Building an agile data analytics environment to support university decision-making: A case study of Ohio State University’s rapid development of a COVID-19 dashboard system

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Abstract
Data analytics is increasingly important to the operations and strategic growth of higher education institutions. In September 2019, three higher education professional associations issued a rare joint statement calling for the accelerated investment and intensified efforts to develop and deploy data analytics in support of campus decision making. COVID-19 disrupted the momentum generated by the joint statement. However, during the pandemic, many universities recognized data analytics as a critical asset to their response to the crisis. In this case study of Ohio State University’s COVID-19 dashboard development process, the authors demonstrate that the principles advocated by the joint statement are exactly the reasons that a successful and nationally recognized dashboard effort was possible. The case study shows that senior leadership support, strategic investment in the right technologies, and close collaboration among campus data analytics professionals are among the key factors of success.

INTRODUCTION

In the summer of 2019, three national professional associations, the Association for Institutional Research (AIR), EDUCAUSE, and the National Association of College and University Business Officers (NACUBO), worked together to issue an urgent call for higher education institutions to strengthen the use of data analytics to make strategic decisions (Keller, 2019). The joint statement is entitled “Analytics Can Save Higher Education. Really.” This statement is bold and provocative and carries a clear sense of urgency. There are six broad themes to this statement:
Go Big—Make an institutional commitment to analytics. Make your approach to data analytics transformational and connected to the institutional mission for real results that matter to your students, faculty, and staff.

Invest What You Can—You cannot afford not to. Get ready to make substantial investments in time, talent, and money. The necessary investment goes far beyond buying technology.

Analytics is a Team Sport—Build your dream team. Establish a team approach with an unrelenting expectation for collaboration across colleges, departments, and administrative units of all kinds.

Analytics Has Real Impact on Real People—Avoid the pitfalls. Responsible use of data is a non-negotiable priority.

Prepare for Some Detours on the Road to Success. For analytics to have a measurable impact on decisions and behaviors at all levels of an institution, authentic and sustained change is necessary.

Tick-Tock, Tick-Tock—The time to act is now. A sense of urgency is critical as institutions commit to using data analytics. This urgency needs to come from the institution’s leaders.

This joint statement, besides its urgency, carries the data analytics community’s hope and desire to be counted on as a partner in campus decision-making, a partner that provides clues to many of the complex problems that higher education leaders want to solve. Higher education faces many challenges such as improving student outcomes, lowering cost, broadening access and affordability, and maximizing value. The Joint Statement points to data analytics as a common tool that may help solve these complex equations.

Six months after the release of the joint statement, COVID-19 hit university campuses around the nation. With many institutions focusing attention to deal with urgent issues such as enrollment management, student housing, financial emergency, COVID-19 testing, quarantine, and isolation, the task of quickening the pace of analytics development took a backseat. Nevertheless, amidst the COVID-19 crisis, there was evidence that data analytics plays a critical role in how higher education institutions handle crisis management effectively. Zheng (2020) documented several cases in which institutional research and analytics leaders participated at the highest level of the campus decision making process during the crisis. Data researchers on university campuses provided some of the critical services in support of crisis response:

1. Survey research on how COVID-19 impacted stakeholder (faculty, staff, student, etc.) sentiments on returning to campus
2. Enrollment projections or retention analysis considering the changing health situation
3. Development of COVID-19 dashboards or data visualizations specifically for monitoring campus conditions for academic planning and public information
4. Data modeling of various planning scenarios related to enrollment, class size, and budget
5. Monitoring external developments, peer institutions trends, and health data for decision support

Of these five common activities, the development of COVID-19 dashboards was a particularly visible activity. Given the lack of public health reporting at the campus level and the need for students and their parents to understand the risk level on campus, COVID-19 dashboards became an essential tool for university leaders to communicate campus readiness and safety measures to their constituents. In this article, the authors provide a case
study on how data analytics professionals (database specialists, institutional researchers, data scientists, and data visualization experts) at the Ohio State University (OSU) collaborated to create a top-rated dashboard in a short span of time. We also demonstrate how early decisions by university leaders to invest in an agile data analytic platform paid off when it was critically needed.

