STUDENT
SUCCESS IS
ABOUT PEOPLE

FEATURING
CIVITAS LEARNING
PARTNER INSTITUTIONS

LEARNING
BRIEF

Gerald F. Napoles, President, LSC-North Harris

FUTURE-READY LEADERSHIP

FULLY-INTEGRATED STUDENT SUCCESS PLATFORM

LONE STAR COMMUNITY COLLEGE

By The Numbers

6
CAMPUSES

- *LSC-CyFair*
- *LSC-Kingwood*
- *LSC-Montgomery*
- *LSC-North Harris*
- *LSC-Tomball*
- *LSC-University Park*

1973
YEAR ESTABLISHED

13,000+
HIGH SCHOOL STUDENTS TAKE DUAL CREDIT COURSES

85,000+
STUDENTS ENROLLED EACH YEAR

ADDS $3.1 BILLION
TO HOUSTON'S ECONOMY WITH HIGHER STUDENT INCOMES & INCREASED BUSINESS PRODUCTIVITY

A FUTURE-READY COLLEGE

A Fully-Integrated Student Success Platform

The Lone Star College (LSC) System serves approximately 85,000 students, many part-time, many working adult and a surprisingly large population of very young learners including an expanding high school dual enrollment cohort.

Chancellor Steve Head

Of the six colleges, some have seen explosive growth in enrollment – up to 35% in recent years – while others have seen declines. Though LSC operates as a System, the colleges set their own strategic goals and objectives in order to meet the diverse needs of their specific student populations.

What Chancellor Steve Head needed was a clear view into the current and future state of the institution and the unique students they serve, so that he could empower all of his teams, across all of the campuses, to act with confidence and make the most of their time, energy and resources.

To gain confident understanding of what is really having an impact and where the greatest opportunities for improvement are, he has turned to analytics — predictive and prescriptive analytics. This is leading to deeper learnings as teams across the System listen to the data and take action against it on the front lines in the shared goal to help students reach their career and life aspirations. Chancellor Head partnered with Civitas Learning with a view to power his System with precision analytics via a fully-integrated Student Success Platform.

Listening to the Data

In the last year, Lone Star College rolled out use of Illume® and the Student Insights Engine™, which unifies the System's disparate data to render personalized predictions that are timely, accurate and actionable.

Illume enables LSC to confidently act on precise, nuanced insights about the efficacy of their student success initiatives, and to measure the impact of their actions. This clear-eyed, iterative work is foundational to honing and scaling innovation in student success.

Illume's user-friendly dashboard presents each college with Powerful Predictors for persistence, which vary greatly by campus, given the uniqueness of each of the System's colleges. The work at Civitas Learning has proven time and again that what is predictive of student persistence at one institution can vary greatly from the next.

SIMILARITIES AMONG COLLEGE TOP 10 PREDICTORS

- **On-ground sections attempted in the current term** - #1 predictor at five colleges and #2 at the sixth

- **Degree Program** – in the top 10 at all six, in varying positions

- **Term Season** – appears in the top 10 for all colleges except one

- **Distance from Average in Count of Discrete Days of any LMS activity** – appears in three colleges

- **Transfer of GPA Credits (Cumulative)** – appear in four colleges

Marian Chaney, Associate Vice Chancellor, AIR

DIFFERENCES AMONG COLLEGE PREDICTORS

- **TSI Math Score** – only in the top 10 predictors for one college

- **On-ground GPA (prior term)** – only in the top 10 predictors for one college

- **Online credits attempted** – only in the top 10 predictors for one college

The unique needs and predictors for success within the System's colleges clearly demonstrate that even within one System, there is no "one-size-fits- all" approach to effective interventions.

PREPARING FOR CHANGE AND BUILDING ADOPTION

"Historically, our college is similar to most in that we've focused on descriptive data – reporting on what has happened – so the move to predictive data was a huge game changer," said Marian Chaney, Associate Vice Chancellor, Analytics & Institutional Reporting. "As we went through the data transfer process and stood up Illume, it became evident that we were going to need adoption to be organic. In these kinds of initiatives it's crucial to have the support of the Chancellor and the Chancellor's Cabinet, but adoption can't be pushed from the top, down. It has to be organic."

