

Stevens *Strategy's* 15 Ideas to Consider when Colleges Open Manage the Risk of Campus Community Members Developing COVID 19 Symptoms

Our View on Campus Openings

Fear gets attention, and the temptation for the press to sensationalize is great. It is often engrained in general market local and national newspapers. As professional educators, we must make data-based decisions that reflect our obligations to protect our students, faculty and staff and the missions of our institutions. If we allow fear to drive our decisions, we will fail our campus communities and our institutions.

General market news reports have focused on the risks associated with opening our campuses and continuing to operate that way. In recent weeks, we have seen many reports suggesting the number of actual and projected Cases on our currently opened campuses may lead to many illnesses.

We have seen headlines proclaiming: 1,000 Cases at Illinois State and U Alabama! Over 500 Cases at Iowa and UNC! 26,000 cases at more than 750 colleges! Reports have been presented with projections suggesting an epidemic in dangerous symptoms, hospitalizations and deaths on our campuses.

The reports of considerable Case numbers are almost all for very large public institutions. "26,000 Cases at 750 colleges" turn out to be 35 at each of those large public institutions.

Almost all of these reports refer to "Cases." If we look more deeply, we find that most Cases are either asymptomatic or only with minor symptoms, a very manageable situation.

The studies that suggest we should expect extremely dangerous symptoms, hospitalizations and deaths on our campuses are based upon the very worst assumptions.

It is increasingly common for the general media to report information about higher education this way. It is frustrating when journals such as Inside Higher Education, The Chronicle of Higher Education and others, whose missions are to inform our industry (including our students and parents), do so. They have an obligation to know and do better.

Most students, faculty and staff are under the age of 50, as well as nearly every student and about 80% of the general workforce (faculty are a notable exception with only about 60% under that age of 50). Those under the age of 50 account for a high number of cases, but a quite low number of symptoms, hospitalizations and deaths. Most students are under the age of 30, and this age group accounts for the highest case rate (about 22%), the lowest hospitalization rate (less than 2.5%) and the lowest death rate (0.05%).

The vast majority, about 62% of students and 85% of faculty and staff, are White or Asian (certainly an indictment with respect to diversity), have low rates of symptoms, hospitalizations and deaths. The remainder of faculty and students, mostly Hispanics, Blacks and Native Americans, have a higher rate of symptoms, hospitalizations and deaths. We should not forget, however, that the overall group of those under 50 without preconditions have low numbers of symptoms, hospitalizations and deaths.

A typical college or university that separates students, faculty and staff with preconditions and those over the age of 50 from on-campus activities and provides safety counseling and support, especially to on-campus students and all those on-campus who are Hispanic, Black and Native American, will be much safer than the general US environment. HBCUs, Hispanic-serving institutions and others with significant minority populations should consider more restrictive procedures.

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When we look at the actual data, they lead us to conclude that the health risks for colleges deciding to open wisely are far fewer than many have feared. Relying on the data, we believe the best way to open campuses during the pandemic is the following:

- Tests for all prior to on-campus attendance and regularly thereafter;
- Separation of students, faculty and staff with preconditions and those over the age of 50 from on-campus activities;
- Quality virtual learning opportunities for all those at-risk students that integrate technology-based instruction with remote small group projects and daily interaction with faculty mentors;
- Telework and modified job responsibilities for all those at-risk faculty and staff; and
- Safety counseling and support for all on-campus students, faculty and staff

Then, let the students engage with the others on-campus with reasonable safety precautions. This will protect those with moderate to high risk from infection. Ultimately, it will reinforce the protections for those at moderate to high risk.

The following 15 Ideas have been developed by Stevens *Strategy* for the safe operation of most independent, non-profit US colleges or universities based upon the available data. These Ideas are followed by our detailed review of the available data. We seek your thoughts and recommendations for improvement.

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The 15 Ideas

1. Ask all students, faculty and staff with pre-conditions¹ or over the age of 50 to self-identify prior to arrival on campus. Test on-campus students, faculty and staff for active COVID 19 and for antibodies prior to arrival on campus and regularly thereafter. Establish a plan for case investigations and contact tracing. Provide special safety counseling, protections and support to Hispanics, Blacks and Native Americans who do not have antibodies; the risks for these students, faculty and staff for COVID 19 Cases, Hospitalizations and Deaths are quite low compared to those over 50, but still two to five times higher than the rest of campus community under 50. This risk increases dramatically with age. Any student, faculty or staff who reasonably choose not to work or learn on-campus should not be required to do so. All students, faculty and staff who will work or learn on-campus should sign a liability waiver prior to arrival on campus.
2. Provide quality virtual learning opportunities that integrate technology-based instruction with remote small group projects and daily interaction with faculty mentors (see **Chronos Concept**) to limit exposure risk for all students with preconditions that put them at higher risk for severe illness, who are over the age of 50 or who may reasonably request it. Provide telework and modified job responsibilities, if possible, to any faculty or staff member with preconditions that put them at higher risk for severe illness, who are over the age of 50 or who may reasonably request it.
3. Provide thorough training for campus-based students to protect those with whom they may interact on and off campus who are older adults and people with pre-conditions.
4. Faculty, and staff with COVID-19 symptoms should go home or to a healthcare facility. Residential students with symptoms should self-isolate in a set of rooms set aside for students who contract symptoms, go home or go to a healthcare facility. Non-resident campus-based students with symptoms should go home or to a healthcare facility.
5. Completely sanitize residence halls on a regular basis. Restrict faculty, staff, students and others at higher risk from close interaction from residing or visiting in residence halls. Consider broader restrictions for all visitors. Reduce housing capacity by about 5% to create a separate set of rooms reserved for students who contract symptoms not requiring close medical supervision or hospitalization.
6. Clean and disinfect all frequently touched surfaces regularly. Provide adequate supplies, including soap, hand sanitizer containing at least 60 percent alcohol, paper towels, tissues, disinfectant wipes, cloth face coverings (as feasible), and no-touch/foot pedal trash cans.
7. Recommend that face coverings should be worn as feasible and at all times when physical distancing among multiple risk groups is difficult.
8. Encourage students, faculty, and staff to keep their personal items (e.g., cell phones, other electronics) and personal work and living spaces clean. Encourage students, faculty, and staff to use disinfectant wipes to wipe down shared desks, lab equipment, and other shared objects and surfaces before use.
9. Ensure ventilation systems operate properly and increase circulation of outdoor air as much as possible, for example by opening windows and doors.
10. Activities that mix multiple risk groups should be severely limited and while faculty, staff and others who are at higher risk should be conducting their work remotely or with modified job responsibilities, there

