State of the Graduate Education Market: Trends and Insights in Key Masters Disciplines

Business • Education • Health • Public Admin & Social Services
Cybersecurity • Data Analytics
Introduction

Identifying your institution’s graduate program offerings can be a challenging process, especially in a higher education landscape that is rapidly evolving. Increased competition, pressure on internal resources, and delivering quality learning outcomes mean that schools need to think strategically about which programs to launch, maintain, and expand.

This market research report provides you with an overview of current trends in graduate education, focusing on four of the largest disciplines (business, education, health, and public administration and social services) and the emerging disciplines of cybersecurity and data analytics. By featuring the most recent institutional and employer data to help inform your program planning decisions, each discipline section provides information about and insights into:

- Programs in decline as well as those with a strong potential for growth in the graduate degree market, and why
- Programs with strong opportunity in the online/distance modality
- The skill sets that are in the greatest demand from employers
Institutions that take a data-driven approach to their program planning are more likely to develop programs that help learners successfully navigate their career paths now and in the future. This guide is a first step toward building or refining your strategy for doing so.

**Focus on a data-driven approach to program planning to help learners successfully navigate their career path.**

**Research Methodology**
Except where noted otherwise, this report was compiled from publicly available data collected by the National Center for Education Statistics (NCES). To uncover trends and insights, the Wiley Education Services market research team also analyzed raw data from The Integrated Postsecondary Education Data System (IPEDS).
Market Overview:  
**Business, Management, Marketing, and Related Degrees**

Key Trends • Takeaways • Programmatic Insights

Business and related degrees, such as leadership, marketing, and management, have long been mainstays at the graduate level of education. They make up the largest master’s-level discipline, with nearly 190,000 graduates in 2016, and despite growing competition among certain degrees, there are no signs that it will decline.

While graduate growth has been essentially flat, at three percent per year, competition among institutions has grown by three percent per year. This suggests that program sizes have been getting smaller, and indeed, the data shows the average number of students per institution remained flat from 2010 to 2016.

More students are opting for online programs as well. Distance programs grew 98 percent from 2010 to 2016, while ground programs only grew five percent. This also means there is more competition among online programs—and it’s growing at 19 percent per year.

**MBA: The Anchor Program**

MBAs make up the majority of programs in this discipline, accounting for two-thirds of graduates. In addition, of the 38 percent of business and related programs that are online, one third of them are MBAs. IPEDS data shows that an increasing number of MBAs are available online. In fact, institutions that add an online modality or expand existing online MBAs often see greater increases in enrollment than those that only offer an on-campus MBA. At the same time, private and public non-profit institutions are gaining online MBA market share over for-profit institutions.

The key takeaway from the data: The MBA is a very large market that is competitive, but stable.

**Other Programmatic Insights**

This discipline offers a diverse range of programs, and the data shows some trends institutions should consider:

- **Accounting programs** offer an emerging opportunity.
- **Finance programs** have potential for institutions with a strong brand in this area.
- **Human resources** is a growing but saturated market, suggesting that programs need to have a competitive edge or unique feature to stand out.
- **Leadership degrees** are very competitive.
- **Management science (business analytics)** is a small market, but it’s growing quickly.

Institutions may also find success by offering interdisciplinary programs, specializations, and certificates.
Business and business-related programs continue to be the most popular graduate degrees. Here is a breakdown of the numbers to inform key trends and opportunities.

**Market Overview: Business, Management, Marketing, and Related Fields**

Offering specializations may be the key to a successful program.

Business, management, marketing, and related fields make up the largest master’s-level discipline, with nearly 190,000 graduates in 2016.

The MBA market alone represents two-thirds of these graduates—it is the largest single degree in this field.
Market Overview: Business, Management, Marketing, and Related Fields

Number of Graduates in Business-Related Programs from 2010-2016

- 2010: 159,308
- 2011: 168,308
- 2012: 173,810
- 2013: 180,349
- 2014: 190,596
- 2015: 187,540
- 2016: 189,435

Total Growth Over 6 Years: 19%

Number of Institutions Reporting Graduates from 2010-2016

- 2010: 1,120
- 2011: 1,145
- 2012: 1,178
- 2013: 1,237
- 2014: 1,302
- 2015: 1,329
- 2016: 1,336

Total Growth Over 6 Years: 19%
Average Students Per Institution from 2010-2016

The growth of graduates has been essentially flat the last three years (after a four-year period of slow and steady growth).

