

# School Start Times Survey Analysis

Prepared for Central Bucks School District

June 2019

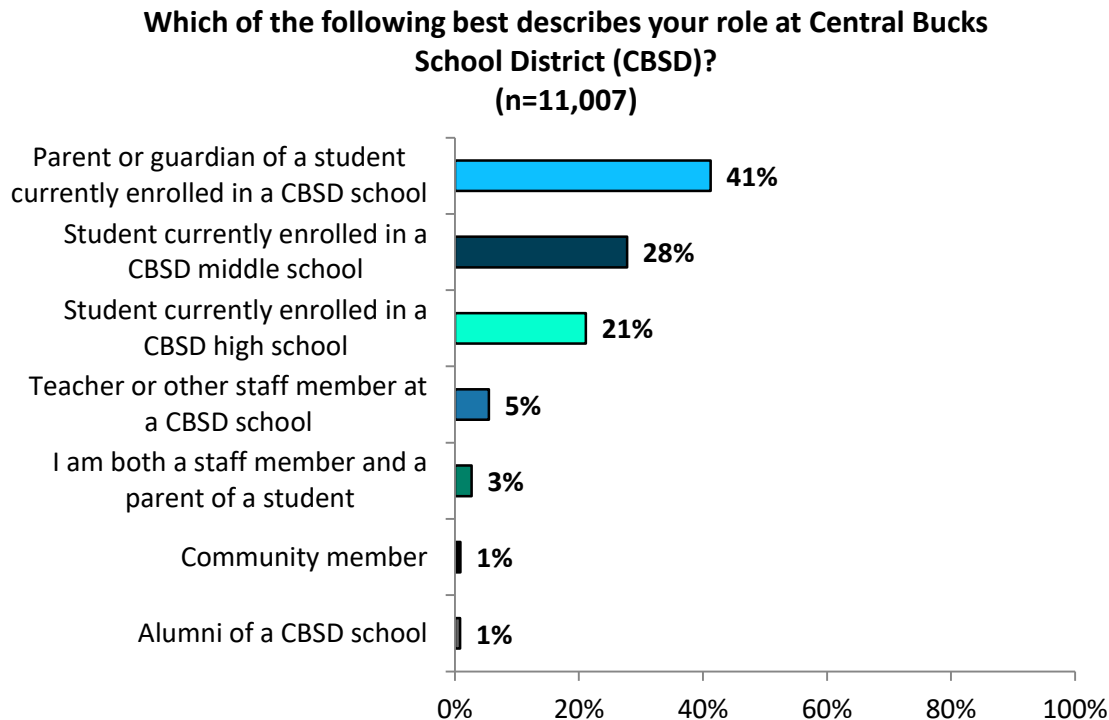


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# Introduction

In this report, Hanover Research analyzes and summarizes the results from the School Start Times Survey. In total, 11,007 respondents provided quality survey responses. The report includes results from 4,540 parents, 3,056 middle school students, 2,325 high school students, 602 staff members, 295 staff members who are also parents, 95 community members, and 94 alumni.



## Goals:

- 1) Determine stakeholders' perceptions of school start times
- 2) Examine stakeholders' opinions on changing school start times

## Approach:

Online survey of parents, students, staff members, community member, and alumni in April and May 2019.

# Key Findings – Satisfaction with the Current Schedule

- **Respondents are satisfied with current elementary school start times, but dissatisfied with middle and high school start times.** Satisfaction with current start times varies across stakeholders; parents/guardians are more satisfied with elementary start times, while staff are more satisfied with middle and high school start times.

**66%** of respondents are satisfied with elementary start times

**27%** of respondents are satisfied with middle start times

**25%** of respondents are satisfied with high start times

- **In general, respondents do not agree that current school start times are beneficial to students.** Just 27% of all respondents agree or strongly agree that current school start times benefit students, with the lowest levels of agreement reported for benefits to students' emotional health (22%) and sleep (22%). The lowest levels of agreement are reported among middle and high school students, district alumni, and community members.

**27%** of respondents agree or strongly agree that current school start times benefit students, including:

**17-22%** of middle/high school students

**33%** of parents

**36-37%** of staff/staff who are also parents

# Key Findings – Support for Changes to Start Times

- **The majority of respondents believe that Central Bucks School District should consider changing school start times.** The highest levels of support for further considering this issue are reported among high school students, while the lowest levels are reported among staff and staff members who are also parents.
  - 67% of respondents** believe the district should consider changing school start times, including:
    - 68-71% of middle/high school students**
    - 67% of parents**
    - 51-58% of staff/staff who are also parents**
- **Among respondents who are dissatisfied with current start times, the majority would prefer middle and high school begin “slightly later,” while a plurality would prefer elementary schools begin “slightly earlier.”** The majority of respondents support or strongly support the high school day starting and ending 30 minutes to 45 minutes later than the current schedule (64% and 57%, respectively).
  - 45% of dissatisfied respondents** prefer elementary schools begin “slight earlier”
  - 59% of dissatisfied respondents** prefer middle and high schools begin “slightly later”

# Key Findings – Importance of Sleep & Perceived Impact

- **Respondents who support consideration of changing start times feel that research on children's sleep should be the most important factor in determining school start times.** At the high school level, the majority of respondents believe that later school start times would have a positive impact on students' sleep and wellbeing (76%).
- **Despite perceived positive impacts for high schoolers, many respondents are uncertain about the potential impact of changes to school start times at the elementary level.** More than one third of respondents believe that an earlier school start time would have a negative impact on elementary students' sleep and wellbeing, and another 38 percent are unsure of the potential impact on elementary students' sleep.

**79%** of respondents who support considering a change to start times think that research on child/adolescent sleep should be the most important factor or district leaders to consider when setting school start times

**76%** of respondents believe that later school start times would have a *positive* impact on high school students' sleep and wellbeing

**35%** of respondents believe that earlier school start times would have a *negative* impact on elementary school students' sleep and wellbeing

# Key Findings – Perceived Impact on Other Factors

- **Beyond impacts on sleep, respondents believe later start times will further benefit high school students.** High school stakeholders believe later start times would have a positive impact on students' academic achievement, stress levels, and attendance. In contrast, the majority of elementary school stakeholders report uncertainty about the potential impact of an earlier school start time on factors such as transportation, safety, and attendance.
- **Among stakeholder groups, teachers and staff are less likely to support changes to start times and more likely to report concern over potential negative impacts.** Teachers and staff believe that changes to school start times will negatively impact their school- and non-school-related before-school activities at the elementary level and after-school activities at the high school level.

**67-68% of respondents** believe a later high school start time would improve students' academic achievement, stress levels, and attendance

**56-55% of teacher and staff respondents** think a later high school start time will negatively impact after-school activities/responsibilities

**43% of teacher and staff respondents** think an earlier elementary school start time will negatively impact their before-school activities/responsibilities

# Recommendations

Based on survey results, Hanover recommends Central Bucks School District should...

- **Form a working group to further investigate the potential impact of changing school start times in the district.** The working group should be composed of various stakeholders (i.e., teachers, parents, students, administrators, and operational personnel), and should focus on the educational and practical implications of proposed changes to school start times, including potential benefits for learning as well as impacts on transportation, childcare, and before- and after-school programming.
- **Conduct a research brief on the literature surrounding school start times and children's sleep schedules.** Stakeholders typically rank the research on children's sleep as the most important factor in setting new school start times; as such, a public-facing research brief can help summarize what is known about school start times and children's sleep schedules at various ages and ensure that stakeholders have the information needed to make key decisions.

