CITY OF MOUNTAIN VIEW

The City of Mountain View
Vehicle Emissions Reductions Based at School (VERBS) Program

Final Report

April 2015 – March 2018

Submitted by:
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Acknowledgements

This final report represents the work of **Safe Moves** as the contractor for the City of Mountain Vehicle Emissions Reductions Based at Schools (VERBS) Program for 2015-2018. This report documents the history, highlights, and scope of work in both data and photographs. **Safe Moves** would like to acknowledge the efforts of City of Mountain View City Staff, Bicycle and Pedestrian Advisory Committee, Mountain View / Whisman School District, Mountain View / Los Altos Union High School District, Mountain View Police Department and Mountain View Public Library.

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INTRODUCTION

The City of Mountain View was awarded a federally funded, three year, non-infrastructure grant for the Vehicle Emissions Reductions Based at Schools (VERBS) Program. The grant, funded with Federal Highway Congestion Mitigation and Air Quality (CMAQ) funds, was awarded by the Santa Clara Valley Transportation Authority (VTA).

The VERBS Program is Santa Clara County's locally programmed portion of the Metropolitan Commission's (MTC) Climate Initiative Safe Routes to School Program.

The VERBS Program is a program focused on reducing greenhouse gases by promoting walking, bicycling, transit and carpooling to schools.

The purpose of the program is to:

- Facilitate the planning, development and implementation of activities that would reduce traffic, fuel consumption and air pollution in the vicinity of schools.
- Reduce traffic-related injuries and fatalities to school children
- Enable and encourage children, including those with disabilities, to walk and bicycle to school
- Make bicycling and walking to school a safer and more appealing transportation alternative to encourage a healthy and active lifestyle

Safe Moves, a non-profit organization was selected as the contractor through a competitive bid process and was awarded the grant to conduct the VERBS Program from April 2015 to March 2018.

STATEMENT OF NEED

In 1970, seeing children and teens walk or bike to school was a common site. Research indicated that nearly 90% of students who lived approximately one (1) mile from school walked and/or bicycled. In recent years, the number of children riding and walking to school has declined dramatically. In fact data shows that only 15% of children and teens walk or bicycle to and from school. *(Source: NHTSA)*

There are plenty of great reasons for students to walk and bike to school – less traffic, safer streets, cleaner air and health. With obesity rates skyrocketing and only one-quarter of Americans getting the Surgeon General's recommended daily dose of exercise (just 30 minutes), it's an ideal time to encourage people to walk and bike to school for their own health and well-being.

The component necessary to make a walking and bicycle program successful is safety. Parents of school children most commonly report: distance to school, traffic danger, adverse weather conditions, fear of crimes against children, and crime in the neighborhood as barriers to promoting or allowing their children to walk and/or ride bicycles to and from school. Their concerns are legitimate. Children's vulnerability in traffic is attributed to their developmental and behavior limitations in complex traffic situations.

Even though safety is important, the use of alternative modes of transportation should involve a lot more than just safety. An important element of a walking, bicycling, carpooling and transit use educational program is that it should promote "*walking, bicycling, carpooling and transit use*." Focusing solely on the dangers of the road tends to discourage parents allowing their children to use these alternative modes of transportation.

The best bicycling and walking programs highlight the benefits such as exercise, pleasure, healthy transportation—while arming children and teens with the knowledge and tools they need to be safe bicyclists and pedestrians.

DESCRIPTION OF APPROACH

Safe Moves used a multifaceted program to accomplish the goals and objectives of the City of Mountain View VERBS Program. The educational component of the program utilized proven strategies based on experiential educational principles and social marketing campaigns.

Safe Moves established a partnership with the Mountain View Whisman School District, Mountain View Los Altos Union High School District and private schools in order to best implement the program. This was accomplished by having thorough knowledge of the school environments and their traffic concerns as well as an appreciation of the diversity among students within the school communities.

PROGRAM OVERVIEW

The VERBS Program is following the national trends in health, safety, the environment, and land use.

The effects of increased automobile traffic go beyond safety concerns – there are also environmental health considerations. The EPA reports that transportation is the fastest growing source of greenhouse gas emissions in the United States. Children are particularly vulnerable to air pollution because they inhale more air pound of body weight. Exposure to fine particulates from fuel combustion is associated with increased frequency of childhood illness, including asthma.

Stand outside almost any elementary school at arrival and dismissal times and you are likely to witness parents and caregivers converging in their vehicles. Many will be parked with their engines running, increasing the amount of fine particulates within the school zone.

Reducing the frequency of motor vehicle trips to school and increasing the number of students walking, bicycling or using other active modes of transportation not only improves children's physical health, but is a relatively simple way individuals can

improve the air quality surrounding schools and reduce greenhouse gas emissions.

Parents who drive their children to school are reacting, in part, to decades of auto-oriented land use planning that has neglected pedestrians and bicyclists as users of the transportation system. Fewer children walk and bicycle to school today than ever before. At the same time, childhood health has declined, car crashes involving children have increased, air quality had deteriorated, and schools have been built father away from where children live. Many school officials, health advocates, and transportation professionals feel that increasing walking and bicycling to school can positively contribute to the well-being of children and reverse recent treads.

Walking and bicycling to school is important not only in helping to address and perhaps reverse trends, but walking and bicycle to school gives children time for physical activity and a sense of responsibility and independence; allows them to enjoy being outside; provides them with time to socialize with their parents and friends and to get to know their neighborhood. Parents have often noted that they look forward to their time walking or bicycling with their children because it gives them a chance to bond with their children without distractions.

Safe Moves programs were sustained efforts to improve health and well-being children by enabling and encouraging them to walk and bicycle to school. **Safe Moves** efforts began by understanding why kids are not walking and bicycling to school. **Safe Moves** audited conditions around the school and conducted surveys of parents, teachers and students to determine existing attitudes and facilities around schools. **Safe Moves** then identified opportunities to make bicycling and walking to school a safer and more appealing transportation choice, thus encouraging a health and active lifestyle from an early age.

Safe Moves used multi-disciplinary programs and facility improvements aimed at promoting walking and bicycling to school. These programs largely centers on the "Five Es" They include Education, Encouragement, Engineering, Enforcement and Evaluation. **Safe Moves** included strategies from each of the Five Es as described below:

E1: Engineering

Safe Moves generated awareness among parents and students of the design and traffic control devices of streets and sidewalks with the understanding that engineering alone cannot produce safer routes to school.

Safe Moves promoted the evaluation of sidewalks, crosswalk facilities and bike lanes in order for parents to participate in the preparation of the Suggested Routes to School Maps.

E2: Enforcement

Safe Moves worked with MVPD to address the issues of speeding, illegal turning and lack of adhering to traffic signs and signals with the goal to getting the driving community as well as students and parents to work together to promote safer walking, bicycling and driving.

Safe Moves worked with MVPD to increase patrolling around schools during arrival and dismissal times to deter hazardous behaviors.

