

# Northern Virginia's

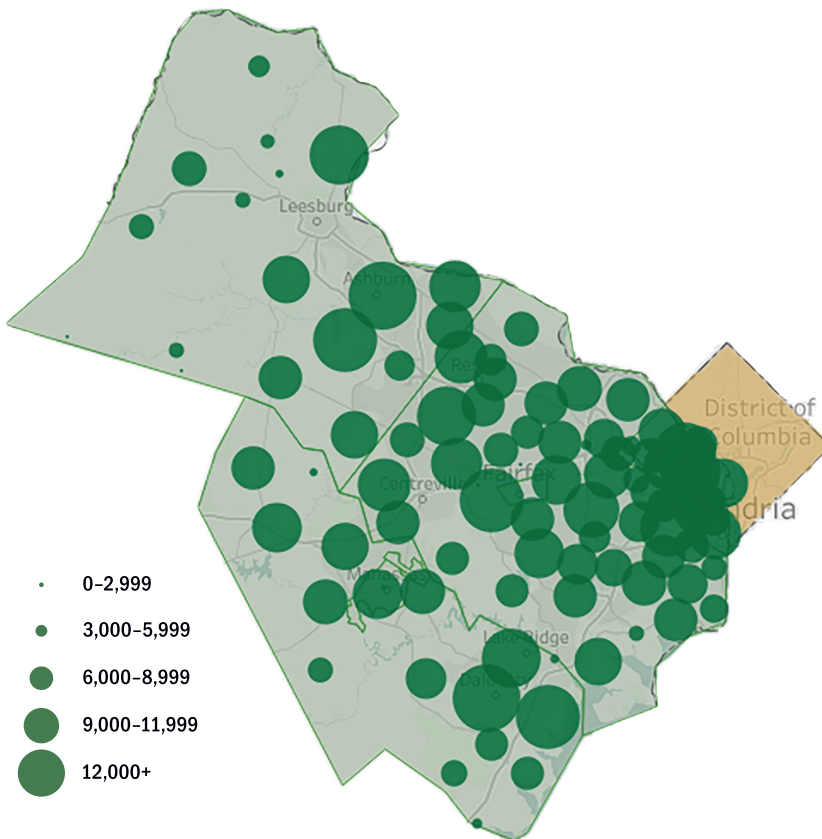
## BUSINESS & FINANCE WORKFORCE

# 2022

As the largest institution of public higher education in Virginia, Northern Virginia Community College (NOVA) acts as a catalyst for economic growth in the capital region by providing access to highly skilled, credentialed, and diverse talent.

NOVA advances this mission by collaborating with employers, economic development organizations, education institutions, community-based organizations, and local governments in the northern Virginia region to address the skills gap and develop a robust talent pipeline.

### Concentration of Business & Finance Workers by ZIP code tabulation area (ZCTA) in Northern Virginia

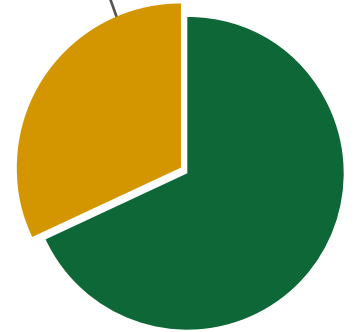


Source: U.S. Census Bureau, 2017-2021 American Community Survey 5-Year Estimates.

**NOTE:** There is one dot per ZCTA, and the size of the dot represents the number of business & finance workers in that ZCTA.

### NOVA Regional Workforce

**32%**  
Business  
& Finance



**565,764**

Total business & finance jobs in the NOVA region as of 2021



**\$101,763**

Average annual wage of business & finance workers in the NOVA region



**159,922**

Business & finance job postings in the NOVA region in the last 12 months



**5th nationally**

The Washington, D.C. metropolitan area's ranking nationally for total business & finance employment



**38,954**

Total business & finance degrees & credentials awarded in the Washington, D.C. metropolitan area in 2021

# Overview

Business administration and finance occupations provide the operational backbone for much of the modern economy and individuals with a business or finance background are afforded a wide range of potential career paths in diverse industry areas. As a result, business degrees have maintained a high level of popularity over the past two decades. Business is the third most popular post-secondary field at the 2-year level, accounting for 11% of all associate's degrees awarded nationwide in the 2019-2020 academic year, and the most popular field at the 4-year level, accounting for 19% of all bachelor's degrees awarded in the same year.<sup>1</sup>

Due to its ubiquity, trends in the business and finance workforce also tend to reflect larger employment trends across many other sectors in the economy.<sup>2</sup> With this in mind, and with an eye towards better understanding NOVA's role in collaborating with employers and community partners to develop a skilled workforce, this brief examines regional labor market trends and indicators for business and finance occupations in order to determine where our region is now, and what the near future may look like.

**PLEASE NOTE:** Employment data in this brief includes all QCEW and non-QCEW employees, as well as the self-employed and extended proprietors, which are defined as labor income for individuals who do not consider the employment a primary job.<sup>3</sup> Extended proprietors in business and finance are primarily real estate agents and personal financial advisors. The inclusion of extended proprietors helps to capture the gig economy, as well as other incidental income. The inclusion of extended proprietors is a change from the last iteration of this workforce brief, so comparison of any year-over-year changes between briefs should be avoided. All data, unless stated otherwise, is current as of 2021.

## Definitions

**Washington, D.C. Metropolitan Area (D.C. MSA):** The 25 counties (and independent cities) centered around the District of Columbia that are highly integrated economically and socially, as defined by the United States Office of Management and Budget. For the purpose of analysis, we consider four different sub-regions within the MSA:

**NOVA Region:** The nine jurisdictions served by Northern Virginia Community College, including: Arlington County, Alexandria City, Fairfax County, Fairfax City, Falls Church City, Loudoun County, Manassas City, Manassas Park City, and Prince William County.

**Suburban Maryland (MD) and West Virginia (WV):** The counties in Maryland and West Virginia that lie within the Washington, D.C. MSA, including: Calvert County, Charles County, Frederick County, Jefferson County (WV), Montgomery County, and Prince George's County.

