

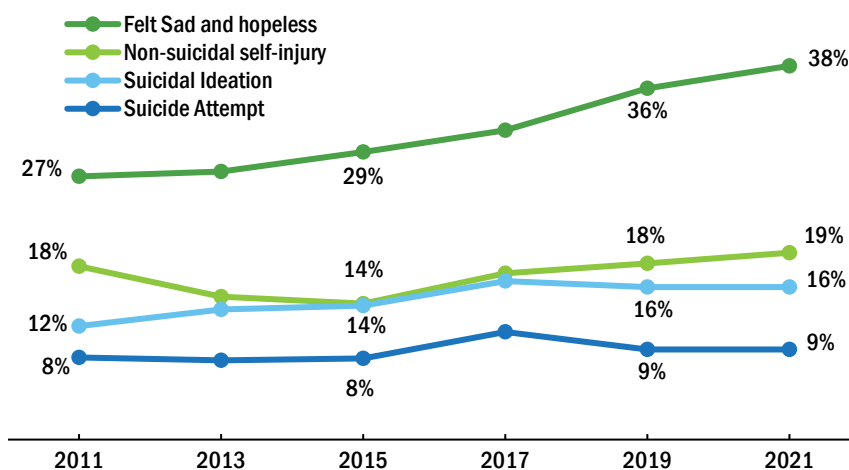
## Suicide-related factors among New York City Public High School Students

Suicide has been associated with factors such as previous suicide attempts, suicidal ideation (thinking about suicide), feelings of sadness and hopelessness, symptoms of depression, and hurting oneself on purpose without wanting to die.<sup>1</sup> Identification of high school students who may be at higher risk for experiencing these related factors is critical for suicide prevention. Equally important is understanding that some youth may be at higher risk due to the specific stressors they face, such as discrimination. For example, sexual and gender minority youth (SGM), many of whom experience discrimination due to their orientation and/or identity, are at higher risk of experiencing suicidal risk factors.<sup>2</sup> This brief presents data from the New York City (NYC) Youth Risk Behavior Survey (YRBS) on NYC public high school students who reported suicide-related factors and identifies those groups who may be at higher risk of suicide. This brief will also present data about students who reported suicide-related factors and COVID-19 stressors experienced during the pandemic.

### Three out of four self-reported suicide-related factors have increased among New York City public high school students from 2011 to 2021

- Between 2011 and 2021, the percentage of students who reported they attempted suicide remained stable. However, during the same time frame, there was an increase in the percentage of students who reported feeling sad and hopeless, non-suicidal self-injury, and suicidal ideation.

**Trends of reported suicide-related factors among New York City public high school students, 2011-2021**



Source: New York City Youth Risk Behavior Survey, 2011-2021

#### Definitions:

**Suicide-related factors** refers to students who responded “yes” to YRBS questions as follows:

- **Suicidal ideation** is defined as reporting having seriously considered attempting suicide in the 12 months prior to survey.
- **Suicide attempt** is defined as reporting having attempted suicide one or more times in the 12 months prior to survey.
- **Feeling sad and hopeless** is defined as reporting having felt sad or hopeless almost every day for two weeks or more in a row during the past 12 months so that they stopped doing some usual activities.
- **Non-suicidal self-injury** is defined as reporting having done something to purposely hurt themselves without wanting to die (such as cutting or burning themselves on purpose)

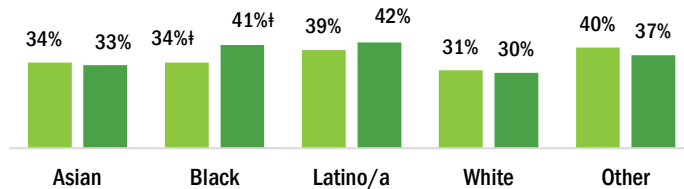
**Sexual and Gender Minority (SGM)** For the purpose of this publication SGM includes students who identified as transgender, unsure if transgender; gay, lesbian, identifies sexual orientation in some other way. Non-SGM students identified as not transgender, heterosexual/straight.

**Data Source: 2011 to 2021 NYC High School NYC Youth Risk Behavior Surveys (YRBS)** were self-administered, anonymous surveys conducted in NYC public high schools by the Health Department and the NYC Department of Education. The 2019 YRBS had 9,534 respondents, 2021 YRBS has 3,944 respondents. For more survey details, visit <https://www1.nyc.gov/site/doh/data/datasets/nyc-youth-risk-behavior-survey.page> The trends of reported suicide-related factors among New York City public high school students, 2011-2021 are based on linear test for trends. Comparisons within groups were based on t-test analysis. Statistically significant difference inferred at p-value <0.05.

\*Estimate marked with an asterisk should be interpreted with caution. Estimate’s Relative Standard Error (a measure of estimate precision) is greater than 30%, or the 95% Confidence Interval half-width is greater than 10 or the sample size is too small, making the estimate potentially unreliable.

