Data Informed Decision Making: How to use data to improve outcomes

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Fundamentals of Using Data for Decision Making

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Using Data in Decision Making*

- Using data informed decision making is an iterative and dynamic process.

- Ideally, data becomes part of the culture and not a stand alone activity just used to satisfy reporting requirements.

- It should constantly and consistently inform the work.

- Data informed decision making is not devoid of professional judgement and context.

- Data informed decision making is EVERYONE's job
  - Recruit, Retain and Graduate.

*Schroeder, Kim, (2016) *The Power of Data: The Power of Using High Quality Data in Decision Making* [PowerPoint]

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Why data?*

- Tells us what really happened.

- Allows organizations and individuals to show the good work they have done.

- Gives the opportunity to use data as a flashlight and make improvements throughout the life of a program.

*Schroeder, Kim, (2016) *The Power of Data: The Power of Using High Quality Data in Decision Making* [PowerPoint]
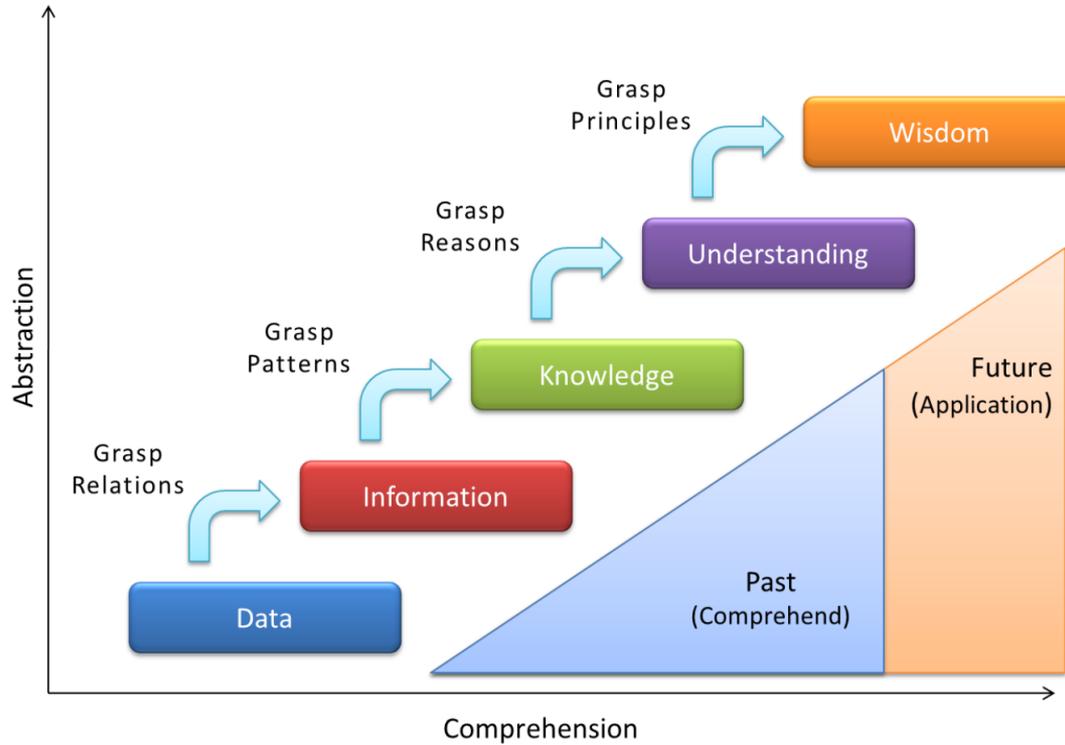
Data-Information-Knowledge-Understanding-Wisdom Continuum

Strategic enrollment planning is a continuous and data-informed process that:

- Provides realistic, quantifiable goals;

- Uses a return-on-investment (ROI) and action item approach; and

- Aligns the institution's mission, current state, and changing environment

- Aligns and integrates academic and co-curricular planning with marketing, recruitment, retention and financial aid strategies

…to foster planned long-term enrollment and fiscal health.

Research vs. Evaluation

Research

- Produces generalizable knowledge

- Scientific inquiry based on intellectual curiosity

- Advances broad knowledge and theory

- Controlled setting.

Evaluation

- Judges merit or worth

- Policy & Program interests of stakeholders paramount

- Provides information on decision-making for specific program

- Conducted within setting of changing actors, priorities, resources and timeline.

Deisgning Education Lab: Evualtion versus Research What's the Difference. Chen, Helen. 2013

Two Guiding Questions*

How's it going?

