Central Florida Education Ecosystem Database
FAMIS 2021

Description

CFEED (the Central Florida Education Ecosystem Database) is an ambitious project among 4 educational institutions in Central Florida, and a technical partner. Where data is collected, shared and analyzed in a common environment with the purpose of informing decisions to improve students' academic success from PK to Post-secondary education.

Presenter

Yu Hu, CFEED Strategic Data Fellow – Orange County Public Schools

Orange County Public Schools

The School District of Osceola County, FL 1887

Valencia College

UCF

MCG Midtown Consulting group

Helios Education Foundation

CFEED

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Beginning

Vision

To create a **new model of collaborative data sharing among** Central Florida pre-kindergarten through university public **educational institutions to identify factors that inform decisions and interventions to increase success, outcomes and opportunities for all students.**

Goal

To build the tools and processes necessary to provide a silo-free examination of student performance from pre-kindergarten through post-secondary, **and begin identification of insights that can be used to provide interventions that will increase student success.**

Objectives

1. **Develop a database with front end analytic capability** that will compile historical and ongoing data from all education partners
2. **Develop the methodology for the education partners to conduct analysis** and identify insights about student success via data analysis and reporting tools.

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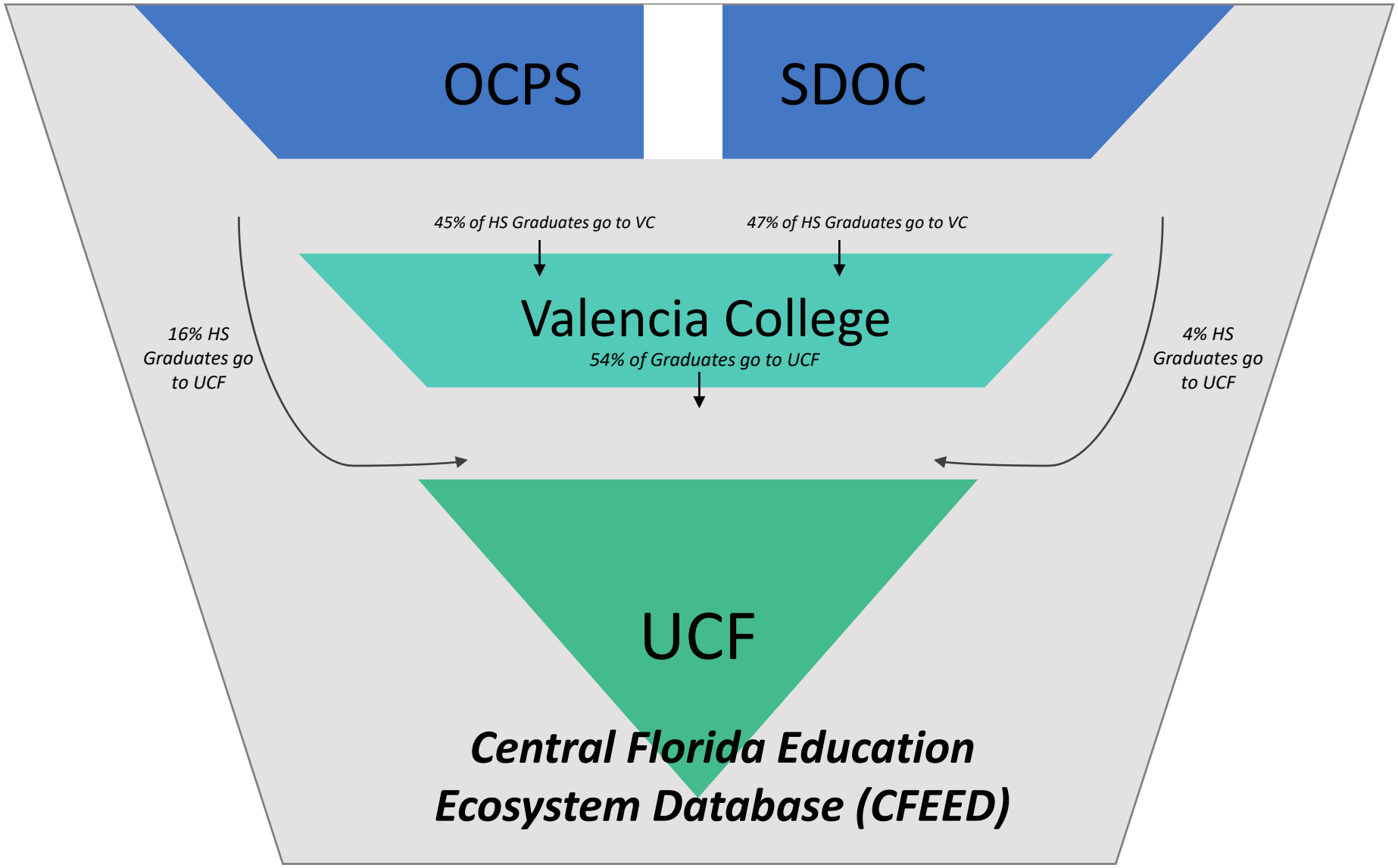

