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Student Insights Report, Fall 2020

The Center for Student Analytics

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ISSUE #2

FALL 2020

STUDENT INSIGHTS REPORT

Prepared by
THE CENTER FOR STUDENT ANALYTICS



SUSTAINING EXCELLENCE IN DATA SCIENCE

FOR THE PAST FOUR YEARS, the staff of the Center for Student Analytics have collaborated with dozens of units across campus to discover data-informed insights about what helps students succeed at Utah State University.

The following pages highlight 20 of the most useful insights that we have come across over the past year, organized across five audiences—students, faculty, staff, university leadership, and parents & prospective students.

As you explore this report, we encourage you to see the student data as a window onto Utah State University itself.

We have discovered that while big data helps us to understand how individual students are performing at our institution, it generally tells us a great deal more about the health of USU as an institution—an Aggie community that works diligently to cultivate opportunities for student learning, discovery, and engagement.

DATA PROTECTION AND VALUE

UTAH STATE UNIVERSITY VALUES PRIVACY

and honors our commitment to excellence by working with student data in an intentional and secure way. As part of these efforts, USU has a transparent privacy policy regarding the ethical use of data collected from the USU community, including procedures that prevent unauthorized access or disclosure of private student data.

Officers of the institution that work closely with student data use a transparent, collaborative approach to safeguard data against being used inappropriately. The controls and procedures utilized by the Center for Student Analytics to create this report align with federal and state laws regarding protection of privacy and also adhere to the highest standards of student data ethics.

If you have questions about the practices and procedures USU employs to protect student data, contact:

CENTER FOR STUDENT ANALYTICS

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analytics@usu.edu

INSIGHTS IN THIS REPORT

STUDENTS PG.5

FACULTY PG.11

LEADERSHIP PG.19

STAFF PG.27

FUTURE AGGIES PG.33



Pages that include this symbol throughout the book include insights that are based on data relevant to our Statewide and Online students.

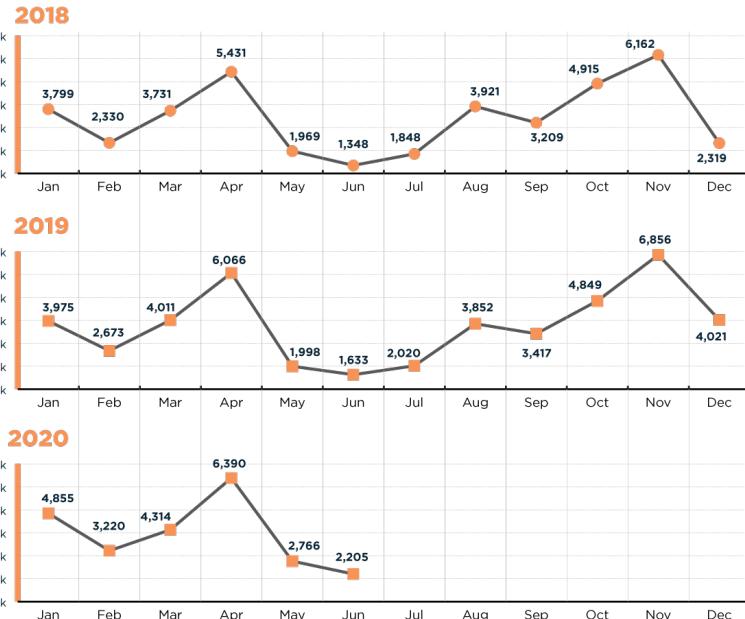


INSIGHTS FOR STUDENTS

1. REMOTE-BASED ADVISING
2. REMOTE-BASED ADVISING STILL WORKS
3. ADVISING EQUITY MATTERS
4. COMPUTER LABS

1 REMOTE-BASED ADVISING

USU Advising Appointments by Month



This chart shows the total count of advising appointments attended by USU students each month over the past three years.

IN THE 2019 STUDENT INSIGHTS REPORT,

we highlighted how meeting with an advisor is one of the most important things a student can do outside the classroom to increase graduation likelihood.

With the move to remote learning, academic advising also migrated to virtual formats. Although virtual advising may seem to create a barrier for student access, we actually saw a dramatic increase in advising appointments.

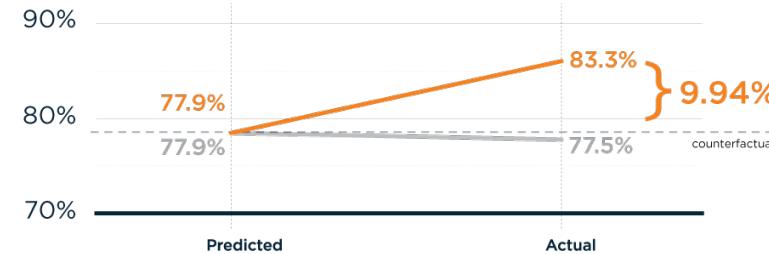
In May, we saw 2,766 total advising appointments—previously, this number had never exceeded 2,000. Despite the global pandemic, advisors continue to provide stellar service to students, using virtual tools that enhance a crucial service.

2 REMOTE-BASED ADVISING STILL WORKS

Persistence Prediction

participants and comparison students

Comparison Participant



Engaging in a remote-based advising appointment with an academic advisor leads to a 9.94% lift in students' likelihood to persist towards graduation.

IN THE MIDST OF A GLOBAL PANDEMIC, a legitimate question is whether students can receive as high quality of an experience in a remote-based setting compared to the in-person experience.

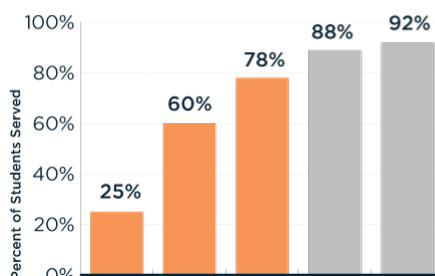
An important question to answer is: Does this service work as well in a remote format compared to the in-person experience?

Recently, we partnered with University Advising to investigate whether remote-based advising appointments remain an effective tool in helping students succeed at USU. Nicely, we discovered

that engaging in a remote-based advising appointment with an academic advisor leads to 9.94% lift in students' likelihood to persist towards graduation, after controlling for baseline variability. While remote learning can create challenges for almost anyone, remote-based advising remains a valuable resource for our students.