THE MAKING OF THE FIRST A+ RATED COVID-19 DASHBOARD IN THE NATION

In September 2020, OSU’s public COVID-19 Dashboard (see Figure 1) received the first ever A+ rating by “We Rate COVID Dashboards,” an initiative headed by a group of Yale and Harvard researchers (Redden, 2020). Dr. Cary Gross, a professor of medicine and epidemiology at Yale University and the co-founder of the rating system, believes that COVID dashboards like the one exemplified by OSU are effective because these dashboards are updated at least once every weekday and include information not only about the positive number of cases but also about the total number of COVID tests conducted and the frequency of testing. Dashboards that breakdown case data for students and faculty/staff separately and provide information on trends in the surrounding city or county, the number of individuals in isolation/quarantine, and the campus’s operating status, among other elements, are also superior (Redden, 2020, P. 1)

While OSU’s publicly available COVID dashboard as shown in Figure 1 received rave reviews, it is only a summary representation of a comprehensive set of data reports and dashboards that were assembled by OSU’s public health experts and data analytics teams to provide urgently needed data and information to university decision makers. The reporting system created by OSU included both summary and detailed level reports on testing
statistics by different groups on campus, campus locational data for detecting infection hot spots, cluster tracking reports such as Greek Life and frontline employee dashboards, and monitoring of quarantine and isolation housing information in real time. It was an ecosystem of data reports that supported student life, facility management, classroom setup, course delivery design, campus transportation, and personal protection equipment sourcing decisions.

OSU’s COVID dashboard system is remarkable not only for its comprehensiveness but also for the speed with which it was developed. From April through early summer of 2020, OSU’s leaders relied on a small group of institutional researchers and data analysts to maintain a state and local health data dashboard that was updated daily and shared with OSU’s COVID-19 Response Task Force. The data group was also responsible for developing a decision dashboard that provided the key data points to support the university’s decisions on Autumn 2020 campus reopening.

When the final decision was made in July 2020 by OSU’s Board of Trustees and the incoming President to reopen the campus for Autumn Semester, a team of public health experts was charged to develop the key public health indicators to be included in a new monitoring system. A multi-departmental team made up of IT leaders, institutional researchers, database specialists, and academic information professionals was also assembled to create a data integration process and to develop the COVID-19 dashboard system. Once the order was given, the teams met every day to start working on assembling the data from various sources to develop a dashboard prototype. It took 3 days for student testing data from the external testing vendors to be integrated into OSU’s Reporting and Analytics Environment (RAE, discussed later in this paper). It only took about 7 days for the first dashboard to be prototyped, reviewed, and approved for going live. On August 25, 2020, the week when students arrived on campus to start their Autumn classes, OSU’s public COVID dashboard went live (Long & Szilagy, 2020).

Since the launch of the public dashboard on August 25, 2020, it was updated daily by a team of IT and IR professionals with technical support from a panel of nationally known public health experts. To ensure data accuracy and to protect data security, extra attention was paid to review the data manually before the dashboard was approved for release each day. This decision was made due to the urgency and importance of the request—the president and university leaders needed this dashboard in time for the beginning of the fall semester both to support decisions regarding campus safety and to communicate this information regularly to important stakeholders such as students, faculty, staff, and their families using high-quality data on key indicators. Thus, timeliness and accuracy were critical. However, the data infrastructure supporting this dashboard was not fully mature for the first few months of the dashboard’s operational use.

