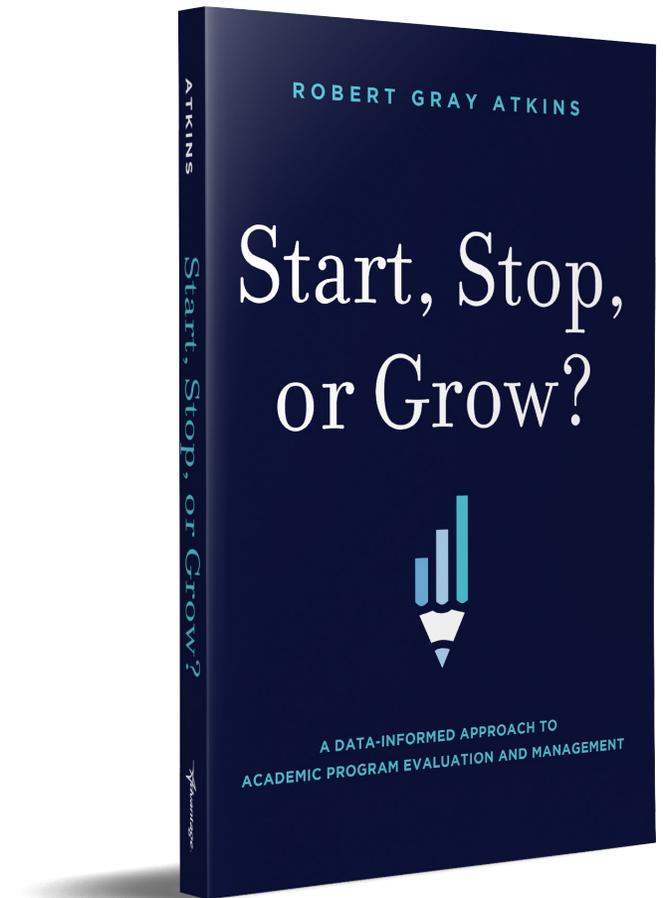




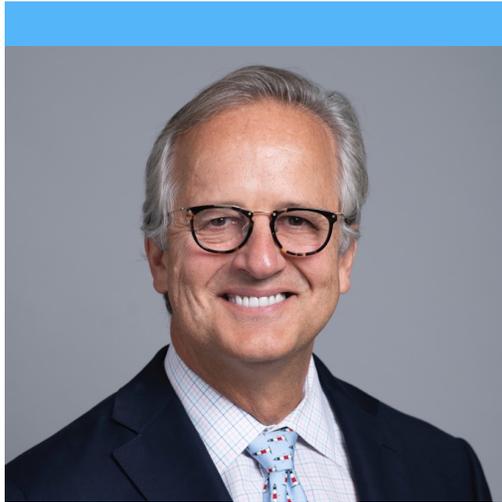
**GRAY**  
ASSOCIATES

## **Demand for Higher Education Programs**

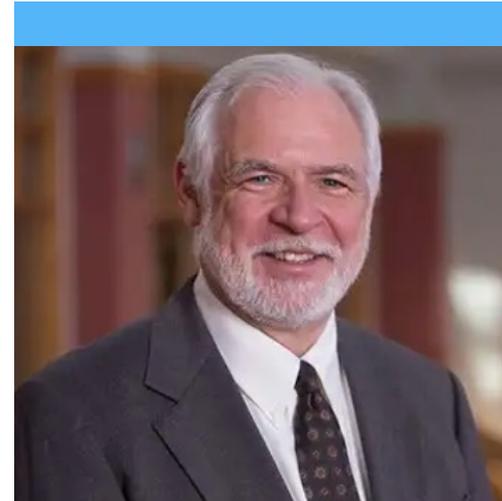
Results through January 2023



## Today's Speakers



**Robert Gray Atkins**  
**Founder**  
Gray Associates



**Dr. Thomas Loper**  
**Associate Provost & Dean**  
**School of Arts, Science,**  
**and Management**  
Bay Path University

**Gray has developed a complete Program Evaluation System (PES).**

**We assemble the data in easy-to-use software.**



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

**We facilitate an inclusive, data-informed evaluation process.**



# Agenda

## Student Demand

- **Current Demand: Enrollment**
- **Leading Indicators: Google Searches**
- **Non-Degree Courses**

