City of Florence – Siuslaw Elementary School, Siuslaw Middle School, Siuslaw High School Baseline Data Evaluation Report

FINAL June 24, 2020

Introduction

This Case Study Evaluation measures the impacts of Oregon Safe Routes to School (SRTS) 2019-2020 Competitive Construction (Infrastructure) Grants in communities across the state. The evaluation will assess the effectiveness of individual SRTS projects, techniques, and programs designed to reduce barriers to biking and walking to and from school. Evaluation research questions include:

- What are the impacts for standalone construction grants, and combined outreach and education and construction grants?
- How do different combinations of interventions effectively address the barriers identified by communities and affect mode shift, safety and perceptions of safety, program lifespan, and equity?

The Baseline Data Evaluation Report represents the "pre-construction" data and provides an overview of existing travel conditions and school site attributes. The Baseline Data Evaluation Report is intended to contain the majority of the information needed to plan for the post-construction data collection. The baseline report summarizes the funded improvement project, demographics of affected schools, and data from Oregon Department of Transportation (ODOT) and local roadway authority crash records, parent surveys, and student travel hand tallies.

Plan for the Final Case Study Evaluation Report

The Final Case Study Evaluation Report will represent the "post-construction" data. A draft outline for this report is included in Appendix A. For data consistency, the post-construction data will be collected in the spring immediately after construction is complete. This will reduce weather-related impacts and also allow time during the school year for families to establish or change their travel habits. In addition to the standard parent surveys and student travel hand tallies, post-construction data collection methods for the evaluation report may also include: parent focus groups and surveys or interviews with school staff. The Final Case Study Evaluation Report will measure shifts using the evaluation metrics laid out in this document to identify the successes of SRTS projects and provide insight on opportunities for further improvement. SRTS performance metrics measured during this evaluation process will include:

- **Mode split:** Are more students walking and biking to school after a project's completion than at the time of baseline data collection?
- **Access to safe infrastructure:** Do students have better access to sidewalks, bike lanes, or safe crossing locations on their route to school after the completion of the project?
- **Safety/perception of safety:** Do parents and students feel safer or more comfortable walking and biking to school after the project's completion?
- **Program lifespan/partnerships:** Is the SRTS program functioning efficiently and providing adequate support for partner jurisdictions, schools, and districts?

- **Equity:** Are students from a diversity of ethnic/racial and socioeconomic backgrounds benefiting from the investments being made?

In addition to reporting on grant effectiveness, data presented in the Baseline Data Evaluation Report and the Final Case Study Evaluation could be used for a variety of transportation and program planning purposes at the local level. Having a comprehensive set of quantitative data and qualitative feedback on transportation conditions and trends around these sites could help inform decisions on school/district policy, SRTS event and program planning by schools/districts/local jurisdictions, planning future infrastructure projects, as well as providing supporting documentation for future grant applications.

Baseline SRTS Snapshot: Siuslaw Elementary

Summary

Siuslaw Elementary School is a K-5 public school in the Siuslaw School District serving 592 students, 66% of whom are eligible for the Federal Free and Reduced-Price Lunch Program. In addition, 5% of the student body are registered as Ever English Learners.

Siuslaw Middle School is a Grades 6-8 public school in the Siuslaw School District serving 374 students, 64% of whom are eligible for the Federal Free and Reduced-Price Lunch Program and 6% are registered as Ever English Learners.

Siuslaw High School is a Grades 9-12 public school in the Siuslaw School District serving 390 students, 62% of whom are eligible for the Federal Free and Reduced-Price Lunch Program and 7% are registered as Ever English Learners.

All three schools are located to the west of Hwy 101 in Florence, while many of the schools' students live east of this five-lane road. This creates a hazard for students commuting to and from school and also those leaving campus for lunch. The existing crossings are not located near the schools, which causes students to either take a much longer route or attempt to cross the highway on foot.

The Oregon SRTS 2019-2020 Competitive Infrastructure Grant has provided funding for a new crossing and the connection of bike/pedestrian path gaps around the area of the school. This project aligns with a larger transportation plan that calls for more crosswalks along Highway 101 between 20th and 32nd Streets.

In terms of education and engagement activities around SRTS, the City Police Department has worked with the City Public Works to install School Zone Speed Signs, which was reported to create some confusion for people driving. The "When Children are Present" sign was changed to a "School Speed Limit" that added "School Days 7AM-5PM". The School Resource Officer (SRO) assisted with this transition, which has made the area closest to the school feel safer for students. The SRO is also present near the school during the morning hours while students are coming to school as well as later in the day while they are leaving.

Key information from Siuslaw Elementary parent surveys:

- Four of the six students surveyed lived more than two miles from Siuslaw Elementary, while the other two lived between a half-mile and a mile from school.
- Approximately 56% of trips recorded in this survey were by family vehicle.

- No parents surveyed allowed their student to bike to/from school alone, but one reported that they would allow it if the student were accompanied by a friend or sibling.
- Parents report poor driver behavior near the school is the most common barrier to walking/biking to school. The greater convenience of driving was also a factor in their decision.
- All parents who responded (five) view walking/biking to school as healthy for their student, while only two described it as fun for their student.

Contact Information

JURISDICTION:	**City of Florence**
CONTACT:	Mike Miller, mike.miller@ci.florence.or.us
SCHOOL DISTRICT:	Siuslaw School District
CONTACT:	District Office: (541)997-6748
OTHER CONTACTS:	Andy Grzeskowiak, agrzeskowiak@siuslaw.k12.or.us

Enrollment and Demographics

Siuslaw Elementary School (primarily affected) is a public school enrolling 592 students ranging from Kindergarten to 5th grade. The school serves low income populations in rural Lane County, with 66% of students qualifying for the Free and Reduced-Price Lunch Program. English is the primary language spoken by students, and 5% are registered as Ever English Learners.[1]

Siuslaw Middle School is a public school enrolling 374 students ranging from 6th to 8th grade. The school serves low income populations in rural Lane County, with 64% of students eligible for the Free and Reduced-Price Lunch Program. English is the primary language spoken by students, and 6% are registered as Ever English Learners.

Siuslaw High School is a public school enrolling 390 students ranging from 9th to 12th grade. The school serves low income populations in rural Lane County, with 62% of students eligible for the Free and Reduced-Price Lunch Program. English is the primary language spoken by students, and 7% are registered as Ever English Learners.

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[1] Unless otherwise noted below, demographic data are from the Oregon Department of Education 19-20 SY, collected October 1, 2019

	SIUSLAW ELEMENTARY SCHOOL	SIUSLAW MIDDLE SCHOOL	SIUSLAW HIGH SCHOOL
ENROLLMENT	592	374	390
GRADE LEVELS SERVED AND SCHOOL TYPE	K-5, Public	6-8, Public	9-12, Public
STUDENT ETHNIC / RACIAL DEMOGRAPHICS	American Indian/Alaska Native: 1.4% Asian: 0.8% Hispanic or Latino: 5.7% Native Hawaiian/Pacific Island: 0.2% Multiracial: 6.9% Black/African American: 0.5% White: 84.5%	American Indian/Alaska Native: 1.9% Asian: 1.1% Hispanic or Latino: 8.0% Native Hawaiian/Pacific Island: 0.5% Multiracial: 11.5% Black/African American: 0.5% White: 76.5%	American Indian/Alaska Native: 2.1% Asian: 1.3% Hispanic or Latino: 5.7% Native Hawaiian/Pacific Island: 14.1% Multiracial: 13.6% Black/African American: 0.3% White: 68.2%
PREDOMINANT LANGUAGES SPOKEN IN SIUSLAW SCHOOL DISTRICT		English: 2,420 Spanish: 705	
STUDENTS LIVING WITHIN 1 MILE OF SCHOOL[2]		No Info	No Info
TITLE 1 STATUS[3]	Yes	Yes	Yes
EVER ENGLISH LEARNERS[4]	5%	6%	7%
FREE AND REDUCED-PRICE LUNCH ELIGIBILITY	66%	64%	62%

[2] SRTS Program parent surveys, 2019

[3] Title 1 schools are schools where 40% or more of students are enrolled in USDA's Free and Reduced-Price Meals Program.

[4] Number of students who have been served or were eligible for an English language development program during 2018-19 or at any time in the past. Oregon Department of Education 18-19 SY collected May 1, 2019.

Community Context and Place Type

Place type describes attributes of a built environment, including: access to destinations, density, walkability, mixing of uses, and presence of transit. The evaluation team compiled Oregon Department of Land Conservation and Development's (DLCD) measures of place type for each community studied. Each attribute is rated as "Very Low, Low, Medium, or High" by block group. Place type characteristics provide important context for transportation opportunities and challenges in a community and influence the transportation decisions people make.

Siuslaw Elementary School is located in the City of Florence, and the block group encompasses a portion of the urban center of the city limits. According to the Place Type Tool, the area surrounding the Siuslaw Elementary, Middle and High Schools is categorized as Suburban/Town, meaning it contains low density development, and Employment, meaning the surrounding census block group generally contains more commercial than residential development with 1,294 people residing and 838 people working within the census block. The area has a low level of access to regional employment centers and destinations. The overall level of street connectivity and transit in the area is characterized as "very low."

AREA TYPE describes the role of each neighborhood district compared to the rest of the region (regional center, close-in community, suburban/town, low density/rural)	Suburban/Town • Lower densities of jobs and/or housing • Lower accessibility to regional jobs • Lower densities decrease multi-modal access to jobs
DEVELOPMENT TYPE describes more detailed physical characteristics of each neighborhood (transit supportive development, mixed use, employment, residential, rural/ low density):	Employment • Land use is dominated by commercial or industrial activities • Low diversity of land uses • Jobs/Housing balance: mostly jobs • Missing either the density or street design required of mixed use
JURISDICTION POPULATION (ACS 5-YEAR ESTIMATES):	City of Florence 8,815 people
CENSUS BLOCK GROUP POPULATION (2010):	1,294 people
NUMBER OF JOBS IN CENSUS BLOCK GROUP (2010):	838 jobs
ACCESS TO DESTINATIONS - describes the number of regional jobs within 5 miles:	Low
DENSITY LEVEL- jobs and households per acre within ¼ mile:	Low
DESIGN LEVEL- level of street connectivity, pedestrian-oriented street density:	Very Low
DIVERSITY LEVEL- Mix of housing and employment:	High
TRANSIT LEVEL- Afternoon peak hourly transit service within ¼ mile:	Very Low

Project Description

A map of the project improvements from the Siuslaw Elementary grant application is included in Appendix B.

