



**GRAY**  
ASSOCIATES

## **Demand for Higher Education Programs**

Results through August 2022



**Gray has developed a complete Program Evaluation System.**



## **We do a few other things, too.**

**Pricing:** Competitive research, discrete choice surveys, and pricing simulators

**Location Analysis:** AI models to find the best place to add a campus or market your programs

**Financial Planning Models:** Simulate events and decisions; provide Pro-forma 10-year financials

# **Agenda**

**Google Search**

**International Student Demand**

**Enrollment**

**Employment Trends**

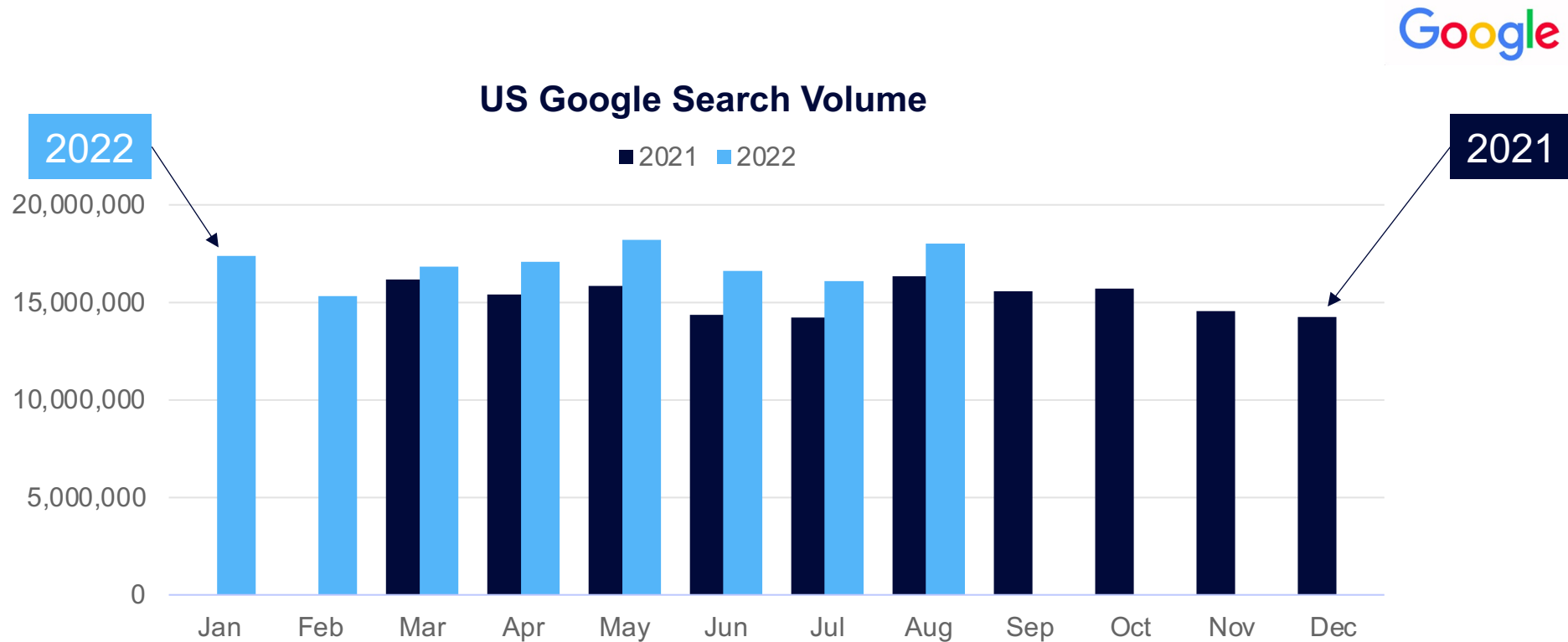
**Non-Degree Courses**

**Program of the Month**

**Summary**

## Google Search Trends: Programs

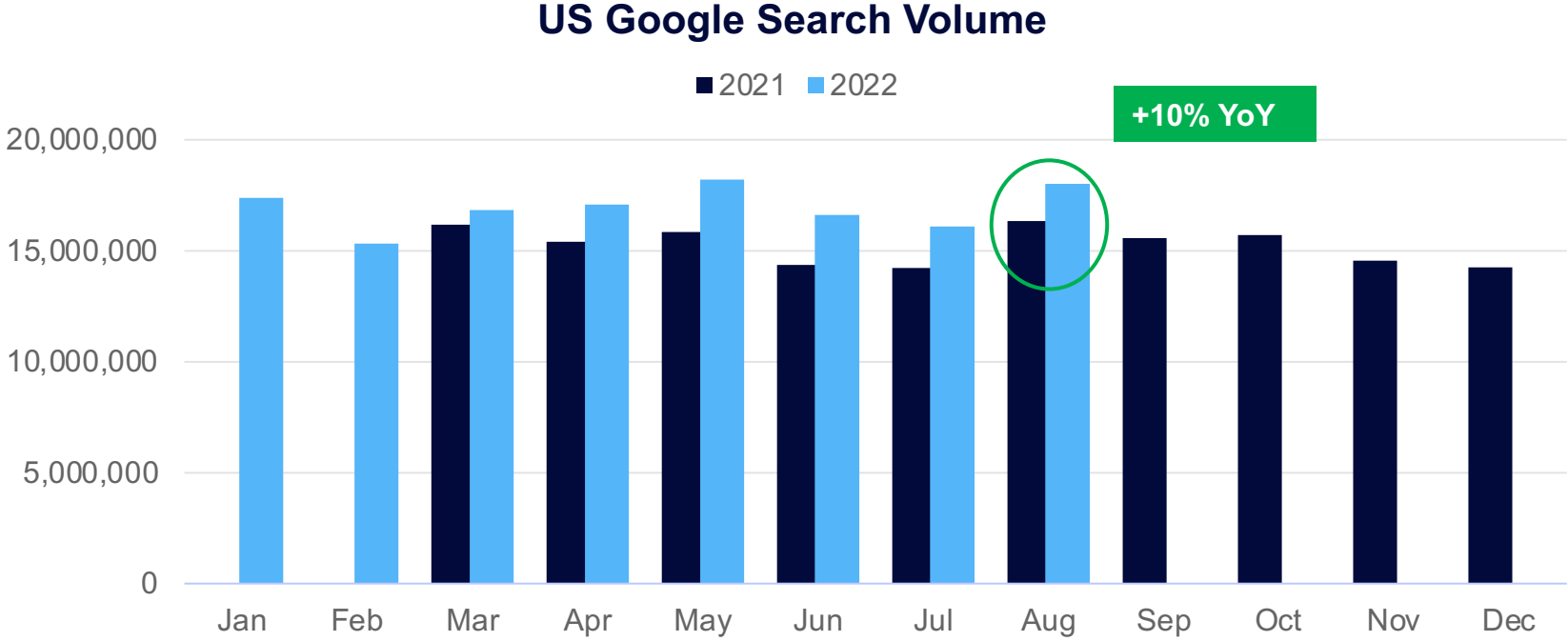
Gray tracks searches for over 900 programs (90% of all US completions).



Source: Gray's Keyword Search Data Dashboard

# Google Search Trends: Programs

In August, Google searches for academic programs increased 10% year-over-year.



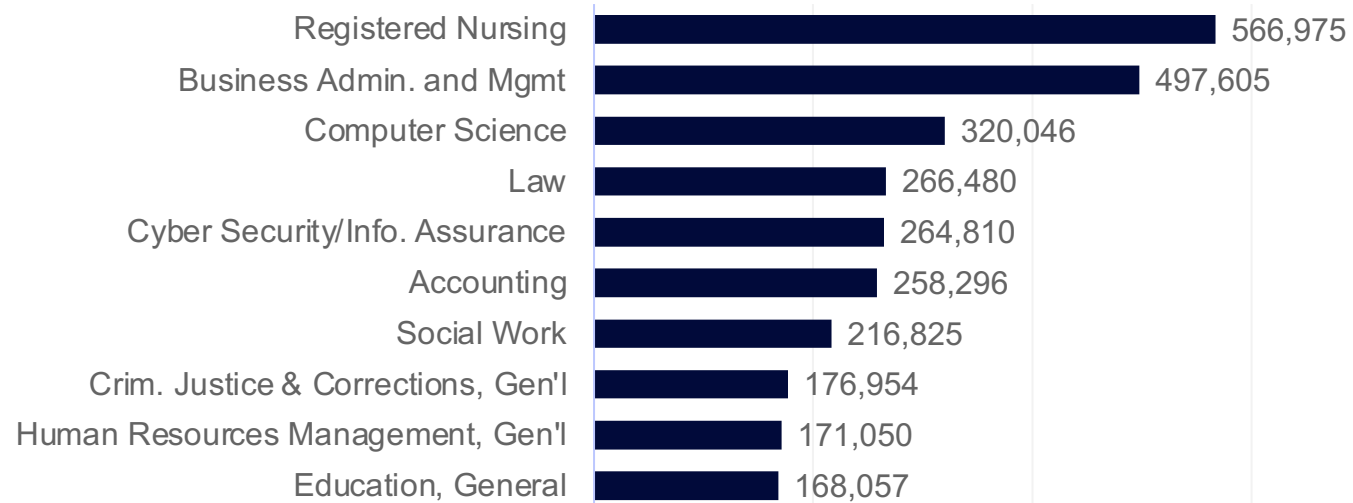
Source: Gray's Keyword Search Data Dashboard

# Google: US Top Bachelor's Programs (excluding Associate and Below)

In August, Registered Nursing had the highest search volume.



**Programs with the Highest Volume of Keyword Searches**  
August 2022



Google search volume for standardized sets of academic keywords for academic programs..  
Source: Gray's Keyword Search Data Dashboard

## Google: US Fastest-Growing Programs

In August, searches for Cyber Security programs increased 108%.



