

How Data Can Help Us Get Back to School Safely



Table of Contents

Introduction.....	3
How to safely return to campus	4
Data will help us get back to school.....	5
Enter Splunk	5

Introduction

This year, back to school for college students means more than just buying supplies, finding the right dorm and making sure to get into the proper classes. The COVID-19 pandemic has changed the annual fall ritual into one where campuses need to make sure they are safe from infection while providing a healthy environment for learning, growth and community.

When COVID-19 shut down campuses across the country in early 2020, students and teachers were forced to conduct classes online. This opened **a series of challenges** for higher education institutions, with some students struggling to learn in the new digital environment.

Several schools said that distance learning did not offer the type of experience that university students expect. Some schools even reported a dip in attendance, while others said they **lost contact** with students altogether. Students also filling out the Free Application for Federal Student Aid (FAFSA) were down between 5 to 9% nationwide in the months after the pandemic, according to the National College Attainment Network. This could indicate that some students were not planning to return to an online only school.

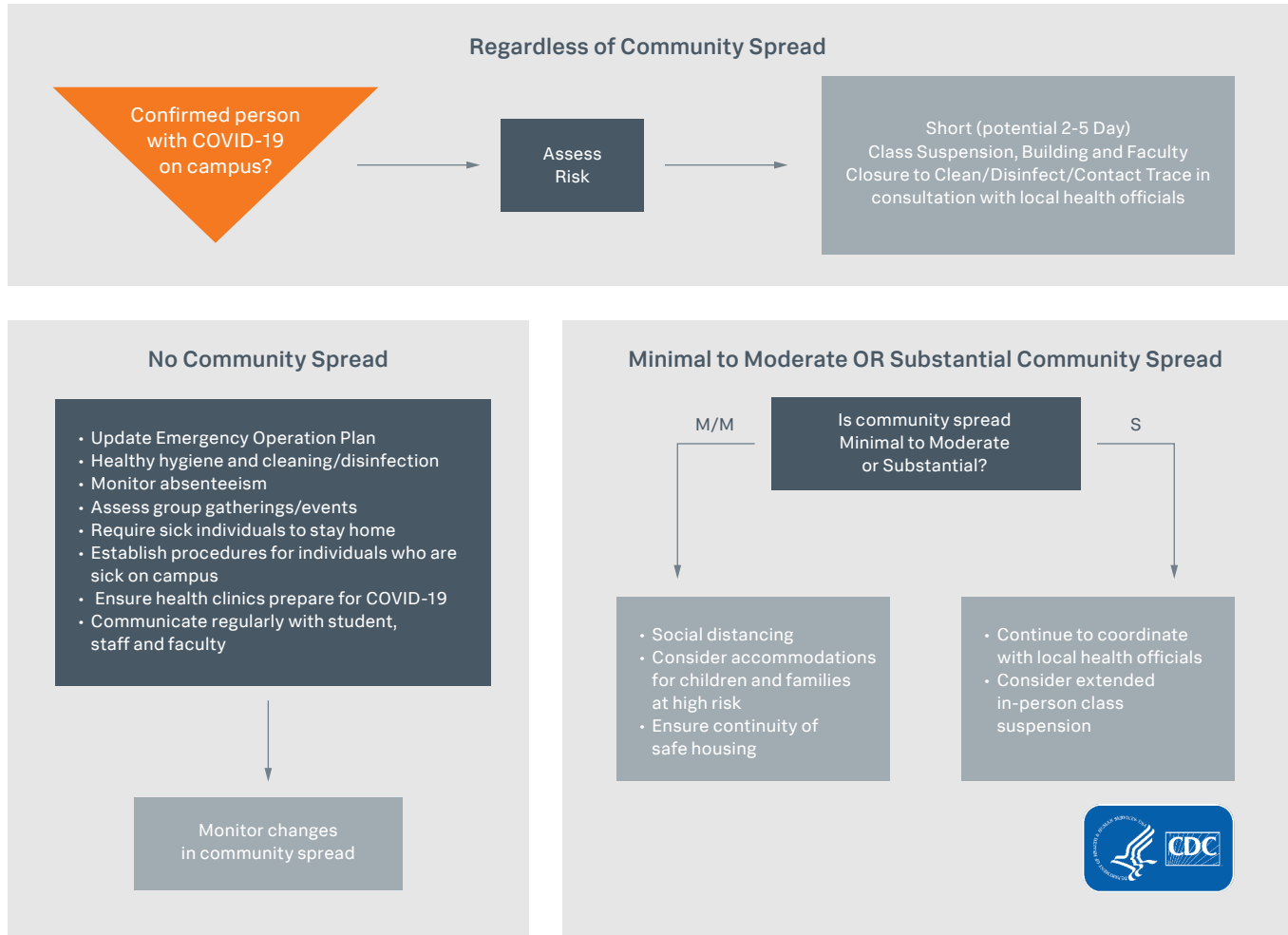
Distance learning is also creating a major revenue problem for schools. The president of Brown University **recently wrote that most** colleges are dependent on tuition and not being able to reopen in the fall could mean losing up to half of its revenue.

