



SLDS Insights From the Ground Up: Lessons From the Central Florida Education Ecosystem Database (CFEED) Model

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The [Central Florida Education Ecosystem Database](#) (CFEED) is a successful, scalable regional data sharing partnership between two Florida school districts and their local higher education partners that generates predictive insights into how to support student progress throughout preK-12 and into postsecondary. The CFEED model can be expanded to other regional education partnerships in Florida and/or serve as a playbook on how to build an effective data-sharing collaborative to accelerate improvements in student and system outcomes. Regional partnerships such as CFEED can inform and complement state-level efforts to strengthen and leverage Florida's longitudinal data system for maximum impact.

HISTORY AND PURPOSE

In 2018, two school districts (Orange County Public Schools and the School District of Osceola County) partnered with neighboring Valencia College and the University of Central Florida (UCF) to create a unified data system using historical and current data from the four partner institutions. Combined, these four entities enroll approximately 400,000 students in the Orlando region.¹ Nearly half of high school graduates from the two partner districts enroll at Valencia, and many enroll at UCF or eventually transfer from Valencia to UCF.

CFEED builds on a long-standing partnership between the two higher education institutions. In 2006, Valencia College and UCF created a 2+2 transfer program called DirectConnect to UCF, which guarantees Valencia students entry into a bachelor's program at UCF. As part of a broader regional effort to increase the numbers of high school students successfully transitioning to postsecondary and earning a credential, the CFEED model expanded the work of DirectConnect by adding the two local public school districts as data-sharing partners.²

BIG IDEA BEHIND CFEED

Central Florida students will experience greater success when educators can gain insights into the students' experiences and plan together for successful transition across the education ecosystem.

The CFEED partnership started with a goal of helping more students graduate ready to transition to postsecondary. The partners wanted to establish a "supportive, continuous pathway toward education success" and empower local school districts and educators to design targeted interventions to improve student success at key transition points. To meet this goal, the institutions needed more visibility into the factors that contribute to successful transitions and a greater ability to identify interventions needed using predictive data models. This requires connected, timely, and accessible individual-level data records that enable the tracking of students from institution to institution over the course of their educational journeys. At the time, each individual institution maintained their own records, and the

¹<https://www.higheredtoday.org/2021/02/05/regional-data-sharing-agreements-central-florida-education-ecosystem-database/>

²<https://www.higheredtoday.org/2021/02/05/regional-data-sharing-agreements-central-florida-education-ecosystem-database/>

state longitudinal data system did not provide the access they needed or the level of detail the partners were seeking. From the start, CFEED has prioritized collaborative analyses of long-term trend data to identify student groups most at risk of not progressing or completing on time.

The CFEED partners agreed to work together to identify key milestones that align with student success, remove unnecessary barriers, and design more tailored student support systems. Over time, the partnership has deepened and evolved, and the partners have expanded their goals to help more students not only enter college but earn degrees on time and find success in the labor market.

DATA COMPONENTS

CFEED has successfully broken down the institutional silos that had existed before to create a comprehensive, unified database. Using Microsoft Azure, a cloud computing platform, as its architecture, the partners initially each contributed ten years' worth of individualized (anonymized) student information including attendance, discipline, course taking and pass rates, GPA, financial aid

CFEED has built its own matching process to connect the various datasets using the student identifiers that each institution uses or used historically.

status, demographics, and more. As of today, the CFEED team has curated more than 700 variables from more than 15 years of data related to student success, outcomes, and opportunities in its cloud-

based system, including transcript-level data.³ Just recently, the dataset was expanded to include Kindergarten readiness assessments, state K-12 assessments, college readiness tests like SAT and ACT, and ACCESS for ELL assessments.⁴ There are plans to expand the database to include workforce outcomes collected by the Florida Department of Labor to assess the employment and earnings of students by major and degree.



The data are fully integrated into a database that spans from Kindergarten through postsecondary. CFEED has built its own matching process to connect the various datasets using the student identifiers that each institution uses or used historically. The FLEID (Florida Education Identifier) is currently a central identifier that helps apply CFEED research to identify individual students that are ready for a particular intervention or acceleration opportunity. The cloud-based structure has been regularly updated to meet CFEED goals, making it elastic and scalable as well as secure.

