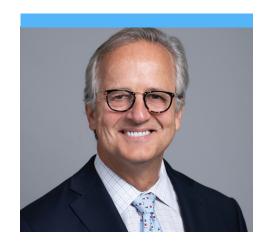


Demand for Higher-Education Programs

Today's Speakers



Robert Gray Atkins
Founder and CEO
Gray Decision Intelligence



Charlie Anastasi
VP of Revenue





Agenda

What is a Program Evaluation System?

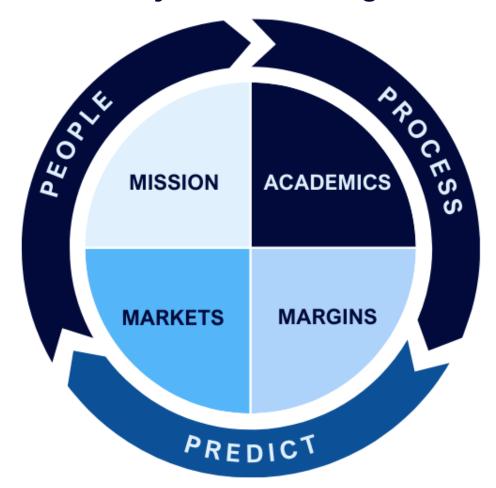
Student Demand

- Leading Indicators: Google
- Recent Trends: Enrollment
- Non-Degree Courses
- International Enrollment

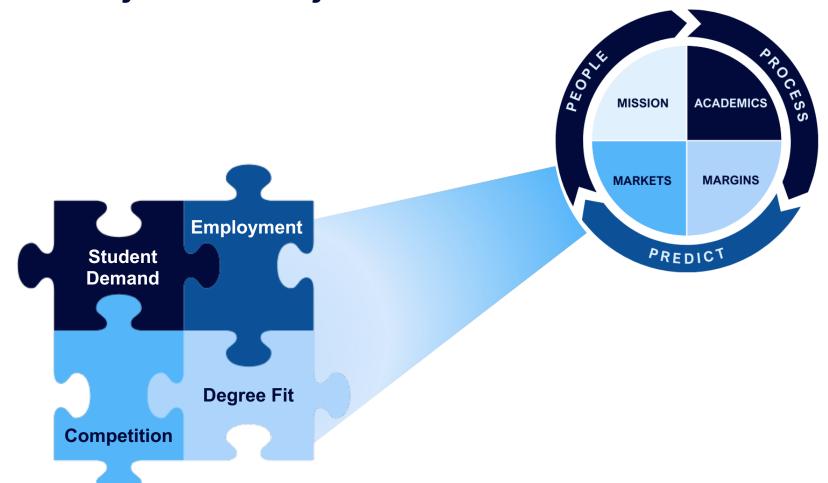
Employment: Current Indicators

Artificial Intelligence with Rize Education

An academic Program Evaluation System enables growth and sustainable financials.



Key elements of your market you need to understand.





Agenda

What is a Program Evaluation System?

Student Demand

- Leading Indicators: Google
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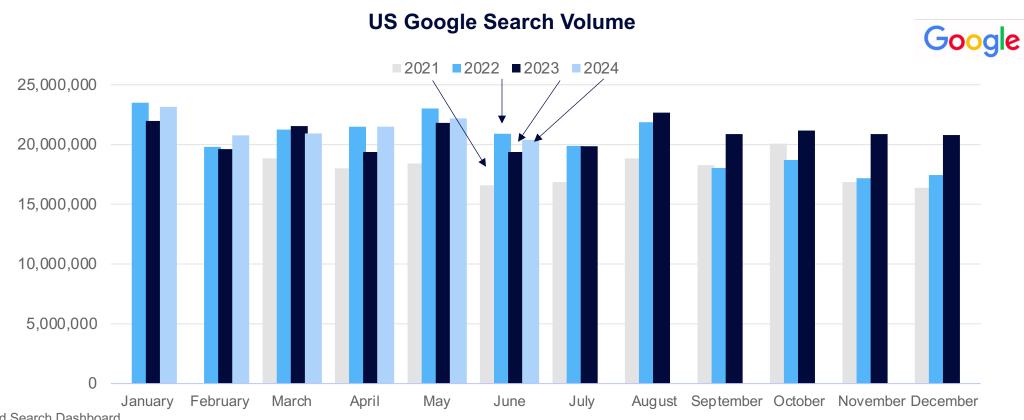
Employment: Current Indicators

Artificial Intelligence with Rize Education



Google Search Trends: Programs

Gray DI tracks searches for over 900 programs (90% of all US completions).

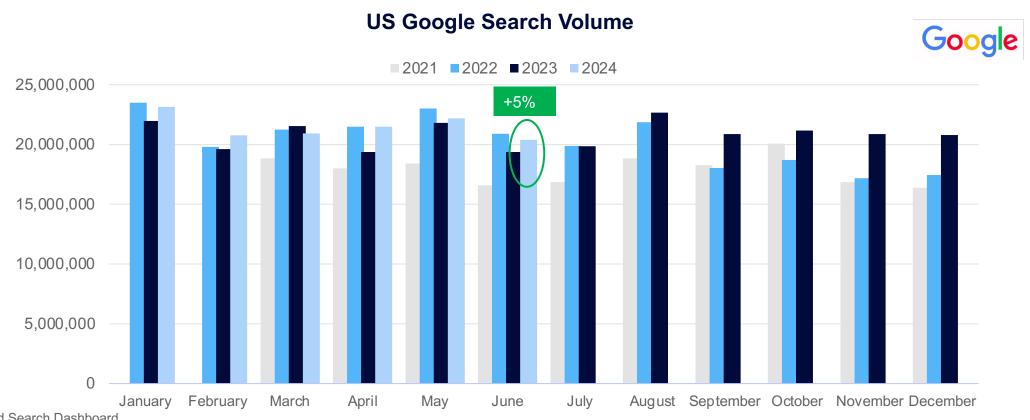


Source: PES Keyword Search Dashboard



Google Search Trends: Programs

In June 2024, Google searches for academic programs grew 5% year-over-year.

