APPENDIX B. MODE SHIFT METHODOLOGY AND ANALYSIS DETAIL

This appendix provides additional mode split data and mode shift analysis.

Mode Split Analysis

The current countywide mode split was calculated by averaging the mode split of the 78 schools that conducted hand tallies in the 2018-19 school year.

In order to analyze factors that impact transportation choices, the evaluation team looked for commonalities between schools with highest active, shared, and drive alone mode split. To conduct this analysis, the evaluation team divided schools that submitted hand tallies into quartiles for active modes, shared modes, and drive alone. Table 1 outlines the top quartile for each mode type.

TABLE 1. TOP QUARTILES OF SCHOOLS FOR ACTIVE, SHARED, AND DRIVE ALONE MODE SPLIT

Active	Shared	Drive Alone
» McClymonds High (61%)	» Oakland School for the Arts (51%)	» Palomares Elementary (90%)
» Cornell Elementary (61%)	» Montera Middle (50%)	» Strobridge Elementary (82%)
» Brier Elementary (57%)	» Glenview Elementary (42%)	» Sunset Elementary (77%)
» ARISE High (56%)	» James Leitch Elementary (41%)	» Rancho Las Positas Elementary (75%)
» Amelia Earhart Elementary (53%)	» Andrew N. Christensen Middle (40%)	» Joseph Azevada Elementary (75%)
» Wilson Elementary (52%)	» Sylvia Mendez (28%)	» Murray Elementary (75%)
» Edison Elementary (51%)	» John Muir Middle (28%)	» Emma C. Smith Elementary (74%)
» Ocean View Elementary (50%)	» Parkmont Elementary (26%)	» Piedmont Avenue Elementary (69%)
» Harold William Kolb (50%)	» Lincoln Middle (25%)	» Jensen Ranch Elementary (68%)
» Prescott (formerly PLACE @ Prescott) (49%)	» Washington Elementary (Berkeley) (25%)	» Foothill High (68%)
» Lincoln Middle (47%)	» Emerson Elementary (Oakland) (24%)	» Jackson Avenue Elementary (68%)
» Bay Farm (46%)	» Eleanor Murray Fallon (23%)	» Guy Jr. Emanuele Elementary (68%)
» Community United & Futures Elementary (46%)	» Redwood Continuation High (23%)	» Castro Valley High (67%)
» Franklin Elementary (Oakland) (44%)	» J. Haley Durham Elementary (23%)	» Joe Michell (65%)
» Oliveira Elementary (43%)	» Thomas S. Hart Middle (23%)	» Lydiksen Elementary (63%)
» Frank Otis Elementary (43%)	» Malcolm X Elementary (22%)	» Henry P. Mohr Elementary (62%)
» Tyrrell Elementary (43%)	» Rosa Parks Environmental Science (22%)	» McKinley Elementary (62%)
» William G. Paden Elementary (43%)	» McClymonds High (21%)	» J. Haley Durham Elementary (61%)
» Fred T. Korematsu Discovery Academy (43%)	» Del Valle Continuation High (21%)	» Pioneer Elementary (61%)

Perceptions of Activity Effectiveness

Figure 1 and Figure 2 shows the perceptions of SR2S Program Champions and school administrators about each activity's effectiveness at encouraging mode shift. School Champions felt very positive about each of the program activities that they commented on being effective at shifting trips, while school administrators were more critical. More than 60 percent of surveyed school administrators believe that International Walk and Roll to School Day, the Golden Sneaker Contest, the Alameda County BikeMobile, and ongoing Walk and Roll to School Days successfully encourage students to use active and shared modes to get to school. Administrators were least likely to report Bike to School Day, Cocoa for Carpools, and Drive your Bike events were effective in getting students to use active and shared modes.

Feedback from Champions and administrators about which activities most impacted transportation behaviors was mixed. Some participants felt that there were more students biking and using scooters because of the program, but potentially just a small increase, while others did not feel like the program was shifting trips because students who are walking or biking will do so regardless of the program.

