



# Predicting Program Size and Remix of Existing Programs

Gray DI Master Class Series

March 31<sup>st</sup>, 2026



## Today's Speaker



**Youssef Aljabi**

Associate Vice President, Data  
Science and Product

Gray Decision Intelligence

## **Turbulent 20s**

Pandemic  
Domestic Division  
Attacks on higher ed  
Enrollment cliff  
AI and jobs  
War  
?



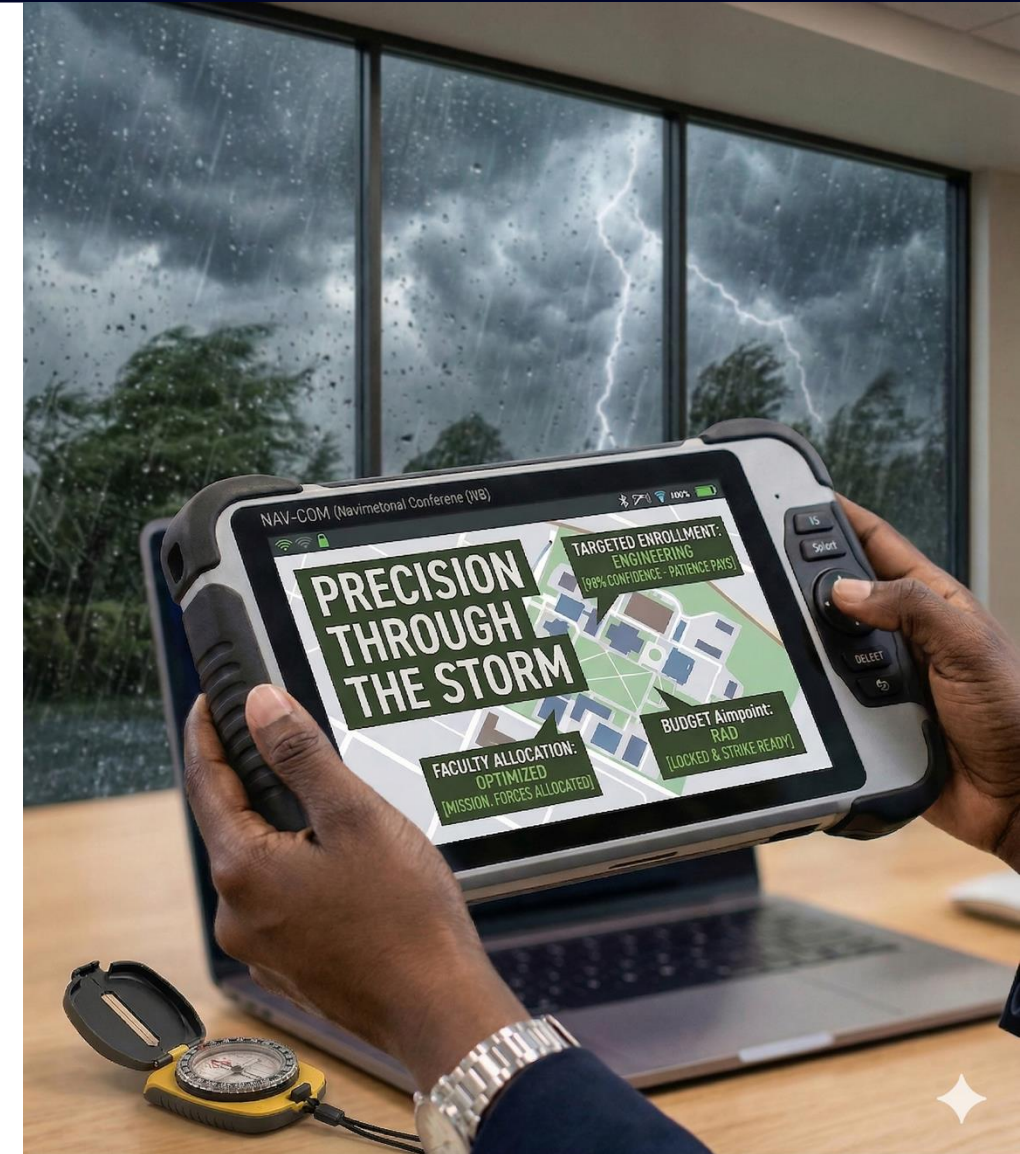


## Precision Through the Storm

**In the last session, we explored how understanding your internal data can keep you stable and efficient**

In this session, we will:

- Navigate the horizon and learn how to make intelligent, agile, and financially-sound decisions
- Review data and techniques to inform current and new program investment





## A Framework for Intelligent, Agile, and Financially-Sound Decisions



Within this framework, there are techniques for:

- **Projecting enrollment:** calculate program size accurately
- **Forecasting financials:** project financials thoroughly
- **Remixing existing resources:** launch new majors by leveraging existing faculty and assets

# Agenda

**Precision Through the Storm**

**A Framework for Intelligent, Agile, and Financially-sound Decisions**

**Projecting Enrollment**

**Forecasting Financials**

**Remixing Existing Resources**



## Poll 1 (Estimating Program Sizes)

1 question

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**1. How do you go about estimating new program sizes?** (Single choice)

- ☐ I just wing it
- ☐ I use the average size in my market
- ☐ Someone on my team comes up with an estimate (I don't know how they do it)
- ☐ I do not have a process to estimate new program sizes
- ☐ I have a rigorous process I am very confident with



## Projecting Enrollment

### *If the scale is wrong, the strategy can't be right*

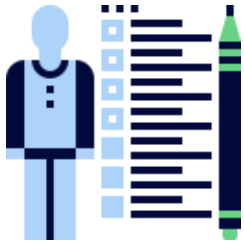
- Beyond national and market averages
  - The size projections should be customized to the institution's characteristics
- The size establishes your "Go/No-Go" signal
  - **New Programs:** Quantify the potential before you invest the first dollar. Move from “guessing/breakeven” to “gauging”.
  - **Current Programs:** Detect growth opportunities and identify your star programs
- The cost of sizing errors
  - If your projection is too big (over-sizing) -> you over-hire faculty, waste capital, don't see the desired ROI
  - If your projection is too small (under-sizing) -> you'll miss on the opportunity and leave the market for competitors
  - Both errors have a huge **opportunity cost**