PROBLEM STATEMENT:	Because Florence is bisected by Hwy 101, this major road poses a crossing risk to students traveling to school. The majority of families live on the east side of this road, while the schools are located 2 blocks west. There is an additional danger when high school students cross Highway 101 on foot for lunch, since food options are concentrated east of 101.
DESCRIPTION OF BARRIERS TO WALKING AND BIKING:	**Siuslaw Elementary:** When students are coming from east of Highway 101, there are very few options to cross the highway. Some must take a longer route to school because crossing the highway is only safe at 21st Street and 30th Street. Some parents are able to walk their students to school, but if there are multiple ages at multiple schools, the start times are close enough that it makes it difficult to get all students to school on time. If children are walking without supervision, they must cross the highway alone, which poses a hazard. There have even been instances of adults stopping traffic to help a child cross at 27th Street. **Siuslaw Middle:** There is no easy access to the Middle School if students live on the East side of Hwy 101. The middle school is located 2 blocks west of Hwy 101 near 26th street. Students do not have an easy or safe option to cross Hwy 101 near the school. They must either go north to 35th or south to 21st, which puts them at risk of trying to cross a five-lane highway. In addition to morning and afternoon commutes to and from home, students often leave school to get food east of Hwy 101 after classes. **Siuslaw High:** Because the high school has an open campus at lunch time, students often cross the highway at 26th Street to get to Taco Bell. Some students have been observed to run across the road. There is no marked crosswalk here, and the vehicles are generally above speed limit.
PROJECT DESCRIPTION:	This project provides an enhanced crossing of Hwy 101 and completes sidewalks and bike/ped path gaps around 26th and 27th streets.
ESTIMATED PROJECT TIMELINE:	Summer 2020 Completion
PRIORITY SAFETY CORRIDOR?[5]	Yes
OUTREACH AND EDUCATION:	The City Police Department has worked with the City Public Works to install School Zone Speed Signs, which created some confusion for drivers. The "When Children are Present" sign was changed to a "School Speed Limit" that added "School Days 7AM-5PM". The School Resource Officer (SRO) assisted with this transition, which has made the area closest to the school feel safer for students. The SRO is also present near the school during the morning hours while students are coming to school as well as later in the day while they are leaving.

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[5] A road where the posted speed or 85th percentile speed of traffic is 40 mph or greater OR if and two of the following apply: posted speed limit of 30 mph or greater, more than two lanes or a crossing distance greater than 30 feet, 12,000 AADT or greater, has a demonstrated history of crashes related to school traffic.

Access Analysis for Students Walking and Biking to School

The project team conducted an analysis to estimate the number of people who would gain walking and biking access to Siuslaw Elementary when the project improvements are constructed, shown in Table 1 and Figure 1. First, the project improvements were evaluated to understand the geographic areas that would gain safe access to the school once the funded project was constructed. Next, American Community Survey (ACS) data was combined with zoning data to estimate the number of people and school-age children that live within the new access areas.

This analysis estimates that approximately 88 students, or 14% of Siuslaw Elementary/Middle/High school students living within a mile of the school, would gain safer walking or biking access to the school.
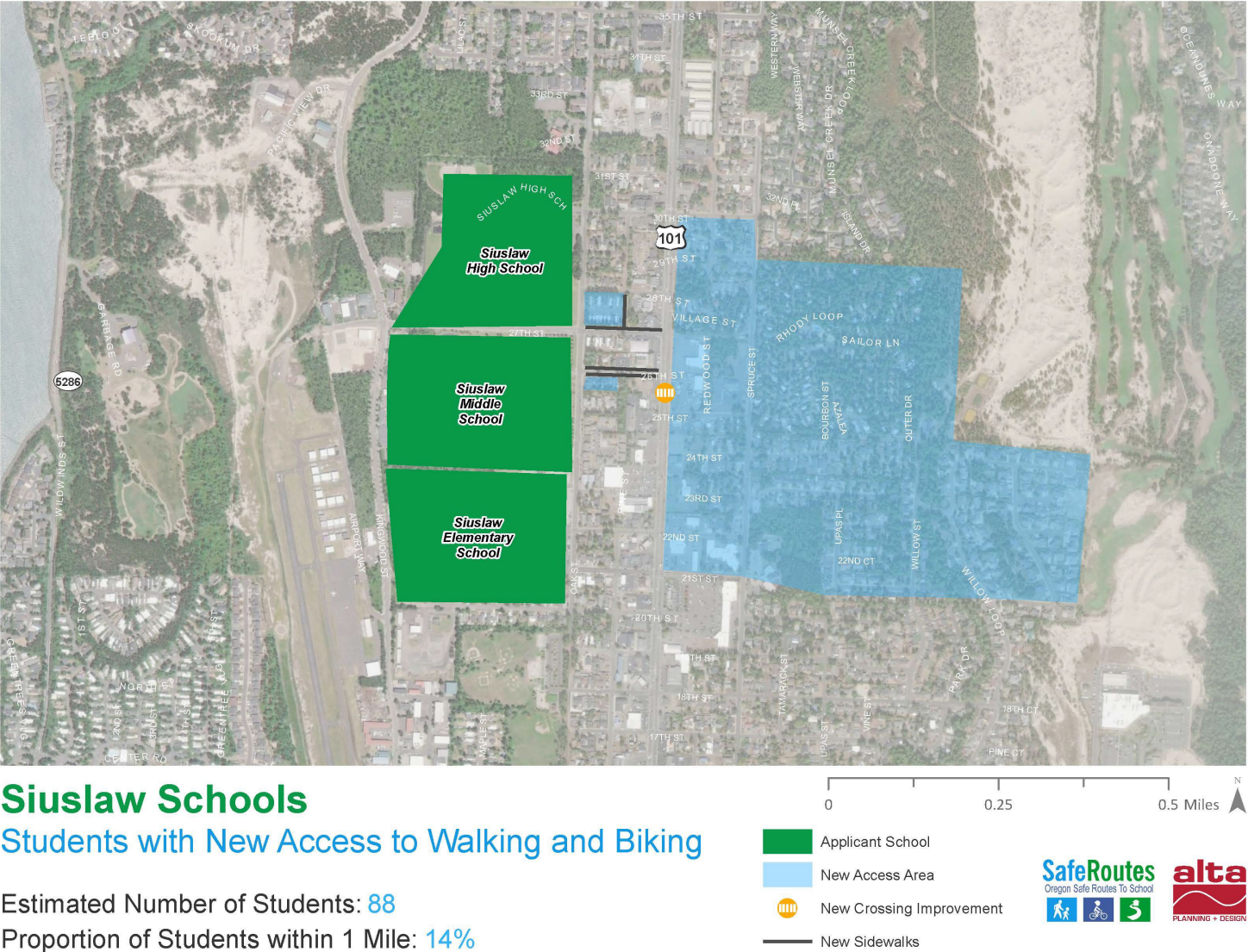
Table 1. Access Analysis Results[6]

METRIC	VALUE
Total Population of New Access Areas	897
School Age Population of New Access Areas[7]	88
Percentage of Students within the School Areas Gaining Access[8]	14%

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[6] New Access Area assumptions: We assume that anyone north of 30th Street crosses Hwy 101 at the 30th st crossing. We also assume anyone south of 21st St uses the light at 21st to cross Hwy 101.

[7] Calculated using the proportion of school-age children (5-17 years old) within the City of Florence.

[8] The School Area is defined as the area within the school enrollment area that is within one mile of the school.

Figure 1. Siuslaw Elementary New Access Area for Students Walking and Biking

Siuslaw Schools

Students with New Access to Walking and Biking

Estimated Number of Students: 88

Proportion of Students within 1 Mile: 14%

To view the methods for this analysis, please see Appendix

Legend:
- Applicant School
- New Access Area
- New Crossing Improvement
- New Sidewalks

Baseline Data

The following section presents pre-construction data, which will be compared against similar data collected after the project has been construction, in order to estimate the impact of the improvements.

Hand Tallies

	SIUSLAW ELEMENTARY SCHOOL	SIUSLAW MIDDLE SCHOOL	SIUSLAW HIGH SCHOOL
DATE COLLECTED:	May, 2019	May, 2019	May, 2019
DATA COLLECTION PROCESS:	24 classrooms surveyed about their trip to and from school	9 classrooms surveyed about their trip to and from school	23 classrooms surveyed about their trip to and from school
NUMBER OF STUDENTS:	522 students participated in hand tallies	224 students participated in hand tallies	354 students participated in hand tallies
TRIPS RECORDED	1,969 trips recorded by the hand tallies	811 trips recorded by the hand tallies	1,296 trips recorded by the hand tallies

### SUMMARY OF DATA COLLECTION AND METHODOLOGY

The May 2019 baseline hand tally data from Siuslaw Elementary includes 1,969 recorded trips collected from 522 students in 24 classrooms. The data from Siuslaw Middle School includes 811 recorded trips collected from 224 students in 9 classrooms. Finally, the data from Siuslaw High School 1,296 recorded trips collected from 354 students in 23 classrooms. The hand tally process surveyed all students in each classroom on which transportation mode(s) they had used to get to and from school the day of the survey and the day prior to the survey. The National Center for SRTS's standard hand tally data collection forms and process were used. This data provides a snapshot of student travel behavior trends.

SUMMARY OF RESULTS:

Siuslaw Elementary hand tally data from 2019 indicates that a majority of students (51%) surveyed ride in a family vehicle to school, while almost half rode the school bus home (see Figure 2 and Table 2). Approximately 9% of students walk in the morning and 11% of students walk home in the afternoon. Four students reported biking to school.