3 ADVISING EQUITY MATTERS

Identifying the Equity Gap
Spring 2019



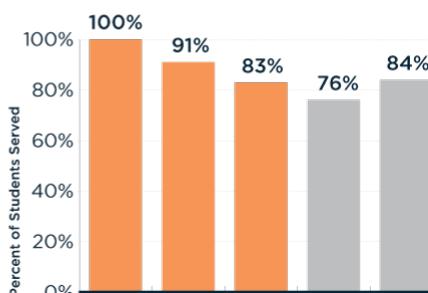
More academically vulnerable students are shown in orange.

OFTENTIMES, STUDENTS WHO ARE FEELING ACADEMICALLY INSECURE because of poorer grades or a lack of interest in their courses are less likely to respond to university emails. Students may also be constrained in ways that make getting to an advising appointment more difficult.

In Spring 2019, the advising team in the College of Education and Human Services (CEHS) noticed that academically vulnerable students (shown in orange) were less likely to utilize advising services than their peers (shown in gray).

Undeterred by these challenges, the CEHS advising team made a concerted effort in Fall 2019 to target outreach to students for whom

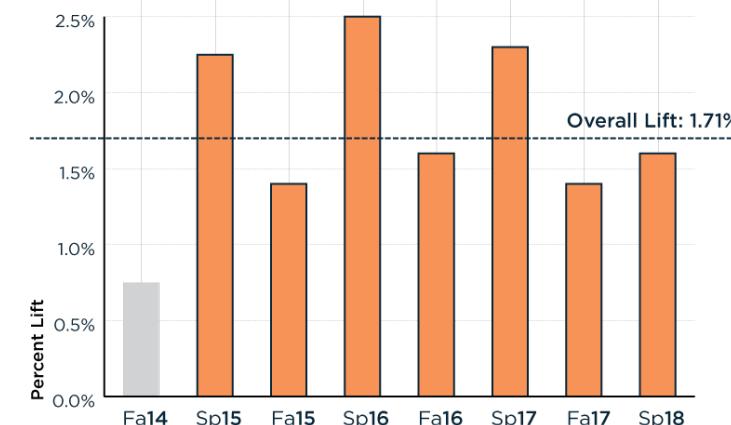
Closing the Equity Gap
Fall 2019



4 COMPUTER LABS GIVE STUDENTS A BOOST

Computer Labs

● Significant increases



Each year, our data science team uses an analysis approach called Prediction-based Propensity Score Matching (PPSM; see page 40) to estimate how student participation in various programs and services leads to a greater likelihood to persist towards graduation.

DID YOU KNOW THAT USING AN ON-CAMPUS COMPUTER LAB actually leads to an 1.71% increase in students' likelihood to remain enrolled at USU?

For reasons we can only guess at, using the on-campus computer labs (especially during Spring semester) seems to boost students' academic engagement. This may be due to the fact that using an on-campus space helps students "settle in" on campus and get the most out of the social vibe of academic productivity that

tends to prevail in the computer labs. While we can only speculate why this effect is occurring, our advice to students is to make the most out of the computer labs for completing homework, working on assignments, and feeling productive amongst peers.



INSIGHTS FOR FACULTY

5. HANDS-ON LAB COURSES
6. FACULTY AND ACADEMIC SERVICES
7. COMMUNITY-ENGAGED LEARNING
8. GRADING RUBRICS



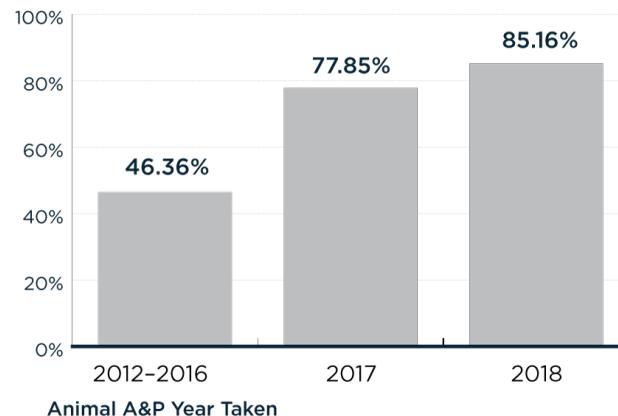
THE POWER OF ANALYTICS

PARTNERING WITH FACULTY MEMBERS IS A KEY ASPECT OF THE WORK that the Center for Student Analytics accomplishes each year.

In collaboration with Empowering Teaching Excellence, we occasionally help faculty members to determine if specific approaches to curriculum and instruction have helped them be more or less successful in their courses. These Scholarship of Teaching and Learning (SoTL)

projects have included a partnership with Dr. Karl Hoopes from Animal, Dairy, and Veterinary Sciences and a partnership with Dr. Jennifer Grawe from the Psychology department. These two projects are highlighted on the following pages as Insight #5 and Insight #6.

5 HANDS-ON LAB COURSES MAKE A DIFFERENCE



This chart shows the percent of students with a grade in an outcome course that was greater than or equal to their grade in Animal A&P.

IN SPRING 2017, DR. KARL HOOPES decided to make some significant changes to a science lab—Animal A&P—a course that introduces students to foundational knowledge that will help them to be successful in later courses.

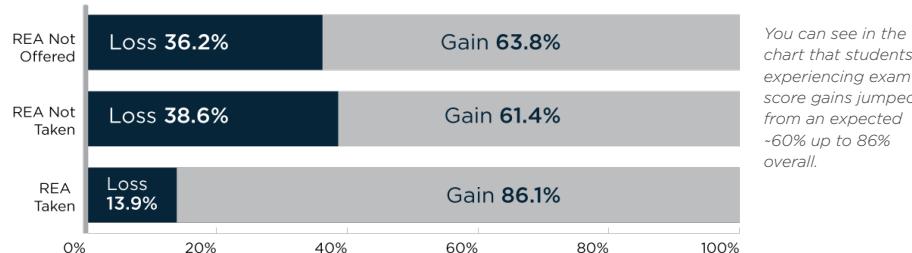
Working with the instructional design team at the **Center for Innovative Design and Instruction**, Dr. Hoopes worked to make the lab more practical by incorporating animal cadavers, tightening up the learning outcomes, and providing expanded training to the course teaching assistants (TAs).

