Central Florida Education Ecosystem Database: Collaborative Data Sharing in Florida

Driving Change within K-12 and Post-Secondary Education

November 30, 2023

FLORIDA
COLLEGE ACCESS NETWORK

CFEED

Webinar Agenda

01 What is CFEED?

To start off, we will provide an overview of how the Central Florida Education Ecosystem Database began in 2016, and how the project has evolved over the past seven years.

02 The CFEED Project Cycle

In this segment, learn how our team works with educational institutions to transform project requests from concept to timely completion. From data infrastructure to detailed research to meticulous design/delivery, we do it all!

03 K-12 Findings

Major CFEED projects within the K-12 realm have included analysis in the areas of middle school acceleration, Dual Enrollment readiness, and chronic absenteeism.

04 Post-Secondary Findings

CFEED research has supported Osceola Prosper, a free college tuition program. CFEED has also designed a model to measure transfer readiness for students preparing to move from Valencia College to the University of Central Florida.

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CFEED Team Members Joining You Today

Diana Pienaar

CFEED Director,
Valencia College

Ashton Terry, Sr.

CFEED Senior Manager,
The School District
Osceola County, Florida

Michael Holt

Managing Director,
Midtown Consulting Group

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01

What is CFEED?

Central Florida Education
Ecoystem Database

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How the Central Florida Education Ecosystem Database Came to Life

- In 2016, Helios Education Foundation provided the first of three grant phases (we are working towards number four) to allow partnering institutions in Central Florida to develop a vision, research questions, evaluation model, and technical solution to study student performance from K-12 to post-secondary levels.

- Since the birth of CFEED, the team has developed multiple machine learning models using Microsoft Azure and Power BI technology, curated over 600 unique analysis variables, delivered over 150 requested research projects, and presented our findings at several professional conferences. In September of this year, we hosted our first CFEED Summit at Valencia College.

June 2016
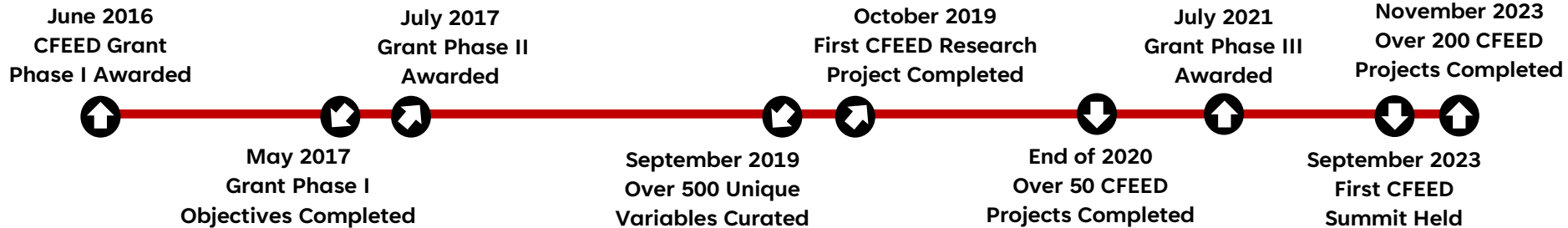**CFEED Grant**
Phase I Awarded

May 2017
Grant Phase I
Objectives Completed

July 2017
Grant Phase II
Awarded

September 2019
Over 500 Unique
Variables Curated

October 2019
First CFEED Research
Project Completed

End of 2020
Over 50 CFEED
Projects Completed

July 2021
Grant Phase III
Awarded

November 2023
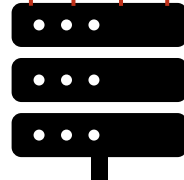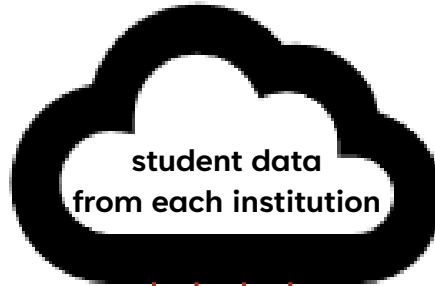**Over 200 CFEED**
Projects Completed

September 2023
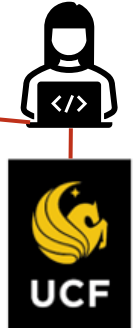**First CFEED**
Summit Held

How We Get the Data

- With our partnership agreement between Orange County Public Schools, The School District of Osceola County, Valencia College, and University of Central Florida, student data is routinely loaded into a secure data lake.

- This allows our team to conduct research at the request of our partners, and complete various projects while maintaining student confidentiality.

student data from each institution

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Insight to Impact

THE SCHOOL DISTRICT OF OSCEOLA COUNTY, FL 1887

OCPS **Orange County Public Schools**

VALENCIA COLLEGE

UCF

02

The CFEED
Project Cycle

-What does a CFEED project cycle look like?

-Who can make a project request?

-How do we manage our project load?

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The CFEED Project Cycle from Start to Finish

START

During the project review stage, our team diligently checks for any data discrepancies, grammatical errors, etc. Once the project is finished, we have a share session with the requesting organization to answer questions and determine any next steps. Sometimes we will create social media posts or press releases to raise further awareness!

Once the CFEED Team receives a request, the new project is entered into a Microsoft TEAMS collaboration space.

Our team meets to assign lead and supporting roles to the project, depending on the project scope and timeline of completion.

Most Projects Take Only a Few Weeks

As many of our projects are an update of prior work, we keep a log of "parent projects" that can be referenced. In some cases, the data can be refreshed rather than starting from scratch.

Our design and communications team helps in providing consistent formatting on projects that will pull forward as a published work or presentation.

For projects on which our team is collaborating remotely, we can use tools such as Whiteboard or comments within PowerPoints to leave feedback for our teammates. We also trust each other to go in and make edits as needed. Teamwork makes the dream work!

The project team collaborates on what data/additional resources may be needed. A project folder is started in TEAMS to allow for easy updating. The CFEED team also convenes at Valencia for around one week each month for in-person collaboration.

