

RESEARCH BRIEF

No. 32-15

June 2015

STEM vs. Non-STEM Program Completions in the Region: 2013

The purpose of this Research Brief is to present completion data in programs comparable to those at Northern Virginia Community College (NOVA) at postsecondary institutions within the Northern Virginia region (Alexandria City, Arlington County, Fairfax City, Fairfax County, Falls Church City, Loudoun County, Manassas City, Manassas Park City, Prince William County, and Stafford County). NOVA program offerings are being used as a proxy for regional program offerings.

These NOVA-comparable programs are divided by STEM (Science, Technology, Engineering, Mathematics) and non-STEM. Figures 1 through 3 show the number of STEM and non-STEM programs and completions at postsecondary institutions within the region in 2013. NOVA offered 36 STEM and 36 non-STEM programs in 2013. Twenty-six institutions offered at least one of the same STEM programs that NOVA offered in 2013, and 21 institutions offered at least one of the same non-STEM programs that NOVA offered in 2013. There were 2.8 times more regional completions in non-STEM programs than in STEM programs in 2013.

Figure 1. Programs Offered at NOVA: 2013

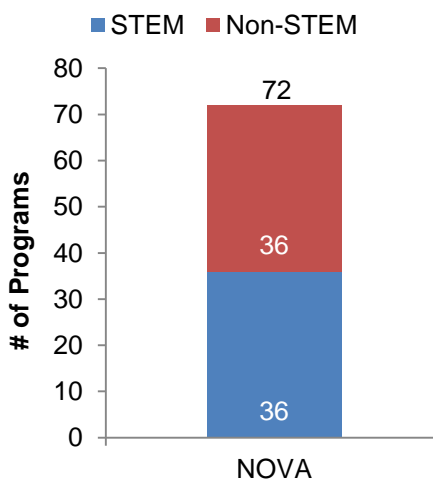


Figure 2. Regional Institutions Offering Similar Programs: 2013

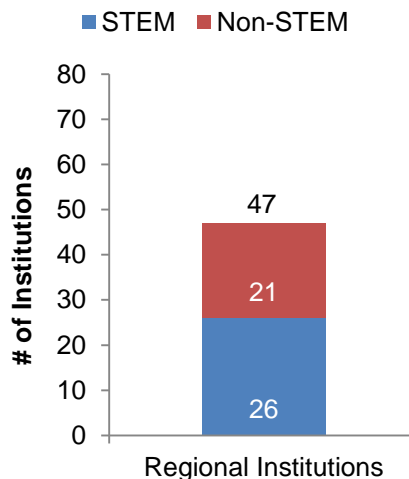
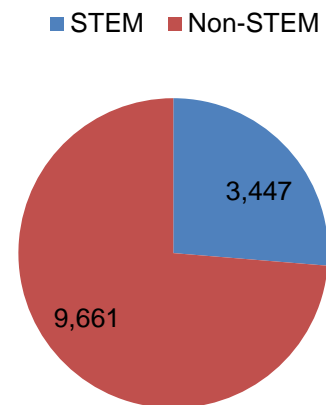


Figure 3. Program Completions in Regional Institutions: 2013



Note: Program and completion data were obtained using Integrated Postsecondary Education Data System (IPEDS) data compiled in Economic Modeling Specialists International (EMSI), a web-based, analyst product.

NOVA accounted for 49 percent of all regional STEM program completions in 2013, while all other regional institutions accounted for the remaining 51 percent (Figure 4).

In 2013, NOVA accounted for 94 percent of non-STEM certificate completions and 55 percent of non-STEM degree completions. Regarding total completions, NOVA accounted for 62 percent of all regional non-STEM program completions in 2013, while all other regional institutions accounts for the remaining 38 percent (Figure 5).

