Arlington Public Schools Transportation Demand Management Master Plan

Task 2, Section 2.1: Analysis of Existing Data and Travel Surveys

APS
GO!
Smart Routes, Smart Choices

Arlington Public Schools

Task 2: Existing Conditions and Baseline Assessment

Task 2 Objectives:

- Review available transportation-related data, including usage rates and cost

- Assess current transportation-related practices, policies, responsibilities

Four Trip Categories

1. APS staff
   - To and from schools and division offices

2. APS students
   - School bus, private vehicle, walk, bike, public transportation

3. APS "shared" staff and students
   - Between schools

4. Parents/visitors
   - School related activities

[1] The original scope of work for this project included "delivery and service vehicles", but it was later determined that this was infeasible as part of this study.
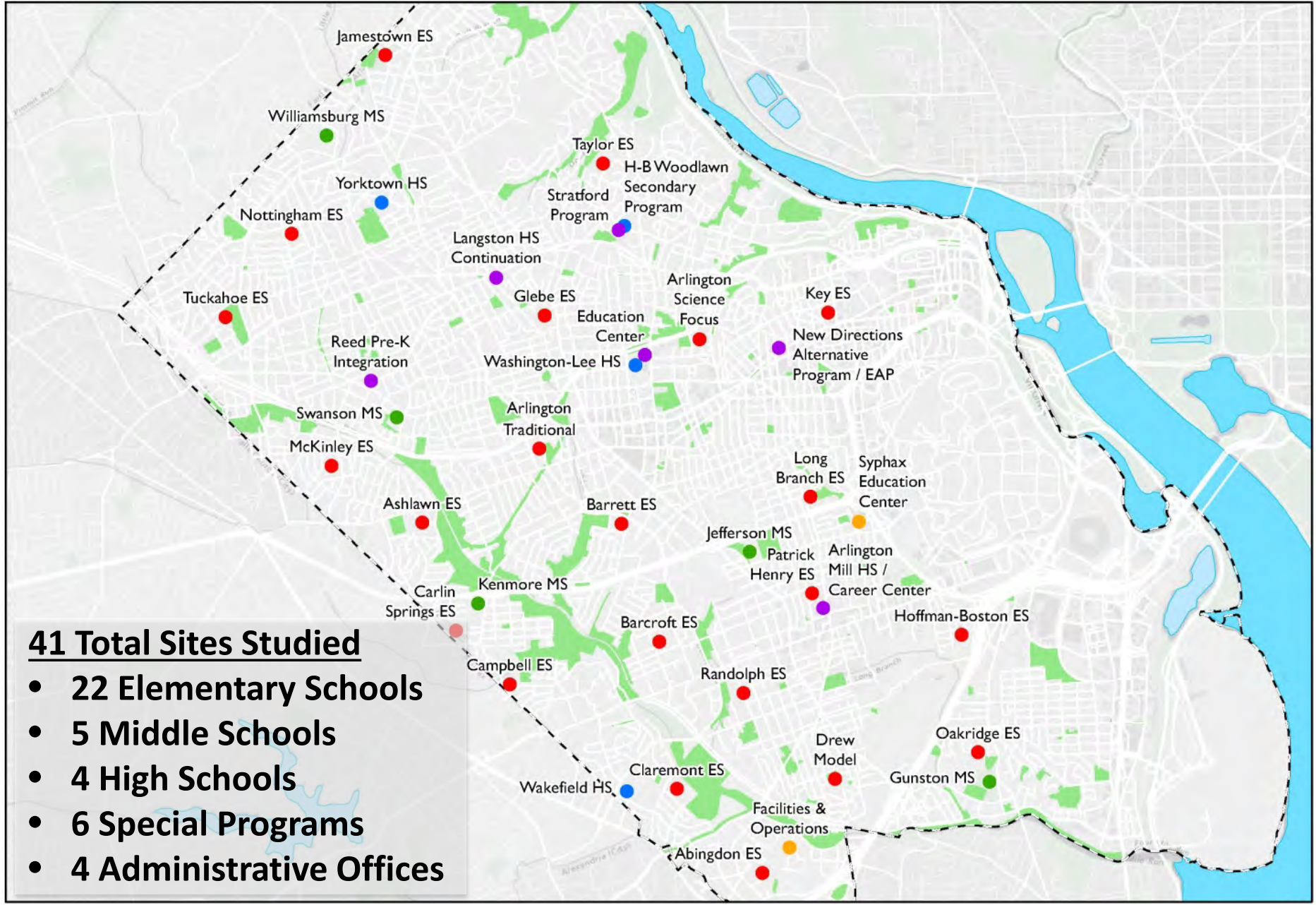
Section 2.1: Outline of Contents

OVERVIEW/SNAPSHOT OF ARLINGTON PUBLIC SCHOOLS

This section presents the analysis of general APS data on sites, students and staff.
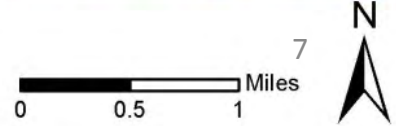
APS FACILITIES

41 Total Sites Studied

- **22 Elementary Schools**
- **5 Middle Schools**
- **4 High Schools**
- **6 Special Programs**
- **4 Administrative Offices**

Jamestown ES

Williamsburg MS

Yorktown HS

Nottingham ES

Taylor ES

H-B Woodlawn Secondary Program

Stratford Program

Langston HS Continuation

Tuckahoe ES

Glebe ES

Arlington Science Focus

Key ES

Education Center

New Directions Alternative Program / EAP

Reed Pre-K Integration

Washington-Lee HS

Swanson MS

Arlington Traditional

McKinley ES

Long Branch ES

Syphax Education Center

Ashlawn ES

Barrett ES

Jefferson MS

Patrick Henry ES

Arlington Mill HS / Career Center

Carlin Springs ES

Kenmore MS

Barcroft ES

Hoffman-Boston ES

Campbell ES

Randolph ES

Drew Model

Oakridge ES

Claremont ES

Gunston MS

Wakefield HS

Facilities & Operations

Abingdon ES

Usage Type

- Elementary School
- Admin/Office
- Middle School
- High School
- Special Program
- County Boundary
- Parks

N

7

Miles
0   0.5   1

The APS Community

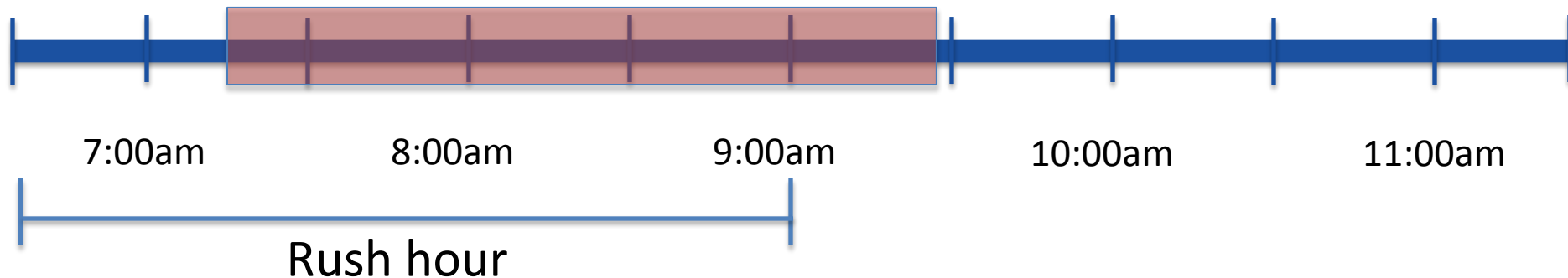| Students	23,336
Staff	4,792
Total	**28,128**

Source: 2013-14 APS Student Enrollment, TDG Analysis:
Anonymous APS Staff Zip Codes

School Arrival Times

When do students arrive at school?

- Extended Day - 7:00 am
- Elementary - 8:00, 8:25, 9:00 am
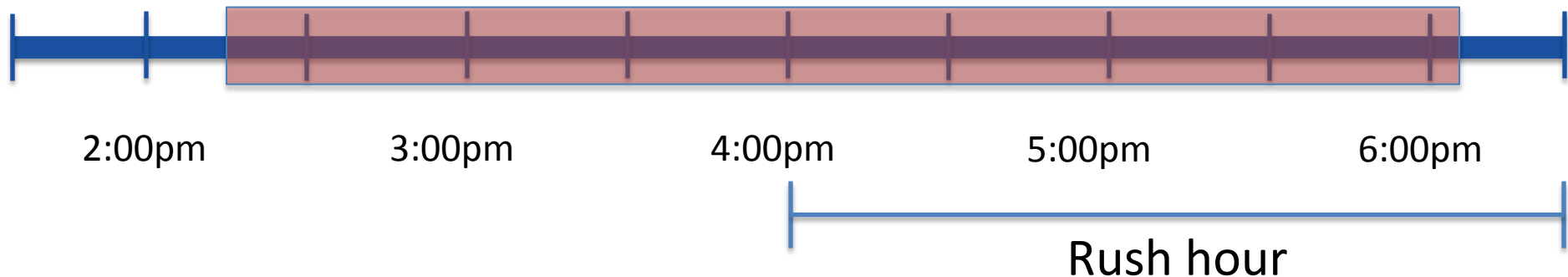- Middle - 7:50 am
- High - 8:19, 9:24 am

7:00am   8:00am   9:00am   10:00am   11:00am

Rush hour

Source: 2013-14 APS Calendar

School Dismissal Times

When are students dismissed from school?

- Elementary - 2:41, 3:06, 3:41 pm
- Middle - 2:24 pm
- High - 3:01pm and 4:06 pm
- Extended Day - 6:00 pm

2:00pm   3:00pm   4:00pm   5:00pm   6:00pm

Rush hour

Source: 2013-14 APS Calendar
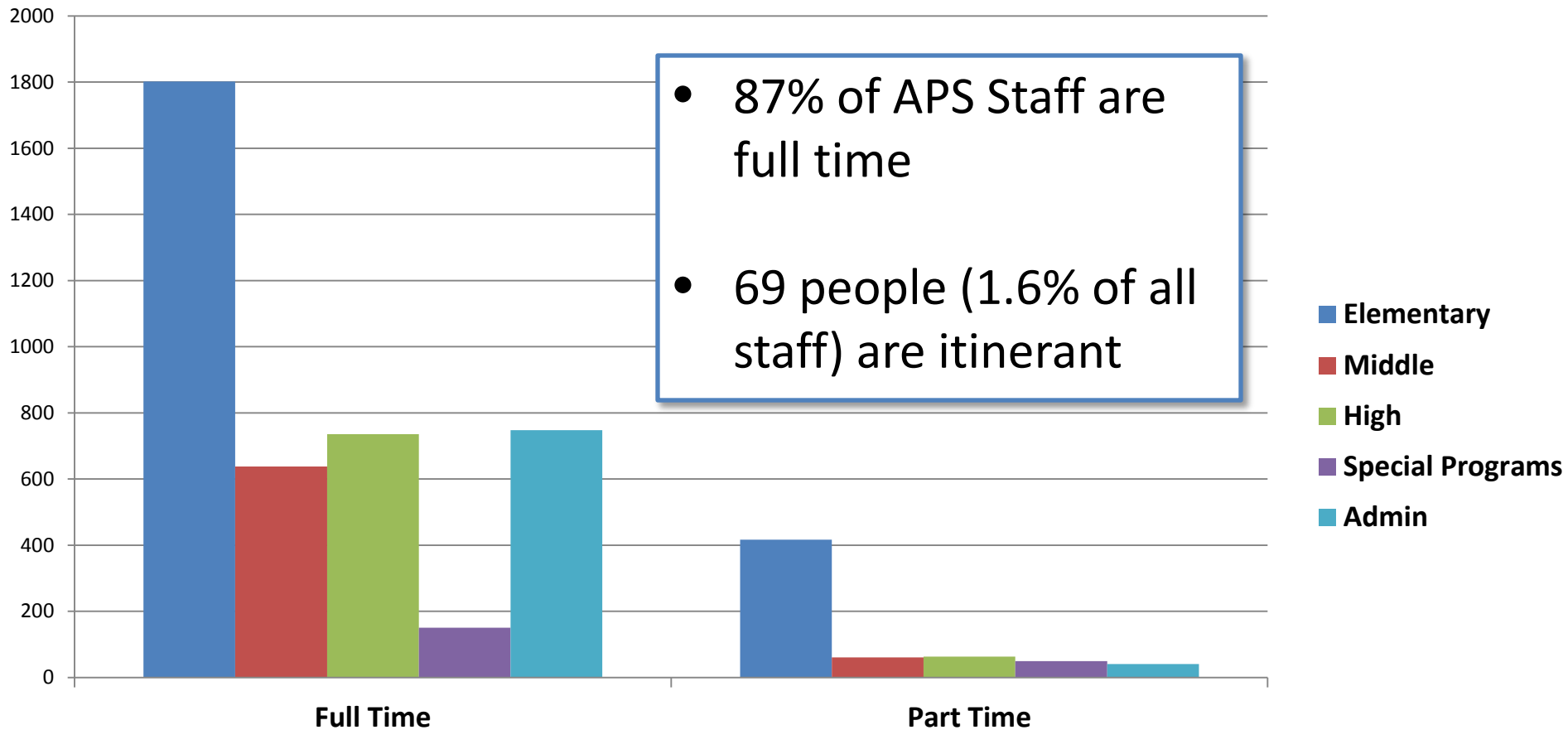
Catchment/Attendance Areas

- **Nearly 2/3 of APS sites/schools draw at least partially from beyond a specific attendance area**
  - **12** countywide sites/schools
  - **14** schools with partial countywide options (Montessori, immersion, IB, etc.)
  - **15** neighborhood schools

- **17 out of 23 elementary schools have Pre-K programs that draw from beyond a specific attendance area**

Source: TDG Analysis of 2012-13 APS Transfer Report and Pre-Kindergarten Student Mobility Report

APS STAFF

Full time/Part Time by Facility Type

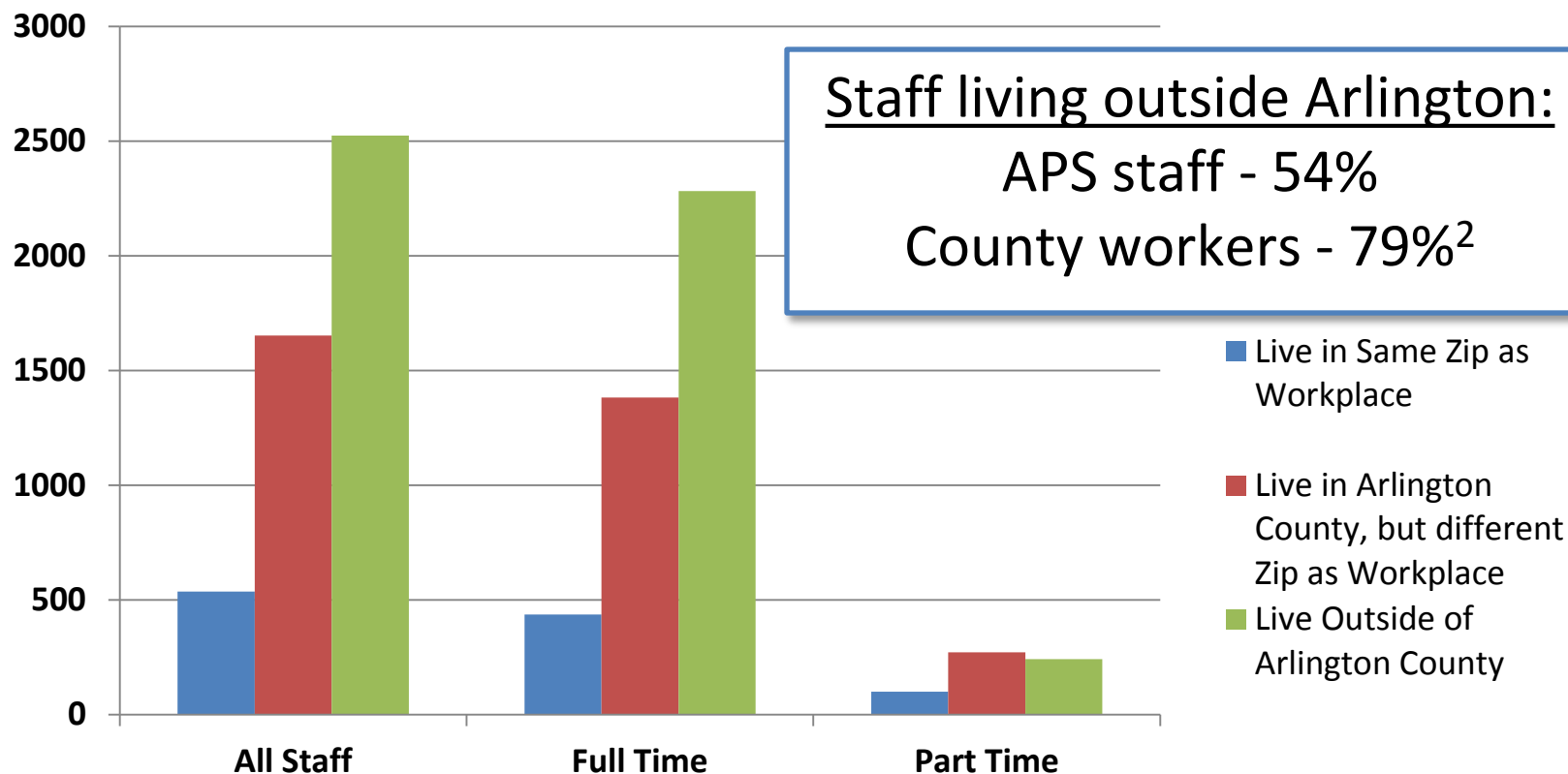**Full Time and Part Time APS Employees by Facility Type**

- 87% of APS Staff are full time

- 69 people (1.6% of all staff) are itinerant

Legend:
- ■ Elementary
- ■ Middle
- ■ High
- ■ Special Programs
- ■ Admin

Source: TDG Analysis: APS Staff Employment by Facility Type

13

Staff Categories

Pay Scale	Job Type	% of all staff
A SCALE	Assistants	13.4%
C SCALE	Food Service	2.0%
D SCALE	Transportation	3.7%
E SCALE	Coordinators/Technical	4.5%
G SCALE	Administrative	6.7%
M SCALE	Custodial, Maintenance and Aquatics	6.7%
P SCALE	Directors, Assistant Principals, Principals	3.0%
T SCALE	Teachers, Teaching Assistants	55.8%
X SCALE	Extended Day	4.4%
TOTAL		**100%**

Staff – County Residency

Where APS Staff Lives in Relation to their Workplace[1]

Staff living outside Arlington:
APS staff - 54%
County workers - 79%[2]

Legend:
- Live in Same Zip as Workplace
- Live in Arlington County, but different Zip as Workplace
- Live Outside of Arlington County

Chart categories: All Staff, Full Time, Part Time
Y-axis: 0 to 3000

[1]*TDG Analysis: Anonymous APS Staff Zip Codes*
[2]*Arlington Worker Mode Split and Mode Choice Influence Factors, Feb 2013*

Staff Distance – Home to Work

Work Location	Estimated Average Distance, Home to Work
Elementary	5.3 miles
Middle	6.8
High	5.5
Special Programs	6.7
Admin Offices	7.4
All APS Staff	**5.8 miles**

Source: TDG Analysis: Anonymous APS Staff Zip Codes

APS STUDENTS

APS Students

23,336 Students

Middle School: **4,659**

High School: **5,584**

Elementary: **12,771**

Special Programs: **322**
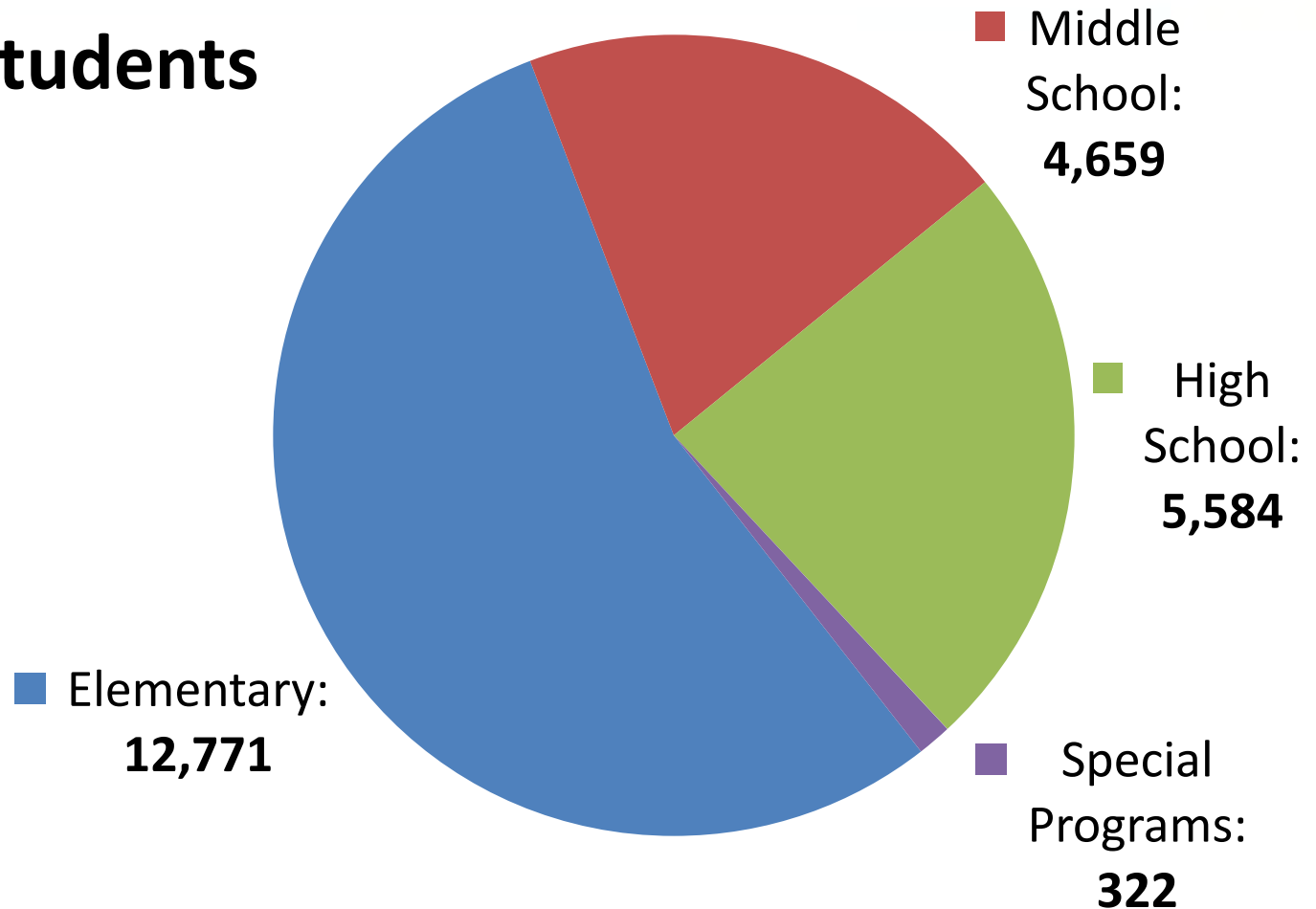
Source: 2013-14 APS Student Enrollment

Extended Day Students

Extended day enrollment (Dec 2013):

- AM: 1,173 (available for ES students)

- PM: 3,178 (available for ES and MS students)

	Elementary	Middle	% of all ES and MS students
Extended Day participation (PM) as percent of student enrollment	23.5%	3.8%	18.2%

Source: APS Extended Day Enrollment by School 12/04/13

School Transfers

Transfers 2012/2013:

- 22% of APS student population transfers from their neighborhood school

- 4,656 total transfers

- Transportation is provided for most transfer types

	Elementary	Middle	High	APS TOTAL
Transfers as percent of enrollment	25%	21%	16.1%	21.8%

Source: 2012-13 APS Transfer Report

Student Distance from School

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Percentage of Students by Distance from School

The average student lives 1.7 miles from school.*

Legend:
- 0 - .5 Miles
- .5 - 1 Mile
- 1 - 1.5 Miles
- 1.5 - 2 Miles
- 2 + Miles

Categories: Elementary, Middle, High, Division
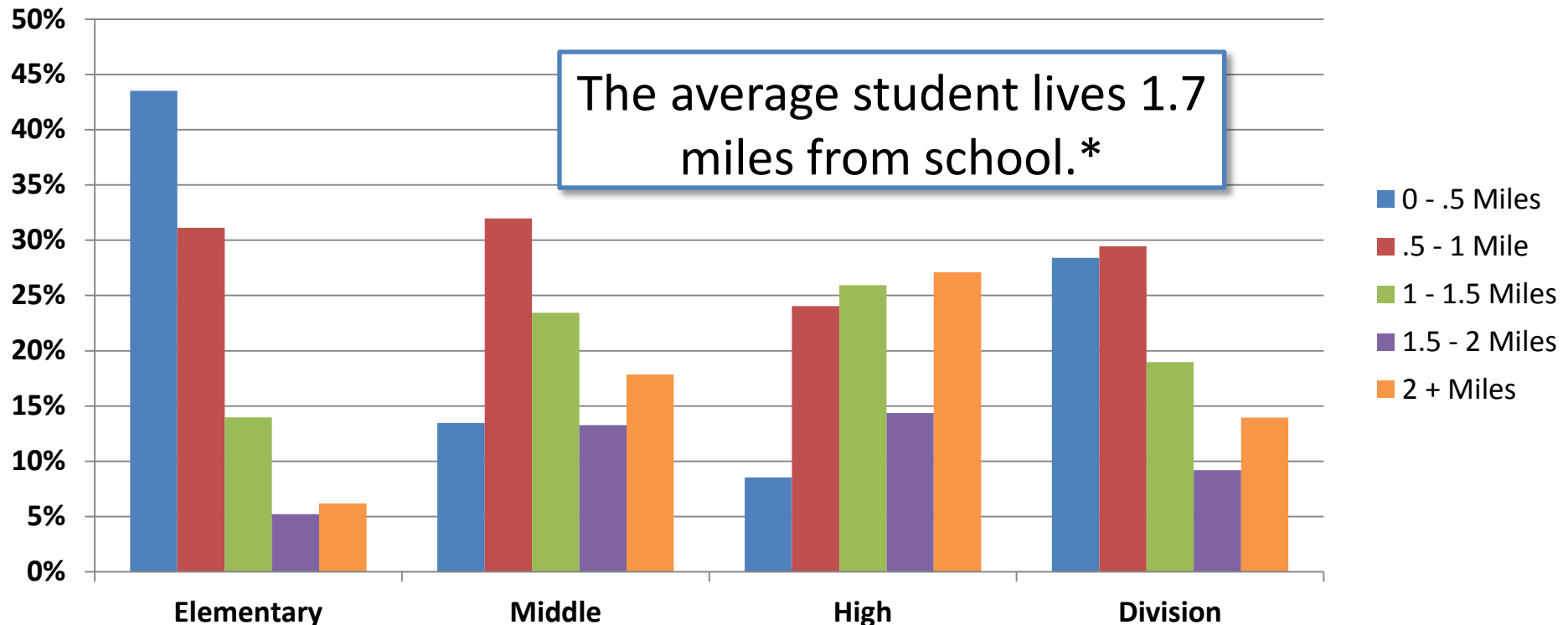
Source: TDG Analysis: Anonymous APS Student Travel to School Distances,
*Chart shows "Euclidean" distances (as the crow flies). To determine the 1.7 mile average, a multiplier was used to estimate network miles (walking or driving distance) from home to school.