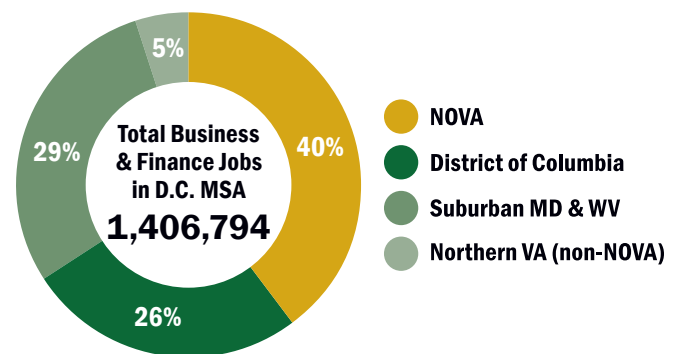
**District of Columbia:** The city and federal district that lies at the core of the metropolitan area.

**Northern Virginia (Non-NOVA):** The outlying Virginia counties that compose the remainder of the Washington,

D.C. MSA, but are not included in the NOVA Region. Includes: Clarke County, Culpeper County, Fauquier County, Fredericksburg, Madison County, Rappahannock County, Spotsylvania County, Stafford County, and Warren County.

**Business & Finance:** For the purposes of this brief, we will examine occupations with job activities that are primarily oriented around the broad functions of business

**Figure 1. Business & Finance Workforce by D.C. MSA Sub-Region**



Source: Lightcast Analyst (2022.4 release).

1 "Undergraduate degree fields," National Center for Education Statistics, last updated May 2022, [https://nces.ed.gov/programs/coe/indicator\\_cta.asp](https://nces.ed.gov/programs/coe/indicator_cta.asp).

2 Michael Riele, "In the money: occupational projections for the financial industry," Bureau of Labor Statistics, October 2018, <https://www.bls.gov/opub/btn/volume-7/in-the-money-occupational-projections-for-the-financial-industry.htm>.

3 "Class of Worker (CoW)," Lightcast, accessed January 12, 2023, <https://kb.emsidata.com/glossary/class-of-worker-cow/>.

administration or finance—that is, roles involved in running and maintaining the administrative or financial activities of a business of any kind, but not necessarily its technical operations. This includes not only those occupations employed in the finance, banking, and insurance sectors, or in roles typically associated with financial activities (e.g., accountants, financial analysts, sales representatives) but also those in marketing, human resources, office administration, and management/ executive leadership roles.

Table 1 contains a selected list of the occupations we have considered in this analysis, including the codes and titles used by the Bureau of Labor Statistics’ standard occupation classification (SOC) system to formally define occupational categories for data collection and analysis, as well as total employment for the occupation in the NOVA region as of 2021. While our analysis included over 100 occupations, for the sake of brevity we have only provided the titles of occupations with employment of over 1,500 (or those in roughly the upper 50% of employment for the group).

**Table 1. Business & Finance Occupations in the NOVA Region (employing over 1,500)**

SOC Code	SOC Title	Total Employment	SOC Code	SOC Title	Total Employment
11-1011	Chief Executives	8,043	15-1299	Computer Occupations, All Other	8,596
11-1021	General and Operations Managers	33,302	15-2031	Operations Research Analysts	3,483
11-2021	Marketing Managers	3,463	27-1024	Graphic Designers	4,257
11-2022	Sales Managers	3,167	27-3031	Public Relations Specialists	4,300
11-2032	Public Relations Managers	1,633	27-3042	Technical Writers	1,923
11-3031	Financial Managers	9,680	41-1012	First-Line Supervisors of Non-Retail Sales Workers	6,282
11-3061	Purchasing Managers	1,701	41-3021	Insurance Sales Agents	5,357
11-3121	Human Resources Managers	2,800	41-3031	Securities, Commodities, and Financial Services Sales Agents	7,269
11-9141	Property, Real Estate, and Community Association Managers	13,239	41-3091	Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Travel	16,911
11-9199	Managers, All Other	28,027	41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	3,811
13-1028	Buyers and Purchasing Agents	11,032	41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	6,267
13-1031	Claims Adjusters, Examiners, and Investigators	1,845	41-9021	Real Estate Brokers	9,169
13-1041	Compliance Officers	5,981	41-9022	Real Estate Sales Agents	31,165

Source: Lightcast Analyst (2022.4 release).

**Table 1. Business & Finance Occupations in the NOVA Region (employing over 1,500) (cont.)**

SOC Code	SOC Title	Total Employment	SOC Code	SOC Title	Total Employment
13-1051	Cost Estimators	2,149	41-9099	Sales and Related Workers, All Other	3,908
13-1071	Human Resources Specialists	14,052	43-1011	First-Line Supervisors of Office and Administrative Support Workers	12,346
13-1082	Project Management Specialists	14,854	43-3021	Billing and Posting Clerks	2,273
13-1111	Management Analysts	50,543	43-3031	Bookkeeping, Accounting, and Auditing Clerks	13,722
13-1121	Meeting, Convention, and Event Planners	3,678	43-3071	Tellers	2,374
13-1151	Training and Development Specialists	5,847	43-4051	Customer Service Representatives	20,151
13-1161	Market Research Analysts and Marketing Specialists	12,840	43-4111	Interviewers, Except Eligibility and Loan	1,809
13-1199	Business Operations Specialists, All Other	20,366	43-4131	Loan Interviewers and Clerks	3,771
13-2011	Accountants and Auditors	26,508	43-4171	Receptionists and Information Clerks	10,417
13-2028	Property Appraisers and Assessors	4,236	43-4199	Information and Record Clerks, All Other	1,598
13-2031	Budget Analysts	1,629	43-5021	Couriers and Messengers	6,341
13-2051	Financial and Investment Analysts	7,628	43-6011	Executive Secretaries and Executive Administrative Assistants	4,961
13-2052	Personal Financial Advisors	14,650	43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	9,617
13-2072	Loan Officers	3,832	43-9061	Office Clerks, General	26,426
13-2082	Tax Preparers	1,958	43-9199	Office and Administrative Support Workers, All Other	2,417
13-2099	Financial Specialists, All Other	2,346			
<b>All Other Business and Finance Occupations Not Listed Above (44 total): 23,812</b>					

Source: Lightcast Analyst (2022.4 release).