Who Can Make Project Requests? How does CFEED Manage the Project Load?

- CFEED believes that our projects can serve an ultimate purpose of helping decision-makers impact positive change for students. In addition to data and research requests from our four academic institutions, we have also collaborated on work to support organizations such as the Florida College Access Network, Helios Education Foundation, and the Florida Consortium of Metropolitan Research Universities. We use MS TEAMS and DevOps to monitor progress and ensure each request is fulfilled in a timely manner. No project is too big or too small...we just want to support the challenging work that schools are doing to help their students!
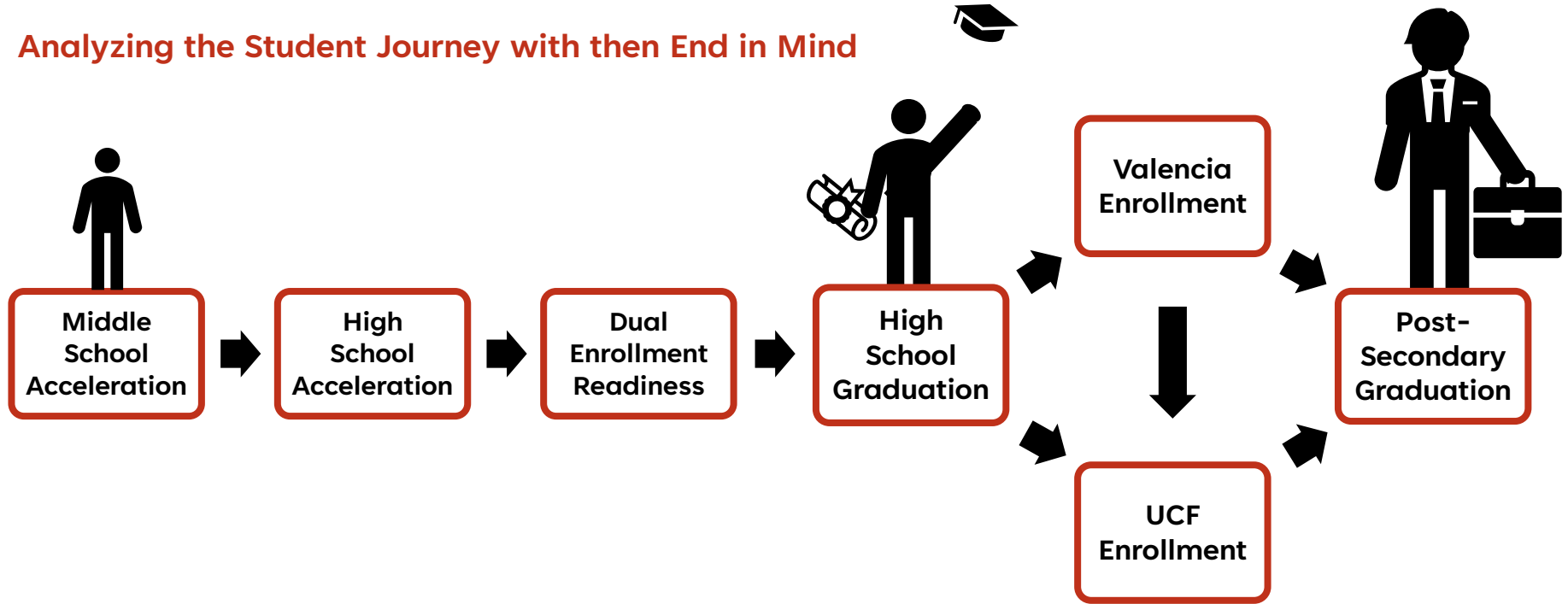
03

K-12 Findings

Data Analysis and Research:
    -Middle School Acceleration
    -Dual Enrollment Readiness
    -Chronic Absenteeism

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Analyzing the Student Journey with then End in Mind

Middle School Acceleration → High School Acceleration → Dual Enrollment Readiness → High School Graduation → Valencia Enrollment / UCF Enrollment → Post-Secondary Graduation

CFEED knows which students have been able to accelerate as early as middle school. Middle school acceleration is key for continued success in high school and post-secondary education.

Middle School Acceleration → **High School Acceleration** → **Dual Enrollment Readiness** → **High School Graduation** → **Valencia Enrollment** / **UCF Enrollment** → **Post-Secondary Graduation**
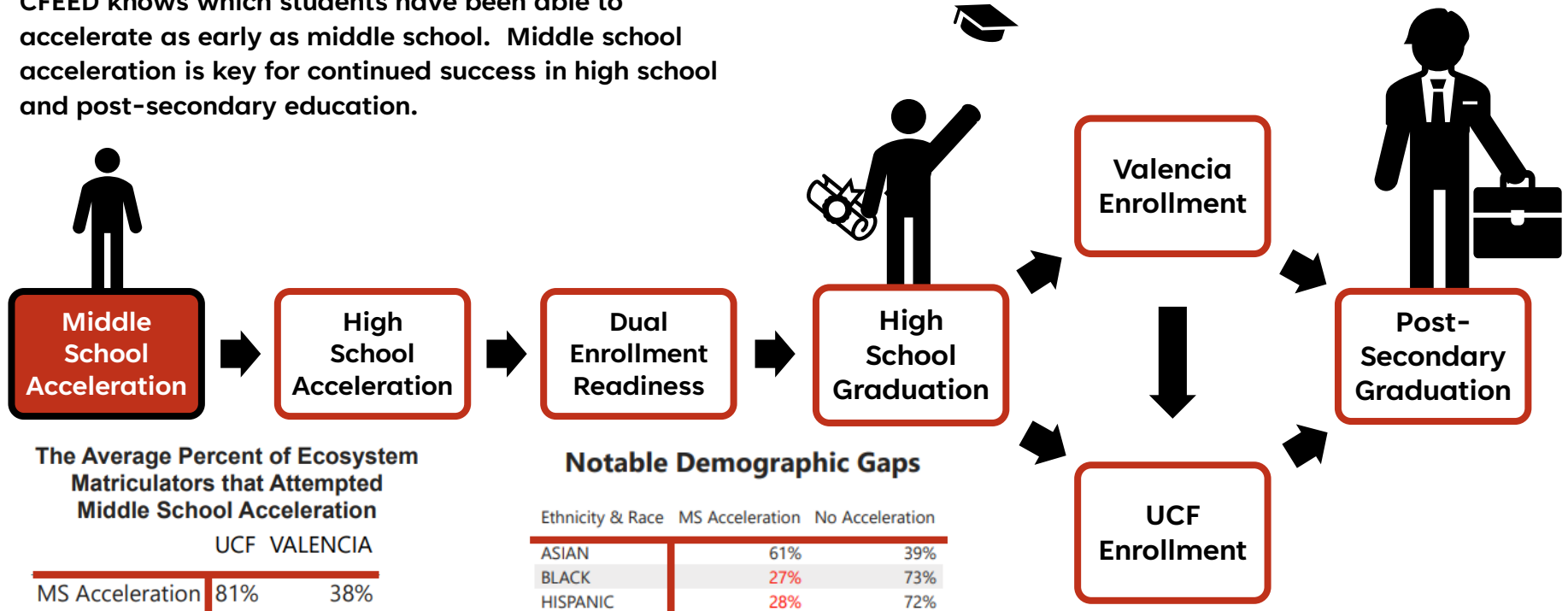
The Average Percent of Ecosystem Matriculators that Attempted Middle School Acceleration