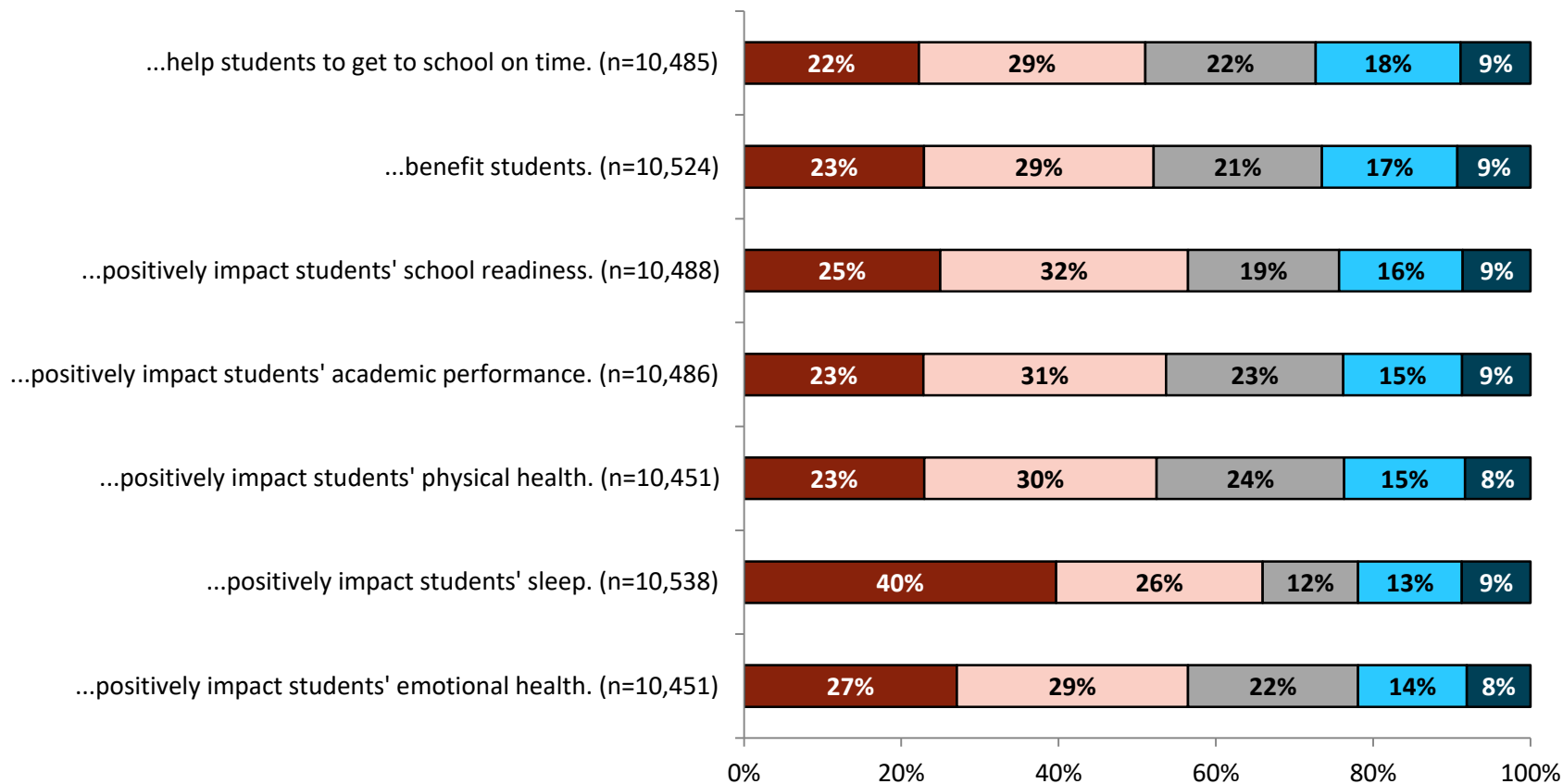


# SECTION I: PERCEPTIONS OF CURRENT SCHOOL SCHEDULES

# Perceptions of Current School Schedules

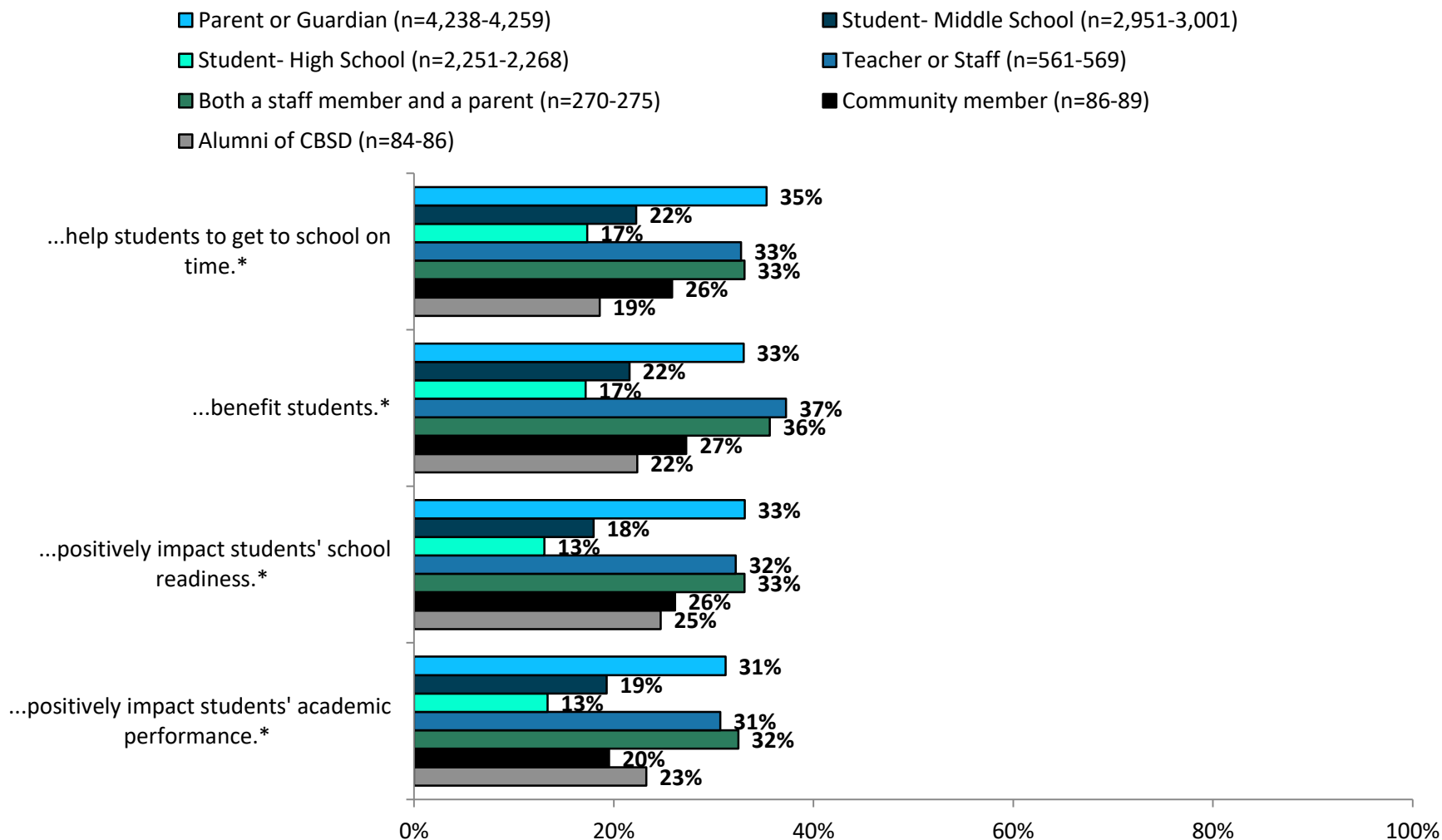
Please rate your level of agreement with each of the following statements: The current school start times...

Strongly Disagree Disagree Neither Disagree nor Agree Agree Strongly Agree



# Perceptions of Current School Schedules

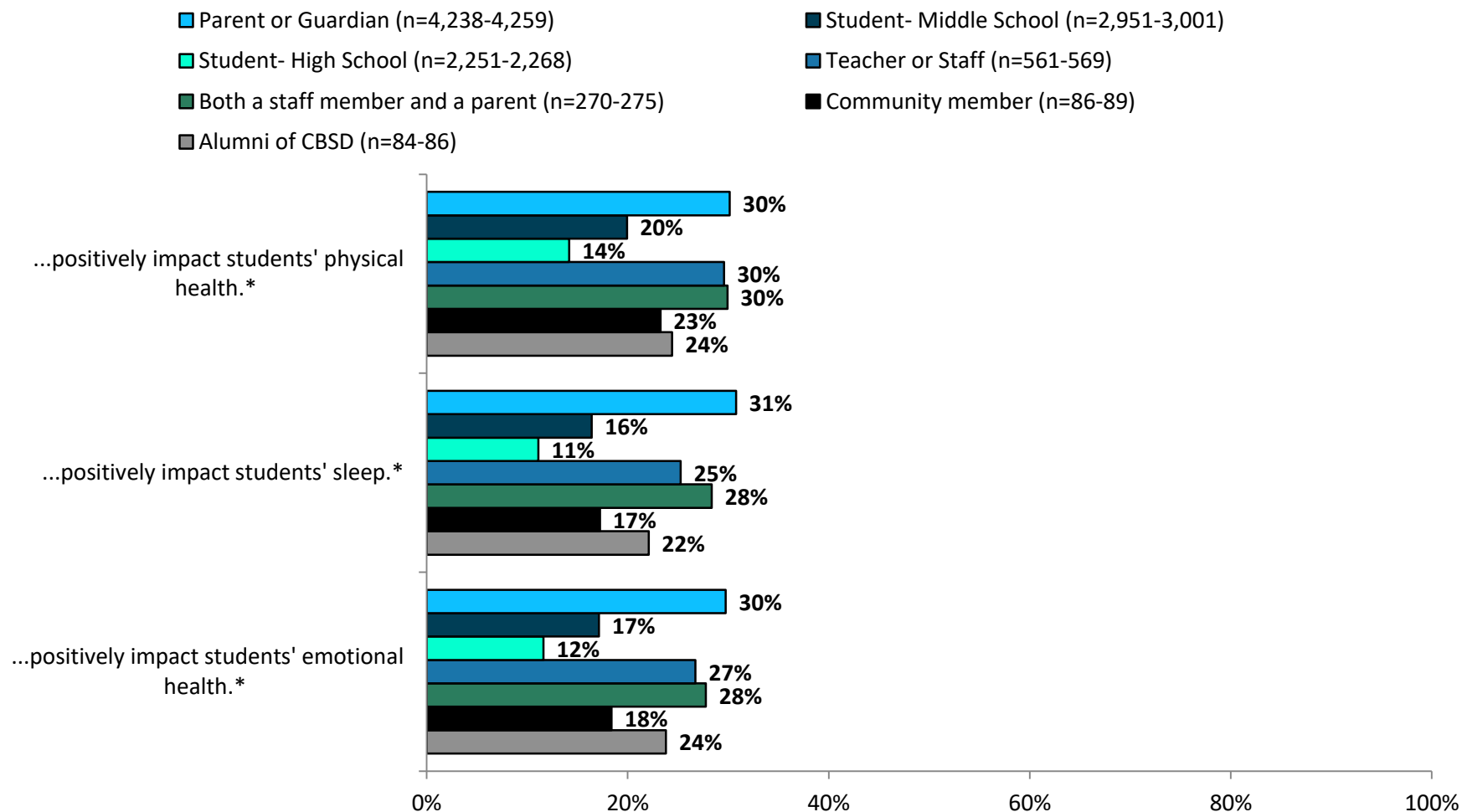
Please rate your level of agreement with each of the following statements: The current school start times...  
(% of respondents who "agree" or "strongly agree")



Note: (\*) Denotes statistically significant difference between one or more groups at the 95% confidence level.

# Perceptions of Current School Schedules

Please rate your level of agreement with each of the following statements: The current school start times...  
(% of respondents who "agree" or "strongly agree")



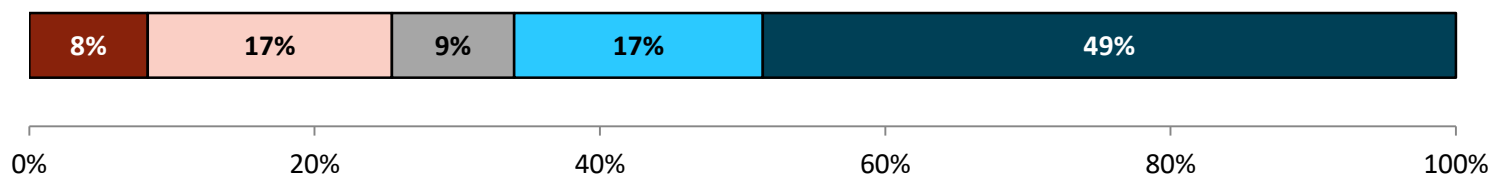
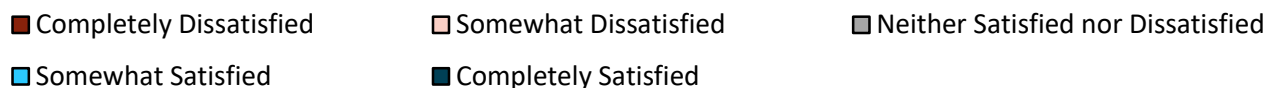
Note: (\*) Denotes statistically significant difference between one or more groups at the 95% confidence level.