FIGURE 1. ENCOURAGEMENT ACTIVITY PERCEPTIONS OF EFFECTIVENESS OF ENCOURAGING MODE SHIFT, CHAMPION AND ADMINISTRATOR SURVEYS
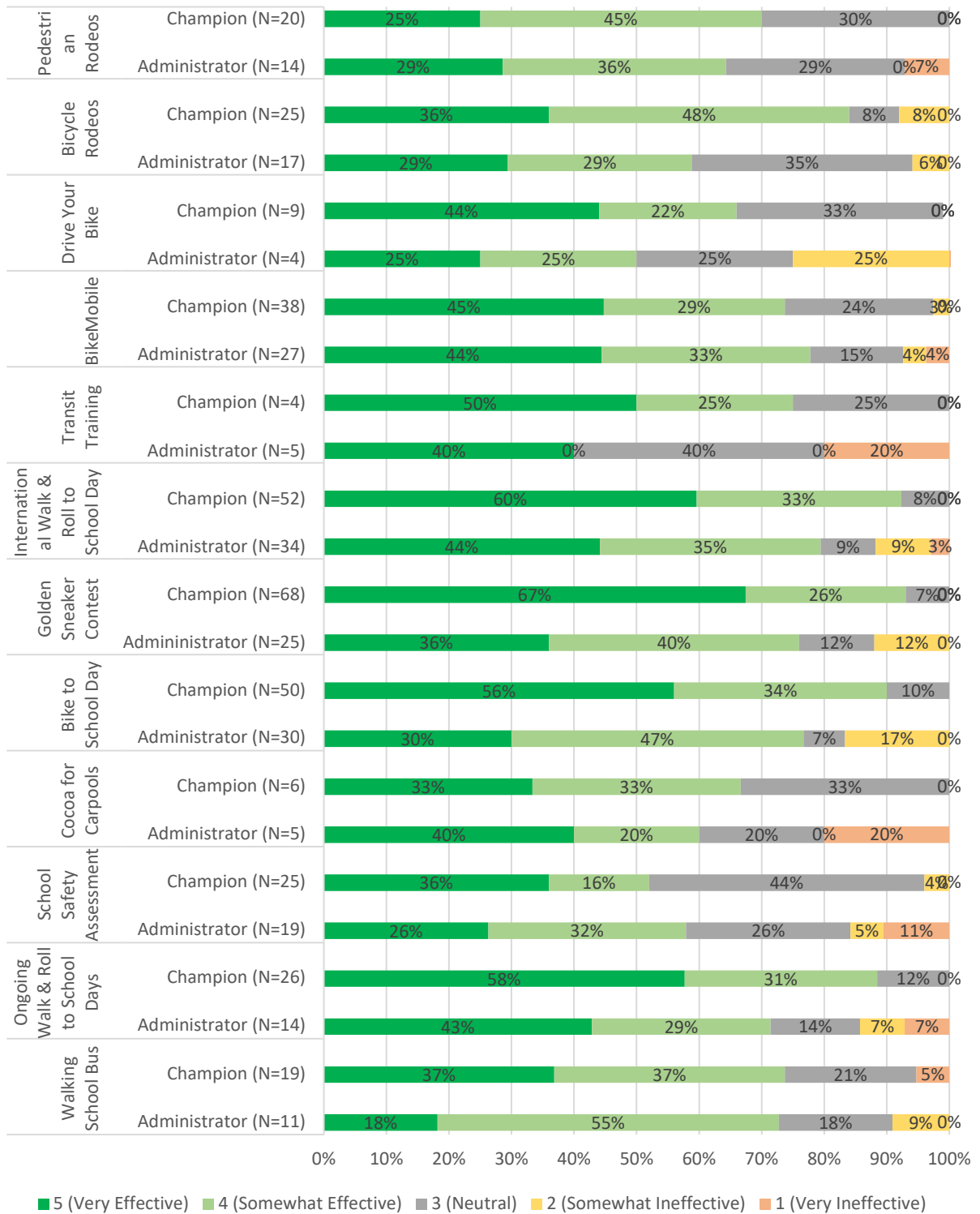