# Occupations

**Table 2. Summary – Business & Finance Occupation Employment in the NOVA Region**

	Current (2021)			Last 5 Years	Next 3 Years			
	Total Employment	Average Annual Wage	Location Quotient (LQ)	Average Annual Growth	Total New Demand	Total Separations*	New Growth	Average Annual Growth
<b>NOVA Region</b>	<b>565,764</b>	<b>\$101,763</b>	<b>1.2</b>	<b>1.4%</b>	<b>170,706</b>	<b>155,300</b>	<b>15,406</b>	<b>0.7%</b>
<b>D.C. MSA</b>	<b>1,406,794</b>	<b>\$100,393</b>	<b>1.2</b>	<b>1.0%</b>	<b>421,802</b>	<b>381,032</b>	<b>40,770</b>	<b>0.7%</b>

Source: Lightcast Analyst (2022.4 release).

\*Separations include demand resulting both from expected exits (individuals leaving the workforce due to retirement, etc.) and expected transfers (individuals moving into other occupations).

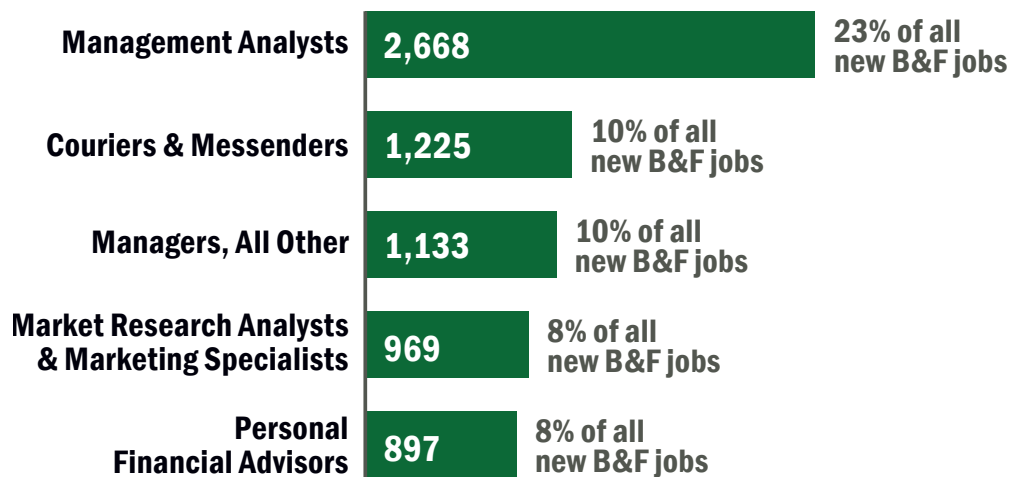
As of 2021, there were over 550,000 business administration and finance jobs in the NOVA region, representing 40% of the business administration and finance workforce in the entire Washington, D.C. metropolitan area (Figure 1). Business and finance jobs in the NOVA region have been growing only slightly faster over the last five years than across the entire MSA and are projected to grow at the same rate as the MSA over the next three years (Table 2).

Among those occupations expected to see the greatest employment growth in the NOVA region over the next three years are two—management analysts and market research analysts/marketing specialists—focused on developing and providing business intelligence; the region can expect to add over 3,000 new jobs between both of these occupations, which represents just under a third (31%) of projected growth across the business and finance workforce (Figure 2). This highlights the increasing demand across the economy for workers who are fluent in navigating and communicating insights based on sophisticated data analysis.<sup>4</sup>

Other roles that are projected to grow significantly over the next three years include personal financial advisors, messengers/couriers, and other management positions such as regulatory affairs managers, compliance managers, and loss prevention managers.<sup>5</sup> Combined, these positions will account for over 3,000 jobs and almost a third (28%) of new business and finance jobs.

In addition to projected growth, another measure of an occupation’s importance and potential demand in a region

**Figure 2. Business & Finance Occupations Expected to Add the Most New Jobs over the Next 3 Years**



Source: Lightcast Analyst (2022.4 release).

<sup>4</sup> “The quant crunch: How the demand for data science skills is disrupting the job market,” Burning Glass Technologies (now Lightcast), 2017, [https://www.burning-glass.com/wp-content/uploads/The\\_Quant\\_Crunch.pdf](https://www.burning-glass.com/wp-content/uploads/The_Quant_Crunch.pdf).

<sup>5</sup> “Managers, All Other,” O\*NET OnLine, accessed January 12, 2023, <https://www.onetonline.org/link/summary/11-9199.00>.

is its concentration in the regional economy compared to its concentration nationally, also known as an occupation's location quotient (LQ). An LQ of 0.8 – 1.2 usually means the occupation makes up a similar proportion of total regional employment as it does nationally, while an LQ higher than 1.2 means that the occupation makes up a greater share of the regional labor market than it does at a national level (and vice-versa for an LQ below 0.8).

The business and finance workforce is similarly (if not slightly more) concentrated regionally than it is at a national level, with an LQ of 1.2 across all occupations in the area (Table 2). Among the most concentrated individual occupations are operations research analysts, which make up almost four times the share of the regional workforce as at the national level (Table 3). Other highly concentrated business and finance occupations in the region include similarly high-skilled analyst and communications-related occupations.

Of course, the highest paid positions regionally are in management and the executive suite (Table 4). These positions have average annual wages that are 2-3 times higher than the average for all occupations in the D.C. metro area (\$80,480 as of May 2021).<sup>6</sup> All five of these occupations are predicted to grow to some degree over the next three years, though not quite as much as those shown in Figure 2.