## **SECTION II: SATISFACTION WITH START TIMES BY SCHOOL LEVEL**

# Elementary School

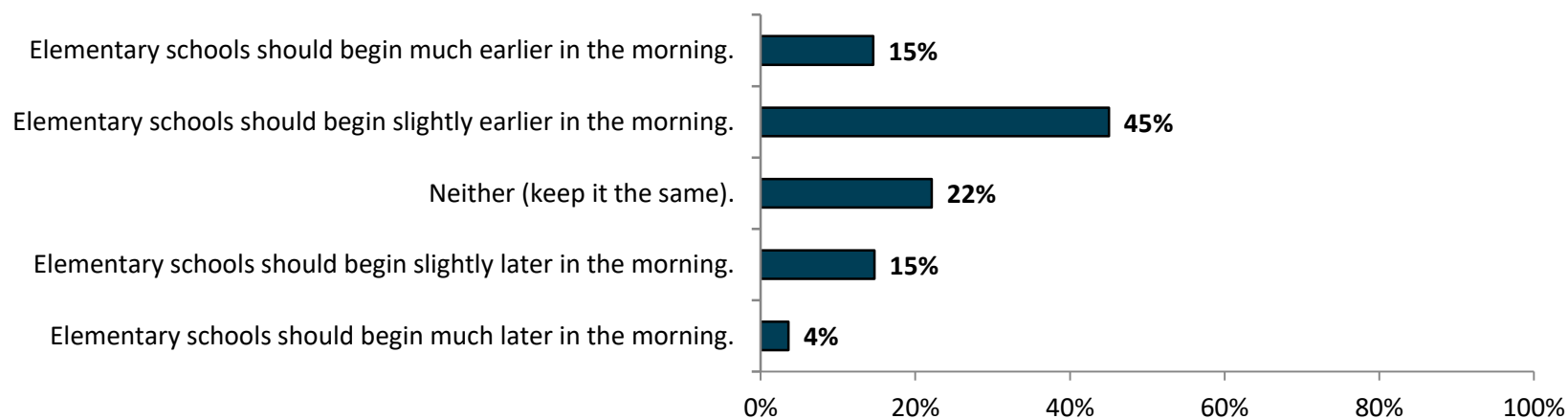
How satisfied are you with the current elementary school start time?

(n=2,974)



Would you prefer that elementary schools begin earlier or later than the current school start time?

(n=755)

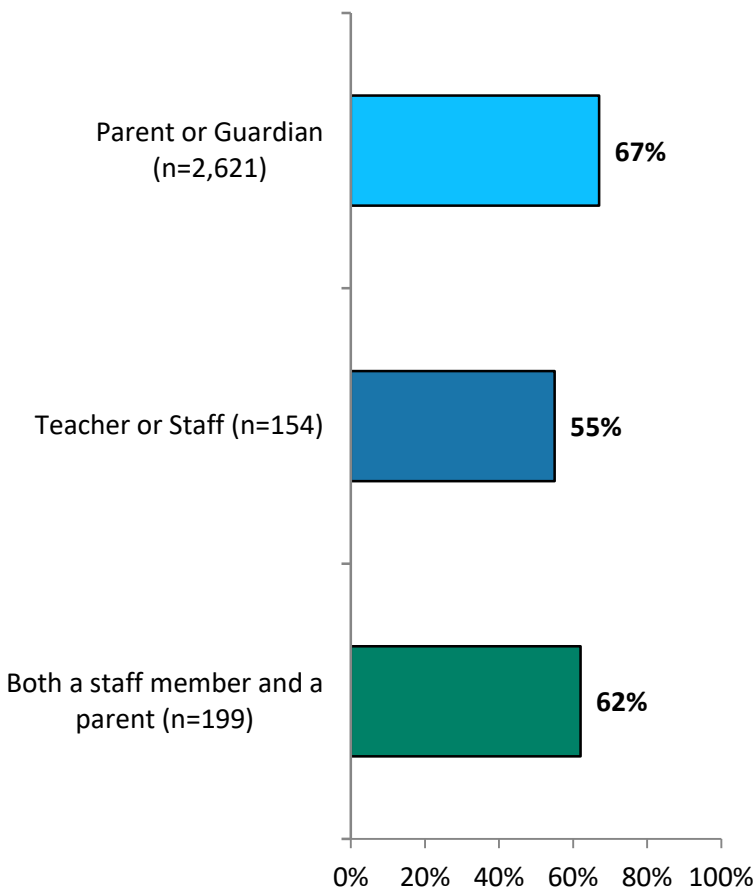


Note: Questions only shown to parents and staff who has a child or works at an elementary school.  
Note: Only those respondents who reported dissatisfaction with current school start times were shown the question about preferences for a different start time.

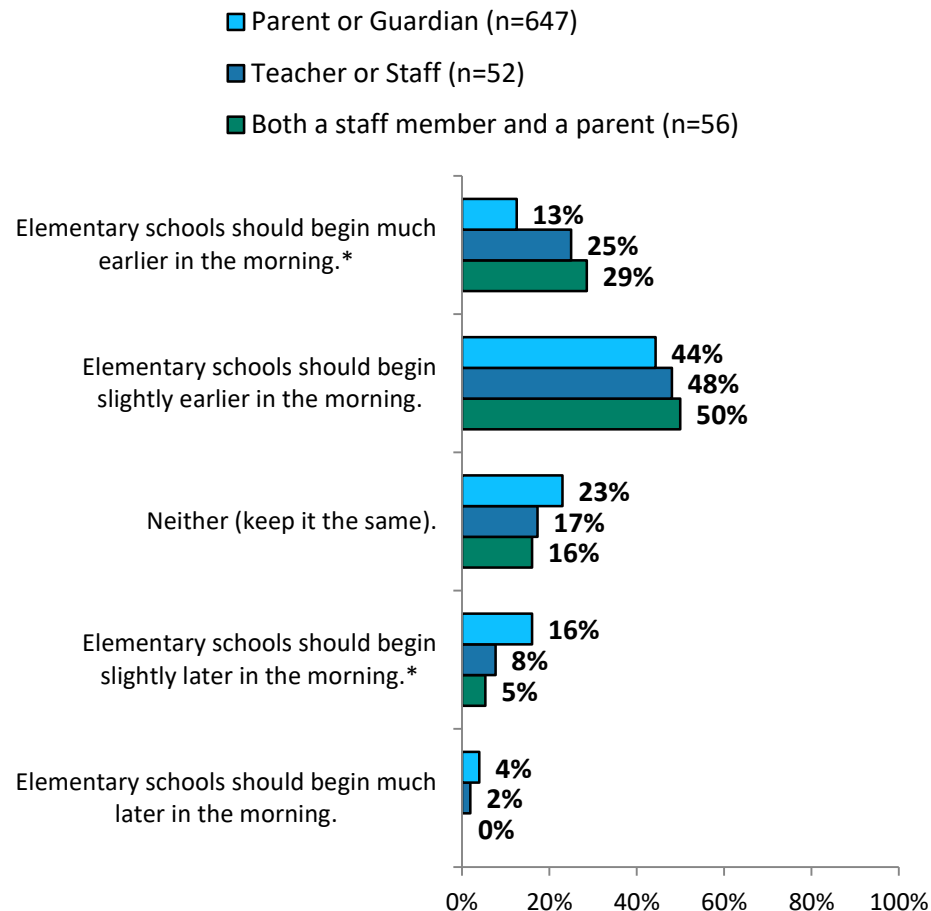
# Elementary School- By Stakeholder Group

How satisfied are you with the current elementary school start time?\*

(% “somewhat” or “completely” satisfied)



Would you prefer that elementary schools begin earlier or later than the current school start time?



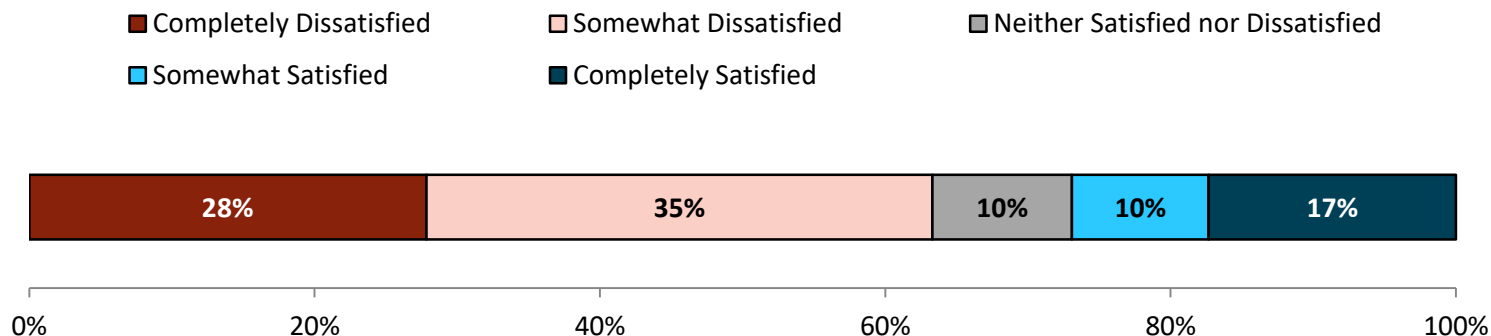
Note: (\*) Denotes statistically significant difference between one or more groups at the 95% confidence level.

Note: Questions only shown to parents and staff who has a child or works at an elementary school.

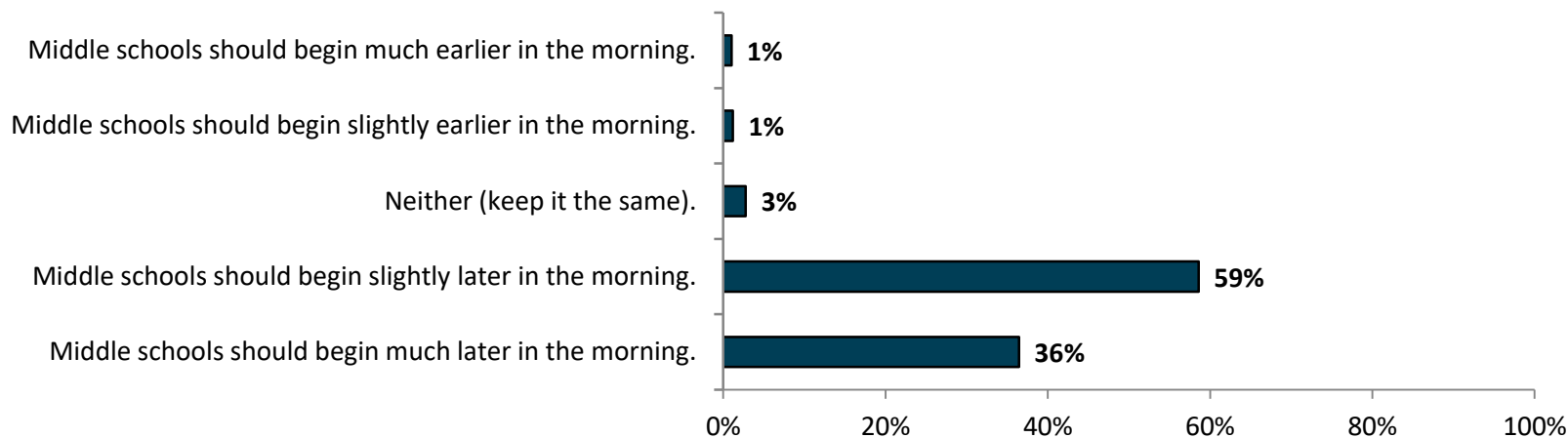
Note: Only those respondents who reported dissatisfaction with current school start times were shown the question about preferences for a different start time.