## Employment: Current Indicators

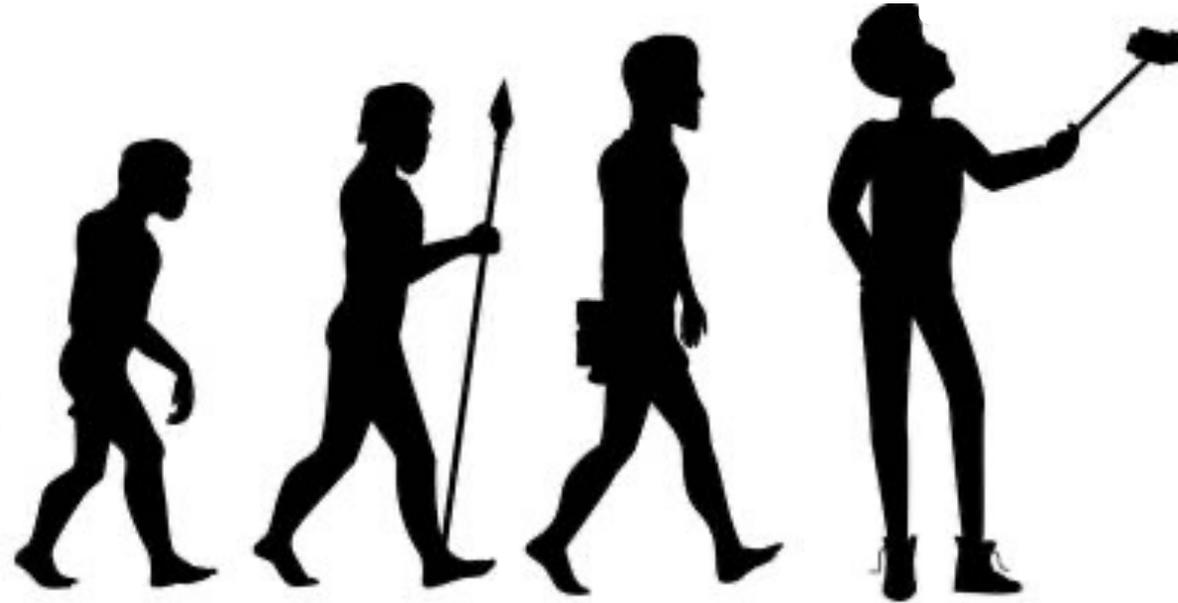
## College Athletics

## Program of the Month

## Summary

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

Insights on Student Demand



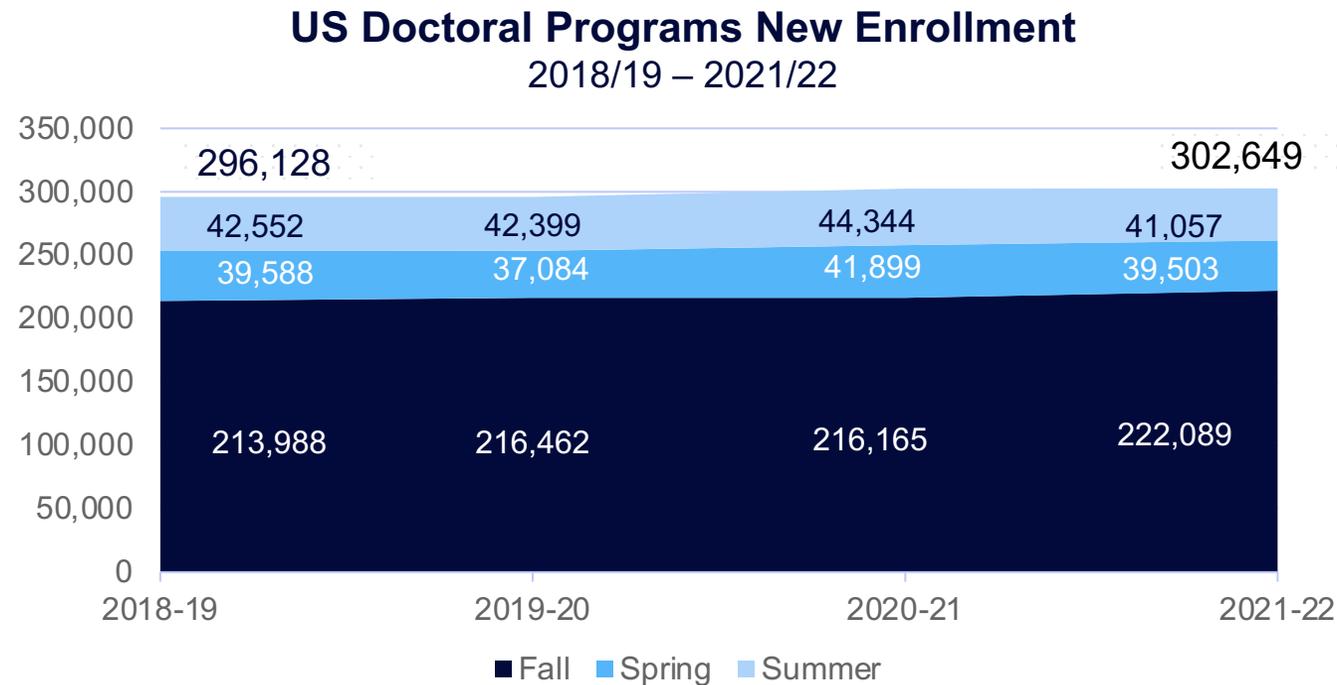
IPEDES

Enrollment

Google

## New doctoral enrollment increased 1% annually over the last three years.

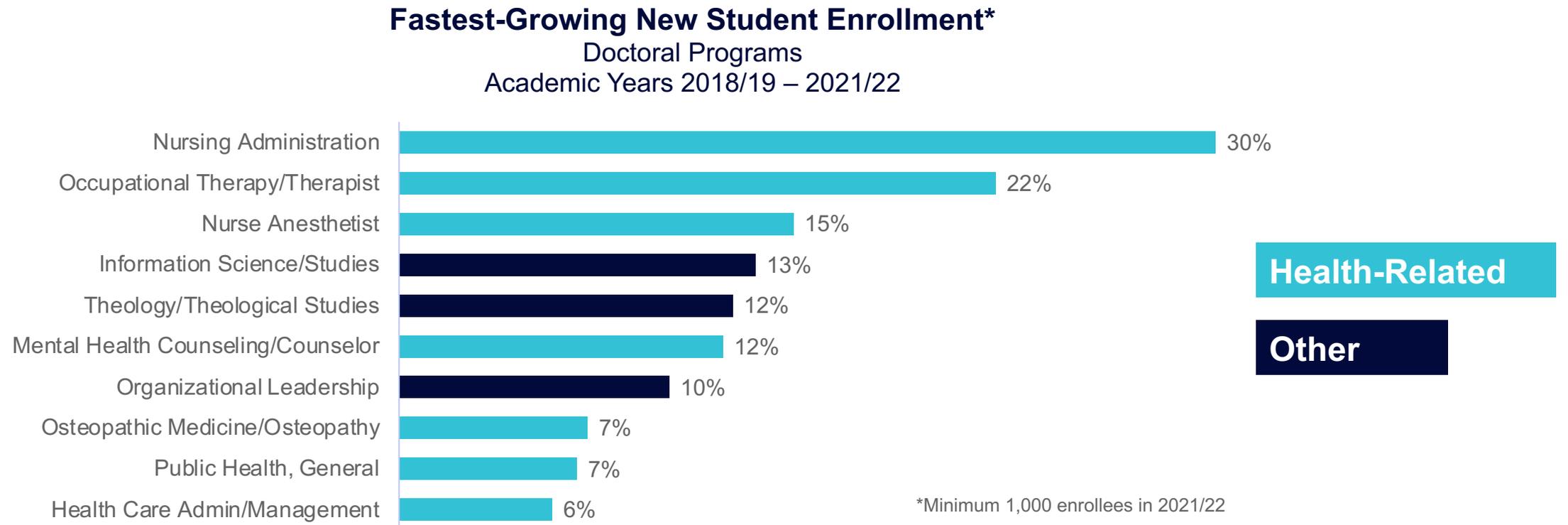
- 2021/22 Fall enrollment increased 3% year-over-year, Spring fell 6%, and Summer declined 7%.
- Since 2018/19, new student enrollment has increased from 296,128 to 302,649, primarily in the Fall.



Source: Gray Analysis of National Student Clearinghouse

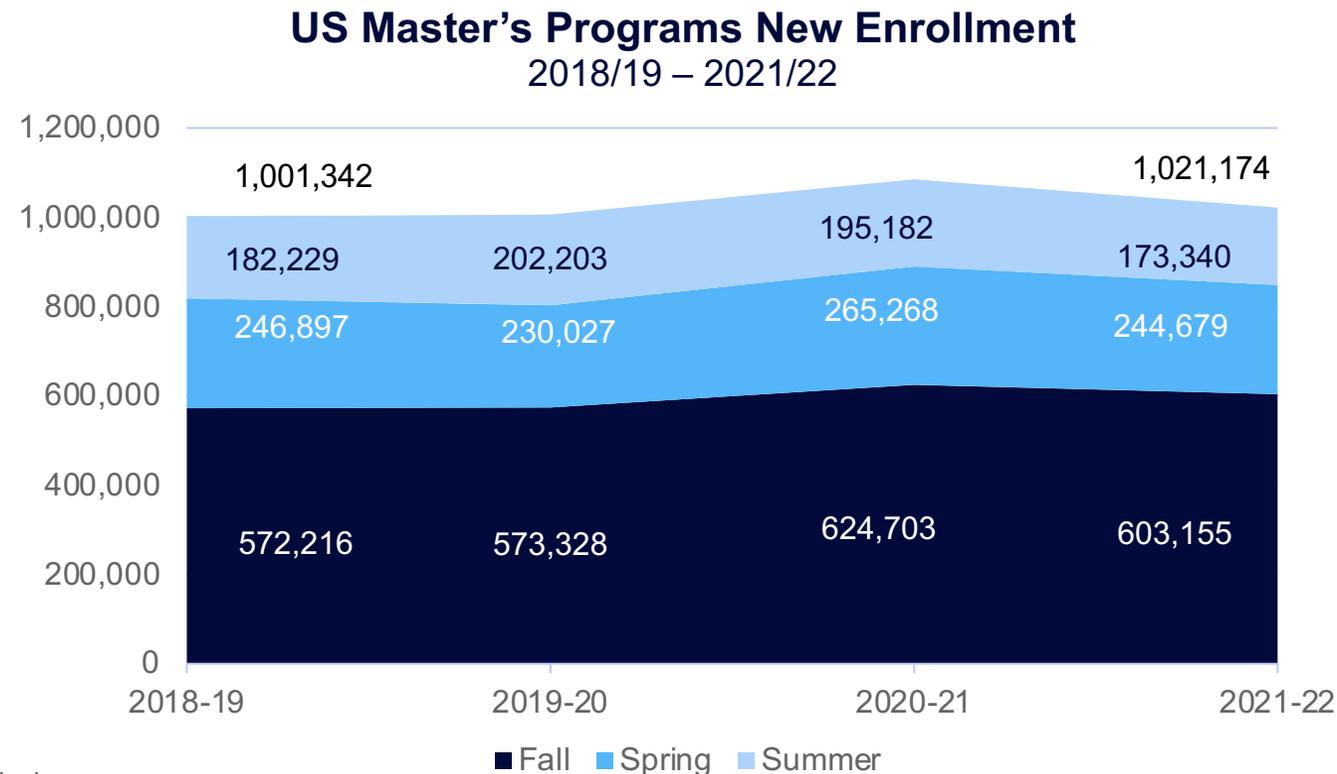
**New doctoral enrollment in Nursing Administration grew 30% year-over-year.**

**Seven of the fastest-growing doctoral programs were in health-related professions.**



## Since '18-'19, New student master's enrollment has grown, but fell in '21-'22.

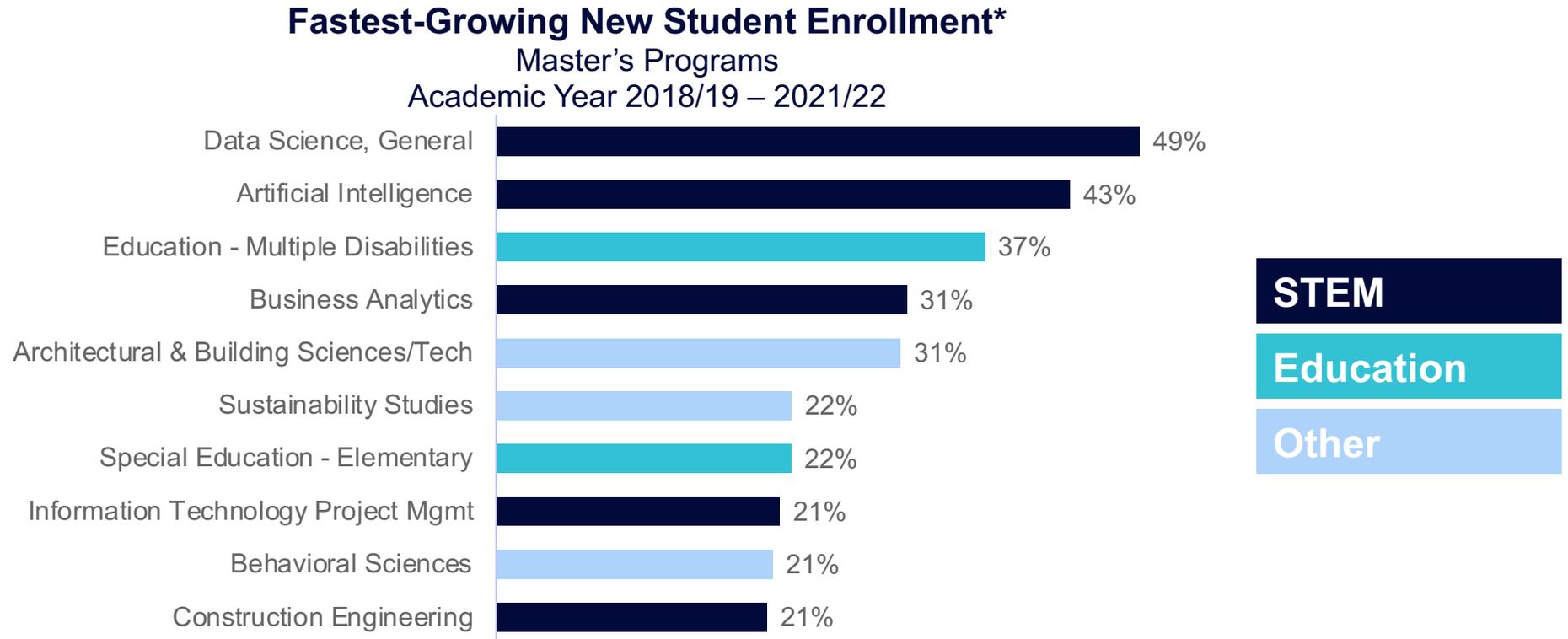
- Since 2018/19, new master's enrollment grew by 19,832 students.
- In 2021/22, Fall enrollment decreased 3% year-over-year, Spring fell 8%, and Summer fell 11%.



