

Knowledge of and Reactions to the Coronavirus Among High School Students

A Survey of High School Students in Barrow County



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APALACHEE
HIGH SCHOOL



WINDER-BARROW
HIGH SCHOOL

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Executive Summary

Background. Among the myriad of societal upheavals instigated by the coronavirus (COVID-19) outbreak, the pandemic has caused an unprecedented disruption in our nation's education system and the well-being of students. The Centers for Disease Control and Prevention (CDC) suggests that children and teenagers may respond more strongly to the stress of a crisis, such as the current coronavirus pandemic. This stress may manifest in fear, anxiety, or changes in sleep and eating patterns¹ To the study team's knowledge, there have been no assessments of high school-age adolescents' anxieties and behaviors amidst the coronavirus pandemic.

Description of Study. The aim of this study was to assess students' knowledge and misconceptions about the coronavirus, level of anxiety among students, how sleep habits have changed during the pandemic, and identify which resources students turn to for information on the pandemic. The target population of this study were students from two semi-rural public high schools in Barrow County, Georgia - Apalachee High School (AHS) and Winder-Barrow High school (WBHS), following the school closures on March 16, 2020. A cross-sectional online survey of students was conducted between March 30, 2020 and May 8, 2020. A total of 761 students completed the survey, 431 from AHS and 330 from WBHS.

Key Findings. The majority of students are somewhat to extremely worried about the coronavirus pandemic in general and harbor a high level of concern about themselves or a family member becoming infected, as most students from both schools believe it would be very serious. Students are generally very or extremely nervous about the financial impact of the coronavirus pandemic on their family.

Over half of the students from both schools reported feeling nervous/anxious and depressed/hopeless for at least one day. Listening to music was the top coping strategy reported by students from both schools. Over 70% of the students from both schools reported more screen time since school closed. Students reported going to bed later and waking up later in the two weeks after school closed. Over half of the students from both schools reported trouble falling asleep. Approximately 20% of the students from both high schools reported feeling either very or extremely worried about the impact of the coronavirus on their grades, college admissions, and career trajectories. The top reported obstacles to online learning were unclear expectations from teachers and feeling isolated from other students. Over 40% of students from both schools believe they can excel academically and that they have adjusted to online learning. The most popular requests for additional resources for online learning are extra credit opportunities, more clear communication from teachers, and more lenient grading.

Students are generally well-informed about the symptoms and risks of the coronavirus. Most students get their information on coronavirus from family, traditional news sources, and friends. Almost all the students (95%) from both schools reported the elderly may be at higher risk for serious health consequences due to the coronavirus. Most students reported that they and their family members are taking recommended measures to protect themselves, and either most or all of their friends have acted appropriately in slowing the spread of coronavirus.

Methods

Study Design. A cross-sectional, one-time online survey was conducted to assess high school students' knowledge of and reactions to the COVID-19 pandemic following the arrival of COVID-19 in the United States and the subsequent closure of Georgia public schools on March 16, 2020.

Study Population. This study was conducted among a convenience sample of students from grades 9 through 12 from Apalachee High School (AHS) and Winder-Barrow High School (WBHS). AHS and WBHS are racially and economically diverse public high schools in a semi-rural area in north-central Georgia. All students (n=3,946) were eligible to participate. Parents were provided with the opportunity to opt their children out of participating in the study, and all youth indicated assent prior to completing the survey. Students were recruited to participate in the survey from an email sent by school administrators, as well as promotion on school social media accounts. Among eligible students, 19.3% (n=761) participated in the study, including 22.4% (n=431) of students at AHS and 16.3% (n=330) of students at WBHS. All students were eligible to participate in a raffle to receive one of 50 \$25 Amazon gift cards. A subset of participants (87.5%, n=666) assented to have their survey data linked to demographic, educational, and fitness data provided by the school district. The Emory University Institutional Review Board approved the study protocol and instruments.

Data Sources. Two data sources were used for this study: 1) online survey; and 2) School district demographic, education, and fitness data. The survey was developed by researchers at Emory University. Where possible, established survey instruments were used or slightly adapted to measure desired constructs. The survey was organized by content area, including: stress and mental health, academic success and confidence, COVID-19 knowledge and pandemic behaviors, and sleep habits. Researchers pilot tested the survey with several local high school students to gain input on survey measures, length, and flow. Additionally, school administrators were provided with the opportunity to review and provide feedback. The survey was conducted online via Qualtrics (Qualtrics, Provo, UT) in English, and contained 54 questions, the majority of which were multiple choice. It took participants approximately 10 minutes to complete the survey. All survey questions were optional. The survey link was emailed to eligible students' school email addresses by school administrators on March 30, 2020. School administrators continued to promote the survey throughout April 2020, and the survey link was active through May 8, 2020.

Demographic, educational, and fitness data were collected and provided for the subset of assenting participants by the school district. Demographic data included age, gender, race, ethnicity, grade, school, and free or reduced lunch eligibility

Analysis. All participants were included in the analysis. The analyses in this report provides descriptive frequencies for each survey question by high school. Additional analyses are also being conducted to examine demographic differences in responses (race/ethnicity, gender, and free and reduced eligibility) and will be shared with the participating schools when completed.

Results

Demographics

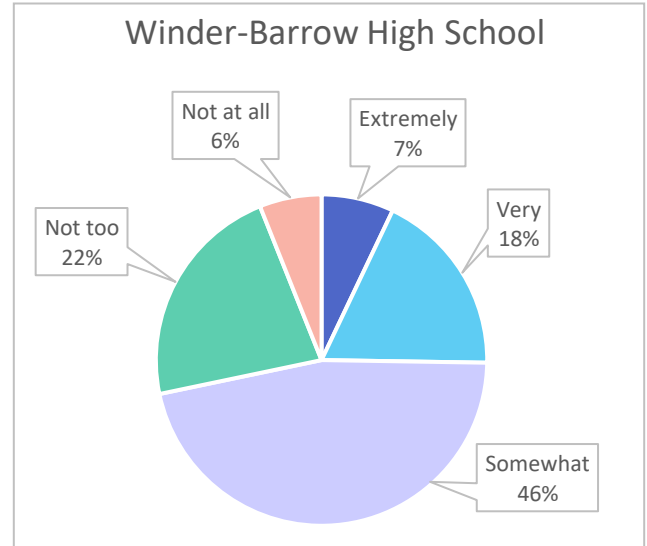
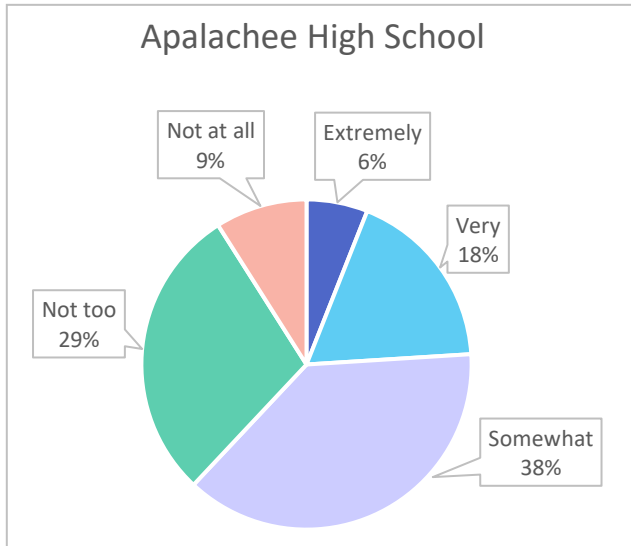
Sociodemographic Characteristics of Participants (n= 761)		
	Apalachee	Winder-Barrow
Participants		
Sample size	431	330
Response rate	22.4%	16.3%
Gender		
Male	39%	36%
Female	59%	63%
Non-Binary	2%	1%
Ethnicity		
Hispanic, Latino/a or Spanish Origin	20%	22%
No Hispanic, Latino/a or Spanish Origin	80%	78%
Race*		
White	74%	81%
Black or African American	25%	13%
American Indian or Alaska Native	3%	4%
Asian	6%	6%
Native Hawaiian or Pacific Islander	2%	1%
Grade		
9 th	36%	28%
10 th	25%	29%
11 th	25%	23%
12 th	14%	20%
Eligible for Free and Reduced Lunch		
Yes	47%	38%
No	53%	62%

