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COVID-19 and Students in Higher Education

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School of Law
Williams Institute



RESEARCH THAT MATTERS

COVID-19 AND STUDENTS IN HIGHER EDUCATION

May 2021

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Kathryn O'Neill
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EXECUTIVE SUMMARY

Prior research conducted by the Williams Institute and others indicates that LGBTQ people face greater risk of COVID-19 illness and other consequences due to underlying health and economic vulnerabilities. Most research conducted on the pandemic to date has focused on adults in the general population, despite the potential long-term economic effects of the pandemic on students. Particularly vulnerable are the nation's 3.4 million LGBTQ students ages 18-40, including 2.5 million ages 18-24, who may find themselves "sheltering in place" with families that are not supportive of their sexual orientation and gender identity. This study uses a nationally representative sample of U.S. adults ages 18 to 40 conducted in January and February 2021 to examine the experiences of LGBTQ people and their non-LGBTQ counterparts who were students or planned to be students during the COVID-19 pandemic.

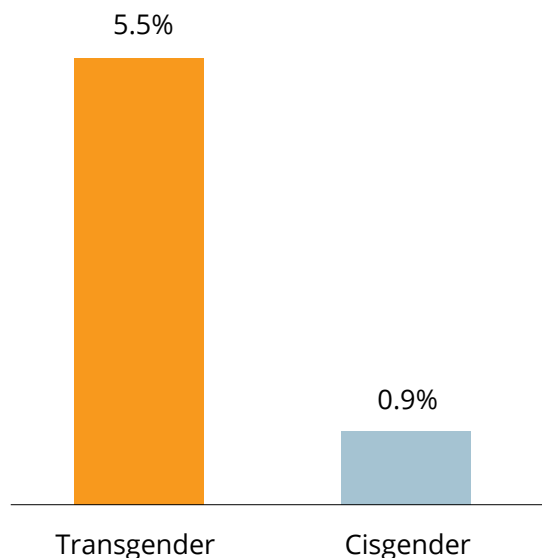
Almost a third (31.5%) of 1,079 participants in the Access to Higher Education Survey, including 36.6% of LGBTQ and 25.7% of non-LGBTQ participants, reported that they were students or planned to be students during the COVID-19 pandemic. Some (16.9%) of these participants indicated that they postponed starting school because of coronavirus (COVID-19). However, given that most of the sample included in this report (N=240) were students during the pandemic, participants will hereafter be referred to as students. Students completed questions about COVID-19 illness, remote learning, and the impact of the pandemic on their educational pursuits, housing, and educational financing. Differences between LGBTQ and non-LGBTQ students were examined for the sample as a whole and by transgender/cisgender status, race/ethnicity, and first-generation college status where possible.

MAIN FINDINGS

COVID-19 Illness among Students and their Families

- About 1.3% of LGBTQ and non-LGBTQ students were seriously ill or hospitalized with COVID-19.
- Transgender students were six times more likely to report having been seriously ill or hospitalized with COVID-19 than their cisgender peers, 5.5% versus 0.9%, respectively.

COVID-19 illness among students in the Access to Higher Education Survey (N=240) by transgender and cisgender status

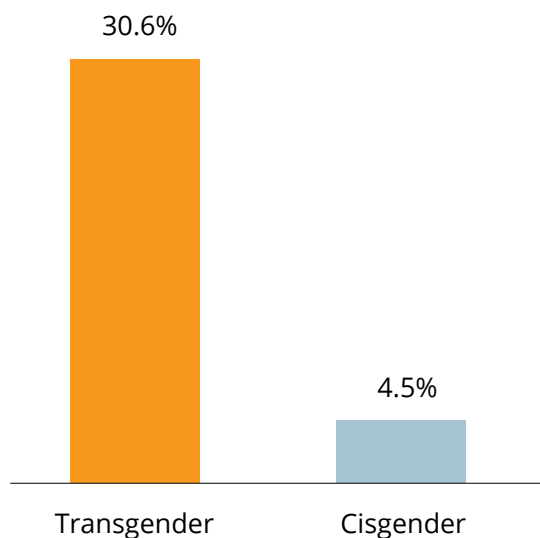


- About one in five (20.2%) LGBTQ and non-LGBTQ students had a family member become seriously ill or hospitalized with COVID-19.
- Over a quarter (27.7%) of LGBTQ students of color reported that a family member had been seriously ill with COVID, as did 23.1% of non-LGBTQ students of color, 17.4% of White LGBTQ and 10.0% of White non-LGBTQ students.

Online Instruction and Access to Internet and Quiet

- Over 90% of students reported that their instruction went online during the pandemic.
- Nearly one in ten (9.5%) of LGBTQ and 3.3% of non-LGBT students reported that they did not currently have reliable internet and a quiet space to complete online instruction.
- More transgender students reported a lack of reliable internet and a quiet space to complete on-line instruction than cisgender students, 30.6% versus 4.5%, respectively.

Current students (N=205) who do not currently have reliable internet and a quiet space to complete online instruction in the Access to Higher Education Survey by transgender and cisgender statuses



Ability to Pursue Studies

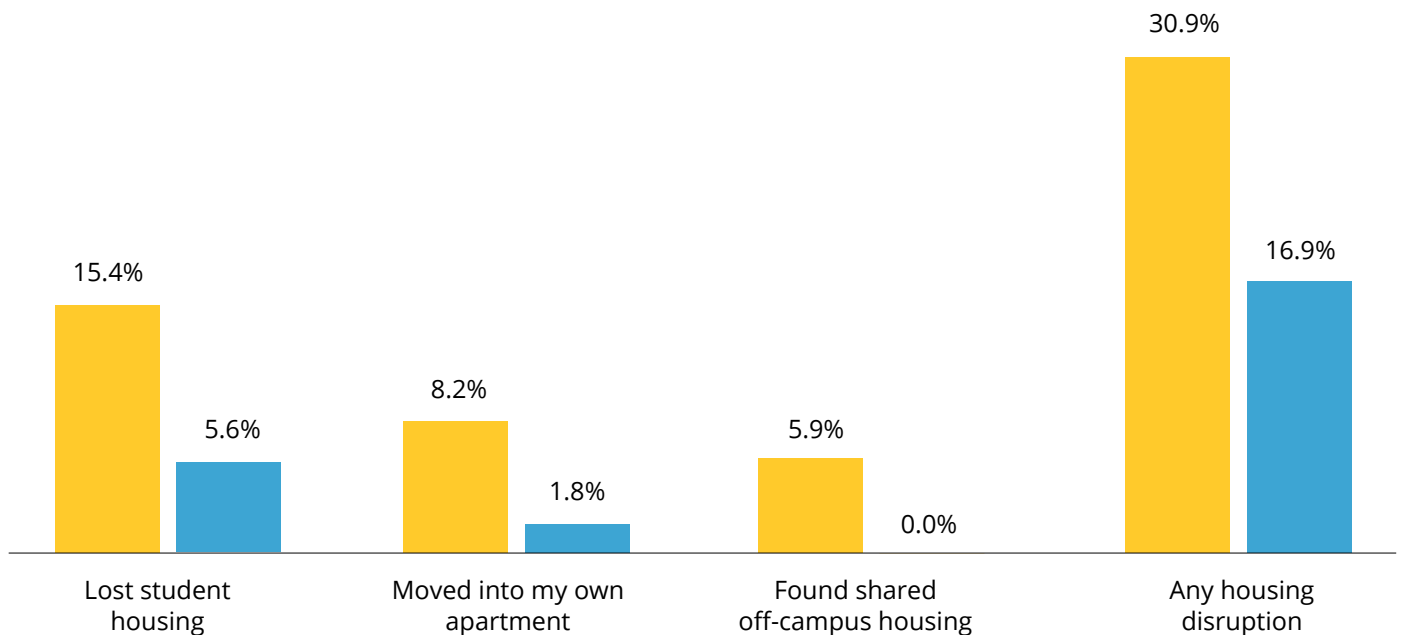
- Over a third (38.5%) of all students, and nearly two-thirds (65.1%) of transgender students, reported that their ability to pursue their studies was worse than before the pandemic.
- About one in five (22.8%) LGBTQ and non-LGBTQ students experienced course disruptions due to the COVID-19 pandemic, including at least one of the following: taking a leave of absence from school, changing schools, postponing starting school, or reducing number of classes.
- More than one in ten (12.1%) LGBTQ and non-LGBTQ students have had to take care of children or other family members during this pandemic.

Housing Disruptions

- More LGBTQ students experienced a housing disruption due to the pandemic than their non-LGBTQ counterparts, 30.9% v. 16.9%, respectively.
 - More LGBTQ than non-LGBTQ students lost student housing (15.4% vs. 5.6%), moved into their own apartment (8.2% vs. 1.8%), or found shared off-campus housing (5.9% vs. 0%).
 - An estimated 3.0% of LGBTQ and 0.8% of non-LGBTQ students had nowhere to live during the pandemic.

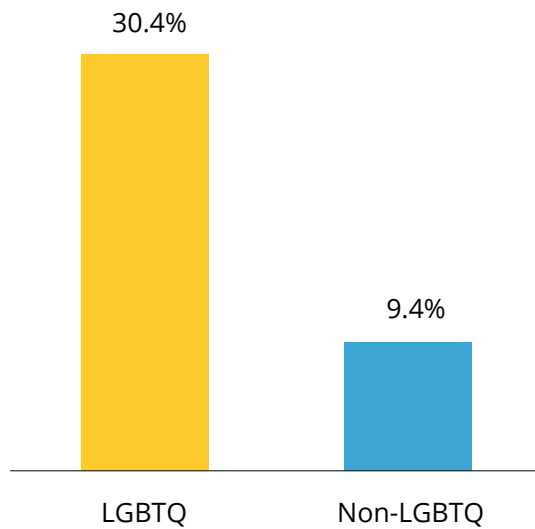
Housing disruptions among students ages 18-40 (N=240) in the Access to Higher Education Survey by LGBTQ status

■ LGBTQ ■ Non-LGBTQ



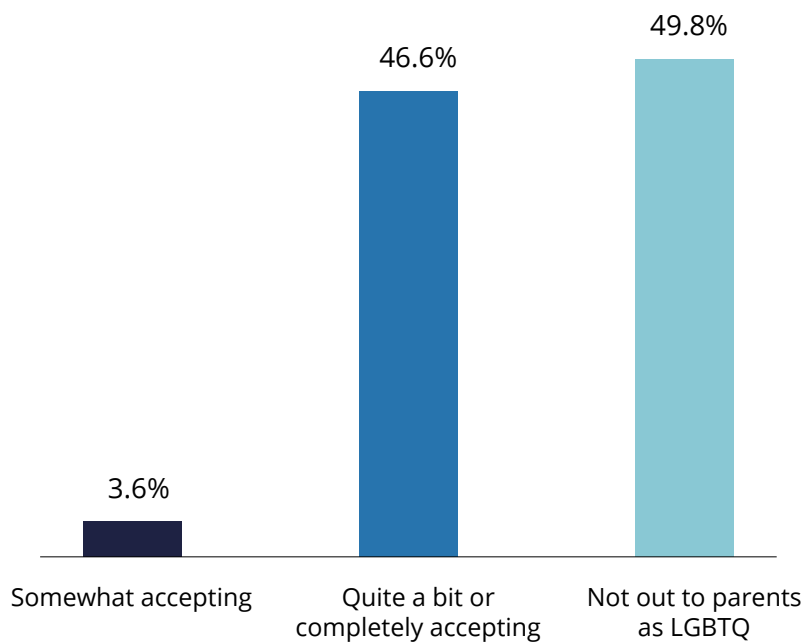
- More than half (58.0%) of non-LGBTQ students were living with parents before COVID-19 as compared to 39.6% of LGBTQ students.
- Independent of the pandemic, LGBTQ students were more than three times as likely to report picking a school in a different city or state from where they grew up to get away from family as non-LGBTQ students, 30.4% and 9.4%, respectively.