## The proportion of Black teens in New York City who felt sad and hopeless increased from 34% in 2019 to 41% in 2021

### Prevalence of sadness and hopelessness by race/ethnicity among New York City youth, 2019 and 2021



Asian, Black, White, and Other race categories exclude Latino/a ethnicity. Latino/a includes Hispanic or Latino/a of any race. Other race includes students who self-identified as American Indian, Native Hawaiian/other Pacific Islander and multiple races.

† denotes statistically significant difference between 2019 and 2021

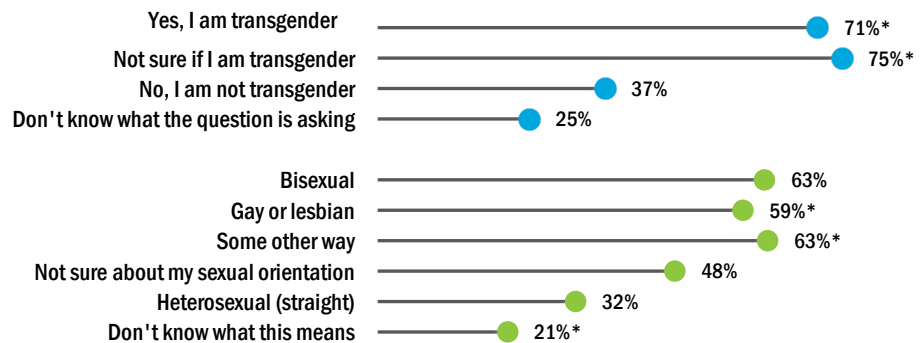
Source: *New York City Youth Risk Behavior Survey, 2019-2021*

- In 2019, students who identified as Latino/a, and those that identified as American Indian, Native Hawaiian, Pacific Islander and/or multi-racial (collectively defined as Other race) were both more likely than White students to report feeling sad and hopeless (39% and 40% vs. 31%, respectively).
- In 2021, Latino/a (42%), and Black (41%) students were more likely than White students (30%) to report feeling sad and hopeless.

## Sexual and gender minority high school students were more likely than non-sexual and gender minority students to report feeling sad and hopeless in 2021

- In 2021, transgender high school students (71%\*) and those who were not sure if they are transgender (75%\*) were more likely than non-transgender students (37%) to report feeling sad or hopeless.
- Similarly, compared with heterosexual students (32%), those that identified as bisexual (63%), gay or lesbian (59%), or some other way (63%\*) were more likely to report feeling sad or hopeless.

### Prevalence of feeling sad and hopeless by sexual orientation and gender identity among NYC youth, 2021



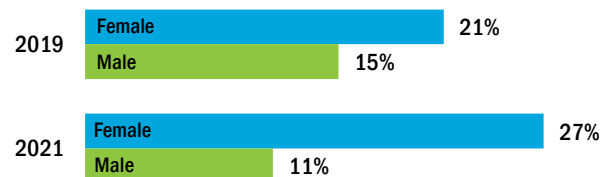
\*Estimate should be interpreted with caution due to small sample size.

Source: *New York City Youth Risk Behavior Survey, 2021*

## Female high school students were more likely than male students to report non-suicidal self-injury in both 2019 and 2021

- In 2019 and 2021, female students (21% and 27%, respectively), were more likely than male students (15% and 11%, respectively) to report non-suicidal self-injury (NSSI).
- The proportion of female students that reported NSSI between 2019 and 2021 increased.
- The proportion of male students that reported NSSI between 2019 and 2021 decreased.

### Prevalence of non-suicidal self-injury by sex, among New York City youth, 2019 and 2021



Source: *New York City Youth Risk Behavior Survey, 2019-2021*

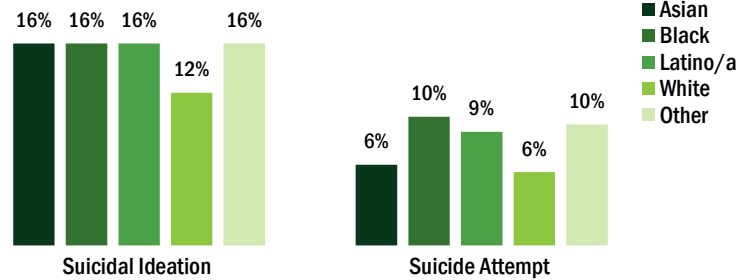
**Definitions: Race/ethnicity:** For the purpose of this publication, Latino/a includes people of Hispanic or Latino/a origin, as identified by the survey question "Are you Hispanic or Latino?" and regardless of reported race. Asian, Black, Other and White race categories exclude those who identified as Latino/a.

**COVID-19 related stressors** refer to students who responded "yes" to experiencing any of the following during the pandemic: being insulted or put down by adult in home, hunger, social isolation, or symptoms of depression during the COVID-19 pandemic.

## Racial inequities exist among students who reported suicidal thoughts and attempted suicide

- In 2019, Black (16%), Latino/a (16%), and Asian (16%) public high school students were more likely than White (12%) high school students to report suicidal ideation. In 2021, the difference between Latino/a (17%) and White (9%) students persisted.
- In 2019, Black (10%) and Latino/a (9%) high school students were more likely than White (6%) students to report attempting suicide.
- In 2021, the prevalence of attempting suicide was similar across racial and ethnic groups.