Data underlying the indicators were pulled together from disparate sources to afford insights regarding the pandemic in the State of Ohio generally (case counts, transmissibility, and hospital capacity) and on Ohio State’s campuses specifically (test results, on-campus isolation and quarantine, available personal protective equipment, and the implementation of enhanced cleaning procedures). For the first several weeks that the dashboard was publicly available, the data sources ranged from highly structured (e.g., data from the Ohio Department of Health on cases by county) to old-fashioned manual entry (e.g., personal protective equipment and enhanced cleaning). As the testing program and other campus safety operations matured and stabilized, the dashboard relied more on automated data feeds. On February 8, 2021, the COVID dashboard was automated completely, taking data from live data sources, and updating data without manual intervention (OSU EdScoop Staff, 2021; Media Relations, 2021). The automation signals another leap forward in the dashboard development process and a testament to how an agile data and
analytics environment coupled with strong leadership support and dedicated talent can change data analytics operations on university campuses.

The newly automated dashboard was enhanced to make it more user-friendly while offering a complete picture of cases and positivity rates dating back to the beginning of the university’s testing program. With this new version of the dashboard, users can view the data going back to the 2020 fall semester as well as the most up-to-date numbers for the 2021 spring semester (OSU Media Relations, 2021). The data transparency in an automated dashboard cannot be under-estimated. It reflects not only the technical capabilities of OSU but more importantly the confidence and desire by OSU to share data with the communities in the most transparent fashion. As the saying goes, we are all in this together.

THE KEY SUCCESS FACTORS

By all measures, OSU’s COVID dashboard qualifies as a success story for data analytics development in higher education. It was conceptualized and launched in record time for a multi-departmental effort at OSU, brought people from across the campus to collaborate, supported the university’s decision making, provided data transparency to the community, and earned a top A+ grade by a national ranking group. Many of these accomplishments align with principles advocated by the Joint Statement. In the following sections, we will examine how technology, people, culture, and process improvement all played a role in the success of this project.

TECHNOLOGY—THE FRAMEWORK OF AN AGILE DATA ANALYTICS ENVIRONMENT

A major part of why the COVID-19 dashboard project was a success is that Ohio State chose to “go big” in its commitment to analytics by investing in the right technology at the right time. Years before COVID-19, with changes in the technology landscape, OSU faced the critical decision of whether to continue maintaining its legacy enterprise resource planning (ERP) system or bet on less proven cloud-based solutions. Legacy systems are typically installed locally on the premises and cloud-based systems are typically provided as a Software-as-a-Service (SaaS) and are hosted on the vendor’s cloud-based servers and accessed through a web browser. An ERP system provides the technology backbone to support an enterprise’s human resources, financial management, supply chain, and student information operations. A decision to switch to a cloud-based solution is a critical decision that requires careful deliberation and strong consensus among campus stakeholders. Not only did OSU choose to select a cloud-based ERP system, it also went big on its data warehouse and business intelligence system by creating the cloud-based Reporting and Analytics Environment (RAE pronounced ‘ray’).

The RAE is OSU’s next generation data and analytics platform. It was built in parallel with the cloud-based ERP system implementation. The Office of the Chief Information Officer (OCIO) envisioned that the new data platform would be a centralized, cloud-based data solution. Like many higher education institutions, OSU has many operational silos in which source data is managed and distributed in multiple areas of the university. The Chief Information Officer, along with his senior leadership team, saw the need for a different data strategy and formulated a plan to bring OSU into the future of data storage. OSU landed on using Amazon Web Services (AWS) to build a best-in-class data environment (See Figure 2). The investment in the RAE was a bold move. As the Joint Statement suggested, OSU
FIGURE 2 The architecture for OSU’s reporting and analytics environment

went big and invested in this critical resource and it paid off handsomely at the time of need.