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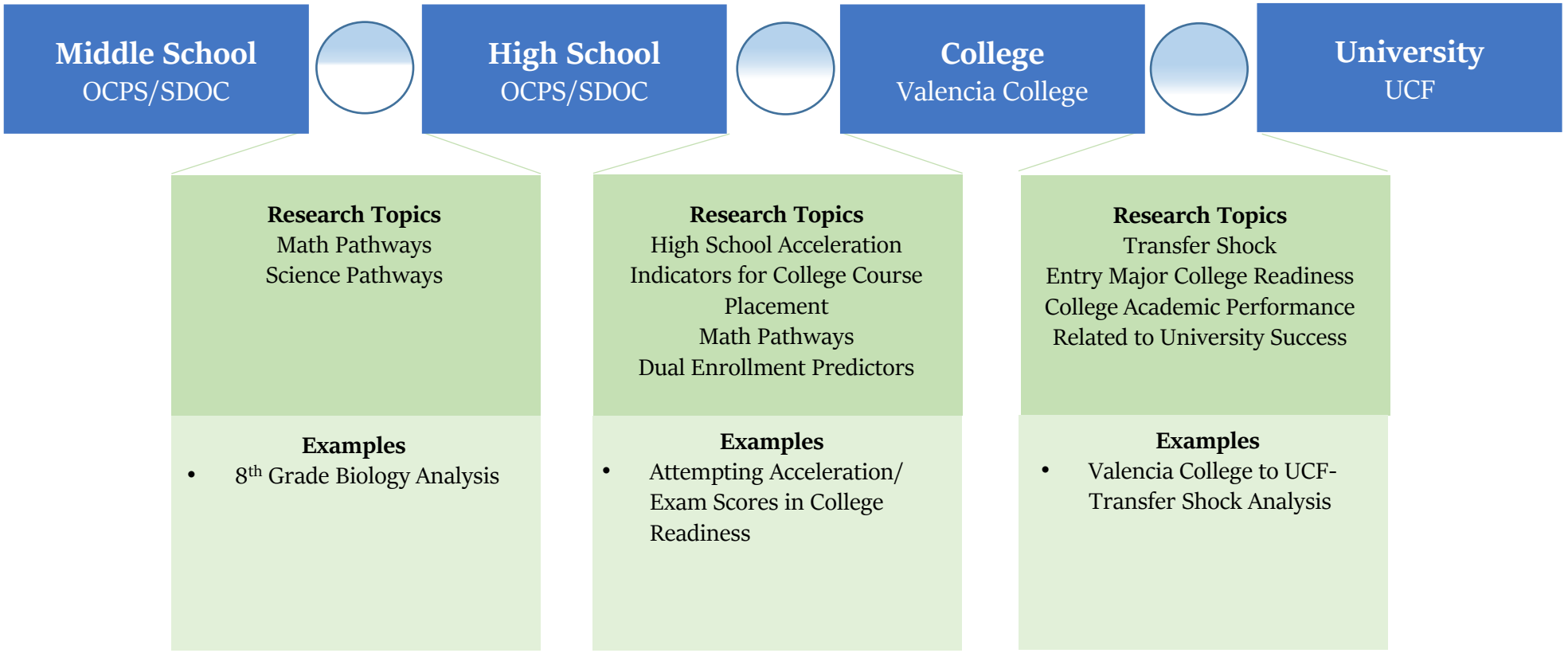
Current Capabilities