But students not being on campus also means other sources of revenue for schools are also lost — such as room and board, parking, and spending money at campus businesses. Both Patriot League and the Ivy League schools also cancelled all fall sports, and several of the Power 5 conferences were still deciding what to do in the summer.

How to safely return to campus

Getting safely back to school is something everyone wants. Lives and livelihoods are literally depending on it.

As schools begin reopening after the first wave of the global pandemic, they're relying on large volumes of solid, reliable data to manage a complex process with virtually no margin for error. Campuses need to be modernized to allow digital collaboration and learning.



The Center for Disease Control (CDC) issued guidance for how schools should deal with people who test positive for COVID-19 on campus. The guidance focuses on being able to **track infected people** on campus in near real time and being able to monitor who they may have come in contact with and then quickly isolating those people as well.

Then, depending on the severity of the exposure and the spread, schools are told to take a series of actions from canceling classes to partially or totally closing down campus facilities.

At the center of this strategy is a practice known as contact tracing, which is used by health departments to prevent the spread of infectious disease. In general, contact tracing involves identifying people who have an infectious disease and the people they have been in contact with.

The process involves interviewing those who have tested positive for COVID-19, notifying their contacts about potential exposure, asking them to get tested and monitoring them for signs of infection.

Data will help us get back to school

Getting back to school under the CDC guidelines will require data. A lot of actionable data. Universities need to understand that while the world waits on the long-term target of a set of safe and effective vaccinations to defeat COVID-19, schools need an interim approach to get students and faculty safely back onto campus.

This includes broad testing, tracking and contact tracing people who may be sick and access to real-time data about everyone on campus.

School leaders need to be able to quickly ask questions of the data that exists, not only within their organization, but in their local campus communities to understand the potential impacts of reopening, and when their community has the infrastructure prepared to support them.

Data will help schools not only identify and isolate sick individuals to control outbreaks, but it will also help higher education institutions prioritize what parts of the campus need to be cleaned, where students gather most, who has been in contact with whom and much more.

Specifically, universities need to be able to gather data on their campus communities to be able to analyze that data in near real time to make informed decisions on the health and safety of everyone on campus. The data needs to include information such as:

- 1. Early warning signs of infection:** For example who is coming into dining areas and what their temperature is upon arrival.
- 2. Facilities level decisions:** One example of this in practice is density mapping, which means who is where on campus and where are they gathering. This informs decisions like what to keep open in case of a partial shut down and how to prioritize cleaning.
- 3. Contact tracing of infected people:** When someone has tested positive for COVID-19, school officials need to know how to track who this person has been in touch with.

Enter Splunk

Contact tracing will play a vital role in campuses re-opening safely in the fall. This is where the Splunk Data-to-Everything™ Platform can help universities safely reopen. The Splunk platform is designed to investigate, monitor, analyze and act on data at any scale, from any source over any time period.

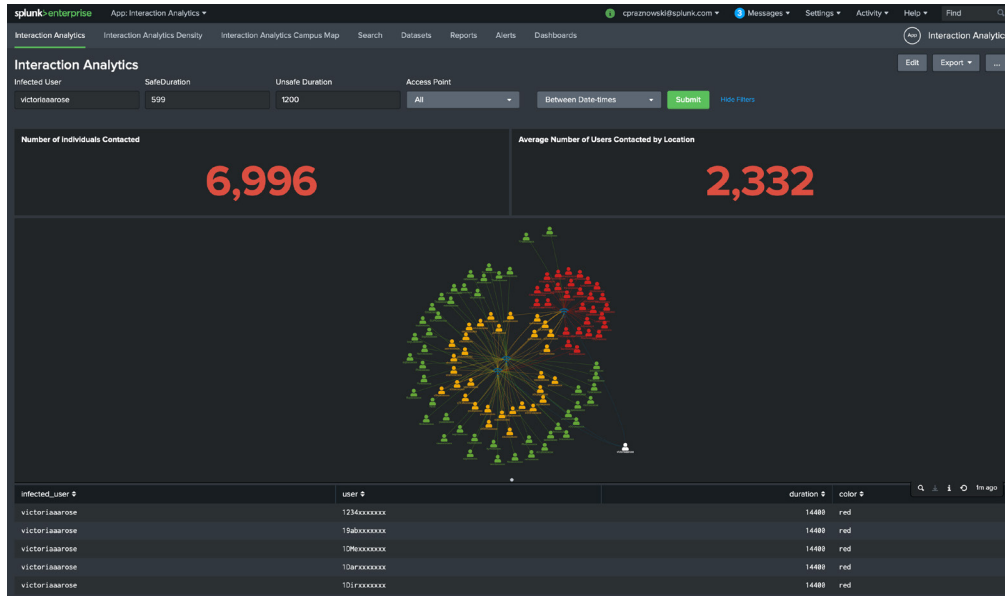
The Splunk platform removes the barriers between data and action, so universities, regardless of size, have the freedom to deliver meaningful outcomes across their entire organization. Splunk's unique approach to data has empowered universities, public sector organizations and companies to improve service levels, reduce operations costs, mitigate risk, enhance DevOps collaboration and create new products and services.