## Past, Present, and Future

### Projecting Program Size



**Average Size  
Median Size**



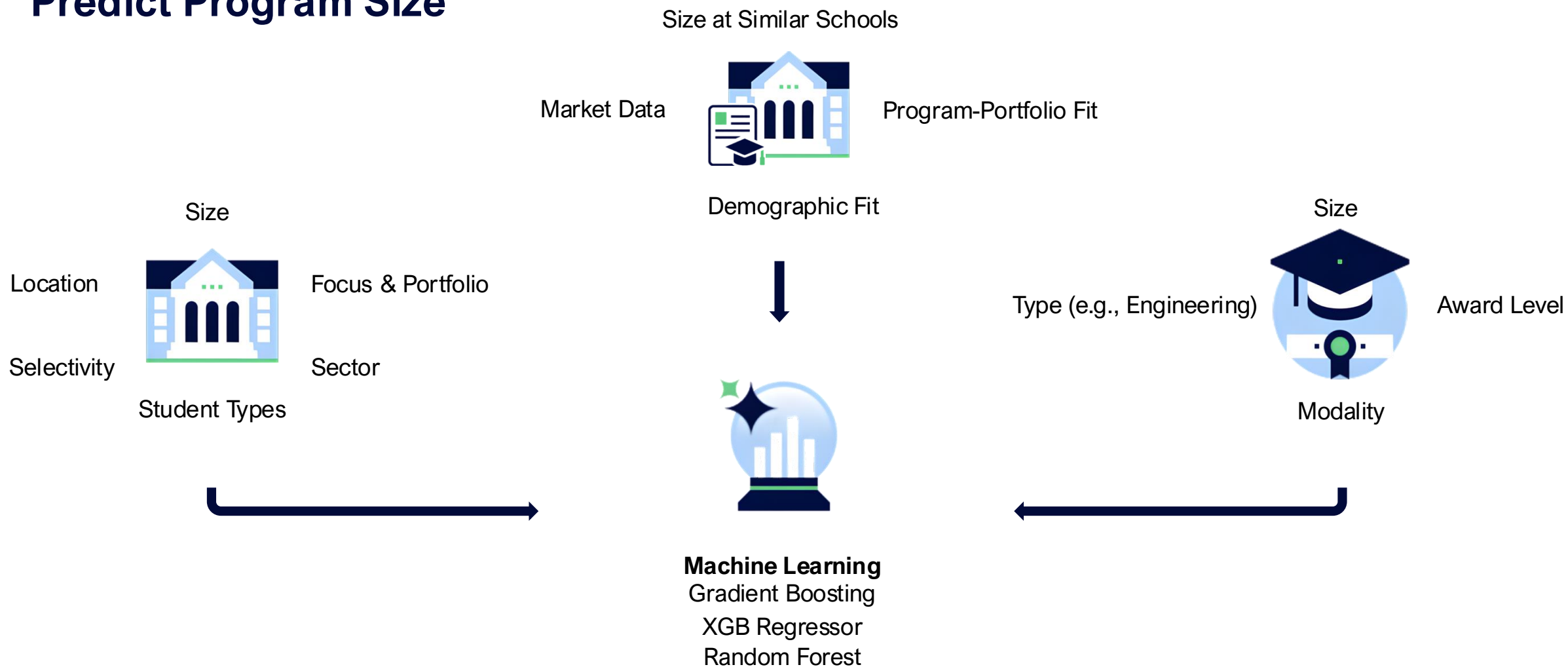
**Peer Institution Analysis  
Accreditor's Data**