	UCF	VALENCIA
MS Acceleration	81%	38%

*The trends suggest that Middle School Acceleration is a requirement for competitive entry schools

Notable Demographic Gaps

Ethnicity & Race	MS Acceleration	No Acceleration
ASIAN	61%	39%
BLACK	27%	73%
HISPANIC	28%	72%
OTHER	50%	50%
WHITE	53%	47%
Total	**36%**	**64%**

Definition of Middle School Acceleration: *A student takes at least one high-school level accelerated course during grades 6-8. These are courses such as Honors, (pre) AICE, (pre) IB, or Advanced Placement courses.*

CFEED has developed a Tiered system of high school coursework. Students who complete around five core accelerated courses with roughly a B average are generally found to be post-secondary ready.

Middle School Acceleration → High School Acceleration → Dual Enrollment Readiness → High School Graduation → Valencia Enrollment / UCF Enrollment → Post-Secondary Graduation
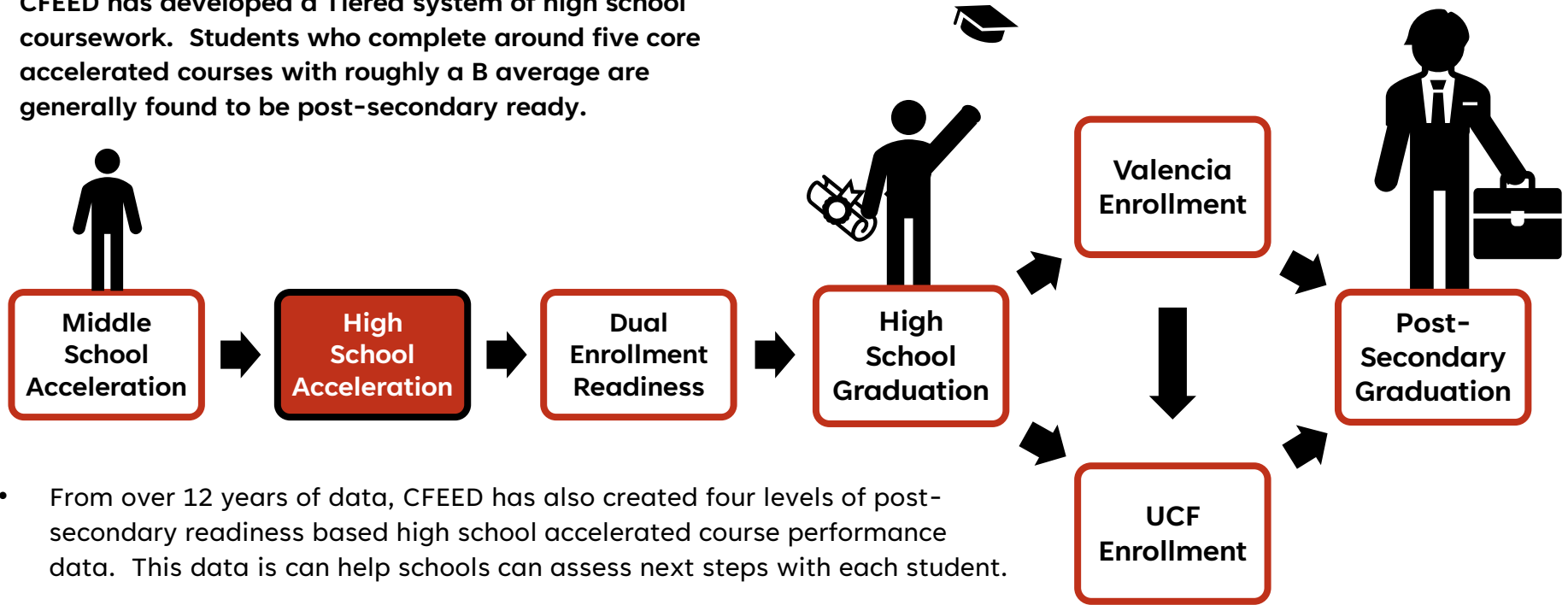
- From over 12 years of data, CFEED has also created four levels of post-secondary readiness based high school accelerated course performance data. This data is can help schools can assess next steps with each student.

Post-Secondary Readiness Level	EXPECTED		PROBABLE		APPROACHING		BEGINNING	
Tier 1 Attempts	Attempts	Avg GPA	Attempts	Avg GPA	Attempts	Avg GPA	Attempts	Avg GPA
Avg Attempts/GPA Per Course	535	3.6	699	3.0	424	1.9	57	1.2

Expected or Probable	Ready
Approaching or Beginning	Not Yet Ready

High schools can use CFEED's readiness levels to quickly find students who are read for Dual Enrollment. This can help bridge the gap shown in recent years, with only about 15% of Dual Enrollment-ready students participating.