Figure 2. Student Mode Split by Time of Day, 2019 Hand Tally Data

a) Siuslaw Elementary School
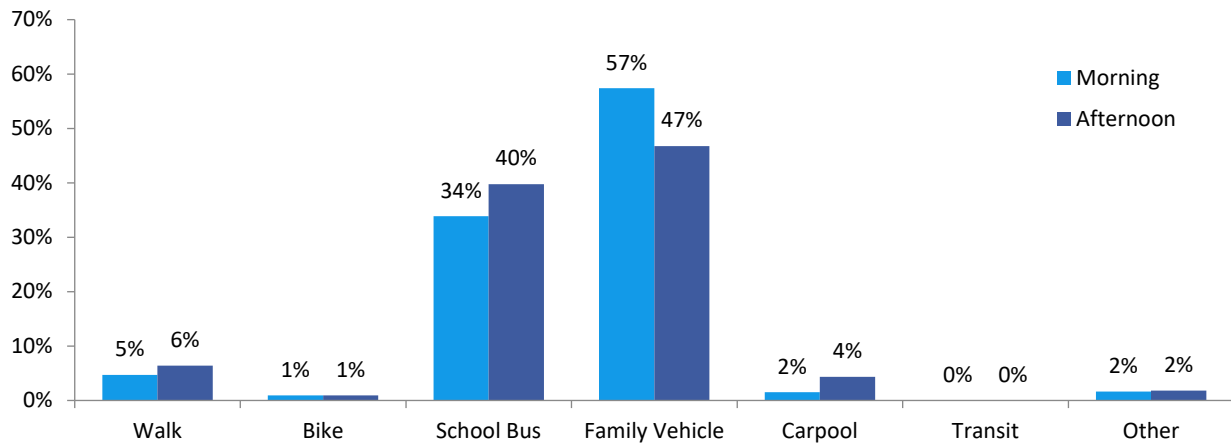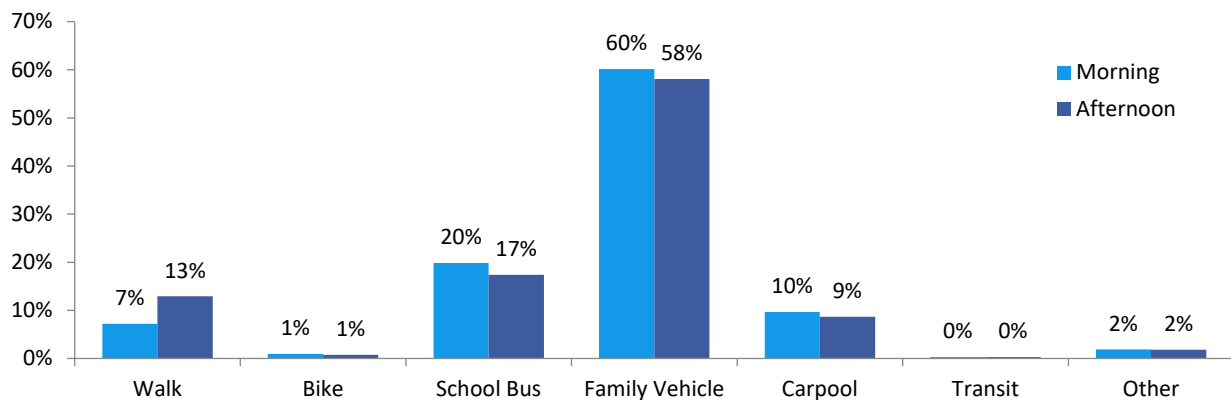

b) Siuslaw Middle School
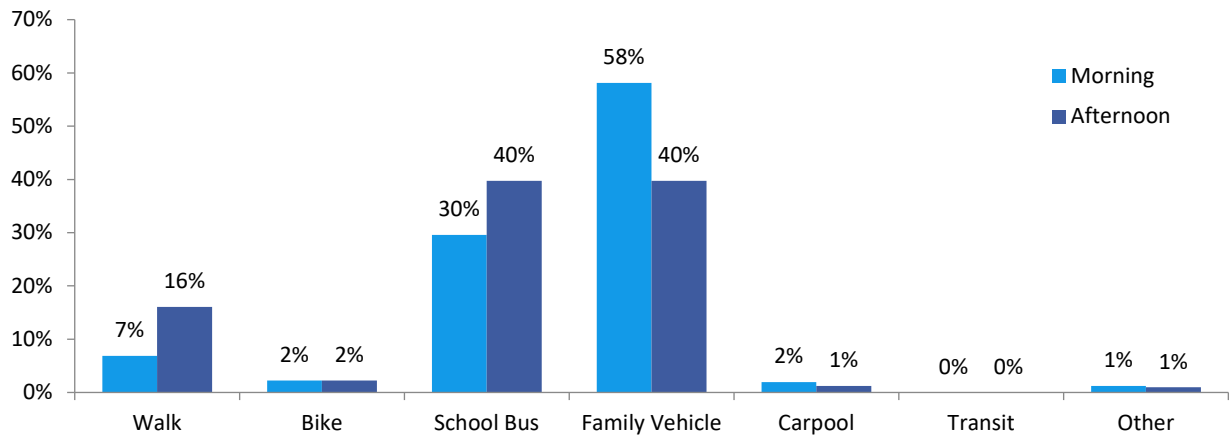
c) Siuslaw High School

Table 2. Count of Student Mode Split to and From School, 2019 Hand tally Data

a)   Siuslaw Elementary School

TIME OF DAY	WALK	BIKE	SCHOOL BUS	FAMILY VEHICLE	CARPOOL	TRANSIT	OTHER
Morning	46	9	332	563	15	0	16
Afternoon	63	9	393	462	43	0	18

b)   Siuslaw Middle School

TIME OF DAY	WALK	BIKE	SCHOOL BUS	FAMILY VEHICLE	CARPOOL	TRANSIT	OTHER
Morning	28	9	120	236	8	0	5
Afternoon	65	9	161	161	5	0	4

c)   Siuslaw High School

TIME OF DAY	WALK	BIKE	SCHOOL BUS	FAMILY VEHICLE	CARPOOL	TRANSIT	OTHER
Morning	46	6	127	385	62	2	12
Afternoon	85	5	114	381	57	2	12

Parent/Caregiver Surveys

	SIUSLAW ELEMENTARY SCHOOL	SIUSLAW MIDDLE SCHOOL	SIUSLAW HIGH SCHOOL
DATE COLLECTED:	Spring 2019		
DATA COLLECTION PROCESS:	The Oregon Department of Transportation SRTS parent/caregiver survey was distributed online to parents at Siuslaw Elementary School to assess family perceptions about school travel options and behavior, with support from Alta Planning + Design for data collection materials and methods.		
NUMBER OF SURVEYS:	6	10	2
RESPONSE RATE	1%	2%	0.5%

SUMMARY OF DATA COLLECTION AND METHODOLOGY

The parent/caregiver survey data included in this report was collected from six participants with students attending Siuslaw Elementary and ten students at Siuslaw Middle School. Two high school students completed the survey.

SUMMARY OF RESULTS:

NOTE: Because response rates for these surveys are so low, the survey data should not be used to form general conclusions about the school population as a whole. Due to these low response rates, numbers of respondents are used in place of percentages.

Parent/caregiver survey analysis found that two respondents live within one mile of Siuslaw Elementary and four live more than two miles from the elementary school, (see Figure 3). Three respondents live less than a half mile from Siuslaw Middle School, two live between a half and a mile from the school and five live more than one mile from the school. The two high school students who participated in the survey live between a quarter and a half mile from Siuslaw High School.

