

RESEARCH BRIEF

**Employment Outcomes of NOVA Graduates:
Business Management, A.A.S. and Certificate Programs**

Introduction

This Research Brief presents the employment outcomes of 289 NOVA graduates of the Business Management, A.A.S. and Certificate programs from 2007 through 2017 (Section I) and provides employment data for Business Management (A.S. and B.S.) graduates (Section II).¹ The employment data includes target occupations, job postings, companies hiring, and highly desired job skills and qualifications for Business Management (A.S. and B.S.) graduates in the NOVA region during the specified period.²

Data were extracted utilizing the Economic Modeling Specialists International (EMSI) product, which provides employment data derived from government sources, online job posting activity, and professional networking profiles (e.g., LinkedIn) and résumés. EMSI employment data were also used to determine the employment outcomes and workforce credentials of NOVA graduates.³

Key Findings

- The vast majority of NOVA Business Management (A.A.S. and Certificate) graduates are employed in a Business Management-related field (95 percent).
- The employment opportunities for Business Management (A.S. and B.S.) graduates in the NOVA region are favorable for some target occupations including Management Analysts, Business Operations Specialists, General and Operations Managers, Accountants and Auditors, and Managers.
 - Regionally, these target occupations have frequent job openings and median hourly earnings higher than national median hourly earnings for these occupations.
- Anthem, Oracle Corporation, Booz Allen Hamilton, Deloitte, and Leidos Holdings are the top five companies hiring Business Management (A.S. and B.S.) graduates in the NOVA region.

¹ Graduates may have earned additional degrees beyond the Business Management (A.A.S. or Certificate).

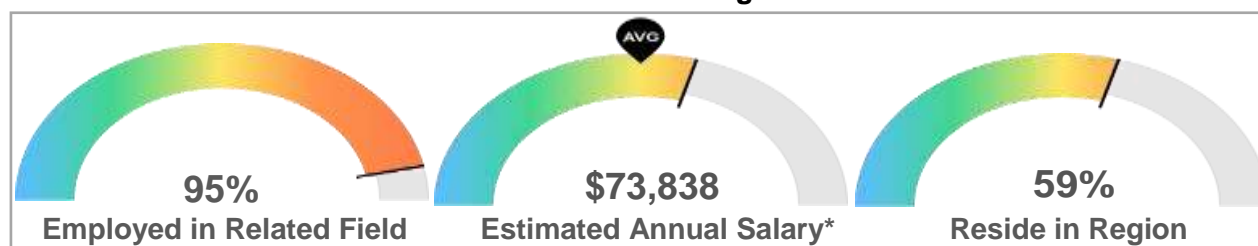
² Job postings comprise both full-time and part-time positions.

³ Economic Modeling Specialist International (EMSI): <https://www.economicmodeling.com/>

Section I. Employment Outcomes of NOVA Graduates

This section provides recent (2019) employment outcomes information for 289 NOVA graduates of the Business Management, A.A.S. and Certificate programs who graduated from 2007 through 2017.⁴ Of these graduates, the vast majority (95 percent) were employed in a Business Management-related occupation, and 59 percent resided within the NOVA region.⁵ The average estimated annual salary among these graduates (\$73,838) was higher than the average estimated annual salary for *all* NOVA graduates (\$66,652) from 2007 through 2017 (Figure 1).

Figure 1. Employment Outcomes of NOVA Business Management (A.A.S. and Certificate) Graduates: 2007 through 2017



* The average estimated annual salary among all NOVA 2007 through 2017 graduates was \$66,652.