After a few years of running the new lab, Dr. Hoopes partnered with the Center for Student Analytics to

look at students' grades in outcome courses (those that required Animal A&P as a prerequisite). We discovered a dramatic increase, following the lab changes, in the proportion of students who went on to earn grades in outcome courses that were greater than or equal to their grade in Animal A&P. Overall, this project provides nice evidence that hands-on lab courses go a lot further in preparing students to be successful later in their programs.

6 FACULTY AND ACADEMIC SERVICES

Proportion of Students Experiencing a Gain in Test Scores
After Either Participating in a Reflective Exam Analysis (REA) or Not



You can see in the chart that students experiencing exam score gains jumped from an expected -60% up to 86% overall.

IN FALL 2018, DR. JENN GREWE PARTNERED WITH USU LEARNING SPECIALISTS to pilot an opportunity for students who had performed poorly on psychology exams in her class.

Students could elect to work with a learning specialist to evaluate their exam performance and strategically approach subsequent exams.

The goal of this Reflective Exam Analysis (REA), designed by learning specialist Dennis Kohler, was to facilitate improvement on subsequent test scores. After several years, Dr. Grewe partnered with the Center for Student Analytics to determine if the intervention was having any effect.

Comparing exam score gains/losses of students who participated to

those who did not (and to those who had taken the course before the intervention was offered), we found a significant difference in the number of students posting higher exam scores after participating in the intervention. This finding not only highlights the importance of students learning effective study strategies, but also shows the importance of faculty partnering with student services to build excellent student experiences. Dr. Grewe is now working on a model that would scale up similar services to other General Education courses at USU.

7 COMMUNITY-ENGAGED LEARNING



The Carnegie Foundation for the Advancement of Teaching recently recognized Utah State University with the Carnegie Community Engagement Classification.

THE CENTER FOR COMMUNITY ENGAGEMENT partners with faculty to build community-engaged service learning opportunities into their courses. While these services are available across all types of courses, community-engaged learning is most prevalent in upper division courses.

In partnership with the Center for Community Engagement, and using Prediction-based Propensity Score Matching (PPSM; see page 40), we discovered that students who took an upper division community-engaged learning course significantly increased their likelihood to persist towards graduation—an average 2.04% lift. While this number may seem small, it represents an

estimated 35 students each year who persist when they otherwise would be expected to leave USU.

Doing service is about more than checking a box for a class assignment. The positive impact of these experiences contributes meaningfully to students' ability to remain enrolled and work towards graduation.

8 GRADING RUBRICS



WE KNOW FROM LEARNING SCIENCE

LITERATURE that students who complete an assignment using a rubric tend to score significantly higher, on average, than students who do not.

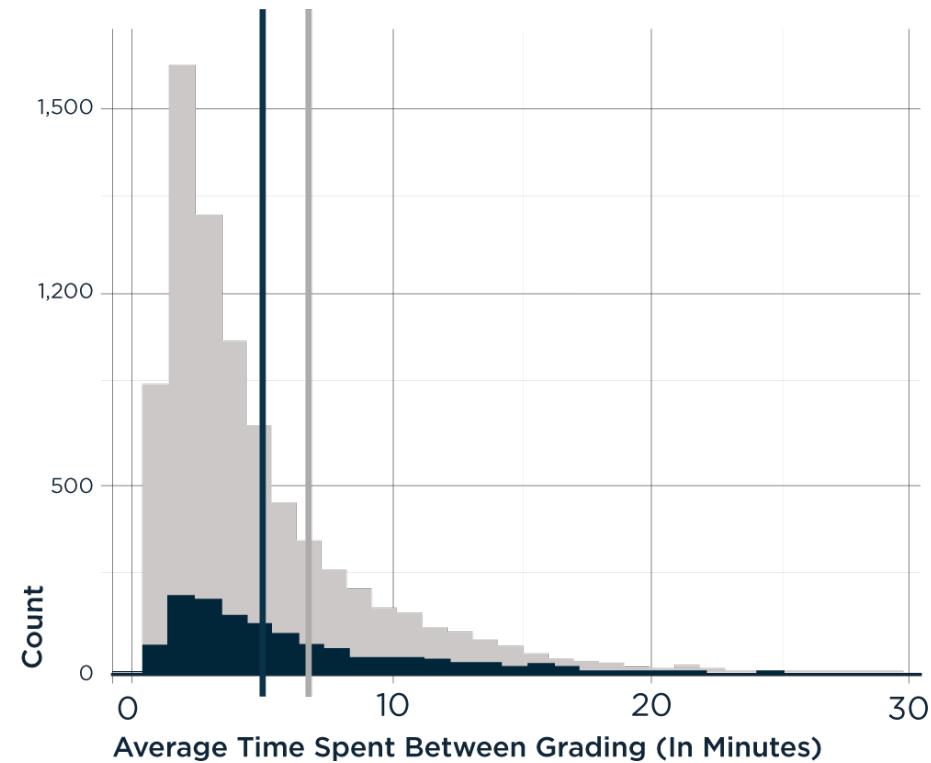
While there are instances in which grading rubrics can be inappropriate, in general, CIDI's instructional design team recommends their incorporation into a course's grading structure.

Using new learning analytics, our data science team uncovered a hidden byproduct of using rubrics. For more complicated assignments

that took from 1 to 30 minutes to grade, the use of rubrics was associated with saving an average of 1.5 minutes per entered grade. In other words, if a faculty member were to use a rubric for a final project submitted by 50 students, they would likely shave 75 minutes off their time grading. While not the primary goal of using grading rubrics, this is still impressive!

Rubrics and Time Spent Grading (1-30 Minutes)

- Non-Rubric Grade Time Average: **6.5 minutes**
- Rubric Grade Time Average: **5 minutes**



A new insight that has emerged from our Learning Analytics initiative is that faculty use of grading rubrics actually saves them time during the grading process.