(2010-2016)

Competition is rising by 3% per year, translating to no growth in average program sizes across the market since 2010.
Program Growth: **Distance vs. Ground**

- **Ground**
  - 2,420 (2012)
  - 2,549 (2013)
  - 2,586 (2014)
  - 2,627 (2015)
  - 2,539 (2016)

- **Distance**
  - 787 (2012)
  - 1,030 (2013)
  - 1,225 (2014)
  - 1,559 (2016)

- **Total Distance Growth:** 98%
- **Total Ground Growth:** 5%

**Competition among online programs is growing at 19% per year.**

**38% of programs are online, and more than a third of them are MBAs.**
Program Area Insights

- **MBA**
  - ✔ Competitive, but stable
  - ✔️ Very large, very little organic growth

- **Accounting**
  - ✔ Emerging opportunity

- **Finance**
  - ✔ Opportunities for the right program and brand

- **Human Resources**
  - ✔ Growing, but saturated

- **Leadership**
  - ✔ Very competitive

- **Management Science (Business Analytics)**
  - ✔ Small, but growing rapidly

Source: The Integrated Postsecondary Education Data System (IPEDS)
Market Overview: Education

Key Trends • Takeaways • Programmatic Insights

Education has historically been a reliable market for master’s level degrees. But changes have been surfacing for the past several years, indicating that colleges and universities need to tread carefully when planning for programmatic offerings in this discipline.

Education was the largest vertical for graduate degrees in 2010, but since then it has slipped to second place, behind business, and it is likely to soon slip to third as health continues to grow. The number of graduates in education declined by 16 percent between 2010 and 2016. Meanwhile, the number of institutions reporting graduates in the discipline grew by 10 percent, and competition among programs is increasing by two percent per year, mainly due to the greater numbers of distance programs available, resulting in smaller program sizes on average.

Online Offerings Present Potential

However, the data indicates that there are still opportunities within education, particularly for online programs, which are accounting for a larger and larger percentage of the market. In 2012, distance programs accounted for just 15 percent of all graduate programs in education. Four years later, that number grew to 24 percent—a total growth of 74 percent for education distance programs in that time period. Compare that to the rate for ground programs, which actually shrank by one percent. Today, 24 percent of all education graduate programs are online.

Programmatic Insights

These numbers suggest that institutions must carefully take growth and trends into account, as well as analyze their own positioning in the landscape. General education degrees are still a large portion of the market, but the overall decline of the field suggests that focusing on specific areas is a more effective strategy. A few programmatic takeaways from the data include:

• **Curriculum and instruction**, as well as **educational administration**, are in decline, but they still attract large numbers of students.

• **Instructional design** is growing, due in part to non-education applications, but it is also a very crowded market, suggesting that schools need a competitive edge if they want to enter this area.

• **Special education** is declining, but some areas, such as autism, early childhood, and elementary and secondary special education, are growing as learning challenges are identified in children earlier.

• Teaching **English as a second language** is a small market right now, but a growing one.

• Certificate programs in some areas are experiencing growth, such as **instructional media design; bilingual/multilingual; and educational assessment, evaluation, and research**.
Planning Your Programs

Which education programs institutions decide to launch, expand, or promote depends on a number of factors, including the nature and number of existing programs in the discipline, the school's unique strengths, and competitive factors, such as tuition.

For example, an institution with several education programs that perform well could add an educational administration degree to its offerings, creating a suite of programs that both builds on the institution's existing profile in the discipline and expands it. Other institutions might break out their education master's degrees into certificate offerings. Universities with teaching English as a second language programs could bring them online to take advantage of increased demand. Specializations in autism or early childhood could be added to special education programs to attract more students.