Alumni Occupations

The top in-field occupations of NOVA's Business Management, A.A.S. and Certificate program graduates were Secretaries and Administrative Assistants (7 percent), Customer Service Representatives (3 percent), First-Line Supervisors of Office and Administrative Support Workers (3 percent), and non-specific Managers (3 percent) (Table 1).⁶

Table 1. Occupations among NOVA Business Management (A.A.S. and Certificate) Graduates: 2007 through 2017

Occupations	SOC Code**	Graduates	
		#	%
Secretaries and Administrative Assistants (excluding Legal, Medical, and Executive)	43-6014	20	6.9
Customer Service Representatives	43-4051	9	3.1
First-Line Supervisors of Office and Administrative Support Workers	43-1011	8	2.8
Managers (non-specific)	11-9199	8	2.8
Computer Systems Analysts	15-1121	7	2.4
Executive Secretaries and Executive Administrative Assistants	43-6011	7	2.4
General and Operations Managers	11-1021	7	2.4
Receptionists and Information Clerks	43-4171	7	2.4
Bookkeeping, Accounting, and Auditing Clerks	43-3031	6	2.1
Management Analysts	13-1111	6	2.1
Marketing Managers	11-2021	6	2.1
Retail Salespersons	41-2031	6	2.1
<i>Unclassified Occupation*</i>	99-9999	15	5.2

*Occupations classified as out-of-field and not related to the program of study.

**Standard Occupational Classification (SOC) is a U.S. Bureau of Labor Statistics occupational coding standard (<https://www.bls.gov/soc/>)

Note: Occupations with percentages less than 2.0% are not included in the table.

⁴ Graduates may have earned additional degrees beyond the Business Management (A.A.S. or Certificate).

⁵ The NOVA region refers to Arlington County, Fairfax County, Loudoun County, Prince William County, Alexandria City, Fairfax City, Falls Church City, Manassas City, Manassas Park City, and Washington, D.C.

⁶ In-field occupations refer to those occupations that are related to the Business Management program of study.

Employers and Job Titles of Alumni

The top employers of NOVA's Business Management, A.A.S. and Certificate program graduates included Caci International (2 percent), and Navy Federal Credit Union (2 percent) (Table 2).

Table 2. Top 20 Employers of NOVA Business Management (A.A.S. and Certificate) Graduates: 2007 through 2017

Employers	Graduates	
	#	%
Caci International, Inc.	6	2.1
Navy Federal Credit Union	6	2.1
Wells Fargo & Company	4	1.4
Northern Virginia Community College	3	1.0
Allstate Corporation	2	0.7
Arlington Public Schools	2	0.7
Deca Commissary	2	0.7
GCS, Inc.	2	0.7
Hamilton Insurance Agency, Inc.	2	0.7
J.C. Penney Corporation, Inc.	2	0.7
LGS Innovations, LLC	2	0.7
Prince William County Public Schools	2	0.7
Scarlet Knight, Ent.	2	0.7
SunTrust Banks, Inc.	2	0.7
The Boeing Company	2	0.7
United States Army	2	0.7
United States Department of State	2	0.7
Washington Wellness	2	0.7
American Trucking Associations, Inc.	1	0.3
Wegmans Food Markets, Inc.	1	0.3

The most popular job titles among NOVA's Business Management, A.A.S. and Certificate program graduates were Office Manager (4 percent), Administrative Assistant (3 percent), and Receptionist (2 percent) (Table 3).

Table 3. Top Job Titles of NOVA Business Management (A.A.S. and Certificate) Graduates: 2007 through 2017

Job Titles	Graduates	
	#	%
Office Manager	11	3.8
Administrative Assistant	8	2.8
Receptionist	7	2.4
Assistant Manager	5	1.7
Customer Service Representative	5	1.7
Retail Sales Associate	5	1.7
Executive Assistant	4	1.4
Project Manager	4	1.4
Accountant	3	1.0
Business Analyst	3	1.0
Business Development Manager	3	1.0
Operations Manager	3	1.0
Program Manager	3	1.0
Project Coordinator	3	1.0

Note: Job titles with percentages less than 1.0% are not included in the table.