*Select all that apply

Results

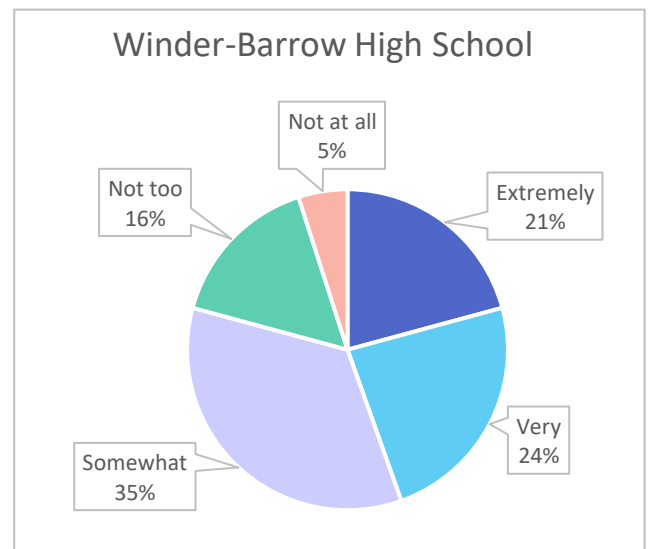
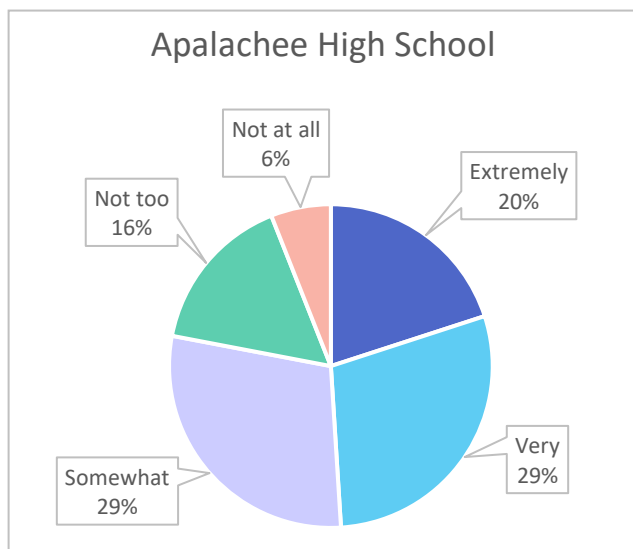
Stress and Mental Health

Generally, how worried are you about the coronavirus pandemic?



Key Finding: The top response reported by students from both high schools was “Somewhat worried.”

How worried are you about you or someone in your family becoming infected with the coronavirus?

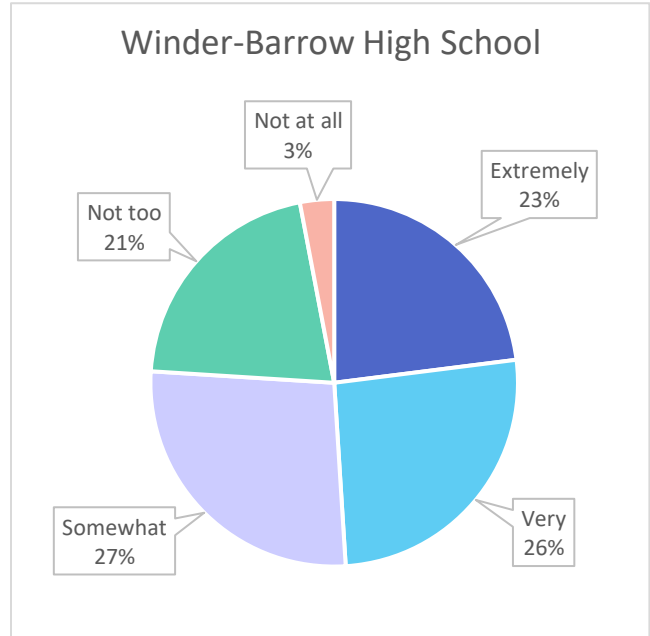
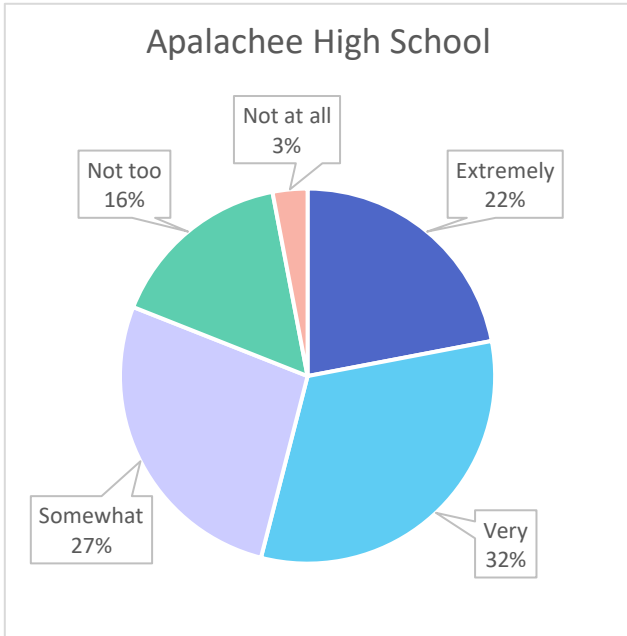


Key Finding: The top response reported by students from both high schools was “Somewhat worried.”

Results

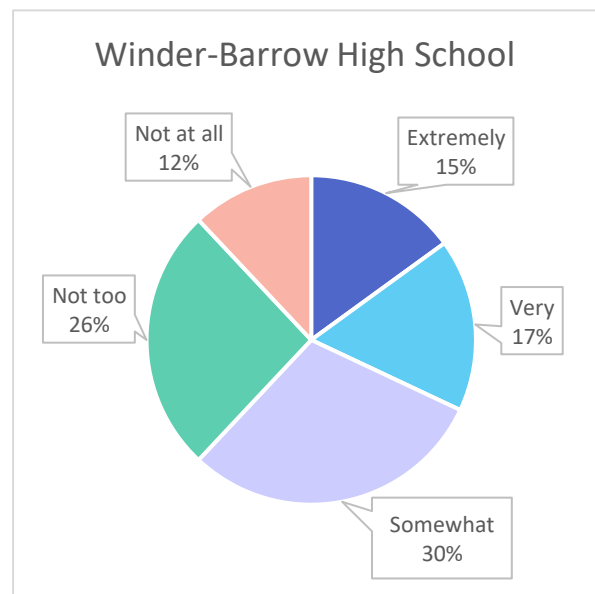
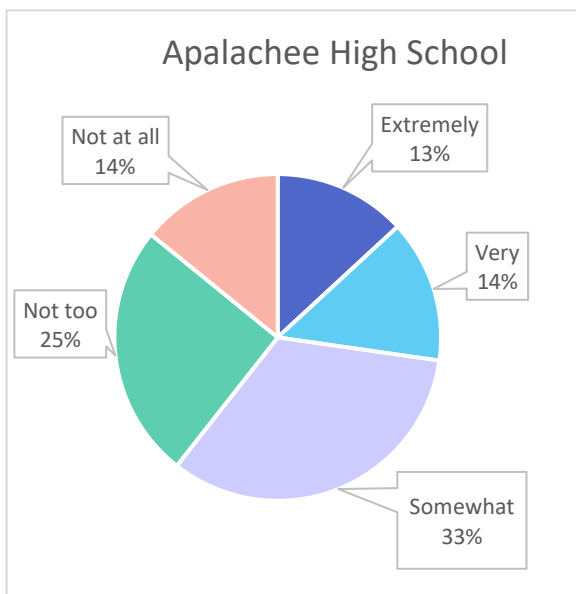
Stress and Mental Health

If you got coronavirus, how serious do you think it would be?



Key Findings: The top response reported by Apalachee High School students was “Very serious” and the top response reported by Winder-Barrow High School students was “Somewhat serious.”