Prevalence of suicidal behavior by race/ethnicity, among New York City youth, 2019

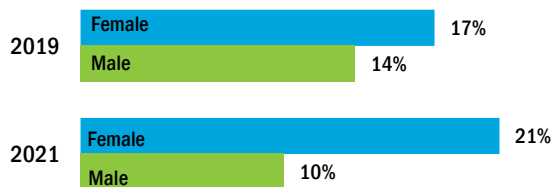


Asian, Black, White, and Other race categories exclude Latino/a ethnicity. Latino/a includes Hispanic or Latino/a of any race. Other race includes students who self-identified as American Indian, Native Hawaiian/other PI and multiple races.

Source: New York City Youth Risk Behavior Survey, 2019

## Female students were more likely than male students to report suicidal ideation

Prevalence of suicidal ideation by sex, New York City, 2019 and 2021

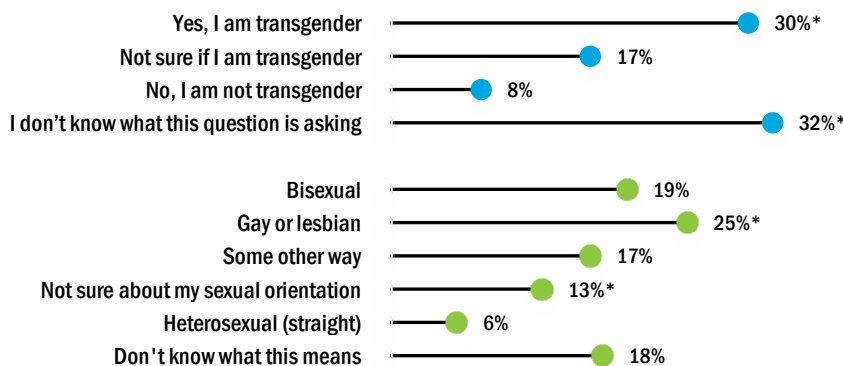


Source: New York City Youth Risk Behavior Survey, 2019-2021

- In 2019 and 2021, female high school students (17% and 21%, respectively) were more likely than male (14% and 10%, respectively) to report suicidal ideation.

## Sexual and gender minority high school students were more likely to report attempting suicide compared with non-sexual and gender minority students

Prevalence of suicide attempt among sexual and gender minority youth, New York City, 2021



\*Estimate should be interpreted with caution due to small sample size.

Source: New York City Youth Risk Behavior Survey, 2021

- In 2021, transgender high school students (30%\*) and those who were not sure if they are transgender (17%) were more likely than non-transgender students (8%) to report attempting suicide at least once in the 12 months prior to the survey.
- Compared with heterosexual students (6%), those that described their sexual orientation as bisexual (19%), gay or lesbian (25%\*), or some other way (17%) were more likely to report attempting suicide in the past 12 months.

**Health equity** is attainment of the highest level of health and well-being for all people. Not all New Yorkers have the same opportunities to live a healthy life. Achieving health equity requires focused and ongoing efforts to address historical and contemporary injustices such as discrimination based on social position (e.g., class, immigration status) or social identities (e.g., race, gender, sexual orientation). For more information, visit the Centers for Disease Control and Prevention's [Health Equity](#) page.

## Mental health of high school students who reported suicide-related factors during COVID-19

In 2021, public high school students reported on their experiences during the COVID-19 pandemic.

- An estimated 77,000 students reported they **felt socially isolated** (37%) during the pandemic. Of these:
  - 21% reported **seriously considering suicide** in the 12 months prior to survey.
  - 13% reported **attempting suicide** in the 12 months prior to survey.
  - 22% reported **non-suicidal self-injury** in the 12 months prior to the survey.
- An estimated 57,000 students (26%) reported **signs of depression** during the pandemic. Of these students:
  - 35% reported **seriously considering suicide** in the 12 months prior to survey.
  - 17% reported **attempting suicide** in the 12 months prior to survey.
  - 41% reported **non-suicidal self-injury** in the 12 months prior to the survey.
- An estimated 24,000 students reported they were **sworn or insulted by an adult in their household** (12%) during the pandemic. Of these students:
  - 43% reported **seriously considering suicide** in the 12 months prior to survey.
  - 25% reported **attempting suicide** in the 12 months prior to survey.
  - 51% reported **non-suicidal self-injury** in the 12 months prior to the survey.
- An estimated 8,000 students reported they **did not have enough food in their home** (4%) during the pandemic. Of these students:
  - 45%\* reported **seriously considering suicide** in the 12 months prior to survey.
  - 32%\* reported **attempting suicide** in the 12 months prior to survey.
  - 45%\* reported **non-suicidal self-injury** in the 12 months prior to the survey.