³<https://cfeedhome.com/2024/02/29/midtown-consulting-shared-cfeeds-new-research-on-college-access-at-microsofts-virtual-edu-days-february-29-2024/>

⁴<https://cfeedhome.com/2025/04/22/expanding-the-cfeed-platform-new-data-to-power-earlier-insights/>

A critical aspect of CFEED is its commitment to data security. The initiative adheres to stringent security protocols. This commitment is both a matter of compliance and a foundational element for cultivating and maintaining trust among its partners. Without these assurances and security measures, the willingness of educational entities to share confidential student information would be at risk.



MANAGEMENT & GOVERNANCE

In 2017, prior to CFEED's launch, the four education partners signed a partnership agreement which outlines support for the Education Ecosystem project, an agreement to share data, compliance with Family Educational Rights and Privacy Act (FERPA), and a commitment to provide institutional resources to sustain the partnership over the long run.⁵ These partnership agreements have been renewed periodically with each of the institutions and are tied to the institutions' strategic budgetary visions.

Leaders from the partner institutions meet regularly and work collaboratively to design projects, discuss

progress, share research findings, and develop data-informed strategies. To do this, CFEED has established a governance structure composed of the following teams:

- **Vision Team** – Responsible for setting the strategic goals for the Ecosystem and ensuring alignment with institutional policies and practices. The Vision Team establishes guiding principles for research priorities, sponsors projects, and leads alignment with each institution's objectives and outcomes. Members include the Presidents of UCF and Valencia College and the Superintendents of the participating districts. Traditionally, the Helios Education Foundation also takes part in these meetings.
- **Security and Platform Team** – Oversees the security and technological aspects of CFEED's architecture and environment. Team members consist of IT and data security personnel from each partner institution.
- **Communication Team** – Coordinates the storytelling of CFEED capabilities, progress, and achievements. This team manages updates and announcements for both internal and public audiences. Members are drawn from the media and public affairs staff of each institution.
- **Impact Team** – Leads the development of interventions informed by CFEED's research. Members are strategically positioned within each partner institution to drive change based on these research findings.
- **Insight Team** – Conducts research with a primary focus on each institution's strategic goals and student success. Team members include CFEED research analysts, data analysts, and other key contributors.

⁵<https://valenciacollege.edu/about/documents/Briefing-on-the-CFEED-Dec-6-2017.pdf>

STAFFING & FUNDING

There is a project director based at Valencia College who leads the Analytics team of seven staff: senior manager; data engineer; research stat analyst; data scientist; data engineer; marketing and communications specialist; and user experience designer.⁶ These positions are based within the partner institutions and can be full-time dedicated to CFEED or part-time with other responsibilities.

Partner organizations either contribute and fund a “champion” who works at CFEED, helps set research priorities, and brings CFEED research back to their institutions, or they can hire technical talent from CFEED to do the research and share it with the institution.

Midtown Consulting Group (MCG), an outside strategy and analytics firm, serves as the technical partner, providing strategic direction, data architecture support, data analytics, and machine learning models to produce predictive insights. MCG also prepares and delivers professional learning and training to partner staff on how to locate and use the data, access templates, and generate usable reports and compilations. This helps build internal organizational capacity.

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An initial three-year \$6.4 million grant from the Helios Education Foundation provided start-up funding to cover personnel costs and develop the necessary data architecture with support from Accenture.⁷ The grant was managed by Valencia College. After the initial grant funding, operating costs shifted to the institutional budgets of the partner institutions.

Currently, the annual program budget is \$868,219, not including personnel. This covers software and technical services. Partner institutions cover their personnel expenses and pay their share of the program budget.

RESEARCH AGENDA

Each year, CFEED partners develop a joint research plan, managed by the CFEED project director. The partners also each identify institution-specific research questions, which they explore on their own. In all, CFEED completes 50-60 research projects a year, mostly focused on how to best foster student access, readiness, and success. The CFEED partners use a shared site to track the status of projects.

CFEED’s research findings inform predictive models that empower school districts and colleges to act at key moments in students’ academic journeys and provide just-in-time interventions. With input from their research, CFEED has created predictive student models that help school systems and colleges prioritize the most impactful learning experiences and provide the right supports. Figure 1 shows examples of CFEED research insights and related actions.