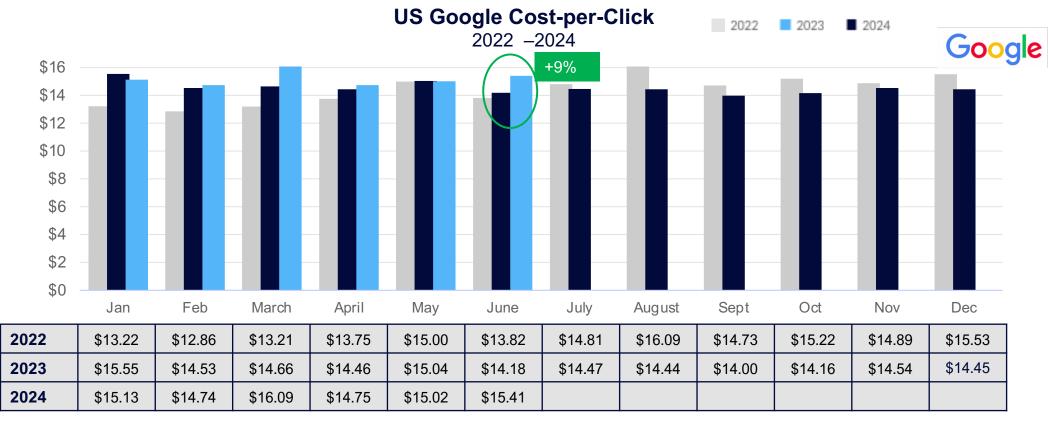


Source: PES Keyword Search Dashboard



Google Search Trends: Cost-per-Click

In June 2024, the average Google cost-per-click grew 9% year-over-year.



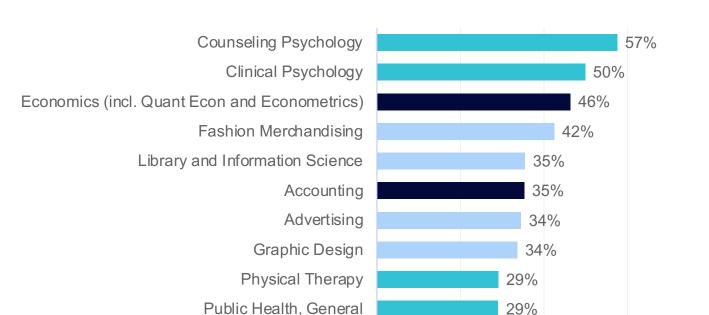
Source: PES Keyword Search Dashboard



Google: US Fastest-Growing Programs

In June, searches for Counseling Psychology grew 57% year-over-year.









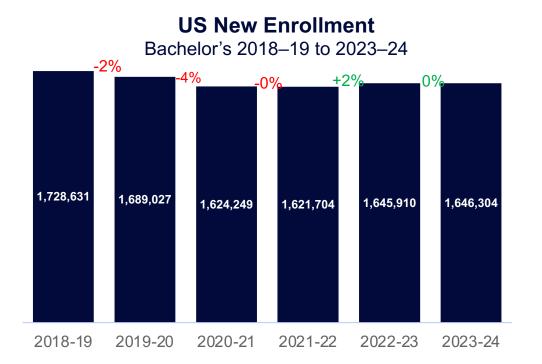
*Minimum 10,000 searches June 2023

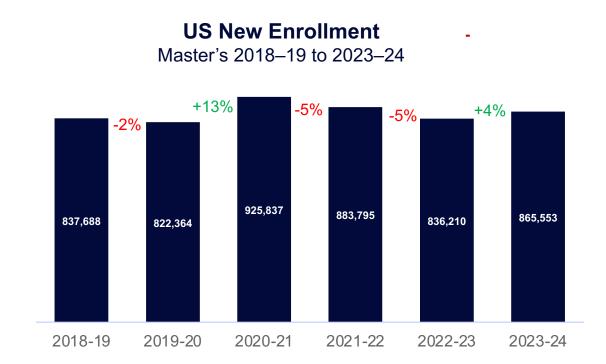


Academic Year 2023–2024 New Student Enrollment

In 2023–24, US new bachelor's enrollment was flat while master's rose 4% year-over-year.

Master's programs rose 4%.





Source: PES Program Enrollment Dashboard

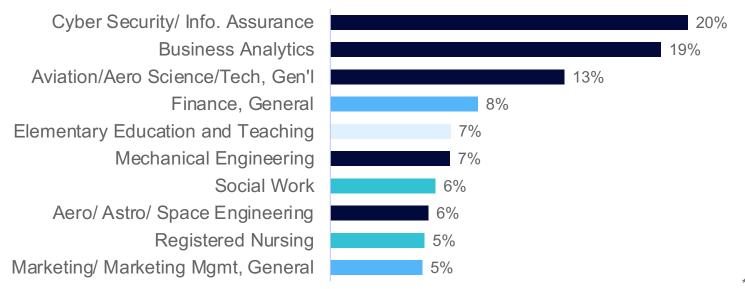


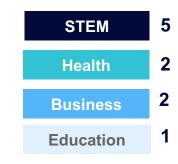
Bachelor's New Enrollment: 2023-24 Fastest-Growing Programs

In 2023-24, half of the fastest-growing programs were in STEM fields.

US Fastest-Growing New Enrollment*

Bachelor's Programs **2023-24** Year-over-Year





Source: PES Program Enrollment Dashboard

^{*}Excludes General Studies and Liberal Arts and programs with CIP ending in 99 ("Other") Minimum new enrollment prior year: 5,000

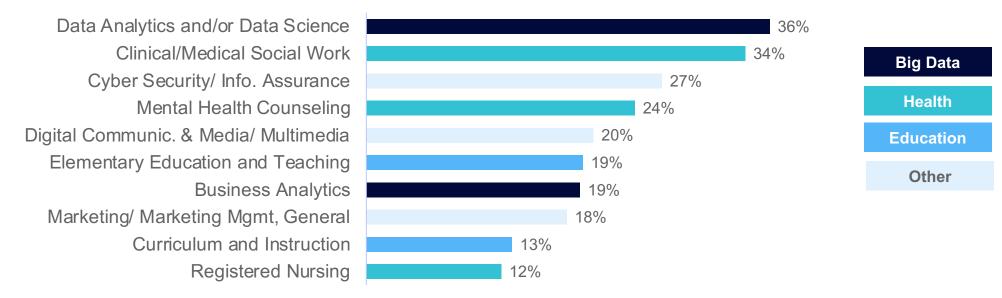


Master's: Academic Year 2023-24 Fastest-Growing New Enrollment

In 2023-24, Data Science grew 36% year-over-year.