While there are current contact tracing solutions out there being offered by various companies, they work only on a consumer level and they often require bluetooth connectivity, and that infected people come within five feet of others.

Splunk takes a different approach by allowing universities to bring data from a connected campus and drive safety decisions faster than before. Splunk provides one platform to deliver all capabilities and it is built to unlock value across higher education organizations as they scale their use cases and their needs evolve.

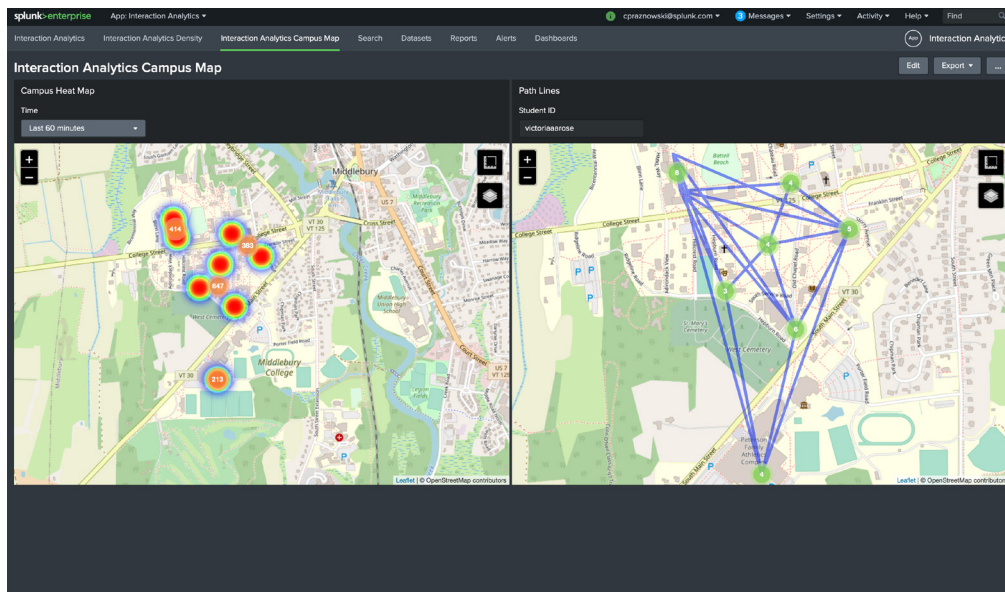
Specifically, the Splunk platform can help with gathering and visualizing certain contact tracing data to help schools manage risks regarding reopening. As college and university leadership teams develop plans to have students return to campus, they need a data-driven decision support system for contact tracing to provide clear direction on the scope and impact of a positive COVID-19 case on campus.

Splunk has created a data-driven model that utilizes Wi-Fi-based connection data and creates an interaction analytics visualization.



This dashboard highlights those on campus who have a high risk of infection due to concurrent time on access points with an infected person.

The solution provides an understanding of a single user and his or her closest contacts, density mapping of people across a building or the campus, and how they are gathering over time, and path lines for an infected individual and how they traversed campus over a defined time period.



This dashboard maps real-time data on where there is a number students and the routes infected students have traveled on campus.

If someone is known to be infected with COVID-19, Wi-Fi access point data is gathered from the consenting individual and the length of connection time by surrounding individuals can be used to create an interaction insights visualization to provide campus decision makers with a near real-time understanding of who came in close contact with an affected individual.

By making this information available to university leaders, they may have greater insight into students and staff that may have been exposed to an infected individual, quarantine public spaces as needed and divert campus traffic away from affected areas.

Several universities are already using the Splunk platform to leverage data to reduce the risk of a campus-wide shut down.

The kind of societal shift brought on by COVID-19 is not easy. But with the right tools to gather and analyze the data that campus communities are already generating, schools can improve the safety of bringing employees, students and faculty back to campus, while earning their trust.

And with universities getting their back to school response right, they can begin preparing for a future where sharing and collaboration will be the basis for continuing success.

Are you ready to learn how data and the Splunk platform can help you safely get back to school?

[Learn more](#) about our Interaction Analytics app now.