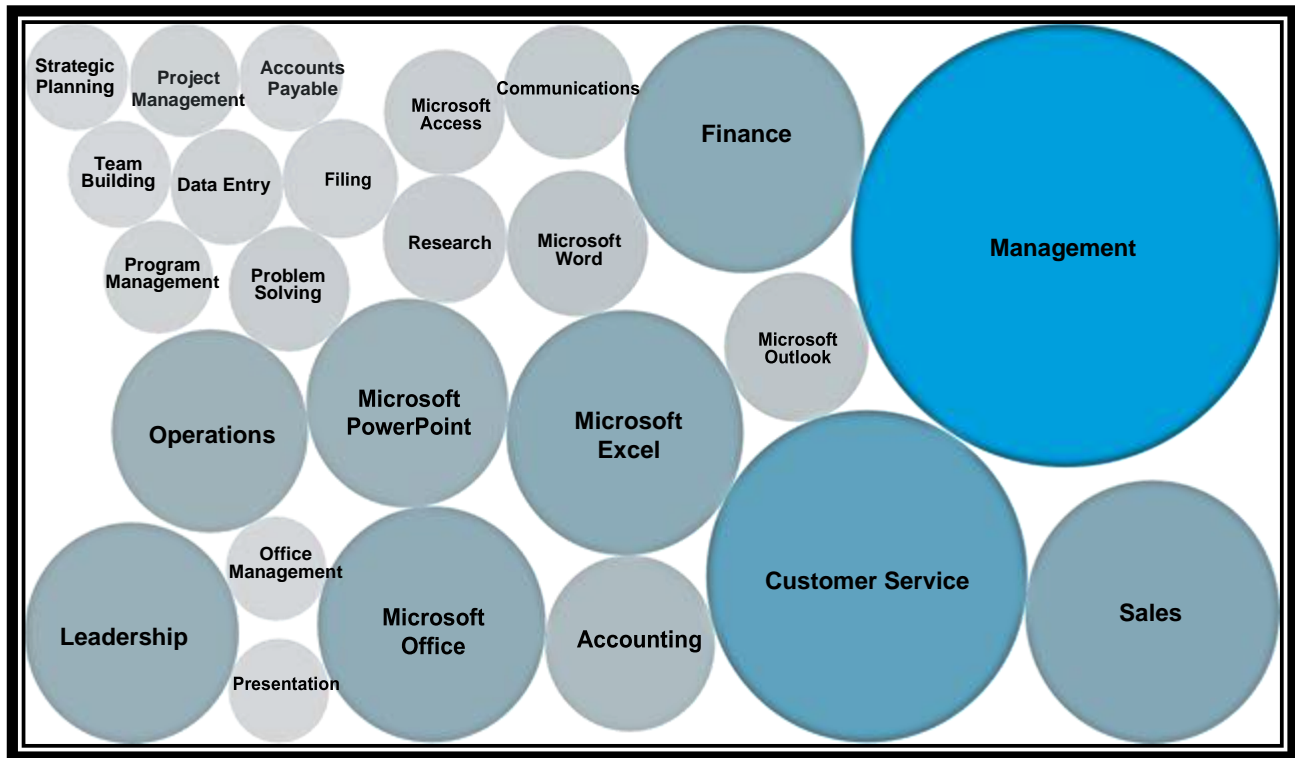
Alumni Skills

The top hard and common skills of NOVA's Business Management, A.A.S. and Certificate program graduates included management (47 percent), customer service (34 percent), sales (26 percent), finance (24 percent), and Microsoft Excel (24 percent) (Table 4 and Figure 2).⁷

Table 4. Top 10 Hard and Common Skills of NOVA Business Management (A.A.S. and Certificate) Graduates: 2007 through 2017

Hard and Common Skills	Graduates	
	#	%
Management	135	46.7
Customer Service	98	33.9
Sales	75	26.0
Finance	70	24.2
Microsoft Excel	69	23.9
Microsoft Office	66	22.8
Leadership	61	21.1
Microsoft PowerPoint	57	19.7
Operations	55	19.0
Accounting	46	15.9

Figure 2. Hard and Common Skills of NOVA Business Management (A.A.S. and Certificate) Graduates: 2007 through 2017



⁷ Hard skills are defined as technical or specialized skills often acquired through formal education, while common skills refer to soft and transferable skills broadly utilized in various professions.