**Build Machine  
Learning Model**



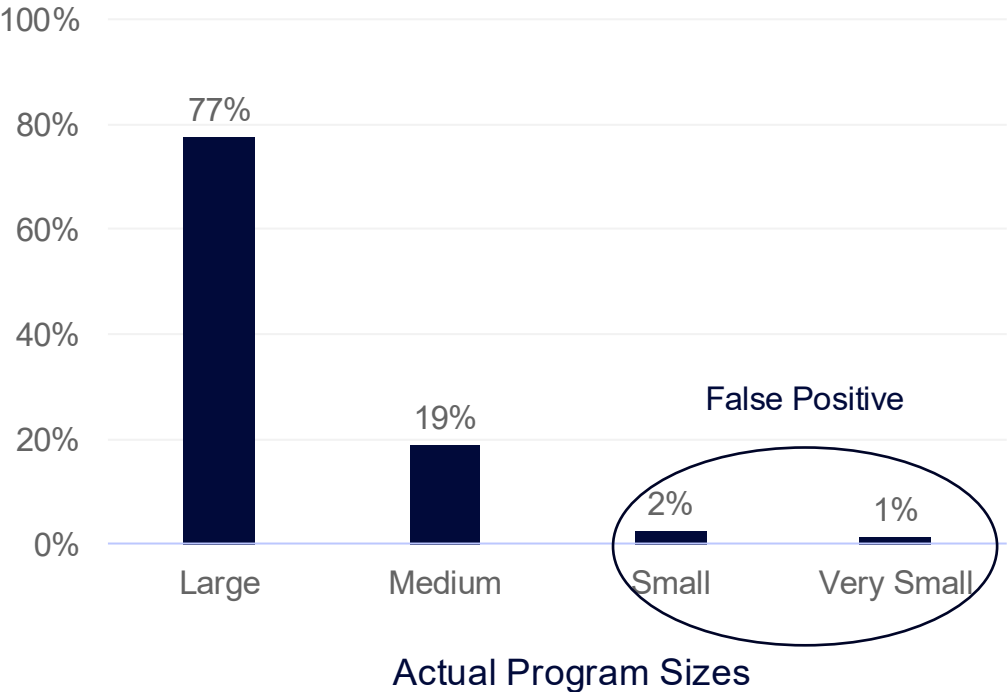
## Predict Program Size



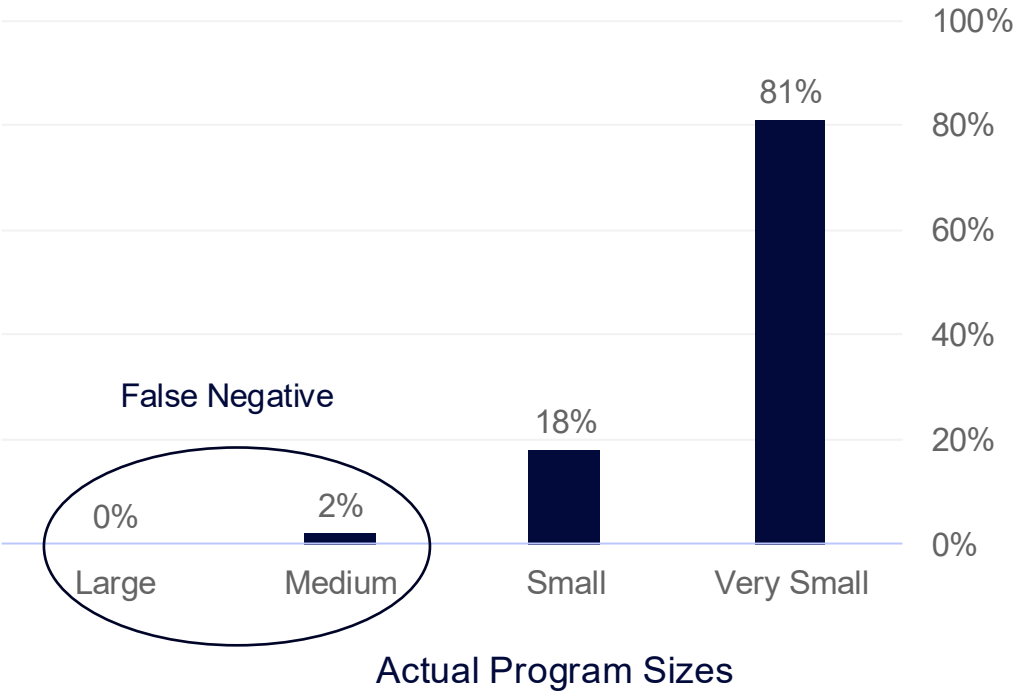


Design appropriate validation method.

Predicted vs Actual Program Size  
Large Program



Predicted vs Actual Program Size  
Very Small Program



## Qualitative Spot Check: What is your institution's focus?

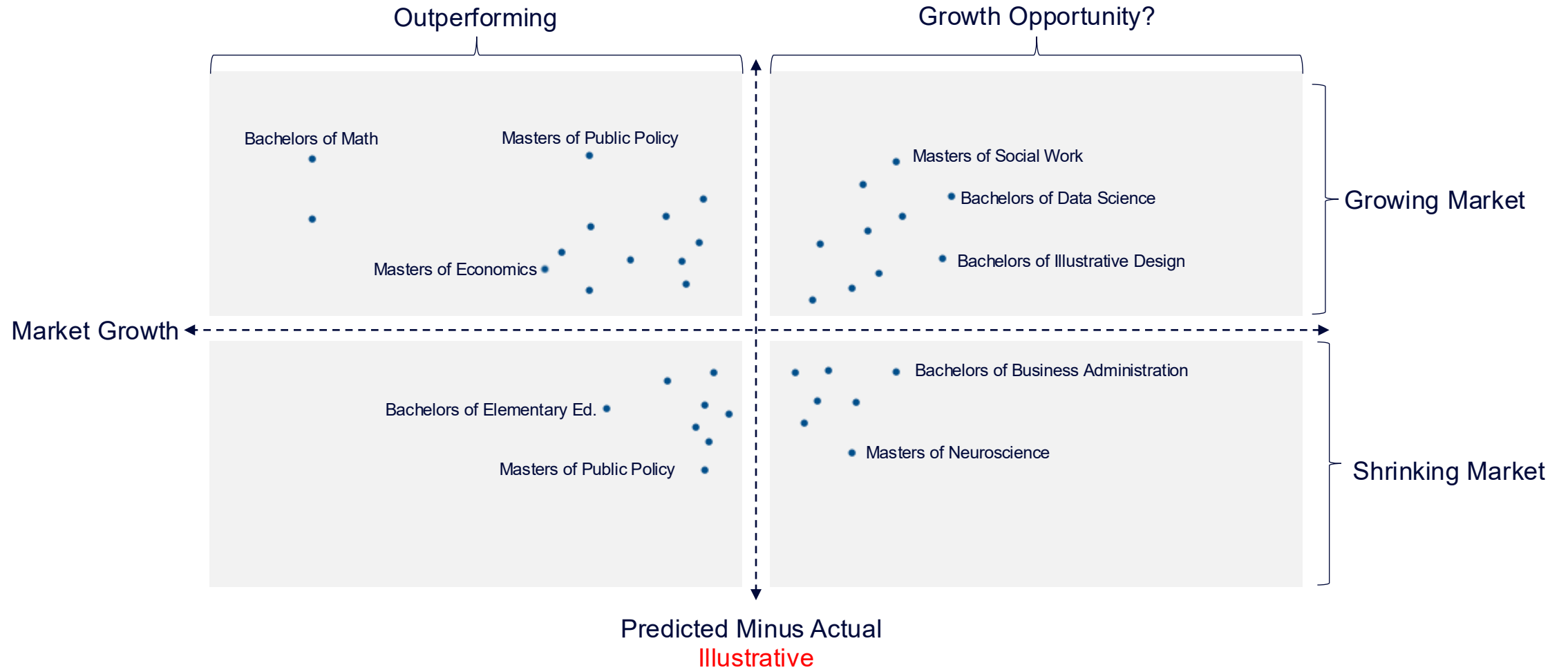
**A small school with an arts focus can produce 3x the completions of a larger state school.**

### Bachelors in Cinematography

| CIP (Bachelor's)                                       | Institution             | School Size | Status      | On-Ground Prediction | Online Prediction | Both Prediction |
|--------------------------------------------------------|-------------------------|-------------|-------------|----------------------|-------------------|-----------------|
| 50.0602<br>Cinematography and<br>Film/Video Production | Art and Design<br>Focus | ~1,000      | New Program | 76                   | 75                | 75              |
| 50.0602<br>Cinematography and<br>Film/Video Production | State School            | ~3,000      | New Program | 22                   | 26                | 24              |



## Current Programs Portfolio





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## Poll 2

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**1. How long does a program proposal process take you, including market analysis and financial forecasting?**

(Single choice)

- ☐ Less than a week
- ☐ 2-4 weeks
- ☐ 1-3 months
- ☐ Forever



## Forecasting Financials

### *Accuracy is anchored in the scale*

- Once you have an accurate size projection, forecasting revenue becomes an easy task
  - Headcount translates to tuition revenue
- Expense Budgeting
  - Current faculty, new full-time faculty, or adjunct faculty. Timeline?
  - Program development costs, marketing, administration
- What-if Analysis
  - Create different scenarios using different inputs
  - Model **low, mid, high** estimates