1. Managing and synthesizing institutional data for analytic purposes
2. Analyzing longitudinal student experiences qualitatively and quantitatively
3. Identifying actionable intervention points in the student experience through experimentation
4. Developing advanced measures for improved tracking and monitoring of student population groups
5. Communicating findings and integrating knowledge across all institutions

CFEED Main Research
Transition Points



Middle to High School Transition

SDOC Grade 8 Biology Student Science Pathways

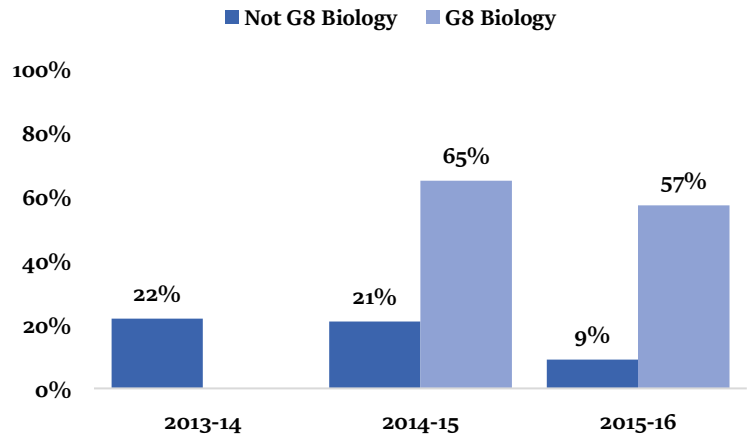
Project

Starting in the 1415 Academic Year, SDOC pushed for an increase of 8th grade students to enroll in Biology Honors to provide students more opportunities to enroll in accelerated science courses. What was the result of this idea?

Key Findings

✓ **There is a relationship with students enrolling in Grade 8 Biology and then attempting high school science acceleration, Advanced Placement and/or Dual Enrollment, during high school.**

Attempting Acceleration in HS



High School to College Transition

Attempting Acceleration and College Readiness at SDOC and OCPS

Project

How attempting accelerated opportunities in high school impacts student success at Valencia College and UCF.

51% of SDOC and OCPS high school graduates between, 2012 and 2018, enrolled at UCF and/or Valencia.

Key Findings

- **Among graduates who attempted high school acceleration and enrolled at UCF and/or Valencia, 70.66% either completed a post-secondary credential or are still enrolled.**
- Among graduates enrolling at Valencia and having earned a D, F, or withdrawal during the first term, 52.52% took no high school acceleration.

1st Term GPA Points Increase if HS Acceleration is Attempted

Valencia College	0.31
UCF	0.11

Transfer Success

Valencia College to UCF- Transfer Shock Analysis

Project

CFEED examined the Valencia College to UCF transition, by looking into the difference between students' cumulative Exit GPA at Valencia College and first semester GPA at UCF. We analyzed 23,502 DirectConnect Students from Valencia College. Cohort years: 2009-10 to 2015-16.

We measured the students' transfer experience (Valencia Cumulative GPA minus UCF 1st Term GPA) and defined as Transfer Shock:

Major Transfer Shock: if difference is 0.5 or higher.