# Middle School

How satisfied are you with the current middle school start time?  
(n=5,310)



Would you prefer that middle schools begin earlier or later than the current school start time?  
(n=3,358)



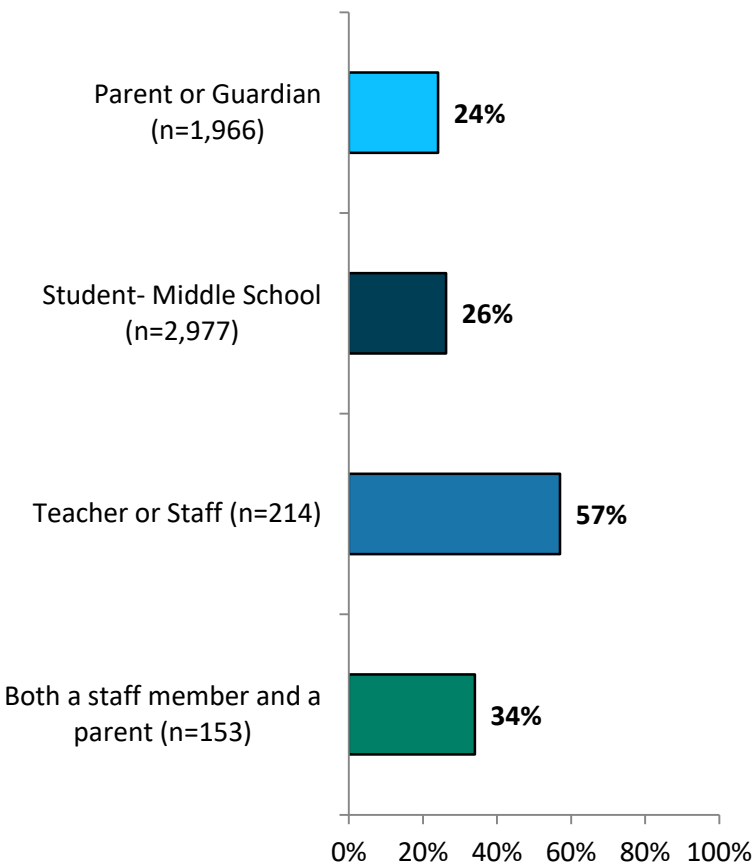
Note: Questions only shown to middle school students, and parents and staff who has a child or works at a middle school.  
Note: Only those respondents who reported dissatisfaction with current school start times were shown the question about preferences for a different start time.



# Middle School- By Stakeholder Group

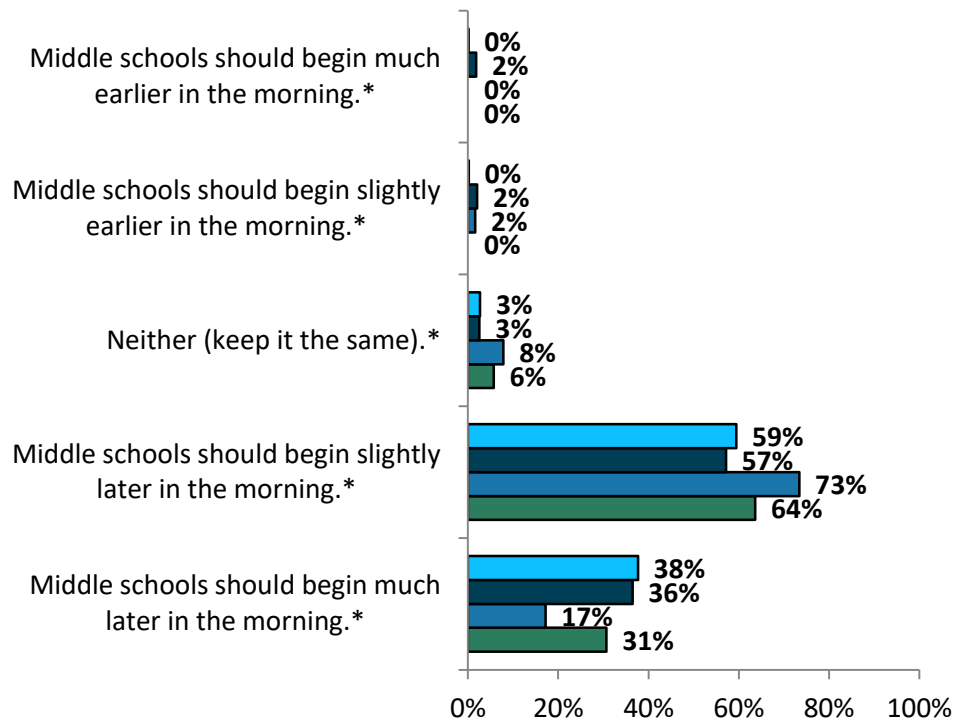
How satisfied are you with the current middle school start time?\*

(% "somewhat" or "completely" satisfied)



Would you prefer that middle schools begin earlier or later than the current school start time?

■ Parent or Guardian (n=1,359)  
■ Student- Middle School (n=1,847)  
■ Teacher or Staff (n=64)  
■ Both a staff member and a parent (n=88)



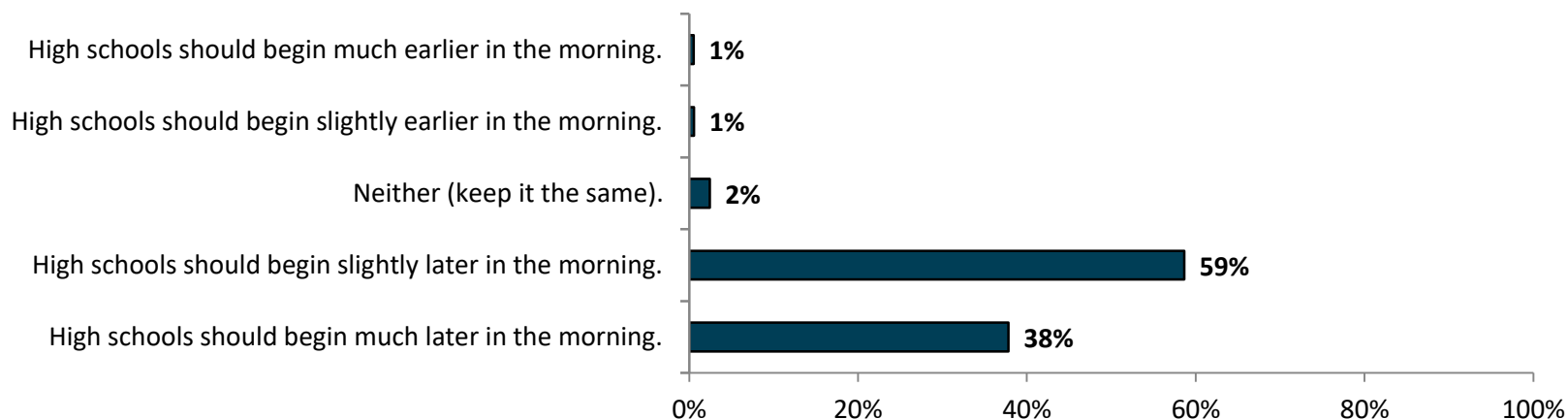
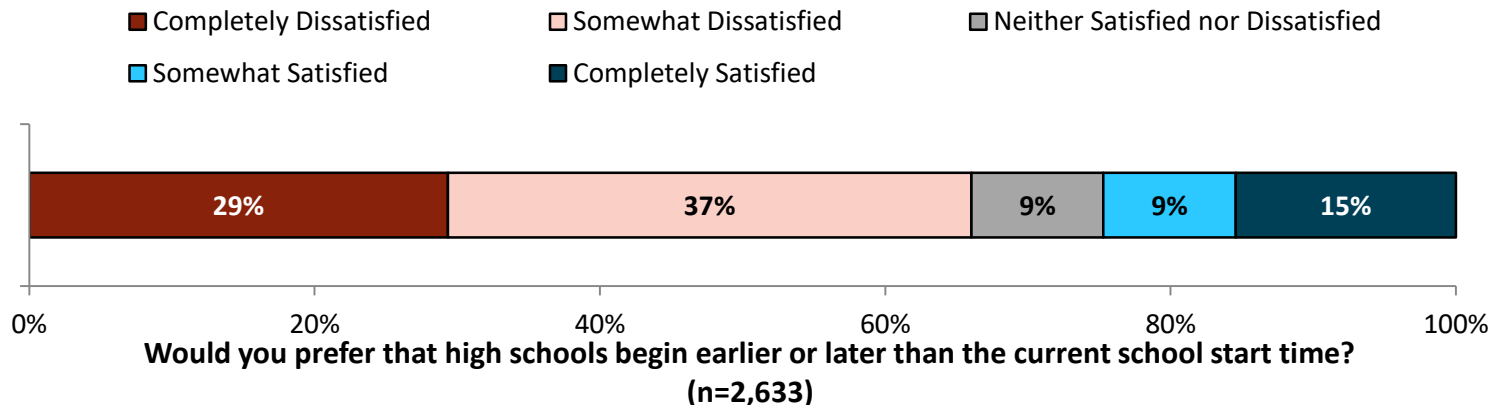
Note: (\*) Denotes statistically significant difference between one or more groups at the 95% confidence level.

Note: Questions only shown to middle school students, and parents and staff who has a child or works at a middle school.

Note: Only those respondents who reported dissatisfaction with current school start times were shown the question about preferences for a different start time.