Middle School Acceleration → High School Acceleration → **Dual Enrollment Readiness** → High School Graduation → Valencia Enrollment → Post-Secondary Graduation
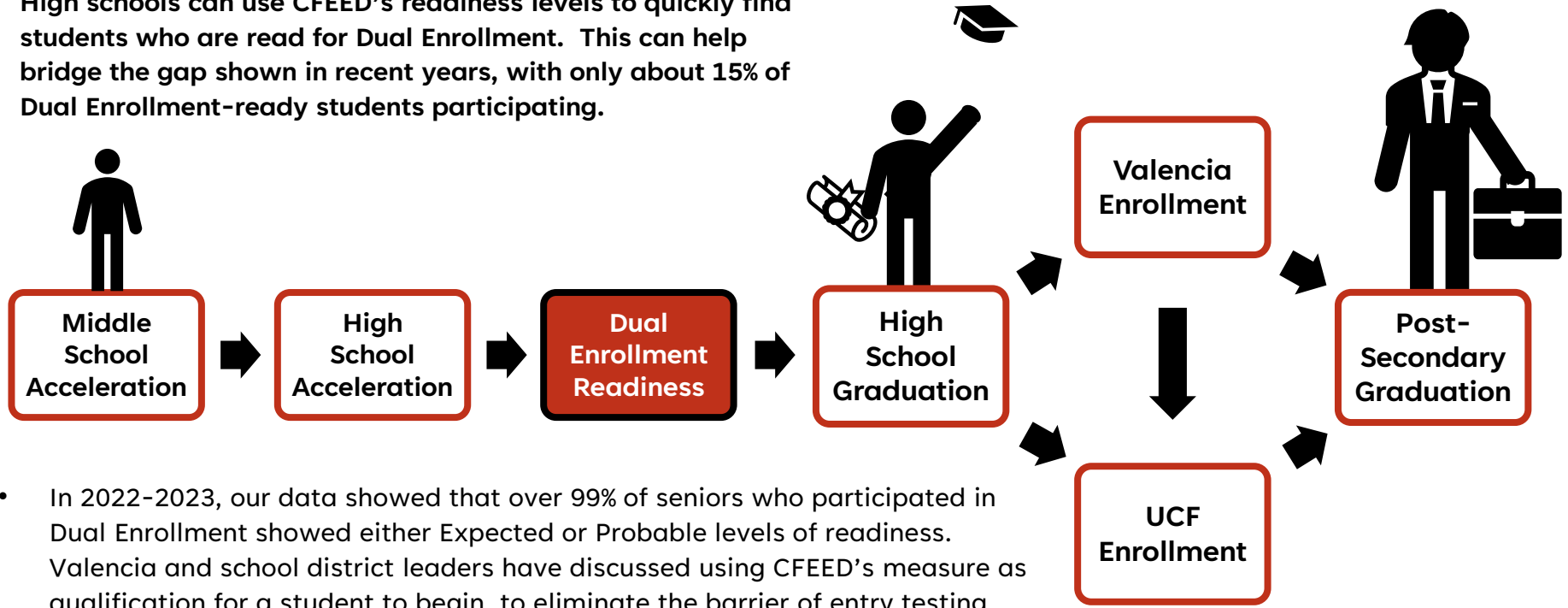
UCF Enrollment

- In 2022-2023, our data showed that over 99% of seniors who participated in Dual Enrollment showed either Expected or Probable levels of readiness. Valencia and school district leaders have discussed using CFEED's measure as qualification for a student to begin, to eliminate the barrier of entry testing.

2022-2023 Projected CFEED High School Seniors

DE Enrollment Count	DE Readiness Count of DE Enrolled Students	DE Not Ready Count of DE Enrolled Students	Readiness Percentage of DE Enrolled Students
1,358	1,347	11	99.2%

The Percent of Ecosystem Matriculators that Attempted at Least One Dual Enrollment Course

Dual Enrollment Indicator	UCF	VALENCIA
Dual Enrollment	51%	23%

Chronic Absenteeism is a Growing Problem

- CFEED's findings show an increasing trend of Repetitively Chronically Absent students within Central Florida (ten or more absences in at least four school years).

Expected Graduation Year	2017	2018	2019	2020	2021	2022
0 to 3 Years of Chronic Absences	77%	75%	72%	71%	71%	67%
4 or More Years Chronically Absent	23%	25%	28%	29%	29%	33%

- CFEED also found a noticeable relationship between chronic absenteeism and low academic performance. Of students expected to graduate in 2022, around 25% of students who were ready for post-secondary coursework (Expected or Probable groups) were Repetitively Chronically Absent, compared to 50% of students who were not ready (Approaching or Beginning).   The CFEED team plans to do further research surrounding attendance in the future.

Percent of Repetitively Chronically Absent Students, by Post-Secondary Readiness Group and Graduation Year
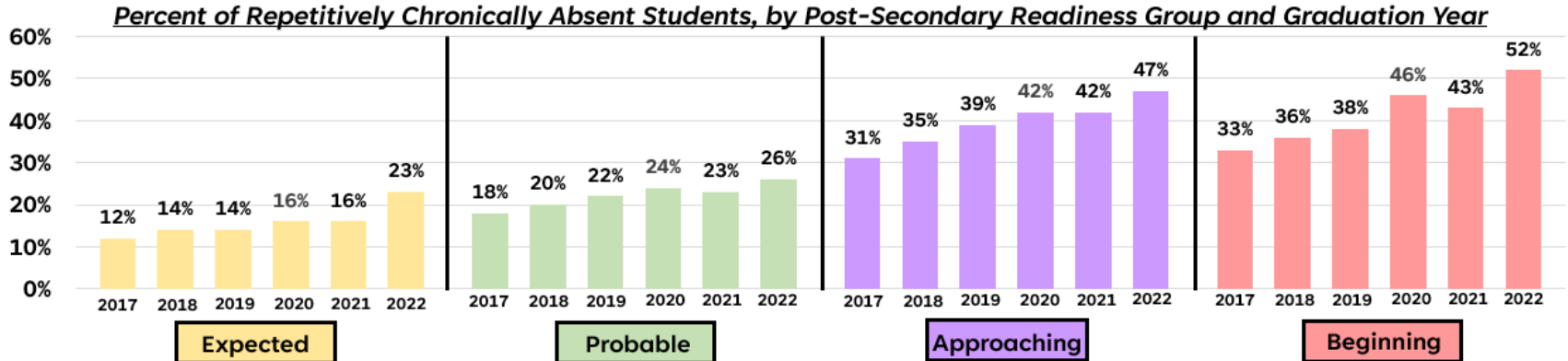
Dual Enrollment Readiness-CFEED Interactive Dashboard