21

EXISTING TRAVEL PATTERNS

This section presents the findings and analysis from the APS GO! travel surveys conducted in 2013.

Self-Reported Travel Surveys

Four surveys conducted:

- Staff Surveys

- Student Travel Tallies (K-10)

- Parent Surveys (PreK-10)

- 11th and 12th Grade Surveys

Survey Methodology

- All surveys developed in consultation with APS and with input from the Multimodal Transportation and Student Safety Special Committee

- Pre-testing of staff and parent survey by APS staff

- Survey timeframe: October 14 - November 17

- Available in English and Spanish

Survey Methodology

- Online option distributed via email

- Paper option distributed via Principals and department heads

- Student travel tallies conducted in PE class (K-10)

- Ongoing monitoring of response rates by school

- School and Department follow up to encourage participation where response rates low

STAFF TRAVEL PATTERNS AND OPPORTUNITIES

Staff Survey—Response Rate

School Type	# of Responses	Response Rate
Elementary	1119	50.2%
Middle	388	53.1%
High	408	53.2%
Special	130	33.2%
Admin/Office	225	36.3%
Division-wide	2270	51.4%

Source: 2013-14 APS Go! Staff Survey

Staff Survey—Format and Language

Format	% of Responses
Online	95.2%
Paper	4.8%

Language	% of Responses
English	99.2%
Spanish	0.8%

Note: Survey language choice is not a reflection of primary language. For example, we do not know how many people who speak Spanish chose to take the survey in English.

Source: 2013-14 APS Go! Staff Survey

Staff Survey—Respondent Characteristics

Job Type (Self Reported on Survey)	% of Respondents
Aquatics (E-Scale/G-Scale/X-Scale)	1.9%
Clerical/Administrative Assistant (G-Scale/M-Scale/O-Scale)	8.0%
Executive/Administrative/Technical (E-Scale/P-Scale)	7.9%
Extended Day (X-Scale/E-Scale/G-Scale)	4.0%
Food Service (P/E Scale/C-Scale)	0.5%
Hourly/Summer Workers (O-Scale)	0.5%
Maintenance/Custodial (M-Scale)	2.8%
School Administrative Staff (P-Scale)	2.6%
Substitute Teacher (O-Scale)	0.8%
Teacher/Teacher Assistant (T-Scale/A-Scale)	70.2%
Transportation (E-Scale/D-Scale/G-Scale)	0.7%
Total	**100%**

Source: 2013-14 APS Go! Staff Survey

Staff Survey – Common Travel Modes

APS Staff Mode to School

- 1st Most Common Mode
- 2nd Most Common Mode
- 3rd Most Common Mode
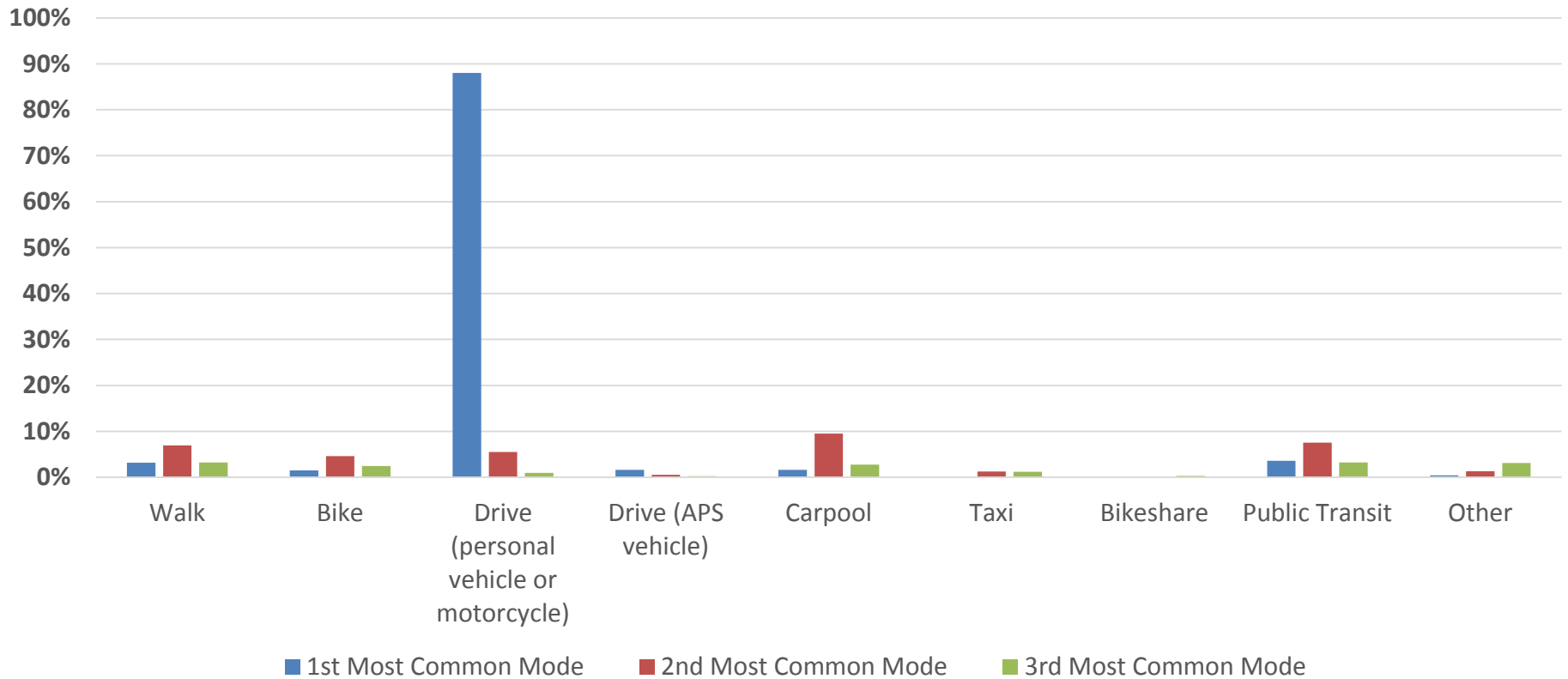
Source: 2013-14 APS Go! Staff Survey

Staff Survey – Common Travel Modes

APS Staff Travel Mode to Work

Arlington County Worker Commute Modes
- 53-55% drive alone
- 26-27% transit
- 3-5% walk/bike
- 11-15% carpool

Source: Arlington Worker Mode Split and Mode Choice Influence Factors, Feb 2013

Legend: ■ 1st Most Common Mode ■ 2nd Most Common Mode ■ 3rd Most Common Mode

Source: 2013-14 APS Go! Staff Survey
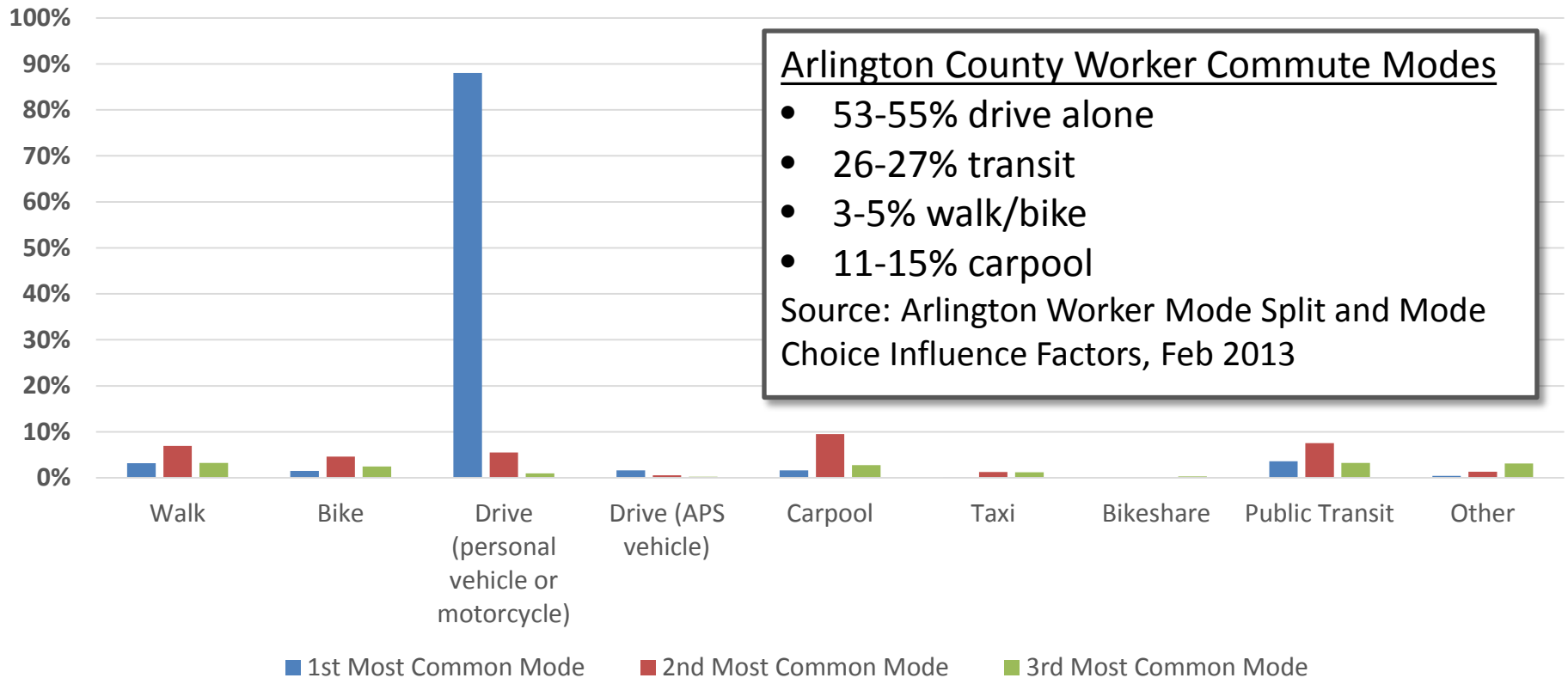
Staff Survey— Parking

APS Staff Usual Parking Location

APS staff parking lot	78.4%
Other parking lot	3.8%
On-street location	17.8%
Total	**100.0%**

- 100% of APS staff have free parking at work

- 47% of Arlington County workers have free parking at work

Source: 2013-14 APS Go! Staff Survey, Arlington Worker Mode Split and Mode Choice Influence Factors, Feb 2013

Staff Survey—Arrival/Departure Times

Staff Arrival/Departure Times

Source: 2013-14 APS Go! Staff Survey

Staff Survey—Travel Patterns
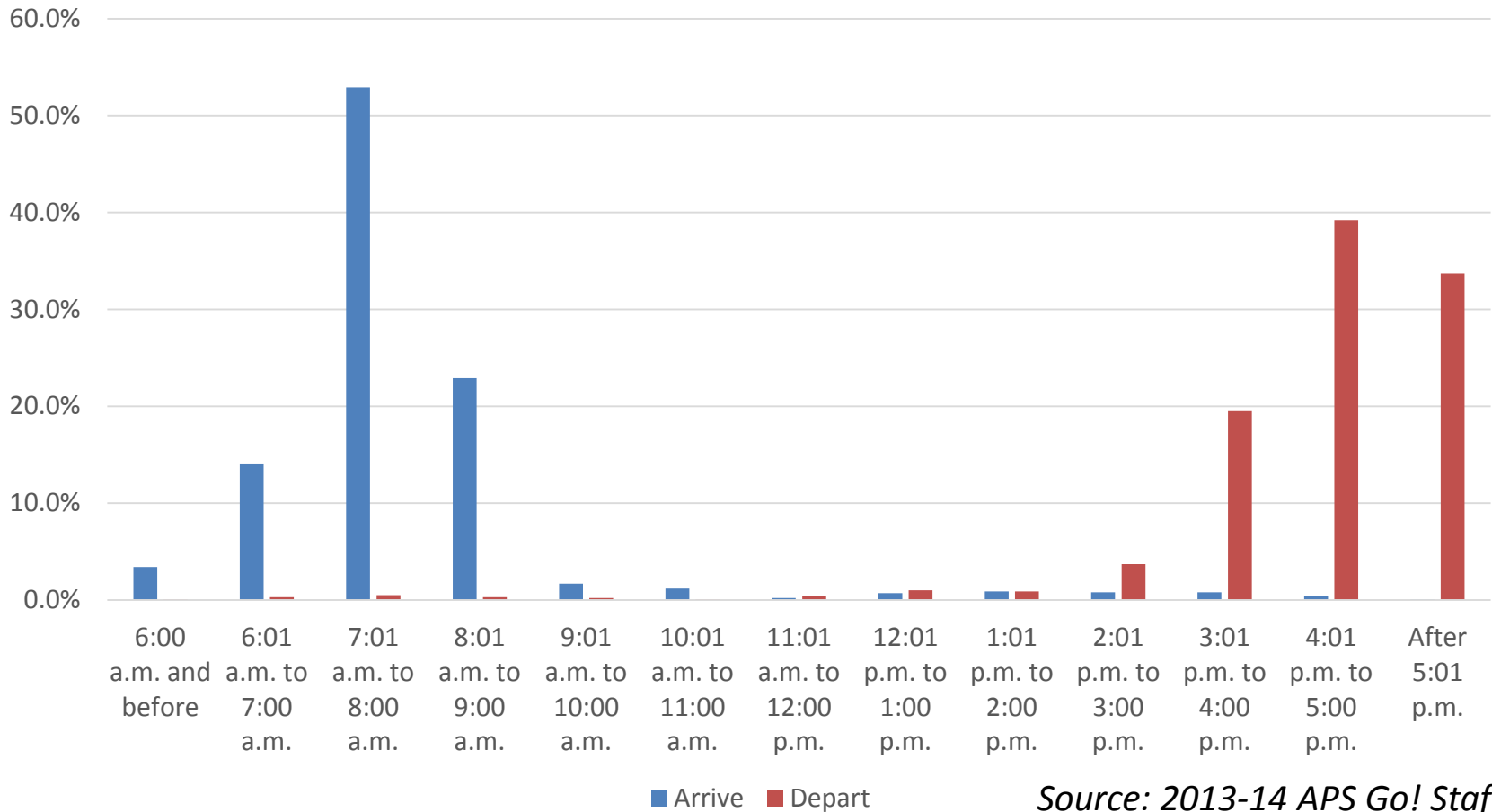
Frequency of Travel to APS

	% of survey respondents
Work at APS five days a week	96.8%
Do not work at APS every day	3.2%

Trip Origin and Destination

	Home	Work (other than APS)	Shopping or errands	Other
Usual Origin of Trips to APS Work Location	91.3%	4.9%	0.8%	3.0%
Usual Destination of Trips from APS Work Location	63.8%	8.5%	16.2%	11.5%

Source: 2013-14 APS Go! Staff Survey

Staff Survey—Decision Factors

*"How important are the following factors in your decision not to use **PUBLIC TRANSPORTATION** to travel to and from your APS work location more frequently?"*
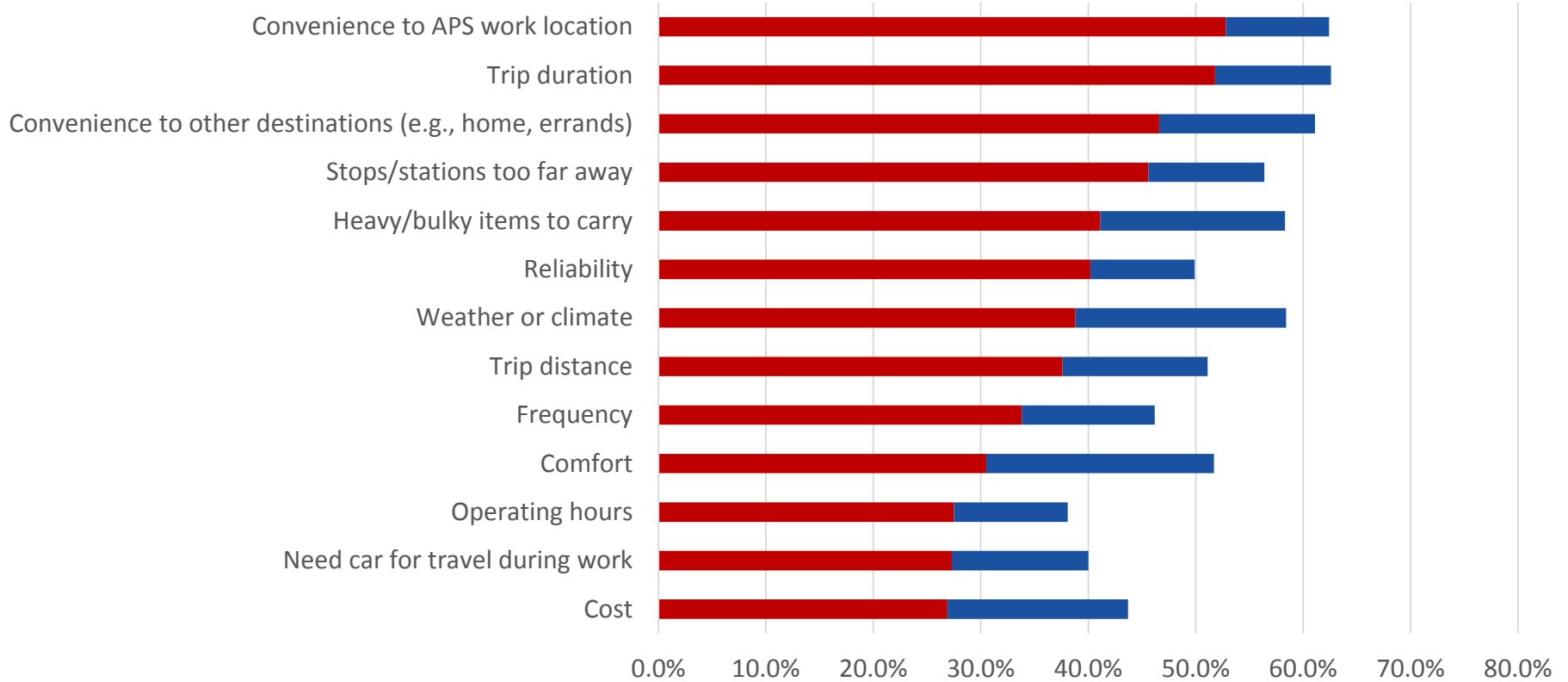
Very important **Somewhat important**

Source: 2013-14 APS Go! Staff Survey

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35

Staff Survey—Decision Factors

*"How important are the following factors in your decision not to **WALK** to and from your APS work location more frequently?"*
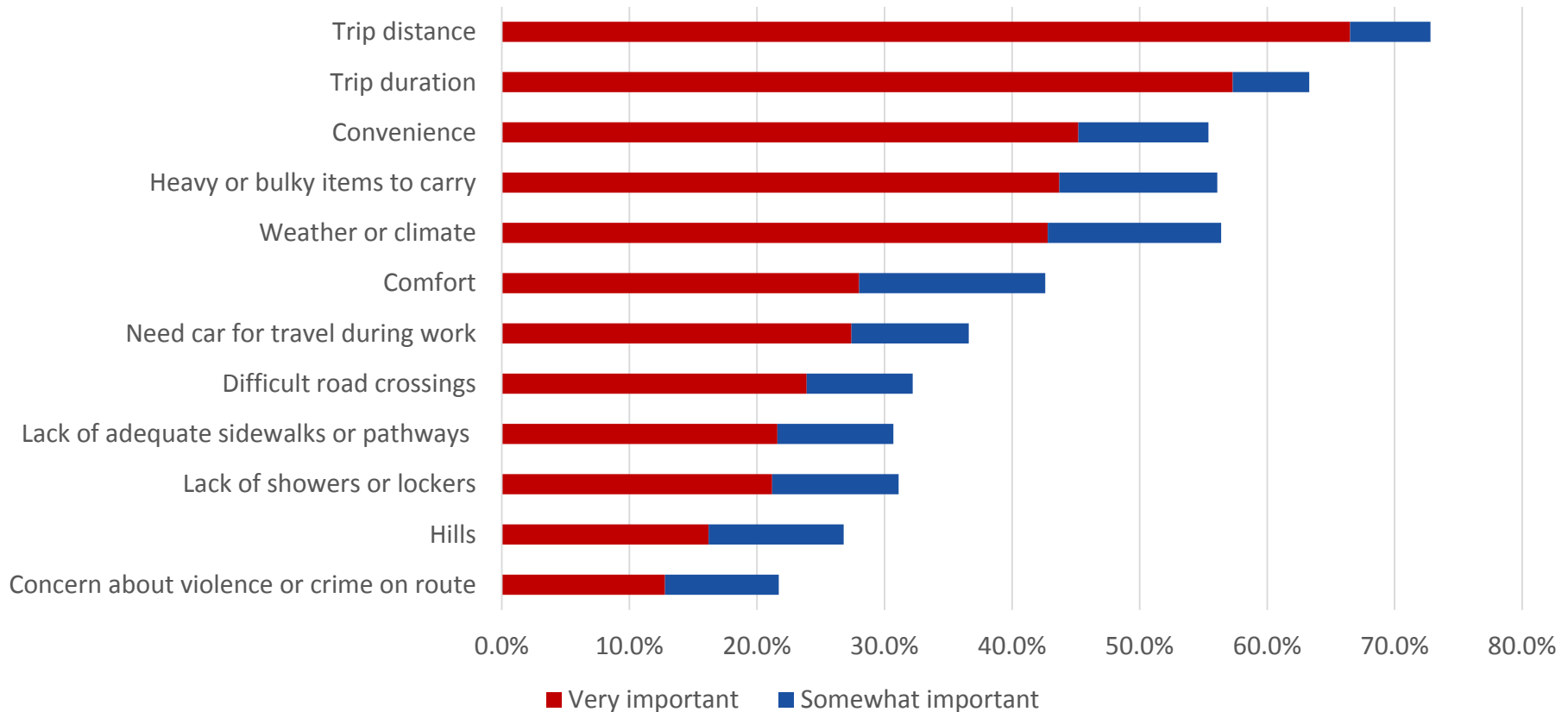
Source: 2013-14 APS Go! Staff Survey