Source: Gray Analysis of National Student Clearinghouse

**New student master’s enrollment in Data Science grew 49% annually.**

**Master’s program growth is concentrated in STEM and education – not healthcare.**

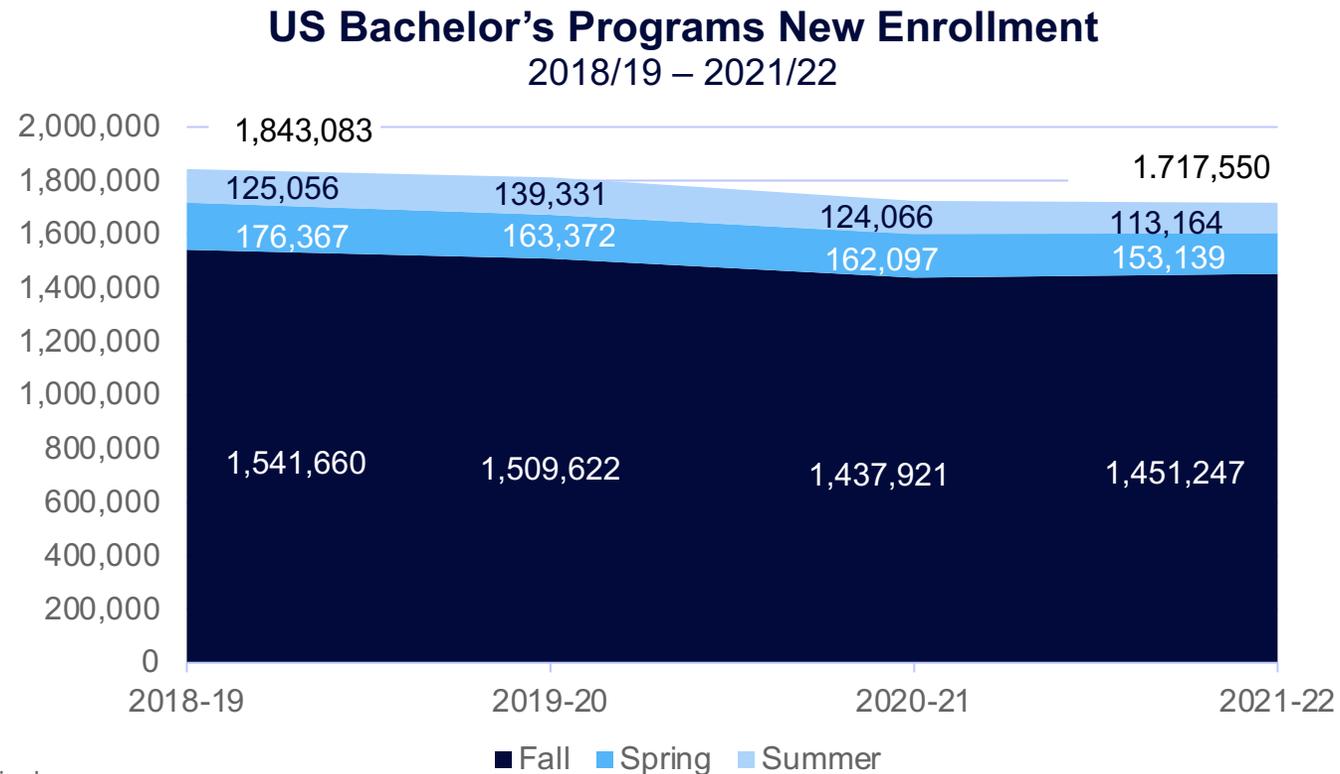


Source: Gray Analysis of National Student Clearinghouse

\*Minimum 1,000 enrollees in the academic year 2021/22

## Since '18-'19, new student bachelor's enrollment has fallen by 125,533 students.

- In 2021/22, Fall enrollment increased 1% year-over-year, Spring fell 6%, and Summer fell 9%.



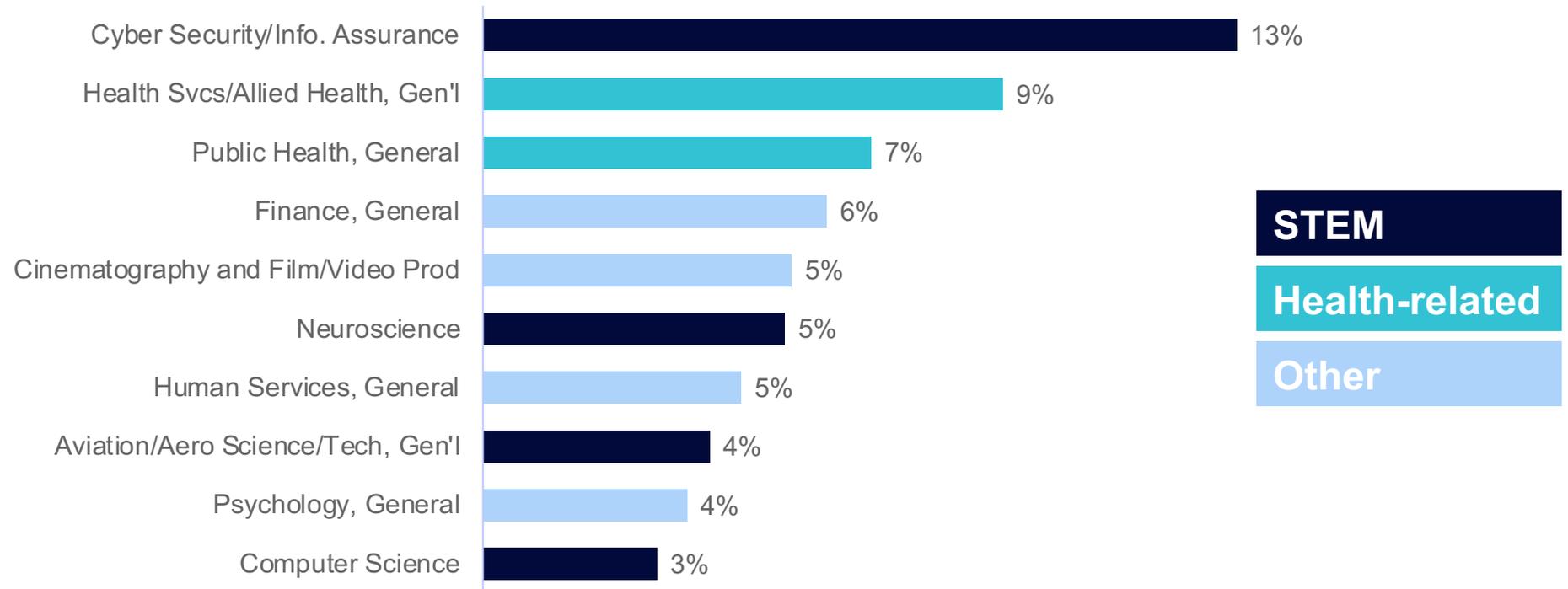
Source: Gray Analysis of National Student Clearinghouse

# New bachelor's student enrollment in Cybersecurity grew 13% year-over-year.

## Fastest-Growing New Student Enrollment\*

Bachelor's Programs

Academic Year 2018/19 – 2021/22



Source: Gray Analysis of National Student Clearinghouse

\*Minimum 5,000 enrollees in the academic year 2021/22

# Agenda

## Student Demand

- **Current Demand: Enrollment**
- **Leading Indicators: Google Searches**
- **Non-Degree Courses**

## Employment: Current Indicators

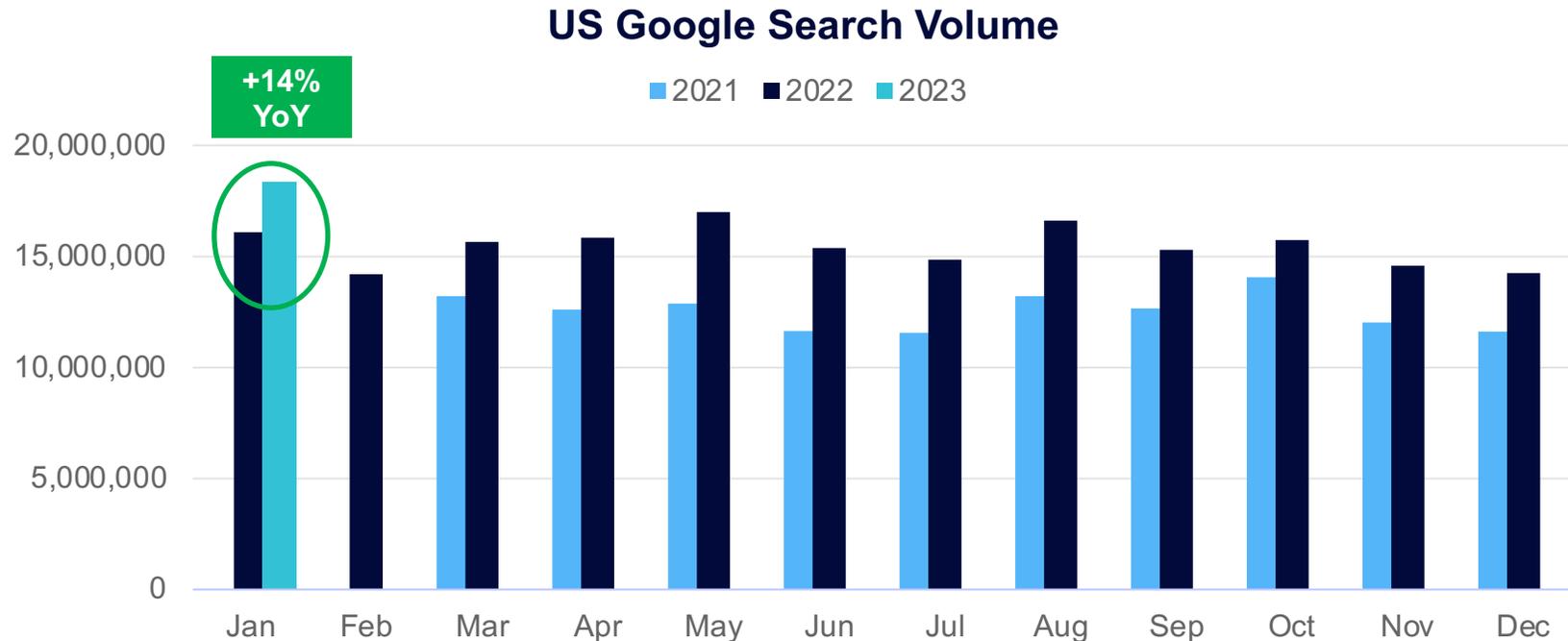
## College Athletics

## Program of the Month

## Summary

## Google Search Trends: Programs

In January, Google searches for academic programs rose 14% year-over-year.



+14%  
YoY



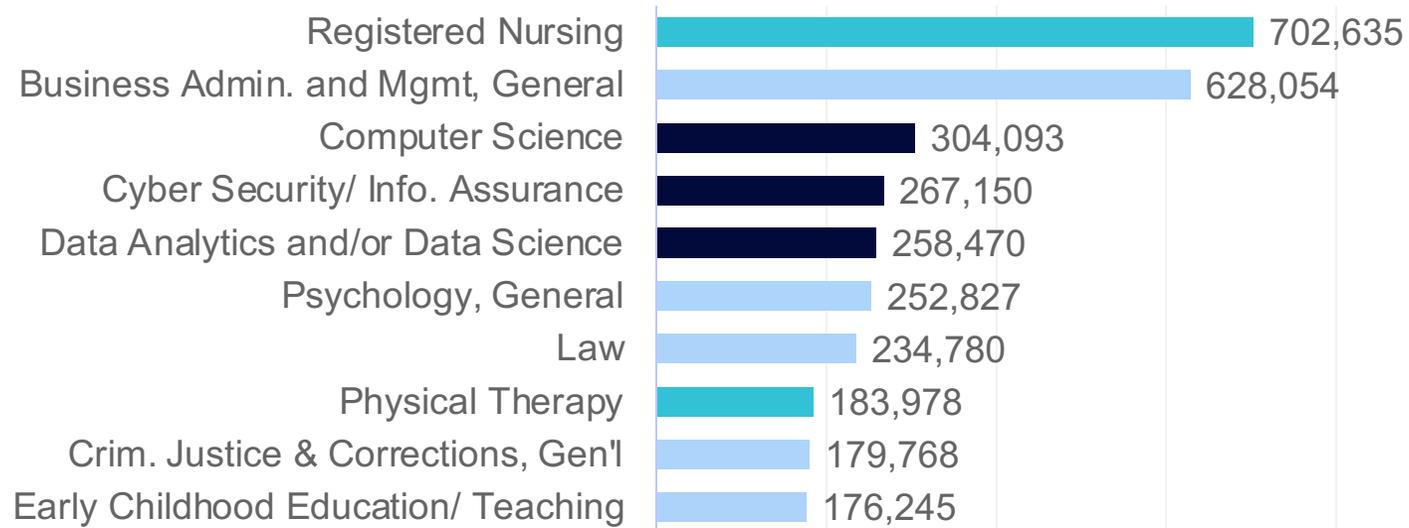
Source: PES Keyword Search Dashboard

# Google: US Highest Search Volume, Bachelor's and Above

In January, Registered Nursing had the highest search volume.