Her response was to look to the people who had not only been making requests for reports from her office, but also acting upon the findings. "We convened a cross-functional team of about 40 people

who were using the data," Chaney said. Team members included vice presidents, academic deans, directors across student service functions and analysts.

Shortly after establishing the first working group, Michael Chavez joined LSC as VP of Student Success at LSC-Montgomery. "When I learned LSC was a Civitas partner, that was a big selling point to me to join the team at LSC," said Chavez. "I wanted to work for a college that really values data and analytics." In a similar vein, LSC is interested in growing its cadre of leaders who are interested and excited about working with analytics.

THE WORKING DATA TEAM

Chavez quickly got to work at LSC-Montgomery, building on the existing data team by expanding it into a group designed to collect, analyze and take action on data that impact student success. The approach modeled SCRUM methodology (most commonly used in software development) of rapid iteration, shared responsibility and focus on analysis, collaboration and action. Their methodology included collecting data from Illume and other data sources. Across LSC colleges, similar working groups were also bringing together members from across that campus to analyze the findings and insights, collaboratively brainstorm ideas for action, and make recommendations for implementing strategy and outreach.

VP of Student Success Michael Chavez with Civitas Learning Chief Data Scientist David Kil

"We wanted to do good work – quickly," said Chavez. "We came up with agreed upon parameters and priorities. No team could meet more than five times on any given project, so we had to be very prepared and intentional. It allowed us to cover a lot of ground quickly," he said. To build adoption and support for the work the data team was doing, Chaney brought Chavez and other members together to present findings to the Chancellor's Cabinet. Other campus presidents present got interested and advocated for broader adoption of Illume and the use of action analytics at their campuses.

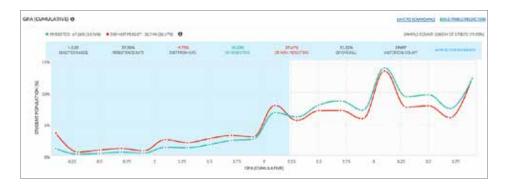## "We wanted to do good work – quickly."

– Michael Chavez, VP of Student Success

In deciding where to focus their efforts, the data team looked to three features in Illume. "We start by selecting a student cohort or target student population," said Chavez. "Then we use the Powerful Predictors to understand historical behavior. From there, we find active students exhibiting that behavior. When we find the segment of students we're interested in, we use Illume's Student Lists feature to identify who is currently in this group so we can reach out immediately with appropriate actions."

As pathways to action, working groups can approach Illume focused on a student segment, or focused on a category of concern and use the following predictors to find insights and opportunity for action.

CATEGORY	POWERFUL PREDICTORS
BACKGROUND *How do demographics and incoming behaviors inform persistence?*	• Transfer credits • Age • Median household income
PROGRESS TOWARD DEGREE (PTD) *Is the student making the right progress towards degree completion?*	• Average credits attempted/term • Terms completed • Degree program alignment
PERFORMANCE *Is the student getting the right grades in the right courses?*	• Cumulative GPA • GPA change • GPA PST
FINANCIAL AID *Is financial hardship impeding progress?*	• Pell grant/credit cumulative • Financial aid/credit cumulative
BEHAVIOR *Are engagement patterns or behavioral factors impeding progress?*	• Days enrolled before section start • LMS engagement

Illume's Powerful Predictors examine a variety of student characteristics from academic and financial areas, to behavioral and demographic traits. LSC has more than 400 Powerful Predictors that are uniquely predictive for the LSC student population. Powerful Predictors are presented in a probability density chart as shown below.

The green line represents students who have historically persisted. The red line indicates those who did not persist. The tipping point, where the lines cross, is the area of greatest opportunity for the data team.