The lowest-paying jobs, however, fall among both the fastest-growing and fastest-declining jobs in the region. While couriers and messengers – the lowest-

**Table 3. Highest Concentrated Business & Finance Occupations in the NOVA Region (employment over 1,000)**

Occupation	LQ	Total Employment
Operations Research Analysts	3.8	3,483
Management Analysts	3.7	50,543
Budget Analysts	3.6	1,629
Technical Writers	3.4	1,923
Public Relations Managers	2.7	1,633

Source: Lightcast Analyst (2022.4 release).

paying job, with average annual wages of only about \$34,000 – are the second fastest-growing occupation, tellers and customer service representatives are the sixth and seventh fastest-declining occupations, respectively, predicted to lose between 110 and 130 jobs over the next three years (see Table 4, Figure 2, and Table 5).

Other occupations expected to decline over the next 3 years include buyers and purchasing agents, executive secretaries and clerks, and real estate/insurance sales agents (Table 5). Notably these are also occupations with a high share of job tasks that can be automated, such as tellers or secretaries and administrative assistants; for example, one study found that 60% of work tasks for office and administrative support occupations are

**Table 4. Business & Finance Occupations (employing over 1,500) with the Highest and Lowest Annual Wages in the NOVA Region**

Highest		Lowest	
Occupation	Average Annual Wages	Occupation	Average Annual Wages
Chief Executives	\$218,396	Couriers and Messengers	\$34,410
Public Relations Managers	\$201,509	Receptionists and Information Clerks	\$36,520
Financial Managers	\$172,183	Customer Service Representatives	\$44,169
Human Resources Managers	\$163,411	Tellers	\$45,351
Sales Managers	\$161,129	Interviewers, Except Eligibility and Loan	\$45,431

Source: Lightcast Analyst (2022.4 release).

<sup>6</sup> “May 2021 Metropolitan and Nonmetropolitan Area Occupational Employment and Wage Estimates,” U.S. Bureau of Labor Statistics, last modified March 31, 2022, [https://www.bls.gov/oes/current/oes\\_47900.htm](https://www.bls.gov/oes/current/oes_47900.htm).

potentially automatable, third behind food preparation and production/manufacturing job tasks.<sup>7</sup>

It might be expected that, as a similarly low-wage/lower-skilled occupation, receptionists would also be susceptible to automation. However, it is likely that roles with a heavy emphasis on public-facing customer service interaction, particularly in-person, will continue to remain in demand as current and near-term artificial intelligence (AI) solutions are unable to yet replicate the complex social interactions these roles require.<sup>8</sup> By contrast, online and self-service administrative technology solutions have made it easier for executives and managers to book their own travel, manage their own calendar, and do their own word processing/document management, thereby placing executive assistant jobs at greater risk for automation.

**Table 5. Business & Finance Occupations (employing over 1,500) Expected to Decline over Next 3 Years**

Occupation	Total Job Loss	Average Annual Rate of Change
<b>Buyers and Purchasing Agents</b>	<b>-269</b>	<b>-0.8%</b>
<b>Executive Secretaries and Executive Administrative Assistants</b>	<b>-241</b>	<b>-1.6%</b>
<b>Office Clerks, General</b>	<b>-229</b>	<b>-0.3%</b>
<b>Real Estate Sales Agents</b>	<b>-140</b>	<b>-0.1%</b>
<b>Insurance Sales Agents</b>	<b>-136</b>	<b>-0.9%</b>
<b>Tellers</b>	<b>-128</b>	<b>-1.8%</b>
<b>Customer Service Representatives</b>	<b>-111</b>	<b>-0.2%</b>

Source: Lightcast Analyst (2022.4 release).

7 Mark Muro, Robert Maxim, and Jacob Whiton, "Automation and Artificial Intelligence: How machines are affecting people and places," Brookings Institution, January 24, 2019, <https://www.brookings.edu/research/automation-and-artificial-intelligence-how-machines-affect-people-and-places/>.  
 8 April Slattery, "What's next for customer service jobs in the wake of automation?" Tech Monitor, updated May 4, 2018, <https://techmonitor.ai/technology/emerging-technology/customer-service-jobs-wake-automation>.

# Industries

**Table 6. Top Industry Sectors Employing Business & Finance Jobs in the NOVA Region**

Sector Title	B&F Employment	% of B&F Jobs Employed in Sector	Annual % Growth (B&F Jobs)	Annual % Growth (All Sector Jobs)
Professional, Scientific, and Technical Services	165,819	29.3%	1.3%	1.2%
Government	67,386	11.9%	0.1%	0.5%
Real Estate and Rental and Leasing	65,485	11.6%	0.1%	0.1%
Finance and Insurance	63,992	11.3%	0.6%	0.6%
Administrative and Support Services	29,873	5.3%	1.5%	0.9%
Other Services (except Public Administration)	25,335	4.5%	0.0%	0.8%
<b>Total - Top 6 Sectors</b>	<b>417,891</b>	<b>73.9%</b>	<b>0.7%</b>	<b>0.8%</b>
<b>All Other Sectors</b>	<b>147,873</b>	<b>26.1%</b>	<b>0.6%</b>	<b>0.9%</b>

Source: Lightcast Analyst (2022.4 release).

