

# **THE NEW "NORMAL"**

## **Where Do We Go from Here?**

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## **CHAPTER 1: INTRODUCTION**

### **Acknowledgement**

This report is the final deliverable from a semester-long class project that was conducted post-COVID in hybrid form (with both in-person and online components). Considerable challenges existed as the research required that we reach out to the Queens College community at a time when the vast majority of faculty and staff were still in remote operation, and most classes were still given in online teaching mode. Thus, this project could not have been completed without the "virtual" cooperation of Queens College students and the willingness of Assistant Vice President of Student Affairs, Jennifer Jarvis, to participate in an in-person, in-depth interview. Thank you to those who have participated in our interviews, focus group and survey.

### **Background**

The City University of New York (CUNY) system has numerous two-year and four-year institutions known for its affordability and high-quality instruction. Queens College is one of its premier four-year schools. It was founded in 1937 and is situated on 80-acres located in Flushing, Queens, New York City. This beautiful campus is surrounded by trees which give off the image of a spacious feeling with an amazing view of Manhattan. The college is easily accessible by transportation such as the regional Metropolitan Transportation Authority buses that feed into subway and commuter rails. In addition, it also has its own school-run buses. Also, it sits adjacent to major highways for those who drive.

The school serves between 16 to 20 thousand students, and has a high graduation rate of 60% with an acceptance rate of 48%. It is known to have students from over 150 nations

underscoring that it is a very diverse community. The college provides a wide range of programs from Education to Social Sciences to Natural Sciences. Queens College also houses the CUNY Macaulay Honors College and thus offers qualified students their own honor program. In addition to this, Queens College has in-house programs and services that assist students, such as; Search for Education, Elevation, and Knowledge (SEEK), Writing Center, Career Center, Academic Support Center and other resources. (Queens College, 2021).

In late March of 2020, at the height of the COVID pandemic in the area, New York State Governor Cuomo signed an executive order that forced all public colleges in New York State to close. This resulted in mass chaos as each student and faculty member had to transition into remote learning almost immediately. Not all the impacted students and faculty had the knowledge or capability of navigating the new online system. Yet the institution quickly geared up during this emergency and the semester carried on. This shutdown and transition to remote remained in effect for CUNYs during the following two semesters, fall 2020 and spring 2021, with the exception of a limited number of hands-on science/medical classes. Students and faculty became accustomed to the remote way of learning.

The institution partially re-opened during the early part of the fall 2021 semester when many more sessions across a number of academic programs switched back to an in-person or hybrid mode of instructions, now defined as part in person and part online. Starting August 2021, the vaccine mandate emerged that specified that only students who could demonstrate proof of full vaccinations were permitted to attend in-person or hybrid classes, with limited exceptions. Policies and rules were changed and fine-tuned for several weeks, causing mayhem among students who had to (1) decide whether to vaccinate at all, (2) understand the due dates for vaccinations, (3) upload forms and proof in the required timeframe to be permitted on campus, and (4) follow the "paper" trail of uploads that ultimately resulted in an approved ID card/QR

code for campus entrance. As expected, with the large student body, snafus in either the student uploading and/or the institution approval process resulted in massive lines at campus entrances the first days of in-person classes. For a very short time, self-reports of health and official COVID tests were used as a substitute for entrance approval until the students and the school caught up with the process.

By early October, students were warned for the final time that they would be dropped from classes with in-person components if the process had not been completed. By mid-October, students were not allowed on campus without the appropriate ID that reflected an approved vaccination status.

### **Purpose of Study**

Two earlier research projects focused on the life of the Queens College student during COVID. The first examined the chaotic student transition to online learning at the beginning of the pandemic (Fall 2020) as we faced a state of emergency. The second took a closer look at new routines as the pandemic and a modified lock-down continued (Spring 2021). This third project is geared to understanding the adaption of the Queens College student to a possible return to on-campus studies after the worst of COVID has passed.

### **Research Questions**

1. **What is the current environment for student learning?** What are the attitudes, expectations and behaviors around the return to in-person sessions, including thoughts about vaccine mandates and renewal of face-to-face interaction with faculty? What defines distracted learning and how prevalent is it in fully remote and hybrid classes?

2. **To what extent did the importance of a college education lose standing during the pandemic when online learning was the only option?** How has family, work and other responsibilities overtaken the goal of a college degree? What are the choice options that students are considering instead of the traditional college?

### **Hypothesis**

1. **We anticipate that positive perceptions about in-person classes eroded when compared to pre-pandemic years. We expect** to learn that vaccine safety and faculty interaction is considered important to some, but not important enough to drive the majority of students back to campus. Instead, education may have taken the form of distracted learning that involves less interest in studies in favor of work and family responsibilities, and a pre-occupation with other activities while in the virtual classroom such work/ home tasks, traveling including driving, other class assignments, and watching/ listening to other media.
2. **We expect that some students will have de-prioritized college because of attention needed to work/ family during the pandemic and a lukewarm reception to virtual classes.** In particular, we anticipate that early entry into the workplace during the last year planted the notion that earning money through work, including remote work, can successfully happen without a degree. Some students may be putting off college entirely or for the near future, and others may be looking for less labor-intensive online programs that provide fast credentials.

## **CHAPTER 2: LITERATURE REVIEW**

### **Current Environment for Learning**

Up until the current Fall 2021 semester that commenced as of the writing of this section, Queens College restricted the mode of instruction for most classes to remote only. Within this restriction, students could choose synchronous online sessions where classes were designed to mimic the classroom experience and meet at a given time and day in virtual space. Alternatively, students could choose asynchronous sessions where classes do not meet, and learning occurs at the student's convenience with regular assignments and testing. There was also the hybrid class that is defined as a mix of synchronous and asynchronous modes of instruction.

The question arises as to when and if colleges such as Queens College can revert to a pre-pandemic tradition of mostly in-person classes. Clues may be found in our worker population, as economists, businesses and government officials are watching for signs of their return to the office. A recent November 2021 poll among big employers in New York City reported by CNBC suggest that the return is slow. The article stated, "Only 28% of Manhattan office workers are back at their desks and fewer than half will return by January." Further, the article states that some workers will likely want to stay remote into the future, yielding a New York City that looks and feels different with a smaller workforce, empty offices, and a budget crises looming with less property taxes accrued (Robtfrank, 2021). Confirming this, in October 2021, the BBC ran an article about the dilemma facing parents. They, in particular, are reluctant to come back as they have become accustomed to spending more time with their children. Yet the article reports that Wall Street firms, in unison, believe that at-home work is not as productive and so they recently called the full workforce back to the office. This Wall Street sentiment is

not shared by companies in other industries, however, as there is fear that "they risk a talent drain as workers seek out new roles at firms" that will permit a remote work situation (Cox, 2021).

When considering a return to in-person classes, it should be noted that the remote environment where students are expected to learn has been impacted by a range of distractions that are not favorable for successful academic progress. Specifically, the literature search found instances where students struggled to focus on their classes due to family interruptions and daily life activities that occurred while class was in session. According to *COVID-19 Remote Learning Transition in Spring 2020: Class Structures, Student Perceptions, and Inequality in College Courses*, the current environment has been impacted by both the lack of personal computerized devices that can be remedied through the distribution of equipment to those in need and unsatisfactory spaces for dedicated learning that cannot be solved in any sufficient capacity when stay-at-home orders are in effect. The article stated that, "Lack of reliable Internet, a dedicated workspace, or adequate technology particularly impacted participation in synchronous meeting, such as those held over web-conferencing software like Zoom." Additionally, many students found themselves balancing multiple commitments, such as childcare or work responsibilities, which impacted their ability to learn successfully. "Students, meanwhile, had to adjust to these new course structures along with many added barriers in their own lives that made completing their academic work more difficult" (Gillis & Krull, 2020). In other words, there were some complications about environments that were out of anyone's control to correct.

This was also echoed in *Evaluation online learning of undergraduate students under lockdown amidst COVID-19 Pandemic: The online learning experience and students' satisfaction*, as "The majority of the respondents (82.5%) reported that the workload with online learning is increased compared with traditional learning. Students reported having more assignments, and the classwork became homework" (Maqableh & Alia, 2021).

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Taking a closer look at distracted learning, a type of learning that occurs in an environment simultaneously filled with activity, people and objects, we mentioned earlier that the lack of proper devices is a condition that has a solution, but the problem of inadequate space does not. According to *Exploring undergraduate students' attitudes towards emergency online learning during COVID-19: A case from the UAE*, findings revealed that cost-and time-effectiveness, safety, convenience and improved participation were the most frequently cited positive aspects of the emergency online learning experience, while distraction and reduced focus, heavy workload, problems with technology and the internet, and insufficient support from instructors and colleagues were the most recurrent negative aspects. These distractions have caused a negative environment for students to be able to learn on their own. (Hussein, et.al. 2020).

In addition to distractions caused by special issues, there is also the diminished quality of education that naturally occurs when the student is not in a classroom. A prime example is an article that refers to students who are taking art classes and how it drastically affected them during the era of COVID. Although the author says the situation has impacted all of us, those that were worst off were students who attended class in the arts. In a normal setting these students had access to supplies, a teacher's close monitoring and feedback. The article goes on to mention that,

Art projects were created with the students in mind and what was possible based on the school environment and relying very little on the home environment. Much of that, however, is gone now as students are more impacted by their home environment than ever. While you might be able to predict some of the home factors of students, you will never know the whole picture for each student. Students and families tell you and the school what they want you to know" (Gehl, 2020).

Gonzalez -Frey et al. (2021) suggested the COVID pandemic has highlighted significant disparities in education such as unequal access to technology, quality instruction, and resources for students. Similarly, communication between students and faculty has been affected and consequently leading to a disconnect from their typical academic lifestyles. According to *College Students' Attitudes Towards Remote Instruction During the Coronavirus Pandemic: Future Directions*, “during the pandemic, many students and faculty members who were accustomed to high-context communication during and after class and during office hours were plunged into a world of separation and silence. In times when faculty needed to rely on distance learning and remote interaction, they were challenged to continually seek and refine how best to use technology to communicate” (Gonzalez-Frey et al., 2021).

In another article about college students shifting their life during the pandemic, “the analysis results reveal that the most important factors behind the students’ dissatisfaction during online learning are a distraction and reduced focus, psychological issues, and management issues” (Maqableh & Alia, 2021).

However, some students became dangerously used to the new normal and may no longer wish to have in-person classes.

According to early journalistic reporting, the most common strategy was to embed the existing course in a learning management system (LMS) while holding synchronous meetings; this remote transition maintained the same teaching strategies, activities, and outcomes from face-to-face learning (Lederman & Supian, 2020).

Despite the literature that suggests that online classes do not meet that same standards as in-person, these colleges made it seem possible for their students to have an experience that was worth their education.

As of the writing of this section, the attitudes, expectations and behaviors around the return to in-person college sessions and the vaccine mandate point to a more positive than negative view even if it means that students must take the vaccine when they may not want to. According to *Most College Students Support COVID Vaccine Mandates but Hesitancy Remains*, in a Universities.com survey, 62% of college students going back to school support colleges' decisions to require students to get vaccinated and believe that there should be a vaccine mandate. Moreover, 68% also say they plan to attend a college that requires the COVID vaccine for enrolled students (PR Newswire, 2021). When it came to asking students for their reasons for not getting vaccinated,

survey respondents listed four main reasons: 32% worried about the vaccine's potential side effects, 17% doubt the vaccine's effectiveness, 16% were waiting for full FDA approval, and 10% claim immunity because they previously had COVID. (PR Newswire, 2021).

In other words, the majority of students agree about the vaccine mandate and colleges requiring students to be vaccinated on the macro level. However, on the micro level, hesitancy among the student population remains.

### ***The Changing Importance of a College Education***

The news has focused on the ongoing events of COVID including health issues, deaths, vaccines and the economy and there has been a lot written on the topic. In one article, a study of COVID's aftermath on the general population demonstrates the correlations between people

facing emotional distress, the difficulty of receiving medical care, and the lack of sufficient social support available (Serrano-Ibáñez, et.al., 2021).

Taking a deeper dive into the college student populations and how they view education in light of these issues, our literature search revealed some students now have other responsibilities that have overtaken the goal of a college degree, and much of this has to do with scheduling and time. According to *It's A Lot to Juggle: College Students with Children are Overwhelmed this School Year*, the author talks about A'Ja Ross, a 26 year-old woman who has to work her son's schedule into her day that, for her, includes the full load of five courses in a community college. These college students who have parental tasks are faced with a new host of challenges that involve the focus on education for both child and parent. (Douglas-Gabriel 2020). While the article did not explicitly discuss how multiple zooms impact learning for mother and child, it could be assumed that it is a challenge.

In *One Year Later: COVID-19s impact on current and future college students*, it was found that COVID changed the many economic and living situations for some college students. These students “lost their on-campus homes, lost their jobs putting them at risk to look for jobs during the pandemic to help out their families and are taking care of their families, or their children” (Klebs et.al., 2021). Forcing college students to take on more responsibilities other than their education may have given them a different perspective on the economy since it has them question “if a college degree will prepare them for a new economy” (Klebs et.al., 2021). This result demonstrates that many college students no longer believe that achieving the goal of a college degree gives them the opportunity in the aftermath of COVID.

Based on *Student's experiences with online teaching following covid-19 lockdown: A mixed methods explorative study*, within the two weeks of lockdown, at least 75% of the students confessed that their life had become more difficult and 50% found it hard to switch from face-to-

face to all online. In particular, this raises a concern towards students of communications connection, location settings that are completely inappropriate for “home office” settings, and even motivations and effort into online classes (Almendingen, et.al., 2021).

Some of the options that students are considering instead of college include starting a business, particularly a small home-based business where they are able to work from home and take care of their family at the same time. Another option would be taking gap time or taking longer to complete their degree by going part time. This gives college students the ability to just focus on work and jobs as a priority. According to the website Thirdway.org, the effects on college students from the pandemic has left only 85% of students claiming they will re-enroll for the coming fall semester and between 5% and 18% who say it will take longer for them to achieve their college degree. In addition, most colleges will bring back face-to-face classes, some will offer online classes and some colleges will offer both. It is said that almost 33% of college students want to take classes fully online, 38% college students want to take both online and in-person classes, and 26% college students want to take fully in-person classes. Knowing this takes us to another perspective regarding to high school seniors, where many students report that they don't want to continue taking a fully online class after graduating high school during the pandemic (Klebs, et.al., 2021). This becomes important in that colleges put themselves at risk for continuing with reasonably high enrollment if in-person classes are not brought back.

## CHAPTER 3: METHOD

### **Overview**

The class was divided into five teams: Literature Search, Focus Group, In-depth Interviews, Survey and Data Science. Teams consisted of several class members. Some groups were individually responsible for the data collection. Other groups used data assembled by other sources. All teams were responsible for the analysis and their final written report with the entire class vetting every step for each group. A full description of the methodology is provided below.

### **Focus Group**

A focus group is a qualitative method used to collect in-depth opinions and behaviors through the use of a group discussion with a moderator and participants. The purpose of our focus group was to collect information regarding how the lives of Queens College students have changed as a result of the COVID-19 pandemic. In particular, we inquired about current student learning condition both on campus and in remote learning situations. In addition, we also asked about the changing value of a college education as a result of the pandemic. Our focus group team consisted of five members. Since there were precautions put in place due to COVID, the actual focus group met virtually through Blackboard Collaborate.

First, as a group, we needed to organize a schedule to keep us on task. We discussed what days and times we were all available to either meet in person or virtually in order to stay ahead of the deadlines. From there, we delegated roles. Each member chose where their skills would best suit them to make our focus group a success.