### Implications

In New York City, between 2011 and 2021, the percentage of public high school students who reported they felt sad or hopeless, had seriously considered killing themselves, and/or engaged in non-suicidal self-injury increased. This alarming trend was present before the COVID-19 pandemic and has continued. Understanding which stressors impact students remains important in addressing the differences in outcomes observed across suicide-related factors - especially among female, Black and Latino/a, and SGM youth - is critical to addressing disparities in suicidal behavior. These findings support the need for preventive interventions for those youth experiencing the greatest risk, as well as the need to mitigate exposure to risk early on. These strategies are further outlined in the child, youth and family mental health section of the recent [Care, Community, Action](#) plan detailing the City's goals for improving mental and behavioral health for New Yorkers.

If you are feeling sad, depressed, or suicidal, or if you or someone you care about is having problems with alcohol or drug use, talk to someone right away.



**Authors:** Jasmine Abdelnabi, Nneka Lundy De La Cruz, Amber Levanon Seligson, and Meghan Hamwey

**Acknowledgements:** Liza King, Kinjia Hinterland, Sungwoo Lim, Gretchen Van Wye, Cristina Yunzal-Butler, Ariana Annibale, Katherine Bartley, Marivel Davila, Marnie Davidoff, and Deepa Avula

**References:** 1. Bridge JA, Goldstein TR, Brent DA. Adolescent suicide and suicidal behavior. *J Child Psychol Psychiatry*. 2006;47(3-4):372-394.

2. Nock MK, Joiner Jr TE, Gordon KH, Lloyd-Richardson E, Prinstein MJ. Non-suicidal self-injury among adolescents: diagnostic correlates and relation to suicide attempts. *Psychiatry Res*. 2006;144(1):65-72.

3. Bhat M. Suicidal Behavior among US High School Students and Associated Risk Factors, Individual Survey Years 2013, 2015 and Trend Analysis from 1991 to 2015. ScholarWorks@Georgia State University. 2017. Accessed October 13, 2023. [https://scholarworks.gsu.edu/iph\\_theses/509/](https://scholarworks.gsu.edu/iph_theses/509/)

**Suggested citation:** Abdelnabi J, Lundy De La Cruz N, Levanon Seligson A, Hamwey M. Suicide-related factors among New York City Public High School Students. New York City Department of Health and Mental Hygiene: Epi Data Brief (138); November 2023.

**MORE New York City Health Data and Publications at [nyc.gov/health/data](https://nyc.gov/health/data)**

Visit EpiQuery – the Health Department’s interactive health data system at [nyc.gov/health/EpiQuery](https://nyc.gov/health/EpiQuery)

New York City Department of Health and Mental Hygiene

email us at: [Query@health.nyc.gov](mailto:Query@health.nyc.gov)





# Epi Data Tables

November 2023, No. 138

## Suicide-related factors among New York City Public High School Students

### Data Tables

- Table 1.** Overall prevalence of suicide-related factors, gender identity, and sexual orientation among New York City public high school students, 2019 and 2021
- Table 2.** Suicide-related factors among New York City public high school students, 2019
- Table 3.** Suicide-related factors among New York City public high school students, 2021
- Table 4.** Suicide-related factors by COVID-19 stressors among New York City public high school students, 2021

### Data Sources

**Youth Risk Behavior Survey (YRBS) 2011 to 2021:** The YRBS were self-administered, anonymous surveys conducted in NYC public high schools by the NYC Health Department and the NYC Department of Education. The 2019 YRBS had 9,534 respondents, 2021 YRBS has 3,944 respondents. For more survey details, visit <https://www1.nyc.gov/site/doh/data/data-sets/nyc-youth-risk-behavior-survey.page>



**Table 1. Overall prevalence of suicide-related factors, gender identity, and sexual orientation among New York City public high school students, 2019 and 2021**

Source: NYC Youth Risk Behavior Survey, 2019 and 2021

Data are weighted to the NYC public high school student population.

All N's are weighted. Weighted N population estimates are rounded to the nearest 1,000.