E3: Education

Safe Moves identified and promoted the use of suggested routes to school, teaching students to safely crossing the street and obey traffic signs and signals and handling dangerous situations and the importance of being visible to drivers. The education initiatives also stressed the importance of each parents being aware of the presence of walkers and bicyclists and the need to slow down, especially in school zones. **Safe Moves** worked with City Staff to identify regulatory changes needed to improve walking and bicycling conditions around schools.

E4: Encouragement

Safe Moves recognized the need to promote walking and bicycling as a viable mode of transportation. **Safe Moves** conducted activities that encourage the entire school community to walk or bike were developed and promoted activities that focused on turning walking and bicycling into routine transportation options.

E5: Evaluation

Safe Moves monitored outcomes and documented trends through data collection before and after programming to identify successful methods and practices to ensure measure overall effectiveness.

Safe Moves determined the program impact and identified additional concerns and obstacles within the community to ensure relevancy to prioritize facility and programming improvements.

SCOPE OF WORK

Project Management and Coordination

Description: **Safe Moves** developed a work plan than included an outline for implementation and monitoring of the Project. Microsoft Project software was used to create the schedule which outlined all deliverables, tasks and duration.

Monthly Reports

Description: Status reports were submitted that included a description of tasks completed, a schedule of up-coming events and the status on on-going tasks.

Monthly Detailed Schedule

Description: Schedules were developed that detailed the programs to be conducted. The schedule included date, time, location and a description of the programs.

Kick-off meeting

Description: A kick-off meeting with District staff and principals was conducted that included an overview of the program. The kick-off meeting developed into monthly meetings with school staff.

Coordination of involvement/input by Stakeholders

Description: Periodic meetings were held and/or attended with Mountain View Whitman School District and Mountain View Los Altos Union High School District staff to discuss programs and traffic/transportation issues.

Services

1. **Project Identification: High School Programs**

Deliverables: Two hundred (200) presentations at high schools.

Description: The goal of the programs was to encourage students to use bicycling and walking as their active transportation choices as well as to walk and ride safely. Emphasis was placed on safe behaviors, state and local laws, as well as explanations of the City's infrastructure serving bicyclists and pedestrians.

Safe Moves met with school administrators and PE teachers to encourage active transportation choices among their students. Due to the limited availability of class time, the schools opted to have fewer events that addressed a larger audience each. In conjunction with parent volunteers, Safe Moves promoted bicycling to school. Incentive programs were implemented to encourage teens to walk and bicycle to school. Snacks, bike lights, helmets were distributed at events. In addition Safe Moves conducted 'lunch time programs' to repair bicycles and provide safety information.

The total number of students who participated in the programming is therefore much higher than proposed. See Program Chart on page 14 for further details.

2. **Project Identification: Suggested "Safe Routes to School" Maps**

Deliverables: Revised Routes Maps

Description: Safe Moves reviewed and updated the "Suggested Routes to School Maps" in order to reflect the infrastructure improvements, traffic patterns and land use developments around school sites.

Safe Moves met with school administrators, parents, students, and city staff to discuss their concerns about the commute to school. This input from the people who participate in the commute on a daily basis was factored into the final route choices.

3. Project Identification: Elementary / Middle School Workshops

Deliverables: Five hundred (500) elementary & middle school workshops

Description: Students in grades K- 3 participate in a workshop program called "*Play2BSafe, Healthy and Wise*". These workshops involve students participating in a play about the adventure of walking and bicycling to school. Elements of traffic safety, eliminating vehicle trips to and from school and improving air quality were all part of the workshop.

This program component combined creativity, improvisation, student participation and humor to help students learn about bicycling and walking as a fun, safe and effective way to get to school.

The lesson plans for K-3 included:

- Safe places to ride and walk
- Unsafe places to ride and walk
- Explanation of traffic signs and signals
- Rights and responsibilities of bicyclists and pedestrians
- Helmet use (proper fit and adjustment)
- Recognition and avoidance of common bicycle and pedestrian collisions
- Explanation of the role of the crossing guard
- Understanding of driver, pedestrian and bicyclist behaviors
- School transportation/traffic policies (pick up and drop off procedures)
- Importance of bicycling and walking for physical fitness
- Effects of walking and bicycling for a cleaner environment
- Identification of hot spots (crime, bullies, hazards corners & crosswalk, truck traffic)

Workshops for Grades 4-9 were conducted in a game show format called *Traffic Jeopardy* with the instructor as the game show host. This program component engages the students in active learning by challenging their critical thinking skills. *Traffic Jeopardy* covers safety and environmental consequences of traffic congestion and pollution.

Traffic Jeopardy included:

- Bicycle and pedestrian safety
- California Vehicle Code laws and regulations
- Skills necessary to make smart choices in traffic
- Use of bike racks, bike lanes, bike paths, bike trails
- Explanation of traffic environment (infrastructure)
- Recognition and avoidance of common traffic collisions
- Understanding of driver, pedestrian and bicyclist behaviors
- Identification & avoidance of hot spots (crime, bullies, congested intersections, construction area.
- School transportation/traffic policies
- Explanation of school routes
- Promote the Bike Trains and Walking School Buses
- Effects of walking and bicycling on a cleaner environment
- Importance of bicycling and walking for physical fitness

In addition, **Safe Moves** provided workshops for student councils, student leadership clubs, student bike clubs, student environment club, after-school staff, designated school representatives and approved school volunteers.

Due to increased enrollment and school construction, the demands on the spaces available for workshops at the schools has been limited in the last few years. Instead of scheduling more workshops, schools opted schedule fewer events in their one large space (auditorium or multipurpose room). This resulted in fewer overall workshops but more participants than proposed. Refer to the Program Chart on page 14 for further details.

4. **Project Identification:** Practical Hands-On School and Community Bicycle & Pedestrian Safety Rodeos

Deliverables: Sixty (60) bicycle & pedestrian safety rodeos.

Description: Bicycle and Pedestrian Safety Rodeos were conducted allowing students to experience traffic situations in a traffic simulation course called "**Safe Moves City**". Practicing their safety habits in a realistic setting improves the students' ability to recognize and avoid traffic hazards in actual traffic situations. The lesson plans and traffic situations were more challenging for the upper grades so as to accommodate their "real life traffic challenges".

"**Safe Moves City**" includes the following:

- Sidewalks
- Intersections
- Crosswalks
- Traffic signs and signals
- Car
- Truck
- Bus
- 1 House and garage
- 2 stores
- Alleyways
- Railroad tracks with train
- School

In addition, bike stations were set up using cones and chalk that provided basic braking, steering and balancing exercises.

Bicycles and helmets were provided for those students who did not bring them to school. Students were taught how to properly fit and adjust their bicycle helmets as well as conduct a bike check for tires, brakes, seat and handlebars. For any student with a bicycle and/or helmet that was in need of repair or replacement, they received an information card that they were to take home to their parents.