Staff Survey—Decision Factors

*"How important are the following factors in your decision not to **BIKE** to and from your APS work location more frequently?"*

Trip distance
Trip duration
Heavy or bulky items to carry
Weather or climate
Convenience
Lack of comfortable places to bike
Comfort
Difficult road crossings
Lack of showers or lockers
Need car for travel during work
Don't own a bike or a bikeshare membership
Don't know safe route
Lack of covered bicycle parking
Bikeshare stations too far away
Lack of secure bicycle parking
Concern about violence or crime on route
Don't know how to ride a bike

0.0% 10.0% 20.0% 30.0% 40.0% 50.0% 60.0% 70.0% 80.0%

■ Very important   ■ Somewhat important

Source: 2013-14 APS Go! Staff Survey

Staff Survey—Decision Factors

*"How important are the following factors in your decision not to **CARPOOL** to and from your APS work location more frequently?"*
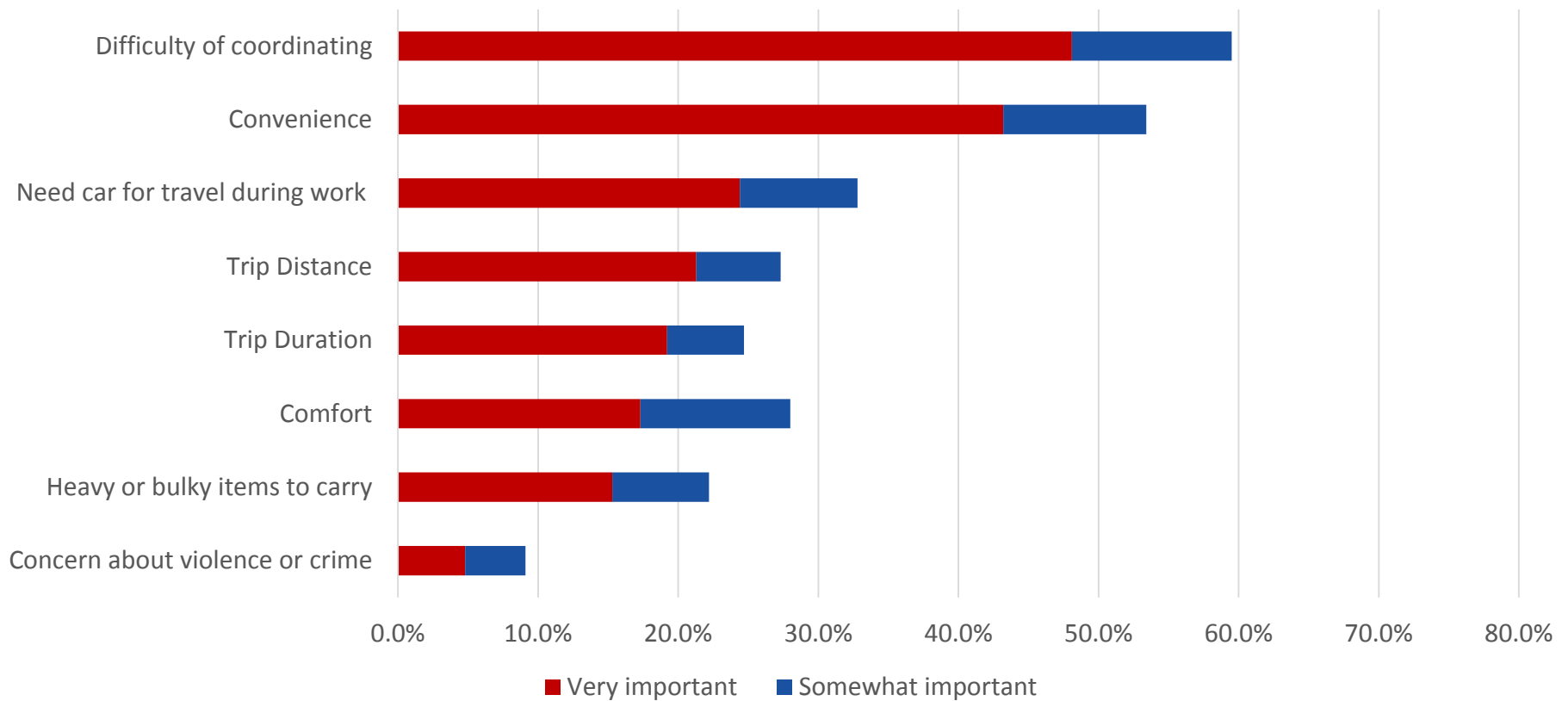
Difficulty of coordinating
Convenience
Need car for travel during work
Trip Distance
Trip Duration
Comfort
Heavy or bulky items to carry
Concern about violence or crime

0.0%   10.0%   20.0%   30.0%   40.0%   50.0%   60.0%   70.0%   80.0%

■ Very important   ■ Somewhat important

Source: 2013-14 APS Go! Staff Survey

Staff Survey—Decision Factors

Respondents were invited to give open-ended responses to survey questions about barriers and incentives that influence their travel choices. Common themes include:

- What factors discourage the use of other travel modes?
  - Family errands
  - Distance/travel time
  - Heavy carrying load
  - Safety
  - Cost
  - Preference

- What would encourage the use of other travel modes?
  - Affordable housing closer to work
  - More convenient schedules and routes
  - Subsidize costs and Pay-to-Walk stipends
  - Safety improvements

Source: 2013-14 APS Go! Staff Survey

Staff Survey—Incentives

*"How important might the following incentives be in encouraging you to use **PUBLIC TRANSPORTATION** more frequently for trips to and from your APS work location?"*
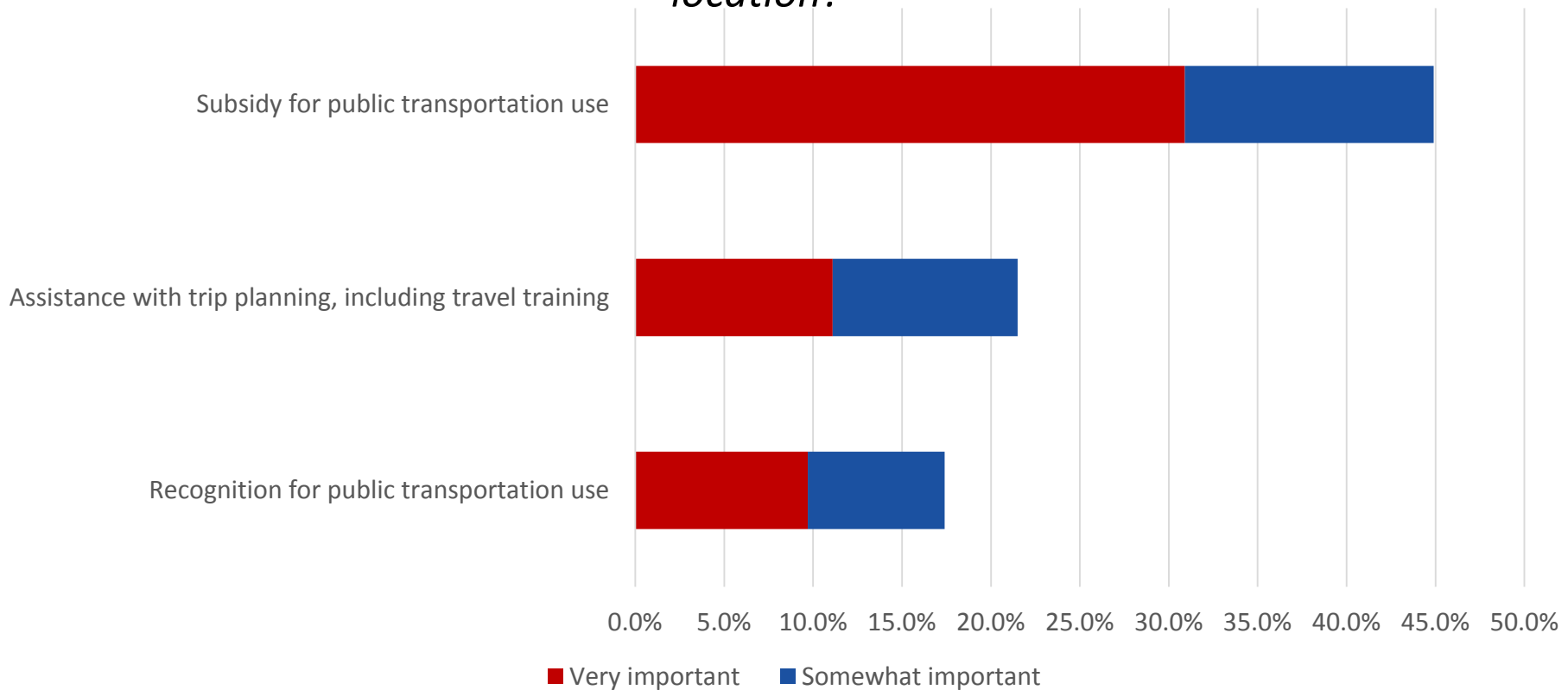

Legend: ■ Very important ■ Somewhat important

Source: 2013-14 APS Go! Staff Survey

Staff Survey—Incentives

*"How important might the following incentives be in encouraging you to **WALK** more frequently for trips to and from your APS work location?"*
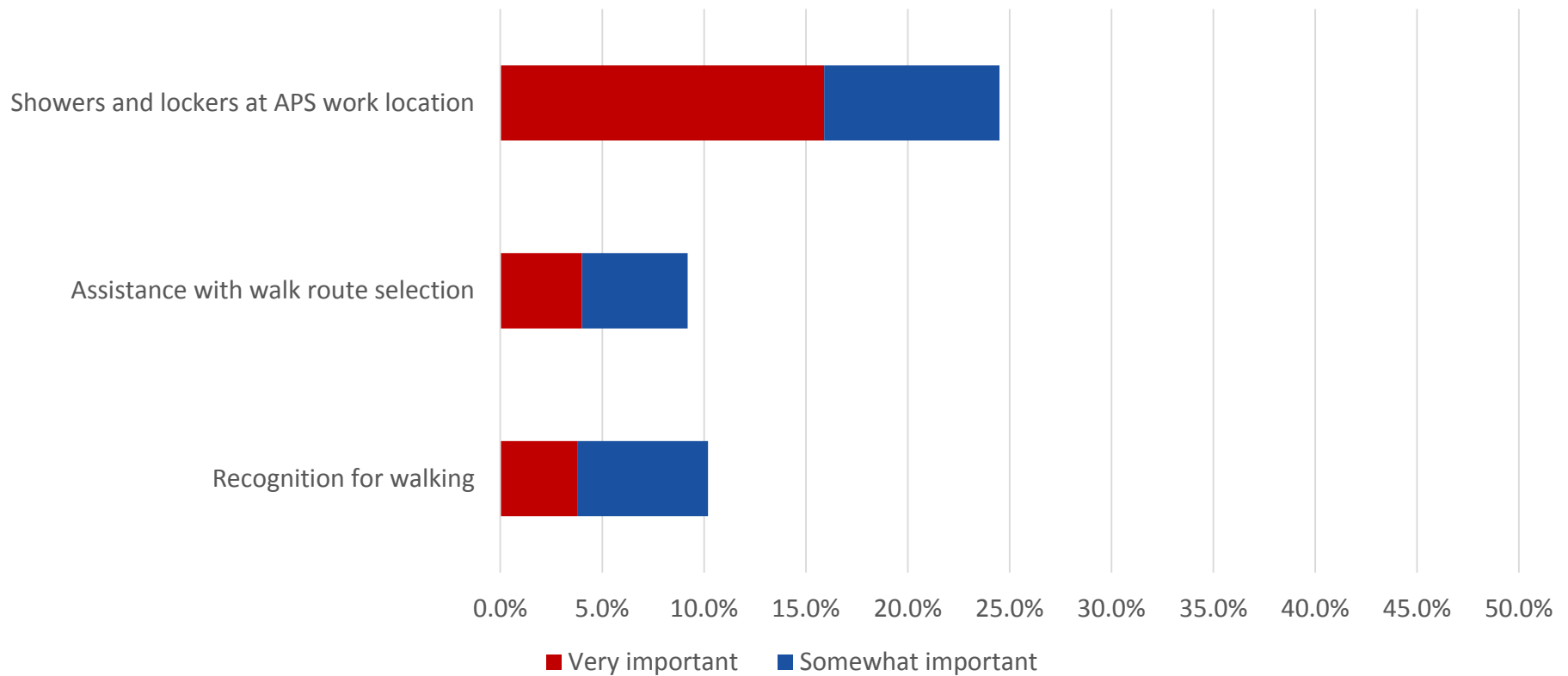
Source: 2013-14 APS Go! Staff Survey

Staff Survey—Incentives

*"How important might the following incentives be in encouraging you to **BIKE** more frequently for trips to and from your APS work location?"*
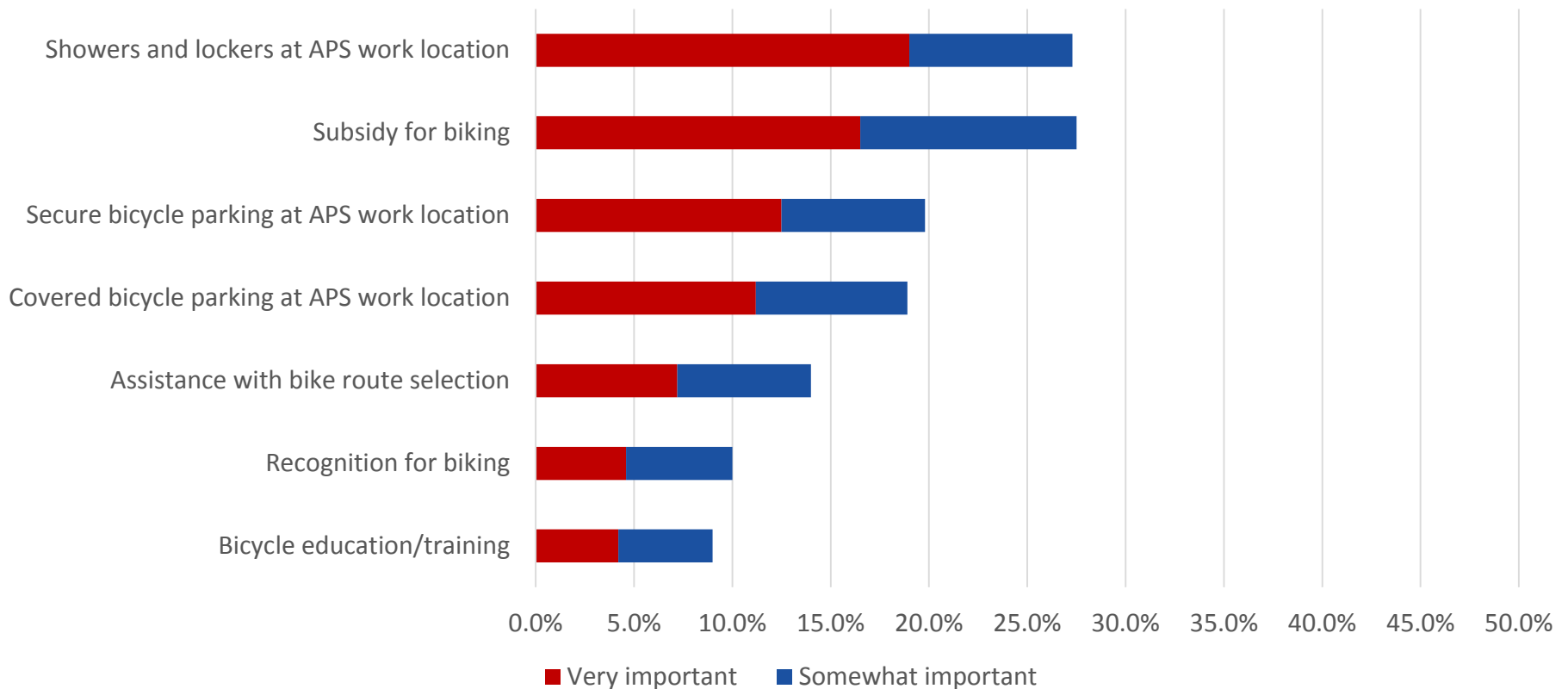
Legend: ■ Very important ■ Somewhat important

Staff Survey—Incentives

*"How important might the following incentives be in encouraging you to use **BIKESHARE** more frequently for trips to and from your APS work location?"*
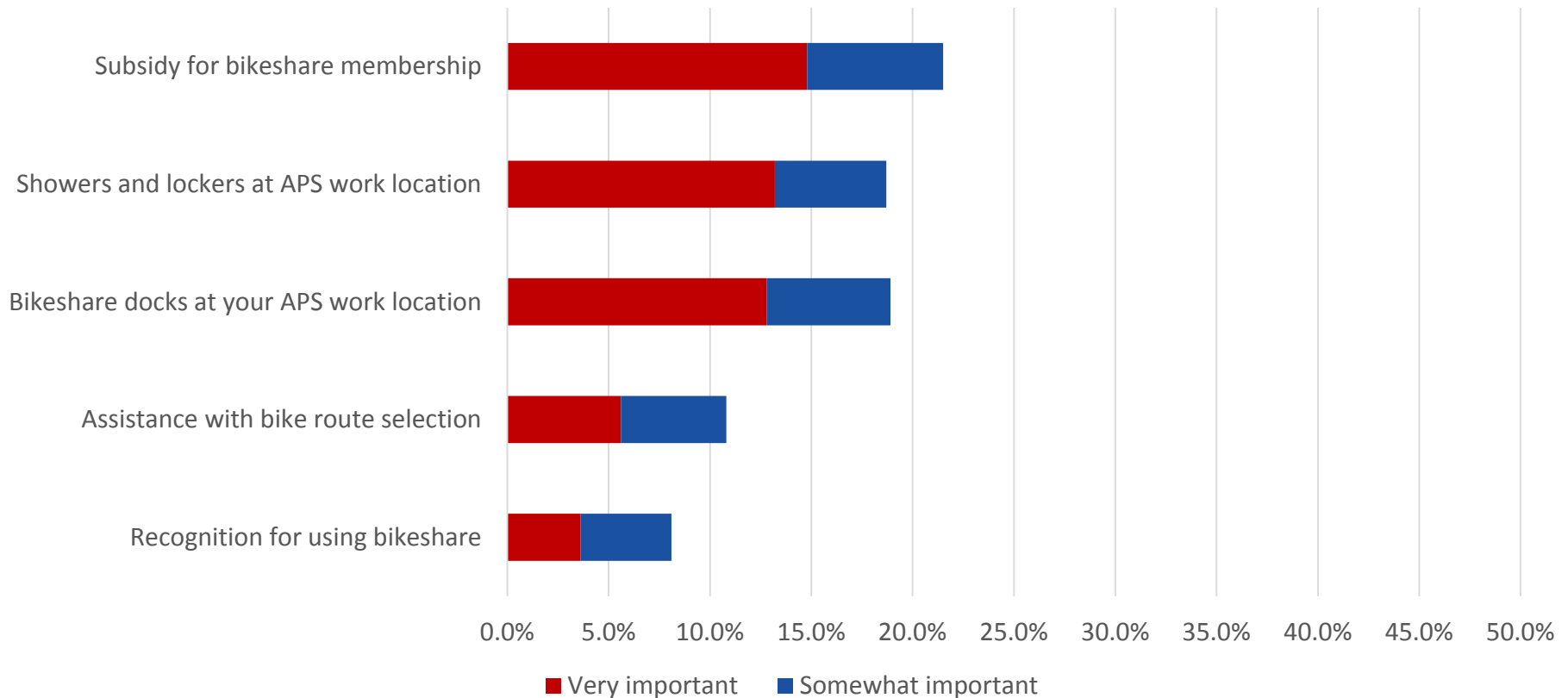
Legend: ■ Very important ■ Somewhat important

Categories (top to bottom):
- Subsidy for bikeshare membership
- Showers and lockers at APS work location
- Bikeshare docks at your APS work location
- Assistance with bike route selection
- Recognition for using bikeshare

X-axis: 0.0% 5.0% 10.0% 15.0% 20.0% 25.0% 30.0% 35.0% 40.0% 45.0% 50.0%

Source: 2013-14 APS Go! Staff Survey

Staff Survey—Incentives

*"How important might the following incentives be in encouraging you to **CARPOOL** more frequently for trips to and from your APS work location?"*

Legend: ■ Very important ■ Somewhat important
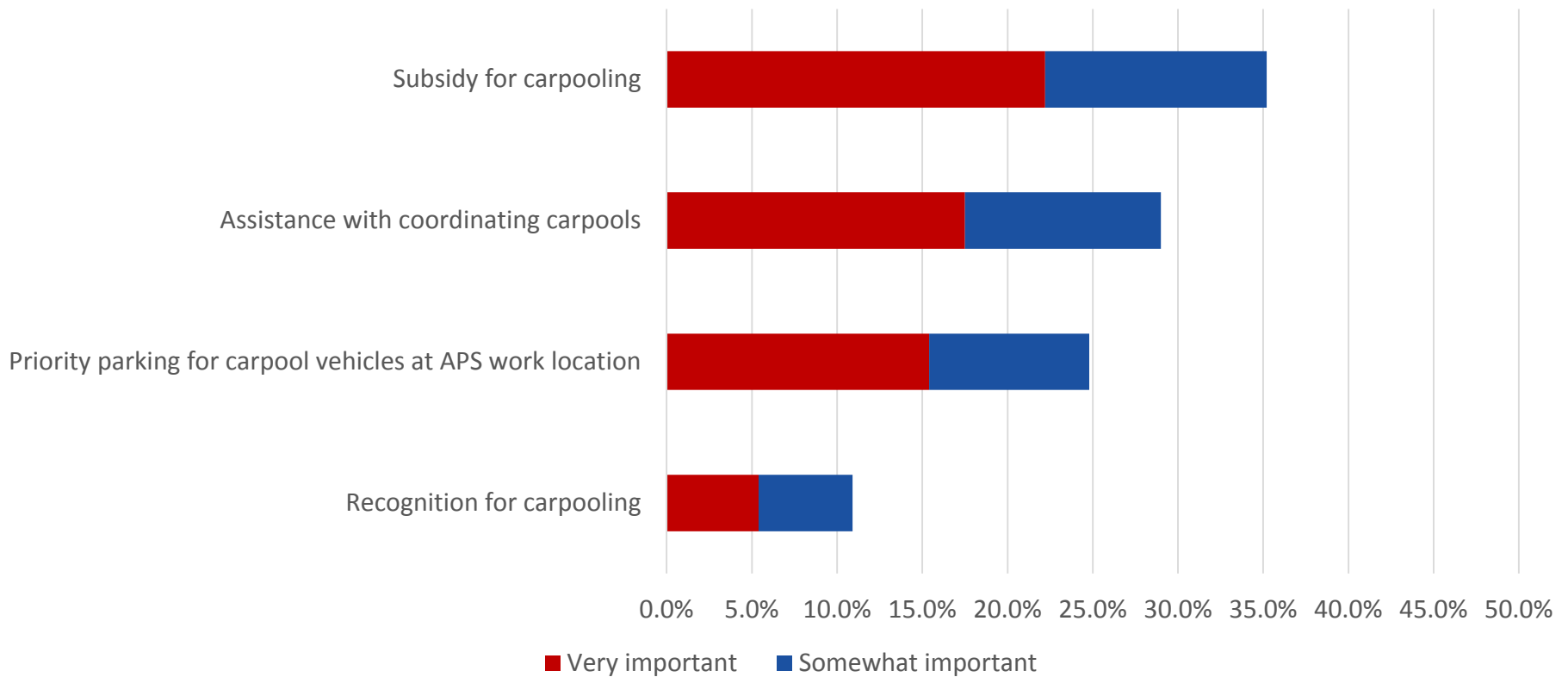
Source: 2013-14 APS Go! Staff Survey

STUDENT TRAVEL PATTERNS AND OPPORTUNITIES

Self-Reported Travel Surveys

- Staff Surveys

- **Student Travel Tallies (K-10)**

- Parent Surveys (Pre K-10)

- 11th and 12th Grade Surveys

Student Travel Tally (K-10) Response Rates

- 27 of 31 schools targeted returned tallies in Oct/Nov*

- 606 classrooms tallied

- 49,630 student trips tallied

* Student Travel Tallies from Glebe, Arlington Science Focus, Key, and Carlin Springs Elementary Schools were not conducted until 2014. Because of cold weather, data for those schools most likely does not reflect student's typical travel modes for the majority of the school year. For this reason, data from these schools was not compiled with data from other schools. The results from the Student Travel Tallies for all schools, including Glebe, Arlington Science Focus, Key, and Carlin Springs, can be viewed in the *Section 2.1 Appendix: Survey Summary Reports*.

