are quite strong. A clear picture of the impact of such passes can only be created by investing in a large scale, long-term program that provides adequate resources for administering and assessing the program. One suggested path would be to design a longitudinal study that would follow students throughout their four years in high school to assess the role access to public transit can play in addressing the disparities in outcomes between youth in low-income neighborhoods and youth in wealthier neighborhoods. One possible design would involve:

- Setting up two cohorts of students by selecting two of the four project schools and providing the Youth Opportunity Pass to all students at those schools the first year (or all freshmen). All the students (or freshmen) at the other two targeted schools would receive the pass in the second year.

- Tracking the students across their years in high school. Having cohorts makes it possible to avoid the use of a control group. Instead, the cohorts will be compared to each other. By waiting a year to award the passes to the second cohort they can serve as the control group.

Tracking students over their four years in high school allow for assessing the long term impact. If the previous research is accurate, it takes time for the access to public transit to have an impact. This design would track an entire class through their four years, documenting changes in key variables such as attendance, grades, etc. over that time. The second cohort would be the control group for the first. In addition, this analysis allows for tracking the trajectory of the two cohorts and comparing changes in key variables.

## INTRODUCTION:

**Background:**

In the fall of 2013 San Diego Unified School District (SDUSD) in partnership with Mid-City CAN, the City of San Diego and the Metropolitan Transit System (MTS) launched a pilot program aimed at providing 1000 high school students with free bus passes for the school year. The passes were distributed among Crawford, Hoover, Lincoln, and San Diego high schools. It is important to note that the drive that ultimately resulted in the awarding of the bus passes came from a group of City Heights' residents, mostly mothers and grandmothers, who saw their children and grandchildren struggle every day to make it through school successfully. These residents, members of Mid-City CAN's "Improved Transportation for City Heights" (ITCH), brought the issue to the forefront and worked with the School Board, the City Council and MTS in order to create the political will to fund the program. This point is important because this report is a presentation of their perspective (the students and their adult caretakers - parents and grandparents) on the role access to public transit plays or can play in addressing the disparities in education that exist between the schools that they or their children attend and those in wealthier communities within the SDUSD. The members of ITCH hold a perspective on the challenges facing these youth that is unique among stakeholders. While the educational system, the juvenile justice system, the social service system, etc. all have a stake in the development of the community's youth, none have a higher one than the youth and their families. Additionally, their perspectives on the challenges facing youth in low-income communities, their children, is critical to fully and authentically addressing those challenges.

The challenges facing youth growing up in low-income communities are multi-faceted and highly complex. Academic achievement is one of the best indicators of how well youth are doing in a community. The interplay between health and educational achievement in youth is highly documented and the data on educational outcomes indicate that the youth in the communities connected to these schools are not doing well. What is important to note here is that academic achievement is not a district-wide problem. It is one that is concentrated in schools in low-income neighborhoods. In fact, SDUSD was recently recognized for having the highest graduation rate in the State, yet the average graduation rate for the schools in this project are as much 25% less than the rates at high schools in wealthier neighborhoods within the District.

While the causes of these disparities are not clear the disparity in outcomes are. A comparison of the three of the high schools in the project (Crawford, Hoover and Lincoln) to three high schools within the District that are located in wealthier neighborhoods (La Jolla, Scripps Ranch and University City) using School Accountability Report Cards for 2012-2013 shows the wide gap in outcomes. The full comparison can be found in the appendices. Some of the key disparities are:

- Graduation rates range from 71% to 81% in the low-income neighborhoods and from 87% to 98% in the wealthier neighborhood
- Three times as many students in the wealthier neighborhoods take AP courses than students in the low-income neighborhoods
- While an average of 82% of the Class of 2016 is on track to graduate in the wealthier neighborhoods only 29% of the students in the high schools in this project are on track.
- Suspension rates range from 13% to 18% in low-income neighborhoods and 4% to 8% in wealthier neighborhoods

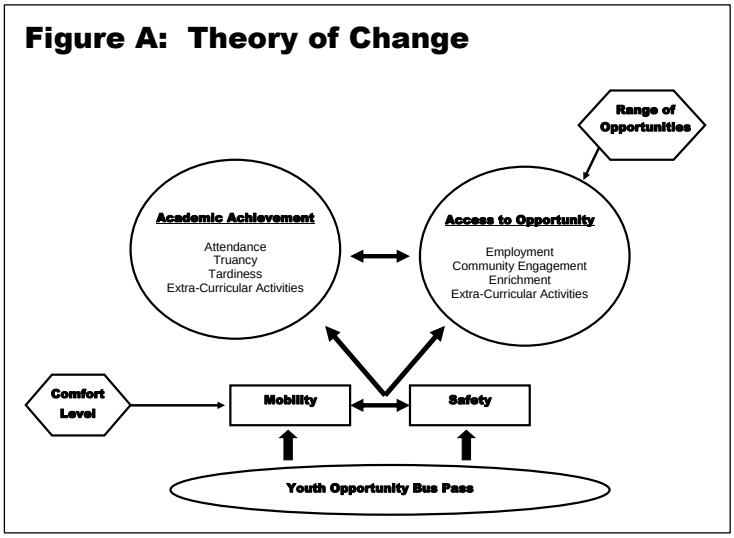
**Theory of Change**

One of the most discussed barriers to providing comprehensive strategies to address the complex challenges facing low-income youth is the silo'd nature of the services themselves. Schools work with one part of a child's life while the juvenile justice system works with another part of the child's life – neither seeing the entire youth. A major difference between the youth, their adult caretakers and the other stakeholders is that the former do not see the youth in siloes. Their child is a whole person who, in addition to being a student, is a sibling, a church member, a nephew/niece, a grandchild, a community member, etc. When the community members themselves analyze their situation they generally create a broad picture that demonstrates their understanding of the complexity of the issue and that there is no single solution to the challenges these youth face.

This report is constructed around the Theory of Change developed by ITCH. Through their campaign to secure these passes, the residents developed an understanding of the importance of these passes to their child's education. In particular, their theory is that increasing students' access to public transit will increase their mobility and sense of safety that, in turn, will lead to greater academic achievement and greater access to opportunity. The passes will:

- Encourage and incentivize regular school attendance
- Increase safety for children going to and from school
- Increase access to extracurricular activities and job opportunities
- Encourage and incentivize public transit ridership

**Figure A: Theory of Change**




The theory behind the Youth Opportunity Pass, illustrated in Figure A, is that if students have access to public transit it would increase their mobility and sense of safety which, in turn, would improve their academic achievement and increase their access to opportunities. How mobile the youth become with the pass will be influenced (mediated) by how comfortable they feel using public transit. And their access to opportunity will be influenced (mediated) by the range of opportunities available.

If the student is viewed as one of many youth attempting to move through a competitive obstacle course in order to achieve a particular goal (high school diploma and on the path to technical school or college) then it is important to understand that not all students in the competition are carrying the same amount of weight on their backs through that obstacle course. One way to understand the differences in the educational outcomes highlighted above is to understand that the load students in low-income neighborhoods carry is often much heavier than that of their counterparts in the wealthier communities. For the members of ITCH, access to public transit was one of the ways to make the load lighter and increase their chances for success.

## Methodology:

The basic design of the assessment was a simple pre-post analysis of student behavior, comparing students with passes (treatment) to an equivalent group without passes (control). See the appendices for a full description of the methodology. Using the Theory of Change to guide the assessment, the variables assessed

included safety, mobility, academic achievement and access to opportunity. Academic achievement was assessed using attendance, tardiness, grades, and participation in extra-curricular activities. Access to opportunity was assessed using employment and engagement in other, non-school activities. Three sources of data contributed to this report, i.e., pre-post student survey, student travel journals and interviews, and SDUSD data. The final analysis using SDUSD data included 701 students with passes (treatment) and 243 students without passes (control group). Table 1 shows the sample sizes for the pre-post survey. Twelve travel diaries were collected and four interviews were conducted. A full description of the demographics of the students can be found in the appendices.