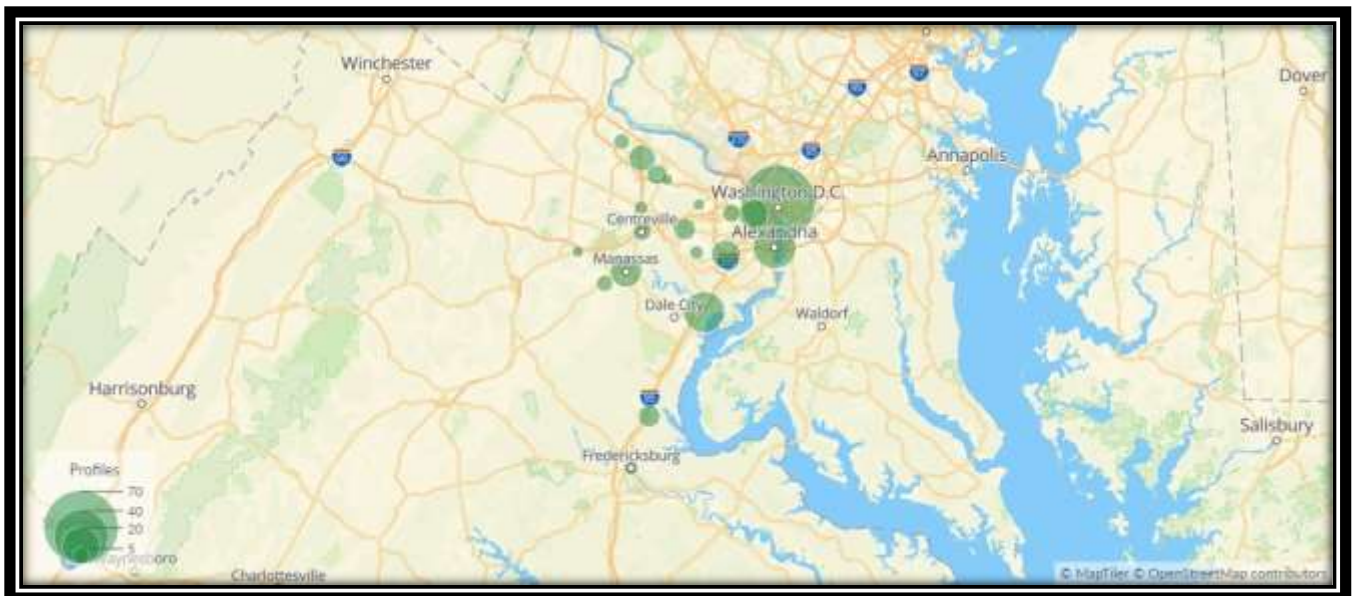
Alumni Locations

The top locations where NOVA’s Business Management, A.A.S. and Certificate program graduates resided included Washington, D.C. (25 percent), Alexandria, VA (9 percent), Woodbridge, VA (8 percent), Manassas, VA (5 percent), Arlington, VA (5 percent), and Springfield, VA (5 percent)—58 percent resided in the state of Virginia (Table 5 and Figure 3, below).

Table 5. Top 20 Locations of NOVA Business Management (A.A.S. and Certificates) Graduates: 2007 through 2017

Locations	Graduates	
	#	%
Washington, D.C	72	24.9
Alexandria, VA	26	9.0
Woodbridge, VA	24	8.3
Manassas, VA	15	5.2
Arlington, VA	13	4.5
Springfield, VA	13	4.5
Sterling, VA	11	3.8
Fairfax, VA	8	2.8
Stafford, VA	8	2.8
Herndon, VA	7	2.4
Centreville, VA	6	2.1
Falls Church, VA	6	2.1
Ashburn, VA	5	1.7
Bristow, VA	5	1.7
Burke, VA	4	1.4
Chantilly, VA	4	1.4
Fredericksburg, VA	4	1.4
Gainesville, VA	3	1.0
Reston, VA	3	1.0
Vienna, VA	3	1.0

Figure 3. Locations of NOVA Business Management (A.A.S. and Certificate) Graduates: 2007 through 2017



