



Demand for Higher-Education Programs

November 29th, 2023



Agenda

What is a Program Evaluation System?

Student Demand

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

Employment: Current Indicators

Program of the Month

Summary

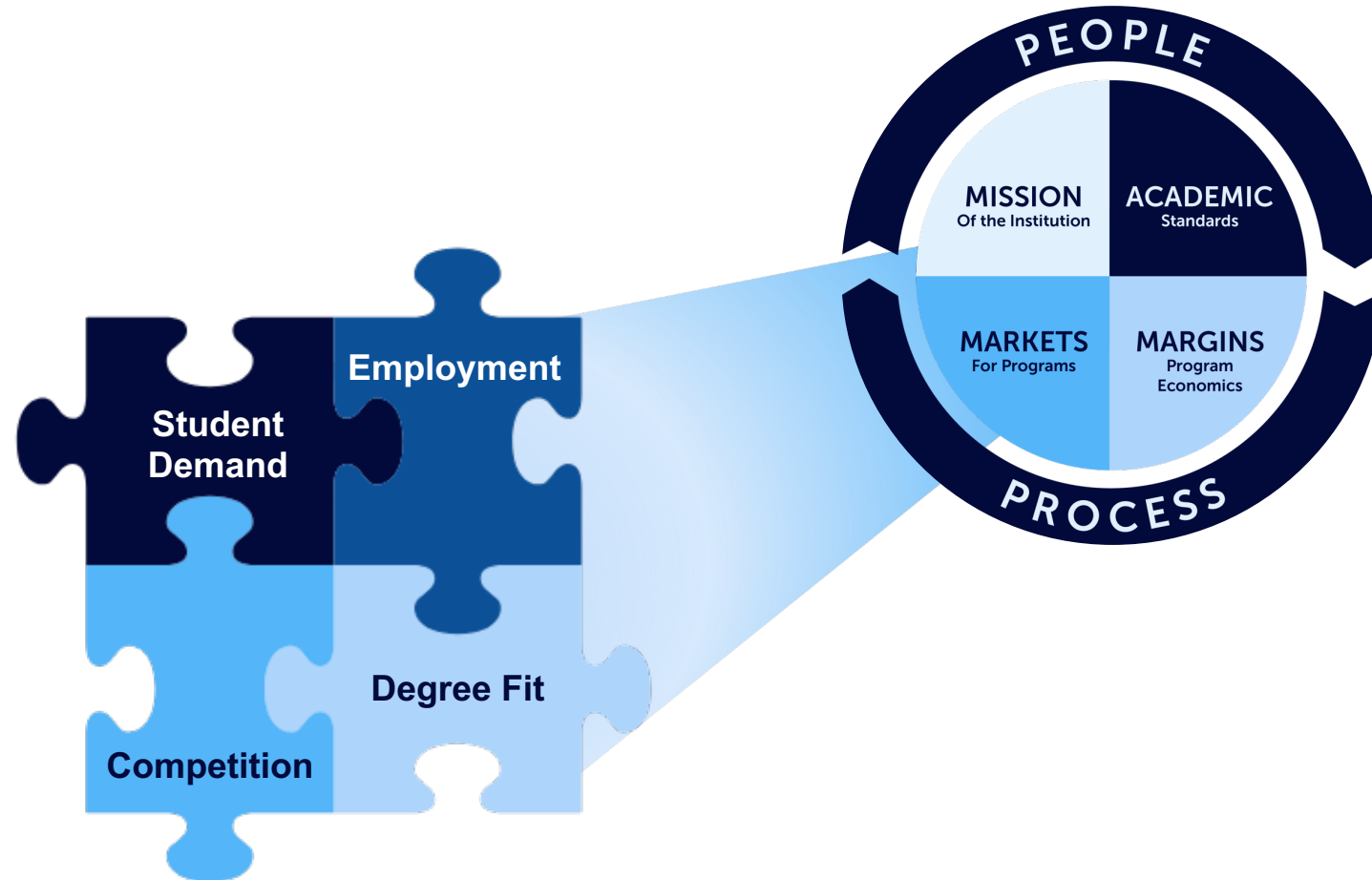


Gray has developed a complete Program Evaluation System





Key elements of your market you need to understand.





Agenda

What is a Program Evaluation System?

Student Demand

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

Employment: Current Indicators

Program of the Month

Summary



IPEDS, Enrollment, and Google Search: Past, Present. Future

Insights on Student Demand



IPEDS



Enrollment



Google



Agenda

What is a Program Evaluation System?

Student Demand

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

Employment: Current Indicators

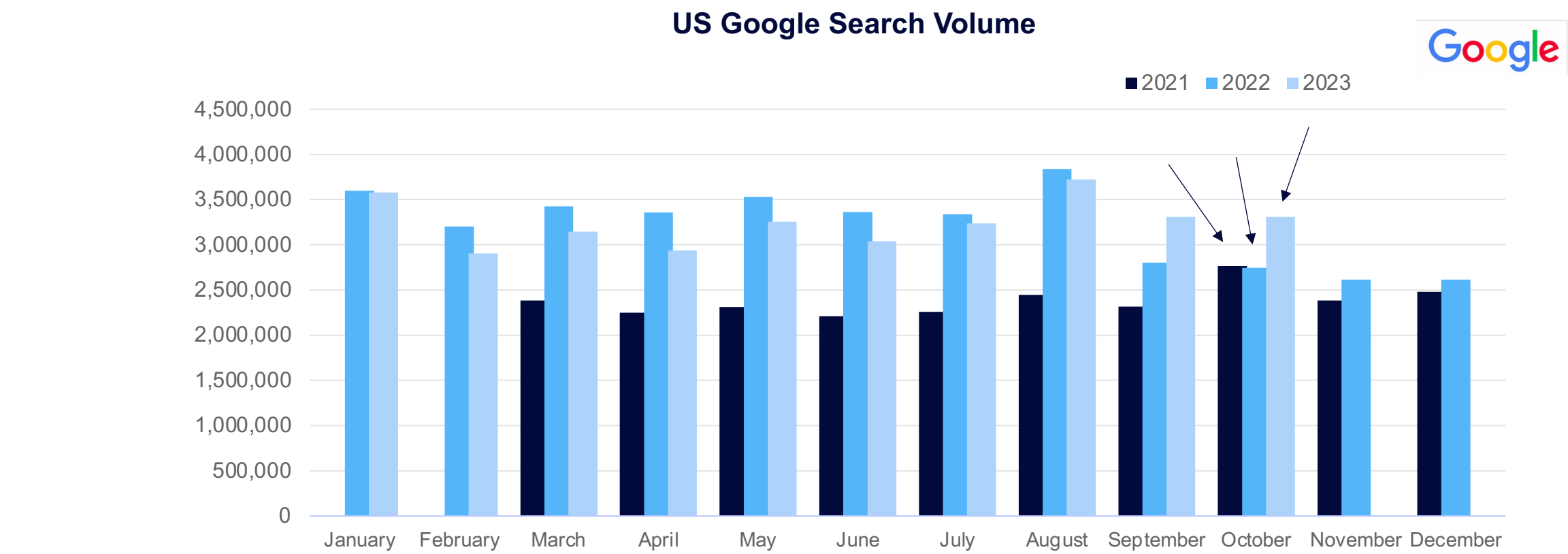
Program of the Month

Summary



Google Search Trends: Programs

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

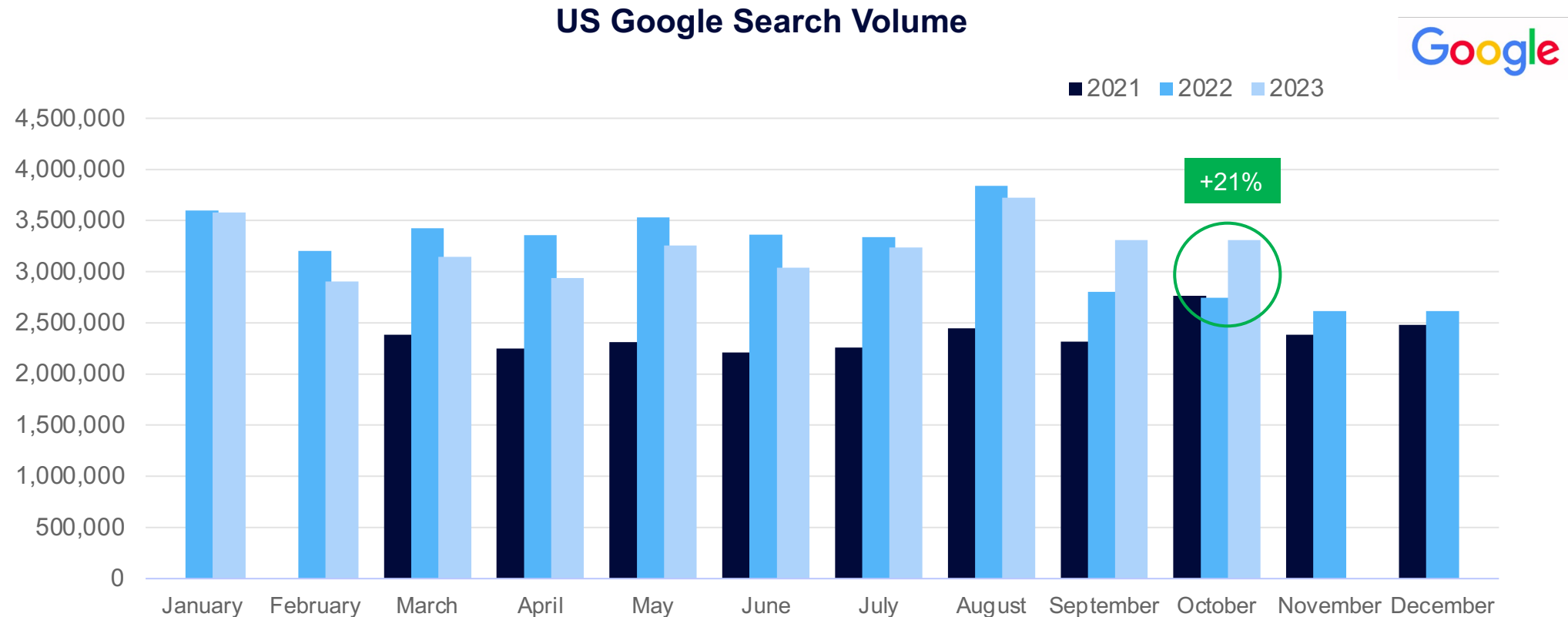


Source: PES Keyword Search Dashboard



Google Search Trends: Programs

In October 2023, Google searches for workforce programs rose 21% year-over-year.