Figure 4. STEM Program Completions in 2013: NOVA vs. Other Regional Institutions

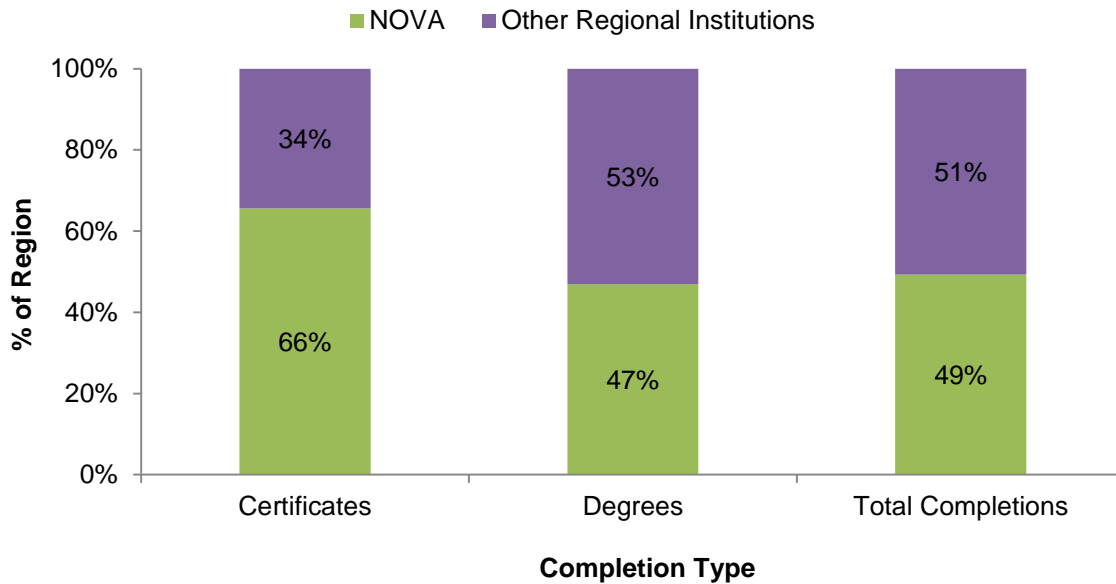
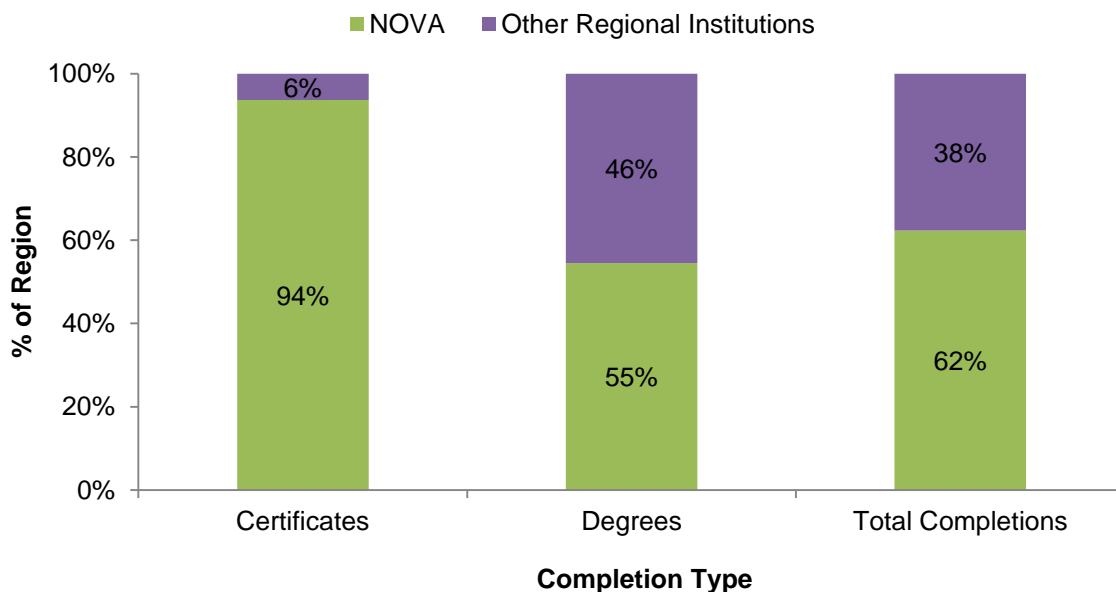


Figure 5. Non-STEM Program Completions in 2013: NOVA vs. Other Regional Institutions



Figures 6 and 7 show the growth from 2003 of STEM and non-STEM program completions at the regional, state, and national levels to each year from 2004 through 2013. At the state and national levels, STEM program completions have grown by a larger proportion over the last decade than have non-STEM program completions. However, the opposite is true at the regional level, where non-STEM program completions far outpaced STEM program completions over the last several years.

