



# 2019-2020

## Durham Technical Community College

### Patient Engagement and Emerging Adults Institution Report

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## Executive Summary

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The *Patient Engagement and Emerging Adults Project* aims to identify and address health and wellness related issues that may occur during the emerging adulthood period of life (18 - 30 years old). This is accomplished through collection and analysis of survey data from students at various academic institutions in order to help these institutions find opportunities to positively impact their students' health behaviors and outcomes. The current project is a partnership between the Duke Center for Personalized Health Care and the following academic institutions: Duke University (Duke), North Carolina Central University (NCCU), and Durham Technical Community College (Durham Tech).

In fall 2016, an electronic health survey questionnaire was administered to a sample of 1,943 individuals (18-30 years old) at all three institutions. The questionnaire assessed information such as demographics, current health status, health-related behaviors, chronic health conditions, BMI, mental health, social support, mindfulness, spirituality, healthcare service use, and discrimination. In fall 2017, the questionnaire was re-administered at all three institutions to students from the 2016 cohort as well as to a new cohort of students. The re-administration included data from 615 students of the previous cohort and 2,601 new students.

Finally, in 2019, the questionnaire was administered again at all three institutions to a sample of 16,117 students. During this administration, the questionnaire assessed areas such as resiliency and trauma in addition to the topics included in 2016 and 2017. There is now a large and unique dataset which can be used to conduct both cross-sectional and longitudinal analyses in order to answer a variety of research questions associated with student health behaviors, health care utilization, health outcomes, and institutional capacity for improving prevention efforts. Furthermore, through the use of health data and the implementation of evidence-based interventions (EBIs), this project will evaluate and inform pathways in which institutions may more effectively improve population-level health outcomes of their unique student populations.

Out of 4,641 Durham Tech students who received a recruitment email in 2019, 612 students completed the survey (a response rate of 13.2%). The following document was created from self-report data from a sample of Duke students who identified as emerging adults (ages 18-30 years old;  $n=369$ ). It highlights key health-related behaviors as well as means of communication that could further inform potential opportunities to positively impact the health and wellness of Durham Tech students.

### Highlights from Durham Tech Students Include:

- ◆ 47% of students reported having excellent or very good overall health
- ◆ 78% of students reported they did not currently use tobacco products
- ◆ 44% of students reported engaging in moderate physical activity at least a few times a week
- ◆ Over 80% of students received at least 6 or 7 hours of sleep daily
- ◆ 46% of students consumed the recommended amount of fruit every day, but only 19% consumed the recommended amount of vegetables
- ◆ Of sexually active students, 46% reported using protection during the majority of sexual experiences
- ◆ Depression/Anxiety and Obesity were the most frequently reported chronic conditions
- ◆ The average BMI for Durham Tech students was 27.8, which falls into the overweight category
- ◆ Discrimination based on biological sex was the most commonly reported form of discrimination
- ◆ The majority of students felt that college leadership prioritized student health and well-being
- ◆ Email was the most effective way to communicate with students regarding available health resources



### Institution Student Population

Durham Technical Community College (Durham Tech) had a total enrollment of 5,665 students, according to the most recent available data from the National Center for Education Statistics from the fall of 2019.

The general Durham Tech population had a diverse student population with 62% of its population identifying as female, and 35% identifying as black. The majority of students attended on a part-time basis (74%) compared to full-time (26%).

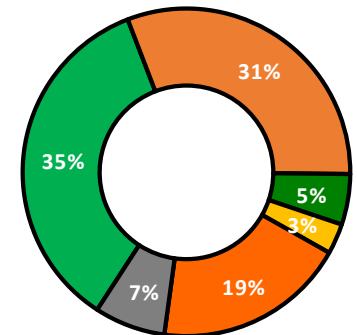
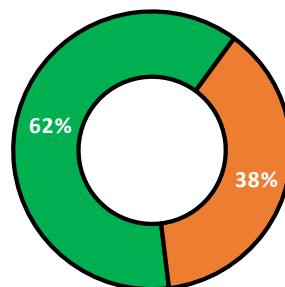
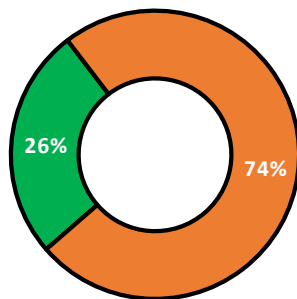
The survey population included a larger percentage of females (71% vs 62%), as well as a larger proportion of white students (53%) compared to the general Durham Tech population (31%). The survey population also included more full-time students (53%) compared to the general Durham Tech population (26%).

Attendance Status

Gender

Race

Durham Tech Population



■ Full-time ■ Part-time

■ Female ■ Male

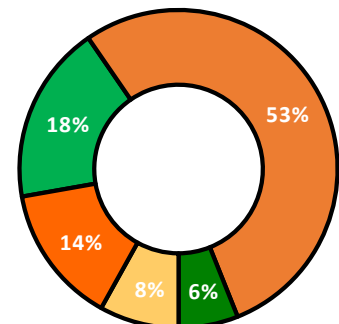
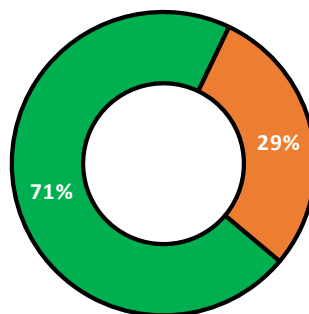
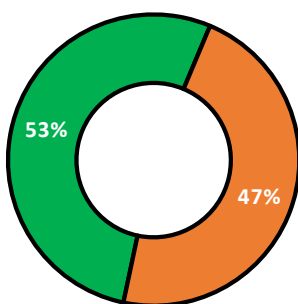
■ Black ■ White ■ Asian  
■ Multi-Racial ■ Hispanic ■ Other Race