Figure 3. How Far Does your Family Live from School?, 2019 Parent/Caregiver Survey
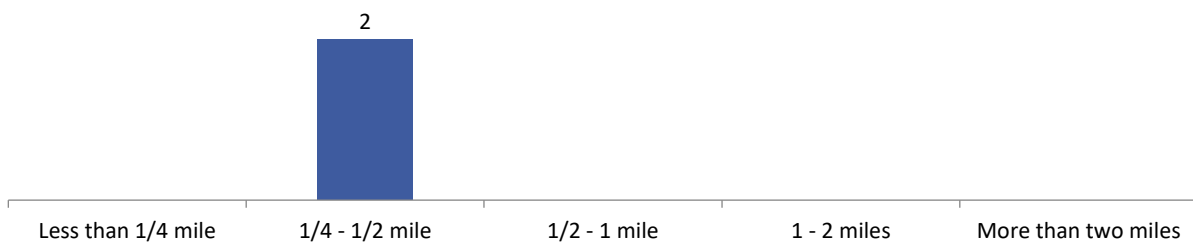
a)   Siuslaw Elementary School
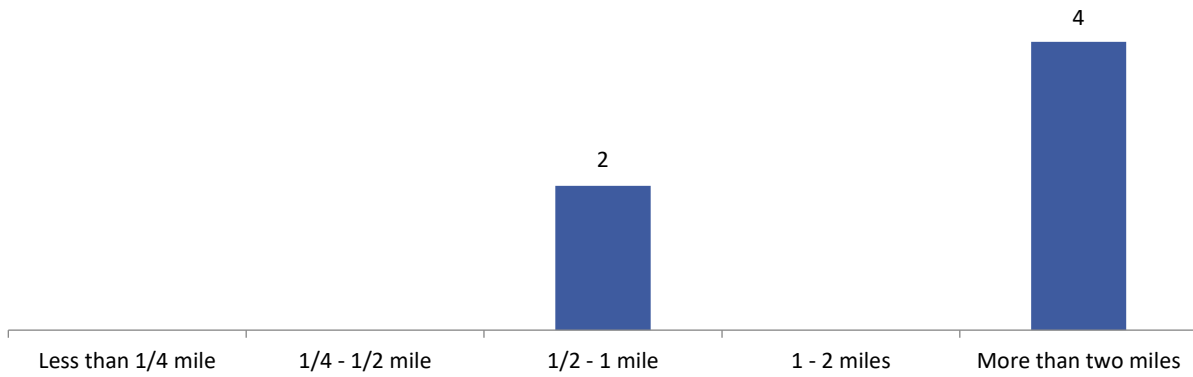
b)   Siuslaw Middle School
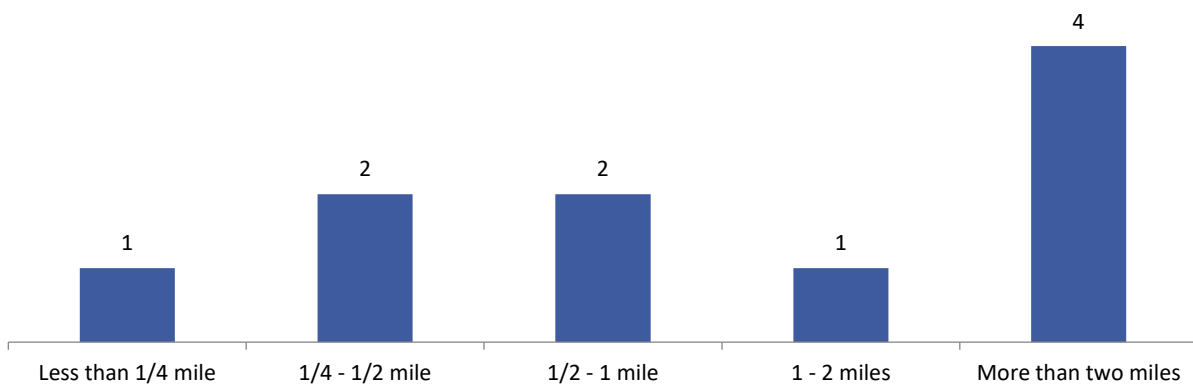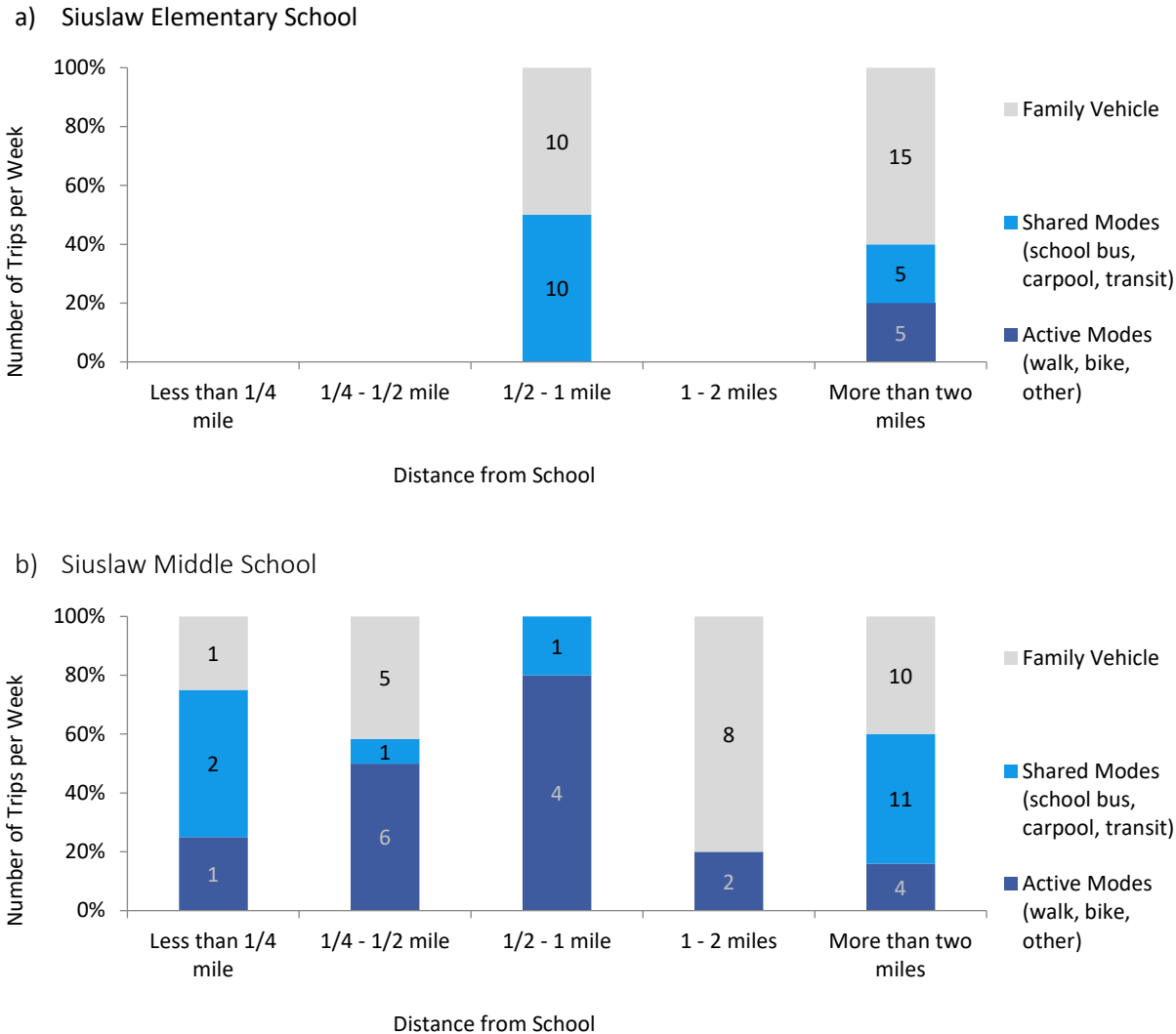

c)   Siuslaw High School

At Siuslaw Elementary School, driving in a family vehicle was the most commonly-used transportation option for the students of parents surveyed, accounting for 25 recorded trips. Among those who live less than a mile from Siuslaw Elementary, half the respondents used shared modes, and the other half drove in a family vehicle (see Figure 4a and Table 3a). However, among students living more than two miles from the campus 15 trips were by family vehicle, while five trips were by shared modes and another five by active modes.

At Siuslaw Middle School, driving in a family vehicle was still the most commonly-used transportation mode for the students who responded to the survey (see Figure 4b and Table 3b). Active modes were used by students living at all distances from the school, even more than two miles away. However, at longer distances, walking and biking were less common. For example, among students living more than two miles from the campus 10 used a family vehicle, while 11 trips were by shared modes. Family vehicles were most popular for those respondents who live between one and two miles from the school.

Only one student provided data on their trips to and from Siuslaw High School,. They often use active modes to get to and from school. One additional trip was by school bus (see Figure 4c and Table 3c).

Figure 4. Mode Split by Distance from School, 2019 Parent/Caregiver Survey

a) Siuslaw Elementary School

b) Siuslaw Middle School
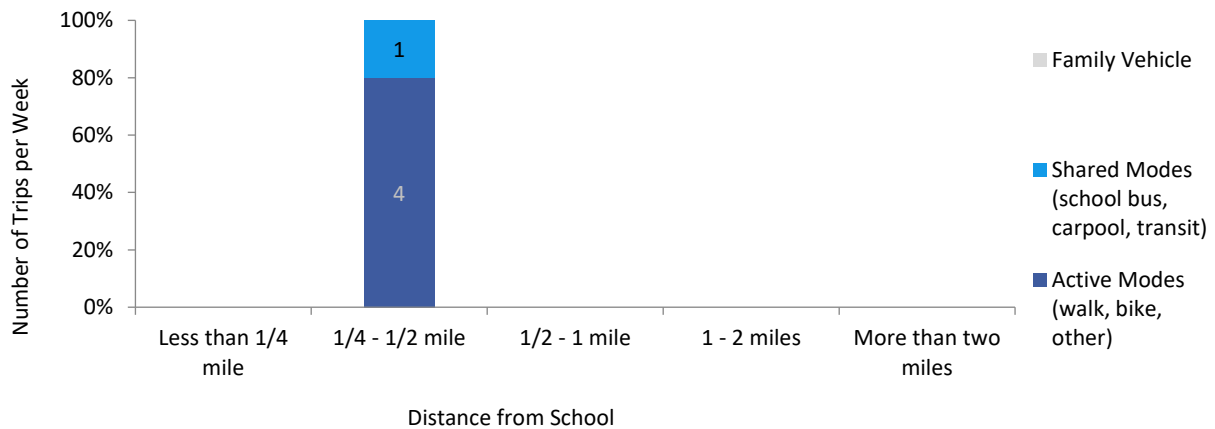
c) Siuslaw High School

Table 3. Count of Trips by Distance the Family Lives from School, 2019 Parent/Caregiver Survey

a) Siuslaw Elementary School

DISTANCE	WALK	BIKE	SCHOOL BUS	FAMILY VEHICLE	CARPOOL	TRANSIT	OTHER
Less than 1/4 mile	-	-	-	-	-	-	-
1/4 mile up to 1/2 mile	-	-	-	-	-	-	-
1/2 mile up to 1 mile	0	0	10	10	0	0	0
1 mile up to 2 miles	-	-	-	-	-	-	-
More than 2 miles	5	0	5	15	0	0	0

b) Siuslaw Middle School

DISTANCE	WALK	BIKE	SCHOOL BUS	FAMILY VEHICLE	CARPOOL	TRANSIT	OTHER
Less than 1/4 mile	1	0	1	1	1	0	0
1/4 mile up to 1/2 mile	5	1	1	5	0	0	0
1/2 mile up to 1 mile	4	0	0	0	1	0	0
1 mile up to 2 miles	2	0	0	8	0	0	0
More than 2 miles	3	1	11	10	0	0	0

c) Siuslaw High School

DISTANCE	WALK	BIKE	SCHOOL BUS	FAMILY VEHICLE	CARPOOL	TRANSIT	OTHER
Less than 1/4 mile	-	-	-	-	-	-	-
1/4 mile up to 1/2 mile	4	0	1	0	0	0	0
1/2 mile up to 1 mile	-	-	-	-	-	-	-
1 mile up to 2 miles	-	-	-	-	-	-	-
More than 2 miles	-	-	-	-	-	-	-

As Figure 5a illustrates, most (four) Siuslaw Elementary School parents and caregivers surveyed reported that they would not allow their student to walk to school. One reported that they would allow their student to walk if accompanied by a friend or sibling. Four parents and caregivers also would not allow their student to bike, but again one would allow them to ride with another child.

Among parents and caregivers at Siuslaw Middle School, attitudes were more favorable toward allowing students to walk (see Figure 5b). Five respondents reported that they would allow their students to walk by themselves, while four said they would not allow their student to walk at all. Six parents responded that they would not allow their student to bike to/from school, but one said they would allow them to ride alone and another would allow biking if the student was accompanied by a friend or sibling.