How worried are you about the financial impact of the coronavirus pandemic on you and your family?



Key Findings: The top response for students from both high schools was feeling “Somewhat worried.”

Results

Stress and Mental Health

How safe do you feel from the coronavirus when you are in each of the following places?

Apalachee High School					
	Very unsafe	Somewhat unsafe	Neither safe nor unsafe	Somewhat safe	Very safe
Inside your home	2%	1%	3%	19%	75%
Outdoors in public spaces (e.g., in a park or walking around your neighborhood)	6%	18%	20%	39%	17%
Indoors in public spaces (e.g., in a grocery store)	20%	33%	25%	16%	6%

Winder-Barrow High School					
	Very unsafe	Somewhat unsafe	Neither safe nor unsafe	Somewhat safe	Very safe
Inside your home	5%	1%	2%	18%	75%
Outdoors in public spaces (e.g., in a park or walking around your neighborhood)	7%	18%	17%	38%	20%
Indoors in public spaces (e.g., in a grocery store)	15%	35%	22%	22%	6%

Key Findings: The top response reported by students from both high schools was feeling “Very safe” inside one’s home, “Somewhat safe” outdoors in public spaces, and “Somewhat safe” indoors in public spaces.

Results

Stress and Mental Health

In the past seven days, how often have you felt:

Apalachee High School				
	Not at all or less than 1 day	1-2 days	3-4 days	5-7 days
Nervous, anxious, or on edge	43%	25%	19%	13%
Down, depressed, or hopeless	42%	27%	16%	14%
Lonely or isolated from others	31%	26%	21%	23%
Stressed	23%	22%	25%	30%

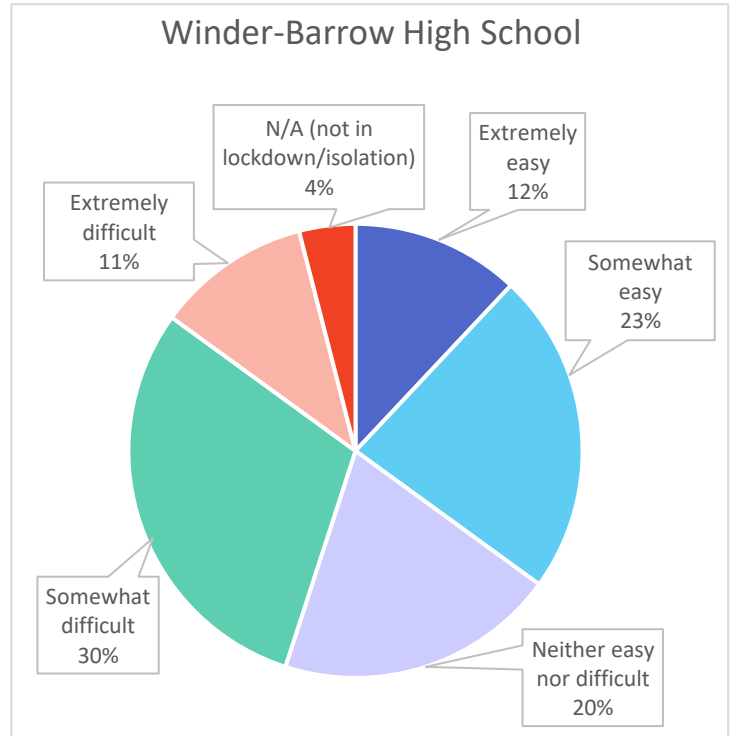
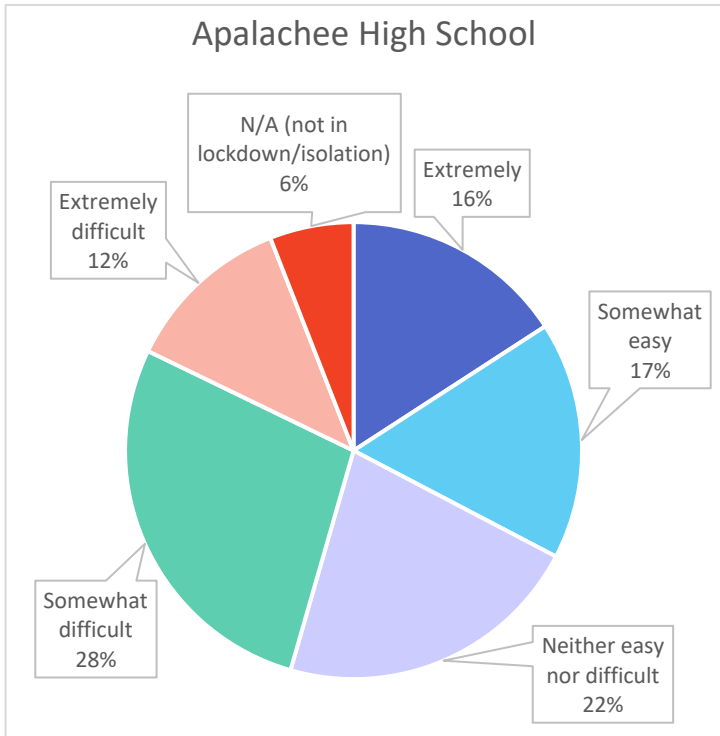
Winder-Barrow High School				
	Not at all or less than 1 day	1-2 days	3-4 days	5-7 days
Nervous, anxious, or on edge	41%	30%	18%	12%
Down, depressed, or hopeless	47%	24%	13%	15%
Lonely or isolated from others	34%	23%	19%	24%
Stressed	28%	28%	22%	22%

Key Findings: Over half of the students from both high schools reported feeling nervous/anxious and depressed/hopeless for at least one day.

Results

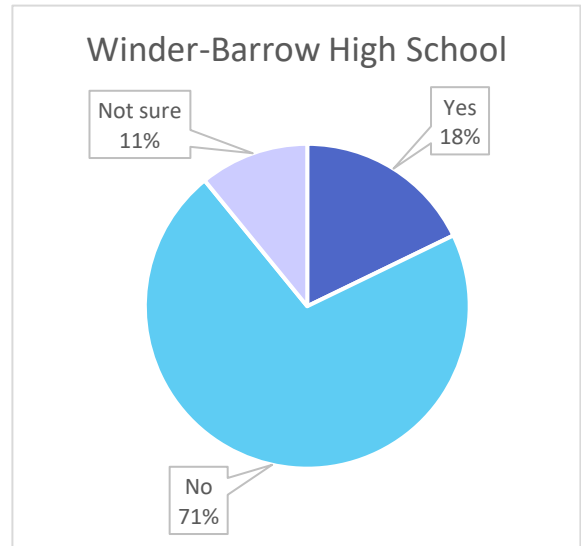
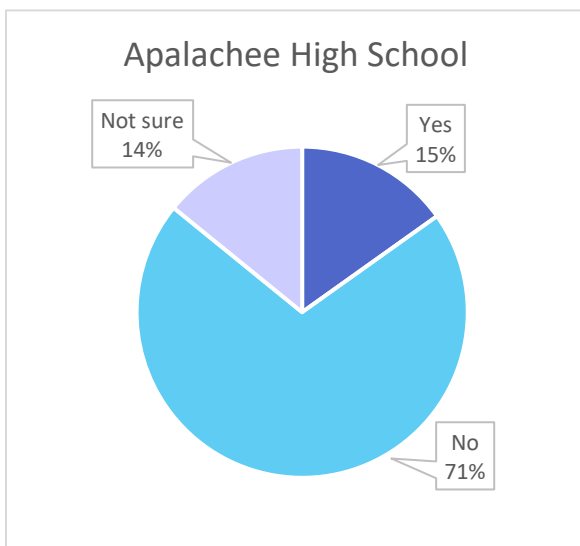
Stress and Mental Health

How difficult has it been for you to adjust to social distancing/quarantine with all members of your family?



Key Findings: The top responses for students from both high schools were “Somewhat difficult,” followed by “Neither easy nor difficult.”

Have you, or any of your family members or close friends, been infected with the coronavirus?



Key Findings: The majority of students from both high schools reported “No.”

Results

Stress and Mental Health

What strategies are you using to cope with stress, fear, or anxiety during the coronavirus pandemic? Select all that apply.