Just a few months before the pandemic, OSU went live with the RAE. The OCIO had already been successfully migrating and sunsetting some legacy systems, including a large Netezza database. The RAE has about 1 terabyte of data resources and over 5 billion rows of data. When the pandemic hit and the President asked for a COVID-19 dashboard and other analytical tools to support campus operations, the RAE was put to the test in a hurry. The stakes were high as students were about to move in. A dashboard system is not only necessary to inform the public but also to support the operations of health monitors, contact tracers, residential facility operations, cafeteria and retail shops, and campus transportation. OSU quickly determined that our state-of-the-art AWS environment was the best option to collect, integrate and store the COVID-19 related data from multiple sources: external testing vendors, student health clinics, university hospitals, contact tracers, health agencies, and academic operations. Given the need to incorporate data from multiple sources and quickly integrate them for operational use, the RAE’s utilization of AWS Athena was a perfect solution, as multiple sources could drop files via secure file transfer program (SFTP) on a regular cadence. Using Athena allowed OSU database specialists to automatically ingest the data and create query-ready views and tables for our data scientist and contact tracing teams. It is empowering to receive the raw data files and quickly transform them into viewable data tables for analytical processing. The RAE is currently automatically processing more than 20,000 files per day for the COVID-19 project. OSU’s COVID-19 data environment contains 70 analytic tables, 42 analytics views, and integrations to and from a dozen systems. These numbers continued to grow throughout the 2020–2021 academic year as the COVID-19 task force team identified the need for new data elements.

From a data architecture standpoint, the RAE has three key components:

1. Data Lake. The data lake that resides in the Amazon data cloud serves as a data staging area, and as the data exploration and discovery environment for if/then scenarios, new insights, or forecasts. A cloud-based solution provides expandability and deep capacity.
2. Enterprise Data Warehouse (EDW). This is a series of data tables that contain many structured data assets for the university. Data in the EDW are structured because they are not in raw form as they are in the Data Lake. They have been refined for specific needs like cross-functional strategic scorecards, dashboards, and complex reports.

3. Data Tools. A robust suite of tools enables the university to use the data in the Data Lake and the EDW. Tools include reporting and visualization (e.g., Tableau), exploration and mining (e.g., R, Hadoop), movement, federated querying, and others.

As Figure 2 indicates, a key part of the RAE’s architecture is the use of Tableau as a tool for data exploration, reporting, and visualization. OSU uses Tableau as its preferred data visualization software and invested in an enterprise version that empowers a large number of users. The Tableau server currently has over 14,000 users, 230 Creators (dashboard developers), and 500 data sources. With a complicated network of colleges, administrative units, regional campuses, and outreach extensions, OSU implemented an architecture that accommodates all areas and empowers them to do as they see fit. OSU uses a single server and site for Tableau and uses projects to delineate each area. Each college and vice president (VP) unit has a project leader who serves as the administrator for the area. The OCIO works with the project leaders to share best practices, keep them in-sync with planned upgrades, and provide training and tools such as OSU approved templates. The OCIO administers and maintains an “Enterprise” project which contains certified dashboards/reports as well as certified data sources. These are university wide objects and are available to people who have been approved by the data stewards for use.

For the COVID-19 dashboard development process, OSU used Tableau to create all data reports and visualizations. OSU set up a new site to ensure only people who needed to use the sensitive COVID-19 data had a space to do so. Setting up a single server with limited sites allows for rapid reaction to urgent and sensitive data visualization needs. There was a small team of dedicated developers for this effort, and they worked closely with university leaders and public health experts to implement new ideas and fulfill requests for data reporting. They anticipated changes and adjusted data presentation dynamically to meet operational needs as new data elements were brought into the data environment. The combination of an agile data lake and the ability to easily transform data files from various sources into usable Tableau data sources helped expedite the dashboard development process.

As efforts to integrate data resources and develop dashboards move along intensively, there is a governance framework around the AWS environment that supports data security and privacy needs. This framework is also quite agile. For Enterprise level data, OSU uses security groups for access. All access to these secure sections of data requires the assignment of roles that managers and data stewards must approve. On the Tableau side, there are similar security groups with the same approval network. For users to gain access to any of the certified data sources and reports they must be in the proper security group.