Three issues with the data emerged during the project. These were:

1. Logistical issues with endline survey collection
2. Changing and implementing a new data system at SDUSD
3. Contaminated control group

Table 1 shows the sample size for the endline survey to be approximately half the size of the baseline survey. This loss of data was related to issues of internal communication and a shift in leadership at one or more of the schools. An examination of the attendance data showed a drop in attendance rates from approximately 95% to 85% across the District. This change is assumed to be due to problems implementing a new data system. In addition, anecdotal evidence suggests that a number of students in the control group may have purchased youth passes for part or all of the school year. While there are no real numbers, it is believed that up to a quarter of the control group actual had a youth pass at some time during the school year.

**Table 1: Sample Size for Base and Endline Surveys**

| Baseline Survey | | Endline Survey | |
|---|---|---|---|
| **Treatment** | **Control** | **Treatment** | **Control** |
| 512 | 122 | 243 | 67 |

It should be noted that this assessment only covers a six to seven month period, November 2013 to June 2014. The passes began to be distributed in October of 2013, with most of them distributed by December 2014. Most of endline survey data were collected in May 2014 and the SDUSD data is for the school year ending in June 2014.

## FINDINGS:

As noted just above, the findings reported here cover a six to seven month period. Because of the abbreviated time these finding should be viewed as emerging trends rather than conclusive results. The Theory of Change states that the Youth Opportunity Passes will increase mobility and safety and that increase will lead to improvement in academic achievement and expansion of opportunities. Because the latter two are contingent upon the former two, it is not reasonable to expect much change in the short period being studied. There is a natural lag-time between access to public transit and the impact of that access.

**Safety:**

From the perspective of ITCH members, as reflected in their Theory of Change, having access to public transit would increase the students' sense of safety. The importance the residents gave to safety is supported by the crime statistics for San Diego neighborhoods. According to the San Diego Police Department's Automated Regional Justice Information System (ARJIS) report for 2014, the neighborhoods surrounding the project schools experienced nearly twice the crime per 1000 residents as the rest of the City. Table 2 shows the average crime per 1000 residents for 27 neighborhoods (see appendices for list of neighborhoods) surrounding the schools where students are receiving the bus passes and compares them to the city-wide rates (126

| Table 2: Comparison of Crime Rates per 1,000 Population for Project YOP Neighborhoods to City of San Diego | | | | | | |
|---|---|---|---|---|---|---|
| | Murder | Rape | Armed Robbery | Strong Arm Robbery | Aggravated Assault | Violent Crime |
| Project Neighborhoods | 0.05 | 0.41 | 0.62 | 1.40 | 5.40 | 7.90 |
| City-Wide | 0.02 | 0.28 | 0.35 | 0.65 | 2.64 | 3.95 |
| **Percent More Likely to Experience . . .** | **250%** | **68%** | **180%** | **220%** | **200%** | **200%** |

neighborhoods). San Diego Police Department statistics for 2010 show the number of juvenile victims of violent crime peaked between 2:30 and 4:00 in the afternoon and that many crime hotspots were in close proximity of the schools.[1] These statistics suggest that the students in these neighborhoods are nearly twice as likely experience these crimes than students living in other communities.

Of all the variables assessed, safety appears to be the most impacted by the Youth Opportunity Pass. To assess this component, students were asked to report if they had witnessed and/or been victimized by crime, bullying and/or sexual harassment while traveling to and from school or on campus over the past year. They were asked this at the beginning and at the end of the project. Two patterns show up in these data. First, the amount and direction of the change in responses for the treatment group is consistently more positive than the control group. Of the 36 response sets reported here, the treatment group has better outcomes than the control group in 31 sets (85%). The treatment and control had identical responses in the remaining five sets and in no case were the control group responses better than the treatment group. The second pattern is that for crime and bullying a higher percentage of students reported witnessing such situations than being victimized while the opposite is true for sexual harassment where more people report victimization than witnessing the situation. These numbers might suggest that the perpetrators of this particular crime are more selective in choosing where and when to commit this crime.

The data in the following tables shows the amount and direction of change from pre to post-test for the treatment and control groups. Examining the data presented in Table 3a it can be seen that while the treatment group reported a modest drop in being victimized and/or witnessing a crime (mean change = -1.0%),

| Table 3a: Victim of or Witness to Crime | | | | | | |
|---|---|---|---|---|---|---|
| **Walking to School Alone** | | | **Walking to School with Friends** | | | |
| | Control | Treatment | | Control | Treatment | |
| | Pre to Post | Pre to Post | | Pre to Post | Pre | Post |
| **Victim** | +2% | No Change | **Victim** | +4% | -1% | |
| **Witness** | +2% | -2% | **Witness** | +2% | +2% | |
| **On Campus During School** | | | **On Campus After School** | | | |
| **Victim** | +4% | No Change | **Victim** | No Change | -1% | |
| **Witness** | +2% | -1% | **Witness** | -2% | -2% | |
| **Walking Home Alone** | | | **Walking Home with Friends** | | | |
| **Victim** | No Change | No Change | **Victim** | No Change | No Change | |
| **Witness** | +11% | -3% | **Witness** | +3% | -4% | |

[1] Source for Juvenile Victims of Violent Crime is San Diego Police Department; Source for Crime Hotspots is SANDAG

the control reported an increase (mean change = +2.3%). This pattern is best seen in the responses to the question on witnessing a crime while walking home alone. While the treatment group saw a modest drop of 3% of the students reporting witnessing a crime, the control group reported an increase of 11% of the students witnessing a crime over the previous year. In the one response set where the treatment group did see an increase in reporting, Walking to School with Friends, the control group saw the same 2% increase.

The same pattern is evident in Table 3b which shows the change in students reporting being victimized and/or witnessing bullying. The average change in reporting for the treatment group is only -0.2%. However, the control group reported an average increase in witnessing and /or being victimized by bullying of 6.2%. While the treatment group reported no change in being victimized by bullying while walking home alone or with friends, the control group reported 10% and 5% increases respectively. Similarly, the percent of treatment group participants reporting witnessing bullying walking home from school alone dropped by 2% while the control group reported an increase of 6%. In the only response set that saw an increase in reporting by the treatment group (+1.0%), i.e., on campus after school, the control group reported a 5% increase.

**Table 3b: Victim of or Witness to Bullying**

| Walking to School Alone | | | Walking to School with Friends | | |
|---|---|---|---|---|---|
| | Control | Treatment | | Control | Treatment |
| | Pre to Post | Pre to Post | | Pre to Post | Pre to Post |
| Victim | +10% | No Change | Victim | +5% | No Change |
| Witness | +4% | -1% | Witness | +7% | -1% |
| **On Campus During School** | | | **On Campus After School** | | |
| Victim | +5% | +1% | Victim | +3% | No Change |
| Witness | +6% | -1% | Witness | +5% | +1% |
| **Walking Home Alone** | | | **Walking Home with Friends** | | |
| Victim | +8% | +1% | Victim | +4% | -1% |
| Witness | +6% | -2% | Witness | +11% | +1% |

Table 3c shows the changes in reporting witnessing and/or being victimized by sexual harassment and, again the same pattern emerges. In this case, the treatment group showed an average increase in the percent

**Table 3c: Victim of or Witness to Sexual Harassment**

| Walking to School Alone | | | Walking to School with Friends | | |
|---|---|---|---|---|---|
| | Control | Treatment | | Control | Treatment |
| | Pre to Post | Pre to Post | | Pre to Post | Pre to Post |
| Victim | +7% | No Change | Victim | +4% | No Change |
| Witness | +2% | +2% | Witness | +4% | + 2% |
| **On Campus During School** | | | **On Campus After School** | | |
| Victim | +2% | No Change | Victim | +2% | No Change |
| Witness | +5% | No Change | Witness | +4% | -1% |
| **Walking Home Alone** | | | **Walking Home with Friends** | | |
| Victim | +6% | +1% | Victim | +2% | -1% |
| Witness | +4% | +2% | Witness | +6% | No Change |

reporting of +0.4%. The control group, on the other hand, showed an increase in reporting witnessing and/or being victimized by sexual harassment of 4.0%

There was no change in the percent of treatment group students who reported being victimized by sexual harassment while walking home from school alone or with friends but the control group had 7% and 4% more students report being sexually harassed. In fact, for all the cases in the treatment group where there were no changes in the percent of students reporting witnessing and/or being victimized by sexual harassment, the control group showed and average increase of 5.2%.