# High School

**How satisfied are you with the current high school start time?**  
(n=3,991)



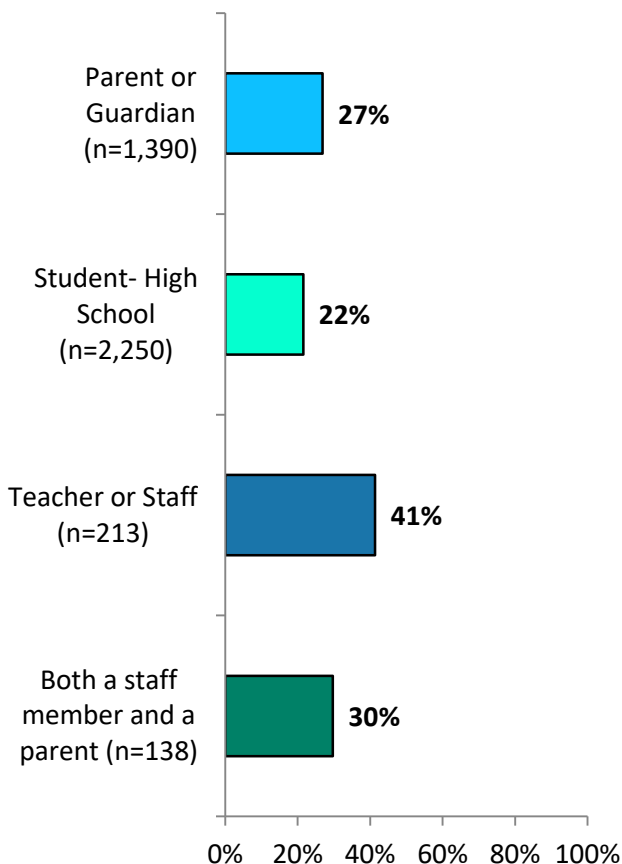
Note: Questions only shown to high school students, and parents and staff who has a child or works at a high school.

Note: Only those respondents who reported dissatisfaction with current school start times were shown the question about preferences for a different start time.

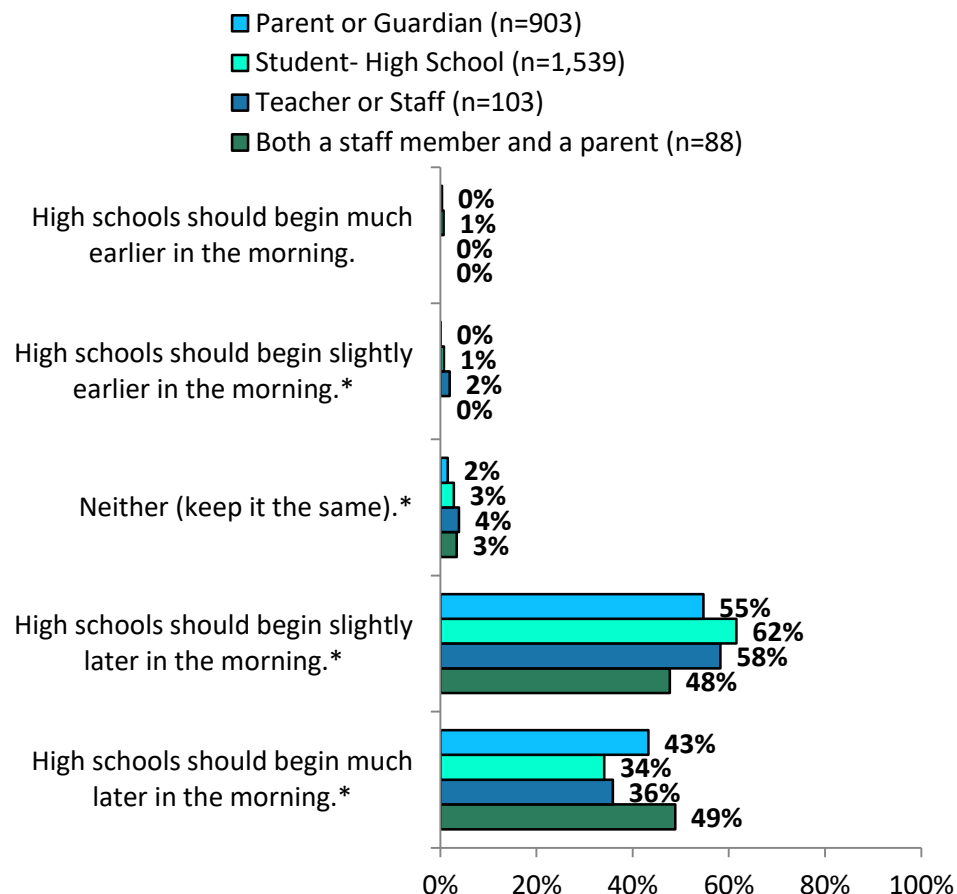
# High School- By Stakeholder Group

How satisfied are you with the current high school start time?\*

(% "somewhat" or "completely" satisfied)



Would you prefer that high schools begin earlier or later than the current school start time?



Note: (\*) Denotes statistically significant difference between one or more groups at the 95% confidence level.

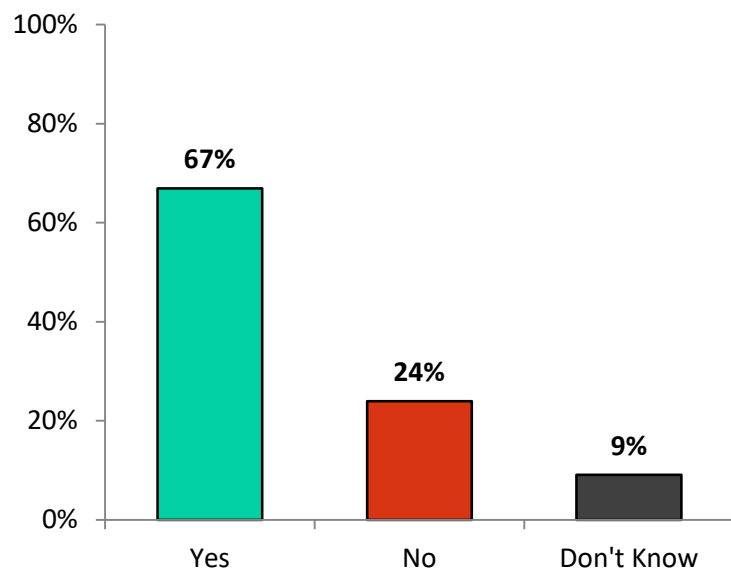
Questions only shown to high school students, and parents and staff who has a child or works at a high school.

Note: Only those respondents who reported dissatisfaction with current school start times were shown the question about preferences for a different start time.

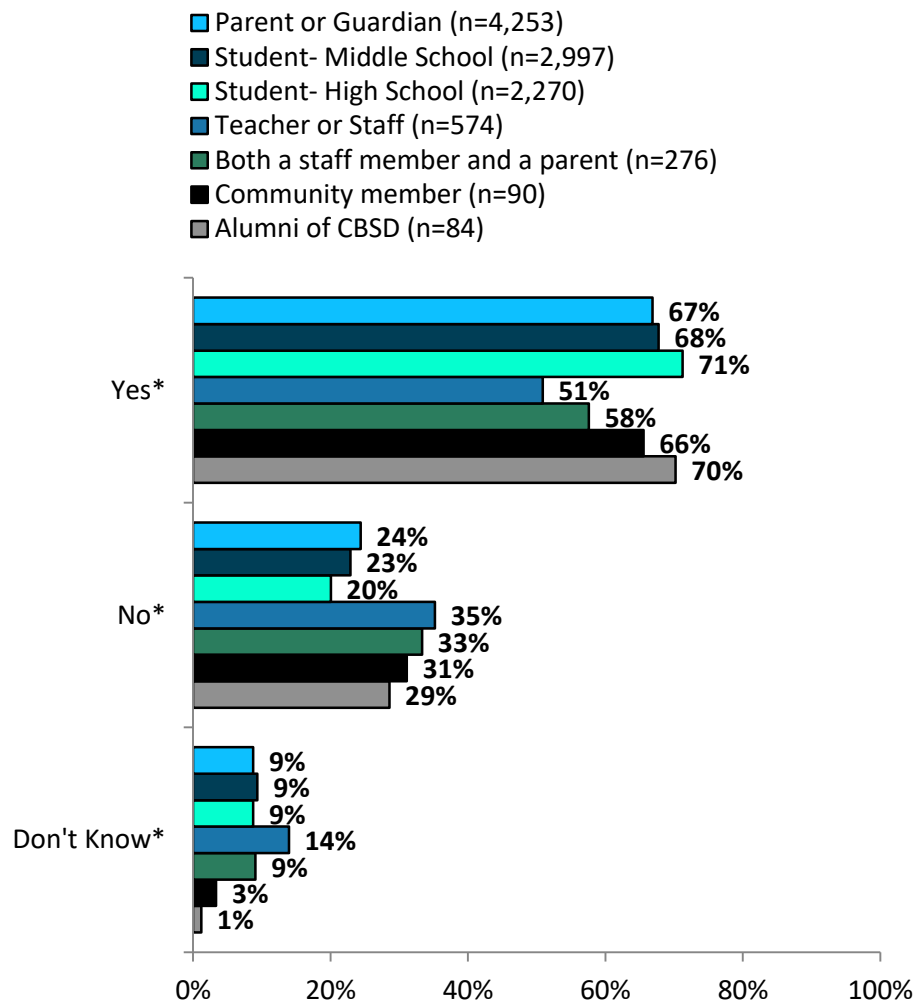
# **SECTION III: PERCEPTIONS OF POTENTIAL START TIMES**

# Perceptions of Potential Start Times

Do you believe CBSD should consider changing the current school start times?  
(n=10,544)



Do you believe CBSD should consider changing the current school start times?

