

2023

MARKET INSIGHTS BY WILEY

# STATE OF THE EDUCATION MARKET

Trends and Insights in Key Graduate Disciplines



WILEY University Services





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Trends and Insights in Key Graduate  
Disciplines

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# INTRODUCTION

In recent years, we've experienced major shifts in all aspects of life, and US higher education has been no exception. Educators and administrators have weathered complex and tumultuous conditions throughout the COVID-19 pandemic, from a sudden rush to adopt online learning, to a nationwide economic shutdown, to enrollment declines due to historically low unemployment.

With these broader factors at play, we're here to help. In 2021, we examined US graduate-level completion trends from the 2018-19 school year in two separate reports.<sup>1,2</sup> But this year, we're bringing them together. Our ***State of the Education Market 2023: Trends and Insights in Key Graduate Disciplines*** report explores graduation trends from the **2020-21** academic year at both the **master's and doctoral levels**.

This report will inform you about the significant disciplines in the US graduate degree market today, including which programs have recently grown or declined.

We hope these insights will help your higher ed institution make better-informed decisions regarding your degree portfolios and position you well for the years ahead.

# Research methodology



Data in this report is based on schools reporting graduates (i.e., completions) and was collected from IPEDS/NCES through the end of the 2020-21 academic year.

## Completions, not enrollments

While enrollments provide the most recent trend data, it's not precise. How so? Enrollment data is only available at a vertical level (e.g., health, psychology, business). Meanwhile, completions data is available at a program level (e.g., Registered Nursing, general Psychology, Business Administration). So, while completions are a window to past data, they enable analysis down to the individual degree level. The result? Deeper, more exacting insights and better future projections.

**An important note:** The students who completed their degrees in 2021 likely started their programs pre-pandemic. Meanwhile, pandemic-era enrollments have been down, which will have a domino effect on completions over the next few years.

## CIP taxonomy

Schools report their programs and completions into IPEDS using the Classification of Instructional Programs (CIP) taxonomy. Because colleges and universities self-assign CIP codes to their academic programs, data isn't always consistent from institution to institution. However, there's enough alignment to analyze data and market trends properly.

CIP code taxonomy is updated every 10 years to account for trends in the education market, with the most recent update effective as of the

2019-20 academic year. What kinds of changes were made?

For example, the 2020 CIP taxonomy follows the rise in data-related degrees, with brand-new CIP codes for programs like **Data Analytics** and **Business Analytics**. Higher ed institutions will need to decide whether to report their existing programs into these new CIPs, so it may take a few years to pinpoint any other trends.

## Updates to this year's methodology

We've refined our analysis since our last *State of the Education Market* reports to provide the most accurate picture of the market today. Methodology changes we've made this year include:

### DOUBLE MAJORS

If a student graduated with a double major, we now count *both* completed degrees reported into IPEDS in our data. While double majors amount to about 0.33% of yearly graduates at the master's level, this update helps provide a more precise market analysis.

### CAMPUS CONSOLIDATION RECTIFICATION

Some universities that used to report each of their campuses to IPEDS individually have since consolidated reporting as though they were one large institution. For example, one Top 200 university previously reported 23 campuses as individual schools in IPEDS. In 2021, however, they consolidated all campuses into one institution in IPEDS. As such, we've rectified the historical data so it doesn't appear that 22 institutions suddenly left the market in 2021.



# Data definitions

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## School years

Defined by the end of an academic school year. For example, 2021, the most recent academic school year in IPEDS, refers to the 2020-21 academic year.

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## Graduates

Different from *graduate-level* students, this is the total number of students awarded a degree in a given academic year.

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## Growth

Unless otherwise specified, growth is displayed in 'yearly' or 'total' terms. 'Yearly' refers to the average year-over-year (Y/Y) growth in graduates from 2016-2021, while 'total' means the complete growth from 2016-2021.

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## Median program size

As the middle value of graduates per program, this number defines standard program size. Unlike average program size, median program size is less likely to be skewed by large programs in the market.

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## Percent online

The percentage of programs per CIP code reported as available in an online or distance format. This may mean the program is available in a hybrid or online-only format.

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## Vertical

Vertical refers to the college of studies under which individual programs sit. For example, the five largest master's-level verticals are business, education, health, engineering, and computer science.

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# 4 KEY GRADUATE MARKET TRENDS

## #1

### Economy-driven enrollments

Enrollment has recently declined at all levels, with the steepest declines in the undergraduate sector. Here, enrollments have fallen year-over-year for the past two years, -4.9% in spring 2021 and another -4.7% in spring 2022.<sup>3</sup> However, graduate-level enrollments have been more resilient throughout the pandemic. They decreased by only -0.1% in spring 2020, *grew* by 4.6% in spring 2021, and declined again by a modest -0.8% in spring 2022.

The reason for the 2020-21 enrollment spike? Most likely high unemployment since a low economy typically drives higher enrollment rates. As a result of pandemic-driven layoffs, suddenly jobless, mid-career professionals likely returned to higher education to better their future job prospects.

## #2

### International student declines

International graduates declined across all degree levels in 2021. International master's-level grads had the most significant overall Y/Y decline (-7,870 students or -5.7%), while doctoral-level international students declined more slowly (-455 students or -1.9%) between the 2020 and 2021 school years.

In addition, the pre-vaccine, fall 2020 enrollment drop may foreshadow future declines. Overall international student enrollment went down -13% Y/Y (-126,786 total), with enrollments among master's and doctoral students declining by -11% (-46,734) relative to fall 2019.

Fortunately, there may be cause for cautious optimism. A recent study found that 65% of surveyed institutions had an increase in international student applications for the 2022-23 academic year, up from 43% of institutions the prior year.<sup>4</sup>

# #3

## COVID-inspired growth

The pandemic seems to have initiated two noteworthy trends in online learning:

1. Universities took their ground programs online almost overnight. While some shifted back to in-person instruction as soon as restrictions were lifted, others chose to remain online. As a result, every master's-level degree vertical with at least 100 schools reporting grads offered a higher percentage of programs online in 2021 than before the pandemic in 2019. For instance, master's programs in the Master's Colleges & Universities Carnegie Classification increased from 29% online in 2019 to 35% in 2021, a net increase of 911 online programs.<sup>5</sup>
2. Public health and nursing occupations are indicating signs of pandemic-inspired growth. For example, the Bureau of Labor Statistics (BLS) now projects that the community health worker occupation will grow 16% through 2031. Also, registered nurses are expected to grow by 6%, adding 195K jobs through 2031.<sup>6</sup>

# #4

## STEM reclassification

As noted in our 2021 edition, colleges and universities are continuing to reclassify their degree programs into STEM-designated CIP codes.<sup>7</sup> Why? Partially to attract international students. The Department of Homeland Security makes international graduates of STEM-designated CIP codes eligible for a 24-month extension of their F-1 visas for Optional Practical Training.<sup>8</sup> Better yet? These 24 months stack. For instance, an international student who earns both a STEM-designated bachelor's and master's is eligible to stay in the US for 48 months after graduation.<sup>9</sup>

Need some examples? Some non-STEM to STEM program transitions include **Finance** to **Financial Mathematics**, **Economics** to **Econometrics**, and **Architecture** to **Architectural Sciences**.





# THE MASTER'S DEGREE MARKET

## Overall master's trends

### Still business as usual, reordering soon

The top master's-level disciplines are the same as in our last report on the 2019 master's market data. In order, business, education, health, engineering, and computer science are still the top five verticals.

Although the lineup is currently unchanged, computer science is poised to make some moves. With its 6% average yearly graduate growth since 2016, it will likely surpass engineering over the next year, becoming the fourth-largest master's discipline.

### Education's turnaround

After six straight years of Y/Y graduate declines, education has grown each of the last four years. The key players? **Educational Leadership**, the largest education master's degree (2% yearly), **Special Education** (5% yearly), and **Elementary Education** (4% yearly).

### International opt-outs

As noted previously, the drop in international graduates is one of the four broad trends within the graduate-level education market. Master's-level vertical declines were primarily in law (-65%), business (-8%), and engineering (-4%).



# #1 Business

## 2021 MASTER'S METRICS

**211,358**

Total grads

**23%**

Share of master's degree market

**1,269**

Institutions reporting grads

**51%**

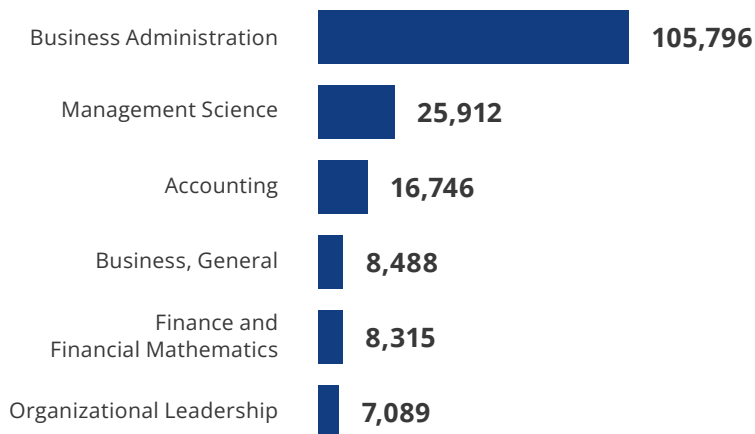
Programs online

**2%**

Avg. growth since 2016

## Largest business programs

*By graduates in 2021*



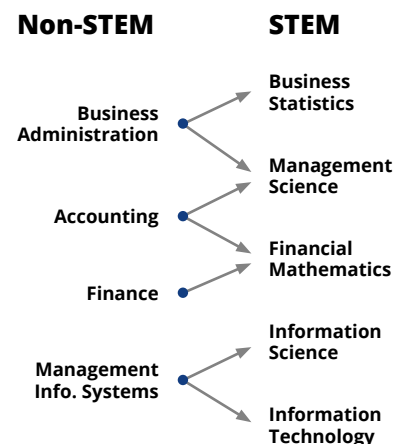
### Still number one

Business has been the largest master's vertical since 2011. While disciplines like health and computer science have recently experienced robust growth, the scale of business remains unmatched.

Not only is this the largest field, but it's also incredibly concentrated. Eighty-one percent of master's-level business students graduated from the six largest programs in 2021.

## STEM's artificial growth

As a general rule, if a program's growth looks too good (or bad) to be true, it probably is. Growth in the business vertical is slow, steady, and organic, but there are some dramatic artificial programmatic growths and declines due to STEM reclassifications. Here are a few examples of business programs that have been reclassified into STEM degrees:



## MBA mammoth

**Business Administration** is *the* business program to offer at the master's level. How so? First, it graduated four times more students than the second-largest business program, **Management Science**. Second, more than twice as many schools (990) reported graduates than the next most-common program, **Accounting** (472).

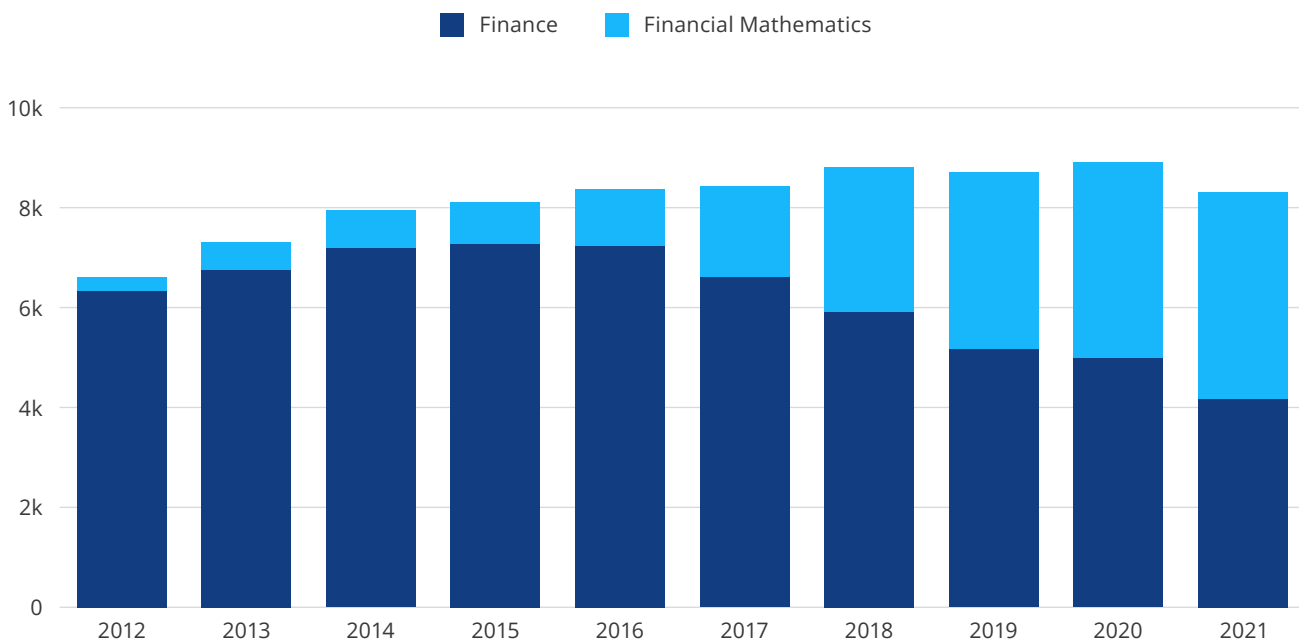
## STEM-BA illusion

Data about **Master of Business Administration (MBA)** programs has become fuzzy. Some institutions are now advertising a "STEM MBA" but reporting their programs into the STEM-designated CIP code for **Management Science** and, to a lesser extent, **Business Statistics**. This means Business Administration is an even larger market than the data suggests, and Management Science, historically used for data-related programs like **Business Analytics**, is smaller than it looks.

In line with the [4 Key Graduate Market Trends](#) cited at the top of this report, such reclassifications are also driving the story between two financial programs. In this case, schools are aggressively re-categorizing their **Finance** programs into STEM-designated **Financial Mathematics**. As a result, about half of all finance students graduated from Financial Mathematics programs in 2021.