¹ From most serious preconditions to least according to CDC: hypertension, obesity, metabolic disease, cardiovascular disease, neurologic disease, chronic lung disease, renal disease, asthma, immune suppression, gastrointestinal/liver disease, autoimmune disease.

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may be some circumstances in which higher risk groups engage with students. In these situations, take reasonable steps to separate and protect those at higher risk from close interaction with students by instituting the procedures outlined ideas 11 to 15.

11. Designate single direction hallway traffic flow/entryways and exits for all buildings used by multiple risk groups.
12. Install physical barriers, such as sneeze guards and partitions, particularly in areas where it is difficult for individuals from multiple risk groups to remain at least 6 feet apart (registration, financial aid, bursar counters, for instance).
13. Stagger use and restrict the number of people allowed to maintain social distancing in spaces such as athletic stadiums, auditoriums, dining halls, game rooms, exercise rooms, and lounges when used by multiple risk groups; if not possible, require face coverings.
14. Provide grab-and-go options for meals, and if possible, and serve individually plated meals using disposable food service items. If food is offered at any event attended by multiple risk groups, have pre-packaged boxes or bags for each attendee.
15. Stay in constant contact with peer institutions. Adjust your plans as you learn from each other and as circumstances change. The circumstance will certainly change!

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For more information see:

CDC Coronavirus Disease 2019 (COVID-19), Cases, Data, and Surveillance: <https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/index.html>

CDC Considerations for Institutions of Higher Education: <https://www.cdc.gov/coronavirus/2019-ncov/community/colleges-universities/considerations.html>

Future of Housing (FOH) Work Group recommendations: <https://www.acuho-i.org/Portals/0/doc/res/acuhoi-future-of-housing-considerations-2020.pdf>

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A Review of the Data through 8/22/2020

National Data on Cases, Hospitalizations and Deaths (See Exhibit 1a and 1b below)

At the first Pandemic Peak, COVID-19 weekly Cases (the base statistic in our analysis) totaled 67.3/100,000 of population or about 1 weekly Case per 1,500 Americans, a 0.07% chance being identified as a Case in any given week. Cases grew by 234% from their ebb at the end of May (42.5/100,000) to their second Pandemic Peak at the end of July (141.9/100,000) and rapidly declined by 35% since to 92.5/100,000. Cumulative Cases during the Pandemic to date have totaled nearly 1719/100,000 of population, about 1 Case per 60 Americans or a 1.7% chance of being identified as a Case. Total Americans identified as a Case throughout the Pandemic equaled 5.6 million.

Weekly Hospitalizations grew by 100%, less than half the percent increase in Cases, from their ebb in mid-June following the first Pandemic Peak (4/100,000 or 7% of Cases) to their apex in mid-July at the second Pandemic Peak (8.1/100,000 or 6% of Cases). Weekly Hospitalizations declined by 65% since, about double the percent decrease in Cases, to 2.8/100,00 or 3% of Cases. Since the Pandemic's first peak, weekly Hospitalizations declined by 82%, from 17% of Cases to 3%, an 82% decrease. Cumulative Hospitalizations during the Pandemic to date have totaled nearly 157/100,000 of population, about 1 Hospitalization per 640 Americans or a 0.2% chance of being Hospitalized. Total Americans Hospitalized throughout the Pandemic equaled 515 thousand.

A week after the first Pandemic Peak, weekly Deaths reached 5.2/100,000 or 9% of Cases. They declined to 1.1/100,000 (1% of Cases) as the second Pandemic Peak was beginning. At the second Pandemic Peak, they reached their second apex, 2.2/100,000 or 2% of Cases. The second Pandemic Peak was more than twice the size of the first (141.9/100,000 vs. 67.3/100,000), yet weekly Deaths were less than half their number for the second Pandemic Peak compared to the first. The current number of weekly Deaths is 0.2/100,000 and 0.2% of Cases, dramatically lower than feared. Cumulative Deaths during the Pandemic to date have totaled nearly 51/100,000 of population, about 1 Death per 2,000 Americans or a 0.05% chance of Dying from COVID-19. Total Americans who Died from COVID throughout the Pandemic equaled 166 thousand.