\*Minimum 10,000 searches 2021

Google search volume for standardized sets of academic keywords for community college programs.  
Source: Gray's Keyword Search Data Dashboard



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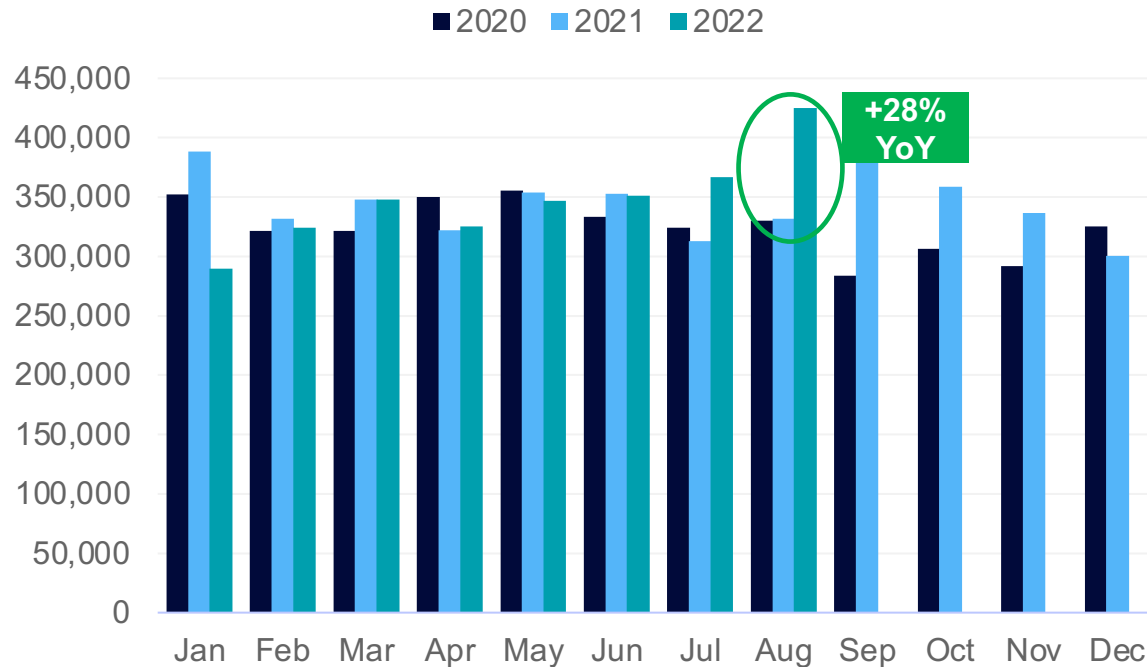
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## International Student Demand

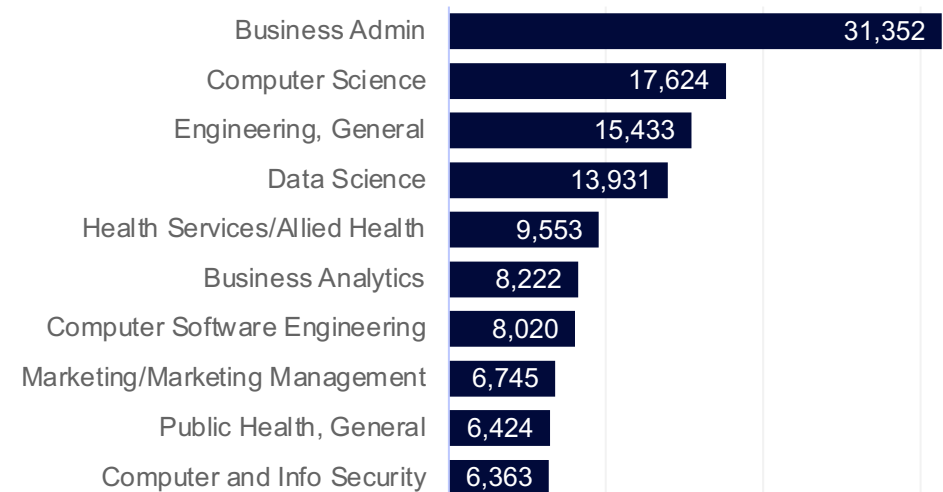
In August, international student interest in US programs increased 28% YoY.

International Page Views



The most-viewed programs were Business and Computer Science.

Top 10 Programs  
International Page Views



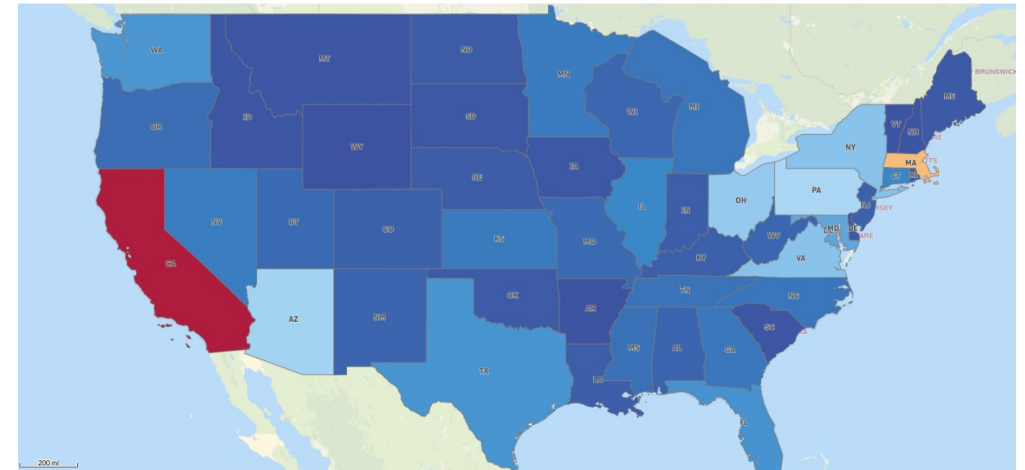
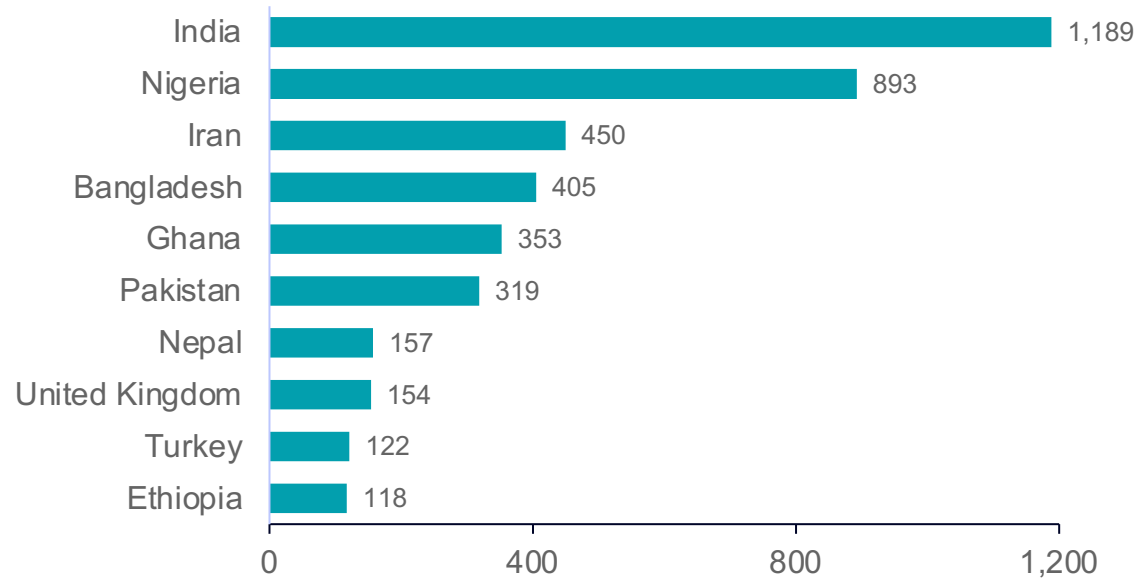
Source: Gray's International Student Demand Data Dashboard

# International Page Views: Public Health (Ninth in Highest Views)

India led in page views for Public Health.

California was the most popular destination, followed by Massachusetts.

**International Page Views by Originating Country**  
Public Health, August 2022



Source: Gray's International Student Demand Data Dashboard

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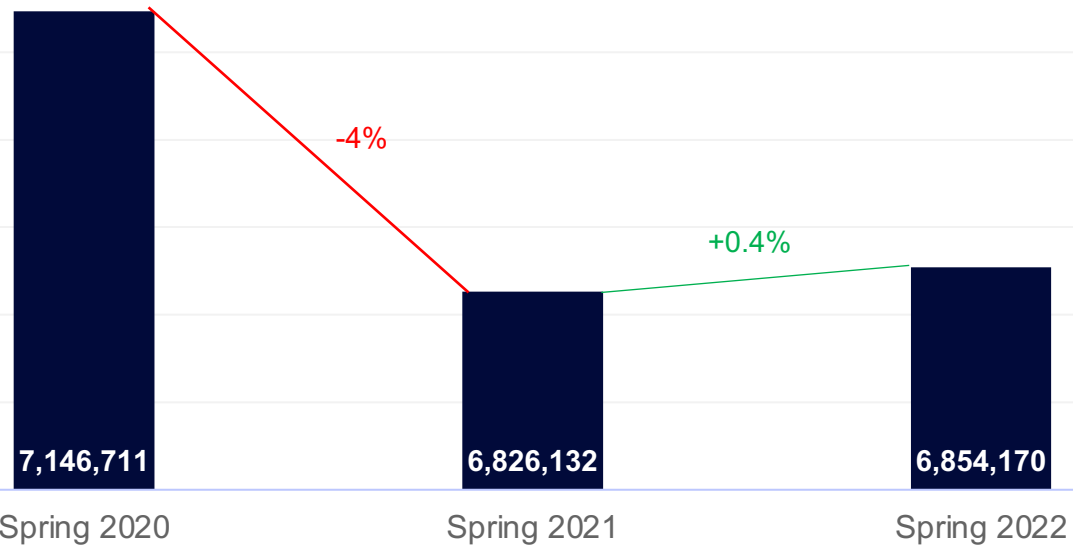
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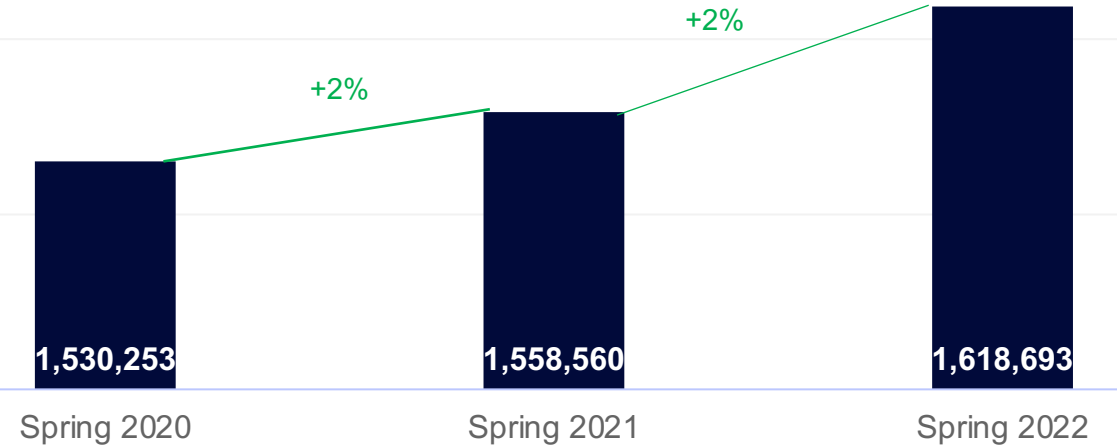
# Total Enrollment, Bachelor's and Master's Programs

Spring 2022 enrollment grew!