	Apalachee	Winder-Barrow
Listening to music	69%	68%
Watching TV or movies	59%	62%
Sleeping	54%	55%
Using social media	49%	53%
Talking to friends	46%	52%
Physical activity	43%	54%
Eating	43%	42%
Talking to family	35%	43%
Learning a new hobby or skill	32%	38%
Reading	19%	22%
Mindfulness, meditation, or deep breathing	13%	11%
Taking medication	6%	7%
Other*	14%	8%

*“Other” responses include:

- ✓ Work or School Assignments
- ✓ Hobby or Activity (not a new skill but a pre-existing hobby)
- ✓ Video Games
- ✓ Prayer or Religion
- ✓ Crying

Key Findings: Listening to music was the highest reported coping strategy for students from both high schools, whereas taking medication was the lowest reported strategy for students from both high schools.

Results

Academic Success and Confidence

How worried are you about the impact of the coronavirus pandemic on each of the following?

Apalachee High School					
	Not at all worried	Not too worried	Somewhat worried	Very worried	Extremely worried
My grades and/or high school graduation	18%	26%	24%	15%	17%
My college admissions and enrollment	38%	26%	19%	9%	9%
My career trajectory and employment opportunities	30%	28%	24%	9%	10%

Winder-Barrow High School					
	Not at all worried	Not too worried	Somewhat worried	Very worried	Extremely worried
My grades and/or high school graduation	20%	19%	27%	18%	16%
My college admissions and enrollment	32%	23%	23%	12%	9%
My career trajectory and employment opportunities	30%	24%	26%	10%	9%

Key Findings: Approximately 20% of the students from both high schools reported feeling either very or extremely worried about the impact of coronavirus on grades, college admissions, and career trajectories.

Results

Academic Success and Confidence

How much do you agree with the following statement?

Apalachee High School					
	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
I believe that I can excel academically during the coronavirus pandemic	16%	20%	20%	29%	17%
I have done a good job adjusting to online learning	19%	17%	14%	30%	20%

Winder-Barrow High School					
	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
I believe that I can excel academically during the coronavirus pandemic	20%	20%	20%	24%	16%
I have done a good job adjusting to online learning	25%	21%	11%	28%	14%

Key Findings: At least 40% of the students from both high schools believe they can excel academically and that they have adjusted to online learning.

Results

Academic Success and Confidence

How satisfied are you with the responsiveness and support provided by each of the following people at your school?

Apalachee High School					
	Extremely dissatisfied	Somewhat dissatisfied	Neither satisfied nor dissatisfied	Somewhat satisfied	Extremely satisfied
Your teachers	3%	8%	19%	35%	34%
Guidance counselors	7%	8%	41%	22%	23%
Principal and/or school administrators	5%	7%	37%	24%	27%

Winder-Barrow High School					
	Extremely dissatisfied	Somewhat dissatisfied	Neither satisfied nor dissatisfied	Somewhat satisfied	Extremely satisfied
Your teachers	5%	9%	28%	34%	23%
Guidance counselors	6%	7%	47%	22%	17%
Principal and/or school administrators	5%	7%	42%	25%	21%

Key Findings: Over half of the students from both high schools reported satisfaction with their teachers. Over a third of the students from both high schools reported satisfaction with their guidance counselors. Approximately half of the students from both high schools reported satisfaction with their school administration.

Results

Academic Success and Confidence

Have you experienced any of the following obstacles during online learning?
Select all that apply.

	Apalachee	Winder-Barrow
Unclear expectations from teachers	44%	55%
Feeling isolated from other students	42%	47%
Internet access/connectivity issues	34%	34%
Difficulty communicating with teachers	30%	34%
No quiet place to learn in my home	27%	23%
Tools/technology not working as expected	25%	27%
Lack of technology/devices (e.g., laptop, tablet)	9%	7%
Other*	10%	10%

*“Other” responses include:

- ✓ Too much work
- ✓ No motivation, no energy
- ✓ No focus, distractions, no routine, competing responsibilities
- ✓ Stress and anxiety
- ✓ Limited instruction or structure from teachers, difficulty with online learning

Key Findings: Unclear expectations from teachers was the highest reported response, whereas lack of technology/devices (e.g., laptop, tablet) was the lowest reported response by students from both schools.

Results

Academic Success and Confidence

What additional resources or services could your school and/or teachers provide to help you with online learning? Select all that apply.

	Apalachee	Winder-Barrow
More extra credit opportunities	44%	43%
More clear communication from teachers	39%	46%
More lenient grading policy	32%	47%
More group interaction (with other students)	21%	28%
More recorded lessons	21%	22%
More structure	20%	26%
More live lessons	16%	20%
More clear communication from administrators	12%	15%
More mental health counseling services or resources	11%	16%
More devices, tools, or technology (e.g., laptop, tablet)	8%	7%
More academic/college counseling services or resources	8%	11%
Other	2%	2%

Key Findings: Students from both high schools ranked more extra credit opportunities, more clear communication from teachers, and more lenient grading policy in the top three responses.

Results

Coronavirus Information

Where do you get information on the coronavirus? Select all that apply.

	Apalachee	Winder-Barrow
Family	77%	81%
Traditional news sources, including TV, radio, websites, and newspapers	50%	54%
Friends	42%	47%
Centers for Disease Control and Prevention (CDC)	36%	53%
Instagram	35%	40%
YouTube	29%	24%
State/local government officials (e.g., mayor, governor)	28%	41%
Teachers or school	24%	26%
Healthcare providers	21%	35%
World Health Organization (WHO)	20%	33%
Trump Administration	17%	25%
Facebook	16%	16%
Twitter	14%	17%
Other	2%	2%

Key Findings: Students from both high schools ranked family, traditional news sources, and friends in the top three responses.

Results

Coronavirus Information

Which symptoms are associated with the coronavirus? Select all that apply.

	Apalachee	Winder-Barrow
Cough	74%	80%
Shortness of breath or difficulty breathing	71%	80%
Fever	68%	76%
Fatigue or tiredness	45%	58%
Loss of taste or smell	44%	55%
Sore throat	43%	52%
Chest congestion	41%	47%
Headache	39%	47%
Muscle aches or pain	34%	42%
Chills	32%	39%
Sneezing	25%	25%
Runny or stuffy nose	25%	23%
Nausea	24%	21%
Vomiting	15%	16%
Diarrhea	14%	16%
No symptoms	6%	6%
Other*	2%	1%

*Other” responses include:

✓ Pneumonia/flu

Key Findings: The top three responses by students from both high schools in order were: Cough, shortness of breath or difficulty breathing, and fever.

Results

Coronavirus Information

Which people may be at higher risk for serious health consequences due to the coronavirus? Select all that apply.

	Apalachee	Winder-Barrow
Elderly	95%	95%
People with respiratory conditions	77%	79%
People with asthma	73%	72%
People with heart disease	58%	61%
People who are immunocompromised	52%	55%
People who smoke cigarettes or vape	49%	55%
Infants	49%	52%
People with diabetes	47%	56%
People with high blood pressure	38%	45%
People with the flu	29%	28%
Unvaccinated	28%	25%
People who are obese	25%	35%
People with a cold	20%	19%
Teenagers	3%	2%

Key Findings: Almost all of the students (95%) from both high schools reported the elderly may be at higher risk for serious health consequences due to the coronavirus.

What do you think social distancing involves? Select all that apply.

	Apalachee	Winder-Barrow
Keeping distance between you and other people	92%	93%
Not hugging people outside your household	79%	84%
Not shaking hands with people	79%	82%
Not leaving the house	54%	56%
Not seeing other people	47%	51%
Not playing with other people's pets	44%	45%
Not leaving your room	6%	3%
Cutting off communication with others	5%	5%
Other*	2%	2%

*"Other" responses include:

✓ Stay 6 feet apart

Key Findings: The top response reported by students from both high schools was "Keeping distance between you and other people."

Results

Pandemic Behaviors

In the past two weeks, which of the following social distancing measures did you and your family take in response to the coronavirus pandemic? Select all that apply.