Because of the modest level of change it is not possible to make the claim that the Youth Opportunity Pass have made these students safer. However, given the consistency in the pattern emerging here it is impossible to ignore the impact of these passes. These findings are important because there are no other studies looking at the impact of public transit on youth safety directly. The large study of free and reduced youth transit passes in Alameda County asked school staff why they thought the passes resulted in an increase in participation in extra-curricular activities and safety was named as a key variable. Students with bus passes didn't have to walk home through "dangerous" neighborhoods after dark. The study did not, however, examine the impact of the passes on the participants' safety. In the fall of 2013 the Los Angeles Department of Public Health conducted and extensive Cost-Benefit Analysis for universal free youth transit passes in Los Angeles. Safety, as defined by injuries, was named as a benefit. An assessment of a similar program in San Francisco did not look at safety at all. San Diego is the only jurisdiction of the eight named in the LA report that has identified safety as a goal and has data. [2]

**Mobility:**

As can be seen in Figure A, ITCH's Theory of Change identifies two foundational variables that are the basis for positive changes in student behavior, i.e., safety and mobility. In this study, mobility was assessed by having students respond to a series questions about how they get to and from school, extra-curricular activities, employment and other non-school activities as well as their reliance on parents for rides. In each set of questions the participants were asked to rate the frequency with which they did the activity in the question on a five point scale ranging from Never to Always. The data below show the percentage of participants who responded "Always" or "Often" to the questions.

**To School**

**Table 4a: Take Public Transit to School Alone**

| | Pre | Post | Difference |
|---|---|---|---|
| **Treatment** | 40% | 39% | -1% |
| **Control** | 52% | 40% | -12% |

**Table 4b: Take Public Transit to School With Others**

| | Pre | Post | Difference |
|---|---|---|---|
| **Treatment** | 27% | 26% | +1% |
| **Control** | 29% | 29% | 0% |

**Table 4c: Ride to School from Parents**

| | Pre | Post | Difference |
|---|---|---|---|
| **Treatment** | 17% | 19% | +2% |
| **Control** | 17% | 13% | -4% |

The accompanying tables show the responses to the questions regarding how the students get to and from school and to non-school activities as well their reliance on parents for rides (Tables 4, 5, and 6). These data exhibit a pattern similar to but not as strong as that found in the safety data. Comparing the direction and degree of change between the control and the treatment groups shows the treatment group to have slightly better outcomes. Of the nine response sets reported here, the treatment group outcomes were better than the control group outcomes in five (56%) sets. The outcomes were identical in two

[2] Noreen McDonald, Sally Librera, Elizabeth Deakin, & Martin Wachs (November 2003). **Low-Income Student Bus Pass Pilot Project Evaluation.** Institute of Transportation Studies University of California, Berkeley; Lauren N. Gase , Amelia DeFosset, Tony Kuo (October 2013). **The Potential Costs and Benefits of Providing Free Public Transportation Passes to Students in Los Angeles County.** Los Angeles County Department of Public Health; Memo from the Budget and Legislative Analyst to the San Francisco City and County Board of Supervisors in February 2014.

(22%) response sets and the control had more positive outcomes than the treatment group in two (22%) of the response sets.

**From School**

**Table 5a: Take Public Transit from School Alone**

| | Pre | Post | Difference |
|---|---|---|---|
| **Treatment** | 36% | 37% | +1% |
| **Control** | 45% | 35% | -10% |

**Table 5b: Take Public Transit from School with Others**

| | Pre | Post | Difference |
|---|---|---|---|
| **Treatment** | 24% | 24% | 0% |
| **Control** | 29% | 21% | -8% |

**Table 5c: Ride Home from Parents**

| | Pre | Post | Difference |
|---|---|---|---|
| **Treatment** | 13% | 1% | -12% |
| **Control** | 9% | 8% | +1% |

The most positive response sets were in response to the questions of how students got home from school. Table 5a shows that the treatment group had only a 1% increase in the percentage of participants who said they take public transit home from school alone always or often between the pre and post-tests. However, in the control group, the percentage of students who reported taking public transit home from school alone dropped by 10%. While there was no change in the treatment group from pre to post-test in the percentage of participants who take public transit home from school with friends often or always, the percentage of participants in the control group reported taking public transit home from school with friends dropped by 8% (Table 5b). The most positive response was to how often students get a ride home from their parents. In this case the treatment group saw a drop of 12% while the control reported an increase of 1% (Table 5c).

The responses to the question on how often students take public transit to get to school showed a similar pattern. The treatment group reported a 1% drop in the number of students who use public transit to get to school while the control group reported a 12% drop (Table 4a). There was no difference in amount or direction of change in response to the question about use of public transit to get to school with friends (Table 4b) and the control group had a more positive response to the question of getting a ride from parents. As can be seen in Table 4c, the control group reported a drop of 4% while the treatment group reported an increase of 2%. The pattern of response to the question about use of transit for non-school activities is identical. The percentage of treatment group participants who reported using public transit alone for non-school activities remained the same while participants in the control group reported a drop of 10% in those who use it often or always (Table 6a). There was no real difference between treatment and control groups to the question of use of public transit with friends for non-school activities (Table 6b) and the control group had a modest drop in those reporting getting a ride from their parents while the treatment group saw no change (Table 6c).

**For Non-School Activities**

**Table 6a: Take Public Transit Alone**

| | Pre | Post | Difference |
|---|---|---|---|
| **Treatment** | 33% | 33% | 0% |
| **Control** | 43% | 33% | -10% |

**Table 6b: Take Public Transit with Others**

| | Pre | Post | Difference |
|---|---|---|---|
| **Treatment** | 25% | 22% | -3% |
| **Control** | 20% | 18% | -2% |

**Table 6c: Get Ride from Parents**

| | Pre | Post | Difference |
|---|---|---|---|
| **Treatment** | 21% | 21% | 0% |
| **Control** | 21% | 18% | -3% |

One of the outcomes expected by ITCH was increased ridership that would decrease reliance on the automobile that, in turn, would reduce Green House Gases. The responses to the questions on reliance on parents for rides suggest that this may be happening. The treatment group showed a 12% drop in reliance on

parents for rides home from school while the control group reported a small increase of 1%. This finding is consistent with the student reports in their travel diaries and interviews where they consistently speak to how the passes give them greater freedom of movement because they don't need to get rides from their parents. The differences between the treatment and control groups when looking at reliance on parents for rides to school and non-school activities shows the treatment group to increase its reliance on parents slightly (2%) for getting to school and no change for non-school activities. The control group shows slight decreases of -4% and -3% respectively. The Alameda study
found no change in reliance on parents for rides to school and interviews with parents found that some parents "generally did not find it a burden to drop their children off at school, the trip was short and relatively convenient (p. 30) ." The large drop in reliance on parents for rides from school within the treatment group speaks to the potential to convert these youth into lifelong public transit users. At the time of day when the youth want and need to be mobile most, those with passes are choosing public transit over rides with their parents.

In addition to the questions about school and public transit, participants were asked to rate how often they used public transit for other things such as getting to and from a job and/or internship; afterschool activities, family responsibilities, recreation, etc. The response pattern to these questions is starkly different from the pattern described above where the treatment group responses were consistently better than the control group responses. The opposite pattern emerged in the responses to these questions. The control group had more positive responses than the treatment group in six of the ten sets of questions. There was no difference between the treatment and control groups in the remaining four sets of questions.

As can be seen in Table 7, the treatment group shows an average change of +2.7% while the control group shows an average change of +8.1%. In response to the question about use of public transit to look for internships the control reported an increase of 19% while the treatment group increased by 4%. The largest change was reported in the use of public transit for recreation. The treatment group reported a 15% increase for that purpose. The control group, however, reported a 24% increase.