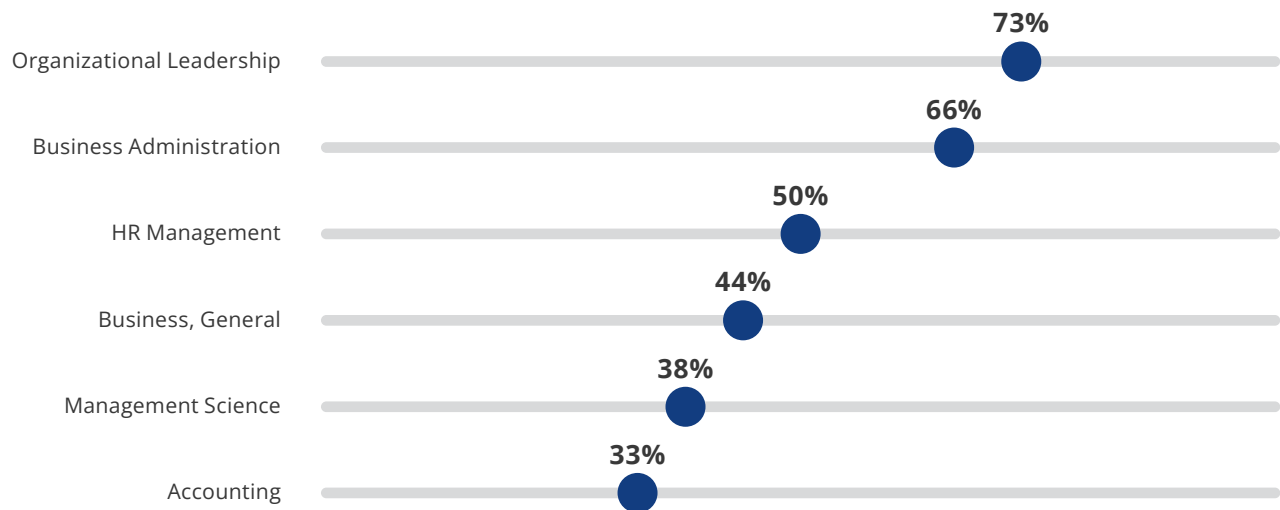
### Finance and Financial Mathematics graduates

*Master's level, 2012-2021*



## Most online business programs

By percent online, min. 50 schools reporting grads in 2021



### The professionals' choice

Master's-level business degrees have some of the highest online adoption rates. Why? Programs like **Organizational Leadership**, **Business Administration**, and **HR Management** are highly appealing to mid-career working professionals who require the flexibility of online learning.

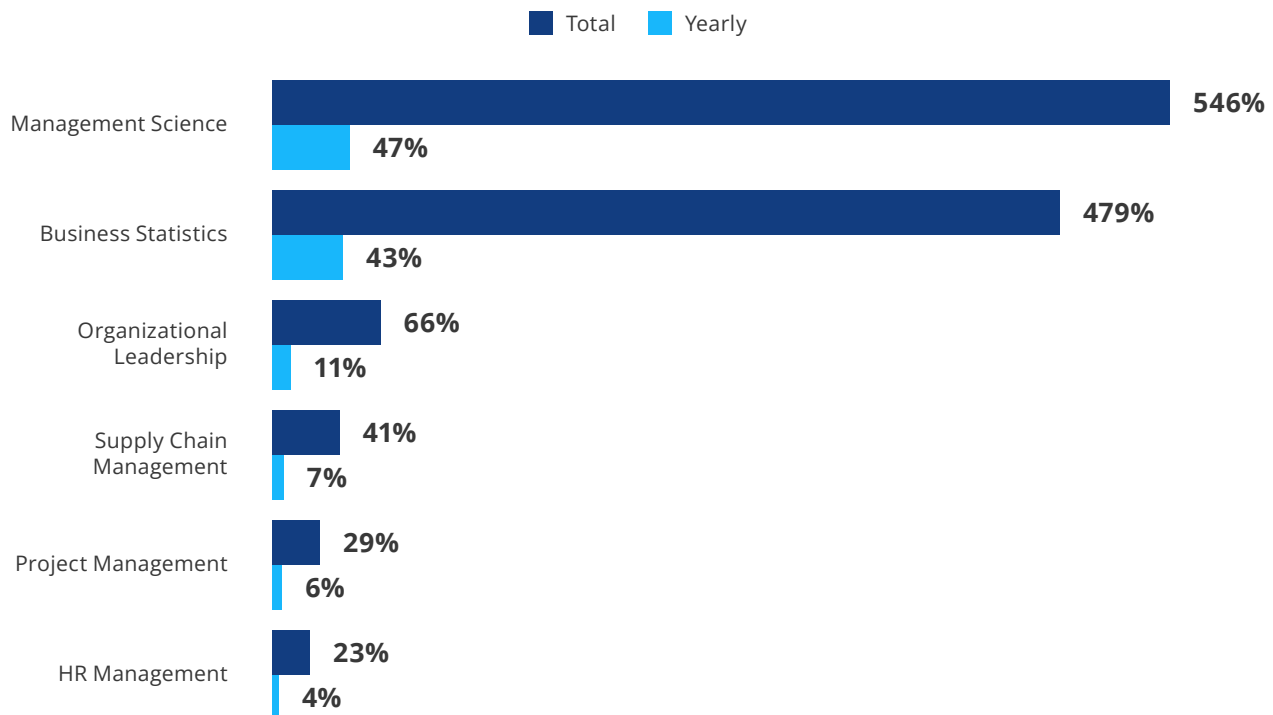
### Labor forecast: human resource managers

Human resource management employment is forecast to grow 8% through 2031, an addition of 59,000 jobs.<sup>10</sup>



## Fastest-growing business programs

Growth since 2016, programs with min. 50 schools reporting min. 1,000 grads per program in 2021



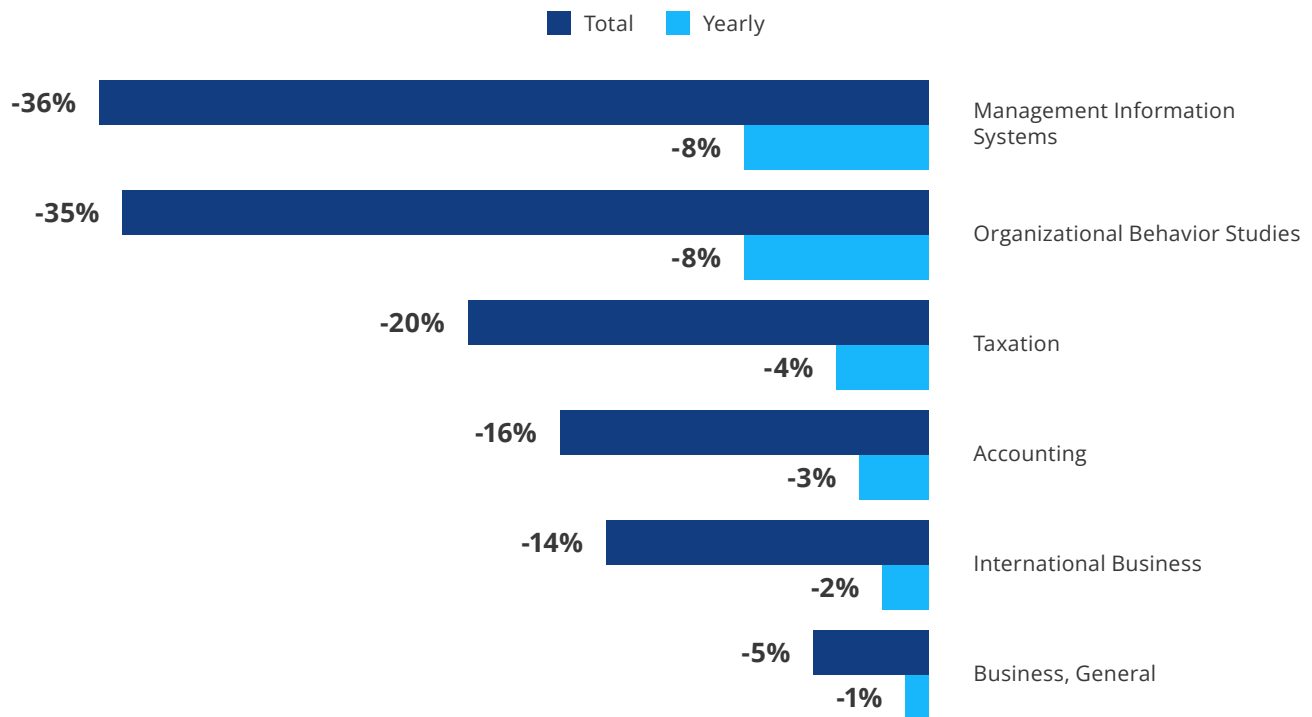
### Data in context:

#### organic vs. inorganic growth

Remember: If a program's growth looks too good to be true, it probably is. For example, the surge in **Management Science** and **Business Statistics** is an inorganic result of institutions reclassifying programs. On the other hand, **Organizational Leadership**, **Supply Chain Management**, **Project Management**, and **HR Management** are all showing steady organic growth in the market.

## Fastest-declining business programs

Growth since 2016, programs with min. 1,000 grads in 2021



### Assorted declines

The reasons behind the fastest-declining business programs run the gamut. First are the inorganic declines part of the STEM reclassification trend (**Management Information Systems** and **Accounting**). Second are the organic declines in **Organizational Behavior Studies**, **Taxation**, and general **Business**. Specifically, **Organizational Leadership** appears to be the preferred degree over Organizational Behavior Studies.

The remaining declining program is a real outlier. The drop in **International Business** grads is due to a single school losing 544 grads between 2020 and 2021.



## #2 Education

### 2021 MASTER'S METRICS

**158,506**

Total grads

**18%**

Share of master's degree market

**1,180**

Institutions reporting grads

**40%**

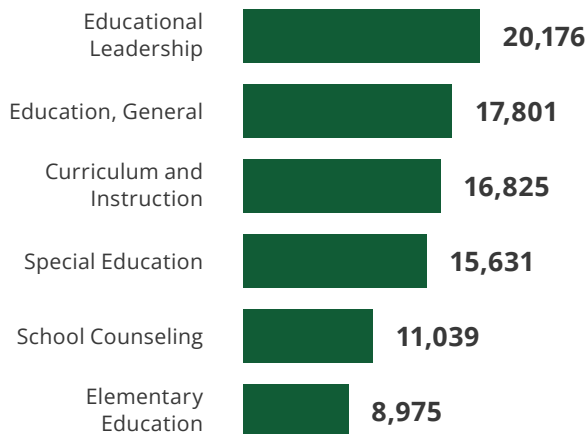
Programs online

**1%**

Avg. growth since 2016

### Largest education programs

*By graduates in 2021*

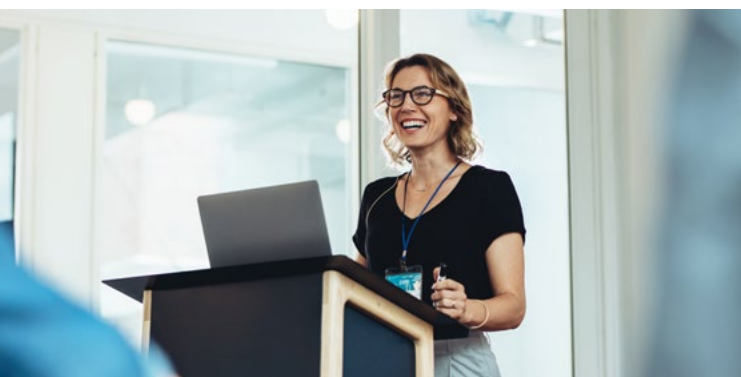
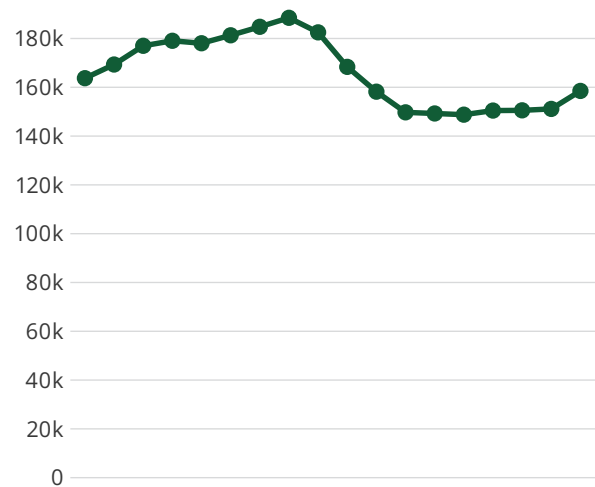


### Growth TBD

Education is currently on the rebound. Grads peaked in 2011, then fell consistently through 2015. It was stable for a few years, then suddenly grew by 5% from 2020 to 2021. As such, it remains to be determined whether this vertical's growth will endure or prove to be an anomaly.

### Education vertical graduates

*Master's level, 2004-2021*





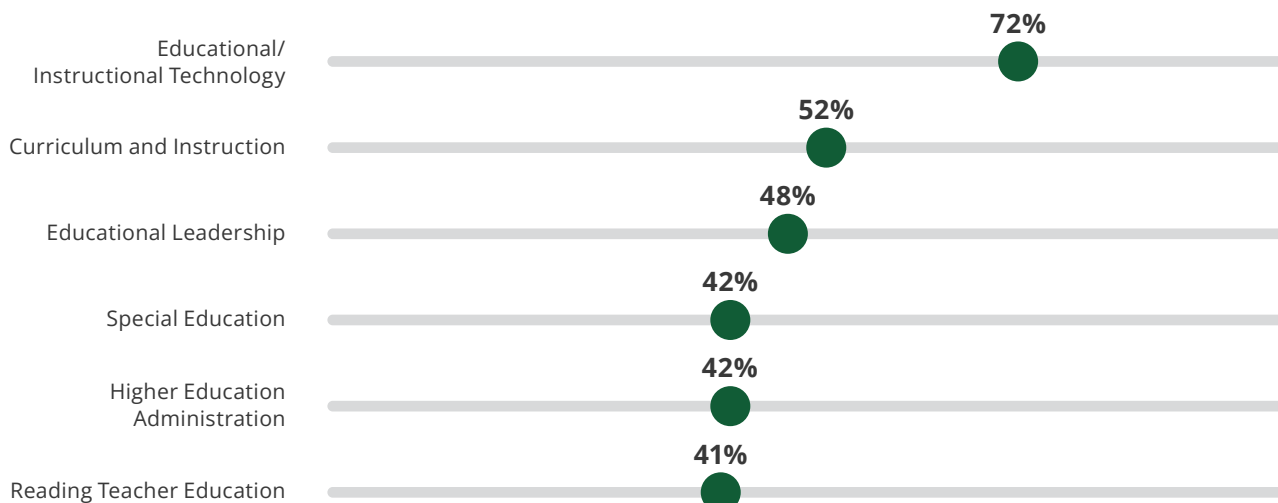
### Education ensemble

This second-largest master's vertical is *much* less concentrated than the largest discipline, business. While the biggest business degree (Business Administration) accounted for about half of all business grads in 2021, the largest education master's, **Educational Leadership**, amounted to about one-eighth (12.7%) of all education master's completions.