## Pro Forma Financials

### Enrollment

- Predicted size
- School's retention rates
- National growth ramps

### Revenue

- Students' credits per year
- Tuition and fees
- Discount rate

### Cross Departmental

### Instructional Costs

- Curricular mapping
  - Current vs New courses
- Instructional cost per SCH

### Non-Instructional Costs

- Administration cost
- Program development costs
- Marketing costs



# Pro Forma Output: Financials

Year 3

99

\$0.75M

\$1.93M

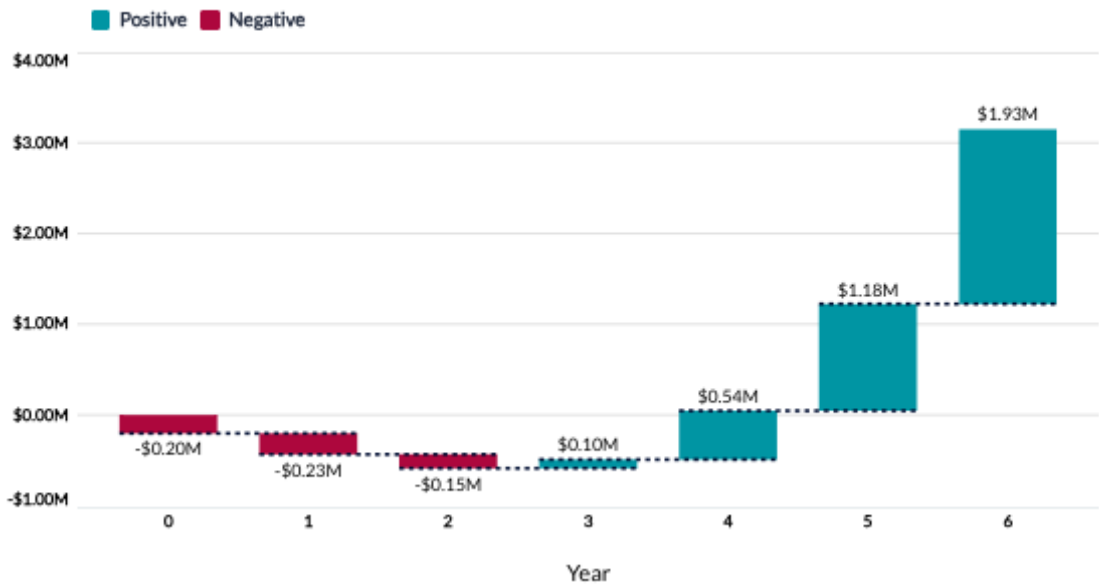
Breakeven Point

Enrollment at Maturity

Gross Margin at Maturity

Cumulative Cashflow

Cumulative Cash Flow by Year



Year 6 Margins



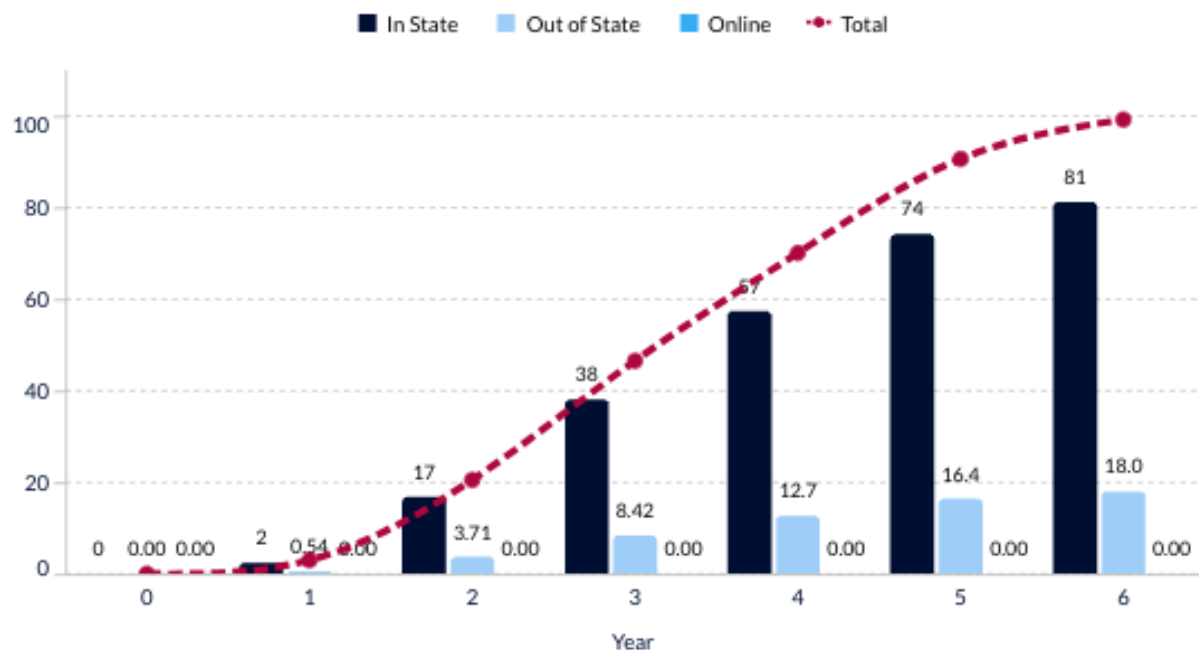


## Pro Forma Output: Enrollment and Faculty FTEs

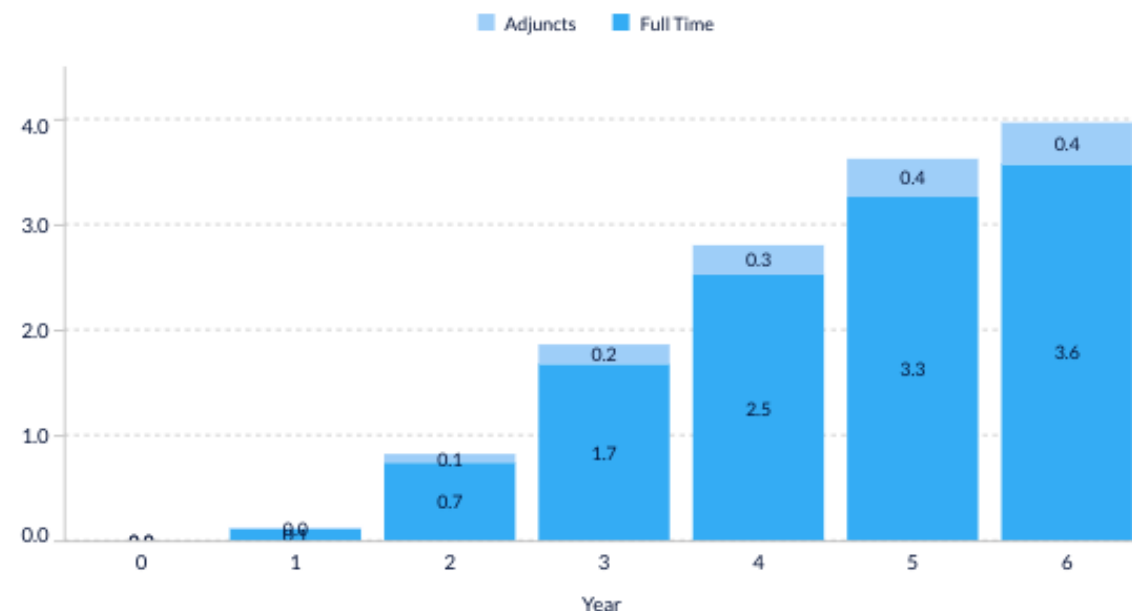
Year 3                      99                      \$0.75M                      \$1.93M