- o Are we successfully accomplishing our activities?

- o Are we moving along appropriately so that we can achieve our goals?

- o What can we do to fix stuff that's not working?

What good did it do? (KPIs)

- o Did we accomplish our goals?

- o Can we show that what we did was responsible for the accomplishments?

- o Do the accomplishments matter?

*Schroeder, Kim, (2016) *The Power of Data: The Power of Using High Quality Data in Decision Making* [PowerPoint]

Qualitative vs. Quantitative

Qualitative

- Case Study

- Narrative

- Ethnography

Quantitative

- Counting

- Measuring

- Numeric

Anecdotes

Data Limitations

- There are no perfect data. All data have limitations.
- Identify limitations:
  - Accuracy
  - Completeness
  - Quality (data entry, collection, etc.)
  - Bias
- Data Disruptions-Understanding the Context

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Myth Busters*

- Data can be qualitative OR quantitative.

- Look at what data you are currently collecting.

- Don't reinvent the wheel.

- Analysis does not have to complex. Simple sorting of a spreadsheet can tell you a lot.

*Schroeder, Kim, (2016) *The Power of Data: The Power of Using High Quality Data in Decision Making* [PowerPoint]

Correlation vs. Causation

- Correlation is not causation.

- Two things can be correlated (statistically), but the relationship is not causal.

- Casual relationships are difficult, if not impossible, to prove.

- www.spurriouscorrelations.com

Data Informed Decision Making*

- By having a deliberate evaluation plan, when you need to make changes to a program, you HAVE the justification.

- Allows you to make changes BEFORE a program ends.

- Ultimately, data should help to fuel continuous improvement of services.

*Schroeder, Kim, (2016) *The Power of Data: The Power of Using High Quality Data in Decision Making* [PowerPoint]

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Data Visualizations

DATA

SORTED

ARRANGED

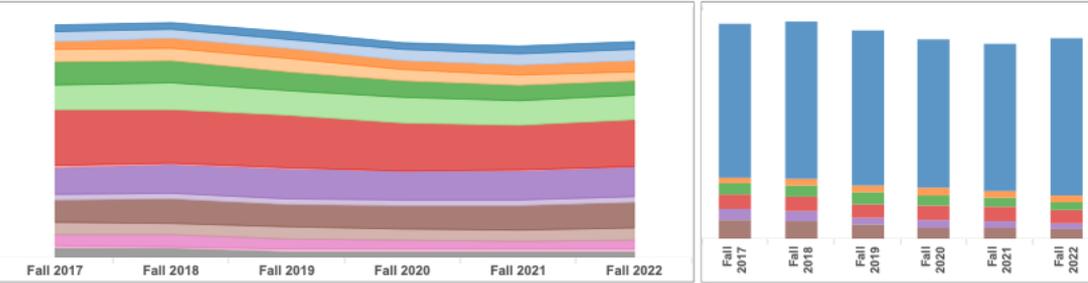PRESENTED
VISUALLY

EXPLAINED
WITH A STORY

Basics of Data Visualizations

1. Keep it simple. One idea per visual.

2. Eliminate as much clutter as possible (remove gridlines, etc.).

3. Include a title and legend, if applicable.

4. Explain what the reader should take away from the visual BEFORE you present the visual. The text should be before the chart/graph/table.