The next order of business was to find a way to recruit participants in the time of COVID. Participants were defined as current Queens College students taking in-person, hybrid, or online classes. One member of our team created a flyer that was presented to our peers in the class to

get feedback. Once approved, the members of our team and the full class shared our flyer in other class group chats and reached out to peers we knew on campus. We concluded that we should offer an incentive to recruit participants, so we decided to include a chance to win a \$25 Visa gift card through a raffle and the incentive was front and center on our flyer.

Contact information for interested participants was also on the flyer, both a phone number and a newly created email account that all the team members had access to for regular progress monitoring. Specifically, participants were asked to send a text to the phone number or an email to the web address in order to secure their spot in our focus group. With that contact information, we sent a link with eligibility questions. The questions included preferred pronouns, age, major, and class status/year (freshman, sophomore, etc).

As for reminders, the phone number and email account provided by these interested students were later used to confirm their participation. Reminders were sent the day before and the day of our focus group. Additionally, it included the link they would need to join the Collaborate virtual session, and instructions about the start time and how long the group would last.

Recruitment was a challenge at first given that very few students were on campus this semester. However, with the help from our class peers and students from other classes who were interested in the group, we were able to register eight participants who committed to join our focus group. The participants' ages ranged from 18-24 years, with 57% males and 43% females. The grade level showed 14% freshman, 14% sophomore, 29% juniors, and 43% seniors. The participants included: two majoring in psychology, two in secondary education, and the rest in biology, chemistry and accounting.

A moderator's guide was developed to ensure that our focus group discussion covered all the critical information needs. The guide was categorized into sections which included an

introduction to welcome our participants along with preliminary question to ease any possible tension. Then there were two segments that coincided with our main topics: learning environment and the value of education during the pandemic. Both sections contained major questions for discussion and probes to further understand the issues. Additionally, we had a “general questions” section which gathered basic attitudinal and behavioral information on the participants that revolved around in-school and out-of-school activities. Finally, we had a closing section which was used to conclude and wrap up our discussion. Moreover, we set a suggested time limit for each section to prevent the possibility of going off track. Overall, the moderator’s guide was a staple piece into keeping our team on point.

The flyer and moderator's guide are appended.

### **In-Depth Interviews**

The in-depth team of four students were instructed to gather and analyze qualitative information through private interviews, where more an initial in-depth look could be examined before the development of a quantitative survey instrument. The DATA 334 class developed two main research questions from which individual classmates reached out to current Queens College students with a guide of about ten qualitative questions. This yielded a total of twenty-one short analyses in essay form. These essays were the main source of the in-depth team’s research. In addition to the student interviews, it was a pleasure to have the opportunity to interview the Vice President of Student Affairs, Ms. Jennifer Jarvis, when we were able to see the issues from an administrator's perspective.

All in-depth interviews among students were conducted via zoom, a phone call, or in person. In addition to individual student responsibilities concerning the development of a qualitative question guide, the students were tasked with finding a qualified participant to



interview using those custom questions. Eligible participants must have been currently attending Queens College.

After our classmates submitted their essays, they were divided among the four group members to analyze and separate into useful information for our research project. All four of us extracted similarities, differences, and interesting points that answered both of the research questions. We then divided ourselves into a group of data analysts and writers. The data analysts were responsible for interpreting and analyzing the data and organizing the responses according to the two major research topics, as well as organizing any common themes. The writers then took all the work done by the data analysts and transformed the information into an essay format. In order to complete the in-depth portion of the paper, communication between all four members was a significant factor that was done through messaging, Group Collaborate, and in person.

### **Survey**

The purpose of the survey, “Transitioning to a New Normal after COVID,” conducted by a group of five research students, is to evaluate the process of transitioning into a post-pandemic academic lifestyle and how that has affected the importance of education for students at Queens College.

The instrument contains 15 questions, in which four are general questions to collect profile and general behavior, nine are about the current environment for learning as a student of Queens College, and the last two delve into the changing importance of a college education. There are a total of 96 respondents representing the data that will be discussed further in the paper. Questionnaire development was aided by the literature search and by qualitative focus groups and in-depth interviews. The instrument was vetted by the class prior to administration.

Since the college is still transitioning away from fully remote back to in person, and with most classes not in session at the college, we used a convenience snowball sample and the survey was administered online. To acquire respondents, two methods of recruitment were used. First, a link to the survey with an invitation was sent via text to other Queens College students that our research team and the rest of the class were acquainted with. Second, the team intercepted potential respondents who were around campus and provided them with a QR code.

Most of the respondents were sophomores or "older," with less than 10% of the respondents representing Freshman. Sophomores, Juniors, Seniors and Graduate students each represented between 20% and 25% of the sample.

### **Data Science**

The Data Science Team consisted of three students who were tasked with finding a nationally based raw data set related to at least one of the two major research questions established for this study. We explored a number of sources and ultimately selected a database from the U.S. Census Bureau who, in collaboration with multiple federal agencies, conducted The Household Pulse Survey that was designed to deploy quickly and efficiently to measure household experiences during the COVID pandemic.

In this study, data is collected on an ongoing basis and released in near real-time on a biweekly basis. The U.S. Census Bureau, with other federal agencies, are in a unique position to produce data to meet this very timely release. We selected recent data collected during the weeks of Sept 1 to Sept 13, 2021, during phase 3.2.

The U.S Census Bureau began with a comprehensive list of national household addresses provided by the Post Office. Then they hired commercial, survey, and administrative record data providers to link phone numbers and email addresses to physical addresses. Sampled households

were contacted via email and text to complete a web survey. In phase 3.2, there was a sample size of 1,043,950 that were contacted of which the final number of respondents who participated 63,536. This is a response rate of just over 6%. Eligible participants must be adults 18 and above.

After reviewing the variables contained in the dataset, the Data Science Team made the decision to move forward with an analytic plan that highlighted the second of the study's two research questions, the changing importance of college education. The first question referring to the current environment for learning could not be addressed with this dataset.

With this in mind, the Team focused on the variable concerning choices regarding the cancelation of college plans during the fall 2021 term. This reduced the sample further to 10,214 eligible participants. The data results showed 1,534 participants canceled class (15%) and 8,680 did not cancel classes (85%). The Team decided to use a logistic regression appropriate for nominal variables with SPSS as the program. Education plans, PSCHNG2, is the dependent variable that coincides with the question on how the COVID pandemic impacted their plans to be taking classes during fall 2021 term. We coded 0 to represent continuing taking classes this fall term and 1 is coded to represent plans to take classes this fall term have been canceled.

The independent variables we selected relate to profile of respondents and are described in detail below:

- Household size, THHLD\_NUMPER, coincides with the number of total people, adults, and children, that currently live in the household. Participants entered a whole number. We coded 0 to represent 5 people or less and 1 is coded for those who responded that there were more than 5 people in the household.
- Children in household, THHLD\_NUMKID, is an independent variable to identify the number of children under 18 that live in the household. Participants needed to enter a

whole number. We coded 0 to represent 3 children or less and 1 is coded when the respondent indicated more than 3 children living in the household.

- Employment status, ANYWORK, asked respondents if they did any work for either pay or profit in the seven days prior to the survey. Participants needed to select either yes or no. We coded 0 to represent not currently employed, and 1 is coded to represent currently employed.
- Location was managed using two variables: Region, REGION, and states, EST\_ST. The Team decided to include both the Northeast Region and California. These regions were hit early on during the pandemic and had established strict rules regarding social behavior including shutdowns. For region, we coded 0 to represent all areas that are not Northeast and 1 to represent the Northeast. For states we coded 0 to represent the rest of the states and 1 to represent California.
- Race, RRACE, where the question choices included White, Black, Asian, and any other race or race in combination. We coded 0 to represent non-White participants and 1 to represent White participants.
- Public assistance, SPND\_SRC5, where respondents were asked if unemployment insurance benefit payments were used in their household to meet their spending needs. We coded 0 to represent that public assistance is not used and 1 is coded when public assistance is being used.

The tables and charts can be found in the Appendix

## CHAPTER 4: FINDINGS

### Focus Group

#### **Current Environment for Learning**

The focus group started with the question, “*What do you do in your free time?*” We asked this as a way to better understand the willingness of students to emerge out in public after the pandemic. It appeared that these students are out and about, responding with healthy outdoor activities such as “playing sports” while another participant stated “biking, all over the place, riding up to the Bronx and Staten Island.” It should also be noted that free time involved being with others in indoor spaces such as “spending time with family” as well as “me and my friends go out to parties, explore the city and get ice cream.” There was a sense of trying to regain some sort of normalcy from former precautions and mandates.

The moderator then jumped right into academic life and asked, “*Do you think the administration is managing the circumstances of COVID-19 and returning back to class appropriately?*” There were diverging perspectives about whether the return to in-person classes is the right approach. On the positive side, one student stated,

I wished they would let us have more in-person classes, especially since people have gotten vaccinated and we have the vaccination mandate which was a good idea. I think now that we have the vaccine, it does not make sense to stay virtual and I learn much better in- person.

Most students who are taking online classes are doing so because that was the only way the class was offered. A participant stated, “The classes I needed were not offered in person, only online...but we test in person.”

Another participant looked forward to going back and having the vaccine mandate to keep students safer while on campus. This participant said, “The vaccine mandate has been better in a positive way to make students come back to in-person classes and have us all feel safer.” Along with that, some students appeared to comprehend that returning to in-person class must coincide with required COVID vaccines and submission of its proof to enter campus. One student said, “This college administration already has my social security number and financial information and stuff, so telling them I am vaccinated is the least of my privacy concerns, I really don’t care.”

On the negative side, some students felt that not everyone should be forced to take the vaccine, nor should we assume that students are comfortable coming back to in-person classes. In addition, one participant made a comment about their dissatisfaction when an online class was switched at the last minute to hybrid,

I feel the way the school is handling the circumstances of COVID-19 and returning back is unfair because I had a friend who signed up for only online classes because she didn’t want to go back in person, but then found out it was going to be hybrid, so she was forced to get vaccinated.

This participant felt that the school should have decided earlier about fully online or hybrid classes, because not everyone wanted to get the vaccine and they shouldn’t have to be penalized because they choose not to.

Whether or not students agree about the vaccine mandate or want to return to in-person learning, we heard many comments about the distractions that come into play at the same time that an online class is in session. For example, some students told us that they are sharing spaces

with noisy little children or others who are watching television. This participant expressed this sentiment,

I feel like my parents talk in the middle of my classes because they don't know I'm in the middle of a class. They just walk into my room and start talking. Same with my brother. It was worse when he also had zoom meetings.

There are also the distractions that students generate themselves when spaces are not shared and there are no other persons around. Some students have told us that they don't pay attention in synchronous classes and instead engage in activities such as household chores, cell phones, games, and internet browsing. One participant moved his camera to show us what he does when in class. This picture is worth a thousand words,



Another participant said,

Online classes are just distracting regardless because you have your phone with you, and you don't always have to have your camera on. You don't have to always show you're paying attention so you can be playing PS4 while you're in

class. So, in general, besides having all the other distractions, being in an online class is already distracting.

## **The Changing Importance of College Education**

We asked questions focusing on the participants' perceptions of valuing education and if those values changed post-pandemic. Some students shared how they have missed the social aspects of college and some, in particular, want to be back on campus to network and have opportunities to help further them in the future. A participant stated “In terms of those looking to go on the professional track, they need some level of college as a way of networking”.

Others, however, believe that hands-on experience is key along with college and that online classes allow them the time they need to gain experience in the workforce as they complete a degree. One participant said, “When you go and apply for these salary jobs, having a degree is not enough. So, you need to have that experience, but it is hard to have it when you are going to school full time.” This student described that job applications show that employers are asking for years of experience in any respective field, and we as students are taking note that any newly graduated student without job experience is a weak candidate for a job. A participant explained that there were several internship opportunities while being fully online in class. These are opportunities that would not happen if classes had been in person. This student explained that being a full-time student is a full-time job and being able to balance work, school, and a social/family life is extremely difficult. These issues are front and center now that in-person classes are being offered again after the 18-month hiatus.

Outside of job preparation, students reminisce about campus life pre-pandemic, and this adds to the value of college. We also found out that most of our participants missed the social aspect of college life: when students would bump into each other on campus while switching



buildings, when students would socialize naturally through events and activities on campus, and when we had the ability to create a more organic relationship with professors and students in general. One student stated, “You don’t just bump into people anymore; everything feels more formal. You have to schedule everything; you cannot just run into people.” Another said, “College may now seem boring.” A different student added,

I wanted to return to an in-person class at least next semester and have everything back to normal with activities and everything because I feel like right now, everything is boring and I'm graduating this year, so I feel like I wasted my money.

Even though schools' main purpose is to pass courses and interact with peers, there were other secondary aspects that made the college experience more fun. There was more communication that was not just student to student; it was also communication from student to staff and faculty. One student said,

So, I think the aspect of organization could possibly be improved especially since the pandemic started. I know it's very hard to get in touch with staff for problems that have to be resolved quickly. It's very hard to email someone and get a response so I think it could be worked on.

When asked how the college could be improved, this respondent made it clear that improving the communication channels between students and staff should be a priority. This is because when facing difficulties, this participant reveals that it is challenging to request assistance from the institution, thus producing problems with no easy solutions. Many of the departments leave an email stating they will get back to you within a time frame, however this is

not always the case for some students waiting longer for answers. This highlights the communication gap between students and the institution.

While the participants mostly agreed that college is still important in terms of long-term success, they recognized that a do-it-yourself approach without college is also an option, especially with the concentration on the web that we just experienced during the COVID shutdowns,

I feel like you know it's easier to make money throughout your own career. We don't necessarily need college. For example- if you're planning to be in the entertainment business, it's so much easier. You know how to do it and you think to yourself, 'yes, maybe take a year or two to get recognized.' At the end of the day, when you do finally get recognized and it starts generating money, you're not going to say to yourself 'I need college.' You're going to realize this is a better career path if you can sustain it in the long run.

When asked what some alternatives are to obtain a career other than college, this participant illustrated that breaking into the online content production and entertainment industry is currently perceived as an achievable career goal.

## **In-depth Interviews**

### **Current Environment for Learning**

On March 11, 2020, the World Health Organization declared COVID-19 a pandemic. One year and seven months later, we are reunited inside lecture halls, reflecting back on the effects this pandemic had on us. This pandemic has not yet come to an end, and we are still unsure as to when we won't have to wear facial coverings, but the FDA has authorized three vaccines. The fully vaccination rate among adults 18 and older in the USA is now 70% with 80% who have received one dose. In New York State, that number is higher at 79% who are fully vaccinated and 88% who have received one dose. The increase in vaccinations and decrease in positive COVID-19 cases has brought much joy, but also brings us yet again another stage of transition.

As college campuses reopen, there are many mixed feelings amongst students as revealed by a series of in-depth interviews. The transition to in-person classes is not easy for everyone. Students who have adjusted to balancing family, work and school during online classes now have to readjust their schedules. A student stated that since her workplace is quite far, she mentioned her discomfort in attending the classes in person. Some students find it lonely being back on campus because of the decrease in activity as well as the mandated social distancing. Another student stated that, "My college environment is looking lonely. Everyone is distant from each other, both physically and socially. There are not as many students on campus."

Another big issue with bringing students back onto campus is the vaccine mandate. The college established a rule to coincide with the governor's policy that students who are not fully vaccinated are not permitted on campus to use facilities such as labs or libraries, or to take in-

person classes. To explain the school's rule, Assistant Vice President of Student Affairs Jennifer L. Jarvis said,

For CUNY and college students, for anyone in a community it's no longer a personal choice and that makes it hard. Those should be a personal choice and it's no longer a personal choice. The choice comes with consequences... no longer a personal choice between the person and their physician.

According to the interviews, most of the students agreed that they should be able to choose when they would like to get the vaccine and go back to campus. Forcing them to make the decision in a short amount of time can make some want to quit and not go back to school. A student stated,

There should be a moment when to go back in person, when people are ready to get the vaccine. It feels so much pressure having to be forced to put on the vaccine. This can make students want to quit and not go back to school.