With CFFED's exportable interactive dashboard, the capability exists to ensure each high school in our ecosystem has this information at their fingertips. For schools who focus more on Advanced Placement, or students who do not wish to enroll in Dual Enrollment, we are also able to identify students at each readiness level who have not yet taken AP courses.
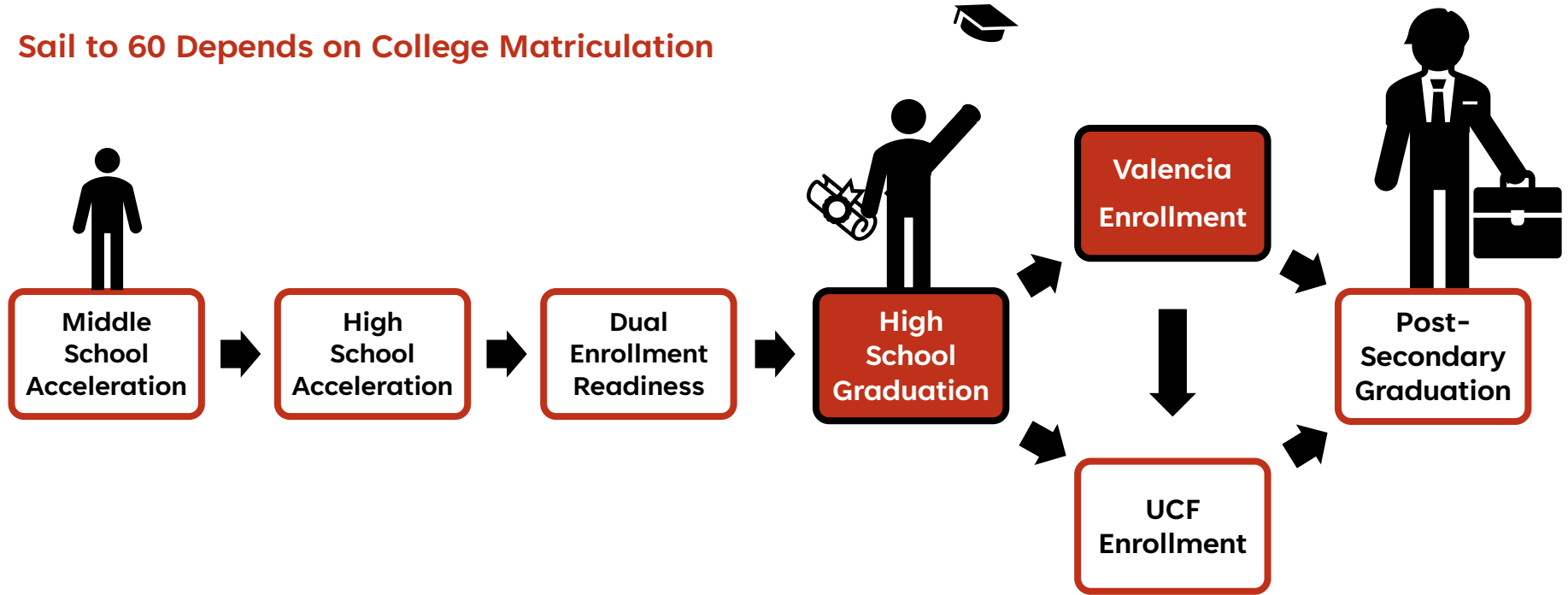
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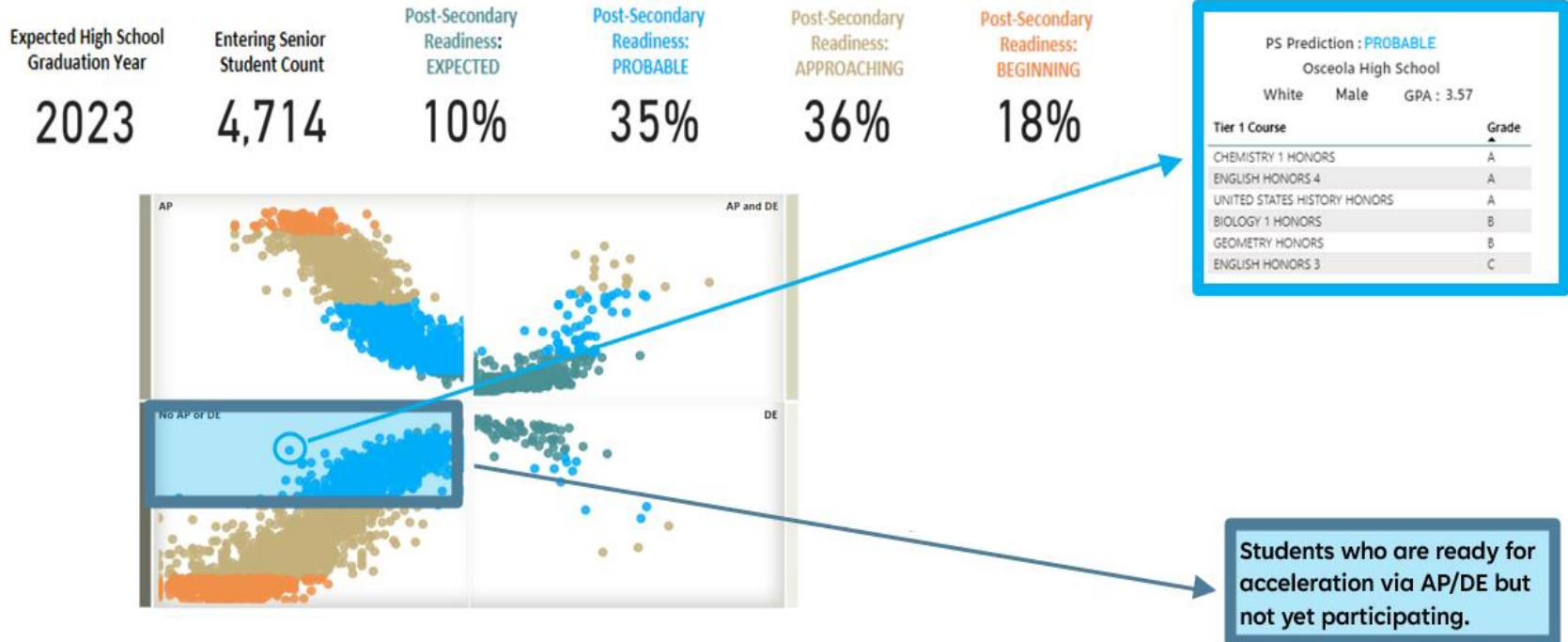
Post-Secondary Findings

