



## We can manage: employment trends for management occupations

*By Michael Rieley*

Will your future boss be a robot? Will workplaces of the future need as many managers? Although technology will undoubtedly affect the role of managers in the workplace, BLS projections of management occupations show steady and resilient employment demand over the next 10 years. One group of managers in particular is anticipated to experience markedly strong growth: operations specialties managers. These managers plan and direct the activities of businesses and organizations for specific subject areas. (For instance, training and development managers are responsible for the training and development of staff, while purchasing managers procure materials and products.) Among this group, managers working in computer and information systems and finance should expect especially strong demand for their services.

This **Beyond the Numbers** article gives an overview of the main reasons behind the especially strong projected growth for operations specialties managers over the next 10 years: a growing digital economy, the increasing need for risk management, and changing environmental and labor laws. It also discusses important broad trends that are expected to keep managers a key part of the engine of economic growth: namely, their resistance to automation effects and their essential role in navigating technological change.

## Overview of employment in management occupations

Among the four management occupation groups, operations specialties managers are projected to grow the fastest, at 9.4 percent, about two and a half times as fast as the average for all occupations. (See table 1.) Almost 40 percent of all manager job growth is expected to come from this subgroup. All subgroups of management occupations are projected to increase.

**Table 1. Employment change for management occupations, projected 2019–29 (numbers in thousands)**

| Occupation code | Occupation title   | 2019 Employment | 2029 Employment | Numeric change, 2019–29 | Percent change, 2019–29 |
|-----------------|--|-----------------|-----------------|-------------------------|-------------------------|
| 11-0000         | Management occupations   | 10,697.2        | 11,202.2        | 505.0                   | 4.7                     |
| 11-1000         | Top executives   | 2,828.0         | 2,946.3         | 118.3                   | 4.2                     |
| 11-2000         | Advertising, marketing, promotions, public relations, and sales managers | 836.7           | 879.0           | 42.3                    | 5.1                     |
| 11-3000         | Operations specialties managers  | 2,116.6         | 2,316.6         | 200.0                   | 9.4                     |
| 11-9000         | Other management occupations   | 4,915.9         | 5,060.3         | 144.4                   | 2.9                     |

Source: U.S. Bureau of Labor Statistics.

Within operations specialties managers, 5 out of the 9 detailed occupations are projected for above-average growth and most of the projected growth comes from two detailed occupations: financial managers (15.5 percent) and computer and information systems managers (10.4 percent). (See table 2.) These two occupations combined add roughly 8 in 10 new specialties managers jobs over the next 10 years.

**Table 2. Employment change for operations specialties managers, projected 2019–29 (numbers in thousands)**

| Occupation code | Occupation title                                   | 2019 Employment | 2029 Employment | Numeric change, 2019–29 | Percent change, 2019–29 |
|-----------------|--|-----------------|-----------------|-------------------------|-------------------------|
| 11-3000         | Operations specialties managers                    | 2,116.6         | 2,316.6         | 200.0                   | 9.4                     |
| 11-3010         | Administrative services and facilities managers    | 325.9           | 347.0           | 21.2                    | 6.5                     |
| 11-3021         | Computer and information systems managers          | 461.0           | 509.2           | 48.1                    | 10.4                    |
| 11-3031         | Financial managers                                 | 697.9           | 806.0           | 108.1                   | 15.5                    |
| 11-3051         | Industrial production managers                     | 190.1           | 191.9           | 1.7                     | 0.9                     |
| 11-3061         | Purchasing managers                                | 76.9            | 78.9            | 2.0                     | 2.6                     |
| 11-3071         | Transportation, storage, and distribution managers | 139.4           | 144.3           | 4.9                     | 3.5                     |
| 11-3111         | Compensation and benefits managers                 | 18.0            | 18.4            | 0.5                     | 2.5                     |
| 11-3121         | Human resources managers                           | 165.2           | 175.6           | 10.4                    | 6.3                     |
| 11-3131         | Training and development managers                  | 42.3            | 45.4            | 3.1                     | 7.3                     |

See footnotes at end of table.