Although it’s one of the largest disciplines among graduate degrees, in recent years the number of education graduates has steadily declined. There are still opportunities for growth, but it’s important institutions make informed decisions about program offerings.
Market Overview: Education

Number of Graduates in Education Programs from 2010-2016

- 2010: 177,414
- 2011: 181,309
- 2012: 176,444
- 2013: 164,076
- 2014: 157,266
- 2015: 149,236
- 2016: 148,627

Total Change Over 6 Years: -16%

Number of Institutions Reporting Graduates in Education Programs from 2010-2016

- 2010: 1156
- 2011: 1172
- 2012: 1201
- 2013: 1243
- 2014: 1259
- 2015: 1263
- 2016: 1277

Total Growth Over 6 Years: 10%
Average Students Per Institution from 2010-2016

Total Change Over 6 Years: -24%

Key Takeaways

- 24% of education programs are online
- Competition among online education programs is growing at 15% per year

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Market Overview: Education

Program Growth: **Distance vs. Ground**

<table>
<thead>
<tr>
<th>Year</th>
<th>Ground</th>
<th>Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>6033</td>
<td>1064</td>
</tr>
<tr>
<td>2013</td>
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<tr>
<td>2015</td>
<td>6123</td>
<td>1715</td>
</tr>
<tr>
<td>2016</td>
<td>5997</td>
<td>1850</td>
</tr>
</tbody>
</table>

- **Ground**
  - 2012: 6033
  - 2013: 6069
  - 2014: 6133
  - 2015: 6123
  - 2016: 5997

- **Distance**
  - 2012: 1064
  - 2013: 1365
  - 2014: 1496
  - 2015: 1715
  - 2016: 1850

**Key Takeaways**

At the same time, competition among programs (distance and ground) is increasing by 2% per year, resulting in smaller program sizes on average.

The discipline has a **declining rate of graduates** (-3% per year).

**Total Distance Growth:** 74%

**Total Ground Change:** -1%

**Total Graduates in 2016:** 148,627
Degree Insights

Teaching ESL
Very Competitive

Instructional Design
Very Competitive

Certificates
Growth in Many Areas

GROWING

Special Education
Some Areas of Growth

IN DECLINE

Curriculum and Instruction
Still a Large Market

Educational Administration
Still a Large Market

*Source: The Integrated Postsecondary Education Data System (IPEDS)
Healthcare is now the largest employer in the United States. In addition to its growth, the complexity and technical advancement in the field means that many employers require or prefer candidates with graduate degrees for certain jobs, driving the growth of graduate programs in this discipline.

Today, health is the third-largest discipline for graduate degrees, and its dramatic rate of growth (nine percent per year) means it is on pace to soon overtake education to become the second largest. In contrast, competition among health programs is growing at only four percent per year. To look at this situation another way, the number of graduates from 2010 to 2016 increased 70 percent, while the number of institutions reporting graduates in the field only grew 25 percent over the same period. The outpacing of growth over competition suggests this field offers many opportunities for institutions seeking to expand or develop their degree offerings.

The online modality is also becoming increasingly popular in this discipline. The number of distance programs grew 114 percent from 2010 to 2016, compared to just 17 percent growth for ground programs. Online programs are growing at 22 percent per year, but still only account for 23 percent of all programs—indicating that there is potentially room for more online offerings in this discipline.

**Programmatic Insights**

Within the discipline, there are several trends worth pointing out:

- Among graduate degrees in nursing, the Master of Science in Nursing - Family Nurse Practitioner (MSN-FNP) presents the most opportunity, followed by MSNs focusing on administration. These programs may also be experiencing growth due to the push for nurses to increase their levels of education to a BSN at minimum. At the terminal degree level, the Doctor of Nursing Practice degree offers potential, but it could be limited because FNP programs are still relevant.

- Master of Public Health programs still offer solid potential and there may even be an audience for programs that are not accredited by the Council on Education for Public Health (CEPH).

- The need for administrators skilled in handling the complexities of healthcare is driving the continuing growth of healthcare management degrees, but the market is getting crowded, suggesting institutions should look closely at factors or features that can distinguish them from the competition.