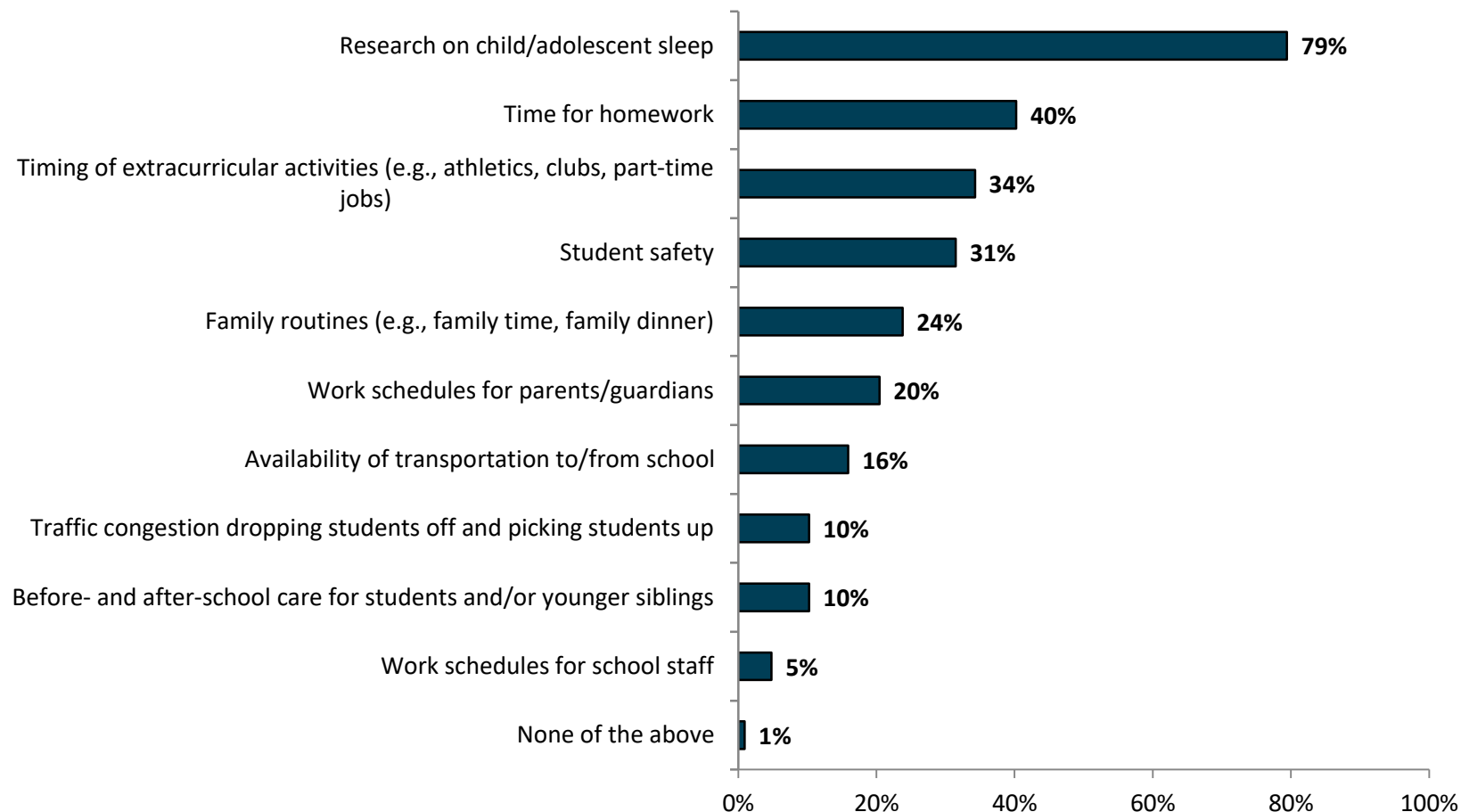


Note: (\*) Denotes statistically significant difference between one or more groups at the 95% confidence level.

# Perceptions of Potential Start Times

In your opinion, which of the following factors are most important for district leaders to consider when setting school start times?

(n=7,024)

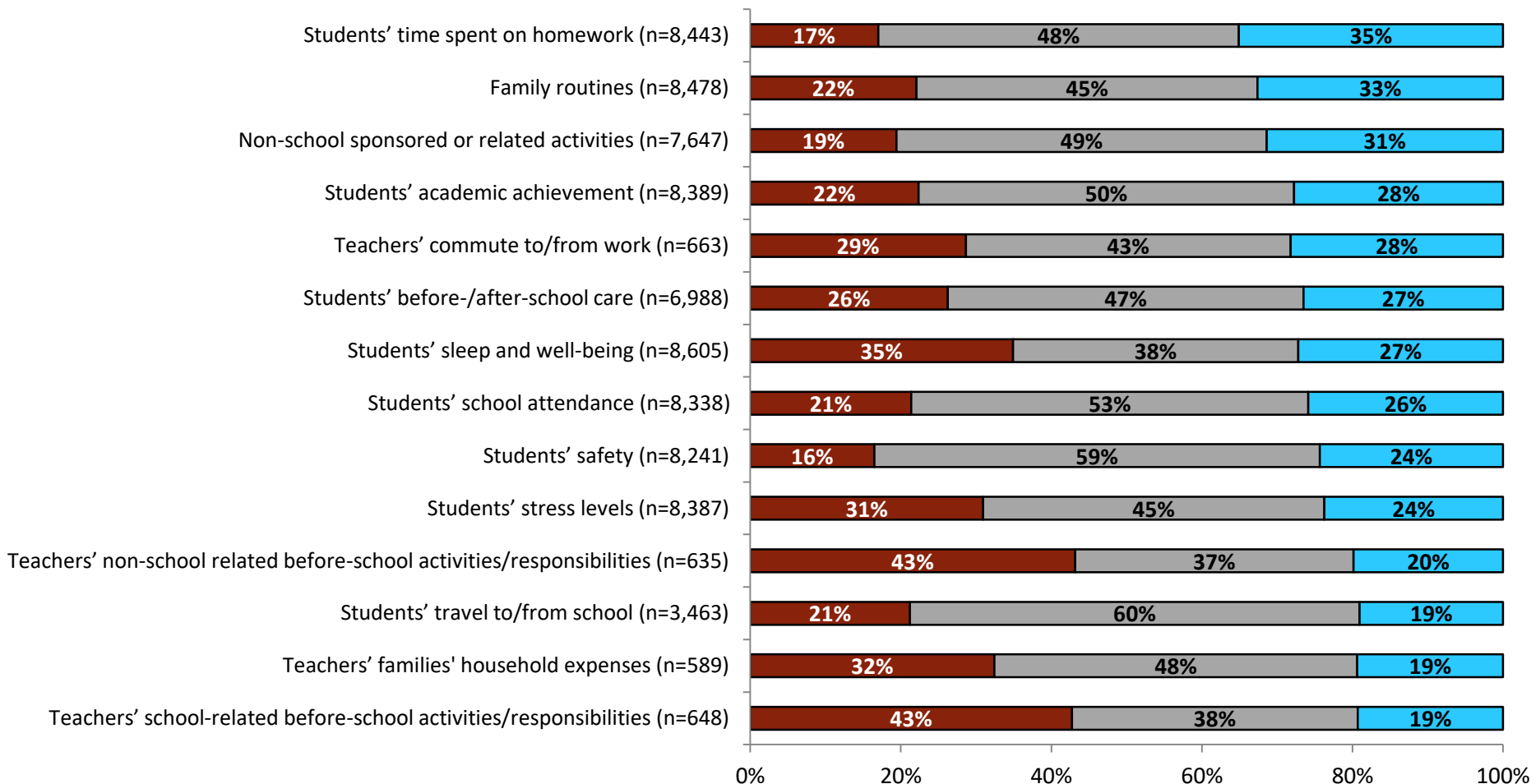


Note: Question only shown to respondents who believe CBSD should change the start time.

# Perceptions of Potential Start Times

Please indicate the type of impact that an earlier elementary school start time would have in each of the following areas.

■ Negative ■ Neutral ■ Positive



Note: Not all statements shown to all respondents.

# % Positive Impact of Earlier Elementary Start Time

Areas	Parent or Guardian (n=2,607-3,354)	Student- Middle School (n=2,414-2,662)	Student- High School (n=1,774-1,901)	Teacher or Staff (n=396-449)	Both a staff member and a parent (n=193-241)
Students' time spent on homework*	29%	39%	41%	33%	33%
Family routines*	28%	35%	36%	33%	39%
Non-school sponsored or related activities*	28%	34%	33%	-	35%
Students' academic achievement*	21%	29%	36%	32%	29%
Teachers' commute to/from work	-	-	-	30%	25%
Students' before-/after-school care*	22%	29%	31%	-	23%
Students' sleep and well-being*	20%	29%	36%	33%	25%
Students' school attendance*	18%	29%	35%	25%	24%
Students' safety*	15%	32%	31%	21%	17%
Students' stress levels*	18%	25%	31%	26%	26%
Teachers' non-school related before-school activities/responsibilities	-	-	-	19%	21%
Students' travel to/from school	19%	-	-	-	20%
Teachers' families' household expenses	-	-	-	18%	21%
Teachers' school-related before-school activities/responsibilities	-	-	-	19%	21%

Note: (\*) Denotes statistically significant difference between one or more groups at the 95% confidence level.

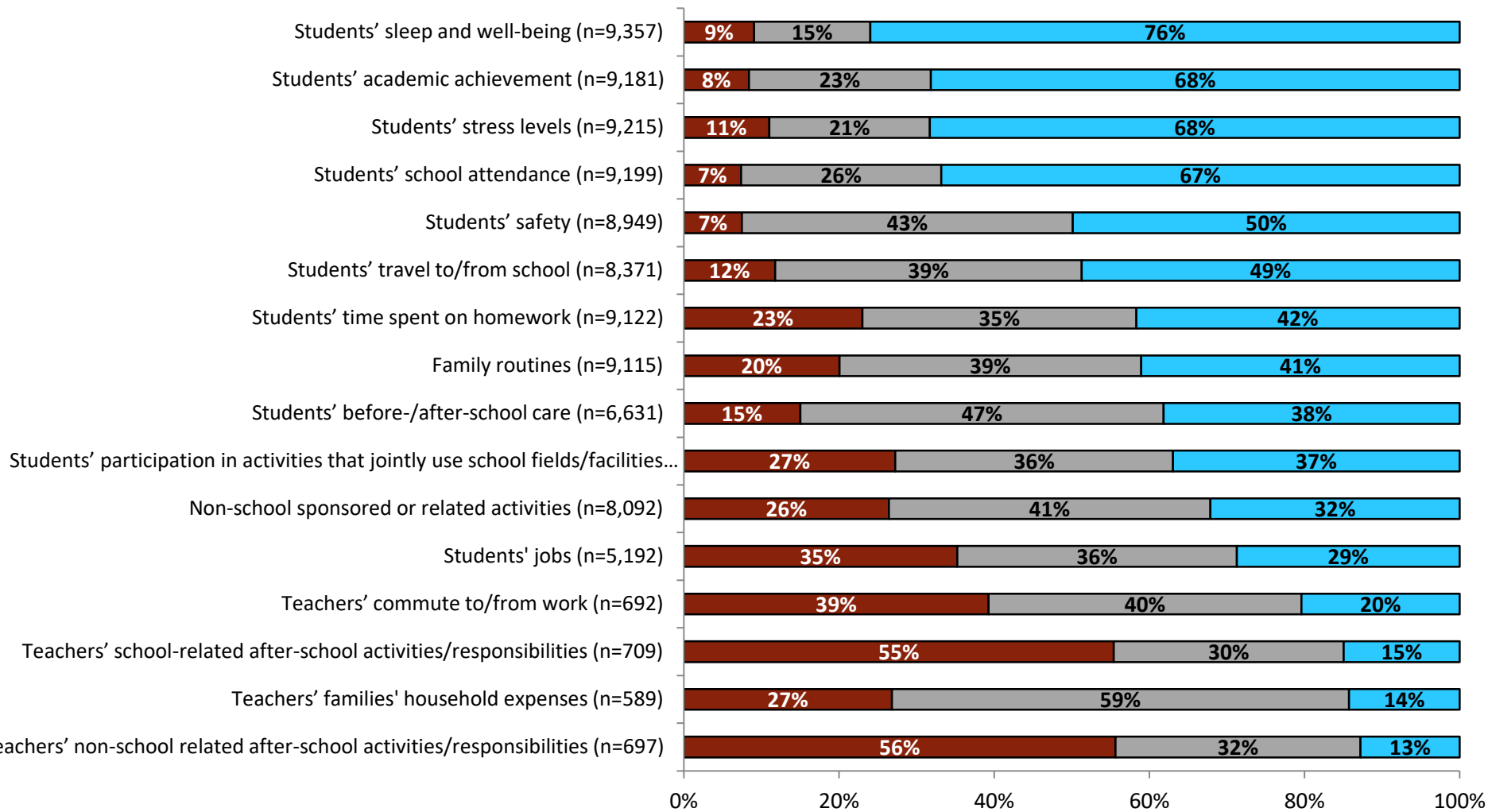
Percent who said "positive" shown.