Data Analysis and Research:
  -College Matriculation
  -Osceola Prosper
  -Transfer Scholars
  -Transfer Readiness

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Sail to 60 Depends on College Matriculation

Middle School Acceleration → **High School Acceleration** → **Dual Enrollment Readiness** → **High School Graduation**

Valencia Enrollment

UCF Enrollment

Post-Secondary Graduation

Central Florida Education Ecosystem Database:
Valencia College Matriculation Research

- Osceola Prosper was born in 2022 after extensive collaboration between Valencia College, Osceola County Commissioners, and The School District of Osceola County. These leaders utilized a variety of data in their decision-making, including CFEED research when showed years of decline in enrollment in Valencia. Goals of this program were to increase matriculation to Valencia, and to find a way for students to earn an Associate's Degree with zero student loan debt.

- Every student who graduates from SDOC, including public, private, charter and home school is eligible for Osceola Prosper. The program allows these high school graduates to attend Valencia College or Osceola Technical College for free and does not include any test score or GPA requirements.

Matriculation to Valencia by OCPS and SDOC graduates, 2014-2021
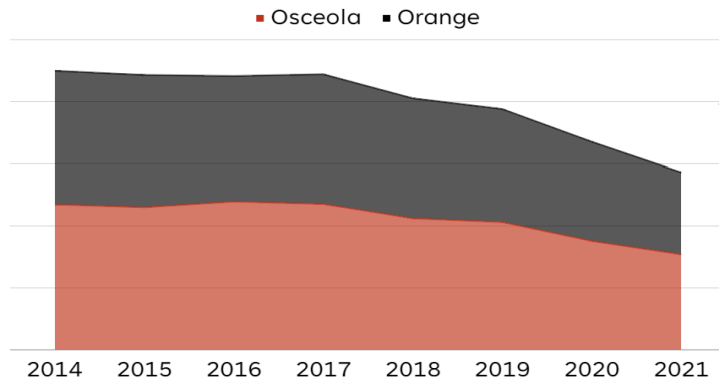
Matriculation to Valencia by OCPS and SDOC graduates, 2014-2021

Graduation Progression Group	2019 Student Count	2021 Student Count	Decrease by Progression Group
0-14 Credits	5,502	3,707	1,795
15-29 Credits	4,444	2,512	1,932
30-44 Credits	3,618	1,331	2,287
45-59 Credits	2,905	642	2,263
60+ Credits	2,319	390	1,929
Totals	18,788	8,582	10,206

Central Florida Education Ecosystem Database:
Osceola Prosper is Born

- On October 6, Osceola County Commission announced $8.3 million dollars of additional funding for 2024 SDOC graduates to attend Valencia or Osceola Technical College for free via Osceola Prosper!

Osceola Prosper Steps

| Step	Description
Step 1	Select an Institution – Valencia College or OTECH
Step 2	Submit the Free Application for Federal Student Aid (FAFSA) and send to institution
Step 3	Graduates can enroll as early as Summer B (2024), Fall 2024, & Spring 2025 to be eligible
Step 4	Upon graduation, please send your final High School transcripts

Central Florida Education Ecosystem Database:
Osceola Prosper Research

- Osceola Prosper has successfully increased matriculation into Valencia College. As our research shows that Osceola Prosper students have greater risk rates than other matriculators, a next step is to provide ongoing support to these students.

Other Direct Matriculator ● **Osceola Prosper Direct Matriculator**
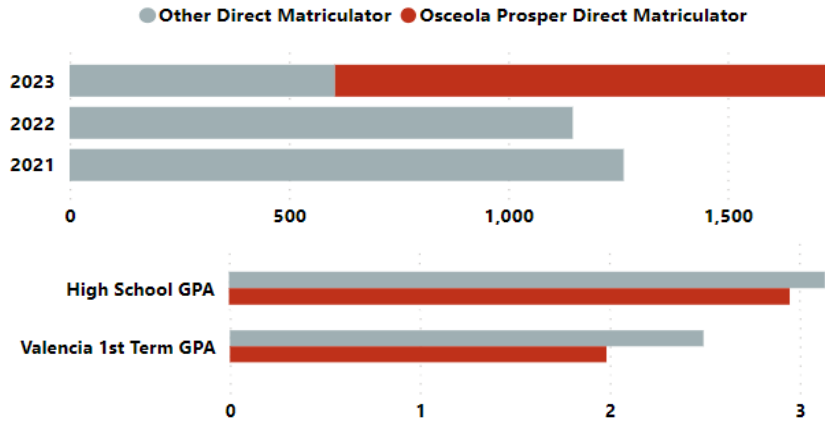
Success Risk	Osceola Prosper Direct Matriculator Count	Prct	Other Direct Matriculator Count	Prct
1. High Risk	344	30.55%	549	18.21%
2. Medium Risk	457	40.59%	972	32.24%
3. Low Risk	325	28.86%	1,494	49.55%
Total	1,125	100.00%	3,015	100.00%

Cause for Celebration:
- Direct matriculation from SDOC into Valencia increased by 679 students which is a 44% increase from academic years 2021 and 2022.