As the NOVA region’s largest industry sector, it is no surprise that professional, scientific, and technical services firms employ the highest share (just under a third) of local business and finance jobs; or that the government, real estate, and finance and insurance sectors each employ over 10% of the business workforce (Table 6). However, business and finance jobs are also relatively spread out across all other industry sectors in the economy—compare the

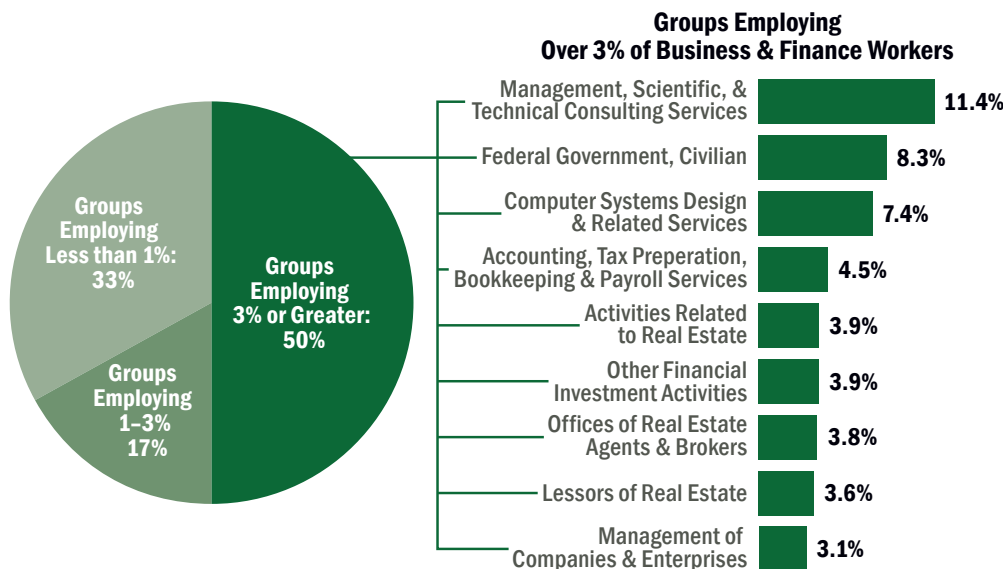
business and finance workforce to information technology or healthcare, in which the top six sectors employ 90-98% of the workforce, compared to just 74% of business and finance jobs.

Despite being an important component of most industry sectors, however, growth among business and finance occupations rarely “drives” overall sector growth. That

is, projected growth for business and finance occupations within a sector is typically nearly the same as, or slower than, growth for all other occupations in that sector (with the exception of administrative and support services, where business and finance jobs are growing faster than the sector as a whole).

Each industry sector can be further divided into groups of related industries focused on more specific business activities. Examining the concentration of business and finance jobs across these industry groups helps further illuminate

**Figure 3. Industry Groups Employing Business & Finance Workers in the NOVA Region (by % of All Business & Finance Employment)**



Source: Lightcast Analyst (2022.4 release).



the unique composition of the regional workforce. For example, two industry groups employing a large share of the region's business and finance workforce are management, scientific, and technical consulting services and computer systems design (Figure 3), the two largest industry groups within the region's professional and technical services sector, and major drivers of the regional economy overall. The federal government is also a top employer of these occupations, employing 8.3% of the business and finance workforce.

Other industry groups employing over 3% of the business and finance workforce include those typically associated with the field, such as accounting, bookkeeping, payroll services, and real estate due to the vast majority of their employment being made up of business and finance jobs (Table 7).

Among the top employers posting for business and finance jobs over the last 12 months are many of the largest and best-known professional services firms in the region, including Leidos, KPMG, Booz Allen Hamilton, and Deloitte (Table 8). In fact, there is a large degree of overlap between the employers posting large numbers of business and finance jobs, and those posting for information technology (seven out of the ten employers in Table 8 are also among the top 10 for IT). Also represented are large engineering/defense corporations such as General Dynamics and Northrop Grumman.

While job postings are a useful proxy or supplement for understanding labor demand, it is important to note that they do not provide a perfect measure; as is evident, they tend to favor employers with large workforces and the resources to conduct significant online hiring. So, while these employers largely represent those industry groups that

**Table 7. Top Industry Groups Employing Business & Finance Workers in the NOVA Region**

Industry Group	Total Industry Group Employment	% of Industry Employed in Business & Finance Occupations
<b>Management, Scientific, and Technical Consulting Services</b>	<b>64,600</b>	<b>75.6%</b>
<b>Federal Government, Civilian</b>	<b>46,912</b>	<b>46.0%</b>
<b>Computer Systems Design and Related Services</b>	<b>42,144</b>	<b>33.6%</b>
<b>Accounting, Tax Preparation, Bookkeeping, and Payroll Services</b>	<b>25,212</b>	<b>91.9%</b>
<b>Activities Related to Real Estate</b>	<b>22,052</b>	<b>81.1%</b>
<b>Other Financial Investment Activities</b>	<b>22,009</b>	<b>96.3%</b>

Source: Lightcast Analyst (2022.4 release).

employ the highest share of business and finance jobs in the region, there are many firms from other sectors of the economy that have a similarly meaningful impact on the workforce (such as in education) that are not represented here. For example, George Mason University ranks 18th, having posted 834 business and finance jobs between November 2021 and October 2022.

**Table 8. Top Ten NOVA Business & Finance Employers by Total Job Postings (November 2021–October 2022)**

Employer	Job Postings
<b>Amazon</b>	<b>4,540</b>
<b>Leidos</b>	<b>3,196</b>
<b>KPMG</b>	<b>2,461</b>
<b>Capital One</b>	<b>2,120</b>
<b>Booz Allen Hamilton</b>	<b>2,053</b>
<b>Deloitte</b>	<b>1,855</b>
<b>General Dynamics</b>	<b>1,762</b>
<b>Northrop Grumman</b>	<b>1,634</b>
<b>SAIC</b>	<b>1,458</b>
<b>Kforce</b>	<b>1,199</b>

Source: Lightcast Analyst (2022.4 release).

# Regional Comparison

In order to best understand the local business and finance labor market, it is also useful to place the region in context of other similar metropolitan areas, peer cities, and nearby regions. In this case, we compare the NOVA region to the Washington, D.C. metropolitan area (MSA), other national MSAs with prominent business and finance industries, and two nearby MSAs, Baltimore and Richmond.

The D.C. MSA ranks fifth among United States metropolitan areas for both the total size of its business and finance workforce and its concentration of business and finance occupations among the entire workforce (*Table 9*). The NOVA region ranks the equivalent of 19th in terms of total business and finance employment, right behind the San Diego metropolitan area. However, despite a business and finance workforce that is smaller than in other metros overall, the NOVA region would rank seventh among all MSAs in terms of the share of its overall workforce represented by these jobs.