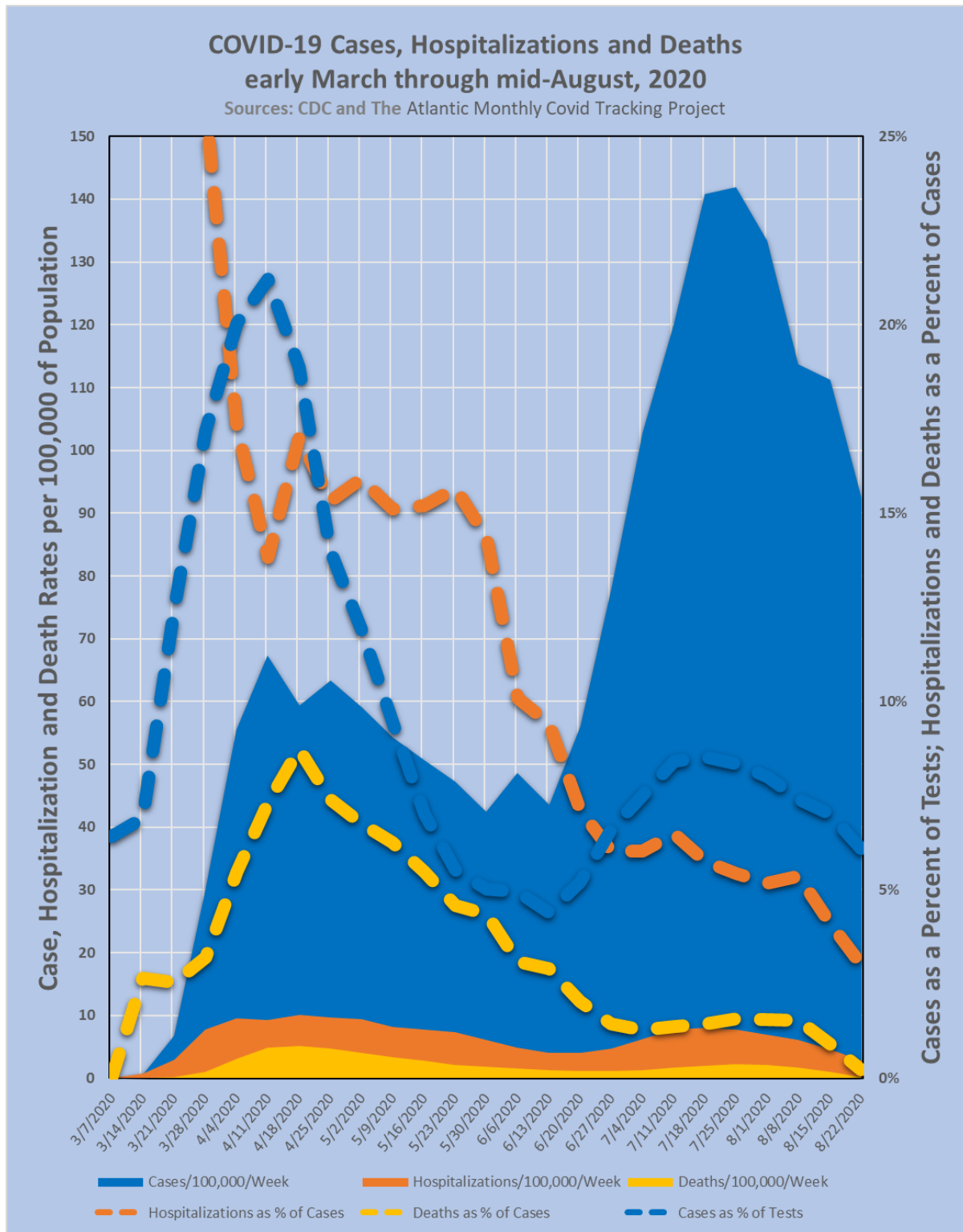
Weekly Tests rose from 845/100,000, when Cases were 5% of Tests, to their apex of 1702/100,000, when Cases were 8% of Tests. Tests doubled during that period while Cases tripled. Cases as a percent of Tests have ranged from 21% of Tests at the first Pandemic Peak to 8% at the second, a 60% decline. Testing is now at 1515/100,000 and Cases are at 6% of Tests, among the lowest percentage during the Pandemic. Since then, Tests declined by 10% and Cases declined by 35%. Cumulative Test during the Pandemic to date have totaled nearly 21766/100,00 of population, about 1 Test per 4.6 Americans or a 21.8% chance of being Tested from COVID-19. Total Americans who were Tested for COVID throughout the Pandemic equaled 71.4 million.

Summary of National Data as of 8-22-20

	Tests	Cases	Hospitalizations	Deaths
Per 100,000	21766	1719	157	51
Total	71.4 million	5.6 million	515 thousand	166 thousand
% Incidence	21.80%	1.70%	0.20%	0.05%

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Exhibit 1 - COVID-19 Cases, Hospitalizations and Deaths



(Note: We have corrected anomalies reported earlier affecting the proportions of Hospitalizations and Cases and Deaths. The relationship is now more intuitive, and more importantly, correct.)

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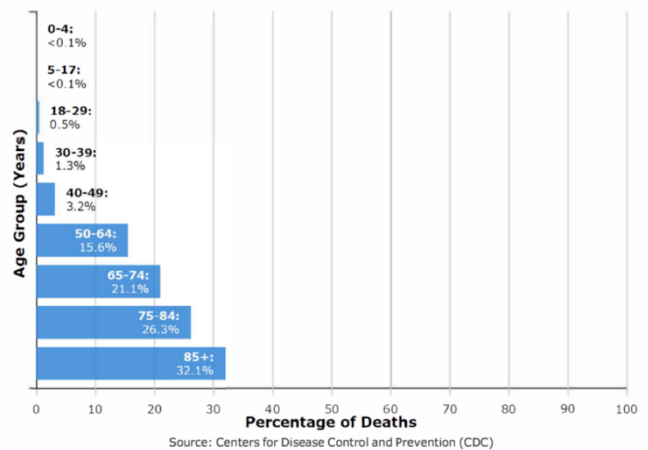
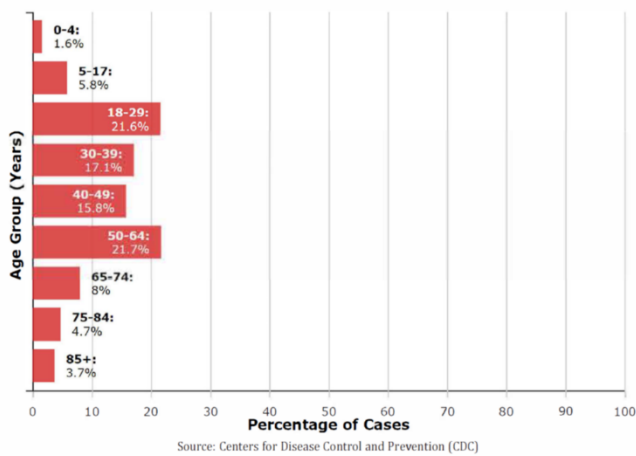
Cases and Deaths by Age and Race/Ethnicity (See Exhibits 2a and 2b below)