Section II. Regional Employment Opportunities for NOVA Graduates

This section presents regional employment opportunities data and provides job postings for target occupations within the NOVA region for Business Management (A.S. and B.S.) graduates.⁸

Target Occupations

In 2018, regionally, there were roughly 380,000 jobs and 42,000 job openings in the top ten target occupations for Business Management (A.S. and B.S.) graduates.⁹ Among these target occupations, median hourly earnings were \$32.73—60 percent higher than the \$20.40 national median hourly earnings for these target occupations. The projected regional job growth among these target occupations is 1 percent from 2018 to 2023, which is equivalent to the projected national growth for these target occupations (1 percent). Annual job openings for target occupations for Business Management (A.S. and B.S.) graduates were greatest for Management Analysts (2,822 openings) and Business Operations Specialists (2,471 openings) (Table 6).

Table 6. NOVA Region Job Openings, Earnings, and Growth of Top 10 Target Occupations: 2018

Target Occupations	# of Jobs	# of Job Openings	Median Hourly Earnings	% Job Growth (2018–2023)	Location Quotient*
Management Analysts	26,161	2,822	\$50.57	1.4%	3.9
Business Operations Specialists	24,804	2,471	\$46.13	0.2%	2.9
General and Operations Managers	21,234	1,996	\$69.33	0.7%	1.3
Accountants and Auditors	21,017	2,192	\$42.20	1.1%	1.4
Managers (non-specific)	16,954	1,400	\$66.55	0.4%	2.7
Public Relations Specialists	13,188	1,405	\$42.01	0.2%	5.2
Retail Salespersons	12,895	1,904	\$13.25	-0.7%	0.6
Sales Representatives and Services (non-specific)	12,242	1,668	\$34.51	0.8%	1.3
Office Clerks (non-specific)	12,000	1,477	\$19.13	0.1%	0.7
Market Research Analysts and Marketing Specialists	10,800	1,345	\$35.62	2.3%	1.7

*Location Quotient = the ratio of an occupation's share of employment in a given area to that occupation's share of employment in the U.S. as a whole. For example, an occupation that makes up 10 percent of employment in a specific metropolitan area compared with 2 percent of U.S. employment would have a location quotient of 5 for the area (signifying the occupation is roughly 5 times more concentrated regionally than nationally).

From January 2018 through December 2018, there was an average of about 15,000 Business Management graduates hired monthly for target occupations in the NOVA region.¹⁰ Occupations with the top average monthly job hires were Retail Salespersons (3,034 hires) and Office Clerks (1,934 hires) (Table 7, below, and Figure 4, next page).

Table 7. NOVA Region Job Hires in Top 10 Target Occupations: 2018

Target Occupations	Avg. Monthly Hires*	Target Occupations	Avg. Monthly Hires*
Retail Salespersons	3,034	Sales Representatives, Services (non-specific)	1,349
Office Clerks (non-specific)	1,934	Accountants and Auditors	1,171
General and Operations Managers	1,795	Market Research Analysts and Marketing Specialist	850
Management Analysts	1,744	Public Relations Specialists	789
Business Operations Specialists (non-specific)	1,355	Managers (non-specific)	742

* Average monthly hires include Business Management graduates with an A.S., B.S., or post-baccalaureate degree.

⁸ The NOVA region refers to Arlington County, Fairfax County, Loudoun County, Prince William County, Alexandria City, Fairfax City, Falls Church City, Manassas City, Manassas Park City, and Washington, D.C.

⁹ The Business Management A.S. and B.S. were the minimum degree qualifications in these job postings.

¹⁰ Includes Business Management graduates with an A.S., B.S., or post-baccalaureate degree.

Figure 4. NOVA Region Job Hires in Top 10 Target Occupations: 2018



* Average monthly hires include Business Management graduates with an A.A.S., B.S., or post-baccalaureate degree

From January 2018 through December 2018, top job postings website sources for target occupations for Business Management (A.S. and B.S.) graduates in the NOVA region were Nexxt.com (34,963 postings), My.jobs (23,248 postings), and Geebo.com (20,886 postings) (Table 8).