Student Travel Tally Findings—All Schools
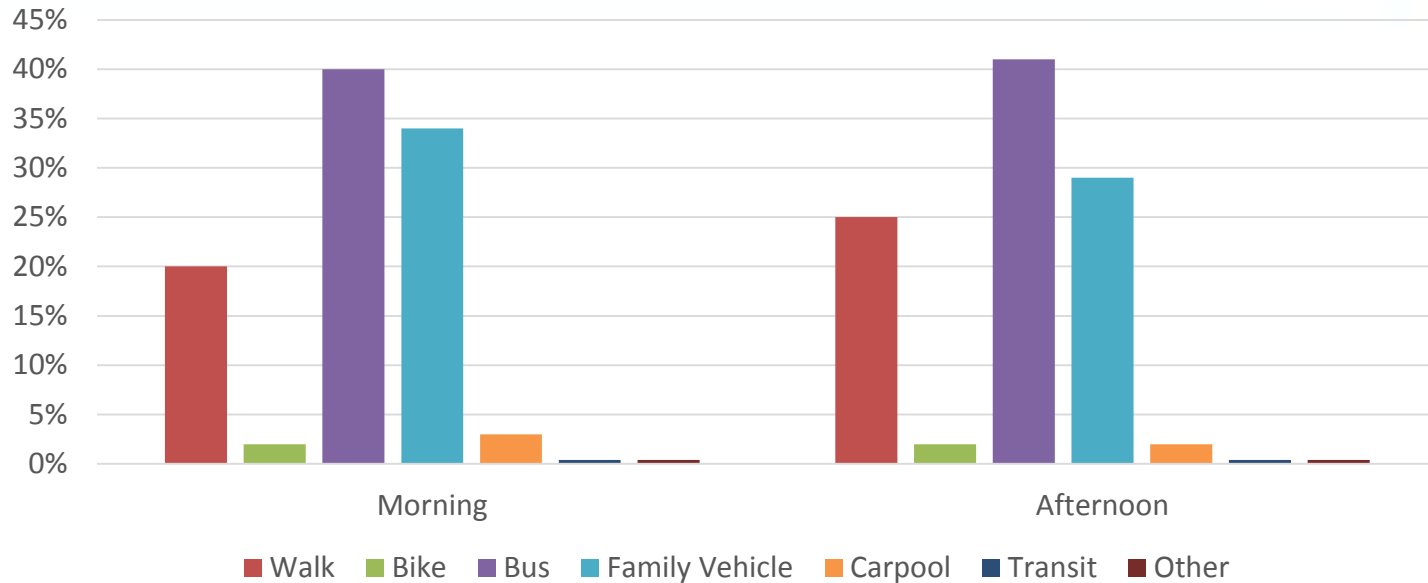
	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Morning	25490	20%	2%	40%	34%	3%	0.4%	0.4%
Afternoon	24140	25%	2%	41%	29%	2%	0.4%	0.4%

Source: 2013-14 APS Go! Student Travel Tally

Student Travel Tally Findings—Elementary School
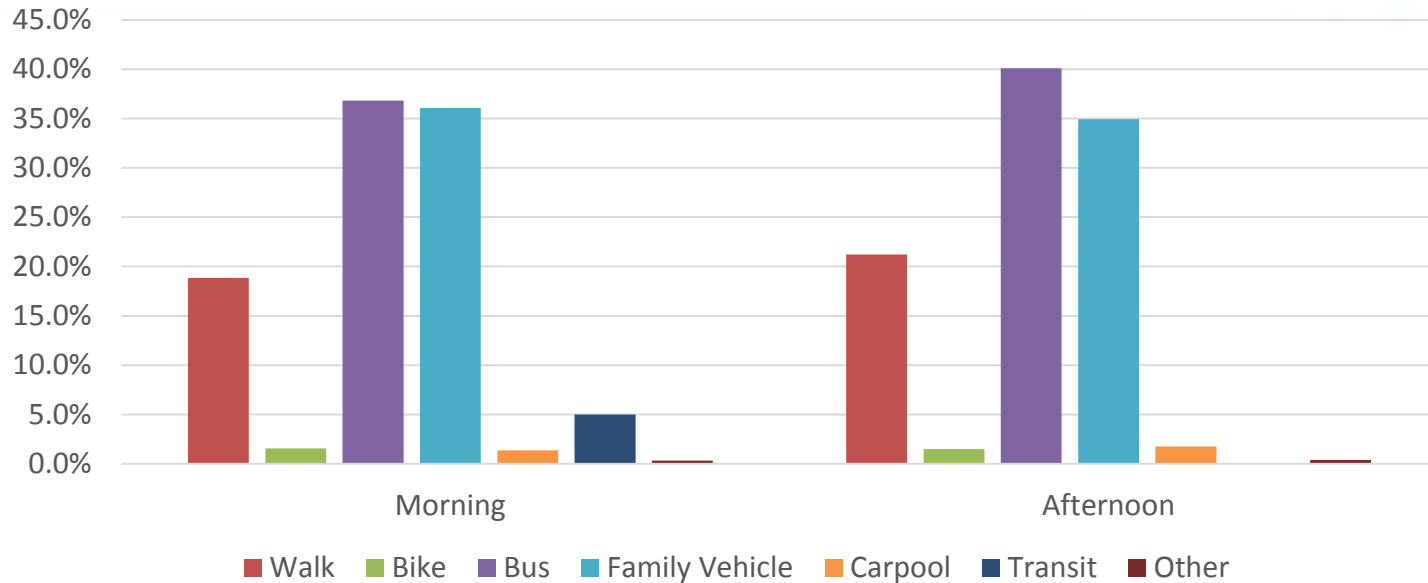
	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Morning	17392	18.8%	1.6%	36.8%	36.1%	1.4%	5.0%	0.3%
Afternoon	15354	21.2%	1.5%	40.1%	34.9%	1.8%	0.1%	0.4%

Source: 2013-14 APS Go! Student Travel Tally

49

Student Travel Tally Findings—Middle School
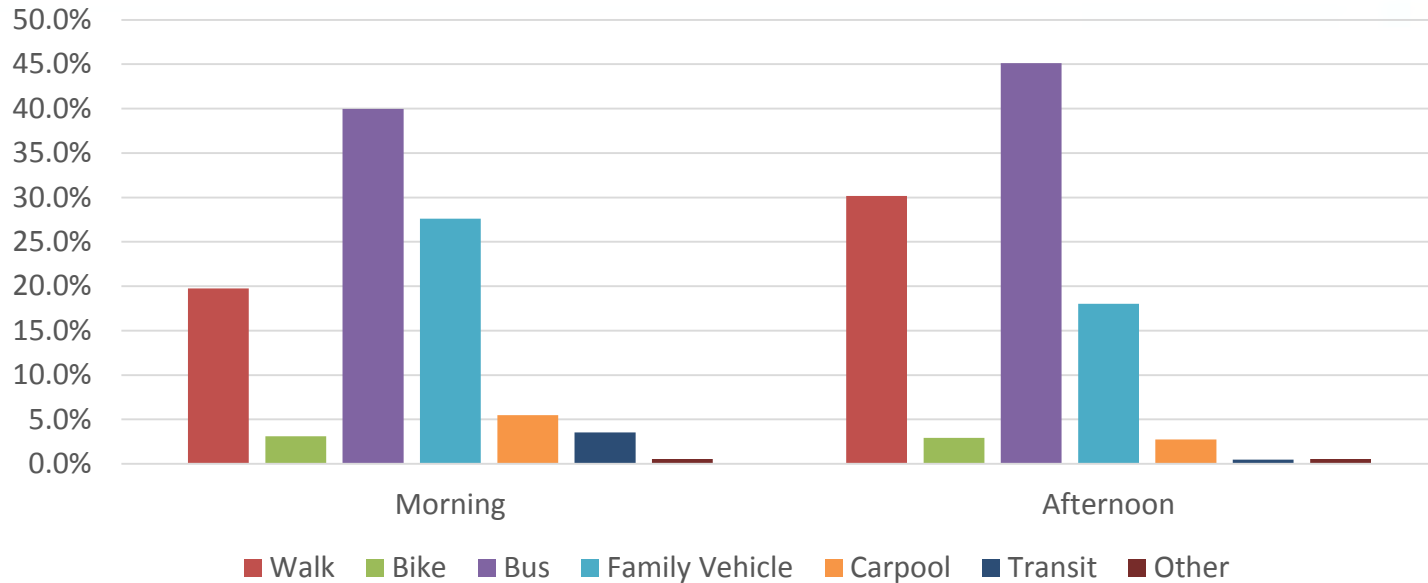
	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Morning	6381	19.7%	3.1%	40.0%	27.6%	5.5%	3.5%	0.5%
Afternoon	6115	30.2%	2.9%	45.1%	18.0%	2.7%	0.5%	0.5%

Source: 2013-14 APS Go! Student Travel Tally

Student Travel Tally Findings—High School
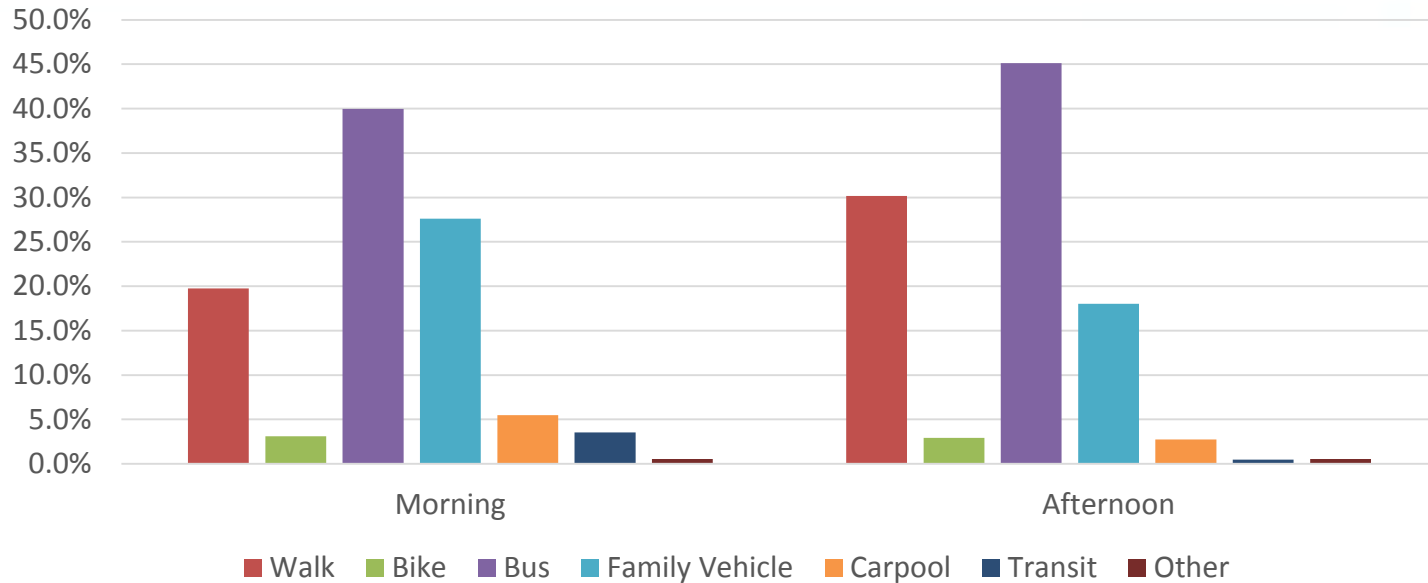
	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Morning	2823	21.7%	2.7%	42.5%	25.4%	3.4%	4.1%	0.2%
Afternoon	2671	30.7%	2.7%	40.2%	20.9%	3.4%	1.7%	0.4%

Source: 2013-14 APS Go! Student Travel Tally

Self-Reported Travel Surveys

- Staff Surveys

- Student Travel Tallies (K-10)

- **Parent Surveys (Pre K-10)**

- 11th and 12th Grade Surveys

PARENT SURVEY RESPONSE RATES / RESPONDENT CHARACTERISTICS

Parent Survey—Response Rate

School Type	# Responses	Raw Response Rate
Elementary	3864	30.3%
Middle	1291	27.7%
High	938	32.1%
Special	193	35.5%
Division-wide	6286	30.1%

- For comparison, the response rate for the 2013 APS site based survey was 28% of students.

- Parents were asked to complete a survey for at least one of the their children. They had the option of completing multiple surveys. Using an average of 1.4 students per family, it is estimated that approximately 42% of APS families responded to the survey for one of their children.

Source: 2013-14 APS Go! Student Travel Parent Survey

Parent Survey Responses by Format and Language

Format	% of Responses	% Hispanic Respondents
Online	95.2%	84.5%
Paper	4.8%	15.5%

Language	% of Responses
English	96.8%
Spanish	3.2%

Note: Survey language choice is not a reflection of primary language. For example, we do not know how many people who speak Spanish chose to take the survey in English.

Parent Survey—Student Characteristics

Grade	Survey Respondents by Student Grade	APS Students by Grade
Pre K	4.1%	6.0%
K	12.2%	12.6%
1	10.9%	11.1%
2	9.2%	11.3%
3	9.5%	10.5%
4	8.3%	9.8%
5	7.4%	9.2%
6	7.4%	9.2%
7	7.7%	8.6%
8	6.0%	8.6%
9	8.4%	8.6%
10	9.0%	8.3%

Source: 2013-14 APS Go! Student Travel Parent Survey

Parent Survey—Student Characteristics

Student Attends Neighborhood School

Response	Survey Respondents	APS (student transfers)
Yes	74.3%	78.2%
No	35.7%	21.8%

Student Gender

Response	Survey Respondents	APS
Male	50.6%	51.0%
Female	49.4%	49.0%

Source: 2013-14 APS Go! Student Travel Parent Survey

Parent Survey—Student Characteristics

Student Enrolled in Extended Day

Response	Survey Respondents	APS
Before School	23.9%	27.1%
After School	76.1%	72.9%

Bus Eligibility

Response	Survey Respondents	APS
Eligible for Busing	59.3%	62.5%
Courtesy Bused	6.2%	1.4%
Not Eligible for Busing	34.5%	36.1%

Source: 2013-14 APS Go! Student Travel Parent Survey

Parent Survey—Parent/Family Characteristics

Race and Ethnicity

Race (non-Hispanic)[1]	Survey Respondents	APS[2]
White	70.1%	46.8%
Black	5.1%	10.5%
Asian	7.3%	9.3%
Other	3.1%	.5%[3]
Multiple	N/A	5.0%

Ethnicity	Survey Respondents	APS**
Spanish or Hispanic Origin	14.5%	27.9%

[1] This table shows race for survey respondents who indicated their ethnicity as "non-Hispanic." This was done so the survey response data could be compared to APS system-wide data.

[2] Source: APS K-12 Annual Civil Rights Statistics, October 2013

[3] Includes American Indian/Alaskan Native and Native Hawaiian/Other Pacific Islander

Race and Ethnicity: Comparison to Arlington County

Race/Ethnicity[1]	Survey Respondents	Arlington County[2]
White	79.2%	77.3%
Black	5.4%	8.9%
Asian	7.6%	9.9%
Or another race	7.9%	3.9%

Ethnicity	Survey Respondents	Arlington County[2]
Spanish or Hispanic Origin	14.3%	15.4%

[1] This table shows race and ethnicity for <u>all</u> survey respondents compared to census data for Arlington County.

[2] Source: U.S. Bureau of the Census, Population Estimates (2012). Available online at: http://quickfacts.census.gov/qfd/states/51/51013.html

Parent Survey—Parent/Family Characteristics

Household Income

Median household income at $86,000 or less	Survey Respondents
Yes	26.1%
No	73.9%

- $86,000.00 is 80% of the area median income in Arlington for a family of four.
- Data is not available for a direct comparison of income levels among survey respondent to those of APS families.
- At the time of the survey, 32.18% of APS students received free and reduced-price meal benefits, meaning their household income is $73,000 or less.

Source: 2013-14 APS Go! Student Travel Parent Survey,
APS Free and Reduced-Price Meal Statistics, October 31, 2013

Summary of Response Rate and Characteristics:

- Overall survey response rate was strong

- On many characteristics, respondents were representative of APS community

- Minority groups were underrepresented in survey respondents. Recognizing this:

  - Responses to key survey questions were analyzed for individual race/ethnicity categories, to evaluate variation and preferences of different groups

  - In future project phases, more "cross-tab" analysis can be done on survey questions to evaluate how certain proposed strategies might benefit or impact individual groups

PARENT SURVEY FINDINGS

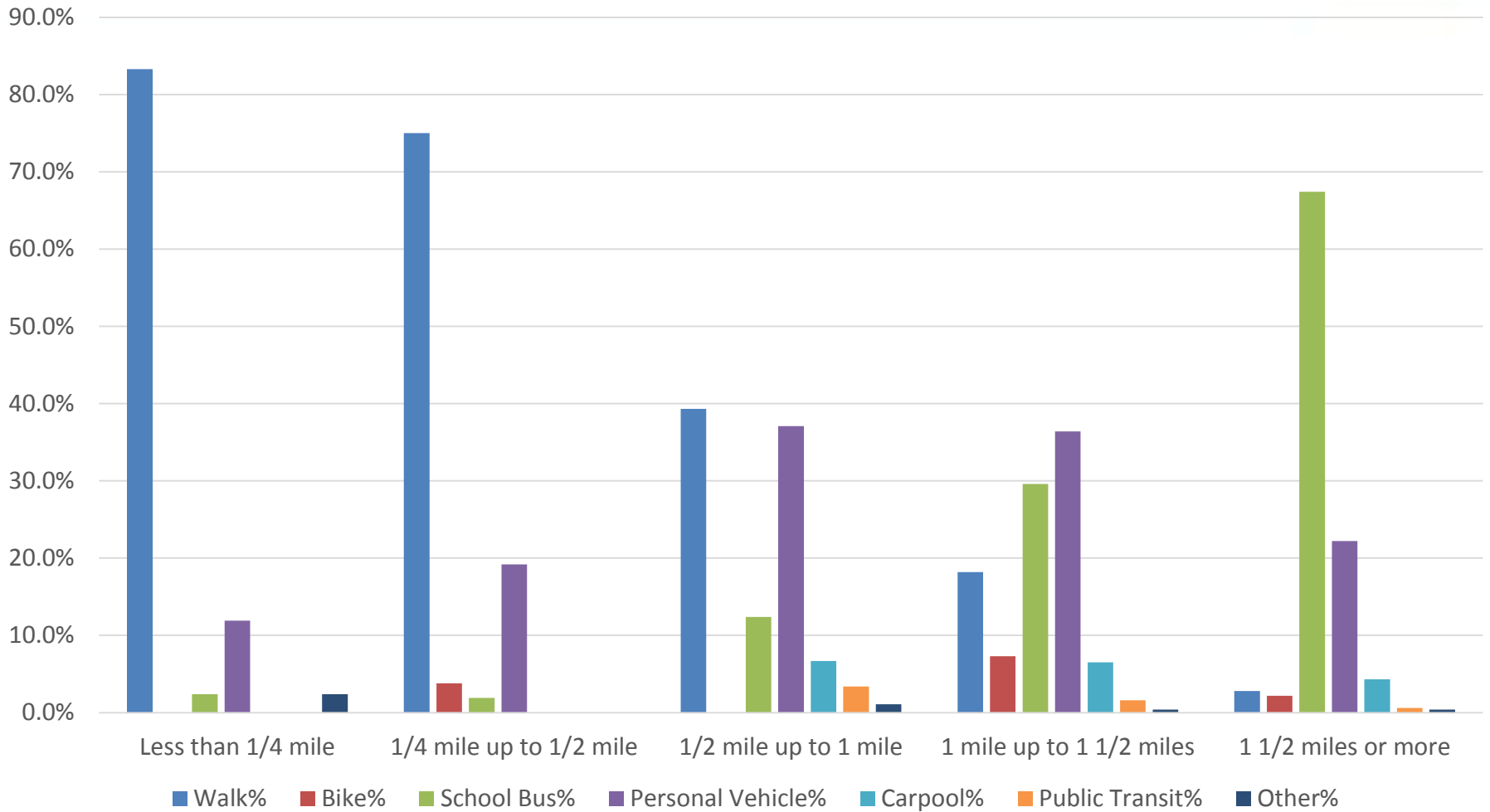# Parent Survey—Student Travel Mode TO School
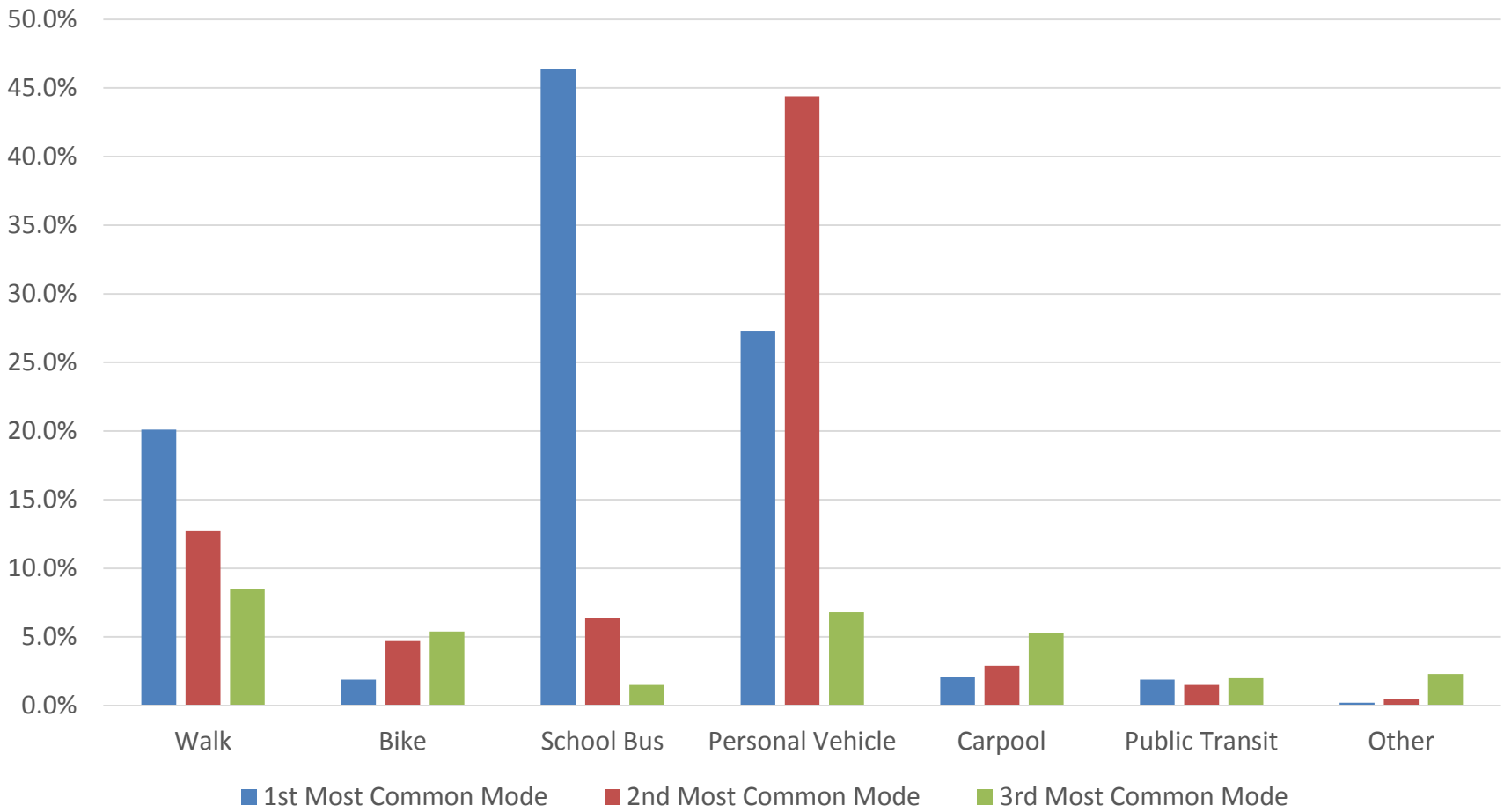
Source: 2013-14 APS Go! Student Travel Parent Survey