The takeaway? There is no one-size-fits-all degree in education. With the business vertical and Business Administration programs as outliers, universities need broader portfolios of education degrees to meet market demand.

## Most online education programs

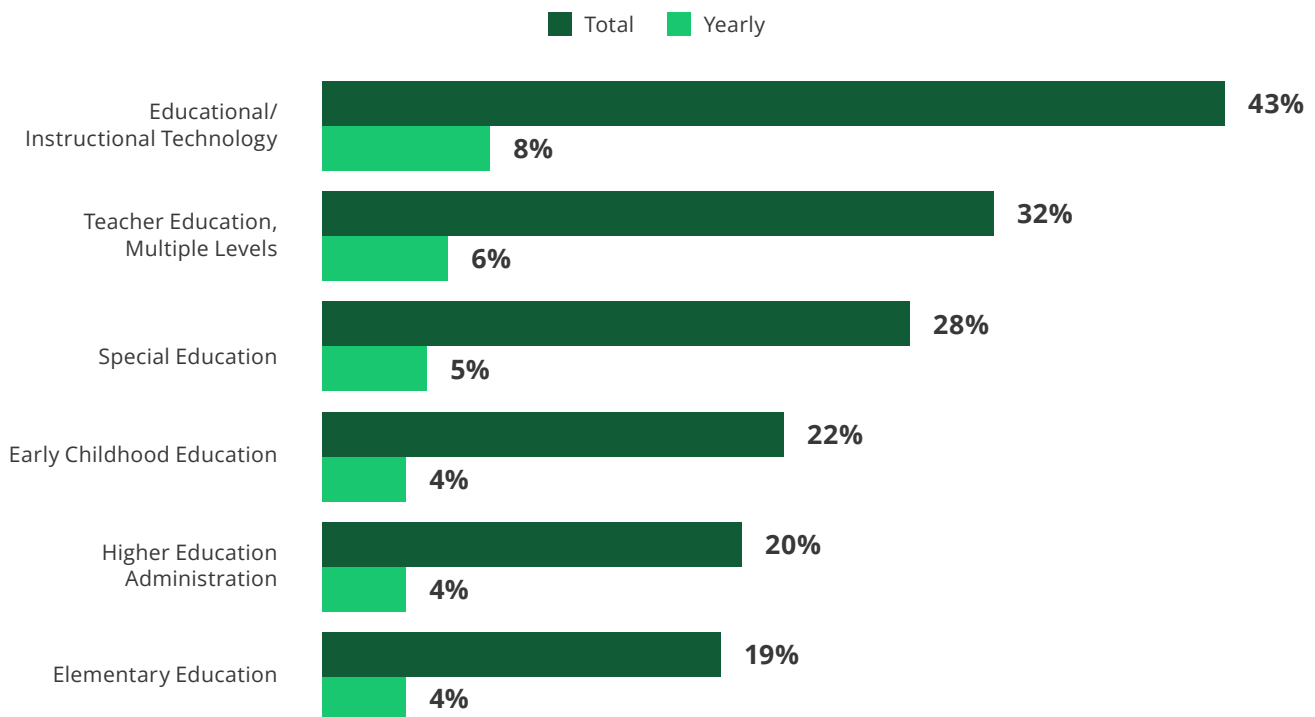
By percent online, min. 50 schools reporting grads in 2021





## Fastest-growing education programs

Growth since 2016, programs with min. 50 schools reporting min. 1,000 grads in 2021



### A leaderless pack

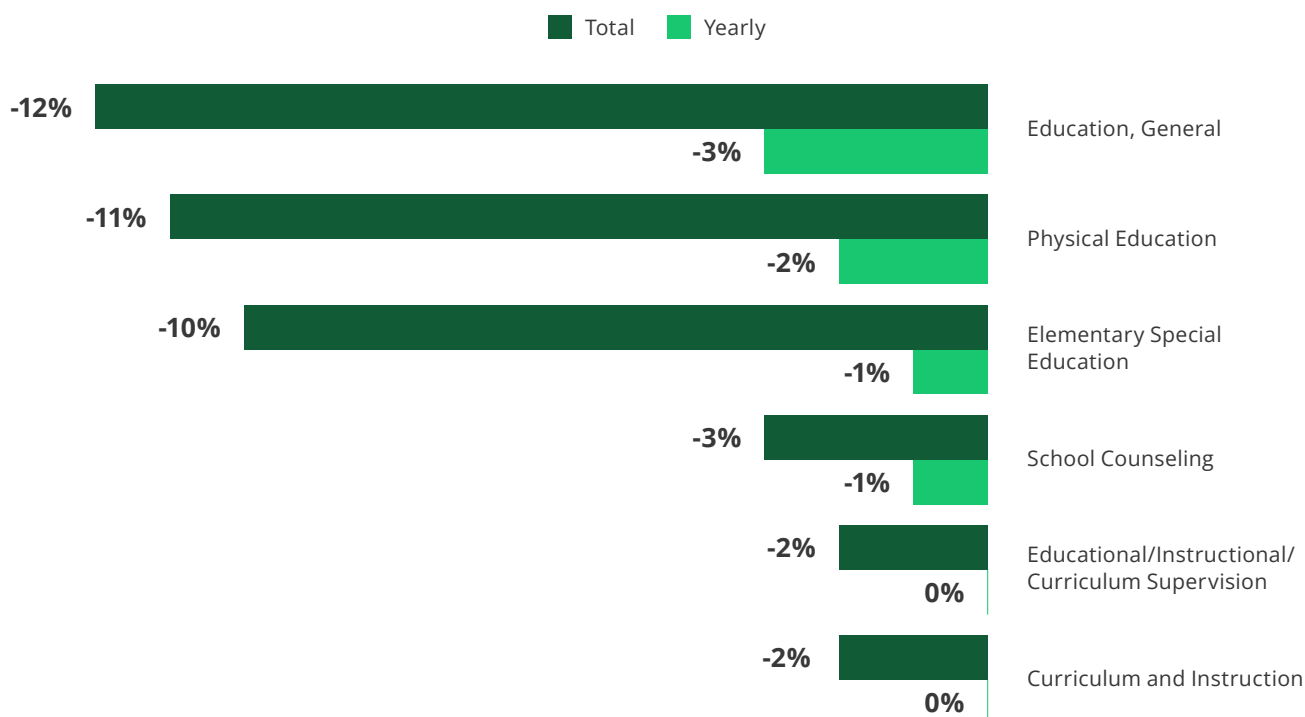
No single education degree stands out as the vertical's rising star. These programs' relatively modest growth again indicates that universities need to offer a broader portfolio of education degrees in the current market.

**Special Education** is the third-fastest growing education master's degree. However, **Applied Behavior Analysis** (see [Additional master's programs](#)) is also growing quickly and often deals with education.



## Fastest-declining education programs

Growth since 2016, programs with min. 1,000 grads in 2021



### Imbalanced specializations

The fastest-declining education programs are a mixed bag when it comes to the level of specialization. On one end of the spectrum is the declining, more specialized **Elementary Special Education**, a much smaller market than the broader and quickly growing Special Education degree.

On the other end of the spectrum is the quickest-declining general **Education** degree. In this case, declines may signal that students desire deeper specialization at the master's level.



## #3 Health

### 2021 MASTER'S METRICS

**144,198**

Total grads

**16%**

Share of master's degree market

**1,185**

Institutions reporting grads

**32%**

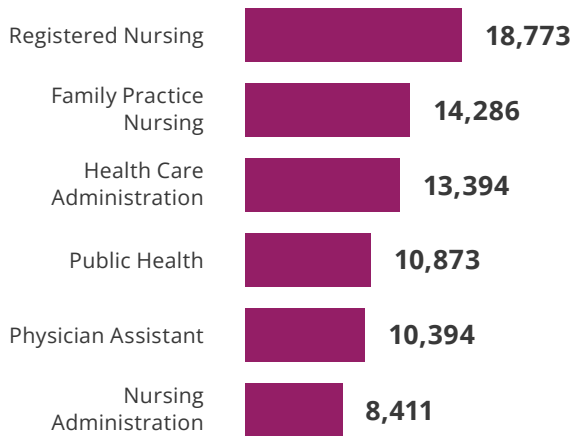
Programs online

**5%**

Avg. growth since 2016

### Largest health programs

*By graduates in 2021*

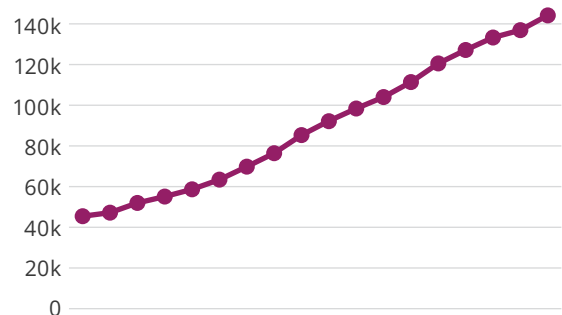


### Soon to be second

Like education, the health vertical has a wide spread of degrees. Twelve master's-level health programs have more than 100 schools reporting grads compared to only six programs within business. And while business is still the largest market at the master's level, health is the vertical for growth. Grads have more than tripled since 2004 and more than doubled since 2010. Moreover, it's right on the heels of education, so it's poised to become the second-largest master's vertical within the next few years.

### Health vertical graduates

*Master's level, 2004-2021*





### Look before leaping

Health's growth is exciting, but these degrees are more complicated to launch and operate than programs in other fields. First, the practical nature of many health programs means this vertical is comparatively less available online. Second, there are licensure and accreditation requirements institutions must satisfy. In fact, this vertical is growing so fast that universities may run into staffing issues, such as complying with accrediting bodies' student-to-teacher ratios.

The takeaway? Health degrees require increased consideration and effort to launch, so thoughtfully building the right portfolio is critical.

### Nurses first

Nursing degrees are the main drivers of the master's-level health market, with **Registered Nursing (MSN)**, **Family Practice Nursing (MSN-FNP)**, and **Nursing Administration** leading the pack. **Nursing Education** doesn't make the list of top health programs, but it graduated more than 3,500 students in 2021.

### Bridge of the behemoths

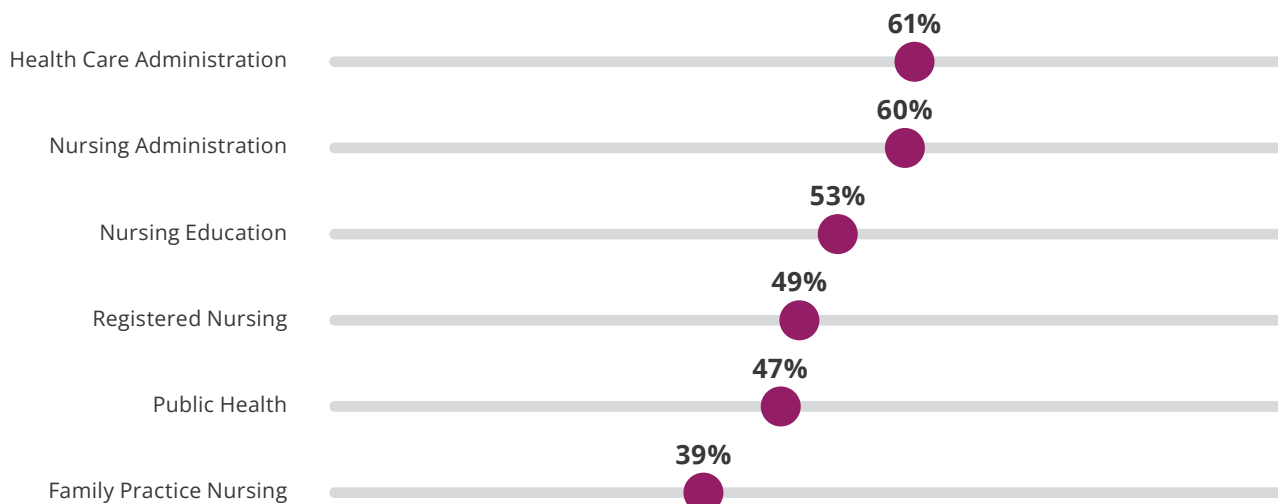
**Health Care Administration** is an intriguing, multi-purpose degree. This field of study bridges the gap between health and business, creating opportunities to cross-list existing courses in an institution's health and business suites.





## Most online health programs

By percent online, min. 50 schools reporting grads in 2021



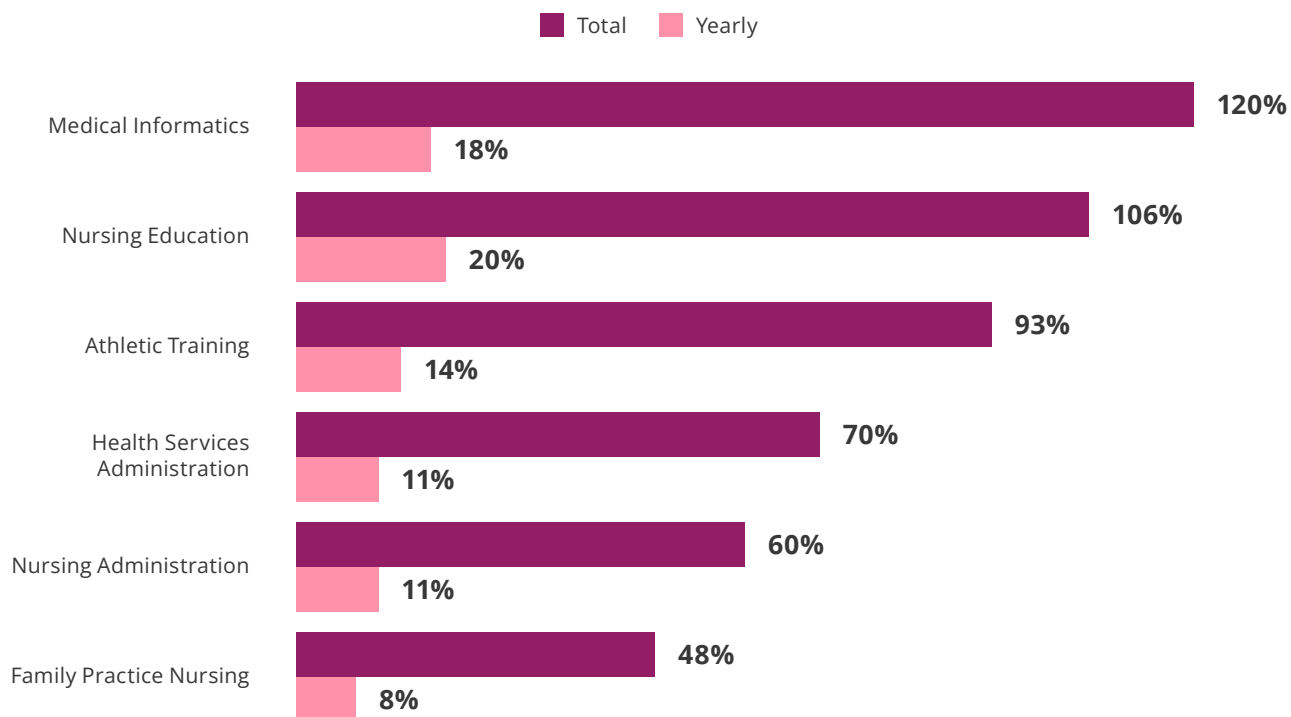
### Health admins online

Health administration degrees, such as **Health Care Administration** and **Nursing Administration**, are good candidates for online learning for two reasons. First, they tend to attract working professionals who value the modality's convenience and flexibility. Second, they likely appeal to online learners since they require less in-person, practical instruction than other health degrees.