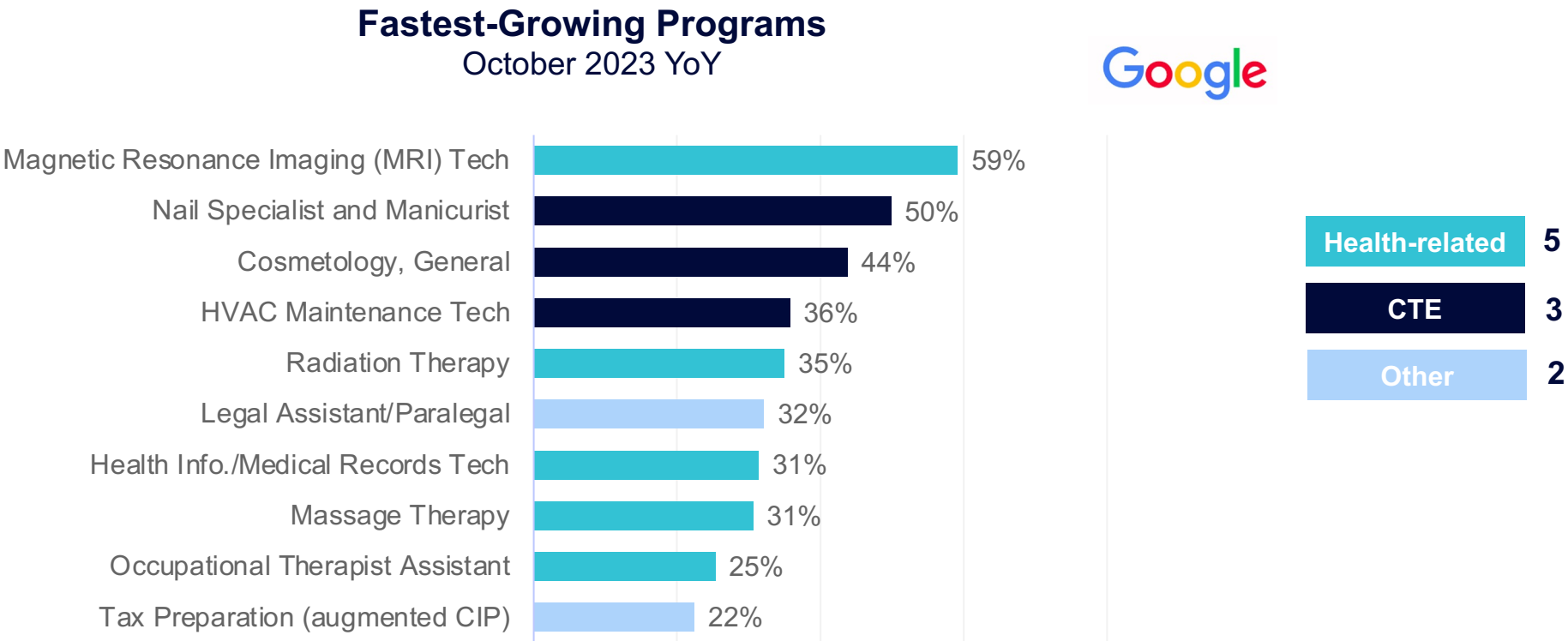


Source: PES Keyword Search Dashboard



Google: US Fastest-Growing Programs

In October, searches for MRI Tech increased 59% year-over-year.



Google search volume for standardized direct-to-workforce academic programs.
Source: PES Keyword Search Dashboard

*Minimum 10,000 searches October 2022

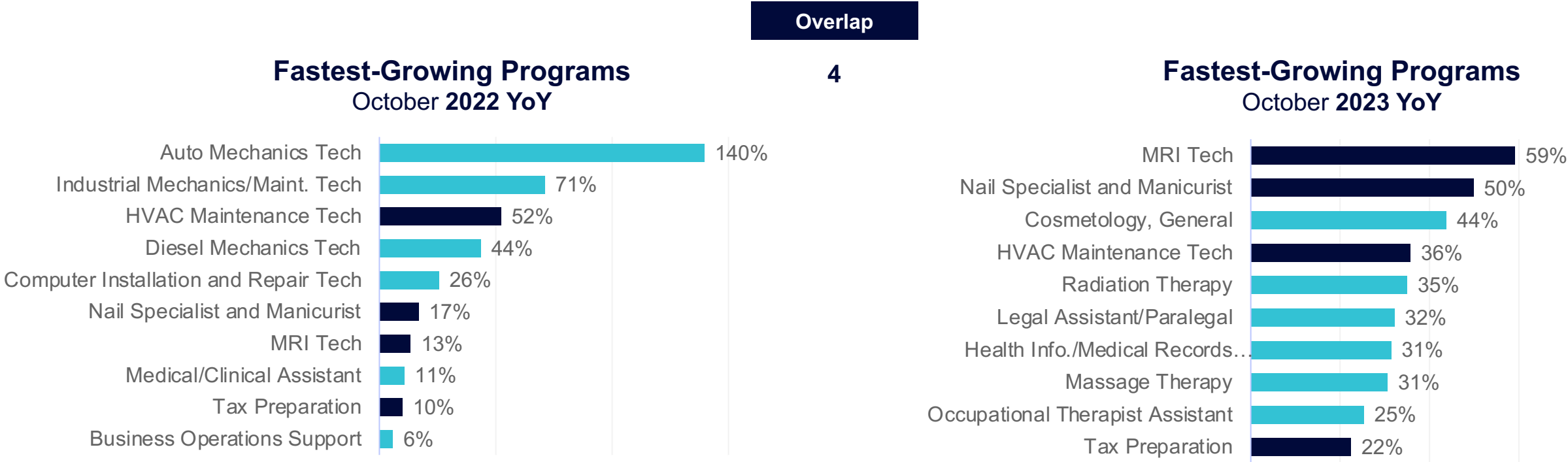


Google: Program searches are volatile



Of the ten fastest-growing programs in 2022, only four made the list in 2023.

- In 2022, the list was dominated by tech programs.

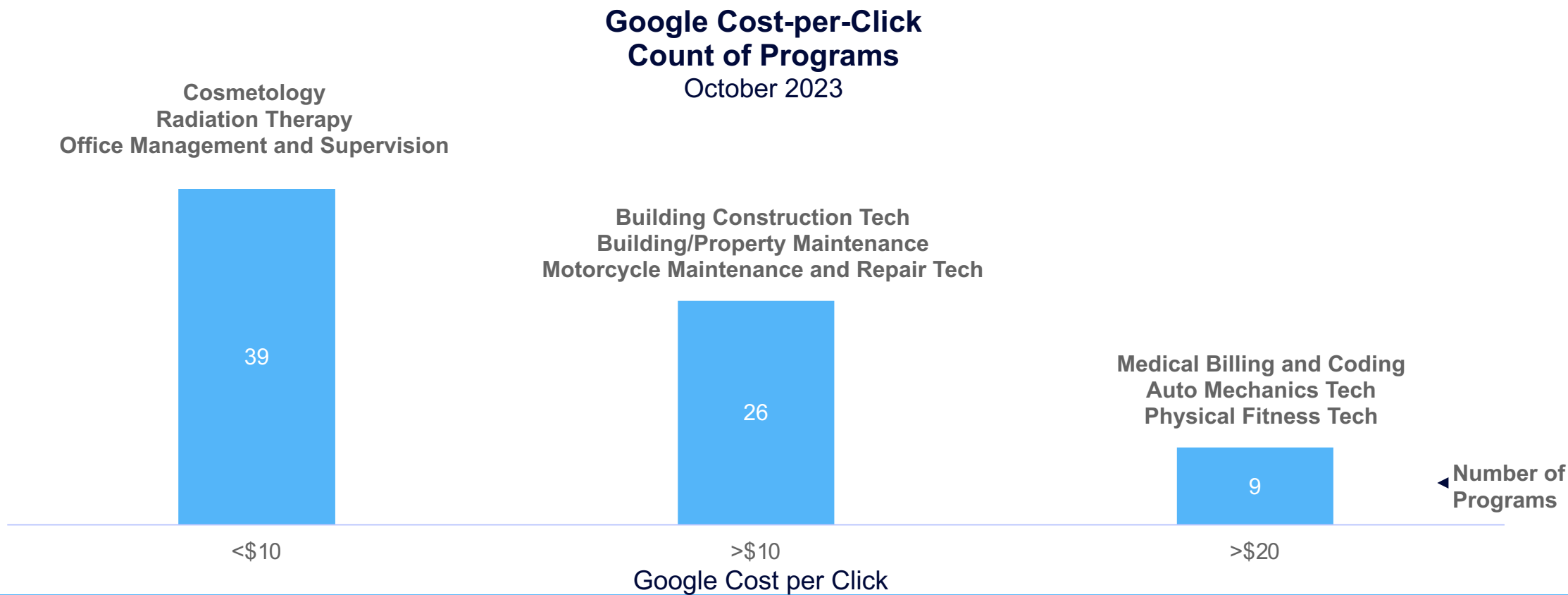


*Minimum 10,000 searches October 2021



Google: Cost-per-Click

Medical Billing and Coding has had the most expensive marketing costs for months.





Agenda

What is a Program Evaluation System?