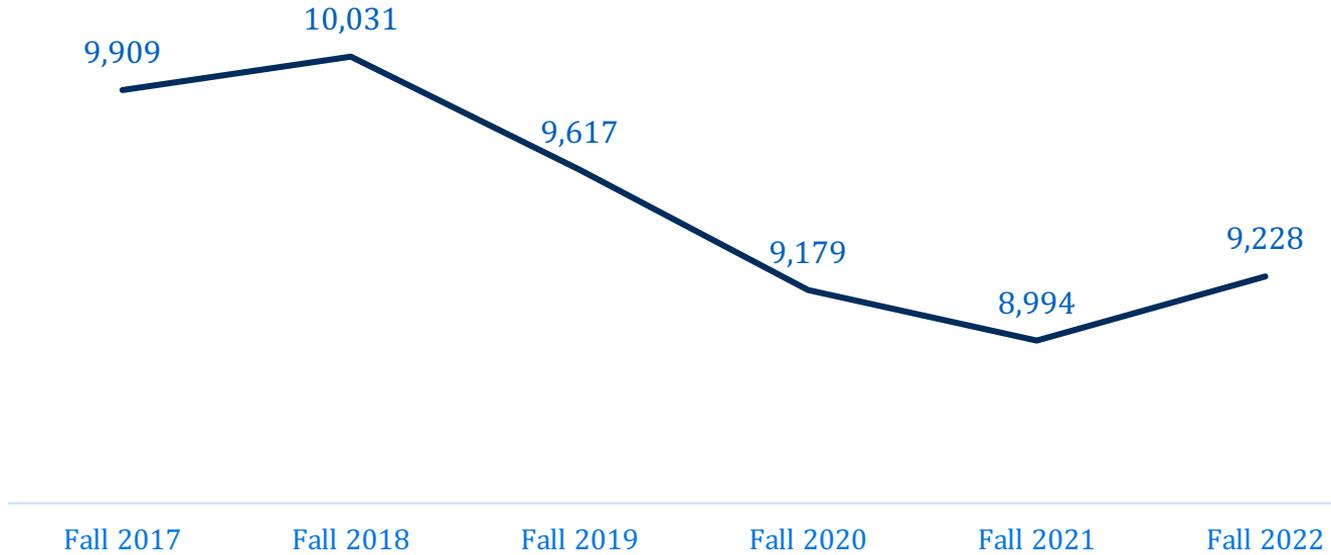*Schroeder, Kim, (2016) *The Power of Data: The Power of Using High Quality Data in Decision Making* [PowerPoint]

Student Enrollment

FAMU — FLORIDA AGRICULTURAL AND MECHANICAL UNIVERSITY

Term	New FTIC	School	Degree Program	Major	Strategic Emphasis
Multiple values	All	All	All	All	All

Row 1 Heading	Row 2 Heading	Column 1 Heading	Column 2 Heading
Class Level	None	None	None

	Fall 2017	Fall 2018	Fall 2019	Fall 2020	Fall 2021	Fall 2022
1-Freshman	2,202	2,215	1,822	1,350	1,313	1,710
2-Sophomore	1,551	1,498	1,676	1,555	1,433	1,463
3-Junior	1,739	1,867	1,822	2,094	2,085	2,059
4-Senior	1,766	1,940	2,177	2,083	2,169	2,209
5-First Professional	1,287	1,177	933	819	765	644
6-Graduate	870	886	847	940	923	841
7-Unclassified	494	448	340	338	306	302
Grand Total	9,909	10,031	9,617	9,179	8,994	9,228