Minor Transfer Shock: if difference is greater than 0 but lower than 0.5

No Transfer shock: if difference is zero or negative (then UCF 1st Term GPA is higher than Valencia Cumulative GPA)

Key Findings

- ✓ 35% (N=8,126) of the students had major transfer shock, 23% (N=5,336) had minor transfer shock, and 42% (N=10,040) had no transfer shock.
- ✓ Students with a major transfer shock lower than 0.75 mainly experience attrition during the 1st and 2nd year of enrollment. Students with a major transfer shock higher than 0.75 experience attrition mostly during the 1st year on enrollment.

	UCF Attrition Rate	UCF Avg Time to Degree	UCF Avg 1st Term GPA	N
Major Shock	44.98%	3.98	1.52	8,126
Minor Shock	19.88%	3.72	2.89	5,336
No Shock	16.68%	3.58	3.52	10,040

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Future Project

Harvard Strategic Data Project

Harvard Strategic Data Project

- The Harvard Strategic Data Project (SDP) is a diverse, passionate community of education leaders, data strategists, and faculty committed to using data to help all students succeed, driving data-informed change in over 125 school systems and organizations.
- The Harvard SDP fellowship is a two-year program that strengthens the capacity of education agencies to use data for improvement. The Center for Education Policy Research from Harvard University finds and trains data strategists to advance critical analytic initiatives, uncover valuable insights, and build a strong data culture in partner organizations.

Project

- Project Title: Education for the Future: Support Postsecondary Success for Students in High-Demand Fields
- Central Florida's economy is changing rapidly and needs more **postsecondary graduates** for high-demand fields. To better support students in identifying postsecondary tracks, Orange County Public Schools (OCPS) aims to discover **early warning indicators** and **course-taking patterns** for college students who majored in high-demanding fields.

Future Project

Harvard Strategic Data Project

Postsecondary Outcomes

Enrollment

Demographic Predictors

Family socio-economic background:
- FRL Status, Economically Disadvantaged. May calculate the school mean SES if needed.
- Pell Grant eligibility

Core demographic information including gender, ethnicity, age

English Language Learners (ELLs) status

In-state/out-of-state

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Graduation

Postsecondary Predictors

Indicators of Interest (high-demand fields):
- Major (graduation major, double-major, change of major)
- Degree (degree title, highest degree earned)
- Credits (attempts, earned)

Academic Performance:
- GPA: first-term GPA, first-year GPA, graduation A, core courses GPA
- urse-taking patterns for program-specific courses, STEM courses, and practical training
-

Other postsecondary indicators:
- DirectConnect Status (VC to UCF)
- Athlete status
- Residency status (in-state, out-of-state)
- First-generation status
- Campus/cohorts/enrolled term

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Future Project

Harvard Strategic Data Project

Richness of CFEED Data

K12 & Postsecondary

Demographic Predictors

Family socio-economic background:

- FRL Status, Economically Disadvantaged. May calculate the school mean SES if needed.
- Pell Grant eligibility

Core demographic information including gender, ethnicity, age

English Language Learners (ELLs) status

In-state/out-of-state

K-12: OCPS & SDOC

K-12 Predictors

Indicators of Interest:

- Accelerated coursework (AP, IB, DE, AICE): attempts, counts of passing exams, and test scores
- Course-taking patterns by STEM courses and test scores

Assessment performance:

- Test scores: Grade 10 FSA ELA, Grade 10 FSA Algebra 1 EOC
- Test scores for STEM courses
- High School GPA
- Retained status: progress/ accelerated/ retention

High School Discipline Data:
Discipline: Absent days, habitual truant, discipline/offense/resultant action

Postsecondary: VC & UCF

Postsecondary Predictors

Indicators of Interest (high-demand fields):

- Major (graduation major, double-major, change of major)
- Degree (degree title, highest degree earned)
- Credits (attempts, earned)

Academic Performance:

- GPA: first-term GPA, first-year GPA, graduation GPA, core courses GPA
- Course-taking patterns for program-specific courses, STEM courses, and practical training
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Other postsecondary indicators:

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Research Questions?

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