**Table 7: Pre to Post Change in Percent Using Public Transit Often and Always**

| Activities | Treatment Pre-Post Change | Control Pre-Post Change |
|---|---|---|
| To get to job | +3% | +4% |
| To get home from a job | +1% | +5% |
| To look for a job | -2% | +5% |
| To look for an internship | +4% | +19% |
| To visit friends | +1% | +1% |
| For recreation | +15% | +24% |
| For Afterschool Activities | 0% | -1% |
| To shop for family | +4% | +11% |
| To shop with friends | 0% | +11% |
| For family chores | +1% | +2% |

The findings from the self-report data on mobility are more complex than that of safety. When examining the use of public transit to get to and from school the data show the same pattern as in safety. In general, the treatment group reports using public transit more than the control group. The same pattern does not appear when examining the use of public transit for other activities where the control group used public transit more than the treatment group. While the data do not allow for judgment on the specific role of the Youth Opportunity Passes, it should not be lost that both the control and treatment groups showed an increase in the use of public transit. Data on pass usage provided by MTS[3] are consistent with the self-report data that shows a steady increase in the percentage of Youth Opportunity Passes used from November of 2013 (28%) to June of 2014 (80%). It also shows that two-thirds of the youth used their passes 11 or more days out of the month. The use of passes for reasons other than school is one place in the analysis where the

[3] MTS staff PowerPoint report to the MTS Board entitled "Student Pass Pilot Program" on July 17, 2014.

contaminated control group might mask impact of the Youth Opportunity Pass. These numbers suggest a positive trend among youth, potential lifelong riders, in the use of public transit.

While not included in this report, the best assessment of the student's mobility is the way the passes are actually used. The data on actual use should be available from MTS and should be included in a full assessment. These data have been requested. Mobility would best be assessed by examining how these passes were used over time in comparison to other youth pass users. In particular, it would be important to know:

1. The number of taps: These data would tell us how often the passes were used and if there is a change in the how often students are using public transit.

2. The time of the taps: While a surge in taps early in the day before school and in the late afternoon after school are expected, knowing when students are using the passes would allow us to see if student are expanding their use of public transit, e.g., an increase in weekend usage.

3. Location of the taps: Knowing where students are using their passes will also allow us to assess the degree to which students are expanding where they travel within the County, thereby increasing access to opportunities.

Without the data on actual student usage, it is not possible to fully assess the impact of the passes on student mobility.

**Academic Achievement**

Academic Achievement was assessed by examining four variables, i.e., attendance, tardiness, grade point average (GPA), and participation in extra-curricular activities.

Attendance: The data on attendance supports the Theory of Change. As can be seen in Figure 2, when standard scores are used, the treatment group's attendance improves relative to the control group. This finding is unique in that previous research has not been able to show a connection between access to public transit and school attendance. Given the concerns with the attendance data as described in the Methodology section these findings should be seen as positive, but tentative.

Tardiness: Assessing tardiness proved to be more difficult than thought as the District does not collect data on tardiness directly. In this analysis, tardiness was assessed by examining attendance rates for the first period of the school day. Students marked

**Figure 2: Attendance Rates**

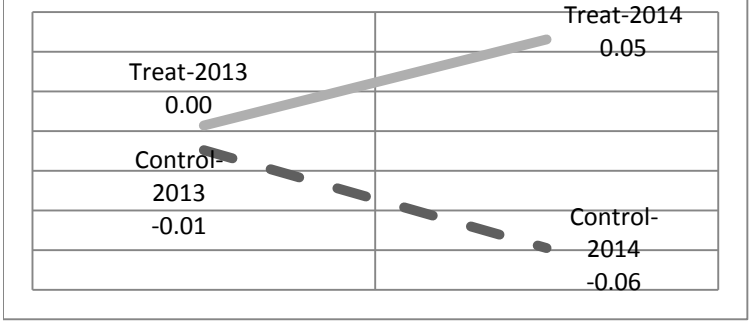
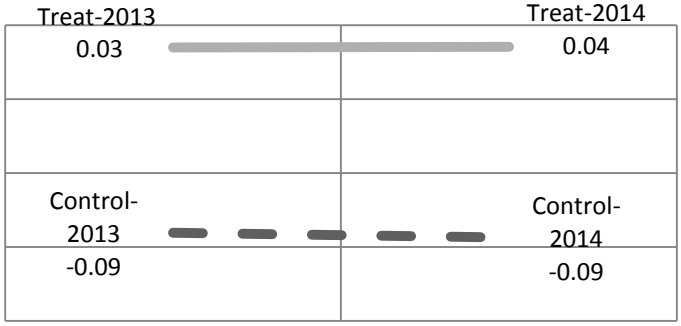



**Figure 3: Attendance-1st Period**



absent for the first period but present for the day would be considered "tardy." Because of this definition, tardiness comes with the same concerns raised in the attendance data. As can be seen in Figure 3, treatment group participants do have significantly better attendance in the first period. However, as the graph shows, they had better attendance before program as well and that neither the control nor treatment groups showed any change from pre to post project. These findings also reinforce the need to be cautious when referring to the findings on attendance reported above.

Grade Point Average: As can be seen in Table 8, there is no overall change in GPA for either the control or treatment groups. This finding is not surprising given the number of variables that contribute to a student's GPA. It would not be reasonable to expect having bus pass for six to seven months would impact a student's grades. In addition, the Theory of Change predicts a lag between awarding the passes and their impact on academic achievement and the period of time covered in this assessment is too short to impact GPA.

| Table 8: GPA | | | |
|---|---|---|---|
| Treatment | | Control | |
| Pre | Post | Pre | Post |
| 2.6 | 2.5 | 2.3 | 2.4 |

Extracurricular Activities: Involvement in extra-curricular activities was assessed by asking students to rate how frequently they participate in the activities listed in Table 9. As with the safety and mobility data, Table 9 shows the amount and direction of change pre to post-test for both the treatment and control groups. The control group on average showed a 5% increase in participation while the treatment group only showed an average increase of 0.9%. These findings are similar to the data reported in the Mobility section on students' use of public transit for non-school activities where the control group outcomes were also more positive than the treatment group outcomes (Table 7). It is interesting to note that based on the self-report mobility data pertaining to getting to and from school the treatment group has better outcomes than the control group while the control group has better outcomes going other places.

| Table 9: Participation Often + Always | | |
|---|---|---|
| | Treatment | Control |
| | Pre to Post | Pre to Post |
| **Tutoring** | +1% | -2% |
| **Youth Group** | No Change | +6% |
| **ESL Classes** | -1% | +7% |
| **Sports** | -1% | +5% |
| **Church/Mosque** | +4% | +8% |
| **Golf** | No Change | +3% |
| **CBO** | +3% | +8% |

The data on Academic Achievement presents a mixed picture. The findings on attendance are promising while the data on extra-curricular activities are a bit confusing. Again, as with the other variables, while not conclusive, the data presents a hopeful picture. The improved attendance for treatment group students relative to the control group students is worth note as all academic achievement begins with attendance. And, while the impact of the Youth Opportunity Pass is less apparent with the other variables, the fact that both groups report an increase in use of public transit calls for continued study.

**Access to Opportunity:**

Access to Opportunity was assessed by examining student employment, community engagement and participation in enrichment and/or extra-curricular activities.

Tables 10a and 10b show the percentage of students who have a job or are looking for a job. As can be seen approximately a quarter of the students were employed during the school year while approximately half of the students looked for work during the school year. In assessing the percentage of students working and/or looking for work it should be noted that 39% of the students in the project are below the age of 16 and must apply for a work permit to get a job, significantly reducing the percentage of students working at that age. There was little change in either the treatment or control groups in the pre and post surveys. The biggest change was in the control group where 9% more reported looking for work in the post survey than in the pre-survey as opposed to a +3% change in the treatment group.

| Table 10a: Employment Status | | | | Table 10b: Look for Work | | |
|---|---|---|---|---|---|---|
| | Pre | Post | Difference | Pre | Post | Difference |
| **Treatment** | 24% | 25% | 1% | 48% | 51% | +3% |
| **Control** | 21% | 19% | -2% | 41% | 50% | +9% |

The analysis of the employment and extra-curricular activities data again does not allow for any conclusions to be drawn concerning the impact of the Youth Opportunity Pass on the students' access to opportunity. However, it is reasonable that the data, as suggested above, on employment and extra-curricular activities are affected by the contaminated control group as identified in the Methodology section. The students who are working are older than those who are not and they have access to more resources because they working. These are the students most able to purchase a bus pass if not part of the treatment group.