Source: U.S. Bureau of Labor Statistics.

## Increased value of managing risk

Financial managers are projected for both the fastest growth (15.5 percent), and the most jobs added (108,100) among operations specialties managers from 2019–29. This is being driven by demand for two specific fields within financial management: risk management and cash management. Risk managers are increasingly in demand as companies seek ways to limit exposure to uncertainty and financial volatility. Increased emphasis on financial risk management goes back to the 2008 financial crisis and the ensuing regulations. However, stricter risk management practices have become “business as usual practices” according to MIT’s Doug Criscitello, which “could drive the risk management function of the future—even if the current regulatory environment becomes more relaxed.”<sup>1</sup> Cash managers are seeing growth as companies accumulate more cash on their balance sheets and need to manage these incoming cash flows. While demand for cash managers is in part related to risk preferences among firms (as cash provides insurance in times of financial uncertainty), much of the drive to accumulate cash is likely being driven by “declining international tax rates and active tax minimization behavior by U.S. corporations,” leading to an increase in cash held abroad in foreign subsidiaries.<sup>2</sup> Corporate strategy regarding financial risk, regulation, and tax minimization are all expected to lead to elevated demand for financial managers over the next 10 years.

## The growing digital economy

Computer and information systems managers are also projected for double-digit growth (10.4 percent), adding 48,100 jobs over the decade. Strong growth in the computer systems design and related services industry will translate to increased demand for these managers. Firms are driving this demand as they transition to a “digital economy”—defined as “connections among people, businesses, devices, data, and processes” via digital platforms.<sup>3</sup> Computer and information systems managers will be needed to facilitate these transitions. In addition, management of cybersecurity maintenance will also drive employment growth for these workers, as both personal and business information is increasingly stored in digital channels, raising privacy and cybersecurity demands. A 2019 report from *Burning Glass* stated that the number of cybersecurity job postings had grown 94 percent since 2013, making cybersecurity a particularly fast-growing segment of the overall information technology (IT) job market.<sup>4</sup> IT directors and IT security managers (computer and information systems managers who directly work with IT security) should therefore see particularly strong employment demand. In addition, the growing popularity of cloud computing (the research firm Gartner projects “that more than 30 percent of technology providers’ new software investments will go to cloud-only”) will also create a need for these managers to establish and maintain cybersecurity for these systems.<sup>5</sup>

## Environmental sustainability, labor law, and employee development

Three other detailed occupations are projected for above-average growth among operation specialties managers: administrative services and facilities managers, human resources managers, and training and development managers. Administrative services and facilities managers will see a projected employment growth rate of 6.5 percent from 2019–29, as a continued emphasis on environmental sustainability and the efficient use of building space will create more demand. In company offices, academic and government buildings, and hospitals, these managers will be needed to maintain and update buildings for energy efficiency, oversee health and safety

features, and ensure a resourceful allocation space.<sup>6</sup> Human resources managers are projected to grow 6.3 percent from 2019–29, driven by the need to comply with changing employment laws; and “HR professionals with legal expertise have a competitive advantage in the workplace, as they are able to proactively minimize a company’s exposure to legal risk.”<sup>7</sup> Employment of training and development managers is projected to grow 7.3 percent, as there is a growing emphasis on continuing education and skill development for employees.

## Resistance to automation

BLS projects that 27 out of the 34 detailed management occupations are projected to add jobs from 2019–29. This trend is partly attributable to the fact that manager occupations are more resistant to automation than other occupations. Generally, occupations, such as managers, that require a higher degree of analytical application in their tasks may be more resistant to automation—as opposed to more routinized positions, which automated systems and artificial intelligence could more easily replace.<sup>8</sup> In addition to analytical skills, jobs involving social skills may also be resistant to automation, as these skills are difficult for technology to copy. Managers are responsible for the development, supervision, and evaluation of employees, and thus require high levels of social and analytical skills. For example, sales managers must coach their teams on sales techniques, and emergency management directors must maintain effective communication with staff in their own organizations and with public safety officials. This combination of analytical ability and social skills may make managers more resistant to automation, and therefore likely to see stable employment demand.