For data management, OSU uses third party software called Collibra. Every Enterprise data source and report in Tableau must have data definitions and required metadata collected before being approved for production. Collibra interfaces nicely with Tableau and easily creates a data lineage map of where the data came from in each Enterprise data source and report. Additionally, any content that will exist in a public-facing manner will also follow the same Enterprise guidelines.

For the COVID-19 project, OSU was able to implement additional security controls for the Tableau environment where the data was stored and reported on. As previously mentioned, OSU created a new site on their Tableau server accessible only to approved users. OSU required all users to sign a data use agreement and complete the annual institutional
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data policy training. For internal facing COVID-19 reports, OSU further designated who could see what based on their roles and campus location. OSU achieved this level of visibility using Tableau’s out of the box permissions as well as Tableau server filters. For example, OSU has a single report that all users can see; however, a user from their Marion campus can only see test result data from students on their campus. For their external facing reports, OSU ensures all data is aggregated so that the data can be shared with the public without the risk of exposing row level data and potentially violating privacy rules.

PEOPLE—IT TAKES A VILLAGE

If having the right technology solutions at the right time is empowering, having the right people at the right time is much more important. As outlined in the Joint Statement, analytics is a team sport and has a real impact on real people. The success of OSU’s public COVID-19 dashboard started with a senior leadership team that values data transparency and sees data as a strategic asset for the enterprise. In the summer of 2020, during the critical decision time, OSU went through a leadership transition. The incoming president took control right away and gave clear directions to university leaders that a data dashboard was critically important, and it needed to be available before student’s arrival on campus for the new semester. A clear direction from the President lit the fire that energized the project teams. The joint statement indicated that top leadership commitment is essential in data analytics development efforts, and this is clearly supported in this case study.

Since the launch of the public dashboard on August 25, 2020, it was updated daily by a team of IT and IR professionals with technical support from a panel of nationally known public health experts. The senior vice president for research was the gatekeeper who reviewed the dashboard daily before it was approved for release. This oversight provided not only quality assurance but sent a clear signal to the campus community that the dashboard system was mission critical and the University valued the work of the data analysts. At senior leadership meetings, the public COVID-19 dashboard was often reviewed and recommendations for changes and updates were discussed before the final changes were communicated to the project team.

At the very early stage of the COVID-19 response time, OSU relied on its outstanding community of public health and infectious disease experts to help set the standards for safe campus operations. The Safe Campus Advisory Committee and the Continuing Monitoring Team are chaired by the Dean of the College of Public Health and are staffed by a panel of nationally known scholars in infectious diseases, epidemiology, biomedical informatics, and population health. Many of the scholars on the panel also served on the State of Ohio’s COVID-19 advisory panel and provided direct support to the development of Ohio’s pandemic projection model. The critical mass of experts on one campus reflects OSU’s status as a leading land-grant university and this provided a leading edge when it came to deciding the right indicators to track for the public COVID-19 dashboard. Indeed, OSU provided technical support to several peer institutions in their efforts.

At the operational level, a small team comprised of individuals from OCIO’s data and analytics group, the university strategic analytics office, and a statistical consultant from the institutional research team developed and maintained the COVID-19 dashboard. This dedicated team worked 7 days a week (including holidays) and took turns updating data, responding to requests to add and change reporting elements, and publishing the public dashboard between 5–6 PM daily. This small team was assisted by a few freelancers who volunteered to help with dashboard updates and changes, providing much needed relief.
during crunch time. Because of the sensitivity of personal health information and the delicate nature of pulling data from many sources, the team was intentionally kept small to be agile. Supporting this team was OCIO’s data and analytics staff who were the unsung heroes who were tasked to bring raw data files from various sources into the Cloud server and transform the data into usable data tables for the dashboard team. The data and analytics team worked to integrate data from multiple sources in different data platforms. Their behind-the-scenes efforts enabled the public health experts and the dashboard team to piece the information together to develop and update the dashboard.