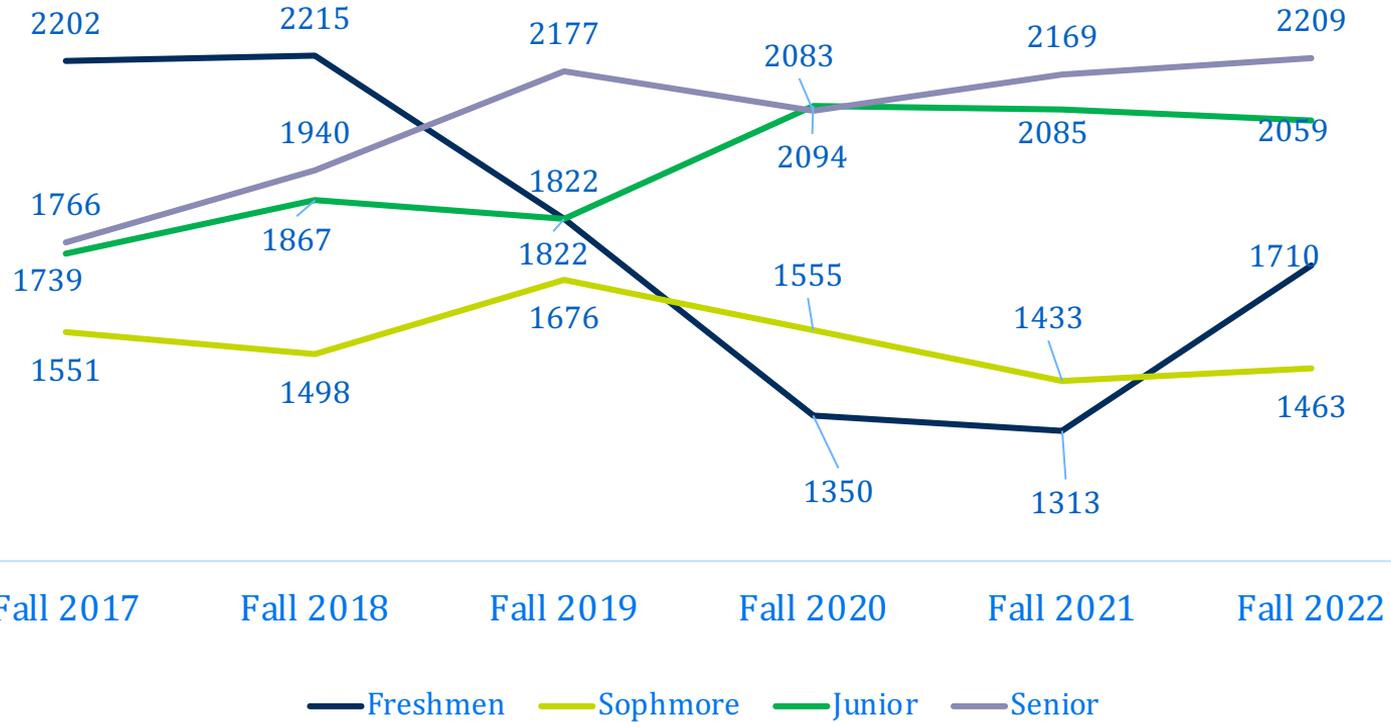The following data points were updated on 04/19/2023.
- Student classifications.
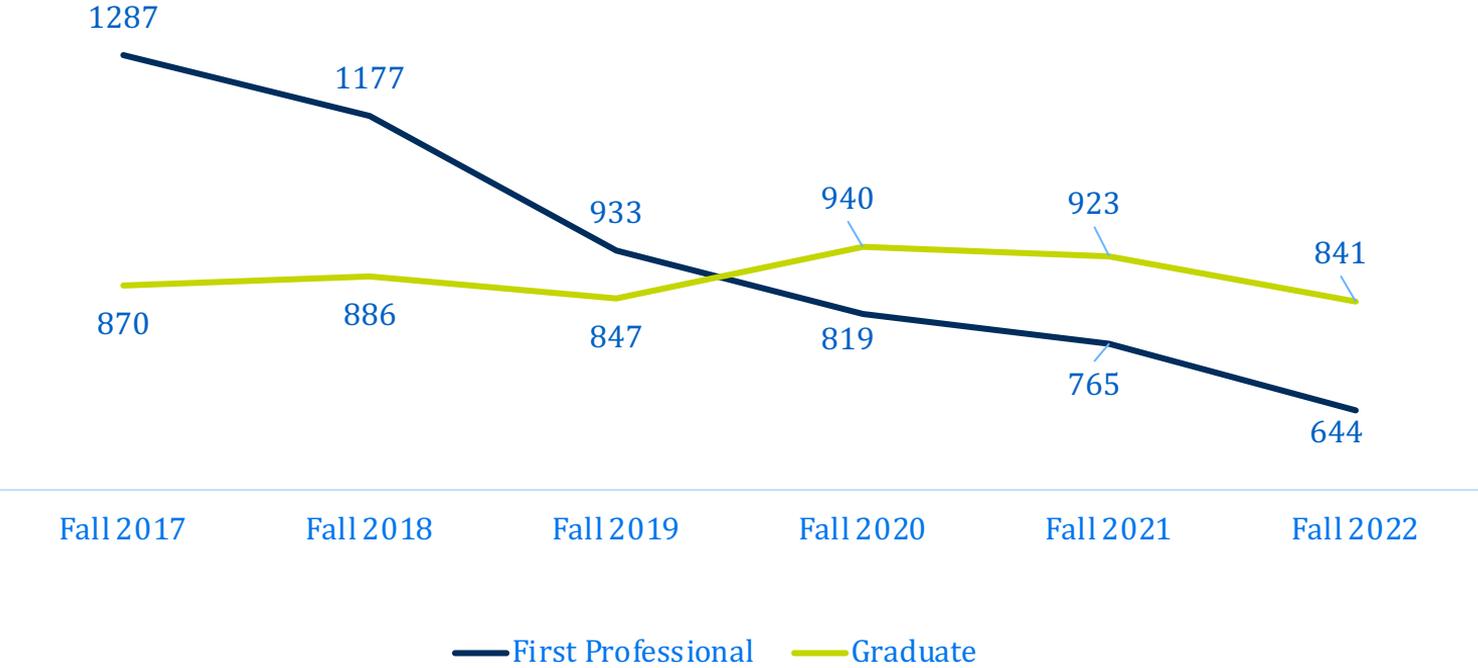
FAMU Fall Enrollment 2017-2022