Figure 6. Growth in the Number of STEM Program Completions at the Regional, State, and National Level: 2004 through 2013

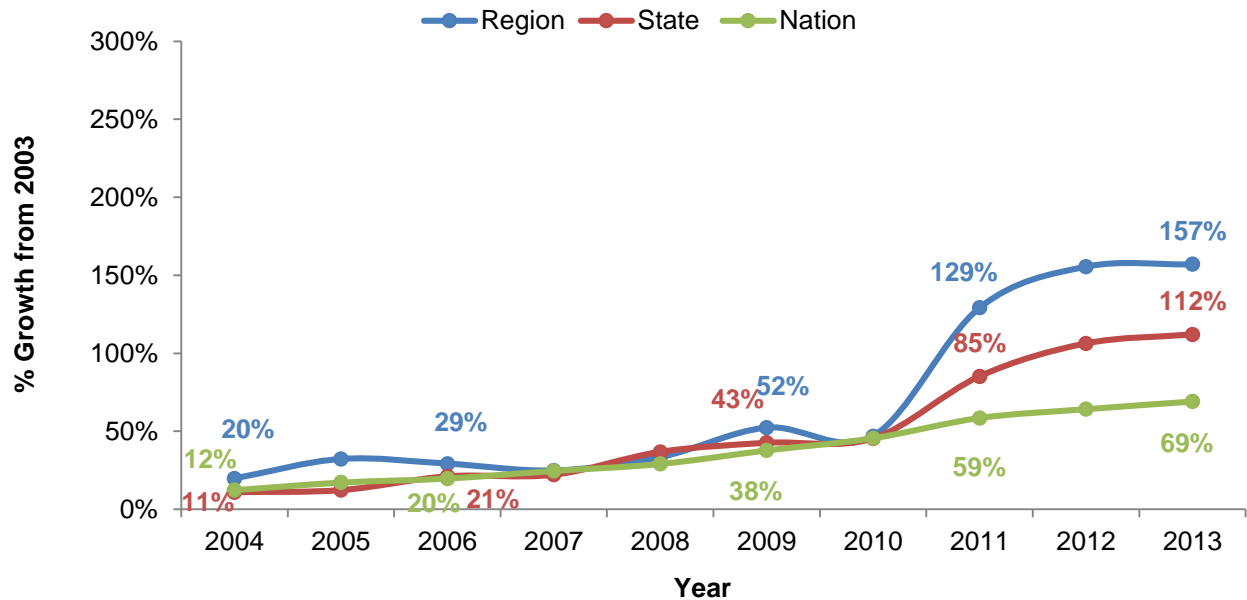
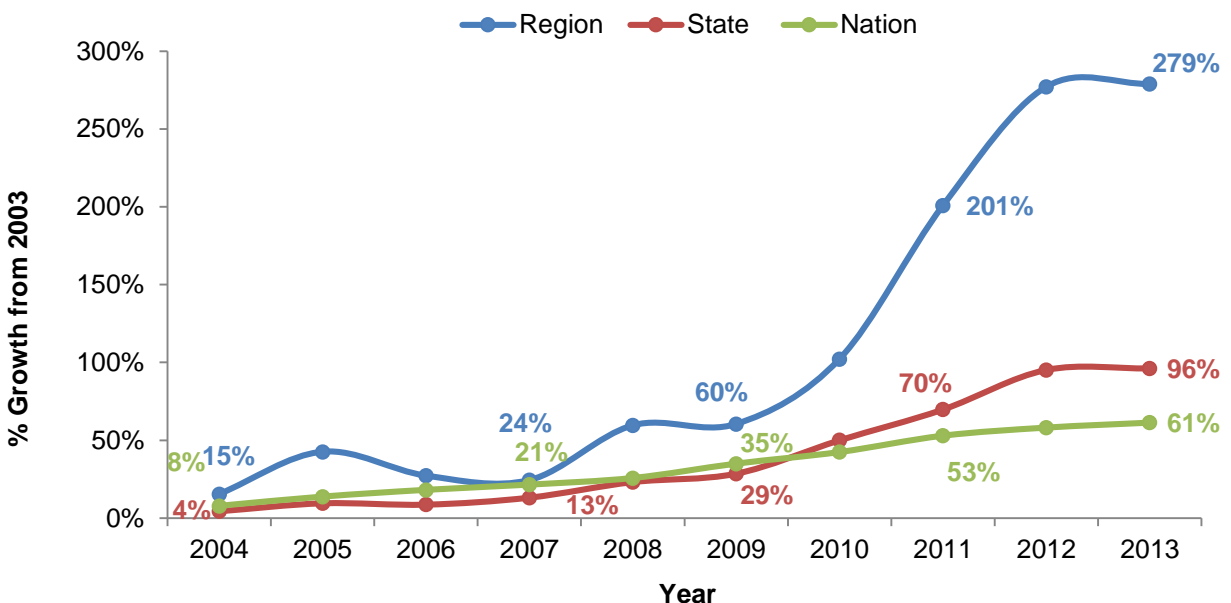
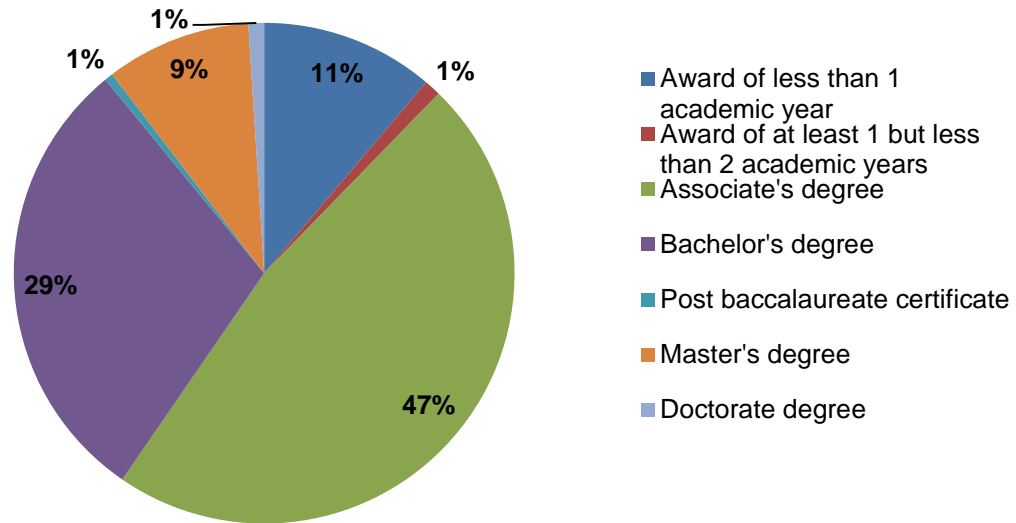