**Bachelor's Total Enrollment**  
Spring 2020-2022

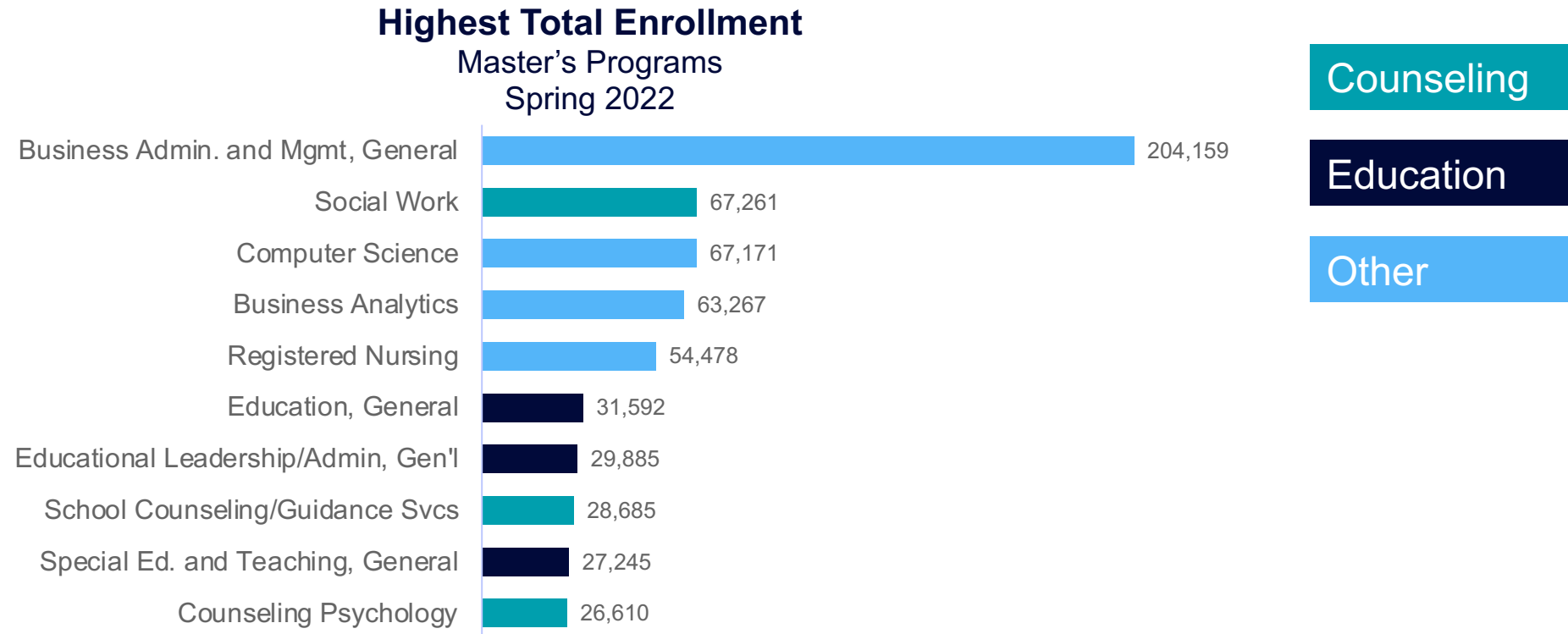


**Master's Total Enrollment**  
Spring 2020-2022



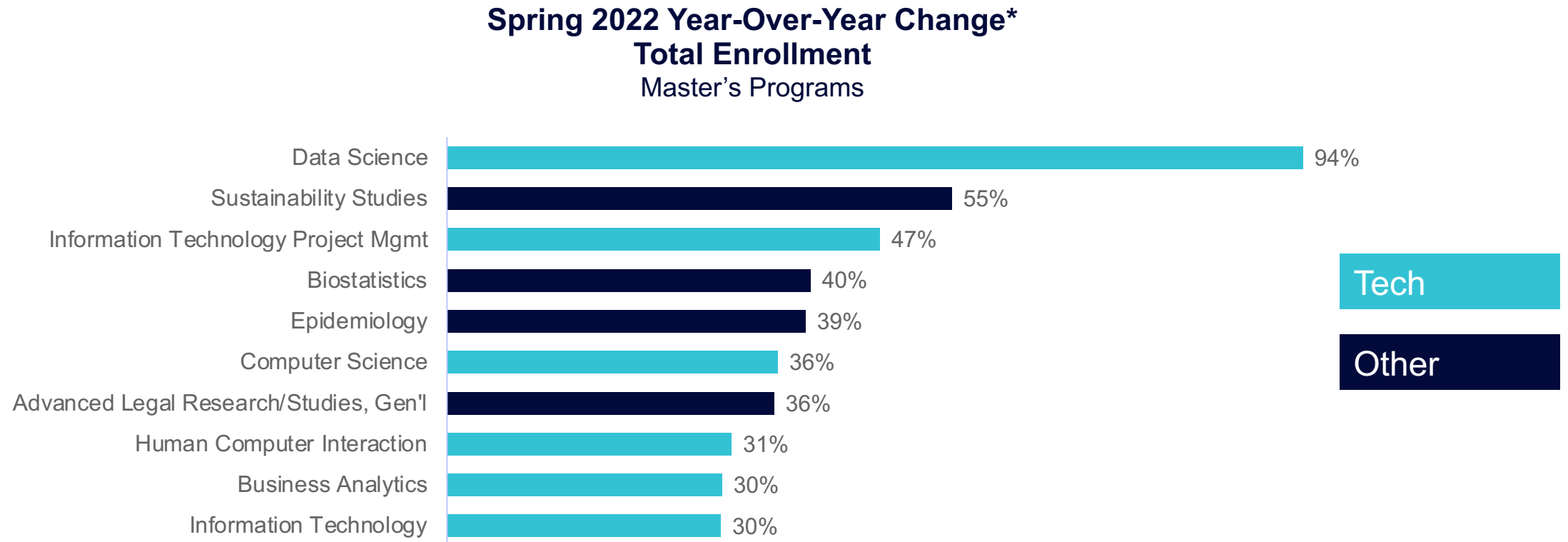
Source: National Student Clearinghouse, Gray Analysis

# In Spring 2022, Business had the highest enrollment of all master's programs.



Source: National Student Clearinghouse, Gray Analysis

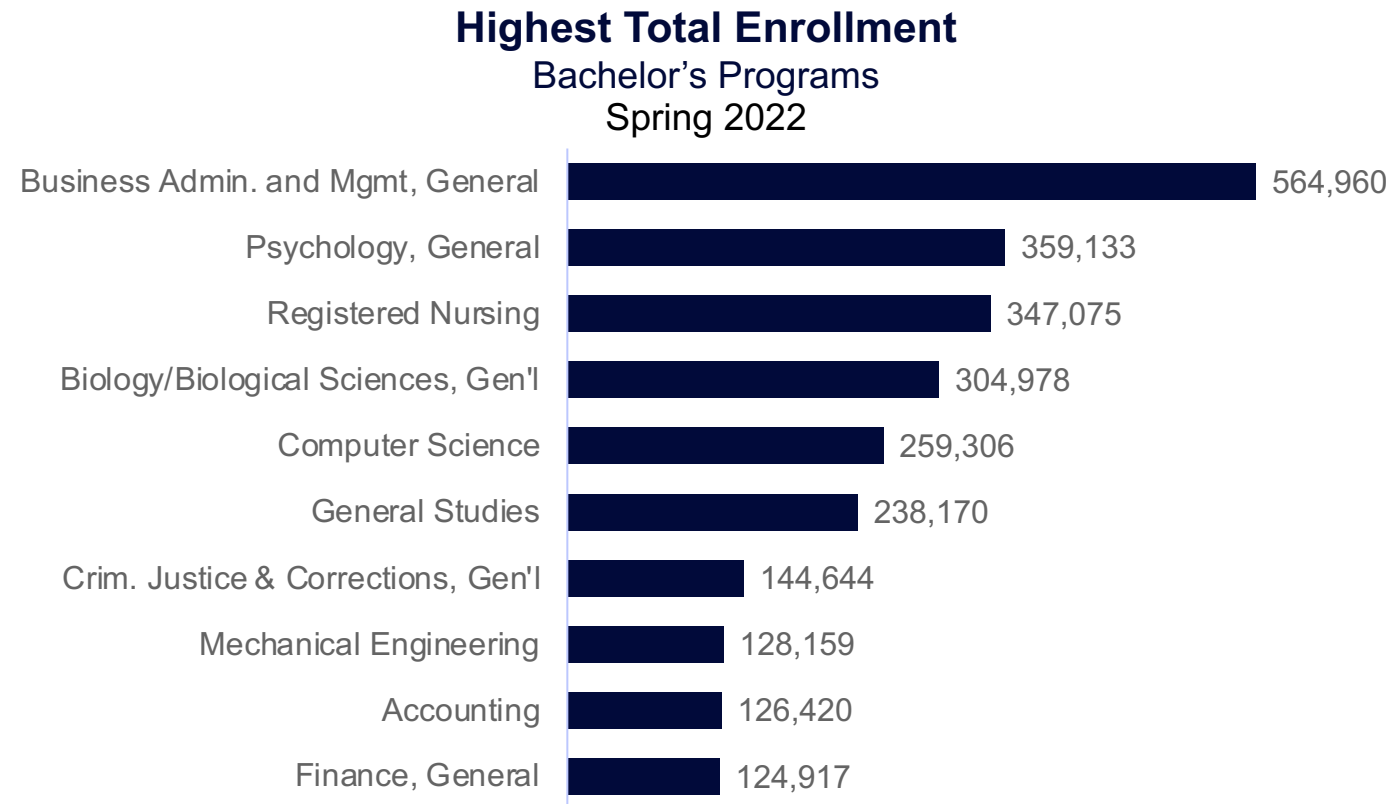
## Data Science grew 94% year-over-year.



Source: National Student Clearinghouse, Gray Analysis

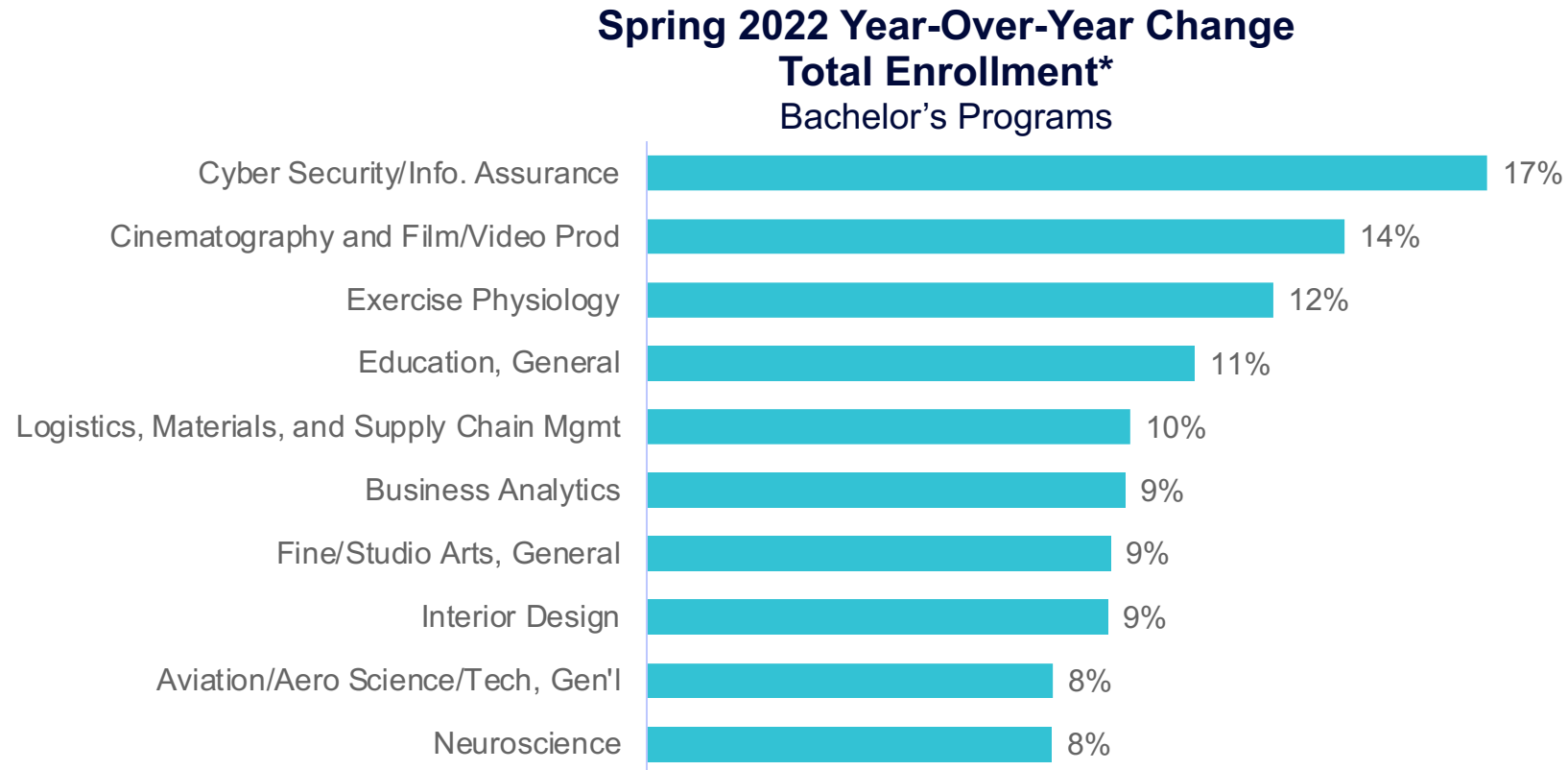
\*Minimum 1,000 enrollees in Spring 2021

