# ENGINEERING**CAS**™
2020-2021 Cycle Report

We are excited to release the 2020-2021 EngineeringCAS™ Cycle Report which aggregates data for all submitted Centralized Application Service applications during the 2020-2021 admission cycle (**September 9, 2020 through March 31, 2022**). This cycle is specific to applications to **Summer 2021, Fall 2021, Winter 2022 and Spring 2022**. At the close of each cycle, Liaison offers this annual report as a resource to participating schools to assist in trend and recruitment analysis, benchmarking and strategic decision-making.

BROUGHT TO YOU BY **LIAISON**

engineeringcas.org | liaisonedu.com

EngineeringCAS Summary

2020-2021 marked the fourth year of EngineeringCAS. The COVID-19 pandemic posed significant challenges to the graduate engineering education community. Despite this EngineeringCAS continued to expand its reach and experienced important growth from the previous cycle.

PARTICIPATION BY STATE AND TYPE OF INSTITUTION:

Participation in EngineeringCAS grew **20%** from the 2019-2020 cycle, with expansion to **4 additional states***. The CAS continues to service diverse institutions ranging from HBCUs, research institutions, faith-based universities, etc.

Institution Type	Public 56%	Private 44%
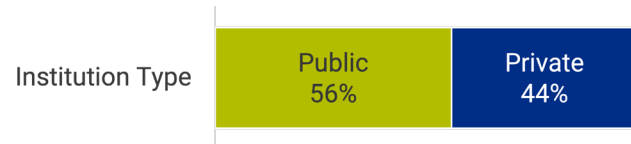
- Alabama
- Arkansas
- California
- Connecticut
- District of Columbia
- Florida
- Georgia
- Illinois
- Indiana
- Massachusetts
- Michigan*
- New Mexico
- Ohio*
- Pennsylvania
- Rhode Island
- South Carolina*
- South Dakota*
- Tennessee
- Texas

PROGRAM FEE COLLECTION:

During the 2020-2021 cycle, the EngineeringCAS application processing fee remained the same as the previous cycle: **$58**. Participating schools could choose to collect an additional program fee, specific to their institution. They could also set alternate fees or automatic fee waivers for specific applicant populations.

There was a 10% decrease in the number of programs that collected their own fees via the CAS. The average program fee collected was also $6 less than the 2019-2020 cycle.
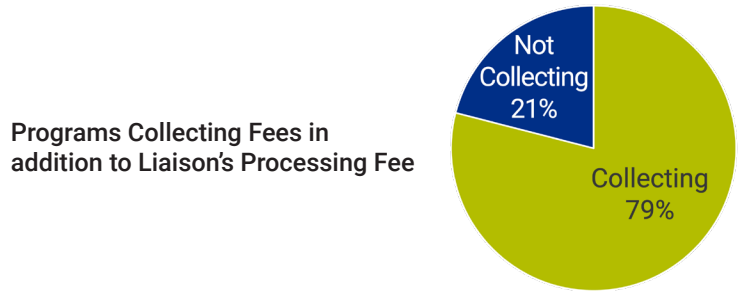
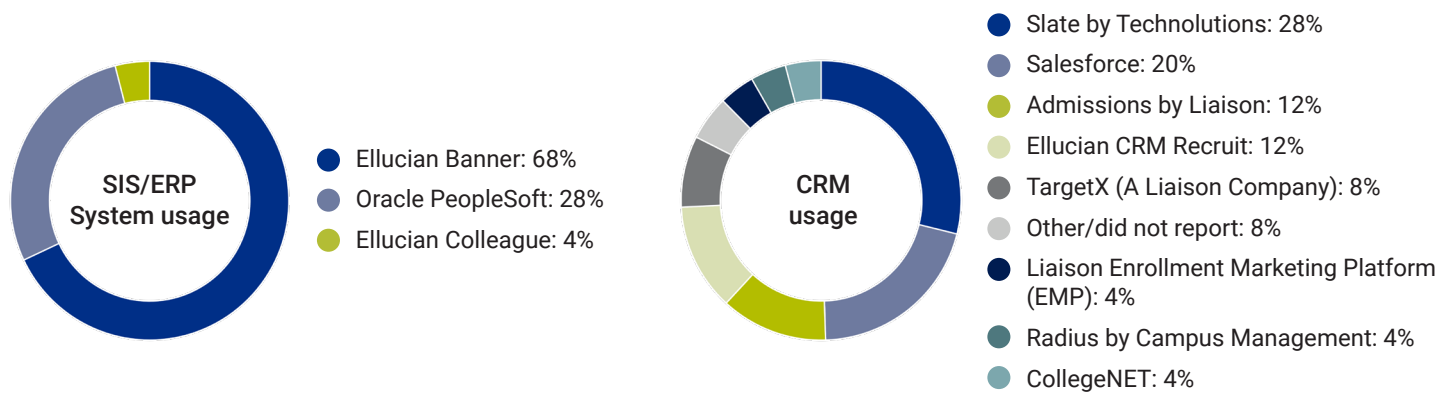**Programs Collecting Fees in addition to Liaison's Processing Fee**