- Mental health counseling and physician’s assistant programs offer a lot of potential but may face some challenges in the marketplace due to clinical requirements and states’ varying rules about them.

Healthcare spending accounted for almost 18 percent of the U.S. Gross Domestic Product in 2016.¹ Not surprisingly, graduate programs in the health discipline are growing quickly in tandem with the expansion of the industry.

Health is currently the third largest discipline for graduate programs, and is on track to soon eclipse education to become the second largest.

¹edservices.wiley.com
Some of the most in-demand healthcare jobs that typically require more than a bachelor’s degree include:

- Registered Nurses
- Nurse Practitioners
- Medical and Health Services Managers
- Speech-Language Pathologists
- Physical Therapists
- Occupational Therapists

Number of Graduates in Health Programs from 2010-2016

Total Growth Over 6 Years: 70%
Market Overview: Health

Number of Institutions Reporting Graduates in Health Programs from 2010-2016

- 2010: 944
- 2011: 973
- 2012: 1,005
- 2013: 1,055
- 2014: 1,101
- 2015: 1,139
- 2016: 1,177

Total Growth Over 6 Years: 25%

Average Students Per Institution from 2010-2016

- 2010: 69
- 2011: 74
- 2012: 80
- 2013: 83
- 2014: 89
- 2015: 91
- 2016: 94

Total Growth Over 6 Years: 36%
Market Overview: Health

Program Growth: Distance vs. Ground

<table>
<thead>
<tr>
<th>Year</th>
<th>Distance</th>
<th>Ground</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>491</td>
<td>3,015</td>
</tr>
<tr>
<td>2013</td>
<td>699</td>
<td>3,133</td>
</tr>
<tr>
<td>2014</td>
<td>833</td>
<td>3,310</td>
</tr>
<tr>
<td>2015</td>
<td>919</td>
<td>3,470</td>
</tr>
<tr>
<td>2016</td>
<td>1,049</td>
<td>3,513</td>
</tr>
</tbody>
</table>

Total Distance Growth: 114%  
Total Ground Growth: 17%

Key Takeaways

- **23%** of health programs are online
- Competition is also growing, at **4% per year**, but not as quickly as growth in programs
- The discipline is growing at a dramatic rate: **9% per year**
Program Area Insights

MSN–Nurse Practitioner (especially family nurse practitioner) are the most desirable programs, followed by specializations in Administration.

Public health offers solid opportunities, and there may be a market for programs that are not CEPH-accredited.

Mental health counseling and physician’s assistant are emerging opportunities, but face some challenges.

Doctor of Nursing Practice programs are still an emerging opportunity.

Healthcare management is still a safe option, but the market is getting crowded.

RN-BSNs are a challenging market. The most successful programs are fast and inexpensive.
Market Overview:
Public Administration and Social Services

Key Trends • Takeaways • Programmatic Insights

Public administration and social services make up the fifth-largest discipline in the graduate degree market. While it’s significantly smaller than the other major disciplines, it offers steady growth and reliable opportunities for institutions looking to expand or develop programs in this area.

The number of graduates in the field increased from 35,847 to 47,089 from 2010 to 2016, or about five percent per year. Roughly two-thirds of this growth was in social work. Meanwhile, the number of institutions reporting graduates in this discipline also grew, from 477 to 603 in the same time period—about four percent per year—but the average number of students per institution only increased from 75 to 78. This suggests that the field is becoming slightly more competitive.

As in other disciplines, the number of online programs is growing. In 2012, distance programs only made up 15 percent of total programs in public administration and social services, but by 2016 that number had increased to 25 percent, for a growth rate of 110 percent from 2012 to 2016. Compare that to ground programs, which only grew by seven percent in the same time period. This means that competition among online programs in the discipline is growing quickly—21 percent per year. Currently 25 percent of programs in this field are online—with 56 percent of those being Master of Public Administration degrees.

Program Area Insights
Social work remains an excellent opportunity and can result in large programs. However, as noted previously, competition is increasing. In addition to the growing number of online programs, for-profit institutions have entered the market.