Breakeven Point                      Enrollment at Maturity                      Gross Margin at Maturity                      Cumulative Cashflow

Enrollment by Year



Faculty & Adjunct FTEs by Year





GRAY DI™

PROPRIETARY





# Standardize Reporting

Consistent, efficient, and repeatable process at your institution.



# Agenda

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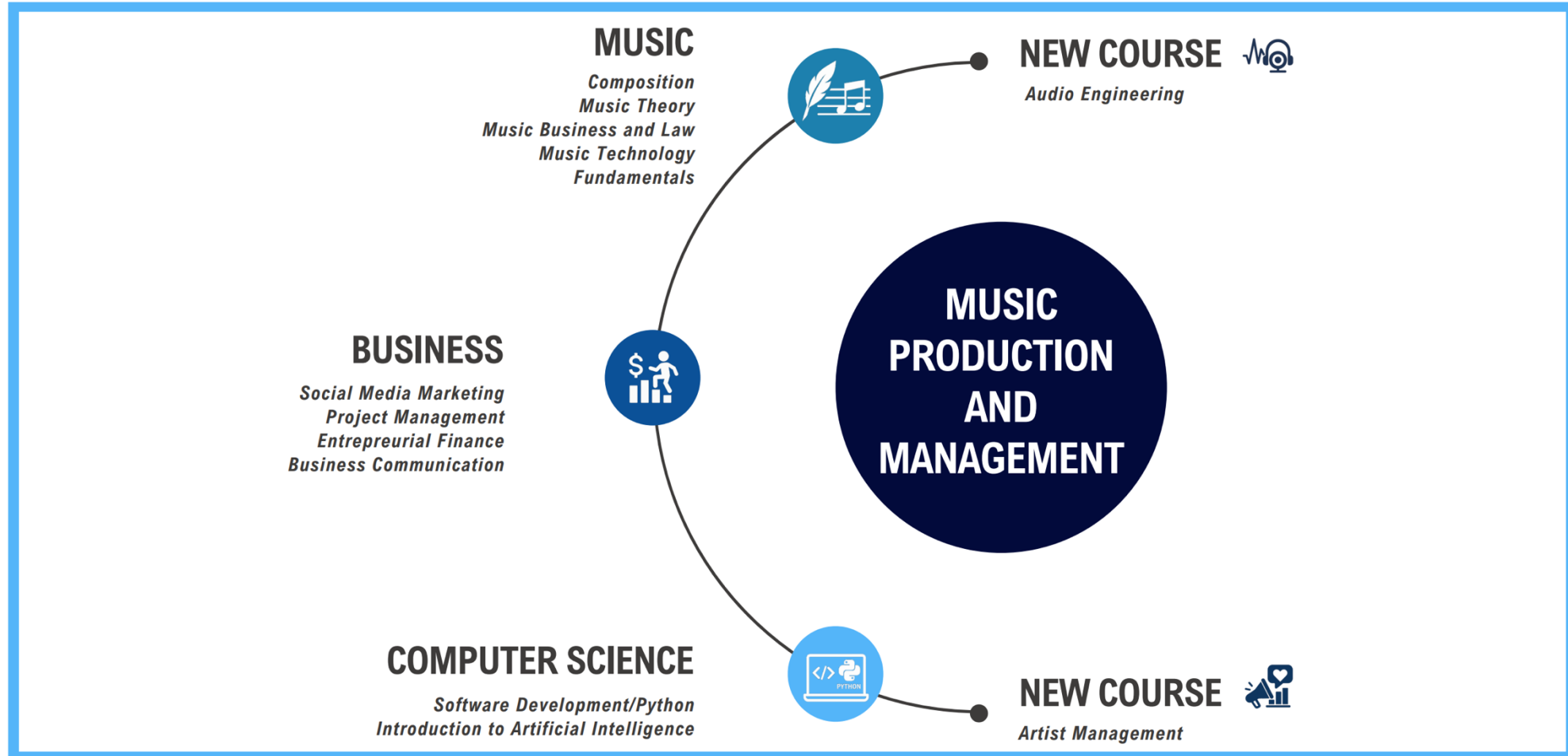
**Projecting Enrollment**