# Perceptions of Potential Start Times

Please indicate the type of impact that a later high school start time would have in each of the following areas.

■ Negative ■ Neutral ■ Positive



Note: Not all statements shown to all respondents.

# % Positive Impact of Later High School Start Time

Areas	Parent or Guardian (n=2,275-3,647)	Student- Middle School (n=2,372-2,693)	Student- High School (n=1,833-2,102)	Teacher or Staff (n=400-501)	Both a staff member and a parent (n=151-251)	Community member (n=75-84)	Alumni of CBSD (n=69-79)
Students' sleep and well-being*	79%	70%	81%	69%	72%	67%	75%
Students' academic achievement*	69%	65%	74%	58%	63%	67%	70%
Students' stress levels*	73%	60%	74%	60%	62%	66%	74%
Students' school attendance*	63%	65%	77%	61%	67%	63%	73%
Students' safety*	50%	49%	52%	42%	49%	55%	49%
Students' travel to/from school*	45%	50%	54%	-	42%	-	-
Students' time spent on homework*	41%	42%	47%	25%	36%	47%	43%
Family routines*	43%	41%	43%	21%	33%	41%	42%
Students' before-/after-school care*	32%	40%	45%	-	21%	-	-
Students' participation in activities that jointly use school fields/facilities*	34%	43%	42%	15%	18%	29%	45%
Non-school sponsored or related activities*	29%	36%	35%	-	16%	-	-
Students' jobs*	27%	-	33%	-	13%	-	-
Teachers' commute to/from work*	-	-	-	18%	25%	-	-
Teachers' school-related after-school activities/responsibilities	-	-	-	15%	15%	-	-
Teachers' families' household expenses	-	-	-	13%	17%	-	-
Teachers' non-school related after-school activities/responsibilities	-	-	-	12%	14%	-	-

Note: (\*) Denotes statistically significant difference between one or more groups at the 95% confidence level.

Percent who said "positive" shown.

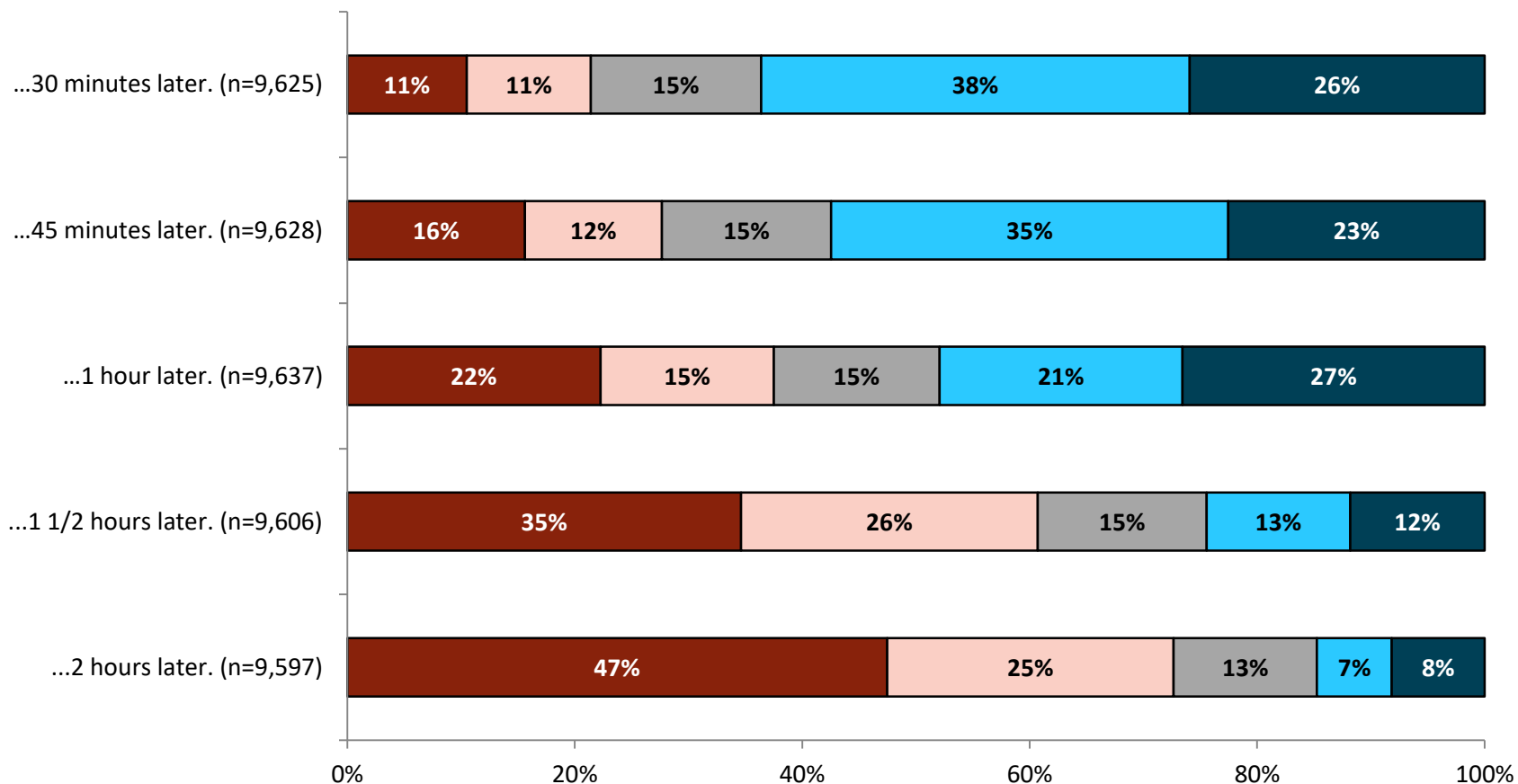
# **SECTION IV: SUPPORT FOR ADOPTING NEW SCHEDULE**

# Support for Adopting New Schedule

Keeping in mind the current start time for CBSD schools, to what degree would you support or oppose the adoption of the following high school schedules?

High school would start and end...

Strongly Oppose Oppose Neither Support nor Oppose Support Strongly Support

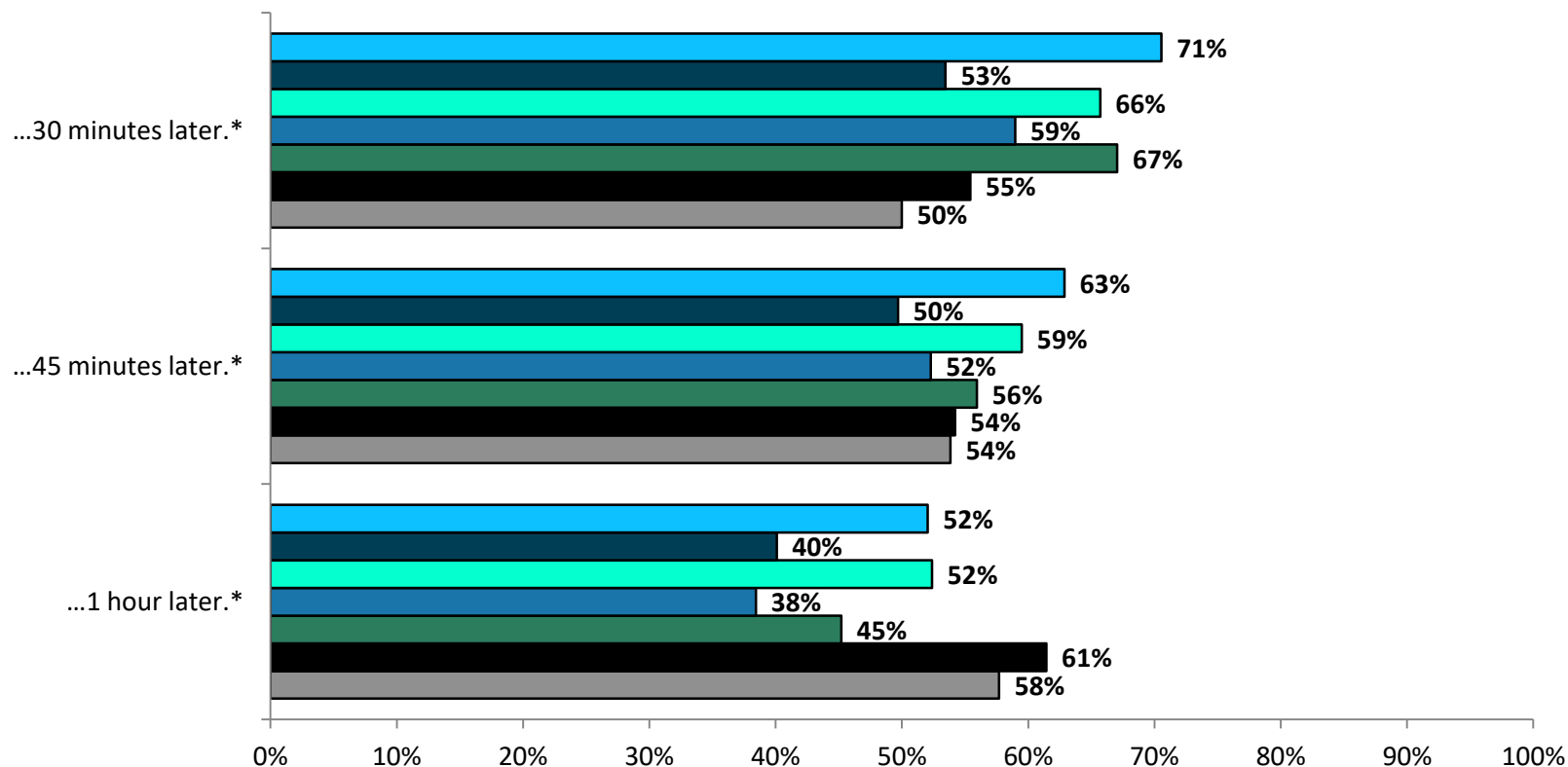


# Support for Adopting New Schedule- Stakeholder Group

Keeping in mind the current start time for CBSD schools, to what degree would you support or oppose the adoption of the following high school schedules?