Figure 7. Growth in the Number of Non-STEM Program Completions at the Regional, State, and National Level: 2004 through 2013



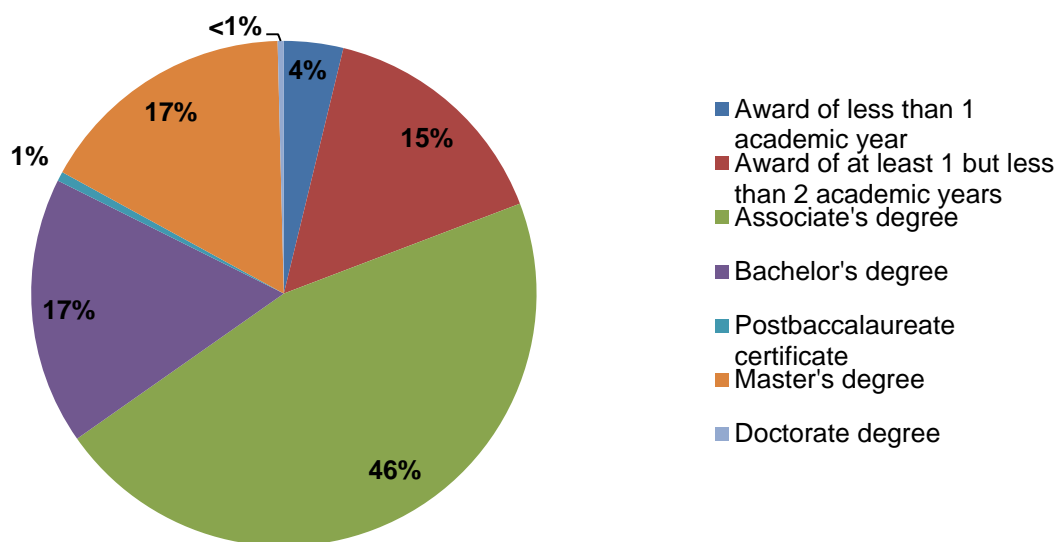
The most frequently earned award was an Associate's degree, comprising nearly half of all regional STEM program completions in 2013 (47 percent) (Figure 8).