All lesson plans were designed to be age-appropriate and administered by trained safety instructors. Rodeo Lesson Plans were as follows:

- Safe places to ride and walk
- Unsafe places to ride and walk
- Explanation of traffic signs and signals
- Rights and responsibilities of bicyclists and pedestrians
- Helmet use (proper fit and adjustment)
- Recognition and avoidance of common bicycle and pedestrian collisions
- School transportation/traffic policies (pick up and drop off procedures)
- Explanation of the "Suggested Safe Routes to School" maps provided by the school district
- Importance of bicycling and walking for physical fitness
- Effects of walking and bicycling for a cleaner environment
- Identification of hot spots (crime, bullies, hazards, corners & crosswalks, truck traffic)
- Use of bike racks, bike lanes, bike paths, bike trails
- Skills (stopping, balancing, braking, left shoulder check, scanning)
- Explanation and demonstration of role of crossing guards
- California Vehicle Code laws and regulation
- Explanation/simulation of traffic environment (infrastructure)
- Understanding of driver, pedestrian and bicyclist behaviors
- School transportation policies
- Explanation of "Suggested Route Maps"
- Importance of bicycling and walking for physical fitness
- Effects of walking and bicycling on the environment
- Identification of hot spots (crime, bullies, truck traffic etc.)

When possible, **Safe Moves** conducted site surveillance of the transportation choices of students and their behaviors so that this information could be incorporated into the lessons plans.

Feedback from the school administrators and students has been that these smaller, hands on training sessions are more effective and valuable than the more passive workshops. **Safe Moves** therefore placed more of an emphasis on rodeos at the expense of workshops.

5. Project Identification: Cycle Skills Course for High Schools

Deliverables: Twenty (20) cycle skills courses

Safe Moves met with school administrators and PE teachers to discuss implementing a bicycling skills course during the school day. School administrators expressed they wanted efforts focused on promoting the monthly bike rides and requested that **Safe Moves** speak with the students during this time and provide educational programs during the lunch time hour.

6. Project Identification: School Wide and Community Wide Information Source

Deliverables: Website

Safe Moves provided program information and data for the City's website. In addition **Safe Moves** worked with the Mountain View/Whisman School District to provide information that teachers, parents and students could access to learn more about bicycle and pedestrian safety. **Safe Moves** provided each school with program photos, news of infrastructure improvements and the District-wide bike policy.

MVWSD Principal Meetings

Safe Moves participated in Principal meetings at the invitation of the Mountain View / Whisman School District Superintendent to provide program updates, discuss traffic issues and serve as a resource for bicycle and pedestrian laws and ordinances.

School Meetings

Safe Moves schedule routine meetings with school principals and PTA representatives to discuss program updates, traffic issues, drop-off & pick-up procedures and general safety education. The secondary goal of the meetings was to encourage school staff and parents to stay engaged in encouraging bicycling and walking among their students. Safe Moves discussed the benefits of establishing a school-based Safe Routes to School Committee to sustain the improvements made by the VERBS Program.

Community Events

Safe Moves conducted community outreach at city events to provide education and awareness of the program to the general public. This included information booths, trivia games, and helmet give-aways. **Safe Moves** also supported the community organized Family Bike Rides with ride leaders.

Bike It!

Safe Moves organized an annual orientation ride to the middle schools for all 5th graders. Rides started at elementary schools or local parks and go to the middle school, where the students were welcomed by school and city staff and heard safety talks from MVPD. In conjunction, all 5th grade classrooms had a helmet safety reminders the week before the ride.

7. Project Identification: Elementary Teacher Training

Deliverables: Teacher training handbook and curricula

Description: Safe Moves provided training materials that met California State Board of Education (SBE) adopted health, physical education and science standards, State of California School District Curriculum Standards and Environment Initiative (EEI).

The goals of the curriculum were:

- Teacher Friendly
- Student Friendly
- Age/Grade Appropriate
- Successful integration mechanism for all subjects
- Interactive

In order to provide teachers with the awareness of how to implement the program Safe Moves involved them in the workshops and rodeos. Teachers played an active role in providing the students with bicycle and pedestrian safety information.

8. Project Identification: Encourage Events

Deliverables: Walk & bike to school days

Description: Safe Moves coordinated schedules and planned events with the elementary schools. **Safe Moves** provided flyers, raffle tickets, prizes (including bicycles and helmets), and a welcome to school exhibit featuring various activities like traffic sign costume characters. **Safe Moves** also collected data to document the number of students who walked and bicycled to school. Events were held throughout the year to celebrate various dates, such as:

- Walk to School Day (October)
- I Love to Walk, Ride & Roll Day (February)
- Turkey Trot Day (November) Day
- Reindeer Romp (December) Day
- Earth Day Walk, Ride and Roll (April) Day

Anything But a Car (ABC) Days

Safe Moves coordinated schedules and planned events with the Crittenden Middle School and Graham Middle School. **Safe Moves** provided flyers, raffle tickets, prizes (including bicycles and helmets), and a welcome to school exhibit featuring various activities like traffic sign costume characters. **Safe Moves** also collected data to document the number of students who walked and bicycled to school.

The Leadership class at Crittenden Middle School has taken on regular ABC Days as a project this year (held the first Wednesday of every month). In addition to the typical bike raffle or blender bike, the students have come up with unique and creative incentives like an Earth Day themed bingo game.

Carbon Free Commute Challenge

Safe Moves worked with parents and students at Mountain View High School to promote and conduct monthly students to bicycle to school. Students who rode to school received hot chocolate and other prizes such as bike lights and locks. **Safe Moves** coordinated lunch time activities that included the blender bike to make smoothies

for students and to giveaway bicycles, helmets and other bike related merchandise.

9. Project Identification: Workshops and Programs for Parents

Deliverables: Parent Education Workshops and Radio Frequency Identification Reader System.

Safe Moves conducted workshops for parents as well as facilitated their involvement in school events. The goal was to not only educate them on bicycle and pedestrian safety, but to implement on-going encouragement programs that promote walking and bicycling to school.

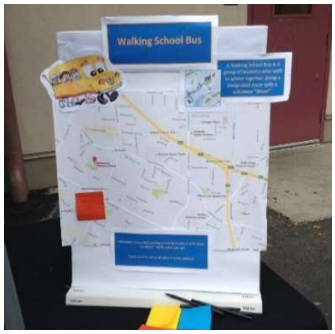
Superintendent Goldman declined to implement the Radio Frequency Identification Reader System at school sites.

PTA / School Site Council Meetings

Safe Moves participated in PTA/School Site Council meetings to provide program updates, discuss traffic issues and serve as a resource for bicycle and pedestrian laws and ordinances.

Walking School Buses and Bicycle Trains

Safe Moves conducted meetings with parents and school staff to structure the format for the Walking School Buses and Bicycle Trains. The goal was to build interest and generate confidence among the parents and school staff that the students were well educated in bicycle and pedestrian safety and to establish that the routes to school were safe for students.