Figure 5. Do You Allow this Student to Travel to School in the Following Ways?, 2019 Parent/Caregiver Survey

a) Siuslaw Elementary School
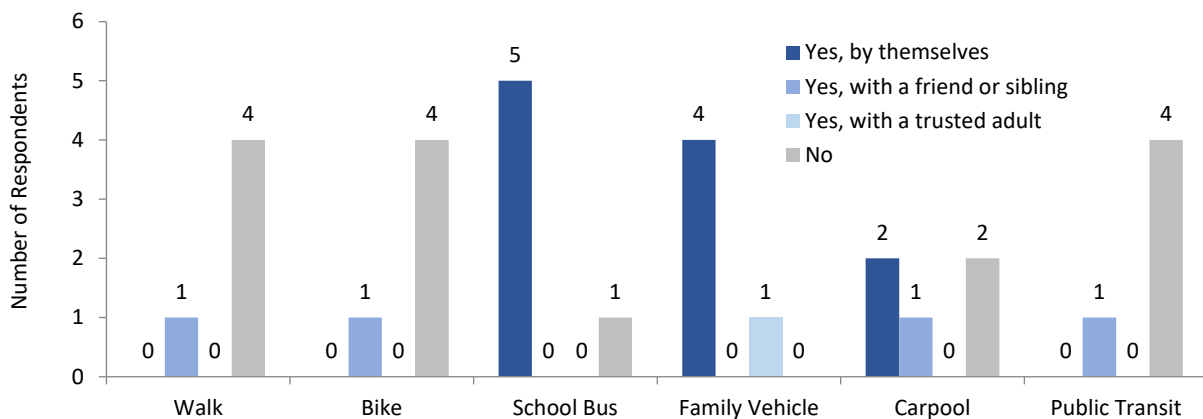
b) Siuslaw Middle School
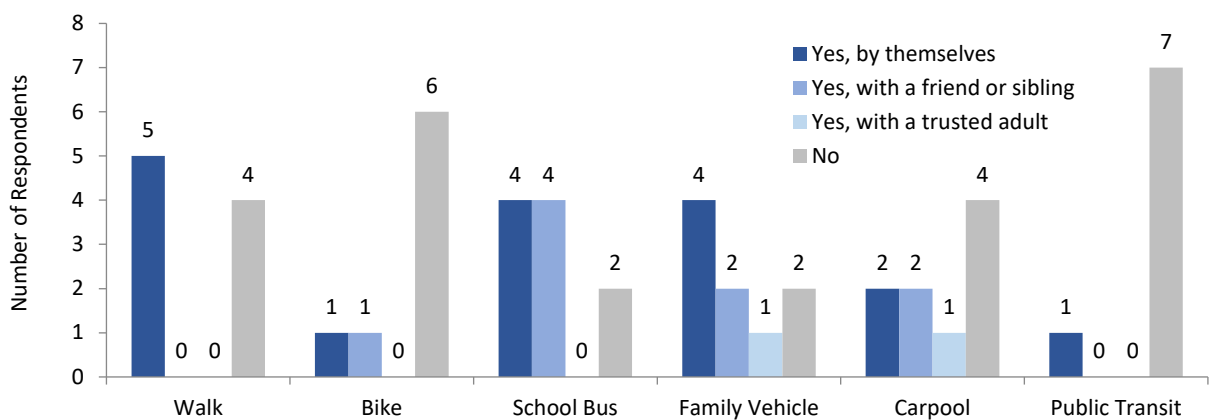
While parents and caregivers reported varying concerns that limit their student's ability to walk or bike to school, some were more commonly expressed than others (see Figure 6). The following were top concerns for the Siuslaw Elementary School respondents:
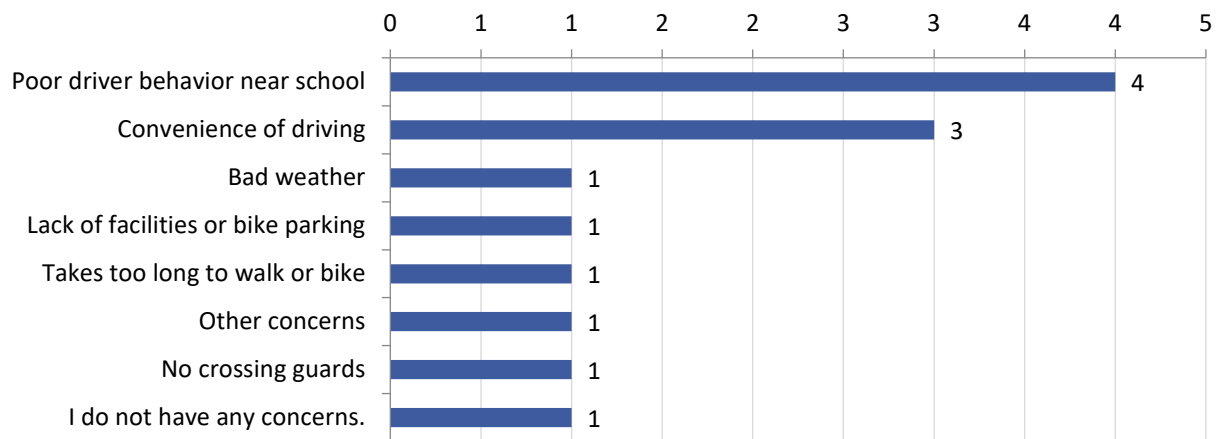
- Poor driver behavior on streets near the student's school
- The greater convenience of driving compared to other modes

At Siuslaw Middle School, parents and caregivers had similar concerns. The following were the most popular responses for these respondents:
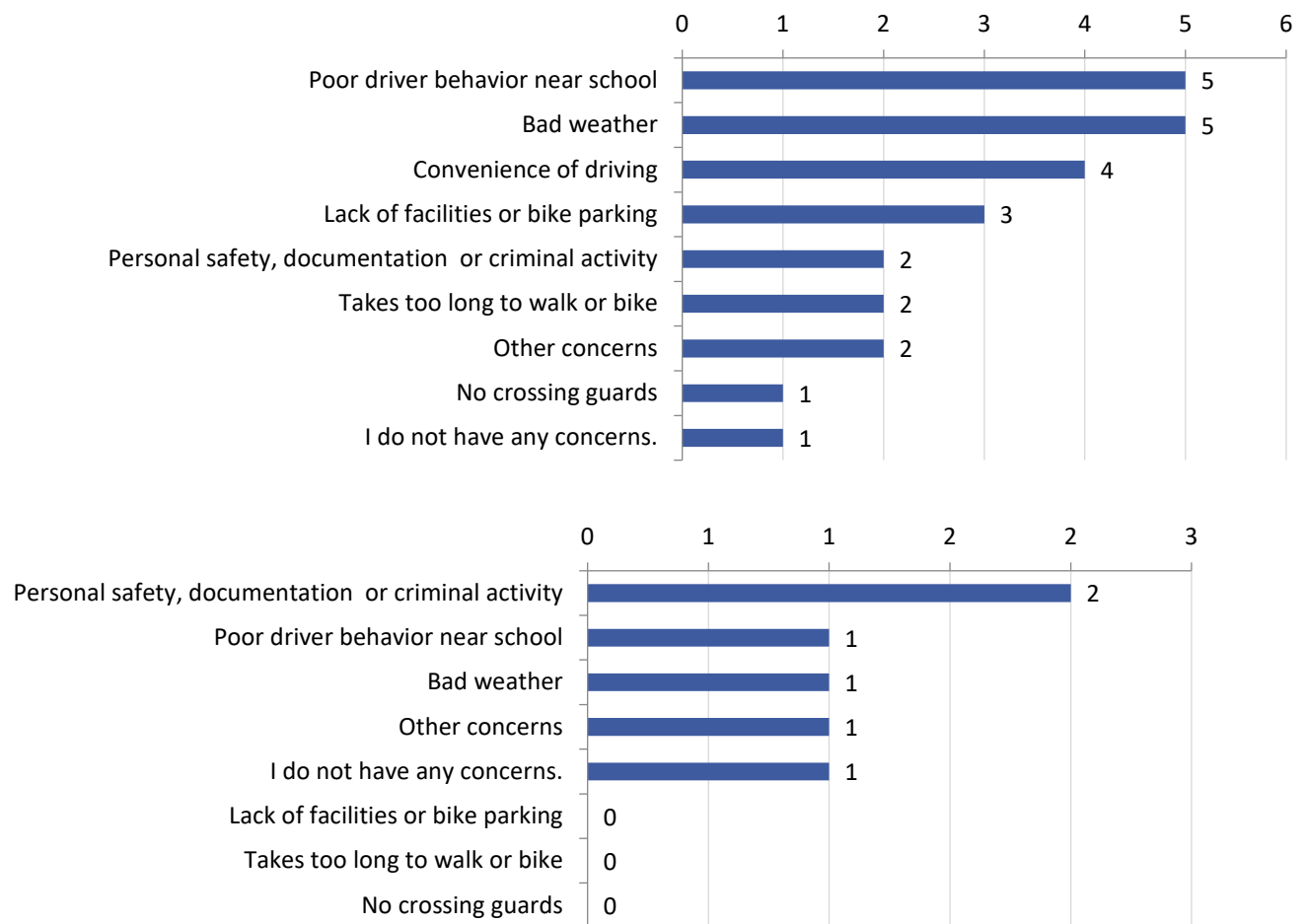
- Poor driver behavior on streets near the student's school
- Bad weather
- The greater convenience of driving compared to other modes
- Lack of facilities or bike parking

Figure 6. What Concerns Limit Your / Your Student's Ability to Walk or Bike to/from School?, 2019 Parent/Caregiver Survey
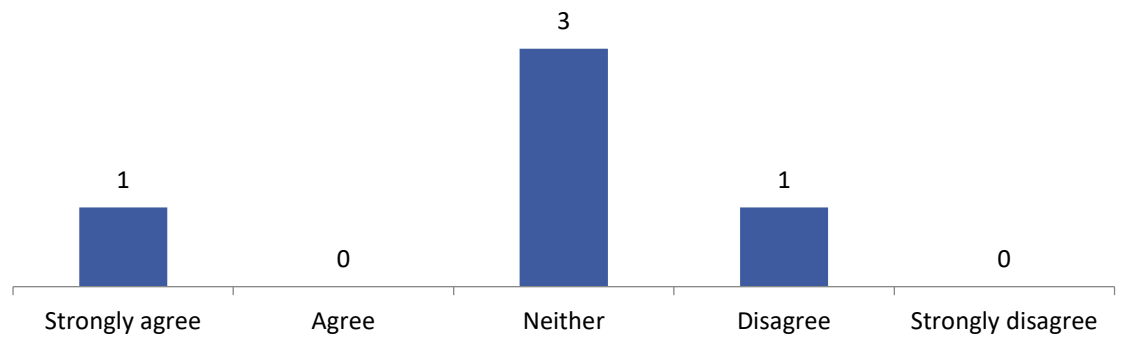
a) Siuslaw Elementary School