**In Spring 2022, Business had the highest enrollment of all bachelor's programs.**





## Among bachelor's programs, Cyber Security grew the fastest.\*



Source: National Student Clearinghouse, Gray Analysis

\*\*Minimum 10,000 enrollees Spring 2021

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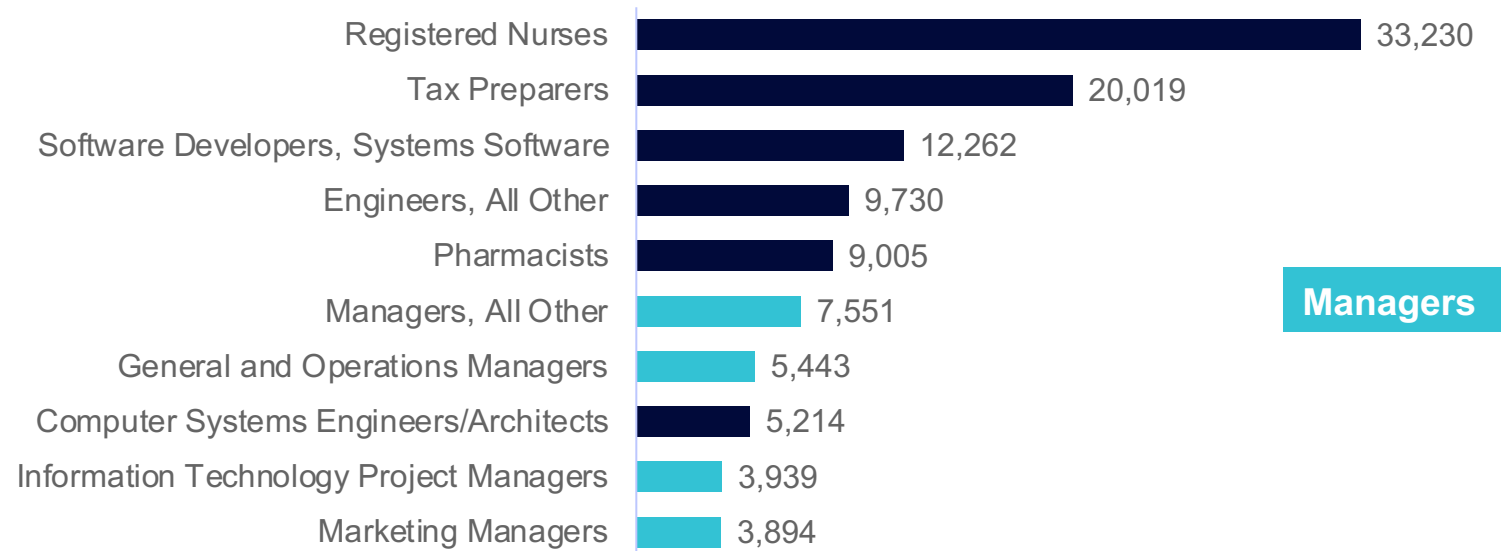
## In August 2022, job postings volume for bachelor's and above degree-holders dropped 20% year-over-year.

- However, postings are still 88% higher than in March 2020 (just before COVID).
- They also rose 7.6% month over month.



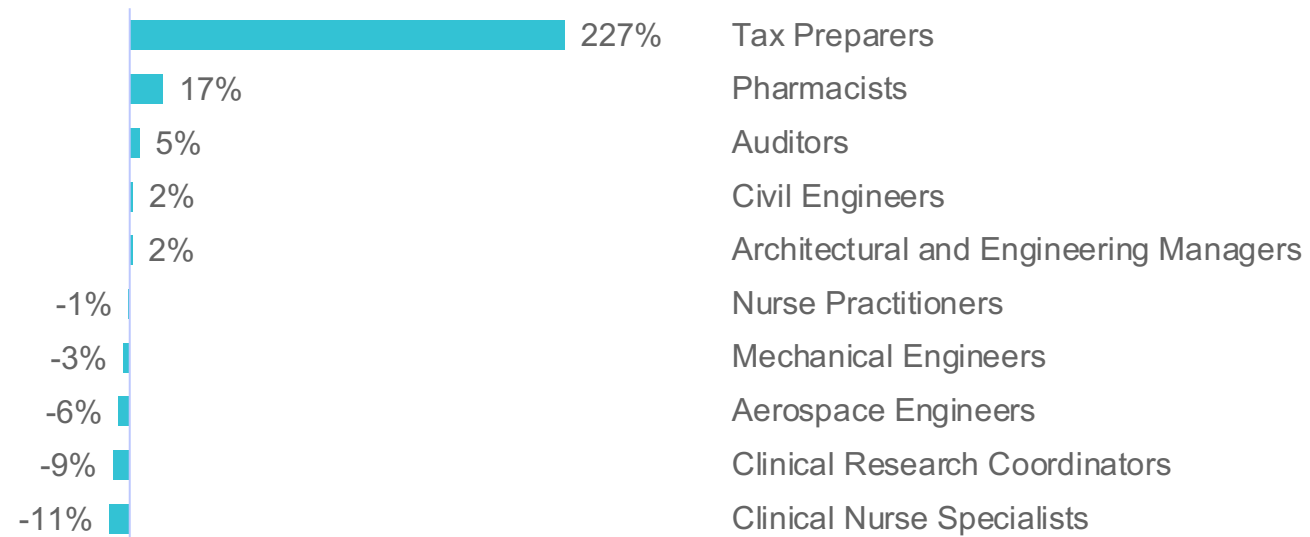
## August 2022, Registered Nurses had the highest volume of job postings.

**August 2022 Highest Job Postings**  
By Standard Occupational Code



## In August, jobs for Tax Preparers increased 227% year-over-year.

**August 2022 Job Postings Year-over-Year Growth**  
By Standard Occupational Code



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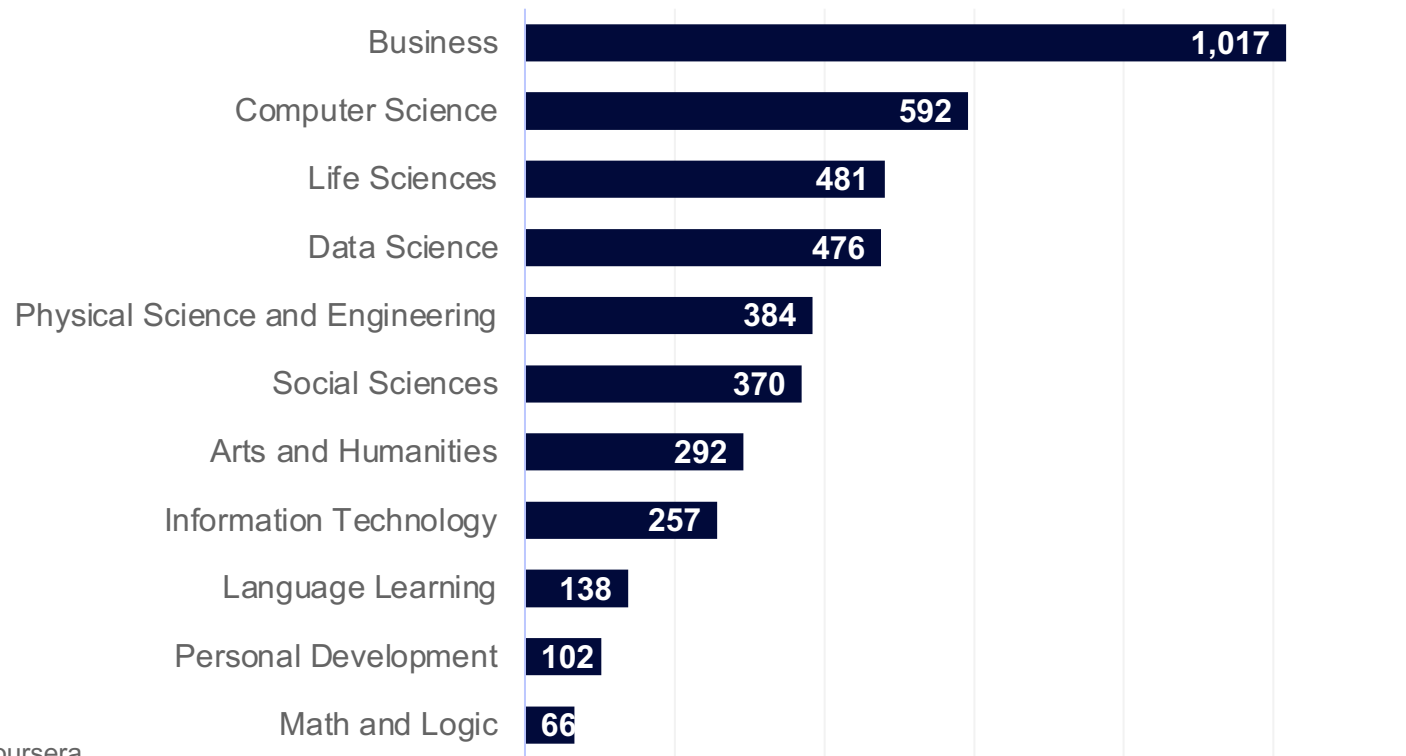
Program of the Month