At a more detailed level, Figure 4 indicates, for the NOVA region and nearby MSAs, the extent to which business and finance occupations are concentrated across the five industry groups that employ the greatest shares of business and finance jobs at the national level. It is evident from this analysis that the industry mix across the business and finance workforce differs significantly by region.

Although management, scientific, and technical consulting firms employ the largest share of business and finance jobs in the NOVA region, as well as in the D.C. MSA, lessors of real estate employ the greatest share in Richmond and at the national level, while other financial investment activities employ the largest share in the Baltimore MSA. At the same time, computer systems design firms are responsible for a significantly larger share of business and finance employment in the NOVA region than these other nearby cities or the nation as a whole—only 2% of the business and finance workforce

**Table 9. Top MSAs by Total Business & Finance Employment (in thousands) Compared to the NOVA Region and Nearby MSAs**

MSA Rank	Region/MSA	B&F Employment	Total Employment	B&F Concentration
1	New York City	3,832.8	12,068.3	31.8%
2	Los Angeles	2,501.2	8,708.6	28.7%
3	Chicago	1,706.8	5,757.3	29.6%
4	Dallas-Fort Worth	1,617.4	5,094.0	31.8%
5	Washington, D.C.	1,406.8	4,253.5	33.1%
6	Miami-Ft. Lauderdale	1,316.9	4,198.6	31.4%
7	Houston	1,230.2	4,439.0	27.7%
8	Atlanta	1,185.8	3,814.8	31.1%
9	Boston	1,083.9	3,521.5	30.8%
10	Philadelphia	1,067.4	3,672.2	29.1%
-	NOVA Region	565.8	1,746.8	32.4%
20	Baltimore	516.3	1,759.6	29.3%
43	Richmond	248.1	825.6	30.1%

Source: Lightcast Analyst (2022.4 release).

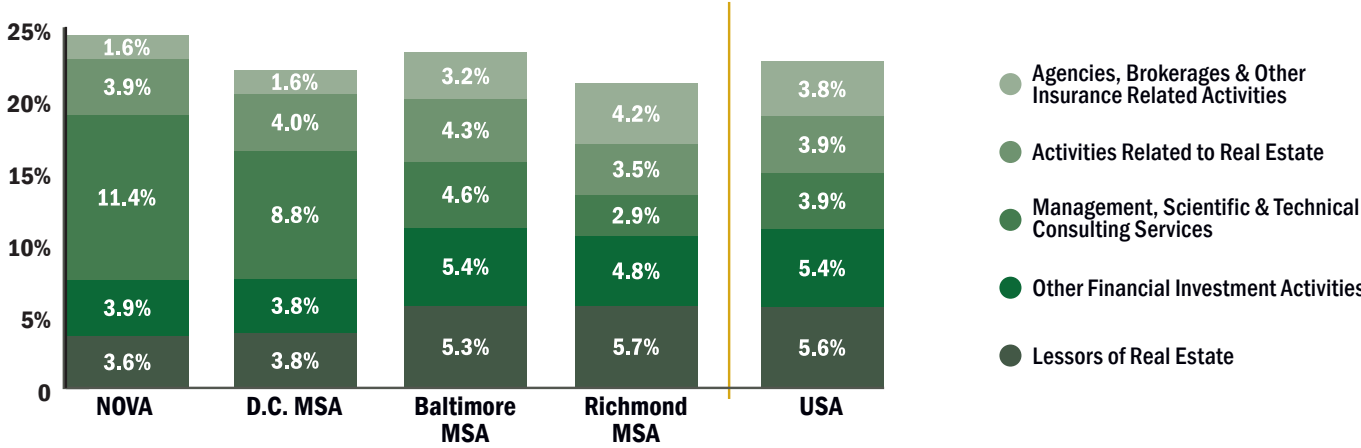
is employed in computer systems design nationwide, compared to over 7% in the NOVA region. Business and finance workers with knowledge and expertise around information technology will be in higher demand locally than they will be in other nearby areas (2.7% and 1.2% of the business and finance workforce are employed in the industry in Baltimore and Richmond, respectively). This both establishes the NOVA region as a magnet for individuals with the skills to administer IT businesses and means that the region will need to look to attract business and finance workers skilled in IT from outside the larger “Greater Washington” area (inclusive of Baltimore/Richmond).

It is interesting to note that a relatively large share (5.3%) of the business and finance workforce in the Richmond MSA is employed in nondepository credit intermediation (compared to 1.5% and 1.1% in the D.C. and Baltimore MSAs, respectively). This is likely due, in part, to the presence of the Federal Reserve Bank of Richmond. Although we would expect employment at the Federal Reserve Bank to more heavily be classified under a different industry group (“Monetary

Authorities-Central Bank”) the institution's presence in the area has likely also attracted a host of banking-related institutions that find it advantageous to be located nearby. While a smaller share of the NOVA region’s business and finance workforce is employed

in this same industry, Richmond provides a proximate source of talent to help meet the above average growth (1.3% annually) expected for this industry locally over the next 3 years.<sup>9</sup>

**Figure 4. Concentration of Business & Finance Jobs by Industry Group for NOVA, D.C. MSA, and Other Nearby Regions**



Source: Lightcast Analyst (2022.4 release).