Attendance Status

Gender

Race

Survey Population



■ Full-time ■ Part-time

■ Female ■ Male

■ Black ■ White ■ Asian  
■ Multi-Racial ■ Other Race



## Self-Rated Health

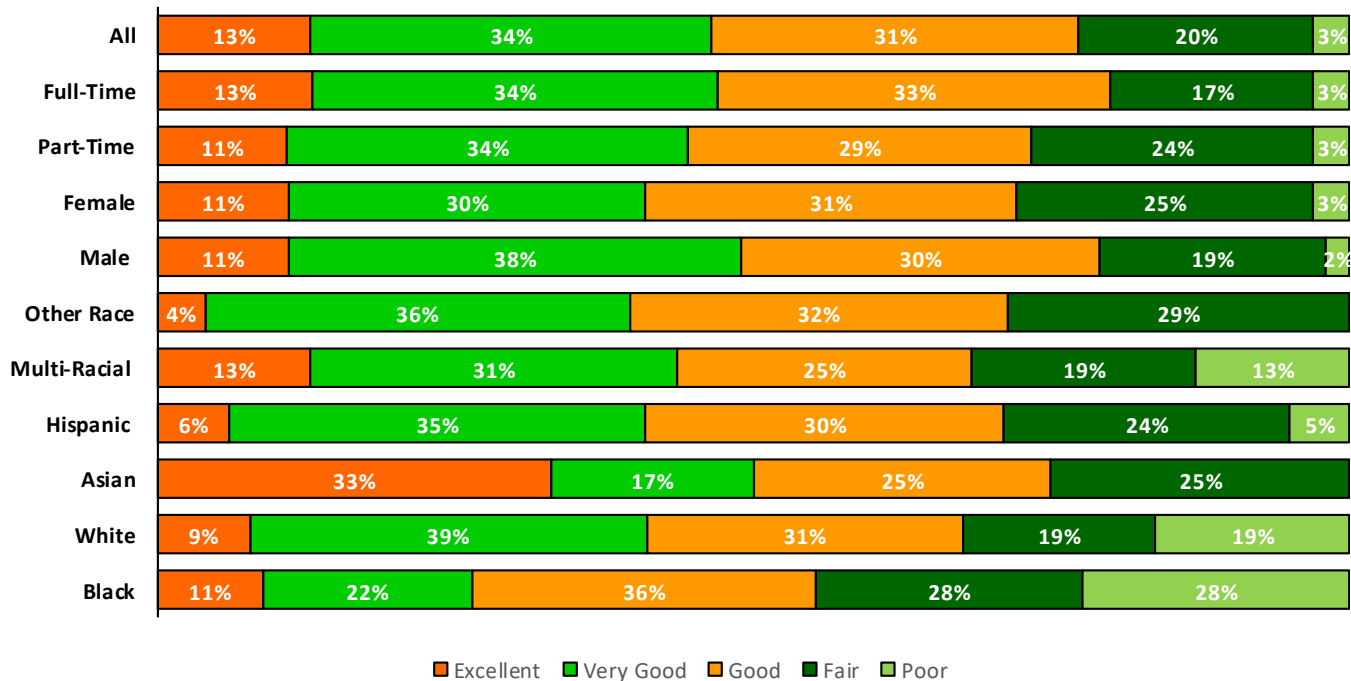
Students answered questions regarding their perception of their health. Their responses were used to determine their relative self-reported health status.

**Forty-seven percent of Durham Tech students described themselves as having excellent or very good overall health, while 23% described their general health as fair or poor.**

**A larger proportion of Full-Time (47%) compared to Part-Time (45%) students reported very good or excellent health.**

**More male students (49%) reported very good or excellent health, compared to female students (41%).**

**Forty-eight percent of students who identified as White describe their health as excellent or very good.** This is compared to 41% of Hispanic students, 33% of Black students, 50% of Asian students, 44% of Multi-Racial students, and 40% of students identifying as another race who described their health as excellent or very good.





## Health Behaviors

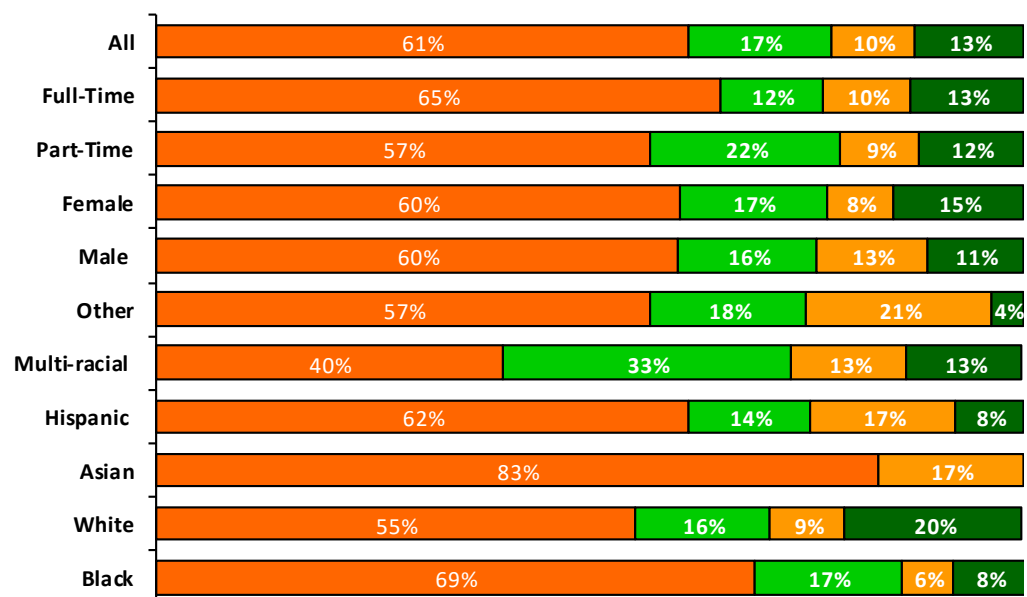
Students were asked to report on behaviors related to tobacco use, physical activity, sleep duration, fruit and vegetable consumption, and sexual health. The majority of Durham Tech students exhibited healthy behaviors related to tobacco use and sleep duration, however less than half described engaging in moderate physical activity at least a few times a week (44%), consuming the recommended amount of fruits and vegetables daily (46% and 19%, respectively), or using protection during the majority of sexual experiences (46%).

### Tobacco Use

**Most students have never used tobacco products.** Only 13% reported regularly using tobacco, and only 10% reported social or occasional tobacco use.

**More Full-Time students are regular or occasional tobacco users (23%)** compared to 21% of Part-Time students.

**Slightly more male students (24%) were regular or occasional tobacco users,** compared to 23% of female students.



**More Asian students (83%) have never used tobacco,** compared to 69% of Black students, 62% percent of Hispanic students, 57% of students identifying as another race, 55% of White students, and 40% of Multi-Racial students.