Student Demand

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

Employment: Current Indicators

Program of the Month

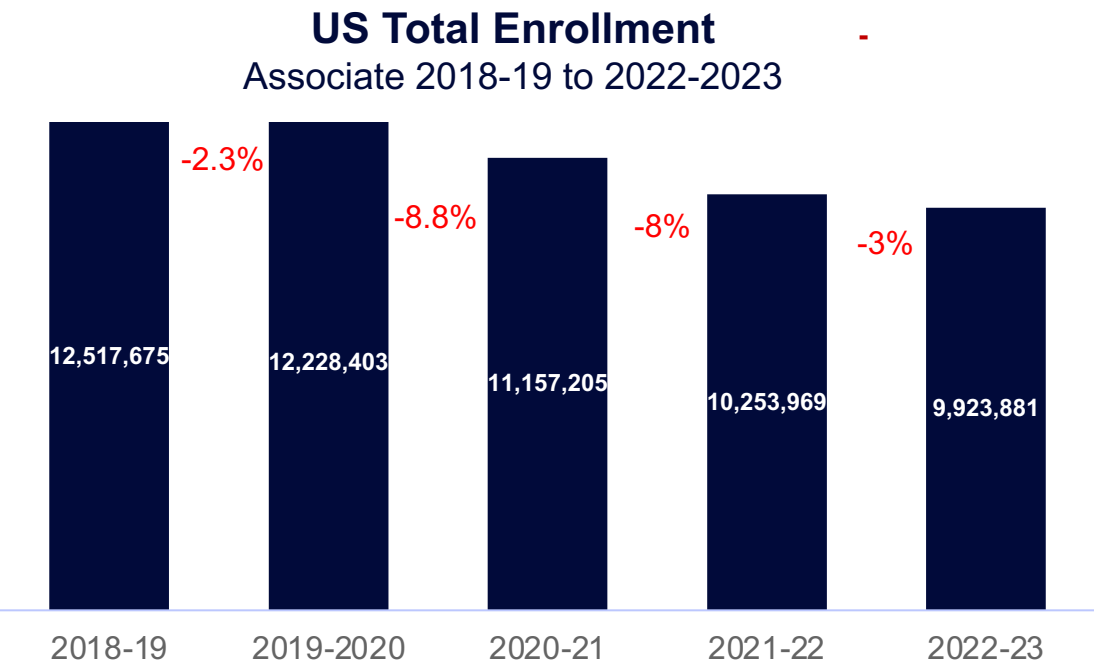
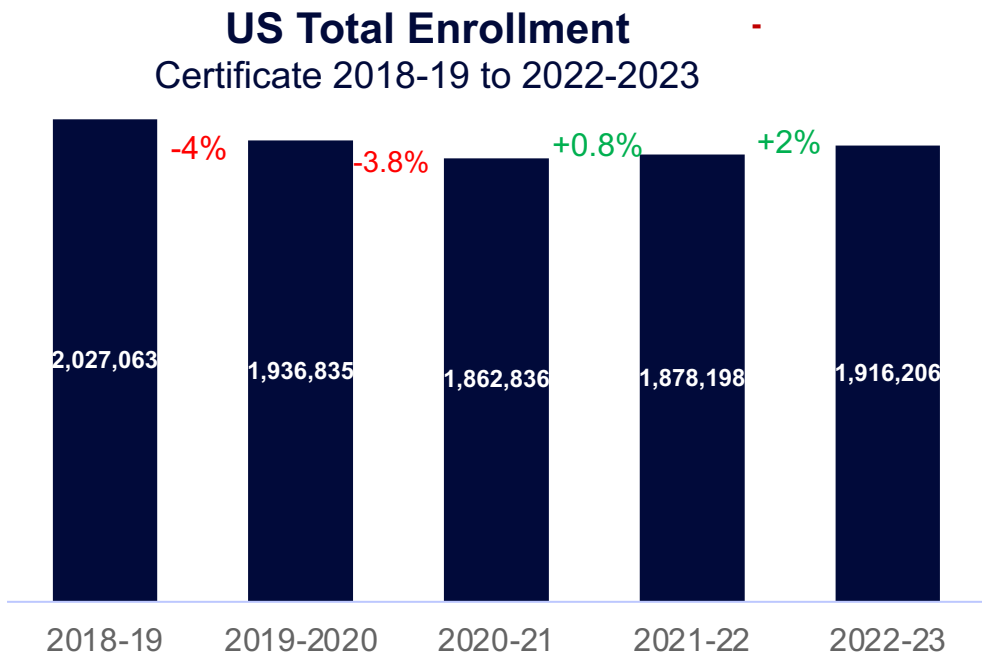
Summary



US Total Enrollment

In Academic Year 2022-23, US total enrollment rose for certificates.

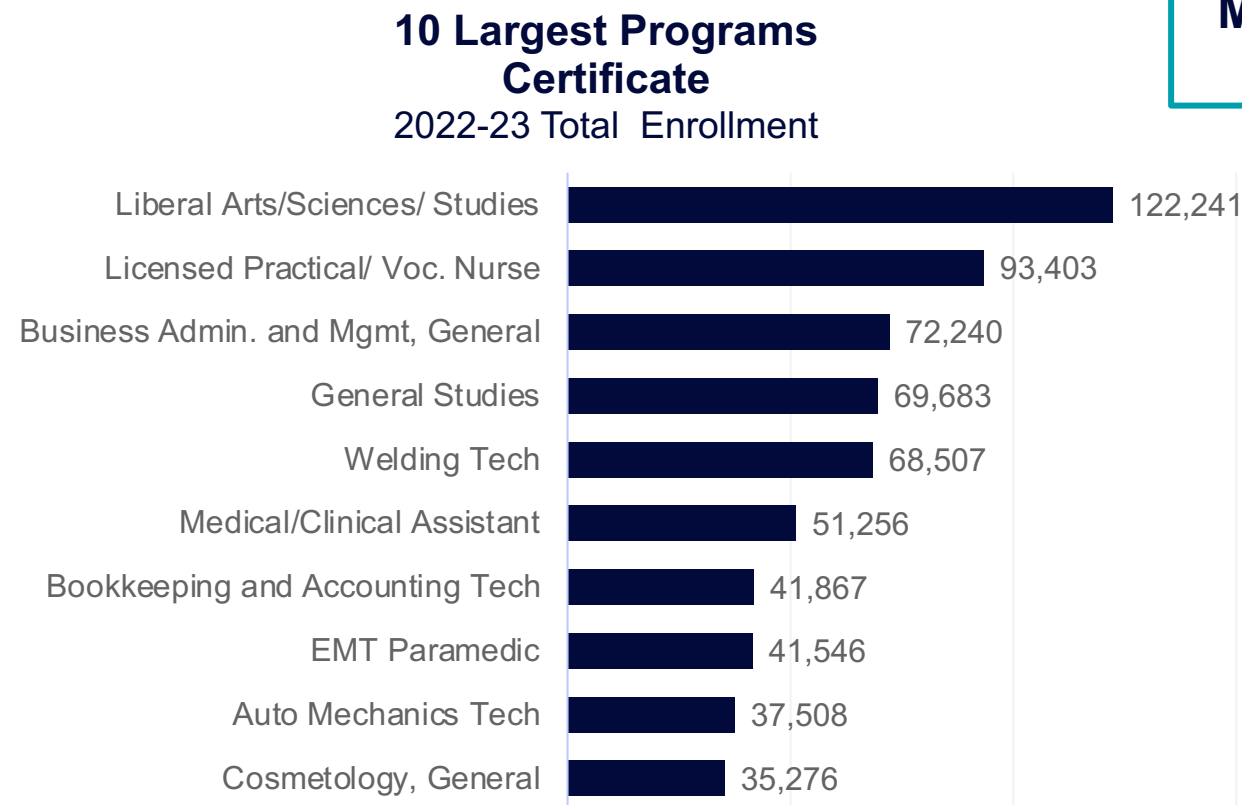
- Associate programs dropped 3%, but the decline is slowing down.



Source: PES Student Enrollment Dashboard



Certificate: In 2022-23, the 10 largest programs accounted for 33% of total enrollment.



**Median Total Enrollment:
218**



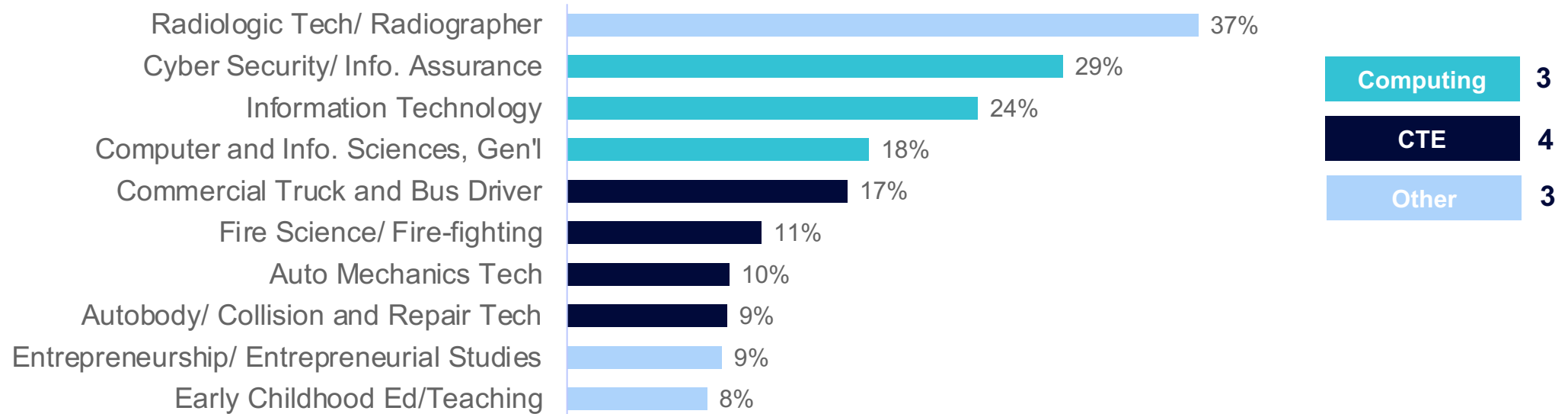
Certificate: Academic Year 2022-23 Fastest-Growing Total Enrollment

In 2022-23, Radiologic Tech/Radiographer grew 37% year-over-year.