	Apalachee	Winder-Barrow
Staying home as much as possible	85%	89%
Avoiding or limiting time spent in public crowded places (e.g., grocery stores or drugstores)	74%	80%
Avoiding group gatherings (e.g., going to parties or friends' houses)	73%	80%
Staying at least 6 feet from other people (outside my household)	72%	79%
Avoiding travel	60%	61%
Not going to work, including working from home	21%	29%
Other	1%	1%

Key Findings: The top response reported by students from both high schools was “Staying home as much as possible.”

In the past two weeks, which of the following additional measures did you or your family take in response to the coronavirus pandemic? Select all that apply.

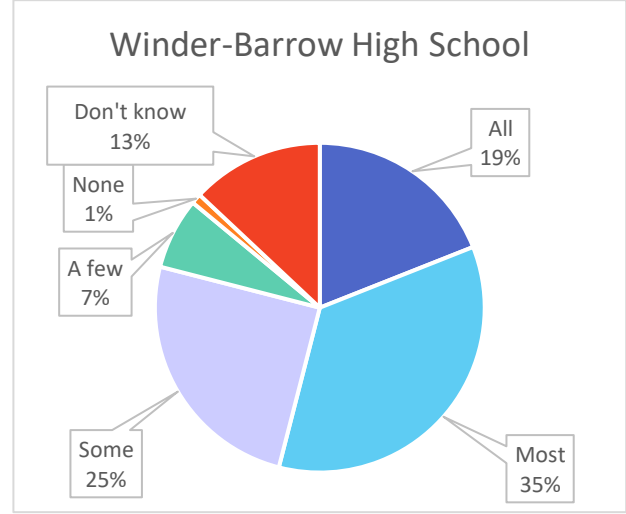
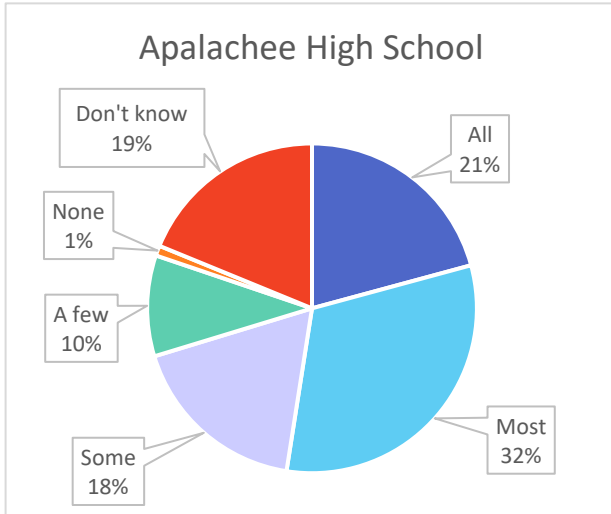
	Apalachee	Winder-Barrow
Washing hands with soap more frequently	87%	87%
Using hand sanitizer frequently	73%	78%
Cleaning and disinfecting surfaces frequently	70%	77%
Wearing a face mask	70%	73%
Covering coughs and sneezes using a tissue	63%	65%
Avoiding touching your face	57%	69%
Stocking up on extra food or water	57%	56%
Wearing gloves	38%	39%
Consulting with a health care provider (e.g., a doctor)	13%	8%
Other	0%	1%

Key Findings: The top response reported by students from both high schools was “Washing hands with soap more frequently” followed by “Using hand sanitizer frequently.”

Results

Pandemic Behaviors

In the past two weeks, [how many of your friends] do you think have acted appropriately in slowing the spread of the coronavirus?



Key Findings: More than half of the students from both high schools reported either most or all of their friends have acted appropriately.

How has your behavior changed since school closed? Select all that apply.

	Apalachee	Winder-Barrow
More screen time (e.g., TV, computer, phone) aside from classes	84%	79%
Less physical activity	42%	40%
More time spent caring for younger siblings or family members	39%	37%
Eating less healthy	38%	40%
More physical activity	38%	39%
Eating healthier	24%	25%
Less screen time (e.g., TV, computer, phone) aside from classes	4%	4%
Other*	4%	4%

*"Other" responses include:

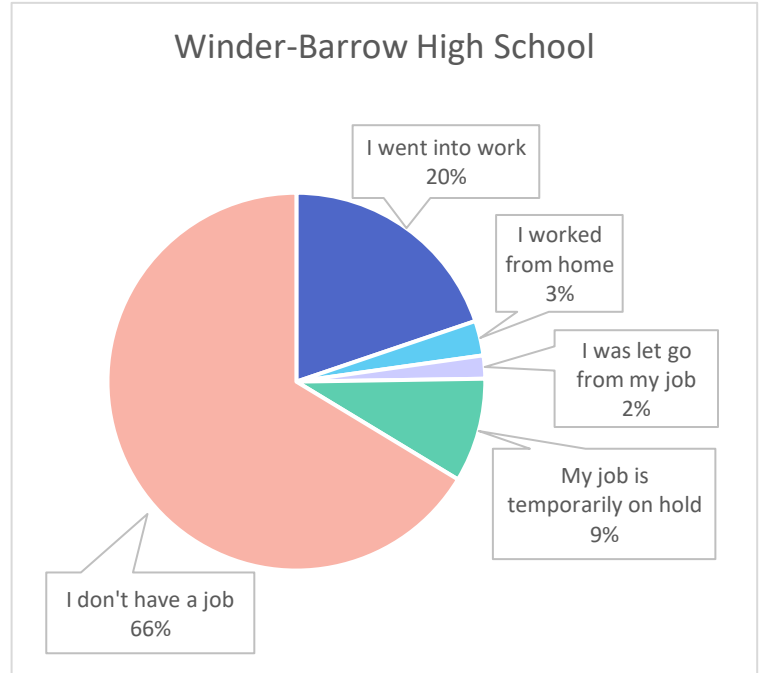
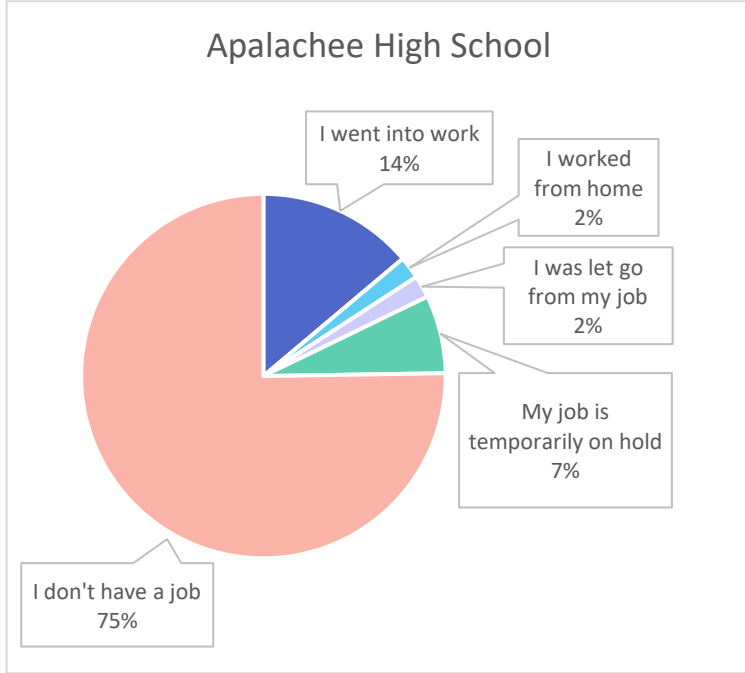
- ✓ Family Engagement
- ✓ Food intake or Weight Change
- ✓ Distress, Depression, Restlessness
- ✓ Improved Mood
- ✓ More School Work

Key Findings: The top response reported by students from both high schools was more screen time, followed by less physical activity.

Results

Pandemic Behaviors

In the past two weeks, did you work at a job?



Key Findings: The top response reported by students from both high schools was “I don’t have a job.”

Results

Sleep Behaviors

- Before the coronavirus pandemic, what time did you usually wake up on school days? Weekend days?
- In the past two weeks, what time do you usually wake up on school days? Weekend days?
- Before the coronavirus pandemic, what time did you usually fall asleep on school nights? On weekend nights?
- In the past two weeks, what time do you usually fall asleep on school nights? On weekend nights?