### Physical Activity

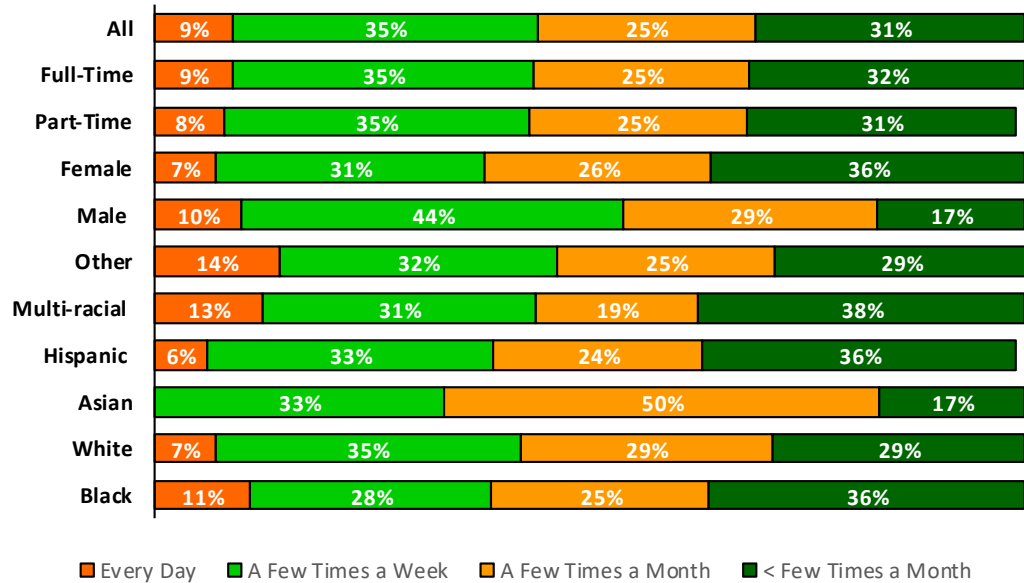
**About 44% of Durham Tech students report that they** engage in moderate physical activity at least a few times per week.

**Slightly more Full-Time students (44%), compared to Part-Time students (43%),** reported that they exercise on at least a weekly basis

**A greater proportion of male students engage in moderate physical activity at least a few times a week** compared to female students (54% and 38%, respectively).



**Asian students (33%) had the smallest proportion of students reporting at least weekly physical activity for any racial group.** This is compared to 46% of students who identified as another race (“Other”), 44% of Multi-Racial students, 42% of White students, 39% of Black students, and 39% of Hispanic students who reported at least weekly physical activity.



\*note: not all groups may add up to exactly 100% due to round-off error

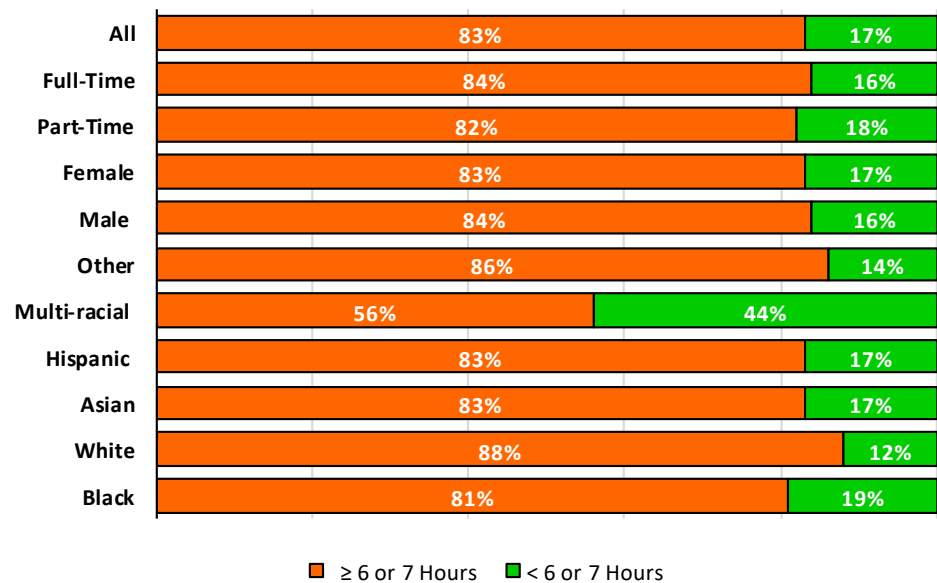
### Average Hours of Sleep

The National Sleep Foundation recommends that adults receive *at least* 6 hours of sleep per night. **For Durham Tech students, approximately 83% reported they received at least 6 or 7 hours of sleep in a 24-hour period.**

**Slightly more Full-Time students (84%) received reported sleeping at least 6 or 7 hours daily,** compared to 82% of Part-Time students.

**Male (84%) and female students (83%) had similar proportions of students reporting they slept at least 6-7 hours nightly.**

**Multi-Racial students had the largest proportion (44%) of students reporting that they received less than 6-7 hours of sleep per day out of any student group.**