Picked school in a different city or state among students ages 18-40 (N=240) in the Access to Higher Education Survey by LGBTQ status



- Among students who moved home to live with relatives due to COVID-19, nearly half (49.8%) were not “out” to parents as LGBTQ.

Parental acceptance of LGBTQ students ages 18-40 (N=12) who moved home to live with relatives due to COVID-19 and were living at home at the time of Access to Higher Education Survey completion



Financial Disruptions

- One third (33.0%) of all students experienced a financial disruption, such as loss of financial aid, jobs, internships, or financial support from family, or needing to get a job.

CONCLUSIONS

Many LGBTQ and non-LGBTQ students have been impacted by the COVID-19 pandemic. Family illness, a shift to on-line education, and changes to housing and financial support were reported by over 20% to more than 50% of students. Transgender students were especially impacted by the pandemic. They were more likely to report having been seriously ill with COVID-19 than their cisgender counterparts. Transgender students were also more likely to report that they lacked reliable internet and a quiet space to complete online instruction than their cisgender peers. Nearly two-thirds of transgender students reported that their ability to pursue their studies had worsened due to the pandemic.

LGBTQ students were more likely to experience housing disruptions than non-LGBTQ students, in part because they were less likely to be living with family before the pandemic. Almost a third of LGBTQ students reported seeking schools in cities and states away from where they grew up, and, among those who moved home to live with relatives due to COVID-19, half were not “out” to parents as LGBTQ. While parents can be a source of housing stability, living with parents may also be challenging for LGBTQ students whose parents are not accepting of them as LGBTQ people or to whom they are not “out.” In preparing for future pandemics or other emergencies, colleges and universities should consider LGBTQ students, as well as other vulnerable student populations, whose reliance upon campus housing, internet and other services cannot be absorbed by families of origin.

INTRODUCTION

The COVID-19 pandemic has disrupted the lives of millions living in the U.S. National headlines have focused on morbidity and mortality, unemployment, food and housing insecurity, and the impact of primary school closures on working parents and children. The effects of the pandemic on those seeking higher education have received far less media attention, despite the potential long-term economic consequences of disrupted educational trajectories. Particularly vulnerable are the nation's 3.4 million LGBTQ students ages 18-40, including 2.5 million ages 18-24¹, who may find themselves “sheltering in place” with families that are not supportive of their sexual orientation and gender identity.²

Emerging research on the impact of the pandemic on students in higher education indicates that many are facing significant challenges. Such challenges are not only academic – a recent study of students across 202 colleges and universities in the U.S. found that nearly three in five experienced housing or food insecurity.³ While this study did not examine the experience of LGBTQ students, other surveys suggest that their needs may be similar if not greater. For example, a recent non-representative survey of LGBTQ university students found that over 62% experienced a change of living arrangements due to COVID-19.⁴ Students trying to pursue their education remotely from home

¹ The Williams Institute estimates that 3,382,000 U.S. students ages 18-40 are LGBT-identified (range: 3,011,000 to 3,774,000) and that 2,532,000 of U.S. students ages 18-24 are LGBT-identified (range: 2,240,000, 2,854,000). We derive these estimates by determining the number of 18-40 year students enrolled in U.S. schools and multiplying % LGBT-identified among students who completed the Behavioral Risk Factor Surveillance System Survey (BRFSS) in 32 states that used the optional Sexual Orientation and Gender Identity (SOGI) module in 2019.

The number of students enrolled in public and private schools in the US ages 18 to 40 and 18 to 24 were obtained from the 2019 American Community Survey 1-year estimates of school enrollment (<https://data.census.gov/cedsci/table?q=B14003%20&d=ACS%201-Year%20Estimates%20Detailed%20Tables&tid=ACSDT1Y2019.B14003&hidePreview=false>; Table B14003 “Sex by School Enrollment By Type of School By Age for the Population 3 Years and Over). In order to obtain a count of students ages 35 to 40 among all students ages 35 and up, we used pooled BRFSS data from 32 states that used the optional SOGI module to estimate the percentage of students ages 35-40 among all students 35 and up (32% of males and 31% of females), and multiplied it by the total number of students ages 35 and up in each “sex” group. Estimates were summed across public and private schools and males and females for those ages 18-40 and 18-24.

To estimate the number of LGBT students age 18-40 and 18-24, we applied (multiplied) percentage LGBT-identified among students ages 18-40 (15.5%) and 18-24 (16.5%) from the 2019 pooled BRFSS sample to the estimated number of students in each age group. Ranges around our estimates were obtained by multiplying the 95% confidence intervals for % LGBT to the estimated number of students. All estimates were rounded to the nearest 1,000.

² The Williams Institute. (2019). *LGBT People in the U.S. Not Protected by State Nondiscrimination Statutes*. <https://williamsinstitute.law.ucla.edu/publications/lgbt-nondiscrimination-statutes/>; The Trevor Project. (2020). *2020 National Survey on LGBTQ Youth Mental Health*. New York, New York: The Trevor Project. <https://www.thetrevorproject.org/survey-2020/?section=Introduction>; Movement Advancement Project. (November 2020). *The Disproportionate Impacts of COVID-19 on LGBTQ Households in the U.S.* www.lgbtmap.org/2020-covid-lgbtq-households; Human Rights Campaign. (2020). *The Lives and Livelihoods of Many in the LGBTQ Community are at Risk Amidst COVID-19 Crisis*. <https://www.hrc.org/resources/the-lives-and-livelihoods-of-many-in-the-lgbtq-community-are-at-risk-amidst-covid-19-crisis>

³ The Hope Center for College, Community, and Justice. (2021). *#RealCollege 2021: Basic Needs Insecurity During the Ongoing Pandemic*. Philadelphia, PA. <https://hope4college.com/rc2021-bni-during-the-ongoing-pandemic/>

⁴ Salerno, J.P., Pease, M., Devadas, J., Nketia, B., & Fish, J.N. (2020). *COVID-19-Related Stress Among LGBTQ+ University Students: Results of a U.S. National Survey*. University of Maryland Prevention Research Center. <https://doi.org/10.13016/>

rely heavily on access to the internet, but many households, particularly LGBTQ households, have faced serious problems with their internet connection or have no connection at all.⁵

The COVID-19 pandemic has exacted a toll on the mental health of many people, including students. One study reported that about half of college students are experiencing moderate to severe anxiety.⁶ A recent survey of LGBTQ university students found that as many as 65% met clinical criteria for moderate or severe psychological distress.⁷ LGBTQ students may experience additional stressors, such as moving home to unsupportive families and isolation from LGBTQ peers and supports⁸. In addition, LGBTQ students have higher pre-pandemic exposure to adversities, including family and school-based violence and harassment, which increases their sensitivity or mental health vulnerability to current stressors.⁹ Challenges meeting basic needs, housing disruptions, internet issues, and emotional distress and are likely to make completing coursework, particularly on-line instruction, difficult.

The economic effects of the pandemic have not landed evenly on the population and are patterned by race/ethnicity, as well as LGBTQ status.¹⁰ Economic inequalities may widen due to the impact of the pandemic on the pursuit of higher education. For example, the National Student Clearinghouse Research Center found a 21.7% decline in the proportion of high school graduates going to college

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⁵ Movement Advancement Project. (2020, November). *The Disproportionate Impacts of COVID-19 on LGBTQ Households in the U.S.* Retrieved December 16, 2020, from www.lgbtmap.org/2020-covid-lgbtq-households.

⁶ The Hope Center for College, Community, and Justice. (2021). *#RealCollege 2021: Basic Needs Insecurity During the Ongoing Pandemic*. Philadelphia, PA. <https://hope4college.com/rc2021-bni-during-the-ongoing-pandemic/>

⁷ Salerno, J.P., Pease, M., Devadas, J., Nketia, B., & Fish, J.N. (2020). *COVID-19-Related Stress Among LGBTQ+ University Students: Results of a U.S. National Survey*. University of Maryland Prevention Research Center. <https://doi.org/10.13016/zug9-xtmi>

⁸ The Trevor Project. (2020). *2020 National Survey on LGBTQ Youth Mental Health*. New York, New York: The Trevor Project. <https://www.thetrevorproject.org/survey-2020/?section=Introduction>; Salerno, J.P., Pease, M., Devadas, J., Nketia, B., & Fish, J.N. (2020). *COVID-19-Related Stress Among LGBTQ+ University Students: Results of a U.S. National Survey*. University of Maryland Prevention Research Center. <https://doi.org/10.13016/zug9-xtmi>

⁹ Corliss, H.L., S.D. Cochran, and V.M. Mays (2002). Reports of parental maltreatment during childhood in a United States population-based survey of homosexual, bisexual, and heterosexual adults. *Child Abuse Negl.* 26(11), p. 1165-78.; Koken, J.A., D.S. Bimbi, and J.T. Parsons. (2009). Experiences of familial acceptance-rejection among transwomen of color. *J Fam Psychol.* 23(6), p. 853-60. Kann, L. Olsen, E. O. McManus, T., Harris, W. A., Shanklin, S. L., Flint, K. H., et al. (2016). Sexual Identity, Sex of Sexual Contacts, and Health-Related Behaviors Among Students in Grades 9-12 - United States and Selected Sites, 2015. *MMWR Surveill Summ.* 65(9): p. 1-202. <https://www.cdc.gov/mmwr/volumes/65/ss/pdfs/ss6509.pdf>; Coulter, R.W.S. and S.R. Rankin. (2017). College Sexual Assault and Campus Climate for Sexual- and Gender-Minority Undergraduate Students. *J Interpers Violence.* 35(5-6): 1351-1366; Griner, S.B., Vámos, C. A., Thompson, E.L., Logan R., Vázquez-Otero C., Daley E.M. (2017) The Intersection of Gender Identity and Violence: Victimization Experienced by Transgender College Students. *J Interpers Violence.* 35(23-24):5704-5725; McLaughlin, K.A., Conron, K.J., Koenen, K.C., Gilman, S.E. (2010). Childhood adversity, adult stressful life events, and risk of past-year psychiatric disorder: a test of the stress sensitization hypothesis in a population-based sample of adults. *Psychol Med.* 40(10): p. 1647-58.