US Fastest-Growing Total Enrollment*

Certificate Programs

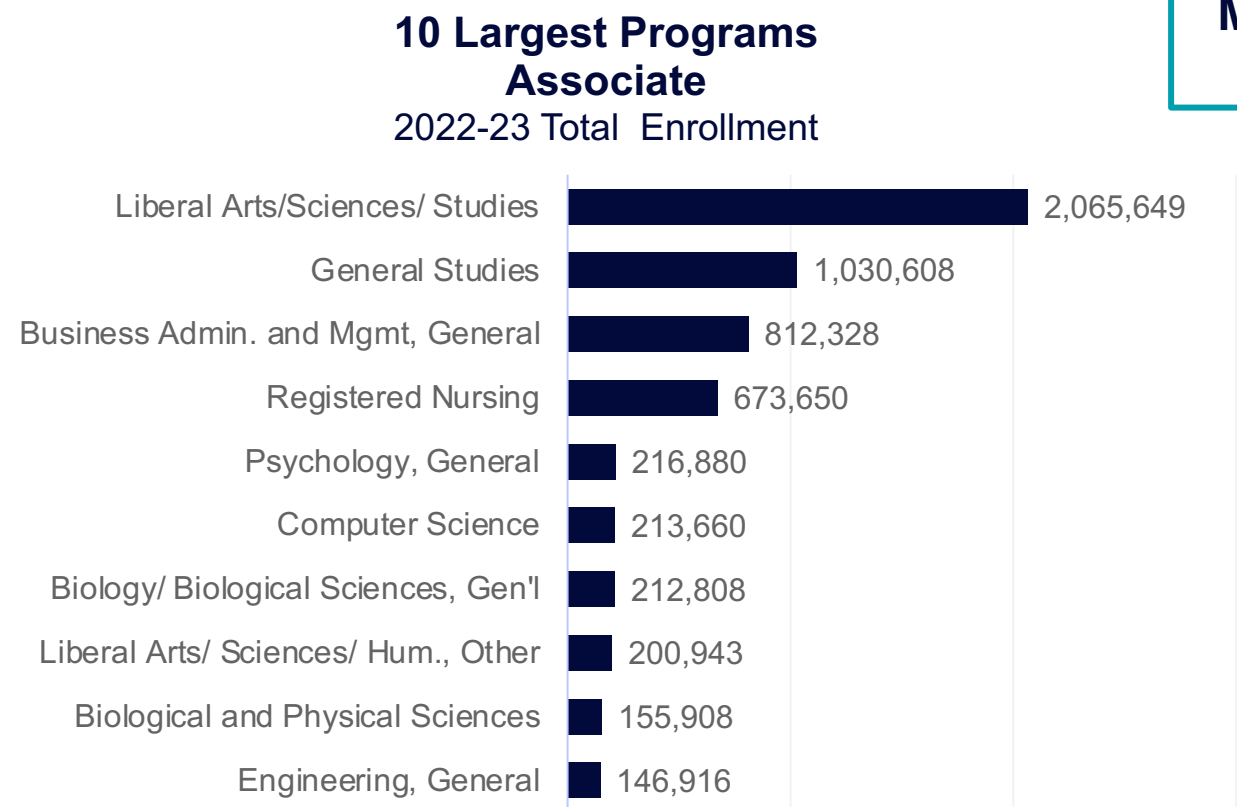
2022-23 Year-over-Year



Source: PES Student Enrollment Dashboard

*Minimum enrollment prior year: 5,000

Associate: In 2022-23, the 10 largest programs accounted for 58% of total enrollment.

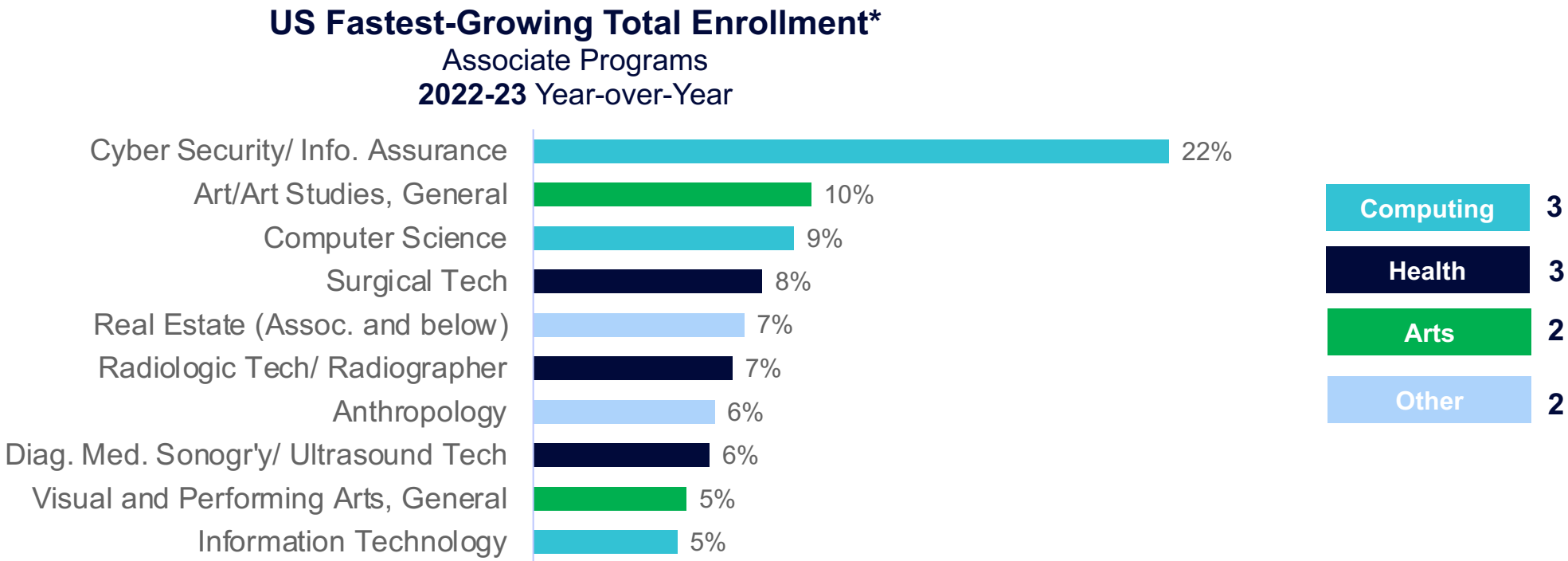


**Median Total Enrollment:
537**



Associate: Academic Year 2022-23 Fastest-Growing Total Enrollment

In 2022-23, Cybersecurity grew 22% year-over-year.



Source: PES Student Enrollment Dashboard

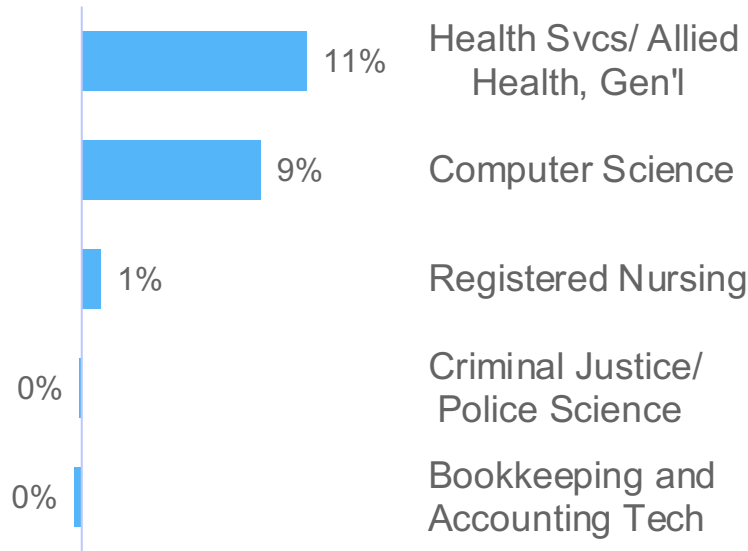
*Minimum enrollment prior year: 10,000



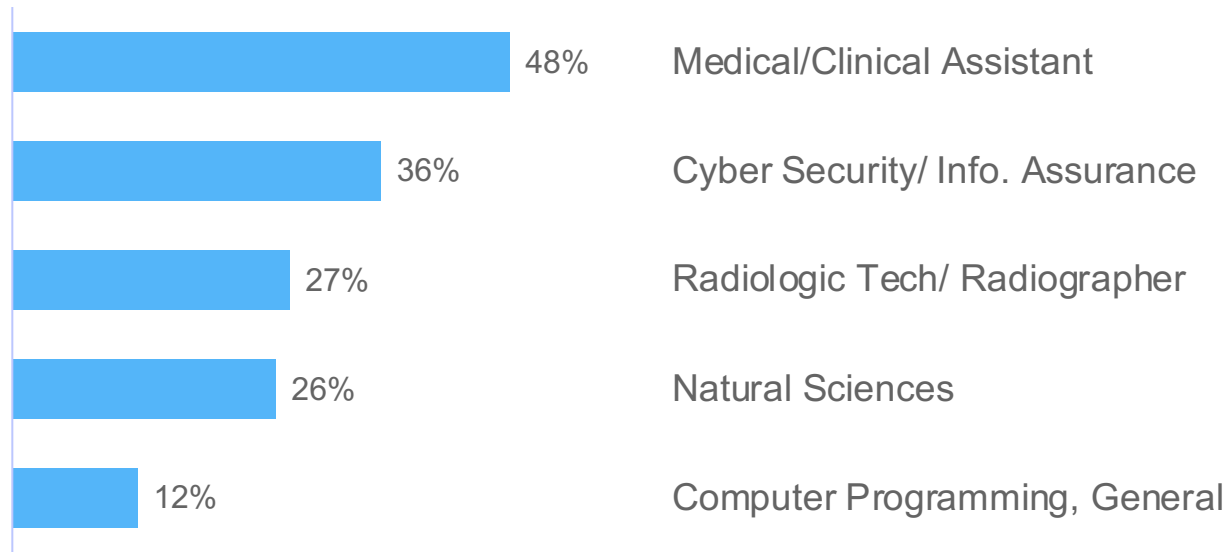
Enrollment growth varies by location.

The five fastest-growing programs in NY and TX don't overlap.

New York Fastest-Growing Total Enrollment*
Certificate and Associate Programs
2022-23 Year-over-Year



Texas Fastest-Growing Total Enrollment*
Certificate and Associate Programs
2022-23 Year-over-Year



Source: PES Student Enrollment Dashboard

*Minimum enrollment prior year: 5,000



Agenda

What is a Program Evaluation System?