Summary

## Coursera: Parent Categories

**Business offers the most courses in Coursera’s parent categories.**

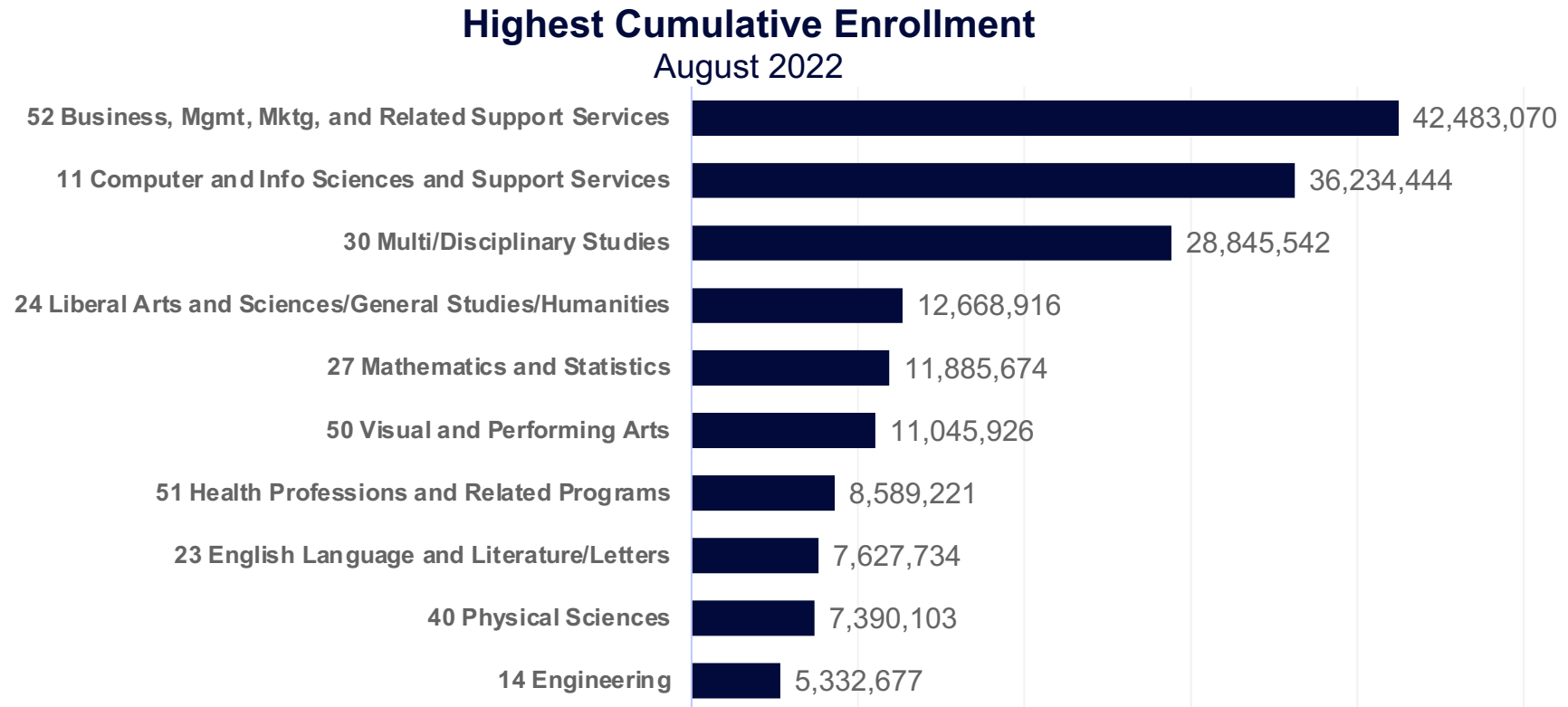
**Highest Count of Courses by Parent Category**



Source: Gray’s Non-Degree Demand: Coursera

## Coursera: Top Subjects Mapped to 2-Digit CIP Codes

Since Coursera’s inception, Business and Marketing have had the highest enrollment.

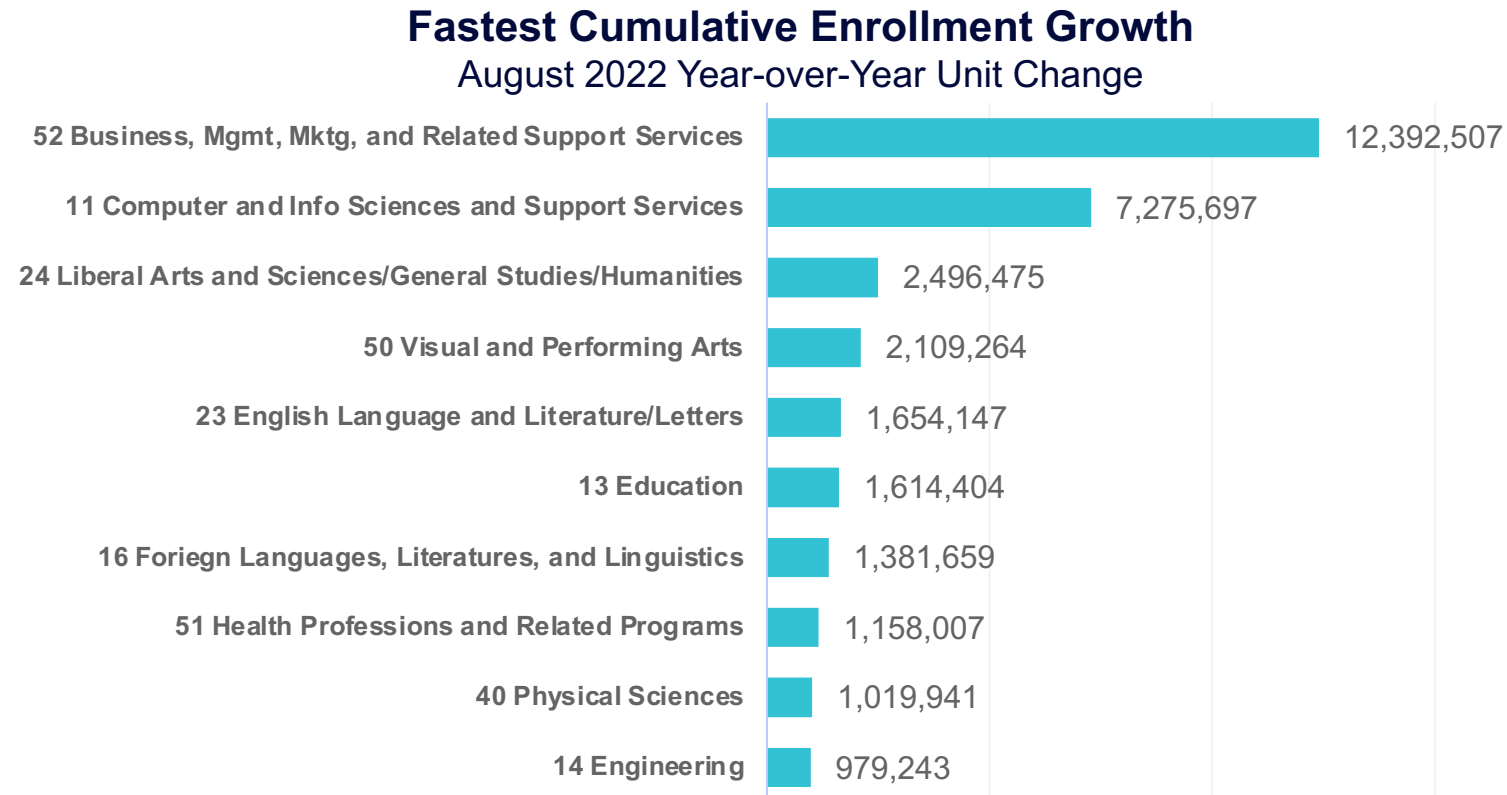


Source: Gray’s Non-Degree Demand: Coursera



## Coursera: Fastest-Growing Subjects Mapped to 2-Digit CIP codes.

Education and Foreign Languages are among the fastest-growing.



# Skills taught in Udemy's Agile/Scrum Certificate appear frequently in project manager job postings.

Business > Project Management > Agile

## Complete Agile Scrum Management + Kanban + 4 EXTRA courses

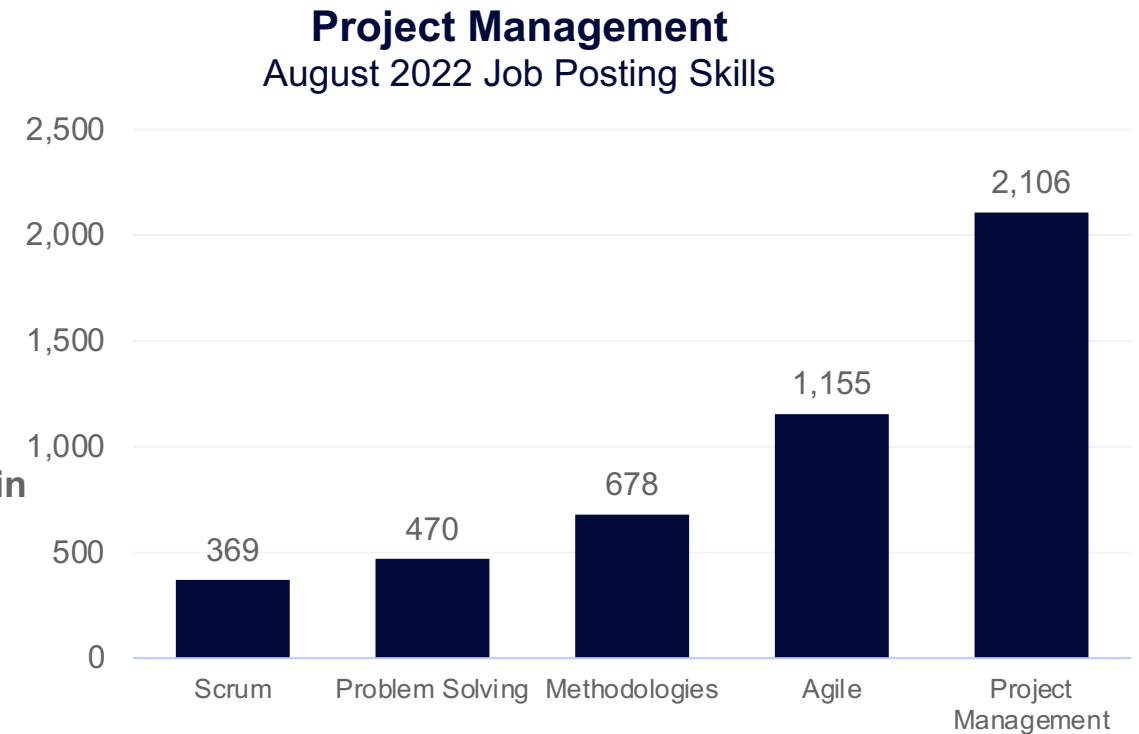
Scrum Agile A to Z: Scrum, Agile Project Management, PSM Certification, Kanban, Leadership, Negotiation, Productivity