Sleep Durations Before and During the Coronavirus Pandemic (Median)		
	Apalachee	Winder-Barrow
Sleep Duration Before Coronavirus	7.5 hours	7.8 hours
Sleep Duration During Coronavirus	8.6 hours	8.9 hours

Change in Sleep Duration (Median)	
Apalachee	Winder-Barrow
+1.1 hours	+1.1 hours

Apalachee Student Sleep Duration Before and During the Coronavirus Pandemic		
	Before	During
Normal amount of sleep <ul style="list-style-type: none"> • 8+ hours for students under 18 • 7+ hours for students over 18 	34%	68%
Short amount of sleep <ul style="list-style-type: none"> • Less than 8 hours for students under 18 • Less than 7 hours for students over 18 	66%	32%

Winder Barrow Student Sleep Duration Before and During the Coronavirus Pandemic		
	Before	During
Normal amount of sleep <ul style="list-style-type: none"> • 8+ hours for students under 18 • 7+ hours for students over 18 	47%	75%
Short amount of sleep <ul style="list-style-type: none"> • Less than 8 hours for students under 18 • Less than 7 hours for students over 18 	53%	35%

Key Findings: Students are getting about an hour more of sleep per night in the two weeks after school closed.

Results

Sleep Behaviors

Apalachee Wake Times Before and During Coronavirus Pandemic

	Earliest	25 th Percentile	50 th Percentile (Median)	75 th Percentile	Latest
Before the coronavirus, what time did you usually wake up on school days?	3:15 am	5:30 am	5:45 am	6:00 am	9:15 am
In the past two weeks, what time do you usually wake up on school days?	3:30 am	8:15 am	10:00 am	3:00 am	7:15 am

Winder-Barrow Wake Times Before and During Coronavirus Pandemic

	Earliest	25 th Percentile	50 th Percentile (Median)	75 th Percentile	Latest
Before the coronavirus, what time did you usually wake up on school days?	1:00 am	5:30 am	6:00 am	6:15 am	9:30 am
In the past two weeks, what time do you usually wake up on school days?	3:30 am	8:30 am	10:00 am	11:30 am	6:00 pm

Apalachee Bedtimes Before and During Coronavirus Pandemic

	Earliest	25 th Percentile	50 th Percentile (Median)	75 th Percentile	Latest
Before the coronavirus, what time did you usually fall asleep on school nights?	7:00 pm	10:00 pm	11:00 pm	11:30 pm	4:45am
In the past two weeks, what time do you usually fall asleep on school nights?	5:00 pm	11:30 pm	1:00 am	3:00 am	7:15 am

Winder-Barrow Bedtimes Before and During Coronavirus Pandemic

	Earliest	25 th Percentile	50 th Percentile (Median)	75 th Percentile	Latest
Before the coronavirus, what time did you usually fall asleep on school nights?	7:00 pm	10:00 pm	10:45pm	11:30 pm	3:00 am
In the past two weeks, what time do you usually fall asleep on school nights?	9:00 pm	11:30 pm	1:00 am	3:00 am	7:00 am

Key Findings: Students are going to bed later and waking up later in the two weeks after school closed.

Results

Sleep Behaviors

How have your sleep habits changed since school closed? Select all that apply.

	Apalachee	Winder-Barrow
Trouble falling asleep	51%	56%
Taking more naps	38%	38%
Feeling less rested or more tired during the day	35%	43%
Feeling more rested or less tired during the day	32%	27%
Waking up more during the night	30%	31%
Taking fewer naps	16%	14%
Other*	6%	5%

*“Other” responses include:

- ✓ Working at night
- ✓ Staying up late
- ✓ Sleeping less, erratic sleep, or insomnia
- ✓ Revert to weekend schedule
- ✓ Sleep all day

Key Findings: The top response reported by students from both high schools was “Trouble falling asleep,” followed by “Taking more naps.”

Results

Closing

Is there anything else you want to share with your school?

Selected Student Quotes (Refer to separate school specific reports that include all quotes)

"They are doing a good job at handling this the best they can."

"We need teachers to help with homework and to do videos with examples."

"The stress of friends and family being sick is causing a distraction from schoolwork and normal sleeping habits for the fear of losing loved ones."

"The school has mostly handled the quarantine very well. Most of my difficulties are not their fault, they are because many students learn better in a classroom environment and I believe that having school gives me a timely schedule."

"Please tell teachers to respond to their emails students send them and some of us (seniors) would appreciate extra credit assignments. Thank you."

"Our teachers need to stop giving out so much work and having too high of expectations for us. Also, allow us to use notes and resources when taking a test or quiz because it's simply not fair for those who don't learn well online."

"My school is doing a very manageable job making sure students have what they need to be successful."

"I wish they were more lenient with the grading, also more video chats to help out the students, more videos to share to help students understand especially with math because that's pretty hard."

"I wish there was more leniency in the grading process."

"I feel we should have a virtual yearbook signing or something as a chance for people to reconnect."

"I appreciate all the help and the guidance you have given to us! Thank you so much!"

"There needs to be more extra credit options."

"I am a dual enrollment student. I have not heard of any opportunities from the schools that may support my grades apart from general tutoring, and basic communication with professors..."

"Some teachers are bombarding students with work and it's not fair honestly we are just as if not more stressed and overwhelmed..."

"Since this pandemic has began my mental health has really decreased because of all of the schoolwork they are giving us. We used to have maybe 1-2 sheets of homework a day and now there are 3-4 assignments a day."

"Please less homework we're doing and finishing lessons on the same day..."

Summary of Key Findings

Mental Health and Stress

- Most students expressed concern about coronavirus in general; 38% of AHS students and 46% of WBHS students are “somewhat worried” about the coronavirus pandemic.
- Almost 80% of students from both high schools are somewhat, very, or, extremely worried about themselves or a family member becoming infected with coronavirus.
- Almost 30% of students from both high schools believe getting the coronavirus would be “very serious.”
- Students are generally nervous about the financial impact of the coronavirus pandemic on their family, with most students from both high schools reporting being “somewhat worried” (33% of AHS students and 30% of WBHS students).
- Students from AHS and WBHS feel “very safe” inside one’s home, “somewhat safe” outdoors in public spaces, and “somewhat safe” indoors in public spaces regarding their fear of coronavirus.
- Over 50% of students from both high schools reported feeling nervous/anxious and depressed/hopeless for at least one day.
- Most students from AHS and WBHS found it “somewhat difficult” to adjust to social distancing/quarantine with all members of their family.
- As of May 2020, most students had not been infected with coronavirus, nor had their family members or close friends.
- Listening to music was the top coping strategy (reported by 68% of AHS students, 69% of WBHS students).
- Over 50% of students reported watching TV or movies and sleeping as coping strategies.
- Taking medication was the lowest reported coping strategy for students from both schools.

Academic Success and Confidence

- Approximately 20% of students from both high schools reported feeling either very or extremely worried about the impact of coronavirus on grades, college admissions, and career trajectories.
- At least 40% of the students from both high schools believe they can excel academically and that they have adjusted to online learning.
- Over 50% of students from both high schools reported satisfaction with their teachers. Over a third of students from both high schools reported satisfaction with their guidance counselors. Approximately 50% of students from both high schools reported satisfaction with their school administration.
- Over 40% of students from both high schools reported unclear expectations from teachers and feeling isolated from other students as obstacles to online learning.
- Approximately one third of students from both schools reported Internet access and connectivity issues as an obstacle to online learning.
- The most popular requests for additional resources for online learning were extra credit opportunities, more clear communication from teachers, and more lenient grading.

Coronavirus information

- Most students get their information on coronavirus from family, traditional news sources, and friends.
- When asked to list the symptoms associated with coronavirus, the top three student responses were cough, shortness of breath or difficulty breathing, and fever.
- Almost all of the students (95%) from both high schools reported the elderly may be at higher risk for serious health consequences due to the coronavirus.
- Most students (92% of AHS students, 93% of WBHS students) defined social distancing as “keeping distance between you and other people.”