Despite all these controversial thoughts, we heard from the in-depth interviews that learning should be in person. This is to avoid distracted learning that comes from remote classes. Issues such as unstable Internet would cause disruption during remote class. A student stated that, "There were also times when the internet connection would be unstable because everyone in all of New York was home using the internet." The environment itself is also just too comfortable and many of us would be "taking classes in bed or while eating a snack." One student mentioned that it was "honestly hard to stay on track because the majority of the time I was just waking up to log in and be present for class." Another also agreed and said, "Definitely been a distraction, I am on the phone during class or the game while in class because the professor doesn't see me." Overall, there are opportunities being lost when not learning in

person. Vice President of Student Affairs Jennifer L. Jarvis “fully believed that unless we’re in a classroom, we lose the opportunities for the learning process to be uninterrupted.” The students reflected back to all the times they had remote class at home in their own room and the smallest things were the biggest distractions. Students reported that younger siblings are running around during class, dogs barking at the mailman, parents watching television in the living room, and social media notifications pop up on the screen. The students tell us that these small details are just all sources of distraction that we would not have had to deal with if we were in classrooms.

### **The Changing Importance of a College Education**

As the COVID-19 pandemic shapes a new normal, it also re-imagines the culture behind higher education. The pandemic and working from home opened new doors to entrepreneurship. According to a student, “A degree is still important to have, but other options, like real estate, entrepreneurship and finance have become suitable options.” This nuance of exploring other ways of creating the start of a successful career is inspired by working independently from home. One student points out that this independent work is also motivated by the spotlight that the pandemic puts on the bottom line that is none other than money. The student stated he “changed his career goal to a higher paying job even though he doesn’t quite enjoy the particular field because he realized throughout the pandemic that without money ...” and another “I first saw the shift in myself, where I was thinking about my job more than my college education.” Yet another student re-imagined what her career would be like – moving away from law. This student wanted to pursue a law degree. However, with COVID, she discovered that she'd rather be an entrepreneur.

With online learning being the only option at the beginning of the pandemic, students were home 24/7. With this, they spent more time with their families. During a global pandemic however, family dynamics shift. One student stated,

It has been hard because unfortunately I've had a couple of family losses during this whole thing, and it hasn't been the easiest to deal with on top of school. I feel that since professors assumed a lot of us students were just home available 24/7 not knowing how their personal life was.

This student emphasizes their loss of family during the pandemic and how that affects their school work and mental health. With the loss of family comes trauma, and it also comes with responsibility. Some students became breadwinners and work instead of being full-time students. A student stated, during the COVID situation, "her mother lost her job so she had to take an extra job to support her family." Another student added,

I have my family on one side and work on the other. It can be very challenging to complete my degree while juggling multiple responsibilities. It's definitely impacted my interest in continuing my education.

This student explains the clash that COVID and family responsibilities encountered. With that clash and the new-found fragility of the family structure, some students now may put family first. An in-depth interview stated that, "Students feel the importance of family has changed for the better since the pandemic and more people cherish their family members."

Doubt has also set in. A student stated,

I've thought about pausing school for a semester or two because I feel very uncertain that I'm going to be successful in school. I felt very worried and wasn't sure if it would be the right decision.

This student wanted to pause school not because they thought it to be useless but because the access to a college education has decreased. This same thought is supported by another with, "Studying sometimes can be overwhelming and stressful because of my environment. It has made me feel less interested in the class, making it difficult for me to get through college." It has become harder to focus in school for this student not because of disinterest, but due to the many anxieties that come with schooling from home.

Conversely, according to another student,

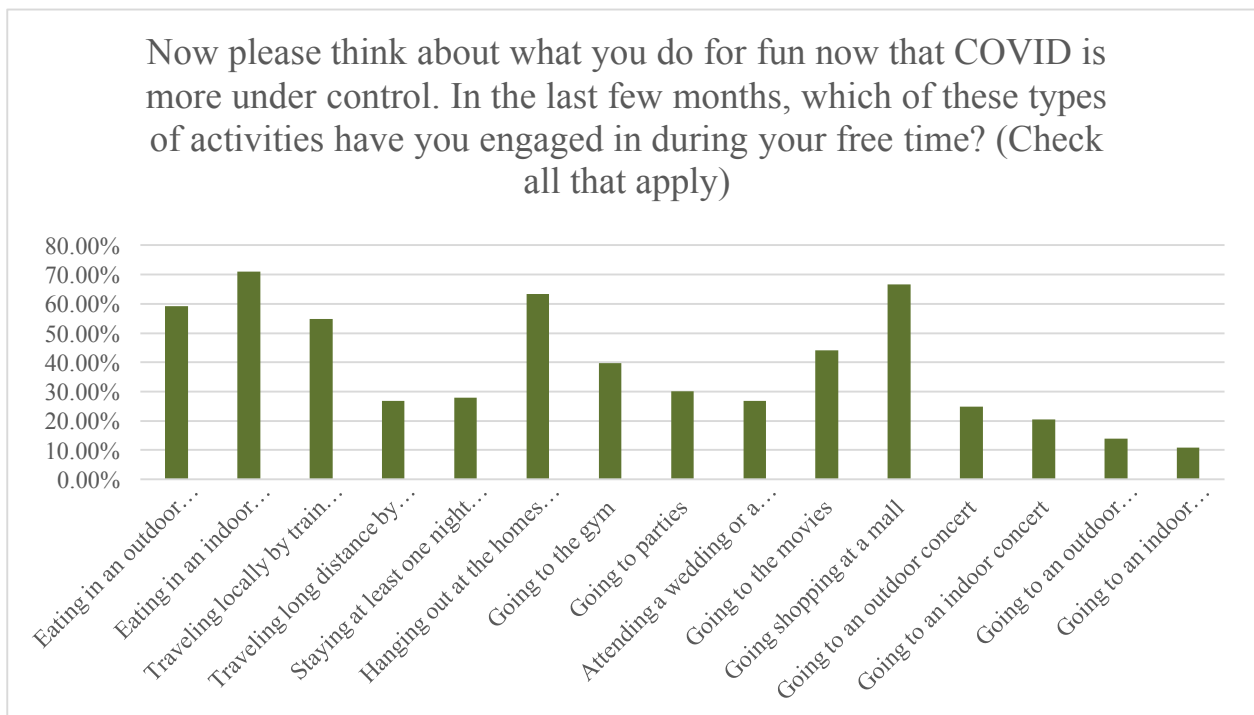
A college degree is great to have but a secure job can be earned, just by knowing the right people. With a pandemic or any other lock down situation, having a secure job is more important than a degree which might not be used.

However, college is still very appreciated as one student claims, "The pandemic helped me pay for college with stimulus checks and debt forgiveness in contrast to paying more prior," showing that with opportunity, including the opportunity of financial help, students would continue their education.

## Survey

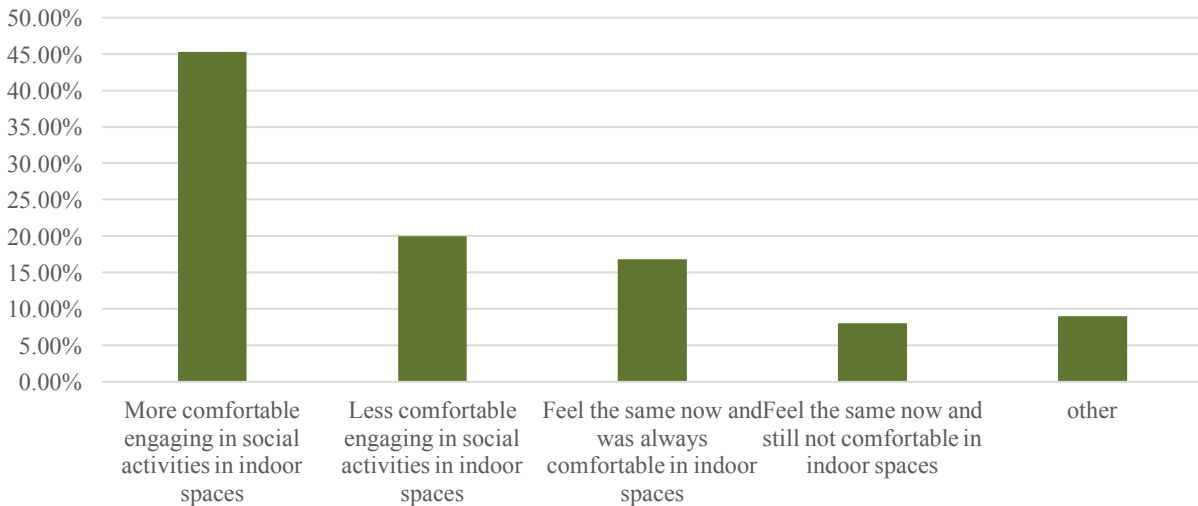
### Current Environment for Learning

The students have already headed back to indoor spaces with strangers at close proximity and they are already participating in the type of activities they normally did before the pandemic. More than two thirds (71%) of respondents recently claimed that they have eaten at an indoor restaurant, about 67% of respondents recently have gone shopping at the mall, and about 63% of respondents have spent some time at their friend's or family's homes. In addition, 44% went to the movies and about a quarter stayed in a hotel or motel (28%), traveled long distance by plane or train (27%), or attended an indoor concert (20%). This is no surprise since almost 45% of respondents stated that they felt more comfortable in indoor spaces now as compared to a year ago, plus 17% said they were always comfortable indoors with others. In addition, almost half the students (49%) work at a job that requires sharing indoor spaces with others.

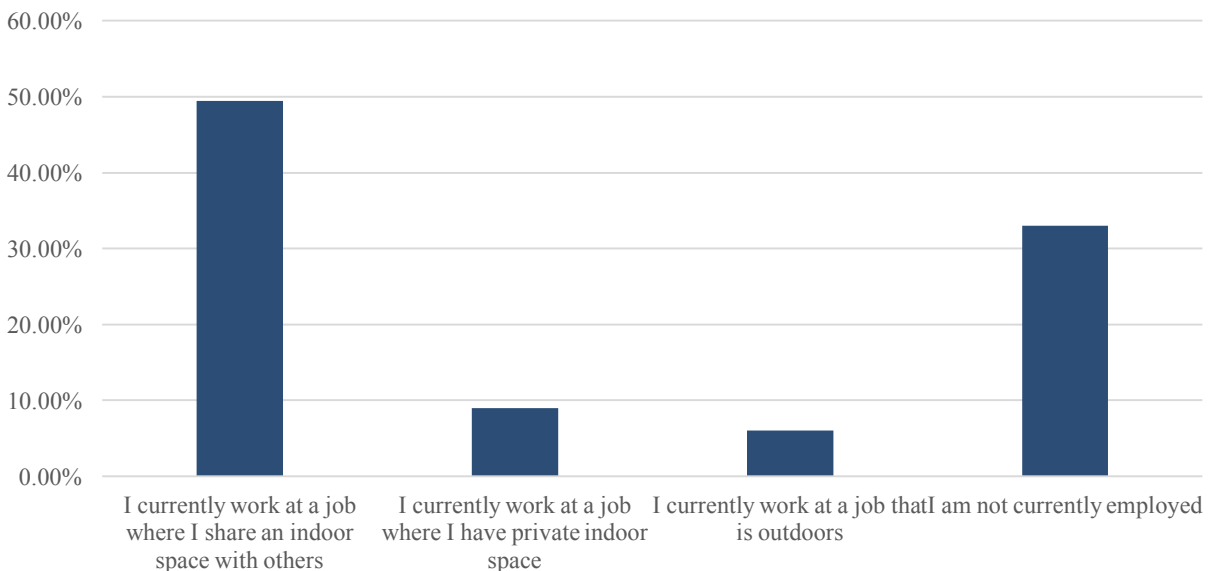




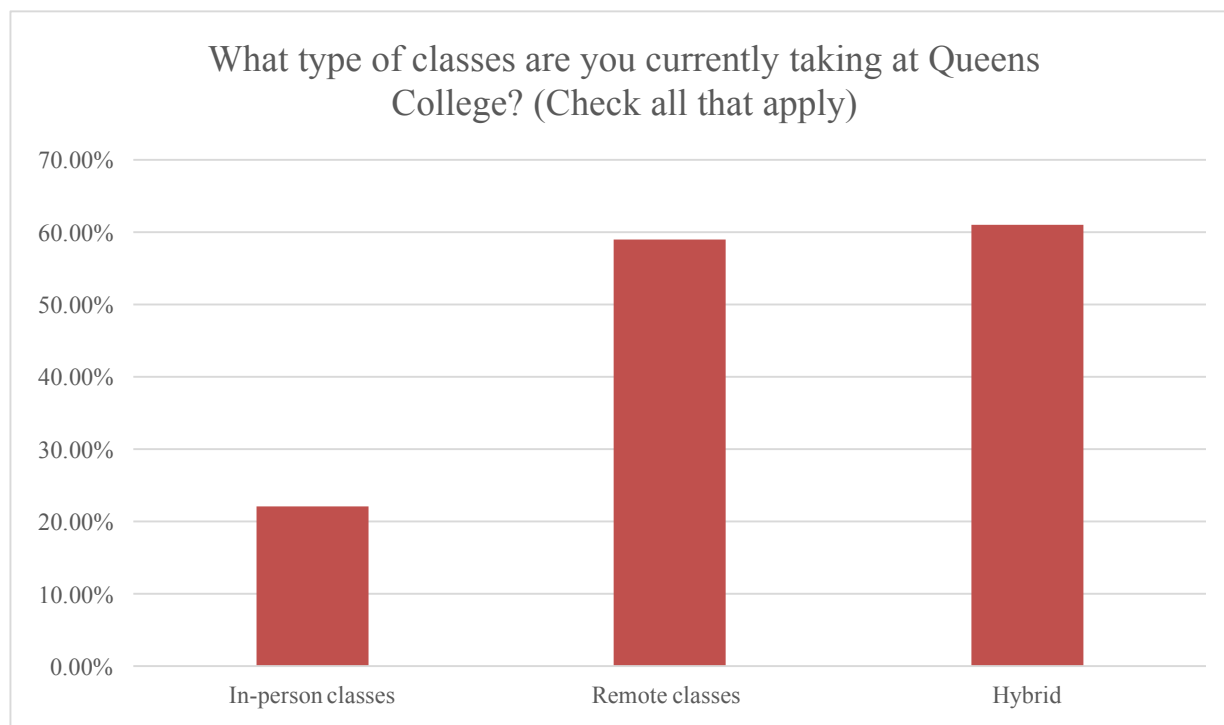
Please think about your life a year or so ago when we were in the middle of the pandemic, and how comfortable you were to engage in social activities in indoor spaces. Compared to that time, are you more comfortable, less comfortable or do you feel about

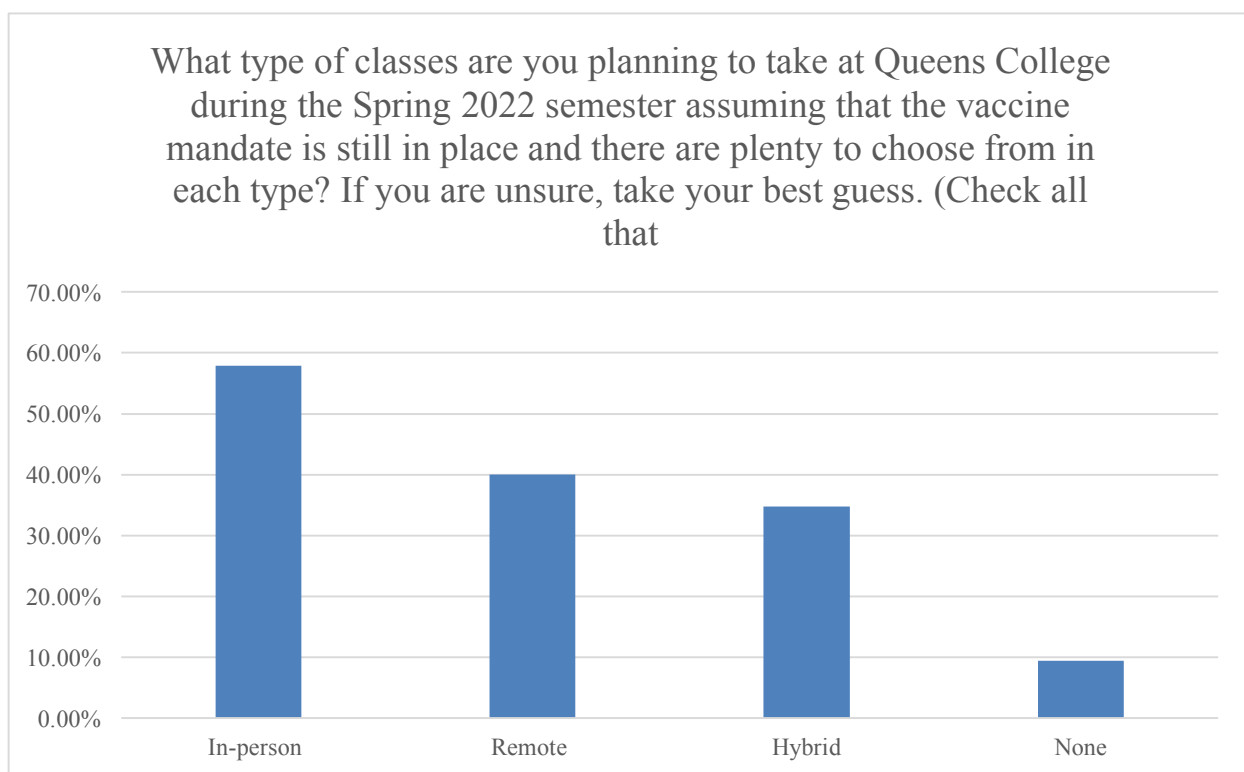


Now please think about employment. Which one of these statements applies to you?