	2019				2021			
	Weighted N	Prevalence	Lower 95% Confidence Interval	Upper 95% Confidence Interval	Weighted N	Prevalence	Lower 95% Confidence Interval	Upper 95% Confidence Interval
<b>During the past 12 months, did you ever feel so sad or hopeless almost every day for two weeks or more in a row that you stopped doing some usual activities?</b>								
Yes	95,000	35.9	34.3	37.6	102,000	38.2	35.1	41.5
No	169,000	64.1	62.4	65.7	165,000	61.8	58.5	64.9
<b>During the past 12 months, did you ever seriously consider attempting suicide?</b>								
Yes	41,000	15.6	14.5	16.8	41,000	15.6	13.5	18
No	222,000	84.4	83.2	85.5	224,000	84.4	82	86.5
<b>During the past 12 months, how many times did you actually attempt suicide?</b>								
Yes	20,000	9.2	8.0	10.5	21,000	9.2	7.7	11.1
No	196,000	90.8	89.5	92.0	205,000	90.8	88.9	92.3
<b>During the past 12 months, how many times did you do something to purposely hurt yourself without wanting to die, such as cutting or burning yourself on purpose?</b>								
0 times	217,000	82.0	80.6	83.3	219,000	80.9	78.2	83.3
1 time	21,000	8.1	7.3	8.9	18,000	6.5 D	5.7	7.5
2 or 3 times	14,000	5.4	4.6	6.3	18,000	6.5	5.4	7.7
4 or 5 times	5,000	1.9	1.6	2.3	6,000	2.2	1.7	3
6 or more times	7,000	2.7	2.2	3.1	11,000	3.9	3	5
<b>Which of the following best describes you?</b>								
Heterosexual (straight)	212,000	80.6	79.1	82.1				
Gay or lesbian	9,000	3.3	2.7	4.0				
Bisexual	26,000	9.8	8.9	10.7				
Not sure	17,000	6.4	5.7	7.1				
<b>Which of the following best describes you?</b>								
Heterosexual (straight)					195,000	72.5 D	68.6	76.1
Gay or lesbian					11,000	3.9	2.8	5.4
Bisexual					30,000	11.3	9.8	13
Some other way					12,000	4.4	3	6.3
Not sure					14,000	5.3	4	6.9
Don't know what this means					7,000	2.6	1.9	3.5
<b>Some people describe themselves as transgender when their sex at birth does not match the way they think or feel about their gender. Are you transgender?</b>								
No	249,000	93.9	93.1	94.6	253,000	92.8	89	95.3
Yes, I am transgender	4,000	1.6	1.2	2.0	8,000	3	1.6	5.4
Not sure if I am transgender	5,000	1.8	1.5	2.3	6,000	2.2	1.3	3.7
DK what question is asking	7,000	2.7	2.3	3.2	6,000	2.1	1.3	3.2

Confidence Intervals are a measure of estimate precision: the wider the CI, the more imprecise the estimate.

Bold p-values are significant at the 0.05 level.

D When reporting to nearest whole percent, round down

For the purpose of this publication, Latino/a includes people of Hispanic or Latino/a origin, as identified by the survey question "Are you Hispanic or Latino?" and regardless of reported race. Asian, Black, Other and White race categories exclude those who identified as Latino/a.

Suicide-related factors refers to students who responded "yes" to VRBS questions as follows:

- Suicidal ideation is defined as reporting having seriously considered attempting suicide in the 12 months prior to survey.
- Suicide attempt is defined as reporting having attempted suicide one or more times in the 12 months prior to survey.
- Feeling sad and hopeless is defined as reporting having felt sad or hopeless almost every day for two weeks or more in a row during the past 12 months so that they stopped doing some usual activities.
- Non-suicidal self-injury is defined as reporting did something to purposely hurt themselves without wanting to die (such as cutting or burning themselves on purpose)

**Table 2. Suicide-related factors among New York City public high school students, 2019**

Source: NYC Youth Risk Behavior Survey, 2019

Data are weighted to the NYC public high school student population.

All N's are weighted. Weighted N population estimates are rounded to the nearest 1,000.