Fall 2017	Fall 2018	Fall 2019	Fall 2020	Fall 2021	Fall 2022
9,909	10,031	9,617	9,179	8,994	9,228

FAMU Fall Enrollment 2017-2022

Undergraduate: 7,258 · 7,520 · 7,497 · 7,082 · 7,000 · 7,441

Graduate: 2,157 · 2,063 · 1,780 · 1,759 · 1,688 · 1,485

Fall 2017 · Fall 2018 · Fall 2019 · Fall 2020 · Fall 2021 · Fall 2022

Undergraduate — Graduate
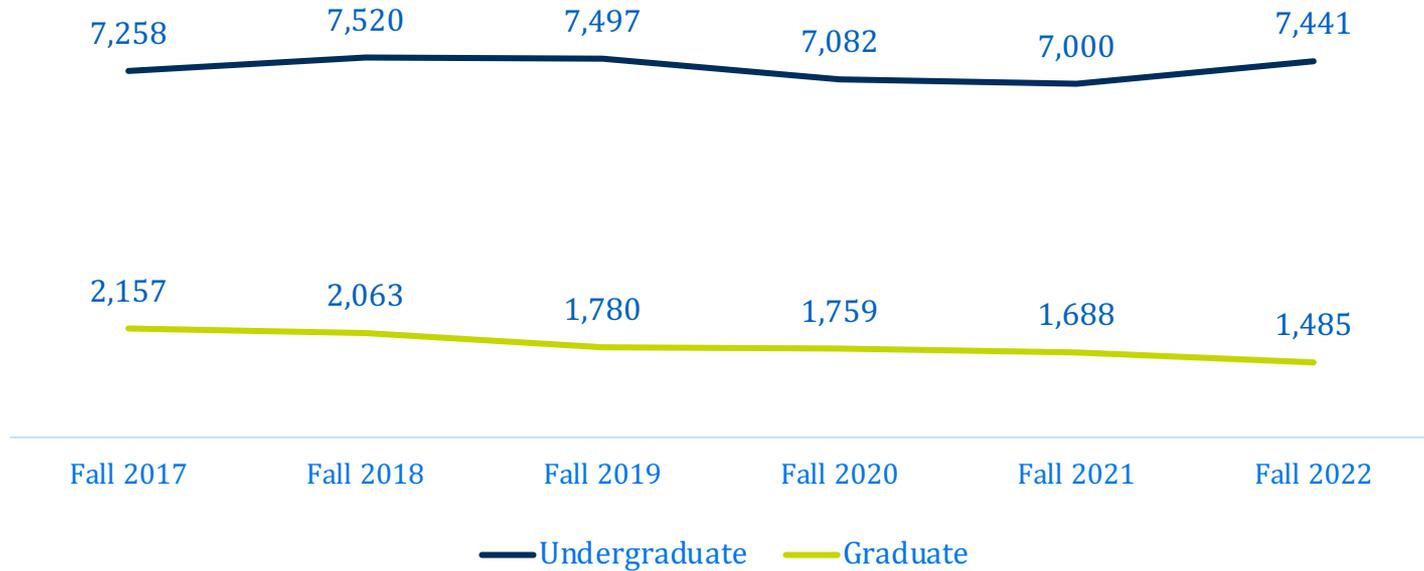
FAMU Undergraduate Fall Enrollment 2017-2022, by Classification

FAMU Graduate Fall Enrollment 2017-2022, by Classification

First Professional: 1287, 1177, 933, 819, 765, 644

Graduate: 870, 886, 847, 940, 923, 841

Fall 2017 · Fall 2018 · Fall 2019 · Fall 2020 · Fall 2021 · Fall 2022

First Professional — Graduate

Avoid letting data speak for itself

Evidence from the predictive model for retention highlights the financial difficulties of our students from families in the middle of the financial spectrum (See Table 1 below). At-risk students come from families with average household incomes of $75,550 to $134,563; generally too high to qualify for need-based aid, but not so high that they can afford to pay as they go.