Student Demand

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

Employment: Current Indicators

Program of the Month

Summary



There is a large volume of student demand outside Title IV programs.

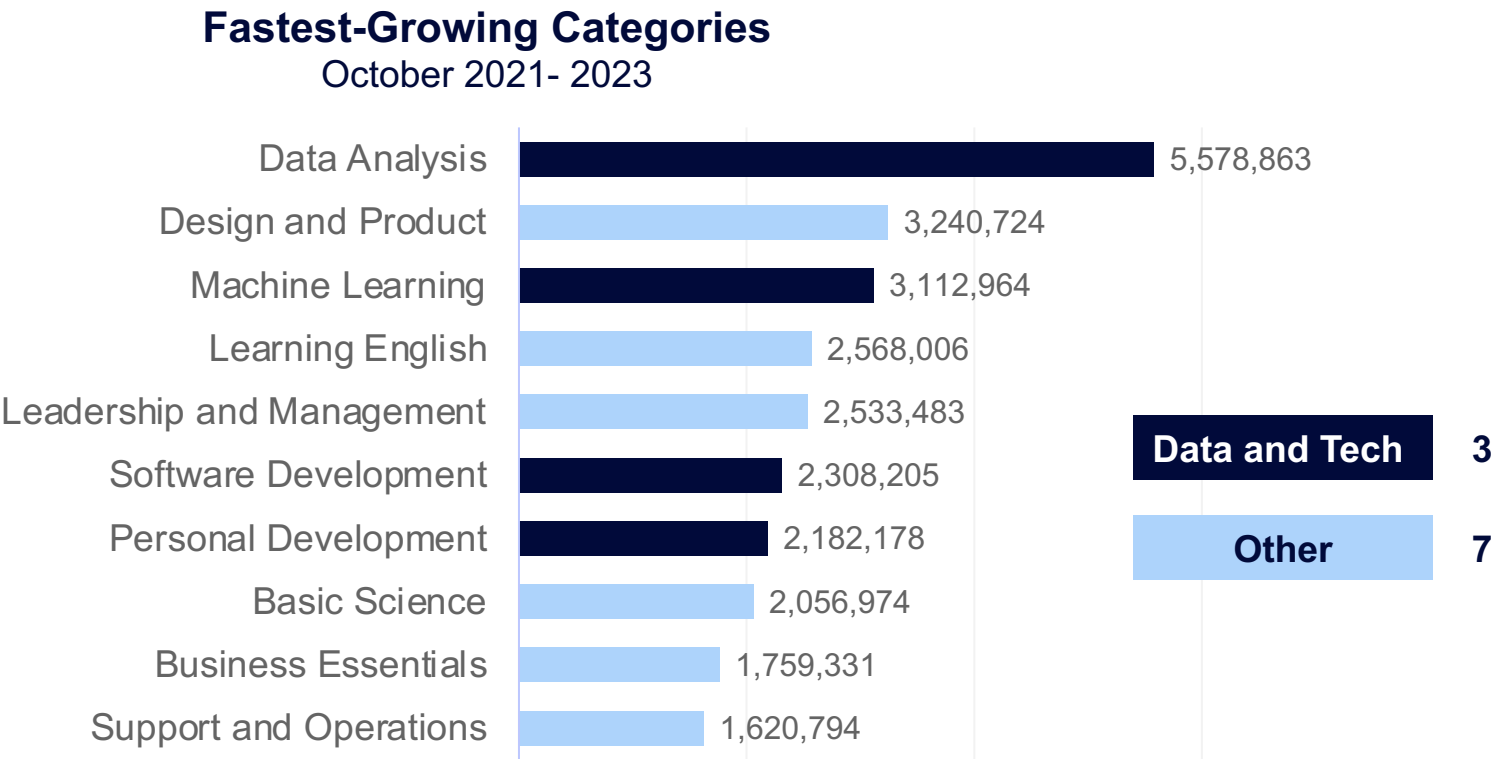
Coursera alone has enrolled over 125 million students.





Non-Degree Demand: Coursera

From January to October 2023, Coursera enrolled 14 million new students.



Source: PES Non-Degree Dashboard, Coursera



Agenda

What is a Program Evaluation System?

Student Demand

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

Employment: Current Indicators

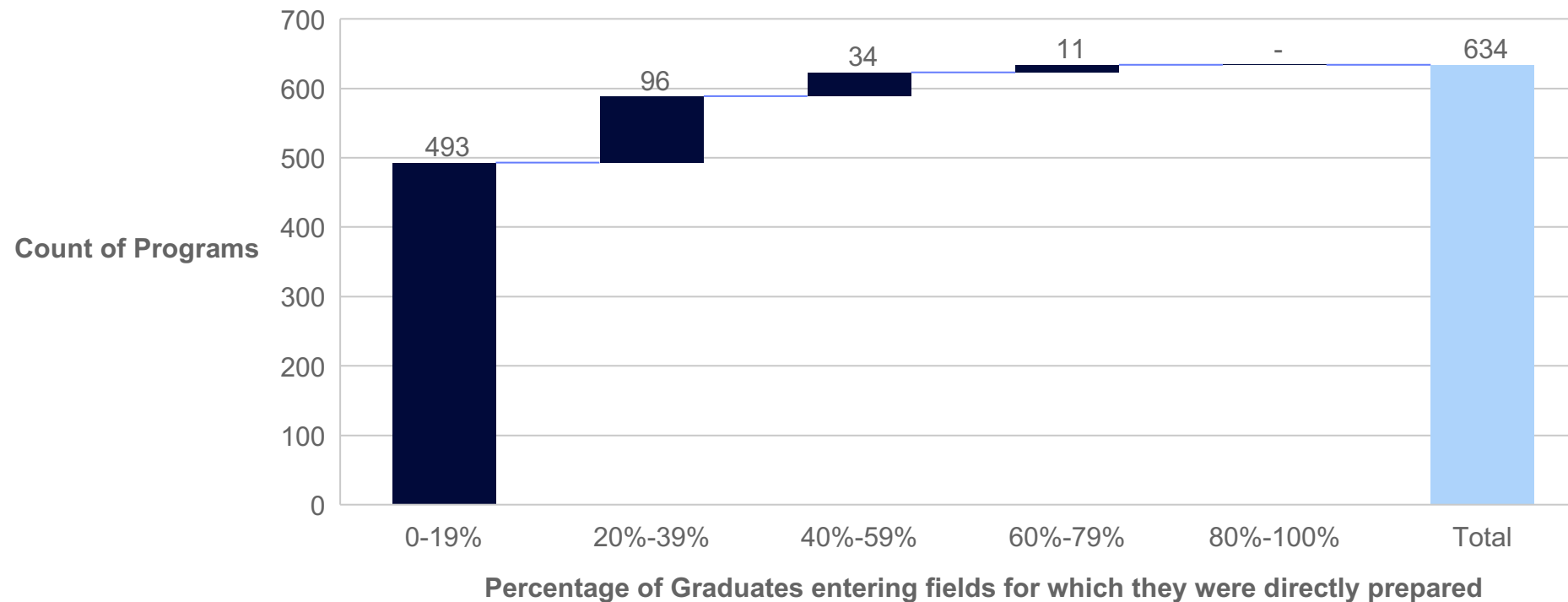
Program of the Month

Summary



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

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



Sources: IES NCES: "CIP SOC Crosswalk", July 2021 <https://nces.ed.gov/ipeds/cipcode/post3.aspx?y=56>,
US Census, American Community Survey, Gray Analysis. Bachelor degree programs with over 100 completions.



Commonly available data sources only count direct prep jobs.

In a traditional construct, Art/Art Studies majors enter five occupations.

- Gray DI data on 15,000 graduates of Associate in Art/Art Studies programs identifies 729 occupations – many do not require a college degree.
- Note: CEO is often the most senior manager in a small business or sole proprietorship.

Myth

NCES
Art, Drama, and Music Teachers, Postsecondary
Craft Artists
Fine Artists, Including Painters, Sculptors, and Illustrators
Photographers
Secondary School Teachers, Except Career/Tech and Special Education

Reality

SOC Title

SOC and SOC Title ▾	Count of Id
11-1011 - Chief Executives	543
11-1021 - General And Operations Managers	324
43-6011 - Executive Secretaries And Executive Administrative Assistants	282
41-3091 - Sales Representatives Of Services, Except Advertising, Insurance, Financial Services, And T...	237
43-4051 - Customer Service Representatives	225
27-1014 - Special Effects Artists And Animators	222
11-2022 - Sales Managers	177
13-1071 - Human Resources Specialists	172
13-1199 - Online Merchants	170
15-1232 - Computer User Support Specialists	159
41-2011 - Cashiers	158



Even direct prep program grads don't have clear career paths.