	Suicidal Ideation					Suicide Attempt					Felt Sad hopeless					Non-suicidal self-injury (NSSI)				
	Weighted N	Prevalence	Lower 95% Confidence Interval	Upper 95% Confidence Interval	p-value	Weighted N	Prevalence	Lower 95% Confidence Interval	Upper 95% Confidence Interval	p-value	Weighted N	Prevalence	Lower 95% Confidence Interval	Upper 95% Confidence Interval	p-value	Weighted N	Prevalence	Lower 95% Confidence Interval	Upper 95% Confidence Interval	p-value
<b>Total</b>	41,000	15.6	14.5	16.8		20,000	9.2	8.0	10.5		95,000	35.9	34.3	37.6		48,000	18.0	16.7	19.4	
<b>Race/ethnicity</b>																				
White	4,000	12.1	9.7	14.9	REF	2,000	5.8	4.0	8.3	REF	11,000	30.6	27.3	34.1	REF	6,000	15.5	12.7	18.6	REF
Black	11,000	15.6	14.0	17.4	<b>0.027</b>	6,000	10.2	8.8	11.9	<b>0.00</b>	24,000	33.6	31.6	35.7	0.15	11,000	16.1	14.5	17.7	0.70
Latino/a	15,000	15.9	14.5	17.6	<b>0.017</b>	7,000	9.4	7.7	11.6	<b>0.00</b>	38,000	39.2	36.1	42.3	<b>0.00</b>	19,000	19.9	17.9	22.0	<b>0.01</b>
Asian	6,000	16.2	13.2	19.7	<b>0.035</b>	2,000	6.4	4.7	8.6	0.68	11,000	33.5	30.7	36.4	0.21	5,000	14.9	12.5	17.6	0.76
Other (Am Ind, Native Hawaiian/other PI and multiple)	2,000	16.2	11.9	21.6	0.114	1,000	9.6	5.4	16.5	0.17	6,000	39.9	32.2	48.1	<b>0.05</b>	4,000	24.1	18.7	30.3	<b>0.01</b>
<b>What is your sex?</b>																				
Female	23,000	17.4	15.9	19.1	REF	10,000	9.0	7.7	10.3	REF	57,000	43.7	41.6	45.7	REF	27,000	20.8	19.1	22.5	REF
Male	18,000	13.5	12.3	14.9	<b>0.000</b>	9,000	8.5	7.0	10.3	0.61	37,000	28.2	25.9	30.6	<b>&lt;0.001</b>	19,000	14.7	12.7	16.8	<b>&lt;0.001</b>
<b>Which of the following best describes you?</b>																				
Heterosexual (straight)	25,000	12.1	11.1	13.3	REF	10,000	6.1	5.2	7.2	REF	65,000	31.2	29.4	33.0	REF	28,000	13.3	11.9	14.7	REF
Gay or lesbian	2,000	25.3	19.6	32.0	<b>&lt;0.001</b>	1,000	16.6	12.0	22.6	<b>0.00</b>	4,000	55.2	46.1	63.9	<b>&lt;0.001</b>	3,000	41.6	34.0	49.7	<b>&lt;0.001</b>
Bisexual	9,000	35.9	32.1	39.8	<b>&lt;0.001</b>	5,000	22.0	18.4	26.1	<b>&lt;0.001</b>	16,000	64.0	59.0	68.7	<b>&lt;0.001</b>	10,000	40.9	36.7	45.2	<b>&lt;0.001</b>
Not sure	3,000	20.9	16.6	26.0	<b>0.000</b>	2,000	16.6	10.4	25.4	<b>0.00</b>	7,000	44.8	39.0	50.8	<b>0.00</b>	4,000	26.6	22.7	30.9	<b>&lt;0.001</b>
<b>Some people describe themselves as transgender when their sex at birth does not match the way they think or feel about their gender. Are you transgender?</b>																				
No	36,000	14.7	13.6	15.8	REF	15,000	7.5	6.6	8.5	REF	85,000	35.0	33.3	36.6	REF	40,000	16.2	14.9	17.6	REF
Yes, I am transgender	1,000	37.6	*	27.6	<b>0.000</b>	1,000	40.9	*	26.3	<b>0.00</b>	2,000	54.3	*	38.9	<b>0.02</b>	2,000	46.8	38.9	54.7	<b>&lt;0.001</b>
Not sure if I am transgender	1,000	31.4	*	20.5	<b>0.010</b>	1,000	33.8	*	22.2	<b>0.00</b>	2,000	61.5	*U	49.4	<b>&lt;0.001</b>	2,000	54.6	46.6	62.2	<b>&lt;0.001</b>
DK what question is asking	1,000	16.3	11.6	22.3	0.535	1,000	25.7	*	16.8	<b>0.00</b>	3,000	38.5	U	29.4	0.48	2,000	26.1	18.2	36.0	<b>0.04</b>

\*Estimate should be interpreted with caution. Estimate's Relative Standard Error (a measure of estimate precision) is greater than 30%, or the 95% Confidence Interval half-width is greater than 10 or the sample size is too small, making the estimate potentially unreliable.

Confidence Intervals are a measure of estimate precision: the wider the CI, the more imprecise the estimate.

Bold p-values are significant at the 0.05 level.

U When reporting to nearest whole percent, round up

D When reporting to nearest whole percent, round down

\* P-values were obtained from t-test comparisons. Values below the significance level (0.05) appear in bold and indicate a statistically significant change.

For the purpose of this publication, Latino/a includes people of Hispanic or Latino/a origin, as identified by the survey question "Are you Hispanic or Latino?" and regardless of reported race. Asian, Black, Other and White race categories exclude those who identified as Latino/a.

Suicide-related factors refers to students who responded "yes" to YRBS questions as follows:

- Suicidal ideation is defined as reporting having seriously considered attempting suicide in the 12 months prior to survey.
- Suicide attempt is defined as reporting having attempted suicide one or more times in the 12 months prior to survey.
- Feeling sad and hopeless is defined as reporting having felt sad or hopeless almost every day for two weeks or more in a row during the past 12 months so that they stopped doing some usual activities.
- Non-suicidal self-injury is defined as reporting did something to purposely hurt themselves without wanting to die (such as cutting or burning themselves on purpose)



**Table 3. Suicide-related factors among New York City public high school students, 2021**

Source: NYC Youth Risk Behavior Survey, 2021

Data are weighted to the NYC public high school student population.

All N's are weighted. Weighted N population estimates are rounded to the nearest 1,000.