Parent Survey— Student Travel Mode FROM School
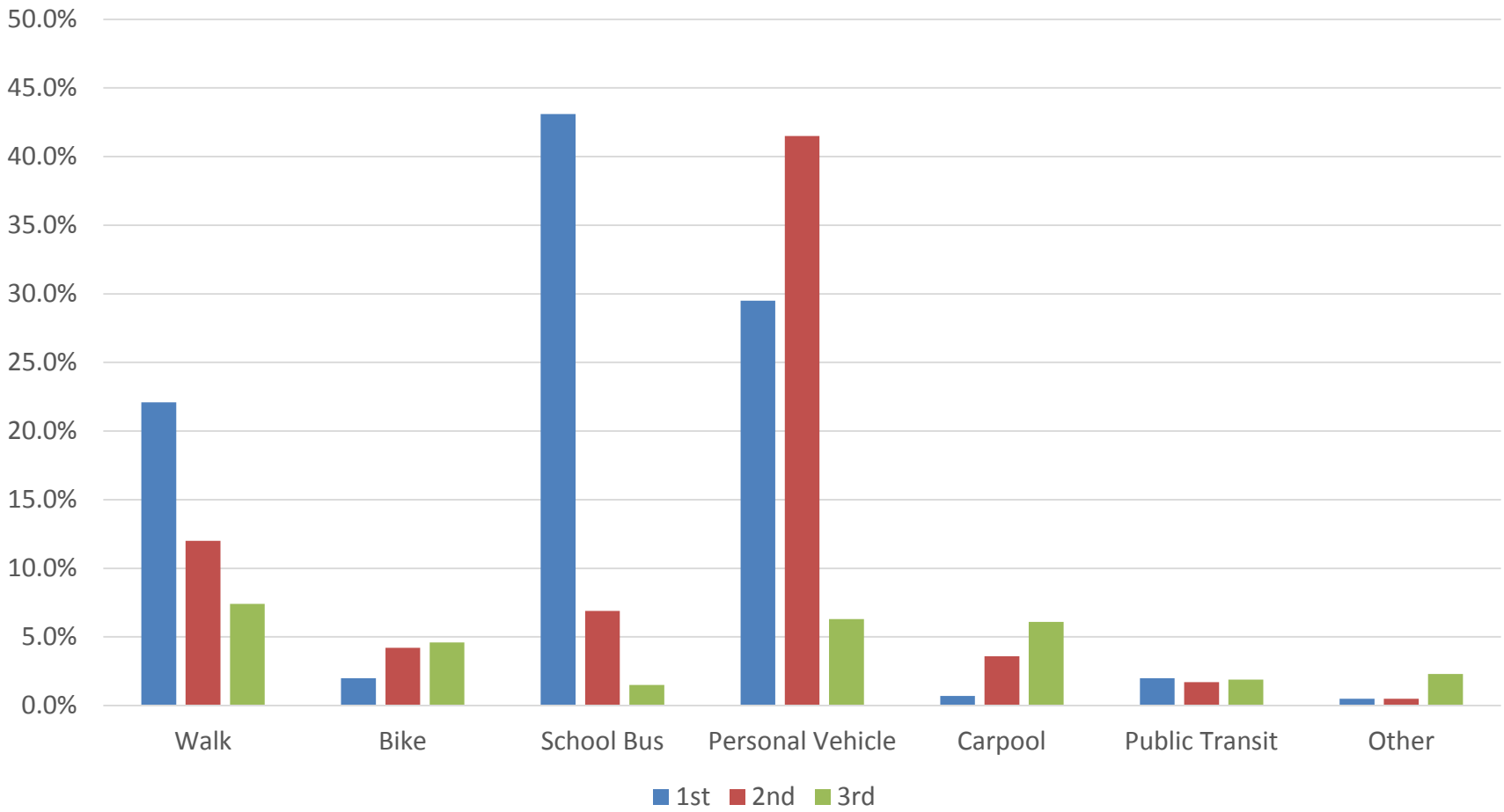
Source: 2013-14 APS Go! Student Travel Parent Survey

Parent Survey—Mode TO School by Race
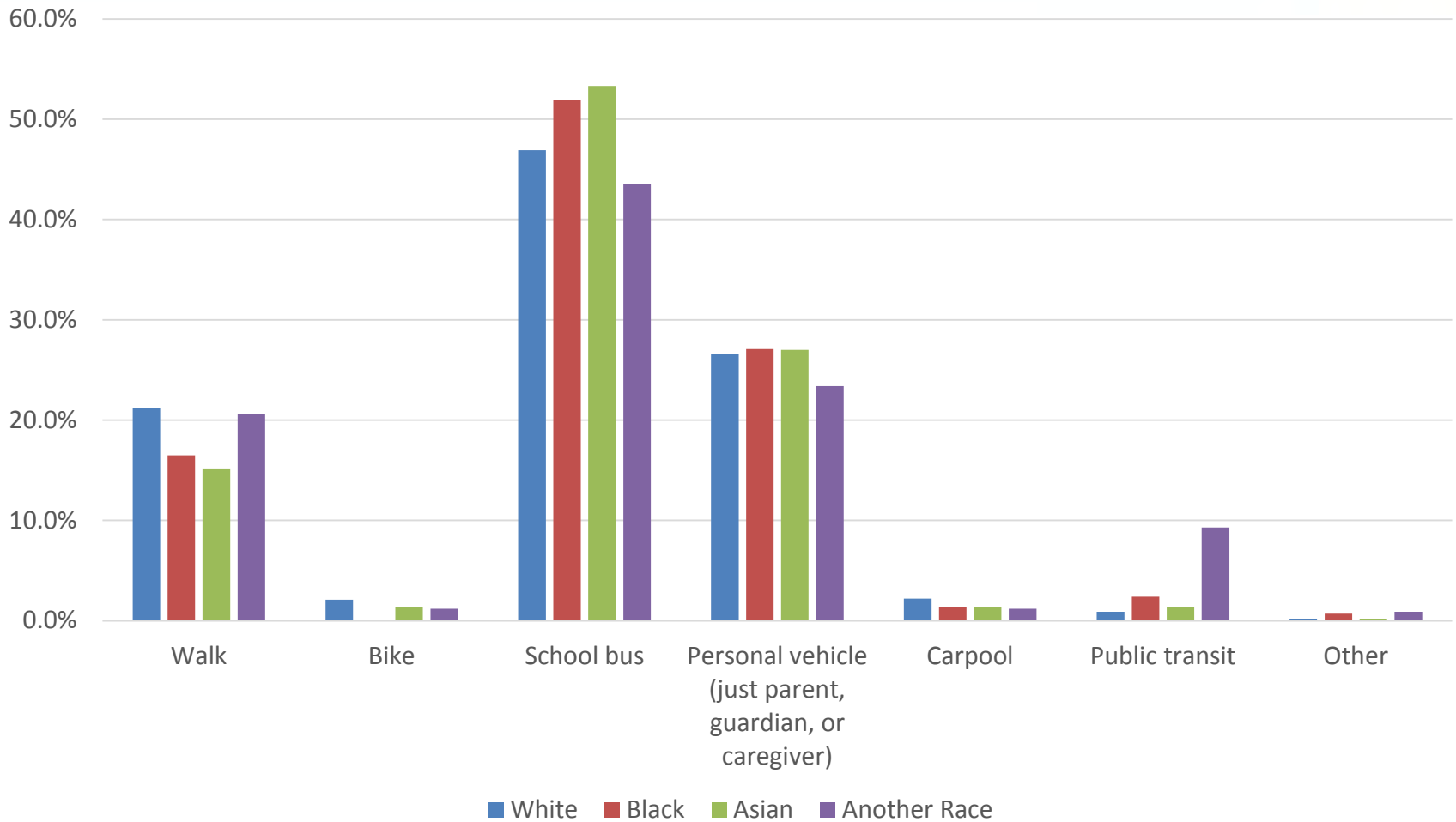
Parent Survey—Mode TO School by Ethnicity
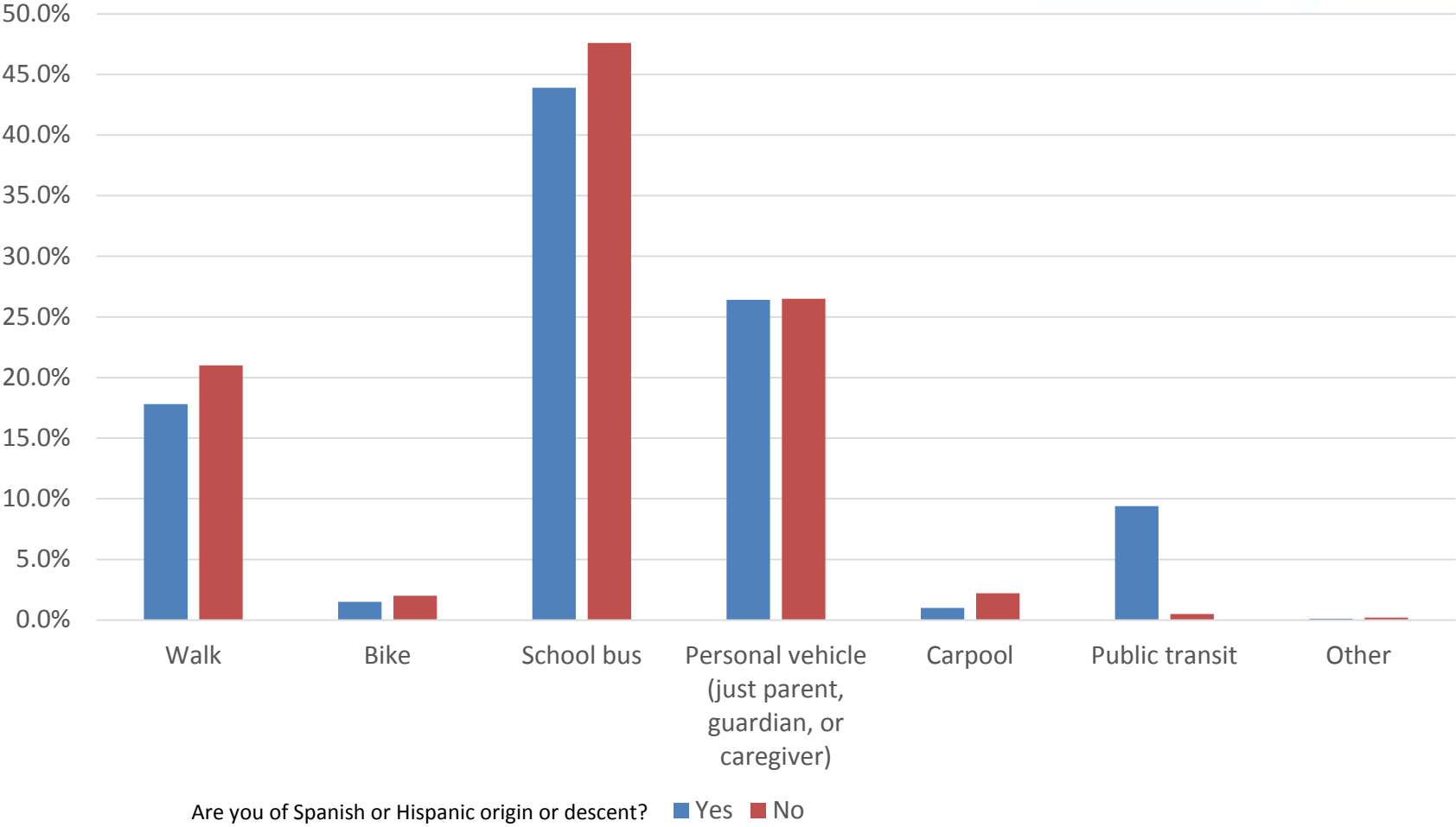
Parent Survey—Mode TO School by Income
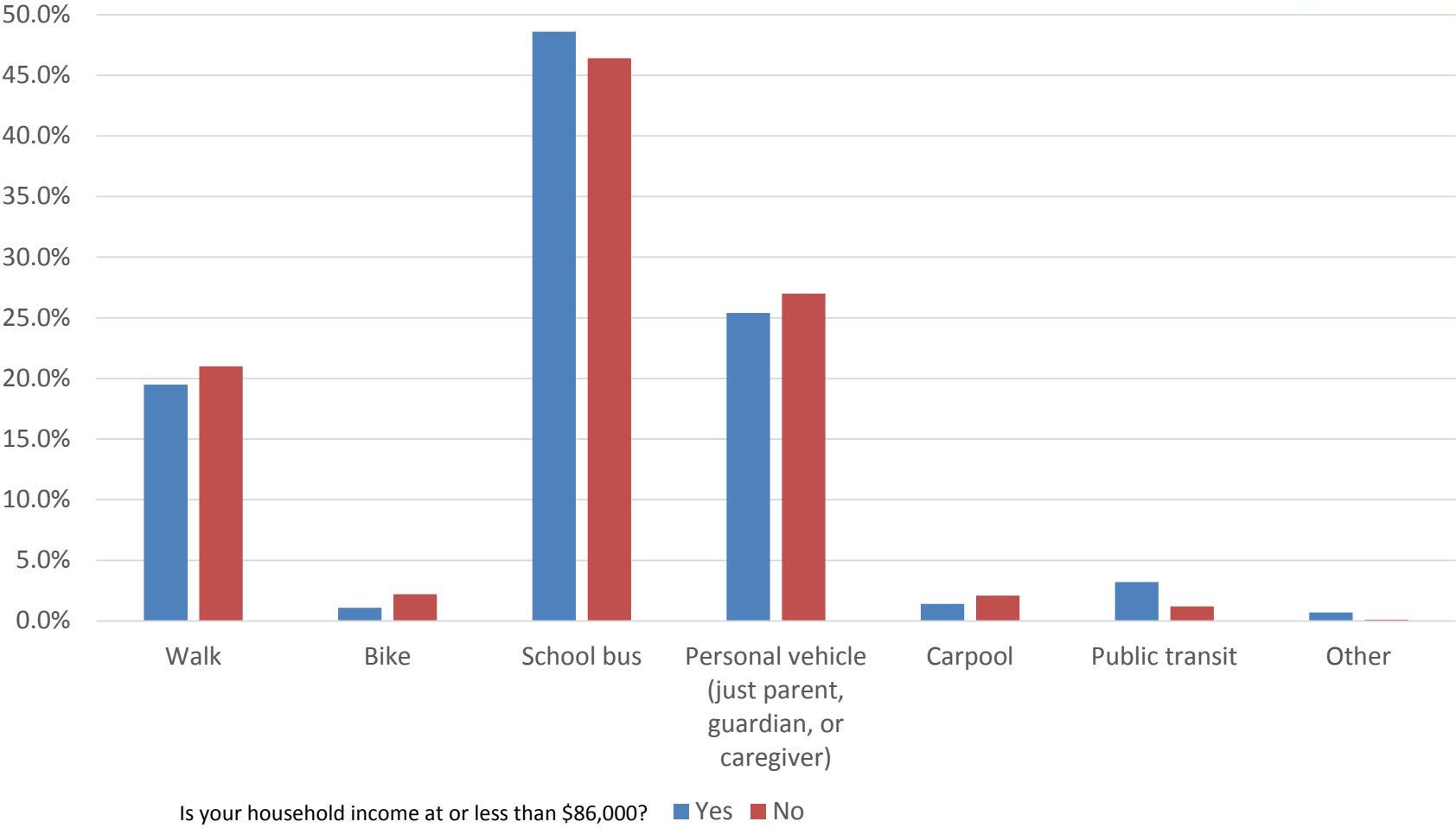
Student Travel Mode by Distance
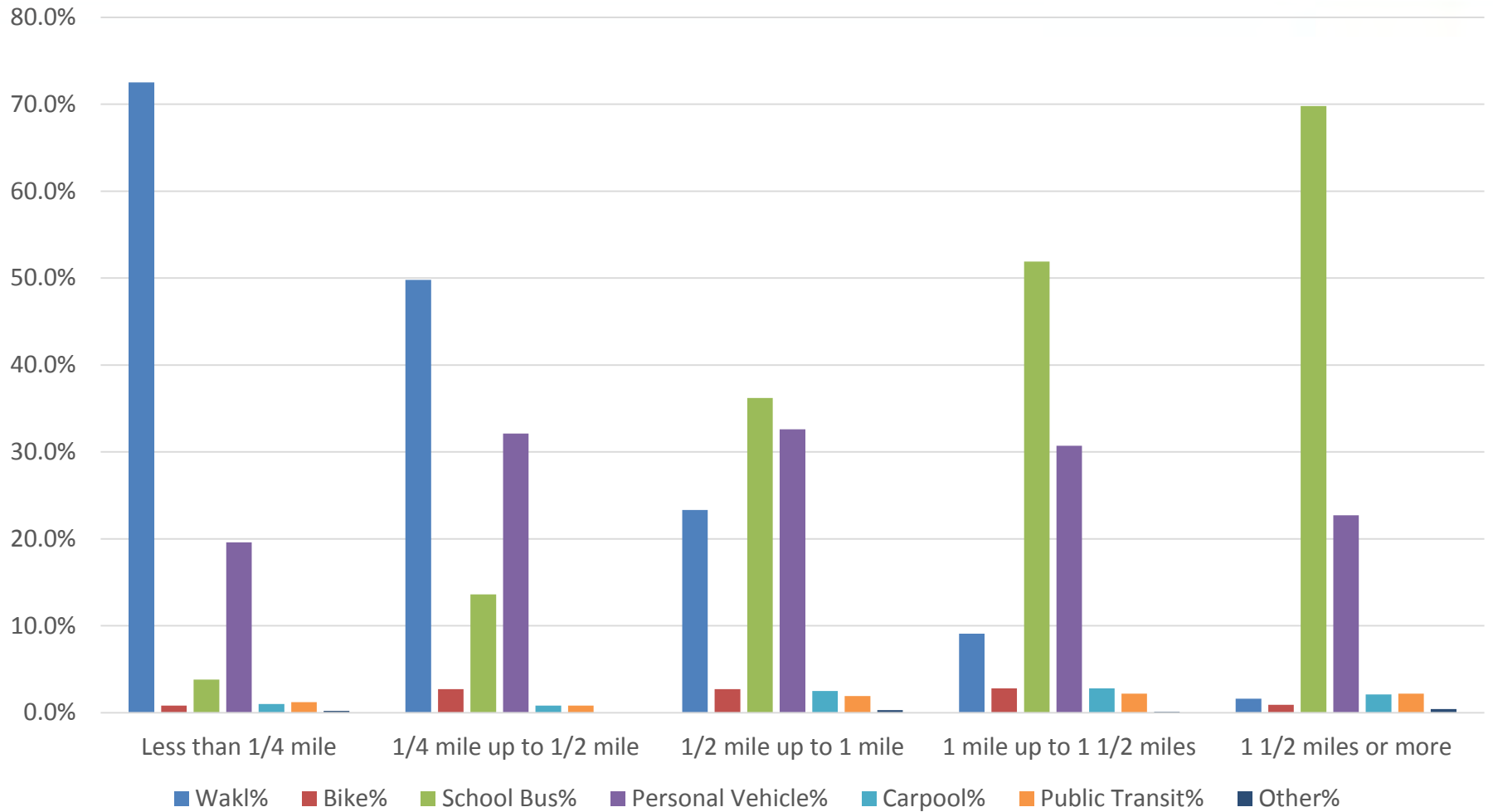
Source: 2013-14 APS Go! Student Travel Parent Survey

APS Survey Findings, Students Living within 1 Mile of School:

- 46% total walk or bike

Arlington County Master Transportation Plan Goal:

- By 2015, achieve 50% walk/bike to school rate for students living within the school walk/bike zone (typically a one-mile radius from school)

Source: Arlington County Master Transportation Plan, Pedestrian Element, July 2008

Student Travel Mode by Distance—Elementary School
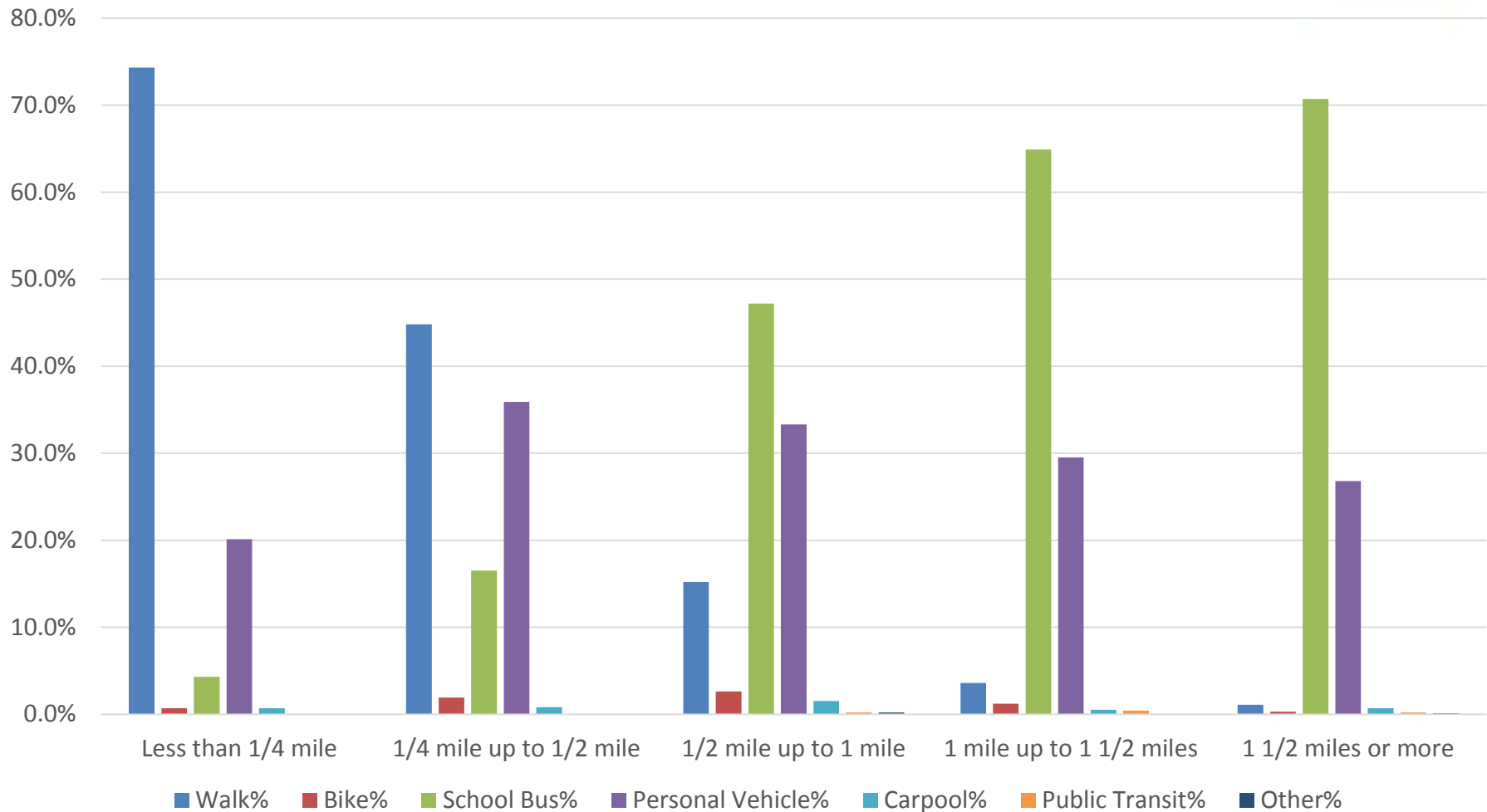
Source: 2013-14 APS Go! Student Travel Parent Survey

Student Travel Mode by Distance—Middle School
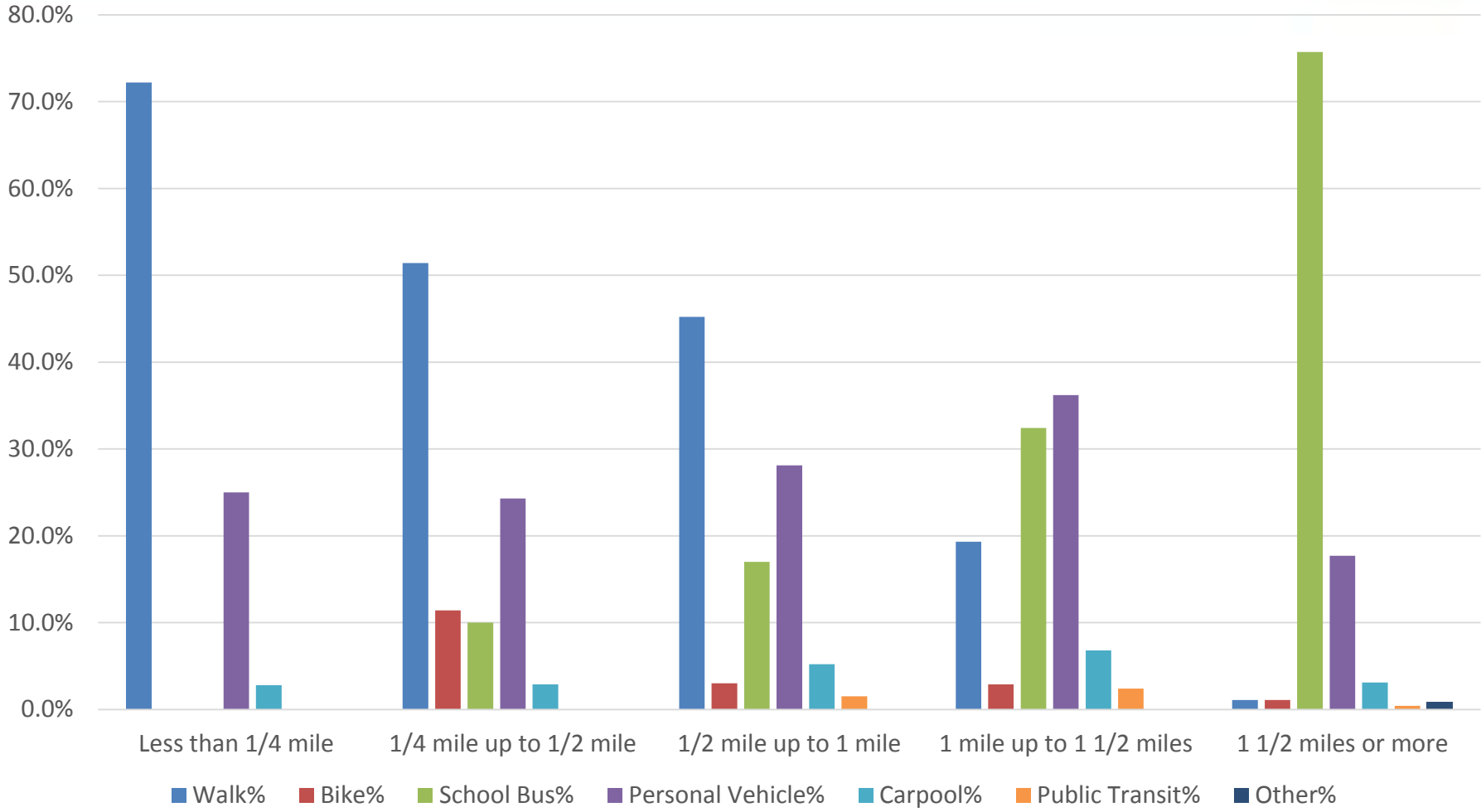
Source: 2013-14 APS Go! Student Travel Parent Survey

Student Travel Mode by Distance—High School

Source: 2013-14 APS Go! Student Travel Parent Survey

Parent Survey—Decision Factors, Walk/Bike

APS GO!
Smart Routes, Smart Choices

"How important are the following factors in your decision not to let your child **WALK or BIKE** to/from school more frequently?"