## Fastest-growing health programs

Growth since 2016, programs with min. 50 schools reporting min. 1,000 grads in 2021



### Driven by data

The world increasingly runs on data, and the healthcare industry is no exception, as evidenced by the robust growth of **Medical Informatics**.

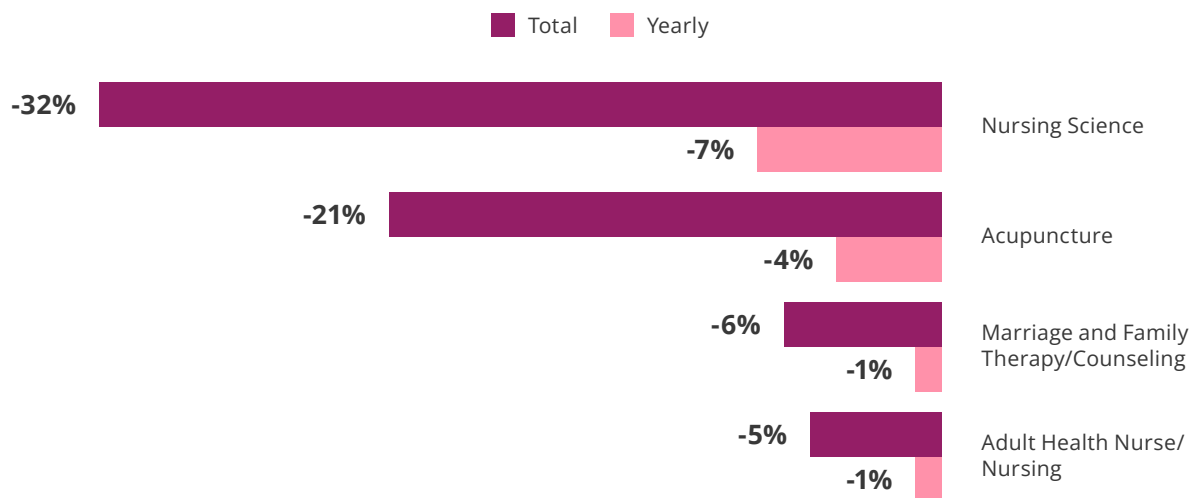
Similarly, related medical records specialists and health technologists and technicians jobs are forecast to grow 7% from 2021 to 2031.<sup>11</sup>

### Data in context: Nursing Education

As the second fastest-growing master's-level health program, **Nursing Education** is truly popular. But out of context, its growth data is misleading. Much of this program's rapid growth is driven by a large university with 1,200 completions already in its first year of reporting graduates in 2020. When excluding that institution, we get a more realistic picture: a more modest 19% total growth since 2016, with 4% yearly growth.

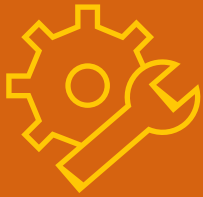
## Fastest-declining health programs

Growth since 2016, programs with min. 1,000 grads in 2021



### Healthy lack of declines

The overall strength of the health vertical is also evidenced by its few declining programs. Even among these four fastest-declining programs, the data often points to a shift in specialization preferences rather than outright disinterest. For instance, the more specialized **Marriage and Family Therapy** is on a slow decline, but the broader **Mental Health Counseling** degree has shown strong positive trends, growing 26% since the 2016 school year, or 5% yearly.



## #4 Engineering

### 2021 MASTER'S METRICS

**54,598**

Total grads

**6%**

Share of master's degree market

**394**

Institutions reporting grads

**25%**

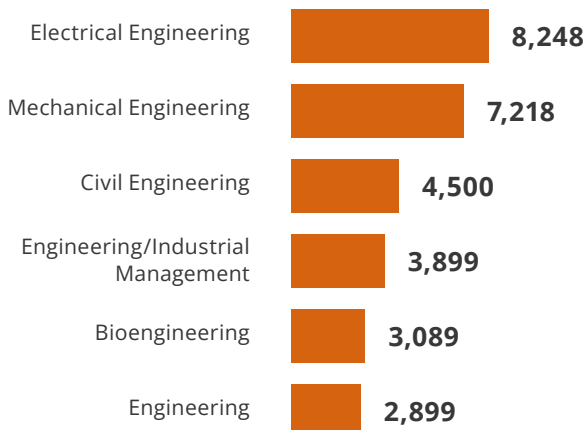
Programs online

**-2%**

Avg. growth since 2016

### Largest engineering programs

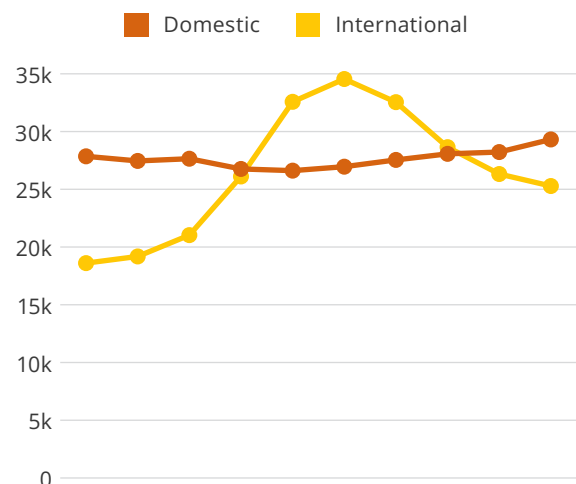
*By graduates in 2021*



### International effect

The modest Y/Y declines in engineering grads are entirely due to a boom and bust in international students. That market peaked in 2017 with nearly 35,000 completions but was down almost 27% in 2021 from that high. On the domestic side, US graduates have grown nearly 9% over the same period.

**Engineering vertical graduates**  
*Domestic vs. international, master's level, 2012-2021*







Most of the fluctuation in international graduates were in **Electrical Engineering** and **Mechanical Engineering** degrees, both of which are on the list of fastest-declining engineering programs.

Despite the recent downturn in completions, this is one of the most popular degree verticals for international students. In 2021, 46% of engineering grads came from abroad, just behind mathematics (55%) and computer science (53%).

### Engineering's best level online

Another interesting distinction in engineering? The vertical has *much* higher online adoption at the master's-level (25%) than the bachelor's-level (6%).

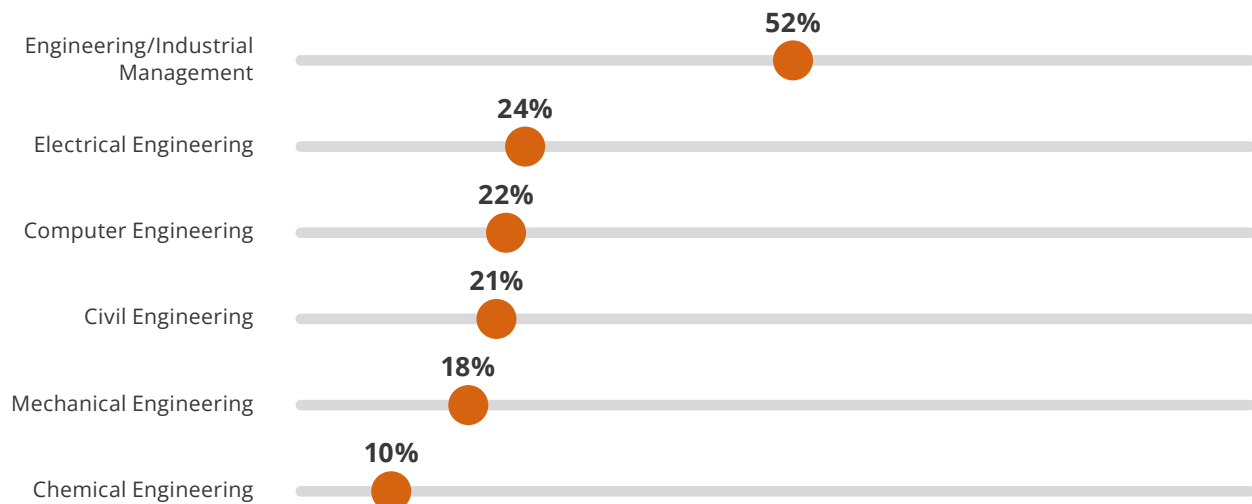
## Labor forecast: engineering occupations

Engineering degrees are extremely career-aligned. Many of the largest engineering master's feed into occupations that are forecast to grow by the BLS through 2031:<sup>12</sup>

Occupation	Occupational growth 2021-2031	Median annual wage 2021
Electrical engineers	1.6%	\$100,420
Mechanical engineers	2.2%	\$95,300
Civil engineers	6.9%	\$88,050
Engineering managers	2.3%	\$152,350
Bioengineers	9.5%	\$97,410

## Most online engineering programs

By percent online, min. 50 schools reporting grads in 2021



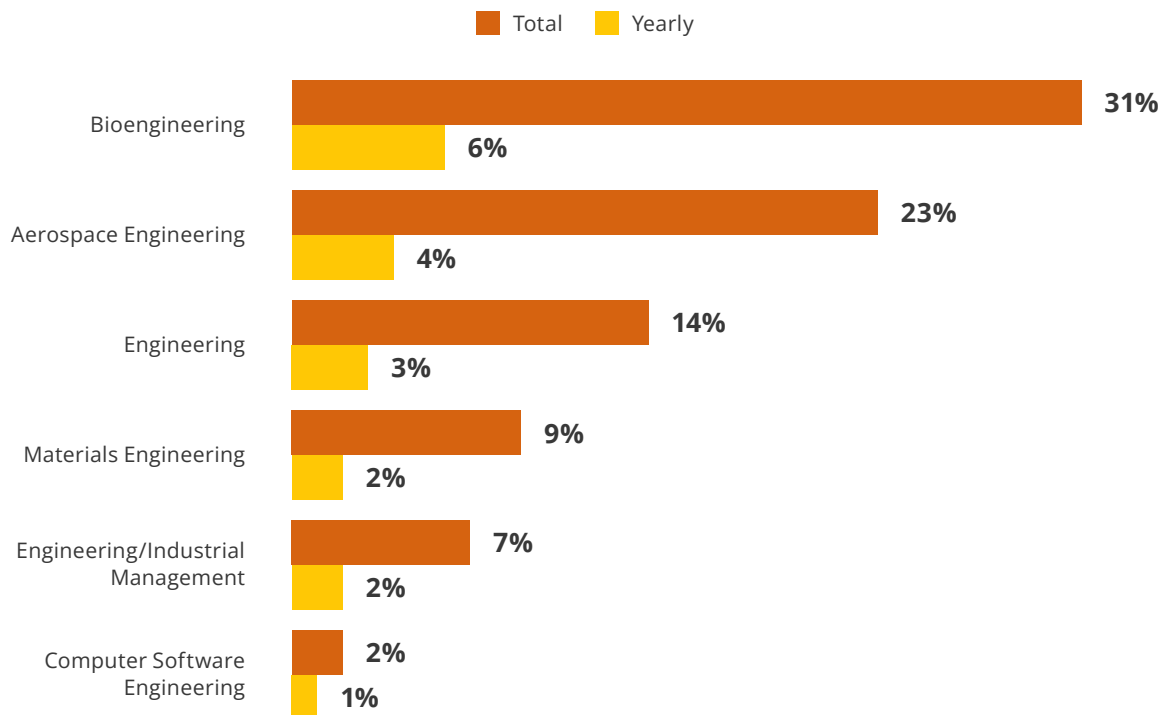
### Engineering managers prefer online

Programs in **Engineering Management** are more likely to be offered online. Why? They appeal to mid-career professionals who want to boost their job prospects while continuing to work in their current roles.

It's also possible that learners feel they need less practical instruction for this management-focused engineering degree, making it stand out as a good fit for online study.

## Fastest-growing engineering programs

Growth since 2016, programs with min. 50 schools reporting min. 1,000 grads in 2021



### Specializations on the rise

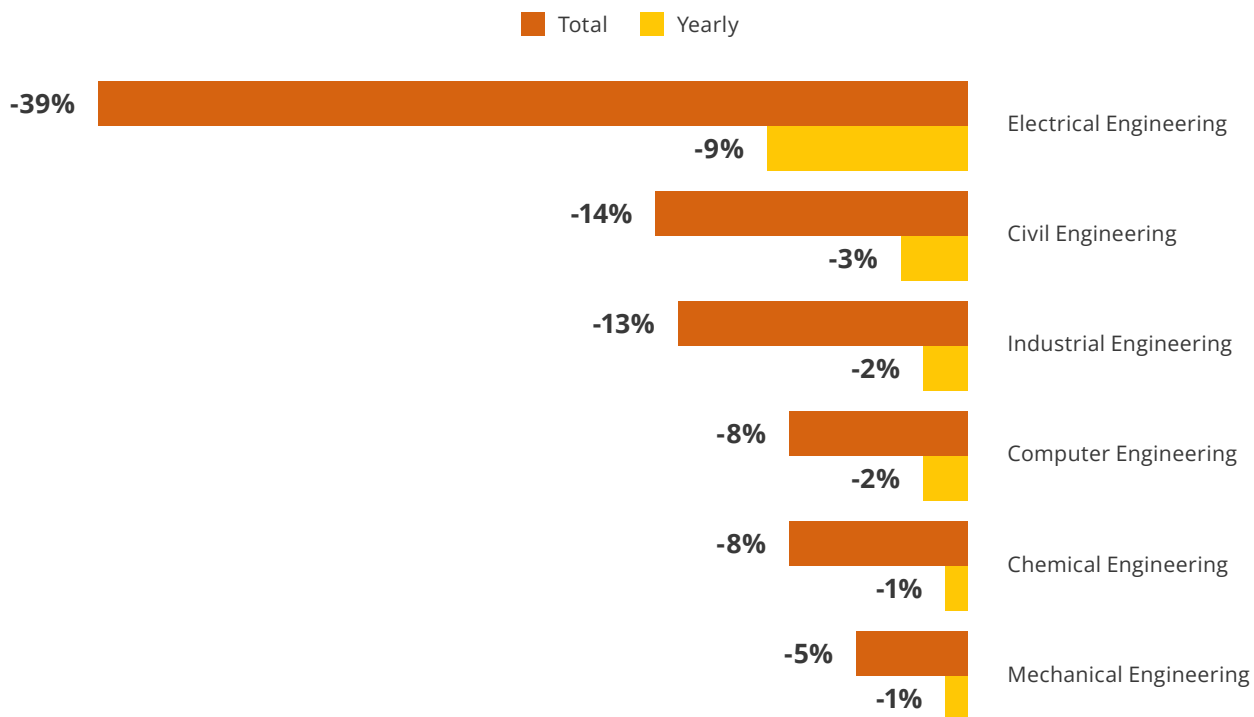
Degrees that balance generalization and specialization are sometimes more popular among master's-level learners across verticals. However, this is different in engineering. Instead, highly specialized degrees such as **Bioengineering** and **Aerospace Engineering** are showing the quickest growth at the master's level.