Concern	Value
Poor driver behavior near school	4
Convenience of driving	3
Bad weather	1
Lack of facilities or bike parking	1
Takes too long to walk or bike	1
Other concerns	1
No crossing guards	1
I do not have any concerns.	1

b) Siuslaw Middle School

Concern	Value
Poor driver behavior near school	5
Bad weather	5
Convenience of driving	4
Lack of facilities or bike parking	3
Personal safety, documentation or criminal activity	2
Takes too long to walk or bike	2
Other concerns	2
No crossing guards	1
I do not have any concerns.	1

| Concern	Value
Personal safety, documentation or criminal activity	2
Poor driver behavior near school	1
Bad weather	1
Other concerns	1
I do not have any concerns.	1
Lack of facilities or bike parking	0
Takes too long to walk or bike	0
No crossing guards	0

A majority of parent and caregiver respondents felt Siuslaw Elementary neither encouraged or discouraged students from walking and biking to school at the time of the survey (three). The same was true at Siuslaw Middle School and Siuslaw High School (see Figure 7).

Figure 7. Agree/Disagree: Walking/Biking to/from School is Encouraged by my / my Student's School, 2019 Parent/Caregiver Survey
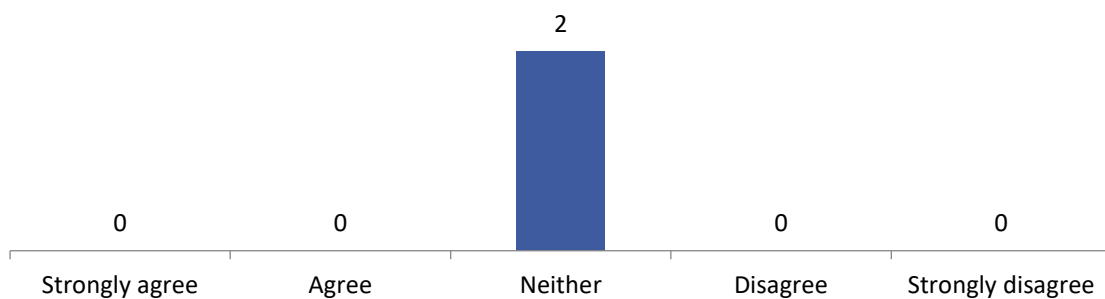
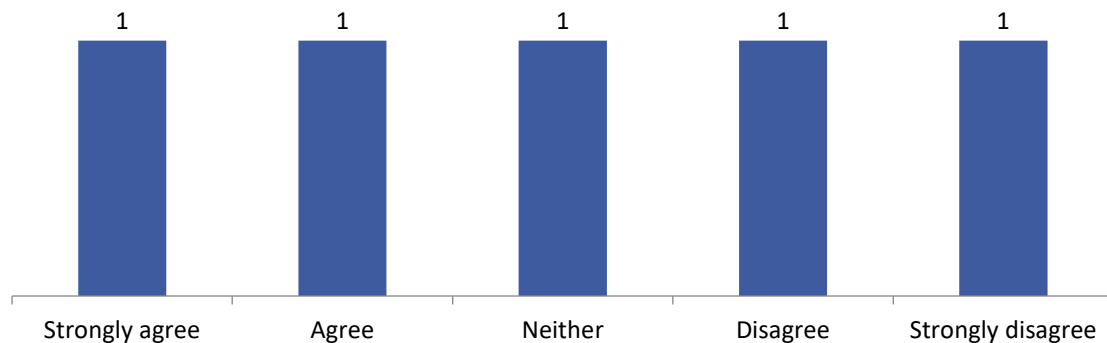a)   Siuslaw Elementary School

b)   Siuslaw Middle School
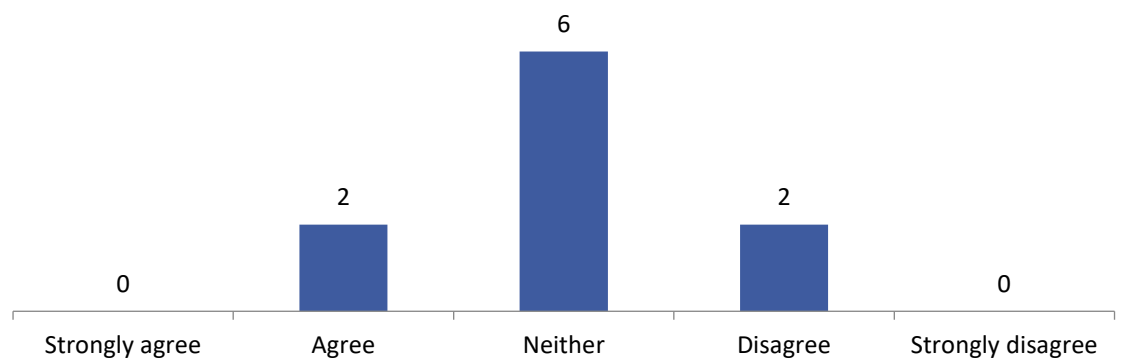
c)   Siuslaw High School

At the time of the survey, Siuslaw Elementary parents and caregivers disagreed on whether walking or biking would be fun for their student, with answers spread evenly across the spectrum (Figure 8).. At Siuslaw Middle School, the majority of parents/caregivers neither agreed nor disagreed, but three reported that they felt active modes would be fun for their student. Both high school respondents were neutral on the question.

Figure 8. Agree/Disagree: Walking/Biking to/from School is Fun for me / my Student, 2019 Parent/Caregiver Survey
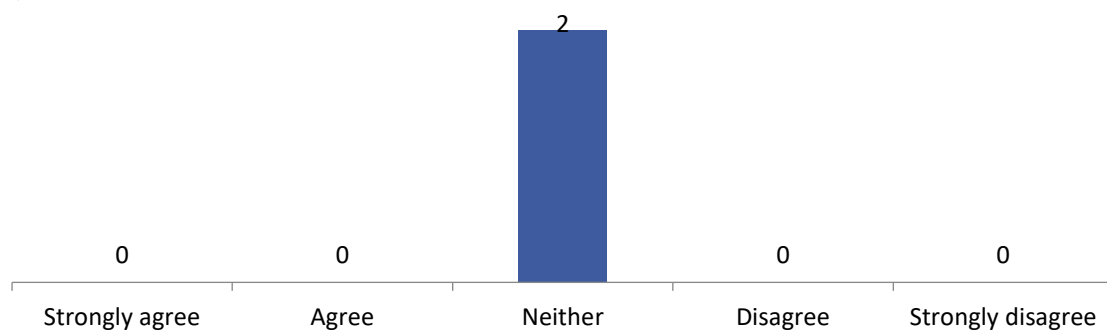
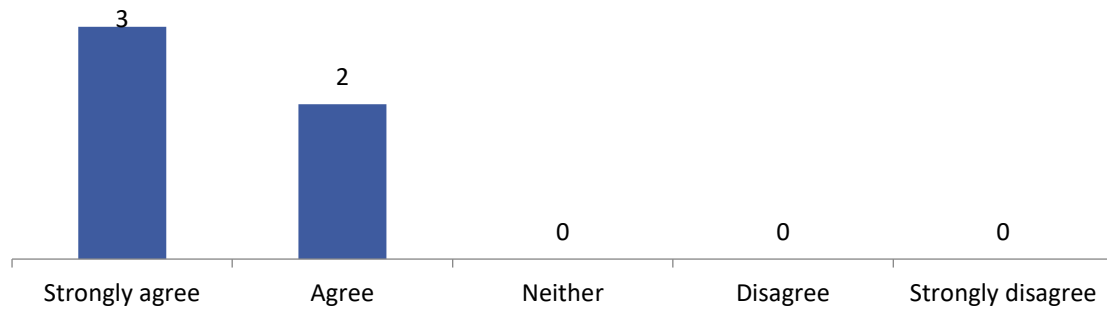Siuslaw Elementary School

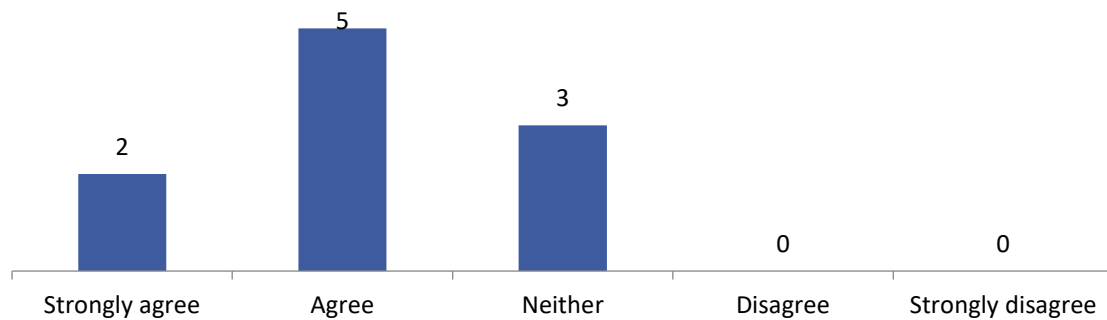Siuslaw Middle School
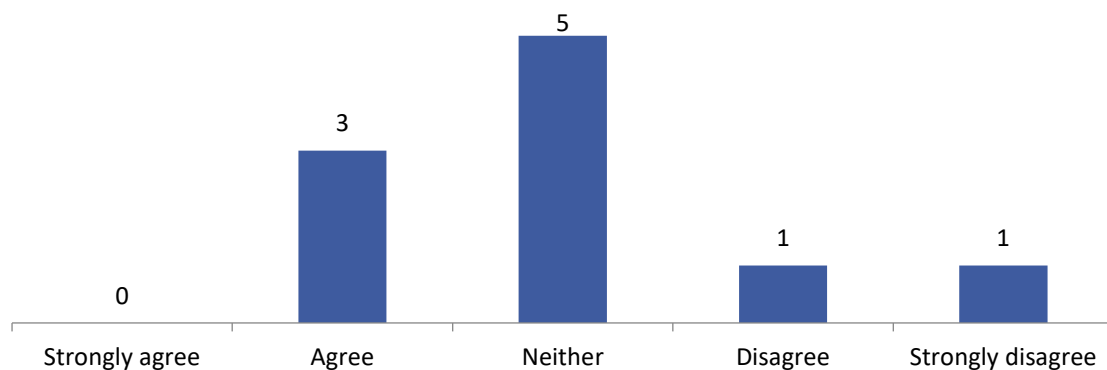
Siuslaw High School

A majority of parents and caregivers (as well as high school students themselves) at all schools recognized the health benefits of active transportation (see Figure 9). At Siuslaw Elementary, all respondents agreed that active transportation is healthy for their students. At Siuslaw Middle, seven respondents believed walking and biking would be healthy, and three were neutral. Both high school respondents agreed, as well.