Activity	Respondent	5 (Very Effective)	4 (Somewhat Effective)	3 (Neutral)	2 (Somewhat Ineffective)	1 (Very Ineffective)
Pedestrian Rodeos	Champion (N=20)	25%	45%	30%	0%	
Pedestrian Rodeos	Administrator (N=14)	29%	36%	29%	0%	7%
Bicycle Rodeos	Champion (N=25)	36%	48%	8%	8%	0%
Bicycle Rodeos	Administrator (N=17)	29%	29%	35%	6%	0%
Drive Your Bike	Champion (N=9)	44%	22%	33%	0%	
Drive Your Bike	Administrator (N=4)	25%	25%	25%	25%	
BikeMobile	Champion (N=38)	45%	29%	24%	3%	0%
BikeMobile	Administrator (N=27)	44%	33%	15%	4%	4%
Transit Training	Champion (N=4)	50%	25%	25%	0%	
Transit Training	Administrator (N=5)	40%	0%	40%	0%	20%
International Walk & Roll to School Day	Champion (N=52)	60%	33%	8%	0%	
International Walk & Roll to School Day	Administrator (N=34)	44%	35%	9%	9%	3%
Golden Sneaker Contest	Champion (N=68)	67%	26%	7%	0%	0%
Golden Sneaker Contest	Administrator (N=25)	36%	40%	12%	12%	0%
Bike to School Day	Champion (N=50)	56%	34%	10%		
Bike to School Day	Administrator (N=30)	30%	47%	7%	17%	0%
Cocoa for Carpools	Champion (N=6)	33%	33%	33%	0%	
Cocoa for Carpools	Administrator (N=5)	40%	20%	20%	0%	20%
School Safety Assessment	Champion (N=25)	36%	16%	44%	4%	0%
School Safety Assessment	Administrator (N=19)	26%	32%	26%	5%	11%
Ongoing Walk & Roll to School Days	Champion (N=26)	58%	31%	12%	0%	
Ongoing Walk & Roll to School Days	Administrator (N=14)	43%	29%	14%	7%	7%
Walking School Bus	Champion (N=19)	37%	37%	21%	5%	
Walking School Bus	Administrator (N=11)	18%	55%	18%	9%	0%

Legend: ■ 5 (Very Effective) ■ 4 (Somewhat Effective) ■ 3 (Neutral) ■ 2 (Somewhat Ineffective) ■ 1 (Very Ineffective)