INSIGHTS FOR UNIVERSITY LEADERSHIP

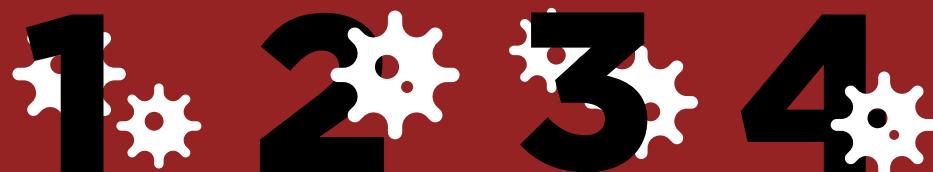
9. COVID-19 - STUDENT VOICES
10. USU LIBRARY
11. CURRICULAR ANALYTICS
12. THE CHALLENGES OF BEING A PWI

9 COVID-19 STUDENT VOICES

WANTING TO CONTRIBUTE TO A MORE COMPREHENSIVE VIEW

of how students were coping with the move to remote teaching, the Center for Student Analytics conducted dozens of student focus groups throughout April, May and June.

The insights gleaned from these in-person interviews were synthesized with insights from nearly 50 pages of qualitative feedback that students provided in a series of institution-wide online surveys. Overall, student concerns centered on the following four themes, each of which is accompanied by a student perspective:



CONCERN ABOUT TUITION & FEES AND FUTURE ENROLLMENT:

"As I think about going into next semester, with the possibility that this will all still be going on, I know that having a positive experience now will help me to know that I'm going to be fine in the future."

APPRECIATION FOR PRESIDENT NOELLE COCKETT AND CENTRAL LEADERSHIP:

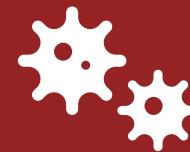
"The emails sent out have been really consistent. And, even though things are difficult, I have found I'm a lot more self-motivated than I realized."

BOTH POSITIVE AND NEGATIVE IMPRESSIONS ABOUT REMOTE LEARNING:

"The effect of social distancing has been to amplify faculty preparedness or lack of preparedness—both the good and the bad."

AN AWARENESS OF THE NEED FOR CONTINUED FACULTY DEVELOPMENT IN REMOTE TEACHING STRATEGIES:

"A lot of the approaches faculty have used before have been tested. But what they are doing right now is like an experiment."



WHEN STUDENTS WERE ASKED TO EXPRESS their hopes for what a great remote learning experience would look like this coming semester, their advice for faculty was organized around the following ten themes:

1 Students said that receiving Canvas announcements (not more than once-a-week) really helped them stay on track with the material and course expectations.

2 When it comes to recorded lectures, students expressed that it really helps them when faculty chunk the videos down to 20 minute sections. They also expressed appreciation when assignment instructions were chunked out into a separate video, rather than being buried in the middle or at the end of a longer lecture video.

3 Students said that they really missed interacting with their peers right before and right after in-person classes. Many said they didn't realize how much they counted on that interaction for their social well-being. They hoped that faculty would find ways to incorporate more opportunities for students to get together in virtual spaces, even if only for structured study sessions.

4 In the institution-wide surveys that went out, both students and faculty complained about the quality of online discussions, saying that they felt forced, inauthentic, and like busywork. To address these concerns, we partnered with Associate Professor Matthew LaPlante

from Journalism—who has received rave reviews from his students for providing high-quality online discussions in his classes—to record a webinar about that very topic (see page 39).

5 Students explained that when their Canvas courses are built using the "Design Tools" modules, their experience with the course is a lot more positive. Faculty who are unfamiliar with these tools that help organize their Canvas-based course content can reach out to instructional designers at CIDI to learn more.

6 Students spoke about their appreciation for faculty who set clear expectations for how assignments are to be completed. Many mentioned how thankful they are when faculty use clearly written assignment rubrics, an insight discussed in greater detail on page 16 of this report.

7 Students repeatedly mentioned how appreciative they were when faculty were understanding about the distress remote learning caused for students. Many faculty offered students retakes, where appropriate, as well as late policy leniency in light of extenuating circumstances related to the move to remote teaching.

8 Recognizing the negative impacts that remote learning can have on student well-being, many faculty offered their students advice on how to set up an effective remote learning space, free from distractions and well-stocked with snacks. Students appreciated when faculty connected about the global crisis in informal ways, such as by spending a minute or two introducing their cat or showing the nice view out their window.

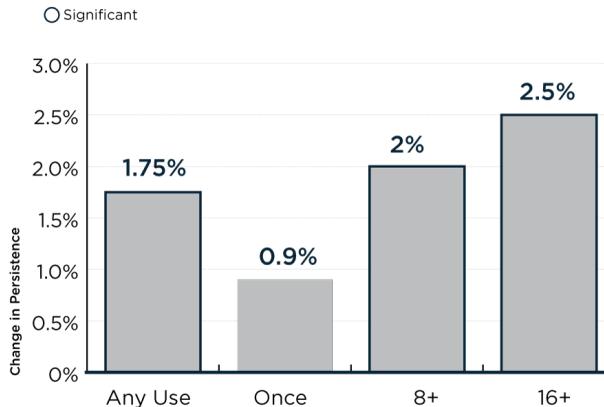
9 One student remarked that remote learning "feels like a heavier load, because you're alone--and it really is a lot more work!" Students in all focus groups emphasized how appreciative they were of faculty who understood how to appropriately balance the student workload, including by eliminating busywork where possible.

10 Finally, students mentioned that they would have liked more opportunities to connect with their faculty members, despite the limitations of remote learning. One idea that seemed popular with both students and faculty was the idea of required mini-meetings—like virtual office hours, but a lot more focused and brief.

Overall, students expressed their awareness that a great remote learning experience is not just a checklist for students to follow.

10 USU LIBRARY

Change in Persistence by Library Usage



Our recent analysis shows that student use of the library is meaningfully associated with increases in student persistence towards graduation.

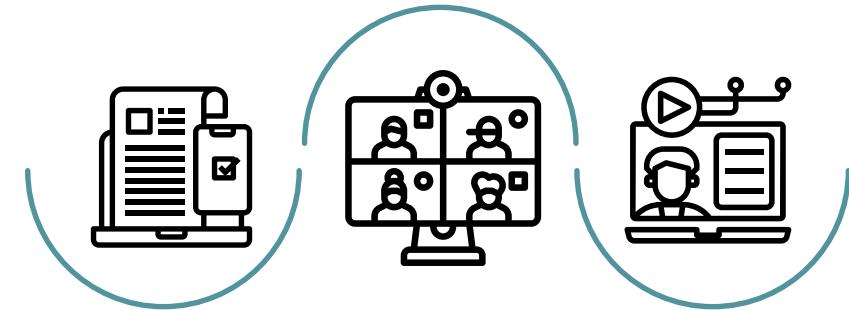
TRADITIONALLY, A WELL-STOCKED UNIVERSITY LIBRARY has served as a hub for students' academic lives.