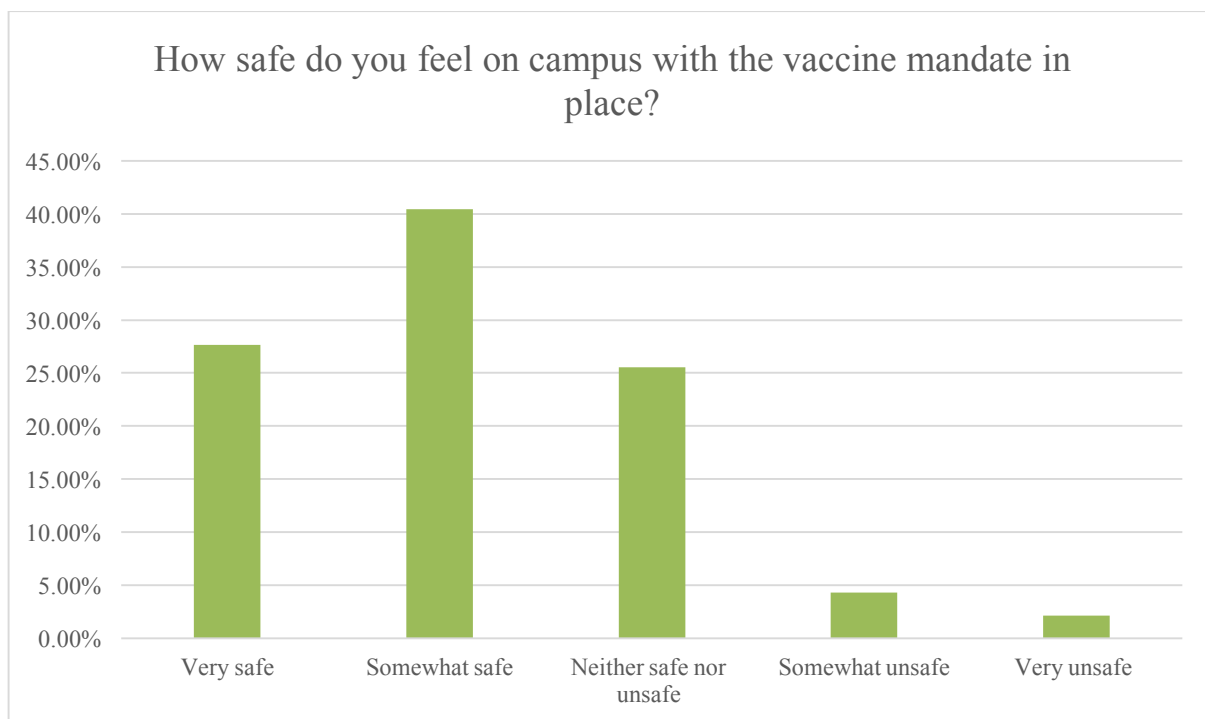
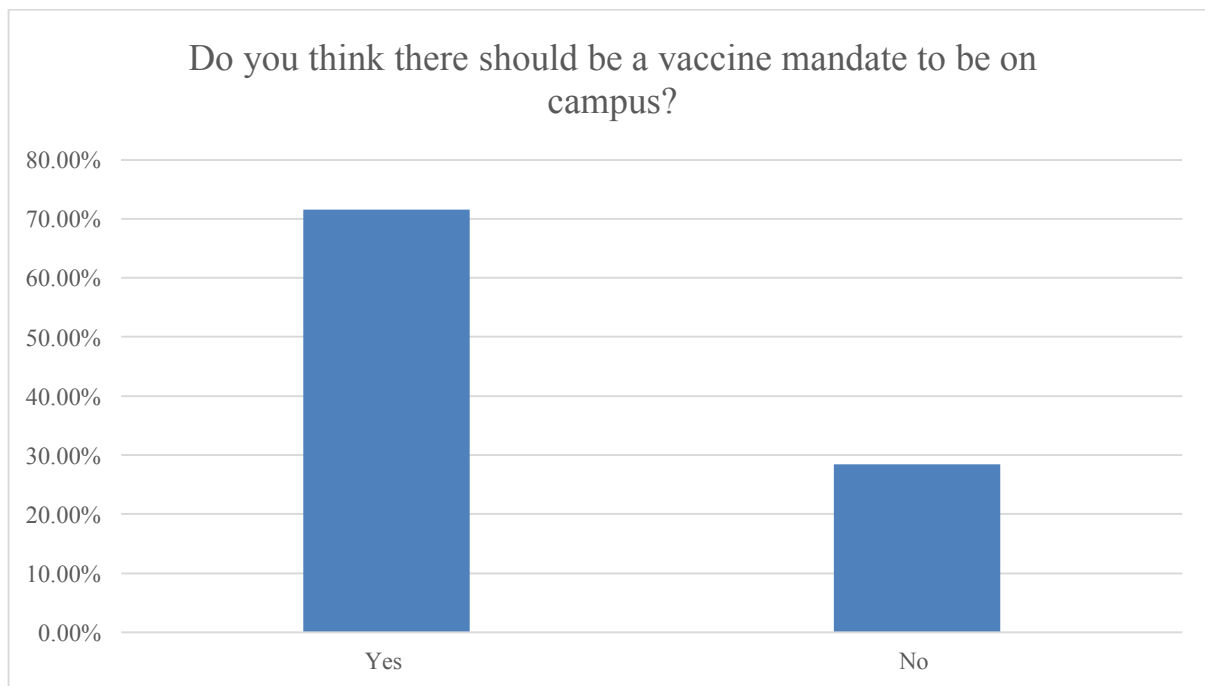


Coinciding with the return to indoor socializing in other parts of their lives, according to the survey, about 22% of respondents are taking at least one in-person class this semester and 61% are taking a hybrid class with an in-person component. (Our research recognizes that this number may be inflated when considering the entire student population since some of the survey participants were recruited on campus.) When asked which type of classes they are planning to take next semester, the number of pure in-person jumped to 58% while hybrid dropped to 35%. This demonstrates that students may be growing tired of staying at home for all their courses. However, 40% of the respondents still indicate that they want to take at least one remote class, which also shows that many students have gotten used to and perhaps benefited from being remote.



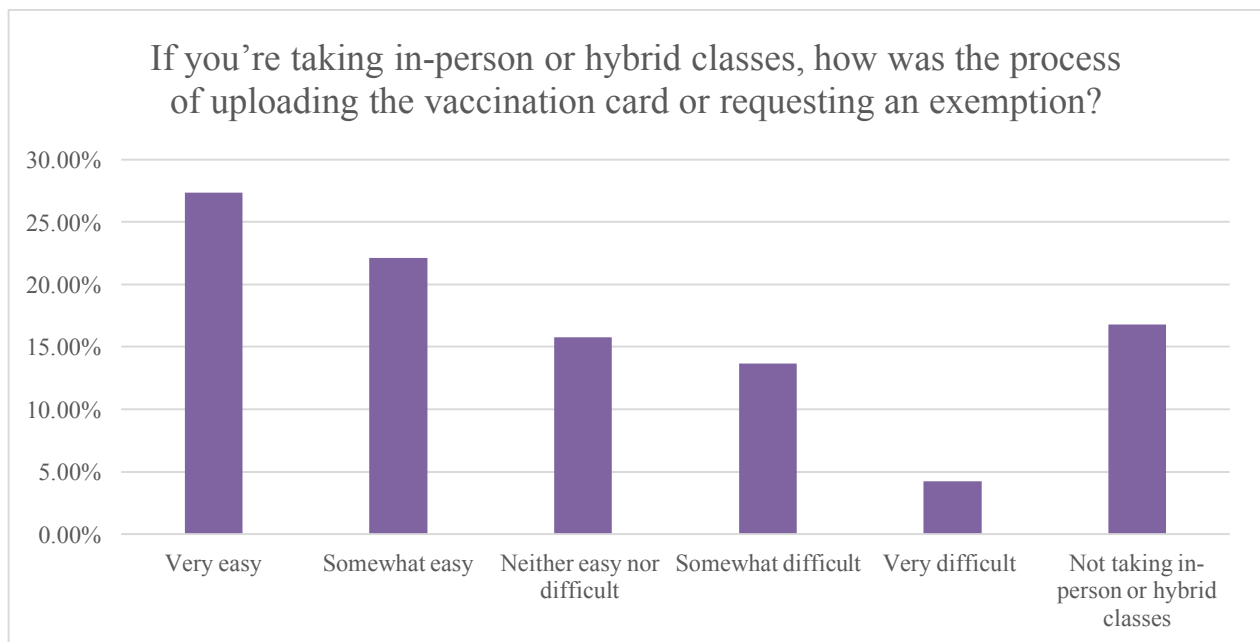


In response to the vaccine mandate, students have disclosed that they mostly approve of it as about 72% of respondents agree that there should be one for Queens College. Along with this, about 68% of the same respondents feel very or somewhat safe from COVID on campus with the mandate in effect and another 26% are neutral. Only 6% claim to be somewhat or very unsafe. This percentage may be skewed since we captured some respondents on campus and those choosing not to return to campus may be more likely to feel unsafe. Further research should be done in this area since we realize that not everyone who is taking in-person classes may believe that the vaccine mandate is necessary and it cannot be assumed that students who stay at home for school are against the vaccine mandate.

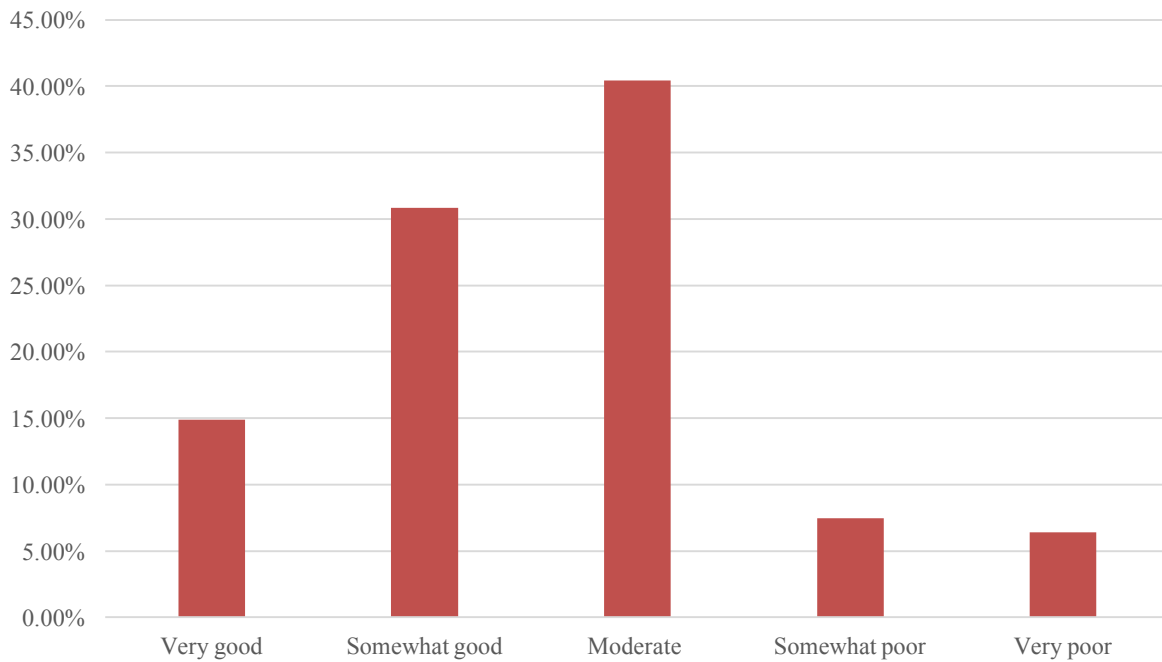


About 65% of all respondents, or 78% of those attending a class on campus this semester, have found that the process of uploading proof of the vaccine or requesting an exemption was very or somewhat easy or neutral. This indicates that students perceive that Queens College is

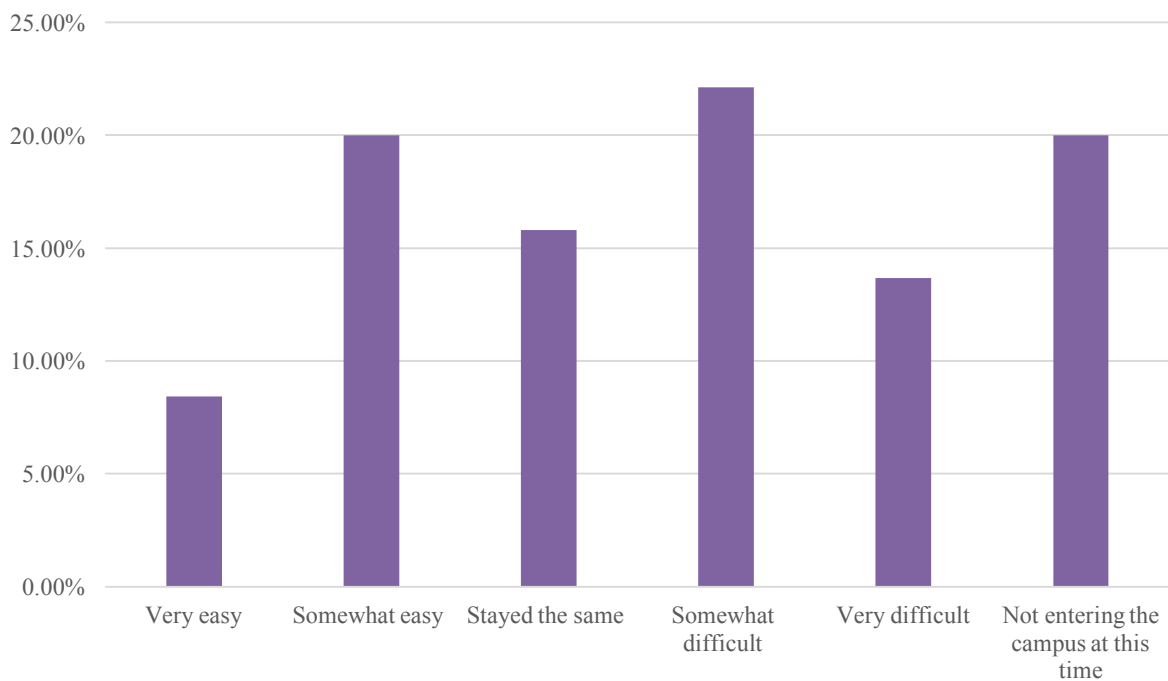
managing well. However, the job is not done as 17% report not to be taking in-person classes this semester and may have to go through the process for the spring semester. The same positive evaluation could be made about Queens College's effort in communicating the rules surrounding students' return to campus, since nearly 86% of respondents would rate the school's efforts to be moderate, good, or very good. The process of entering campus, however, is another story. About a third (36%) of all students or 43% of those who took a class on campus claimed that entering the campus is difficult in some form or fashion, which means that Queens College must improve their protocol so that students are not stressed and worried on their way to class. Keep in mind that this is among the entire school population. If you only examine this among the 80% who have experienced entering the campus, then a whopping 45% claimed it was difficult.