Individuals under the age of 50 have had 62% of Cases and 5.1% of the Deaths, while those 50 or older have had 38% of the Cases and 94.9% of the Deaths. Ages 18 to 49 have had the highest Case rates, from 16% to 22% and very low Death rates, between .05% and 3%. Those aged 18 to 29 have the highest Case rate and the lowest Death rate in that group.

Whites and Hispanics make up over 70% of the Cases and just below 70% of total Deaths; 39% of the total Cases and 50% of the total Deaths for Whites, 32% of the total Cases and 17% of the total Deaths for Hispanics.

When we account for population size and look at data within races/ethnicities, CDC data suggest Whites and Asians have the lowest percentage of Cases within their populations at 9% and 10% respectively, while Hispanics and Blacks have the highest percentage at 25% and 21% respectively. Only Hispanics have a lower percentage of Deaths than Cases within their populations. Whites, Native Americans, Asians and Blacks (from highest proportionate increase to lowest) all have a higher percentage of Deaths than Cases within their populations. In other words, CDC data suggest that once these Racial groups are diagnosed with the virus, more of those diagnosed are likely to die from it.

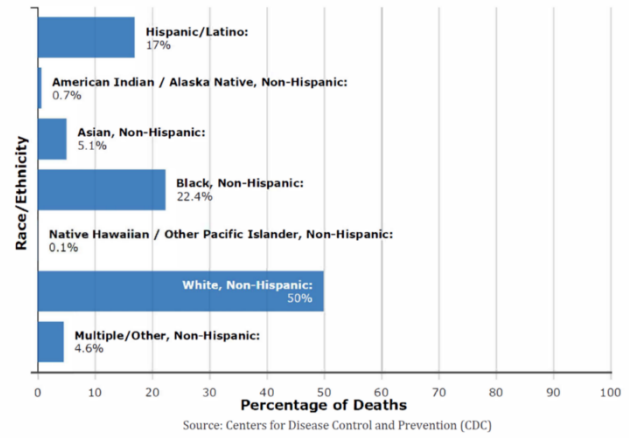
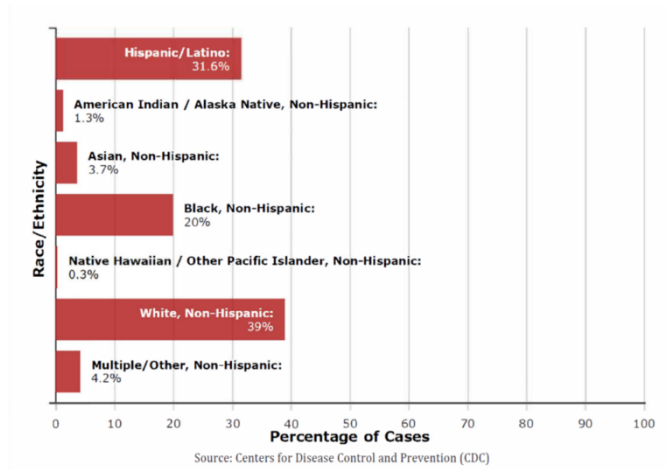
Exhibit 2a-Cases & Deaths by Age



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Exhibit 2b- Cases & Deaths by Race/Ethnicity



	% of Cases between pops	% of Deaths between pops	% of Population	Adjusted % of Cases within pops	Adjusted % of Deaths within pops
Total	100%	100%	100%	100%	100.00%
Non-Hispanic White	39%	50%	60%	9%	14%
Non-Hispanic Black	20%	22%	13%	21%	28%
Non-Hispanic American Indian or Alaska Native	1%	1%	1%	14%	21%
Non-Hispanic Asian/ Pacific Islander	4%	5%	6%	10%	13%
Non-Hispanic More than one race/Unknown	4%	5%	3%	21%	8%
Hispanic or Latino	32%	17%	19%	25%	16%

Hospitalizations by Age and Race/Ethnicity (See Exhibits 3a and 3b below)

Weekly Hospitalizations grew slightly in the first two weeks of July amidst the dramatic increase in Cases, but they declined quickly thereafter to their lowest rates since the pandemic began. This pattern was followed for all age groups. Blacks, Native Americans and Hispanics have the highest cumulative Hospitalization rates by far, between 260 and 400 per 100,000.

Cumulative and weekly Hospitalizations increase with age, except for ages 0-4, which remains quite low but exceeded the Hospitalization rate for ages 5-17. The weekly rates for ages 0 to 49 have all remained below 10 per 100,000 throughout the pandemic and are now all below 2 per 100,000. The rates grow dramatically from 50 to 85+. Blacks, Native Americans and Hispanics have the highest cumulative Hospitalization rates by far, between 260 and 400 per 100,000 for all age groups. These numbers follow the same patterns for age groups, lower the younger you are.