4.5 ★★★★★ (2,437 ratings) 14,704 students

### Sample Skills Taught in the Certificate:

- Agile
- Scrum
- Kanban
- Leadership Skills

### Frequency in Job Postings



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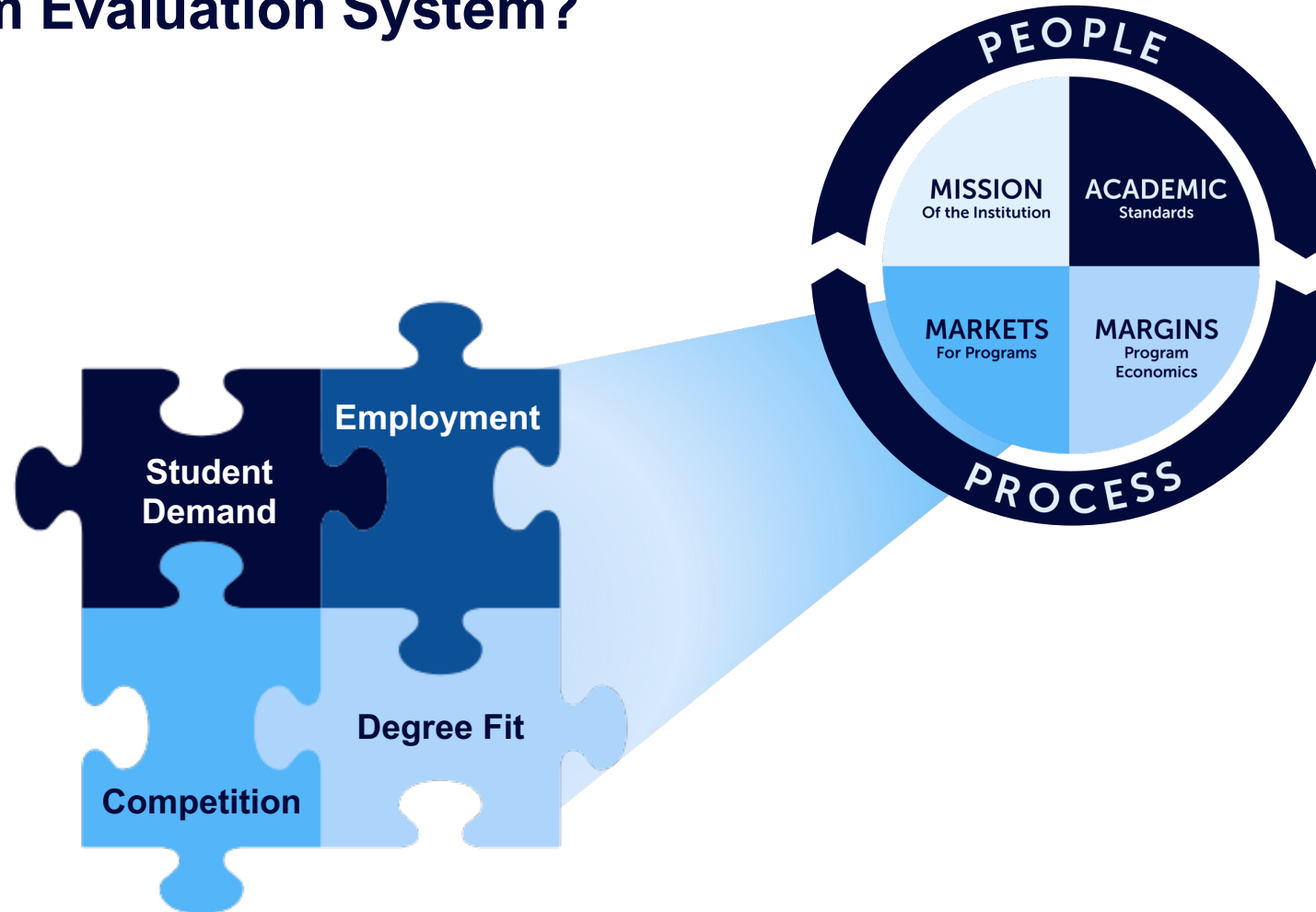
Economics Benchmarking

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## What is a Program Evaluation System?



## Program Markets: Program Rank

We score on Student Demand, Employment, Competitive Intensity, and Degree Fit.

- Let's focus on the national market for Marketing/Marketing Management.

### US Program Ranking Bachelor's Programs

CIP Q	Total Percentile	Student Demand Percentile	Competitive Intensity Percentile	Employment Percentile	Degree Fit Percentile
51.3801 Registered Nursing	100	100	96	97	50
11.0701 Computer Science	99	100	21	92	50
14.1901 Mechanical Engineering	99	99	84	99	50
52.0201 Business Admin. and Mgmt, General	99	99	84	92	50
26.0101 Biology/Biological Sciences, Gen'l	99	99	84	88	50
52.0801 Finance, General	99	99	40	99	50
11.0103 Information Technology	99	99	21	92	50
52.0301 Accounting	99	99	8	98	50
52.1401 Marketing/Marketing Mgmt, General	99	99	3	84	50
14.0501 Bioengineering and Biomedical Engineering	99	98	93	94	50
14.0801 Civil Engineering, General	99	98	84	99	50
45.0601 Economics, General	99	98	32	96	50
14.1001 Electrical/Electronics Engin'g	99	98	21	98	50
01.0901 Animal Sciences, General	99	96	99	82	50
14.0201 Aero/Astro/Space Engineering	99	96	98	99	50
45.0603 Econometrics and Quantitative Economics	99	96	97	95	50
14.0701 Chemical Engineering	99	92	98	96	50
11.1003 Cyber Security/Info. Assurance	98	99	1	76	50
45.1001 Political Science and Gov't, Gen'l	98	98	14	84	50
30.7102 Business Analytics	98	97	40	95	50

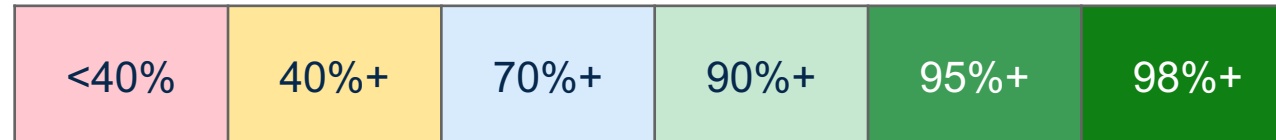
Total Percentile	0	20+	40+	70+	90+	95+	98+	100
Total Score	-49	-21	-18	0	11	18	24	54

Source: Gray's PES+ Markets

## Program Scorecard: Percentiles

All data are color-coded by their percentile rank in the local market compared to over 1,400 IPEDS programs (CIP codes).

### Percentile Color-Code:



## Program Scorecard: Student Demand

### Marketing scores in the 99<sup>th</sup> percentile for Student Demand.

- This is a very large program.
- Student Demand is growing.
  - Enrollment increased 9%.
  - Google searches increased 77%.
  - Completions increased 2%.
- 7% of completions are online.

#### Student Demand Score: 36 Percentile: 99

Catego...	Pctl	Criterion	Value	Score
Size	97	Google Search Volume (3 Months)*	498,787	6
	97	International Page Views (12 Months)	1,149	NS
	99	New Student Enrollment Volume (12 Mo.)	13,126	8
	99	On-ground Completions at In-Market Institutions	40,892	4
	99	Online Completions by In-Market Students	3,061	4
	99	Sum of On-ground and Online Completions	43,953	4
Growth	99	Google Search YoY Change (Units)*	217,325	3
	99	New Student Enrollment Vol. YoY Change (Units)	1,071	3
	99	Completion Volume YoY Change (Units)	801	3
	97	Google Search YoY Change (%)*	77%	1
	65	New Student Enrollment Vol. YoY Change (%)	9%	0
	56	Completion Volume YoY Change (%)	2%	0

## Program Scorecard: Employment

### Marketing ranks in the 84<sup>th</sup> percentile for Employment.

- Job volume is at or above the 98<sup>th</sup> percentile.
  - Job postings are at the 99<sup>th</sup> percentile.
  - BLS current employment is in the 99<sup>th</sup> percentile.
  - Over the past three years, BLS jobs decreased by 1%.
- There are more graduates than jobs.
  - 12 job postings per graduate
- Wages are below the 80<sup>th</sup> percentile.

#### Employment\*

Score: 5 Percentile: 84

Category	Pctl	Criterion	Value	Score
Size: Direct Prep	99	Job Postings Total (12 Months)*	599,750	2
	98	BLS Current Employment*	1,845,061	2
	98	BLS Annual Job Openings*	188,768	NS
Size: ACS Bach. Outcomes	99	Job Postings Total (12 Months)*	219,691	NS
	99	BLS Current Employment*	936,658	NS
Growth (Direct Prep)	36	BLS 1-Year Historical Growth*	-5.0%	NS
	28	BLS 3-Year Historic Growth (CAGR)*	-1.0%	-1
	46	BLS 10-Year Future Growth (CAGR)*	0.5%	-1
Saturation (Direct Prep)	88	Job Postings per Graduate*	11.9	0
	86	BLS Job Openings per Graduate*	3.7	NS
Wages (Direct Prep)	43	BLS 10th-Percentile Wages*	\$37,344	NS
	66	BLS Mean Wages*	\$75,030	NS
National American Community Survey Bachelor's Degree Outcomes	78	Wages (Age < 30)	\$50,629	3
	72	Wages (Age 30-60)	\$99,949	2
	7	% with Any Graduate Degree	18%	NS
	16	% with Masters	16%	NS
	11	% with Doct/Prof Degree	2%	NS
	65	% Unemp. (Age <30)**	3%	-1
	73	% Unemp. (Age 30-60)**	2%	-1
	85	% in Direct Prep Jobs	23%	NS

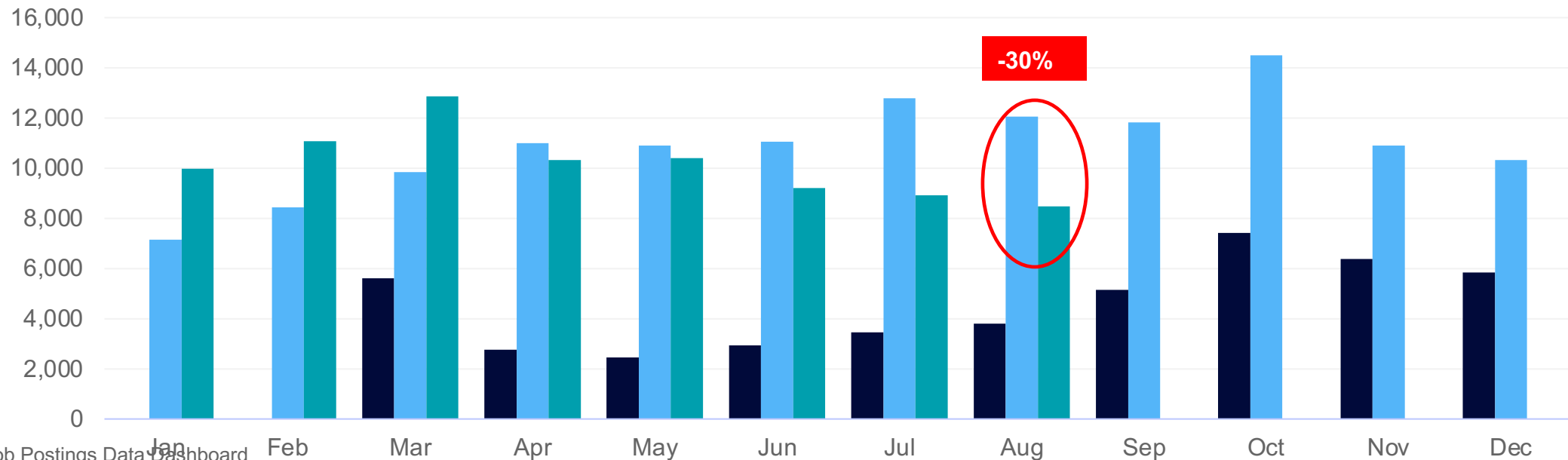


## In August, job postings for a Bachelor's in Marketing decreased 30% YoY.

- They have increased 51% since before Covid.
- They have trended down for the last six months.