The graph also shows that the persistence rate to the left of the tipping point is 57.3 percent and the persistence rate to the right of the tipping point is 69.6 percent. Taking the difference of both numbers, LSC can calculate that by moving a student from the left of the tipping point to the right of the tipping point has potential to increase their persistence by up to 12.3 percentage points. This calculation helps determine where the most opportunity for impact is, and can inform allocation of scarce resources.

To put this into working context, Chavez wanted to build intervention and outreach campaigns to boost persistence among LSC-Montgomery African-American males. In order to inform outreach, opportunity for impact charts gleaned from Illume's Powerful Predictors allowed them to inform campaigns, outreach and initiatives for the greatest likelihood of impact. "We can go into Illume with a specific student segment in mind and explore the Powerful Predictors for that group," said Chavez. "I often go into Illume as many as five times a day looking for opportunities to improve our impact with key student segments," said Chavez.

USING PREDICTORS TO FIND OPPORTUNITY FOR IMPACT

By exploring opportunity for impact for African-American populations, LSC-Montgomery is diving into persistence predictions around GPA-Cumulative where the opportunity to increase persistence is 20 percentage points. Conversely, for the White population this Predictor holds only about half as much opportunity for impact — just 11 percentage points — and would not be the best use of energy and resources if they are searching for the greatest impact.

"If we know we want to do outreach to a specific student segment we can use Illume to help us understand predictors. If we don't know the segment, we can use it to search for opportunities within a category," said Chavez.

MEASURING IMPACT ON GOALS TO INCREASE FULL-TIME ENROLLMENT

One way Chavez is using Illume is to measure initiatives to increase full-time enrollment. "We knew we wanted to try to move more students from part-time to full-time as part of the College's **Zero to Sixty Initiative**. LSC has seen that students who can take more hours benefit from it in the way of term-to-term persistence and completion. Not all adult learners can accommodate a full-time schedule, which the college acknowledges. "We used Illume to drill into the part-time student filter, then find those with the highest likelihood to persist." The working team wanted to explore the power of positive nudges, and used the Student Lists feature to personalize outreach by sending a personalized email from VP Chavez to each student. In the emails, Chavez explained the benefits of enrolling full-time, and showed how the cost and time to completion could pay off for the students. Advisors also reached out with email nudges to 1,157 students. A statistically significant 2.7 percentage point increase in full-time registration for the non-FTIC part-time students nudged occurred as a result of the campaign. "We've had a strong drive to try to get the students who can do it to enroll full-time," said Chavez. It's paying off for LSC-Montgomery, who had 480 FT students in Fall 2015 and 628 in Fall 2016.

ILLUME FOR POLICY AND PRACTICE CHANGE

The System office is also using Illume to better understand ramifications for policy and practice change. Predictors were put to the test to help inform policy around LSC's Dual Credit Program, where high school students take college courses. Texas Governor Abbott recently signed House Bill 505 into law, removing any limitations on the number of dual credit courses high school students in Texas can take in a given semester or term. This announcement brought the team at Lone Star College to their feet in concern about persistence rates of this first-time-in-college (FTIC) student population.

> ## "Williams' work with Illume uncovered a very powerful insight for Lone Star."
>
> *– Marian Chaney, Associate Vice Chancellor, AIR*

"We have had a long-held belief across the community college network that dual credit students persist best when they take no more than one or two courses at a time," said Chaney. "Our persistence rates for dual credit students as a whole have remained consistent over time. We were very concerned that this bill would cause a surge in enrollments that would not persist." Associate Vice Chancellor, Wendell Williams, spent time working with Illume's powerful predictors and filtering student populations to better understand the persistence and success of dual credit students at Lone Star College – a population that can comprise high school students studying remotely online, on-ground students at Early College High Schools, and home-schoolers. He found the data were in contrast to the long-held assumptions.

"His work with Illume uncovered a very powerful insight for Lone Star," said Chaney. "Our dual credit students actually increase in persistence when they take more than one course." In fact, Williams and Chaney found that students who took one dual credit course per term persisted at 60 percent, those who took two to three courses persisted at 78 percent, and though a smaller population, those who took four or more courses persisted at 86 percent. Today, dual credit students are allowed to take multiple courses and the persistence rates predicted by Illume are holding accurate.