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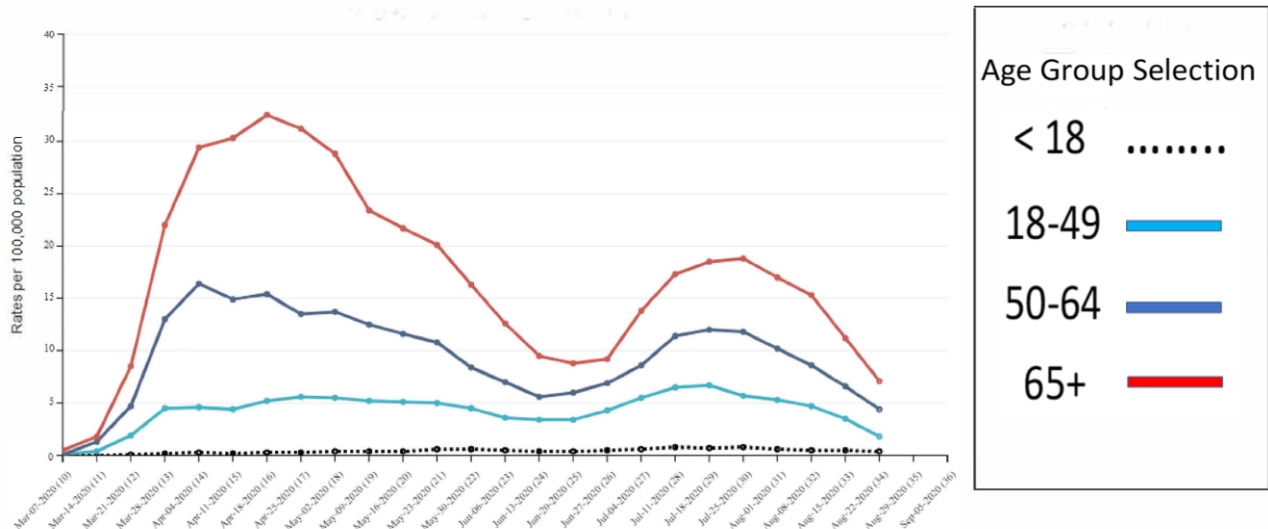
A typical college-aged student, between 18-29, has almost always had a rate below 3/100,000. Indeed, at the most recent weekly rate of 1.3 per 100,000, only 1 student enrolled at a typical 3,000-student institution would be Hospitalized; and those aged 18-29 have the highest Case rate!

Exhibit 3a – Hospitalizations by Age, Race and Ethnicity

Laboratory-Confirmed COVID-19-Associated Hospitalizations

Preliminary weekly rates as of Aug 22, 2020

Source: Centers for Disease Control



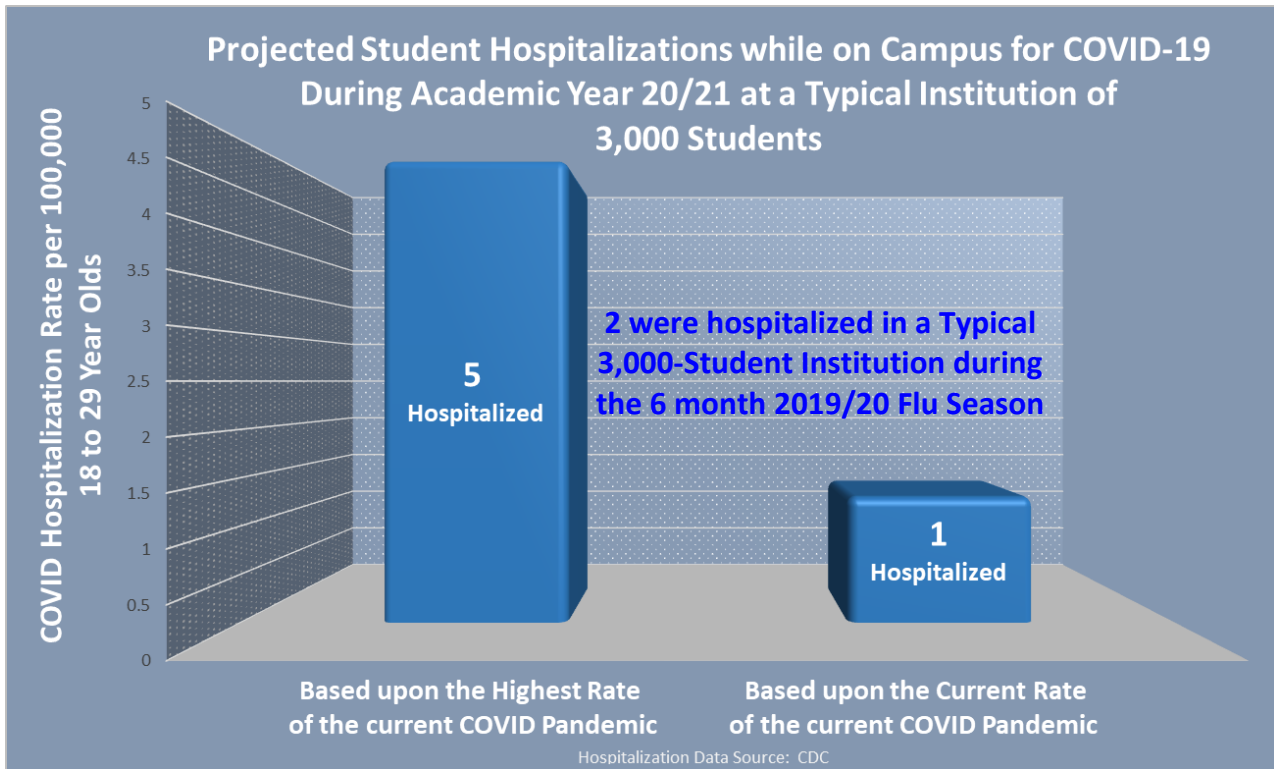
COVID-19-Associated Hospitalization Rates (CDC)

AGE	CUMULATIVE RATE/100000	7/25/20 WEEKLY RATE/100000
0-4	12.3	0.7
5-17	6.4	0.3
18-29	51.6	2
30-39	84.3	3
40-49	130.6	3.9
50-64	196.3	6.5
65-74	266.4	7.3
75-84	427.4	13.3
85+	670.5	15.1

RACE/ETHNICITY (excluding OTHER/UNKNOWN)	CUMULATIVE RATE/100000
White	56.5
Black	265.1
American Indian/Alaska Native	298.6
Asian/Pacific Islander	72.8
Hispanic/Latino	266.6

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Exhibit 3b – Projected Students Hospitalizations



(Note: We have corrected anomalies reported earlier affecting the proportions of Hospitalizations and Cases and Deaths. The relationship is now more intuitive, and more importantly, correct.)