¹⁰ Brown, S. (July 1, 2020). *The COVID-19 Crisis Continues to Have Uneven Economic Impact by Race and Ethnicity*. Urban Wire: Race and Ethnicity, The Urban Institute. <https://www.urban.org/urban-wire/covid-19-crisis-continues-have-uneven-economic-impact-race-and-ethnicity>; Sears, B. Conron, K.J., & Flores, A.R. (2021). *The Impact of the Fall 2020 COVID-19 Surge on LGBT Adults in the US*. The Williams Institute, UCLA, Los Angeles, CA.

immediately after graduation, with particularly pronounced declines at high schools which are low-income, high poverty, and which have high proportions of Black or Latino/a students.¹¹ Similarly, there has been an estimated overall 13% drop in freshman enrollment in fall 2020, with the steepest decline seen at community colleges (-18.9%) where many Black, Latino/a, and low-income students enter the higher education system.¹² Information about college enrollment for LGBTQ high school students is not available. Among those currently enrolled in higher education programs, degree delays are likely. A recent survey of graduate students in U.S. public universities found that 25% may face delays in their degree progress and graduation, with such delays particularly pronounced among women, transgender, non-binary, and genderqueer students, and those who are parenting.¹³

The dearth of knowledge about the impact of the pandemic on LGBTQ students is particularly problematic given lower pre-pandemic lifetime educational attainment among bisexual and transgender adults compared to heterosexual, cisgender peers.¹⁴ This study aims to shed light on the experiences of LGBTQ students in a variety of educational settings using a national sample of LGBTQ and non-LGBTQ adults ages 18-40. Differential vulnerability by transgender/cisgender status, race/ethnicity, and first-generation college status is also explored. Such information is needed to inform institutional responses to the pandemic and to develop more robust safety nets for all students, including the 16.5% of those ages 18-24 and 10.2% of those ages 25-40 who are LGBTQ-identified.¹⁵

¹¹ National Student Clearinghouse Research Center. (2020). *High School Benchmarks 2020: National College Progression Rates. With a COVID-19 Special Analysis*. Retrieved December 12, 2020, from <https://nscresearchcenter.org/high-school-benchmarks/>

¹² National Student Clearinghouse Research Center. (2020, November 12). *National Student Clearinghouse Research Center's Monthly Update on Higher Education Enrollment*. Retrieved December 12, 2020, from <https://nscresearchcenter.org/stay-informed/>; Nierenberg, A., & Pasick, A. (2020, October 16). *Community College Enrollment is Way Down*. New York Times, pp. 1–9. Retrieved from <https://www.nytimes.com/2020/10/16/us/community-college-enrollment-drop.html>

¹³ Ogilvie, C., Brooks, T. R., Ellis, C., Gowen, G., Knight, K., Perez, R. J., ... Smith, R. A. (2020). *NSF RAPID: Graduate Student Experiences of Support and Stress During the COVID-19 Pandemic*. Retrieved from www.montana.edu/covid19_rapid

¹⁴ Badgett, M.V., Durso, L.E., & Schrimmer, A. (2013). *New Patterns of Poverty in the Lesbian, Gay, and Bisexual Community*. Los Angeles, CA: Williams Institute: CA. <https://williamsinstitute.law.ucla.edu/publications/lgb-patterns-of-poverty/>; Conron, K.J., Mimiaga, M.J., & Landers, S.J. (2010). A population-based study of sexual orientation identity and gender differences in adult health. *Am J Public Health*, 100(10), p. 1953-1960. <https://pubmed.ncbi.nlm.nih.gov/20516373/>; Dilley, J.A., Simmons, K. W., Boysun, M. J., Pizacani, B. A., & Stark, M. J. (2010). Demonstrating the importance and feasibility of including sexual orientation in public health surveys: health disparities in the Pacific Northwest. *Am J Public Health*, 100(3), 460-467. doi: 10.2105/AJPH.2007.130336; Conron, K.J., Scott, G., Stowell, G. S., Landers, S. J. (2012). Transgender health in Massachusetts: results from a household probability sample of adults. *Am J Public Health*, 102(1), 118-122. doi: 10.2105/AJPH.2011.300315; Carpenter, C.S., Eppink, S.T., & Gonzales, G. (2020). Transgender Status, Gender Identity, and Socioeconomic Outcomes in the United States. *ILR Review*, 73(3), 573-599. <https://doi.org/10.1177/0019793920902776>; Mollborn, S. & Everett, B. (2015). Understanding the educational attainment of sexual minority women and men. *Research in Social Stratification and Mobility*, 41, 40-55. <https://doi.org/10.1016/j.rssm.2015.04.004>; Crissman, H.P., Berger, M. B., Graham, L. F., & Dalton, V. K. (2017). Transgender Demographics: A Household Probability Sample of US Adults, 2014. *Am J Public Health*, 107(2), 213-215. doi: 10.2105/AJPH.2016.303571; Conron, K.J., Goldberg, S.K., & Halpern, C.T. (2018). Sexual orientation and sex differences in socioeconomic status: a population-based investigation in the National Longitudinal Study of Adolescent to Adult Health. *J Epidemiol Community Health*, 72(11), 1016-1026. doi: 10.1136/jech-2017-209860.

¹⁵ Our analyses of 2019 Behavioral Risk Factor Surveillance Survey data aggregated across 32 states, indicate that 16.5%

RESULTS

BACKGROUND

More than a third (36.6%) of LGBTQ and about a quarter (25.7%) of non-LGBTQ participants who completed the Access to Higher Education Survey reported that the COVID-19 pandemic happened when they were a student or when they intended to be a student (Appendix, Table A1). Some (16.9%) of these participants indicated that they postponed starting school because of coronavirus (COVID-19) (Table 3). However, given that most of the sample included in this report (N=240) were students during the pandemic, participants shall hereafter be referred to as students.

LGBTQ and non-LGBTQ students were similar on most demographic characteristics (Table 1). Most (69.7%) participants were 18-24 years of age, 17.9% were 25-29, and the remainder (12.4%, total not shown) were 30-40 years old. Just over half were White, non-Hispanic (51.3%), 20.0% were Latino/a, 16.4% were Black, 7.7% were another race or ethnicity, including Asian, Native Hawaiian or Pacific Islander or American Indian, and 4.7% were more than one race. Nearly one in five students (18.6%) were first generation college—defined as being in college and having parents with no more than a high school degree themselves. Like patterns observed in other population-based samples, a larger proportion of LGBTQ students were assigned female at birth (72.6%) than among the non-LGBTQ group (55.4%).¹⁶ More than one in seven (15.6%) of those who identified as LGBTQ were transgender.

Table 1. Characteristics of students ages 18-40 during the COVID-19 pandemic (N=240) in the Access to Higher Education Survey by LGBTQ status

	LGBTQ N=150		NON-LGBTQ N=90		ALL N=240		<i>F</i>
	%	95% CI	%	95% CI	%	95% CI	P-VALUE
Age							
18-24	67.4	57.8, 75.7	73.3	63.8, 81.1	69.7	62.8, 75.7	0.75
25-29	19.8	13.4, 28.1	15.0	9.2, 23.4	17.9	13.3, 23.8	
30-34	6.1	3.3, 11.1	5.4	2.6, 11.1	5.9	3.7, 9.3	
35-40	6.7	3.5, 12.4	6.3	3.2, 11.9	6.5	4.1, 10.3	
Sex at birth							
Male	27.4	18.8, 38.1	44.6	34.0, 55.7	34.0	27.0, 41.8	0.02
Female	72.6	61.9, 81.2	55.4	44.3, 66.0	66.0	58.2, 73.0	
Transgender	15.6	9.5, 24.6	--	--	9.6	5.9, 15.4	--

of students ages 18-24 and 10.2% of students ages 25-40 are LGBT-identified -- nearly the same proportions as have been observed in a representative sample of adults conducted by Gallup in 2020. Gallup reported that 16% of adults ages 18-24 and about 9% of those ages 25-40 are LGBTQ. One in five (20%) respondents to the non-representative 2020 American College Health Association Survey identified as LGBTQ.

¹⁶ Conron, K.J., Goldberg, S.K. & O'Neill, K.K. (in progress). *Age Cohort and Sex Differences in LGBT Identification Among US Youth and Adults*. The Williams Institute, UCLA, Los Angeles, CA.