High school would start and end...

- Parent or Guardian (n=3,818-3,845)
- Student- Middle School (n=2,734-2,743)
- Student- High School (n=2,104-2,109)
- Teacher or Staff (n=520-524)
- Both a staff member and a parent (n=258-261)
- Community member (n=82-83)
- Alumni of CBSD (n=78)

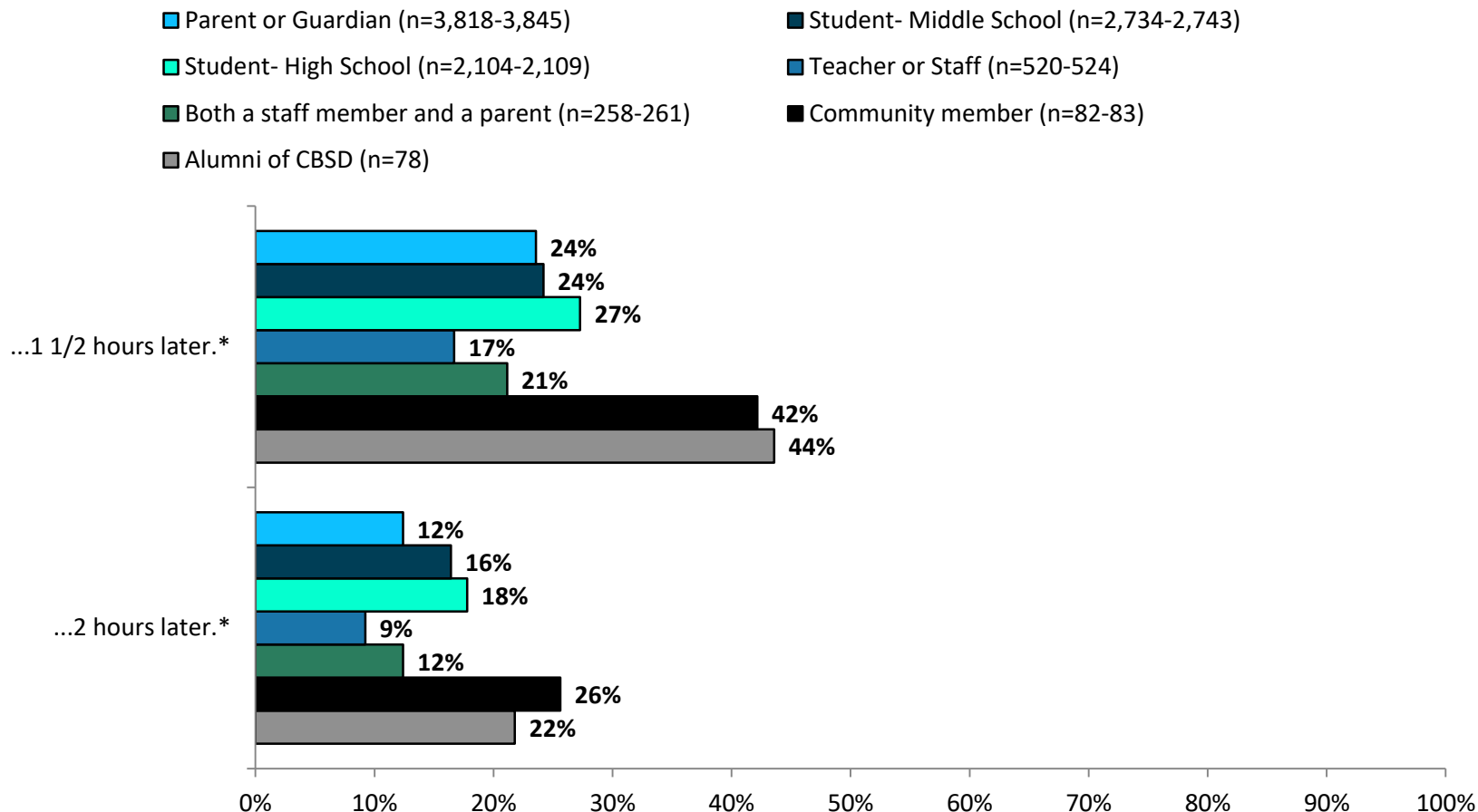


Note: (\*) Denotes statistically significant difference between one or more groups at the 95% confidence level.

# Support for Adopting New Schedule- Stakeholder Group

Keeping in mind the current start time for CBSD schools, to what degree would you support or oppose the adoption of the following high school schedules?

High school would start and end...



Note: (\*) Denotes statistically significant difference between one or more groups at the 95% confidence level.

# **SECTION V: RESPONDENT CHARACTERISTICS**

# Respondent Characteristics: Students and Alumni

CHARACTERISTIC	NUMBER	PERCENT
<b>Which school [do you currently/did you] attend? (n=5,475)</b>		
Central Bucks High School East	966	18%
Central Bucks High School South	825	15%
Tohickon Middle School	800	15%
Unami Middle School	788	14%
Lenape Middle School	725	13%
Central Bucks High School West	608	11%
Tamanend Middle School	596	11%
Holicong Middle School	139	3%
Other	28	1%

CHARACTERISTIC	NUMBER	PERCENT
<b>Please select your current grade level. (n=5,381)</b>		
Pre-Kindergarten	0	0%
Kindergarten	0	0%
Grade 1	1	0%
Grade 2	0	0%
Grade 3	2	0%
Grade 4	2	0%
Grade 5	2	0%
Grade 6	9	0%
Grade 7	1,159	22%
Grade 8	1,011	19%
Grade 9	929	17%
Grade 10	1,072	20%
Grade 11	841	16%
Grade 12	353	7%

Note: Questions shown to students only. Students were shown middle or high school selections based on their response to the following question: “Which of the following best describes your role at Central Bucks School District (CBSD)?” If a student indicated that they were currently enrolled at a middle school, they could select middle schools from the school list. Similarly, students who indicated that they were currently enrolled at a high school could only select high schools from the school list. However, when viewing the grade-level question, middle and high school respondents could select any grade. As a result, some middle school and high school students selected a grade that is misaligned with their school selection.



# Respondent Characteristics: Parents

CHARACTERISTIC	NUMBER	PERCENT
<b>Which school does your child currently attend? (n=4,835)</b>		
Central Bucks High School East	561	12%
Holicong Middle School	554	11%
Central Bucks High School South	553	11%
Central Bucks High School West	479	10%
Lenape Middle School	458	9%
Unami Middle School	451	9%
Tohickon Middle School	392	8%
Tamanend Middle School	364	8%
Butler Elementary School	317	7%
Groveland Elementary School	273	6%
Bridge Valley Elementary School	260	5%
Mill Creek Elementary School	249	5%
Cold Spring Elementary School	221	5%
Kutz Elementary School	200	4%
Warwick Elementary School	193	4%
Gayman Elementary School	181	4%
Doyle Elementary School	180	4%
Jamison Elementary School	177	4%
Titus Elementary School	169	3%
Linden Elementary School	166	3%

CHARACTERISTIC	NUMBER	PERCENT
<b>Which school does your child currently attend? (Continued, n=4,835)</b>		
Buckingham Elementary School	159	3%
Pine Run Elementary School	145	3%
Barclay Elementary School	144	3%
Other	27	1%
<b>Please select your child's grade level. (n=4,835)</b>		
Pre-Kindergarten	85	2%
Kindergarten	402	8%
Grade 1	546	11%
Grade 2	552	11%
Grade 3	567	12%
Grade 4	618	13%
Grade 5	665	14%
Grade 6	813	17%
Grade 7	893	18%
Grade 8	785	16%
Grade 9	764	16%
Grade 10	765	16%
Grade 11	575	12%
Grade 12	410	8%

Note: Questions shown to parents and respondents who are both a staff member and a parent.

# Respondent Characteristics: Staff

CHARACTERISTIC	NUMBER	PERCENT
<b>At which school or site do you currently work? (n=897)</b>		
Barclay Elementary School	33	4%
Bridge Valley Elementary School	23	3%
Buckingham Elementary School	21	2%
Butler Elementary School	33	4%
Central Bucks High School East	108	12%
Central Bucks High School South	108	12%
Central Bucks High School West	88	10%
Cold Spring Elementary School	28	3%
Doyle Elementary School	19	2%
Gayman Elementary School	17	2%
Groveland Elementary School	37	4%
Holicong Middle School	52	6%
Jamison Elementary School	20	2%
Kutz Elementary School	24	3%
Lenape Middle School	79	9%
Linden Elementary School	20	2%
Mill Creek Elementary School	30	3%
Pine Run Elementary School	13	1%
Tamanend Middle School	47	5%
Titus Elementary School	24	3%
Tohickon Middle School	45	5%

CHARACTERISTIC	NUMBER	PERCENT
<b>At which school or site do you currently work? (Continued, n=897)</b>		
Unami Middle School	64	7%
Warwick Elementary School	25	3%
District Office	15	2%
Other	20	2%
None of the above	4	0%
<b>Please select the grade level(s) you currently work with. (n=897)</b>		
Pre-Kindergarten	2	0%
Kindergarten	109	12%
Grade 1	148	16%
Grade 2	144	16%
Grade 3	139	15%
Grade 4	141	16%
Grade 5	140	16%
Grade 6	130	14%
Grade 7	181	20%
Grade 8	191	21%
Grade 9	199	22%
Grade 10	270	30%
Grade 11	269	30%
Grade 12	261	29%
I do not work directly with students	38	4%

# Methodology Notes

- In the following report, results are **segmented** by stakeholder group (parents, middle school students, high school students, staff members, staff members who are also parents, community members, and alumni).
- Sample sizes vary across questions as some questions only pertain to a subset of respondents.
- Conclusions drawn from a small sample size ( $n < 20$ ) should be interpreted with caution.
- For full aggregate and segmented results, please consult the accompanying data supplement.
- Statistically significant difference (95% confidence level) between groups are noted with an asterisk (\*); however, for some charts sample sizes may be small and results should be interpreted with caution.
- The survey was fielded online using the Qualtrics software platform in April and May 2019.
- After data collection, Hanover identified and removed low-quality 67 respondents.
- “Don’t Know or Not Applicable” responses, and equivalent, are often excluded from the figures and analysis in order to focus on respondents who did express an opinion.



# PROJECT EVALUATION FORM

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