## Fruits and Vegetable Consumption

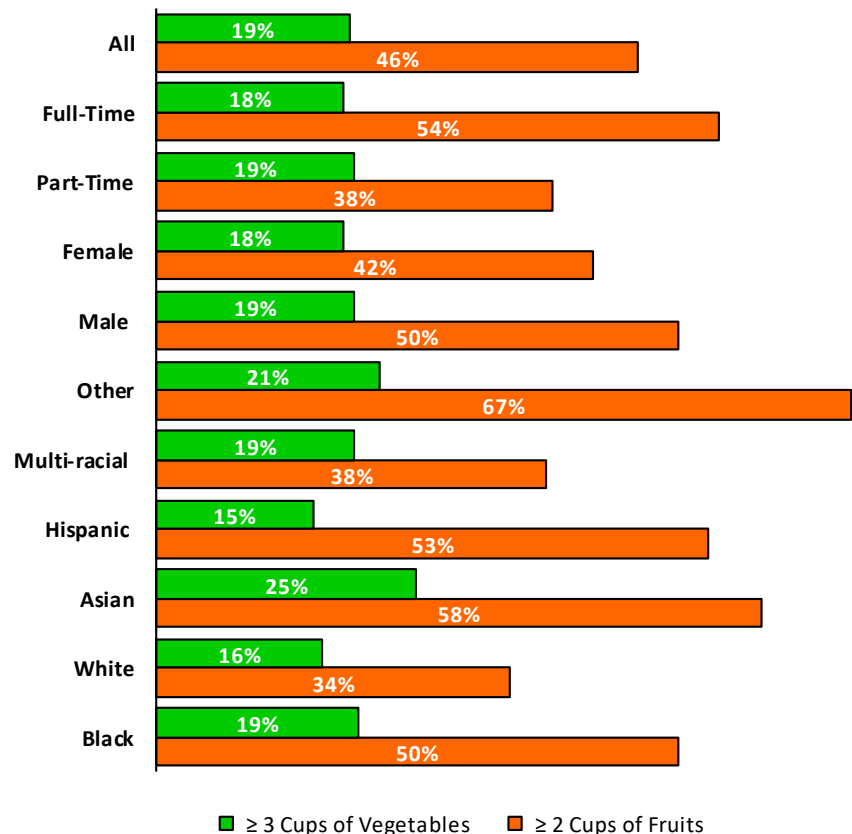
The USDA recommends that adults consume 3 or more cups of vegetables per day and 2 or more cups of fruit per day. In the survey, students were given examples of what 1 cup of vegetables and 1 cup of fruits looked like and then asked to report on the number of cups of vegetables and fruits they consumed per day.

**The majority of Durham Tech students do not consume at least 3 cups of vegetables (19%) or at least 2 cups of fruits every day (46%).** Interestingly, most groups tended to have higher proportions of students consuming the recommended amount of fruits than the recommended amount of vegetables on a daily basis.

**Fifty-four percent of Full-Time students** reported consuming at least 2 cups of fruit every day, while only 38% of Part-Time students reported adequate daily fruit consumption. Further, only 18% of Full-Time and 19% of Part-Time students reported consuming at least 3 cups of vegetables.

**More male students (50%) consumed at least 2 cups of fruit daily**, compared to 42% of female students. However, only 19% of male students and 18% of female students reported consuming the recommended amount of vegetables on a daily basis.

**Students identifying as another race (“Other”; 67%) and Asian students (58%)** had the highest proportions of students reporting adequate daily fruit consumption. This compares with 53% of Hispanic students, 50% of Black students, 38% of Multi-Racial students, and 34% of White students who consumed at least 2 cups of fruit daily



## Sexual Health Behaviors

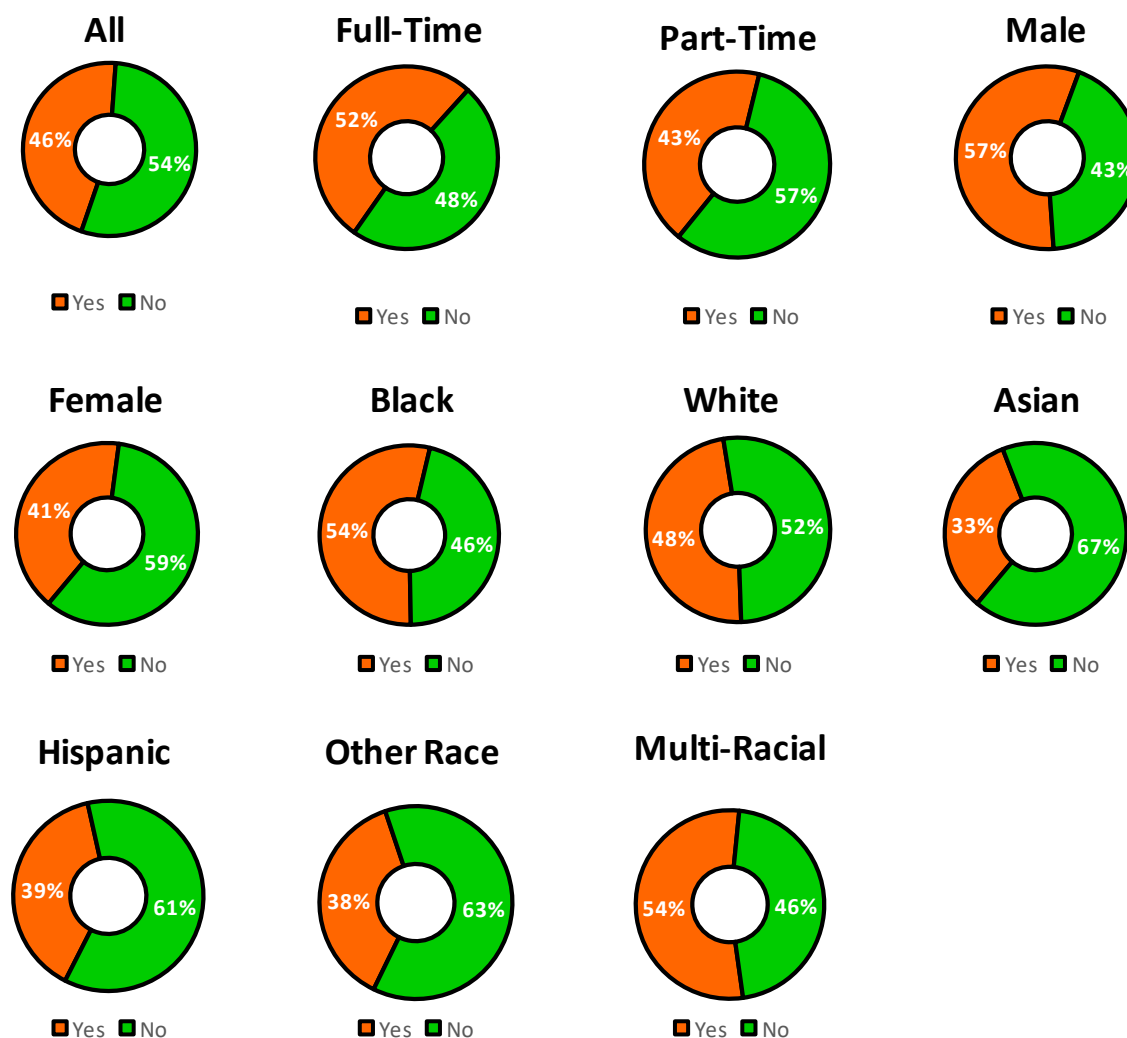
Students were asked to report on whether they were currently sexually active and on their sexual health behaviors. **Seventy-three percent of Durham Tech students reported they had been sexually active in the last 12 months.** Of sexually active students, **only 46% reported using protection during the majority of intercourse or oral sex experiences.**



**More Full-Time students (52%) compared to Part-Time students (43%)** reported using protection during the majority of sexual experiences.