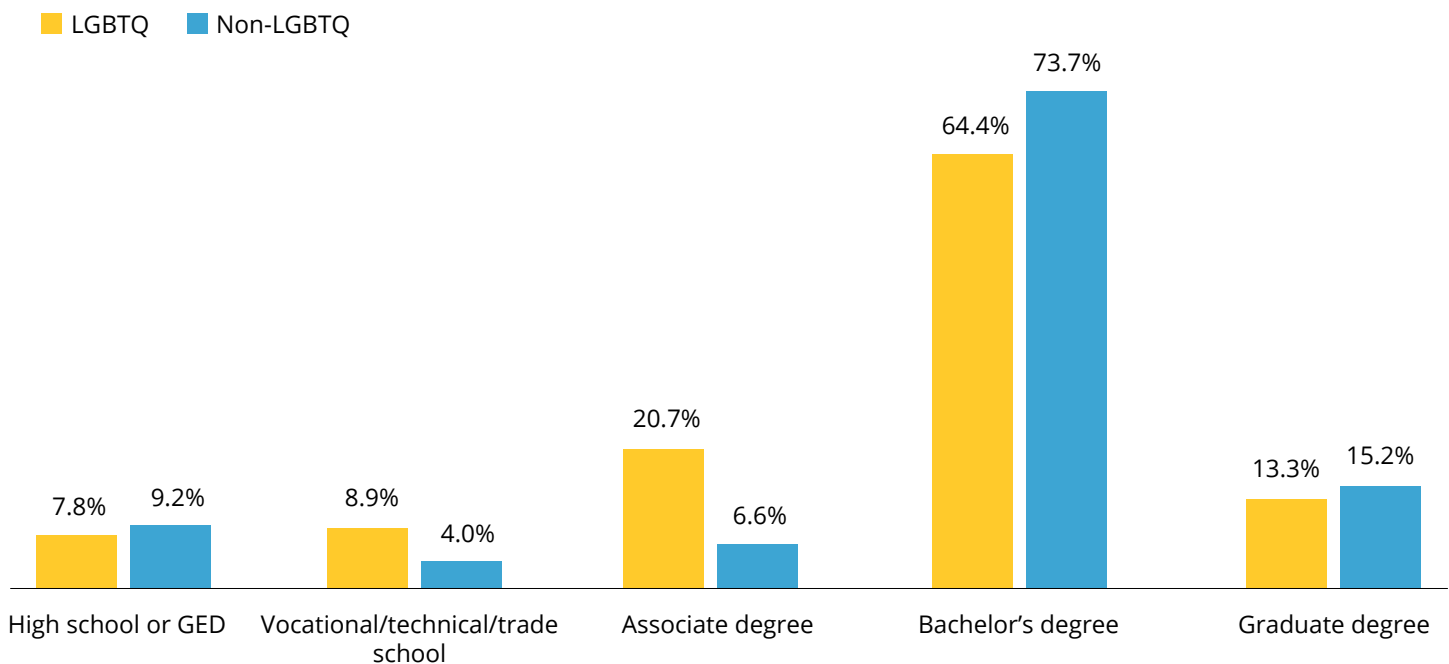
	LGBTQ N=150		NON-LGBTQ N=90		ALL N=240		F
	%	95% CI	%	95% CI	%	95% CI	P-VALUE
Race-ethnicity							
White, non-Hispanic	55.8	44.6, 66.4	44.0	33.7, 55.0	51.3	43.3, 59.2	0.35
Black, non-Hispanic	15.6	8.3, 27.3	17.7	10.5, 28.1	16.4	10.7, 24.1	
Latino/a	16.7	10.4, 25.5	25.2	16.4, 36.7	20.0	14.5, 26.8	
Asian, Hawaiian or Pacific Islander, American Indian, non-Hispanic	6.0	2.1, 15.6	10.5	5.0, 20.8	7.7	4.1, 13.9	0.35
More than one race, non-Hispanic	6.0	2.2, 15.7	2.5	0.9, 6.9	4.7	2.0, 10.5	
First generation college[#]	18.0	10.4, 29.3	19.6	12.4, 29.7	18.6	12.9, 26.2	0.80

[#] First generation defined as the student's parents having no more than a high school degree.

CI: Confidence Interval. Bold p-values are statistically significant.

Most students during the COVID-19 pandemic were still in school when they completed the survey, including 74.1% of LGBTQ and 62.4% of non-LGBTQ participants, while the remainder had postponed starting school, took a leave of absence, or graduated (Table A2). Among current students, most (67.6%) were in a bachelor's degree program (64.4% LGBTQ, 73.7% non-LGBTQ) and some were in graduate programs (14.0%), vocational, technical or trade school (7.3%), or high school (8.3%) (Table A3, Figure 1). More LGBTQ students were in associate degree programs than non-LGBTQ students, 20.7% versus 6.6%, respectively.

Figure 1. Type of degree(s) sought by current students ages 18-40 (N=157) in the Access to Higher Education Survey who said that COVID-19 coronavirus happened when they were a student by LGBTQ status



*The difference in the percentage of students attending associate degree programs is statistically significantly different between LGBTQ and non-LGBTQ participants; the remainder of percentages are statistically similar.

COVID-19 SICKNESS AMONG STUDENTS AND THEIR FAMILIES

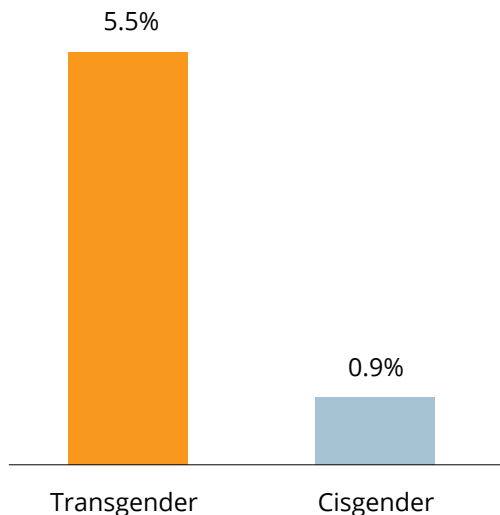
Although few students reported being seriously ill with COVID-19, many reported that family members had been impacted. About 1.3% of students had been seriously ill or hospitalized with COVID-19, including 1.1% of LGBTQ and 1.6% of non-LGBTQ participants (Table 2). Transgender students were more likely to report having been seriously ill or hospitalized with COVID-19 than their cisgender peers: 5.5% versus 0.9%, respectively (Table A2a, Figure 2). About one in five (20.2%) of students had a family member become seriously ill or hospitalized with COVID-19, including 22.0% of LGBTQ and 17.3% of non-LGBTQ students (Table 2).

Table 2. COVID-19 sickness among students ages 18-40 (N=240) and their family in the Access to Higher Education Survey by LGBTQ status

	LGBTQ N = 150		NON-LGBTQ N = 90		ALL N =240		F
	%	95% CI	%	95% CI	%	95% CI	P-VALUE
Seriously ill or hospitalized with COVID-19 (self)	1.1	0.4, 3.2	1.6	0.2, 10.7	1.3	0.4, 3.9	0.74
Family member seriously ill or hospitalized with COVID-19	22.0	13.9, 32.9	17.3	10.4, 27.6	20.2	14.3, 27.8	0.48

CI: Confidence Interval. Bold p-values are statistically significant.

Figure 2. COVID-19 sickness among students in the Access to Higher Education Survey (N=240) by transgender and cisgender status

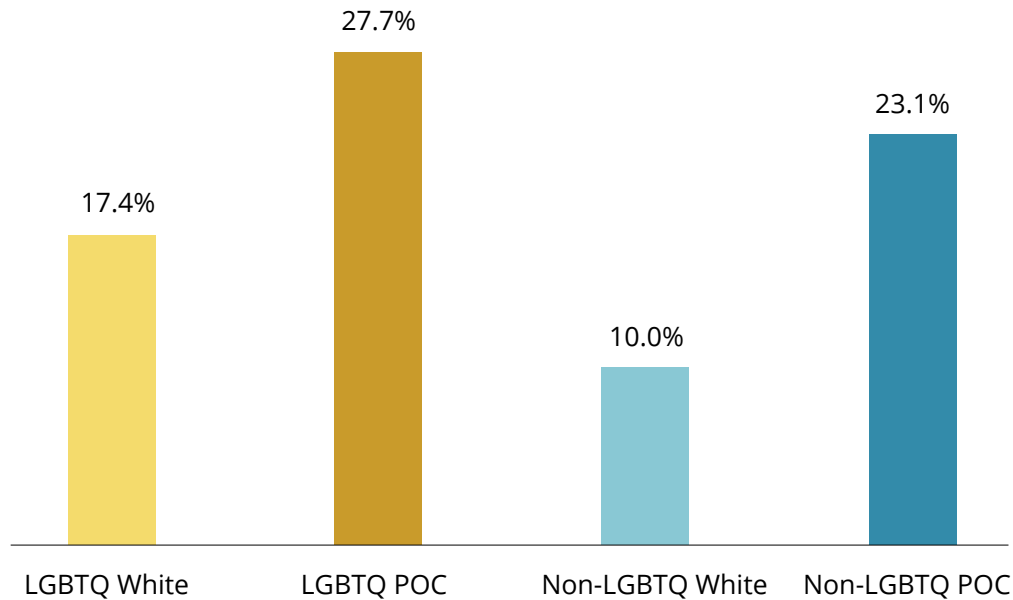


* The difference between transgender and cisgender participants is statistically significant.

Over a quarter (27.7%) of LGBTQ students of color reported that a family member had been seriously ill with COVID, as did 23.1% of non-LGBTQ students of color, 17.4% of White LGBTQ and 10.0% of White non-LGBTQ students (Table A2b, Figure 3). Similarly, many first-generation students, both

LGBTQ (38.7%) and non-LGBTQ (32.2%) reported that a family member become seriously ill or hospitalized with COVID-19 as compared to non-first-generation students, both LGBTQ (18.3%) and non-LGBTQ (13.7%) (Table A2c). Although these percentages not statistically significantly different across groups, these patterns mirrors trends reported elsewhere.¹⁷

Figure 3. COVID-19 illness among family members of students ages 18-40 (N=240) in the Access to Higher Education Survey by LGBTQ status and race/ethnicity



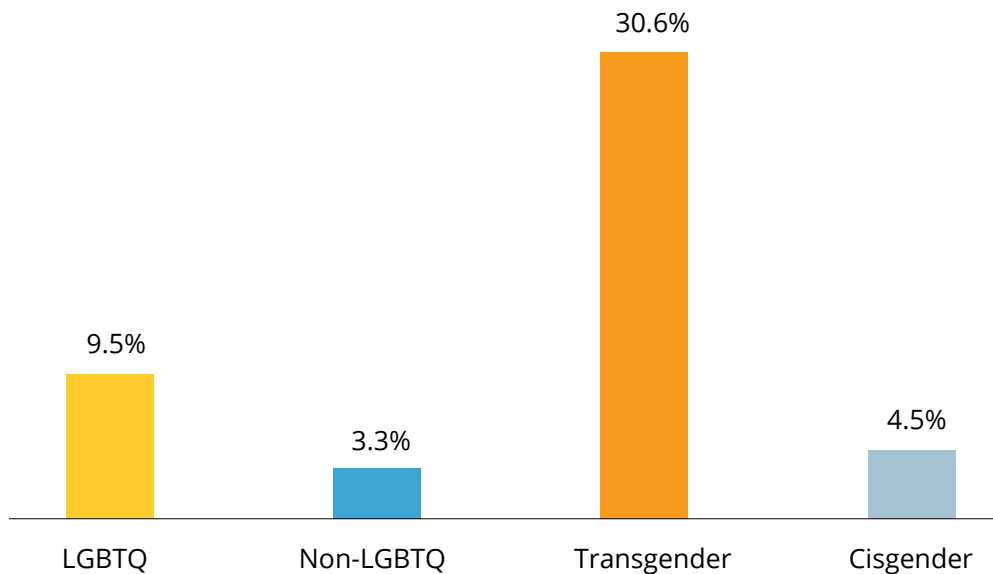
*The differences between groups are not statistically significant. POC: people of color

¹⁷ Sears, B. Conron, K.J., & Flores, A.J. (2021). *The Impact of the Fall 2020 Surge of the COVID-19 Pandemic on LGBT Adults in the US*. Los Angeles, CA: The Williams Institute, UCLA.; U.S. Census Bureau. (2020). *Household Pulse Survey. Measuring household experiences during the coronavirus pandemic*. Retrieved December 15, 2020, from <https://www.census.gov/data/experimental-data-products/household-pulse-survey.html>.