**Travel Diaries and Interviews:**

Four themes emerged from the travel diaries and interviews, these are:

1. Getting to school: A number of students reported how the pass helped them get to school on time.

   "It used to take me sixty to eighty minutes to walk to school and I would miss a lot of school and get behind. Now I have good attendance and get better grades."

   "I left my house at 6:55 am to catch the bus. I used to have to leave at 6:35 am to walk to school, thank god for my bus pass. Now, I can rest in the bus for like 5 minutes. It used to be so tiring walking to and from school but now I do not need to worry about that."

   "I left my house around 6:45 am to catch the bus. It was quite cold outside that day. I should have brought my jacket. This guy started talking to me while we waited for the bus, he kind of creped me out, I was just eager for the bus to arrive already."

2. Getting home: Students commented on how much time they would spend waiting for a ride home from work or school and how the bus pass saved them time and increased their sense of safety.

   "I used to have to walk home from work and it could be anytime from 5:00 to 8:00. When I walk late I get scared. With the bus pass I can get home and not experience anything bad."

   "Before the bus pass I used to have to wait for a ride home and I would get home late, sometimes 8:00. Now I get home around 4:30 and I can do my homework right away."

   "I get home early, therefore I have enough time to finish my homework or any other assignments needed to be done or are due the next day."

"I got out off track practice early so I can make it to Hula practice on Mission Gorge road. I took the 15 to Hoover then got off and hopped on the 13. I got out of practice at 7 pm and because of the time change it had begun to get dark and I was alone. I got home around 8:20 pm."

3. Helping family: The most common use of the bus pass reported on was to help the family.

   "I just got home and my dad asked me to go to the store because we have no food and he can't go himself because he has no way to get there but I do have a compass card to go anywhere I like and need to go."

   "It feels good to be able to help your parents out even if it's something like picking up your sister."

   "Having a bus pass just to make it to these far-away places, in my opinion, is a lifesaver because my family doesn't have a car to get to where we need to be sometimes."

   "After school, I went to Food 4 Less to buy some chicken for my little brothers to eat since my mom wasn't home."

   "After school, I went to my cousin's house to help out with decorations for her baby shower. Once I was there, they asked me to go to the 99 cent store to buy balloons, so I took the bus over there."

4. Confidence/Sense of freedom: Many student comments spoke to their sense of freedom of movement and the confidence that came with being able to get around without relying on others.

   "It felt so good to finally be able to go somewhere without having the burden of having to find a ride."

   "I felt accomplished, that fact that I was able to go to work by myself without having mom drive me makes me feel good."

   "I went there with friends on the bus. It felt great to be able to have a new experience with other people."

   "I go visit my mother every weekend because she can't come to the US. I have a compass card now because before I wasn't able to see here as much, now I'm able to see her whenever I want because I have a way to get there."

The students' reports on their experience supports the positive trends reported on above. These students were able to articulate how the Youth Opportunity Pass made life easier for themselves and their families by allowing them to get to and from school in less time, get to and from work on their own, and to support their family by taking care of siblings, going shopping, etc.

## SUMMARY:

ITCH's Theory of Change reflects an understanding of the complexity of issues such as academic achievement. From their close-up vantage point they can see their youth struggle every day and saw access to public transit

as one concrete thing that could support the youth in their struggle. In particular, they believe that these passes will:

- Encourage and incentivize regular school attendance
- Increase safety for children going to and from school
- Increase access to extracurricular activities and job opportunities
- Encourage and incentivize public transit ridership

The data on attendance support this most directly and the data on safety, though less direct, suggests that treatment group students had to confront crime, bullying, and/or sexual harassment less than their counterparts in the control group. The findings on the impact of the Youth Opportunity Passes on mobility are more complex. The data indicate that the treatment group used public transit to get to and from school more than the control group. However, this pattern did not exist in the use of public transit for extra-curricular activities, employment and other non-school activities. In these cases the control group reported using public transit more than the treatment group. However, both treatment and control groups increased their use of public transit for those purposes.

These findings need to be considered in the context that this is a six to seven month study and that the Theory of Change predicts a lag time between the provision of the passes and their impact on the students. Due to the short period these findings should be viewed as emerging trends rather than as results and, as such, these trends appear to be quite strong.

**Safety:** The Youth Opportunity Passes appear to have had an impact on student safety. While the treatment group only saw a small drop overall in witnessing and/or being victimized by crime and/or bullying (-1.0% and -0.2%) and slight increase (+0.4%) in witnessing and/or being victimized by sexual harassment, the control group saw an overall increase in witnessing and/or being victimized in crime (+2.3%), bullying (+6.2%) and sexual harassment (+4.0%). These findings suggest that the students in the treatment group had to confront crime, bullying, and/or sexual harassment less than their counterparts in the control group.

Safety is a critical issue. The Key Informants in the Alameda study named safety as the reason there was an increase in student participation in extra-curricular activities. The cost-benefit analysis conducted by Los Angeles Department of Public Health identified increased safety as one of the potential benefits of free youth passes. San Diego is the only project assessing the students' sense of safety.

**Mobility:** The findings on the impact of the Youth Opportunity Pass on mobility are more complex than seen on safety. The survey data on the use of the passes to get to and from school exhibit the same pattern as in safety, i.e., the treatment group used the passes more than the control group. This pattern, however, is not evident in the data on the use of public transit for extra-curricular activities, employment and non-school activities. In the use of public transit for going to and from school alone the treatment group shows almost no change (-1% and +1%) while the control group shows a drop of 10% and 12%. The pattern also exists for using public transit to get to and from school with friends where the treatment groups shows almost no change (+1%, 0%) and the control group shows a drop in usage (0% and -4%). In the use of public transit for other activities the control group appears to use it more than the treatment group. However, both the treatment and control groups report an increase in the use of public transit (+2.2% and +8.1% respectively) which bodes well for future ridership. MTS data on the percent of Youth Opportunity Passes used from November 2013 to June 2014 support these findings on increased ridership, showing a steady growth in pass usage from 28% to 80% over that time. In addition, the treatment group's reliance on their parents for rides from school dropped 12% while the control group increased by 1% which is consistent with the student diaries and interviews that all speak to how the passes give them greater freedom of movement because they don't need to get rides from their parents. The large drop in

reliance on parents for rides from school within the treatment group speaks to the potential to convert these youth into lifelong public transit users. At the time of day when the youth want and need to be mobile most, those with passes are choosing public transit over rides with their parents.

**Academic Achievement:** Academic Achievement was assessed by looking at attendance, grades, and participation in extra-curricular activities.

- Attendance: The data show a connection between the Youth Opportunity Pass and attendance. A comparison using standard scores shows the treatment group's attendance rate improved relative to the control group. Attendance in first period, a measure of tardiness, showed no change for either group over the year though the treatment group as a whole had better attendance. These findings are important as other research has not been able to establish the connection of passes to attendance.

- Grades: Because of the number of variables affecting it, student Grade Point Averages did not change As expected.

- Extra-Curricular Activities: While there was an overall increase in participation in extra-curricular activities, the data did not show the same pattern as with safety and transportation to and from school. For these activities the control group used public transit as much or more than the treatment group.

**Access to Opportunity**: These data show that nearly a quarter of students are working and just under half are looking for work. The data on extra-curricular activities, while not showing an impact by the Youth Opportunity Pass, do report an increase in the use of public transit across both treatment and control groups of 2.7% and 8.1% respectively.