**Forecasting Financials**

**Remixing Existing Resources**



## What Does Remixing a Program Mean?

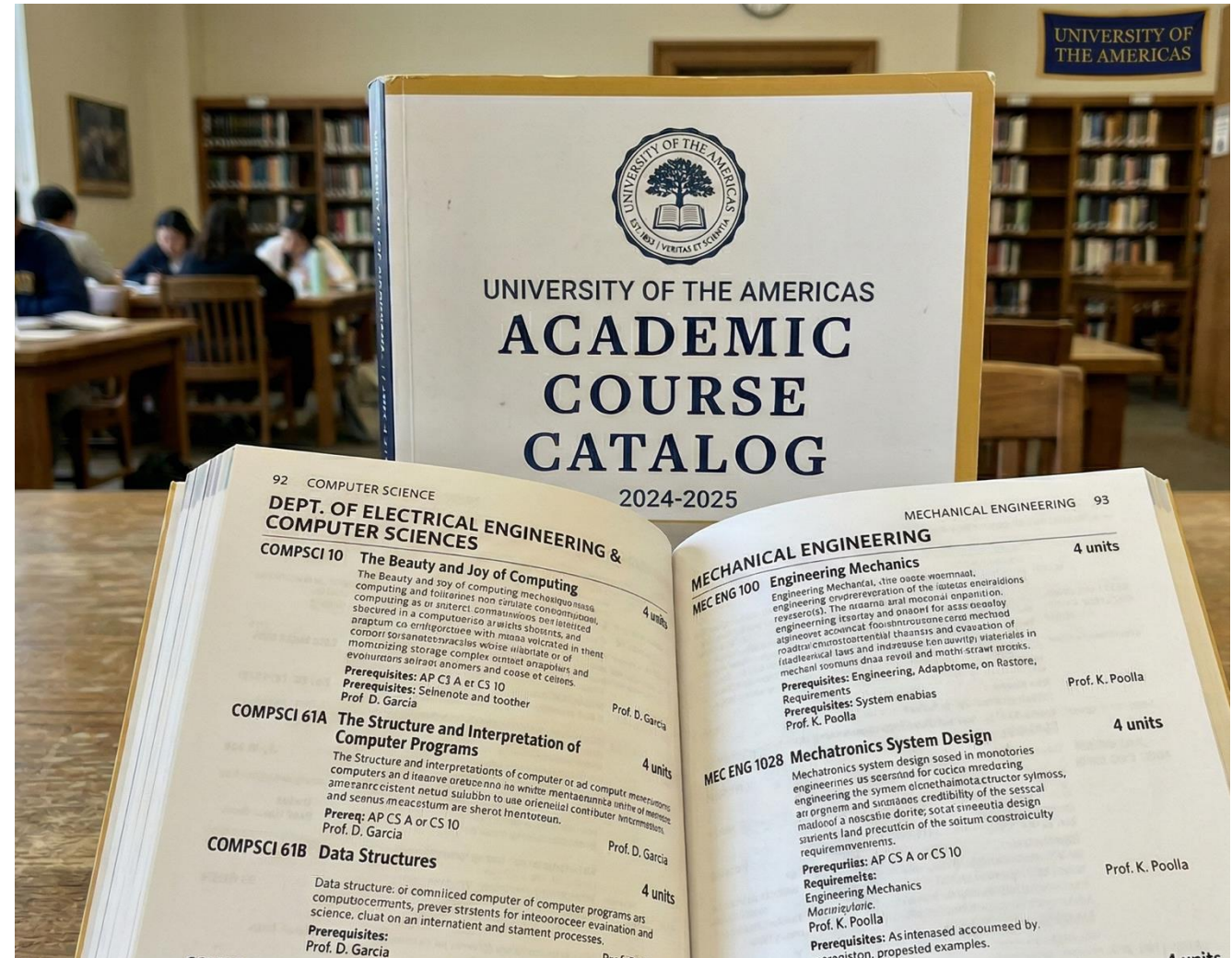




# Remixing Existing Resources

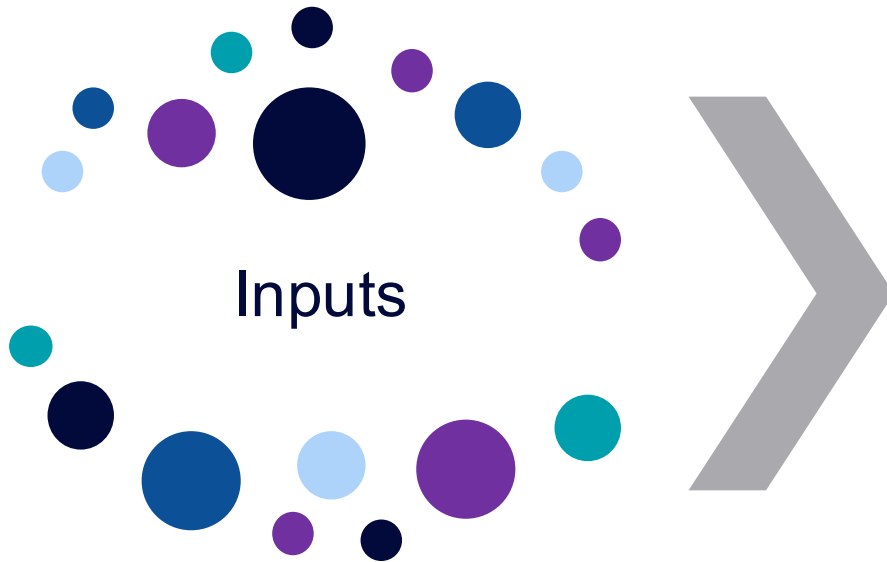
## Navigating with What's on Board

- You already have thousands of courses, hundreds of qualified faculty, and a lot of opportunities.
- By remixing existing curriculum, you drive the marginal cost of a launch toward zero and maximize seat efficiency.
- You can remix and launch a new major next fall by bypassing the traditional lead times for new hiring or new course-approval processes.
- You aren't "betting the house" on a new venture. You're simply using your existing strengths to appeal to a wider market.





## How Does That Work



- Market Intelligence
- Predict Program Size
- Current Programs
- School Catalog
- Strategic Plan, Accreditation
- Faculty Expertise
- General Program Requirements Data