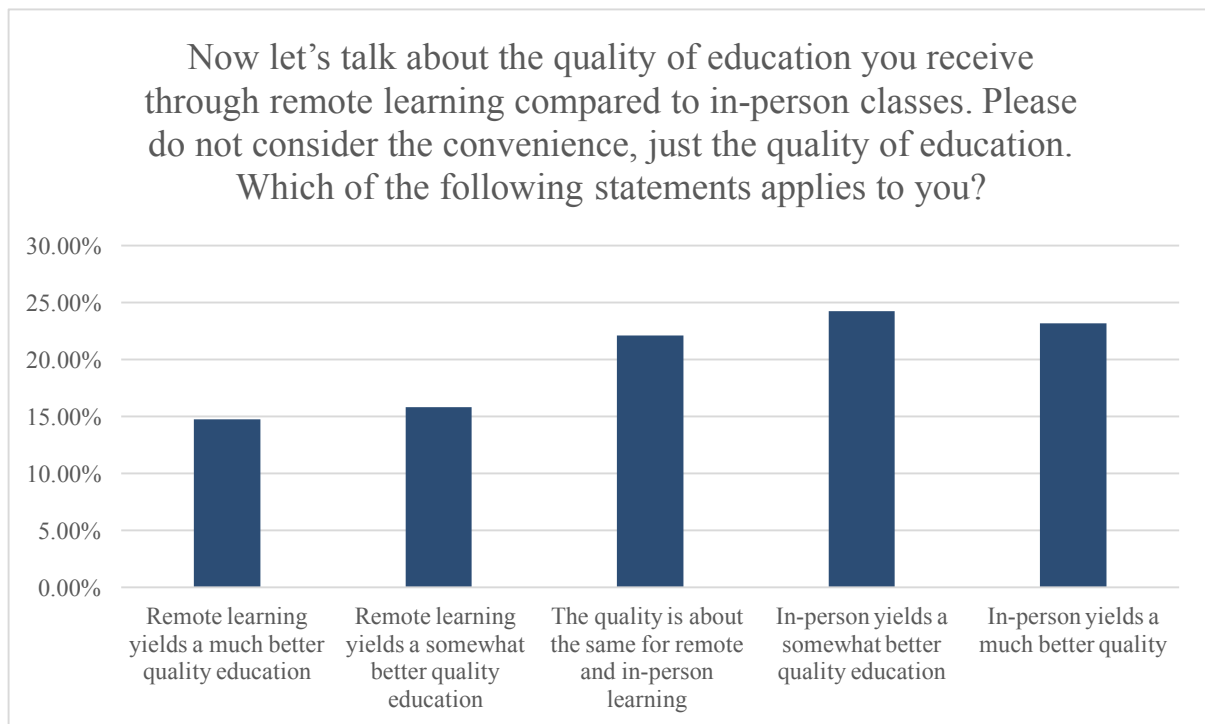
How would you rate school administration efforts in communicating the rules about coming back to campus?



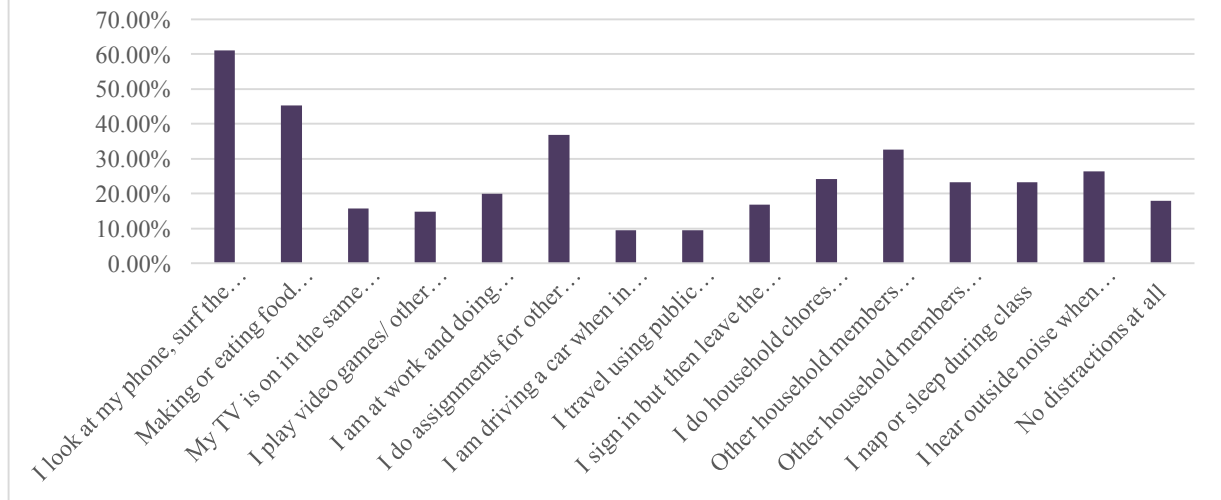
Compared to pre-COVID, how do you find the process of entering the college campus now?



When asked to compare the quality of education in remote and in-person classes, students gave in-person a slight edge with 47% in favor of in-person, 31% in favor of remote and 22% reporting that they are the same. Taking a closer look into remote learning, the research shows that the number and type of distractions students are experiencing is far and wide. The number one distraction is that students are on their phones during class to surf the web or go on social media, mentioned by 61%. While this behavior may also occur during in-person classes, it is almost impossible to control in remote situations at Queens College with no visual cues for instructors, leading to the serious question of the quality of remote education. In addition, participants claim that they are making and eating food during class (45%), working on other assignments while in class (37%), and dealing with noise from other household members and other siblings also on zoom calls (33%). On a lesser front, we heard that they are also playing video games and watching TV during class (15% and 16%, respectively). Only 18% of participants stated that they have no distractions at all.



Some students have told us that they get distracted when in an online synchronous or the online component of a hybrid class. Others have told us that they do not get distracted at all. Here is a list of typical distractions students face while in class.

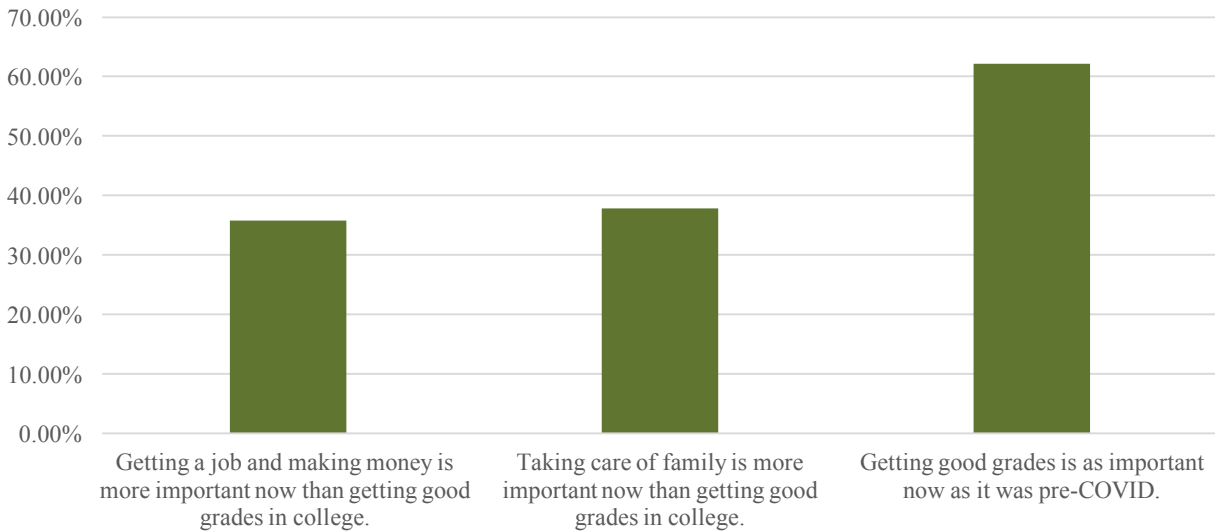


## The Changing Importance of a College Education

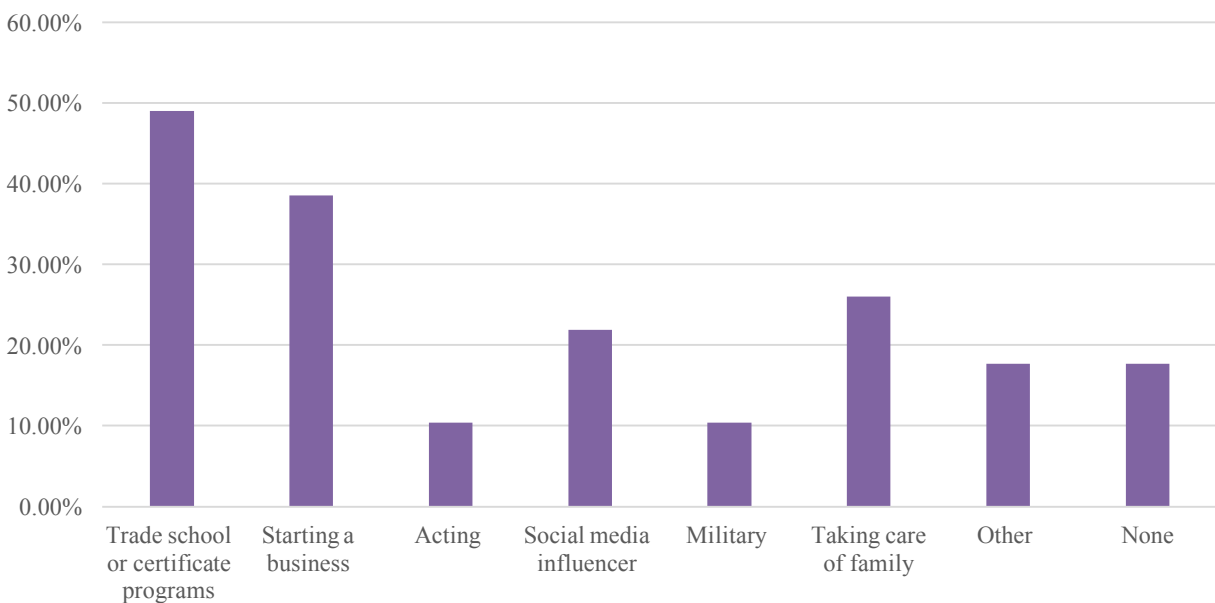
The importance of college and getting good grades hasn't lost its complete footing yet for students at Queens College, as 62% of respondents state that getting good grades is as important now as it was pre-COVID. The other participants have stated that importance increased for family, 38%, and/or jobs, 36%, as compared to pre-COVID. Some students do recognize that there are many options to pursue nowadays. Only 18% of respondents stated that there are no other options that are a better alternative. Trade school (49%) and starting a business (39%) were the most popular options participants stated that could be a better alternative than college.



Some students have told us that getting good grades isn't as important as it was pre-COVID. Others have told us that their college goals have not changed. Which of these statements applies to you? (Check all that apply)



What are some options that might be a better choice than going to college at this time? (Check all apply)



## **Data Science**

The Data Science Team was tasked with exploring the impact of the pandemic on college students on a national scale. After reviewing the variables contained in the dataset provided by the U.S Census Bureau, the Data Science Team made the decision to move forward with an analytic plan that highlighted the second of the study's two research questions, the changing importance of college education. The first question referring to the current environment for learning could not be addressed with this dataset.

### **The Changing Importance of a College Education**

Most notably, a considerable number of college students chose to cancel registration in the fall of the 2021 term. Of the 10,214 participants who answered the question regarding cancelation of classes, 1,534 participants or 15% across the country decided to cancel college plans and 8,680 or 85% did not.

Using a logistic regression appropriate for nominal variables, the Team set out to determine the demographic profile of those who chose to cancel. Thus "canceled classes" was the dependent variable. The independent demographic profile variables that were chosen for this analysis include seven specific characteristics that cover location (California and the Northeast), race (White), household size and composition (large size and many children), and financial stability (work for pay and on public assistance).

More information on the development of the model may be found in the appendix, including re-coding, frequency distributions, the full printout, and the survey instrument.

Initially, we looked at statistics examining two null hypotheses. In this first table, Variables in the Equation, the null hypothesis assumes that the dependent variable "canceled

classes" is zero. The null hypothesis is rejected given that its beta value of -1.733 is significant. Thus, the dependent variable is not zero.

<b>Variables in the Equation</b>							
		B	S.E.	Wald	df	Sig.	Exp(B)
Step 0	Constant	-1.733	.028	3915.777	1	.000	.177

For the next null hypothesis, we examined the Omnibus Tests of Model Coefficients table below. This hypothesis assumes that there is no impact of the seven selected independent variables covering location, race, household size and composition, and financial stability. The figures show the Step, Block and Model with the same chi-square of 103.413. This means that we included the full set of demographic variables selected rather than enter them into a stepwise model one by one. The chi-square figure of 103.413 is large. The significance column tells us that the large figure of 103.413 represents the probability of obtaining this chi-square statistic if there is no effect of the independent variables taken together on the dependent variable. We reject this null hypothesis given the large probability figure that tested significant.

<b>Omnibus Tests of Model Coefficients</b>				
		Chi-square	df	Sig.
Step 1	Step	103.413	7	<b>&lt;.001</b>
	Block	103.413	7	<b>&lt;.001</b>
	Model	103.413	7	<b>&lt;.001</b>

Looking at the full model, the Contingency Table for Hosmer and Lemeshow Test tells us that the model works well given the observed figure (actual in dataset) for each of the

independent variables and the expected figures (predicted from the regression) are extremely close and completely on target when you look at it in aggregate.