**Programs with the Highest Volume of Keyword Searches**  
January 2023

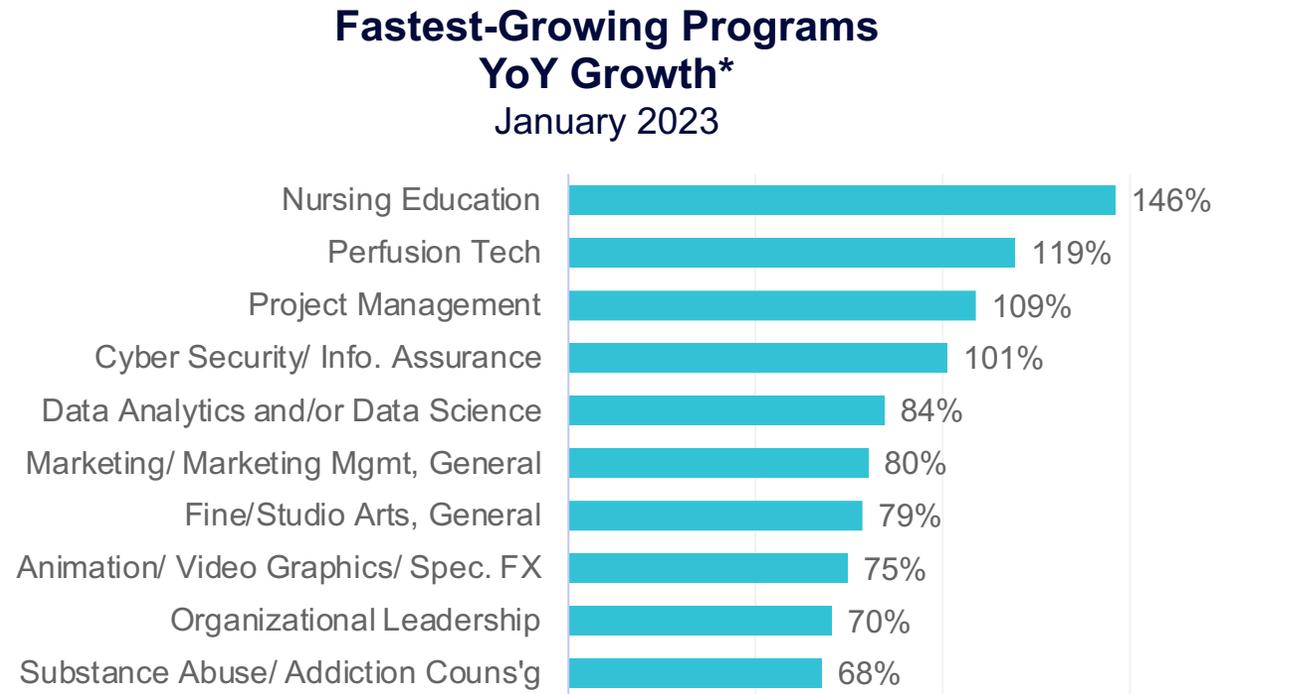


- STEM**
- Health-related**
- Other**

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

## Google: US Fastest-Growing Programs

In January, searches for Nursing Education programs increased 146%.



\*Minimum 10,000 searches January 2022

# Agenda

## Student Demand

- **Current Demand: Enrollment**
- **Leading Indicators: Google Searches**
- **Non-Degree Courses**

**Employment: Current Indicators**

**College Athletics**

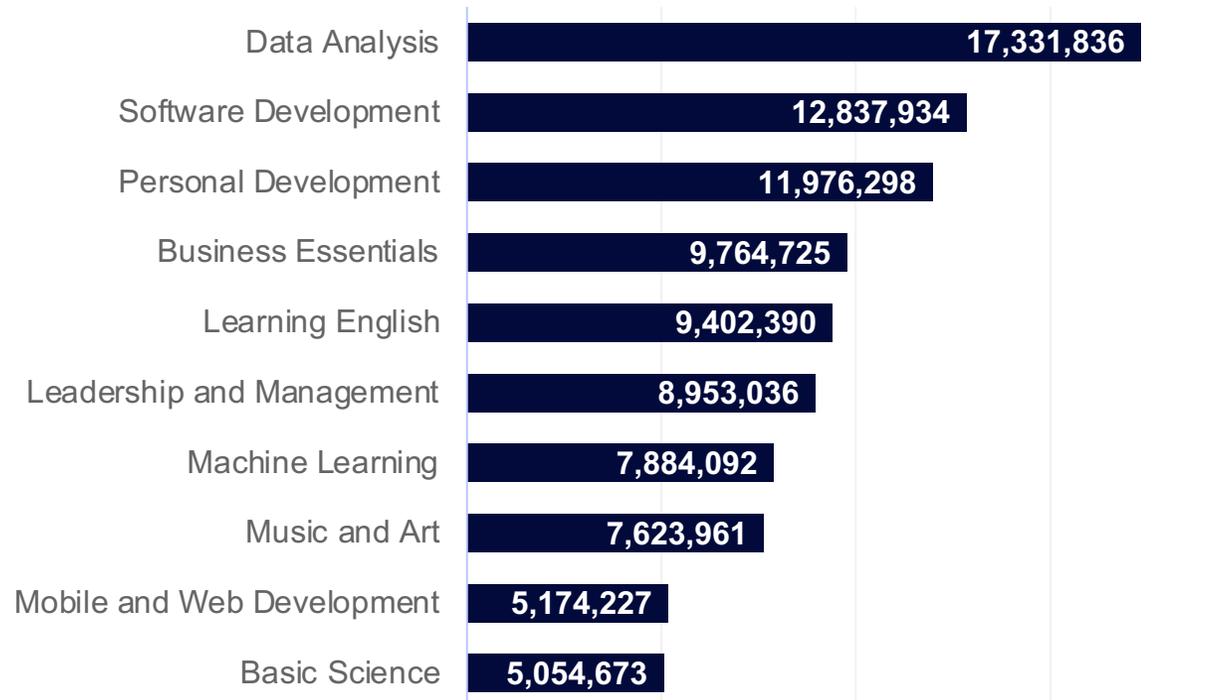
**Program of the Month**

**Summary**

# Coursera: Highest Cumulative Course Category Enrollment

In January, Data Analysis had the highest cumulative category enrollment.

**Highest Cumulative Category Enrollment Volume**  
January 2023



Source: PES Non-Degree Demand: Coursera

## Coursera: Fastest-Growing Courses

In January, Data Analysis also added the most students year-over-year.

**Highest Year-Over-Year Unit Change in Cumulative Enrollment**  
January 2023



## Udemy: Highest Cumulative Enrollment

In January, Python had the highest cumulative enrollment on Udemy.

### Top 10 Courses Cumulative Enrollment

January 2023



# Agenda

## Student Demand

- **Current Demand: Enrollment**
- **Leading Indicators: Google Searches**
- **Non-Degree Courses**