- CFEED has identified 1,126 Osceola Prosper Scholarship students who directly matriculated from SDOC core high schools into Valencia. These students graduated from SDOC in 2022 and began coursework at Valencia in 2023.
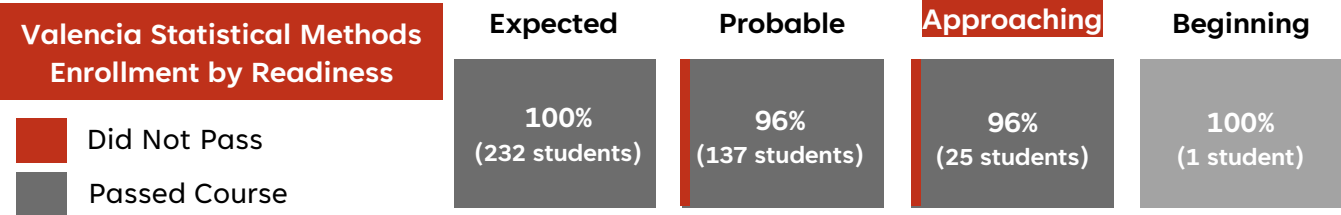
Potential Next Steps:
- The Osceola Prosper direct matriculators show a 0.53-point decrease in their Valencia 1st term GPA compared to other direct matriculators.

- This same cohort of students are needing more support to complete their AA or AS program. There are 344 students who directly matriculated under the Prosper program that are "High Risk" of attritting from Valencia.

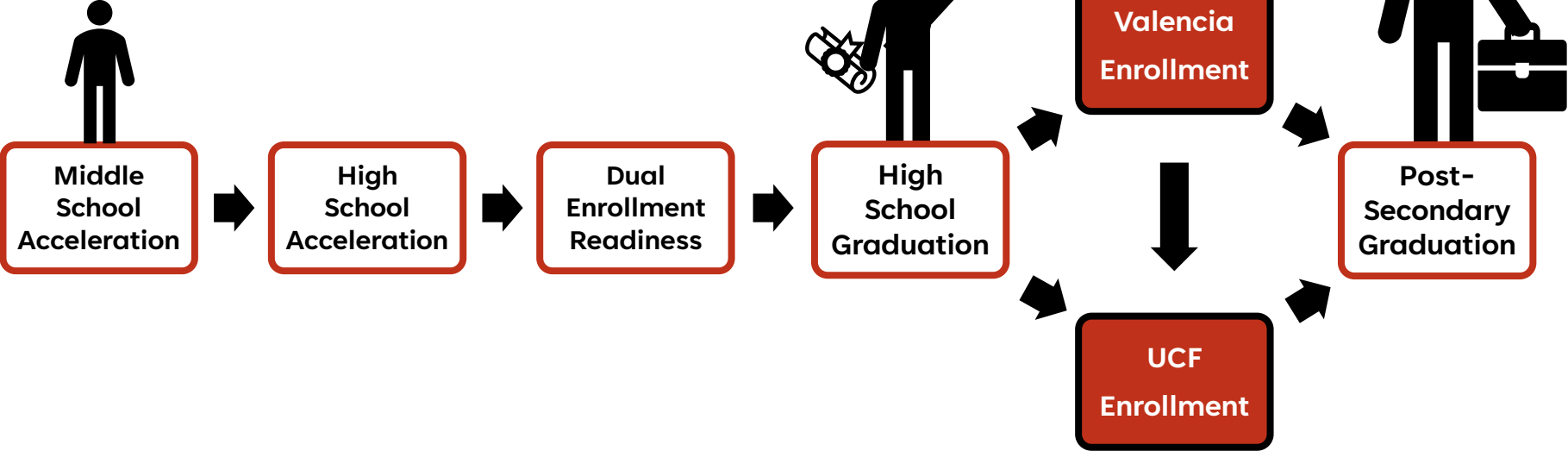# Central Florida Education Ecosystem Database:
Post Secondary Readiness Model

- We have conducted deep dives into effects from initial coursework taken at Valencia. By finding successful course patterns of students entering Valencia not yet ready for post-secondary coursework, more students can have an opportunity to progress at the school. For example, our research indicates the importance of students taking and successfully passing a math course during their first term at Valencia College.

Approaching Readiness Group Post-Secondary Success Example		Student Count	Attrition %	Completed Rate	Avg HS GPA	Avg HS # of Adv Courses
Passed a course	No repeats required	756	21%	5%	**2.59**	**4**
	One or more repeats	101	25%	20%	**2.61**	**5**
Passed Zero Courses	Never registered for course	1,180	41%	1%	2.48	3
	No official course attempts	190	58%	0%	2.51	4
	Took a math course with no repeats	450	52%	0%	2.51	4
	Took a math course with > 1 repeats	56	59%	0%	2.58	4
Approaching Group Totals		**2,733**	**38%**	**2%**	**2.5**	**3**

Valencia Statistical Methods Enrollment by Readiness

■ Did Not Pass
■ Passed Course

Expected	Probable	Approaching	Beginning
100% (232 students)	**96%** (137 students)	**96%** (25 students)	**100%** (1 student)

Expanding Access to Higher Level Degrees

Middle School Acceleration → High School Acceleration → Dual Enrollment Readiness → High School Graduation → Valencia Enrollment → UCF Enrollment → Post-Secondary Graduation

Transfer Scholars Program – Grant from the Helios Foundation
$1.3 Million Grant – May 2023 to December 2024

Goal areas/strategies, and students impacted so far:
- Support for Common Program Prerequisite completion at Valencia (101 students)
- Incentive for CPP completion at Valencia before UCF (156 students)
- Part-time incentive in the first semester at UCF (138 students)
- Students' Early Exploration (SEE) UCF (141 students)

Transfer Schools Program Task Force Goals for FULL-TIME STUDENTS:

Long Term:
- Increase two-year completion rates for Valencia students who enroll at UCF on a full-time basis in the fall.