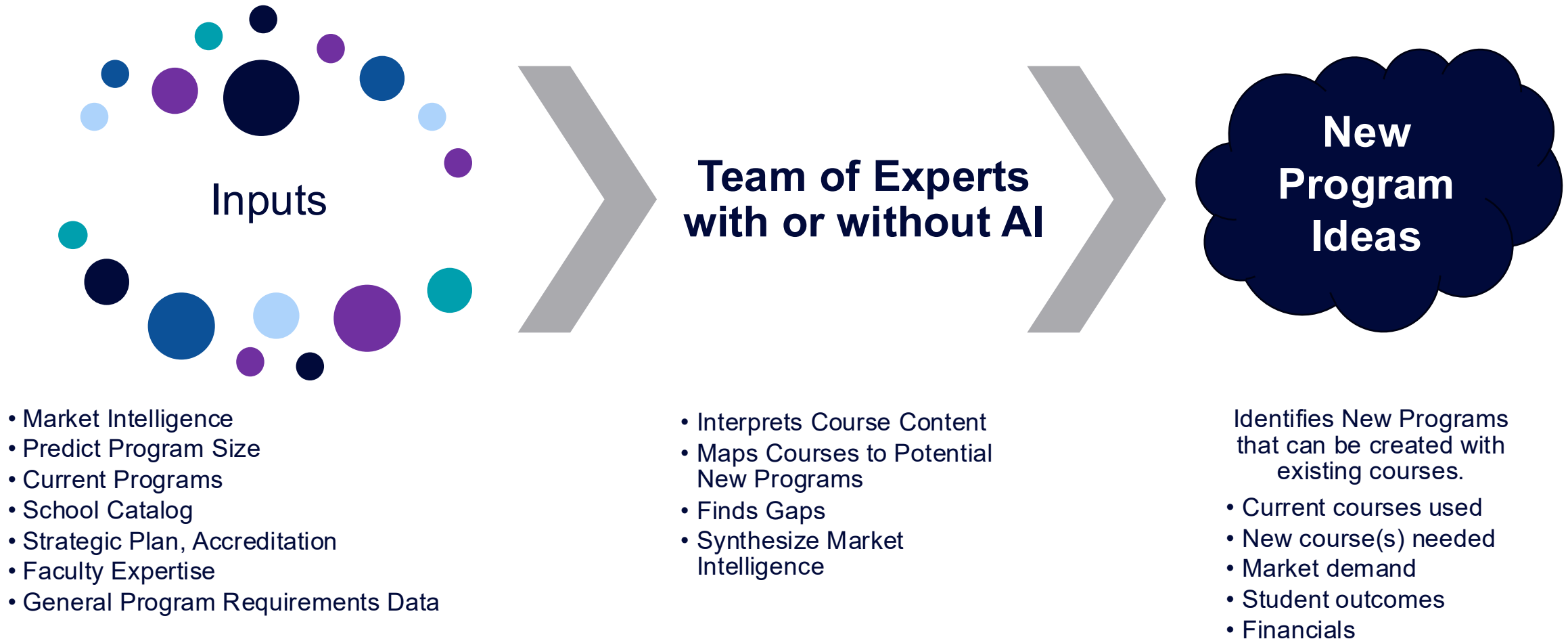


## How Does That Work





## How Does That Work







# Standardize Reporting

Consistent, efficient, and repeatable process at your institution



## Program Remix

### New Program Suggestion Report

Bachelor of Science in Game and Interactive Media Design  
Bachelor's | CIP: 11.0804



## Bachelor of Science in Game and Interactive Media Design

Bachelor's | CIP: 11.0804

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### DIG 3715C — Game Engine Development I — 3 Credits

**Course Description:** An introduction to real-time 2D and 3D game development using a modern game engine like Unity. Students will learn the fundamentals of the engine's interface, scripting (C#), physics, animation, and UI systems to create several small game projects.

**Learning Outcomes:**

- Navigate the interface of a modern game engine to assemble game scenes.
- Write basic scripts to control game object behavior and player input.
- Implement fundamental game systems such as physics, animation, and user interface.
- Package and build a playable game for a target platform.

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## Bachelor of Science in Game and Interactive Media Design

Bachelor's | CIP: 11.0804

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**RT 2201C — Concepts and Practices I — 3 Credits**  
**Justification for Reuse:** Introduces students to the principles of 2D and 3D design, which are directly applicable to level and character design.

**RT 2301C — Beginning Drawing — 3 Credits**  
**Justification for Reuse:** Establishes foundational artistic skills in form, perspective, and composition that are essential for concept art and asset creation.

**EN 4020 — Software Engineering — 3 Credits**  
**Justification for Reuse:** Teaches the project management and team collaboration skills necessary for working on large, complex software projects like video games.

**OP 2510 — Programming Concepts — 3 Credits**  
**Justification for Reuse:** Provides the absolute fundamental programming logic required before learning game-specific scripting languages.

**OP 3514 — Program Design — 3 Credits**  
**Justification for Reuse:** Develops object-oriented programming skills, which are the paradigm used by major game engines like Unity and Unreal.

**IG 3873 — Introduction to 3D Animation — 3 Credits**  
**Justification for Reuse:** Provides a direct introduction to the 3D modeling and animation software and workflows used in game development.





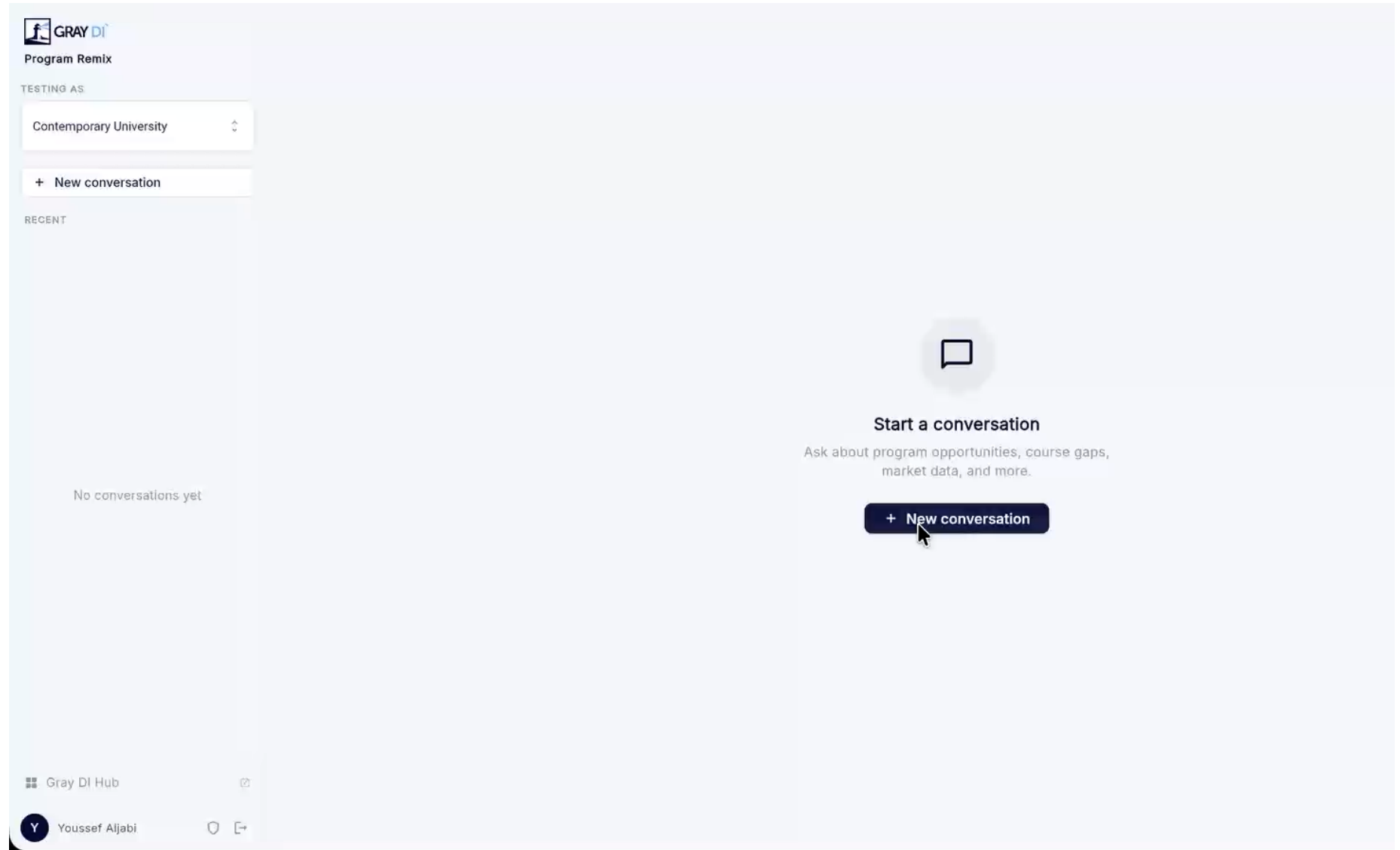
## Interactive Model

**With the advancements of AI, you can securely combine your institution's data with real market intelligence to explore your options through conversation.**