<b>Contingency Table for Hosmer and Lemeshow Test</b>		Did not cancel classes		Canceled Classes		
		PSCHNG2 = 0		PSCHNG2 = 1		Total
Step 1		Observed	Expected	Observed	Expected	
EST_ST (California)	1	769	766.311	77	79.689	846
REGION (Northeast)	2	822	825.099	110	106.901	932
RRACE (White)	3	218	213.154	27	31.846	245
THHLD_NUMPER ( Household size >5)	4	3394	3392.167	523	524.833	3917
THHLD_NUMKID (Children >3)	5	749	754.561	143	137.439	892
ANYWORK (Work for pay)	6	865	867.445	190	187.555	1055
SPND_SRC5 (Used public assistance)	7	1113	1124.328	259	247.672	1372
Constant	8	750	736.936	205	218.064	955

<b>Totals</b>			
	Observed	Expected	
		PSCHNG2	Percentage Correct
	PSCHNG2		
Step 1	Did not cancel classes	8680	100.0
	Cancel Classes	1534	.0
	Overall Percentage		85.0

In this full model below, the two location variables selected showed a statistically significant impact on the probabilities that students would cancel classes. These two location variables, California and the Northeast, represent areas that were hit early on during the pandemic and had established strict rules regarding social behavior and commerce shutdowns. The model indicated that for every 0.260 decrease in the response of California as the residence, there is a one unit increase in classes being canceled, holding all other variables constant. For every 0.389 decrease in the response of Northeast as the residence, there is a one unit increase in classes being canceled, holding all other variables constant. This suggests that the probabilities

of canceling classes in areas of high social control is less than in other areas. This illustrates how social control helped keep students enrolled. This analysis is assuming that it is the combination of shutdowns, mask requirements, and vaccine mandates since the analysis cannot determine the specific action that impacted the probabilities the most.

Race tested statistically significant. For every 0.335 decrease in the self-classification of White, there is a one unit increase in the probabilities of classes being canceled, holding all other variables constant. This suggests that probabilities of cancelation were not equal across all races and ethnicities, highlighting that non-Whites were impacted to a greater degree than Whites.

Household size and composition had no significant impact on the probability that students would cancel classes. These are the only two of the seven variables selected that test insignificant.

The financial stability variables selected for analysis has a statistically significant impact on the probabilities that students would cancel classes. For every 0.353 decrease among the currently employed, there is a one unit increase in classes being canceled, holding all other variables constant. For every 0.295 increase among those who use public assistance, there is a one unit increase in classes being canceled, holding all other variables constant. This suggests that financial stability is key to maintaining college registration.

<b>Full Model: Variables in the Equation</b>									
		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)	
								Lower	Upper
Step 1	EST_ST (California)	-.260	.100	6.704	1	<b>.010</b>	.771	.633	.939
	REGION (Northeast)	-.389	.090	18.818	1	<b>&lt;.001</b>	.678	.569	.808
	RRACE (White)	-.335	.062	28.762	1	<b>&lt;.001</b>	.716	.633	.809
	THHLD_NUMPER (Household size >5)	-.211	.126	2.782	1	.095	.810	.632	1.038
	THHLD_NUMKID (Children >3)	.095	.190	.253	1	.615	1.100	.758	1.596
	ANYWORK (Work for pay)	-.353	.059	35.369	1	<b>&lt;.001</b>	.702	.625	.789
	SPND_SRC5 (Used public assistance)	.295	.106	7.714	1	<b>.005</b>	1.343	1.091	1.654
	Constant	-1.178	.069	292.688	1	<b>&lt;.001</b>	.308		

In summary, college education cancelations were not equally distributed across locations, race, and socioeconomic status.

## CHAPTER 5: DISCUSSION AND CONCLUSIONS

### *Current Environment for Learning*

The future demand for in-person classes look strong, however, our research pointed to a much different configuration of class offerings in the new normal.

The literature search discussed articles about lack of devices and inadequate spaces in remote learning, and a desire to return to school. Students in the focus group told us that they continue to see advantages in a face-to-face scenario, from a rewarding social atmosphere to guidance about job preparation and networking. Similarly, in-depth interviewees expressed an understanding that the best learning occurs in the physical classroom. This was also echoed by Jennifer Jarvis, Vice President of Student Affairs. In addition, the survey revealed that the interest in taking an in-person or hybrid (partially in-person) class during the spring semester increased significantly compared to current fall semester.

Part of this positive attitude may come from the feeling that you can be out and about, and still be safe from the deadly effects of COVID. Students disclosed that they currently engage in activities that involve others and indoor spaces, which was considered taboo just a few months ago. In the focus group, in-depth interviews, and survey, students told us about eating with others in indoor and outdoor restaurants, hanging and partying at others' homes, shopping at malls, attending concerts, and going to the movies. And although participants in the focus group and in-depth interviews share that deciding to become vaccinated is very much a civil liberty choice, the survey shows they are overwhelmingly in favor of a vaccine mandate on campus. The survey also underscored that students feel safe from COVID when on campus.

This suggests that a willingness to hang on to a remote learning option has nothing to do with COVID and safety but rather is a desire to continue to take advantage of a more convenient

and time saving opportunity. Despite the advantages of an in-person class, participants in the focus group see a benefit to an online class, especially when it comes to family and job responsibilities. The in-depth interviews also yielded a significant interest in the online option. And the survey shows the demand is there. This is not different from what the literature search uncovered about workforce reluctance to return to offices, especially among parents.

When considering the appeal of remote learning, it is important to note that there are quality implications associated with online classes in what the research team describes as distracted learning. While in class, students are overtly on their phones, engaging in social media, working on other school assignments, driving, game playing, and watching television. The focus group participants described how easy it is to create distractions when in too comfortable environments such as the bedroom. In-depth interviews also described how it is easy to wander away from class activity mentally and physically when at home. In addition, they described noisy environments with shared spaces. The majority of survey participants agreed that the quality of in-person classes is better than online.

That said, students want more from the institution to make the inconvenience, time consuming and tuition costs a good value. The focus group complained about a boring campus. We also heard from focus group and in-depth interviews that there are issues with contacting staff and faculty to resolve problems. Finally, while communication regarding the vaccines and the protocol to upload vaccine information was generally considered not a problem, the actual process of entering campus was perceived as difficult, as reported in the focus group, in-depth interviews and the survey.

**We recommend the following:**

- 1. Continue to offer both in-person, hybrid and online courses.**



- 2. Keep the vaccine mandate in place.**
- 3. Provide more frequent and visible student services that cover social activities and advisement.**
- 4. Streamline the process of entering campus.**
- 5. Retrain faculty who teach synchronous classes to tie performance scores to participation. This may take the form of turning on cameras during class (we understand the privacy issue) and/ or participating verbally or in chat.**
- 6. Resume face-to-face meetings with faculty and staff.**
- 7. Conduct further research on how the return to in-person classes are impacting students in various demographic subgroups including gender, ethnicity and race.**

**In addition, the team strongly suggests that the institution conduct research among staff and faculty to determine the best policy and messaging to bring them back on campus quickly and safely.**

### ***The Changing Importance of a College Education***

The literature search indicated that the general public became used to being home-based with a focus on family responsibilities and are not so willing to let go at this point. It also indicated that college may have been upstaged by some for economy issues as the pandemic taught them that money and jobs are important. This may also be true among focus group attendees who indicated that hands-on experience is now a priority. In addition, COVID led to

doubt about the value of a college degree, as per in-depth interviewees, and while they still see college as important, securing a job has now emerged as more important. The survey indicated that two-thirds of students consider good grades as important, but a third puts family or jobs and money first. Finally, the Data Science Team indicated that financial stability dictates whether college is possible. A sizeable number of college students canceled classes in the fall (15%), and the logistic regression points to those in lower socioeconomic status as more likely to consider cancelling registration, especially in areas that are not in the Northeast or California where strong anti-COVID restrictions were in place.

Given that financial stability is key, jobs are now a priority according to the literature search, and class schedules needs to work around the job commitment instead of having the job work around college responsibilities. Thus gap years are possible, or taking less than a full semester credit load, so that it may ultimately take longer than the traditional four years to complete a bachelor's degree. In-depth interviewees say they are thinking more about a job since the pandemic. Trade school and starting a business emerged as reasonable alternatives. And as mentioned earlier, the survey revealed that family and/ or jobs are of increasing importance to some, regardless of how they feel about their grades. Note that the data science regression indicated that cancelling class was less likely if the student also worked for pay. College enrollment is almost a secondary activity to be enjoyed only after financial goals are met.

**We recommend the following:**

- 1. Allow school resources concerning job preparation and placement to become much more visible.**

- 2. Advertise scholarship opportunities more frequently, and enlist academic departments in the communication streams.**
- 3. Provide more work/study positions.**
- 4. Brief advisers on how to handle part-time students to keep interest levels high.**

## APPENDIX

### *Focus Group Moderator Guide*

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# Focus Group Moderator's Guide

*The focus group is taking place on the 19 of October from 4:45 pm to 5:30 pm.*

### ***Overview***

We are running a focus group in order to gain information relating to the recovery process people are facing regarding the new social landscape COVID-19 has left. One of our objectives is to gain information on the contemporary environment students have for education. This means we want to learn about how online and in-person education contrast. In addition, we also aim to assess to what extent the importance of a college education during the pandemic.

### ***Welcoming the participants 2 Minutes***

Greetings everyone, we are students of the sociology class 334 applied Social Research. My name is A.C. We'd like to welcome you all to our focus group. Without your contributions, this study could not take place, so your help is sincerely appreciated. We look forward to hearing your thoughts and experiences from a student's perspective.

Before we start it is important for us to inform you that any information and opinions shared here will be kept anonymous and will remain under total confidentiality. The meeting including its audio will be recorded for the investigative purposes of the study. Lastly, at the end of the meeting, there will be a raffle sweepstake where one of you could win a visa gift card worth \$25.

### ***Preliminary questions - 3 Minutes***

- 1) Let's begin by sharing some quick facts about ourselves. Can we each share our names and pronouns?
- 2) Please tell us what you like to do in your free time. Please share what you do when you go out of your home, when you hang with your friends?

Thank you all for responding, this seems like a very (adjective) group. Now let us move on to different questions.

### ***Current environment - 15 Minutes***

Main Topic: **What is the current educational environment for students across online and in-person learning?**

At this moment I'd like to ask you all questions regarding how your academic life changed over the pandemic and what are some of your thoughts about the near future.

- 1) Do you think the administration is handling the circumstances of COVID-19 and returning back to class appropriately?
  - a) Tell me more about how you feel regarding the vaccine mandate.
  - b) And what did you think about the process of providing the college information about your status?
- 2) If you are currently going to classes in person now, how is it different from pre-pandemic campus life?
  - a) Why did you return for in-person classes?
  - b) What expectations did you have? Were they met?
  - c) How can the experience be improved?
- 3) If you are taking ONLY online classes, why?
  - a) Will you consider in-person classes in the spring?
- 4) Now please think about what it is like when you are taking a class online. For example, some people have told us that they are sharing noisy spaces with little kids or others watching TV. Other students have told us that they don't pay good attention and are distracted by activities such as household chores, cell phones, and internet surfing. On the other hand, some students say that it works for them and that they are in a quiet area and can participate fully with a headset or computer mic, what is it like for you?
  - a) Do you think there are numerous or few distractions and disturbances around you while attending remote classes?

- b) What are some of these distractions and disturbances?

This is the end of this segment. Once again, we'd like to thank you all for your participation. Now we will go on to the next topic.

### ***The Changing Importance of a College Education - 15 Minutes***

**Main topic: To what extent did the importance of a college education lose or gain standing during the pandemic?**

The following segment is about how the importance of education has risen or fallen during the pandemic. This means we want to learn what people think of the value of a college during these unprecedented times.

- 1) Let's talk about how college fits into your life now and any changes that may have occurred during the pandemic.
  - a) Is college more important now, less important now or the same importance now as before the pandemic? Why?
  - b) Have you noticed your job, friends or family members dismissing the importance of a college education lately? What do you think about that?
- 2) Let's talk about your professional or personal life outside of college and any changes you noticed since the pandemic.
  - a) Is work more important now, less important now or the same importance now as before the pandemic? Why?
  - b) Did your household structure change during the pandemic? For example, did the main breadwinner or childcare role change?
  - c) Are family responsibilities more important now, less important now or the same importance now as before the pandemic? Why?
  - d) Do you have more or less free time now? Why?
- 3) Think about yourself or other students you know. What are the prospects that people are considering concentrating on rather than a traditional college education? For example, some people are starting up their own businesses and devoting their time to that instead

of school. Others might be thinking of certificate programs. And some may be considering skipping college now.

- a) Why do you think this is taking place during these times?

### **General Question**

- 1) One last question, how can Queens College improve its services right now to serve students better?

### **Raffle**

Lastly, we are going to choose a winner for the raffle. Congratulations you won a \$25 gift card. And to everyone else, thank you for participating in this event. Can we have a round of applause for our winner? Now one for each other for taking the time to help us undergo this research.

### **Closing**

On behalf of the class and our team, I'd like to thank you all for sharing this information with us. All the questions were made to learn more about how people are adapting to the new COVID-19 lifestyle and the educational landscape. Once again, we'd like to thank you for participating. Your responses will be kept safe and confidential.

## Focus Group Flyer



### **FOCUS GROUP VOLUNTEERS NEEDED**

**Date: Tuesday October 19 at 4:45pm**

Join us for a 45 min Focus Group discussing life on campus post-pandemic. Share your thoughts, feelings, and experiences on returning to campus with COVID still in the midst.

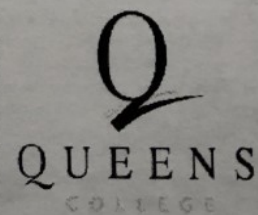
#### **If Interested Contact:**

- [data311focusgroup@gmail.com](mailto:data311focusgroup@gmail.com)  
or
- 347-545-1203

ANY CUNY QUEENS  
COLLEGE STUDENT  
IS ELIGIBLE TO  
APPLY

ONE LUCKY  
VOLUNTEER WILL  
WIN A **\$25** VISA  
GIFT CARD

CHANCE TO MEET  
OTHER STUDENTS  
VIA VIDEOCALL





## **Survey Tabulations**

### **1. First tell us a little bit about yourself. What is your current grade level?**

Freshman	9.47%
Sophomore	20.00%
Junior	23.16%
Senior	25.26%
Graduate	22.11%

### **2. Now please think about what you do for fun now that COVID is more under control. In the last few months, which of these types of activities have you engaged in during your free time? (Check all that apply)**

Eating in an outdoor restaurant with friends, a significant other or family	59.14%
Eating in an indoor restaurant with friends, a significant other or family	70.97%
Traveling locally by train or bus (not private car or Uber/Lyft) to get to a social activity	54.84%
Traveling long distance by plane or train (not private car or Uber/Lyft) for vacation or visiting	26.88%
Staying at least one night in a hotel or motel	27.96%
Hanging out at the homes of friends or significant others	63.44%
Going to the gym	39.78%
Going to parties	30.11%
Attending a wedding or a big catered affair that was indoors	26.88%
Going to the movies	44.09%
Going shopping at a mall	66.67%
Going to an outdoor concert	24.73%
Going to an indoor concert	20.43%
Going to an outdoor spectator sports event such as basketball	13.98%
Going to an indoor spectator sports event such as baseball	10.75%

### **3. Please think about your life a year or so ago when we were in the middle of the pandemic, and how comfortable you were to engage in social activities in indoor spaces. Compared to that time, are you more comfortable, less comfortable or do you feel about the same now as you did in the middle of pandemic?**

More comfortable engaging in social activities in indoor spaces	45.26%
Less comfortable engaging in social activities in indoor spaces	20.00%
Feel the same now and was always comfortable in indoor spaces	16.84%
Feel the same now and still not comfortable in indoor spaces	8.00%
other	9.00%

**4. Now please think about employment. Which one of these statements applies to you?**

I currently work at a job where I share an indoor space with others	49.47%
I currently work at a job where I have private indoor space	9.00%
I currently work at a job that is outdoors	6.00%
I am not currently employed	33.00%

**5. What type of classes are you currently taking at Queens College? (check all that apply)**

In-person classes	22.11%
Remote classes	58.95%
Hybrid	61.05%

**6. What type of classes are you planning to take at Queens College during the Spring 2022 semester assuming that the vaccine mandate is still in place and there are plenty to choose from in each type? If you are unsure, take your best guess. (check all that apply)**