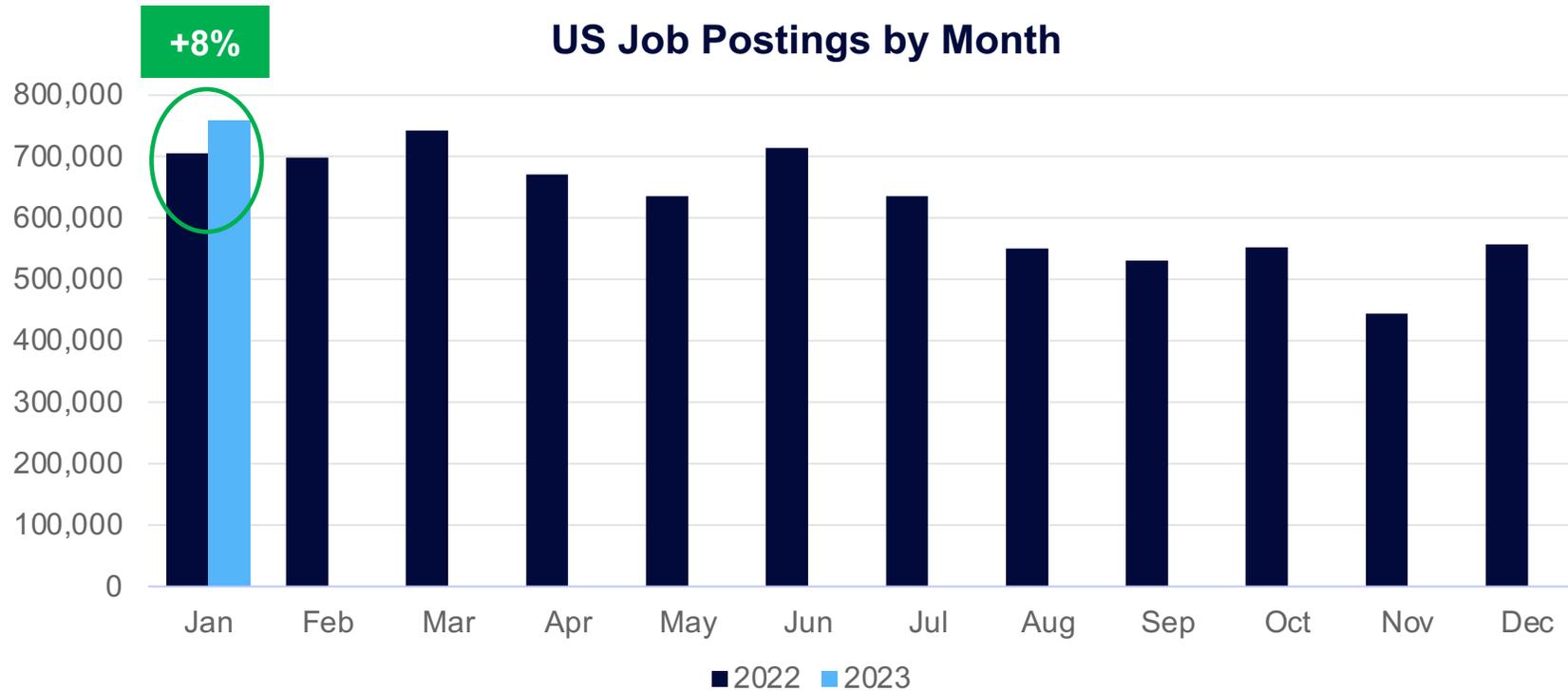
## Employment: Current Indicators

## College Athletics

## Program of the Month

## Summary

## In January, total job postings volume rose 8% YoY.



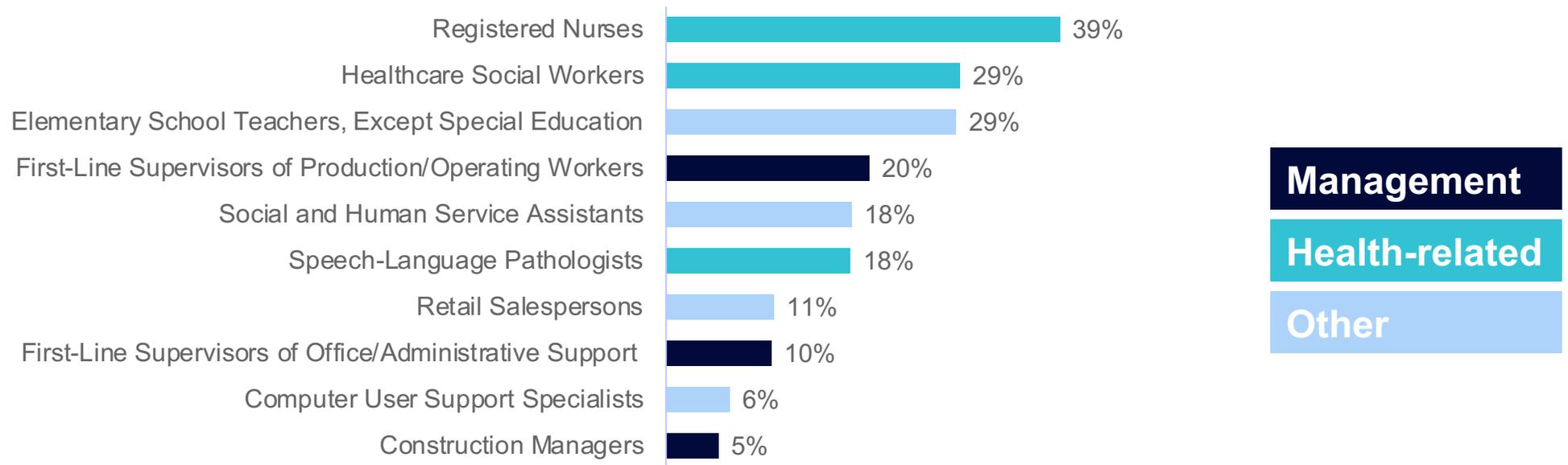
Source: PES Job Postings Dashboard

**In January, Registered Nurse had the highest number of job postings; management jobs dominated the rest of the top 10.**



# In January, job postings for Registered Nurses grew 39% year-over-year.\*

## 10 Fastest-Growing Job Postings By Standard Occupational Code



\*Minimum 5,000 postings January 2022

# Agenda

## Student Demand

- **Current Demand: Enrollment**
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- **Non-Degree Courses**

## Employment: Current Indicators

## College Athletics

## Program of the Month

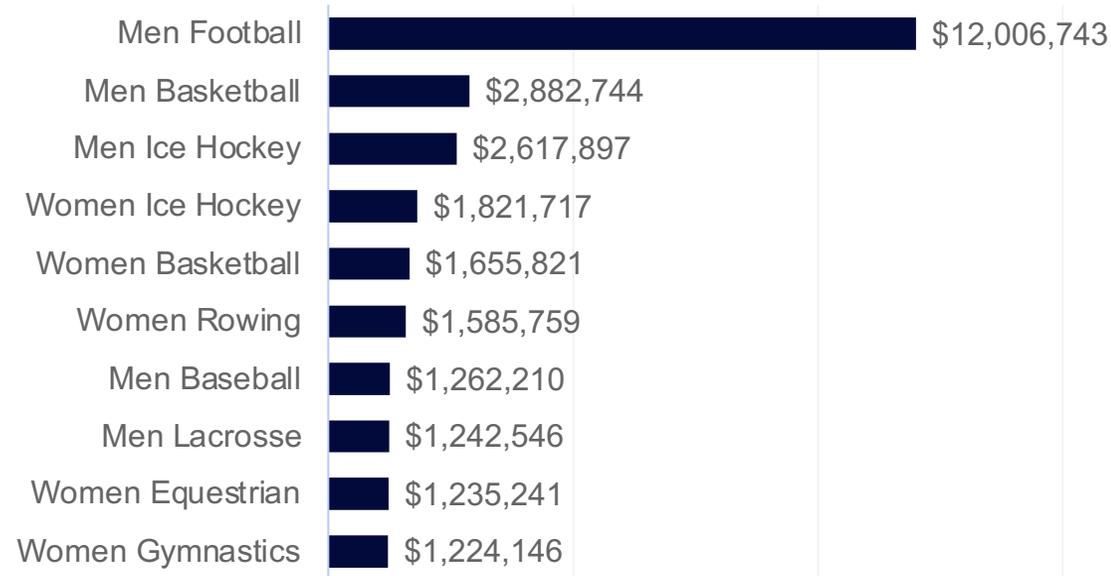
## Summary

## Highest Expenses per Team, Division I, Four-Year and Above Publics

In 2020 – 2021, men’s football had the highest average expenses per team.

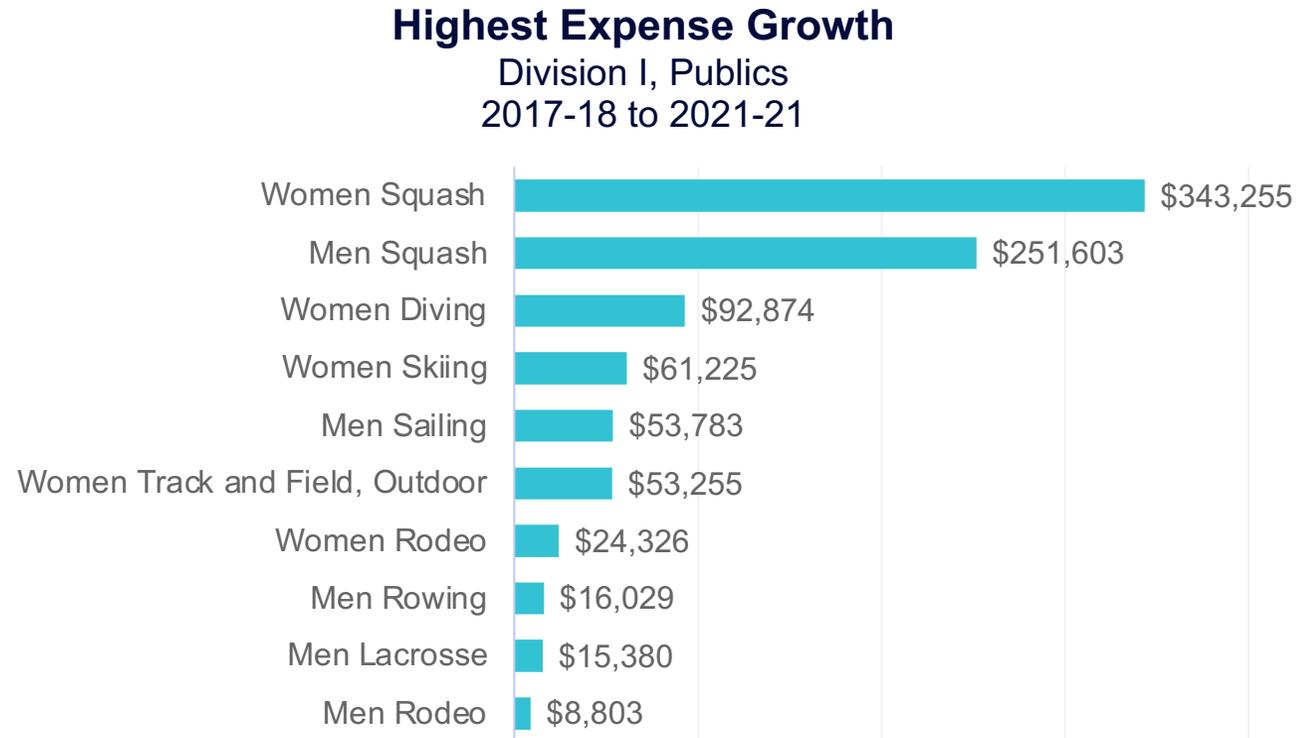
### Highest Expenses per Team

Division I, Publics  
Academic Year 2020-21



# Highest Expenses Growth per Team, Division I, Four-Year and Above Publics

Since 2017 – 2018, women’s squash has the fastest-growing expenses.



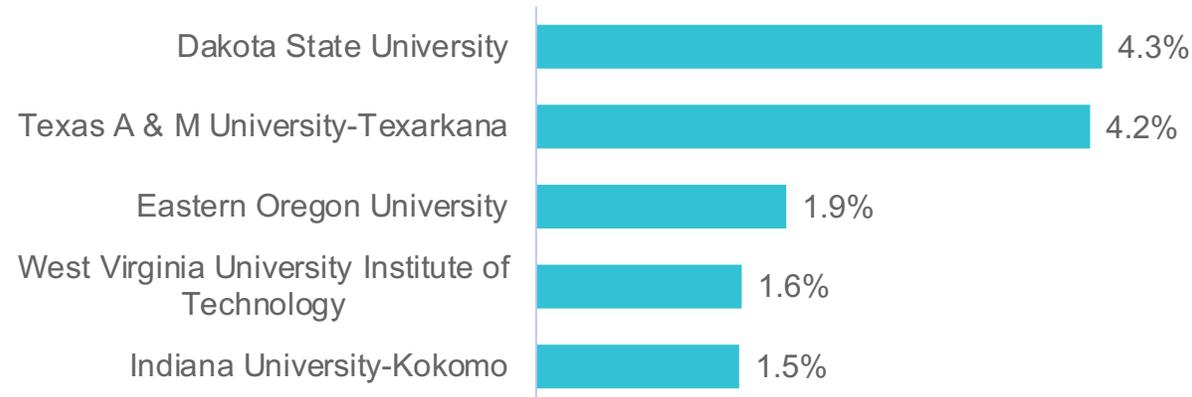
## Leading up to March Madness... Basketball Stats

**Dakota State University had the highest basketball participation rate per student enrolled.**

### Division I Basketball Averages 2020-2021

Coaches per Team	Participants per Team	Participants per Coach	Expenses per Participant	Participation % of Enrollment	# Institutions
4	16	4	\$139,715	0.04%	280

### Top Participation Percentage of Enrollment



# Agenda

## Student Demand

- **Current Demand: Enrollment**
- **Leading Indicators: Google Searches**
- **Non-Degree Courses**

