MASSACHUSETTS Safe Routes to School
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Massachusetts Department of Transportation

MASafeRoutesSurvey.org
Survey Report
Adams - Plunkett Elementary
June 14, 2017

Introduction

This report will help your school plan safe transportation options for all students. It contains the results of a survey conducted at Adams - Plunkett Elementary in April 2015. Participating parents provided information about how students travel to school and their approximate home location. If your school is interested in

- reducing traffic congestion,
- encouraging walking and biking,
- increasing safety, or
- tracking progress towards community goals,

then this information can help you identify the right strategies and best opportunities for new projects and investments.

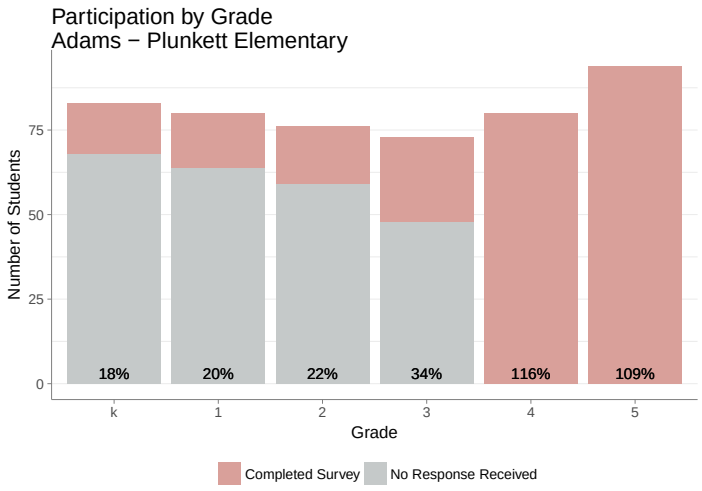
How to Read This Report

This report measures distance to school in terms of walksheds and bikesheds. A *walkshed* includes all the homes within a certain distance to school, based on mapped sidewalks, pedestrian paths, and low volume roadways. We define walksheds for 0.5, 1.0, and 1.5 mile walking distances to school. A *bikeshed* of 2.0 miles also includes multi-use paths and on-road cycle facilities, where mapped. For a map of the walksheds and bikesheds, see the last page of the report. Where "walkshed" is used alone, it always includes the bikeshed of the same distance.

Survey Statistics

- Survey Dates: 2015-04-25 to 2015-05-09
- Responses Received: 247
- School-wide Participation Rate: 53%

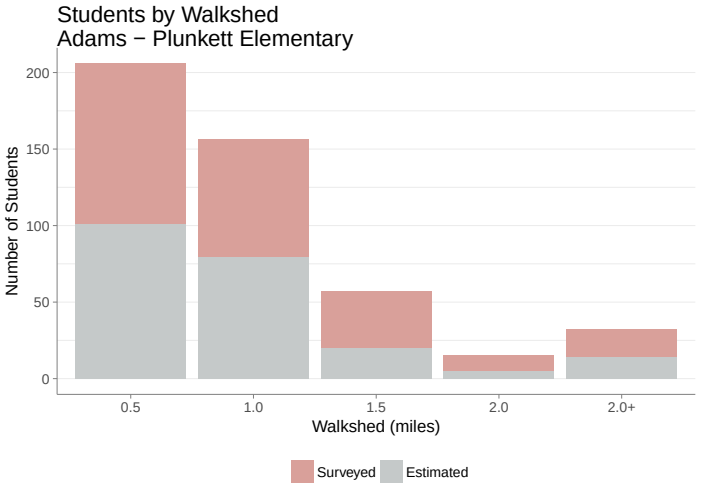
The figure below shows the survey participation rate for each grade. Total enrollment is based on the 2014-2015 school year, per Department of Elementary and Secondary Education. Survey responses from each grade were used to estimate the distance and travel choice for the entire grade.The higher the participation rate, the more reliable the survey results are.



Student Proximity

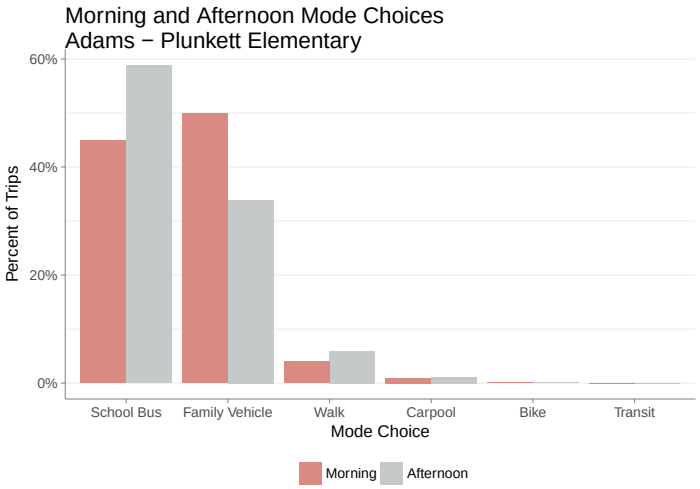
- Average Distance to School: 0.9 miles
- Within 1.0 Mile Walkshed: 78%
- Within 2.0 Mile Bikeshed: 93%

The chart and table below show the number of students surveyed and the total estimated students by walkshed. Student totals by walkshed are estimated assuming that the proportion of surveyed students within each walkshed and grade is proportional to the enrolled students within each walkshed and grade.