	Suicidal Ideation					Suicide Attempt					Felt Sad hopeless					Non-suicidal self-injury (NSSI)						
	Weighted N	Prevalence	Lower 95% Confidence Interval	Upper 95% Confidence Interval	p-value	Weighted N	Prevalence	Lower 95% Confidence Interval	Upper 95% Confidence Interval	p-value	Weighted N	Prevalence	Lower 95% Confidence Interval	Upper 95% Confidence Interval	p-value	Weighted N	Prevalence	Lower 95% Confidence Interval	Upper 95% Confidence Interval	p-value		
<b>Race/ethnicity</b>																						
White	4,000	11.2	7.0	17.4	REF	2,000	7.4 *	3.7	14.1	REF	11,000	29.9	23.5	37.2	REF	6,000	16.9	12.2	23	REF		
Black	12,000	16.7	13.8	20.2	0.08	6,000	9.4	6.7	13.2	0.49	30,000	41.2	36.8	45.8	<0.001	14,000	18.8	15.4	22.8	0.53		
Latino/a	17,000	16.5	D	13.3	20.3	0.04	8,000	9.5	U	7.6	11.8	0.38	43,000	41.9	35.8	48.2	0.01	21,000	20.3	16.9	24.2	0.22
Asian	5,000	12.6	10.1	15.6	0.65	2,000	4.9	2.8	8.5	0.39	13,000	33.4	27.1	40.4	0.52	6,000	17.0	14.0	20.4	0.97		
Other (Am Ind, Native Hawaiian/other PI and multiple)	2,000	19.1	11.4	30.2	0.09	1,000	11.0	6.3	18.6	0.38	4,000	37.4	29.2	46.4	0.22	2,000	21.3 *	12.4	34.1	0.41		
<b>What is your sex?</b>																						
Female	26,000	20.6	17.5	24.1	REF	12,000	10.3	8.2	12.7	REF	63,000	48.4	44.7	52.1	REF	35,000	26.6	22.5	31.2	REF		
Male	13,000	10.0	8.0	12.3	<0.001	8,000	7.0	5.1	9.7	<0.001	38,000	28.2	24.8	32	<0.001	15,000	10.9	8.8	13.3	<0.001		
<b>Which of the following best describes you?</b>																						
Heterosexual (straight)	18,000	9.7	8.2	11.4	REF	9,000	5.7	4.7	6.9	REF	61,000	32.0	28.9	35.2	REF	23,000	11.9	10.3	13.7	REF		
Gay or lesbian	4,000	41.5	D	33.1	50.5	<0.001	2,000	25.3 *	15.7	38.0	<0.001	6,000	58.9 *	47.6	69.4	<0.001	5,000	43.5 *U	31.8	56	<0.001	
Bisexual	10,000	33.8	28.5	39.5	<0.001	5,000	19.5	D	14.8	25.2	<0.001	18,000	62.5	D	56.1	68.4	<0.001	13,000	41.9	35.3	48.7	<0.001
Some other way	4,000	39.1	31.4	47.4	<0.001	2,000	16.7	11.5	23.7	<0.001	7,000	63.2	55.1	70.7	<0.001	6,000	51.6	44.1	59	<0.001		
Not sure	3,000	25.7 *	14.9	40.5	0.02	2,000	13.1 *	6.9	23.5	0.08	7,000	48.4 *	36.4	60.7	0.01	4,000	31.8 *	21.9	43.6	<0.001		
Don't know what this means	1,000	11.9	6.6	20.4	0.54	1,000	18.4	10.6	30.0	0.01	1,000	20.6 *	11.2	34.7	0.04	1,000	15.7 *	8.3	27.8	0.43		
<b>Some people describe themselves as transgender when their sex at birth does not match the way they think or feel about their gender. Are you transgender?</b>																						
No	33,000	13.5	U	12.0	15.2	REF	16,000	7.9	6.5	9.5	REF	91,000	36.7	34.1	39.5	REF	43,000	17.0	15.0	19.3	REF	
Yes, I am transgender	4,000	53.6 *	36.9	69.5	<0.001	2,000	29.7 *	19.8	42.0	<0.001	5,000	71.1 *	54.0	83.7	<0.001	5,000	62.9 *	50.6	73.7	<0.001		
Not sure if I am transgender	3,000	54.0 *	41.9	65.7	<0.001	1,000	17.4	9.7	29.2	0.07	4,000	75.4 *	62.5	84.9	<0.001	3,000	49.4 *	35.5	63.4	<0.001		
DK what question is asking	1,000	23.2 *	14.0	35.8	0.08	1,000	31.8 *	20.2	46.2	0.00	1,000	24.5 U*	14.5	38.4	0.03	1,000	19.6 *	10.9	32.6	0.64		

\*Estimate should be interpreted with caution. Estimate's Relative Standard Error (a measure of estimate precision) is greater than 30%, or the 95% Confidence Interval half-width is greater than 10 or the sample size is too small, making the estimate potentially unreliable.

Confidence intervals are a measure of estimate precision: the wider the CI, the more imprecise the estimate.

Bold p-values are significant at the 0.05 level.

U When reporting to nearest whole percent, round up

D When reporting to nearest whole percent, round down

\* P-values were obtained from t-test comparisons. Values below the significance level (0.05) appear in bold and indicate a statistically significant change.

For the purpose of this publication, Latino/a includes people of Hispanic or Latino/a origin, as identified by the survey question "Are you Hispanic or Latino?" and regardless of reported race. Asian, Black, Other and White race categories exclude those who identified as Latino/a.