**Fifty-seven percent of male students reported using protection during the majority of sexual experiences,** compared to 41% of female students.

**A larger proportion of Black students (54%) and Multi-Racial students (54%) used protection during the majority of sexual experiences. This compared** to 48% of White students, 39% of Hispanic students, 38% students identifying as another race (“Other”), or 33% of Asian students who reported using protection during the majority of sexual experiences.







## Health Outcomes

Two major health outcomes were evaluated—chronic illness and body mass index (kg/m<sup>2</sup>). These two measures were chosen because they are both clinically important health outcomes.

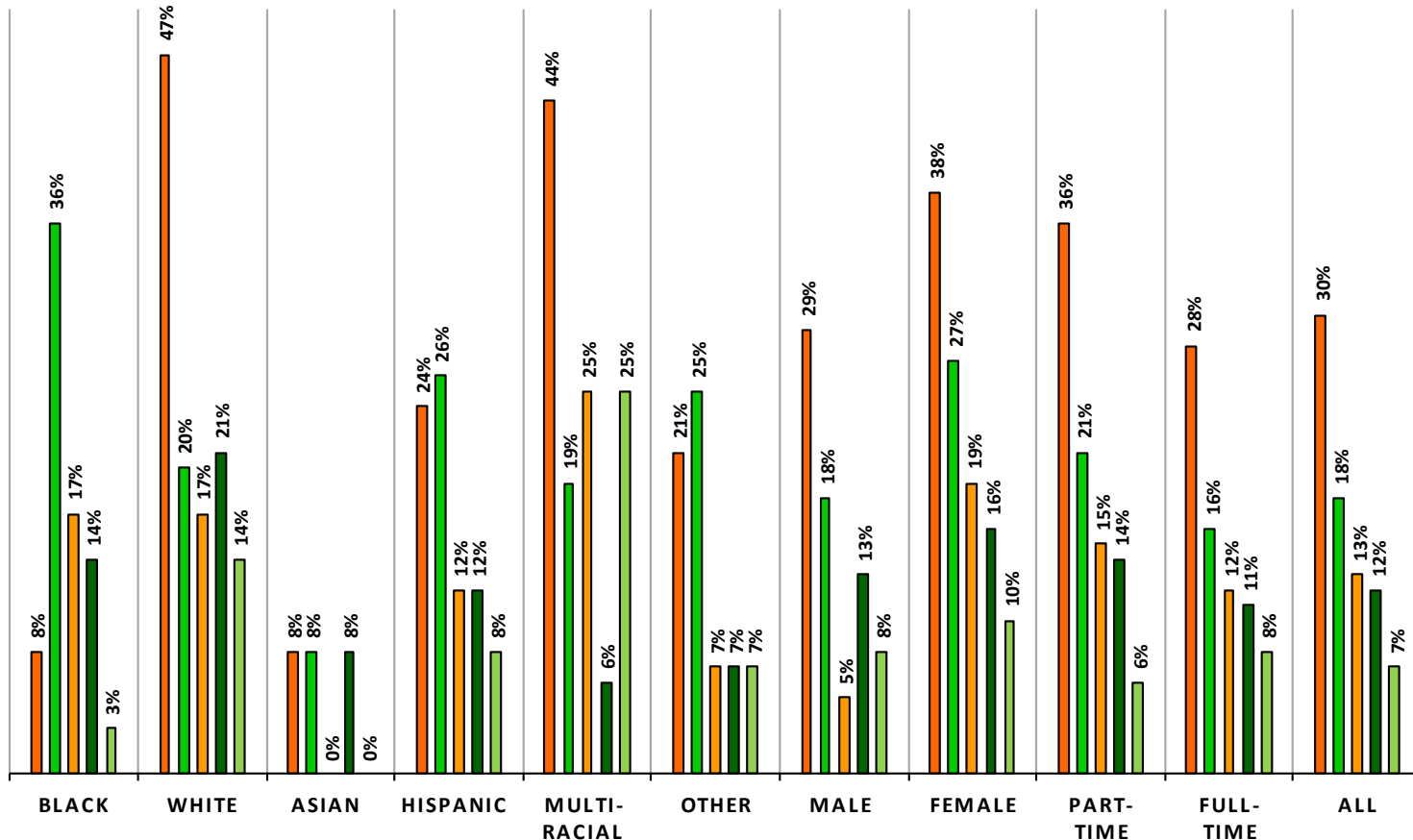
### Chronic Illness

Durham Tech students reported on various chronic conditions they may face. **Out of 18 different conditions, depression/anxiety and overweight/obesity were the most frequently reported.** Thirty percent of all Durham Tech students reported that they previously or currently struggled with depression and/or anxiety, and 18% reported being overweight/obese. In addition to these two conditions, the top five most frequently experienced chronic conditions included migraines (13%), asthma (12%), and ADHD (7%).

The top 5 most identified chronic illnesses among students are:

1. Depression and/or Anxiety
2. Overweight/Obesity
3. Migraines
4. Asthma
5. ADHD

■ Depression/Anxiety   
 ■ Overweight/Obese BMI   
 ■ Migraines   
 ■ Asthma   
 ■ ADHD