Whether hitting the books with a study group or doing research in the stacks, students often spend hours benefitting from the beautiful natural lighting offered by the Merrill-Cazier Library. Numerous online and remotely accessible resources, like ebooks and "chat with a librarian," are also a key aspect to the library's offerings.

With the digital transformation of the 21st century, the library has worked to supply digital resources, tangible materials, and spaces that

accommodate modern learning. Overall, our recent evaluation revealed that regular use of library resources (both digital and tangible) are associated with an increase in persistence towards graduation, after controlling for baseline variability. As shown in the graph, you have to visit the library more than once a semester to see the effect, but we see an average of 2% increase in student persistence as a result of students using the library at least every other week (8+ times) during a semester.

11 CURRICULAR ANALYTICS



A NEW TREND IN THE WORLD OF HIGHER EDUCATION IS USING ANALYTICS TO EVALUATE how complex a degree program is for students to complete. Lots of prerequisites and long course sequences can clutter a program in a way that frustrates students' progress to graduation, resulting in lower completion rates.

At USU, degree complexity scores range between a low of 39 and a high of 379, with an average of 116. Programs with complexity scores in the hundreds tend to be more rigorous as a result of requiring heavily sequenced content, with advanced courses that require students to have a lot of foundational knowledge.

We see an important relationship between the complexity of a degree program and how likely students

are to graduate in those programs. Looking at a multi-institution dataset, we see a 1% drop in graduation rates for every 17 points of curriculum complexity in the average major.

Recognizing the importance of reducing curriculum complexity, where appropriate, the Provost sponsored an institution-wide training on this work. Long-term goals are to reduce unnecessarily complex curriculum paths and ultimately increase student completion rates.

12 ACCEPTING THE CHALLENGES OF BEING A PREDOMINANTLY WHITE INSTITUTION (PWI)

PREDOMINANTLY WHITE INSTITUTION (PWI) is a term used in higher education to indicate when white individuals make up at least 50% of an institution's student population.

This term helps researchers communicate about the common challenges that PWIs face in serving students in an equitable manner, especially issues that emerge from having a racial majority.

The student body of Utah State University is composed of students of many races and ethnicities, but 82% of our student body is white. This creates both inherent challenges that we all must work to overcome as well as opportunities that we must live up to.

As recently shared by President Cockett in the midst of the national protests and unrest that followed the tragic death of George Floyd, "These are the times for our Aggie Family to join together and reflect about our commitment to USU's Principles of Community – our institutional Aggie pledge to diversity, human dignity and social responsibility."

NEW INSIGHTS...

As the use of technology has expanded in higher education, we are able to benefit from more consistent metrics about the way we serve our students. For example, prior to 2017, the way academic advisors tracked appointments with students varied at USU from college to college and from campus to campus. As analytics for advisor appointment tracking became available, a disturbing pattern emerged in the data that revealed a previously unseen equity gap:

In any given semester, roughly 40% of all USU students meet with an academic advisor. However, only 27% of racially diverse students avail themselves of the same service, despite evidence that advising positively impacts students from all backgrounds.

WHY MIGHT THIS BE HAPPENING?

Decades of research have shown that being a student of color at a PWI can be challenging. Not all racially diverse students feel as welcome to rely on the support of advisors who may not look like them and so who may not completely understand all of the issues they are facing as a college student.

For example, all students face what has been called situation-dependent struggles--when a problem arises that is the result of just being a college student. Almost any advisor or mentor is well-positioned to offer students advice about resolving situation-dependent struggles. However, students of color and other historically/contemporaneously marginalized student populations often also face identity-dependent struggles. These concerns are wrapped up in systemic barriers related to their race, ethnicity, first language, sexual identity, and more (Molen, 2020).

Oftentimes, identity-dependent struggles are not obvious to less or non-marginalized professionals, who may have never experienced personal discrimination or the related consequences. This lack of awareness could mean that advisors or mentors do not ask questions about identity-dependent struggles when they are working with marginalized students, which likely prevents these students from getting support that

acknowledges the systemic barriers they encounter. Identity-dependent struggles often become mixed with situation-dependent struggles, making the conversation and support that is needed by diverse students even more complex.

Students of color at USU have repeatedly expressed how appreciative they are to have members of the staff to rely on who have experienced the same identity-dependent struggles these students face on a daily basis. Only 26% of USU employees identify as individuals of color. A lack of access to these professionals is not an insurmountable barrier to increasing the services provided to racially diverse students, but it is an important element of the challenges we face as a PWI.

WHAT ARE WE DOING TO IMPROVE THE SITUATION IN ADVISING?

With the benefit of these newly available analytics, the University Advising office recently partnered with the Inclusion Center to provide academic advisors across campus with expanded training specific to issues faced by racially diverse students. Topics included implicit bias, anti-racism, relationship building, and fostering trust.

Molen, J. (2020). Gender imperialism and non-binary gender identities in career services. Session presented at the 45th annual conference of the Association for the Study of Higher Education (ASHE).

A photograph of a woman with blonde hair, wearing a black face mask and a white polo shirt with the Utah State University logo on the chest. She is sitting on a white bench outdoors, gesturing with her right hand. The background shows a sunny day with green trees and a path.