### Job Postings Volume, Marketing

■ 2020 ■ 2021 ■ 2022

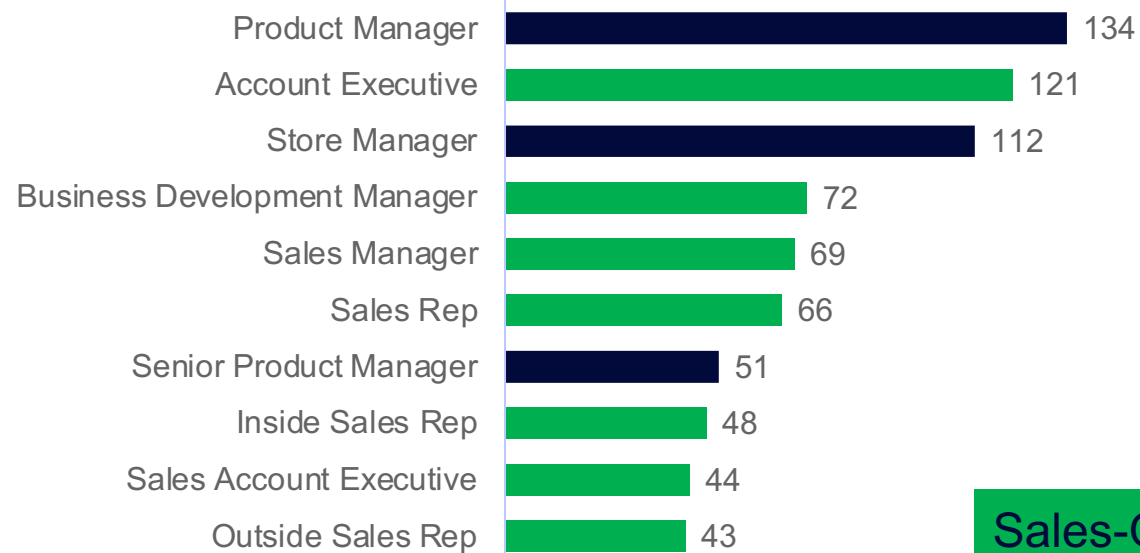


Source: Gray's Job Postings Data Dashboard

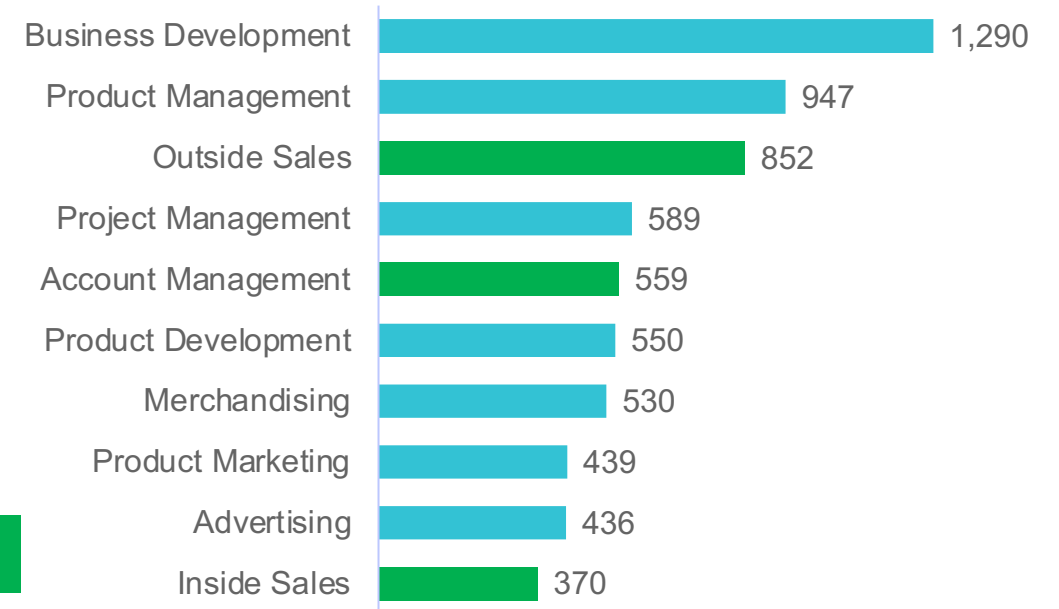
## Job Postings: Marketing

In August, Sales Reps and Managers were in high demand.

**Highest Volume Job Postings  
Marketing**  
August 2022



**Most-Requested Skills, Marketing**  
August 2022



## Program Scorecard: Competitive Intensity

### Marketing scores in the 3<sup>rd</sup> percentile for Competitive Intensity.

- 705 institutions graduate marketing students.
  - 16% of institutions offer this program online.
- Average and median program sizes are healthy, but median size is down 4% year-over-year.
- Marketing costs are high.

#### Competitive Intensity Score: -9 Percentile: 3

Category	Pctl	Criterion	Value	Score
Volume of In-Market Competition	98	Campuses with Graduates**	705	-8
	93	Campuses with Grads YoY Change (Units)**	4	-2
	99	Institutions with Online In-Market Students**	119	NS
In-Market Program Sizes	96	Average Program Completions	58	4
	89	Median Program Completions	25	0
	51	YoY Median Prog. Compl. Change (Units)	-1	0
	53	YoY Median Prog. Compl. Change (%)	-4%	0
In-Market Saturation	90	Google Search * Cost per Click**	\$17	-3
	66	Google Competition Index**	0.46	0
National Online Competition	99	National Online Institutions (Units)**	132	NS
	84	Nat'l Online % of Institutions	16%	NS
	74	Nat'l Online % of Completions	7%	NS

## Program Scorecard: Degree Fit

**A bachelor's degree is an appropriate award level for Marketing.**

- 87% of completions are at the bachelor's level.
- 44% of the national workforce have a bachelor's degree.

**Degree Fit:**  
Score: 0 Percentile: 50

### National Completions by Level

Score: 0

Award Level	Completions (National)	Completions (Market)	Enrollment (Market)
Certificate	3%	3%	2%
Associates	3%	3%	13%
<b>Bachelors</b>	<b>87%</b>	<b>87%</b>	<b>84%</b>
Postbaccalaureate Certificate	1%	1%	0%
Masters	5%	5%	1%
Post-masters Certificate	0%	0%	0%
Doctoral	0%	0%	0%
Unknown	0%	0%	0%

### National Workforce Ed. Attainment

Score: 0

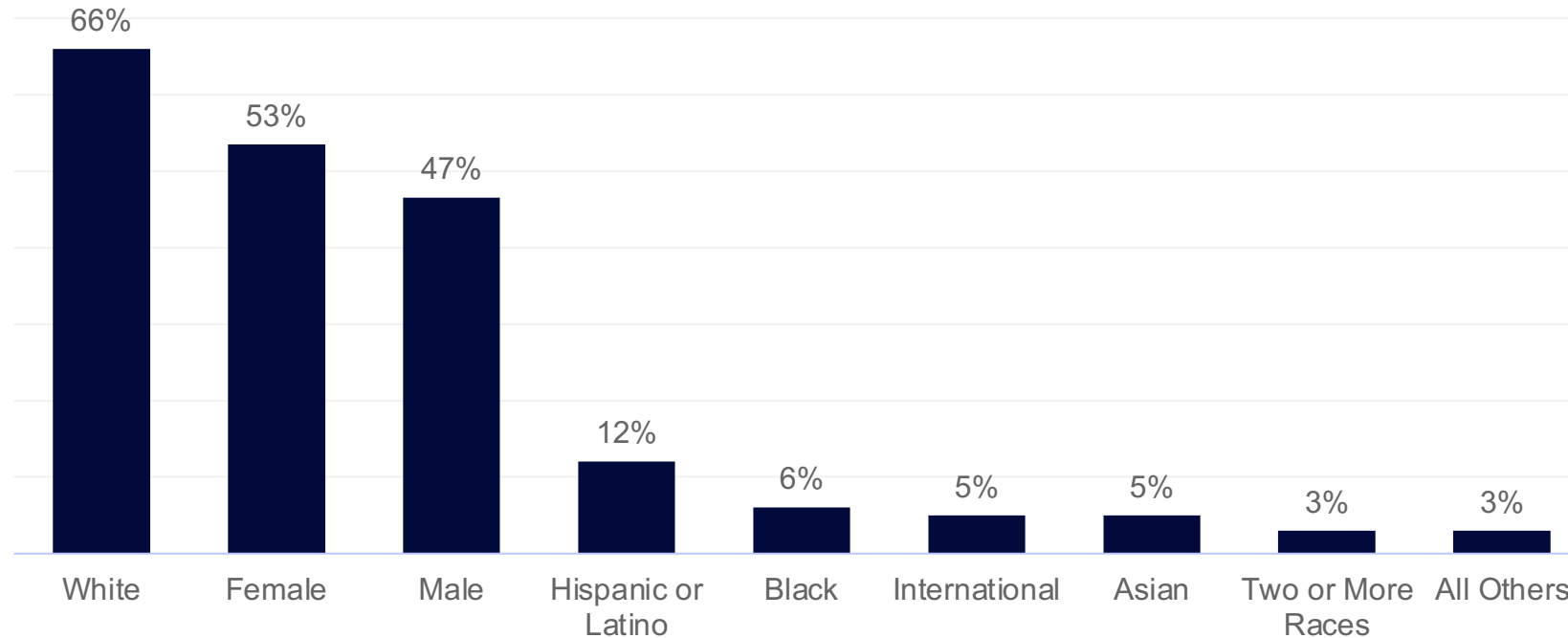
Award Level	BLS Educational Attainment
No College	16%
Some College	21%
Associates	8%
<b>Bachelors</b>	<b>44%</b>
<b>Masters</b>	<b>10%</b>
Doctoral	1%