Legend: ■ Very Important ■ Somewhat Important

Source: 2013-14 APS Go! Student Travel Parent Survey

Respondents were invited to give open-ended responses to the above question about barriers to allowing their child to WALK or BIKE. Common themes are shown in this word cloud (larger words occurred more often):
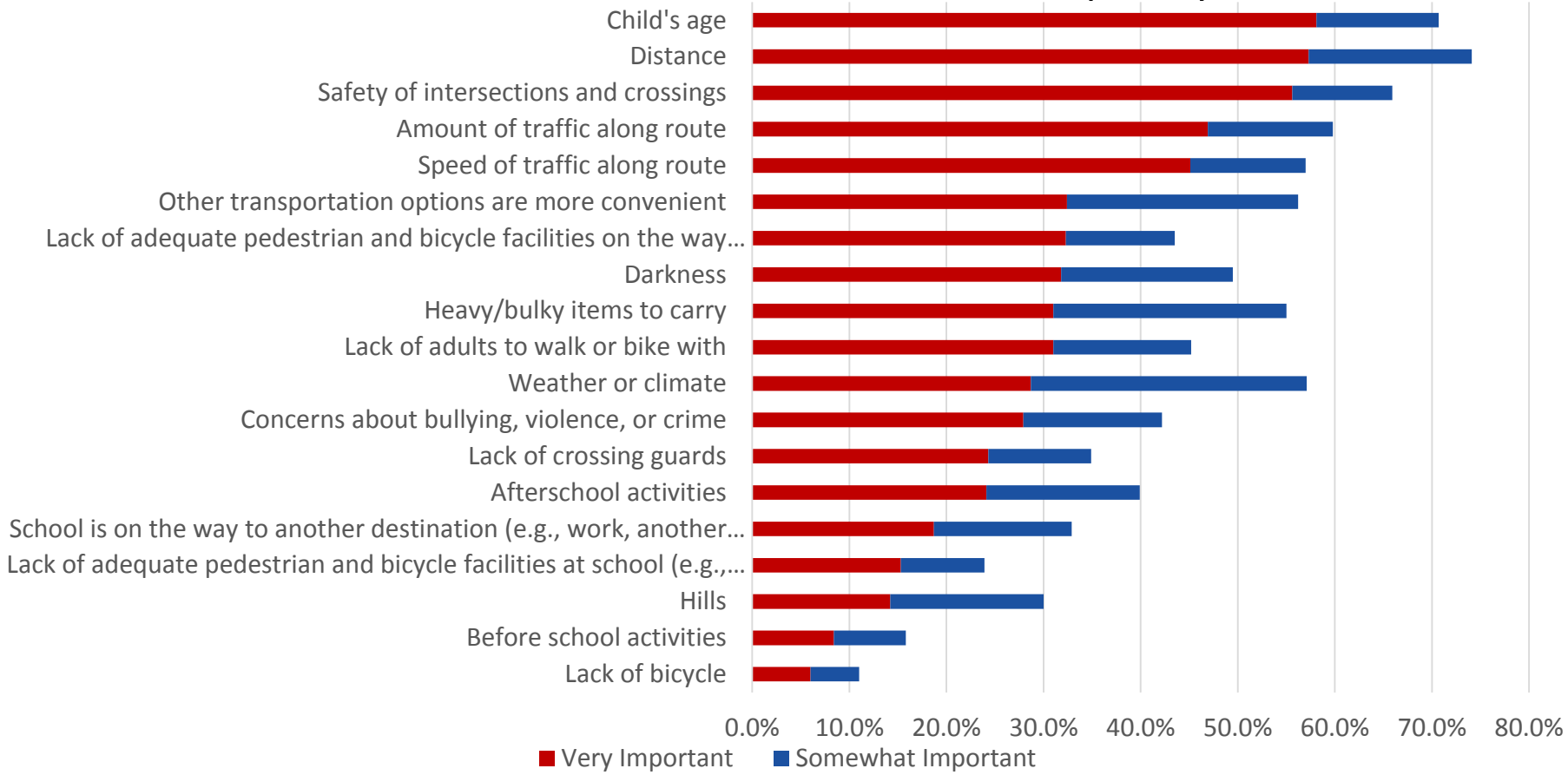
Parent Survey—Decision Factors, School Bus

"How important are the following factors in your decision not to let your child ride the **SCHOOL BUS** more frequently?"
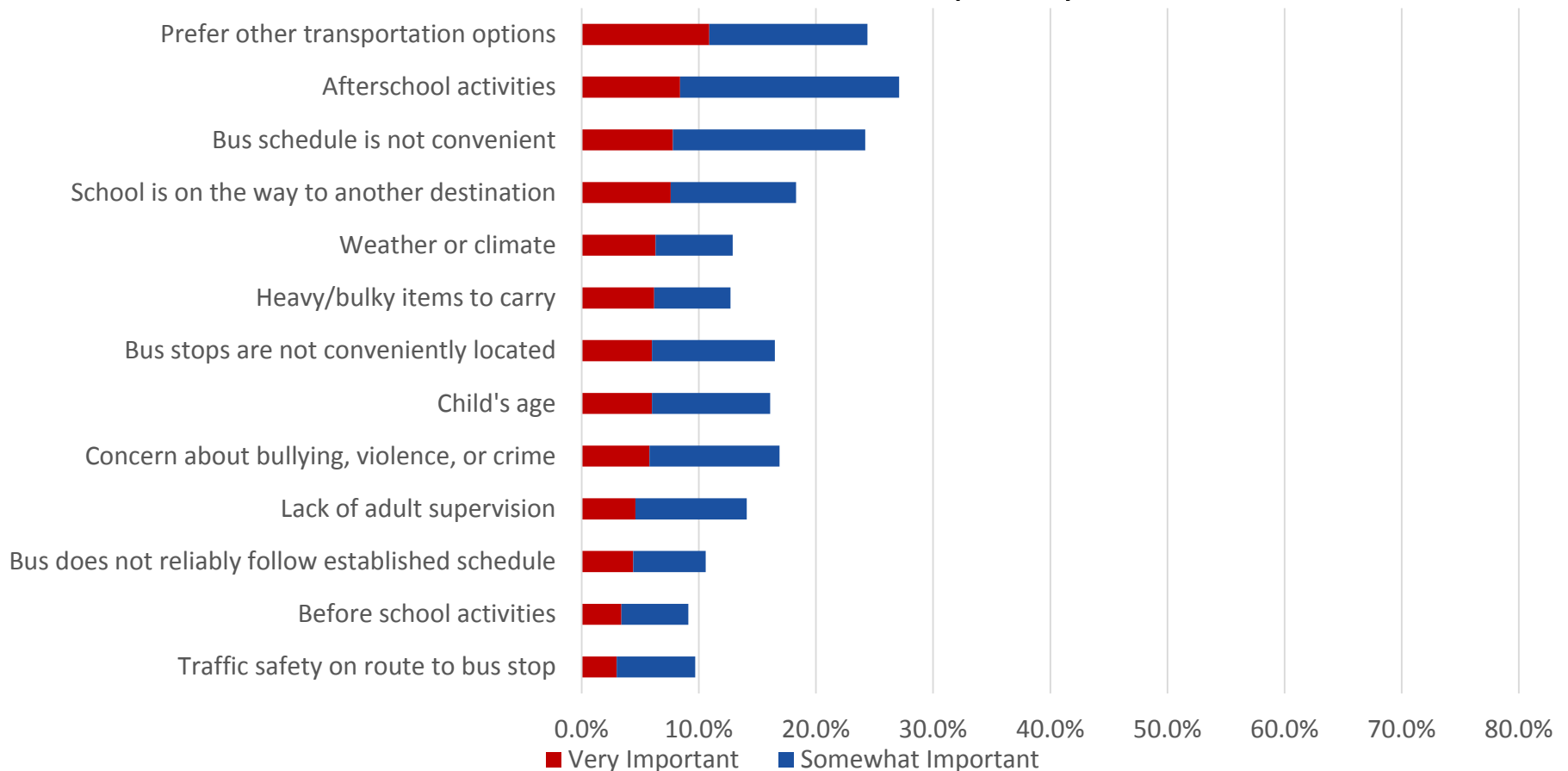
Source: 2013-14 APS Go! Student Travel Parent Survey

APS GO!
Smart Routes, Smart Choices

Respondents were invited to give open-ended responses to the above question about barriers to allowing their child to RIDE THE SCHOOL BUS. Common themes are shown in this word cloud (larger words occurred more often):
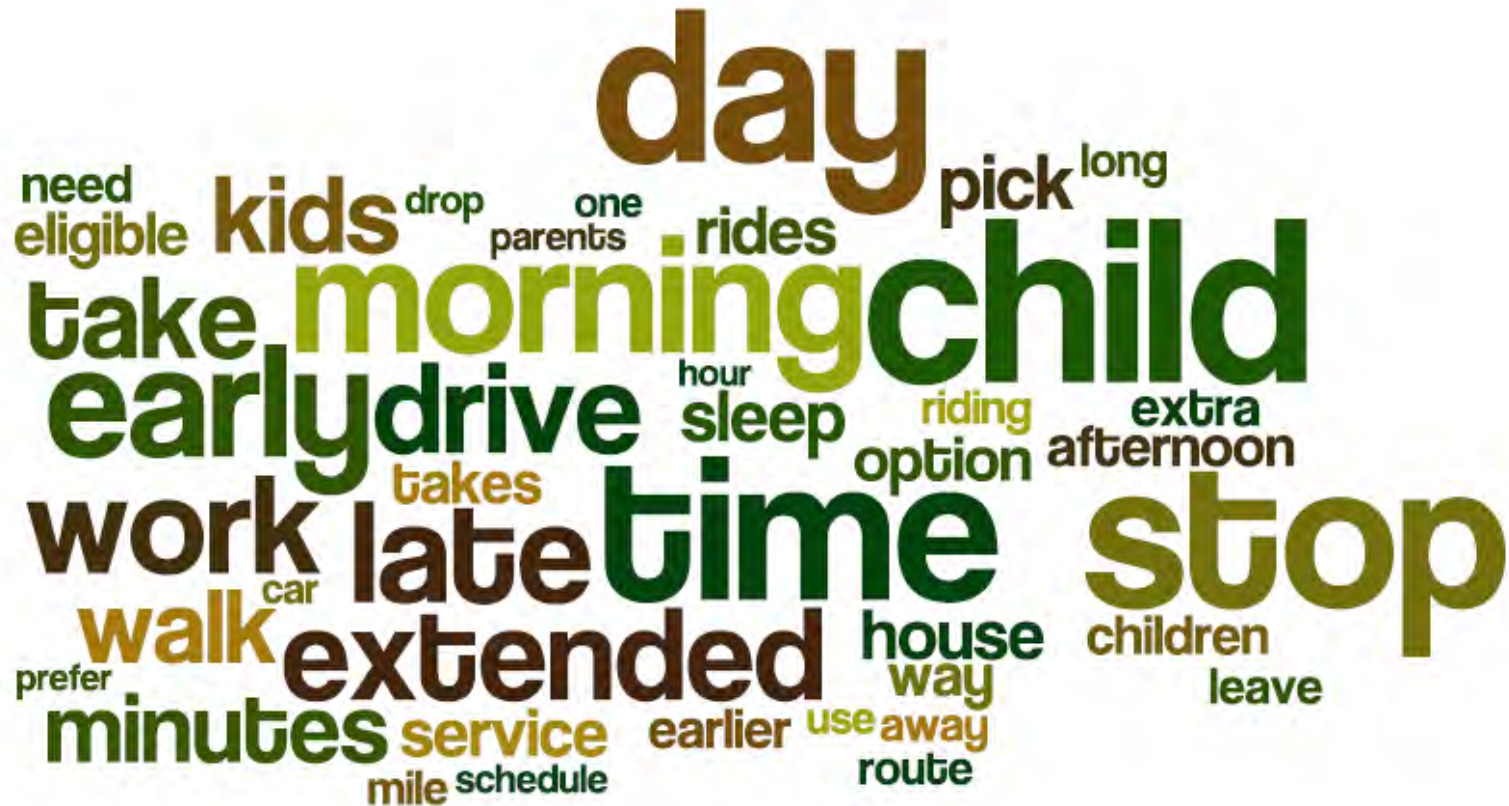
Parent Survey—Student Travel Hopes

"How would you like your child to travel to and from her/his school ideally?"

Response	Survey Respondents	Respondents who are not Bus Eligible
Walk	27.1%	57.5%
Ride School Bus	57.3%	22.7%
Bike	7.0%	8.2%
Ride in a personal vehicle (just parent, guardian, or caregiver)	6.3%	7.9%
Ride public transit (e.g., Metrorail, Metrobus, ART)	1.0%	1.7%
Ride in a carpool	1.0%	1.5%
Other (skateboard, scooter, inline skates, etc.)	0.4%	0.5%

Parent Survey—Student Travel Hopes

"How would you like your child to travel to and from her/his school ideally?"
Responses by Distance
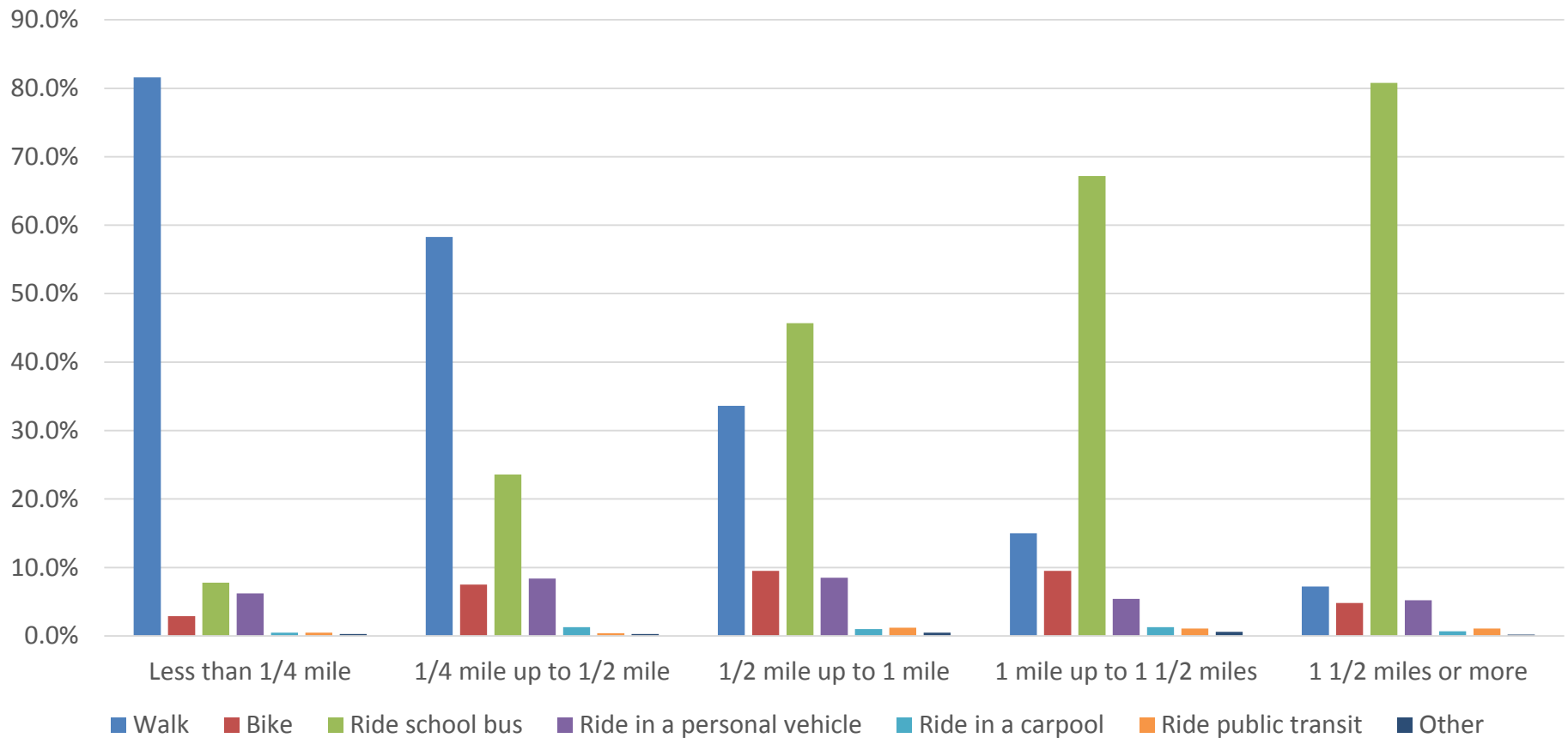
Source: 2013-14 APS Go! Student Travel Parent Survey

Self-Reported Travel Surveys

- Staff Surveys
- Student Travel Tallies (K-10)
- Parent Surveys (Pre K-10)
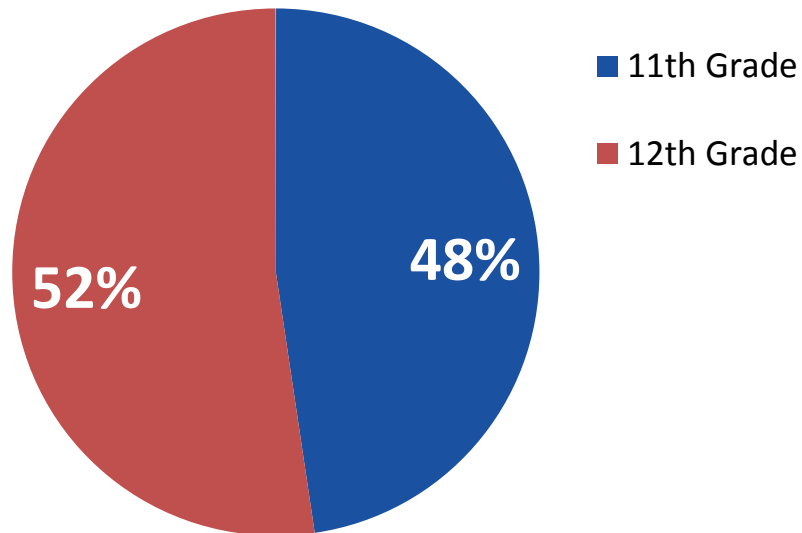- 11th and 12th Grade Surveys

11th and 12th Grade Survey Response Rate

- 11th and 12th Grade Surveys were conducted with a sample population of students who were identified to be representative of the APS population in terms of race and ethnicity

- The sample size represented ~40% of 11th and 12th graders
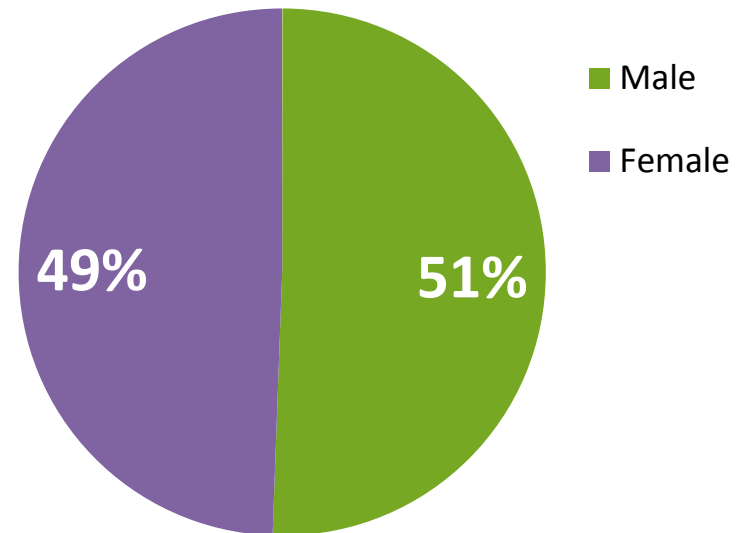
- Of the survey sample, 88% responded

Students Enrolled in APS and Students Surveyed

Legend: Enrolled in APS (green), Survey Sample (blue)
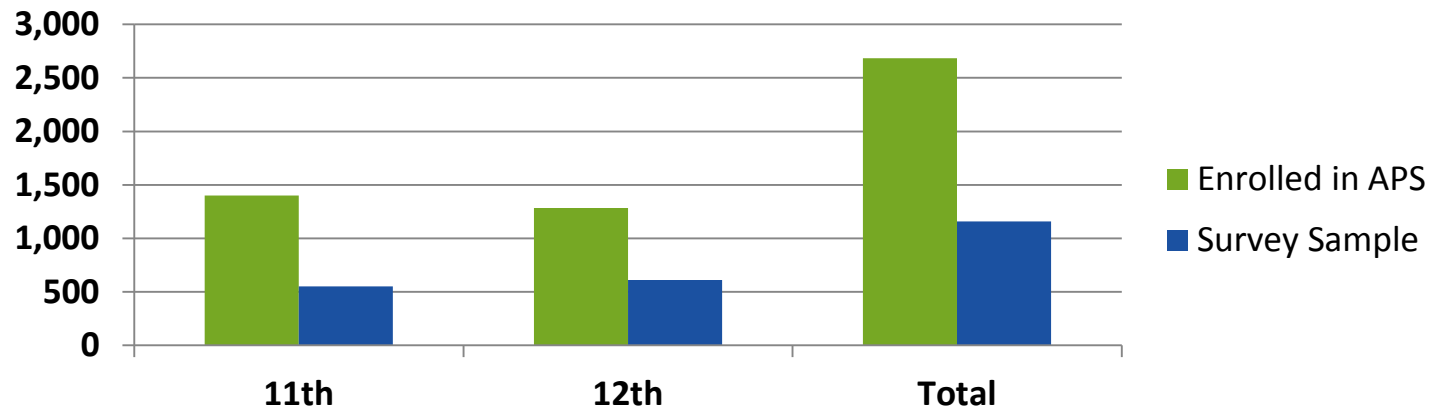
11th and 12th Respondent Characteristics