In-person	57.89%
Remote	40.00%
Hybrid	34.74%
None	9.47%

**7. Do you think there should be a vaccine mandate to be on campus?**

Yes	71.58%
No	28.42%

**8. How safe do you feel on campus with the vaccine mandate in place?**

Very safe	27.66%
Somewhat safe	40.43%
Neither safe nor unsafe	25.53%
Somewhat unsafe	4.26%
Very unsafe	2.13%

**9. If you're taking in-person or hybrid classes, how was the process of uploading the vaccination card or requesting an exemption?**

Very easy	27.37%
Somewhat easy	22.11%
Neither easy nor difficult	15.79%
Somewhat difficult	13.68%
Very difficult	4.21%
Not taking in-person or hybrid classes	16.80%

**10. How would you rate school administration efforts in communicating the rules about coming back to campus?**

Very good	14.89%
Somewhat good	30.85%
Moderate	40.43%
Somewhat poor	7.45%
Very poor	6.38%

**11. Compared to pre-COVID, how do you find the process of entering the college campus now?**

Very easy	8.42%
Somewhat easy	20.00%
Stayed the same	15.79%
Somewhat difficult	22.11%
Very difficult	13.68%
Not entering the campus at this time	20.00%

**12. Now let's talk about the quality of education you receive through remote learning compared to in-person classes.**

**Please do not consider the convenience, just the quality of education.**

**Which of the following statements applies to you?**

Remote learning yields a much better quality education	14.74%
Remote learning yields a somewhat better quality education	15.79%
The quality is about the same for remote and in-person learning	22.11%
In-person yields a somewhat better quality education	24.21%
In-person yields a much better quality	23.16%

**13. Some students have told us that they get distracted when in an online synchronous or the online component of a hybrid class. Others have told us that they do not get distracted at all. Here is a list of typical distractions students face at the same time they are in class. Which ones apply to you? (check all that apply)**

I look at my phone, surf the net or go on social media during class	61.05%
Making or eating food during class	45.26%
My TV is on in the same room as I am in during class	15.79%
I play video games/ other games while in class	14.74%
I am at work and doing work tasks the same time I am in class	20.00%
I do assignments for other classes when I am in class	36.84%
I am driving a car when in class	9.47%
I travel using public transportation when in class	9.47%
I sign in but then leave the computer when class is in session	16.84%
I do household chores when class is in session	24.21%
Other household members are around me making noise when I am in class	32.62%
Other household members are zooming their classes in the same space as me when I am in class	23.16%
I nap or sleep during class	23.16%
I hear outside noise when in class	26.32%
No distractions at all	17.89%

**14. Some students have told us that getting good grades isn't as important as it was pre-COVID. Others have told us that their college goals have not changed. Which of these statements applies to you? (check all that apply)**

Getting a job and making money is more important now than getting good grades in college.	35.79%
Taking care of family is more important now than getting good grades in college.	37.89%
Getting good grades is as important now as it was pre-COVID.	62.11%

**15. What are some options that might be a better choice than going to college at this time? (check all apply)**

Trade school or certificate programs	48.96%
Starting a business	38.54%
Acting	10.42%
Social media influencer	21.88%
Military	10.42%
Taking care of family	26.04%
Other	17.71%
None	17.71%

## **Survey Instrument**

### **Transitioning to New Normal after COVID Survey**

This anonymous survey is being conducted by research students of Data 334 with the goal of evaluating how we are transitioning to the new normal after COVID. **We only want to speak to students of Queens College.** Taking part in this study is voluntary. However, the Data 334 class will appreciate your participation. This will only take a few minutes. Kindly choose the appropriate answer as you carefully read through the questions. Choose one answer unless otherwise instructed. Thank you!

#### **General Questions:**

1. First tell us a little bit about yourself. What is your current grade level?
  - a. Freshman
  - b. Sophomore
  - c. Junior
  - d. Senior
  - e. Graduate
2. Now please think about what you do for fun now that COVID is more under control. In the last few months, which of these types of activities have you engaged in during your free time? (check all that apply)
  - a. Eating in an outdoor restaurant with friends, a significant other or family
  - b. Eating in an indoor restaurant with friends, a significant other or family
  - c. Traveling locally by train or bus (not private car or Uber/Lyft) to get to a social activities
  - d. Traveling long distance by plane or train (not private car or Uber/Lyft) for vacation or visiting
  - e. Staying at least one night in a hotel or motel
  - f. Hanging out at the homes of friends or significant others
  - g. Going to the gym
  - h. Going to parties
  - i. Attending a wedding or a big catered affair that was indoors
  - j. Going to the movies
  - k. Going shopping at a mall
  - l. Going to an outdoor concert
  - m. Going to an indoor concert
  - n. Going to an outdoor spectator sports event such as basketball
  - o. Going to an indoor spectator sports event such as baseball.
3. Please think about your life a year or so ago when we were in the middle of the pandemic, and how comfortable you were to engage in social activities in indoor spaces. Compared to that time, are you more comfortable, less comfortable or do you feel about the same now as you did in the middle of pandemic?

- a. More comfortable engaging in social activities in indoor spaces
  - b. Less comfortable engaging in social activities in indoor spaces
  - c. Feel the same now and was always comfortable in indoor spaces
  - d. Feel the same now and still not comfortable in indoor spaces
4. Now please think about employment. Which one of these statements applies to you?
- a. I currently work at a job where I share an indoor space with others
  - b. I currently work at a job where I have private indoor space
  - c. I currently work at a job that is outdoors
  - d. I am not currently employed

### **Current Environment for Learning:**

5. What type of classes are you currently taking at Queens College? (check all that apply)
- a. In-person classes
  - b. Remote classes
  - c. Hybrid
6. What type of classes are you planning to take at Queens College during the Spring 2022 semester assuming that the vaccine mandate is still in place and there are plenty to choose from in each type? If you are unsure, take your best guess. (check all that apply)
- a. In-person
  - b. Remote
  - c. Hybrid
  - d. None
7. Do you think there should be a vaccine mandate to be on campus?
- a. Yes
  - b. No
8. How safe do you feel on campus with the vaccine mandate in place?
- a. Very safe
  - b. Somewhat safe
  - c. Neither safe nor unsafe
  - d. Somewhat unsafe
  - e. Very unsafe
9. If you're taking in-person or hybrid classes, how was the process of uploading the vaccination card or requesting an exemption?
- a. Very easy
  - b. Somewhat easy
  - c. Neither easy nor difficult
  - d. Somewhat difficult
  - e. Very difficult
  - f. Not taking in-person or hybrid classes
10. How would you rate school administration efforts in communicating the rules about coming back to campus?

- a. Very good
  - b. Somewhat good
  - c. Moderate
  - d. Somewhat poor
  - e. Very poor
11. Compared to pre-COVID, how do you find the process of entering the college campus now?
- a. Very easy
  - b. Somewhat easy
  - c. Stayed the same
  - d. Somewhat difficult
  - e. Very difficult
  - f. Not entering the campus at this time
12. Now let's talk about the quality of education you receive through remote learning compared to in-person classes. Please do not consider the convenience, just the quality of education. Which of the following statements applies to you?
- a. Remote learning yields a much better quality education
  - b. Remote learning yields a somewhat better quality education
  - c. The quality is about the same for remote and in-person learning
  - d. In-person yields a somewhat better quality education
  - e. In-person yields a much better quality
13. Some students have told us that they get distracted when in an online synchronous or the online component of a hybrid class. Others have told us that they do not get distracted at all. Here is a list of typical distractions students face at the same time they are in class. Which ones apply to you? (check all that apply)
- a. I look at my phone, surf the net or go on social media during class
  - b. My TV is on in the same room as I am in during class
  - c. I play video games/ other games while in class
  - d. I am at work and doing work tasks the same time I am in class
  - e. I do assignments for other classes when I am in class
  - f. I am driving a car when in class
  - g. I travel using public transportation when in class
  - h. I sign in but then leave the computer when class is in session
  - i. I do household chores when class is in session
  - j. Other household members are around me making noise when I am in class
  - k. Other household members are zooming their classes in the same space as me when I am in class
  - l. I nap or sleep during class
  - m. I hear outside noise when in class
  - n. No distractions at all

**Changing Importance of College Education:**

14. Some students have told us that getting good grades isn't as important as it was pre-COVID. Others have told us that their college goals have not changed. Which of these statements applies to you? (check all that apply)
- a. Getting a job and making money is more important now than getting good grades in college.
  - b. Taking care of family is more important now than getting good grades in college.
  - c. Getting good grades is as important now as it was pre-COVID.
15. What are some options that might be a better choice than going to college at this time? (check all apply)
- a. Trade school or certificate programs
  - b. Starting a business
  - c. Acting
  - d. Social media influencer
  - e. Military
  - f. Taking care of family
  - g. Other
  - h. None

Thank you! Please help us by sending the link to others you know that are Queens College students.



**Data Science Data Dictionary/Questionnaire**

**Household Pulse  
Survey  
Data Dictionary for CSV -  
Week37**

Instru ment Q #	Variable	Description		Question Wording
Recode of D3	RRACE	Description  Values  Universe Internal Notes	Race  1) White, Alone 2) Black, Alone 3) Asian, Alone 4) Any other race alone, or race in combination  All person's born before 2003	What is your race? Please select all that apply. - Selected Choice - White
D10	THHLD_NUMPER	Description Values Universe Internal Notes	Total number of people in household (1-40) number of people (whole number)  All person's born before 2003	How many total people – adults and children – currently live in your household, including yourself? Please enter a number.
D11	THHLD_NUMKID	Description Values Universe Internal Notes	Total number of people under 18-years-old in household (0-40) number of people under 18 (whole number)  All person's born before 2003	How many people under 18 years-old currently live in your household? Please enter a number.
EMP2	ANYWORK	Description  Values  Universe Internal Notes	Employment status for last 7 days 1) Yes 2) No -99) Question seen but category not selected -88) Missing / Did not report  All person's born before 2003	Now we are going to ask about your employment. In the last 7 days, did you do ANY work for either pay or profit? Select only one answer.
-	EST_ST	Description  Values	State  '01'='Alabama' '02'='Alaska' '04'='Arizona' '05'='Arkansas' '06'='California' '08'='Colorado' '09'='Connecticut' '10'='Delaware' '11'='District of Columbia' '12'='Florida'	

		Universe Internal Notes	'13'='Georgia' '15'='Hawaii' '16'='Idaho' '17'='Illinois' '18'='Indiana' '19'='Iowa' '20'='Kansas' '21'='Kentucky' '22'='Louisiana' '23'='Maine' '24'='Maryland' '25'='Massachusetts' '26'='Michigan' '27'='Minnesota' '28'='Mississippi' '29'='Missouri' '30'='Montana' '31'='Nebraska' '32'='Nevada' '33'='New Hampshire' '34'='New Jersey' '35'='New Mexico' '36'='New York' '37'='North Carolina' '38'='North Dakota' '39'='Ohio' '40'='Oklahoma' '41'='Oregon' '42'='Pennsylvania' '44'='Rhode Island' '45'='South Carolina' '46'='South Dakota' '47'='Tennessee' '48'='Texas' '49'='Utah' '50'='Vermont' '51'='Virginia' '53'='Washington' '54'='West Virginia' '55'='Wisconsin' '56'='Wyoming'	
-	REGION	Description  Values  Universe  Internal Notes	Recode of EST_ST for Census Region 1) Northeast 2) South 3) Midwest 4) West All Persons IF EST_ST in (09,23,25,33,34,36,42,44,50) THEN REGION = 1 (Northeast) IF EST_ST in	Recode of EST_ST for Census Region Region

			(01,05,10,11,12,13,21,22,24,28,37,40,45,47,48,51,54) THEN REGION = 2 (South) IF EST_ST in (18,17,19,20,26,27,29,31,38,39,46,55) THEN REGION = 3 (Midwest) IF EST_ST in (02,04,06,08,15,16,30,32,35,41,49,53,56) THEN REGION = 4 (West)	
SPN6	SPND_SRC5	<p>Description</p> <p>Values</p> <p>Universe</p> <p>Internal Notes</p>	<p>Sources of income and funds for spending needs</p> <p>1) Unemployment insurance (UI) benefit payments</p> <p>-99) Question seen but category not selected</p> <p>-88) Missing / Did not report</p> <p>All person's born before 2003</p>	Thinking about your experience in the last 7 days, which of the following did you or your household members use to meet your spending needs? Select all that apply.
ED3	PSCHNG2	<p>Description</p> <p>Values</p> <p>Universe</p> <p>Internal Notes</p>	<p>Changes to post-sec education plans</p> <p>1) All plans to take classes this term have been canceled</p> <p>-99) Question seen but category not selected</p> <p>-88) Missing / Did not report</p> <p>TNUM_PS &gt; 0</p>	For all those people counted in the previous question, has the coronavirus pandemic resulted in any of the changes listed below? Select all that apply.

## Logistic Regression Model

Case Processing Summary			
Unweighted Cases <sup>a</sup>		N	Percent
Selected Cases	Included in Analysis	10214	100.0
	Missing Cases	0	.0
	Total	10214	100.0
Unselected Cases		0	.0
Total		10214	100.0

a. If weight is in effect, see classification table for the total number of cases.

Dependent Variable Encoding	
Original Value	Internal Value
0	0
1	1

## Block 0: Beginning Block

Classification Table <sup>a,b</sup>					
	Observed		Predicted		
			PSCHNG2		Percentage Correct
			0	1	
Step 0	PSCHNG2	0	8680	0	100.0
		1	1534	0	.0
	Overall Percentage				85.0

a. Constant is included in the model.

b. The cut value is .500

Variables in the Equation							
		B	S.E.	Wald	df	Sig.	Exp(B)
Step 0	Constant	-1.733	.028	3915.777	1	.000	.177

Variables not in the Equation			
			Score
Step 0	Variables	EST_ST	1.738
		REGION	17.199
		RRACE	32.435
		THHLD_NUMPER	1.474

		THHLD_NUMKID	.029	1	.865
		ANYWORK	43.344	1	<.001
		SPND_SRC5	13.455	1	<.001
	Overall Statistics		105.460	7	<.001

## Block 1: Method = Enter

Omnibus Tests of Model Coefficients			
		Chi-square	df
	Step	103.413	7
	Block	103.413	7
	Model	103.413	7

Model Summary			
Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	8538.277 <sup>a</sup>	.010	.018

a. Estimation terminated at iteration number 5 because parameter estimates changed by less than .001.

Hosmer and Lemeshow Test			
Step	Chi-square	df	Sig.
1	3.008	6	.808

Contingency Table for Hosmer and Lemeshow Test				
Based on model, predictions are very close		PSCHNG2 = 0		PSCHNG2 = 1
		Observed	Expected	Observed
Step 1	1	769	766.311	77
	2	822	825.099	110
	3	218	213.154	27
	4	3394	3392.167	523
	5	749	754.561	143
	6	865	867.445	190
	7	1113	1124.328	259
	8	750	736.936	205

Classification Table <sup>a</sup>					
	Observed		Predicted		
			PSCHNG2		Percentage Correct
			0	1	
Step 1	PSCHNG2	0	8680	0	100.0
		1	1534	0	.0
	Overall Percentage				85.0

a. The cut value is .500

Variables in the Equation							
		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1 <sup>a</sup>	EST_ST	-.260	.100	6.704	1	<b>.010</b>	.771
	REGION	-.389	.090	18.818	1	<b>&lt;.001</b>	.678
	RRACE	-.335	.062	28.762	1	<b>&lt;.001</b>	.716
	THHLD_NUMPER	-.211	.126	2.782	1	.095	.810
	THHLD_NUMKID	.095	.190	.253	1	.615	1.100
	ANYWORK	-.353	.059	35.369	1	<b>&lt;.001</b>	.702
	SPND_SRC5	.295	.106	7.714	1	<b>.005</b>	1.343
	Constant	-1.178	.069	292.688	1	<b>&lt;.001</b>	.308

a. Variable(s) entered on step 1: EST\_ST, REGION, RRACE, THHLD\_NUMPER, THHLD\_NUMKID, ANYWORK, SPND\_SRC5.