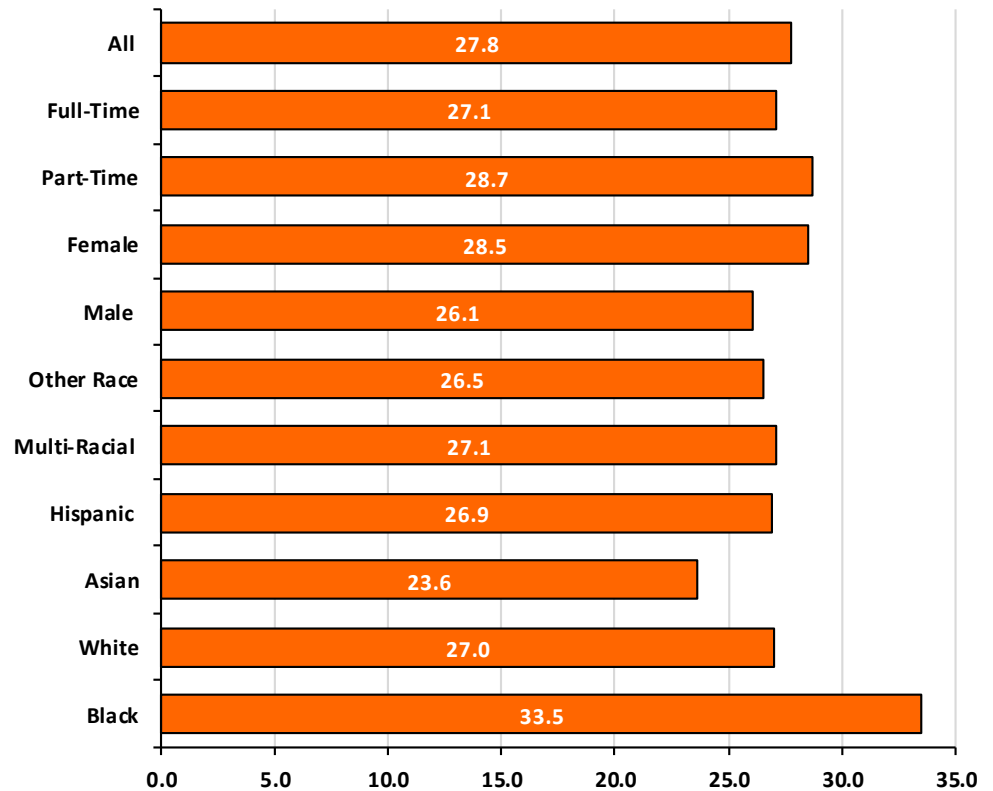
## Body Mass Index (kg/m<sup>2</sup>)

Students were asked to report their height and weight so BMIs could be calculated for each student. Average BMIs were then created for each student group. **The average BMI for Durham Tech students was 27.8**, which falls within the overweight category. Out of all the groups surveyed, only Asian students (23.6) and Undergraduate students (24.8) had an average BMI falling in the healthy BMI category.

**Part-Time students had a higher average BMI (28.7)** compared to Full-Time students (27.1).

**The average female BMI (28.5)** was greater than the average male BMI (26.1).

**Black students (33.5) had the highest average BMI out of any racial group, Asian students having the lowest average BMI (23.6).**



## Mental Health

Students reported on several mental health concerns including perceived stress and depression risk. They also reported on their levels of resiliency and whether they had experiences of past trauma.

### PSS-4, Perceived Stress

The Perceived Stress Scale-4 (PSS-4) measures an individual's perceived stress and was used to measure the frequency at which students experienced stress in the past month. The lowest possible score is 0 and the highest possible score is 16. Higher PSS-4 scores indicate higher levels of perceived stress in a respondent's life, which can lead to debilitating physical conditions and emotional vulnerabilities.

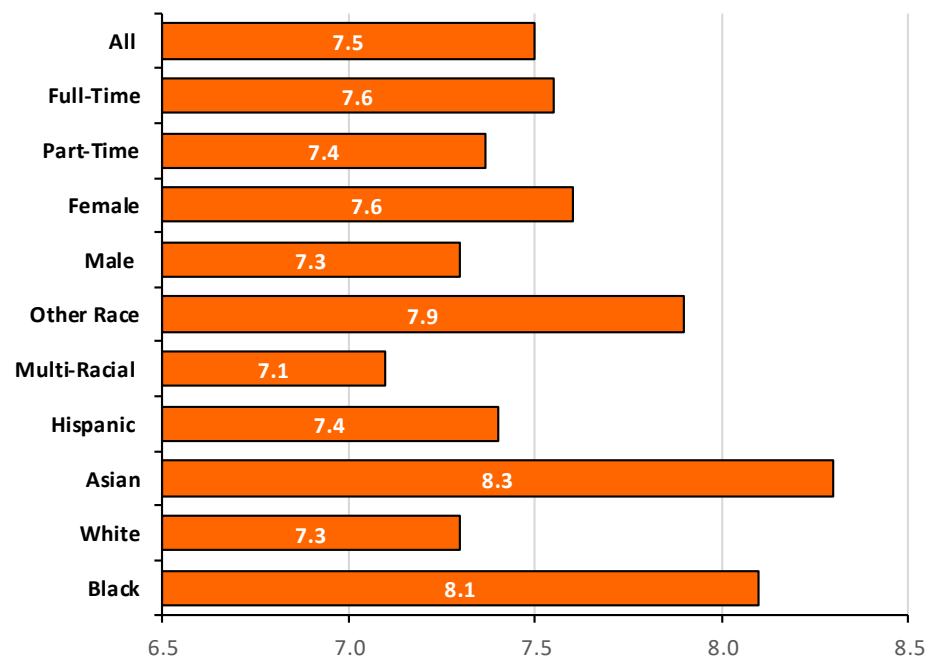


The average PSS-4 score for Durham Tech students was 7.5, indicating mild to moderate amounts of perceived stress.

Full-Time students had a slightly higher average PSS-4 score (7.6), compared to Part-Time students (7.4).

Female students had a higher average score (7.6) compared to male students (7.3).

Asian students had the highest average score (8.3) for perceived stress compared to any student group.