Respondents by Grade

11th Grade
12th Grade

52%   48%

Respondents by Gender

Male
Female

49%   51%

Source: 2013-14 APS Go! 11th & 12th Grade Student Travel Survey

11th and 12th Respondent Characteristics

APS GO!
Smart Routes, Smart Choices

Respondents by Race

- White — 53%
- Black — 13%
- Asian — 9%
- Other race — 25%
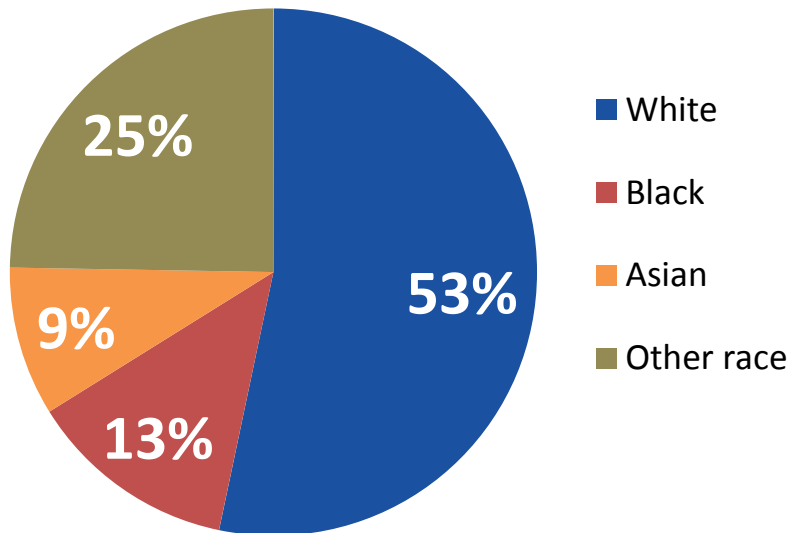
Respondents by Ethnicity
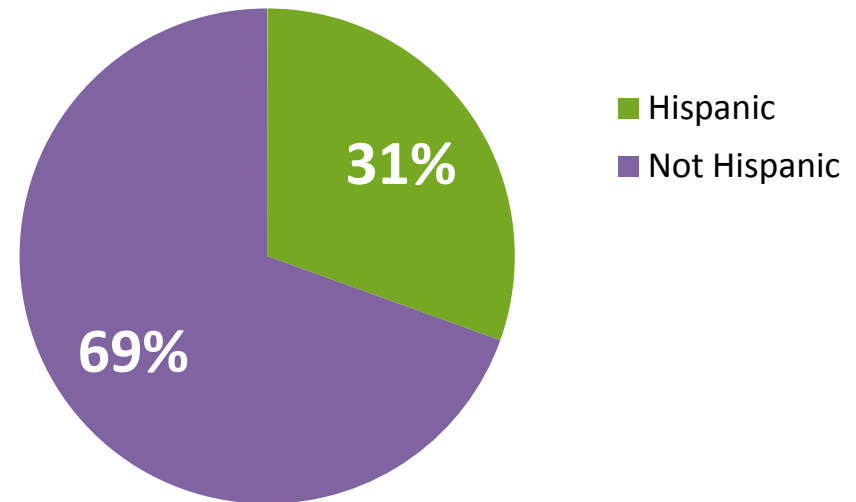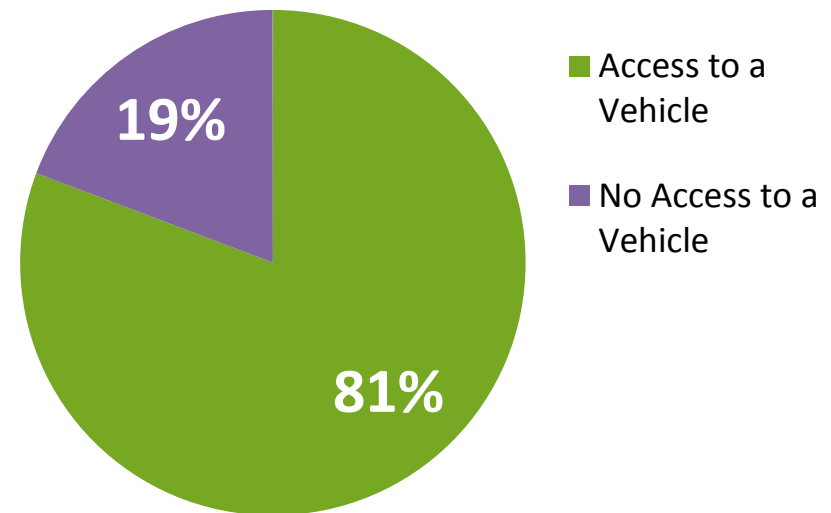
- Hispanic — 31%
- Not Hispanic — 69%

Source: 2013-14 APS Go! 11th & 12th Grade Student Travel Survey

11th and 12th Respondent Characteristics

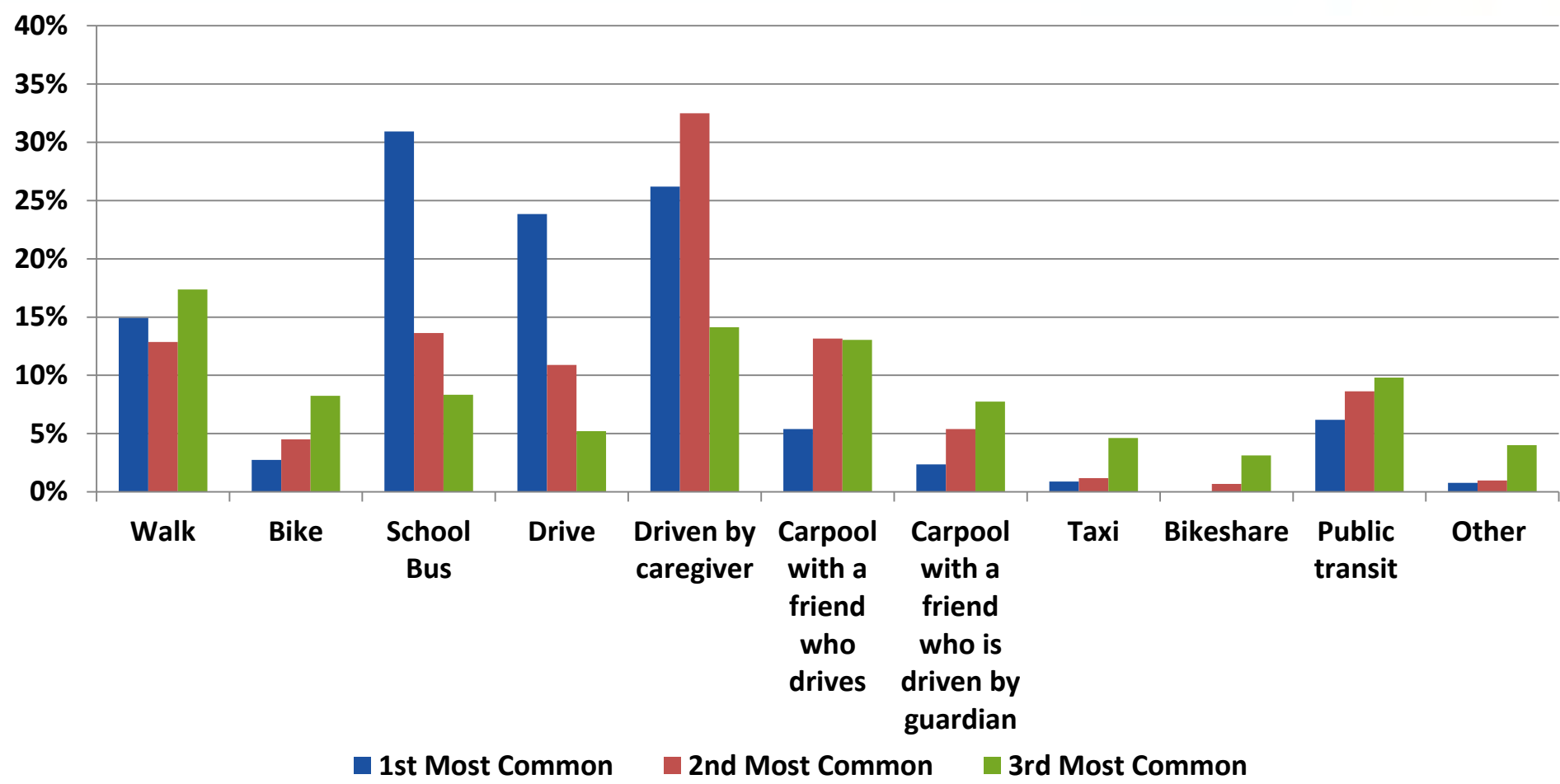## Respondents who have a Driver's License

- 40%
- 60%

■ Has Driver's License
■ Does Not Have Driver's License
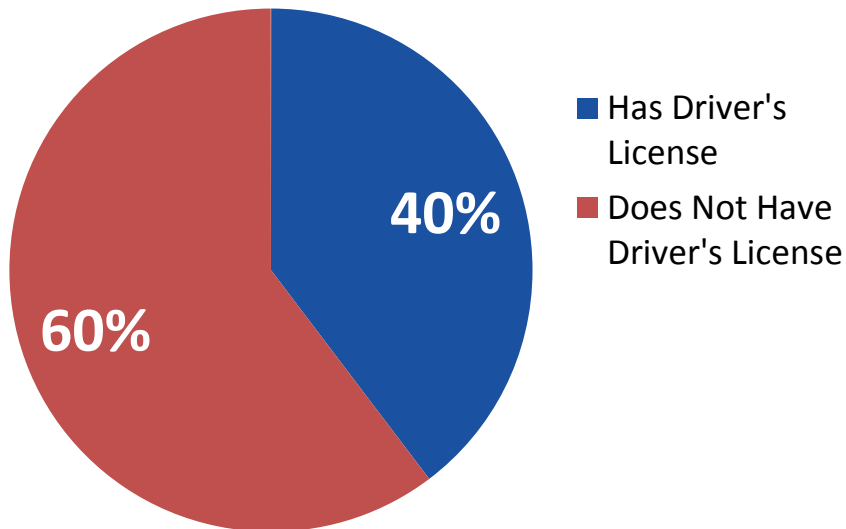
Respondents with Driver's Licenses who Have Access to a Vehicle

- 19%
- 81%

■ Access to a Vehicle
■ No Access to a Vehicle

Source: 2013-14 APS Go! 11th & 12th Grade Student Travel Survey

11th and 12th Grade Survey –Mode TO School

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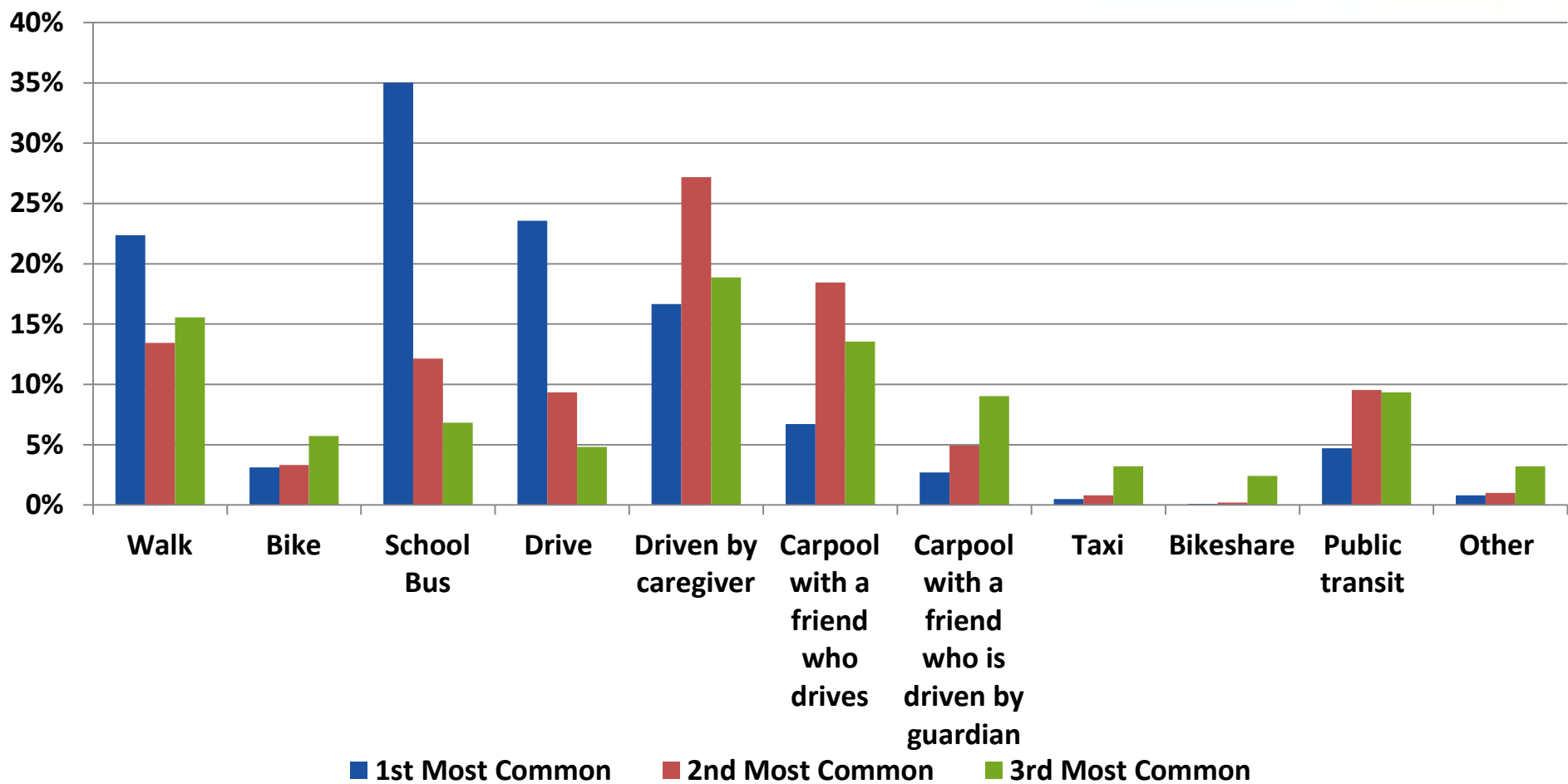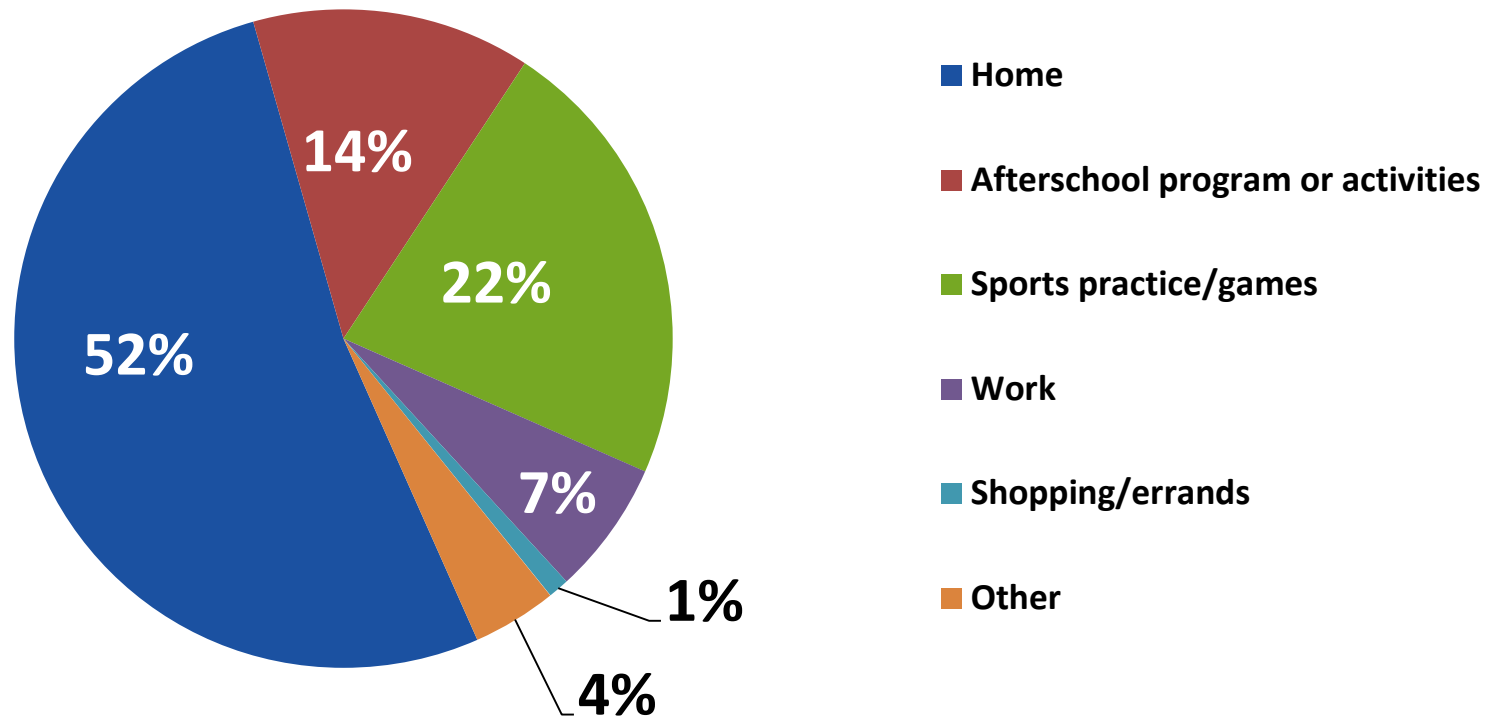Source: 2013-14 APS Go! 11th & 12th Grade Student Travel Survey

11th and 12th Grade – Mode FROM School

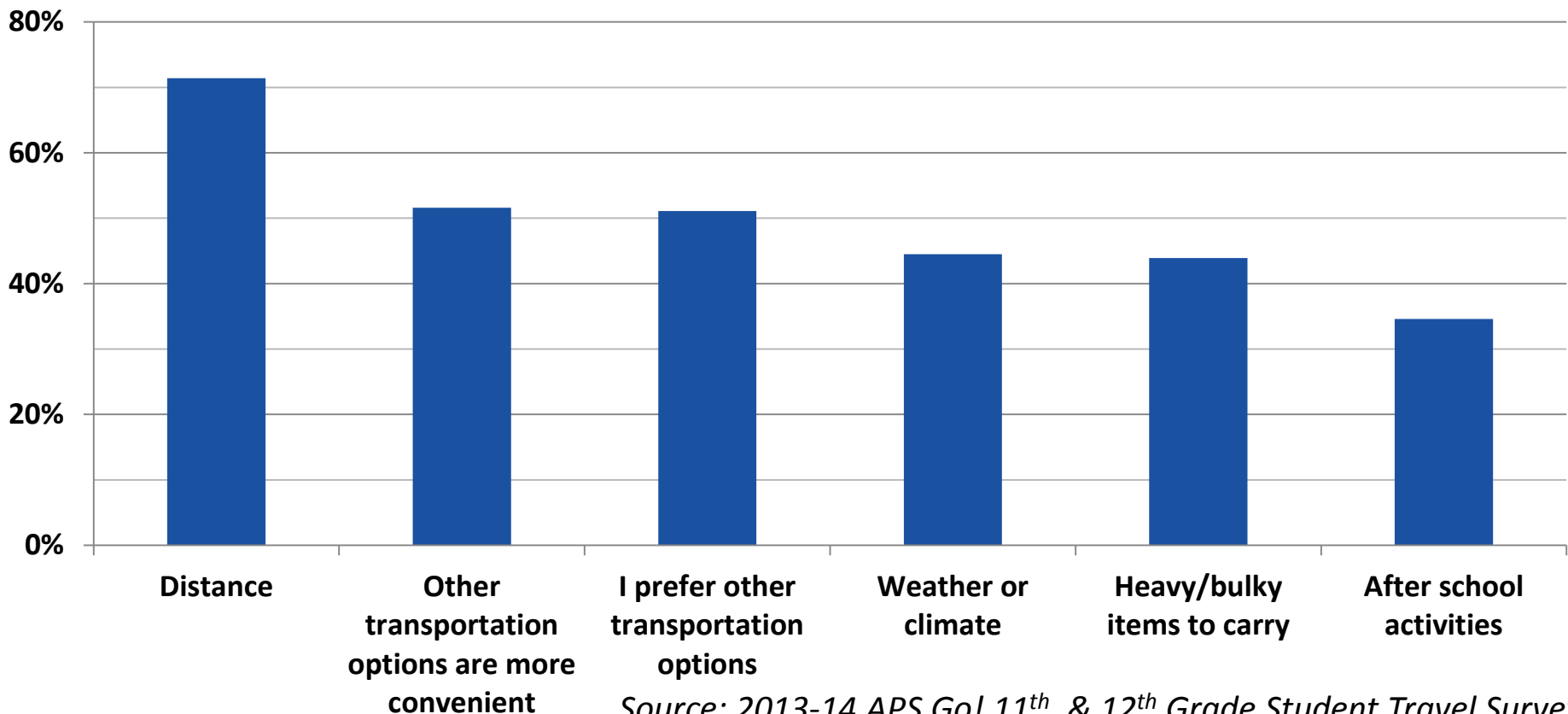Source: 2013-14 APS Go! 11th & 12th Grade Student Travel Survey

APS GO!
Smart Routes, Smart Choices

Where do Students Go After School?

- **Home** — 52%
- **Afterschool program or activities** — 14%
- **Sports practice/games** — 22%
- **Work** — 7%
- **Shopping/errands** — 1%
- **Other** — 4%

Source: 2013-14 APS Go! 11th & 12th Grade Student Travel Survey

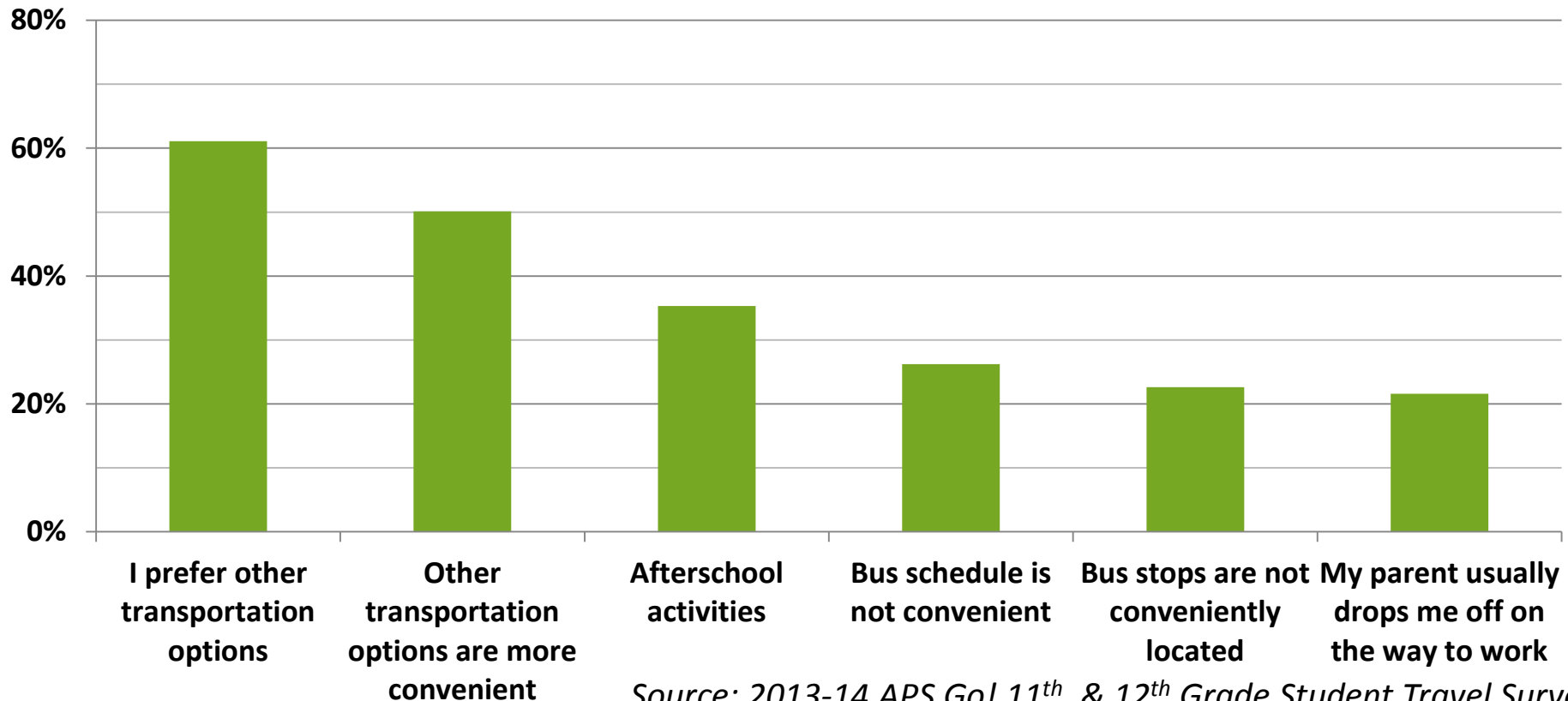# 11th and 12th Grade – Walk/Bike

APS GO!
Smart Routes, Smart Choices

"If you don't usually walk or bike to and from school, what are the reasons? (Circle all that apply.) Skip this question if you are a regular walker/bicyclist or are eligible to ride a school bus."