10. Project Identification: GHG Emissions Data Collection

Deliverables: Compile data and calculate GHG emissions for each school

The standard GHG emissions calculations assume average emissions from a typical car over an average trip length. Unfortunately, severe traffic congestion such as most schools are seeing lately results in idling cars. The schools do not have a good estimate of how long cars wait, therefore any estimate is of limited usefulness.

Instead, **Safe Moves** has worked with schools to not only shift students and parents to more active modes of transportation, but also to change drop off and pick up procedures to result in less congestion. Parents were strongly encouraged to drop off at alternate spots and walk the rest of the way (such as the shopping plazas by Huff and Monta Loma, or the bank parking lot by Graham). Simply having before school supervision so parents can drop off earlier and avoid the mad rush at the bell has also been an effective strategy.

Additional Deliverables

Deliverables: County-Wide SRTS Projects

Safe Moves interfaced with county-wide SRTS working group and Traffic Safe Community Network (TSCN) to include the Mountain View student transportation survey results in the county-wide Student Travel Tally Report to be released in spring/summer 2018).

Deliverables: Traffic Audits & Recommendations

Safe Moves facilitated school-specific traffic improvement programs. Every school in the Mountain View / Whisman school district has undergone or is undergoing a major construction project. This, in addition to the increased population and traffic in town, has considerably impacted traffic around the schools. **Safe Moves** networked with schools and conducted traffic audits to identify the worst offenders. Traffic

committees of school officials, concerned parents, MVPD, and traffic engineers were created to address the problems at each site. Solutions included infrastructure improvements, enforcement campaigns, and parent/student education programs.

Crittenden: Mountain View installed stop sign at the Telford/Rock intersection to replace the yield sign.

Graham: Mountain View is installing protected bike lane on Castro Street and upgrading the surrounding intersections. **Safe Moves** created an education campaign on how to use the new street layout.

Huff: There has been an Intensive campaign to improve the safety at the back entrance (Carol Sleeper intersection). Mountain View installed new signage and repainted the red curbs and crosswalks. **Safe Moves** created safety reminders to be sent to parents by the school principal and hosted a regular schedule of safety-focused walk to school events.

Landels: **Safe Moves** and school staff created a targeted driver safety campaign for drop off and pick up. Mountain View installed a new bike lane on Calderon.

Mountain View High School: MVHS has long had a robust Carbon Free Commute Challenge program which holds monthly events to encourage students to walk and bike to school. The parent organizer is graduating out of the school and there is no replacement yet. **Safe Moves** is talking to likely 8th grade parent volunteers.

Springer: **Safe Moves** assisted in an improved drop-off and pick-up procedures and created safety reminder flyer for parents about drop off procedures. **Safe Moves** also facilitated a conversation with the city engineers about pedestrian and bike traffic along Cuesta Dr.

Theuerkauf: **Safe Moves** assisted in an improved drop-off and pick-up procedure and created safety reminder flyers for parents about drop off procedures.

Deliverables: School Bike Racks

Safe Moves worked with the Mountain View / Whisman School District to secure funding for new bike racks at all elementary and middle schools.

Deliverables: MVWSD Bike Policy

Safe Moves produced a comprehensive bike policy for the Mountain View / Whisman School District that is consistent with traffic laws and National Safe Routes standards. With the approval of the Superintendent, **Safe Moves** presented the policy to Board of Directors. The Board voted to establish the policy. **Safe Moves** implemented an educational awareness campaign to educate parents and students on the new requirements, such as wearing a helmet and having a legal bike with brakes and reflectors. To address the financial challenge some families faced in purchasing helmets, **Safe Moves** secured helmets for distribution to students as well offered schools a low cost helmet program.

PROGRAMS CONDUCTED

VERBS Program Totals April 2015 - March 2018							
Task	**Deliverable**	**Projected # Programs**	**Total # Programs**	**Difference**	**Projected # Participants**	**Total # Participants**	**Difference**
1	High School Programs	200	45	-155	6900	21153	14253
3	Elementary / Middle School Workshops	500	221	-279	6273	38493	32220
4	Bicycle & Pedestrian Rodeos	60	241	181	6273	10447	4174
5	High School Cycle Skill Courses	20	1	-19	NA	25	25
7	Elementary Teacher Training	1	1	0	NA	50	50
8	Encouragement Events	NA	123	123	NA	14401	14401
9	Parent Workshops	NA	13	13	NA	811	811
	School Meetings	NA	211	211	NA	NA	NA
	Total Programs and Events	**781**	**856**		**19446**	**85380**	

RESULTS

Student transportation choices are affected by a variety of factors. Some are consistent, such as commute route, parents' work schedule, and city traffic. Others are more variable, such as weather, afterschool activities, and special events. The best way to get a comprehensive picture of how students are getting to school from day to day is to have students record the data in the classroom. While the school districts and teachers are generally supportive of these programs, they do not have the time or resources to conduct surveys every day. Instead, one district-wide snap shot is taken yearly, and is augmented by other, less intrusive, methods. The various data sets cannot therefore be combined, however taken together, they do provide a better overview of how students are getting to schools.

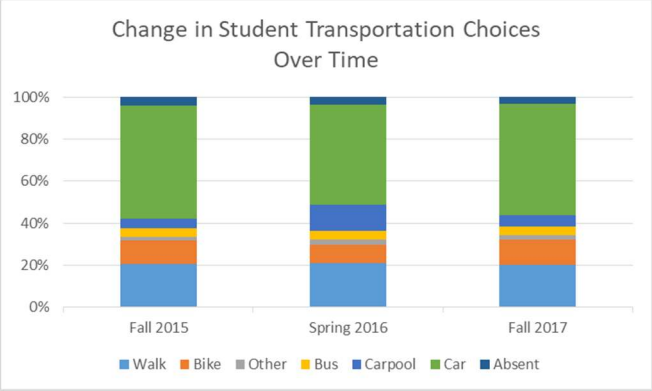
Following the National Safe Routes to School guidelines, commutes are categorized as: Car, carpool, bus, bike, walk, and other. "Other" is a catch all for scooters, skateboards, rollerblades and the like. It can be very interesting to look at the various commute methods individually. Overall trends, however, are best described with fewer categories. As the goal of the program is to get students into active transportation modes and reduce the number of cars on the road, the common discussion data point is the sum of all choices except a car (walk + bike + other + bus + carpool). Note car riders are denoted in green on all the following charts, so this can be visualized as everything except the green.

Student Travel Tally Survey

The Student Travel Tally Survey is conducted annually. On pre-arranged days, teachers district-wide are requested to survey their students on how they got to school that morning. The intent is to conduct the survey for the entire city in the same week to avoid issues of weather and holidays, however practical considerations in the classroom often make for differences in survey dates.