In terms of employment trends, more fields beyond social services are looking for individuals with a Master of Social Work (MSW). Healthcare facilities are at the top of the list, with the top skills sought being mental and behavioral health, social work, advanced patient care, general medicine, and mental health therapies. Colleges and universities, insurers, and businesses (for HR-related positions) are also hiring MSW graduates, suggesting that programs could start addressing these audiences with more healthcare, clinical, and administrative concentrations.

Similarly, Master of Public Administration (MPA) programs have strong potential. There are many online programs already, but the ratio of students to programs suggests steady and continuing opportunities in spite of the competition. This may be in part because the MPA is a versatile degree with a variety of career applications. Nearly half of MPA programs did not offer any concentrations; of those that did, the most common is non-profit management. Meanwhile, the most commonly requested skills in job listings requiring an MPA were business-related, focused largely on management skills, including people and budget management.
This data shows that there are opportunities for launching and expanding public administration and social services graduate programs, but to be successful, a carefully considered and strategic approach is vital for long-term stability and growth.

Interest in public administration and social services graduate programs continue to grow, offering ample opportunities for institutions to develop and expand their offerings in this public service-minded discipline.

Public administration and social services is the fifth-largest discipline. However, growth in this discipline is primarily due to social work, which accounted for 58% of the master's degrees awarded in this area. Awarded MPAs have declined slightly since 2013, but still present a good opportunity.
Breakdown of Disciplines within the Category

Public administration and social services programs offer a steady growth rate and reliable opportunities for institutions.

Number of Graduates in Public Administration and Social Services Programs from 2010-2016

Total Growth Over 6 Years: 31%
Number of Institutions Reporting Graduates from 2010-2016

Total Growth Over 6 Years: 26%

Average Students Per Institution from 2010-2016

Total Growth Over 6 Years: 4%
Competition is also growing, by 4% per year.

Key Takeaways

Graduates in this discipline are increasing 5% per year however most of that is in social services.

Online competition is growing at 21% per year

25% of programs are online (the majority being Master of Public Administration degrees.)

Total Distance Growth: 110%
Total Ground Growth: 7%
Total Graduates in 2016: 47,089
Market Overview: Public Administration and Social Services

Program Area Insights

16% Social work remains an excellent opportunity, as employment of social workers is expected to grow 16% from 2016 to 2026 due to increased demand for healthcare and social services.

There is competition, however: for-profit institutions have entered the market and the online market is growing.

Public administration offers solid potential. There are many online programs in the market, but the ratio of students to programs is encouraging.

Source: The Integrated Postsecondary Education Data System (IPEDS)
Emerging Disciplines

Cybersecurity

The growing awareness of the need for robust security defenses and design to protect computer systems and personal data is feeding a need for skilled experts in this discipline. There are three degree pathways within cybersecurity, each with their own degrees, career applications, and goals; thus, the audiences can vary widely.

- **Computer engineering** is the largest overall pathway, with 5,309 master’s degree graduates in 2016. The online market is fairly small and has seen little growth in recent years. This slow growth and challenges to translate the programs into the online format make this degree path fairly difficult to launch.

- **Information technology** is the second largest overall market in cybersecurity, with 2,207 master’s graduates in 2016. This pathway shows a strong market, as well as promising online growth, but competition among programs is strong. However, new programs in this area can still be successful.

- **Criminal justice** has the smallest market, with 572 master’s graduates in 2016. While this category is seeing healthy growth at almost all degree levels, the small market and heavy competition among online programs makes it a challenging environment for launching new programs. The most successful ones will have features that distinguish them from others in the market.

**Key Considerations and Opportunities**

Offering a pathway to a graduate degree in this discipline in the form of both a bachelor’s and a master’s program can help bolster the success of the master’s program, as the bachelor’s students will be more likely to feed into it. In addition, offering different specialization tracks within degrees provides students with more options. Schools might also consider building in a path to industry certifications, as the demand for certified cybersecurity talent is exceeding supply.