Figure 9. Agree/Disagree: Walking/Biking to/from School is Healthy for me / my Student, 2019 Parent/Caregiver Survey
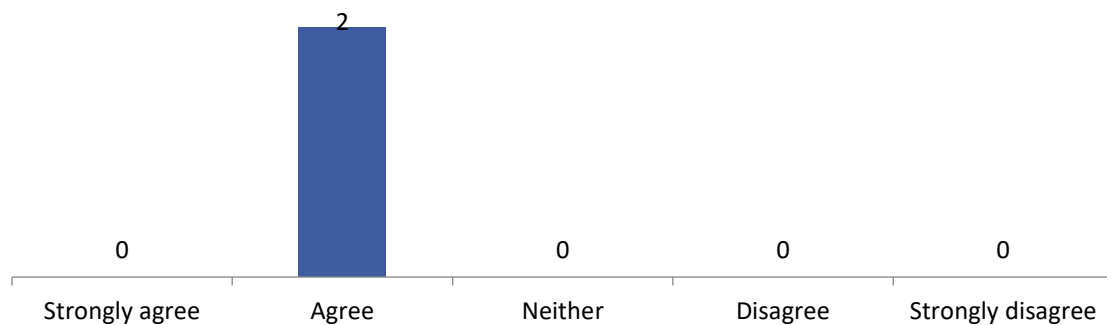
Siuslaw Elementary School

Siuslaw Middle School

Siuslaw High School

Crash Data – Siuslaw Elementary/Middle/High School

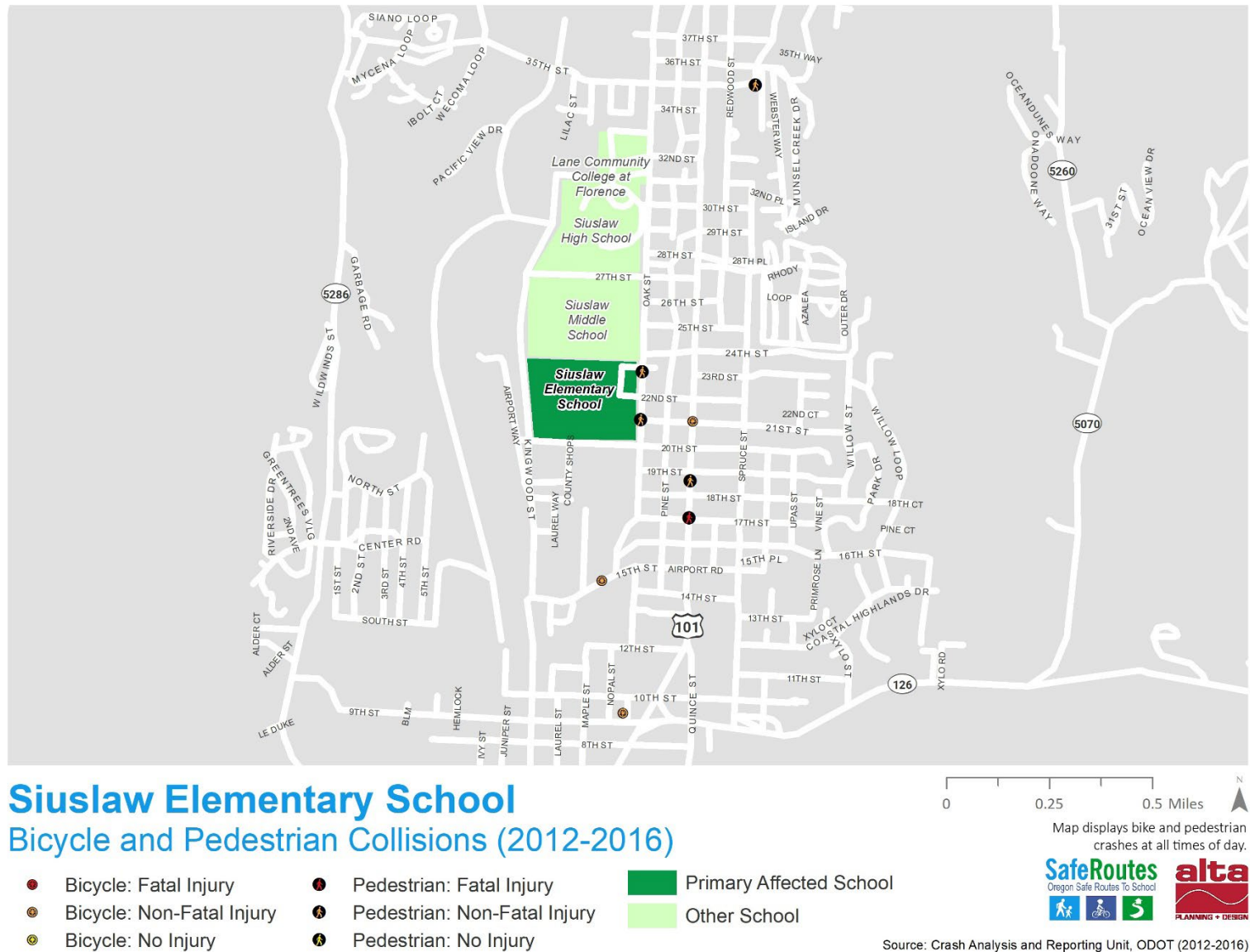|	
DATE COLLECTED:	**2012-2016**
DATA COLLECTION PROCESS:	Crash Data included in this report originates the ODOT SRTS Web Map Application, with supplemental data from roadway jurisdictions as available. This analysis does not determine whether the grant intervention caused any change in the occurrence of crashes, due to small sample size. Additionally, due to insufficient mode split data to calculate crash rates, this report offers a count and description of reported incidents.
NUMBER OF REPORTED CRASHES INVOLVING BIKES AND PEDESTRIANS WITHIN 1 MILE OF SCHOOL:	Between 2012 and 2016, eight crashes involving a bicyclist or pedestrian were reported within one mile of the schools.
TIME OF REPORTED CRASHES INVOLVING BIKES AND PEDESTRIANS WITHIN 1 MILE OF SCHOOL*:	Seven of these reported crashes occurred during school commuting hours; the majority occurred during PM commuting hours. *For these purposes school commuting hours were defined as 6 AM to 9 PM.*
NUMBER OF REPORTED INJURIES BY SEVERITY WITHIN 1 MILE OF THE SCHOOL:	All eight of these reported crashes involved an injury to a bicyclist or pedestrian. All three of the reported crashes involving a bicyclist were non-fatal. Of the five reported crashes involving a pedestrian, four were non-fatal and one was fatal. Figure 10 illustrates the location of the crashes by type and injury severity.
ADDITIONAL CRASH DATA CONSIDERATIONS:	Crossing improvements across Highway 101, sidewalk infill and a separated path are planned to address the multiple crashes that have been recorded along Highway 101 and along Oak St adjacent to the schools. In addition to the crashes between 2012-2016 illustrated on the map, in its application the City of Florence identified several crash incidents and near misses: • 2017: no-injury vehicle accident involving 2 students and 2 vehicles on Highway 101 and 24th • 2000: pedestrian fatality on Highway 101 and 30th (a crosswalk has since been constructed in this location to reduce risk) Many parents have recent stories of near misses as they are crossing the highway other than at the two crosswalks. One parent assisted an 8-year-old student to cross Highway 101 at 27th by stopping traffic and then nearly was hit on her way back to her vehicle.

Notes on Community Context or other Relevant Information:

None.

Figure 10: **Siuslaw** Elementary School Bicycle & Pedestrian Collisions (2012-2016)

Siuslaw Elementary School
Bicycle and Pedestrian Collisions (2012-2016)

● Bicycle: Fatal Injury	● Pedestrian: Fatal Injury
● Bicycle: Non-Fatal Injury	● Pedestrian: Non-Fatal Injury
● Bicycle: No Injury	● Pedestrian: No Injury

Primary Affected School
Other School

0   0.25   0.5 Miles

Map displays bike and pedestrian crashes at all times of day.

SafeRoutes Oregon Safe Routes To School

alta PLANNING + DESIGN

Source: Crash Analysis and Reporting Unit, ODOT (2012-2016)

Follow-Up Data Collection Plan

Timeline

Post-grant field visits to collect follow-up data will be scheduled to take place the spring following the completion of each grant intervention. The City of Florence estimates project completion is planned for Summer 2020.

Follow-up Data Collection Process

METHOD	PLANNED AT THIS SITE?	TARGET SAMPLE SIZE	TARGET FIELD WORK DATE
STUDENT HAND TALLIES:	Yes	At least 2 classrooms per grade per school	Late spring 2021 (assuming project completion)
PARENT SURVEYS:	Yes	At least 30 parents per school	Late spring 2021 (assuming project completion)
PARENT FOCUS GROUPS:	Yes	4-10 parents	Late spring 2021 (assuming project completion)
STAFF SURVEYS:	Yes	1-3 school staff and administration	Late spring 2021 (assuming project completion)
CRASH DATA:	Yes	N/A	N/A
OTHER (LIST):	None	N/A	N/A

Appendix A. Final Report DRAFT Outline

Note: The following Final Report outline is subject to change.