The survey is based on the National Safe Routes to School survey. This standardization allows for comparison from year to year, and between various schools and cities. The County of Santa Clara is compiling its first county-wide picture based on the fall 2017 data (the report is due out in April 2018).

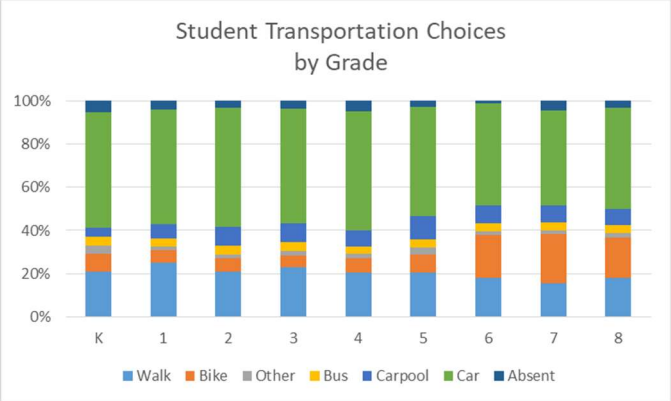
Three surveys were conducted over the course of this VERBS program: Fall 2015, spring 2016, and fall 2018. The two fall surveys show the change in commute habits over the 3 years. In 2015, 42% of students got to school in some way other than a car. In 2017, that number rose to 44%. Although the gains are smaller than in the previous VERBS cycle, it also represents a program that is holding steady against outside pressures. Every school in the Mountain View / Whisman School District except Theuerkauf is currently undergoing a large construction project that is significantly disrupting traffic patterns and creating parent concerns about commuting safety. At the same time, Mountain View's population is changing and increasing. There's more traffic on the roads, and more new families who might not be as comfortable with the neighborhood. As outlandish as it sounds, there is also concern from parents about the widely-published accounts of cities punishing "free range parenting" with investigations by Child Protective Services.



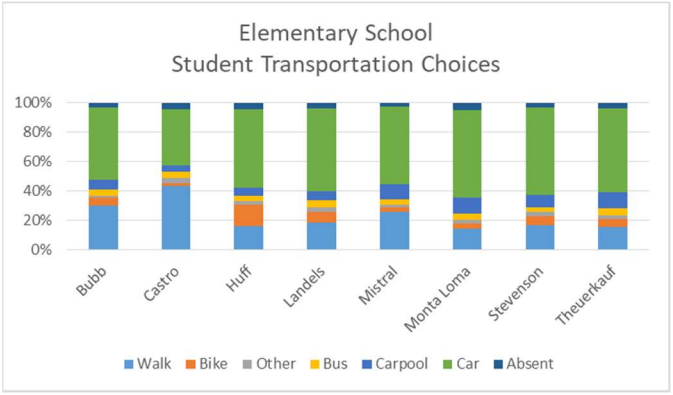
The survey data also shows other interesting, if somewhat intuitive, trends. As students get older, more independent, and move into middle school, the percentage of bikes increases. Parents are more willing to let their students commute to school on their own or with friends.

An interesting data point is Kindergarteners. Perhaps because parents are required to be with their children on the playground before and after the school day, more students ride their bikes than the older grades where parents might allow the student to walk to school with friends but not bike.

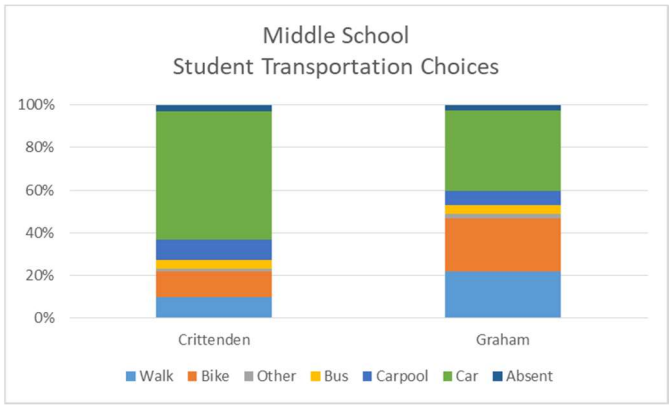
Carpooling is another interesting phenomena – due to the recent changes in child safety seat laws, Kindergarteners generally still need to be in the large, relatively expensive car seats. This limits carpooling since parents are unlikely to own an extra. By 2nd or 3rd grade, however, the students are mostly in the smaller and cheaper booster seats that many families have several of.



Also of interest are the differences between various schools. Looking at the elementary schools, Castro has the highest percentage of students commuting by something other than a family car at 57%. This is mainly driven by the large numbers of students who walk. The school with the highest percentage of cars is Monta Loma, perhaps because of all the military families that come from Moffett (there is a bus, however the school staff have commented that many of those students are driven). The choice schools that draw students from all over town (particularly Stevenson) have lower walking and biking rates than the neighborhood schools. Huff has the largest percentage of bikes.

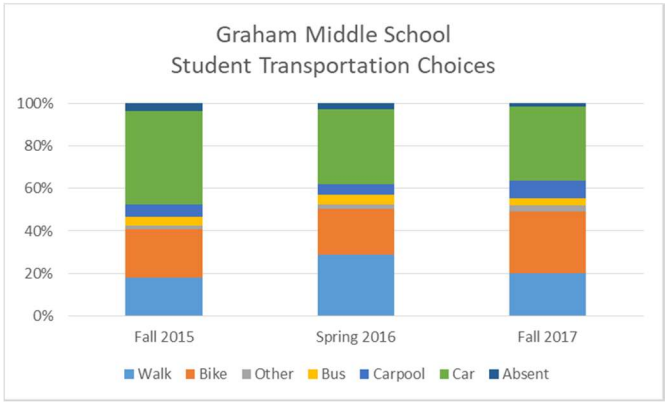


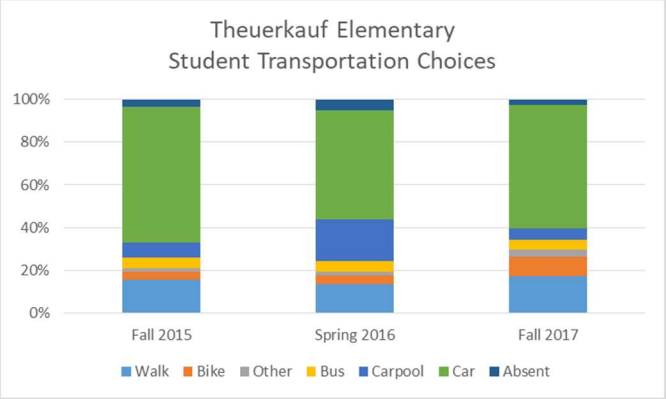
The middle school commute data likely reflects the geography of the city. Many of the Graham students come from the Huff and Bubb neighborhoods, which are a relatively easy commute with no major road barriers. In contrast, almost all Crittenden students must cross at least one major road (Middlefield), if not several. The upcoming Shoreline / Middlefield intersection improvements will hopefully help change this dynamic.