Table 8. Top 20 Job Posting Sources for Target Occupations in NOVA Region: 2018

Website	# of Target Job Postings on Website
Nexxt.com	34,963
My.jobs	23,248
Geebo.com	20,886
Employmentcrossing.com	17,820
Virginiajobnetwork.com	12,982
Bluecollarcrossing.com	12,688
Jobserve.com	8,840
Jobs.net	8,713
Washingtonpost.com	8,512
Monster.com	8,319
Careerbuilder.com	7,956
Jobing.com	7,099
Beyond.com	7,004
Careerboard.com	6,768
Clearancejobs.com	6,642
Disabledperson.com	5,948
Glassdoor.com	5,535
Thejobnetwork.com	5,432
Americasjobexchange.com	5,414
Dice.com	4,963

Job Postings in NOVA Region

Companies in the NOVA region with the most job postings from January 2018 through December 2018 for Business Management (A.S. and B.S.) graduates included Anthem (8,473 postings), Oracle Corporation (5,320 postings), Booz Allen Hamilton Holding Corporation (4,998 postings), Deloitte (3,459 postings), and Leidos Holdings (2,628 postings) (Table 9 and Figure 5, below).

Table 9. Top 20 Companies Posting Jobs in the NOVA Region: 2018

Company Name	# of Unique Job Postings	Median Duration of Job Posting (# of days)
Anthem, Inc.	8,473	22
Oracle Corporation	5,320	58
Booz Allen Hamilton Holding Corporation	4,998	45
Deloitte, LLP	3,459	46
Leidos Holdings, Inc.	2,628	40
General Dynamics Corporation	2,145	48
Robert Half International, Inc.	1,997	33
Capital One Financial Corporation	1,882	56
Science Applications International Corporation	1,604	42
Caci International, Inc.	1,583	63
Mantech International Corporation	1,222	52
Freddie Mac	1,208	48
Grant Thornton, LLP	1,195	32
PricewaterhouseCoopers, LLP	1,114	68
Accenture PLC	1,079	48
Verizon Communications, Inc.	1,067	60
KPMG, LLP	1,064	62
Amazon.com, Inc.	983	48
BAE Systems, PLC	983	44
U.S. Bancorp	822	34

Figure 5. Top 20 Companies Posting Jobs in the NOVA Region: 2018



Job Titles in NOVA Region

From January 2018 through December 2018, the most frequently posted job titles for Business Management (A.S. and B.S.) graduates in the NOVA region were for Business Analysts (4,869 postings), Project Managers (4,482 postings), Program Managers (4,319 postings), and Financial Analysts (4,240 postings) (Table 10 and Figure 6, below).

Table 10. Top 20 Posted Job Titles in the NOVA Region: 2018

Job Title	# of Unique Job Postings	Median Duration of Job Posting (# of days)
Business Analysts (Business and Financial Operations)	4,869	33
Project Managers (Management)	4,482	39
Program Managers (Management)	4,319	40
Financial Analysts	4,240	34
Administrative Assistants	3,546	32
Research Analysts (Life, Physical, and Social Science)	3,405	44
Sales Managers (Management)	2,898	42
Product Managers (Management)	2,868	45
Accountants	2,771	29
Recruiters	2,747	34
Account Managers (Management)	2,677	42
Marketing Managers (Management)	2,410	41
Training and Development Specialists	2,258	33
Sales Representatives	2,232	43
Business Development Managers (Management)	2,170	40
Account Executives (Sales-related)	2,159	41
Operations Managers (Management)	1,984	38
Auditors	1,973	38
Sales Managers (Sales-related)	1,687	42
Executive Assistants	1,560	32