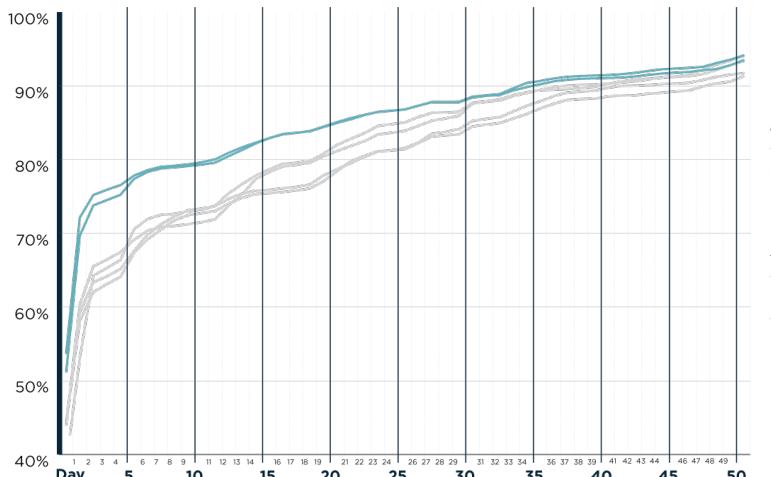
INSIGHTS FOR UNIVERSITY STAFF

13. ON-TIME REGISTRATION MATTERS
14. WHY STUDENTS WAIT TO REGISTER
15. DEGREEWORKS
16. REPEATING A COURSE

13 ON-TIME REGISTRATION MATTERS

Percentage of USU Students Registered by Day of Open Registration

| | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|
| 2019 | 2018 | 2017 | 2016 | 2015 | 2014 |
| 54% Day 1 | 51% Day 1 | 44% Day 1 | 38% Day 1 | 38% Day 1 | 44% Day 1 |
| 93% Day 50 | 94% Day 50 | 93% Day 50 | 94% Day 50 | 94% Day 50 | 91% Day 50 |



This chart shows trend lines for the percentage of the student body that has registered during each day of the registration cycle. In 2018 and 2019, the trend lines shifted to much earlier enrollment, showing that our work to help students register on-time has paid off.

IN JULY 2017, NEW ANALYTICS REVEALED that students who wait to register for courses are at much greater risk for not persisting towards graduation.

Students who register within the first weeks of registration opening tend to fare much better. Armed with that insight, the enrollment management team began a campaign to encourage on-time registration.

We saw a dramatic increase in on-time registrations for Spring 2018,

with a 16% increase in participation during the first week (higher than ever before). On-time registration helps students commit to their studies, gives them a better selection of courses, and makes them plan ahead. They also have the added benefit of partnering with an academic advisor to make that plan happen.

14 WHY STUDENTS WAIT TO REGISTER

REASON NO. 1

I DIDN'T KNOW THE REGISTRATION DATES AND/OR PROCRASTINATED.

REASON NO. 2

I HAVEN'T YET MET WITH MY ACADEMIC ADVISOR.

REASON NO. 3

I AM UNCERTAIN ABOUT FUNDING MY EDUCATION AND WANTED TO WAIT.

EACH SUMMER, THE OFFICE OF STUDENT RETENTION AND COMPLETION employs a student team of Outreach Specialists to communicate with other students about their needs, answer questions, and learn more from students about what can help them be successful.

Each summer, these Outreach Specialists ask students about barriers they face to registering on time. The three identified insights are incredibly valuable and all are easy to address.

First, university staff need to consistently remind students of registration dates and the importance of on-time registration. Students who miss the deadline are likely trending toward less student engagement in academics and campus life. Procrastination and overlooking registration dates are early-warning signals that a student is at risk of attrition. Timely outreach to reinvigorate their goals

is a useful strategy to support student persistence.

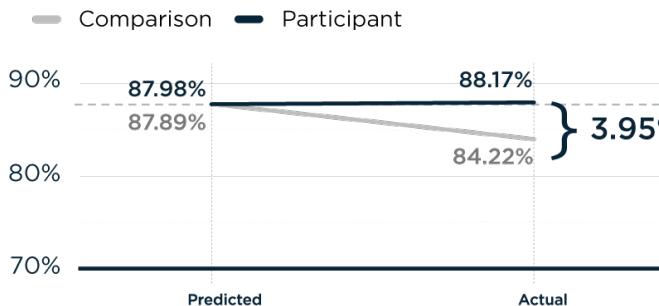
Second, since academic advising is one of the most important services students can participate in, university staff need to highlight its value.

Third, since many students don't know that tuition is not due at the time of registration, staff can encourage students to register now and pay later. Students can then be referred to USU's new Student Money Management Center to learn budgeting principles, as well as to the Financial Aid and Scholarship offices for strategies to help them finance their education.

15 DEGREEWORKS

DegreeWorks Persistence Prediction

participants and comparison students



Our recent analysis shows that having a DegreeWorks plan in place can be an essential resource for first-generation college students.

WHILE ALL STUDENTS BENEFIT FROM HAVING A DEGREEWORKS PLAN IN PLACE, the degree planning process is particularly valuable for first-generation college students.

Each semester, we use an analysis approach called Prediction-based Propensity Score Matching (PPSM; see page 40) to estimate the impact of specific resources on students' likelihood to remain enrolled.

When we examined the impact of degree planning on first-generation students, we found a unique pattern in the data. Rather than a DegreeWorks plan increasing their

persistence rates, we learned that not having a DegreeWorks plan in place was leading to a decreased persistence rate. In other words, having a DegreeWorks plan provides first-generation students with a clear strategy/path for their studies that helps keep them engaged. Without this resource, there is a 3.95% drop in their likelihood to persist toward graduation, simply because they do not have a plan in place.

16 REPEATING A COURSE

WORKING IN PARTNERSHIP WITH THE REGISTRAR'S OFFICE, the Center for Student Analytics recently conducted an interesting analysis of which courses students have to repeat after earning unsatisfactory grades.

While our students have had to repeat a course for a second time roughly 20,000 times over the past three years, that number dramatically reduces for the students who have to take a course for a third time. The overall count of third attempts since Spring 2017 is 2,336, which works out to roughly 259 each term (if you count summers). Interestingly, students taking a course for a third time is concentrated in only 22 courses across campus, as shown in the table.

Because repeating a course more than once can create significant obstacles to successful completion of a program, we strongly encourage students to meet with their advisors should they find themselves needing to take a course more than two times.

Courses Taken a Third Time Since 2017

While there are many courses that students must attempt for a second time, there are only a couple dozen that students tend to take at least three times.