# Education

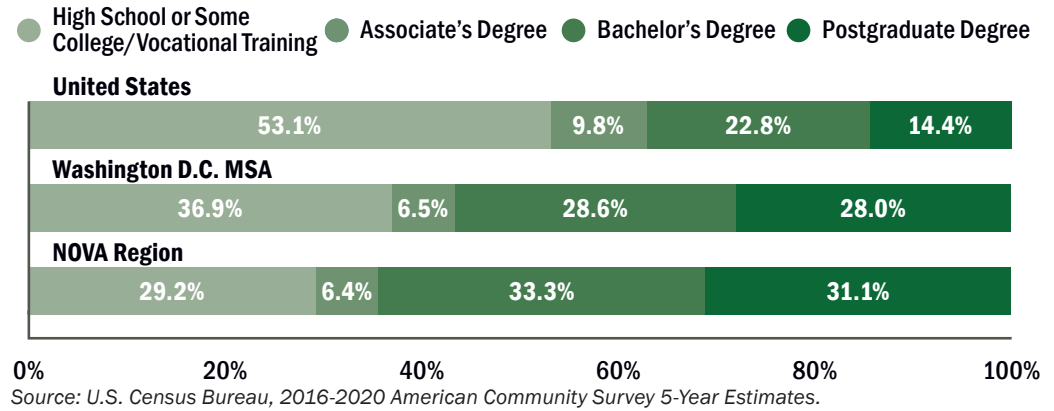
In general, the NOVA region has much higher levels of education than the country as a whole, with around 71% of the high school graduate population (aged 25+) holding some sort of 2-year, 4-year, or post-graduate degree compared to around 47% nationally (*Figure 5*). Degree holders are also slightly more concentrated in the region than across the entire D.C. MSA, where roughly 63% of the same population holds an associate's degree or higher.

Educational attainment among business and finance workers is slightly higher than that of the region as a whole (nearly 80% have a 2-year degree or higher), while job postings for business and finance positions in the NOVA region require a similarly high level of education, with over 80% requiring some sort of degree (*Figure 6*). Despite this, there are slightly more opportunities for business and finance workers with less than a bachelor's degree than in some other professional or "white collar" areas such as information technology—23% of business and finance job postings requested a high school diploma, certificate/vocational training, or a 2-year degree, while only 11% of information technology job postings did the same.

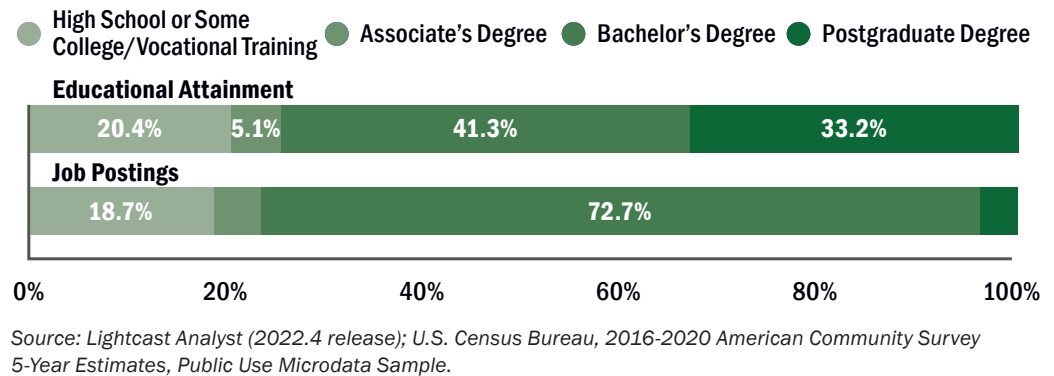
At the same time, educational institutions in the Washington, D.C. metropolitan area are producing a significant number of graduates from business programs at the certificate and associates degree levels: over 5,000 completed some college credential or a full two-year degree during 2021 (*Figure 7*). A few business fields may still benefit from additional program development

at the pre-baccalaureate level, however. This includes accounting, which produced just over 400 graduates at the certificate and two-year level. Demand for bookkeeping and accounting clerks (jobs that typically require some college, but no degree)<sup>10</sup> far exceeds this, with about 2,500 job postings in the NOVA region between November 2021 and October 2022 as well as an expected increase in demand of over 4,800 jobs over the next three years (including those from separations). Similarly, nearly 150 certificates and 2-year degrees were awarded in human resources, while there were 590 job postings for human resources assistants (an occupation that typically only requires an associate's degree) and around 6,000 for human resources specialists (which may require a bachelor's degree, but also holds a number of opportunities for individuals with 2-year credentials) between November 2021 and October 2022.<sup>11</sup>