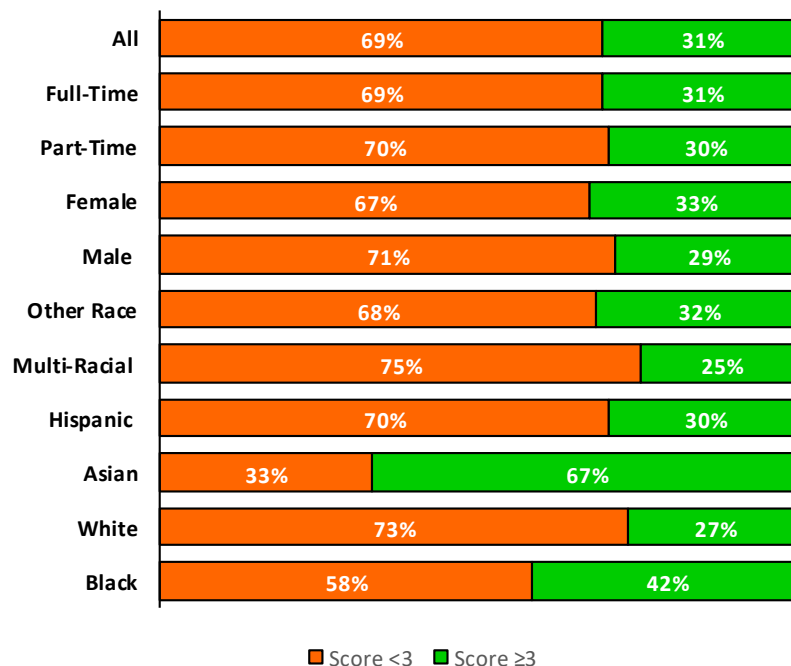
### PHQ-2, Depression Screener

The Patient Health Questionnaire-2 (PHQ-2) is a clinical measure assessing the frequency of depressed mood. Students reported how frequently they experienced symptoms of depression over a two-week period. Individuals can score between a 0 and 6 on the PHQ-2. PHQ scores of 3 or higher suggest a risk for depression and indicate an individual should be further evaluated with other diagnostic tools.

Among all Durham Tech students, 31% had a score of 3 or higher, indicating that close to 1/3 of Durham Tech students exhibited depressive symptoms.

Slightly more Full-Time students (31%) reported a score of 3 or higher, compared to 30% of Part-Time students.

A higher proportion of female students (33%) than male students (29%) reported a score of 3 or higher.





**Asian students had the largest proportion of individuals reporting a score of 3 or higher (67%),** compared to 42% of Black students, 32% of students identifying as another race (“Other”), 30% of Hispanic students, 27% of White students, and 25% of Multi-Racial students, and that may be at risk for a major depressive disorder.

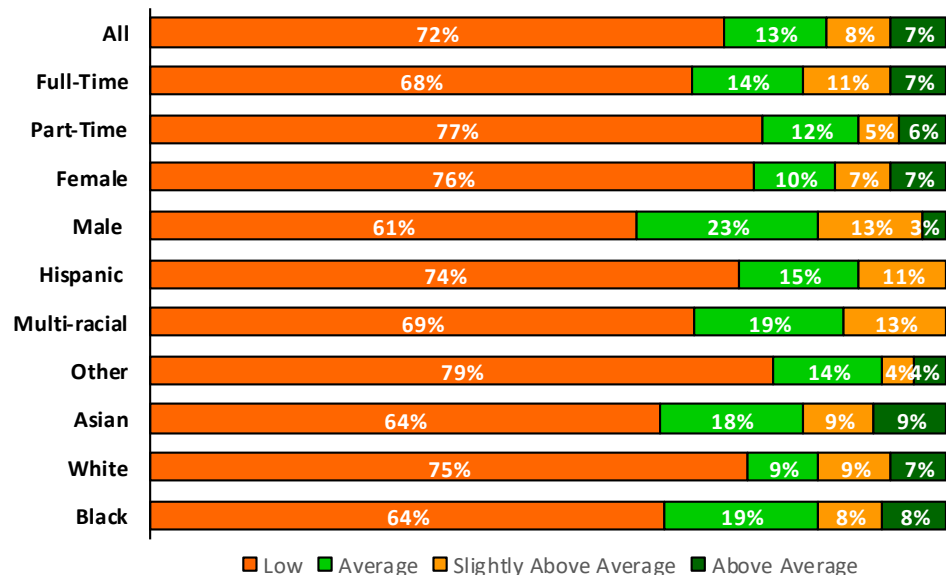
### CD-RISC, Resiliency Levels

The Connor Davidson Resiliency Scale (CD-RISC) is a 10-item scale that assesses for levels of resiliency. Higher scores equal higher or above average levels of resiliency. Lower scores equal low or lower than average levels of resiliency.

Across the entire sample of Durham Tech students, **the majority reported lower than average resiliency levels (72%).**

**More Part-Time students (77%)** compared to Full-Time students (68%) reported lower than average resiliency.

**More female students (76%)** compared to male students (61%) reported lower than average resiliency.



**Across the racial groups, students who identified as another race (“Other”) had the largest proportion of students with lower than average resiliency (79%).** Asian students had the smallest proportion of students with lower than average resiliency (64%)

### BTQ, Past Trauma

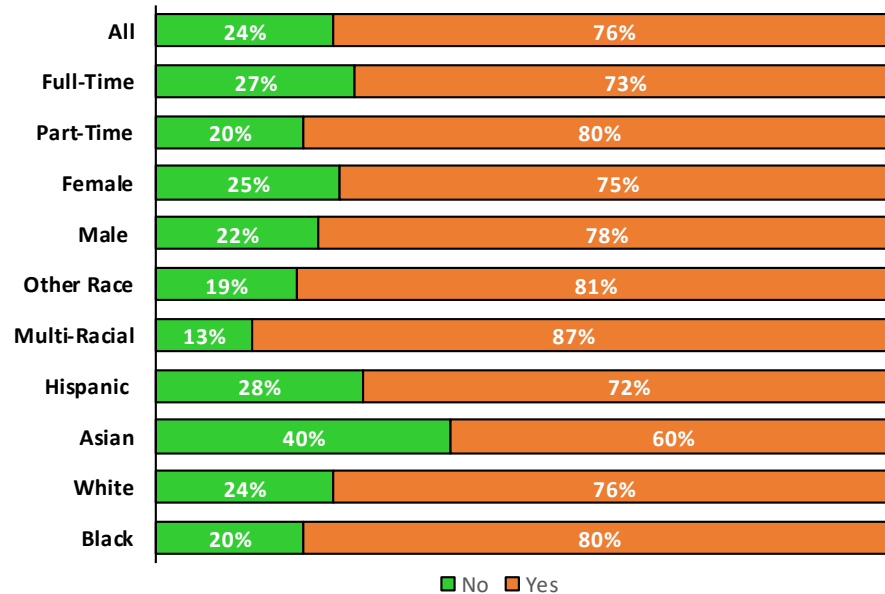
The Brief Trauma Questionnaire (BTQ) is a brief measurement to assess exposure to traumatic experiences and/or events. It is derived from the Brief Trauma Interview. Traumatic experiences can include things such as being in serious car accident, serving in a war zone, being assaulted, having a life threatening illness, or having a loved one die violently (such as in a serious car crash, mugging, or attack). Students were given the option to not answer these questions due to the sensitive nature of the topic. **Overall, 76% of students reported they had experienced a traumatic event in the past.**

**More Part-Time students (80%)** compared to 73% of Full-Time students reported they had experienced past trauma based on their responses to the questionnaire.