Chart showing reasons students don't walk or bike to school:
- Distance: ~71%
- Other transportation options are more convenient: ~51%
- I prefer other transportation options: ~51%
- Weather or climate: ~45%
- Heavy/bulky items to carry: ~44%
- After school activities: ~34%
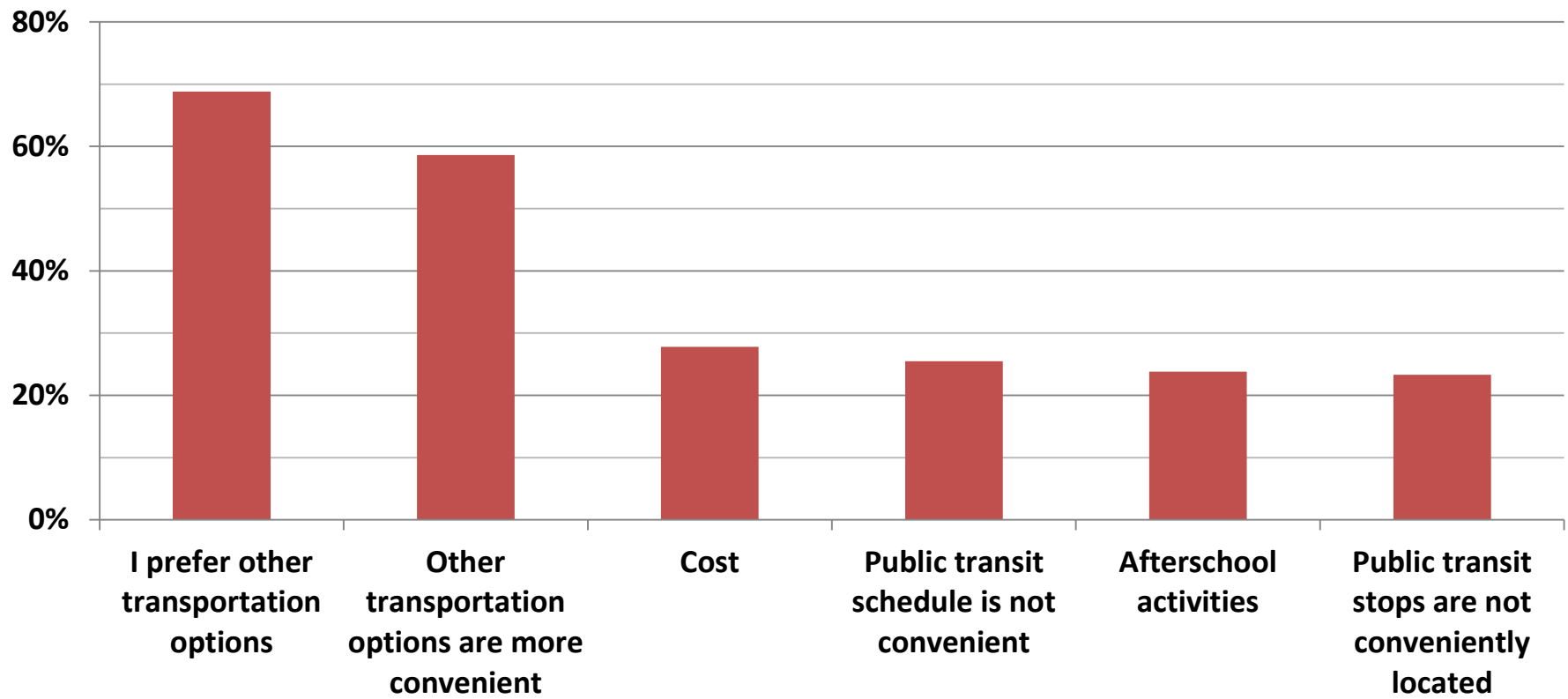
Source: 2013-14 APS Go! 11th & 12th Grade Student Travel Survey

11th and 12th Grade - Parking

APS GO!
Smart Routes, Smart Choices

"If you drive to and from school, where do you park?"

In a parking lot on school grounds	50.3%
In a nearby parking lot	4.8%
On the street	44.9%

Source: 2013-14 APS Go! 11th & 12th Grade Student Travel Survey

11th and 12th Grade – Ideal Travel

"How would you like to travel to and from your school ideally?"
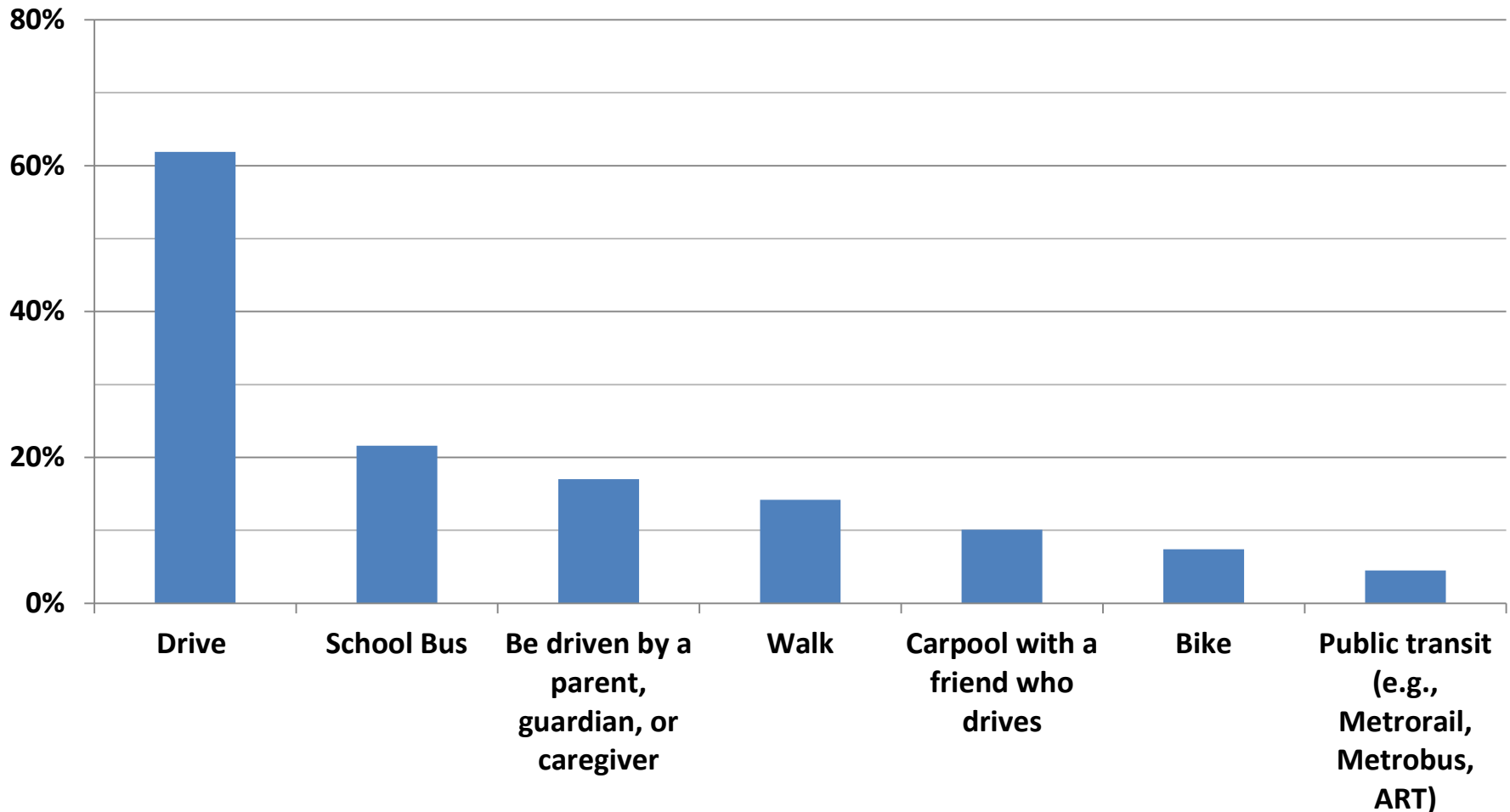
Respondents were invited to provide additional comments on how they travel to and from school. Below are a sample of comments:

- "**More parking**, I currently have to arrive incredibly early to get a spot."
- "If the **bus was less crowded**, I would take it again."
- "I hate that the school **bus is like 20 minutes late** in the mornings. I'd rather have a parent drop me than to miss class."
- "Give us passes not only for the ART bus, but for the Metro bus. Students should be able to ride free or **get a discount**."
- "Jet packs would be cool."

Source: 2013-14 APS Go! 11th & 12th Grade Student Travel Survey

Comparison of Mode TO School

Summary of Mode to School from Various Surveys

Most Common Mode	Student Tally	Parent Survey	11th/12th Survey	Staff
Walk	20%	20.1%	14.9%	3.2%
Bike	2%	1.9%	2.8%	1.5%
School Bus	40%	46.4%	30.9%	N/A
Drive/Personal Vehicle/Family Vehicle	34%	27.3%	50.1%*	88.0%
Carpool	3%	2.1%	7.8%	1.6%
Public Transit	0.4%	1.9%	6.2%	3.6%

* Includes drive and driven by parent

Source: TDG Analysis: 2013-14 APS Go! Travel Survey and Tally Results

OPERATIONAL DATA

This section presents the analysis of APS data on transportation costs, busing and existing TDM programs.

School Transportation Costs

|	
Total Transportation Budget (2013/14)	$16,149,037
Cost per student	$692
Cost per bus eligible student[1]	$1,074
Cost per student riding the bus[2]	$1,870

[1] Includes bus eligible, courtesy bused, and special needs transportation.
[2] Based on actual bus ridership in Oct 2013, including special needs transportation.

Source: APS 2013/14 CIP, APS student and busing data

Bus Runs by Facility Type

Average Bus Runs by Facility Type
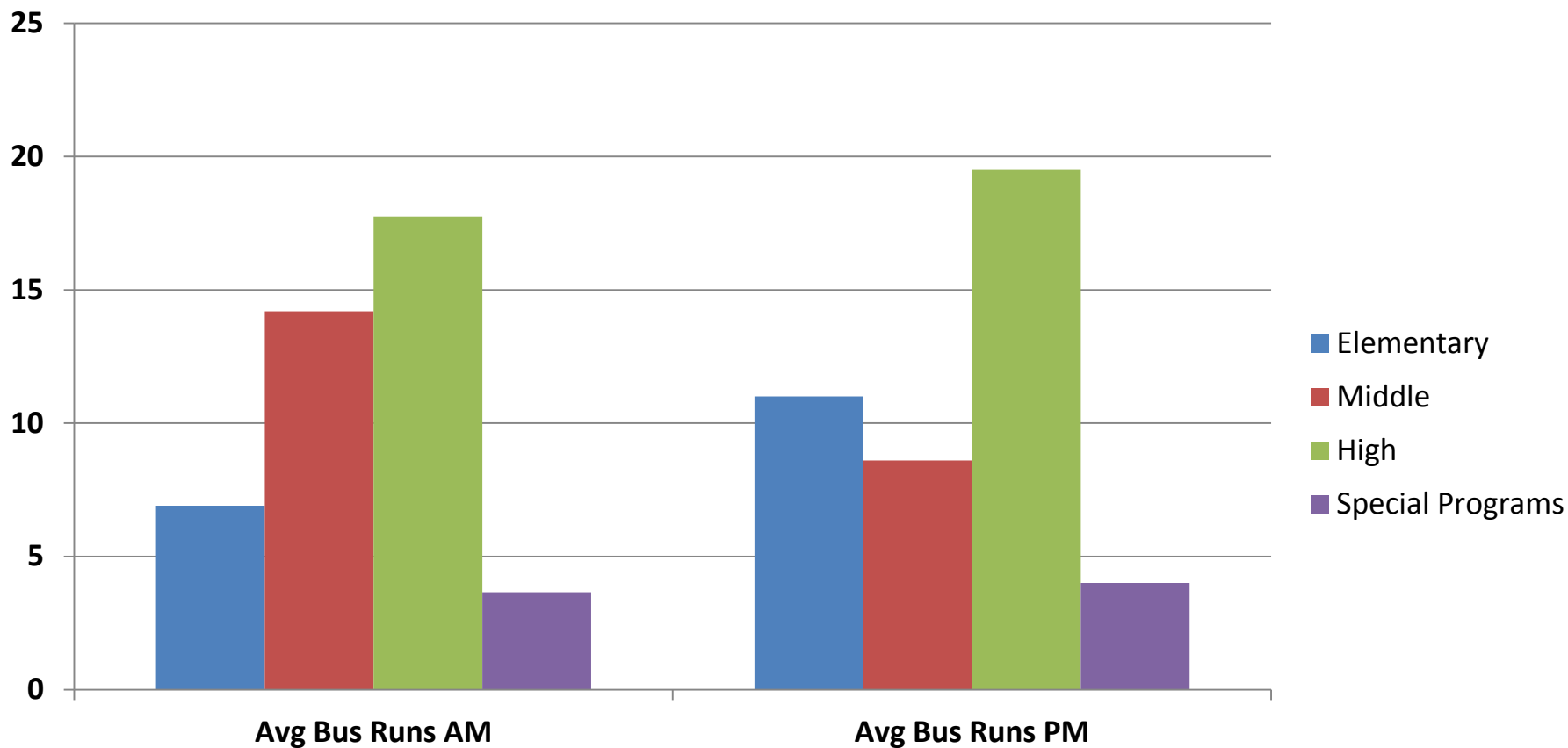
Source: TDG Analysis: 2013-14 APS Bus Usage and Eligibility

Bus Eligibility and Usage

Bus Eligibility and Actual Use

~60% of bus-eligible students ride the bus

Legend: Elementary, Middle, High, Special Programs

Average Percentage of Eligible Students per School

Average Actual Use Rates per School
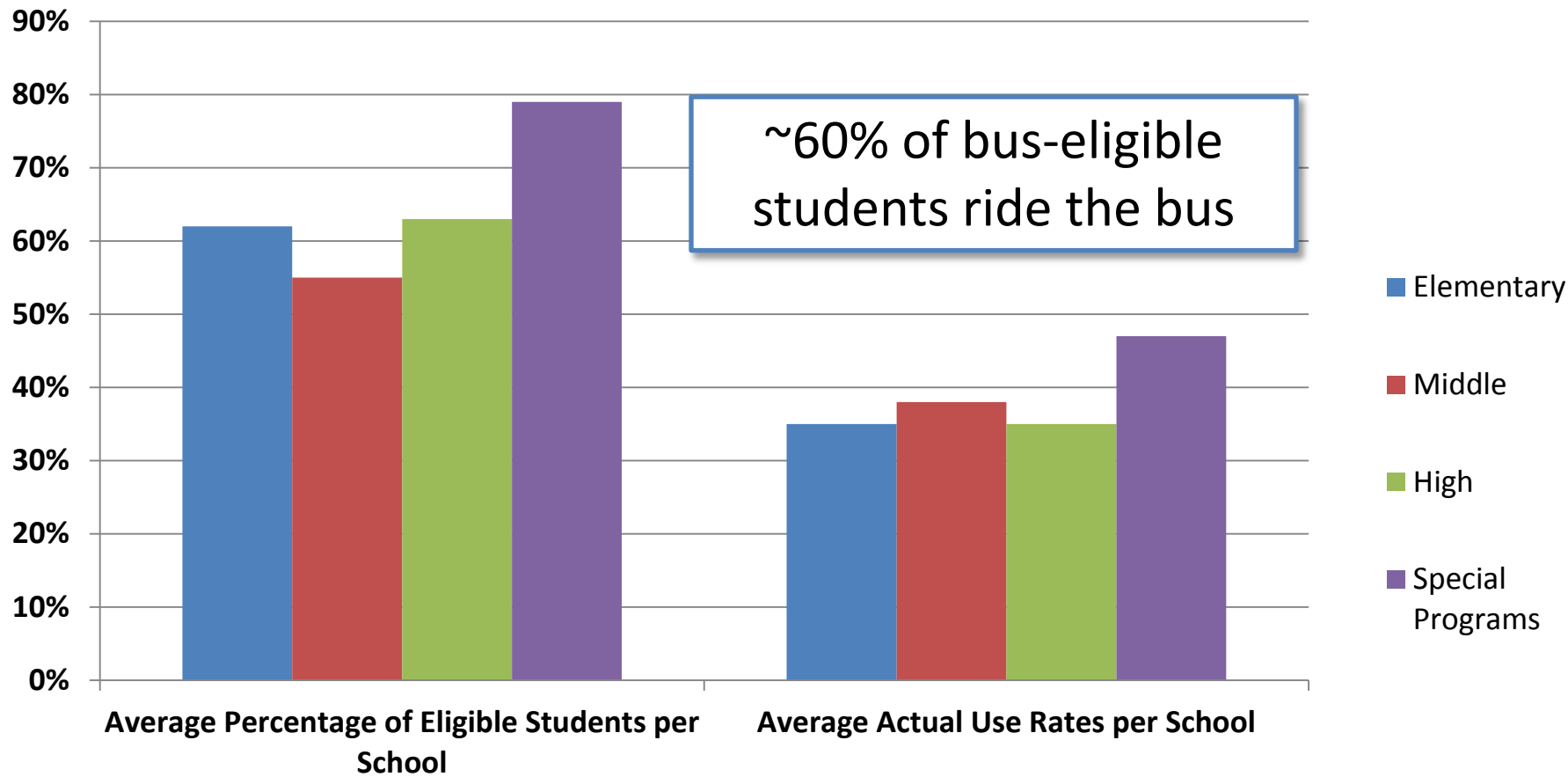
Source: TDG Analysis of APS July 29, 2013 Courtesy Busing Data and Bus Eligibility Data Spreadsheets

Parking

Parking Spaces

- 3149 total parking spaces (student, staff and handicapped)
- Estimated 267,665 square feet of parking

Parking Lease Costs

- 106 leased spaces (Ashlawn, Career Center, Yorktown and Sequoia)
- $47,700 / year for parking leases, plus Sequoia (parking cost built into lease, unknown)

Student Parking Permits

Usage

- 220 students parking permits issued and used as of January 2014 (Wakefield, Washington-Lee, Yorktown only)

Fees

- High schools charge an average of $30/year for student parking permits
- Use of revenue at Principal's discretion
- Estimated total revenue 2012/13: $9,375

Fairfax County:
- Student parking tag is $200/year
- High schools keep 15% of the fees
- On average, schools earn $7,400/year from parking revenue

(Source: "Parking lot an example of Fairfax schools' economic gap," Washington Post, November 16, 2013)

APS Staff TDM Programs

APS Staff TDM program

- Bike/Walk/Segway and Vanpool/Carpool subsidy
  - $60 per month for walk, bike, segway and car/vanpool (3+ members)
  - $30 per month for 2-member carpool
- Transit/Vanpool SmartTrip card program
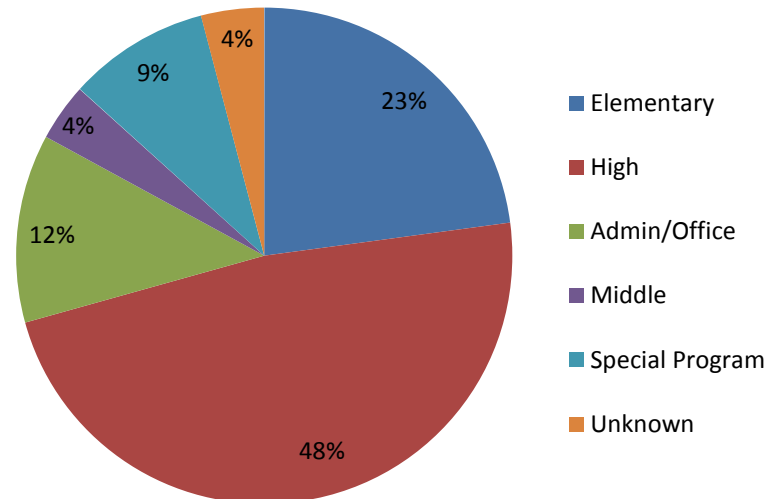 - $60/month

Eligibility

- All Staff:
  - Arlington Mill, Career Center, Education Center, Facilities & Ops, Syphax, Wakefield, Washington & Lee, Yorktown
- Ext Day/Food Service only:
  - Arlington Science Focus, Barcroft, Campbell, Carlin Springs, Drew, HB Woodlawn, Key, Long Branch, Randolph

Existing Staff TDM Utilization

TDM Program Utilization

- 152 people registered for SmartTrip benefit program (Oct 2013)
  - Estimated monthly cost to APS: $7,633 plus admin
- 140 registered for Walk/Bike/Segway/Carpool program (Nov 2013)
  - Average $26.23 per pay period
  - Estimated monthly cost to APS: $7,410 plus admin

APS TDM Program Utilization

Pie chart legend:
- Elementary — 23%
- High — 48%
- Admin/Office — 12%
- Middle — 4%
- Special Program — 9%
- Unknown — 4%

Qualified Transportation Benefits Program (FSA)

- Qualified Transportation Benefits Program (FSA)
  - Pre-tax deduction for vanpool (6+ participants), transit pass, and qualified parking expenses
  - Qualified parking expenses include parking at work or at transit/carpool pick-up location
  - 2012/13: Pre-tax deduction of up to $125/month for transit/vanpool and $240/month for parking
  - Eligibility: all benefit-eligible employees

- Utilization (as of Jan 2014)
  - Transit: 20 people, Average pre-tax benefit: $78.80/month
  - Parking: 2 people, Average pre-tax benefit: $69.50/month

Student Transit Pass Program

- iRide SmartTrip program for students
- Run by Arlington Transit (ART)
- Provides half-price fares on ART buses (75 cents)
- Eligibility: all APS middle and high school students
- Usage (Sept 2013 - Jan 2014):
  - 435 cards sold
  - 4,714 total bus trips
  - ~943 trips/month

SUMMARY AND TAKEAWAYS

Summary and Takeaways

Staff Travel

- Majority of staff are full-time and only travel to one APS site every day (travel habits are fairly regular)

- APS staff are more likely than are average workers in Arlington County to live inside the County

- Significant opportunity to support alternatives to driving

- APS staff transit and carpool modes lower than County average

Summary and Takeaways

Staff Travel

- Incentives, education, support have potential to encourage mode shift among some APS staff

- Free parking likely contributing to mode choice (among other factors)

- Opportunity to expand staff TDM participation (314 people/6.5% of all staff currently using program)

Summary and Takeaways

Student Travel

- Greatest opportunities for active transportation in lower grades

- Current walk rates relatively high
  - Average of 20% overall
  - 43.8% of students living within one mile of school

- 60% of bus eligible students actually riding – potential opportunity to encourage more bus riding and/or examine bus eligibility

Summary and Takeaways

Student Travel

- APS students close to meeting Arlington County 2015 goal for walking and biking within 1 mile

- HS transit rates (6.2%) relatively high

- Opportunities to impact drive and carpool rates, particularly with HS students (50% drive)

Summary and Takeaways

Student Travel

- When we compare parent's "ideal mode" for their child to their reported travel modes, survey responses indicate:
    - More people want their kids to walk or bike (34%) than are actually walking or biking (~22%)
    - More people want their kids to bus (57%) than are actually busing (~43%)
    - Far fewer people would ideally drive their kids to school (6%) than actually do (~30%)

Summary and Takeaways

Student Travel

- Rate of transfers will be important consideration for TDM Plan

- Opportunity to evaluate student parking permit program

- Significant opportunity to increase utilization of student transit pass program