FIGURE 2. EDUCATION ACTIVITY PERCEPTIONS OF EFFECTIVENESS AT ENCOURAGING MODE SHIFT, CHAMPION AND ADMINISTRATOR SURVEYS
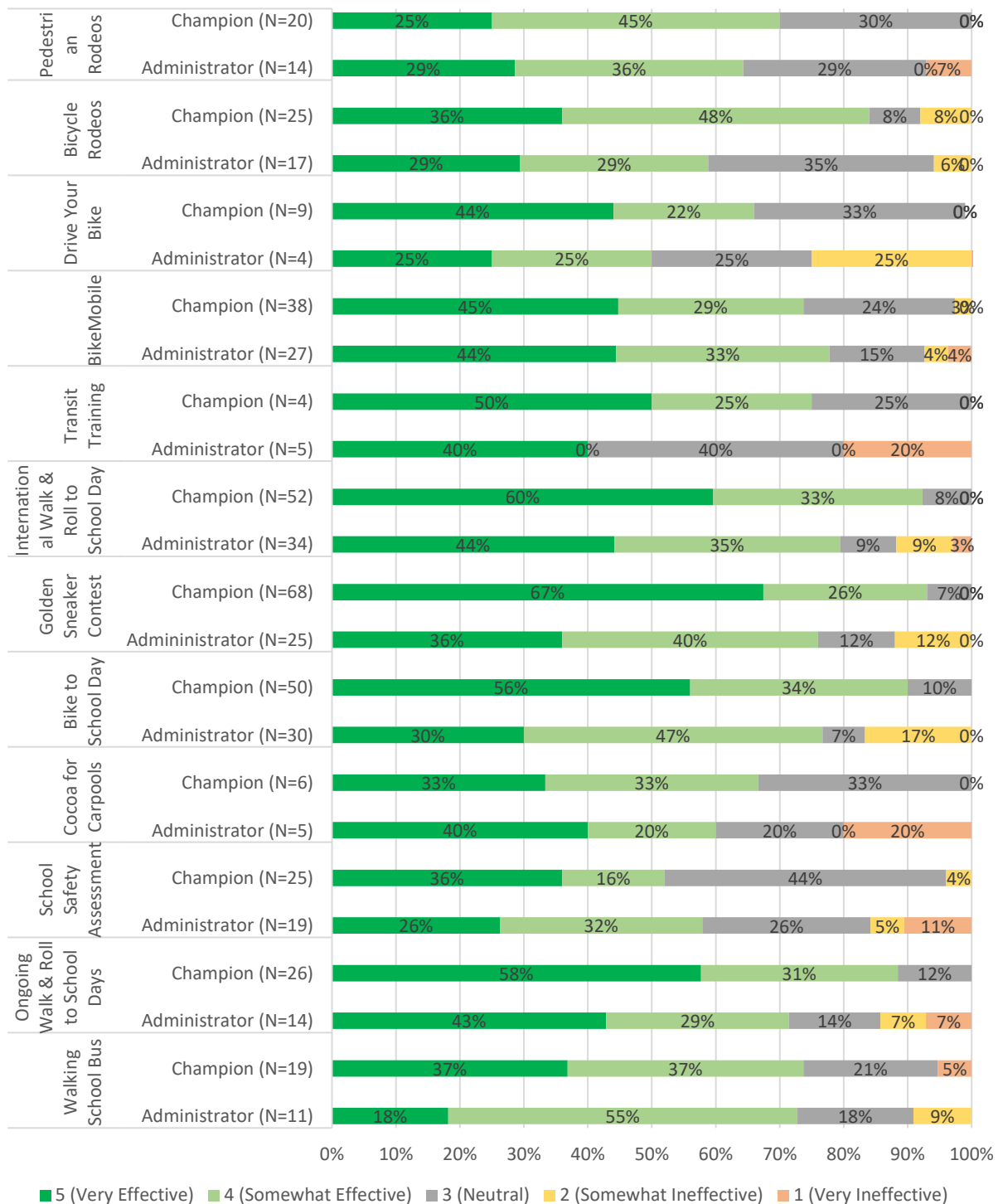
Perceptions of Safety and Mode Shift

There was not a strong and direct relationship between the administrator and Champion perceptions of effectiveness of a SR2S activity at improving safety and effectiveness at encouraging mode shift, shown in Figure 3. However, encouragement activities that offer opportunities for ongoing participation and/or community-wide participation were generally perceived to be most effective at encouraging mode shift.

Champions and administrators both rated activities that include elements of bicycle education, practice, and support high in terms of both safety and mode shift. This could be due to the perception that biking is more dangerous and difficult for children than walking, and therefore bicycle safety trainings are perceived to be particularly valuable for students.

Activities that draw large numbers of participants generally scored higher in mode shift encouragement than other activities. This could potentially indicate that administrators and Champions interpreted the question to mean ratings should be based on how effective each activity was at drawing participants rather than how effective each activity was encouraging participants to choose active transportation options on a regular basis. It could also mean they assumed mode shift would follow from larger numbers of students participating in an activity.