According to NCES, Auto Mechanics Tech graduates can go into three occupations:

- Automotive Service Techs
- Electrical/Electronics Installers and Repairers, Transportation Equipment
- Electrical/Electronics Installers and Repairers, Motor Vehicles

According to Gray DI's sample of 14,208 completions, they go into 661 occupations

Company

Calc ▾	Count of Id
Us Army	153
Tesla	110
Autozone	50
O'reilly Auto Parts	47
Advance Auto Parts	43
Firestone Complete Auto Care	42
General Motors	38
Walmart	37
Ford Motor Company	36
Pep Boys	36
Rivian	34

SOC Title

SOC and SOC Title ▾	Count of Id
49-2096 - Electronic Equipment Installers And Repairers, Motor Vehicles	660
11-1011 - Chief Executives	614
17-3024 - Robotics Technicians	612
49-3023 - Automotive Service Technicians And Mechanics	544
17-3023 - Electrical And Electronic Engineering Technologists And Technicians	488
11-1021 - General And Operations Managers	316
49-1011 - First-Line Supervisors Of Mechanics, Installers, And Repairers	294
17-3027 - Automotive Engineering Technicians	253
49-3031 - Bus And Truck Mechanics And Diesel Engine Specialists	235
15-1232 - Computer User Support Specialists	225
41-2022 - Parts Salespersons	169

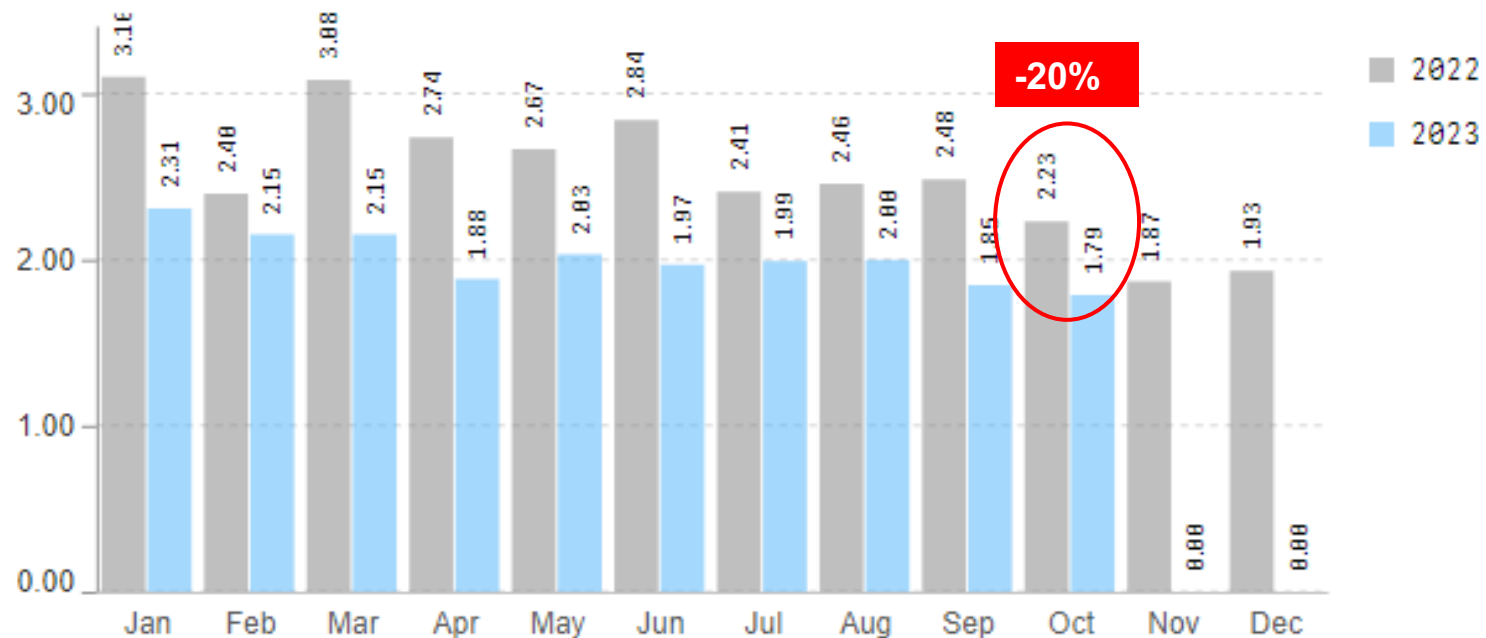


US Job Postings Trends

In October, job postings dropped 20% for associate and certificate graduates.

Jobs by Month

Job in millions (m) and thousands (k)

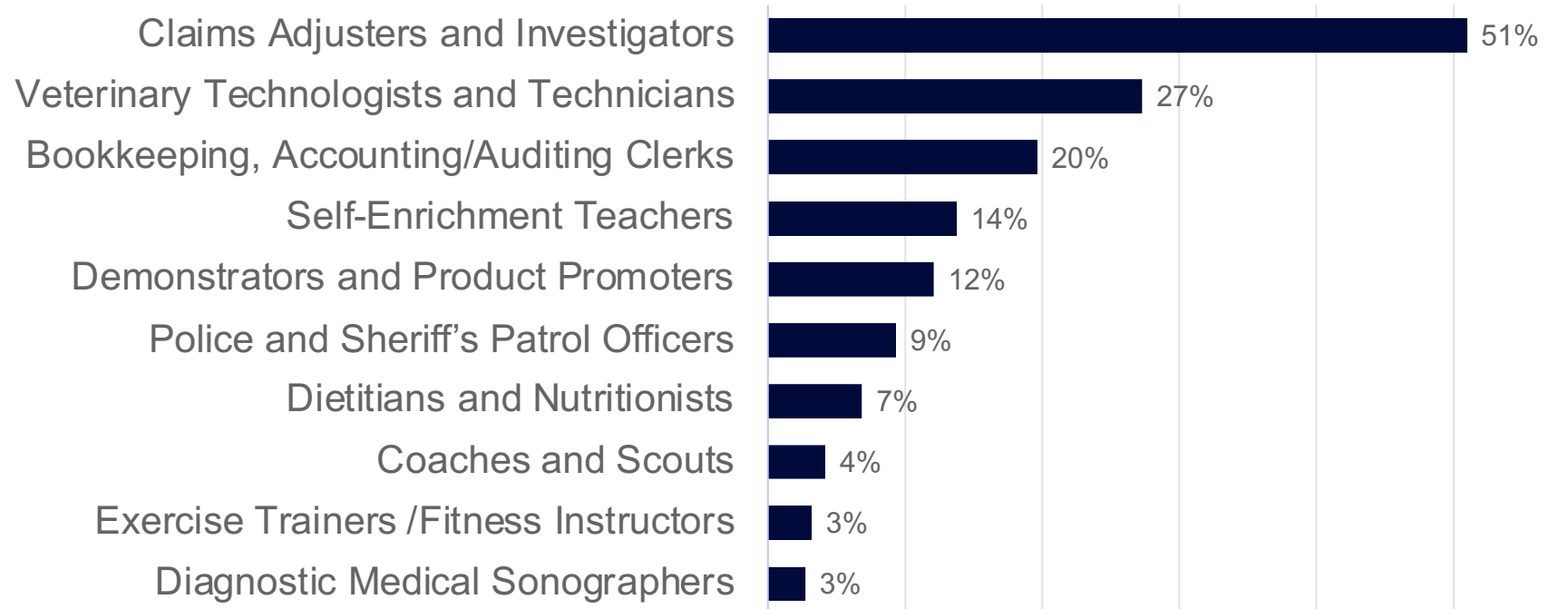


Source: PES Job Postings Dashboard



Which occupations have growing demand?

Fastest-Growing Occupations*
Associate and Certificate October 2023

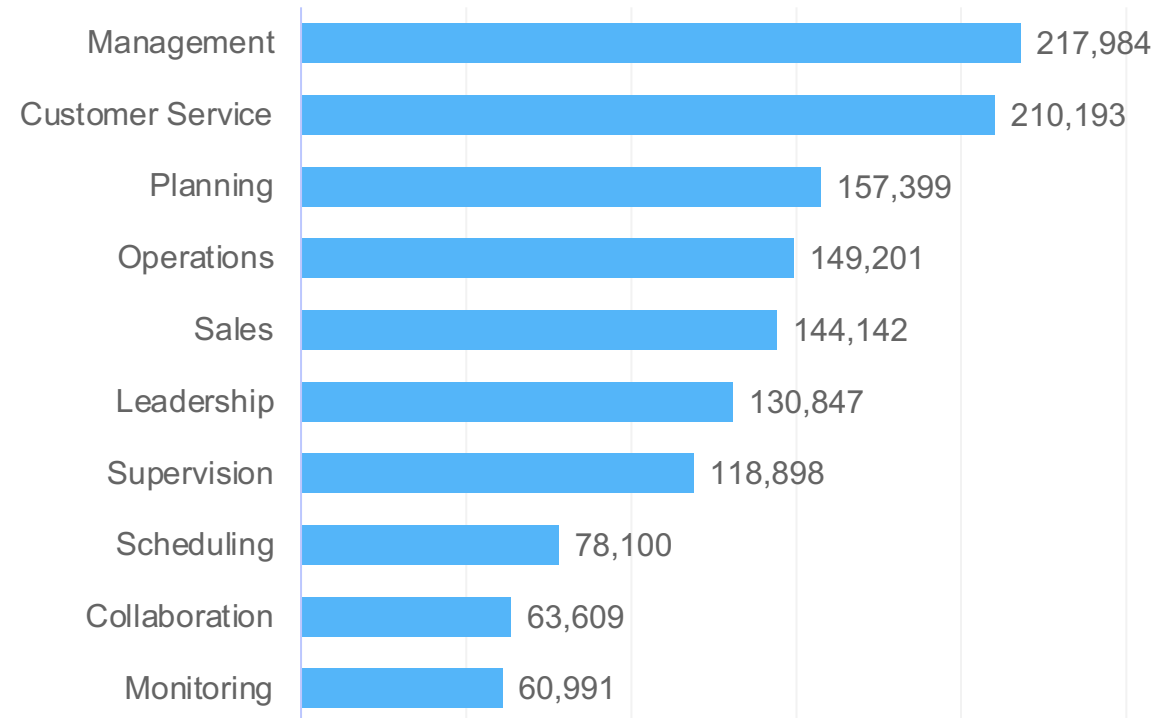


*Minimum 1,000 jobs October 2023



Skills: “Soft” skills are in high demand.

**Highest “Soft” Skills
Mentions in Job Postings**
October 2023





Agenda

What is a Program Evaluation System?