## Conclusions & Recommendations

The members of ITCH pushed for these passes because they believed they would achieve the four things listed above in the Summary section and there is much in the analysis presented here to suggest they are right. In fact, there is a broad consensus across educators, parents and students that access to transportation is a key variable in improving the academic achievement of students, particularly those living in low-income neighborhoods. In spite of that consensus, there is very little data on the topic. The Los Angeles Cost-Benefit Analysis identified eight projects offering free or reduced youth passes and only one, San Diego, is collecting data on the impact of these passes on the students. The findings presented here need to be considered within the context of the sparse research that does exist. Alameda County launched a program in 2002 and collected data on the first year as did San Francisco that launched its program in 2013. Both the experience in assessing the impact of the passes and the findings in this study are largely consistent with these two other studies. The San Diego study does, however, show a positive impact of the passes on attendance where others have not. Being the only study to look at safety, it also shows that the passes are having a positive impact. All of the studies found recruitment of youth for the passes to be more difficult than expected. San Francisco reported a 78% usage rate while Alameda County reported that two-thirds of eligible students took advantage of the pass. By the third month of the San Diego project, December 2013, the percent of students in San Diego using their passes reached 80% and remained above 80% for the remainder of the school year. All studies recommend greater attention to outreach in future projects.

While neither of the previous studies examined safety, it is a key finding in this study. Research on academic achievement makes it clear that doing well academically is a function of several factors, none of which can be singled out. It is a result of a web of forces, e.g., attendance leads to greater success and greater participation

in extra-curricular activities leads to better attendance. Coordinators of after-school programs in the Alameda study attributed neighborhood and bus safety as critical issues for after-school participation. As suggested in the Theory of Change, safety is a key variable in improving academic achievement and, in this study the control group had to confront crime, bullying and/or sexual harassment more often than the treatment group. Making students more safe by giving them access to public transit will not, by itself, change things like attendance, grades, etc. However, making students safer is a critical piece of the puzzle and this data indicate that the passes increase safety.

Mobility is another critical piece of the puzzle. Students with passes in this study continued to use public transit to get to and from school at the same level as the previous year while the control group dropped in usage. These findings are consistent with the San Francisco and Alameda County studies that found that the passes were mostly used to get to and from school. The travel journals and student interviews confirm these findings as many reported that the pass made getting to school on time easier and to get home from school or work earlier. The extra time was used to do homework and/or family chores.

Use of the passes for extra-curricular activities, employment, and non-school activities, however, shows a different pattern. While both the treatment and control groups increased their usage, the control group increased their usage more than the treatment group did. This shift in the findings might be due to students in the control group who purchased a pass during part or all of the year. As stated in the Methodology section, it is estimated that up to a quarter of the control group purchased a pass for part or all of the year, weakening any comparison. Because ridership increases with age, it is reasonable to assume that it would mostly be older students purchasing the passes to use for work and other activities. The important point here is that the students are reporting an increase in public transit use that will set the habits known to create lifelong public transit users.

For obvious reasons, attendance is considered the most critical variable in academic achievement. Additionally, it is logical to assume that providing students with fee transit passes would have a positive impact on their attendance. In fact, the first youth transit pass program to assess impact, Alameda County, began in response to parents who were concerned about the drop in school attendance at the end of each month. Conversations with parents revealed that, at the end of the month, bus fare had to compete with rent and food for the families few dollars. Bus fare was the first to be cut. This led the group to see free passes as a way for their children to get to school and relieve some financial pressure on the family. While the first project was designed to boost attendance, their research concluded that "It is risky to judge the effectiveness of the bus pass program on its ability to increase student attendance after one year."[4] Neither Alameda County nor San Francisco could establish a connection between having a pass and attendance. This study, however, shows that the attendance of students in the treatment group improved in relation to their counterparts in the control group. By the end of the first year treatment group students as a whole moved up in the distribution of attendance rates and the control group students moved down. The data showing that getting to and from school was the most frequent use of the passes and that the treatment group used the passes more than the control group suggests the connection between the passes and attendance.

Like mobility, the data on access to opportunity show an overall increase in the use of public transit for extra-curricular activities, employment and non-school activities. These findings are consistent with the other studies that showed an increase in ridership for these activities. This increase in ridership is important because people who use public transit at these ages are more likely to use it throughout out their lives. The passes are beginning to develop future riders.

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Again, if the student is viewed as one of many youth attempting to move through a competitive obstacle course in order to achieve a particular goal (high school diploma and on the path to technical school or college) then it is important to understand that not all students in the competition are carrying the same amount of weight on their backs through that obstacle course. The load students in low-income neighborhoods carry is often much heavier than that of their counterparts in the wealthier communities. In addition to limited access to the internet after school, many students in low-income neighborhoods have to deal with inadequate access to food, unhealthy housing, unsafe neighborhoods, etc. Many of these youth also have enormous family responsibilities that compete with school work for their time. For the members of ITCH, access to public transit was one of the ways to make the load lighter and increase their chances for success. The student travel diaries and interviews support this perspective. Taken as a whole, they show how the students not only use the pass for school and work, but to also to support the family by going shopping, picking up younger siblings, taking younger siblings to appointments, and so on. In addition, students report that carrying out these chores give them a sense of freedom and confidence. Carrying out chores for the family provides them with an opportunity to test and demonstrate their competence in the world and helping the family strengthens their self-esteem. Being able to get around without burdening parents for rides allows them to lessen the stress on the family. Again providing an important piece of the puzzle needed to improve academic achievement.

The findings in this study show sufficient evidence to warrant expansion of the program and continued study especially given that they only cover a six to seven month period. As mentioned earlier, these results should be viewed as emerging trends rather than results and the trends reported here are quite strong. Just as the Theory of Change makes it clear that there is no single solution, the holistic perspective of the youth and their adult caretakers makes it clear that it is also impossible to isolate the impact of any one intervention on youth achievement. The Youth Opportunity Pass is one piece of a puzzle. The student travel diaries and interviews tell how a youth with a pass is able to get back and forth from school more easily and efficiently, leaving more time for other things such as homework and/or family chores. Being able to contribute to the family increases the youth's self-confidence and relieves family stress by taking on some of the responsibilities. All of this contributes to the youth being able to focus more on his/her school work.

This analysis, like the studies before it, recommends that the program be expanded and that resources be committed to fully assess the program. One suggested path would be to design a longitudinal study that would follow students throughout their four years in high school to assess the role access to public transit can play in addressing the disparities in outcomes between youth in low-income neighborhoods and youth in wealthier neighborhoods. One possible design would involve:

- Setting up two cohorts of students by selecting two of the four project schools and providing the Youth Opportunity Pass to all students at those schools the first year (or all freshmen). All the students (or freshmen) at the other two targeted schools would receive the pass in the second year.

- Tracking the students across their years in high school. Having cohorts makes it possible to avoid the use of a control group. Instead, the cohorts will be compared to each other. By waiting a year to award the passes to the second cohort they can serve as the control group.

Tracking students over their four years in high school allow for assessing the long term impact. If the previous research is accurate, it takes time for the access to public transit to have an impact. This design would track an entire class through their four years, documenting changes in key variables such as attendance, grades, etc. over that time. The second cohort would be the control group for the first. In addition, this analysis allows for tracking the trajectory of the two cohorts and comparing changes in key variables.

While no one of these studies by themselves makes an ironclad argument for continuing and/or expanding programs providing transit passes to youth, taken together they are hard to ignore. The consistency in the findings and recommendations across these studies makes a strong argument for the value of the passes and for expanding the program. Each study points to ways in which youth benefit from having the pass, whether it is increased attendance, ability to participate in extra-curricular activities, getting to and from school and/or work safely, etc. A clear picture of the impact of such passes can only be created by investing in a large scale, long-term program that provides adequate resources for administering and assessing the program.