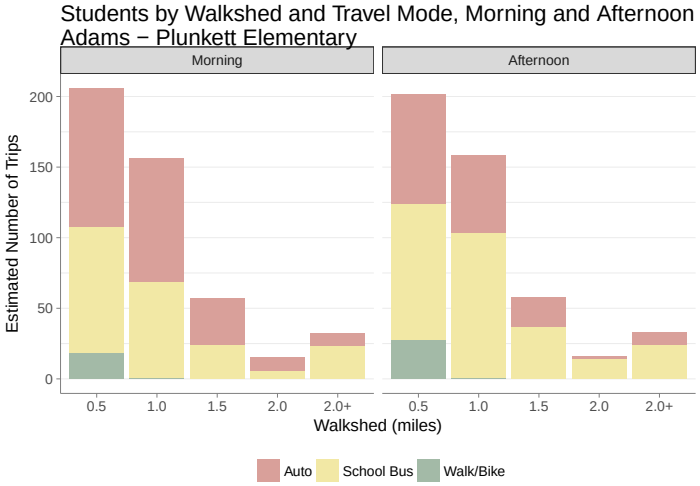


Students By Walkshed

Students	0.5	1.0	1.5	2.0	2.0+
Estimated	206	156	57	15	32
Surveyed	105	77	37	10	18
Percent	44%	33%	12%	3%	7%



Walk share is 4.2% in the morning and 6.1% in the afternoon. The auto share is lower in the afternoon, indicating that as many as 31.2% of those who are driven to school in the morning get home by other means in the afternoon.



Student Travel Choices

- Walk\Bike Trips Within One Mile: 7%
- Walk\Bike Trips Overall: 5%
- Family Vehicle\Carpool Trips Overall: 43%
- School Bus Trips Beyond One Mile: 61%

The chart below shows what percent of trips are made by each travel mode in the morning and afternoon.

Travel Mode, Morning and Afternoon

	0.5	1.0	1.5	2.0	2.0+
Morning					
Auto	98	88	33	10	9
School Bus	89	68	24	6	23
Walk	19	1	0	0	0
Afternoon					
Auto	78	55	21	2	9
School Bus	96	103	37	14	24
Walk	28	1	0	0	0

Greenhouse Gas Emissions (GHG)

- Per-student GHGs within 1 mile: 106 kg
- Per-student GHGs beyond 1 mile: 195 kg

Transportation generates more than one-third of the total greenhouse gas (GHG) emissions produced in Massachusetts. Increasing the number of trips made by walking or biking is a critical step toward achieving state goals for GHG reduction. The following table shows the estimated annual GHG emissions (in kilograms of CO2) for students being driven to school, by walkshed. (It does not include emissions from school buses.) For comparison, the average Massachusetts household drives about 19,000 miles per year, generating approximately 8,000 kg of GHG emissions.

Buffer	Total (kg)	Per Student	Percent
0.5	13848	70	23%
1.0	22769	156	38%
1.5	13263	189	22%
2.0	5464	288	9%
2.0+	5311	156	9%

How Your School Compares

The table below compares your school's actual walk \bike share to an expected value reflecting average walking and biking rates across Massachusetts. The expected value accounts for student grade levels and proximity to school, and is based on more than 6,000 surveys collected statewide since 2011.

Actual and Expected Walk\Bike Share

	0.5	**1.0**	**1.5**	**2.0**	**2.0+**
Actual	11%	1%	0%	0%	0%
Expected	64%	30%	12%	5%	3%

Benefits of Walking and Biking

Shifting some school commutes from auto to walking or biking can create real benefits for your community. This section estimates the traffic, physical activity, and GHG benefits that might result from increasing walking and biking. It can help you make the case for investing in Safe Routes to School programs and to track your progress over time.

If your school achieved the "expected" values described above based on grade specific averages for each walkshed, it would:

- Reduce number of daily car trips to and from school by 285.
- Provide an additional 21 minutes of physical activity for each newly participating student.
- Reduce annual auto-generated GHG emissions from between 18,278 kg to 31,947 kg, or 30.1% to 52.7%.