# Fastest-declining engineering programs

Growth since 2016, programs with min. 1,000 grads in 2021





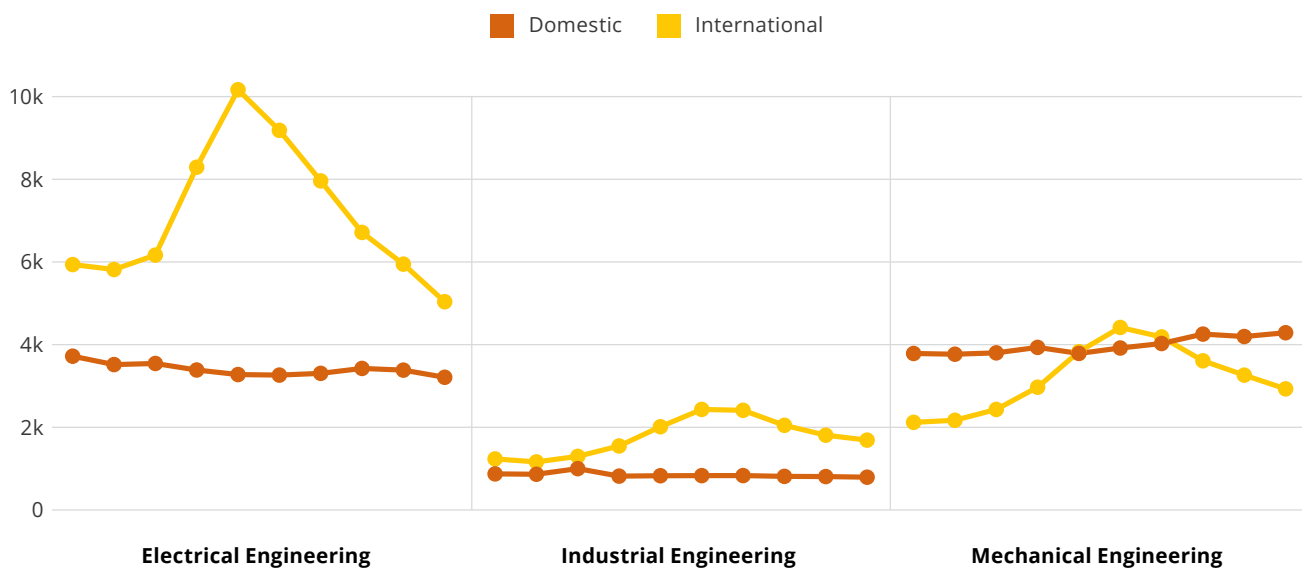


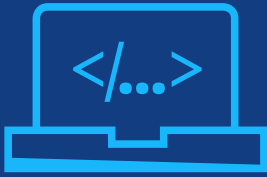
**Declines as above, so below**

Declines in the engineering vertical are primarily due to drops in international student completions. In line with this trend, the individual programs with the steepest downturns are due to international grad declines in **Electrical Engineering, Industrial Engineering, and Mechanical Engineering.**

**Electrical, Industrial, and Mechanical Engineering graduates**

*Domestic vs. international, master's level, 2012-2021*





## #5 Computer science

### 2021 MASTER'S METRICS

**54,510**

Total grads

**6%**

Share of master's degree market

**598**

Institutions reporting grads

**43%**

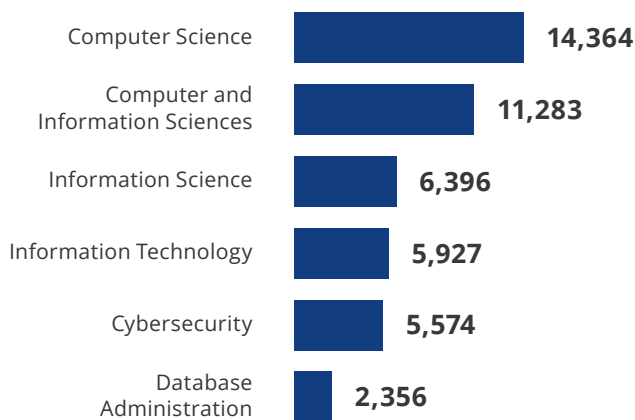
Programs online

**6%**

Avg. growth since 2016

### Largest computer science programs

*By graduates in 2021*



### Smaller but speedy

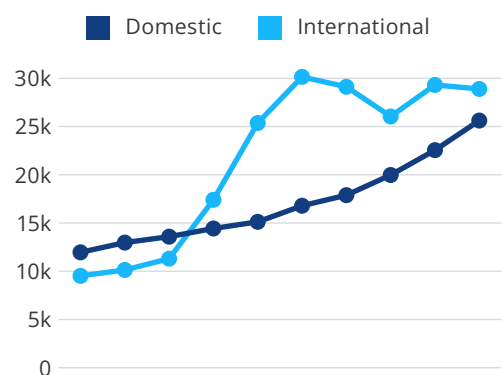
Taking fifth place in the master's degree market, computer science is one of the fastest-growing master's verticals. Its average 6% yearly growth is behind only mathematics and interdisciplinary studies, each growing 8% per year on average. While its presence is modest compared to the massive business vertical, it's even more concentrated. Eighty-four percent of 2021 computer science grads came from the six largest programs in our list above.

### An (inter)national mix

This vertical has the second-highest proportion of international students (53%) of any master's discipline, barely trailing behind mathematics (55%). The computer science vertical experienced the same boom due to international grads as engineering, minus the bust. How so? Its popularity with domestic graduates over the past decade has offset some of this market's volatility.

### Computer science vertical graduates

*Domestic vs. international, master's level, 2012-2021*



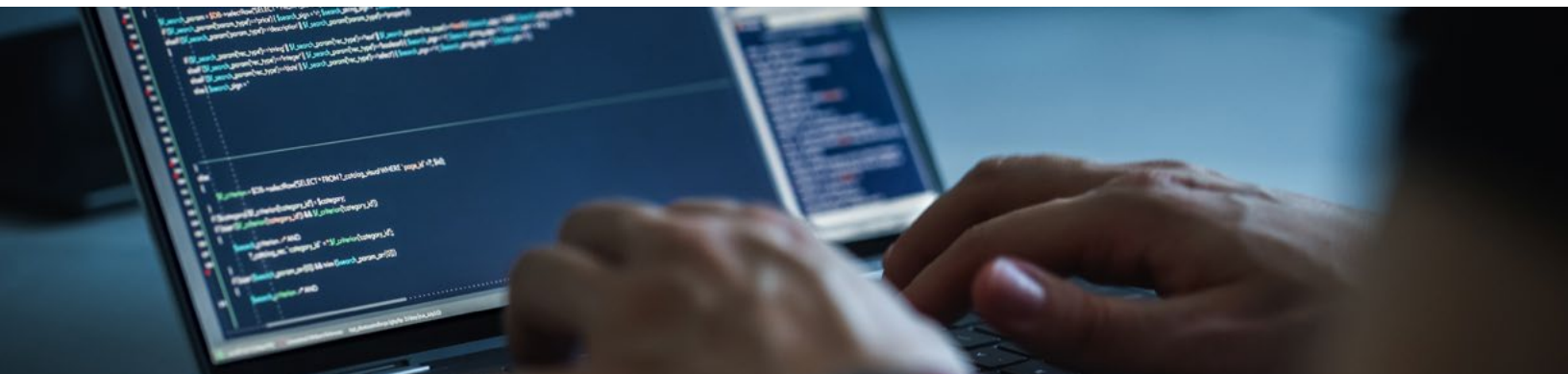
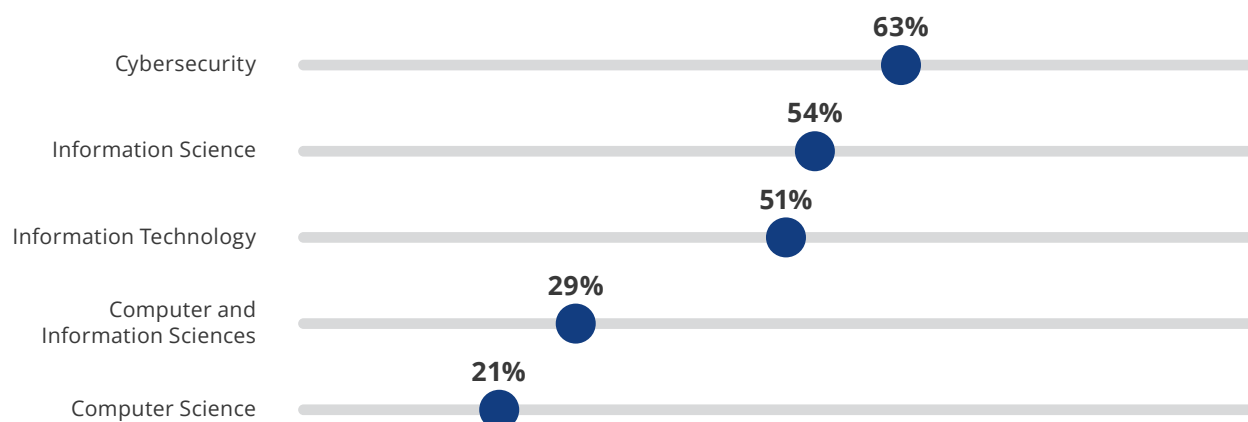
## Computer science in context: clarifying degree names

The names of the largest computer science programs aren't distinctive and could prove confusing. Here are some points of differentiation:

- **Computer and Information Sciences**, the second-largest program, is a more *generalist* degree. As the name implies, it includes instruction in computer and information science and information systems.
- The largest degree, **Computer Science**, concentrates on computer development, programming, and the *scientific design* of computer systems and user interfaces.
- **Information Science**, the third-largest program, focuses on the *classification and organization* of information storage, processing, and transfer, as well as database development.

## Most online computer science programs

By percent online, min. 50 schools reporting grads in 2021



## Labor forecast: computer science occupations

Like engineering, computer science is another incredibly career-aligned vertical. Here are some of the many related occupations projected to grow quickly over the next decade:<sup>13</sup>

Occupation	Occupational growth 2021-2031	Median annual wage 2021
Information security analysts	35%	\$102,600
Software developers	26%	\$120,730
Computer and information systems managers	16%	\$159,010
Database architects	10%	\$123,430
Web developers	30%	\$77,030



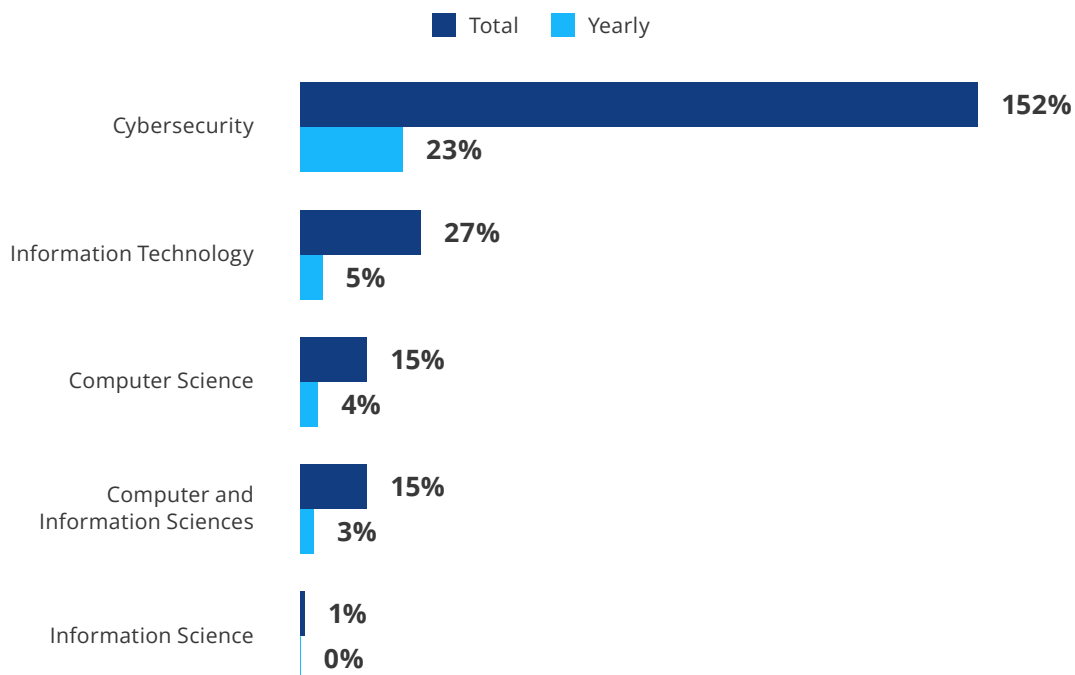
### High growth, highly online

What do the most online and the fastest-growing computer science program lists have in common? They contain the same five degrees. In addition, most programs have a different ranking on each list—except for **Cybersecurity**. This in-demand degree takes the top spots for the highest online availability and the fastest growth.