Some routinized tasks currently performed by managers could be replaced by artificial intelligence, such as the completion of paperwork and other administrative tasks. The elimination of routinized tasks could lead to a shift towards more time spent on more challenging analytical and social roles, rather than a drop in employment of managers. Managers could “expand their responsibilities and influence to focus on improving worker experience, developing worker skills, and building organizational competency in the responsible use of AI.”<sup>9</sup>

Moreover, the changes brought on by technology may actually increase the demand for managers. Decisions on implementing new technology and automation are often made by managers; for example, they must consider which jobs to automate, how quickly to implement new technology, and to what extent. As summarized by MIT professor of economics Daron Acemoglu, “managers will decide how automation fits into the workplace.”<sup>10</sup>

## Conclusion

Management occupations as a whole are projected for about-average growth, with variation among subgroups and detailed occupations. Operations specialties managers are projected for the fastest growth among management subgroups, driven mainly by financial managers and computer and information system managers. Managers generally remain one of the most resistant occupational groups to automation, as their jobs are difficult to automate and they play an essential role in navigating technological change. Overall, these factors make employment demand for management occupations steady and resilient amid economic and technological change.

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This **Beyond the Numbers** article was prepared by Michael Rieley, economist, Office of Employment and Unemployment Statistics, U.S. Bureau of Labor Statistics. Telephone: 202-691-5728. Email: [rieley.michael@bls.gov](mailto:rieley.michael@bls.gov).

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## NOTES

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- <sup>3</sup> Damian Heath and Ludwig Micallef, “What is digital economy?,” Deloitte, accessed March 2021, <https://www2.deloitte.com/mt/en/pages/technology/articles/mt-what-is-digital-economy.html>.
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- <sup>5</sup> Larry Dignan, “Public cloud spending to surge as companies start moving from cloud-first to cloud-only, says Gartner,” *ZD Net*, April 2019, <https://www.zdnet.com/article/public-cloud-spending-to-surge-as-companies-start-moving-from-cloud-first-to-cloud-only-says-gartner/>.
- <sup>6</sup> Camille Fink, “Managing energy efficiency across multiple locations,” *Health Facilities Management*, August 2020, <https://www.hfmmagazine.com/articles/3985-managing-energy-efficiency-across-multiple-locations>.
- <sup>7</sup> Shayna Joubert, “Laws and regulations every HR professional should know,” Northeastern University Graduate Programs blog, September 2020, <https://www.northeastern.edu/graduate/blog/hr-laws-to-know/>.
- <sup>8</sup> Jacques Bughin, Eric Hazan, Susan Lund, Peter Dahlström, Anna Wiesinger, and Amresh Subramaniam, “Skill shift: Automation and the future of the workforce,” McKinsey & Company, May 2018, <https://www.mckinsey.com/featured-insights/future-of-work/skill-shift-automation-and-the-future-of-the-workforce>.
- <sup>9</sup> Mark Jones, “Two-thirds of managers’ routine tasks will be automated by 2024,” *Tech HQ*, January 2020, <https://techhq.com/2020/01/two-thirds-of-managers-routine-tasks-will-be-automated-by-2024/>.
- <sup>10</sup> Daniel Ackerman, “MIT forum examines the rise of automation in the workplace,” *MIT News*, November 2020, <https://news.mit.edu/2020/forum-automation-work-future-1120>.

## SUGGESTED CITATION

Michael Rieley, “We can manage: employment trends for management occupations,” *Beyond the Numbers: Employment and Unemployment*, vol. 10, no. 7 (U.S. Bureau of Labor Statistics, March 2021), <https://www.bls.gov/opub/btn/volume-10/we-can-manage-employment-trends.htm>