Suicide-related factors refers to students who responded "yes" to YRBS questions as follows:

- Suicidal ideation is defined as reporting having seriously considered attempting suicide in the 12 months prior to survey.
- Suicide attempt is defined as reporting having attempted suicide one or more times in the 12 months prior to survey.
- Feeling sad and hopeless is defined as reporting having felt sad or hopeless almost every day for two weeks or more in a row during the past 12 months so that they stopped doing some usual activities.
- Non-suicidal self-injury is defined as reporting did something to purposely hurt themselves without wanting to die (such as cutting or burning themselves on purpose)



**Table 4. Suicide-related factors by COVID-19 stressors among New York City public high school students, 2021**

Source: NYC Youth Risk Behavior Survey, 2021

Data are weighted to the NYC public high school student population.

All N's are weighted. Weighted N population estimates are rounded to the nearest 1,000.

	Total				Suicidal Ideation					Suicide Attempt					Non-suicidal self-injury (NSSI)				
	Weighted N	Prevalence	Lower 95% Confidence Interval	Upper 95% Confidence Interval	Weighted N	Prevalence	Lower 95% Confidence Interval	Upper 95% Confidence Interval	p value	Weighted N	Prevalence	Lower 95% Confidence Interval	Upper 95% Confidence Interval	p value	Weighted N	Prevalence	Lower 95% Confidence Interval	Upper 95% Confidence Interval	p value
<b>Percentage of students who most of the time or always felt so sad, depressed, or hopeless that they had little interest or took little interest in doing things during the COVID-19 pandemic</b>																			
Yes	57,000	26.5 D	22.2	31.3	19,000	35	30.5	39.9	REF	9,000	17.3	13.5	21.9	REF	23,000	40.9	34.9	47.2	REF
No	157,000	73.5 U	68.7	77.8	13,000	8.8	6.7	11.6	<0.001	7,000	5.5 U	4	7.6	<0.001	19,000	12.1	10	14.6	<0.001
<b>Percentage of students who reported that a parent or other adult in their home most of the time or always swore at them, insulted them, or put them down during the COVID-19 pandemic</b>																			
Yes	24,000	11.6	9.5	13.9	10,000	43.3	35.1	51.9	REF	5,000	24.9	18.4	32.7	REF	12,000	50.7	44.9	56.5	REF
No	187,000	88.4	86.1	90.5	22,000	12.1	9.9	14.6	<0.001	11,000	6.7	5.4	8.3	<0.001	29,000	15.7	13.2	18.6	<0.001
<b>Percentage of students who most of the time or always went hungry because there was not enough food in their home during the COVID-19 pandemic</b>																			
Yes	8,000	3.7	2.7	5	3,000	45 *	29.9	61.1	REF	2,000	31.5 *U	19.7	46.4	REF	3,000	45.1 *	29.9	61.2	REF
No	201,000	96.3	95	97.3	28,000	14.6	12.3	17.3	<0.001	13,000	8	6.3	10	<0.001	37,000	18.7	16.2	21.6	<0.001
<b>Percentage of students who never or rarely were able to spend time with family, friends, or other groups by using a computer, phone, or other device during the COVID-19 pandemic (such as clubs or religious groups and not counting attending school online)</b>																			
Yes	77,000	36.6	34.4	38.9	15,000	21	16.6	26.1	REF	8,000	13.3	10.9	16.1	REF	17,000	22	19.1	25.4	REF
No	133,000	63.4	61.1	65.6	16,000	12.6	10.3	15.5	<0.001	8,000	6.6	4.5	9.5	<0.001	24,000	18.2	14.7	22.4	0.11

\*Estimate should be interpreted with caution. Estimate's Relative Standard Error (a measure of estimate precision) is greater than 30%, or the 95% Confidence Interval half-width is greater than 10 or the sample size is too small, making the estimate potentially unreliable.

Confidence Intervals are a measure of estimate precision: the wider the CI, the more imprecise the estimate.

Bold p-values are significant at the 0.05 level.

U When reporting to nearest whole percent, round up

D When reporting to nearest whole percent, round down

^ P-values were obtained from t-test comparisons. Values below the significance level (0.05) appear in bold and indicate a statistically significant change.

For the purpose of this publication, Latino/a includes people of Hispanic or Latino/a origin, as identified by the survey question "Are you Hispanic or Latino?" and regardless of reported race. Asian, Black, Other and White race categories exclude those who identified as Latino/a.

Suicide-related factors refers to students who responded "yes" to YRBS questions as follows:

- Suicidal ideation is defined as reporting having seriously considered attempting suicide in the 12 months prior to survey.
- Suicide attempt is defined as reporting having attempted suicide one or more times in the 12 months prior to survey.
- Feeling sad and hopeless is defined as reporting having felt sad or hopeless almost every day for two weeks or more in a row during the past 12 months so that they stopped doing some usual activities.
- Non-suicidal self-injury is defined as reporting did something to purposely hurt themselves without wanting to die (such as cutting or burning themselves on purpose)