Figure 6. Top 20 Posted Job Titles in the NOVA Region: 2018



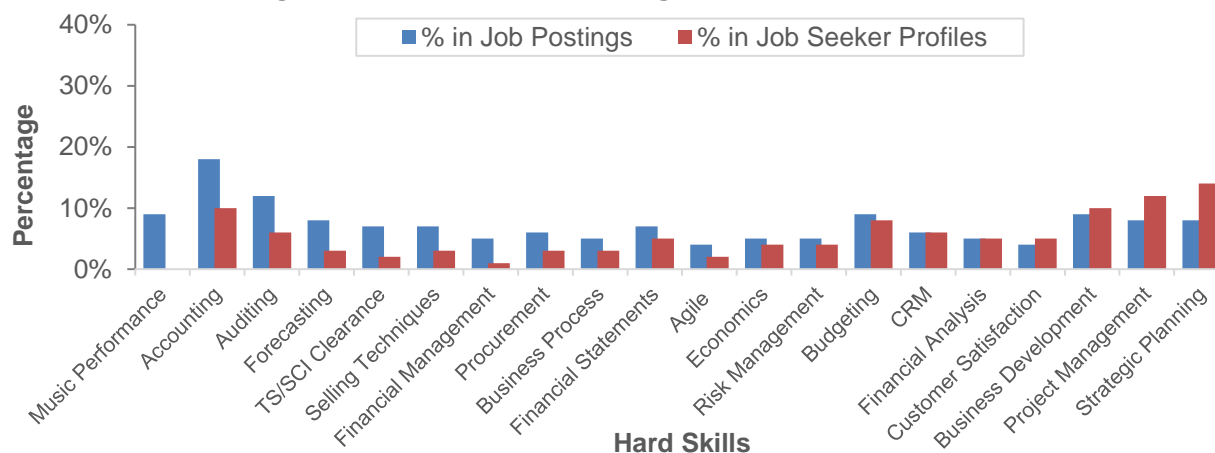
Desired Hard Skills

Table 11 and Figure 7 (below) show disproportions between the top *hard* skills that NOVA region employers sought among their job applicants and the hard skills that Business Management (A.S. and B.S.) graduates mentioned in their job-seeker profiles from January 2018 through December 2018.¹¹ Accounting, Auditing, and Forecasting were among the most desired hard skills in job postings that were disproportionately mentioned in job-seeker profiles. These differences represent potential areas in which job applicants could align their hard skills more closely with their prospective employers' desired skills.

Table 11. Top 20 Desired Hard Skills for Business Management Graduates: 2018

Hard Skills	% of Job Postings Mentioning Skill	% of Job Seeker Profiles Mentioning Skill	Difference in Percentage
Music Performance	9	0	-9
Accounting	18	10	-8
Auditing	12	6	-6
Forecasting	8	3	-5
Top Secret-Sensitive Compartmented Info. (TS/SCI Clearance)	7	2	-5
Selling Techniques	7	3	-4
Financial Management	5	1	-4
Procurement	6	3	-3
Business Process	5	3	-2
Financial Statements	7	5	-2
Agile Software Development	4	2	-2
Economics	5	4	-1
Risk Management	5	4	-1
Budgeting	9	8	-1
Customer Relationship Management	6	6	0
Financial Analysis	5	5	0
Customer Satisfaction	4	5	1
Business Development	9	10	1
Project Management	8	12	4
Strategic Planning	8	14	6

Figure 7. Top 20 Desired Hard Skills for Business Management Graduates: Percentage Mentioned in Job Postings and Job Seeker Profiles: 2018



¹¹ Hard skills are defined as technical or specialized skills often acquired through formal education.