**More male students (78%)** compared to female students (75%) reported exposure to a traumatic experience.

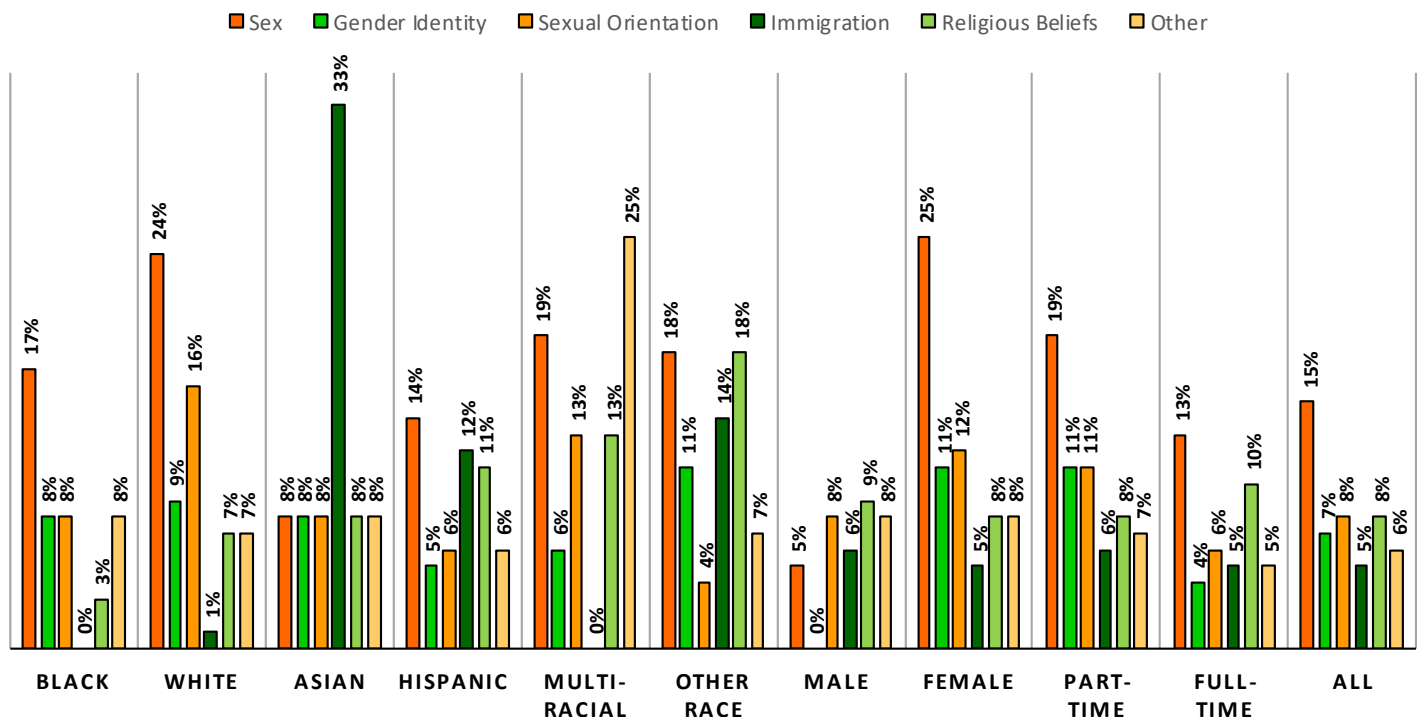


In comparison with other racial/ethnic groups, **Asian students had the smallest proportion of individuals reporting past traumatic exposures (60%).** This contrasts with 87% of Multi-Racial students, 81% of students identifying as another race (“Other”), 80% of Black students, 76% of White students, and 72% of Hispanic students who reported they had some exposure to trauma in the past.



### Perceived Discrimination

Durham Tech students were asked to report on six different categories of perceived discrimination. **The most frequently reported category of discrimination was based on students’ biological sex, with 15% of all Durham Tech students reporting this discrimination.** It is also notable that a much higher proportion of female students (25%) reported experiencing discrimination based on biological sex compared to male students (5%).



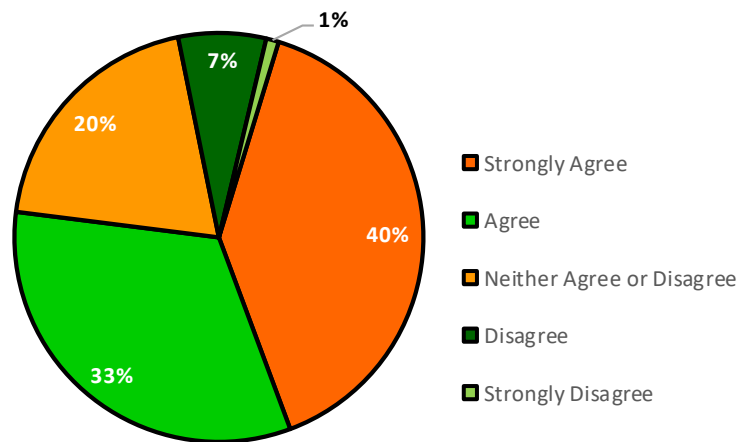


### Leadership Engagement

Durham Tech students were asked to report on their perception of college leadership’s prioritization of student health and wellness.

**The majority of students (73%) agreed that the college leadership prioritizes student health and wellness.**

Twenty percent of the students answered that they neither agree nor disagree with this statement. **The remaining 8% disagreed that Durham Tech college leadership prioritizes student health and wellness.**



### Communication Preferences

Students were asked to report on their preferred modes of communication regarding information about campus health and wellness resources.

**Sixty-eight percent of students preferred communication by email** as a means of receiving information on health resources. **Receiving information through the university website** was the second-most preferred communication method. **Apps and flyers** were the least effective communication methods.