Hospitalizations and Deaths compared to Flu and other Causes (See Exhibits 4a and 4b below)

Weekly Flu Cases for all US citizens during the 2019/20 season reached about 21,750 at their peak. The peak Flu Hospitalization rate for those aged 18 to 49 was 3/100,000, obviously an acceptable rate from our national experience.

The weekly Hospitalization rate for those aged 18 to 49 during COVID Pandemic peaked at of 6.4/100,000, about twice as high as the flu Hospitalization rate for those in the same age group, but COVID Pandemic Cases peaked at 21 times Flu Season Cases, each at their peak for all US citizens.

The current weekly COVID Hospitalization rate for those aged 18 to 49 is 1.8/100,000 (40% lower for the same age group for the Flu at its peak) and weekly Cases for all US citizens total 303,600 (about 14 times that for the peak of Flu season)!

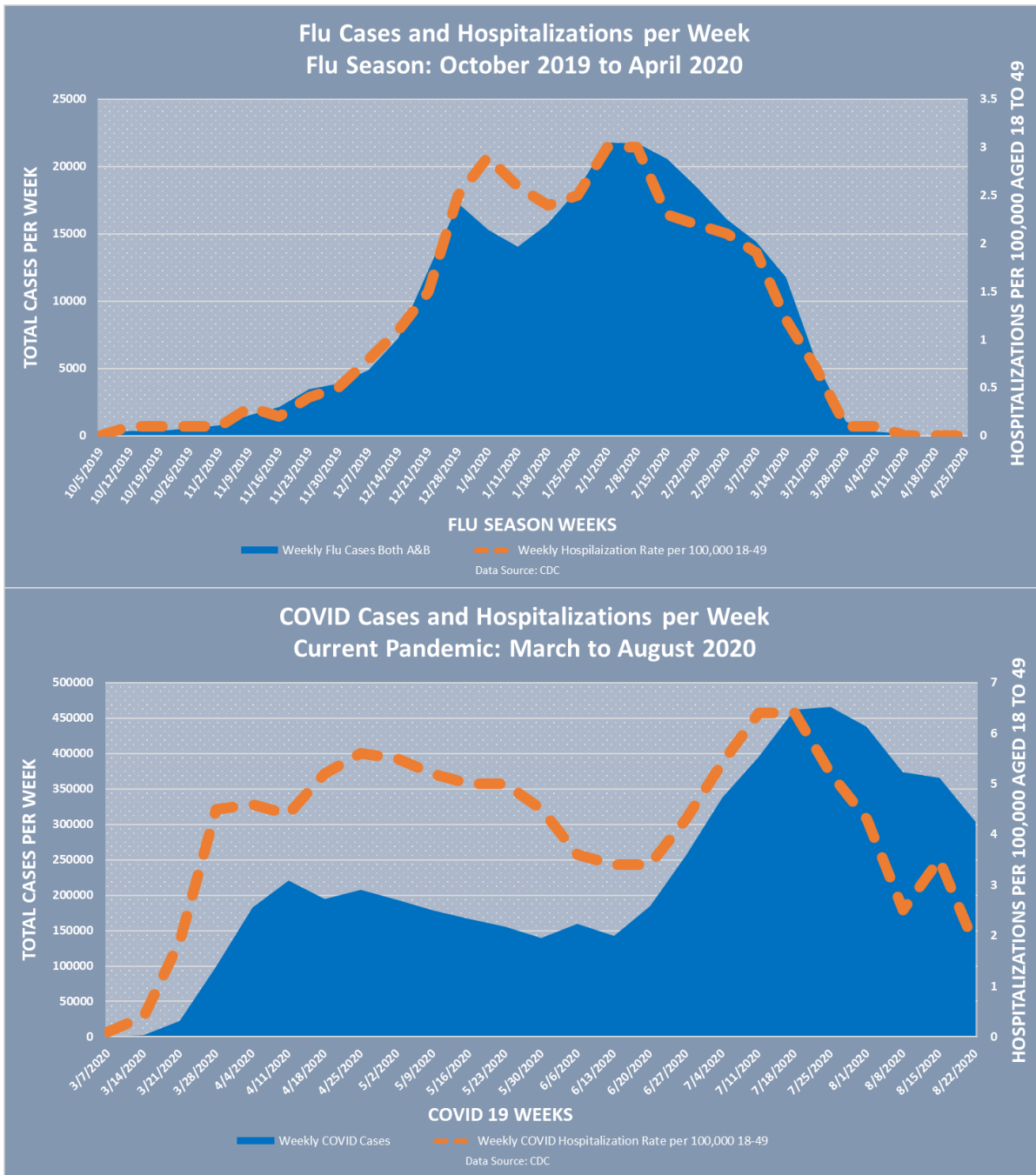
Most Flu Season cases are experienced between December and March. Flu Season will cause confusion on our campuses if we do not test community members frequently for

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COVID-19 and recognize the differences between COVID and Flu symptoms. According to CDC, similar symptoms include fever/chills (not in all Flu cases), cough, sore throat, runny/stuffy nose, muscle/body aches, headaches and fatigue. **Symptoms particular to COVID-19 are difficulty breathing, loss of taste/smell and nausea/vomiting/diarrhea** (children can experience nausea/vomiting/diarrhea with Flu). We must pay

Exhibit 4a – COVID and Flu Cases and Hospitalizations



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Student Demographics: Expected Cases, Hospitalizations and Deaths (See Exhibit 5 below)

Those under the age of 40 make up 95% of the student population of 4-year colleges, 90% of 2-year colleges and 85% of For-Profits colleges. These students have the highest Case rates, but by far the lowest Hospitalizations and Deaths across the US population. White and Asian/Pacific Islander students make up 62% of the typical college's enrollment. They have the lowest percentage of Cases and Hospitalizations and Deaths within their population. Blacks, Hispanics and Native Americans make up the remainder of the typical college's enrollment. They have the highest percentage of Cases and Hospitalizations and Deaths within their populations. HBCUs and Hispanic-serving institutions, therefore, have a higher risk in the general student population of Cases and Hospitalizations and Deaths.