Not Collecting 21%
Collecting 79%

Total fees (*i.e. Liaison processing fee + school program fee*) range from: $69-$148

For those collecting additional program fees the average amount was: $44

Overall, the average application fee paid by applicants (including CAS processing fee and program fee) was: $89

SOFTWARE SYSTEMS:

Participating schools in EngineeringCAS can use one of Liaison's solutions, WebAdMIT™, TargetX™ or Admissions by Liaison™, to manage their admission processes. Alternately, they can export data and documents from the CAS to their local systems to support existing operations. Liaison offers implementation consulting services to users who wish to use Liaison's export tools for data integration. Below is a breakdown of the software systems Liaison supported for EngineeringCAS users in the 2020-2021 cycle:

SIS/ERP System usage

- Ellucian Banner: 68%
- Oracle PeopleSoft: 28%
- Ellucian Colleague: 4%

CRM usage

- Slate by Technolutions: 28%
- Salesforce: 20%
- Admissions by Liaison: 12%
- Ellucian CRM Recruit: 12%
- TargetX (A Liaison Company): 8%
- Other/did not report: 8%
- Liaison Enrollment Marketing Platform (EMP): 4%
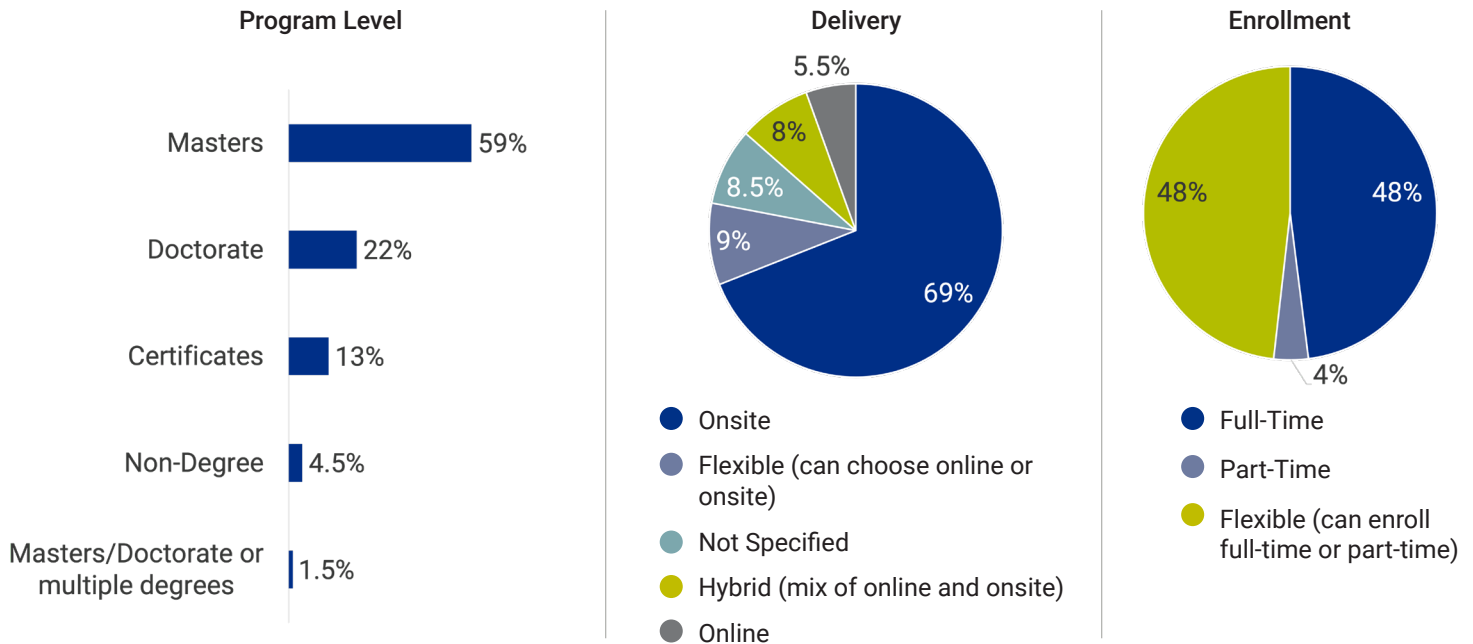- Radius by Campus Management: 4%
- CollegeNET: 4%