Looking at changes over time at individual schools is also instructive. The biggest change comes from repeated, consistent messaging, both to the students and the parents. VERBS programs can set the stage, however it is the principal and teachers who see the students every day to repeat the message.

The principals at Graham and Theuerkauf both placed a priority on commuting and traffic safety over the course of the program. They have made time for multiple different VERBS programs over the last 3 years, repeating them often. And they reinforce that message with the student population in between events as well. As a result, they are seeing drops in the number of car trips.

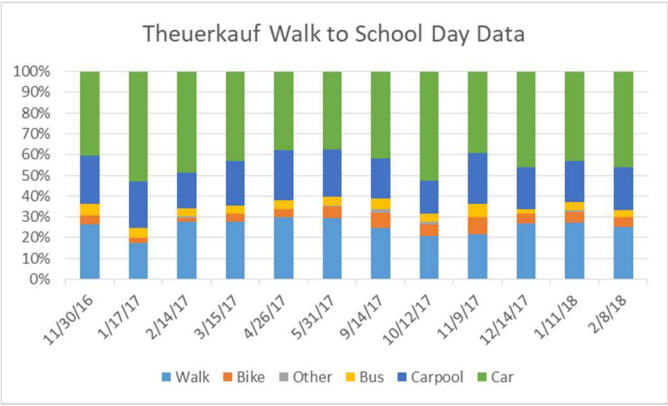




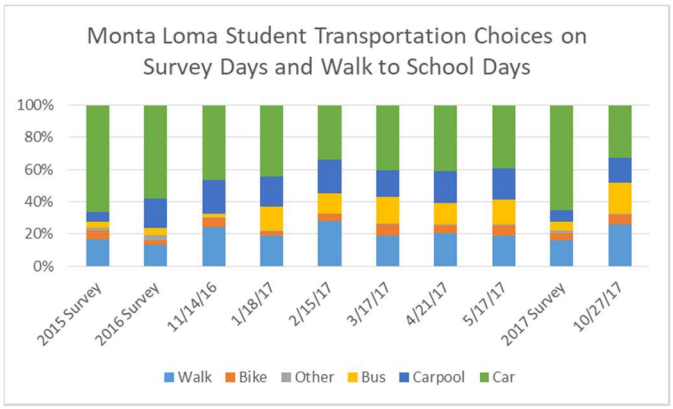
Raffle Ticket Counts from Walk, Ride & Roll Events

The Walk, Ride & Roll events all have an incentive for the students to get out of their cars, whether that's a Hershey Kiss or a chance to win a new bicycle and helmet. Very often these incentives can be counted in some way to give a picture of the commute that day, even if the data can't be easily compared to the survey data. The most consistent method are the classroom-wide raffle tickets used at some elementary school events to give away the raffle bike and helmet.

Since Theuerkauf has consistently held a monthly walk to school event for the past two years, it's the best data set to see trends throughout the school year. The expected drop during the rainy season is visible, more noticeable in the winter of 2017 than the winter of 2018 given rainfall amounts. Note that Mountain View's air quality was extremely bad on 10/12/2017 due to the Santa Rosa fires.

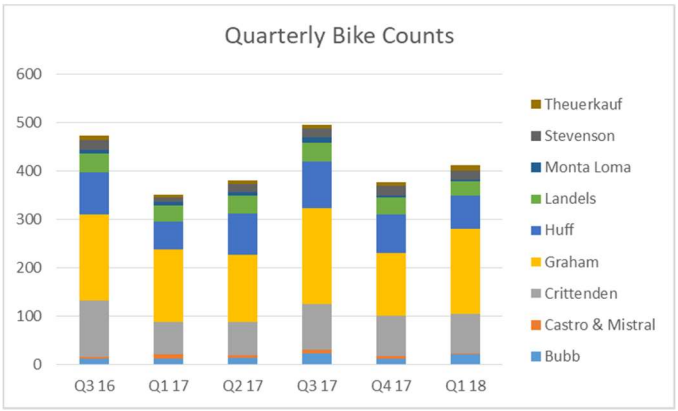


The raffle ticket data also allows for a comparison between an event day and a regular day as represented by the travel tally data (schools were specifically requested to carry out the survey on a day without a VERBS event). When the events are advertised and encouraged by the school, they can be quite effective at getting students to try an active transportation mode for the day, as can be seen in this data from Monta Loma. The challenge is to convert that into a change into the daily routine instead of only for special events.



Quarterly bike counts

Every quarter, the number of bicycles in the bicycle racks are counted at each school. This only provides data on the number of bicyclists, so it cannot be easily compared to the other data. It does, however, help show commuting trends over time.



SUMMARY

The Mountain View VERBS program has continued to encourage students to use active transportation methods to get to and from school. It's been a solid force behind teaching students the basics of traffic safety, and then reinforcing that learning on a regular basis. It's also worked with schools and the city to raise awareness of trouble spots around town and develop improvements.

The most compelling aspect of the VERBS program has been the wide variety of stakeholders – including parents, community members, business community members, educators, and city services that are actively supportive of improving the infrastructure as well as the level of skill among school-aged commuters.

There is no substitute for feedback from the people who see the school commute day in and day out – both the good and the bad. School staff, parents, and even students themselves know best what is working and what could use improvement. To this end, one of the pivotal factors in the success of the VERBS Program is the relationship created between the school principals and the **Safe Moves** staff and the open door policy of providing programs to meet the needs of the school and becoming a part of the school community, whether it be attending parent or teacher meetings, providing educational programs, participating in school special events or just being available for informal meetings with the principals and parents to discuss traffic issues. The results are an increase in the number of children walking and bicycling to school.

Based on the work over the last six years, **Safe Moves** recommends a few priorities for any follow on SRTS program:

- Encourage walking and biking early and often!
- The transportation mode of students in elementary school is determined primarily by the parents, not the students. Focus needs to be put on building the confidence of parents that their children have the skills to walk and/or bicycle to school and that the infrastructure is conducive to a safe commute.
- Target the incoming classes for education efforts (Kindergarteners, 6th graders, and 9th graders) to set habits early. Discuss setting up a formal traffic safety curriculum with the school district. There is currently no one place where students are consistently taught the basics of traffic safety before Driver's Ed, and that is arguably far too late.
- Continue to interface between the schools and the city to identify traffic hotspots and possible solutions.

The focus of the VERBS Program was to educate and create enthusiasm for change in the way families made their transportation choices. It is important to continue this momentum of engagement the school, community, and families have to making walking and bicycling the primary source of transportation to and from school.