### Notes

Output Created		02-NOV-2021 21:54:06
Comments		
Input	Data	/Users/emilyrodriguez/Desktop/PROJECT/Final Sample Size.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	10214
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each table are based on all the cases with valid data in the specified range(s) for all variables in each table.
Syntax		CROSSTABS /TABLES=EST_ST REGION RRACE THHLD_NUMPER

		ANYWORK THHLD_NUMKID SPND_SRC5 BY PSCHNG2 /FORMAT=AVALUE TABLES /STATISTICS=RISK /CELLS=COUNT ROW /COUNT ROUND CELL.
Resources	Processor Time	00:00:00.09
	Elapsed Time	00:00:00.00
	Dimensions Requested	2
	Cells Available	524245

[DataSet1] /Users/emilyrodriguez/Desktop/PROJECT/Final  
Sample Size.sav

### **Case Processing Summary**

	Valid		Cases Missing		Total	
	N	Percent	N	Percent	N	Percent
EST_ST * PSCHNG2	10214	100.0%	0	0.0%	10214	100.0%
REGION * PSCHNG2	10214	100.0%	0	0.0%	10214	100.0%
RRACE * PSCHNG2	10214	100.0%	0	0.0%	10214	100.0%
THHLD_NUMPER * PSCHNG2	10214	100.0%	0	0.0%	10214	100.0%
ANYWORK * PSCHNG2	10214	100.0%	0	0.0%	10214	100.0%
THHLD_NUMKID * PSCHNG2	10214	100.0%	0	0.0%	10214	100.0%
SPND_SRC5 * PSCHNG2	10214	100.0%	0	0.0%	10214	100.0%

## **EST\_ST \* PSCHNG2**

**Crosstab**

			PSCHNG2		
			continues to take classes	all college plans have been canceled	Total
EST_ST	rest of the states	Count	7852	1404	9256
		% within EST_ST	84.8%	15.2%	100.0%
	california	Count	828	130	958
		% within EST_ST	86.4%	13.6%	100.0%
Total		Count	8680	1534	10214
		% within EST_ST	85.0%	15.0%	100.0%

### Risk Estimate

	Value	95% Confidence Interval	
		Lower	Upper
Odds Ratio for EST_ST (rest of the states / california)	.878	.724	1.065
For cohort PSCHNG2 = continues to take classes	.982	.956	1.008
For cohort PSCHNG2 = all college plans have been canceled	1.118	.946	1.321
N of Valid Cases	10214		

## REGION \* PSCHNG2

### Crosstab

			PSCHNG2		
			continues to take classes	all college plans have been canceled	Total
REGIO N	rest of the region	Count	7418	1372	8790
		% within	84.4%	15.6%	100.0%



	REGION			
		Count		
northeast		1262	162	1424
	% within REGION	88.6%	11.4%	100.0%
Total		8680	1534	10214
	% within REGION	85.0%	15.0%	100.0%

### Risk Estimate

	Value	95% Confidence Interval	
		Lower	Upper
Odds Ratio for REGION (rest of the region / northeast)	.694	.584	.825
For cohort PSCHNG2 = continues to take classes	.952	.933	.972
For cohort PSCHNG2 = all college plans have been canceled	1.372	1.177	1.599
N of Valid Cases	10214		

## RRACE \* PSCHNG2

### Crosstab

			PSCHNG2		Total
			continues to take classes	all college plans have been canceled	
RRACE	non-white	Count	1944	446	2390
		% within RRACE	81.3%	18.7%	100.0%
	white	Count	6736	1088	7824
		% within RRACE	86.1%	13.9%	100.0%
Total	Count		8680	1534	10214
	% within RRACE		85.0%	15.0%	100.0%

### Risk Estimate

	Value	95% Confidence Interval	
		Lower	Upper
Odds Ratio for RRACE (non-white / white)	.704	.624	.795
For cohort PSCHNG2 = continues to take classes	.945	.925	.965
For cohort PSCHNG2 = all college plans have been canceled	1.342	1.214	1.483
N of Valid Cases	10214		

## THHLD\_NUMPER \* PSCHNG2

### Crosstab

			PSCHNG2		Total
			continues to take classes	all college plans have been canceled	
THHLD_NUMPER	5 or less	Count	7925	1415	9340
		% within THHLD_NUMPER	84.9%	15.1%	100.0%
	more than five	Count	755	119	874
		% within THHLD_NUMPER	86.4%	13.6%	100.0%
Total	Count		8680	1534	10214
	% within THHLD_NUMPER		85.0%	15.0%	100.0%

### Risk Estimate

	Value	95% Confidence Interval	
		Lower	Upper
Odds Ratio for THHLD_NUMPER (5	.883	.722	1.080

or less / more than five)			
For cohort PSCHNG2 = continues to take classes	.982	.955	1.010
For cohort PSCHNG2 = all college plans have been canceled	1.113	.935	1.324
N of Valid Cases	10214		

## ANYWORK \* PSCHNG2

### Crosstab

		PSCHNG2		Total
		continues to take classes	all college plans have been canceled	
ANYWORK	no	Count	2416	554
		% within ANYWORK	81.3%	18.7%
	yes	Count	6264	980
		% within ANYWORK	86.5%	13.5%
Total	Count		8680	1534
	% within ANYWORK		85.0%	15.0%

### Risk Estimate

	Value	95% Confidence Interval	
		Lower	Upper
Odds Ratio for ANYWORK (no / yes)	.682	.609	.765
For cohort PSCHNG2 = continues to take classes	.941	.923	.959
For cohort PSCHNG2 = all college plans have been canceled	1.379	1.254	1.516

N of Valid Cases	10214		
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## THHLD\_NUMKID \* PSCHNG2

### Crosstab

		PSCHNG2		Total
		continues to take classes	all college plans have been canceled	
THHLD_NUMKID	3 or less	Count	8384	9867
		% within THHLD_NUMKID	85.0%	100.0%
	more than 3	Count	296	347
		% within THHLD_NUMKID	85.3%	100.0%
Total		Count	8680	10214
		% within THHLD_NUMKID	85.0%	100.0%

### Risk Estimate

	Value	95% Confidence Interval	
		Lower	Upper
Odds Ratio for THHLD_NUMKID (3 or less / more than 3)	.974	.720	1.318
For cohort PSCHNG2 = continues to take classes	.996	.953	1.041
For cohort PSCHNG2 = all college plans have been canceled	1.023	.790	1.323
N of Valid Cases	10214		

## SPND\_SRC5 \* PSCHNG2

## Crosstab

		PSCHNG2		Total
		continues to take classes	all college plans have been canceled	
SPND_SR C5	no	Count	8174	9581
		% within SPND_SRC5	85.3%	100.0%
	yes	Count	506	633
		% within SPND_SRC5	79.9%	100.0%
Total	Count		8680	10214
	% within SPND_SRC5		85.0%	100.0%

## Risk Estimate

	Value	95% Confidence Interval	
		Lower	Upper
Odds Ratio for SPND_SRC5 (no / yes)	1.458	1.191	1.786
For cohort PSCHNG2 = continues to take classes	1.067	1.026	1.111
For cohort PSCHNG2 = all college plans have been canceled	.732	.622	.861
N of Valid Cases	10214		

# Frequency Table

EST\_ST (State)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	ALABAMA	144	1.4	1.4	1.4
	ALASKA	199	1.9	1.9	3.4
	ARIZONA	276	2.7	2.7	6.1
	ARKANSAS	122	1.2	1.2	7.3
	CALIFORNIA	958	9.4	9.4	16.6
	COLORADO	252	2.5	2.5	19.1
	CONNECTICUT	160	1.6	1.6	20.7
	DELAWARE	107	1.0	1.0	21.7
	DISTRICT OF COLUMBIA	94	0.9	0.9	22.6
	FLORIDA	395	3.9	3.9	26.5
	GEORGIA	264	2.6	2.6	29.1
	HAWAII	133	1.3	1.3	30.4
	IDAHO	201	2.0	2.0	32.4
	ILLINOIS	213	2.1	2.1	34.4
	INDIANA	174	1.7	1.7	36.1
	IOWA	120	1.2	1.2	37.3
	KANSAS	169	1.7	1.7	39.0
	KENTUCKY	110	1.1	1.1	40.1
	LOUISIANA	109	1.1	1.1	41.1
	MAINE	75	0.7	0.7	41.9
	MARYLAND	249	2.4	2.4	44.3
	MASSACHUSETTS	269	2.6	2.6	46.9

	MICHIGAN	260	2.5	2.5	49.5
	MINNESOTA	213	2.1	2.1	51.6
	MISSISSIPPI	80	0.8	0.8	52.3
	MISSOURI	146	1.4	1.4	53.8
	MONTANA	62	0.6	0.6	54.4
	NEBRASKA	129	1.3	1.3	55.6
	NEVADA	196	1.9	1.9	57.6
	NEW HAMPSHIRE	119	1.2	1.2	58.7
	NEW JERSEY	211	2.1	2.1	60.8
	NEW MEXICO	229	2.2	2.2	63.0
	NEW YORK	175	1.7	1.7	64.7
	NORTH CAROLINA	175	1.7	1.7	66.5
	NORTH DAKOTA	46	0.5	0.5	66.9
	OHIO	165	1.6	1.6	68.5
	OKLAHOMA	141	1.4	1.4	69.9
	OREGON	247	2.4	2.4	72.3
	PENNSYLVANIA	257	2.5	2.5	74.8
	RHODE ISLAND	80	0.8	0.8	75.6
	SOUTH CAROLINA	136	1.3	1.3	77.0
	SOUTH DAKOTA	61	0.6	0.6	77.6
	TENNESSE	144	1.4	1.4	79.0
	TEXAS	642	6.3	6.3	85.2
	UTAH	417	4.1	4.1	89.3
	VERMONT	78	0.8	0.8	90.1
	VIRGINIA	290	2.8	2.8	92.9
	WASHINGTON	421	4.1	4.1	97.1
	WEST VIRGINIA	105	1.0	1.0	98.1
	WISCONSIN	130	1.3	1.3	99.4

	WYOMING	66	0.6	0.6	100.0
	Total	10214	100.0	100.0	

### REGION

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Northeast	1424	13.9	13.9	13.9
	South	3307	32.4	32.4	46.3
	Midwest	1826	17.9	17.9	64.2
	West	3657	35.8	35.8	100.0
	Total	10214	100.0	100.0	

### RRACE

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	White	7824	76.6	76.6	76.6
	Black	1105	10.8	10.8	87.4
	Asian	659	6.5	6.5	93.9
	Other race	626	6.1	6.1	100.0
	Total	10214	100.0	100.0	

### THHLD\_NUMPER (total number in household)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	825	8.1	8.1	8.1
	2	2430	23.8	23.8	31.9
	3	2497	24.4	24.4	56.3
	4	2407	23.6	23.6	79.9
	5	1181	11.6	11.6	91.4



	6	473	4.6	4.6	96.1
	7	193	1.9	1.9	98.0
	8	81	0.8	0.8	98.8
	9	48	0.5	0.5	99.2
	10	79	0.8	0.8	100.0
	Total	10214	100.0	100.0	

**THHLD\_NUMKID (total number of kids in household)**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	5851	57.3	57.3	57.3
	1	2165	21.2	21.2	78.5
	2	1301	12.7	12.7	91.2
	3	550	5.4	5.4	96.6
	4	189	1.9	1.9	98.5
	5	158	1.5	1.5	100.0
	Total	10214	100.0	100.0	

**ANYWORK (empoyment status in last 7 days)**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	7244	70.9	70.9	70.9
	No	2970	29.1	29.1	100.0
	Total	10214	100.0	100.0	

**SPND\_SRC5 (any public assistance used)**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	9581	93.8	93.8	93.8

	Yes	633	6.2	6.2	100.0
	Total	10214	100.0	100.0	

**PSCHNG2 (all college classes were cancelled)**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	8680	85.0	85.0	85.0
	Yes, cancelled	1534	15.0	15.0	100.0
	Total	10214	100.0	100.0	

## **References**

Almendingen, K., Morseth, M. S., Gjølstad, E., Brevik, A., & Tørris, C. (n.d.). *Student's experiences with online teaching following covid-19 lockdown: A mixed methods explorative study*. PLOS ONE. Retrieved October 28, 2021, from <https://journals.plos.org/plosone/article?id=10.1371%2Fjournal.pone.0250378>.

Cox, J. (2021, October 11). *The parents who don't want to go back to the office*. BBC Worklife. Retrieved November 12, 2021, from <https://www.bbc.com/worklife/article/20211007-the-parents-who-dont-want-to-go-back-to-the-office>

Douglas-Gabriel, Danielle. *It's a Lot to Juggle': College Students with Children Are Overwhelmed This School Year*. The Washington Post, WP Company, 28 Sept. 2020, [www.washingtonpost.com/education/2020/09/28/college-parents-coronavirus](http://www.washingtonpost.com/education/2020/09/28/college-parents-coronavirus).

Gehl, N. (2020, May 25). *How remote learning can harm students*. The Art of Education University. Retrieved October 21, 2021, from <https://theartofeducation.edu/2020/05/27/how-remote-learning-can-harm-students/>.

Gillis, A., & Krull, L. M. (2020). *COVID-19 Remote Learning Transition in Spring 2020: Class Structures, Student Perceptions, and Inequality in College Courses*. Teaching Sociology, 48(4), 283–299. <https://doi.org/10.1177/0092055X20954263>

Gonzalez-Frey, S., Garas-York, K., Kindzierski, C. M., & Henry, J. J. (2021). *College students' attitudes towards remote instruction during the coronavirus pandemic: Future directions*. Excelsior: Leadership in Teaching and Learning, 13(2), 96-112.  
doi:<http://dx.doi.org/10.14305/jn.19440413.2021.13.2.02>

Hussein, E., Daoud, S., Alrabaiah, H., & Badawi, R. (2020). *Exploring undergraduate students' attitudes towards emergency online learning during COVID-19: A case from the UAE*. *Children and Youth Services Review*, 119, 105699–. <https://doi.org/10.1016/j.childyouth.2020.105699>

Klebs, S., Fishman, R., Nguyen, S., & Hiler, T. (2021, June 29). *One year later: Covid-19s impact on current and future college students*. – Third Way. Retrieved October 21, 2021, from <https://www.thirdway.org/memo/one-year-later-covid-19s-impact-on-current-and-future-college-students>.

Maqableh, M., & Alia, M. (2021). *Evaluation online learning of undergraduate students under lockdown amidst COVID-19 Pandemic: The online learning experience and students' satisfaction*. *Children and Youth Services Review*, 128. <https://doi.org/10.1016/j.childyouth.2021.106160>

PR Newswire. *Most college students support COVID vaccine mandates but hesitancy remains* (2021, Sep 14). PR Newswire.

<http://queens.ezproxy.cuny.edu/login?url=https://www.proquest.com/wire-feeds/most-college-students-support-covid-vaccine/docview/2572166959/se-2?accountid=13379>

Queens College, City University of New York. (n.d.). Retrieved October 14, 2021, from <https://www.qc.cuny.edu/Pages/home.aspx>.

Robtfrank, C. N. B. C. (2021, November 10). *Only 28% of New York office workers are back in the Office*. CNBC. Retrieved November 12, 2021, from <https://www.cnbc.com/2021/11/10/only-28percent-of-manhattan-workers-are-back-in-the-office-.html>.

Serrano-Ibáñez, E.R., Esteve, R., Ramírez-Maestre, C., Ruiz-Párraga, G.T. and López-Martínez, A.E. (2021), *Chronic pain in the time of COVID-19: Stress aftermath and central sensitization*. Br J Health Psychol, 26: 544-552. <https://doi-org.queens.ezproxy.cuny.edu/10.1111/bjhp.12483>