COURSE DISRUPTION OR CHANGE

Nearly all students indicated that their institution had moved to on-line instruction because of COVID-19 – either fully (39.1%) or partially (54.8%) (Table 3). However, some students, including 9.5% of LGBTQ and 3.3% of non-LGBTQ students, did not have reliable internet and a quiet space to complete on-line instruction (Table 3, Figure 4). More transgender students reported a lack of reliable internet and a quiet space to complete on-line instruction than cisgender students, 30.6% versus 4.5%, respectively (Table A3a, Figure 4).

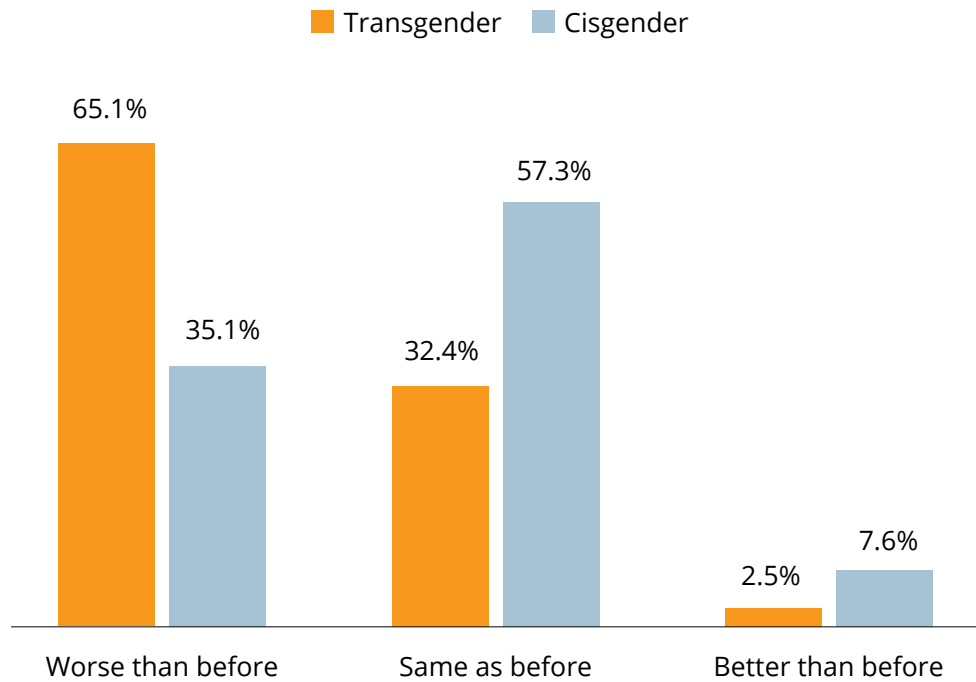
Figure 4. Current students (N=205) who do not currently have reliable internet and a quiet space to complete online instruction in the Access to Higher Education Survey by transgender and cisgender and LGBTQ statuses



*The difference between LGBTQ and non-LGBTQ participants is not statistically significant. The difference between transgender and cisgender participants is statistically significant.

Over a third of LGBTQ (38.8%) and non-LGBTQ (38.1%) participants reported that their ability to pursue their studies was worse than before the pandemic (Table 3). Many (65.1%) transgender students and would-be students reported that their ability to pursue their studies was worse than before the pandemic (Table A3a, Figure 5).

Figure 5. Ability to pursue studies during the COVID-19 pandemic among students in the Access to Higher Education Survey (N=240) by transgender or cisgender status



*The differences between transgender and cisgender participants are not statistically significant.

As shown in Tables A3b and A3c, associations between LGBTQ status and ability to pursue studies and reliable internet and quiet space were similar across race/ethnicity and first-generation college status.

About one in five (22.8%) students or would-be students, including 20.4% of LGBTQ and 26.7% of non-LGBTQ participants, experienced course disruptions due to the COVID-19 pandemic (Table 3). These disruptions included taking a leave of absence from school (11.3%), changing schools (4.0%), postponing starting school (16.9%), or reducing the number of classes that they had been taking (16.0%) (Table 3). For others, including 17.1% of LGBTQ and 13.8% of non-LGBTQ participants, the pandemic was a reason to enroll in school. More than one in ten (12.1%) of all students had to take care of children or other family members during the pandemic.

Table 3. Course disruption or change among students ages 18-40 (N=240) in the Access to Higher Education Survey by LGBTQ status

	LGBTQ N=150		NON-LGBTQ N=90		ALL N=240		F
	%	95% CI	%	95% CI	%	95% CI	P-VALUE
Has your institution moved to on-line instruction because of COVID-19?							
Yes, fully remote	36.3	26.4, 47.6	43.9	32.7, 55.8	39.1	31.4, 47.5	0.49
Yes, partially remote/ partially in-person	58.4	47.0, 68.9	48.6	37.0, 60.4	54.8	46.3, 63.0	
No, in-person only	0.3	0.0, 2.0	1.0	0.1, 6.6	0.5	0.1, 2.3	
No, my institution was already remote/on-line	5.0	2.3, 10.6	6.6	3.0, 13.6	5.6	3.2, 9.5	
Does NOT currently have reliable internet and a quiet space to complete online instruction[#]	9.5	5.3, 16.4	3.3	1.0, 10.0	7.2	4.3, 11.7	0.08
Because of COVID-19, how has your ability to pursue your studies changed?							
Worse than before	38.8	28.8, 49.9	38.1	26.7, 50.9	38.5	30.8, 46.9	0.95
Same as before	53.7	42.2, 64.8	55.6	42.9, 67.6	54.4	45.8, 62.8	
Better than before	7.5	3.7, 14.5	6.3	2.4, 15.6	7.0	4.0, 12.1	
Has had to take care of children or other family members because of COVID-19	12.1	6.6, 21.3	12.1	6.7, 20.6	12.1	7.8, 18.2	0.99
Any course disruption	20.4	13.2, 30.3	26.7	18.2, 37.4	22.8	17.0, 29.9	0.34
Specific course disruption							
Took a leave of absence from school	11.3	6.5, 18.8	11.3	6.4, 19.3	11.3	7.6, 16.5	1.0
Changed schools	4.6	1.3, 15.1	3.0	1.1, 8.0	4.0	1.5, 9.9	0.60
Postponed starting school	14.3	8.3, 23.5	21.1	13.3, 31.8	16.9	11.8, 23.6	0.26
Reduced number of classes	16.1	10.3, 24.1	15.8	9.3, 25.6	16.0	11.4, 21.9	0.97
Decided to enroll in school	17.1	10.4, 26.8	13.8	7.9, 23.1	15.8	10.9, 22.5	0.56

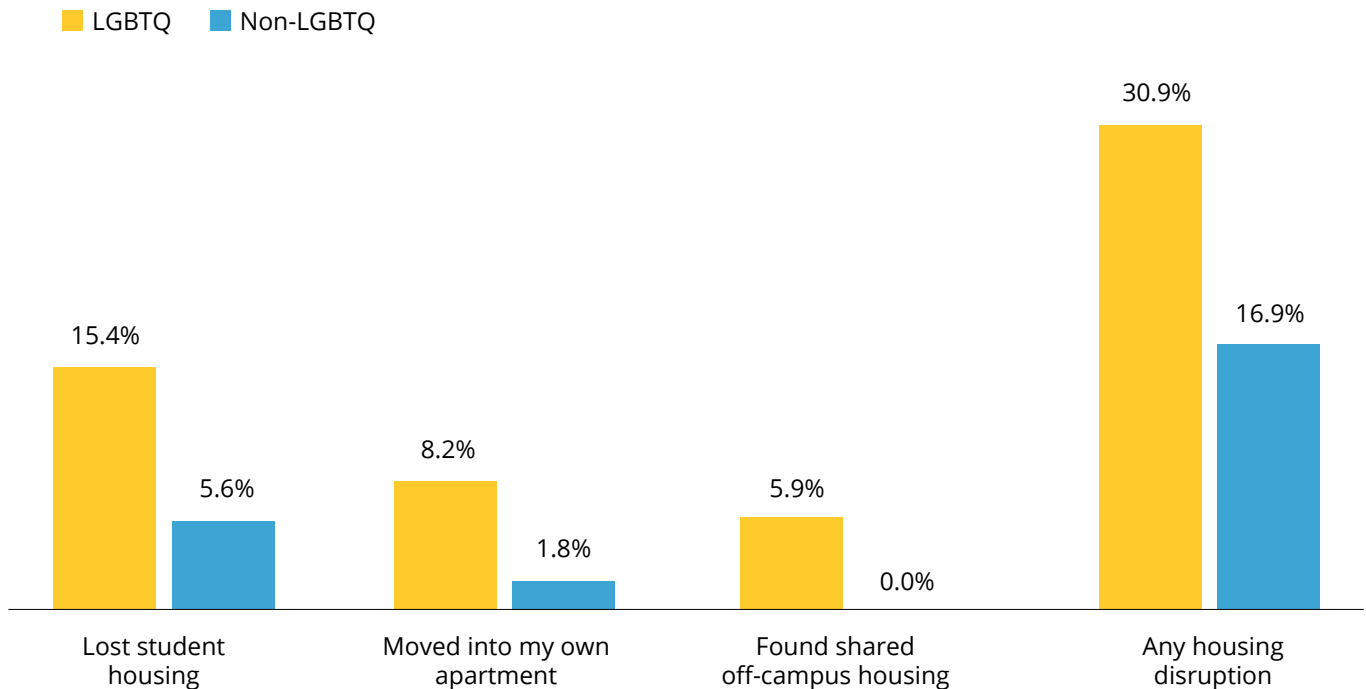
[#] Excludes participants who indicated they are no longer in school.

CI: Confidence Interval. Bold p-values are statistically significant.