# Appendices

**Comparison of High Schools**

**Methodology**

**Student Demographics**

**Neighborhoods Surrounding Project Schools**

| COMPARISON OF SDUSD HIGH SCHOOLS FOR 2012 | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Measures** | | **Crawford** | **Hoover** | **Lincoln** | **La Jolla** | **Scripps Ranch** | **University City** |
| **State Ranking**[5] | **Statewide** | 1 | 2 | 1 | 9 | 10 | 8 |
| | **Similar** | 7 | 4 | 5 | 1 | 7 | 2 |
| **STAR Testing** Percent Proficient or Advanced | **English** | 30% | 33% | 26% | 79% | 87% | 70% |
| | **Math** | 17% | 11% | 16% | 46% | 62% | 38% |
| | **Science** | 23% | 21% | 10% | 68% | 78% | 64% |
| | **History/Social Science** | 27% | 29% | 20% | 72% | 84% | 56% |
| **CAHSEE 10th Grade** Percent Proficient or Advanced | **English** | 34% | 37% | 33% | 80% | 86% | 70% |
| | **Math** | 37% | 42% | 48% | 80% | 87% | 73% |
| **A-G Completion** | **Enrolled** | 50% | 72% | 74% | 79% | 70% | 79% |
| | **Completed** | 23% | 29% | 28% | 70% | 72% | 64% |
| | **On Track – Class of 2016** | 25% | 33% | 29% | 78% | 86% | 81% |
| **Students in AP** | **All** | 5% | 3% | 4% | 16% | 9% | 13% |
| **Completion** | **Dropout Rate** | 14% | 11% | 9% | 6% | 0.3% | 1% |
| | **Grad Rate** | 71% | 81% | 79% | 87% | 98.3% | 95% |
| **Teachers teaching out of area** | | 4% | 4% | 2% | 0.4% | 2% | 5% |
| **Students per Counselor** | | 403 | 384 | 443 | 453 | 454 | 459 |
| **Suspension Rates** | | 13% | 18% | 14% | 8% | 4% | 6% |
| **Teacher Salary** | | * | $60,739 | $60,512 | $68,240 | $66,037 | $65,862 |
| **Low Income** | | 100% | 100% | 100% | 22% | 20% | 32% |
| **English Learners** | | 40% | 30% | 32% | 7% | 3% | 8% |
| **Students of Color** | | 97% | 98% | 98% | 45% | 56% | 63% |

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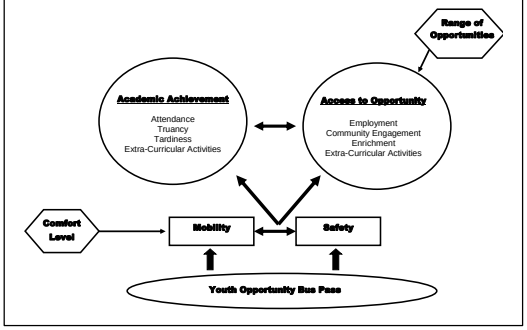
[5] Statewide Rankings range from 1 to 10. A "1" school ranks in the bottom 10% while a "10" school ranks in the top 10%. Similar School Rankings also range from 1 to 10 – schools are ranked among schools with similar demographics.

# METHODOLOGY

## INTRODUCTION

The Youth Opportunity Pass came from the work of "Improved Transportation in City Heights" (ITCH), a momentum team of Mid-City CAN. Their campaign for these passes was rooted in their Theory of Change. Illustrated in Figure A, their theory is that if students have access to public transit it would increase their mobility and sense of safety which, in turn, would improve their academic achievement and increase their access to opportunities. How mobile the youth become with the pass will be influenced (mediated) by how comfortable they feel using public transit. And their access to opportunity will be influenced (mediated) by the range of opportunities available. The evaluation is designed to assess the Theory.

**Figure A: Theory of Change**




The initial design was to distribute the 1000 passes equally among the four schools (250 each) with a control group of at least 125 per school. Table 1 shows the actual distribution of passes by school and the number of control group participants from each school. According to MTS, 876 passes were distributed by June of 2013 and that 664 or 80% were used. This level of usage is similar to that found in an assessment of a youth pass program in San Francisco where 78% of the eligible youth used the pass.

**Table 1: Sample Size by School**

| School | Treatment | Control |
|---|---|---|
| Crawford | 134 | 0 |
| Hoover | 106 | 33 |
| Lincoln | 196 | 98 |
| San Diego | 265 | 137 |

It should be noted that this assessment only covers a six to seven month period, November 2013 to June 2014. The passes began to be distributed in October of 2013, with most of them distributed by December 2014. Most of endline survey data were collected in May 2014 and the SDUSD data is for the school year ending in June 2014.

Students were required to submit an application to their school in order to be eligible for a pass and the school Principal or his/her designee selected the students who received the pass based on criteria such as:

- Distance from school
- Attendance
- At risk status related to academic and/or socio/emotional issues
- Present use of bus pass
- Involvement in extracurricular activities and/or employment
- Number of siblings in school

## DESIGN

The basic design of the assessment was a simple pre-post analysis of student behavior, comparing students with passes (treatment) to an equivalent group without passes (control). The variables to be examined as defined in the Theory of Change were:

- Mobility
- Safety

- Comfort
- Attendance
- Tardiness
- Grades
- Participation in extra-curricular activities
- Employment

The preliminary data on comfort indicated a baseline level so high that it isn't possible to show an increase and therefore was not analyzed here.

**Data Sources:**

The assessment of these variables came from three data sets:

1. Pre-Post Survey: Survey of treatment and control group participants to assess mobility, safety, comfort, participation in extra-curricular activities, employment and community engagement, etc.

   While the initial plan was to distribute passes at the very beginning of the school year in September 2013, distribution actually began in October 2013 and continued through to March 2014 with 676 passes distributed by December of 2013. Bringing three large institutions together on a single project is not an easy task and several challenges emerged in the distribution of the passes. The three most prominent challenges were funding, communication and implementation issues. The initial funding for the project came from the City of San Diego and SDUSD. MTS required the money to be on-hand before they could release the passes and moving the funds through three large institutions took more time than anticipated. Communication between SDUSD and MTS on what and how student information needed be shared to produce the passes also slowed the process. On the ground there were two issues, i.e., getting applications for the passes submitted and the logistics of connecting with the students at each school. Issues such as language, citizenship status, length of time in the United States, etc. made the recruitment of students for the project more labor intensive than initially thought, requiring a significant investment on the part of Mid-City CAN. The level of investment in the project by each school dictated how well the initial process went and the actual distribution of passes shown in Table 1 reflects the level of investment. While all schools held assemblies in the beginning of the school year, these did not occur as planned at the end of the school year as only two schools conducted year-end assemblies. A miscommunication resulted in no surveys being available at an assembly at one school and the other school was in the midst of a change in leadership and never scheduled an assembly. Make-up assemblies were held at the beginning of the next school year. Table 2 shows the sizes of the samples used in the analysis here. As can be seen the sample size dropped approximately in half between the pre-test and the post-test.

   **Table 2: Sample Size for Base and Endline Surveys**

| Baseline Survey | | Endline Survey | |
|---|---|---|---|
| **Treatment** | **Control** | **Treatment** | **Control** |
| 512 | 122 | 243 | 67 |

2. Travel diaries and interviews with students: Volunteers willing to maintain a travel journal and/or be interviewed were solicited at the initial assemblies. Twelve students submitted travel journals and four students were video interviewed.

3. SDUSD Data: The District provided demographics, attendance, tardiness, grades, distance from school, etc. for three school years. The analysis presented here is based on 701 students who have received bus passes and 273 students in the control group.

While not included here but critical to a full assessment of the Youth Opportunity Pass are data on the actual pass usage that shows how often, when and where the passes were used in comparison to other youth pass holders. This data is held by MTS and has not been accessible for analysis.

It should be noted that there is some anecdotal evidence that the control group is contaminated in that some students may have purchased transit passes for part or all of the year. It is estimated that as many as a quarter of the control students may have had a pass at some time during the year. This kind of contamination would certainly lower any differences between the control and treatment groups.