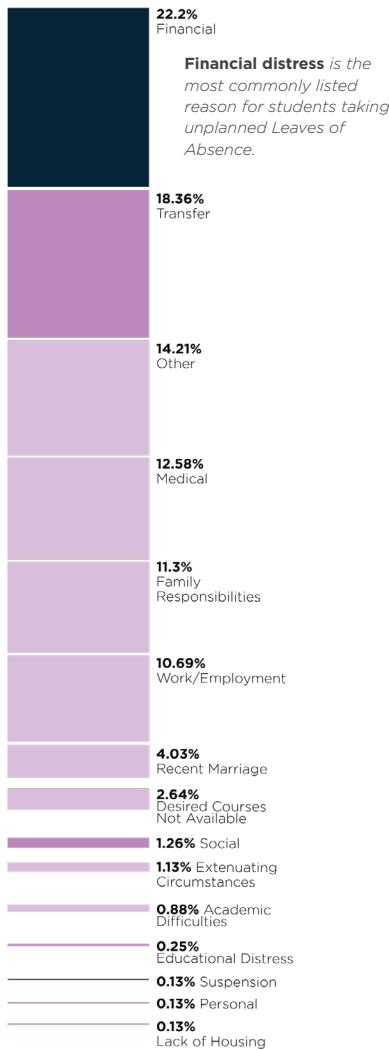
| COURSE | N |
|-----------|-----|
| MATH 1050 | 303 |
| MATH 1010 | 129 |
| MATH 0995 | 126 |
| ENGL 1010 | 113 |
| BIOL 2320 | 107 |
| MATH 1060 | 97 |
| PSY 1010 | 94 |
| MATH 1210 | 84 |
| MATH 1220 | 78 |
| ENGL 2010 | 73 |
| ACCT 2010 | 69 |
| BIOL 1010 | 58 |
| CHEM 1210 | 58 |
| ECN 1500 | 47 |
| CHEM 1010 | 43 |
| ACCT 2020 | 43 |
| BIOL 2420 | 41 |
| CHEM 1110 | 39 |
| STAT 1040 | 36 |
| CHEM 1220 | 33 |
| BIOL 1620 | 32 |
| MATH 0950 | 30 |

INSIGHTS FOR PROSPECTIVE STUDENTS AND PARENTS

- 17. REASONS STUDENTS TAKE A BREAK
- 18. THE SNAC
- 19. CHANGING YOUR MAJOR
- 20. THE AGGIE PASSPORT EXPERIENCE

17 REASONS STUDENTS TAKE A BREAK

Unplanned Leaves of Absence Reasons Cited



EACH YEAR, WE HAVE THOUSANDS OF STUDENTS TAKE A LEAVE OF ABSENCE (LOA).

Some LOAs are planned ahead, like for serving a religious mission or in the military, or taking a humanitarian service trip.

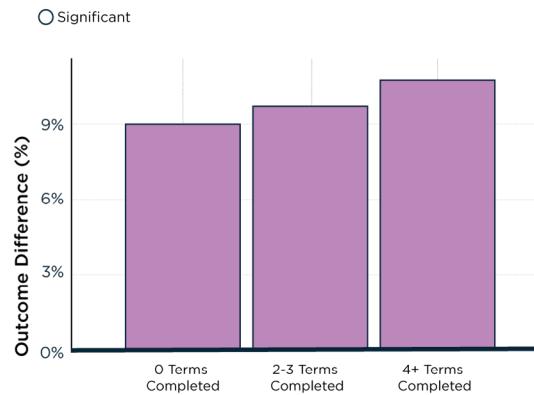
However, there are many unplanned reasons that students leave, such as a medical crisis or academic difficulties.

We want parents and prospective students to know about these reasons because many of these LOAs are avoidable through preventative planning. For example, financial distress is the most common reason for students taking unplanned LOAs. In Fall 2019, this accounted for a full 22% of students taking an unplanned LOA—or 177 students! As a result, USU has expanded retention scholarships to help students remain enrolled when they would otherwise leave.

We want students and their families to know we have many resources, such as the new Student Money Management Center, to help them plan ahead and avoid these departures from school. Often, unplanned breaks come with significant opportunity costs, not in the least because roughly only 30% of those who leave for unplanned reasons return within six years.

18 THE STUDENT NUTRITION ACCESS CENTER (SNAC)

Change in Persistence by Number of Completed Terms



NATIONAL STUDIES HAVE FOUND THAT AS MUCH AS A THIRD OF COLLEGE STUDENT POPULATIONS EXPERIENCE FOOD INSECURITY, hunger, and even homelessness. Realizing these serious challenges faced by everyday students, the Val R. Christensen Service Center has for years offered students a well-stocked food pantry to help fill this gap, called the SNAC (Student Nutrition Access Center).

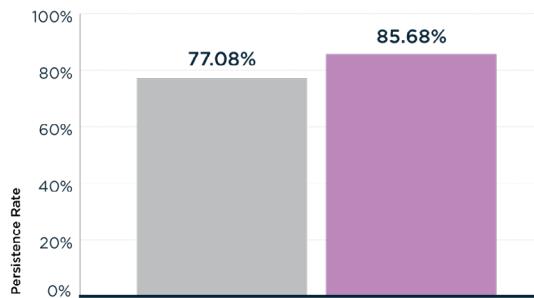
As with our evaluation of other student services on campus, we recently partnered with the SNAC to determine if use of their services was associated with an increase in student persistence. Nicely, we found a significant increase in student persistence during terms they used the food services provided by

the SNAC. As you can see in the chart, these effects were pronounced for students who have completed more terms at USU, which indicates that the SNAC helps students closer to graduation remain enrolled when food insecurity may have otherwise caused them to leave their studies.

19 CHANGING YOUR MAJOR

Persistence Rates for Non-exploratory Students with GPA Below 3.0 (Change of Major)

- Staying in the Same Major You Started in
- Changing Your Major at Least Once



For students who skip over the exploratory program and start a major in the colleges, a GPA below a 3.0 may be an indicator that a change of major could help the student be more successful.

STUDENTS OFTEN ENTER UNIVERSITY WITH THE IDEA that declaring a major is so important that it can never be changed.

However, there are some important indicators that a student may need to consider changing their major in order to have a greater likelihood of graduating.

Specifically, we know from our analytics and from other research in higher education that consistently earning lower-than-average grades in a program can be an indication of a lack of interest in the selected major, rather than a lack of academic capacity.

In fact, including those students who started at USU with a declared major

(not in the exploratory program), we see a meaningful association between staying in the same major with a GPA below 3.0 and a decreased likelihood to persist towards graduation. In contrast, students with a GPA below 3.0 who have changed their major at least once are significantly more likely to persist towards graduation. While we do not encourage students to change their major often or without consulting their academic advisor, we know that lower grades can be a sign that a major-change conversation with an advisor may be advantageous.