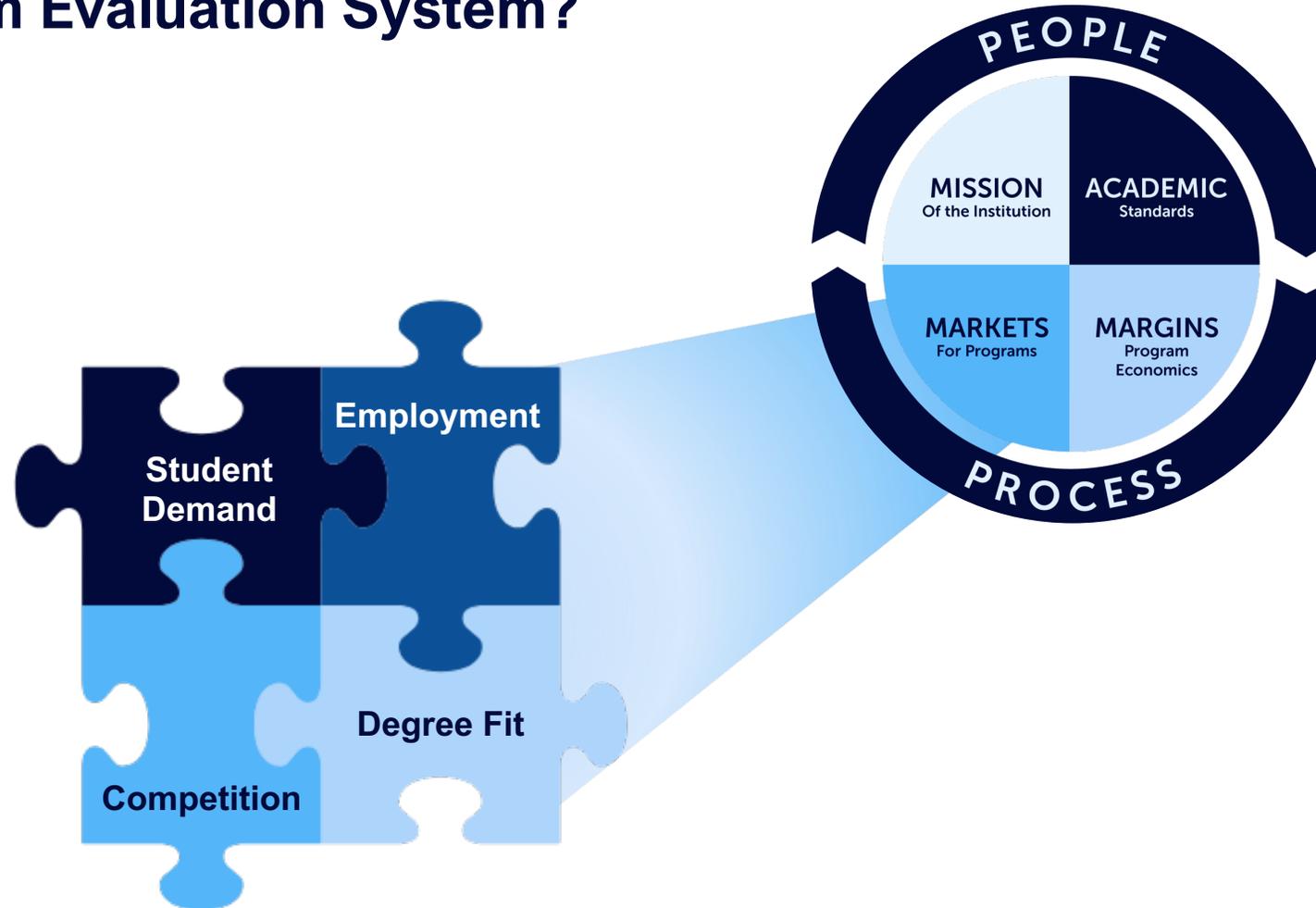
## Employment: Current Indicators

## College Athletics

## Program of the Month

## Summary

## 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 a Bachelor's in Architecture.

### US Program Ranking Bachelor's Programs

CIP	Total Percentile	Student Demand Percentile	Competitive Intensity Percentile	Employment Percentile	Degree Fit Percentile
30.7101 Data Analytics and/or Data Science	98	98	1	95	50
26.1501 Neuroscience	98	97	14	94	50
26.0102 Biomedical Sciences, General	98	96	39	94	50
14.1001 Electrical/Electronics Engin'g	98	96	20	99	50
52.1201 Management Info. Systems, General	98	96	20	98	50
14.0903 Computer Software Engineering	98	94	30	100	50
52.0601 Business/ Managerial Economics	98	93	30	99	50
14.0701 Chemical Engineering	98	92	95	98	50
15.1001 Construction Engineering Tech	98	91	99	87	50
29.0201 Intelligence, General	98	91	98	92	50
14.3501 Industrial Engineering	98	91	95	97	50
14.4701 Electrical and Computer Eng'g	98	91	50	99	50
42.0101 Psychology, General	97	99	84	11	50
43.0100 Crim. Justice & Corrections, Gen'l	97	99	20	27	50
51.0000 Health Svcs/ Allied Health, Gen'l	97	98	30	76	50
11.0103 Information Technology	97	98	0	92	50
11.0401 Information Science/ Studies	97	97	30	90	50
04.0201 Architecture	97	96	92	84	50
26.0406 Cell/Cellular and Molecular Biology	97	94	95	90	50
51.1199 Health/Medical Preparatory Programs, Other	97	94	30	94	50

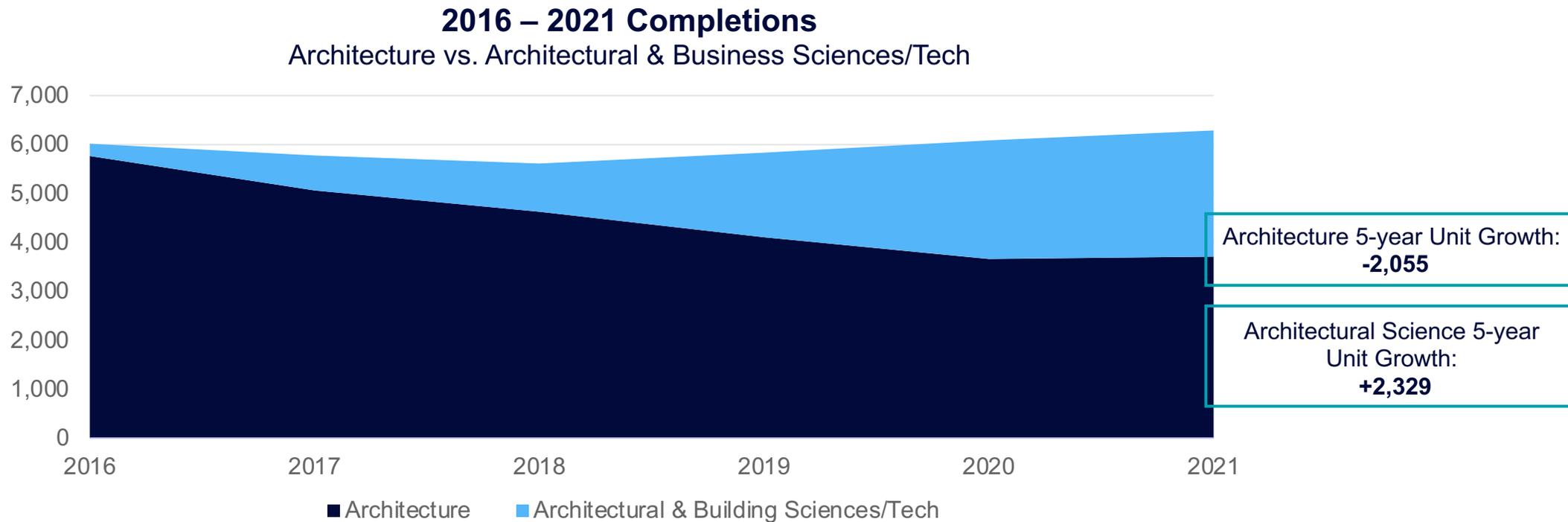
  

Total Percentile	0	20+	40+	70+	90+	95+	98+	100
Total Score	-50	-20	-18	-1	9	15	24	49