US Fastest-Growing New Enrollment*

Master's Programs **2023-24** Year-over-Year

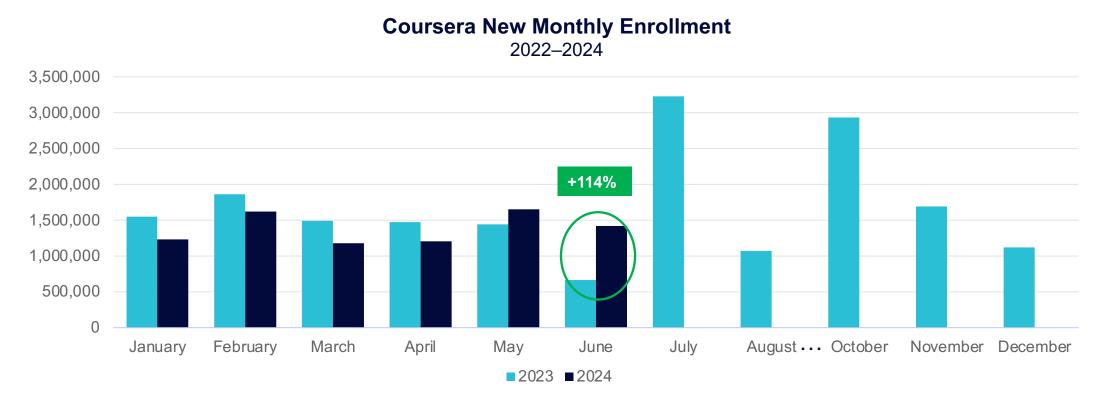


*Minimum enrollment prior year: 2,000



Coursera: Non-Degree Demand: 135 Million Total Learners Since Inception

In June, Coursera enrollment rose 114% year-over-year.



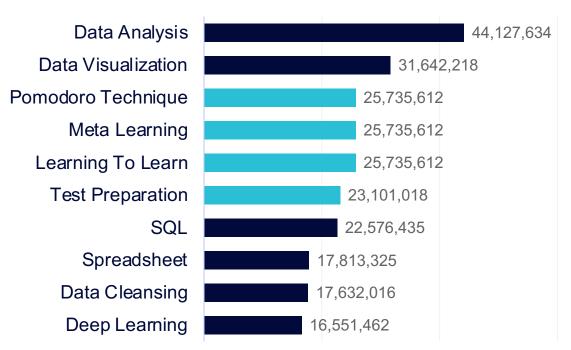
Source: PES Non-Degree Dashboard, Coursera

Non-Degree Demand: Coursera Skills

In June 2024, half of the most-taught skills were in technology.

Highest Skills Volume

June 2024



Data Analysis 5

Personal Development 5

Source: PES Non-Degree Dashboard, Coursera



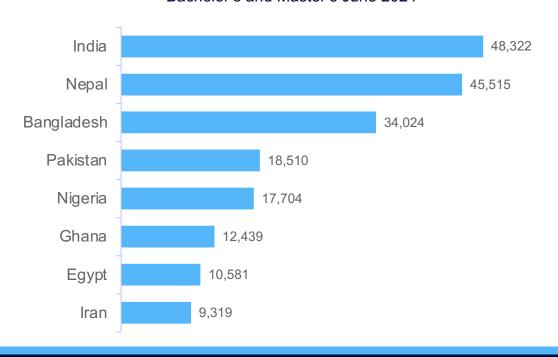
International Student Demand

In June, international student interest in US programs rose 8% year-over-year.

International Page Views 2022 - 2024 600,000 500,000 +8% YoY 400,000 300,000 200,000 100,000 Aug Sep Feb Oct Dec Jan Mar Apr May Jun Jul Nov **■**2022 **■**2023 **■**2024

India had the highest page views.

Highest International Page Views by Originating Country Bachelor's and Master's June 2024

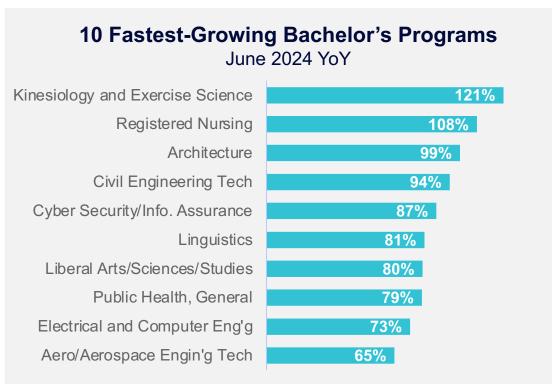


Source: PES International Student Demand Dashboard (excludes China)



International Page Views: fastest-growing programs

The fastest-growing bachelor's program year-over-year was Kinesiology.*



^{*}Minimum Page Views June 2023: 300

Education was the fastest-growing program at the master's level.*



^{*}Minimum Page Views June 2023: 1000



Agenda

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Student Demand

- Leading Indicators: Google
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Employment: Current Indicators

Artificial Intelligence with Rize Education



Commonly available data sources only count direct prep jobs.

In a traditional construct, Bachelor's in Sociology majors enter four occupations.

- Gray DI data on almost 221,953 graduates of this bachelor's program identifies 776 occupations.
- In reality, only one NCES occupation made it to Gray DI's top 10.

NCES Managers, All Other Social Science Research Assistants Sociologists

Sociology Teachers, Postsecondary

Myth

Reality Highest Volume of Occupations, Entry-Level

Sociology, General



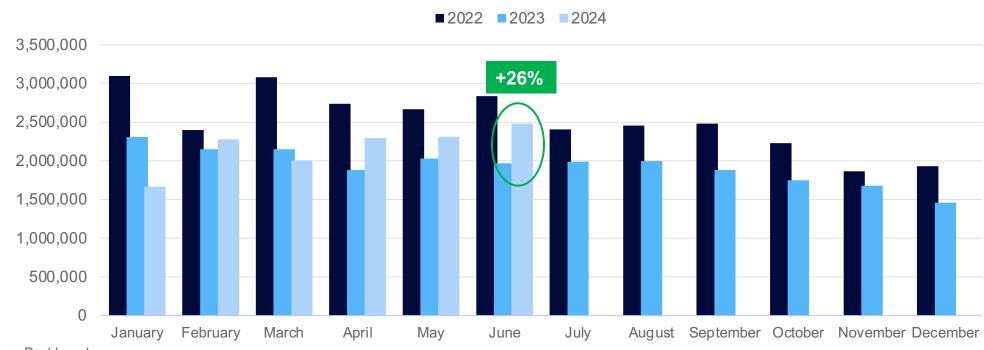
Source: NCES, People Profile Data, Gray DI analysis



US Job Postings Trends

In June 2024, job postings rose 26% year-over-year.



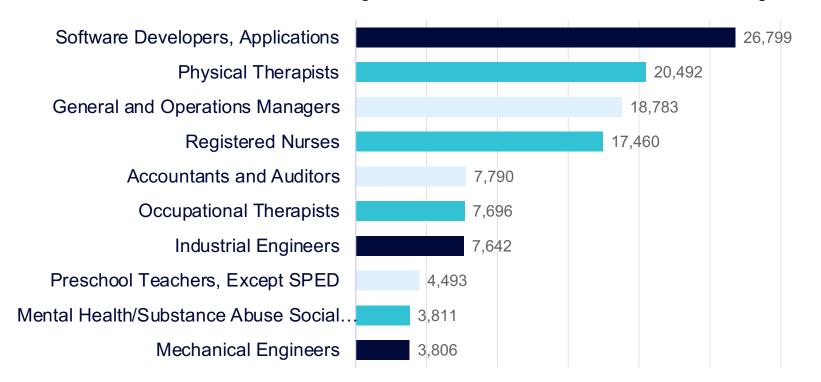


Source: PES Job Postings Dashboard

Which occupations have growing demand?

Fastest-Growing Occupations*

Job Postings, Bachelor's and Above, June 2024 Unit Change



Tech and Enging

Health

Other

Source: PES Job Postings Dashboard



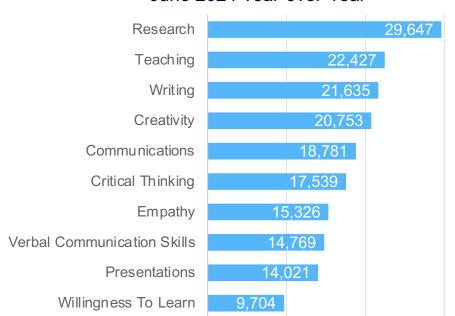
Employer Demand

Fastest Growing Skills: Year-Over-Year Change

Job postings for Liberal Arts-associated skills remain strong.

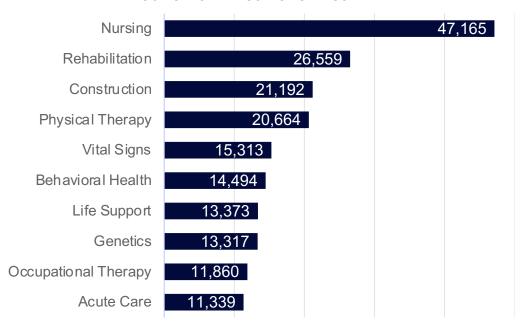
Fastest-Growing Liberal Arts Skills

June 2024 Year-over-Year



Fastest-Growing All Skills

June 2024 Year-over-Year



Source: PES Job Posting Insights Dashboard



Agenda

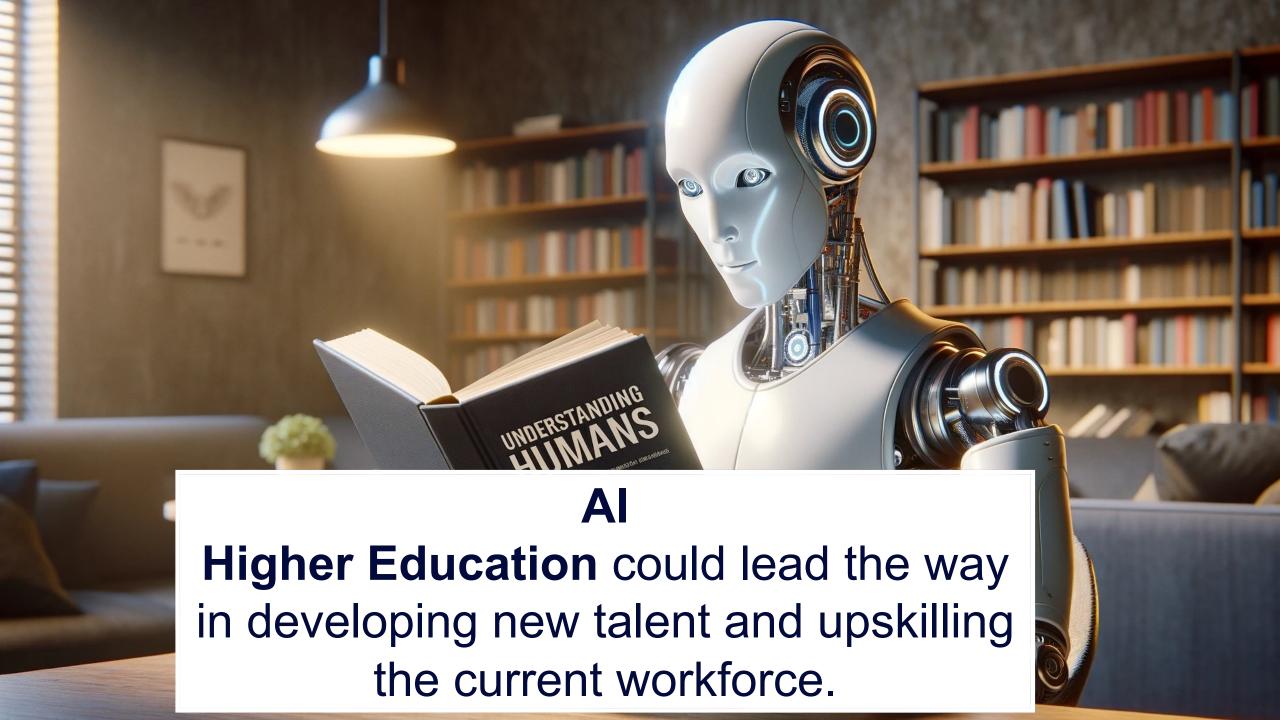
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Employment: Current Indicators

Artificial Intelligence with Rize Education





In the academic year 2022-23, 15 new Al programs opened.

Almost all degree levels were represented.





Certificate MS



Artificial Intelligence and Medicine



Certificates Artificial Awareness Artificial Intelligence Practitioner





MS Artificial Intelligence Certificate Artificial Intelligence and Machine Learning



Minor Al in Society

Advanced Certificate

Artificial Intelligence in Computer Science MS

Artificial Intelligence



BS MS **Artificial Intelligence and Business Analytics**



MS **Artificial Intelligence**



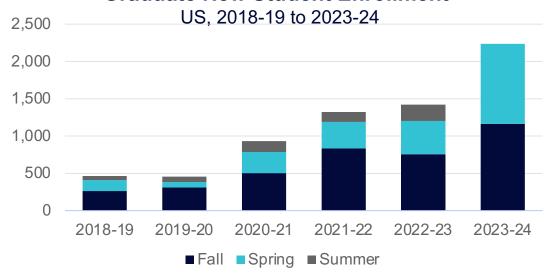
Artificial Intelligence



Artificial Intelligence: Graduate Programs

- Are artificial intelligence programs growing across all metrics?
 - Even without summer enrollment, 2023-24, new enrollment grew by 816 students (57% year-over-year).

Graduate New Student Enrollment*



ARTIFICIAL INTELLIGENCE DATA OVERVIEW: GRADUATE LEVEL

JUNE 2024 GOOGLE **KEYWORD SEARCHES**



Volume: 41.690 YoY Growth: -11.970 **JUNE 2024** JOB **POSTINGS**



Volume: 43,145 YoY Growth: +33,567 Average Salary: \$110,200

2023-24 NEW **ENROLLMENT**



Volume: 2,238 YoY Growth: +816

MOST-REQUESTED CERTIFICATIONS **IN JOB POSTINGS**

1.Security Clearance

2. Professional Engineer

3. COMPTIA Security+

2022 COMPLETIONS



Volume: 591 YoY Growth: +116

JUNE 2024 INTERNATIONAL STUDENT DEMAND

Page Views Volume: 3,548 YoY Growth: +21

*Includes Master's, Doctoral, Post-Bach Certificate, and Post-Master's certificate

Source: PES Program Evaluation System 26

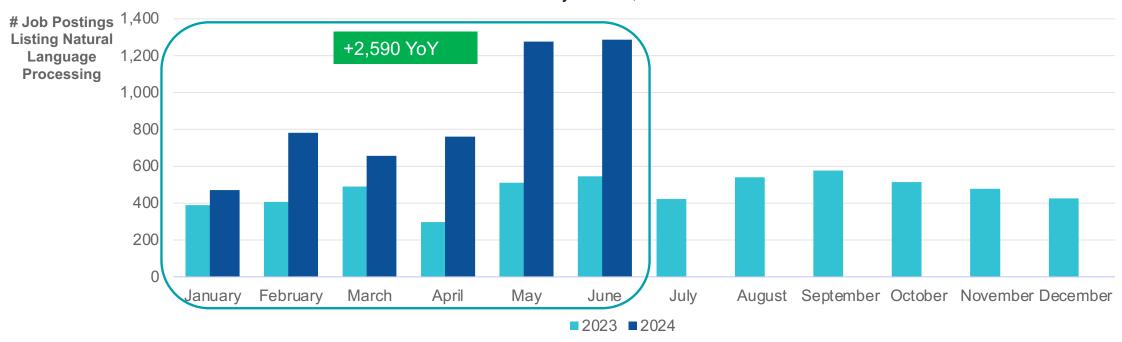


Job Demand for Artificial Intelligence-Related Skills Is Growing

From Jan – June, US job postings with "Natural Language Processing" grew by 2,590 YoY (98%).







Source: PES Job Posting Insights Dashboard



Predict Program Size

School Attributes

- Size
- Sector (e.g., public)
- Focus and portfolio
- Selectivity
- Student types
- Location



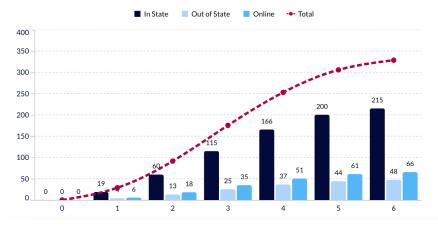
Program Attributes

- Size
- Size at similar schools
- Type (e.g., Engineering)
- Award level
- Modality
- Market data
- Program-portfolio fit



Pro Forma Financials combines predicted size and benchmark costs.

Enrollment

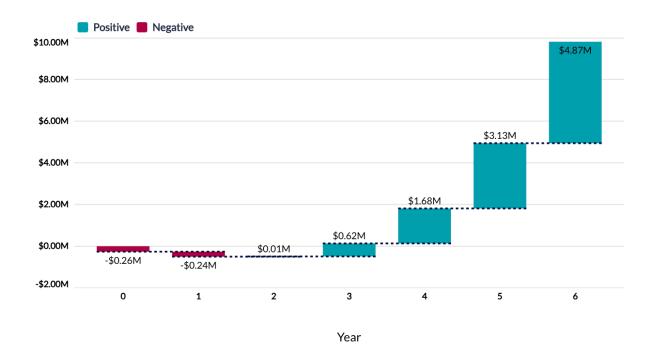


Faculty FTEs

Benchmark Instructional Cost per Student Credit Hour

\$218 (Illustrative)

Cumulative Cash Flow





From Numbers to Text: Should I start a Cybersecurity program?

Over 50 metrics on student demand, employment, and competition



Student Demand Score: 33 Percentile: 100							
Category	Pctl	Criterion	Value	Score			
Size	99	Google Search Volume (3 Months)*	1,059,300	6			
	99	International Page Views (12 Months)	3,949	NS			
	99	New Student Enrollment Volume (12 Mo.)	13,350	6			
	94	On-ground Completions at In-Market Institutions	3,649	2			
	99	Online Completions by In-Market Students	3,991	4			
	96	Sum of On-ground and Online Completions	7,640	3			
Growth	95	Google Search YoY Change (Units)*	25,190	2			
	99	New Student Enrollment Vol. YoY Change (Units)	3,001	2			
	99	Completion Volume YoY Change (Units)	915	2			
	83	Google Search YoY Change (%)*	2%	2			
	85	New Student Enrollment Vol. YoY Change (%)	29%	2			
	80	Completion Volume YoY Change (%)	14%	2			

Competitive Inte Score: 6 Percen				
ategory	Pctl	Criterion	Value	Score
Volume of In-	94	Campuses with Graduates**	195	4
Market	99	Campuses with Grads YoY Change (Units)**	40	NS
Competition	98	Institutions with Online In-Market Students**	48	1
	68	Average Program Completions	19	0
In-Market	61	Median Program Completions	9	0
Program Sizes	81	YoY Median Prog. Compl. Change (Units)	1	0
	75	YoY Median Prog. Compl. Change (%)	10%	0
In-Market	87	Google Search * Cost per Click**	\$17	1
Saturation	83	Google Competition Index**	0.42	0
	98	National Online Institutions (Units)**	72	NS
National Online Competition	89	Nat'l Online % of Institutions	26%	NS
Compension	94	Nat'l Online % of Completions	52%	NS

ategory	Pctl	Criterion	Value	Score
Size: Entry Jobs	97	Job Postings Total (12 Months)	12,641	3
	96	BLS Current Employment	62,020	1
	96	BLS Annual Job Openings	5,370	1
Underemployed	4	Underemployed Percent of Graduates**	25%	3
Growth: Entry Jobs	85	BLS 1-Year Historical Growth	6.9%	1
	85	BLS 3-Year Historic Growth (CAGR)	2.8%	1
	98	BLS 10-Year Future Growth (CAGR)	1.3%	1
Saturation:	91	Job Postings per Graduate	1.7	2
Entry Jobs	84	BLS Job Openings per Graduate	0.7	0
	93	Entry 25th Percentile	\$69,731	8
	53	Post Entry Median	\$84,746	2
Weighted-Avg		Post Entry w/Associates Median	NA	NS
BLS Wages	71	Post Entry w/Bachelors Median	\$81,862	NS
	83	Post Entry w/Masters Median	\$109,148	NS
	6	Post Entry w/Doctoral Median	\$90,141	NS
National	15	% with Any Graduate Degree*	20%	NS
American Community	25	% with Masters*	18%	NS
Survey	17	% with Doct/Prof Degree*	3%	NS
Bachelor's Degree	65	% Unemp. (Age < 30)**	3%	NS
Outcomes*	95	% in Direct Prep Jobs*	49%	NS

Bachelor's in Cyber Security

The academic program excels in Student Demand and Employment outcomes but faces high Competitive Intensity.

Overview

National Completions for the program are robust at 7,640, ranking in the 96th percentile nationally. Student Demand is exceptionally strong, evidenced by a Google Search Volume of 1,059,300 (99th percentile), while Employment prospects are favorable with an Entry Level Salary at \$69,731 (93rd percentile). However, the program operates in a highly competitive market, as indicated by the number of Campuses with Graduates at 195 (94th percentile) and Institutions with Online In-Market Students at 48 (98th percentile).

Student Demand

The program's Student Demand is among the highest nationally, with a Google Search Volume of 1,059,300 placing it in the 99th percentile. New Student Enrollment Volume is also impressive at 13,350, securing a position in the 99th percentile. The year-over-year growth in Google Search Volume and New Student Enrollment Volume stands at 25,190 (95th percentile) and 3,001 (99th percentile), respectively. Despite these strengths, there is a relatively lower growth in Google Search YoY Percentage Change at only 2%, which ranks in the 83rd percentile.

Employment

Employment data indicates strong outcomes for graduates with an Entry Level Salary of \$69,731 (93rd percentile) and Job Postings per Graduate at 1.7 (91st percentile). The BLS data supports this positive trend with a BLS Current Employment value of 62,020 (96th percentile) and historical growth rates of 7% over one year and 3% over three years—both in the 85th percentile. However, there is a concern with the Post Entry Level Median Salary at \$84,746 being only in the median range (53rd percentile). Additionally, a significant portion of graduates are underemployed at a rate of 25%, which places them unfavorably in the fourth percentile.

Competitive Intensity

Competitive Intensity presents challenges for the program; there are many Campuses with Graduates at a value of 195 (94th percentile) and a high number of Institutions with Online In-Market Students at a value of 48 (98th percentile). The Google Search Cost per Click is expensive at \$17.00 (87th percentile), indicating high competition for online visibility. On a positive note, Average Program Completions are healthy at a value of 19 (68th percentile), and there has been steady growth as seen by YoY Median Program Completions Unit Change at one unit (81st percentile). Nevertheless, National Online Percent of Institutions is high at 26% (89th percentile), suggesting that online offerings are widespread and may dilute individual institutions' market share.

Source: PES Markets 30

Why don't we start new majors?

It's painful. Ongoing program development in high-demand areas is often postponed given the immense staffing challenge, cost, time and risk.



Staffing

Challenging to Find + Retain Talent



Expensive

\$500k+ Investment \$100k+ Annual Spend



Time-Intensive

2 - 3 Years to Launch



Risky

55% Failure Rate

The power of program sharing



+

7 | |

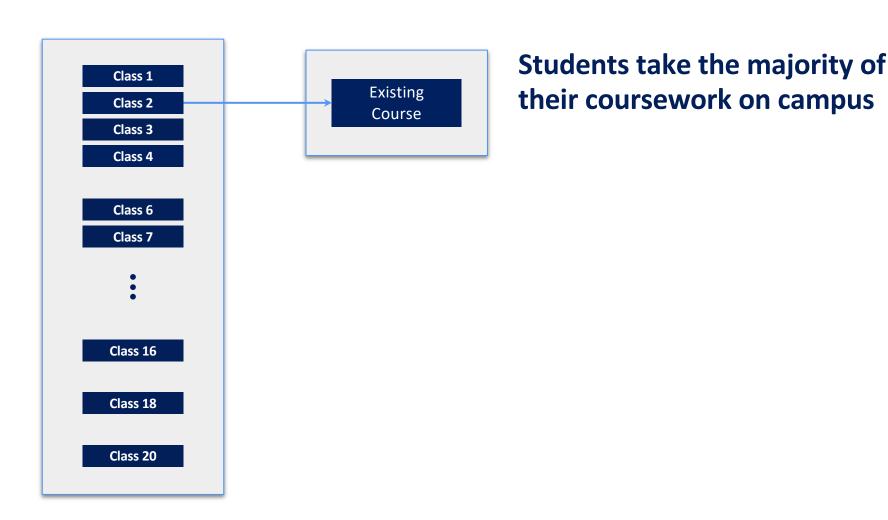
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Lower Cost Models Consortium Partners

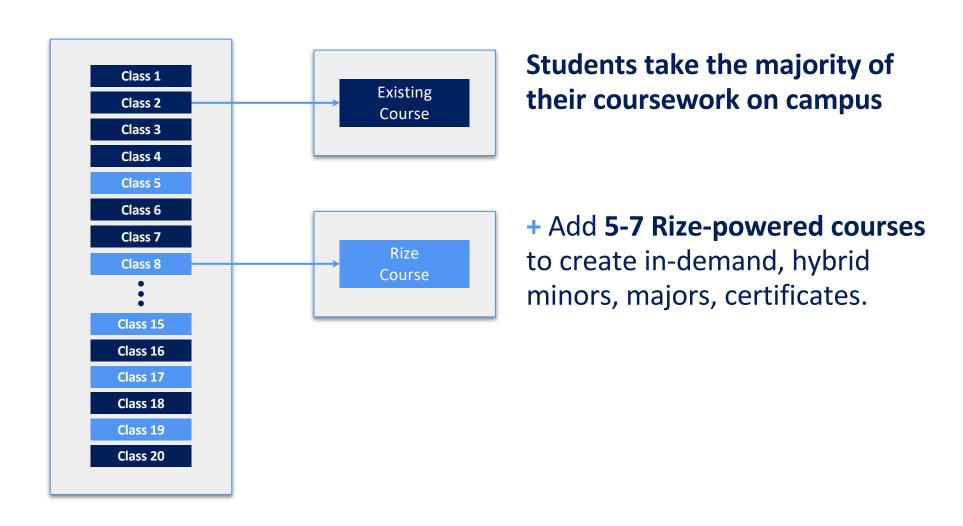
550+

Programs Powered by Rize

Integrating Rize powered programs into your curriculum



Integrating Rize powered programs into your curriculum



Expert-led curriculum development

Subject Matter Expert



Curriculum Committee



Dr. Risto Miikkulainen

Professor of CS & Neuroscience, University of Texas at Austin

AVP of Evolutionary Intelligence at Cognizant Al Labs



Instructional Design

7 MIZE













- Target Outcomes & Skills Mapping
- Curriculum Committee Management
- Course Design & Assignments
- Assessment Framework
- Annual Review and Iteration

The goal

Increasing the value of your degree.

Enrollment Support

- Enrollment funnel analysis& optimization
- Ready-to-use content & bespoke marketing campaigns
- Comprehensive enrollment consulting services

Leveraging Hybrid Learning to Prepare Students for the Future of the Workforce

At St. Norbert College, we are dedicated to equipping our students with the skills and knowledge necessary to thrive in an ever-evolving job market. As the nature of work shifts towards hybrid and remote models, we've taken the steps to isunch innovative new concentrations to prepare students for this new landscape. By Integrating the best aspects of in-person and online education, St. Norbert College is leading the way in delivering a comprehensive and adaptable learning experience.

What is Hybrid Learning?

Hybrid learning combines traditional classroom experiences with online ones, creating a flexible and dynamic approach to learning. This model allows suteries to benefit from the direct interaction and hands-on experiences of in-person classes while taking advantage of a nationwide network of industry experts and work-class instructors as part of their education. With our newest programs, the bulk of a students courses will be on our campus with a handful of courses in subjects like Supply Chain, Healthcare Administration, Project Management, Digital Marketing, and Game Development.

At St. Norbert College, hybrid learning is more than just a blend of teaching methods; it's a commitment to providing a well-rounded education that meets the needs of today's students and tomorrow's workforce.

What Do Students Say?

Flexible Classes

Students appreciate the flexibility that hybrid learning offers. They can manage their schedules more effectively, balancing academic commitments with personal and professional responsibilities. This flexibility is particularly beneficial as students seek out internships, participate in sports, or study abroad.

Great Networking Opportunities

Hybrid programs also provide excellent networking opportunities. By participating in both in-person and online classes, students can connect with a diverse group of peers, instructors, and industry professionals from SNC and beyond. These connections are invaluable for building a professional network that can support their future career crowle

Highest Quality

Students in these programs from other institutions have already rated them as some of their favorite courses with compelling projects, excellent support from instructors, and a curriculum design that consistently ties learnings to the bigger picture. This positive feedback underscores the effectiveness of our hybrid learning model in delivering a rich and engaging educational experience.

Aligning to Employers

Employers have long been frustrated with college graduates' preparedness for the workforce. These innovative programs aim to address those complaints while still instilling the value and character that St. Nortbert builds in its students.







Increasing the value of your degree

+ Student Enrollment

Students enroll in programs powered by Rize, which promotes retention of current students, and eventually translates to recruitment of new students into the program.

+ Premium Experiences

For enrolled students, courses powered by Rize provide a high-quality student experience, leveraging active learning, project-based coursework, and subject matter expertise.

+ Meaningful Outcomes

As a result of engaging career-readiness focused course materials, students are more prepared for their career search journey – including having improved interview skills and stronger resumes.



Speed to Market

15
Partners w/ AI

100+

Students for F24

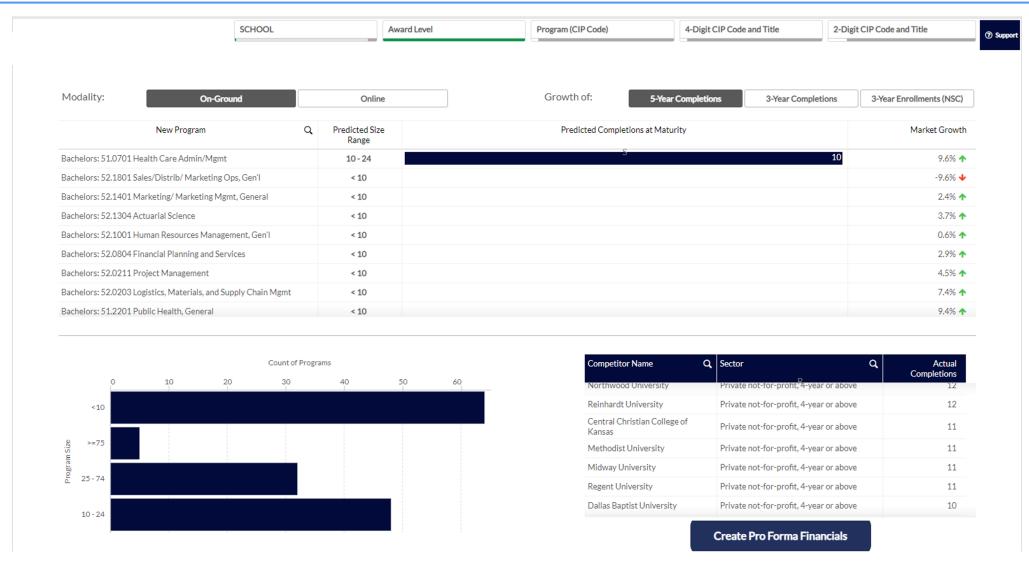
Program Options

Program Selection - PES Markets



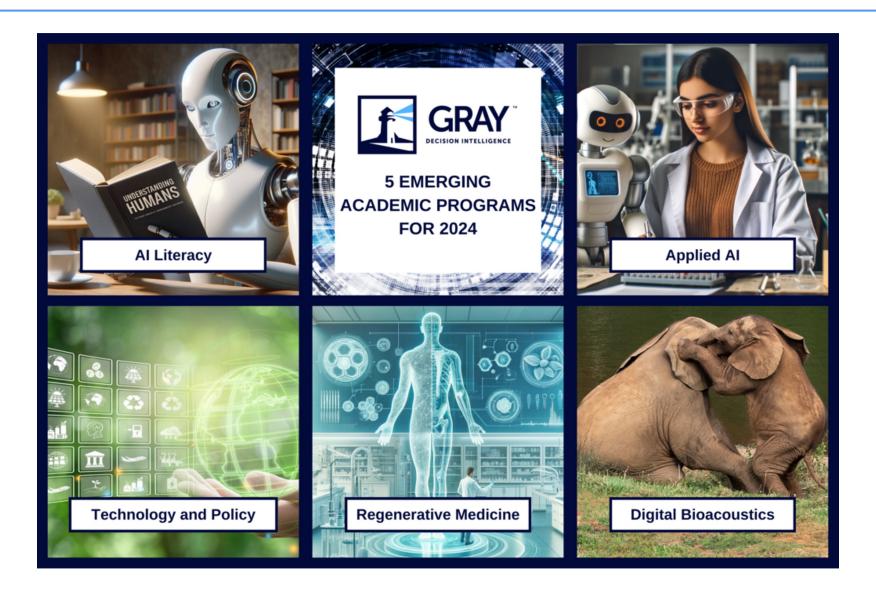


Program Selection - Predict



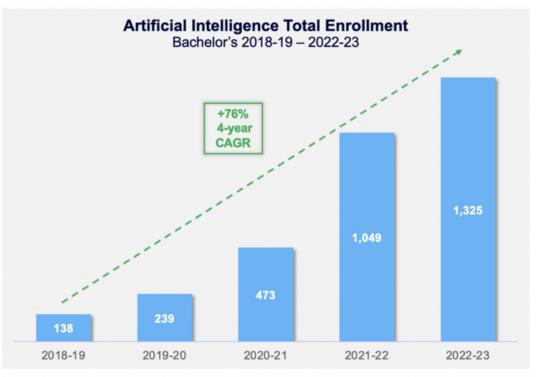


Gray Emerging Programs 2024



Al Enrollment Opportunity

- Undergraduate enrollments have increased
 10x since 2018-2019, but supply is still limited.
- MOOCs and alternative learning platforms registered millions of learners in 2023. Demand is high
- Supply + Demand imbalance creates opportunity for colleges.



Source: Gray's Program Evaluation System (PES)

Undergraduate Program Options

Programming Heavy

Applied AI (Builder)

Prepares students to build and deploy customized AI systems and pursue AI specialist roles

Ideal Use: Major or Concentration in conjunction with a Computer Science or Data Science degree

Example Skills Taught: Machine learning, fine-tuning Large Language Models (LLMs), neural architecture design, data viz, and navigating ethics & privacy concerns

Programming Light

Al Literacy (User)

Provides the foundational skills to leverage AI tools effectively across a range of applications

Ideal Use: Minor or Concentration designed to integrate with any academic program

Example Skills Taught: Prompt engineering, identifying use cases for Al models, repeated refinement, measuring quality and navigating ethics & privacy concerns

Al Literacy - Example Assignment

- Scenario: You are a consultant advising on the client onboarding process for a financial services company that feels like they are falling behind.
- Assignment: Create a business proposal, respond to data privacy & bias concerns and create a prototype using ChatGPT or AgentGPT

Learning Outcomes:

- Define and distinguish key AI terms, such as Generative AI, LLMs, Machine Learning, Bias, Training,
 Prompt Engineering, and Trustworthiness.
- Explain how AI models work at a conceptual level.
- Identify effective use cases for AI models by applying value frameworks and referencing a range of case studies.
- o Improve model output through input refinement techniques, such as prompt engineering.

MBA Specialization

- Ethical and effective applications of AI to streamline business processes
- **Low code** program
- 3 or 4 course program
- Effective for managers & individual contributors

Key Learning Outcomes:

- → Apply LLMs to business processes, like customer service
- → Implement AI models to solve business problems, like forecasting
- Apply governance frameworks and ethical guidelines to AI projects
- → Supervise the entire lifecycle of AI/ML projects

MBA Specialization - Example Assignments

- In what ways can LLMs be utilized to automate and optimize our content creation process for marketing, ensuring personalized and engaging communication with our target audience?
- How can predictive modeling with Python help us forecast sales trends and inform our inventory management strategies?
- How can we implement ethical guidelines and practices when using LLMs to ensure our Aldriven initiatives align with our company's values and regulatory requirements?
- What are the best practices for managing data collection, cleaning, and preprocessing to ensure our ML models have high-quality inputs?

Your Enrollment Opportunity



Majority of Grads Wish They'd Been Taught Al in College

A new survey shows 70 percent of graduates think generative AI should be incorporated into courses. More than half said they felt unprepared for the workforce.

By Lauren Coffey

What Can You Do with Gray in a Day?

We enable you to do months of work in minutes.

- Score, rank, and scan all 1,500 programs in your markets
- Select ones that have high potential and fit your institution
- Get a one-page text report
- Review a detailed scorecard on student demand, employment, competition, and demographics
- Predict the potential size of the programs you choose
- Develop pro-forma financials

...and take the afternoon off.

Accelerate well-informed decisions, reduce cost, and enable growth.



Unlock Premium Content Program Evaluation Master Class



Learn How to Make Better Informed Academic Program Decisions

Capture enrollment and win the competitor landscape with Gray Decision Intelligence Master Class in Data-Informed Program Decisions.

Included in this series

- · Master Class 1: Market Demand for Academic Program Growth
- . Master Class 2: Program Economics and Curricular Efficiency: How to Avoid Dumb Cuts
- · Master Class 3: Program Management: Data, Process, and Key Decisions
- Master Class 4: Advanced Analytics and Al

Upcoming Webinars

Topic	Date
Demand Trends Webcast:	Wednesday
Community Colleges	August 28 th at 2 PM ET
Demand Trends Webcast:	Thursday
Bachelor's and Above	August 29 th at 2 PM ET

Read the Book