Pandemic Behaviors:

- The most common social distancing measure students reported taking themselves or with their family in response to the coronavirus pandemic was “staying home as much as possible.” (85% of AHS students, 89% of WBHS students)
- 72% of AHS students and 79% of WBHS students reported “staying at least 6 feet away from people.”
- Most students at AHS and WBHS (87%) reported washing their hands more frequently.
- 70% of students at AHS and 73% of students at WBHS reported wearing a face mask.
- More than 50% of students from both high schools reported either most or all of their friends have acted appropriately in slowing the spread of the coronavirus.
- When asked to report how their behavior has changed since school closed, the top response reported by students from both high schools was more screen time, followed by less physical activity.

Sleep Behaviors

- Students are getting about an hour more of sleep per night in the two weeks after school closed.
- Students are going to bed later and waking up later in the two weeks after school closed.
- Almost 40% of students at AHS and WBHS reported taking more naps.
- Over 50% of students from AHS and WBHS reported trouble falling asleep.

Appendix A

SURVEY INSTRUMENT

Screener

1. Which high school do you attend?
 - a. Apalachee High School
 - b. Winder-Barrow High School
 - c. Other [Display message: "You are not eligible to complete this survey. Thank you for your time." EXIT SURVEY]

Demographics

2. What is your 5-digit student ID number? _____
3. What is your grade?
 - a. 9th grade
 - b. 10th grade
 - c. 11th grade
 - d. 12th grade
4. Are you Hispanic, Latino/a, or of Spanish origin?
 - a. Yes
 - b. No
5. What is your race? (select all that apply)
 - a. White
 - b. Black or African American
 - c. American Indian or Alaska Native
 - d. Asian
 - e. Native Hawaiian or Other Pacific Islander
6. What is your gender?
 - a. Male
 - b. Female
 - c. Non-binary
7. Before school closed, were you eligible for free or reduced-price lunches at school? Free or reduced-price lunch means that lunch at school is provided for free or you pay less for it.
 - a. Yes
 - b. No
 - c. Don't know

Stress and Mental Health

8. Generally, how worried are you about the coronavirus pandemic?
 - a. Extremely worried
 - b. Very worried
 - c. Somewhat worried
 - d. Not too worried
 - e. Not at all worried
9. How worried are you about you or someone in your family being infected with the coronavirus?
 - a. Extremely worried
 - b. Very worried
 - c. Somewhat worried
 - d. Not too worried

- e. Not at all worried
10. Have you, or any of your family members or close friends, been infected with the coronavirus?
- a. Yes
 - b. No
 - c. Not sure
11. If you got the coronavirus, how serious do you think it would be?
- a. Extremely serious
 - b. Very serious
 - c. Somewhat serious
 - d. Not too serious
 - e. Not at all serious
12. How safe do you feel from the coronavirus when you are in each of the following places?

	Very unsafe	Somewhat unsafe	Neither safe nor unsafe	Somewhat safe	Very safe
Inside your home	Very unsafe	Somewhat unsafe	Neither safe nor unsafe	Somewhat safe	Very safe
Outdoors in public spaces (e.g., in a park or walking around your neighborhood)	Very unsafe	Somewhat unsafe	Neither safe nor unsafe	Somewhat safe	Very safe
Indoors in public spaces (e.g., in a grocery store)	Very unsafe	Somewhat unsafe	Neither safe nor unsafe	Somewhat safe	Very safe

13. In the past 7 days, how often have you felt:

	Not at all or less than 1 day	1-2 days	3-4 days	5-7 days
Nervous, anxious, or on edge	Not at all or less than 1 day	1-2 days	3-4 days	5-7 days
Down, depressed, or hopeless	Not at all or less than 1 day	1-2 days	3-4 days	5-7 days
Lonely or isolated from others	Not at all or less than 1 day	1-2 days	3-4 days	5-7 days
Stressed	Not at all or less than 1 day	1-2 days	3-4 days	5-7 days

14. How worried are you about the financial impact of the coronavirus pandemic on you and your family?
- a. Extremely worried
 - b. Very worried
 - c. Somewhat worried
 - d. Not too worried
 - e. Not at all worried
15. How difficult has it been for you to adjust to the lockdown/isolation with all members of your family?
- a. Extremely easy
 - b. Somewhat easy
 - c. Neither easy nor difficult

- d. Somewhat difficult
 - e. Extremely difficult
 - f. N/A (We are not in lockdown/isolation)
16. What strategies are you using to cope with stress, fear, or anxiety during the coronavirus pandemic? (select all that apply)
- a. Physical activity
 - b. Eating
 - c. Sleeping
 - d. Mindfulness, meditation, or deep breathing
 - e. Listening to music
 - f. Reading
 - g. Talking to family
 - h. Talking to friends
 - i. Watching TV or movies
 - j. Taking medication
 - k. Using social media
 - l. Learning a new hobby or skill (e.g., crafting, baking, playing an instrument)
 - m. Other: _____
 - n. None
 - o. I am not experiencing stress, fear, or anxiety during the coronavirus pandemic

Academic Success and Confidence

17. How worried are you about the impact of the coronavirus pandemic on each of the following?

	Not at all worried	Not too worried	Somewhat worried	Very worried	Extremely worried
My grades and/or high school graduation	Not at all worried	Not too worried	Somewhat worried	Very worried	Extremely worried
My college admissions and enrollment	Not at all worried	Not too worried	Somewhat worried	Very worried	Extremely worried
My career trajectory and employment opportunities	Not at all worried	Not too worried	Somewhat worried	Very worried	Extremely worried

18. How much do you agree with the following statement?

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
I believe that I can excel academically during the coronavirus pandemic	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
I have done a good job with adjusting to online learning	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree

19. How satisfied are you with the responsiveness and support provided by each of the following people at your school?

	Extremely dissatisfied	Somewhat dissatisfied	Neither satisfied nor dissatisfied	Somewhat satisfied	Extremely satisfied
Your teachers	Extremely dissatisfied	Somewhat dissatisfied	Neither satisfied nor dissatisfied	Somewhat satisfied	Extremely satisfied
Guidance counselors	Extremely dissatisfied	Somewhat dissatisfied	Neither satisfied nor dissatisfied	Somewhat satisfied	Extremely satisfied
Principal and/or school administrators	Extremely dissatisfied	Somewhat dissatisfied	Neither satisfied nor dissatisfied	Somewhat satisfied	Extremely satisfied

20. Have you experienced any of the following obstacles while learning remotely? (select all that apply)

- a. Internet access/connectivity issues
- b. Feeling isolated from other students
- c. Difficulty communicating with teachers
- d. Tools/technology not working as expected
- e. Lack of technology/devices (e.g., laptop, tablet)
- f. Unclear expectations from teachers
- g. No quiet place to learn in my home
- h. Other: _____
- i. Have not experienced any obstacles

21. What additional resources or services could your school and/or teachers provide to help you with online learning? (select all that apply)

- a. More lenient grading policy
- b. More extra credit opportunities
- c. More summer learning opportunities
- d. Better internet access/connectivity
- e. More devices, tools, or technology (e.g., laptop or tablet)
- f. More structure
- g. More clear communication from teachers
- h. More clear communication from administrators
- i. More recorded lessons
- j. More live lessons
- k. More group interaction (with other students)
- l. More academic/college counseling services or resources
- m. More mental health counseling services or resources
- n. Other: _____
- o. None

Coronavirus Information

22. Where do you get information on the coronavirus? (select all that apply)

- a. Traditional news sources, including on TV, radio, websites, and newspapers (please specify which news outlet(s), e.g., CNN, Fox News, New York Times, AJC: _____)
 - b. Other webpages/internet: _____
 - c. Family
 - d. Friends
 - e. Healthcare providers
 - f. Teachers or school
 - g. Facebook
 - h. Twitter
 - i. Instagram
 - j. YouTube
 - k. Other social media: _____
 - l. Centers for Disease Control and Prevention (CDC)
 - m. National Institutes of Health (NIH)
 - n. World Health Organization (WHO)
 - o. Trump Administration
 - p. State/local government officials (e.g., mayor, governor)
 - q. Other: _____
 - r. Have not seen or heard any information about the coronavirus
23. Which symptoms are associated with the coronavirus? (select all that apply)
- a. Fever
 - b. Chills
 - c. Cough
 - d. Chest congestion
 - e. Shortness of breath
 - f. Headache
 - g. Body aches or pains
 - h. Sore throat
 - i. Fatigue or tiredness
 - j. Diarrhea
 - k. Runny or stuffy nose
 - l. Sneezing
 - m. Nausea
 - n. Vomiting
 - o. Changed or lost sense of taste or smell
 - p. No symptoms
 - q. Other: _____
 - r. Don't know
24. Which people may be at higher risk for serious health consequences due to the coronavirus? (select all that apply)
- a. Infants
 - b. Teenagers
 - c. Elderly
 - d. Already have the flu
 - e. Already have a cold
 - f. Unvaccinated
 - g. People with heart disease