Programmatic and institutional rankings are significant, but third-party credentialing can be just as crucial (e.g., being designated a National Center for Excellence by the National Security Agency and Department of Homeland Security). Similarly, faculty members who are recognized and visible thought leaders will raise interest and bring in students. Partnerships with cybersecurity-related organizations to offer members and employees benefits such as tuition discounts can also help grow visibility and enrollments.

Finally, being located in an area where there is a concentration of cybersecurity-related jobs can support enrollment rates. The fastest growth is happening primarily in secondary markets, such as Austin, Columbus, Denver, and Portland.

Sources: Bureau of Labor Statistics, Burning Glass
Emerging Disciplines

Data Analytics

As methods of collecting and analyzing data continue to proliferate, more organizations in all types of industries are showing an interest in using them to uncover trends, understand consumer preferences, identify areas of opportunity and potential efficiencies, and make decisions. Because there are so many different applications of data analytics, there are several degree subsets within this discipline, including business intelligence, data analytics, business analytics, and healthcare analytics, all with different focuses and career outcomes.

While all of these degree subsets are growing quickly, business analytics is experiencing especially rapid growth.

• The number of master’s degrees graduates in business analytics has grown by 24 percent annually over the last six years, with 4,419 graduates in 2016.

• The number of business analytics master’s graduates reported by institutions is increasing by an average of 16 percent per year, from 26 per institution to 39 from 2010 to 2016.

• The online market is growing as well, with 26 percent of all business analytics programs offered online, an increase of 164 percent since 2012. Ground programs have seen a similar increase (163 percent), showing that there is a high demand for education in this area.

In terms of the demand in the job market, the Bureau of Labor Statistics foresees that most occupations in this field are projected to grow at a rate well above the average for all jobs. Employers look for a mix of IT, analysis, and business skills, with the skill clusters varying according to the type of job. Certifications seem not to be a major factor, with no one certification related to business analysis referenced in job postings. The top five industries for jobs in the field are insurance, banking, consulting, computer systems, and healthcare.

Key Considerations and Opportunities

As the audience for data-oriented degrees is large and expanding, so is the opportunity in this discipline. However, institutions need to be aware of distinct degree types and where audiences do and do not overlap as they plan their program strategy. In addition, because of the mix of business and data analytics skills that employers want, program curriculums should be interdisciplinary in nature, with coursework that combines both technical and broad industry knowledge. This combination will provide a balance between the ability to analyze data and the ability to understand its implications for the industry.
Data Analytics (Cont.)

There are a few other specific things to keep in mind to ensure student success and positive learning outcomes in this discipline:

- Schools should consider their expectations of students’ basic knowledge or immediate needs. They might offer “boot camps,” foundational modules, or prerequisites where students can gain the knowledge they need to be successful in these types of programs or immediately in the workplace.

- Choose what types of data infrastructure and which programming language will be studied and used in the program early. These decisions can also help guide prospective students as they consider their specific knowledge goals.

- Experiential learning, such as capstone projects and portfolio projects, can contribute to the successful synthesis and application of knowledge gained in a data degree program.

Sources: Bureau of Labor Statistics, Burning Glass

Conclusion

The high-level data in this report shows that there are a range of opportunities for launching and expanding graduate programs. However, programs that historically performed very well may not offer the same level of opportunity in the future, and demand may increase for lesser-known, niche programs. Without a comprehensive analysis of institutional and workforce data, it can be difficult for colleges and universities to determine which programs will be successful—now and in the future. By carefully considering your institution’s competencies, strengths, and target students in conjunction with this research, you can begin to create a programmatic portfolio that supports long-term stability and growth.

If your institution needs support with this critical process, Wiley Education Services can provide you with in-depth and up-to-date analyses of enrollment and labor data from trusted and reliable sources as well as our own comprehensive internal data gathered over decades in the higher education space. We can also assess your institutional profile, identify the programs with the most potential for your particular school, and help you bring them to market. By identifying the right programs for each institution, we ensure that resources are invested wisely and that educational offerings are aligned with students’ needs and market trends. Whether you are thinking about taking existing programs online, expanding your range of programs, or launching entirely new ones, Wiley can help.

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