FIGURE 3. SCHOOL ADMINISTRATOR AND CHAMPION PERCEPTIONS OF SR2S PROGRAM ACTIVITIES
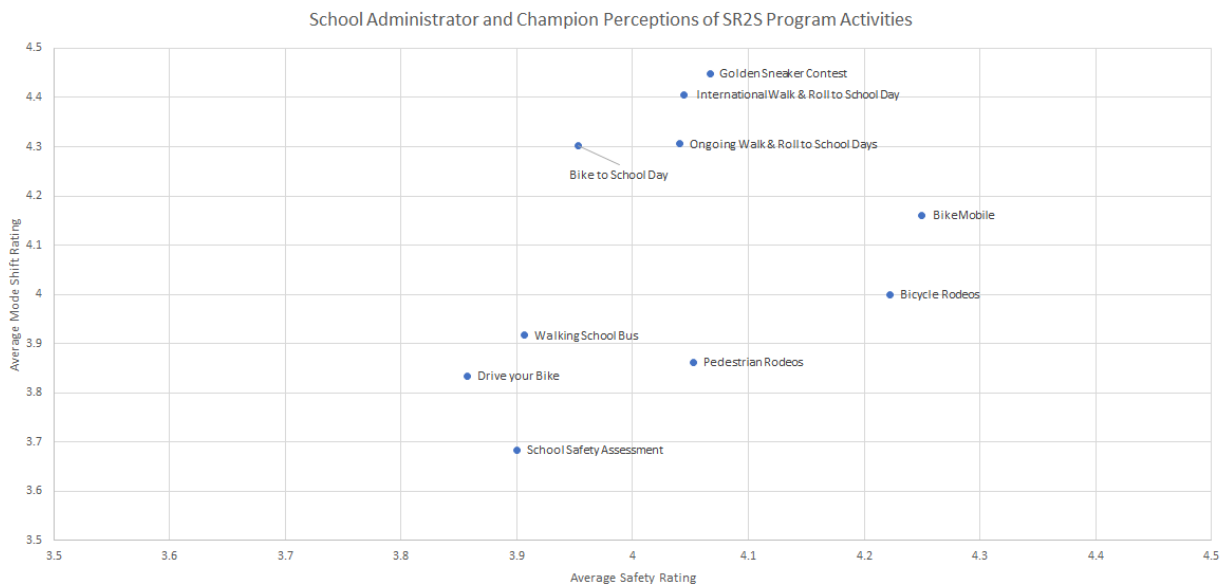
Qualitative Feedback on Barriers to Walking and Biking

Many of the barriers parents cite as to why they cannot allow their children to walk or bike are related to safety concerns, which are discussed in the following chapter. These include lack of safe infrastructure, poor driving behavior, and crime and personal safety concerns.

Some of the other barriers to walking and biking include issues with time and convenience, students' inability to walk or bike, and lack of knowledge or access to safe equipment. Specific parent/caregiver, administrator, and Champion concerns about each barrier are outlined below.

Parent schedules and pressure to get to work on time limit families' ability to take time to walk or bike to school with their students.

Students who live close enough may be able to switch from walking to driving, but if parents need to drive their students it will be difficult to get them to switch modes. Additionally, students who are bused to a school outside their neighborhood do not have the option to walk or bike.

- » "I leave for work at the same time. I don't have time to walk with them as I'm a single mom." — parent/caregiver survey response
- » "Parent work commitments/timing and trying to limit before/after school care expense" — parent/caregiver survey response

Some students' physical or mental abilities make it difficult to walk and bike to school.

Several parents cited physical challenges that keep them from participating in SR2S activities:

- » "My son has Autism and it creates another level of difficulty for this type of (travel)." — parent/caregiver survey response
- » "My son uses a wheelchair, so the pragmatics of biking or walking to school is prohibitive. He is bussed to school through a school provided bus." — parent/caregiver survey response

Lack of access to bikes, safety equipment, or other resources impede some families from using active or shared modes.

Students who do not have access to a bicycle, adequate safety equipment, or lack access to information may not be able to participate:

- » "Child doesn't own a bike/know how to ride." — parent/caregiver survey response from Hayward High
- » "Help this impoverished community get more access to affordable biking equipment." — administrator survey response
- » "Carpooling assistance for families. We need a system for parents to get in touch with one another, so they can arrange carpools." — administrator survey response