EXHIBITS

Exhibit A - Student Transportation Data Collection Methods

Exhibit B - Student Transportation Survey Data

Exhibit C - Walk to School Event Data

Exhibit D – School Feedback

Exhibit E – Photos

Exhibit F – Teacher Handbook

Exhibit G – Huff Report

Exhibit H – MVWSD Bike Policy

Exhibit A – Student Transportation Data Collection Methods

Annual Classroom Survey

The City of Mountain View
Vehicle Emissions Reductions Based at School (VERBS) Program

Student Transportation Survey

School: _____ Date: _____

Teacher: _____ Room: _____

Grade: _____ Num of Students: _____

The weather this morning is:

Sunny Overcast Rainy

How many students came to school today by:

_____ Family car (1+ students from the same family)

_____ Carpool (2+ students from different families)

_____ Bus/train

_____ Walk

_____ Bike

_____ Other (skateboard, scooter, etc)

How many students are in class today: _____

For the teachers:

1. Please fill in the information about your class and the weather conditions on the day of the survey.
2. Ask your students "How did you get to school today?" and indicate the numbers in the appropriate section. Each student should only answer once so there is an accurate count. If two methods were used (ie, parking at a remote lot and walking the last blocks or walking to a friend's house to carpool), record the last part of the trip.
3. Turn your forms into the Office.

Thank You!

Example Walk to School Day Raffle Ticket

WALK TO SCHOOL DAY

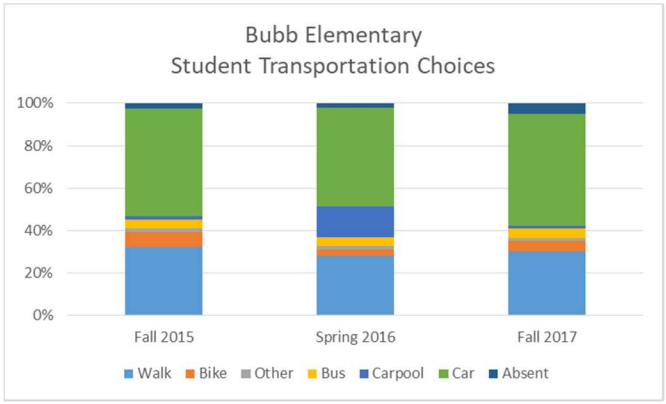
Name: _____

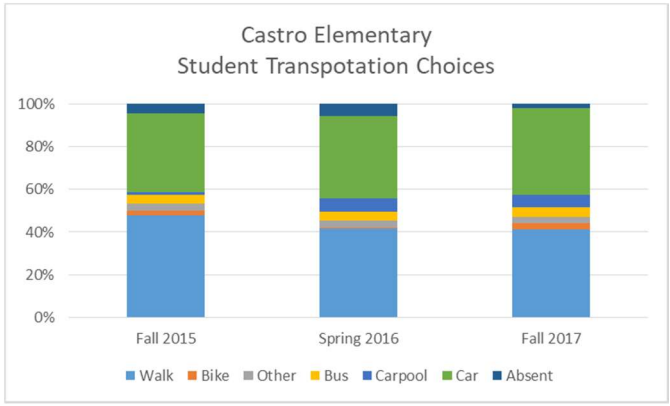
Grade: _____

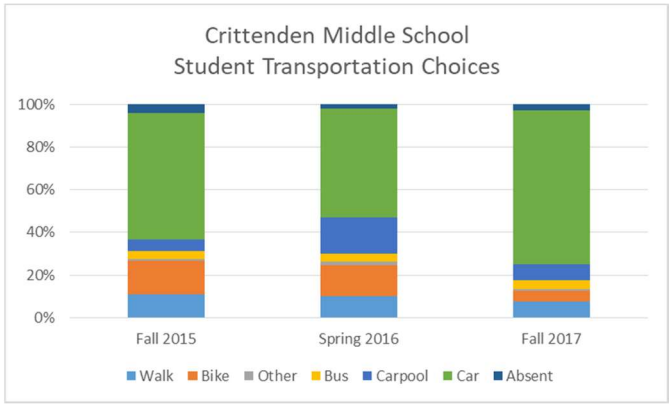
Today I came to school by:

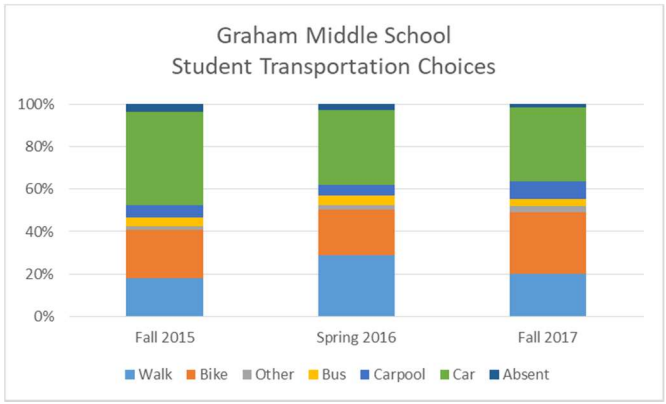
Walk **Bike** **Bus** **CarPool** **Car**

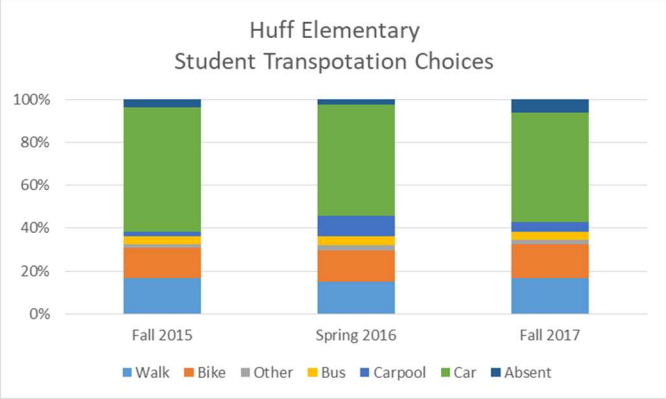
Exhibit B – Student Transportation Survey Data