HOUSING DISRUPTION

Nearly a third (30.9%) of LGBTQ students or would-be students experienced a housing disruption due to the pandemic, at a rate of nearly twice that of their non-LGBTQ counterparts (16.9%) (Table 4, Figure 6). More LGBTQ than non-LGBTQ participants lost student housing (15.4% vs. 5.6%), moved into their own apartment (8.2% vs. 1.8%), or found shared off-campus housing (5.9% vs. 0%). Some, 3.0% of LGBTQ and 0.8% of non-LGBTQ students or would-be students, reported that they had nowhere to live due to the pandemic. Some students (20.2%), including 22.5% of LGBTQ and 16.5% of non-LGBTQ participants, moved home to live with relatives.

Figure 6. Housing disruptions among students ages 18-40 (N=240) in the Access to Higher Education Survey by LGBTQ status



* Differences between LGBTQ and non-LGBTQ participants are statistically significant.

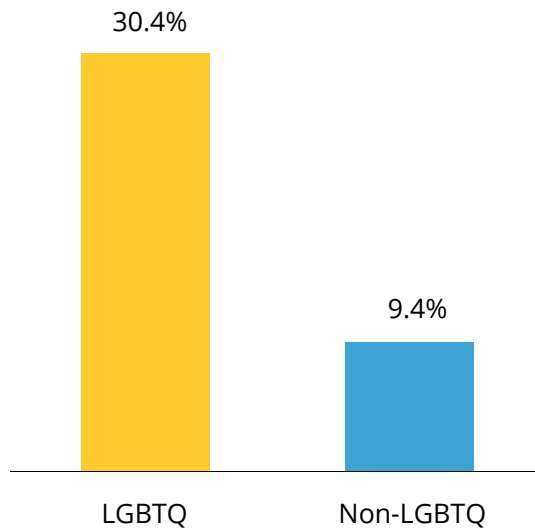
Table 4. Housing disruption among students ages 18-40 (N=240) in the Access to Higher Education Survey by LGBTQ status

	LGBTQ N=150		NON-LGBTQ N=90		ALL N =240		F
	%	95% CI	%	95% CI	%	95% CI	P-VALUE
Any housing disruption	30.9	21.6, 42.0	16.9	10.1, 27.0	25.5	19.0, 33.4	0.04
Specific housing disruption							
Lost student housing because the institution closed student dormitories or residences	15.4	8.6, 26.2	5.6	2.2, 13.4	11.7	7.0, 18.9	<0.05
Moved home to live with relatives	22.5	14.5, 33.1	16.5	9.6, 26.7	20.2	14.4, 27.6	0.35
Moved into my own apartment	8.2	4.6, 14.4	1.8	0.4, 7.2	5.8	3.4, 9.7	0.03
Found shared off-campus housing	5.9	2.7, 12.4	0	0, 0	3.6	1.7, 7.7	<0.05
Had nowhere to live	3.0	1.3, 6.9	0.8	0.1, 5.3	2.1	1.0, 4.6	0.18
Where were you living when you were a student? That is, where did you stay most often before COVID-19?							
Dormitory	21.9	13.6, 33.4	11.9	6.3, 21.1	18.1	12.2, 25.9	0.08
Shared off-campus housing	5.0	2.5, 9.9	4.3	1.7, 10.5	4.7	2.7, 8.2	
Your own place such as apartment, house	33.2	24.2, 43.5	24.5	16.6, 34.7	29.9	23.4, 37.2	
Your parents'/guardians' home	39.6	29.3, 50.9	58.0	46.9, 68.3	46.6	38.7, 54.7	
Other	0.4	0.0, 2.6	1.3	0.2, 8.7	0.7	0.2, 3.1	

CI: Confidence Interval. Bold p-values are statistically significant.

In order to better understand housing disruptions related to COVID-19, it is important to consider where students were living before the onset of the pandemic, as well as factors, such as family acceptance, that shape housing options. More than half (58.0%) of non-LGBTQ students were living with parents before COVID-19 as compared to 39.6% of LGBTQ students (Table 4). Independent of the pandemic, LGBTQ students were more than three times as likely to report picking a school in a different city or state from where they grew up to get away from family as non-LGBTQ students, 30.4% and 9.4%, respectively (Table A5a, Figure 7).

Figure 7. Picked school in a different city or state among students ages 18-40 (N=240) in the Access to Higher Education Survey by LGBTQ status



*The difference between LGBTQ and non-LGBTQ participants is statistically significant.

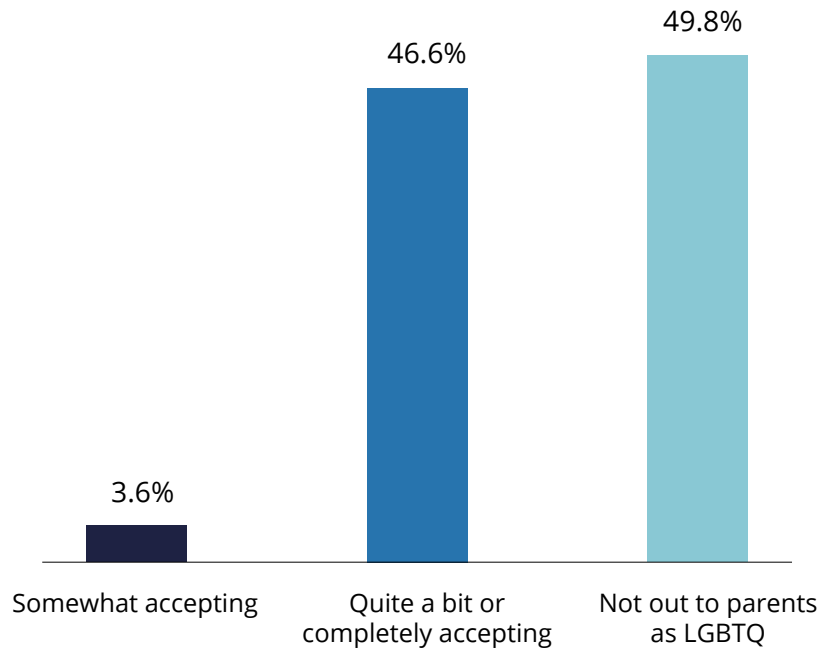
In supplemental analyses reported in Table 5, those who were living with parents were far less likely to experience a housing disruption than those who were not at the onset of COVID-19. Among students who moved home to live with relatives due to COVID-19 and were living at home when they completed the survey (n=12), nearly half (49.8%) were not “out” to parents as LGBTQ (Table A5b, Figure 8). These findings indicate that while parents can be a source of housing stability, in general, that living with parents may also be challenging for LGBTQ students whose parents are not accepting of them as LGBTQ people or to whom they are not “out.”

Table 5. Housing disruption among students ages 18-40 (N=240) in the Access to Higher Education Survey by pre-COVID-19 living situation and LGBTQ status

	LGBTQ, NOT LIVING WITH PARENTS N=103		LGBTQ, LIVING WITH PARENTS N=47		NON-LGBTQ, NOT LIVING WITH PARENTS N=44		NON-LGBTQ, LIVING WITH PARENTS N=45		F
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	P-VALUE
Any housing disruption	45.0	31.9, 58.8	9.4	3.9, 21.0	28.0	15.6, 45.1	9.2	3.4, 22.6	<0.00
No housing disruption	55.0	41.2, 68.1	90.6	79.0, 96.1	72.0	54.9, 84.4	90.8	77.4, 96.6	

CI: Confidence Interval. Bold p-values are statistically significant.

Figure 8. Parental acceptance of LGBTQ students ages 18-40 (N=12) who moved home to live with relatives and were living at home at the time of Access to Higher Education Survey completion

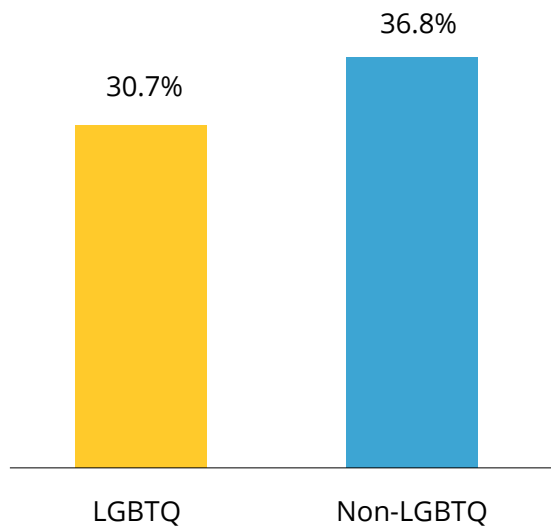


*No students who moved home to live with relatives & were living at home at the time of the survey replied that their parents were not at all or a little accepting.

FINANCIAL DISRUPTION

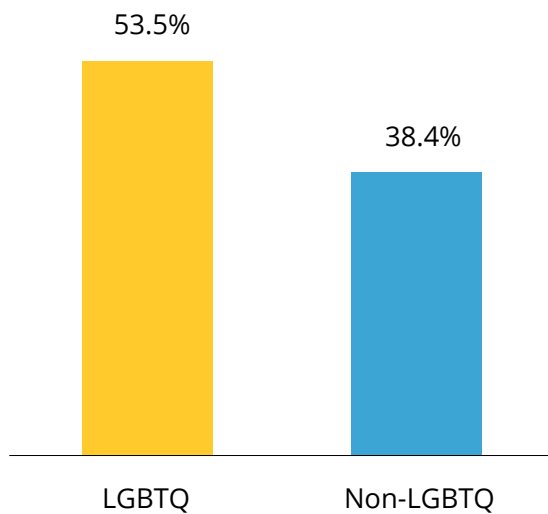
One third (33.0%) of students, including 30.7% of LGBTQ and 36.8% of non-LGBTQ participants, experienced financial disruption because of the COVID-19 pandemic, such as loss of financial aid, jobs, internships, financial support from family, or needing to get a job (Table 6, Figure 9). Almost one in five (18.1%) of all students, including a somewhat larger, but statistically similar, percentage of non-LGBTQ than LGBTQ students, 24.0% versus 14.4%, reported having to get a job due to the pandemic. Student loans, reported by 53.5% of LGBTQ and 38.4% of non-LGBTQ participants who were students during COVID-19, may have provided a buffer for some students, at least in part, from the financial effects of the pandemic.

Figure 9. Financial disruption among students ages 18-40 (N=240) in the Access to Higher Education Survey by LGBTQ status



*The difference between LGBTQ and non-LGBTQ participants is not statistically significant.

Figure 10. Use of student loans to pay for school among students ages 18-40 (N=240) in the Access to Higher Education Survey by LGBTQ status



*The difference between LGBTQ and non-LGBTQ participants is not statistically significant.