**Figure 5. Educational Attainment of Population Aged 25+, High School Degree & Above**

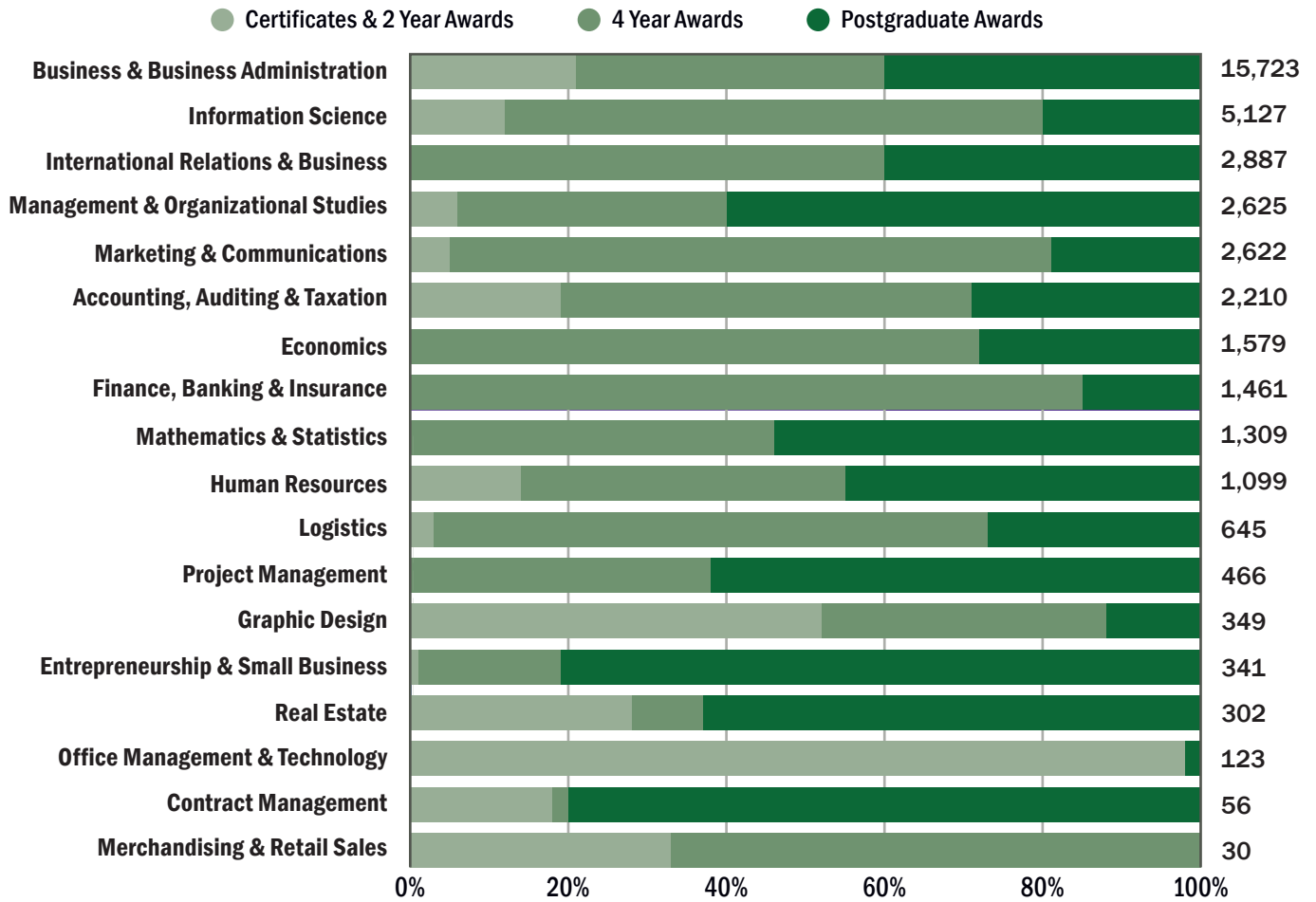


**Figure 6. Educational Attainment & Job Posting Education Requirements for NOVA B&F Jobs**



<sup>10</sup> "Occupational Projections Data," Bureau of Labor Statistics, Employment Projections Program, <https://data.bls.gov/projections/occupationProj>.  
<sup>11</sup> "Occupational Projections Data," Bureau of Labor Statistics, Employment Projections Program, <https://data.bls.gov/projections/occupationProj>; Lightcast Analyst (2022.4 release).

**Figure 7. Business & Finance Credentials Awarded by Program Area and Level (D.C. MSA, 2021)**



Source: Lightcast Analyst (2022.4 release).

# Skills and Certifications

In order to develop education and training opportunities that truly meet the demand for well-qualified business and finance talent among employers, however, it is critical to understand which skills they are looking for within the workforce. Table 10 indicates the most in-demand skills for all business and finance occupations in the NOVA region based on the number of postings requesting the skills. These are further grouped into two different categories: baseline/“soft” skills, which are those that are necessary regardless of job function; and specialized skills, which are those that are uniquely necessary to a particular job or set of job functions.

Those specialized skills in greatest demand span a wide variety of job roles and business functions, including marketing,

**Table 10. Top Skills Listed on NOVA Business & Finance Job Postings**

Specialized Skills		Baseline Skills	
Skill	% of All Postings	Skill	% of All Postings
Marketing	12.7%	Communication Skills	47.1%
Accounting	11.8%	Management	39.2%
Finance	11.7%	Leadership	27.1%
Auditing	9.3%	Operations	26.0%
Project Management	8.6%	Customer Service	26.0%
Agile Methodology	8.5%	Writing	20.7%
Business Development	7.7%	Planning	20.5%
Computer Science	7.4%	Sales	20.2%
Systems Engineering	6.8%	Detail-Oriented	18.6%
Data Analysis	6.6%	Microsoft Excel	17.4%

Source: Lightcast Analyst (2022.4 release).

**Table 11. Top Certifications Listed on NOVA Business & Finance Job Postings**

Certification	% of Postings
Security Clearance	31.5%
Project Management Professional Certification	5.0%
Certified Public Accountant (CPA)	1.4%
CompTIA Security+	1.4%
Certified Information Systems Security Professional (CISSP)	1.3%
Certified Information System Auditor (CISA)	0.9%
Certified Scrum Master	0.9%
Certified Internal Auditor (CIA)	0.8%
IAT Level II Certification	0.7%
GIAC Certifications	0.7%
IT Infrastructure Library (ITIL) Certifications	0.6%
Professional in Human Resources	0.5%

Source: Lightcast Analyst (2022.4 release).

accounting, and project management. However, the most requested baseline skills were included in more business and finance job postings than any other frequently requested specialized skill, indicating that employers see baseline skills as critical for business and finance jobs. Education credentials, particularly bachelor’s degrees, may be valuable as signals of basic technical competency, but education and training programs must continue to emphasize soft skills in order to prepare individuals for the business and finance workforce.

The most in-demand certifications for business and finance occupations largely reflect the region’s most prominent industry areas. Given the regional importance of the public administration sector as an employer of business and finance occupations (see Table 6 and Figure 3), it is not surprising that security clearance shows up as, by far, the most in demand credential for the workforce (Table 11). Similarly, the large number of IT credentials (ITIL, CISSP, CISA, CompTIA, and GIAC) certainly reflects the high share of business and finance employment found in the computer systems design industry.

That said, the high degree of technical competency required for these certifications would perceivably be beyond what would be required for many of the more administrative and finance-oriented roles considered in this brief. It may be the case that most of these certifications have been included in postings for IT-related manager roles that, while categorized under broader business or finance occupations, may lie

along career pathways that progress from IT-related occupations or require more technical backgrounds. This highlights at least one limitation of the occupation classification system, which groups job roles based on primary job activities, and re-emphasizes the importance of examining the unique industry and skill mixes of a regional economy when examining any sector of the workforce.

## Data Sources

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