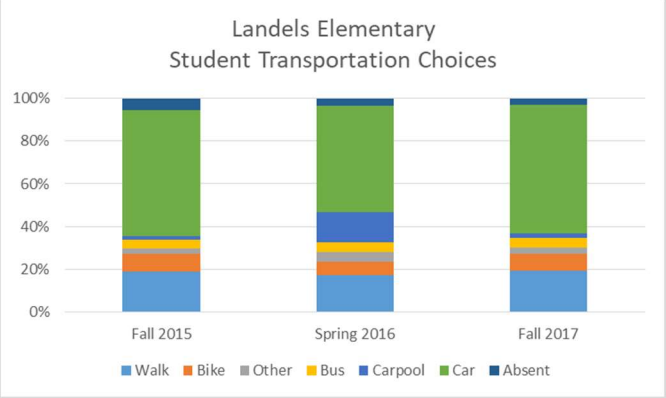


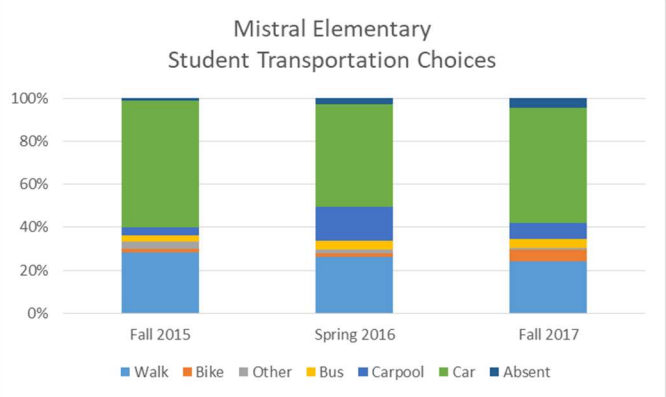


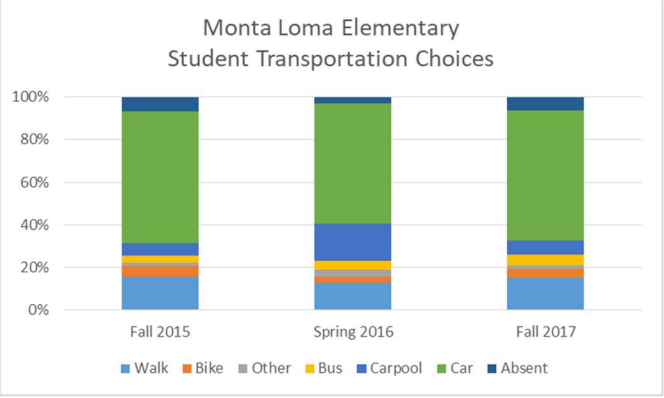


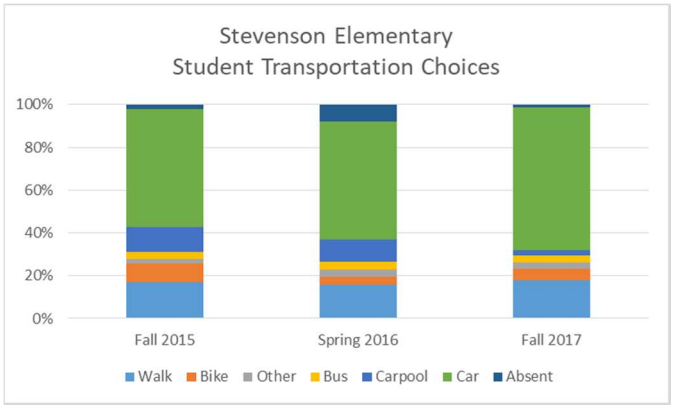



Huff Elementary
Student Transpotation Choices
100%
80%
60%
40%
20%
0%
Fall 2015
Spring 2016
Fall 2017
Walk
Bike
Other
Bus
Carpool
Car
Absent


Landels Elementary
Student Transportation Choices
100%
80%
60%
40%
20%
0%
Fall 2015
Spring 2016
Fall 2017
Walk
Bike
Other
Bus
Carpool
Car
Absent


Mistral Elementary
Student Transportation Choices
100%
80%
60%
40%
20%
0%
Fall 2015
Spring 2016
Fall 2017
Walk
Bike
Other
Bus
Carpool
Car
Absent


Monta Loma Elementary
Student Transportation Choices
100%
80%
60%
40%
20%
0%
Fall 2015
Spring 2016
Fall 2017
Walk
Bike
Other
Bus
Carpool
Car
Absent


Stevenson Elementary
Student Transportation Choices
100%
80%
60%
40%
20%
0%
Fall 2015
Spring 2016
Fall 2017
Walk
Bike
Other
Bus
Carpool
Car
Absent

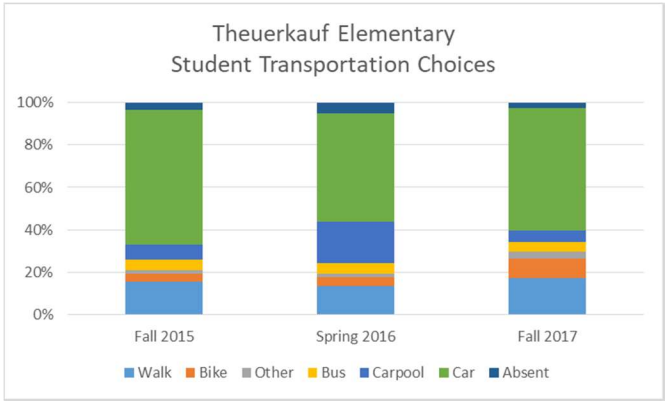
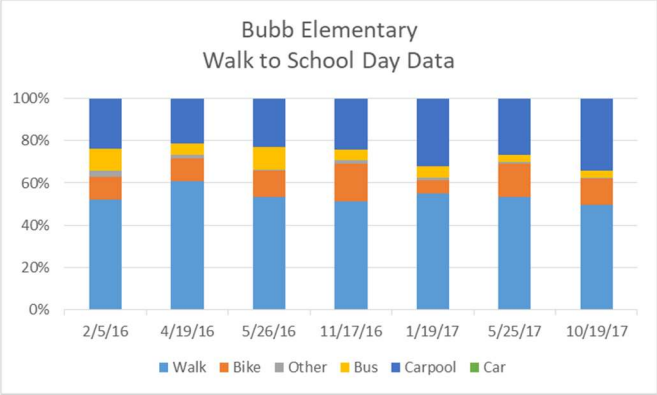
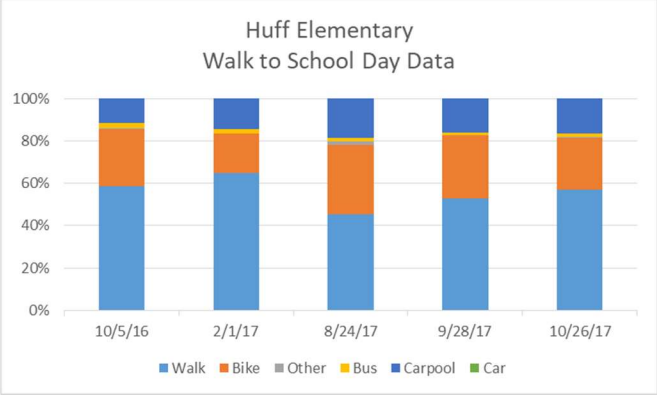

Theuerkauf Elementary
Student Transportation Choices
100%
80%
60%
40%
20%
0%
Fall 2015
Spring 2016
Fall 2017
Walk
Bike
Other
Bus
Carpool
Car
Absent

Exhibit C – Walk to School Event Data

Bubb, Castro, Huff, Mistral, Monta Loma, and Theuerkauf all hosted multiple Walk to School Days with raffle tickets that could be counted. The remaining schools either did not host enough events or used less easily counted "tickets" (such as pieces of candy).

Schools using Blacktop Raffle Tickets
(car commutes not counted)





Schools using Classroom Raffle Tickets