Short Term:
- Enhance transfer and major readiness for students who enroll at Valencia full-time in the fall.
- Identify students who are likely to succeed in their full-time enrollment.

Transfer Schools Program Task Force Goals for PART-TIME STUDENTS:

Long Term:
- Increase completion rates for Valencia transfer students who enroll part-time.

Short Term:
- Enhance transfer and major readiness for students who enroll at Valencia part-time
- Identify students who would be more likely to succeed during part-time enrollment.
- Identify mechanisms to incentivize or require full-time enrollment

Central Florida Education Ecosystem Database:

Interactive Transfer Readiness Model

- CFEED has done extensive data analysis on transfer shock of students who transferred from Valencia to UCF.
- Of 2,716 students who transferred from Valencia to UCF in 2022, 44% experienced at least one shock event. This represented the highest rate since we started tracking this in 2015. Attrition rate of the 2022 cohort was 41%.
- Over half of students who attrit experienced a shock event during their time at UCF, compared to only one third of non-attriters.
- We can look at this data for individual students, and through the group lens based on selected program at UCF.

Students who transferred from Valencia to UCF in 2022, by selected program of study			
Selected UCF Program	**Student Count**	**Shock Event Percentage**	**Attrition Percentage**
Sciences	718	41%	42%
Business Administration	464	73%	47%
Engineering & Computer Science	381	57%	46%
Community Innovation & Education	355	22%	32%
Health & Public Affairs	268	29%	32%
Arts & Humanities	194	32%	48%
Nursing	98	27%	38%
Rosen College of Hospitality Management	79	42%	25%
Medicine	76	42%	45%

Central Florida Education Ecosystem Database:
Defining Shock Events

Central Florida Education Ecosystem Database:
Interactive Transfer Readiness Model

- CFEED has produced a model of Valencia to UCF transfer readiness by measuring the alignment of course history to a student's selected program. This information can be used to provide additional support to students to best prepare for the transition to UCF. As only 18% of Fall 2023 transfers were fully ready for their selected program, many opportunities for intervention exist.
- CFEED has also developed a method to align relevant programs for Valencia to UCF transfer students who have not yet decided on a program of study. There is potential to help thousands of students align more closely to a program of study at UCF.

Transfers for Fall 2023 (1,631 Students)
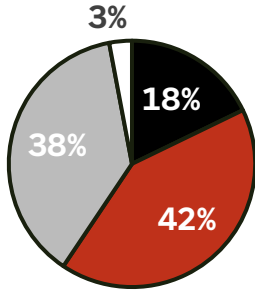
- ■ Fully Ready for Selected Program
- ■ Partially Ready for Selected Program
- ▢ Not Ready for Selected Program
- ▢ Not Ready for Any Program

Central Florida Education Ecosystem Database:
Interactive Transfer Readiness Model

- CFEED has laid the groundwork for thousands of students to receive guidance on next steps while at Valencia. Intervention is key to allow more students to stay on track to earn their AA degree, move to UCF under an aligned program, and avoid shock or attrition after the transfer occurs.
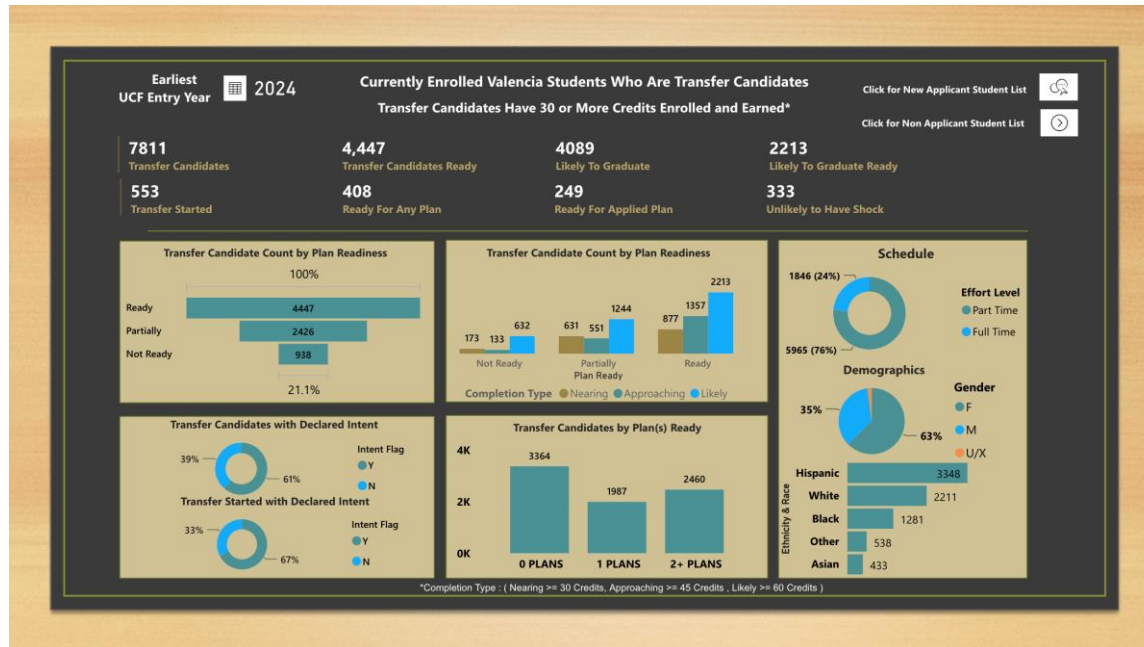
Thank you!

Do you have any questions?

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