Exhibit 5 – Student Age, Race and Ethnicity

Students' Gender, Race, and Ethnicity, by Sector, Fall 2017

Almanac 2019 | August 18, 2019 PREMIUM

Sector	Total	Female	American Indian or Alaska Native	Asian	Black or African-American	Hispanic	Native Hawaiian or Pacific Islander	White	2 or more races
All institutions, number	19,748,577	11,192,263	131,953	1,222,526	2,410,510	3,391,991	49,371	9,974,821	669,067
All institutions, percentage	100.0%	56.7%	0.7%	6.8%	13.5%	19.0%	0.3%	55.9%	3.7%

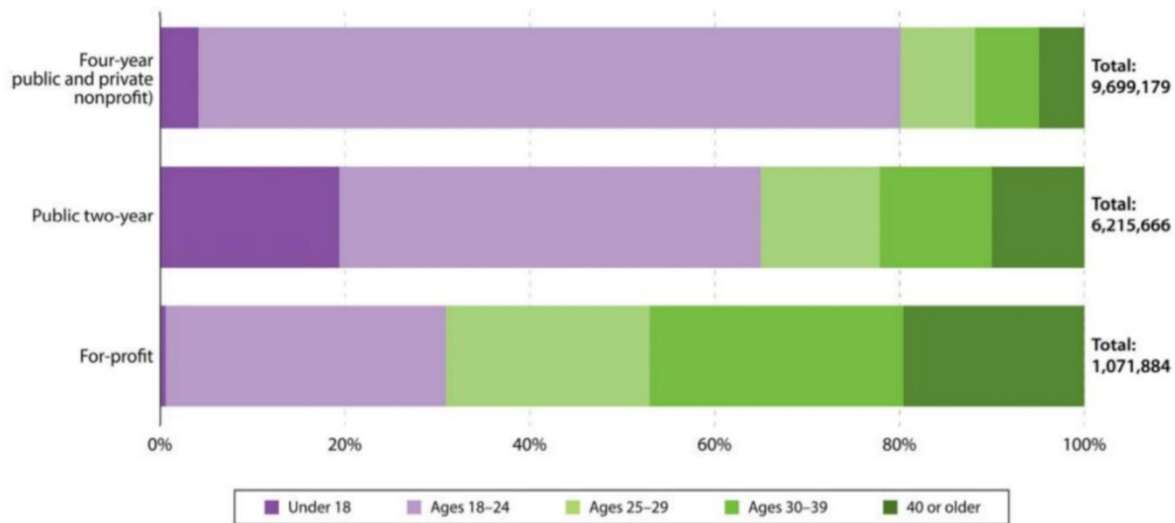
Source: *Chronicle* analysis of U.S. Department of Education data

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Age Distribution of Undergraduate Students, by Type of Institution

Almost half of for-profit institution enrollees and one in five four-year institution enrollees are age 30 or older.



Source: NCES 2016.
 Note: Data are for 2015. "Four-year" includes public and private nonprofit four-year colleges and universities. For-profit includes two-year and four-year private for-profit colleges and universities.



Faculty and Staff Demographics: Expected Cases, Hospitalizations and Deaths (See Exhibit 6 below)

Employees of Colleges and Universities under the age of 55 make up 87% of the workforce. The remaining 13% have significantly high risks of Hospitalizations and Deaths, which increase with their age. However, only about 65% of faculty are under the age of 55, and the remaining 35% have significantly high risks of Hospitalizations and Deaths. Approximately 85% of College and University administrators and faculty are White and Asian. The remaining 15% have significantly higher risks of Hospitalizations and Deaths.