Student Demand

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

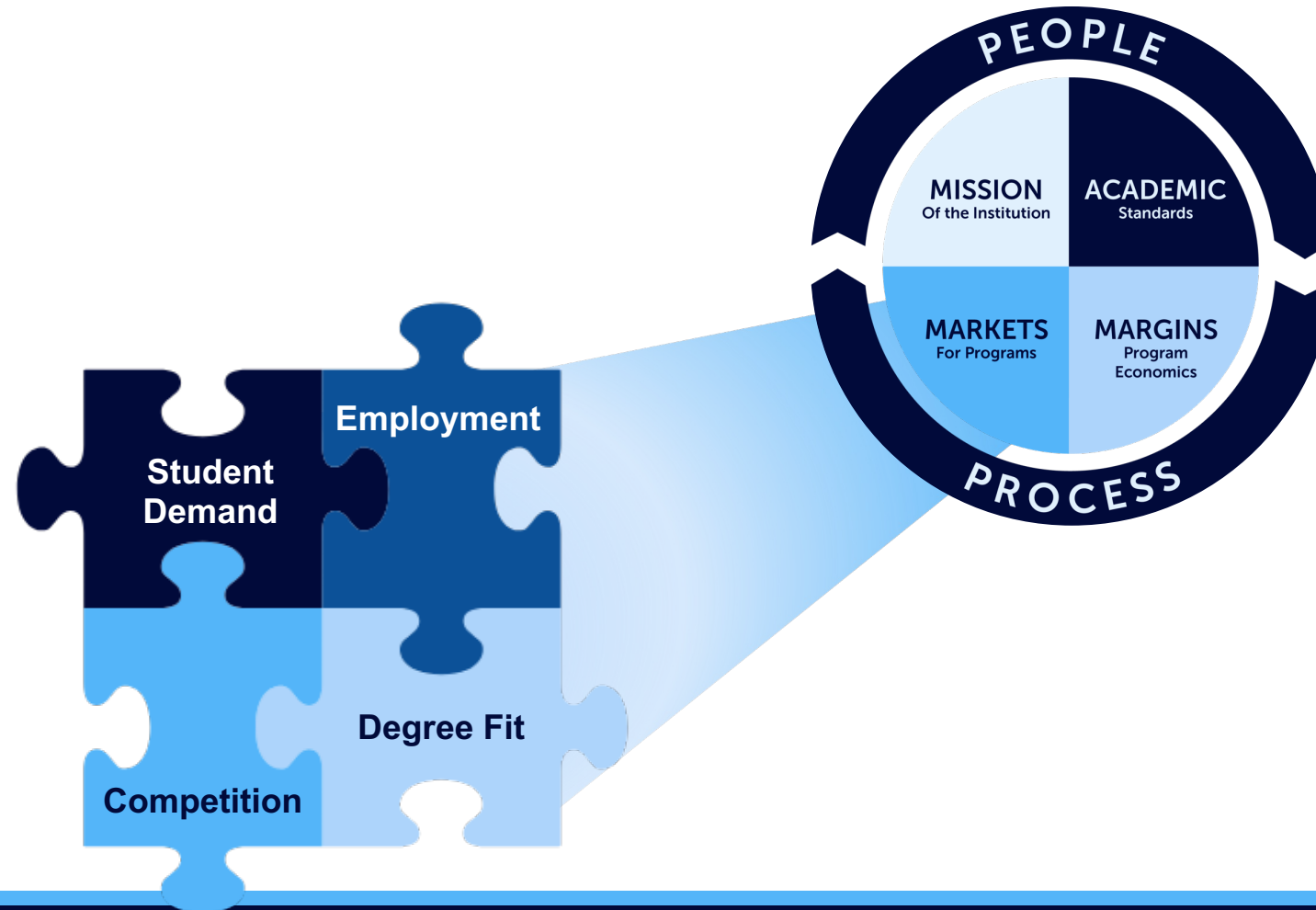
Employment: Current Indicators

Program of the Month

Summary



Market Demand





US Program Ranking (Associate and Below)







Program	Overall Score	Student Demand	Competitive Intensity	Jobs	Degree Fit
51.3801 Registered Nursing	100	100	95	99	100
52.0201 Business Admin. and Mgmt, General	99	100	5	98	100
49.0205 Commercial Truck and Bus Driver	99	99	98	6	100
51.3901 Licensed Practical/ Voc. Nurse	99	99	50	92	100
46.0302 Electrician	99	99	50	85	100
51.0904 EMT Paramedic	99	99	50	80	100
51.0801 Medical/Clinical Assistant	99	99	5	85	100
43.0100 Crim. Justice & Corrections, Gen'l	99	99	1	97	100
11.1003 Cyber Security/ Info. Assurance	99	99	0	98	100
30.0101 Biological and Physical Sciences	99	98	98	96	100
24.0103 Humanities/ Humanistic Studies	99	98	98	82	100
24.0101 Liberal Arts/Sciences/ Studies	99	98	97	88	100
11.0103 Information Technology	99	98	1	98	100
51.0911 Radiologic Tech/ Radiographer	99	97	5	98	100
51.0602 Dental Hygiene	99	96	55	99	100
11.1001 Network and System Admin	99	95	14	99	100
52.0205 Operations Mgmt/ Supervision	99	91	55	99	100
51.3902 Nursing Assistant/ Patient Care Aide	98	99	82	3	100

Total Percentile	0	20+	40+	70+	90+	95+	98+	100
Total Score	-62	-31	-19	-2	10	18	27	68

Student Demand: Size

Network and System Admin scores in the 95th percentile for Student Demand.

- Google search volume – a future indicator of demand – is in the 74th percentile.
- New enrollment is healthy: 93rd percentile
- Completions are strong: 95th percentile.
 - 25% of completions are online.

Student Demand				
Score: 14 Percentile: 95				
Category	Pctl	Criterion	Value	Score
     	74	Google Search Volume (3 Months)*	26,881	0
	0	International Page Views (12 Months)	0	NS
	93	New Student Enrollment Volume (12 Mo.)	2,729	4
	95	On-ground Completions at In-Market Institutions	3,853	3
	98	Online Completions by In-Market Students	1,307	4
	95	Sum of On-ground and Online Completions	5,160	3



Student Demand: Growth

Growth metrics are fair.

- Google searches, a future indicator, grew 9% year-over-year: 74th percentile.
- New student enrollment dropped 6% year-over-year: 48th percentile.
- Completions, a lagging indicator, grew 4%: 58th percentile.

Student Demand				
Score: 14 Percentile: 95				
Category	Pctl	Criterion	Value	Score
Size	74	Google Search Volume (3 Months)*	26,881	0
	0	International Page Views (12 Months)	0	NS
	93	New Student Enrollment Volume (12 Mo.)	2,729	4
	95	On-ground Completions at In-Market Institutions	3,853	3
	98	Online Completions by In-Market Students	1,307	4
	95	Sum of On-ground and Online Completions	5,160	3
Growth	88	Google Search YoY Change (Units)*	2,148	NS
	6	New Student Enrollment Vol. YoY Change (Units)	-168	NS
	94	Completion Volume YoY Change (Units)	207	NS
	74	Google Search YoY Change (%)*	9%	NS
	48	New Student Enrollment Vol. YoY Change (%)	-6%	NS
	58	Completion Volume YoY Change (%)	4%	NS





Employment

Network and System Admin scores in the 99th percentile.

- Entry-level job volume metrics are strong: 93rd and 94th percentiles.
- Underemployment rate is very low.
 - In this case, a lower rank is stronger.
- BLS historical growth:
 - 3-year: 53rd percentile
 - YoY: 71st percentile
- Job postings per graduate are above average.
- Wages are favorable for both early and mid-career.
- 17% of graduates are in direct prep jobs.

Employment Score: 17 Percentile: 99

Category	Pctl	Criterion	Value	Score
Size: Entry Jobs	94	Job Postings Total (12 Months)	10,318	NS
	93	BLS Current Employment	21,546	NS
	93	BLS Annual Job Openings	1,830	NS
Underemployment	5	Underemployed Percent of Graduates**	19%	0
Growth: Entry Jobs	71	BLS 1-Year Historical Growth	-2.6%	NS
	53	BLS 3-Year Historic Growth (CAGR)	0.0%	0
	52	BLS 10-Year Future Growth (CAGR)	0.8%	0
Saturation: Entry Jobs	77	Job Postings per Graduate	2.0	2
	73	BLS Job Openings per Graduate	0.4	NS
Weighted Avg BLS Wages	91	Entry 25th Percentile	\$53,265	6
	95	Post Entry Median	\$64,353	9
	96	Post Entry w/Associates Median	\$59,730	NS
	94	Post Entry w/Bachelors Median	\$75,836	NS
	73	Post Entry w/Masters Median	\$83,604	NS
		Post Entry w/Doctoral Median	NA	NS
National American Community Survey Bachelor's Degree Outcomes*	15	% with Any Graduate Degree*	20%	NS
	25	% with Masters*	18%	NS
	17	% with Doct/Prof Degree*	3%	NS
	65	% Unemp. (Age <30)**	3%	NS
	74	% in Direct Prep Jobs*	17%	NS



Competitive Intensity

Network and System Admin scores in the 14th percentile.

- 183 community college campuses have graduated students in this program.
 - 32 were online.
- Median program completions are modest and declining.
- Google cost-per-click is above average.
- 17% of US institutions offer this program online.

Competitive Intensity Score: -4 Percentile: 14

Category	Pctl	Criterion	Value	Score
Volume of In-Market Competition	94	Campuses with Graduates**	183	-4
	1	Campuses with Grads YoY Change (Units)**	-9	NS
	97	Institutions with Online In-Market Students**	32	NS
In-Market Program Sizes	84	Average Program Completions	21	0
	71	Median Program Completions	7	0
	53	YoY Median Prog. Compl. Change (Units)	-1	NS
	45	YoY Median Prog. Compl. Change (%)	-19%	NS
In-Market Saturation	75	Google Search * Cost per Click**	\$8	-1
	46	Google Competition Index**	0.19	1
National Online Competition	97	National Online Institutions (Units)**	51	NS
	83	Nat'l Online % of Institutions	17%	NS
	86	Nat'l Online % of Completions	25%	NS