Table 1: Predictive Model for Retention

Model Variable	Risk Category	Risk Threshold	At Risk Count	At-Risk Persistence
Campus Visit Flag	Educational Aspiration	Values of 0 - No Campus Visits	418	74.9%
Binned Institutional Rating	Academic Preparation	Categories with persistence rates below 78.1% - 75.0 or Lower	573	74.9%
Gender	Demographic	Values of 0 - Female	865	78.4%
No. of Days as Applicant	Educational Aspiration	Values below 203	465	77.0%
Binned Avg. HH Income	Financial Needs	Categories with persistence rates below 78.9% - $75,550 to $134,563	340	75.9%
Student Ethnicity	Demographic	Categories with persistence rates below 78.6% - Asian, Hispanic, or Black	187	73.8%

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Preparing for the Situation Analysis

Five broad classes of data and research to inform the SEP

1. Enrollment trends by population segment (UG, GR, online, on-ground), including profile data on each segment (quality indicators)

2. Marketing and recruitment performance

3. Retention/completion and outcomes data

4. Fiscal health

5. Market position, share and demand

A situation analysis must. . .

- Tell an *interesting* story.
- *Quantify* threats and opportunities.
- Employ a blend of *written narrative* and the *visual representation of key data*.
- Create a *direct* link between identity, actions, and outcomes.
- *Motivate* specific actions with specific desired results.

A situation analysis…

▪Provides an assessment of the current and projected strengths, weaknesses, opportunities and threats that need to addressed in the development of enrollment strategies.

▪Should relate to the KPIs (enrollment, revenue, etc.) that will be identified tomorrow and shared.

▪Should be based on both the best quantitative data that is available and the qualitative information and views of experienced environmental observers.

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Guidelines for the data-informed analysis

- Data should be collected to support a narrative of mission and competitive strategy.
- Data claims in the narrative should be provided with comparative historical context.
- If there is no data, the claim is suspect.
- Does the story make sense in light of the data?
- Peers should review/critique the story.

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Second Working Session – Data Needs and Initial Strategy Ideation

- Develop an initial list of your group's data and information needs as you begin to prepare a comprehensive situation analysis for your focus area. Use the handout provided.

- Capture any preliminary strategy ideas for your focus area. Based on your initial SWOT, what might FAMU do? What strategy ideas are already "out there" for your area?

- Strive for a 3:00 p.m. conclusion; we will not reconvene as a large group.

- Email me your SWOT analysis : **Kim.Schroeder@ruffalonl.com**

Where we are headed
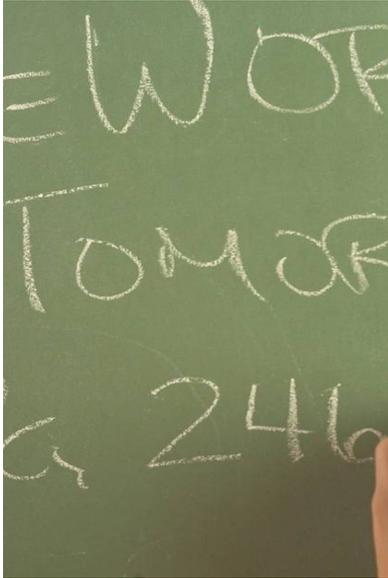
Working Groups:

- Coordinate through the Steering Committee on data collection

- Drafts of focus area narratives: start telling the data-informed story

- Identification of Data Points (support the narrative & that connect to KPIs)

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SEP Timeline Review

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Strategic Enrollment Planning Framework

PHASE 1

PREPARATION & DATA ANALYSIS
- Build structure
- KPI identification
- Data collection
- Situation analysis

PHASE 2

STRATEGY DEVELOPMENT
- Strategy ideation
- Action planning
- Strategy prioritization
- ROI considerations

PHASE 3

GOAL DEVELOPMENT
- Enrollment projections
- Goal setting
- Written plan finalization

PHASE 4

IMPLEMENTATION & CONTINUATION
- SEP Implementation
- SEP transitions to SEM
- Monitor, evaluate, and update the plan

SEP Timeline at FAMU

Meeting Set.	Date	Objectives/Focus
One	April 11-12, 2023	SEP process discussion with leadership; solidify organization; identify preliminary planning assumptions and KPIs; review data needs
Two	June 13-14, 2023	Conference-style launch of SEP process with working groups and steering committee; SWOT identification; prepare for situation analyses
Three	September 27-28, 2023	Situation analyses review; initial strategy ideation; action planning organization
Four	November 28-29, 2023	Action plans review and discussion one; additional strategy ideation
Five	January 23-24, 2024	Action plans review and discussion two
Six	March 26-27, 2024	Action plans review and discussion three; initial strategy prioritization
Seven	May 20-21, 2024	Prioritization; plan formation
Eight	June 18-19, 2024	Implementation and initial roll-out

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Questions and Discussion

Thank you for your collaboration!

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