Michael Chavez, VP of Student Success

Bringing Data to the Front Lines

Karen Miner, Director of Student Success Initiatives

This work empowered Chancellor Head's collaborative teams to innovate at scale as they built out successful strategies and replicable models across the colleges.

Next, the chancellor needed to take all of the existing work with data and get something in the hands of advisors, faculty and students. The System moved from insights to broader action on the front lines and rolled out Inspire® for Faculty and Inspire® for Advisors.

LSC's strong commitment to advising has resulted in several strategic decisions that are empowering advisors to help more students, while also providing more personalized outreach to the 85,000 students they serve.

Karen Miner, Director of Student Success Initiatives for the LSC System explains, "In the past few years we've really placed a focus on the importance of advising. We knew it was a key component to many of our initiatives from **Texas Completes** to **Achieving the Dream**, but the challenge is how to get any kind of consistency and measure effectiveness across six very different campuses."

Again using a collaborative model, they formed a system-wide, cross-functional group to explore ways to prioritize advising by student segments.

KEY SEGMENTS TO SCALE OUTREACH ON THE FRONT LINES

"We came up with five key student segments that comprise the majority of our students," said Miner. "It helped focus the work as we introduced these segments into our college's Key Performance Indicators (KPIs). We've identified key pieces of critical information or content to support the success of each of these five student segments. This gives our campuses the ability to ensure each group is getting the right communication, while also allowing for customization in that outreach by each college."

They rolled out Inspire for Advisors, which gives advisors a better view into the key factors of persistence so they can prioritize outreach to at-risk students.

The Civitas Learning team then incorporated the five segments into LSC's instance of Inspire for Advisors as custom filters which allow for quick sorting by advisors.

THE FILTERS ARE SORTED BY:

Time to College

- **BEST** – Best Start students are first time in college (FTIC). They are required to take the freshman experience EDUC 1300 course to ensure a strong start. This filter establishes a workflow that notifies special advisors who are assigned to specific sections and students in the course.

- **FTAC** – These students are first time at LSC but may have previous college experience and are not required to take the EDUC 1300 course.

Credits Earned

- **SXTY** – Students with 60+ credit hours but no degree or certificate.

- **ZERO** – Students who earned zero credits last term as a result of withdrawal, failure or both.

Time to Graduation

- **ALGR** – Students who are within 14 hours of completing a degree or certificate.

Miner explains how the strategic filters help make the case loads manageable and outreach personalized. "We created an action plan for each group or segment. This ensures some consistency among the advising team, but allows for individual flexibility. It's kind of a checklist for each advisor. Let's take the SXTY filter. We sort for that and across the system, any advisor working with students with more than 60+ hours knows they need to convey key pieces of information we've designed to help students plan for the final courses and graduation."

It has allowed workflows for advisors that keep them from being overwhelmed. "As an advisor I can filter on the sixty credits completed (SXTY) and immediately see their likelihood to persist based on multiple factors. I filter again and craft one outreach message that I can send to hundreds of students at once. I've performed an outreach that is appropriate and timely to get these students into the right conversations about degree completion, filing graduation plans, etc.," said Miner.

> "Students are puzzles. It was like trying to put together a puzzle without the photo on the box. Inspire for Advisors is like having the picture on the box."
>
> – Karen Miner, Director of Student Success Initiatives

REACHING ALL STUDENTS

"Advisors want to help as many students as they can," Miner said. "At colleges we spend so much time and energy focused on students in high-risk groups, but this tool also lets advisors stay connected with students who are not high risk – and that's important, too. I recently asked advisors in a training why students leave the institution. They offered up about a dozen reasons. Most of these were not tied to academic performance – they were life issues – so we want to stay connected with all students, all along the way."

She said advisors used to have to resort to intuition, but that's changing with Inspire. "When they came in cold, all the advisors could rely on were past performance and whatever could be revealed in the conversation. Students are puzzles. It was like trying to put together a puzzle without the photo on the box. Inspire for Advisors is like having the picture on the box. You can look and see where the holes are and where pieces fit. It's game changing."