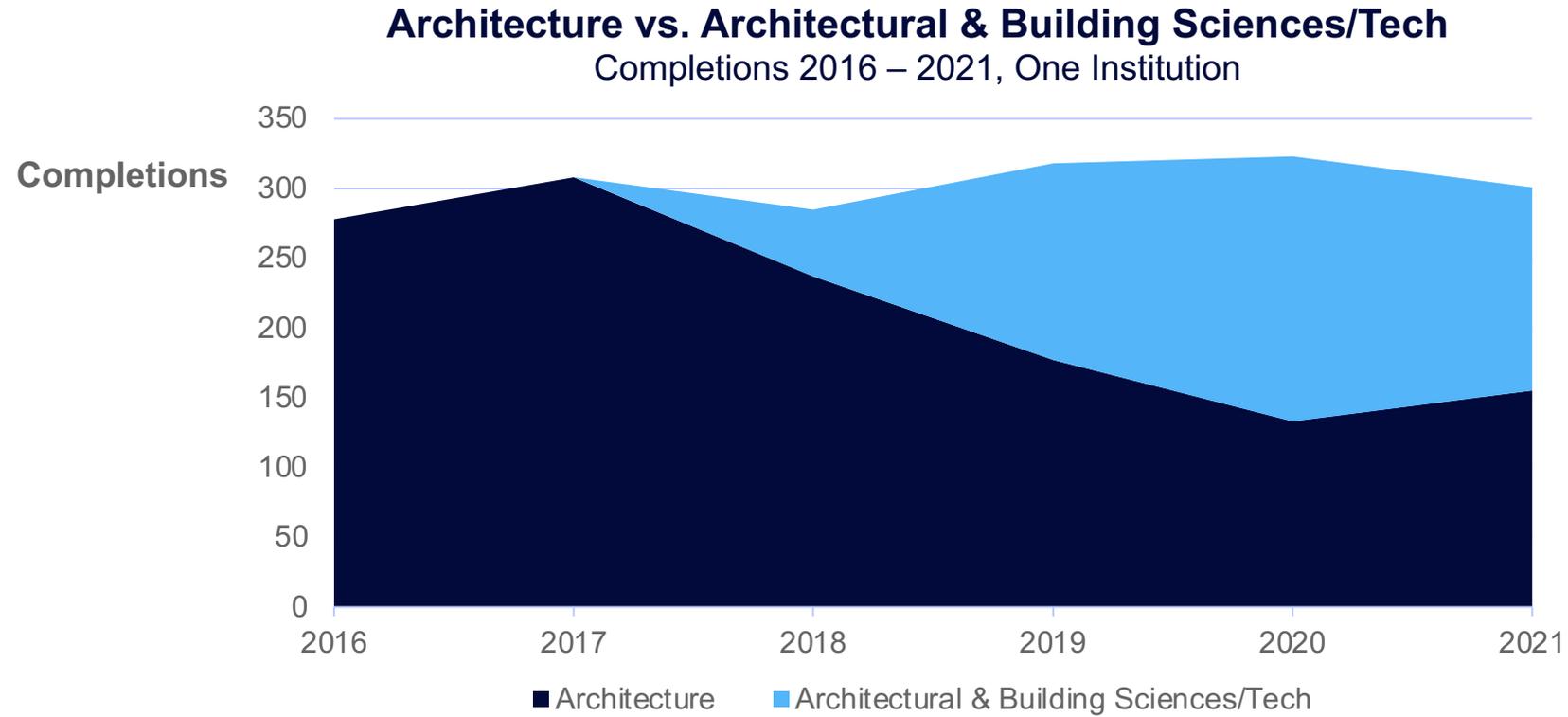
Source: PES Markets

## Completions in Architecture programs are a little misleading

**Architectural & Building Sciences is almost the same program – but STEM-qualified.**



# At the University of California, students shifted between architectural programs.



Source: PES Markets, Gray analysis of IPEDS data

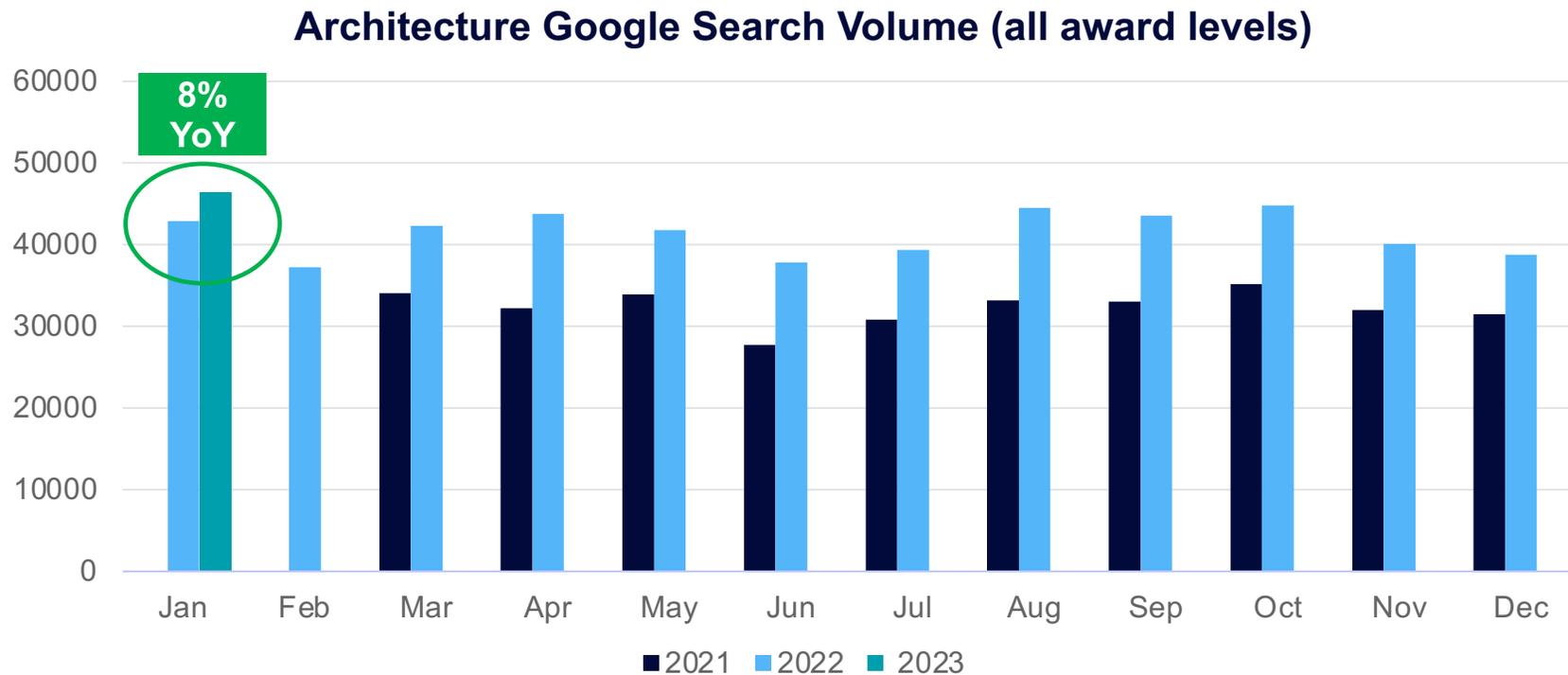
## Program Scorecard: Student Demand

**A Bachelor's in Architecture scores in the 96<sup>th</sup> percentile for Student Demand.**

- New student enrollment is strong and growth was flat year-over-year.
- There is high international interest in this program.
- Completions volume is at the 93<sup>rd</sup> percentile and grew 1% year-over-year.
- Google searches are healthy and grew 2% year-over-year trailing three months.

Student Demand				
Score: 18 Percentile: 96				
Catego...	Pctl	Criterion	Value	Score
Size	91	Google Search Volume (3 Months)*	83,744	4
	98	International Page Views (12 Months)	1,516	NS
	95	New Student Enrollment Volume (12 Mo.)	4,912	6
	93	On-ground Completions at In-Market Institutions	3,707	2
	68	Online Completions by In-Market Students	3	1
	93	Sum of On-ground and Online Completions	3,710	2
Growth	84	Google Search YoY Change (Units)*	1,234	1
	69	New Student Enrollment Vol. YoY Change (Units)	2	1
	88	Completion Volume YoY Change (Units)	46	1
	61	Google Search YoY Change (%)*	2%	0
	55	New Student Enrollment Vol. YoY Change (%)	0	0
	53	Completion Volume YoY Change (%)	1%	0

# Google searches: In January 2023, searches for Architecture programs grew 8% year-over-year for all award levels.



Source: PES Keyword Search Dashboard

## Program Scorecard: Employment

**A bachelor's in Architecture ranks in the 84<sup>th</sup> percentile for Employment.**

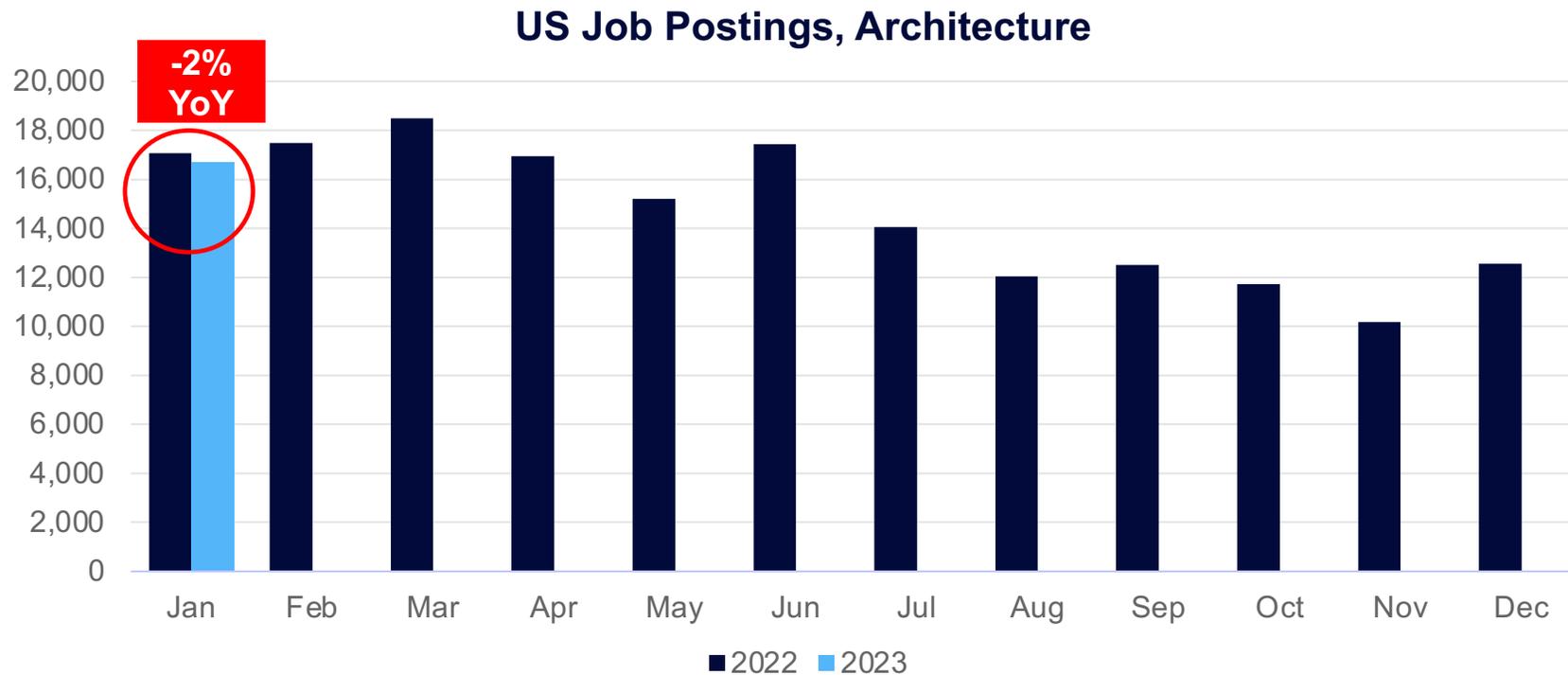
- Direct prep job volume is healthy for this program.
  - It rose 1.2% over the last three years.
- Job postings per graduate are moderate.
- BLS mean wages are in the 92<sup>nd</sup> percentile.

### Employment\*

Score: 4 Percentile: 84

Category	Pctl	Criterion	Value	Score
Size: Direct Prep	85	Job Postings Total (12 Months)*	37,148	1
	83	BLS Current Employment*	83,229	0
	80	BLS Annual Job Openings*	5,592	NS
Size: ACS Bach. Outcomes	86	Job Postings Total (12 Months)*	37,780	NS
	94	BLS Current Employment*	125,735	NS
Growth (Direct Prep)	65	BLS 1-Year Historical Growth*	-1.7%	NS
	58	BLS 3-Year Historic Growth (CAGR)*	1.2%	0
	19	BLS 10-Year Future Growth (CAGR)*	0.2%	-1
Saturation (Direct Prep)	76	Job Postings per Graduate*	7.6	0
	71	BLS Job Openings per Graduate*	1.1	NS
Wages (Direct Prep)	94	BLS 10th-Percentile Wages*	\$63,261	NS
	92	BLS Mean Wages*	\$98,772	NS
National American Community Survey Bachelor's Degree Outcomes	77	Wages (Age < 30)	\$50,286	3
	71	Wages (Age 30-60)	\$99,415	2
	49	% with Any Graduate Degree	38%	NS
	66	% with Masters	31%	NS
	52	% with Doct/Prof Degree	7%	NS
	29	% Unemp. (Age <30)**	2%	0
	73	% Unemp. (Age 30-60)**	2%	-1
	87	% in Direct Prep Jobs	29%	NS

## In January, job postings for Architecture fell 2% year-over-year.



## Architecture: Top Occupations By Population and Mid-Career Salary

	<b>Top Occupations</b> Architecture, All Ages	<b>Average Salary</b> Ages 30 - 60
Architects, Except Landscape and Naval	118,868	\$97,076
Managers, All Other	28,327	\$111,870
Designers, all other	25,122	\$71,049
Landscape Architects	17,618	\$92,599
Construction managers	16,203	\$113,192
Business operations specialists, all other	14,496	\$91,935
Postsecondary teachers	9,077	\$73,961
Chief executives and legislators	8,568	\$206,994
Graphic Designers	7,674	\$68,442
Urban and regional planners	7,014	\$88,938

## Program Scorecard: Competitive Intensity

Architecture is in the 92<sup>nd</sup> percentile for competitive intensity.