- Remixing a program is not one and done. It's an iterative process.
- A comprehensive model provides:
  - Real-time analysis of program gaps, market demand, and curriculum reuse opportunities
  - Answers grounded in your actual catalog, courses, and strategic plan with source citations
  - Markets data and size prediction
  - Similarity and cannibalization risk flagging before you invest
  - Program naming conventions

## Interactive Model

- New Programs
- Markets Data
- New Courses
- Current Courses
- New Syllabi
- Workforce Insights
- Competitors Data
- Marketing Material
- Textbook Selection
- Faculty Information
- Other



The screenshot displays the Gray DI Program Remix interface. On the left, a sidebar contains the Gray DI logo, the title 'Program Remix', a 'TESTING AS' dropdown menu set to 'Contemporary University', a '+ New conversation' button, and a 'RECENT' section with the text 'No conversations yet'. The bottom of the sidebar shows 'Gray DI Hub' and a user profile for 'Youssef Aljabi'. The main area on the right features a large speech bubble icon, the heading 'Start a conversation', a descriptive text 'Ask about program opportunities, course gaps, market data, and more.', and a prominent '+ New conversation' button with a mouse cursor hovering over it.

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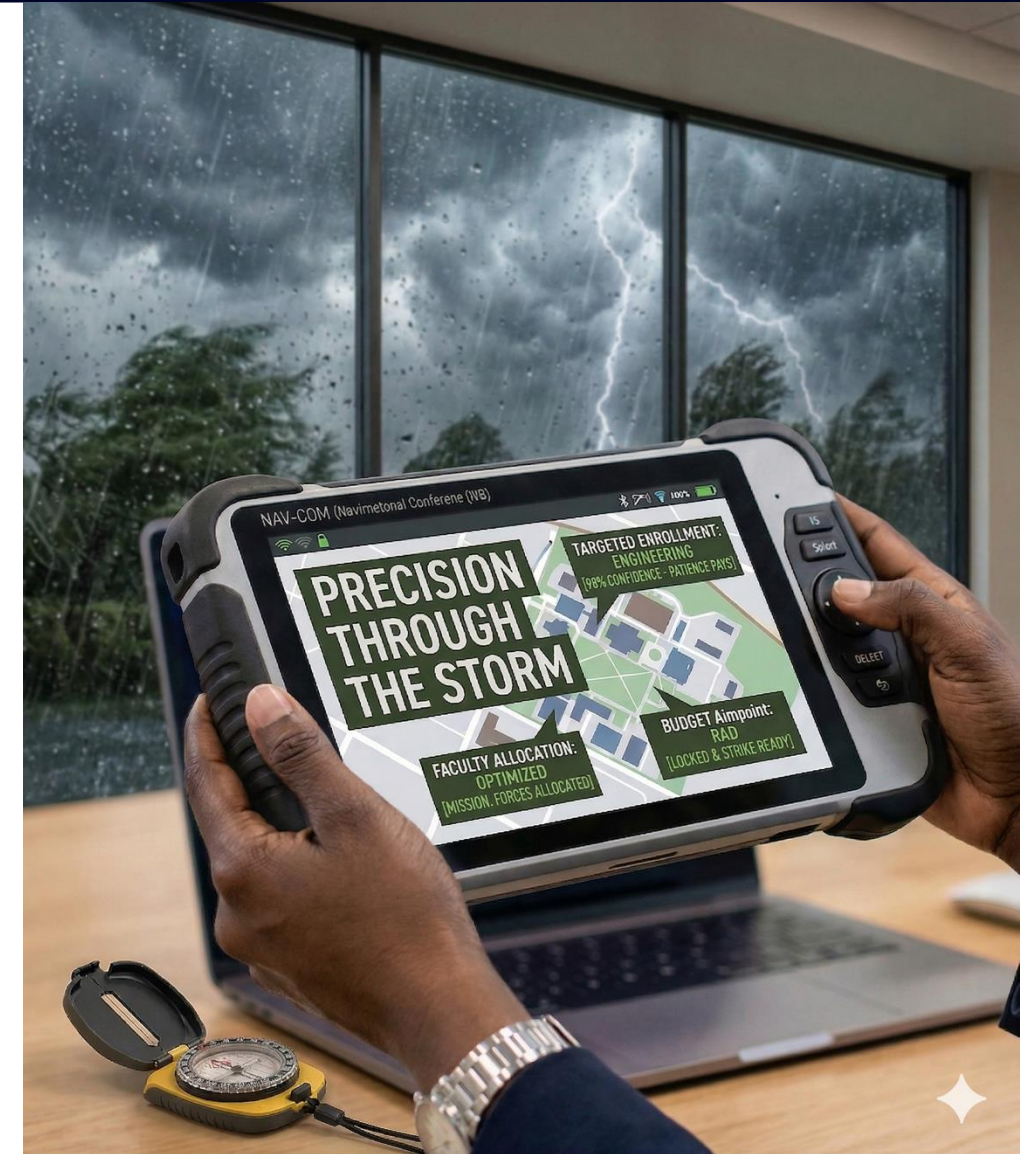
**Remixing Existing Resources**



## Precision Through the Storm

### In summary, we talked about

- Gaining confidence in new program decision making by leveraging best-in-class techniques in projecting program enrollment, forecasting financials
- Creating standardize, efficient, comprehensive process for your institution
- Using AI to explore new program offerings with existing resources responsibly and securely





# Next up in our Master Class Series

All classes are from 2-3 PM ET.

| Date            | Topic                                      |
|-----------------|--------------------------------------------|
| Tues., March 10 | Higher Education in the Roaring 20s        |
| Tues, March 17  | Market Demand for Academic Programs        |
| Tues, March 24  | Program Economics and Outcomes             |
| Tues, March 31  | Predict Program Size and Remix             |
| Tues, April 7   | Innovations in Academic Program Evaluation |

## Demand Trends Monthly Webinar

April 30th  
2 PM ET