> "In the beginning of Fall, I received an email that said Lone Star was going to help me. I feel a lot closer to the faculty now. If I need something – they will be there for me."
>
> – Amairany Hernandez, LSC student

Amairany Hernandez, LSC student

EMPOWERING FACULTY

"We had faculty teaching online that were in waiting groups to earn their online teaching certification with us," explains Wendi Prater, Vice Chancellor for LSC Online. The training was only offered face-to-face, so Prater created an online course for the credentialing. She also implemented a competency-based education approach allowing faculty to complete the course more quickly if they could prove mastery via assessments. "It allows them to experience being a student online and it also allows us to introduce them to apps we have to support their leadership in the classrooms, including Inspire for Faculty."

Student response to the early use of Inspire for Faculty has been strong. Chaney shared some recent responses from students (shown at right) to the personalized outreach made possible by Inspire for Faculty.

Leading in the Age of Analytics

Thus far, Lone Star College had unified their disparate data sources, established collaborative data teams, integrated the insights they were finding from Illume into actions and strategic planning, driven action on the front lines with action apps and opening up avenues to measure impact in ways previously not possible.

To close the loop on this analytics work, Chancellor Head realized with a system as large and diverse as LSC, he needed to build out a broader set of leaders who understood how to look, learn and lead with analytics to make the most of the opportunities for change, both now and in the future.

> ## "We clearly believe we need future-ready leadership to bring this work forward."
>
> *– Steve Head, Chancellor*

He enrolled Lone Star College as the founding institution in Civitas Learning's Next Generation Leadership Academy to ensure LSC would be future-ready. The Next Generation Leadership Academy (NGLA) is designed as a year-long program that brings 20-30 rising leaders at an institution together to ground them in the issues, innovation and insights of today and prepare them to drive change tomorrow. The participants meet once a month for a full-day session of engaged and interactive learning, and then connect throughout the year online on an NGLA LMS instance.

Leading the charge for NGLA at Lone Star College is LSC-North Harris President Gerald Napoles. "What appealed to me about NGLA is the integration of Civitas Learning resources with our existing leadership programs," said Napoles. "LSC has a lot of professional development opportunities for everyone including the administrative team, faculty and staff. Each college was given the opportunity to send three up-and-coming leaders to NGLA. It's quite an honor to be selected. Now they can learn important leadership skills, and also learn to lead with our institution's data."

The curriculum in the NGLA incorporates actual institutional data and teaches the team how to make strategic decisions and take action from it. "It's wonderful to see this up-and-coming group of leaders making decisions - real decisions - that aren't just hypothetical," said Napoles. "It's different from other leadership programs by integrating the analytics and hands-on-data piece. You can see them debunking long- held assumptions as the data brings them to the truth."

THE CUMULATIVE WIN

Integrating the Student Success Platform helps ensure that Lone Star College is plugged into the innovations that are making a positive difference across all of the colleges in the System. They are using the Student Success Platform to do deep learning about their students' characteristics and behaviors to better understand what impact they are having. This allows them to create and deliver a family of interventions and inspirations to keep students on the path to completion or transfer.

Working NGLA session

More importantly, they are seeing first-hand the intra-institutional diversity. Data has made clear that while the Lone Star College System's data is unique from other community college systems, the colleges that comprise the System each have unique needs which the platform and apps allow them to address with their own students in their own ways.

As they understand more about their college, they can develop their discipline with interventions and innovations to see what's working and what's not. They can then make the best use of their collective skills to bring systemic and scalable change.

"We clearly believe we need future-ready leadership to bring this work forward," said Chancellor Steve Head. "That is why we are investing in the DIAL (Data-Insight-Action-Learning) Working Groups and data teams, and the Next Generation Leadership Academy. But leading without looking and learning is a recipe for disaster. We want our people grounded in data to make the most of the opportunities and innovations of the day. This integrated platform work is the future of higher education, and it's the future of Lone Star College as we continue to help more students succeed."