- 92 institutions have Architecture graduates.
  - One institution offers this program online.
  - Eight institutions left the market.
- Average and median program sizes are healthy.
  - Median size fell by 5% year-over-year.
- Marketing costs are moderate for this program
  - 59<sup>th</sup> percentile for a Google click
  - 21<sup>st</sup> percentile competition index

### Competitive Intensity Score: 1 Percentile: 92

Category	Pctl	Criterion	Value	Score
Volume of In-Market Competition	91	Campuses with Graduates**	92	-4
	2	Campuses with Grads YoY Change (Units)**	-8	2
	0	Institutions with Online In-Market Students**	0	NS
In-Market Program Sizes	91	Average Program Completions	40	2
	94	Median Program Completions	31	2
	47	YoY Median Prog. Compl. Change (Units)	-1	0
	50	YoY Median Prog. Compl. Change (%)	-5%	0
In-Market Saturation	59	Google Search * Cost per Click**	\$5	-1
	21	Google Competition Index**	0.06	0
National Online Competition	74	National Online Institutions (Units)**	1	NS
	52	Nat'l Online % of Institutions	1%	NS
	0	Nat'l Online % of Completions	0	NS

## Program Scorecard: Degree Fit

### A bachelor's degree is an appropriate award level for Architecture

- 76% of completions are at the bachelor's level.
- 44% of the workforce hold a bachelor's degree.
- Master's and doctoral degrees are common in the workforce.

**National Completions by Level**

Score: 0

Award Level	Completions (National)	Completions (Market)	Enrollment (Market)
Certificate	0%	0%	0%
Associates	2%	2%	9%
<b>Bachelors</b>	<b>76%</b>	<b>76%</b>	<b>69%</b>
Postbaccalaureate Certificate	2%	2%	0%
Masters	18%	18%	19%
Post-masters Certificate	0%	0%	0%
Doctoral	2%	2%	2%
Unknown	0%	0%	0%

**National Workforce Ed. Attainment**

Score: 0

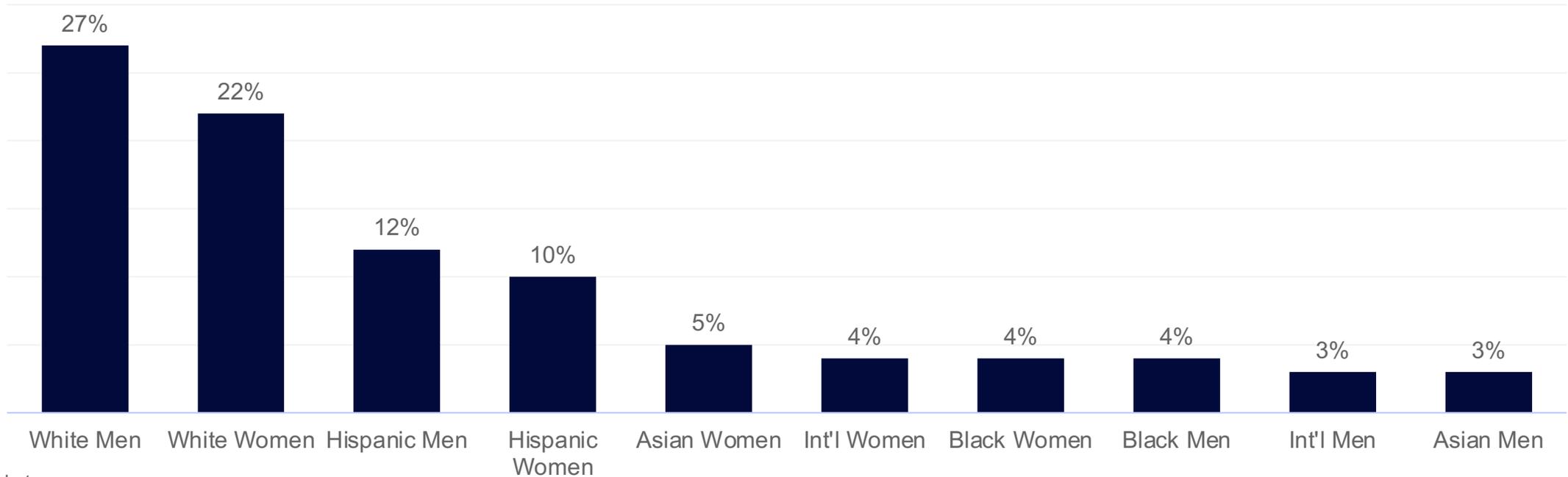
Award Level	BLS Educational Attainment
No College	4%
Some College	5%
Associates	3%
<b>Bachelors</b>	<b>44%</b>
Masters	35%
Doctoral	9%

## Demographics

**Almost 50% of Architecture completers are white students.**

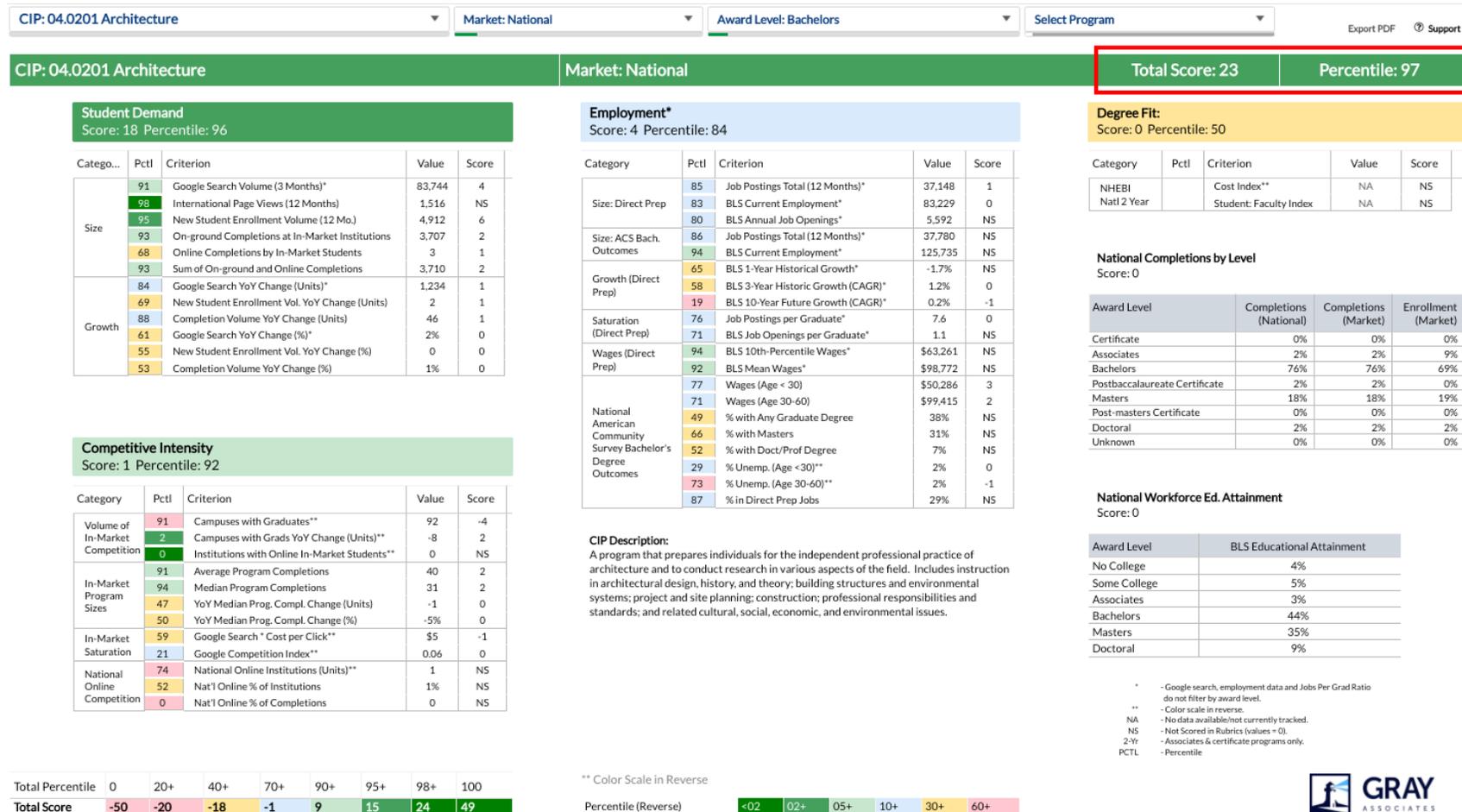
- Somewhat more men than women complete this major.

**2021 Completions by Demographic Group**



Source: PES Markets

# Program Scorecard: A Bachelor's in Architecture ranks in the 97<sup>th</sup> percentile.



# Agenda

## Student Demand

- **Current Demand: Enrollment**
- **Leading Indicators: Google Searches**
- **Non-Degree Courses**

## Employment: Current Indicators

## College Athletics

## Program of the Month

## Summary

## Summary

- New student enrollment in Nursing Administration doctoral programs grew 30% annually in the last three years.
  - At the master’s level, Data Science grew the fastest: 49% over three years
  - At the bachelor’s level, Cybersecurity grew the fastest: 13% over three years
- In January, US Google searches for academic programs increased 14% year-over-year.
  - Nursing Education was the fastest-growing program for searches.
- Job postings volume went up in January.
  - Job postings for Registered Nursing increased 39% year-over-year.
- In 2020 – 2021, women’s squash had the highest three-year increase in expenses per college athletic team.
- Demand for a Bachelor’s in Architecture is high.
  - Total enrollment is bouncing back after the COVID slump.
  - There is high interest from international students.
  - In January, jobs for Architecture graduates grew 8% year-over-year.
    - By mid-career, Architecture majors work in high-paying jobs.

## Upcoming Webinars

Topic	Date
Demand Trends Webcast: Community Colleges	<i>Wednesday</i> March 29 <sup>th</sup> at 2 PM ET
Demand Trends Webcast: Bachelor's and Above	<i>Thursday</i> March 30 <sup>th</sup> at 2 PM ET

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