## Analysis

Following the Theory of Change, the analysis was designed to assess the key variables. These were:

**Safety:**

Safety was assessed by asking students to report if they had witnessed and/or been victimized by crime, bullying and/or sexual harassment. The initial processing of the data examined the differences between the treatment and control groups pre and post school year. This initial analysis presented modestly positive picture. Half of the students reported a reduction in in victimization and/or witnessing crime, bullying and/or sexual harassment while walking to and from school and while on campus. Another 24% reported no change and 26% reported an increase in these situations. In all but three cases, the increase was 2% or less while the decreases in these situations were generally greater, ranging up to 14%. A second analysis of the data, comparing the amount and direction of changes in the treatment group from pre to post-test to changes in the control group, presents a much more positive picture. In this analysis, presented in the report, the outcomes for the treatment groups were better than the outcomes for the control group in 86% of the response sets and about the same in the remaining 14%.

**Mobility:**

Mobility was assessed by asking students to rate the frequency with which they did certain things on a five point scale: 1 = Never; 2 = Rarely; 3 = Sometimes; 4 = Often; 5 = Always. The analysis in the report examines changes in the percent of people rate their frequency as "often" or "always." They were asked to rate the frequency with which they:

- Used various means to get to and from school
- Used various means to get around for non-school activities
- Used public transit for a list of purposes such as work, internship, recreation, etc.

Like the safety data, the initial processing of the data examined the differences between the treatment and control groups pre and post school year. The results from this analysis were mixed, making drawing any conclusions from the data impossible. In doing the second analysis, comparing the amount and direction of changes in the treatment group from pre to post-test to changes in the control group, a picture similar to but weaker than the findings related to safety emerged. This analysis shows that the treatment group has more positive outcomes in 56% of the response sets and was equivalent to the control group in 22% of the response sets. The remaining 22% had negative results in that the control group outcomes were more positive than the treatment group outcomes.

**Academic Achievement:**

Academic achievement was assessed by examining:

- Attendance rates
- Tardiness
- Grade Point Average
- Participation in extra-curricular activities

The first three data sets came directly from the SDUSD while the data one participation in extra-curricular activities was taken from the surveys.

Attendance Rates: Two issues emerged in examining the attendance rates within the District.

1. The schools in the project have a "negative attendance" policy. Negative attendance means that teachers do not call roll and only report students who are absent. If a student is not marked absent s/he considered present. If a teacher fails to mark a student absent s/he is considered present. If a substitute teacher is running the class and doesn't know the students, s/he is likely not to mark anyone absent. In addition, there are cases where the student's status is unclear (e.g., a student marked absent in some classes and not in others throughout the day) and the attendance clerk must make a decision as to whether the student is present or not. There are no set criteria for making such a decision. The result of this policy is the likelihood that the attendance rates are inflated. This inflation, however, appears to be constant across all students, making cross-year and cross-group comparison appropriate.

2. Drop in attendance across the board. As can be seen in Table 3, there is an approximate 10% drop in the students' attendance rates from 2012-2013 to 2013-2014. The attendance rates for the two years prior to the Youth Opportunity Pass range between 94% and 96% while the year following the project (2013-2014) attendance rates ranged between 83% and 85%. According to the District this drop in attendance rate is due problems implementing a new data system. However, it is also the District's sense that the errors being made are consistent across the project making it possible to compare this last year to the other two. In order to compare the years, student attendance rates were first converted to Z or standard scores and then compared. Rather than comparing the raw number, Standard Scores compare placement in the distribution. If the passes are having a positive impact on attendance, members of the treatment group should move up in the distribution while control group members should move down. A t test indicated that there was no difference between the control and treatment groups for 2012-2013. However, the difference between the two groups in 2013-2014 approaches significance (p=0.053).

**Table 3: Attendance Rates**

| | | 2011-2012 | 2012-2013 | 2013-2014 |
|---|---|---|---|---|
| **Attendance** | **Treatment** | 96.4% | 95.7% | 85.3% |
| | **Control** | 95.7% | 95.7% | 84.1% |

Tardiness: Because the District does not collect data on tardiness directly it was assessed by examining attendance rates for the first period of the school day. Students marked absent for the first period but present for the day would be considered "tardy." Because of this definition, tardiness comes with the same concerns raised in the attendance data in general.

Grade Point Average: Student grade point averages were reported for three years.

Extra-Curricular Activities: Involvement in extra-curricular activities was assessed by asking students to rate how frequently they participate in a specific list of activities, i.e.: Tutoring, Youth Group, ESL Classes, Sports, Church/Mosque, Golf, Community Based Organizations. They were also asked how frequently they used public transit to do the following: get to job, get home from a job, look for a job, look for an internship, visit friends, recreation, afterschool activities, shop for family, shop with friends, family chores. These data were analyzed in the same manner as the mobility data, i.e., comparing the amount and direction of change pre to post-test for the treatment and control groups.

**Access to Opportunity:**

Access to opportunity was assessed by the percentage of students working and/or looking for work and their participation in extra-curricular activities. The pre-post survey asked students if they had worked or had looked for work over the past year. Participation in extra-curricular activities was assessed using the method described above.

## Student Demographics – Youth Opportunity Pass

| Student Demographics for SDUSD Data | | | | |
|---|---|---|---|---|
| | | Treatment | Control | Difference |
| N | | 701 | 273 | 428 |
| Gender | Female | 55.2% | 47.6% | 7.6% |
| | Male | 44.8% | 52.4% | 7.6% |
| Grade | 9th | 22.0% | 22.8% | 0.0% |
| | 10th | 25.2% | 26.0% | 0.8% |
| | 11th | 26.4% | 24.2% | 2.2% |
| | 12th | 26.4% | 23.1% | 3.3% |
| Ethnicity | African American | 21.4% | 20.9% | 0.5% |
| | Asian | 10.1% | 3.7% | 6.4% |
| | Hispanic | 60.2% | 67.4% | 7.2% |
| | Multiracial | 2.7% | 3.3% | 0.6% |
| | Native American | 0.0% | 0.4% | 0.4% |
| | Pacific Islander | 0.3% | 0.0% | 0.3% |
| | White | 5.3% | 4.0% | 1.3% |
| Home Language | Spanish | 50.1% | 57.1% | 7.0% |
| | English | 28.9% | 31.9% | 3.0% |
| | Southeast Asian -Combined | 7.3% | 2.6% | 4.7% |
| | African-Combined | 5.8% | 0.7% | 5.1% |
| | Other Non-English | 3.6% | 2.6% | 1.0% |
| | None listed | 4.3% | 5.1% | 0.8% |

| Student Demographics for Survey Participants | | | | | |
|---|---|---|---|---|---|
| | | Pre | | Post | |
| | | Treatment | Control | Treatment | Control |
| | N | 512 | 122 | 243 | 67 |
| Gender | Male | 44% | 44% | 41% | 49% |
| | Female | 56% | 56% | 59% | 51% |
| Age | 14 and under | 14% | 19% | 16% | 16% |
| | 15 | 27% | 20% | 27% | 30% |
| | 16 | 25% | 28% | 34% | 37% |
| | 17 | 25% | 23% | 16% | 12% |
| | 18 and over | 8% | 11% | 8% | 4% |
| GPA | | 2.6 | 2.3 | 2.5 | 2.4 |
| Distance | Mean | 2.1 miles | 2.1 miles | 2.4 miles | 2.1 miles |
| | Less than 1mile | 16% | 14% | 15% | 13% |
| | 1 to 1.99 miles | 37% | 44% | 42% | 45% |
| | 2 to 2.99 miles | 27% | 25% | 22% | 19% |
| | 3 to 3.99 miles | 11% | 7% | 8% | 16% |
| | 4 to 4.99 miles | 6% | 3% | 5% | 6% |
| | 5 miles or more | 10% | 6% | 8% | 0% |

## Neighborhoods Surrounding Project Schools

Azalea/Hollywood Park

Broadway Heights

Cherokee Point

Chollas Creek

Chollas View

Colina del Sol

Core-Columbia

Corridor

Cortez

East Village

El Cerrito

Emerald Hills

Encanto

Fairmont Park

Fairmont Village

Fox Canyon

Lincoln Park

Mountain View

Mt. Hope

O'Farrell

Oak Park

Ridgeview/Webster

Skyline

Stockton

Teralta East

Teralta West

Valencia Park