HOUSEHOLD DATA ANNUAL AVERAGES

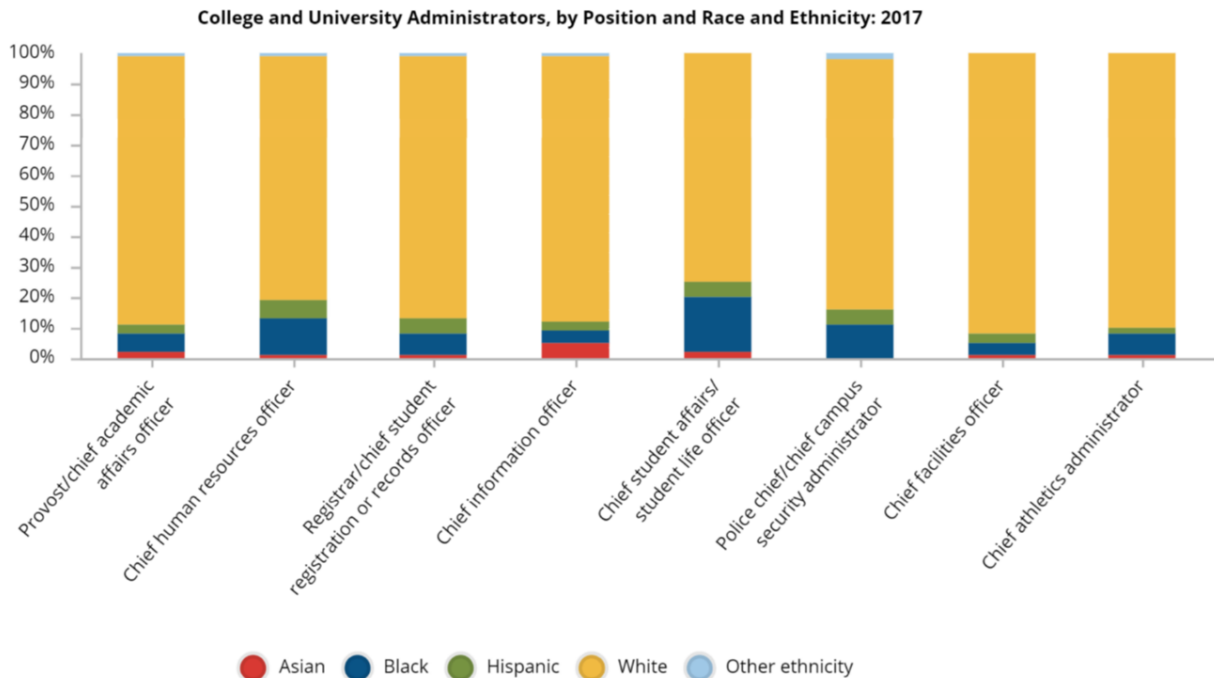
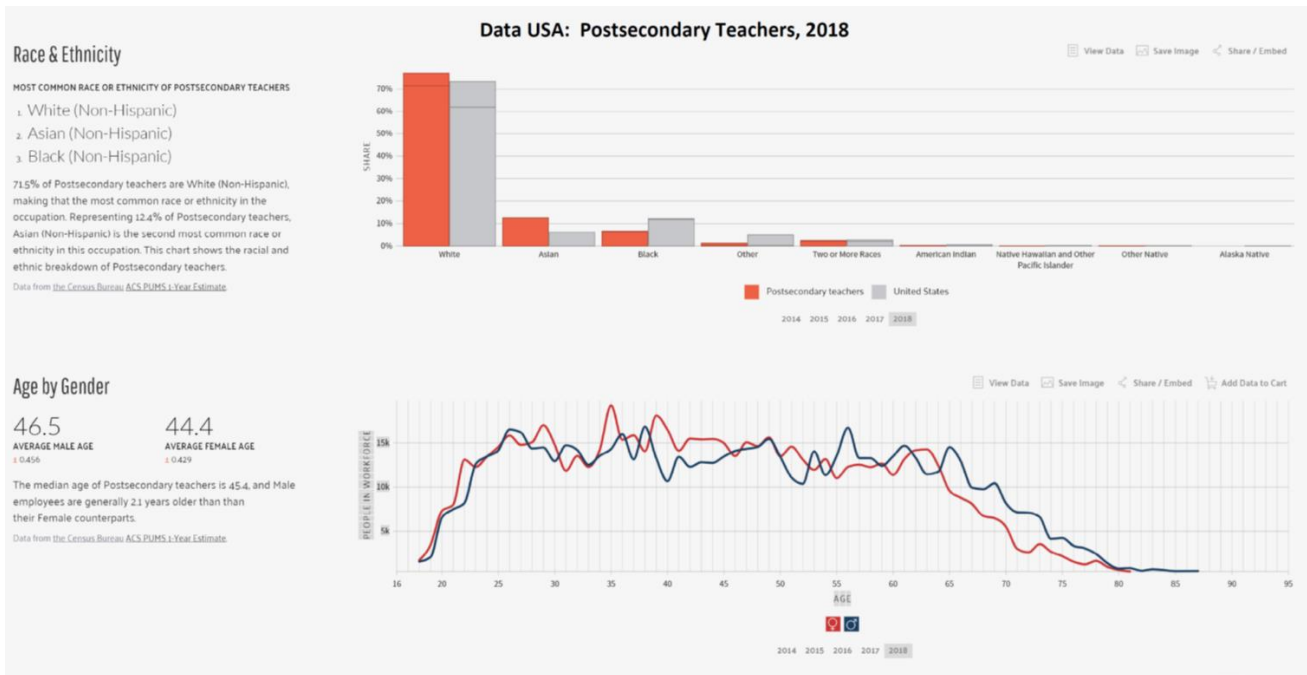
18b. Employed persons by detailed industry and age [Numbers in thousands]

Industry	2019								Median age
	Total, 16 years and over	16 to 19 years	20 to 24 years	25 to 34 years	35 to 44 years	45 to 54 years	55 to 64 years	65 years and over	
Colleges, universities, and professional schools, including junior colleges	3,795	106	589	775	757	698	601	269	40.7
	100%	3%	16%	20%	20%	18%	16%	7%	

Source: U.S. BUREAU OF LABOR STATISTICS

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Exhibit 6 – Faculty and Staff Age, Race and Ethnicity



Source: Bichsel, Jacqueline, Adam Pritchard, Jingyun Li, and Jasper McChesney. 2018. Administrators in Higher Education Annual Report: Key Findings, Trends, and Comprehensive Tables for 2017–18 Academic Year. Research Report. Knoxville, TN: CUPA-HR.

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College Opening Plans Nationally (See Exhibit 7 below)

The Chronicle of Higher Education regularly updates a report on College Opening Plans. We find from that report that roughly 37% of all colleges and universities will offer in-person with hybrid programming, down by nearly 5% over the last month and 49% online and hybrid programming, up 9%. About 30% are categorized as Other/Not Decided. More than 50% of independent non-profit colleges and universities who have decided opted for a combination of in-person/hybrid programming. About 42% chose online/hybrid programming.

Exhibit 7 – College Opening Plans Nationally

Here's how the national picture breaks down:

