



Market Demand for Academic Program Growth

Master Class 1

March 5th, 2024

Today's Speakers



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Agenda

A Growth–Focused Approach to Academic Program Evaluation

Market Demand

- Define Your Markets
- Student Demand
- Employment Opportunities
- Competition and Degree Fit

We have all heard the pessimistic prognostications about higher ed.

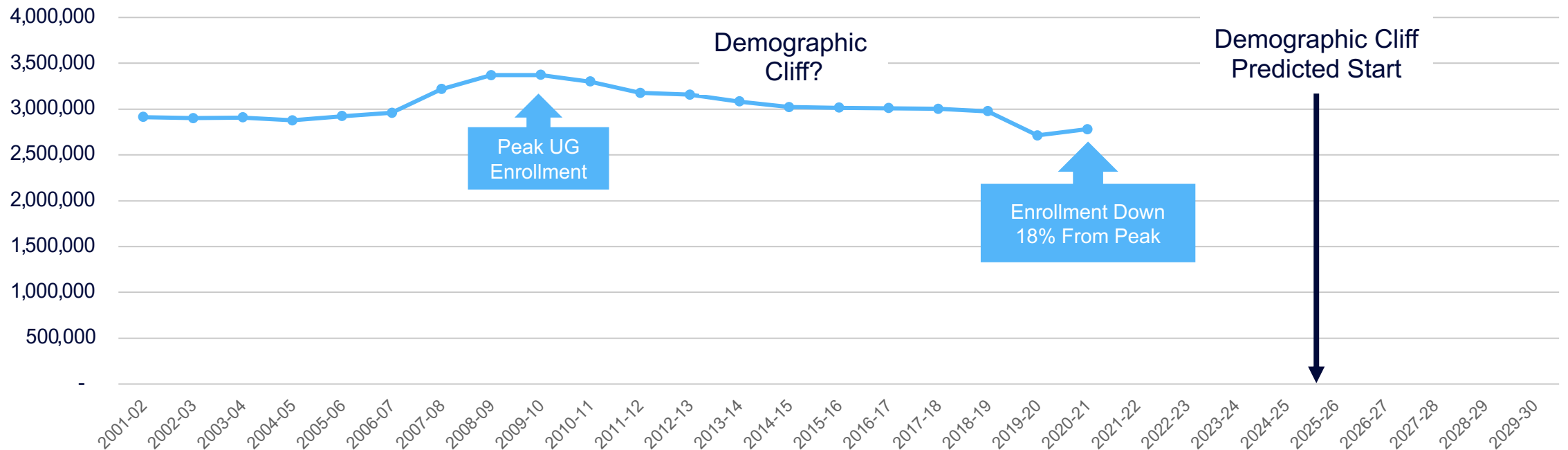


The Demographic Cliff or Myth: The Reality

Demographics and enrollment have a fraught relationship.

Trends in High School Graduates and First-Time Undergraduate Enrollment

—●— Fall FT enrollment

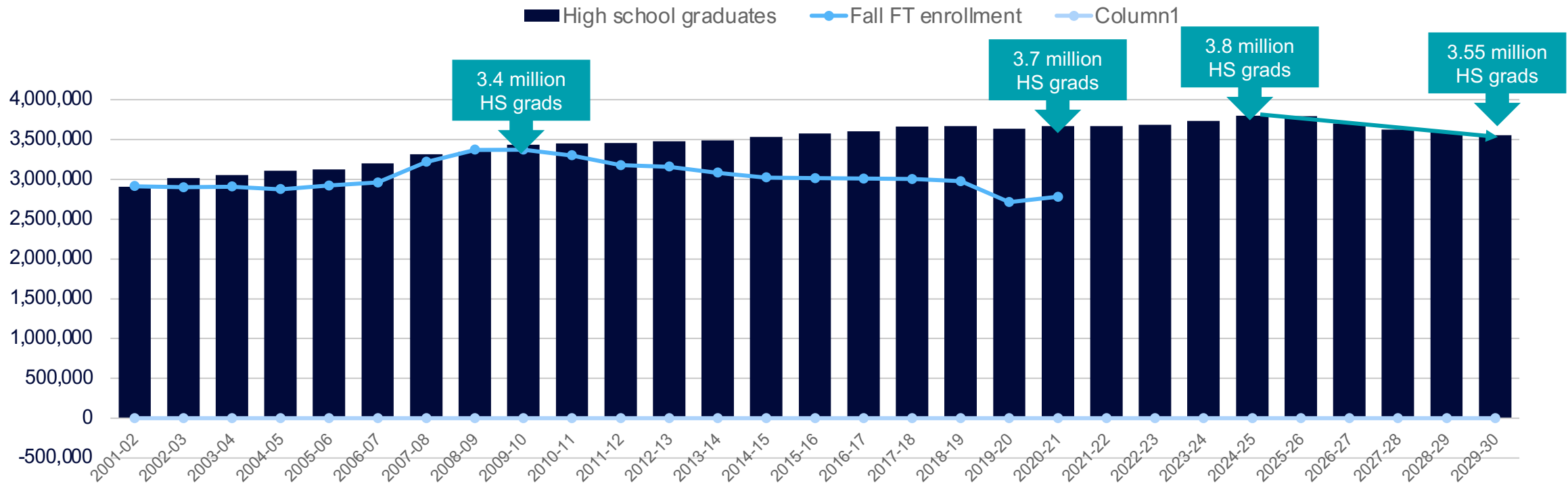




The Demographic Cliff or Myth: The Reality

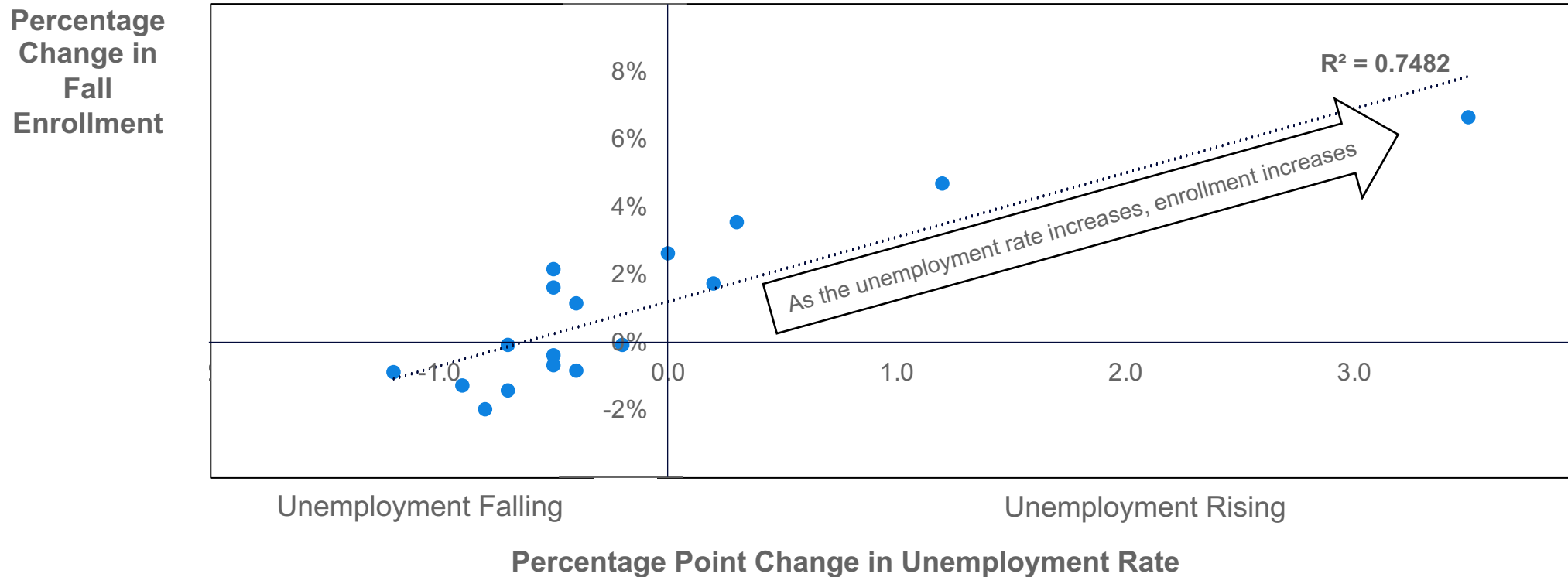
Demographics and enrollment have a fraught relationship (r squared $\sim 1\%$).

Trends in High School Graduates and First-Time Undergraduate Enrollment



Unemployment drives college enrollment far more than demographics alone.

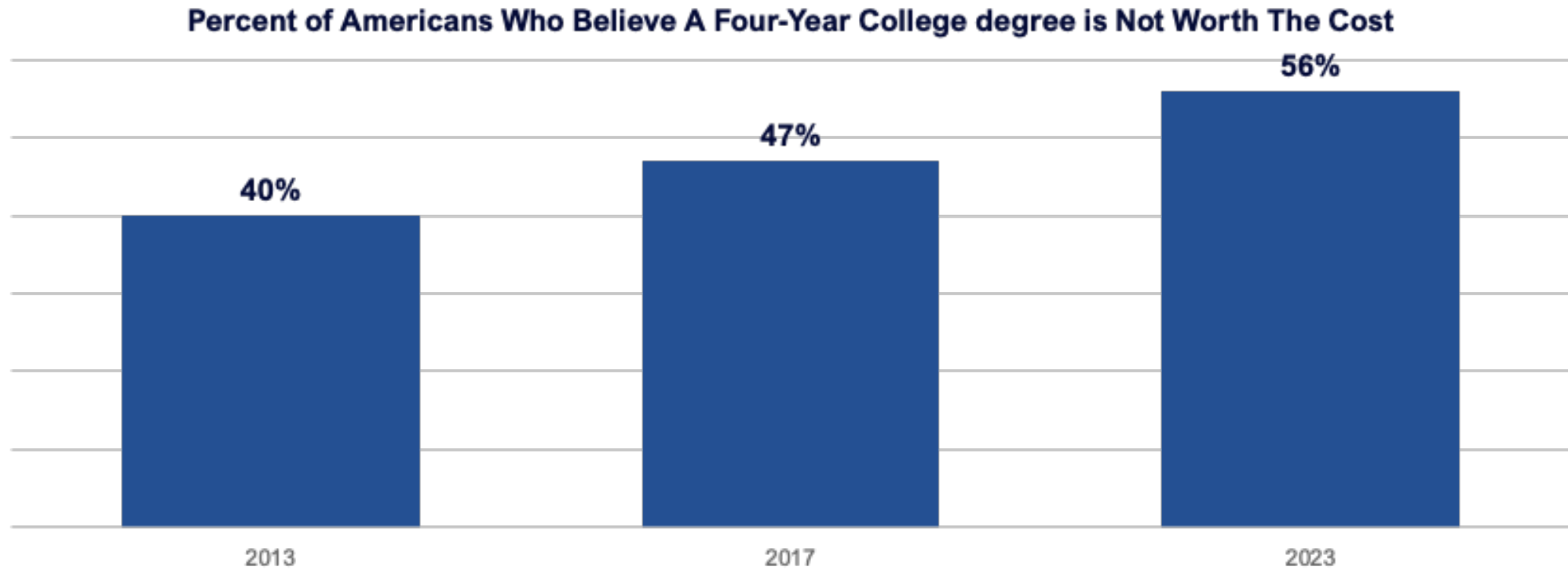
Unemployment and Enrollment
 Year-over-Year Change, All Degree Levels
 2003 – 2019



Sources: US Bureau of Labor Statistics; <https://www.bls.gov/cps/cpsa2022.xlsx>; National Center for Education Statistics IPEDS Data Trends, Fall Enrollment



Is college worth it?



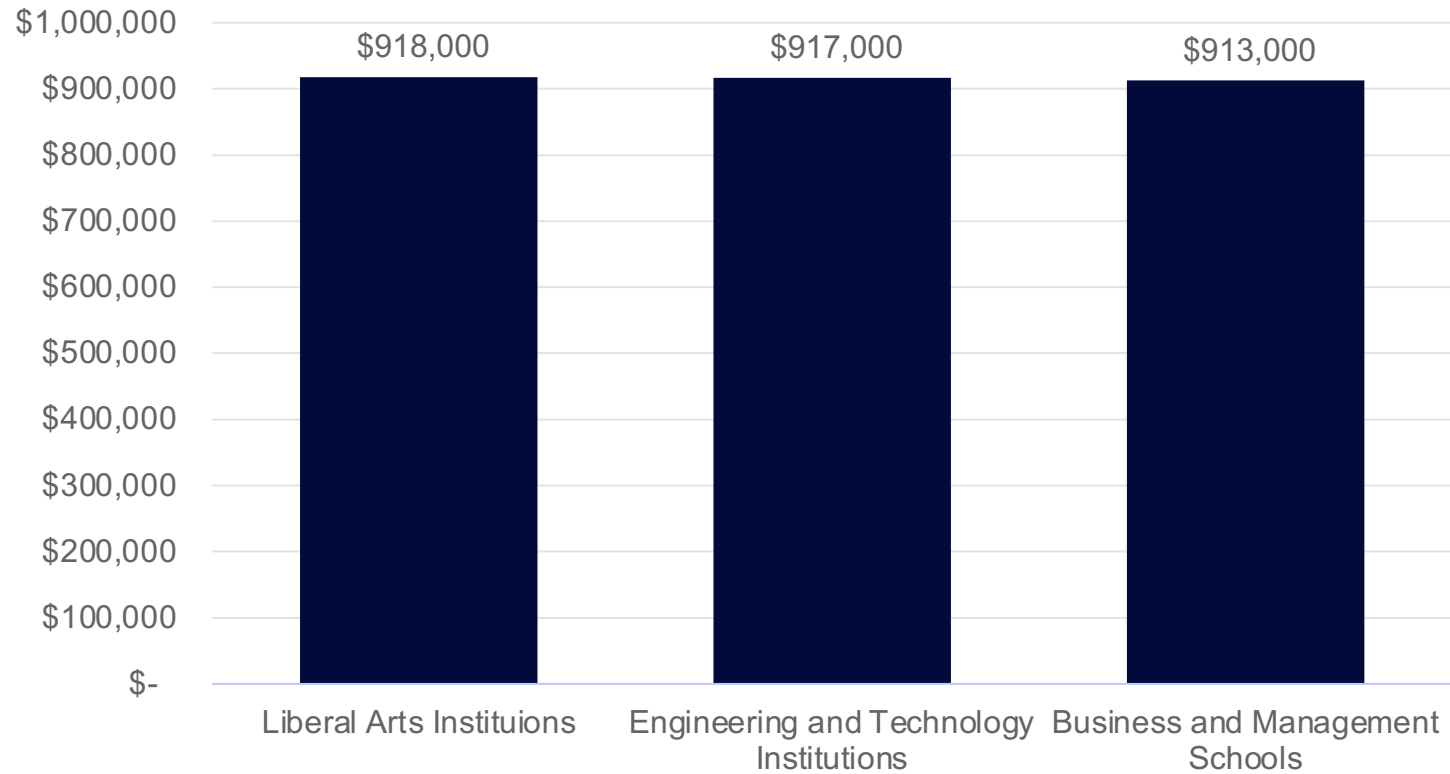
Source: Americans Are Losing Faith in College Education, WSJ-NORC Poll Finds; *The Wall Street Journal*, March 31, 2023.

Data from WSJ/NORC poll of 1,019 adults conducted in March 2023; WSJ/NBS poll of 1,200 adults conducted August 2017, CNBC AAES survey of June 2013.



College is worth it.

ROI By College Type

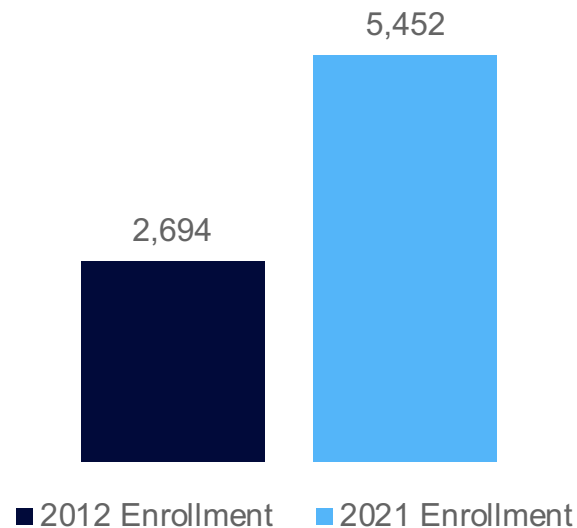


Source: Georgetown University Center on Education and the Workforce

Any college can grow – even small rural colleges.

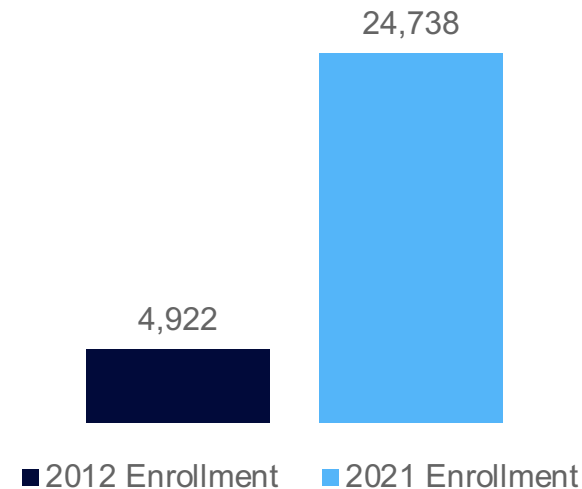
Small, Semi-Rural College

102% Growth*



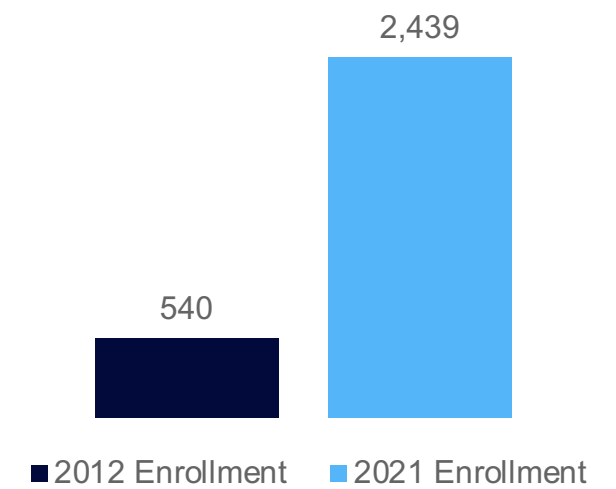
Small Private College in Appalachia

403% Growth*



Tiny Private College in Maine

352% Growth*



Source: Undergraduate enrollment - National Center for Education Statistics, IPEDS (Data Trends) for annual enrollment. *Fall Enrollment 2012-2021

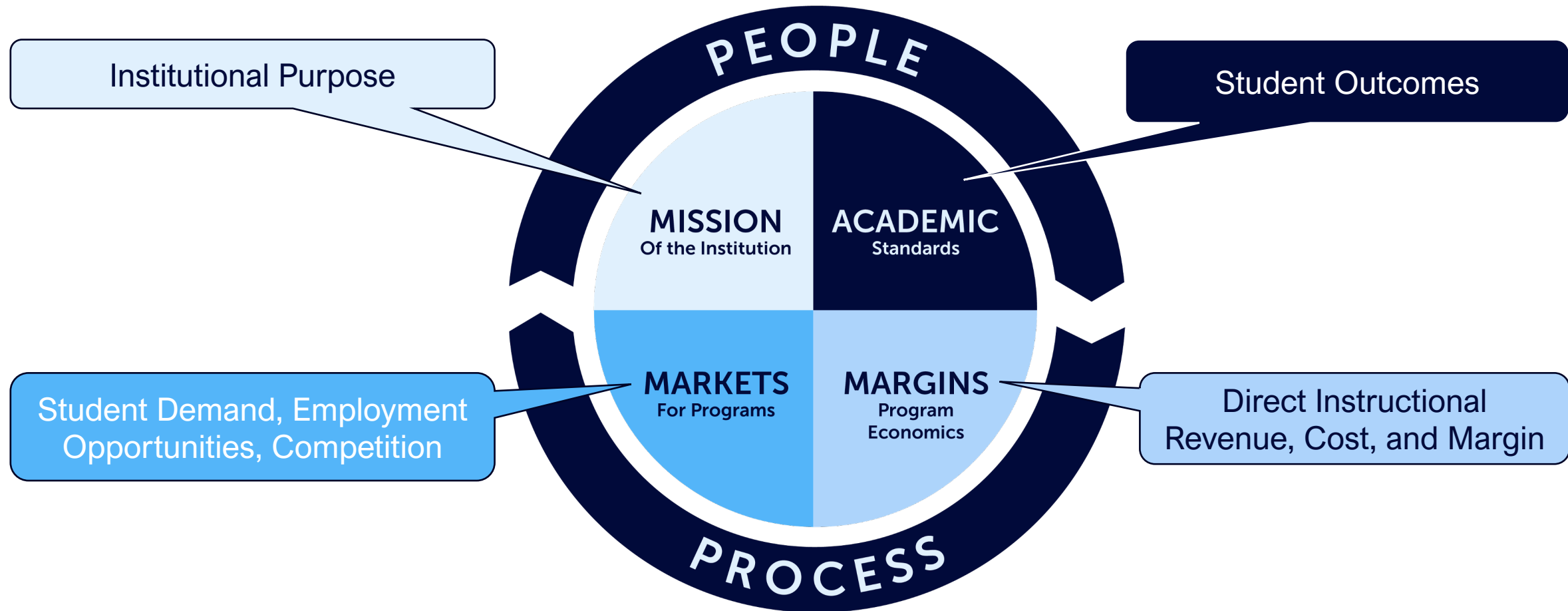
Take Charge of Your Destiny

- Most colleges can't cut their way to fiscal sustainability.
- Growth is essential to health.
 - Generates incremental revenue
 - Lowers cost per student
 - Reduces upward pressure on tuition
- Growth is achievable.
 - There are many proven strategies.
 - Some will be right for you.
- **The right new programs can drive growth.**





Use a complete Program Evaluation System.





Agenda

A Growth–Focused Approach to Academic Program Evaluation

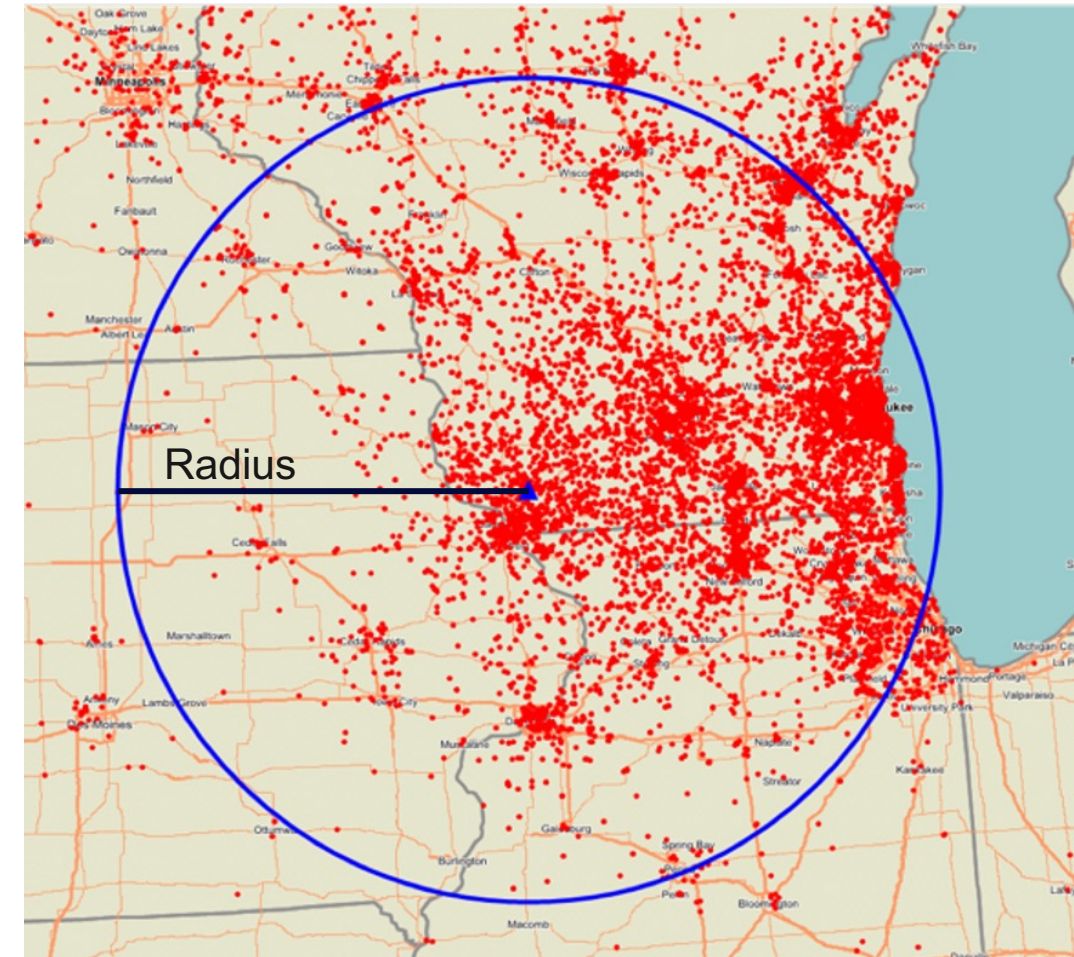
Market Demand

- Define Your Markets
- Student Demand
- Employment Opportunities
- Competition and Degree Fit

What markets do you serve?

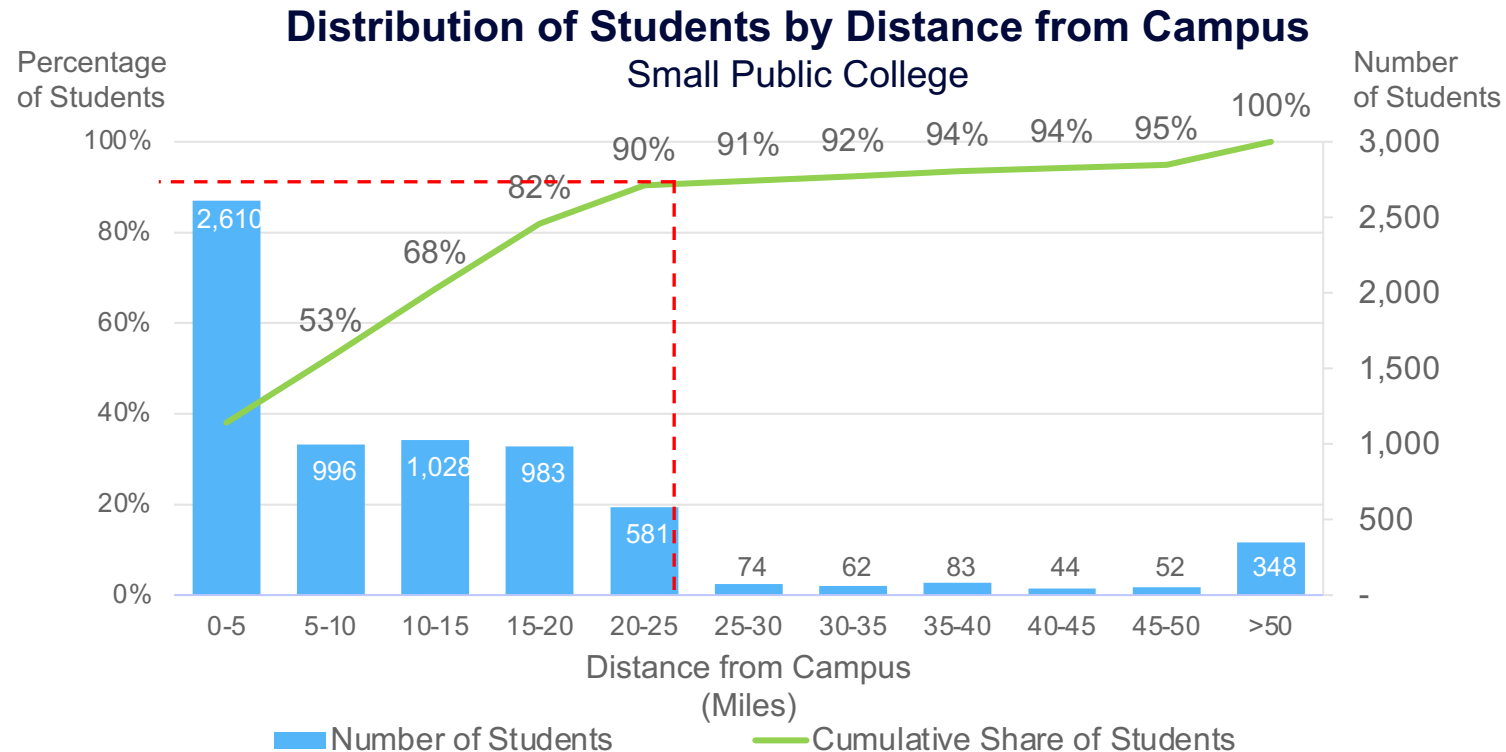
Use Student Demand Data to Define Markets

- Student demand, employment, and competitor information are specific to local markets.
- Using student addresses or zip codes, you can identify the market or markets the institution serve.
- You will likely want regional and national data for online students and for jobs that can be done remotely.

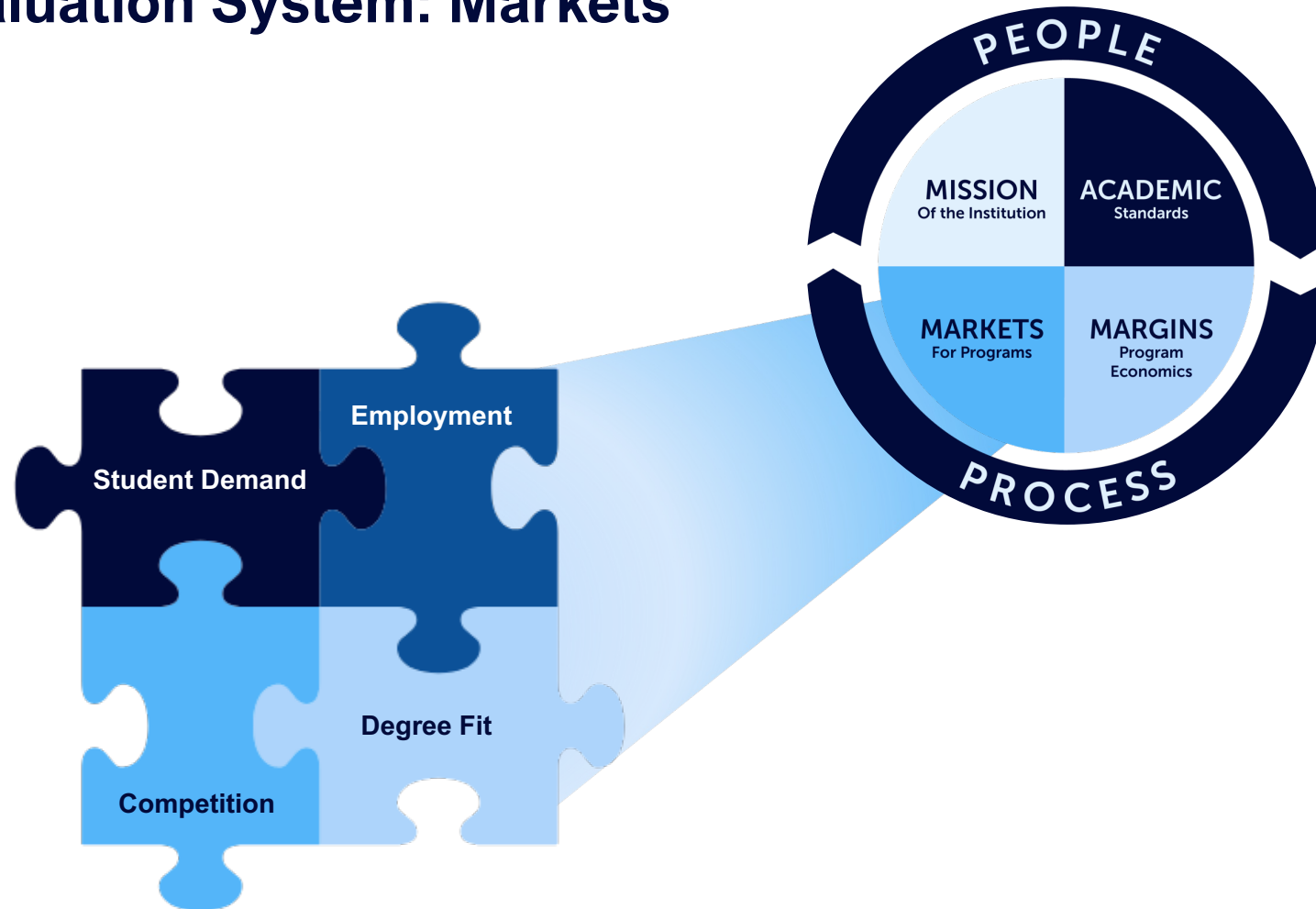


What is my institution's reach?

Identifying the addressable markets: **90% of this college's students come from within 25 miles of campus.**



Program Evaluation System: Markets





Agenda

A Growth–Focused Approach to Academic Program Evaluation

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IPEDES, Enrollment, and Google Search: Past, Present, Future

Insights on Student Demand



IPEDES



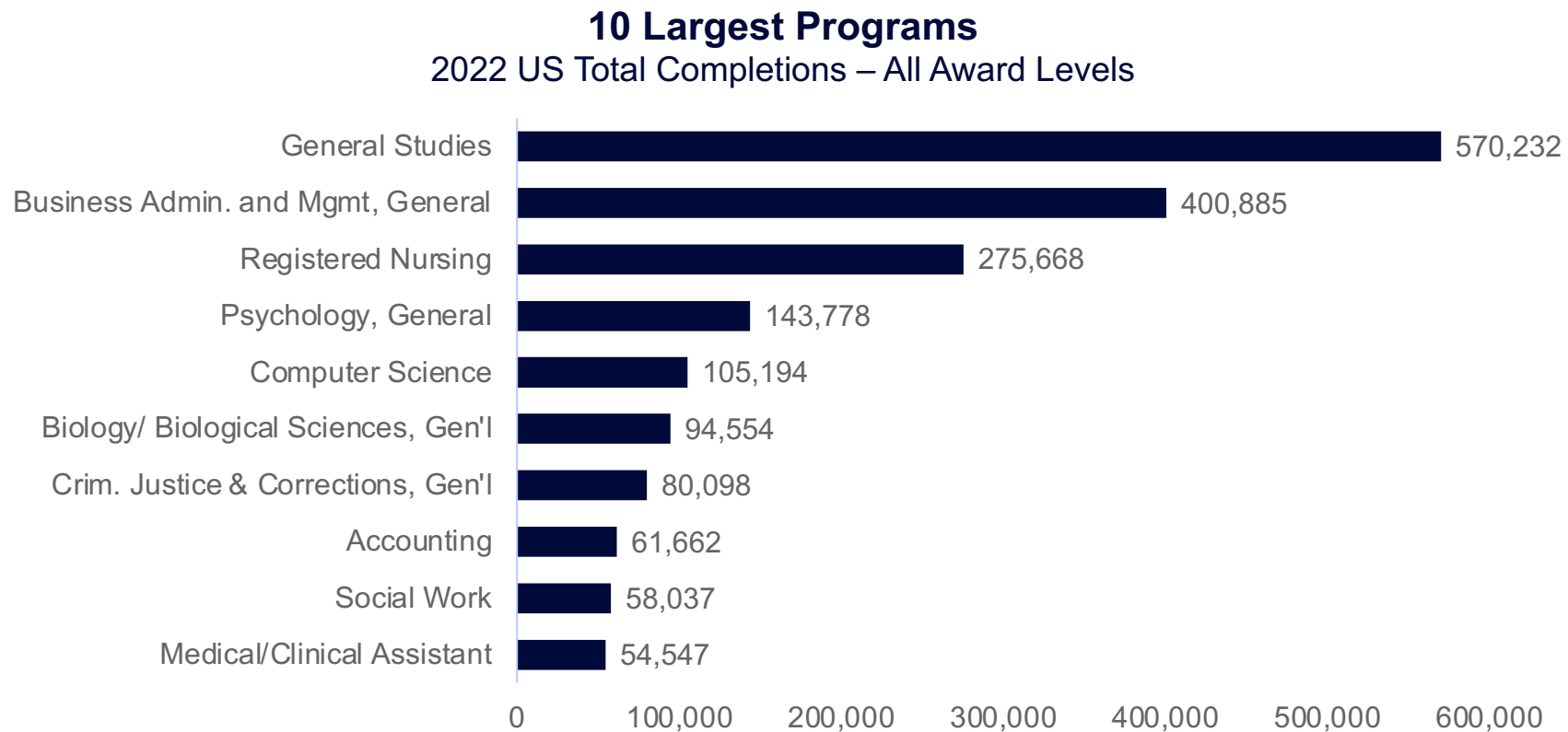
Enrollment



Google

I. Completions (oldest)

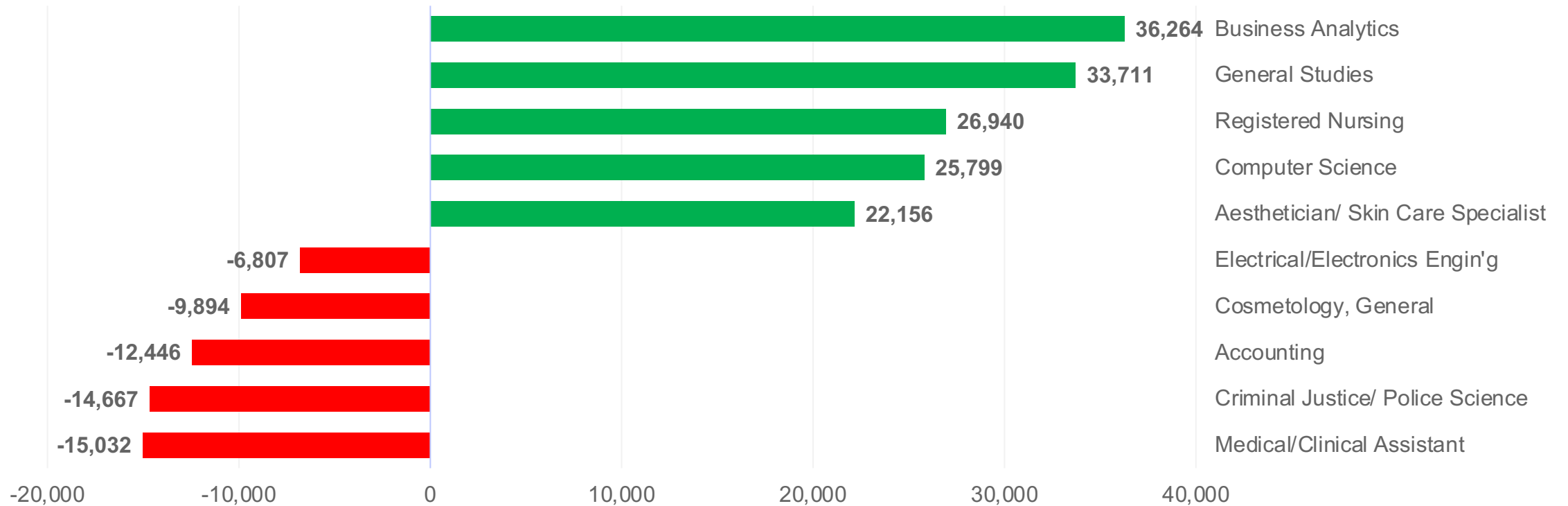
IPEDS releases US Completions once a year. Students choose programs around two-to-six years before they complete.





Which programs are growing? Declining?

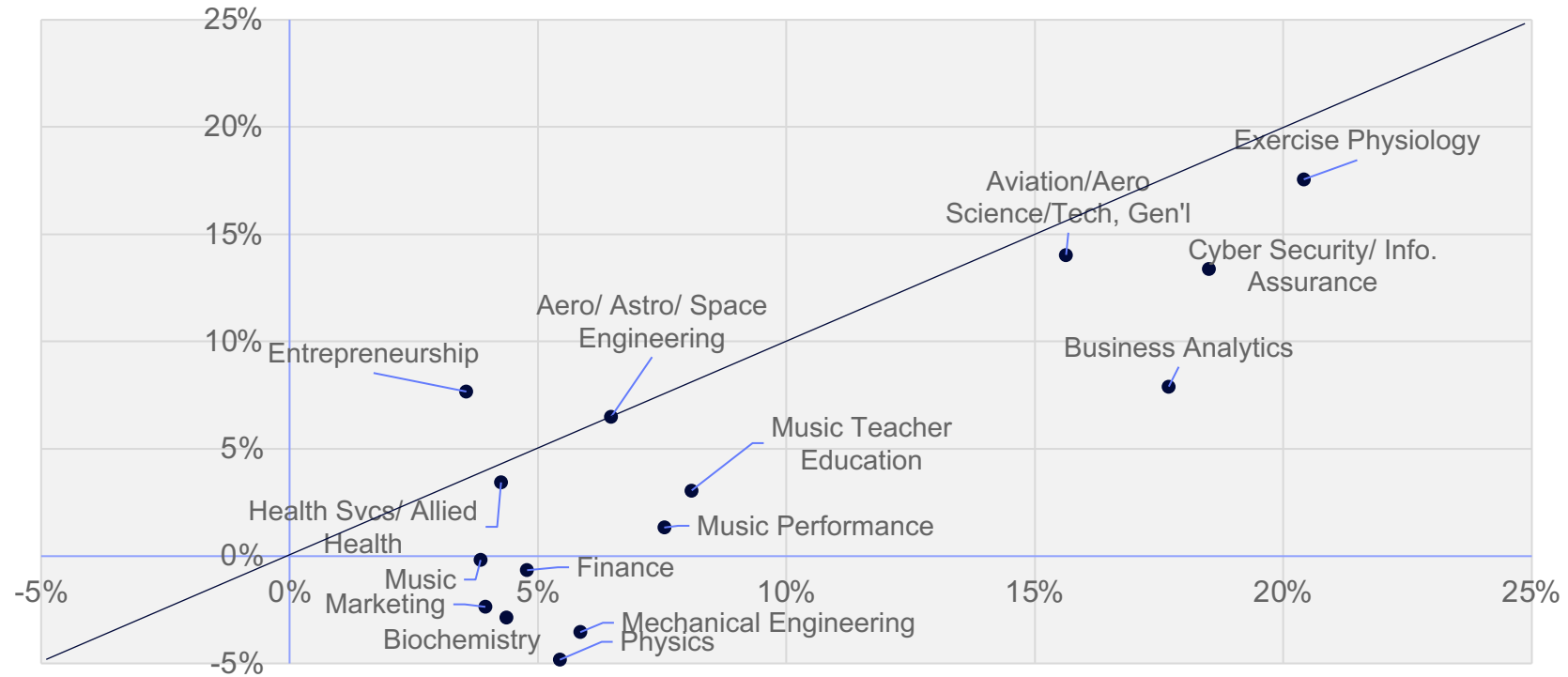
Highest Program Growth and Decline
Change in US Completions – 2017-2022, All Award Levels



What was growing is not always what *is* growing.

Fall 2023 New Enrollment vs. 2022 Completions
By Top 15 New Enrollment Growth, Bachelor's Degree

2022 Completions Growth YoY



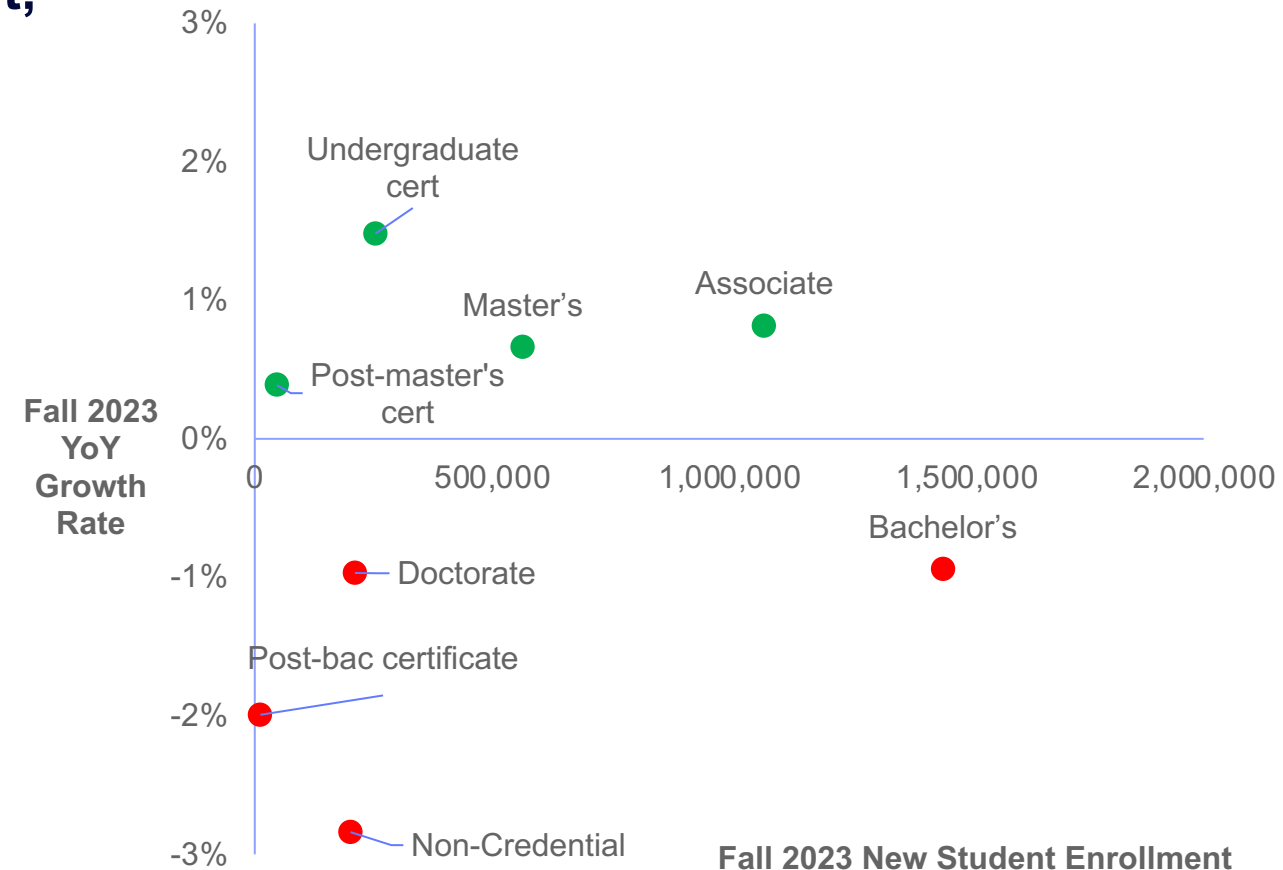
Fall 2023 Enrollment Growth YoY

2. New Student Enrollment (current)

While overall enrollment trends are important, looking more granularly can help identify opportunities.

- Undergrad certificates were up 1.48%.
- Associate was up almost 1%.
- Bachelor's fell less than 1%.
- Master's was up almost 1%.

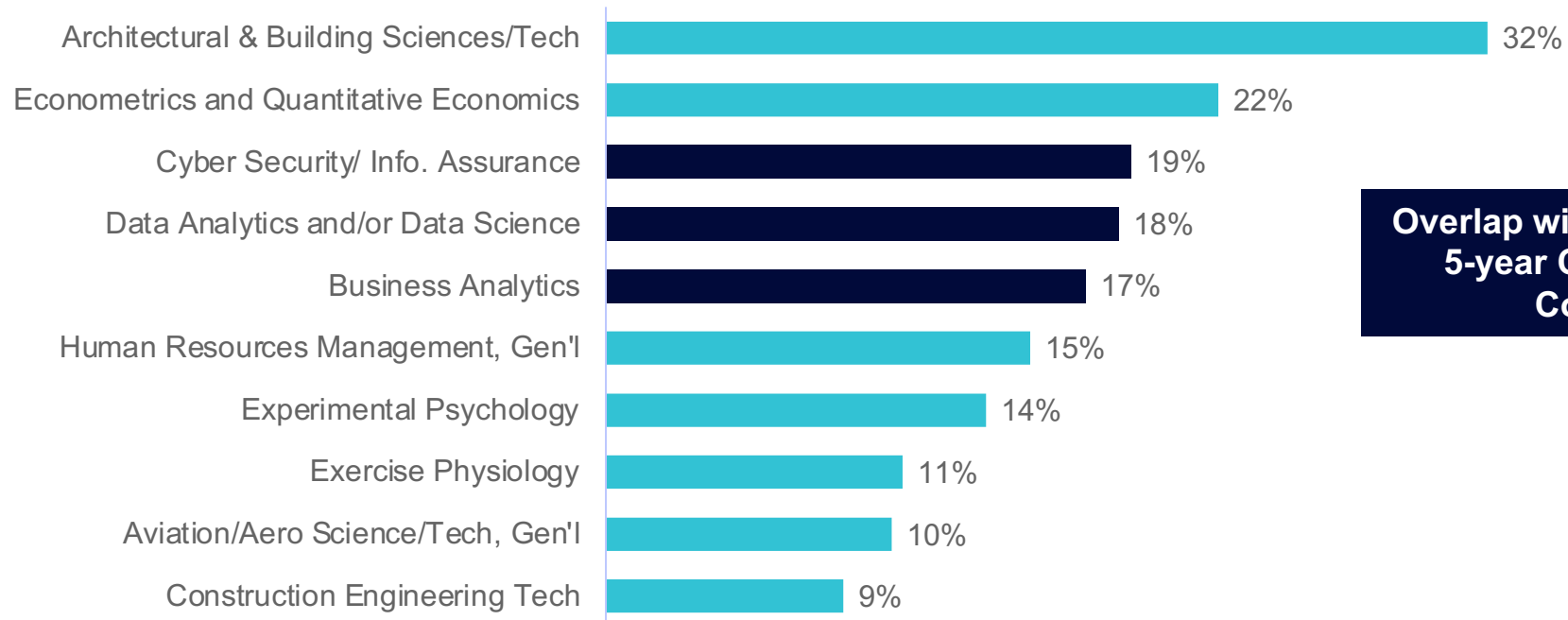
Fall 2023 New Student Enrollment and YoY Change



Fastest-Growing New Enrollment: Five-Year Growth

Only three programs overlapped with completions five-year growth – all in tech.

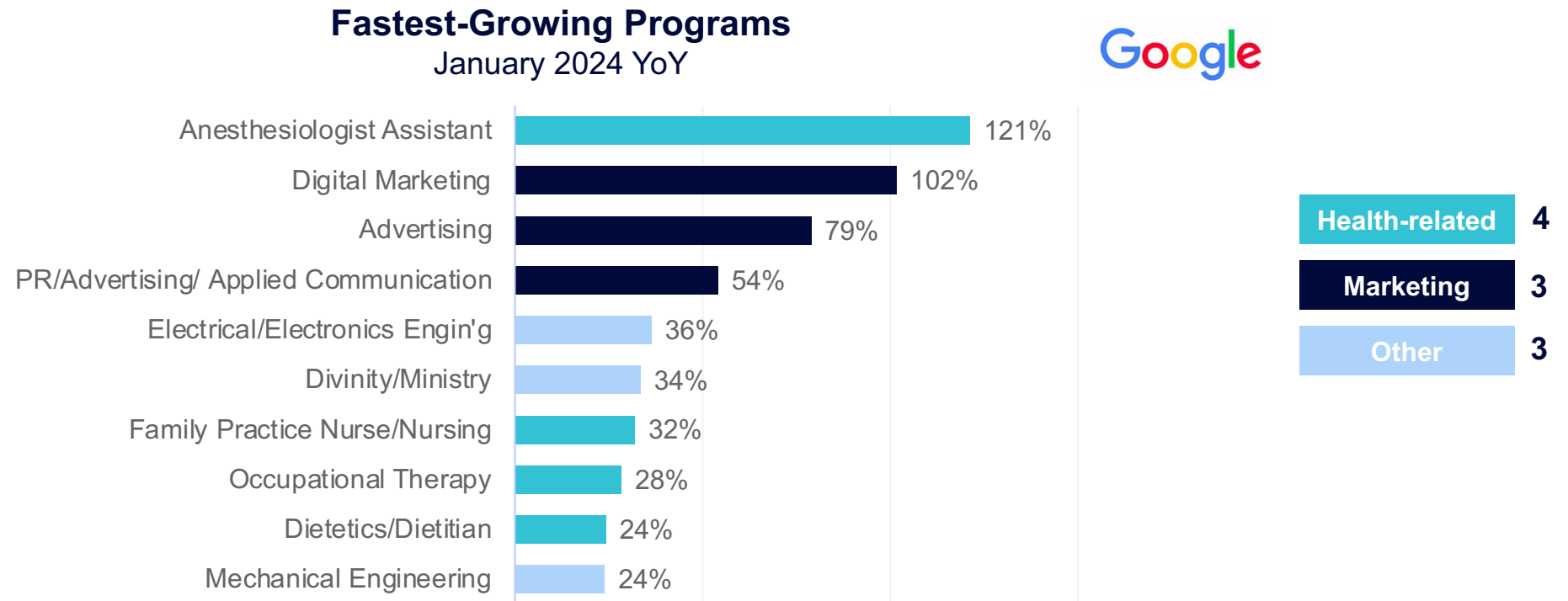
10 Fastest-Growing Programs 5-year CAGR
Bachelor's, Fall 2018 - 2023



**Overlap with Fastest-Growing
5-year CAGR 2017-2022
Completions**

3. Google (future)

High Google search growth is an indicator of future enrollment.



Google search volume for standardized academic programs.
Source: PES Keyword Search Dashboard

*Minimum 10,000 searches January 2023

How do I expand internationally?

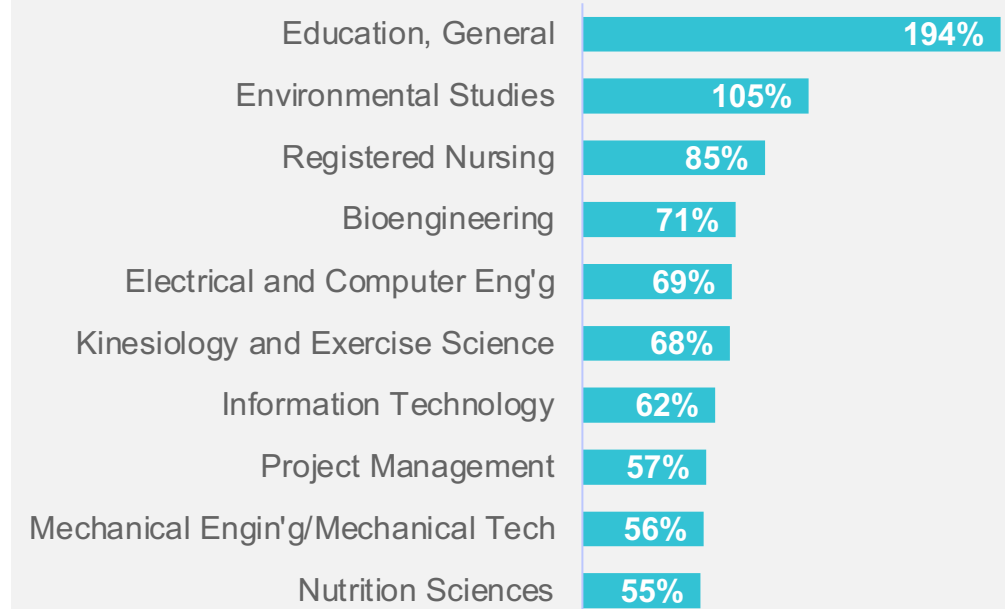
International student interest in US programs is another source to inform program decisions.

International Page Views
2022 - 2024



The fastest-growing program year-over-year was Education.*

10 Fastest-Growing Programs
January 2024 YoY



Source: PES International Student Demand Dashboard (excludes China)

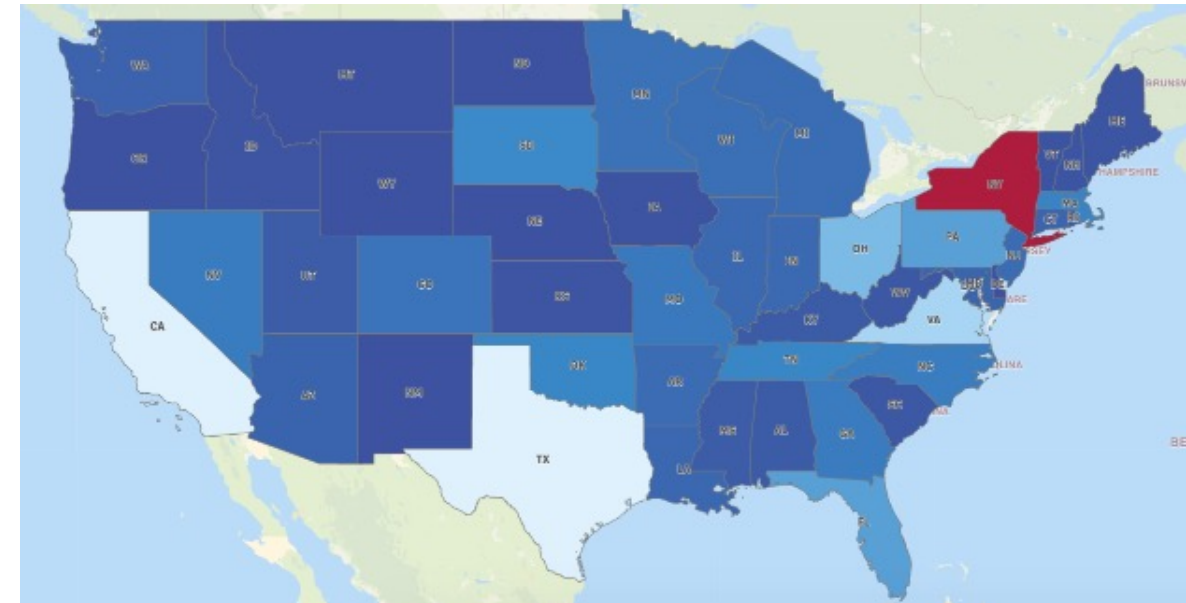
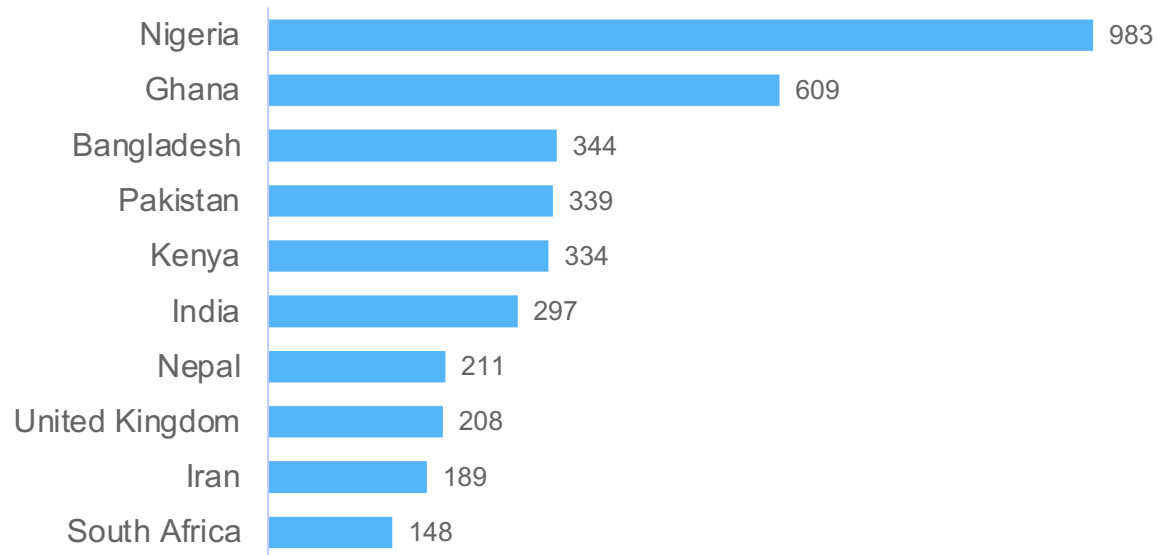
*Minimum Page Views January 2023: 2,000

Where do I expand international and who am I competing with?

Nigeria led in page views for Registered Nursing.

Most of the interest was in New York City nursing programs.

Highest International Page Views by Originating Country
Registered Nursing, January 2024



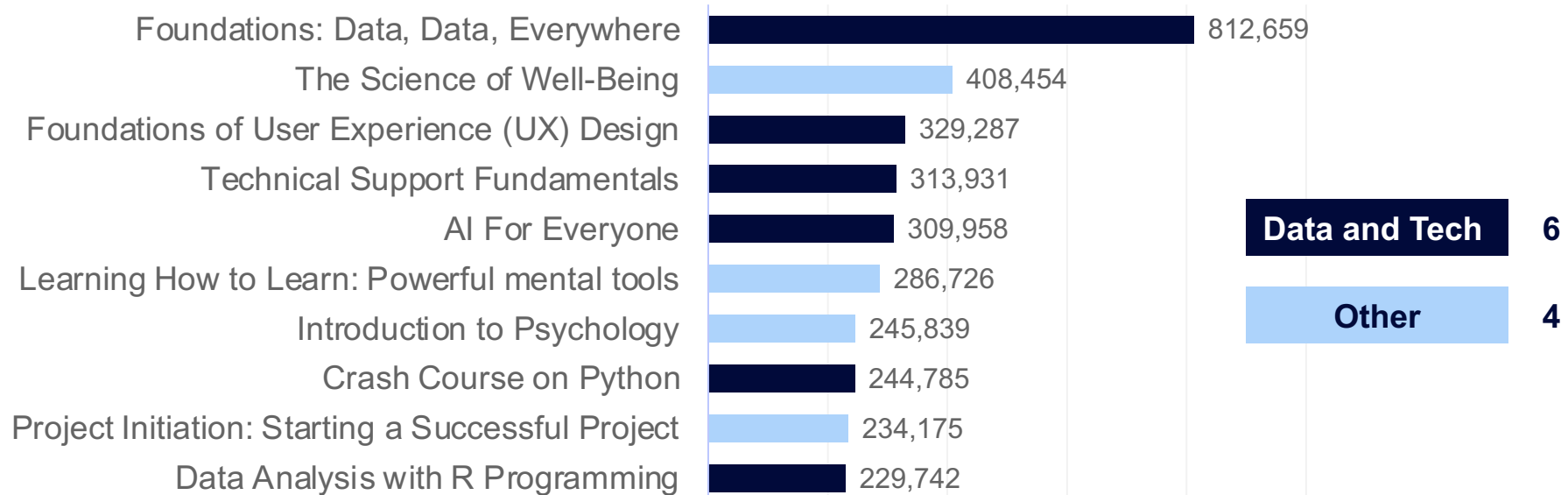
What other early indicators of student interest are out there?

Platforms like Coursera are good sources for the most in-demand courses and skills.

- In January 2024, Coursera added more than 18.3 million learners year-over-year.

Fastest-Growing Courses by Unit Change

January 2024



Student Demand Metrics

Volume and Growth

- All size metrics are in the highest percentiles for this program.
- Growth metrics are less favorable.
 - Google searches fell 4% year-over-year.
 - New enrollment rose 2%.
 - Completions fell 2%.

Business Admin and Mgmt
Boston Cambridge Newton MSA

Student Demand
Score: 30 Percentile: 99

Category	Pctl	Criterion	Value	Score
Size →	99	Google Search Volume (3 Months)*	22,534	8
	100	International Page Views (12 Months)	11,678	NS
	100	New Student Enrollment Volume (12 Mo.)	3,222	8
	100	On-ground Completions at In-Market Institutions	5,067	4
	100	Online Completions by In-Market Students	617	4
	100	Sum of On-ground and Online Completions	5,684	4
Growth →	0	Google Search YoY Change (Units)*	-843	0
	99	New Student Enrollment Vol. YoY Change (Units)	56	2
	0	Completion Volume YoY Change (Units)	-120	0
	43	Google Search YoY Change (%)*	-4%	0
	60	New Student Enrollment Vol. YoY Change (%)	2%	0
	50	Completion Volume YoY Change (%)	-2%	0



Agenda

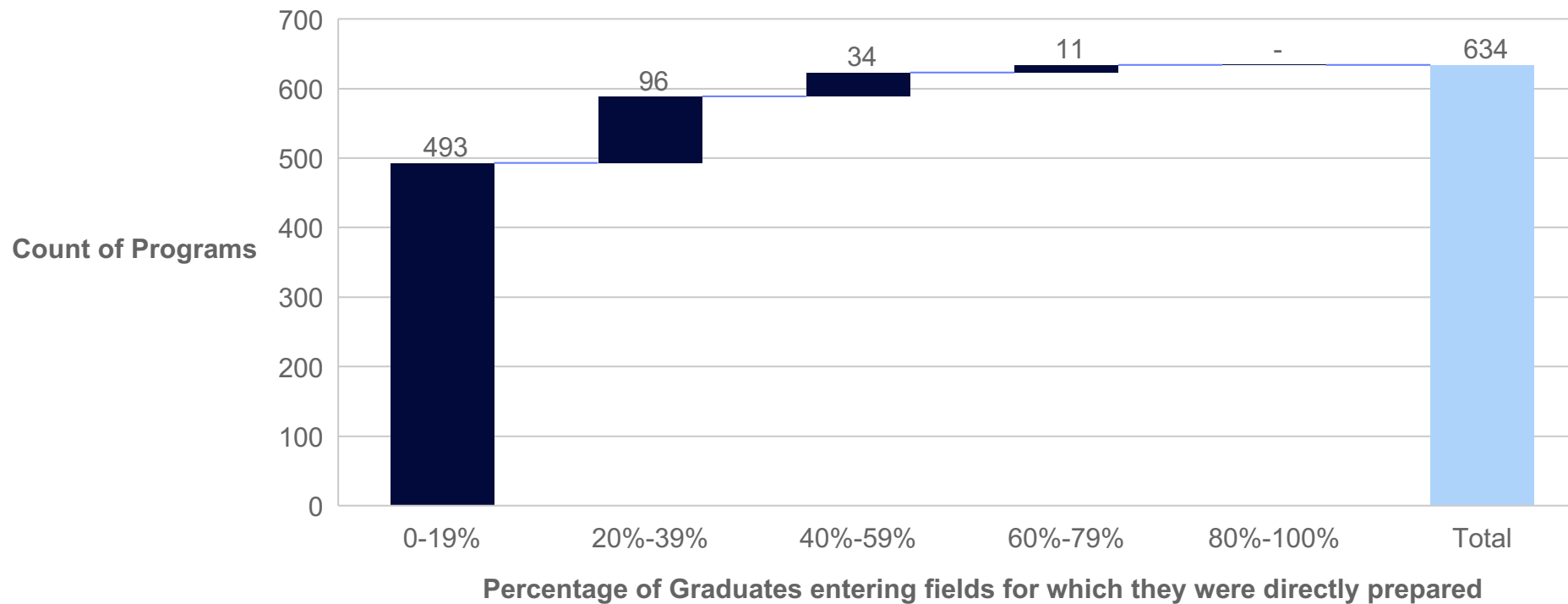
A Growth–Focused Approach to Academic Program Evaluation

Market Demand

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77% of programs place less than 20% of graduates in direct prep jobs.

Do Graduates Go into Fields for Which They Are Directly Prepared?



Commonly available data sources only count direct prep jobs.

In a traditional construct, Design and Visual Communications majors enter six occupations.

- Gray DI data on more than 145,272 graduates of this bachelor's program identifies 775 occupations.
- It also identifies 147 industries and 223,741 companies.

Myth

NCES

Art, Drama, and Music Teachers, Postsecondary

Commercial and Industrial Designers

Designers, All Other

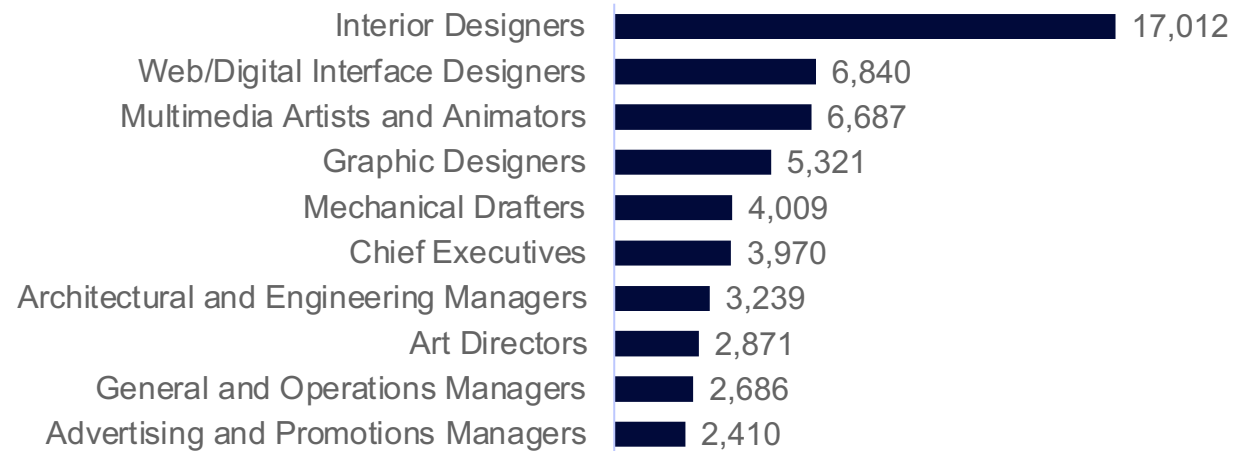
Graphic Designers

Set and Exhibit Designers

Web and Digital Interface Designers

Reality

Highest Volume of Occupations, Entry-Level Bachelor's in Design and Visual Communications



Programs that seem to be aligned with specific jobs usually are not.

According to NCES, Health Care Admin graduates can go into one occupation.

According to Gray DI's sample of 31,650 profiles, they go into 633 occupations.

Myth

NCES
Health/Health Care Administration/Management

Reality (post-entry)

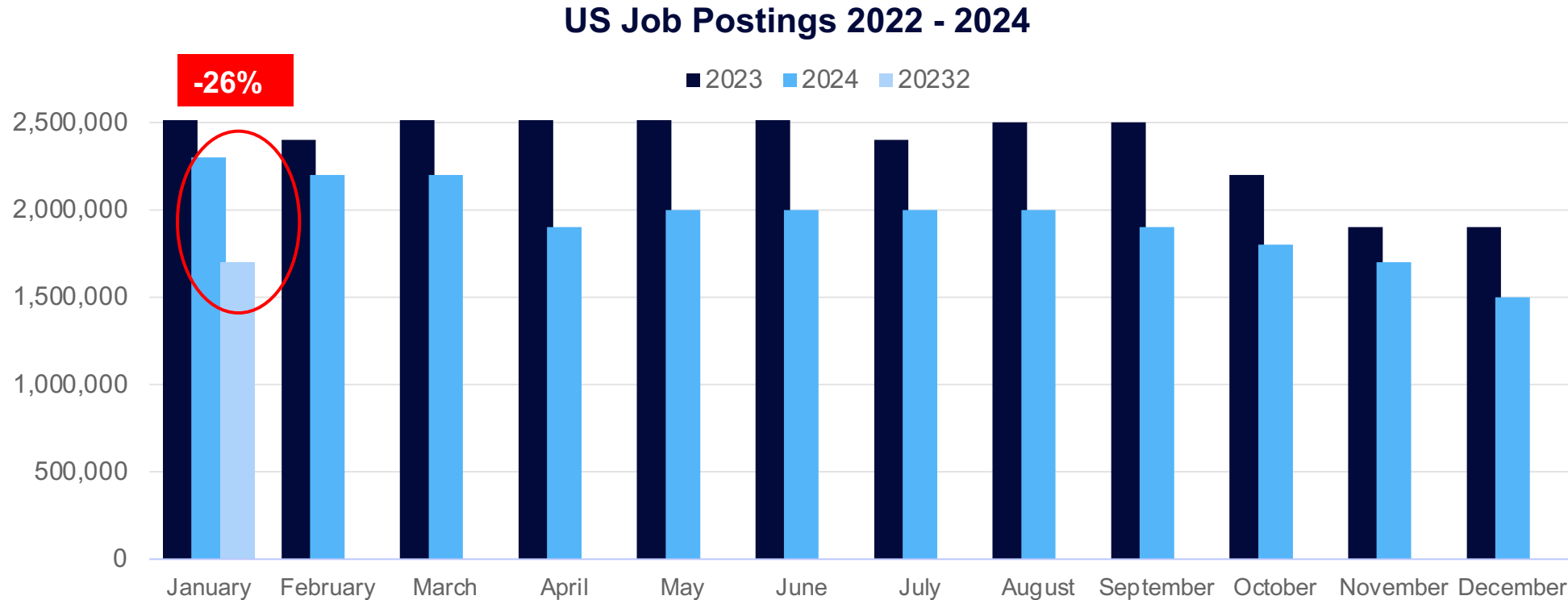
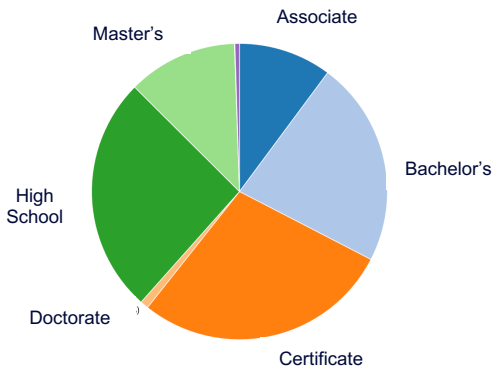
Highest Volume of Occupations Master's in Health Care Administration



* Chief Executives include c-suite, presidents, principals, and owners.

How is the job market trending?

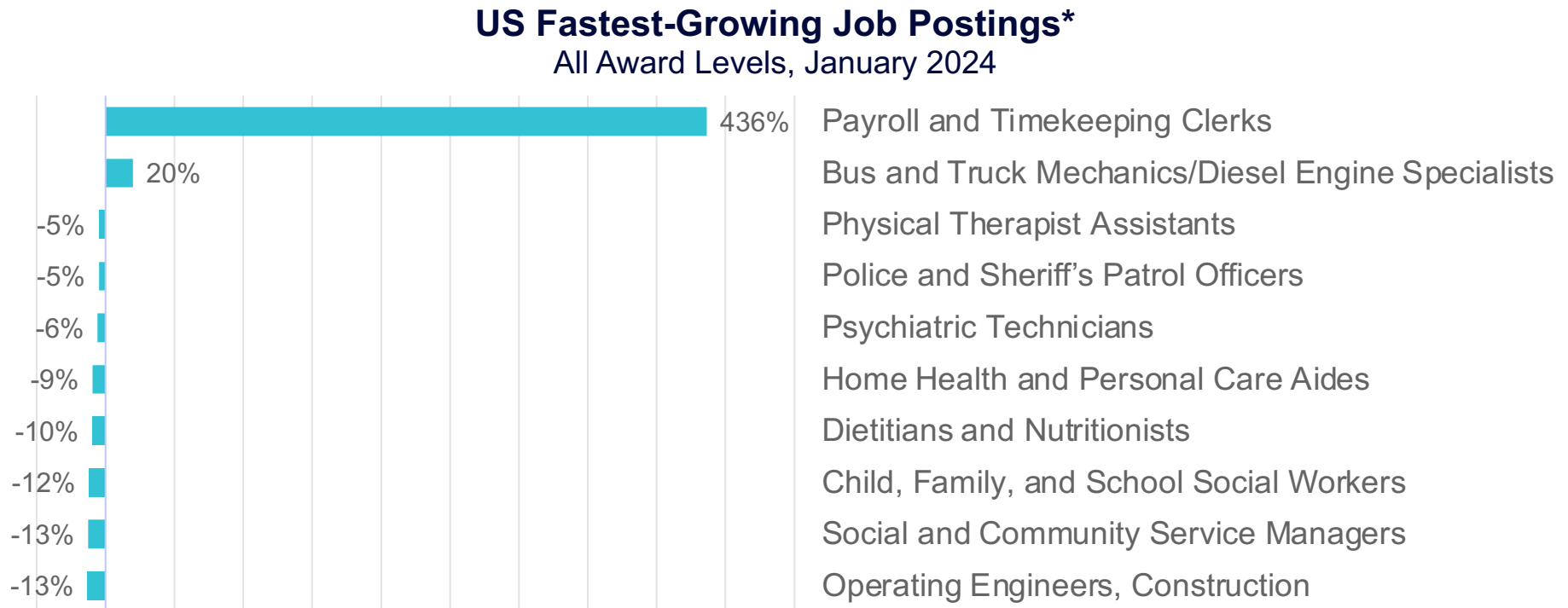
In January 2024, job postings dropped 26% across all degree levels.



Source: PES Job Postings Dashboard

Are their specific jobs that are outliers?

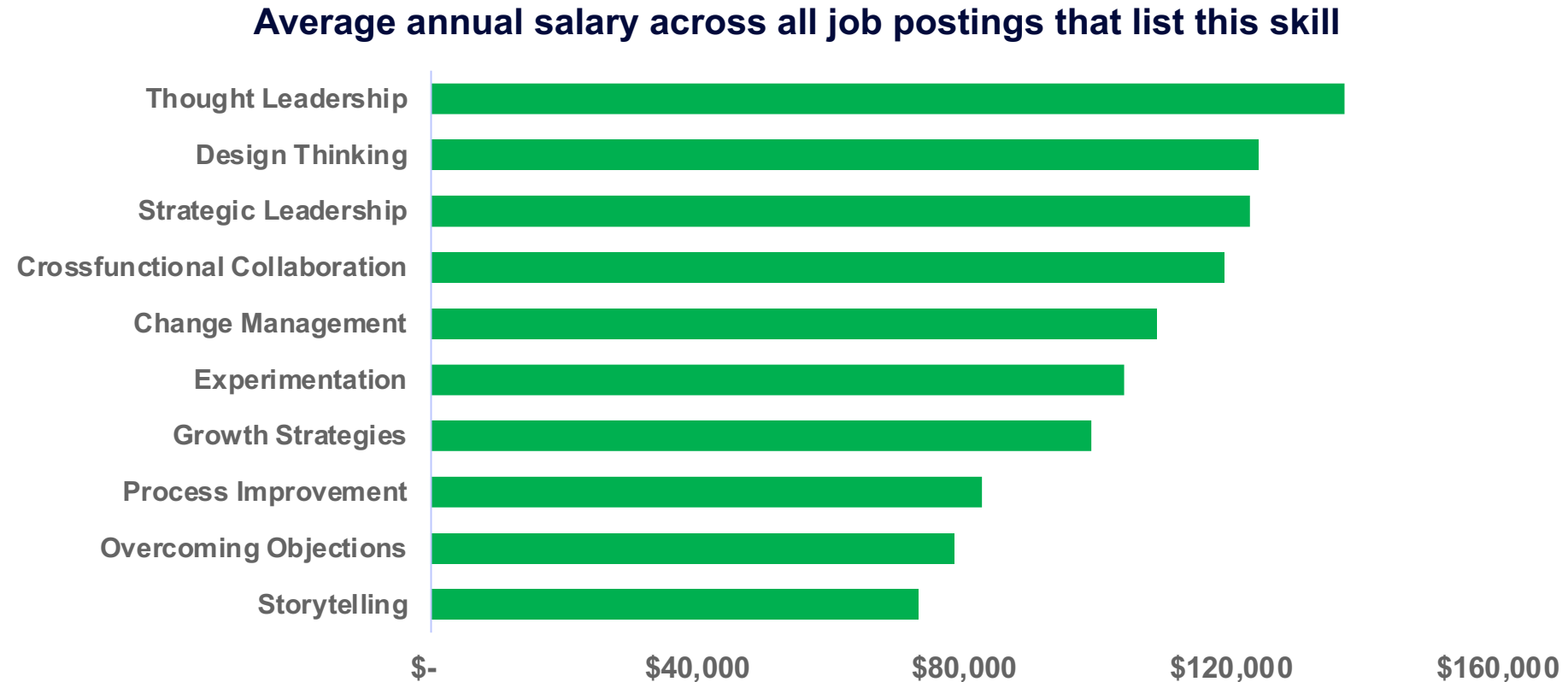
In January, job postings for Payroll and Timekeeping Clerks grew 436% year-over-year.



*Minimum 1,000 jobs January 2024
Excludes unskilled labor

What skills align with higher wage potential?

Core skills are often associated with higher wages.



How do I validate a need I heard from an industry partner?

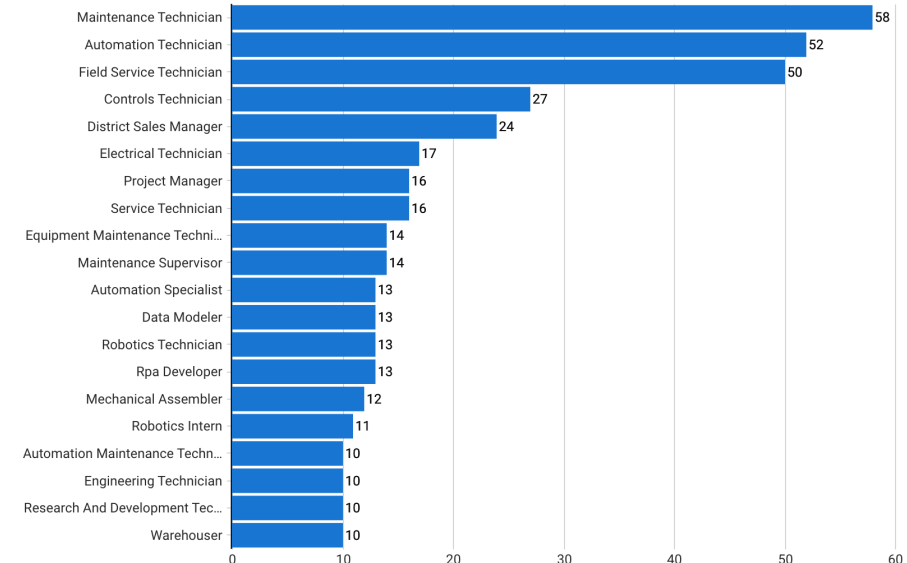
In some cases, you may need to evaluate niche or emerging areas; using job posting description searches can help.

- While down from the highs in 2022, there seems to be a sustained need for jobs that contain **robotics** and **automation** in the description in Texas.

Job Postings by Month and Year

Job Postings	Year ▾			
Month ▾	2022	2023	2024	Total
January	135	97	62	294
February	161	71		232
March	159	75		234
April	146	69		215
May	150	67		217
June	207	62		269
July	141	53		194
August	116	73		189
September	88	79		167
October	75	64		139
November	68	58		126
December	60	52		112
Total	1,506	820	62	2,388

Job Titles with the Highest Number of Postings



Employment Metrics

Gray DI reports employment data using a custom crosswalk – based on the jobs alumni really get.

Employment Metrics, Business Admin and Mgmt:

- Current entry-level job postings are high.
- Underemployment is below average.
- Wages are average.
- 33% of graduates go into occupations for which they were directly prepared.

Total Percentile	0	20+	40+	70+	90+	95+	98+	100
Total Score	-32	-6	-1	3	11	16	24	49

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Employment

Score: 7 Percentile: 93

Category	Pctl	Criterion	Value	Score
Size: Entry Jobs	99	Job Postings Total (12 Months)	18,283	NS
	100	BLS Current Employment	33,475	NS
	100	BLS Annual Job Openings	3,296	NS
Underemployed	26	Underemployed Percent of Graduates**	42%	0
	81	BLS 1-Year Historical Growth	0.6%	NS
	76	BLS 3-Year Historic Growth (CAGR)	4.2%	0
Growth: Entry Jobs	56	BLS 10-Year Future Growth (CAGR)	1.5%	0
	54	Job Postings per Graduate	3.2	1
Saturation: Entry Jobs	58	BLS Job Openings per Graduate	0.6	NS
	78	Entry 25th Percentile	\$57,612	3
Weighted Avg BLS Wages	72	Post Entry Median	\$93,699	3
		Post Entry w/Associates Median	NA	NS
	75	Post Entry w/Bachelors Median	\$89,305	NS
	84	Post Entry w/Masters Median	\$117,158	NS
	72	Post Entry w/Doctoral Median	\$117,818	NS
	25	% with Any Graduate Degree*	24%	NS
National American Community Survey Bachelor's Degree Outcomes*	32	% with Masters*	20%	NS
	17	% with Doct/Prof Degree*	3%	NS
	65	% Unemp. (Age <30)**	3%	NS
	89	% in Direct Prep Jobs*	33%	NS



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A Growth–Focused Approach to Academic Program Evaluation

Market Demand

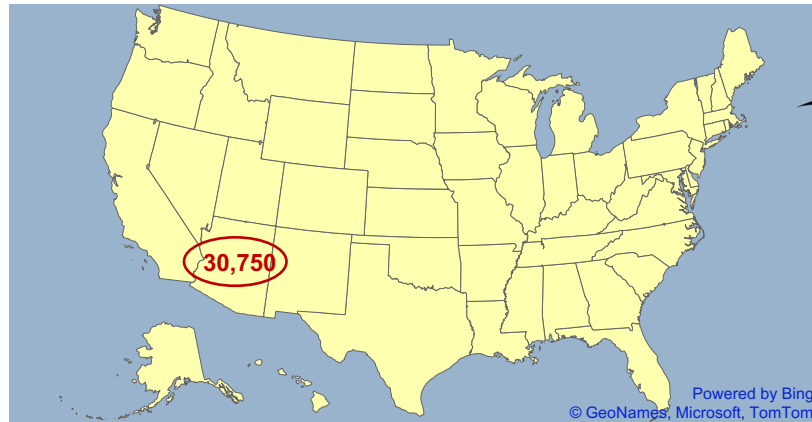
- Define Your Markets
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Where are the students coming from?

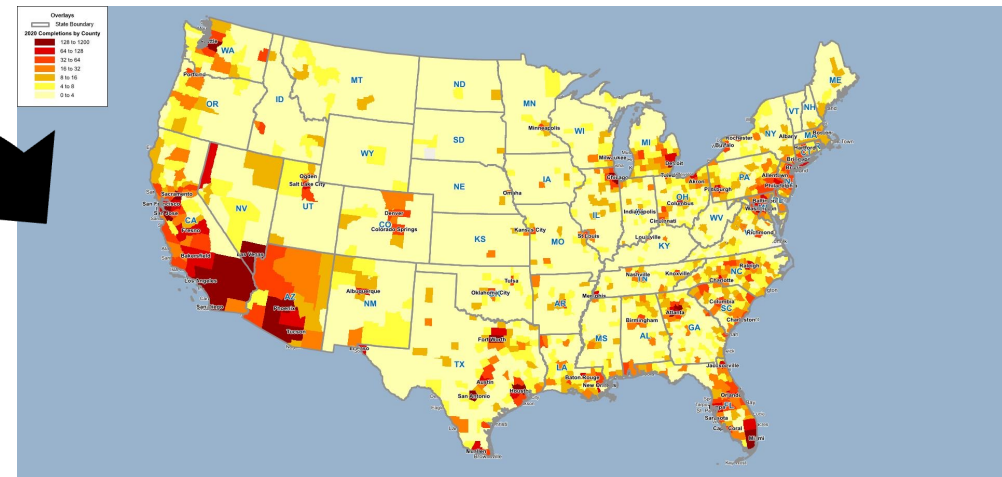
IPEDS online completions can be very misleading.

- In Phoenix, the University of Phoenix's completions are overstated by more than 30,000.
- Of course, this means other markets, e.g., Miami, are significantly underestimated.
- This error confounds competitive analysis and labor market saturation metrics.

University of Phoenix
IPEDS Completions Reported to HQ Market



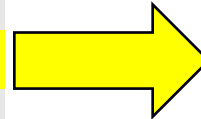
University of Phoenix
PES Enhanced Completions by Local Market



How am I going to compete for students?

Higher cost per click is an indicator of more intense competition.

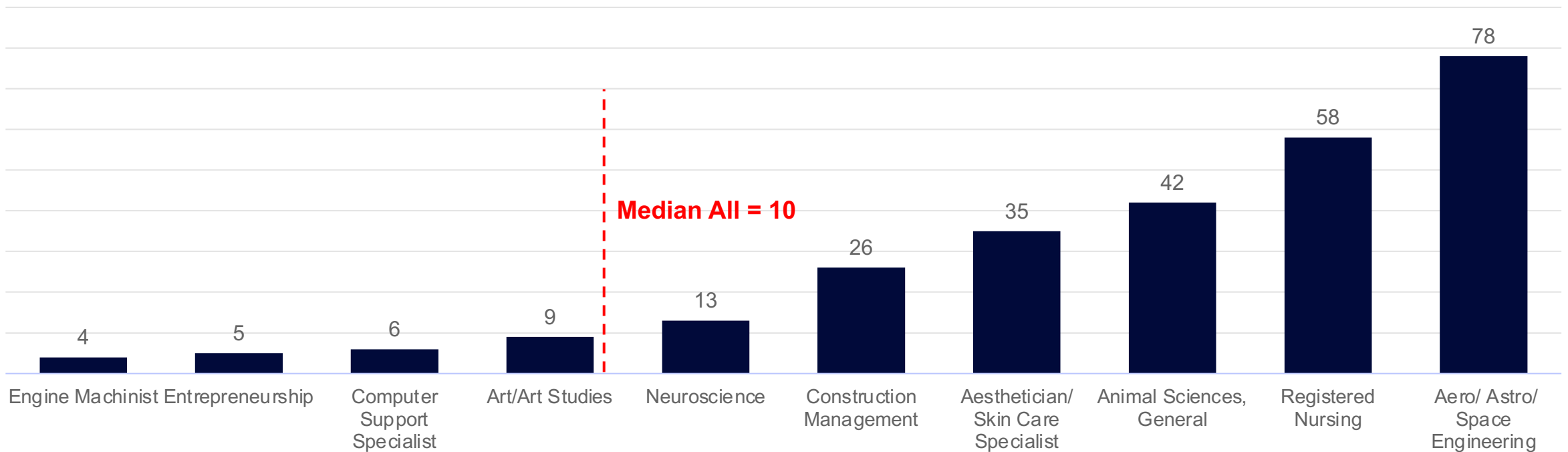
Program	Cost per Click
13.1211 Online Educator/ Teaching	\$58.34
13.1203 Middle School Education/ Teaching	\$57.15
51.0713 Medical Billing and Coding	\$41.60
51.3805 Family Practice Nurse/Nursing	\$38.15
51.0701 Health Care Admin/Mgmt	\$37.21
51.2211 Health Services Administration	\$37.16
44.0701 Social Work	\$36.88
13.1201 Adult and Continuing Ed and Teaching	\$33.61
42.0101 Psychology, General	\$32.58
52.0301 Accounting	\$31.52



Family Practice Nurse Keywords	Cost per Click
fnp programs	\$61.54
family nurse practitioner programs	\$61.54
family nurse practitioner online programs	\$47.04
accredited online nurse practitioner programs	\$44.60
nurse practitioner programs	\$38.53
best online nurse practitioner programs	\$38.20
best nurse practitioner programs	\$34.25
fnp online programs	\$32.57
nurse practitioner online programs	\$32.57
nurse practitioner schooling	\$30.18

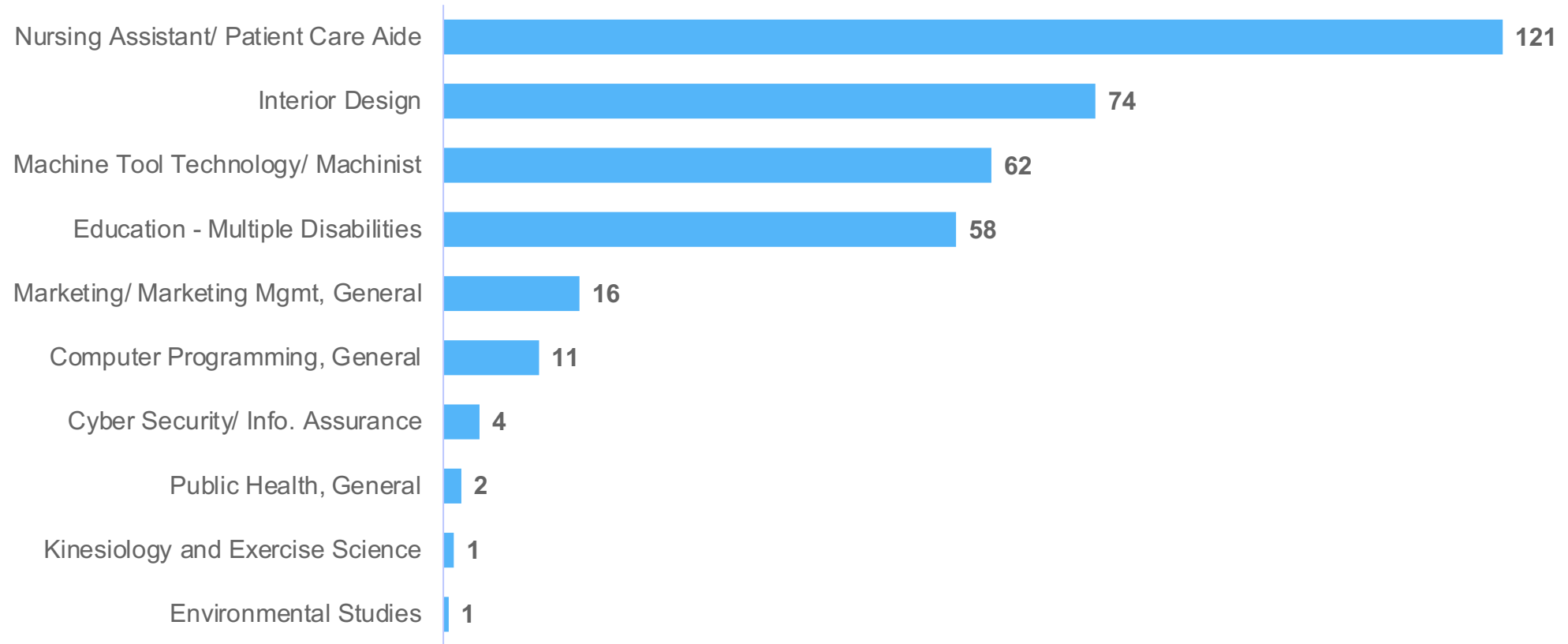
Median program size can help identify the potential completions for a new program as well as market saturation.

2022 Median Program Size



Programs compete not only for students but also jobs for their graduates.

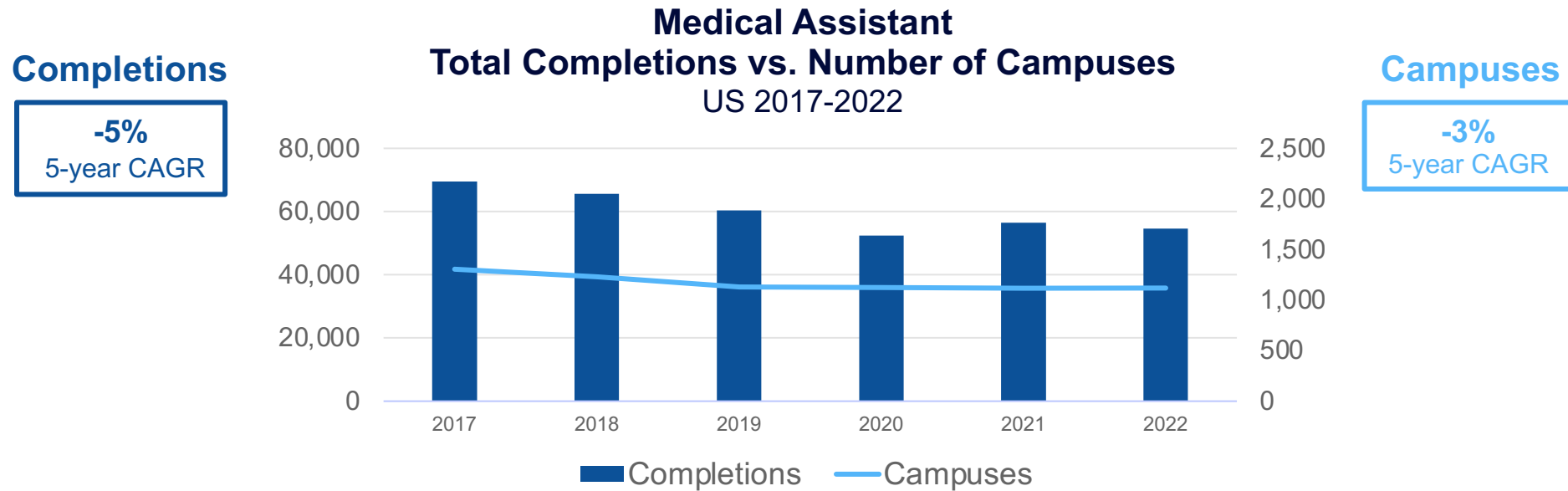
Job Postings per Graduate
 Pennsylvania, Associate and Bachelor's



Is Competition Bad?

Regulators shut down hundreds of campuses offering Medical Assisting programs.

- Competition declined: completions declined faster.
- Completions per campus fell from 53 to 49.



Competition Metrics

- In the Boston area, 28 campuses offer a Bachelor's in Business Admin/Management.
 - 70 national online institutions graduate students from Boston.
- Median program completions are high and steady.
- Marketing expenses are high.

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Competitive Intensity

Score: 10 Percentile: 94

Category	Pctl	Criterion	Value	Score
Volume of In-Market Competition	100	Campuses with Graduates**	28	0
	4	Campuses with Grads YoY Change (Units)**	-1	NS
	100	Institutions with Online In-Market Students**	70	0
In-Market Program Sizes	99	Average Program Completions	181	4
	95	Median Program Completions	73	3
	53	YoY Median Prog. Compl. Change (Units)	-1	0
	54	YoY Median Prog. Compl. Change (%)	-1%	0
In-Market Saturation	94	Google Search * Cost per Click**	\$18	0
	33	Google Competition Index**	0.03	3
National Online Competition	100	National Online Institutions (Units)**	638	NS
	94	Nat'l Online % of Institutions	34%	NS
	89	Nat'l Online % of Completions	26%	NS

What are the appropriate degree levels for the subject?

A bachelor's degree is an appropriate degree level for Business programs.

- 42% of graduates earn a bachelor's degree.
 - 28% earn a master's.
- 38% of the national workforce hold a bachelor's degree.
 - 15% hold a master's degree.

Business Admin and Mgmt Boston Cambridge Newton MSA

Degree Fit

Score: 0 Percentile: 50

Category	Pctl	Criterion	Value	Score
Cost Benchmarking**	27	Average Cost per SCH Index**	0.45	NS
	27	Median Cost per SCH Index**	0.81	NS

National Completions by Level

Score: 0

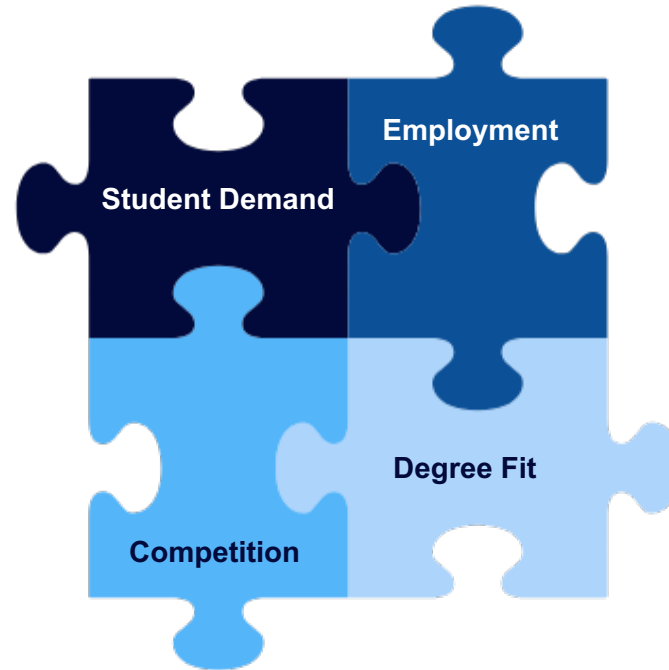
National Workforce Ed. Attainment

Score: 0

Award Level	Completions (National)	Completions (Market)	Enrollment (Market)	BLS Educational Attainment
No College				15%
Some College				20%
Certificate	10%	0%	1%	
Associates	19%	9%	15%	9%
Bachelors	42%	54%	46%	38%
Postbaccalaureate Certificate	1%	1%	0%	
Masters	28%	34%	31%	15%
Post-masters Certificate	0%	0%	2%	
Doctoral	1%	0%	6%	3%




Putting the pieces of the puzzle together.



Quickly sort through over 1,500 programs.

Rank overall and on each piece of the puzzle.

Bachelors Program Ranking Boston Cambridge Newton MSA

CIP 	Total Percentile	Student Demand Percentile	Competitive Intensity Percentile	Employment Percentile	Degree Fit Percentile
51.3801 Registered Nursing	100	100	98	97	50
52.0201 Business Admin. and Mgmt, General	99	100	50	93	50
11.0701 Computer Science	99	100	8	99	50
14.0501 Bioengineering and Biomedical Engineering	99	99	14	99	50
45.0601 Economics, General	99	99	3	97	50
52.0801 Finance, General	99	99	3	97	50
14.1901 Mechanical Engineering	99	98	98	99	50
11.0103 Information Technology	99	98	0	99	50
45.0603 Econometrics and Quantitative Economics	99	97	99	91	50
51.0799 Health and Medical Admin Services, Other	99	96	100	85	50

Total Percentile	0	20+	40+	70+	90+	95+	98+	100
Total Score	-32	-6	-1	3	11	16	24	49

One-page snapshots help to gain a quick pulse on the market for an academic program.

CIP: 52.0201 Business Admin. and Mgmt, General Award Level: Bachelors Market: Boston Cambridge Newton MSA Total Score: 61 Percentile: 99

Student Demand

Score: 30 Percentile: 99

Category	Pctl	Criterion	Value	Score
Size	99	Google Search Volume (3 Months)*	22,534	8
	100	International Page Views (12 Months)	11,678	NS
	100	New Student Enrollment Volume (12 Mo.)	3,222	8
	100	On-ground Completions at In-Market Institutions	5,067	4
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	100	Sum of On-ground and Online Completions	5,684	4
Growth	0	Google Search YoY Change (Units)*	-843	0
	99	New Student Enrollment Vol. YoY Change (Units)	56	2
	0	Completion Volume YoY Change (Units)	-120	0
	43	Google Search YoY Change (%)*	-4%	0
	60	New Student Enrollment Vol. YoY Change (%)	2%	0
	50	Completion Volume YoY Change (%)	-2%	0

Competitive Intensity

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Volume of In-Market Competition	100	Campuses with Graduates**	28	0
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In-Market Program Sizes	99	Average Program Completions	181	4
	95	Median Program Completions	73	3
	53	YoY Median Prog. Compl. Change (Units)	-1	0
	54	YoY Median Prog. Compl. Change (%)	-1%	0
In-Market Saturation	94	Google Search * Cost per Click**	\$18	0
	33	Google Competition Index**	0.03	3
National Online Competition	100	National Online Institutions (Units)**	638	NS
	94	Nat'l Online % of Institutions	34%	NS
	89	Nat'l Online % of Completions	26%	NS

* - Google search do not filter by award level.
 ** - Color scale in reverse.
 NA - No data available/not currently tracked.
 NS - Not Scored in Rubrics (values = 0).
 PCTL - Percentile

Employment

Score: 21 Percentile: 98

Category	Pctl	Criterion	Value	Score
Size: Entry Jobs	99	Job Postings Total (12 Months)	18,283	8
	100	BLS Current Employment	33,475	3
	100	BLS Annual Job Openings	3,296	2
Underemployed	26	Underemployed Percent of Graduates**	42%	0
Growth: Entry Jobs	81	BLS 1-Year Historical Growth	0.6%	2
	76	BLS 3-Year Historic Growth (CAGR)	4.2%	1
	56	BLS 10-Year Future Growth (CAGR)	1.5%	0
Saturation: Entry Jobs	54	Job Postings per Graduate	3.2	0
	58	BLS Job Openings per Graduate	0.6	0
Weighted Avg BLS Wages	78	Entry 25th Percentile	\$57,612	2
	72	Post Entry Median	\$93,699	2
		Post Entry w/Associates Median	NA	NS
	75	Post Entry w/Bachelors Median	\$89,305	NS
	84	Post Entry w/Masters Median	\$117,158	1
	72	Post Entry w/Doctoral Median	\$117,818	NS
National American Community Survey Bachelor's Degree Outcomes*	25	% with Any Graduate Degree*	24%	NS
	32	% with Masters*	20%	NS
	17	% with Doct/Prof Degree*	3%	NS
	65	% Unemp. (Age <30)**	3%	0
	89	% in Direct Prep Jobs*	33%	NS

-- IPEDS Demographics (Not Scored) -----

Category	Pctl	Criterion	This Program In-Market	All Programs In-Market
IPEDS Gender	24	Female	45%	58%
	75	Male	55%	42%
IPEDS Ethnicity	0	American Indian or Alaska Native	0	0%
	69	Asian	11%	10%
	63	Black or African American	5%	6%
	55	Hispanic or Latino	9%	10%
	0	Native Hawaiian or Other Pacific Islander	0	0%
	33	White	47%	54%
	88	International	22%	12%
	50	Other/Unknown	7%	8%

Degree Fit

Score: 0 Percentile: 50

Category	Pctl	Criterion	Value	Score
Cost Benchmarking**	27	Average Cost per SCH Index**	0.45	NS
	27	Median Cost per SCH Index**	0.81	NS

National Completions by Level

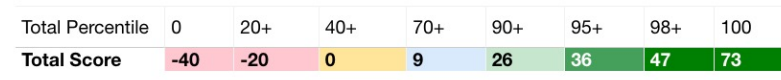
Score: 0

Award Level	Completions (National)	Completions (Market)	Enrollment (Market)	BLS Educational Attainment
No College				15%
Some College				20%
Certificate	10%	0%	1%	
Associates	19%	9%	15%	9%
Bachelors	42%	54%	46%	38%
Postbaccalaureate Certificate	1%	1%	0%	
Masters	28%	34%	31%	15%
Post-masters Certificate	0%	0%	2%	
Doctoral	1%	0%	6%	3%

National Workforce Ed. Attainment

Score: 0

CIP Description:
 A program that generally prepares individuals to plan, organize, direct, and control the functions and processes of a firm or organization. Includes instruction in management theory, human resources management and behavior, accounting and other quantitative methods, purchasing and logistics, organization and production, marketing, and business decision-making.



In summary, the market data will help identify opportunities.

It provides external perspective on the market for your academic programs and new programs.

Specifically, it will help you answer the questions like:

- How is my program performing relative to the market?
- How are other institutions performing and what are they offering?
- What programs are growing, shrinking, or flat?
- What is the outcome potential for graduate employment or continuing to advanced education?
- Where do I spend marketing resources programmatically, geographically, or internationally?
- When identifying new programs, where do you start and how do you validate new ideas before committing resources?
- **Where are my resources going to get the highest ROI for our students and the institution?**

The goal is to democratize the market data so that the decision-makers can access and understand it to make more informed decisions.

Up Next!



2024 Master Class on Academic Program Evaluation

I. Market Demand for Academic Program Growth	March 5 th , 2 PM ET
II. Program Economics and Curricular Efficiency	March 12 th , 2 PM ET
III. Program Management: Data, Process, and Key Decisions	March 19 th , 2 PM ET
IV. Advanced Analytics and AI	March 26 th , 2 PM ET

Other Great Resources

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Earn Your APEM Certificate

Academic Program Evaluation and Management Course

Understand the data, systems, processes, and people needed to make well-informed and fully supported program decisions



Presented by Gray DI and Bay Path University