## Fastest-growing computer science programs

Growth since 2016, programs with min. 50 schools reporting min. 1,000 grads in 2021

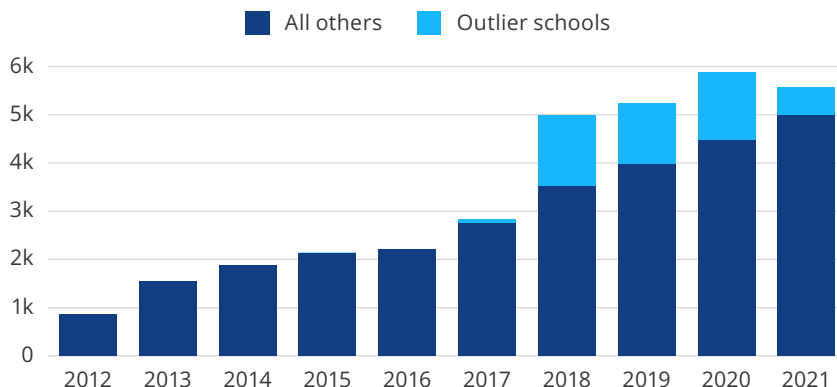


### Phishy data, sturdy growth

Cybersecurity is showing solid, organic growth, but the numbers are thrown off by two giant institutions adding approximately 400 and 900 completions, respectively, during their first years in the market. However, when excluding those outliers, growth is still robust, averaging 18% yearly and 127% total since 2016.

#### Cybersecurity graduates

Master's level, 2012-2021



### Zero notable computer science declines

Perhaps the most noteworthy thing in computer science is what *isn't* happening. Among programs with a minimum of 1,000 grads, this vertical is experiencing no programmatic decline.

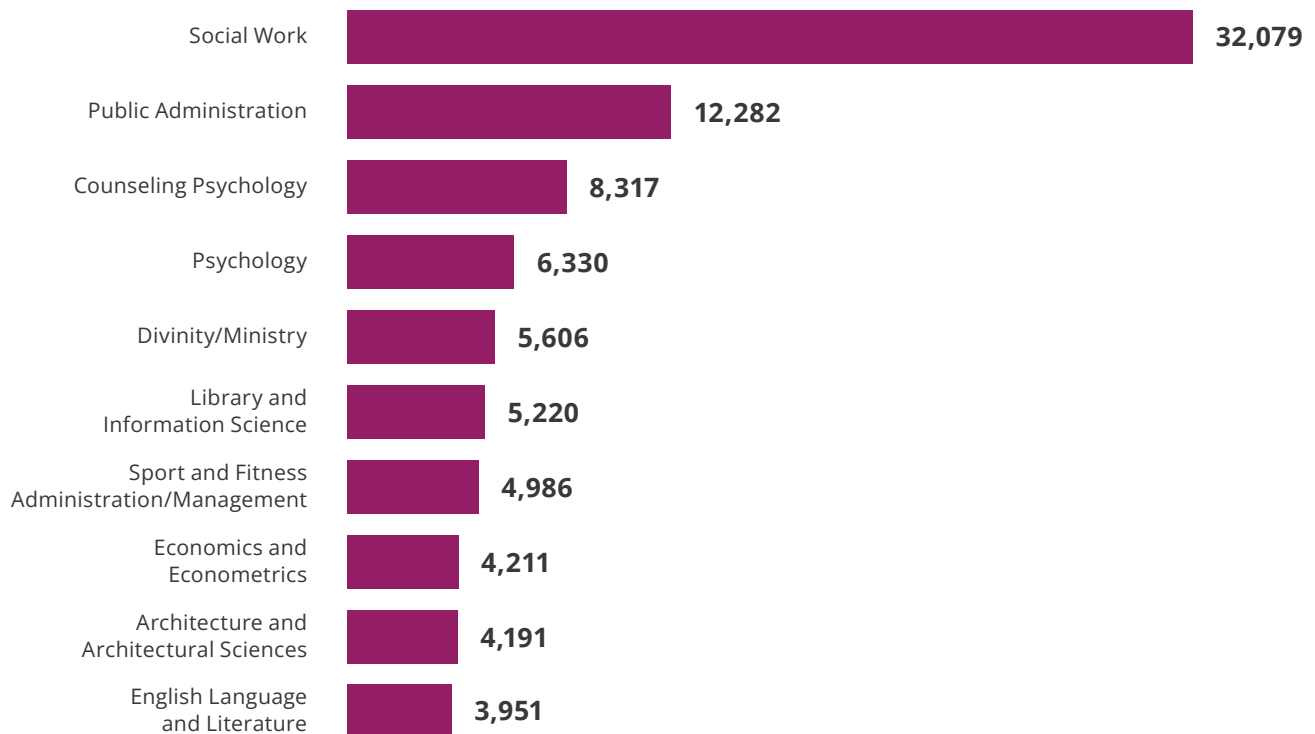


# Additional master's programs

Twenty-six of the 30 largest master's degrees fall into one of the top five verticals. Meanwhile, this section looks at the most noteworthy degrees outside those fields, including programs in the next-largest verticals, public administration and psychology.

## Largest additional master's programs

*By graduates in 2021*



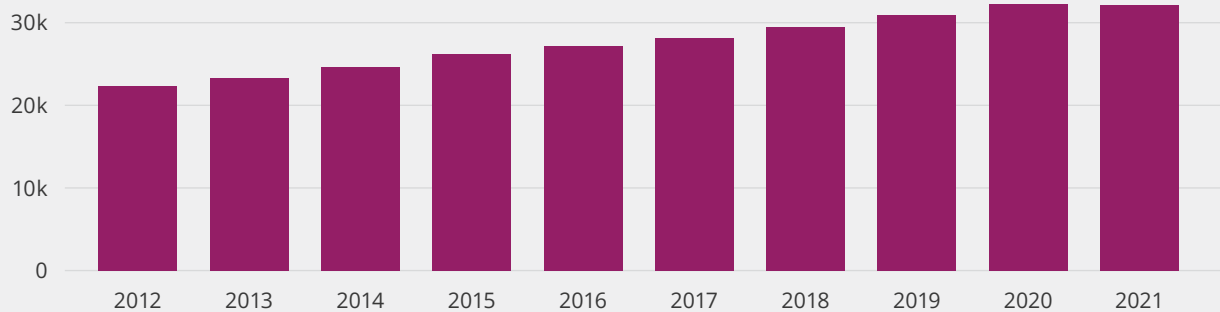
### Don't-miss degree: Social Work

**Social Work** is the second-largest degree in the entire master's-level market, only behind Business Administration. Here are some of its notable stats:

- Average 3% yearly growth since 2016
- Largest median program size (64) of any master's degree among programs with at least 1,000 grads
- Highly online, with 38% of programs reported as available in an online or distance format

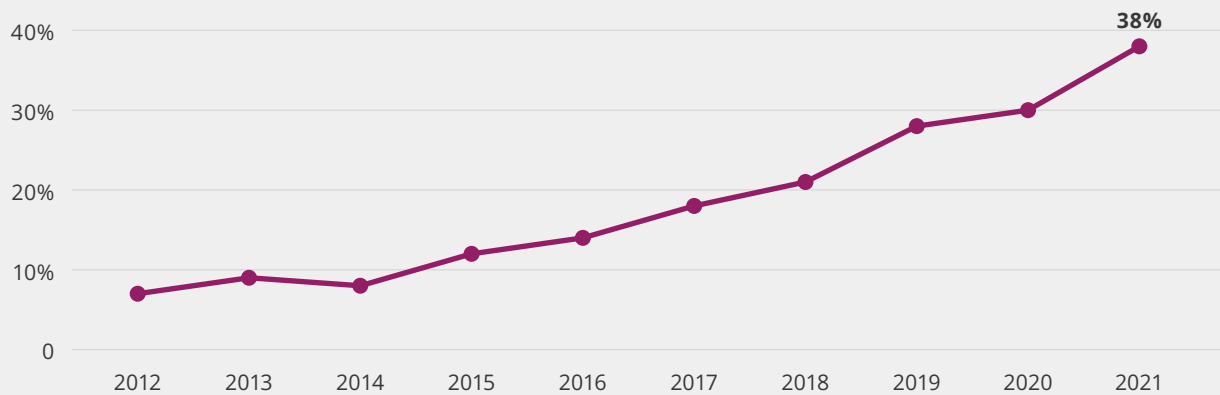
#### Social Work graduates

*Master's level, 2012-2021*



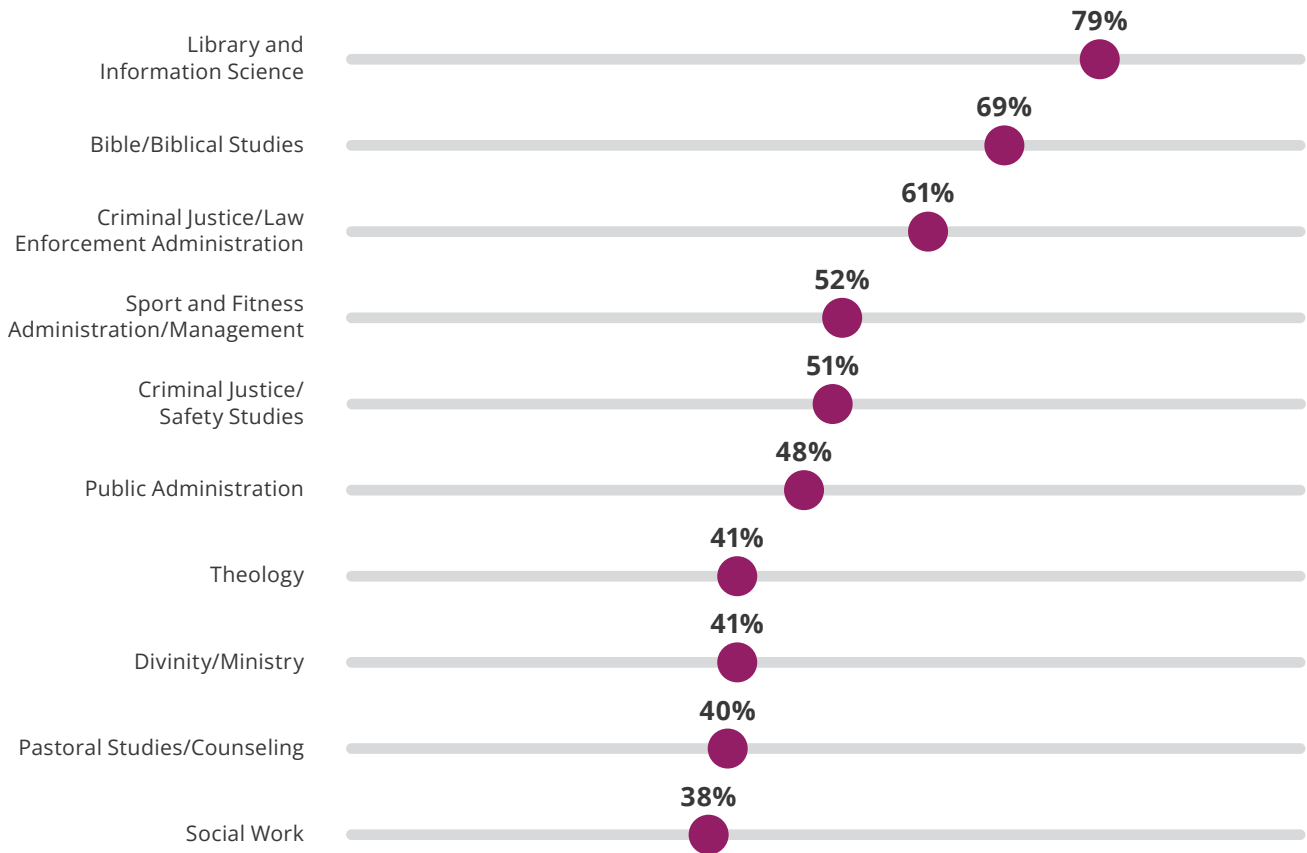
#### Percent of Social Work programs online

*Master's level, 2012-2021*



## Additional, most online programs

By percent online, min. 50 schools reporting grads in 2021



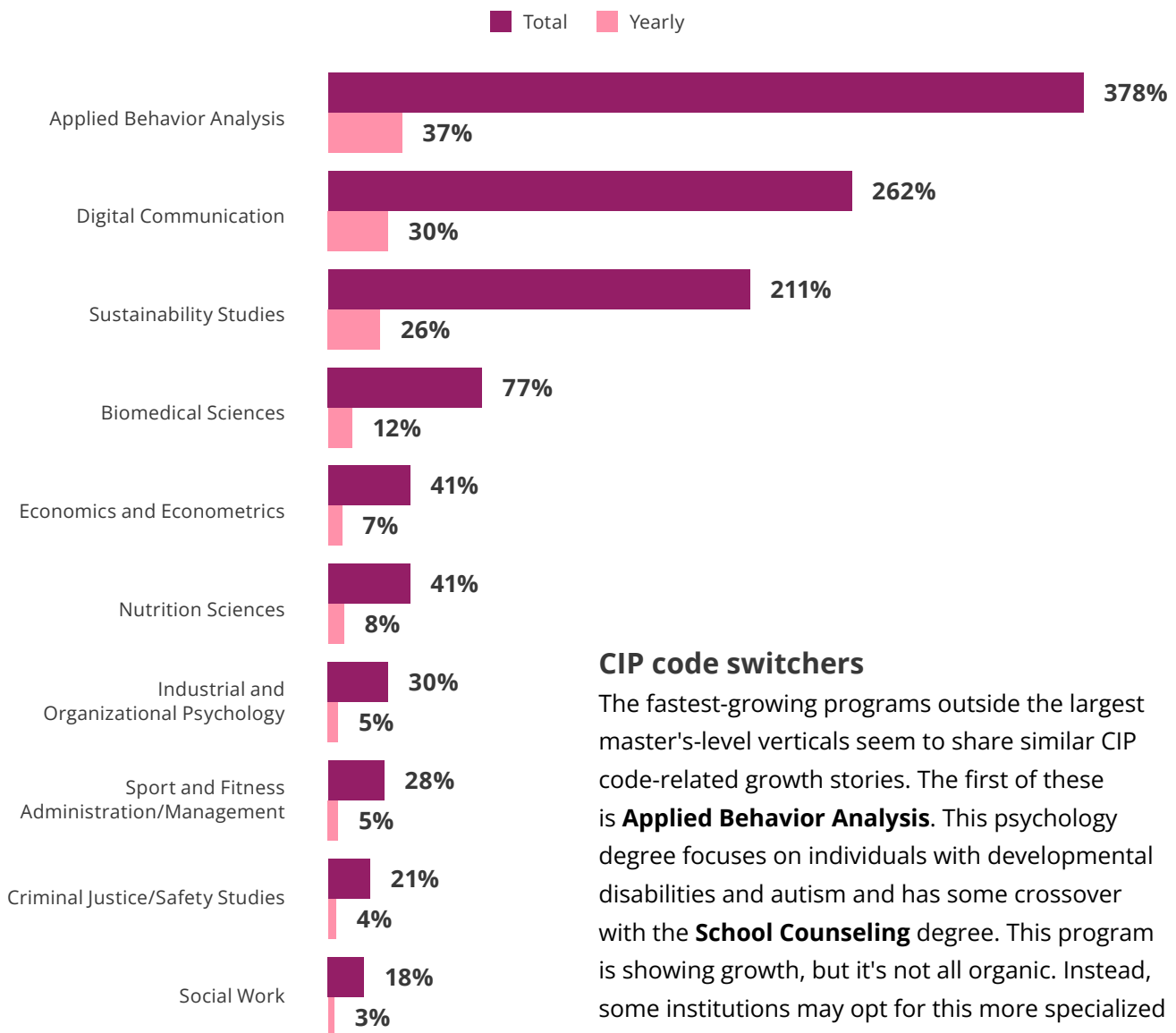
What other kinds of programs attract online learners most? There's quite a mix, but criminal justice and religion programs are two disciplines with some of the highest online adoption.