- h. People with diabetes
 - i. People with high blood pressure
 - j. People with asthma
 - k. People who smoke cigarettes or vape
 - l. People with respiratory conditions
 - m. People who are immunocompromised
 - n. Obese
 - o. Everyone is at risk for serious health consequences
 - p. Other: _____
 - q. Don't know
25. What do you think social distancing involves? (select all that apply)
- a. Not leaving the house
 - b. Not seeing other people
 - c. Cutting off communication with others
 - d. Not shaking hands with people
 - e. Not hugging people outside your household
 - f. Not playing with other people's pets
 - g. Not leaving your room
 - h. Keeping distance between you and other people
 - i. Other: _____
 - j. Don't know

Pandemic Behaviors

26. In the past two weeks, which of the following social distancing measures did you and your family take in response to the coronavirus pandemic? (select all that apply)
- a. Staying home as much as possible
 - b. Staying at least 6 feet from other people outside my household
 - c. Avoiding group gatherings (e.g., going to parties or friends' houses)
 - d. Avoiding or limiting time spent in public or crowded places (e.g., grocery stores or drugstores)
 - e. Not going to work, including working from home
 - f. Avoiding travel
 - g. Other: _____
 - h. None
27. In the past two weeks, which of the following additional measures did you or your family take in response to the coronavirus pandemic? (select all that apply)
- a. Washing hands with soap more frequently
 - b. Using hand sanitizer frequently
 - c. Cleaning and disinfecting surfaces frequently
 - d. Avoiding touching your face
 - e. Covering coughs and sneezes using a tissue
 - f. Wearing a face mask
 - g. Wearing gloves
 - h. Stocking up on extra food or water
 - i. Consulting with a health care provider (e.g., a doctor)
 - j. Other: _____
 - k. None of the above

28. In the past two weeks, do you think that your friends have acted appropriately in slowing the spread of the coronavirus?
- All of my friends have acted appropriately
 - Most of my friends have acted appropriately
 - Some of my friends have acted appropriately
 - A few of my friends have acted appropriately
 - None of my friends have acted appropriately
 - Don't know
29. How has your behavior changed since school closed? (select all that apply)
- More physical activity
 - Less physical activity
 - Eating healthier
 - Eating less healthy
 - More screen time (e.g., TV, computer, phone) aside from classes
 - Less screen time (e.g., TV, computer, phone) aside from classes
 - More time spent caring for younger siblings or family members
 - Other: _____
 - I have not changed my behavior since school closed
30. In the past two weeks, did you work at a job?
- I went into work
 - I worked from home
 - I was let go from my job during the coronavirus pandemic
 - My job is temporarily on hold due to the coronavirus pandemic
 - I don't have a job

Sleep

The following questions refer to your sleep habits **before the coronavirus pandemic (before school closed)**.

31. Before the coronavirus pandemic, what time did you usually get into bed on school nights? Please indicate the time at which you physically get into bed, even if you do not intend to fall asleep right away. _____ AM/PM
32. Before the coronavirus pandemic, what time did you usually fall asleep on school nights? _____ AM/PM
33. Before the coronavirus pandemic, what time did you usually wake up **on school days**? _____ AM/PM
34. Before the coronavirus pandemic, what time did you usually get into bed on weekend nights? Please indicate the time at which you physically get into bed, even if you do not intend to fall asleep right away. _____ AM/PM
35. Before the coronavirus pandemic, what time did you usually fall asleep on weekend nights? _____ AM/PM
36. Before the coronavirus pandemic, what time did you usually wake up **on weekend days**? _____ AM/PM

The following questions refer to your sleep habits in the **past two weeks**.

37. **In the past two weeks**, what time do you usually get into bed on school nights? Please indicate the time at which you physically get into bed, even if you do not intend to fall asleep right away. _____ AM/PM
38. **In the past two weeks**, what time do you usually fall asleep on school nights? _____ AM/PM

39. **In the past two weeks**, what time do you usually wake up **on school days**? _____
AM/PM

40. **In the past two weeks**, what time do you usually get into bed **on weekend nights**? Please indicate the time at which you physically get into bed, even if you do not intend to fall asleep right away. _____ AM/PM

41. **In the past two weeks**, what time do you usually fall asleep **on weekend nights**? _____ AM/PM

42. **In the past two weeks**, what time do you usually wake up **on weekend days**? _____
AM/PM

43. How have your sleep habits changed since school closed? (select all that apply)

- a. Trouble falling asleep
- b. Waking up more during the night
- c. Feeling more rested or less tired during the day
- d. Feeling less rested or more tired during the day
- e. Taking more naps
- f. Taking fewer naps
- g. Other: _____
- h. No change in sleep habits

Closing

44. Is there anything else you want to share with your school? _____

Thank You

Thank you for your participation. Please click on [this link](#) for an information sheet about the coronavirus (COVID-19), including symptoms, prevention strategies, and resources for managing any stress you may be experiencing during this time.

Appendix B

Barrow County COVID-19 Information Sheet

COVID-19 QUICK TIPS

TIPS AND RESOURCES TO STAY HEALTHY

PROTECTING YOURSELF & OTHERS

STAY HOME AND WASH YOUR HANDS!

1. Wash your hands often, and for 20 seconds each time
2. Avoid close contact with others: stay home and stay 6 ft away from others
3. Cover coughs and sneezes with your elbow
4. Clean frequently touched surfaces

For more details from the CDC on how to protect yourself:

<https://www.cdc.gov/coronavirus/2019-ncov/prepare/prevention.html>



WHAT IF I HAVE SYMPTOMS?

Symptoms include:

Fever

Dry Cough

Difficulty Breathing

DON'T PANIC...BREATHE...

1. Stay home
2. Separate from people in your home
3. Call local doctor office
4. Wash hands
5. Monitor symptoms and fever
6. When you think you are feeling better still take steps to protect yourself and others



More details from the CDC for symptoms: <https://www.cdc.gov/coronavirus/2019-ncov/if-you-are-sick/steps-when-sick.html>

TAKE CARE OF YOUR HEALTH

BREATHE IN, WALK IT OUT!

Physical Activity Tips/Resources:

1. Walk or run outside on a nice day
2. Home workout videos



Mental Health Tips/Resources:

1. Take study breaks
2. Call/video chat with friends and family
3. Be creative, mindlessly color or draw

If you are experiencing an emotional crisis, text GA to 741741 to communicate with a trained Crisis Counselor.

Online/app resources for teenagers: <https://tinyurl.com/y5htbnue>



RESOURCES IN BARROW COUNTY

ASSISTANCE FOR THOSE IMPACTED BY COVID19

- Barrow County School System providing breakfast/lunch: <https://tinyurl.com/vkurumu>
- Free internet for students: <https://tinyurl.com/tflvy5o>
- NewPath 1010 Mobile Food Pantry (Brad Akins YMCA Parking Lot) Every Wednesday at 3:30pm April 8th- May 27th



RESOURCES WITH TRUSTED INFORMATION

WHO: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public>

CDC: <https://www.cdc.gov/coronavirus/2019-nCoV/index.html>

Georgia Department of Public Health: <https://dph.georgia.gov/novelcoronavirus>

References

1. "Worries about the Coronavirus Increase." APNORC.org, The Associated Press-NORC Center for Public Affairs Research, www.apnorc.org/projects/Pages/Worries-about-the-Coronavirus-Increase.aspx.