Program Summary

Programs that participate in EngineeringCAS reap the benefits of a Centralized Application Service (CAS™) and a community of their peers while maintaining the unique branding and requirements that help them admit and enroll best-fit students.

DESIGNATION DETAILS:

A "designation" refers to how a particular program is listed and can be selected within the CAS. Each designation participating EngineeringCAS schools to specify the program name, fee, track, term, population and method of delivery. Prospective applicants select and submit applications to programs as per these designation listings.

Program Level

- Masters — 59%
- Doctorate — 22%
- Certificates — 13%
- Non-Degree — 4.5%
- Masters/Doctorate or multiple degrees — 1.5%

Delivery

- 69% Onsite
- 9%
- 8.5%
- 8%
- 5.5%

Legend:
- ● Onsite
- ● Flexible (can choose online or onsite)
- ● Not Specified
- ● Hybrid (mix of online and onsite)
- ● Online

Enrollment

- 48% Full-Time
- 4% Part-Time
- 48% Flexible

Legend:
- ● Full-Time
- ● Part-Time
- ● Flexible (can enroll full-time or part-time)

TRANSCRIPTS REQUIREMENTS:

One of the benefits of EngineeringCAS is that participating schools have the flexibility to set their transcript requirements individually. Programs can either require official transcripts or allow applicants to simply upload an unofficial transcript.

As in previous cycles, participating schools leaned heavily on collecting unofficial transcripts as part of the application process and requesting official transcripts further along the application funnel.

- Official Transcripts or Evaluations *(send to Liaison)* — 26%
- Unofficial Transcripts *(applicant uploaded)* — 74%
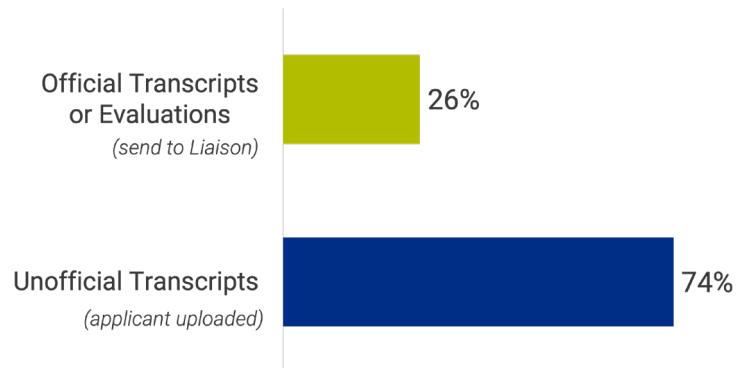
TRANSCRIPT PROCESSING:

For programs requiring official transcripts, Liaison offers all EngineeringCAS programs the service of processing official transcripts, helping programs to streamline transcript management. Reflecting the trend in transcript requirements set by participating programs, EngineeringCAS processed a lower number of official transcripts this cycle. Total number of transcripts Liaison processed for EngineeringCAS for the 2020-2021 cycle:

|	For Submitted Applicants	For In-Progress Applicants
Official US Transcripts	838	128
Unofficial US Transcripts	6,386	1,787
Foreign Evaluations	10,908	3,675

Program Summary (continued)

RECOMMENDATION REQUIREMENTS:

Recommenders can use the Letters by Liaison™ portal to send recommendation letters to programs in EngineeringCAS when it is required. The platform provides recommenders an easy-to-use experience and streamlines the process for both EngineeringCAS users and applicants with notifications and status updates.
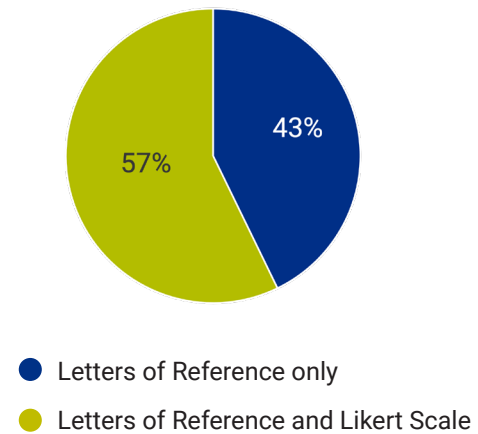
27% of programs in EngineeringCAS did not require recommendation letters or set it to optional in the 2020-2021 cycle, marking a **5% growth** from 2019-2020.
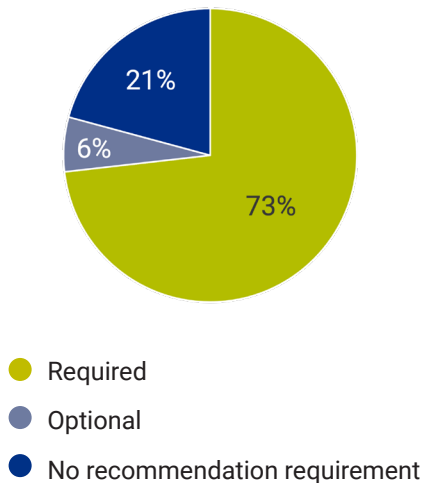
Programs that are set up to collect recommendations via EngineeringCAS can take advantage of the flexibility it offers to select from a variety of recommendation options to meet their admission needs.

Recommendation Requirements:

21%
6%
73%

- Required
- Optional
- No recommendation requirement

Requirements by Recommendation Type:

43%
57%

- Letters of Reference only
- Letters of Reference and Likert Scale

The average number of recommendations (for programs that required recommendations or set it as optional) trended less than the previous year:

⬇ **Minimum recommendations required** **2.29**

⬆ **Maximum recommendations allowed** **3.66**
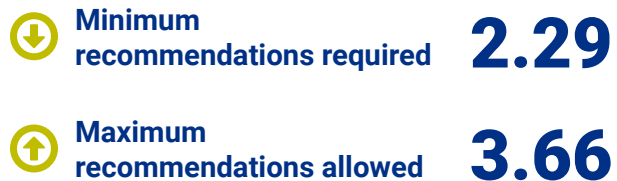
While the number of programs requiring recommendations decreased in 2020-2021, the number of recommendations submitted by applicants and processed by Letters by Liaison grew in 2020-2021. EngineeringCAS received **7,709** more recommendation letters in 2020-2021 than it did in the previous cycle.

	Submitted Applicants
Recommendation letters submitted by Letters by Liaison (Total)	**42,045**
Letters of Reference and Likert Scale	**38,831**
Letters of Reference	**3,214**

Average number of recommendations received per applicant **3**

In addition, we received **3,657** recommendations via Letters by Liaison for applicants who began applications to EngineeringCAS but did not submit.

Applicant Pool Summary

As EngineeringCAS expands its reach, the applicant pool continues to become larger and more diverse. The 2020-2021 cycle saw a **25% increase** in application volume from the previous cycle. Liaison continues to invest in marketing efforts to drive qualified applicants to the CAS, which we expect will continue to be reflected in both the quality and volume of applications.

FIRST GENERATION STATUS:

35% of all submitted applicants identified themselves as **first-generation college students** in the 2020-2021 cycle, a number that held steady from the previous year.

LANGUAGE PROFICIENCY:

69% reported a language other than English as their first language. Of these, **14%** reported **Chinese** as their first language.

MILITARY STATUS:

Nearly **2%** of EngineeringCAS applicants reported that they were either on **active duty, members of Reserve or National Guard**, had served as **veterans** or were **military dependents**.

DEVICE USAGE:

21.17% of all EngineeringCAS applicants, or approximately **1 of every 4 users** used a **mobile device** (as opposed to a desktop) to access the EngineeringCAS applicant portal.

Nearly **75%** of applicants used **Google Chrome** as their browser to apply to EngineeringCAS.

COUNTRY OF CITIZENSHIP:

As with previous cycles, EngineeringCAS received applications from residents of all 50 US states. The international applicant pool grew more diverse, however, with submitted applicants reporting a total of **134 countries** as their citizenship country.