## Additional, fastest-growing programs

Growth since 2016, programs with min. 50 schools reporting min. 1,000 grads in 2021



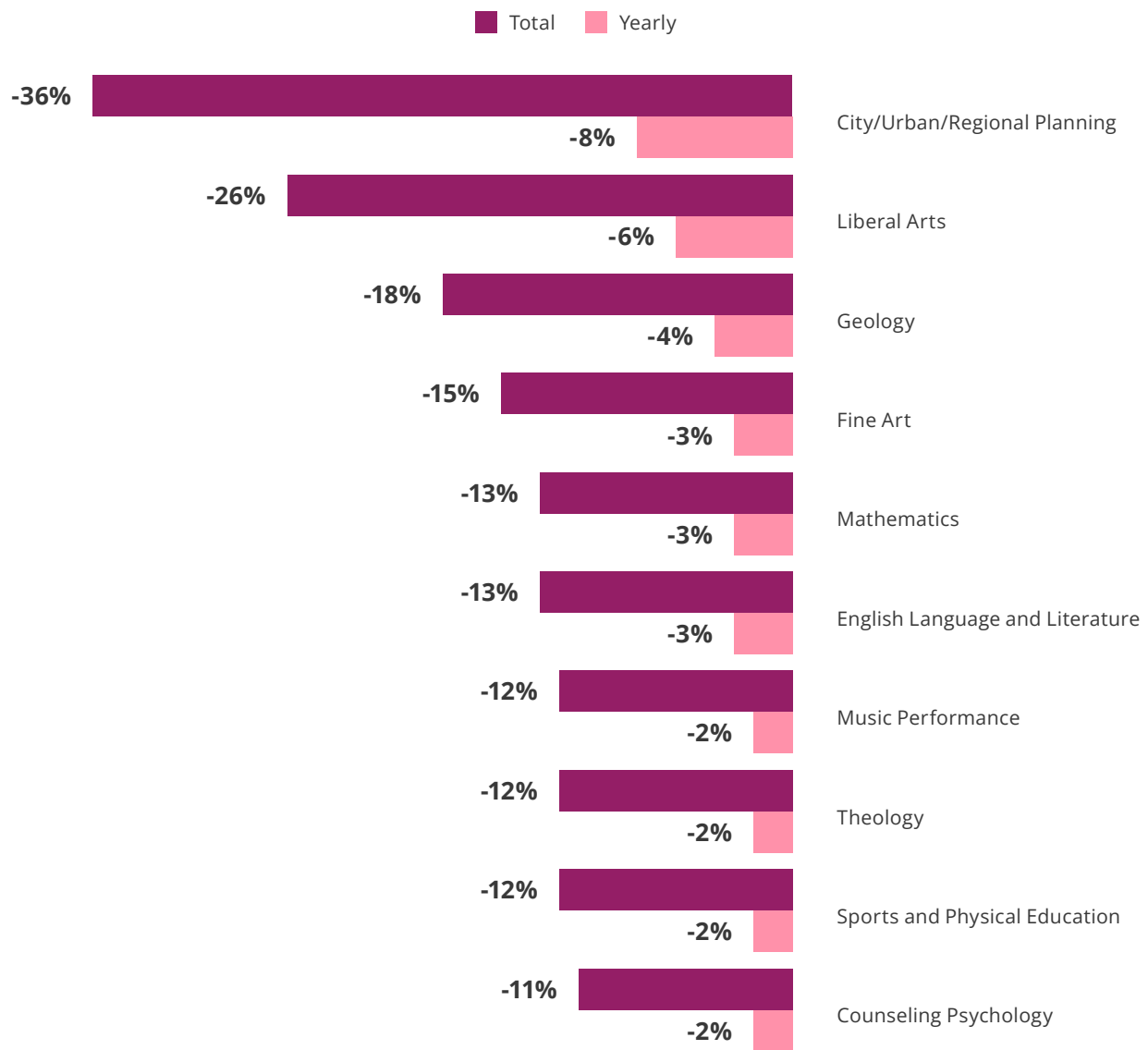
### CIP code switchers

The fastest-growing programs outside the largest master's-level verticals seem to share similar CIP code-related growth stories. The first of these is **Applied Behavior Analysis**. This psychology degree focuses on individuals with developmental disabilities and autism and has some crossover with the **School Counseling** degree. This program is showing growth, but it's not all organic. Instead, some institutions may opt for this more specialized CIP code over those in general education or school psychology.

The second CIP code switcher is **Digital Communication**. Again, some of the growth here is a result of schools reclassifying existing communications and journalism programs into this STEM-designated degree. However, increased employer demand for digital communication skills may also be driving some organic growth.

## Additional, fastest-declining programs

Growth since 2016, programs with min. 1,000 grads in 2021



### Different degrees, different declines

The reasons for declines among these additional programs are all over the map. **City/Urban/Regional Planning** is undergoing the most substantial downslope as learners seem to prefer the similar **Sustainability Studies** degree.

Most other declines in this group appear organic and fall into the arts and humanities. **Counseling Psychology's** drop is primarily organic, although some institutions seem to be reclassifying into programs such as **Clinical Mental Health Counseling**.



# THE DOCTORAL DEGREE MARKET

## Overall doctoral trends

### **A market unchanged**

Much is the same in the doctoral market since our previous edition of this report. The top verticals—health, law, and education—haven't changed position, and each has maintained roughly the same share of doctoral grads. Moreover, the top three verticals combined still accounted for about the same percentage of graduates (70%). Growth in the market is mostly coming from the health vertical, with a bit of help in the past year from the law and education verticals.

### **Career starters *and* climbers**

Doctoral grads' career stages vary widely. Why? It comes down to licensure. For those in the fields of health and law, for instance, a doctorate is the entry-level education requirement to pursue licensure. For those in fields without doctoral licensure requirements, this degree level provides career advancement rather than professional prerequisites.

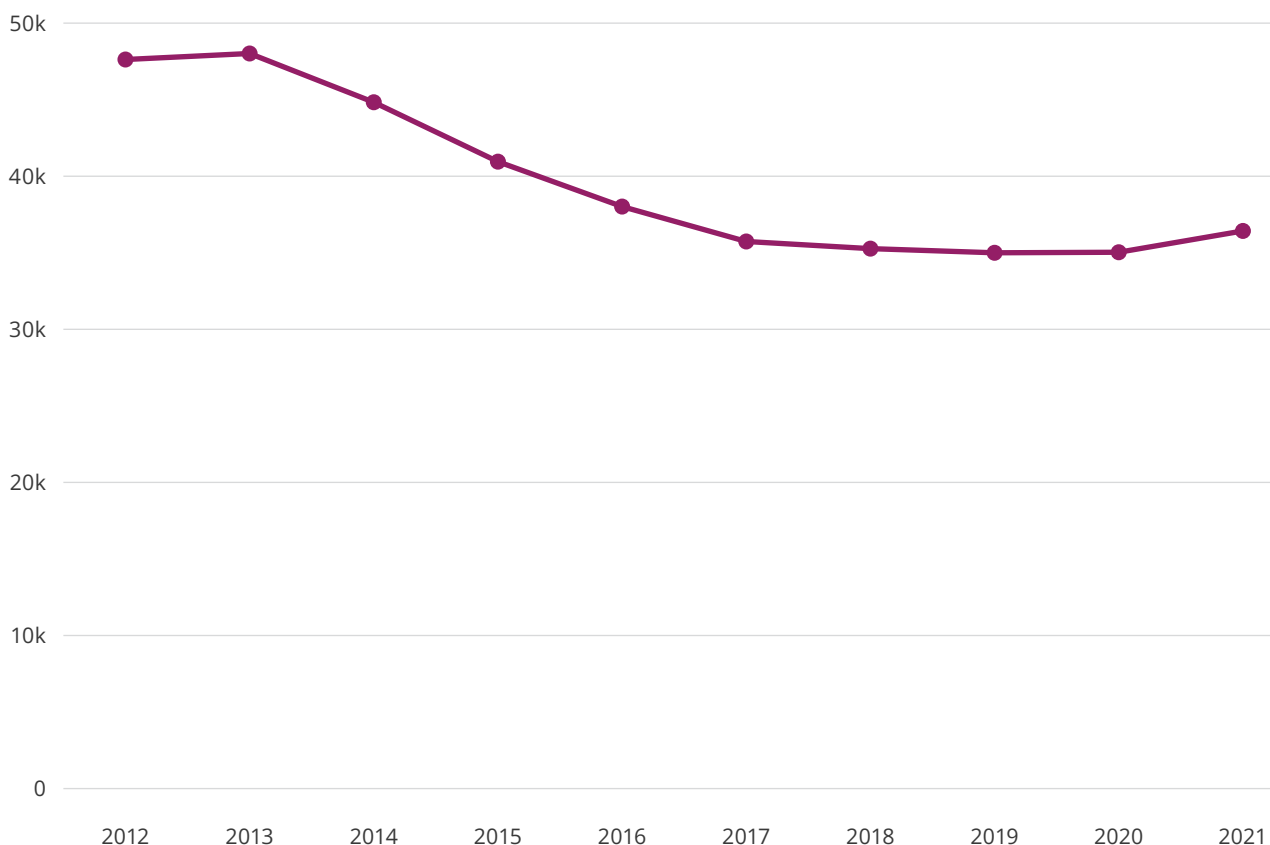
## Law's rebound

As explored below, the entire law vertical is nearly synonymous with the individual **Law** program. As such, it's historically one of the fastest-declining doctoral verticals *and* programs (see [Fastest-declining doctoral programs](#)). But that will likely be a trend of the past. Following steep Y/Y declines from 2013-2017, law completions have evened out and started increasing in 2021. The American Bar Association reported a 2.6% increase in total Juris Doctor (JD) enrollment from 2020 to 2021.<sup>15</sup> And while first-year law student (1L) enrollment fell by -0.21% from 2019 to 2020,<sup>16</sup> it increased by 11.8% from 2020 to 2021.<sup>17</sup> As such, this Y/Y enrollment upturn seems to signal the start of a larger trend.



### Juris Doctor graduates

2012-2021



## Largest doctoral disciplines



### #1: HEALTH

This vertical has the best combination of scale and growth. It's the largest vertical by grads (86,000) and has consistently grown 4% yearly since 2016. Making up 44% of the doctoral market in 2021, it graduated 2.4 times the next-largest doctoral vertical (law). It's also quite broad, with eleven programs graduating at least 1,000 students. **General Medicine, Pharmacy, and Physical Therapy** are the largest health programs, each graduating more than 10,000 students in 2021. **Nursing Practice (DNP)** is another one to watch for since it's ranked among the largest, fastest-growing, and most online health doctorates.



### #2: LAW

The law vertical is unique. As a whole discipline, it's second-largest behind health, but the discrete, general **Law** program sits at the top of the doctoral market as the single-largest degree. Furthermore, almost all completions in the vertical come from this one degree, which graduated 36,000 students in 2021. Meanwhile, the next-largest law vertical doctorate graduated 83 students total.



### #3: EDUCATION

Education was the third-largest doctoral vertical in 2021. **Educational Leadership** is the vertical's largest program, and with 31% of programs offered online in 2021, it's also one of the most online doctorates in the market.

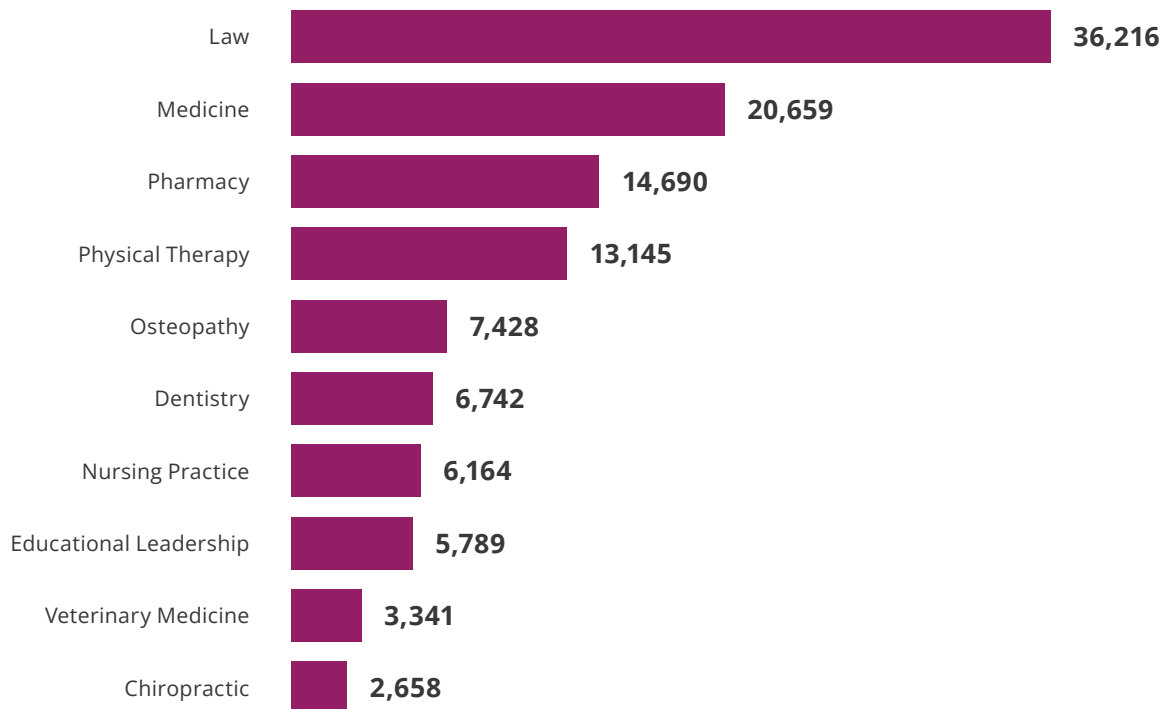
Who are Educational Leadership grads? These are typically education professionals already established in their careers and seeking an advanced degree while they continue to work full-time.