Chapter 1. Introduction

- Description of SRTS IN Grant Program
- Description of Final Report purpose and contents

SUMMARY OF FUNDED INFRASTRUCTURE IMPROVEMENTS

- Project description
- Map of improvements
- Project timeline

BACKGROUND

- School demographics
- Summary of Non-Infrastructure SRTS Work
- Place Type

Chapter 2. Data Collection and Results

HAND TALLY DATA

- Data Collection Methods
- Change in walking and biking rates

PARENT SURVEY DATA

- Data Collection Methods
- Change in mode split by distance from school
- Change in barriers to walking and biking
- Change in perceptions of walking and biking
- Other observations

FOCUS GROUPS

- Data Collection Methods
- Change in barriers to walking and biking
- Change in perceptions of walking and biking

CRASH DATA

- Data included in analysis
- Change in crash data (*If available, otherwise this will provide updated baseline crash data from ODOT*)

Chapter 3. Findings

- Impact of Infrastructure improvements on mode split
- Impact of Infrastructure Improvements on Access to Safe Infrastructure

- impact of infrastructure improvements on safety/perception of safety
- Impact of Infrastructure Improvements on Program lifespan/partnerships
- impact of infrastructure improvements on equity
- Other Findings
- Next Steps and Recommendations

Appendix B. Competitive SRTS IN Grant Funded Project Map

Figure 11. Siuslaw Elementary Competitive SRTS IN Grant Funded Project Map
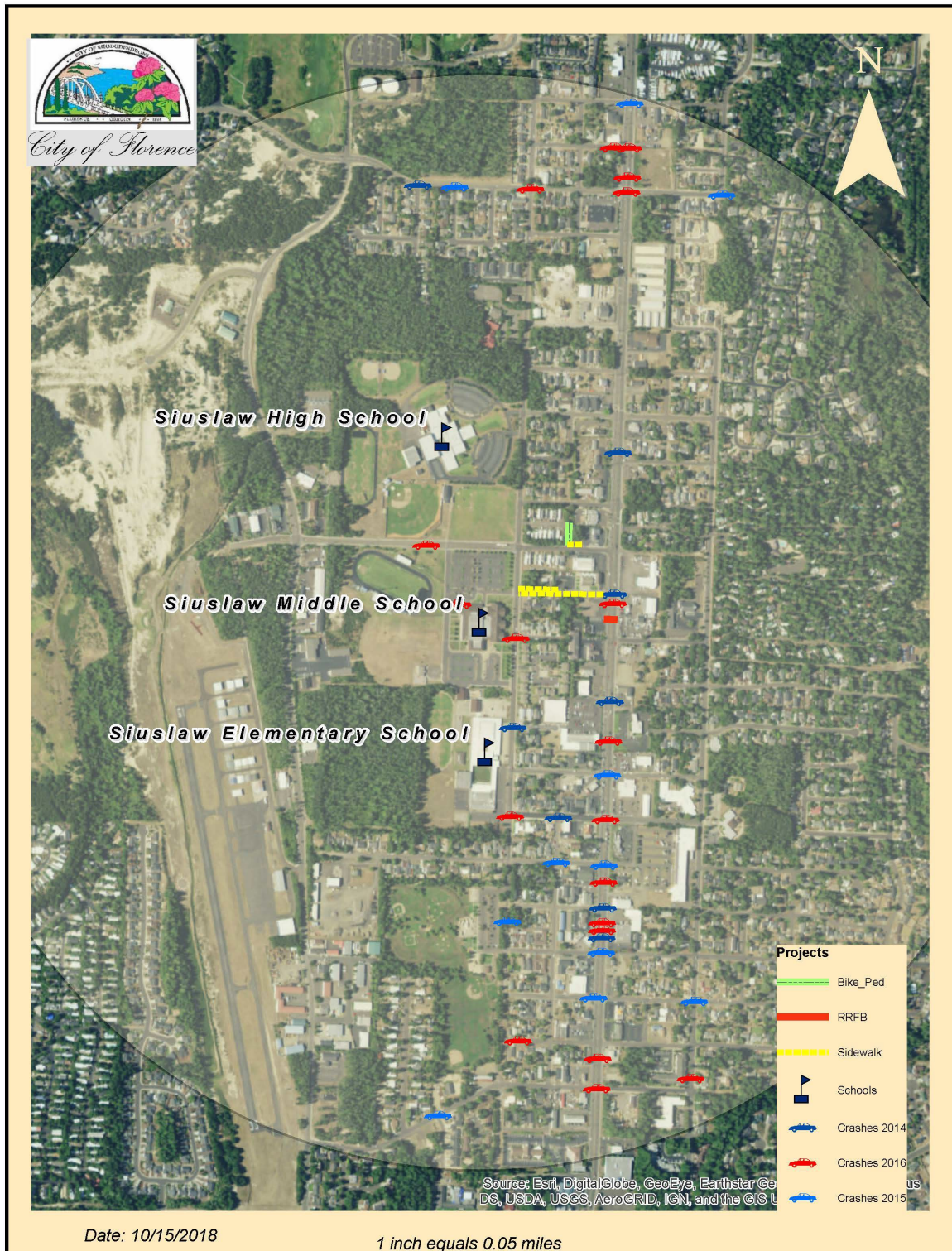
Appendix C. Access to SRTS Detailed Methodology

Purpose

The access map analysis was designed to estimate the number of students with new or significantly improved access to school upon the implementation of a proposed walking or biking facility. While determining the number of students who benefit from a proposed project is not an exact science, this analysis provides a common approach that utilizes school district boundaries, census population data and local zoning codes to generate rough estimates. These estimates lend greater insight into the impact of a particular Safe Routes to School project, allowing facility improvements to be compared and thus aid in prioritizing investments. This memo outlines the data sources, methods, and assumptions that inform the access map analysis described in this report.

Data Sources

Three primary data sources were used in this analysis in conjunction with the information provided in each project application:

Name	Source
American Community Survey (ACS) Population Estimates	US Census Bureau
Oregon School District Boundaries	Oregon Department of Education
2017 Oregon Statewide Zoning Map	Oregon Department of Land Conservation and Development

Methods

The analysis establishes two geographical areas in which census block population data are apportioned to: 1) the school area and 2) the access area. The school area is defined as the area that is within a 1-mile radius of the applicant school or within the enrollment boundary, whichever is closer. This area covers residents within reasonable walking or biking distance of the to school. The access area is the area that covers all residents who would experience new or significantly improved access to school upon the implementation of the proposed walking or biking facility.

Once both of these areas have been established, the consultant team identified the census blocks that intersect each. We then apportioned the population data from the census blocks to the school area and the access area, based on the relative coverage of each census block. To account for varying residential densities in each census block, we used residential zoning data to determine the proportion of the population that should be attributed to the school area and access area.

After the estimated populations of both the school area and the access area are calculated, the local jurisdiction's youth rate is applied to each to get the number of people ages 5-17 in those areas, which we refer to as the 'school age population'. Finally, the school age populations of the access area and the school area are compared. The percentage of school age students with new or improved access to school represents the proportion of students impacted by the project out of all the students in the school area who could reasonably walk or bike to school.

Defining the Access Area

The boundary of the school area is readily calculable using GIS and the rules described above. By contrast, the access area boundary was determined manually based on the project description and professional judgement of impact. While this method inherently includes subjective judgement, the high variability and nuance in the transportation context surrounding the proposed project makes this method more suitable for determining the residential areas would benefit from its implementation than a purely GIS-based workflow. The following assumptions and rules of thumb were adopted in order to make the assessment of the access areas as uniform as possible:

1. The analysis assumes people are willing to "walk around the block" half the distance of their street in the opposite direction of school in order to utilize a safe path to school.
2. The analysis assumes that Google Earth street view imagery is up to date, as this was used to determine sidewalk connectivity and condition, which informed the access areas.
3. Places without sidewalks, particularly in small towns, are considered walkable if the street is narrow, residential, and designed for a low volume of traffic (i.e., lacks a centerline)
4. The access areas consider ADA accessibility and account for those in wheelchairs or other mobility devices.
5. The access areas may include residents who have to walk more than one mile to school, based on the available street network.
6. Even if some residents may have already had access to school, they might be included in the access area if the proposed project would significantly improve their access to school.

Apportioning Census Population Data

As described above, census population data was apportioned to both the school area and the access area based on how much a census block covered them. However, to account for varying population densities across census blocks, residential zones in the census blocks were identified.

The statewide zoning data provided by the Oregon Department of Land Conservation and Development groups residential zones across all jurisdictions in the state into 13 categories of increasing density. Our team further consolidated these categories into just 4: Low Density, Medium-Low Density, Medium-High Density, and High Density. We then weighted these categories by their relative density compared to Low Density:

Residential Zone Group	Population Density Factor
Low Density	1
Medium-Low Density	2
Medium-High Density	5
High Density	15

These factors serve to more accurately distribute the population data across the residential zones within the census block. In other words, if the census block contained only Low Density residential zones, then the population of any given area within that census block is equal to the proportion of the census block that that area covers. By contrast, if a census block contains Low Density residential zones and High Density zones, we attribute 15 times the population of the census block to the High Density zones than the Low Density zones. The density factors were determined using the typical number of dwellings per acre in in each zone.

The analysis uses these four zoning categories to identify the spatial distribution of the population of the census block and apportion it to the overlaying school area and access areas based on how much those areas cover the residential zones of the census block.

General Assumptions

- This analysis assumes that the Oregon Statewide Zoning code reflects the actual residential densities of the current built environment.
- Areas that were zoned for housing that had no development on them according to the latest satellite imagery (and significantly impacted the output) were removed from the analysis in order to improve the accuracy of the estimates. This was only utilized in a few low-population jurisdictions.
- This analysis assumes that families are evenly distributed between each of the four residential zone groups.
- The reported number of school-age students includes all students ages 5-17, not just elementary or middle school students. Thus, the number of students who actually attend the applicant school is likely much lower than the reported figure.