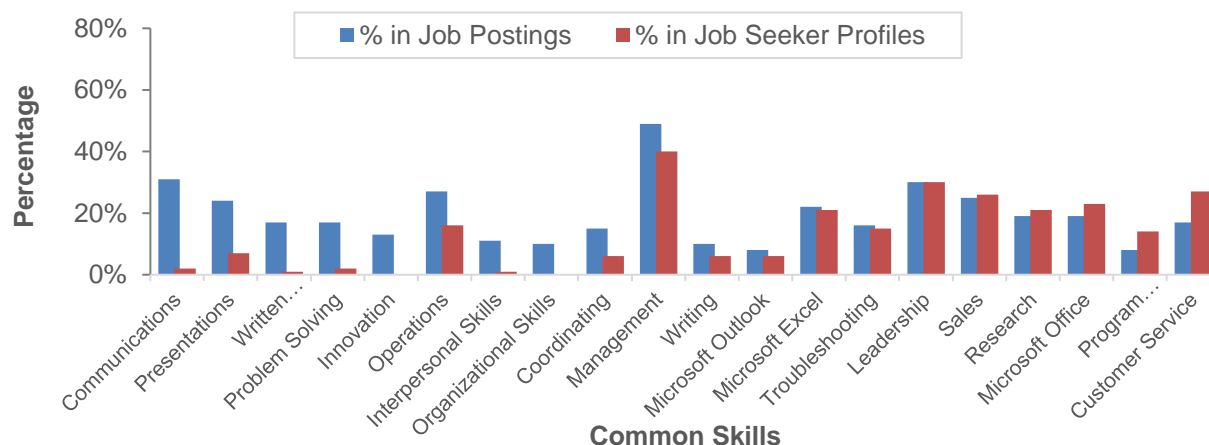
Desired Common Skills

Table 12 and Figure 8 (below) show disproportions between the top *common* skills that NOVA region employers sought among their job applicants and the common skills that Business Management (A.S. and B.S.) graduates mentioned in their job-seeker profiles from January 2018 through December 2018.¹² Communications, presentations, written communication, and problem solving were among the most desired common skills in job postings that were disproportionately mentioned in job-seeker profiles. These differences represent potential areas in which job applicants could align their common skills more closely with their prospective employers' desired skills.

Table 12. Top 20 Desired Common Skills for Business Management Graduates: 2018

Common Skills	% of Job Postings Mentioning Skill	% of Job Seeker Profiles Mentioning Skill	Difference in Percentage
Communications	31	2	-29
Presentations	24	7	-17
Written Communication	17	1	-16
Problem Solving	17	2	-15
Innovation	13	0	-13
Operations	27	16	-11
Interpersonal Skills	11	1	-10
Organizational Skills	10	0	-10
Coordinating	15	6	-9
Management	49	40	-9
Writing	10	6	-4
Microsoft Outlook	8	6	-2
Microsoft Excel	22	21	-1
Microsoft PowerPoint	16	15	-1
Leadership	30	30	0
Sales	25	26	1
Research	19	21	2
Microsoft Office	19	23	4
Program Management	8	14	6
Customer Service	17	27	10

Figure 8. Top 20 Desired Common Skills for Business Management Graduates: Percentage Mentioned in Job Postings and Job Seeker Profiles: 2018



¹² Common skills refer to soft and transferable skills broadly utilized in various professions.

Desired Qualifications

The top desired qualifications for Business Management (A.S. and B.S.) graduates in NOVA region job postings from January 2018 through December 2018 included Master of Business Administration (10,934 postings), Project Management Professional Certification (6,910 postings), and Certified Public Accountant (5,776 postings) (Table 13 and Figure 9, below).

Table 13. Top 20 Desired Qualifications Posted for Business Management Graduates: 2018

Job Qualifications	# of Job Postings
Master of Business Administration (MBA)	10,934
Project Management Professional Certification	6,910
Certified Public Accountant	5,776
Certified Information Systems Security Professional	2,513
Certified Internal Auditor	2,363
Certified Information System Auditor (CISA)	1,884
Chartered Financial Analyst	1,383
ITIL Certifications	1,359
Certified Information Security Manager	964
Certified Government Financial Manager	934
Series 7 General Securities Representative License (Stockbroker)	921
Certified Defense Financial Manager	856
Senior Professional In Human Resources	785
Certified Fraud Examiner	773
ITIL Foundation Certification	691
CompTIA Security+	603
Actuarial Exams	528
Certified Financial Planner	524
Program Management Professional	513
Society for Human Resource Management Certified Professional (SHRM-CP)	499

Figure 9. Top 20 Desired Qualifications Posted for Business Management Graduates: 2018