Residency Status:

U.S. citizens or permanent residents 25%
Outside of U.S. 75%
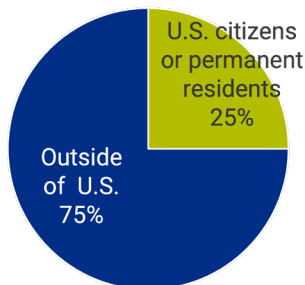
Applicants who indicated that they needed an F-1 or a J-1 visa to study in the US, if admitted:

Yes 78%	No 22%

Top US States of Residency:

Texas	Massachusetts	Florida	Pennsylvania	California

Top Sending Countries for International Students:

India	China	Iran	Nigeria	Bangladesh

ACADEMIC PERFORMANCE:

Although students who attended both US and non-US schools report their credits and GPA, the diversity of grading and credits systems internationally makes it difficult to report averages. The data below reflects academic performance of students who reported their studies at US institutions only.

Average cumulative GPA:	
Undergraduate	3.41
Graduate	3.66

Average number of credits earned:	
Undergraduate	99.01
Graduate	35.55

Applicant Pool Summary (continued)

TEST SCORES:

Applicants to EngineeringCAS can self-report their GRE and GMAT scores as part of their application. The breakdown of the scores they reported is as follows:

Average self-reported GRE score (scaled):	
Overall	**316**
Quantitative	**163**
Verbal	**153**
Analytical	**3.51**

| Average self-reported GMAT score:	
Overall	**623**
Quantitative	**42**
Verbal	**32**
Analytic Writing Assessment	**4.56**
Integrated Reasoning	**4**

TOP UNDERGRADUATE MAJORS:

The top undergraduate majors reported in 2020-2021 EngineeringCAS remained the same as the previous cycle, as can be expected.

1. **Mechanical Engineering**
2. **Electrical Engineering (including Electrical & Electronic Engineering and Electronics and Communication Engineering)**
3. **Computer Science (including Computer Engineering)**
4. **Civil Engineering**
5. **Chemical Engineering**

SEX, AGE, RACE & ETHNICITY:

(Percentages <1% not shown)

The 2020-2021 EngineeringCAS cycle saw a slight increase in applicants who self-identified as female, compared to the previous cycle.
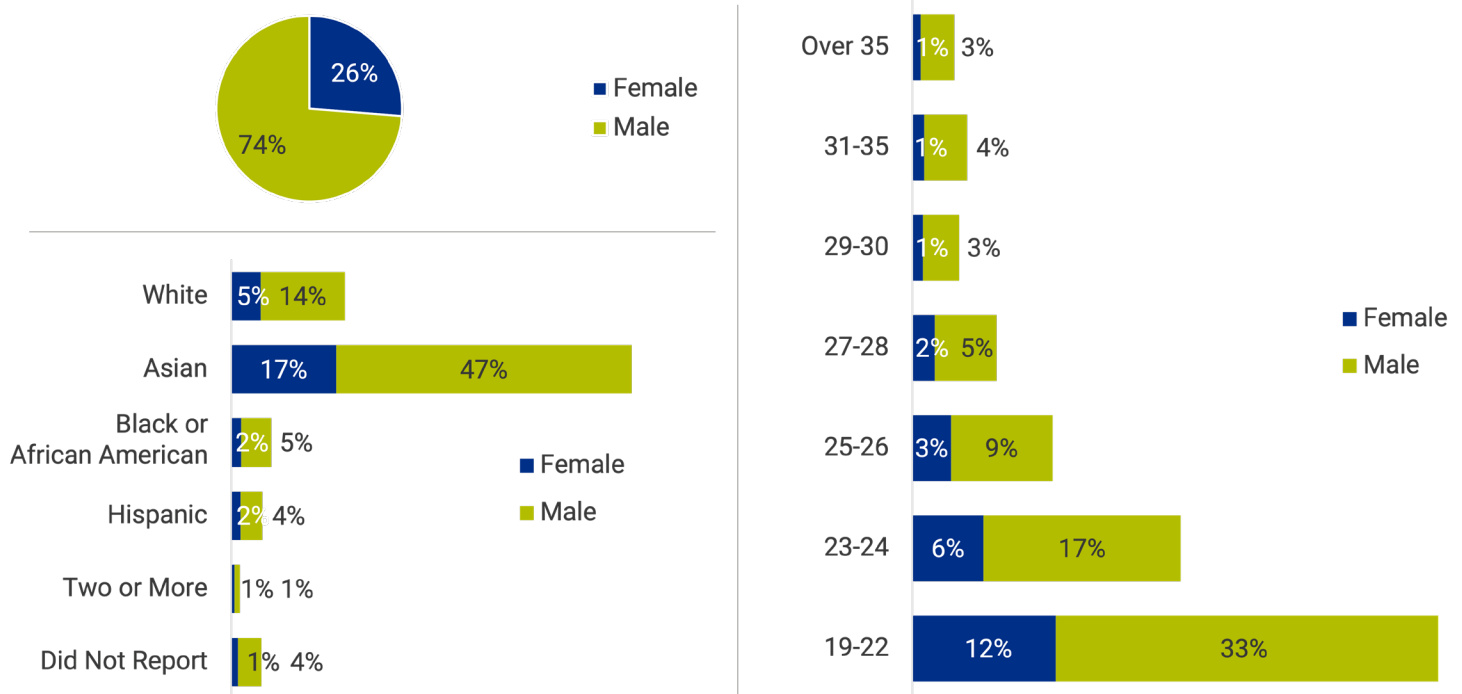
0.3% of applicants declined to state their sex on the 2020-2021 EngineeringCAS application.