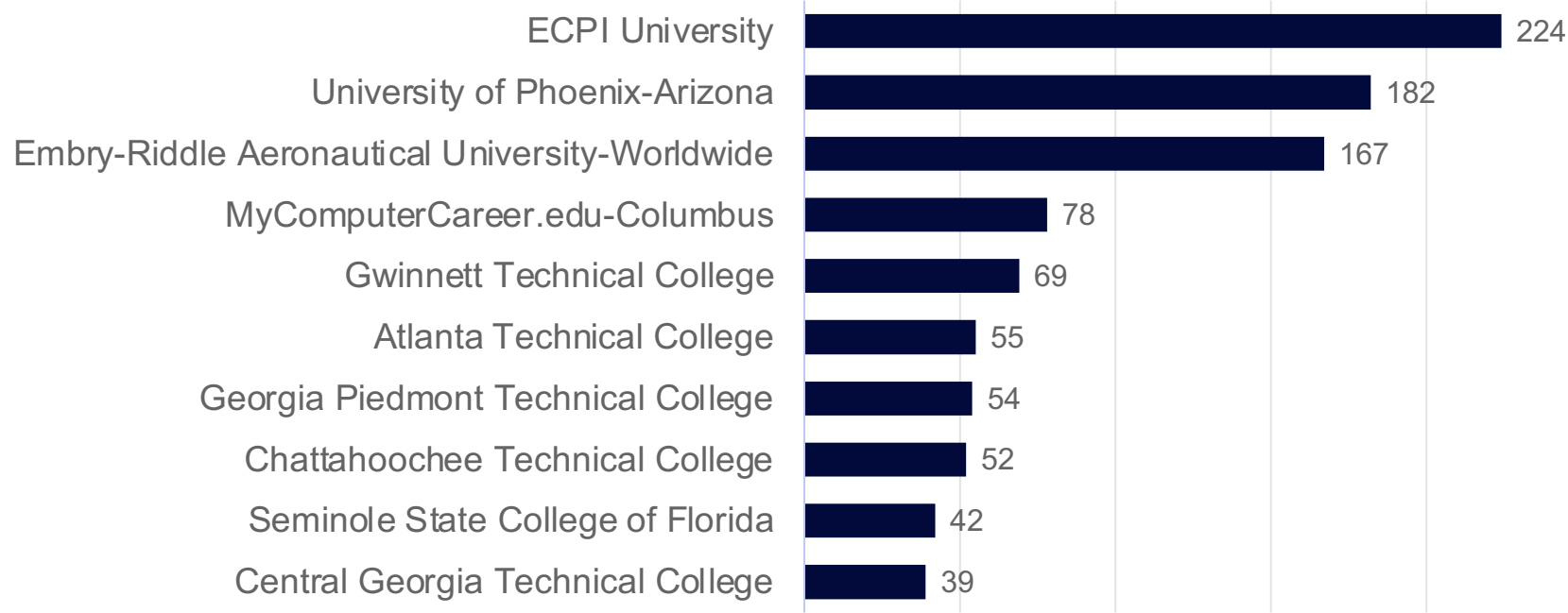


Who are the online competitors for Network System and Admin?

ECPI reported 224 completions in 2021.

Highest Online Completions

Network System and Admin 2021





Degree Fit

There is an imbalance between the degree level of completers and employees in this field

- 62% of completions are at the certificate level.
- 32% are at the associate level.
- However, 64% of the national workforce has a bachelor's degree or higher.
- Median program cost per student credit hour is in the 56th percentile.
 - It is 23 points over the average cost per student credit hour.

Degree Fit

Score: 0 Percentile: 100

Category	Pctl	Criterion	Value	Score
Cost Benchmarking**	57	Average Cost per SCH Index**	0.41	NS
	56	Median Cost per SCH Index**	0.73	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				7%
Some College				17%
Certificate	62%	62%	23%	
Associates	32%	32%	58%	12%
Bachelors	5%	5%	17%	43%
Postbaccalaureate Certificate	0%	0%	0%	
Masters	1%	1%	2%	19%
Post-masters Certificate	0%	0%	0%	
Doctoral	0%	0%	0%	2%



Demographics

Network System and Admin is 82% male.

- 45% of all students are White.
- 27% are Black/African American.
- 15% are Hispanic or Latino.

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

Category	Pctl	Criterion	This Program In-Market	All Programs In-Market
IPEDS Gender	20	Female	19%	61%
	79	Male	82%	39%
IPEDS Ethnicity	71	American Indian or Alaska Native	1%	0%
	71	Asian	5%	5%
	91	Black or African American	27%	12%
	50	Hispanic or Latino	15%	25%
	81	Native Hawaiian or Other Pacific Islander	0%	0%
	33	White	45%	47%
	72	International	2%	2%
	48	Other/Unknown	6%	7%



Student Demand

Score: 14 Percentile: 95

Category	Pctl	Criterion	Value	Score
Size	74	Google Search Volume (3 Months)*	26,881	0
	0	International Page Views (12 Months)	0	NS
	93	New Student Enrollment Volume (12 Mo.)	2,729	4
	95	On-ground Completions at In-Market Institutions	3,853	3
	98	Online Completions by In-Market Students	1,307	4
	95	Sum of On-ground and Online Completions	5,160	3
Growth	88	Google Search YoY Change (Units)*	2,148	NS
	6	New Student Enrollment Vol. YoY Change (Units)	-168	NS
	94	Completion Volume YoY Change (Units)	207	NS
	74	Google Search YoY Change (%)*	9%	NS
	48	New Student Enrollment Vol. YoY Change (%)	-6%	NS
	58	Completion Volume YoY Change (%)	4%	NS

Competitive Intensity

Score: -4 Percentile: 14

Category	Pctl	Criterion	Value	Score
Volume of In-Market Competition	94	Campuses with Graduates**	183	-4
	1	Campuses with Grads YoY Change (Units)**	-9	NS
	97	Institutions with Online In-Market Students**	32	NS
In-Market Program Sizes	84	Average Program Completions	21	0
	71	Median Program Completions	7	0
	53	YoY Median Prog. Compl. Change (Units)	-1	NS
In-Market Saturation	45	YoY Median Prog. Compl. Change (%)	-19%	NS
	75	Google Search * Cost per Click**	\$8	-1
	46	Google Competition Index**	0.19	1
National Online Competition	97	National Online Institutions (Units)**	51	NS
	83	Nat'l Online % of Institutions	17%	NS
	86	Nat'l Online % of Completions	25%	NS

* - Google search, employment data and Jobs Per Grad Ratio do not filter by award level.
** - Color scale in reverse.
NA - No data available/not currently tracked.
NS - Not Scored in Rubrics (values = 0).
2-Yr - Associates & certificate programs only.
PCTL - Percentile

Employment

Score: 17 Percentile: 99

Category	Pctl	Criterion	Value	Score
Size: Entry Jobs	94	Job Postings Total (12 Months)	10,318	NS
	93	BLS Current Employment	21,546	NS
	93	BLS Annual Job Openings	1,830	NS
Underemployed	5	Underemployed Percent of Graduates**	19%	0
Growth: Entry Jobs	71	BLS 1-Year Historical Growth	-2.6%	NS
	53	BLS 3-Year Historic Growth (CAGR)	0.0%	0
	52	BLS 10-Year Future Growth (CAGR)	0.8%	0
Saturation: Entry Jobs	77	Job Postings per Graduate	2.0	2
	73	BLS Job Openings per Graduate	0.4	NS
Weighted Avg BLS Wages	91	Entry 25th Percentile	\$53,265	6
	95	Post Entry Median	\$64,353	9
	96	Post Entry w/Associates Median	\$59,730	NS
	94	Post Entry w/Bachelors Median	\$75,836	NS
	73	Post Entry w/Masters Median	\$83,604	NS
		Post Entry w/Doctoral Median	NA	NS
National American Community Survey Bachelor's Degree Outcomes*	15	% with Any Graduate Degree*	20%	NS
	25	% with Masters*	18%	NS
	17	% with Doct/Prof Degree*	3%	NS
	65	% Unemp. (Age <30)**	3%	NS
	74	% in Direct Prep Jobs*	17%	NS

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

Category	Pctl	Criterion	This Program In-Market	All Programs In-Market
IPEDS Gender	20	Female	19%	61%
	79	Male	82%	39%
IPEDS Ethnicity	71	American Indian or Alaska Native	1%	0%
	71	Asian	5%	5%
	91	Black or African American	27%	12%
	50	Hispanic or Latino	15%	25%
	81	Native Hawaiian or Other Pacific Islander	0%	0%
	33	White	45%	47%
	72	International	2%	2%
	48	Other/Unknown	6%	7%

Degree Fit

Score: 0 Percentile: 100

Category	Pctl	Criterion	Value	Score
Cost Benchmarking**	57	Average Cost per SCH Index**	0.41	NS
	56	Median Cost per SCH Index**	0.73	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				7%
Some College				17%
Certificate	62%	62%	23%	
Associates	32%	32%	58%	12%
Bachelors	5%	5%	17%	43%
Postbaccalaureate Certificate	0%	0%	0%	
Masters	1%	1%	2%	19%
Post-masters Certificate	0%	0%	0%	
Doctoral	0%	0%	0%	2%

CIP Description:
A program that prepares individuals to manage the computer operations and control the system configurations emanating from a specific site or network hub. Includes instruction in computer hardware and software and applications; local area (LAN) and wide area (WAN) networking; principles of information systems security; disk space and traffic load monitoring; data backup; resource allocation; and setup and takedown procedures.

Total Percentile	0	20+	40+	70+	90+	95+	98+	100
Total Score	-62	-39	-20	-2	9	14	21	45

** Color Scale in Reverse

Percentile (Reverse)	<02	02+	05+	10+	30+	60+
----------------------	-----	-----	-----	-----	-----	-----



Agenda

What is a Program Evaluation System?

Student Demand

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

Employment: Current Indicators

Program of the Month

Summary



Summary

- In October, Google searches for direct-to-workforce programs rose 21% year-over-year.
 - MRI Tech grew by 59%.
 - Medical Billing and Coding continues to have the highest cost-per-click.
- Certificate enrollment is up 2% year-over-year.
 - Associate enrollment is down 3%.
- Radiologic Tech programs had the fastest enrollment growth in 2022-23.
 - Associate in Cybersecurity grew by 22%.
- Most traditional labor market sources rely on direct prep crosswalks.
 - Associate in Art/Art Studies grads go into 729 occupations – not five.
 - Auto Tech graduates go into 661 occupations – not three – and are working in robotics.
- There is a strong demand for Network Systems and Admin programs.
 - Student demand is strong.
 - Employment opportunities are plentiful for graduates, with good wages.
 - However, 64% of the workforce hold a bachelor's degree or higher, while most programs are Associate degree or lower



Upcoming webinars

Topic	Date
Demand Trends Webcast: Community Colleges	Wednesday Dec. 20th at 2 PM ET
Demand Trends Webcast: Bachelor's and Above	Thursday Dec. 21st at 2 PM ET





Grow Grow Grow: Growth Strategies in Higher Education



Listen on Spotify



Listen on Apple