20 THE AGGIE PASSPORT EXPERIENCE



EACH YEAR, USU OFFERS INCOMING STUDENTS A VARIETY OF OPPORTUNITIES TO ENGAGE with their peers in social, co-curricular, and extra-curricular events.

For those who choose to participate, the Aggie Passport Experience incentivizes this participation by keeping a count of when students use their ID cards to "swipe in" at events across campus during the first few weeks of the Fall semester.

On average, students swipe in at about three of these events, but students who can attend at least 10 events get \$20 added to their

Aggie Express meal card, which can be used at various dining locations around campus.

Interestingly, we have found that attending at least three Aggie Passport sponsored events results in a 6.0% increase in student persistence. This is equivalent to roughly 34 students persisting to the next semester who were otherwise expected to leave USU after their first semester.

REMOTE TEACHING & LEARNING ANALYTICS WEB SERIES

WITH THE WIDESPREAD MOVE TO REMOTE TEACHING, the Center for Student Analytics partnered with the Office of Empowering Teaching Excellence to offer a virtual webinar series grounded in learning analytics.

Using the latest analysis techniques in combination with the learning sciences, the following sessions were designed to help faculty optimize their courses for remote delivery moving into the following year.

SESSION 1

LOW-EFFORT, HIGH IMPACT TEACHING STRATEGIES FOR REMOTE-BASED LEARNING ENVIRONMENTS IN HIGHER EDUCATION

How are university students experiencing the move to remote learning? And what impressions do they have about their future in higher education? Students shared a number of valuable insights that align with research-based best practices that we believe will help faculty make the most of the recent nationwide move to remote-based teaching.

SESSION 2

POSITIVE FEEDBACK IN REMOTE TEACHING AND LEARNING ENVIRONMENTS

Feedback for students is as important as ever, with face-to-face interactions temporarily being absent from the education experience. Using analytics and machine learning techniques, we've developed valuable insights as to what effects feedback and its tonality has on students.

SESSION 3

RIGOR & RELIEF IN REMOTE LEARNING ENVIRONMENTS

How can we provide manageable rigor for my students in remote-based learning environments?

During a series of focus groups in late March, students shared a number of valuable insights that align with research-based best practices that we believe will help faculty make the most of the recent nationwide move to remote-based teaching.

SESSION 4

PROMPTNESS IN GRADING

In the education experience, students are eager to receive feedback and information about how they are performing. In this session we discuss how impactful prompt grading practices can be for a student in their education experience, as well as additional levels of detail used to paint the grading picture.

SESSION 5

LEVERAGING INSTRUCTIONAL SERVICES TO OPTIMIZE REMOTE TEACHING

What professionals at the institution can faculty rely on to enhance their remote teaching? This is a question addressed by Travis N. Thurston, PhD in this session about services that faculty can rely on to help make their remote teaching experience exceptional.

SESSION 6

STRUCTURE FOR SUCCESS: BUILDING MEANINGFUL ON-LINE DISCUSSIONS WITH THE PIONEER METHOD

Students and faculty alike consistently bemoan the quality of online discussions. In this sixth installment of the "Remote Teaching and Learning Analytics Web Series," Matthew LaPlante introduces a new approach to online discussions that scaffold higher engagement and quality student contributions.

SESSION 7

USING RUBRICS TO OPTIMIZE THE GRADING EXPERIENCE

Want to save time grading student work using a method that also improves student performance? In this webinar, the value of using grading rubrics is explored and newly available analytics reveal the time savings that grading rubrics can produce for faculty.

Access all webinars and additional content at: <https://www.usu.edu/ais/analytics/remotelearning>

METHODS

FACTOR IDENTIFICATION & RISK MODELS

In order to determine which measurable student variables are associated with students' likelihood to remain enrolled and working towards graduation, the Center for Student Analytics incorporates data from the Student Information System (Banner), the Learning Management System (Canvas), and a system that stores student attendance counts for many of our co-curricular and extra-curricular events like football games (Blackboard Transact). Hundreds of variables are leveraged in sophisticated prediction models to forecast how likely our students are to remain enrolled from term to term. As of the creation of this report, these models accurately predict 85.6% of the student outcomes being forecast.

As a side product of making these predictions and checking their accuracy each semester, we discover variables that have a higher association with student well-being and variables that are less associated with the outcomes the university community cares about. By sifting through this information, we uncover an increasingly clear picture of those experiences that closely align with student success and well-being. The bulk of the Student Insights Report is made possible through this risk model and the associated student variables it highlights as being critical to student success.

PPSM

Software called Illume Impact runs a Prediction-based Propensity Score Match (PPSM) between co-curricular participants and non-participants to determine how program participation associates with student retention. Successful programs show a certain percentage "lift" in participants' persistence rates from term-to-term, the basis for many of the insights provided in this report. USU contracts with a third-party analytics vendor, Civitas Learning, which hosts this software to provide us with the ability to analyze the impact of student participation in various co-curricular services and programs.

QUALITATIVE SURVEYS

Some of the insights provided in this report were created using information collected through qualitative surveys. Occasionally, USU will conduct targeted student surveys that solicit feedback regarding students' satisfaction with the university experience. Whenever these data are available, the Center for Student Analytics relies on this expanded view to convey more comprehensive descriptions of the overall student experience.

CANVAS DATA

A critical resource for developing greater understanding of the student experience is learning activity data collected in a Learning Management System (LMS). From years of exploring analytics insights provided to us by Canvas, we have learned that the time and attention faculty devote to creating high-quality digital learning environments for their students really matters. Summary analytics available in every Canvas course help faculty to see how and when individual students are engaging with the digital course content. This online interaction data helps us to understand how the virtual learning environment each faculty member curates can dramatically shape the academic outcomes students are empowered to achieve.

THE STATE OF HIGHER EDUCATION

As with any research enterprise, an important element of working with any data is understanding the context of the data that informs the analysis process. The Student Insights Report synthesizes insights we have gained from USU student data with insights gleaned from student development research literature across the globe. A complete picture of the well-being of our institution is not possible without thoughtful consideration of how our institution performs in comparison to the larger community of higher education. For more insights about how this report aligns with national trends, please reach out to any of our team members for a more in-depth conversation.

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