Applicant Feedback

Each CAS application cycle we ask applicants to complete a survey once they have submitted their first application to any program. We are including some highlights from the 2020-2021 EngineeringCAS applicant survey as part of this year's annual report.

83.77% of respondents indicated that applying to programs using a CAS was **easier than applying to each program separately**.

86.07% of the respondents indicated that they **would recommend EngineeringCAS** to others who are applying to graduate engineering programs.

4.20 out of **5** is the average score that respondents gave the EngineeringCAS application in terms of the overall process.

83.61% of the respondents rated EngineeringCAS as **"easy" or "very easy"** to use.

APPLICANT TESTIMONIALS:

" One of the most user-friendly platforms I have ever used!"

" Using the EngineeringCAS System is more efficient."

" I like the fact that you can easily apply to another because most of your data is already stored. It is amazing. I just wish more schools and programs be added."

Summary

A "new normal" greeted students, faculty, and staff when they returned to campus this academic year after two years of disruptions in every aspect of academia because of the COVID-19 pandemic. This "new normal" is continually evolving as it continues to be impacted by staffing issues as a result of the ongoing "Great Resignation." Decisions about course delivery and degrees offered along with the challenging landscape to recruit, enroll, and retain students.

Graduate enrollment has a cyclical nature and traditionally mirrors the health of the economy and is also impacted by global affairs. One major pipeline of graduate engineering enrollment has been international students who have been upended during the past two years. This continues to challenge Deans, Program Directors, and Enrollment Managers to evaluate and re-engineer their recruitment and application review process and how they manage their relationship with committed students to ensure that they enroll and graduate. Budget adjustments due to flux in revenue streams are impacting decisions about course delivery methods, which degree offerings should be reviewed for closure, enhanced to grow enrollment, or added to attract untapped prospective students to increase enrollment and thereby positively impact budgets.

Decisions are best made when they are data-driven and EngineeringCAS is robustly capturing data that was not previously captured about graduate-level engineering programs and the students who seek them. The platform provides highly effective tools to mitigate many of the challenges facing graduate engineering programs as the Cycle Report illustrates. Once again, the EngineeringCAS platform delivered more highly qualified and diverse graduate engineering applicants year to year, demonstrating high utility for applicants from the perspective of ease of use.

EngineeringCAS provides this data report annually to help participating schools navigate the "new normal," informing their ability to structure, enhance and improve their academic offerings while helping students understand the breadth of opportunities available in graduate engineering education.

With the support of the EngineeringCAS community, we are now in the position to create a one-of-its-kind report that lays a foundation for longitudinal analysis of how students make academic choices in pursuit of graduate degrees in the field. While the report focuses on data trends within EngineeringCAS as a whole, participating schools can choose to utilize Analytics by Liaison™ to review how their institution performs in comparison.

LIAISON

LIAISON

HEADQUARTERS
**311 Arsenal Street
Suite 5600
Watertown, MA 02472
617.926.0504**

liaisonedu.com | @liaisonedu