## Demographics

**In 2020, six percent more females than males completed this program.**

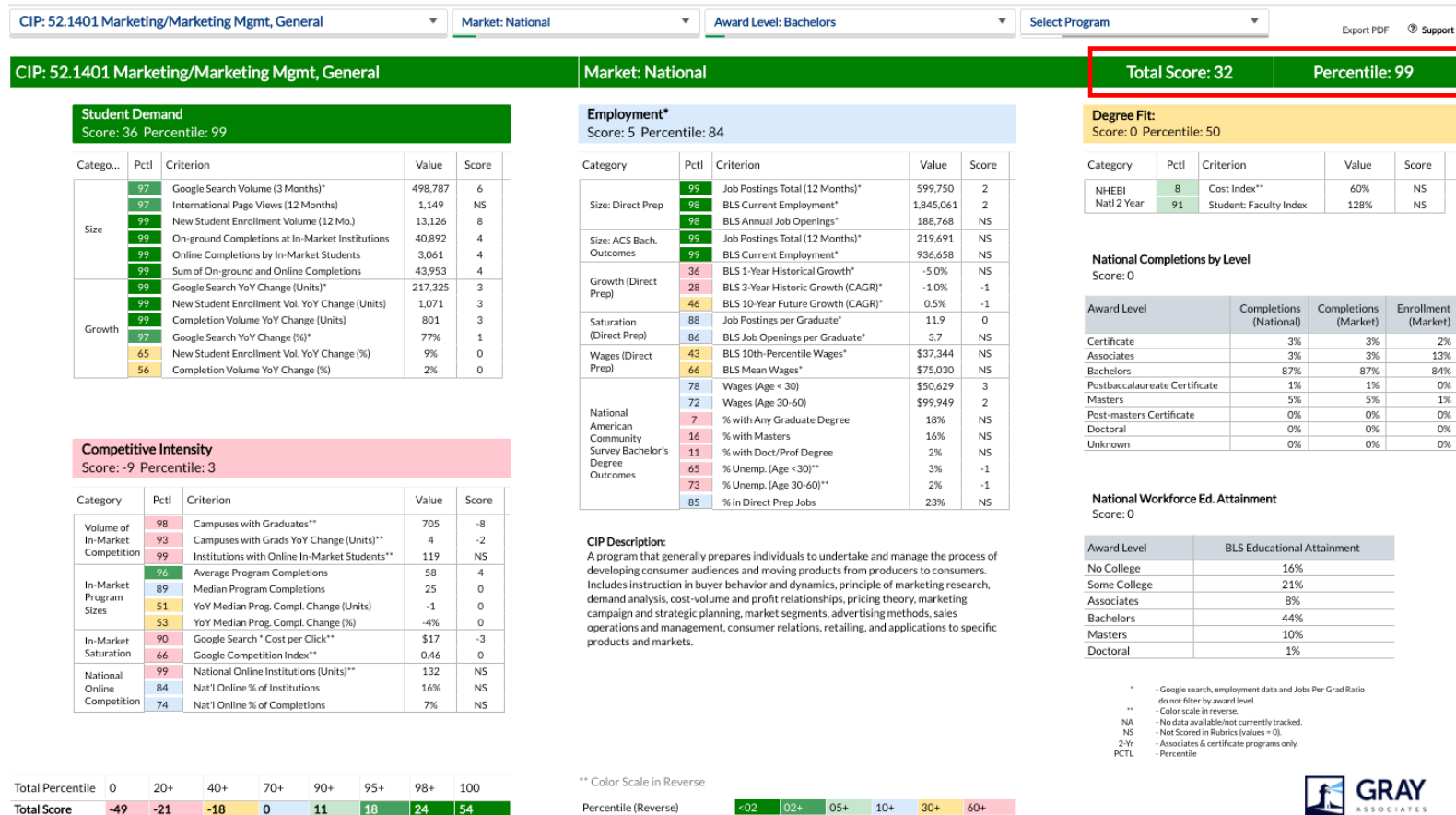
- After Whites, Hispanics had the highest completions.

**2020 Completions by Demographic Group**

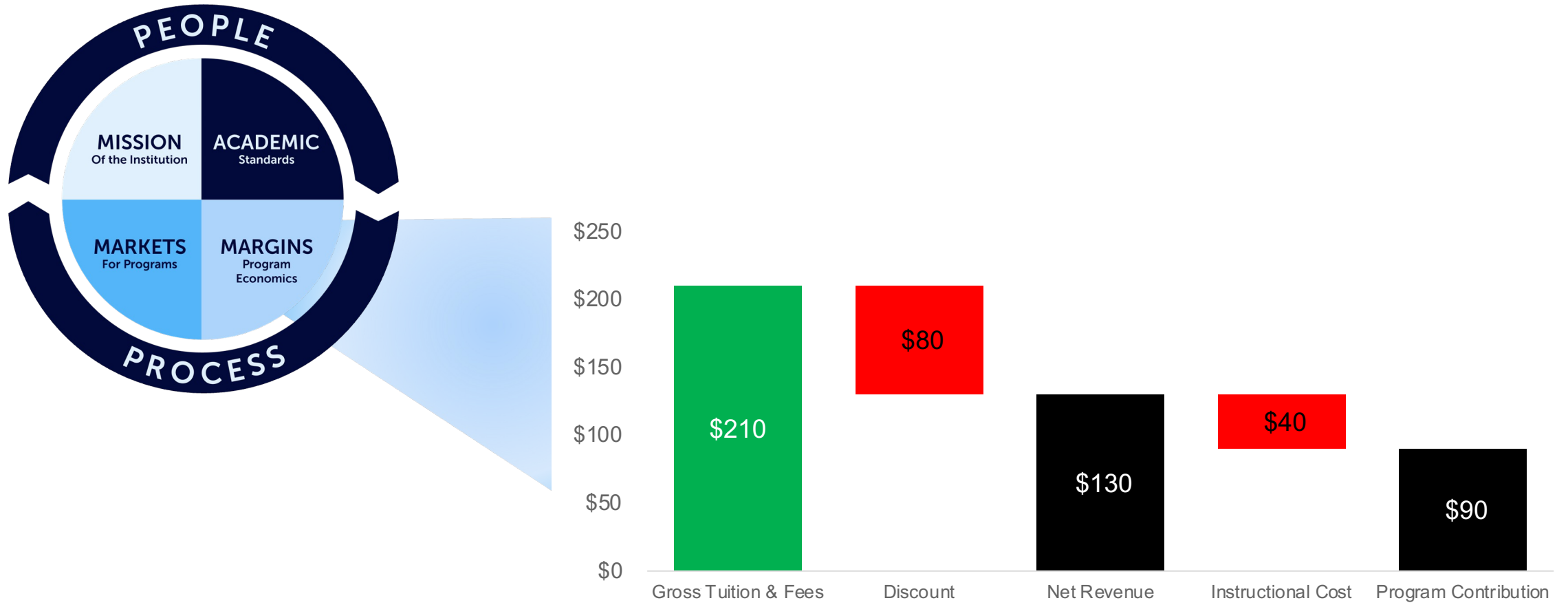


Source: Gray's PES+ Markets

# Program Scorecard: Marketing ranks in the 99<sup>th</sup> percentile.



# Program Evaluation System: Economics

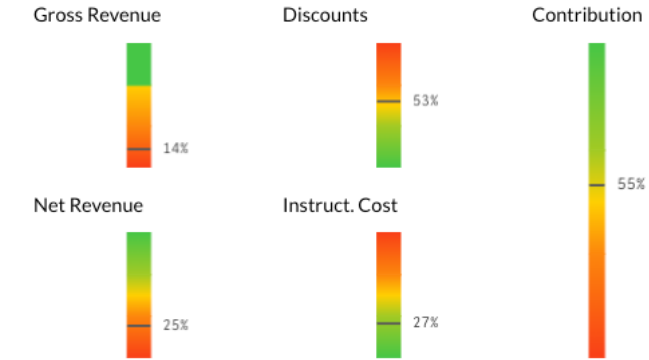


# Program Economics: Bachelor's in Marketing

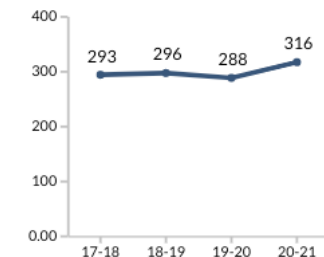
*Illustrative Institution*



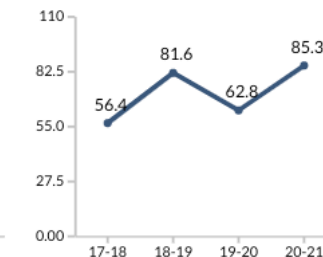
## Percentiles



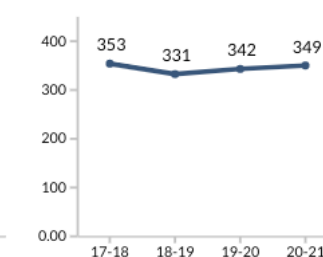
**Gross Revenue**  
9.9% (2021 vs 2020)



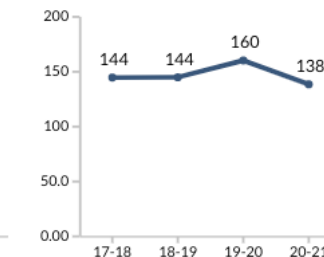
**Discount**  
35.8% (2021 vs 2020)



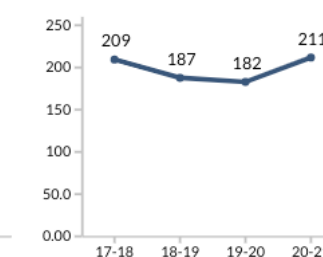
**Net Revenue**  
2.1% (2021 vs 2020)



**Instructional Cost**  
-13.6% (2021 vs 2020)



**Contribution**  
14.4% (2021 vs 2020)



Source: Gray's PES+ Economics



# Economic Benchmarks: Marketing Courses

*Illustrative Institution*

**Greater variance than benchmarks indicates costs are less controlled.**

Avg. Cost/SCH, Client  
**\$177**

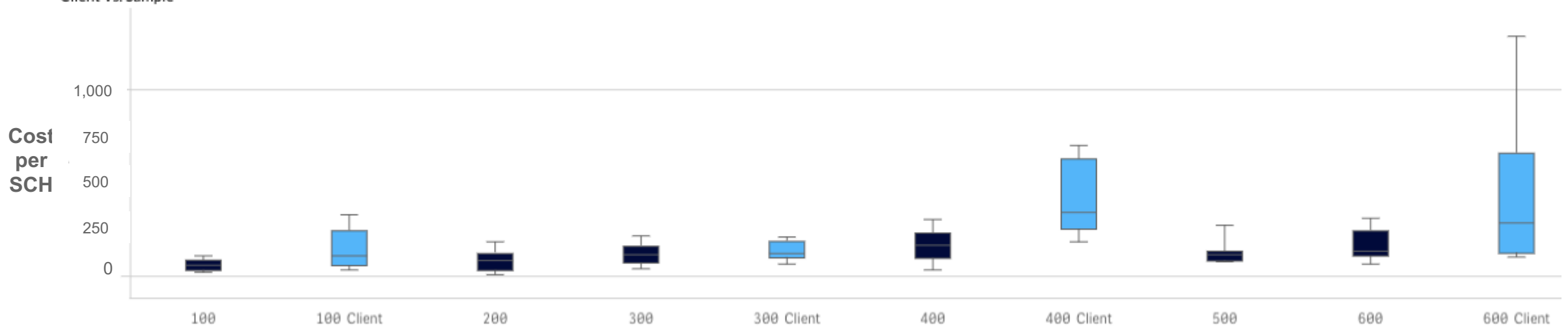
Avg. Cost/SCH, Sample  
**\$134**

Percent Difference  
**32%**

Total Cost Difference  
**850.1k**

Cost Per SCH By Course Level

Client Vs. Sample



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## Summary

- In August, US Google searches for academic programs increased 10% year-over-year.
- In Spring 2022, Cyber Security had the fastest year-over-year bachelor's degree enrollment growth.
  - At the master's level, Data Science grew the fastest.
- Registered Nurses and Tax Prepares had the highest volume of job postings for bachelor's and above graduates.
  - Tax Preparers grew the fastest year over year.
- Demand for Marketing programs at the bachelor's level is high.
  - Student demand is very high.
  - Jobs per graduate are high.
  - Wages are fair.
  - Margin per student credit hour (SCH) is average.
    - The illustrative institution was well above the benchmark for 100, 400, and 600-level courses.
    - Cost per SCH varies by over 200% at several levels, suggesting poor control over course size.

## Upcoming Webinars

Topic	Date
Demand Trends Webcast: Community Colleges	<i>Wednesday</i> October 26 <sup>th</sup> at 2 pm ET
Demand Trends Webcast: Bachelor's and Above	<i>Thursday</i> October 27 <sup>th</sup> at 2 pm ET

Contact:  
Robert Atkins  
[RobertGrayAtkins.com](http://RobertGrayAtkins.com)