In the RAE, data points from many sources were brought together to support residential life, food services, classroom operations, facility management, campus transportation, quarantine and isolation, test scheduling and administration, and contact tracing. Because many stakeholders are involved in these activities, these data curation efforts need to be orchestrated to help set priorities, follow up on details, and track down missed deadlines. The leadership of OCIO appointed a project manager who served as the head of a project prioritization group that met 2 to 3 times a week, early in the morning. The project prioritization team reviewed project urgency, addressed data issues, discussed roadblocks and barriers, and anticipated new problems that might surface. The project manager skillfully managed the team meetings and guided discussions for a group of people who had not worked closely together before COVID-19.

There were many people who supported the COVID-19 dashboard development process, including the university’s communication and marketing team, the student information system, and data privacy and legal compliance officers. In a successful project like this, as the African proverb “It takes a village to raise a child” states, it took many from the university community working as a team to support each other to make the COVID dashboard project successful.

**PROCESS AND THE BUILDING OF A CULTURE OF COLLABORATION**

With a strong institutional commitment to analytics, timely investment in technology, a highly engaged interdisciplinary team, and a shared commitment to providing accurate, actionable data, Ohio State’s dashboard team was well-poised to tackle this project. This team was motivated and well-prepared to overcome potential detours with a great sense of urgency. Thus, this project embodied all six themes outlined in the Joint Statement, which resulted in a strong culture of collaboration. Several factors contributed to the culture of collaboration that facilitated the successful development of OSU’s public COVID-19 dashboard. These factors included a problem-solving focus, a hyper agile approach to dashboard development, team members’ ability to take on novel projects, the use of Microsoft Teams to maintain close contact, a careful quality control process, and team members with a winning attitude. Despite sharing few close connections prior to the pandemic, our interdisciplinary team quickly rallied around shared values and objectives to solve the problem of providing timely information on key COVID-19 metrics for the campus community. Although team members worked in a variety of areas across campus with little overlap prior to the pandemic, we shared a common belief in the value of data-informed decision-making that served as a foundation for a strong sense of community responsibility. The group relished the opportunity to make use of the RAE, which all had eagerly anticipated for quite some time.

The dashboard team created many prototypes based on educated guesses and the most comprehensive information available at a given moment, pivoting nimbly as new information and guidance became accessible and often providing multiple options that sparked
creative suggestions from leaders during the development process. Leaders gave clear and decisive instructions that allowed the dashboard team to quickly accomplish project milestones. This hyper-agile development approach allowed leaders to have timely, meaningful discussions about concrete products rather than waiting for the team to come up with something perfect the first time. The team refused to allow the perfect to be the enemy of the good, instead favoring regular discussion sessions to hash out details while reviewing an existing prototype that could be critiqued and enhanced.

This project was exceptional in its time-sensitivity and public visibility, as the team aimed to support a successful transition back to campus in the fall of 2020. However, the core team members that developed and maintained the dashboard were accustomed to ad hoc assignments required to support administrative decision-making. An extensive history of getting things done as needed, coupled with the knowledge that many in the OSU community and beyond were keeping a watchful eye on this dashboard, gave the team the motivation needed to responsively adapt as the project evolved.

The team remained in close contact using Microsoft Teams, sharing ideas and encouragement during many evening and weekend hours. Focusing dashboard-related correspondence in Teams promoted a sense of connectedness via video calls, text chats, and file sharing. It was an excellent tool for organizing and prioritizing dashboard development. The dashboard was updated seven days a week, except for a few holidays. Throughout the Fall 2020 semester, it was reviewed by the Senior Vice President for Research every day before being posted, 7 days a week. Early in the Spring 2021 semester, the team transitioned to a fully automated version of the dashboard and the core team continued to perform daily manual quality control checks.

This project was unusually urgent and visible. It could not have succeeded without the team of dedicated professionals who were devoted to sharing data with the campus community. The long evening and weekend hours were possible due to the team’s commitment to producing quality work and supporting each other’s efforts. The importance of the team’s “can do” attitude would be difficult to overstate.