Table 6. Financial disruption among students ages 18-40 (N=240) in the Access to Higher Education Survey by LGBTQ status

	LGBTQ N=150		NON-LGBTQ N=90		ALL N=240		F
	%	95% CI	%	95% CI	%	95% CI	P-VALUE
Any financial disruption	30.7	21.8, 41.2	36.8	26.8, 48.1	33.0	26.1, 40.8	0.41
Specific financial disruption							
Lost financial aid	6.0	3.0, 11.9	3.3	1.0, 10.2	5.0	2.7, 8.9	0.37
Lost my campus job	3.7	1.4, 9.3	8.7	4.1, 17.5	5.6	3.1, 10.0	0.15
Lost my off-campus job	4.8	2.3, 9.6	6.3	2.8, 13.8	5.4	3.1, 9.1	0.61
Lost a summer fellowship, internship, or job	13.8	7.6, 23.8	6.2	2.6, 14.2	10.9	6.6, 17.5	0.12
Lost financial support from family	3.1	1.0, 9.2	3.1	0.9, 9.9	3.1	1.3, 7.0	1.0
Had to get a job	14.4	9.1, 22.1	24.0	15.7, 35.0	18.1	13.2, 24.3	0.09
Has student loans to pay for school	53.5	42.6, 64.1	38.4	28.5, 49.3	47.7	39.8, 55.6	0.05

CI: Confidence Interval. Bold p-values are statistically significant.

One in twenty students (5.0%) reported losing financial aid due to COVID-19. In order to better understand this phenomenon, we conducted supplemental analyses and found that most (81.6%) took a leave of absence, about half (49.3%) reduced their course load, and 19.2% changed schools (Table A6a). More than half (59.2%) of these students reported that they had to get a job and 42.5% reported having to take care of children or other family members.

ANY COURSE, HOUSING, AND FINANCIAL DISRUPTIONS BY LGBTQ STATUS AND SELECT DEMOGRAPHIC CHARACTERISTICS

In order to assess potential LGBTQ/non-LGBTQ differences in course, housing, and financial disruptions across demographic groups, these outcomes were stratified by cisgender/transgender status, race/ethnicity, and first-generation college status. In most cases, the associations between LGBTQ status and disruptions were similar in magnitude across demographic groups (Tables A7a and A7b). Exceptions were that a larger percentage of non-LGBTQ first generation students (57.9%) reported any course disruption (reduced course load, leave of absence from school, changed school, or postponed school). These course disruptions may have multiple determinants, including living at home, and having a family member become seriously ill or hospitalized with COVID-19. In addition, LGBTQ students who are not first generation were the most likely (35.7%) to report any housing disruption (Table 7). First-generation LGBTQ and non-LGBTQ students had lower rates of housing disruption (9.2% and 3.9%, respectively). In supplemental analyses (not shown), first-generation

students had lower rates of housing disruption because they were less likely to have been living in a student dormitory (6.0% vs. 20.8%) and were more likely to have been living with their parents (66.5% vs. 42.0%) before COVID-19 (p-value 0.046).

Table 7. Course, housing, and financial disruptions among students or would-be students ages 18-40 (N=240) in the Access to Higher Education Survey by LGBTQ and first-generation college statuses

	LGBTQ NON-FIRST GEN N=127		LGBTQ FIRST-GEN [#] N=23		NON-LGBTQ NON-FIRST GEN N=71		NON-LGBTQ FIRST GEN [#] N=19		F
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	P-VALUE
Any course disruption	18.1	11.4, 27.6	30.9	10.7, 62.4	19.1	11.4, 30.2	57.9	34.1, 78.6	0.02
Any housing disruption	35.7	25.1, 47.9	9.2	3.0, 24.9	20.1	11.9, 32.0	3.9	0.5, 23.6	<0.01
Any financial disruption	28.7	19.8, 39.6	39.6	16.6, 68.4	39.5	28.2, 52.0	26.0	9.6, 53.7	0.55

[#] First generation defined as the student's parents having no more than a high school degree.

CI: Confidence Interval. Bold p-values are statistically significant.

CONCLUSIONS AND RECOMMENDATIONS

Many LGBTQ and non-LGBTQ students have been impacted by the COVID-19 pandemic. Family illness, a shift to on-line education, and changes to housing and financial support were reported by over 20% to more than 50% of students. Transgender students were especially impacted by the pandemic. They were more likely to report having been seriously ill with COVID-19 than their cisgender counterparts. Transgender students were also more likely to report that they lacked reliable internet and a quiet space to complete online instruction and nearly two-thirds reported that their ability to pursue their studies had worsened due to the pandemic.

LGBTQ students were more likely to experience housing disruptions than non-LGBTQ students, in part because they were less likely to be living with family before the pandemic. Almost a third of LGBTQ students reported seeking schools in cities and states away from where they grew up, and, among those who moved home to live with relatives due to COVID-19, half were not “out” to parents as LGBTQ. While parents can be a source of housing stability, living with parents may also be challenging for LGBTQ students whose parents are not accepting of them as LGBTQ people or to whom they are not “out.”

In preparing for future pandemics or other emergencies, colleges and universities should consider LGBTQ students, as well as other vulnerable student populations, whose reliance upon campus housing, internet and other services cannot be absorbed by families of origin. And, while mental health was directly assessed in this study, higher education programs should consider the cumulative effects of pandemic stressors on the mental health of students, particularly those most vulnerable due to early life exposure to adversity. Meeting the specific needs of such students is critical to avoiding disruptions in their education and widening pre-existing education gaps. Lastly, gathering data about the sexual orientation, gender identity, and sex assigned at birth of students in higher education programs will support efforts to understand and respond to the needs of a heterogenous student population, including the 16.5% of those ages 18-24 and 10.2% of those ages 25-40 who are LGBTQ-identified.

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COLLABORATORS



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RESEARCH THAT MATTERS



APPENDIX

METHODS

The Access to Higher Education Survey was an anonymous cross-sectional survey conducted between January 15 and February 10 2021 with 1,079 U.S. adults ages 18 to 40 sampled from the [KnowledgePanel](#) maintained by Ipsos -- a panel where households and individuals are empaneled by address-based sampling and that is representative of U.S. adults. Empaneled members are then sampled to participate in online surveys. Households that lack internet are provided internet access to ensure coverage of the population. Panelists were recruited via stratified sampling on LGBTQ status, using existing panel demographic data about sexual orientation, gender identity, and sex assigned at birth, to recruit LGBTQ and non-LGBTQ volunteers in similar proportions. In total, the survey was completed in English by 572 LGBTQ and 507 non-LGBTQ adults. The sample was limited to adults aged 18-40 in order to reach those who may have currently or recently sought or desired post-secondary education.

KnowledgePanel panelists are primarily recruited by address-based sampling with a random sample of households drawn from the latest Delivery Sequence File of the USPS – a database with full coverage of all delivery points in the U.S. All persons in selected households are invited to join and participate in KnowledgePanel. Ipsos provides selected households that do not already have internet access a tablet and internet connection at no cost to them. Those who join the panel and who are selected to participate in a survey are sent a unique password-protected log-in used to complete surveys online. Panelists receive reward points or incentives such as cash payments to participate in surveys. Survey participation is voluntary. The North Campus IRB at UCLA approved this study.

The Access to Higher Education Survey was developed to gather data about experiences in various educational settings (e.g., high school, community college, graduate school), including harassment, experiences with services, institutional policies, educational aspirations, support and barriers, mental health, educational financing, student debt, and so forth. The survey was developed in consultation with an advisory board of experts in higher education and related fields. Where possible, survey questions were modeled on questions used in large surveys of higher education, such as those created by the Higher Education Research Institute, or on other large, federally funded surveys. Questions about the impact of the COVID-19 pandemic on all adults and those who were or planned to be students during the pandemic were also included on the survey.

Descriptive analyses were conducted using Stata v14.0 statistical software and include design-based F-tests (Rao-Scott chi-square tests) of differences in proportions to assess whether educational outcomes vary between LGBTQ and non-LGBTQ adults (and demographic subgroups) at an alpha of 0.05.¹⁸ Confidence intervals (95%) were included to communicate the natural imprecision (due to sampling error) in percentages that are based upon survey samples rather than census counts; stated differently, confidence intervals communicate the range within with an underlying population

¹⁸ J. N. K. Rao, A. J. Scott, On chi-squared tests for multiway contingency tables with cell proportions estimated from survey data. *Ann. Stat.* 12, 46–60 (1984).

parameter of interest may lie assuming a Type I error rate of 0.05. All analyses were weighted using sampling weights provided by Ipsos. Sampling weights account for the probability of selection and non-response, and they adjust for gender and age, race/ethnicity, education, Census region, metropolitan status, and household income to align with benchmarks from the U.S. population ages 18 to 40 as reported in the 2020 March supplement of the U.S. Census Bureau's Current Population Survey.

SUPPLEMENTAL TABLES

Table A1. Percent students during COVID-19 among Access to Higher Education Survey participants ages 18-40 (N=1,079) by LGBTQ status

	LGBTQ N=572		NON-LGBTQ N=507		ALL N=1,079		F
	%	95% CI	%	95% CI	%	95% CI	P-VALUE
COVID-19 coronavirus happened when you were a student or when you planned to be a student	36.6	30.9, 42.7	25.7	21.3, 30.6	31.5	27.7, 35.5	<0.01

CI: Confidence Interval. Bold p-values are statistically significant.

Table A2. Current status of Access to Higher Education Survey participants ages 18-40 (N=240) who said that COVID-19 coronavirus happened when they were a student or planned to be a student by LGBTQ status

	LGBTQ N=150		NON-LGBTQ N=90		ALL N=240		F
	%	95% CI	%	95% CI	%	95% CI	P-VALUE
Current student	74.1	64.2, 82.0	62.4	51.4, 72.3	69.6	62.2, 76.1	0.10
Not a current student, but was or would have been a student during COVID-19 (i.e. postponed, left school, or graduated)	25.9	18.0, 35.8	37.6	27.7, 48.6	30.4	23.9, 37.8	
	LGBTQ N=47		NON-LGBTQ N=36		ALL N=83		F
	%	95% CI	%	95% CI	%	95% CI	P-VALUE
Specific status among those not currently students							
Postponed starting school	22.3	12.3, 37.1	39.0	23.2, 57.5	30.2	20.1, 42.6	0.13
Took a leave of absence from school	11.2	4.6, 24.6	12.8	5.7, 26.5	12.0	6.6, 20.7	0.82
Recent graduate	58.8	40.4, 75.0	46.4	29.9, 63.7	52.9	40.0, 65.4	0.34

CI: Confidence Interval. Bold p-values are statistically significant.