However, education doctorates aren't just for educators. For instance, the popularity of the **Edd in Organizational Leadership** implies that people in other sectors find this degree valuable.



## Largest doctoral programs

Largest doctoral programs by graduates in 2021



### Health degrees have it

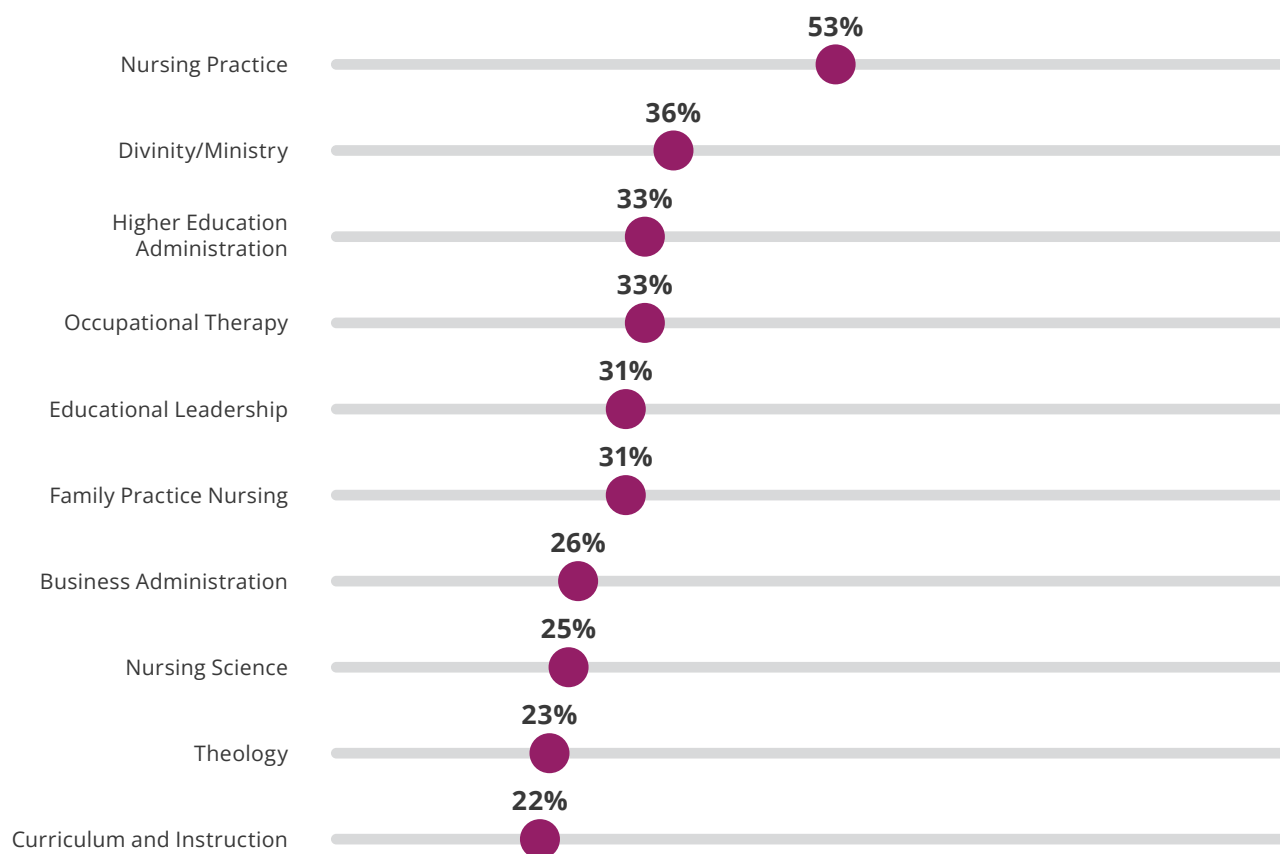
Overwhelmingly, the largest doctorates are entryways to healthcare professions. General **Medicine** is the largest health doctorate, but specializations like **Pharmacy**, **Physical Therapy**, and **Osteopathy** also make the list of largest doctoral programs.

While health degrees and the individual Law program dominate this list, this lineup has one outlier. **Educational Leadership** is the only education degree within this group of the biggest doctoral programs.



## Most online doctoral programs

Programs with min. 50 schools reporting grads in 2021

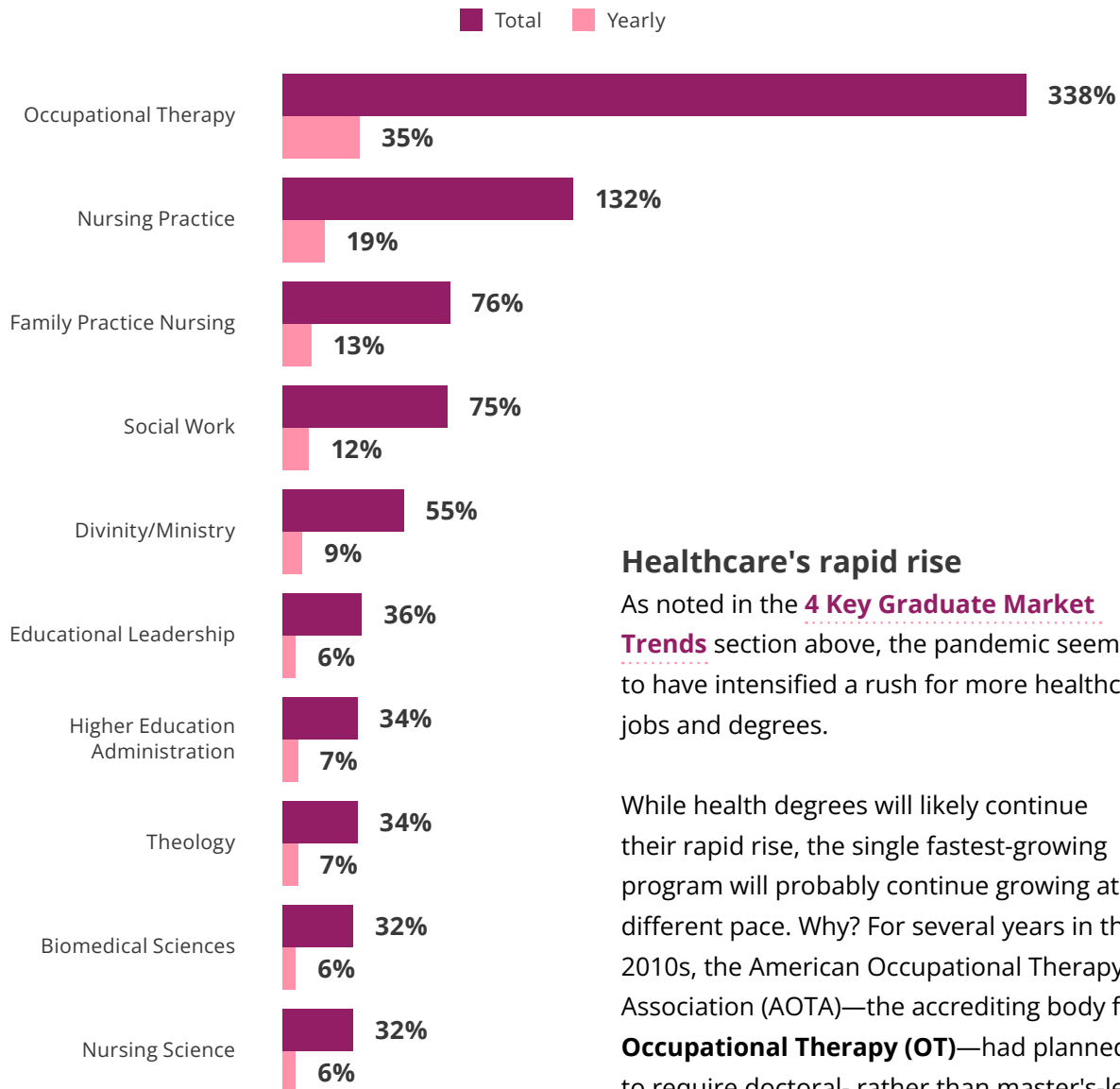


### Healthy online presence

The health vertical has a strong presence among the most online doctoral programs. However, other verticals, such as theology, education, and business, also appear on this list.

## Fastest-growing doctoral programs

Growth since 2016, programs with min. 50 schools reporting min. 500 grads in 2021



### Healthcare's rapid rise

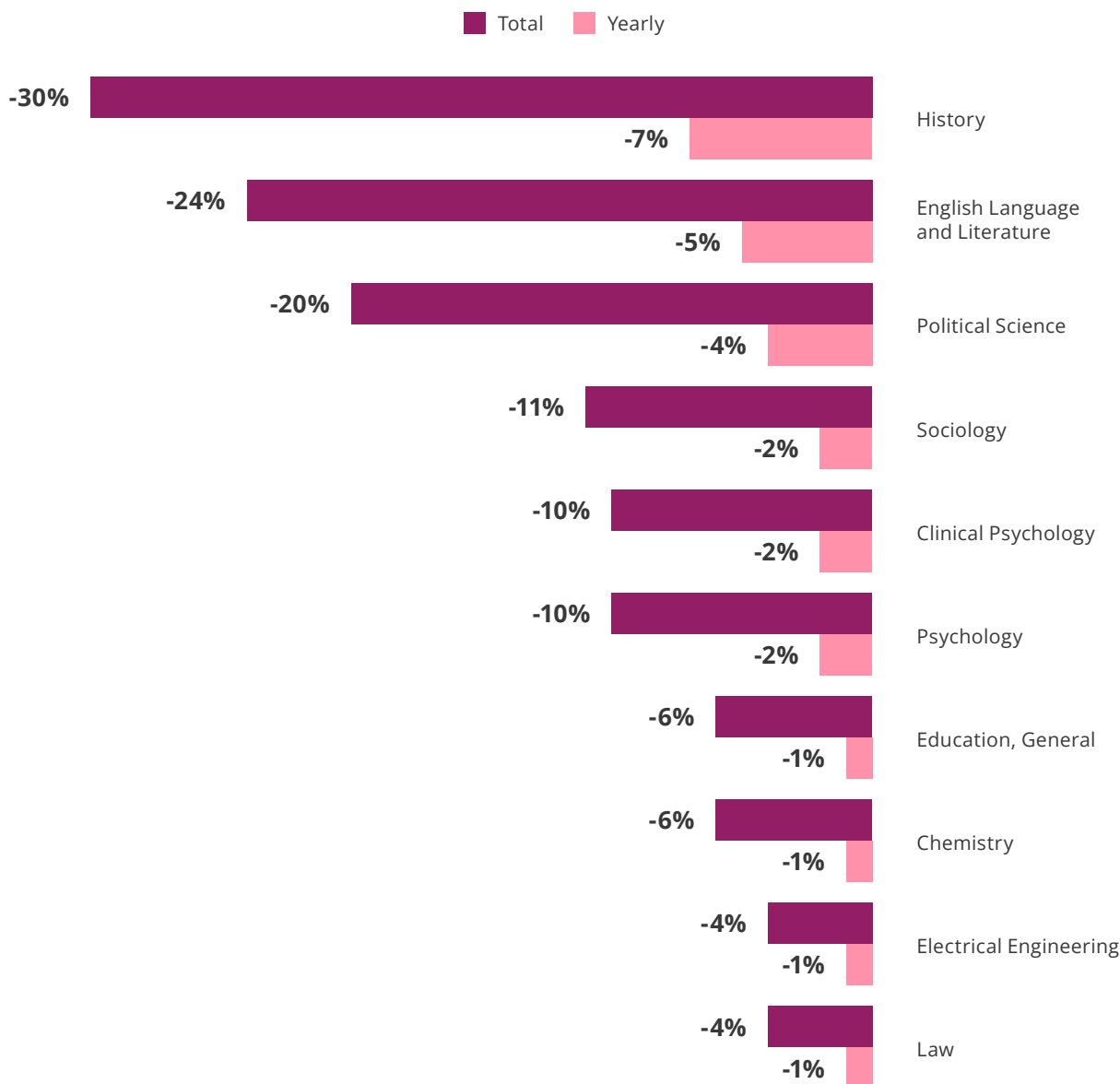
As noted in the [4 Key Graduate Market Trends](#) section above, the pandemic seems to have intensified a rush for more healthcare jobs and degrees.

While health degrees will likely continue their rapid rise, the single fastest-growing program will probably continue growing at a different pace. Why? For several years in the 2010s, the American Occupational Therapy Association (AOTA)—the accrediting body for **Occupational Therapy (OT)**—had planned to require doctoral- rather than master's-level education for entry into the profession. Many institutions transitioned their master's-level OT programs to the doctoral level, resulting in strong graduate growth over the last five years.

AOTA may still choose to finalize these requirements, but the organization has since put these accreditation requirements on hold. In the meantime, it's unlikely that Occupational Therapy will keep growing at this pace.

## Fastest-declining doctoral programs

Growth since 2016, programs with min. 500 grads in 2021



The fastest-declining doctorates are in psychology and the humanities. **Law**, the single-largest doctoral program, also appears on this list due to its years-long downward slope. However, its recent rebound points to continued growth, so it may eventually leave this list.

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# CONCLUSION

Throughout this report, we've explored trends in the US graduate education market, highlighting potential opportunities and risks. But keep in mind: this data is a snapshot in time. Programs that have performed well in the past may offer diminishing returns in the future. By contrast, current niche markets (e.g., epigenetics or artificial intelligence) may become more mainstream with developing demand.

## Applying this data to your institution

The information and insights in this report are valuable for any higher ed institution, but it's crucial to consider them in the context of your university's unique portfolio. What may be a powerful opportunity for one college may not be viable for another. For example, regional labor market demands may impact a program's success. Furthermore, new programs often have the best chance to succeed when added to a suite of degrees centered around an anchor program (e.g., Business Administration or Nursing). Similarly, a health degree may not perform well at an institution known for its business degrees.

## We're here to help

Want to know what this market data means to your university? Wiley University Services can give you a complimentary in-depth and up-to-date analysis of your institutional profile, identify the best opportunities for your college and help you bring those programs to market. We'll provide insight that allows you to make the most strategic, high-ROI investments that align with students' needs and labor market demand. Whether you need support with your strategy, capabilities, or capacities, we'll help build your vision for as long as you need us.



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*For additional information about this report or Wiley University Services, contact [universitieservices@wiley.com](mailto:universitieservices@wiley.com).*

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