**IMPLICATIONS FOR DATA ANALYTICS DEVELOPMENT IN HIGHER EDUCATION**

The success of OSU’s public COVID-19 dashboard development process reinforces that the key arguments in the Joint Statement are right on the mark. Senior leadership commitment, building a collaborative team, investing in the right tools and talents, and having a sense of urgency are key enablers for developing data analytics programs on campus. Webber and Zheng (2020) believe that advances in technology, including big data through cloud computing, are challenging the ways in which decisions are made in higher education. Nearly all, if not all, stakeholders desire more data, assuming that it will help them make better decisions.

A strong foundation for data-informed decision-making rests on leaders who support and facilitate organizational programs and procedures that develop and build a community of analytics talents. University leaders have a critical role to play in data-informed decision making; their commitment, support, and willingness to use data to support decision making is among the most critical factors that will ensure the successful implementation of a data-informed decision culture (Webber & Zheng, 2020).
The success of the public COVID dashboard program at OSU is a great example on how senior leadership support makes all the difference.

Another implication from the OSU case study is that data management infrastructure matters. Institutions cannot expect data analytics programs to flourish without providing the needed investment. Institutional leaders must have a keen awareness of their organization’s ability to curate, manage, organize, and transform data and use it as a strategic asset. A centralized or federated data warehouse or data lake is not the necessary condition for supporting and growing advanced analytics capabilities. However, having a robust data management infrastructure like OSU’s RAE will empower and accelerate data and analytics development for urgent or reactionary projects.

Finally, from an organizational culture standpoint, building an analytics community, breaking down data silos, and democratizing data assets are key to the effective use of accurate and timely data to inform decision makers. OSU’s dashboard building experience shows that when different stakeholders have a common goal and are willing to reach out and work together, things will get done faster and better. We must instill an understanding among all campus constituents that data is an organizational asset, not owned by any individuals or organizational units. You may be data stewards or managers, but you have the responsibility of sharing data when it promotes and supports the university’s strategic objectives and operational imperatives. Data’s value is significantly enhanced if it is connected, trusted, and shared. While building a data analytics community may be easier for larger universities with more resources and staff at one campus, it can be a challenge for smaller campuses particularly the one- or two-person IR offices. For colleges and universities with limited resources, an analytics community can be formed by reaching out to the Registrar’s Office, IT data management groups, the admissions office, and student affairs assessment staff. Another way to build community is to liaise with your IR counterparts in the same region—reaching out to form collaborative groups to support each other.

Winston Churchill is credited with the saying, “Never let a good crisis go to waste” (Rhone, 2020). COVID-19, with its destructive force on human health, organizational finance, student learning experiences, and human mobility, presented higher education a crisis that could be used to consider new ways to innovate and change. OSU’s public COVID dashboard and the key success factors behind it point to some of the possibilities of how data and analytics programs can be organized on university campuses. The question is whether university leaders can seize the moment and make major changes to improve the efficiency and effectiveness of their data and analytics operations. Time will tell.

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Eric Mayberry is a director of Data and Analytics at The Ohio State University. Eric started at Ohio State in 2017 to lead the Enterprise Tableau implementation and also serves as a Tableau administrator for the university. In 2018, Eric founded a higher education Tableau Slack channel to connect Tableau administrators and professionals in the higher education space from around the world. At the time of this publication, the Slack channel has over 2,100 participants from 500+ universities across 14 time zones and continues to grow. Eric is a positive influence in the higher education community. He enjoys speaking at conferences and helping others in their data analytics journeys. Recently, Tableau reached out to Eric to serve on their Tableau Higher Education Board as a founding member. Eric loves all things data!

Leanne Stanley is a quantitative psychologist who began working with the Office of Institutional Research and Planning in Autumn 2012. She enjoys collaborating with project stakeholders at Ohio State and from external organizations, primarily focusing on confidential large-scale surveys that link responses to institutional records. She is interested in using data to tell stories through visualization, as well as ethical considerations in data analytics, including accessibility.

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