Table A3. Type of degree(s) sought by current students ages 18-40 (N=157) in the Access to Higher Education Survey who said that COVID-19 coronavirus happened when they were a student or planned to be a student by LGBTQ status

	LGBTQ N=103		NON-LGBTQ N=53		ALL N=156		F
	%	95% CI	%	95% CI	%	95% CI	P-VALUE
High school or GED	7.8	2.6, 21.4	9.2	3.8, 20.7	8.3	3.9, 16.9	0.81
Vocational/technical/trade school	8.9	3.3, 22.0	4.0	1.0, 15.2	7.3	3.1, 16.1	0.34
Associates degree	20.7	11.7, 34.0	6.6	2.4, 17.1	16.0	9.5, 25.5	0.03
Bachelor's degree	64.4	51.5, 75.6	73.7	60.6, 83.7	67.6	58.0, 75.9	0.28
Graduate degree	13.3	8.3, 20.6	15.2	8.1, 26.9	14.0	9.6, 19.9	0.73

*Column totals exceed 100% as participants were able to select more than one type of program.

CI: Confidence Interval. Bold p-values are statistically significant.

Table A2a. COVID-19 sickness among students ages 18-40 (N=240) and their family in the Access to Higher Education Survey by cisgender or transgender status

	CISGENDER N=211		TRANSGENDER N=29		ALL N=240		F
	%	95% CI	%	95% CI	%	95% CI	P-VALUE
Seriously ill or hospitalized with COVID-19 (self)	0.9	0.2, 4.3	5.5	1.5, 18.3	1.3	0.4, 3.9	0.04
Family member seriously ill or hospitalized with COVID-19	20.9	14.5, 29.1	13.7	5.3, 31.0	20.2	14.3, 27.8	0.38

CI: Confidence Interval. Bold p-values are statistically significant.

Table A2b. COVID-19 sickness among students ages 18-40 (N=240) and their family in the Access to Higher Education Survey by LGBTQ status and race/ethnicity

	LGBTQ WHITE N=47		LGBTQ POC N=43		NON-LGBTQ WHITE N=90		NON-LGBTQ POC N=60		F
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	P-VALUE
Seriously ill or hospitalized with COVID-19 (self)	0.4	0.1, 3.0	2.0	0.6, 6.8	0	0, 0	2.9	0.4, 18.1	0.39
Family member seriously ill or hospitalized with COVID-19	17.4	9.5, 29.7	27.7	14.0, 47.3	10.0	4.3, 21.6	23.1	12.3, 39.1	0.29

CI: Confidence Interval. Bold p-values are statistically significant.

Table A2c. COVID-19 sickness among students ages 18-40 (N=240) and their family in the Access to Higher Education Survey by LGBTQ and first-generation statuses

	LGBTQ NON-FIRST GEN N=127		LGBTQ FIRST-GEN [#] N=23		NON-LGBTQ NON-FIRST GEN N=71		NON-LGBTQ FIRST GEN [#] N=19		F
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	P-VALUE
Seriously ill or hospitalized with COVID-19 (self)	1.4	0.5, 3.9	0.0	0, 0	0.0	0, 0	8.4	1.2, 40.9	0.12
Family member seriously ill or hospitalized with COVID-19	18.3	11.2, 28.4	38.7	14.5, 70.1	13.7	7.2, 24.6	32.2	13.7, 58.5	0.14

[#] First generation defined as the student's parents having no more than a high school degree.

CI: Confidence Interval. Bold p-values are statistically significant.

Table A3a. Selected course disruptions among students ages 18-40 (N=240) in the Access to Higher Education Survey by cisgender or transgender status

	CISGENDER N=211		TRANSGENDER N=29		ALL N=240		F
	%	95% CI	%	95% CI	%	95% CI	P-VALUE
Because of COVID-19, how has your ability to pursue your studies changed?							
Worse than before	35.1	27.2, 43.9	65.1	34.2, 87.0	38.5	30.8, 46.9	0.08
Same as before	57.3	48.2, 65.9	32.4	11.1, 64.8	54.4	45.8, 62.8	
Better than before	7.6	4.3, 13.3	2.5	0.3, 16.5	7.0	4.0, 12.1	
Does NOT currently have reliable internet and a quiet space to complete online instruction[#]	4.5	2.3, 8.8	30.6	13.4, 55.6	7.2	4.3, 11.7	<0.01

[#] Excludes participants who indicated they are no longer in school.

CI: Confidence Interval. Bold p-values are statistically significant.

Table A3b. Selected course disruptions among students ages 18-40 (N=240) in the Access to Higher Education Survey by LGBTQ status and race-ethnicity

	LGBTQ WHITE N=90		LGBTQ POC N=60		NON-LGBTQ WHITE N=47		NON-LGBTQ POC N=43		F
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	P-VALUE
Because of COVID-19, how has your ability to pursue your studies changed?									
Worse than before	38.4	26.1, 52.4	39.5	23.7, 57.8	37.3	22.2, 55.4	38.6	23.4, 56.3	0.92
Same as before	56.2	42.1, 69.4	50.1	31.3, 68.8	59.4	41.7, 75.0	53.0	35.8, 69.6	
Better than before	5.4	2.1, 13.5	10.5	3.8, 25.7	3.2	0.8, 12.4	8.4	2.6, 23.9	
Does NOT currently have reliable internet and a quiet space to complete online instruction[#]	8.7	3.9, 18.3	10.7	4.5, 23.1	5.4	1.4, 19.5	1.4	0.2, 9.7	0.28

[#] Excludes participants who indicated they are no longer in school.

CI: Confidence Interval. Bold p-values are statistically significant.

Table A3c. Selected course disruptions among students ages 18-40 (N=240) in the Access to Higher Education Survey by LGBTQ and first-generation college status

	LGBTQ NON-FIRST GEN N=127		LGBTQ FIRST-GEN N=23		NON-LGBTQ NON-FIRST GEN N=71		NON-LGBTQ FIRST GEN N=19		F
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	P-VALUE
Because of COVID-19, how has your ability to pursue your studies changed?									
Worse than before	38.9	28.2, 50.8	38.2	15.1, 68.2	33.1	21.3, 47.4	57.4	31.0, 80.2	0.81
Same as before	54.1	41.8, 65.8	51.2	21.8, 79.8	59.0	44.6, 71.9	42.6	19.8, 69.0	
Better than before	7.0	3.3, 14.2	10.7	1.4, 49.4	8.0	3.0, 19.3	0.0	0, 0	
Does NOT currently have reliable internet and a quiet space to complete online instruction[#]	10.6	5.7, 18.8	5.0	1.1, 20.4	3.9	1.2, 11.9	0.0	0, 0	0.24

[#] Excludes participants who indicated they are no longer in school.

CI: Confidence Interval. Bold p-values are statistically significant.

Table A5a. Picked school in a different city or state among participants to the Access to Higher Education Survey ages 18-40 (N=240) by LGBTQ status

	LGBTQ N = 150		NON-LGBTQ N = 90		ALL N =240		F
	%	95% CI	%	95% CI	%	95% CI	P-VALUE
Picked a school away from home to get away from family	30.4	21.2, 41.5	9.4	4.9, 17.5	22.3	16.2, 30.0	<0.00

CI: Confidence Interval. Bold p-values are statistically significant.

Table A5b. Parental acceptance of LGBTQ students ages 18-40 who moved home to live with relatives and were living at home at the time of Access to Higher Education Survey completion (n=12)

	MOVED HOME TO LIVE WITH RELATIVES	
	%	95% CI
Somewhat accepting	3.6	0.5, 23.1
Quite a bit or completely accepting	46.6	18.0, 77.6
Not out to parents as LGBTQ	49.8	19.8, 79.9

*No students who moved home to live with relatives replied that their parents were not at all or a little accepting.

CI: Confidence Interval.

Table A6a. Course and financial disruptions among students ages 18-40 who lost financial aid because of the COVID-19 pandemic (n=14) in the Access to Higher Education Survey by LGBTQ status

	LGBTQ N=11		NON-LGBTQ N=3		ALL N=14		F
	%	95% CI	%	95% CI	%	95% CI	P-VALUE
Reduced the number of classes I am taking	55.4	22.5, 84.2	31.7	3.9, 84.2	49.3	22.7, 76.4	0.49
Took a leave of absence from school	90.7	62.1, 98.3	55.0	9.9, 93.2	81.6	49.2, 95.3	0.14
Changed schools	25.8	7.5, 59.9	0.0	0, 0	19.2	5.7, 48.3	0.31
Had to take care of children or other family members	33.7	11.3, 66.9	68.3	15.8, 96.1	42.5	18.3, 70.9	0.29
Had to get a job	60.6	25.1, 87.6	55.0	9.9, 93.2	59.2	28.6, 84.0	0.87

CI: Confidence Interval. Bold p-values are statistically significant.

Table A7a. Course, housing, and financial disruptions among students ages 18-40 (N=240) in the Access to Higher Education Survey by cisgender and transgender status

	CISGENDER N=211		TRANSGENDER N=29		ALL N=240		F
	%	95% CI	%	95% CI	%	95% CI	P-VALUE
Any course disruption	22.6	16.5, 30.2	24.7	10.0, 49.3	22.8	17.0, 29.9	0.84
Any housing disruption	25.6	18.7, 34.0	25.1	10.7, 48.5	25.5	19.0, 33.4	0.96
Any financial disruption	32.3	25.1, 40.5	39.7	19.5, 64.3	33.0	26.1, 40.8	0.55

CI: Confidence Interval. Bold p-values are statistically significant.

Table A7b. Course, housing, and financial disruptions among students ages 18-40 (N=240) in the Access to Higher Education Survey by LGBTQ status and race-ethnicity

	LGBTQ WHITE N=90		LGBTQ POC N=60		NON-LGBTQ WHITE N=47		NON-LGBTQ POC N=43		F
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	P-VALUE
Any course disruption	15.2	8.1, 26.7	27.0	14.6, 44.4	22.8	12.5, 37.9	29.8	17.9, 45.4	0.33
Any housing disruption	33.3	21.8, 47.1	27.9	14.6, 46.7	24.1	13.1, 40.2	11.3	4.5, 25.4	0.15
Any financial disruption	32.4	21.1, 46.1	28.6	16.2, 45.2	47.2	32.6, 62.2	28.7	16.5, 45.0	0.35

CI: Confidence Interval. Bold p-values are statistically significant.