⁶<https://cfeedhome.com/about/>

⁷<https://valenciacollege.edu/about/documents/Briefing-on-the-CFEED-Dec-6-2017.pdf>

Figure 1: CFEED: Insights Into Action

Area of Interest	Insights	Action
College Readiness	Key academic experiences set secondary students up for success at Valencia College: taking high school classes in middle school; taking advanced core courses in high school; passing AP exams; and earning college credits through dual enrollment.	School counselors in the two districts inform students and families about the benefits of accelerated coursework and advocate for increased enrollment. CFEED analysts also identify students who are college-ready but not enrolled in dual enrollment or advanced courses and work with schools to design supports for those students to help them access accelerated coursework.
Transfer Readiness	College students who successfully completed three courses relevant to their intended major before transferring to UCF are more likely to get higher grades and earn their degree.	Valencia academic advisors are strategic in guiding students in their course selection process to maximize their readiness to transfer successfully.
Transfer Success	Three key factors contribute to a successful transition from Valencia to UCF: more UCF-major relevant courses taken at Valencia, maintaining similar effort level (part-time/full-time), and avoiding “shock events” that can impede student progression and completion rates, such as low credit accumulation, course withdrawals, and GPA under 2.5.	Valencia and UCF initiated a pilot program to boost transfer success. When the pilot proved successful, the institutions secured a \$1.3 million Helios Education Foundation grant to expand the pilot and serve all students. The Helios Transfer Scholars program provides students with financial incentives to maintain their effort level, take additional relevant courses at Valencia, and complete an AA degree and the common program prerequisites prior to transfer.

ACCESS

CFEED staff has direct access to the full longitudinal data system. CFEED partner organizations can access research and institution-specific dashboards/reports as appropriate for their role. There are also data reports designed to be easily digestible and informative and are accessible to a broader audience of staff at the institutions. For example, interactive dashboards enable school administrators, program coordinators, and student success teams to monitor student performance

and progress. They include the integration of early student grades and assessment data, allowing for more real-time interventions and responses.⁸

The primary research focus is on transition points in a student’s educational journey.⁹ Sample Research Topics:

- Middle School to High School: Math Pathways, Science Pathways
- High School to College: High School Acceleration, Indicators for College Course Placement, Math Pathways, Dual Enrollment Pathways

⁸<https://cfeedhome.com/2024/12/11/unveiling-gen-2-cfeed/>

⁹<https://famisonline.org/wp-content/uploads/2021/06/CFEEDFAMIS2021.pdf>

- College to University: “Transfer Shock,” Entry Major College Readiness, College Academic Performance Related to University Success

The CFEED team has developed detailed reporting standards to ensure high quality outputs. The standards encompass both data quality and data visualization. The standards included everything from design elements (fonts and colors) to a peer review process.

The CFEED partners report that the integration of data has been invaluable in understanding the student experience and using evidence to be more strategic in:

- Identifying key transition points where students struggle or get off course and knowing how to best intervene.
- Removing barriers for students who demonstrate readiness to move into accelerated learning options.
- Enhancing advising and academic planning by predicting student outcomes based on data from previous cohorts.
- Improving retention and graduation rates by aligning student pathways with intended degree programs.
- Planning for institutional programs, resource demand, and alignment with workforce needs.

LESSONS LEARNED

The CFEED team attributes its success to fostering open communication among members and cultivating a collaborative culture. Their processes are designed to incorporate feedback loops with institutional partners, ensuring that CFEED aligns with partner needs. These transparent channels

within the team and across institutions have established an integrated partnership, facilitating meaningful research and effective problem-solving. Another key insight is having established procedures while maintaining a degree of flexibility and adaptability when collaborating with multiple institutions. Each partner brings unique interests, contributing to the dynamic nature of the CFEED partnership.



Additionally, CFEED has learned the importance of careful presentation of data and research findings. By framing results as opportunities, institutional partners are empowered to identify strategies in response to new evidence. The private structure of the CFEED network further promotes candid discussions and internal sharing of feedback, minimizing external scrutiny and avoiding blame.

The CFEED model is intentionally designed for scalability and sustainability. Its pay-to-use approach keeps institutions engaged and committed, while also supporting ongoing operations. From inception, the data architecture was built to accommodate growth, creating opportunities for expansion to additional communities throughout Florida.

About Florida College Access Network

Florida College Access Network (FCAN) is Florida's collaborative network committed to ensuring all Floridians have the opportunity to achieve an education beyond high school and a rewarding career. We envision a Florida working together where education is the pathway to economic mobility for all.

FCAN strives to expand knowledge of research, data, policies, and practices that impact postsecondary access and attainment in Florida. For more information, visit www.floridacollegeaccess.org.

Online version of this report includes hyperlinked resources.

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