Figure 8. Regional STEM Program Completions by Award Level: 2013



The most frequent award was an Associate's degree, comprising nearly half of all regional non-STEM program completions in 2013 (46 percent). Awards of at least one but less than two academic years and Master's degrees made up a more significant portion of regional non-STEM program completions than STEM program completions (Figure 9).

Figure 9. Regional Non-STEM Program Completions by Award Level: 2013



Data Tables

Table 1. Regional Program Completions by Institution and STEM Status: 2013

Institution	STEM						Non-STEM					
	Certificates		Degrees		Total STEM Completions		Certificates		Degrees		Total Non-STEM Completions	
	#	%	#	#	%	#	#	%	#	#	%	#
Argosy University-Washington DC	0	0.0	0	0.0	0	0.0	0	0.0	33	0.4	33	0.3
Avi Career Training	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Centura College-Alexandria	1	0.2	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0
CET-Alexandria	0	0.0	0	0.0	0	0.0	56	2.9	0	0.0	56	0.6
Chamberlain College of Nursing-Virginia	0	0.0	35	1.2	35	1.0	0	0.0	0	0.0	0	0.0
Columbia College	20	4.5	3	0.1	23	0.7	0	0.0	2	0.0	2	0.0
DeVry University-Virginia	0	0.0	18	0.6	18	0.5	18	0.9	277	3.6	295	3.1
Everest College-Arlington	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Everest College-McLean	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Everest College-Woodbridge	9	2.0	0	0.0	9	0.3	0	0.0	0	0.0	0	0.0
George Mason University	14	3.2	870	29.0	884	25.6	0	0.0	891	11.5	891	9.2
Global Health College	0	0.0	40	1.3	40	1.2	0	0.0	0	0.0	0	0.0
ITT Technical Institute-Chantilly	0	0.0	82	2.7	82	2.4	0	0.0	57	0.7	57	0.6
ITT Technical Institute-Springfield	0	0.0	93	3.1	93	2.7	0	0.0	41	0.5	41	0.4
Marymount University	8	1.8	224	7.5	232	6.7	31	1.6	243	3.1	274	2.8
Medtech Institute	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Northern Virginia Community College	290	65.6	1,408	46.9	1,698	49.3	1,791	93.7	4,223	54.5	6,014	62.3
Northern Virginia School of Therapeutic Massage	98	22.2	0	0.0	98	2.8	0	0.0	0	0.0	0	0.0
Sanford-Brown College-Tysons Corner	0	0.0	7	0.2	7	0.2	0	0.0	41	0.5	41	0.4
Stratford University	0	0.0	64	2.1	64	1.9	0	0.0	70	0.9	70	0.7
Strayer University-Virginia	0	0.0	2	0.1	2	0.1	12	0.6	738	9.5	750	7.8
The Art Institute of Washington	2	0.5	14	0.5	16	0.5	3	0.2	30	0.4	33	0.3
The Art Institute of Washington-Dulles	0	0.0	4	0.1	4	0.1	1	0.1	0	0.0	1	0.0
University of Management and Technology	0	0.0	90	3.0	90	2.6	0	0.0	974	12.6	974	10.1
University of Phoenix-Northern Virginia Campus	0	0.0	29	1.0	29	0.8	0	0.0	99	1.3	99	1.0
University of the Potomac-VA Campus	0	0.0	1	0.0	1	0.0	0	0.0	2	0.0	2	0.0
Westwood College-Annandale	0	0.0	21	0.7	21	0.6	0	0.0	16	0.2	16	0.2
Westwood College-Arlington Ballston	0	0.0	0	0.0	0	0.0	0	0.0	12	0.2	12	0.1
Total	442	100.0	3,005	100.0	3,447	100.0	1,912	100.0	7,749	100.0	9,661	100.0

Table 2. Programs in the Northern Virginia Region by STEM Status: 2013

Programs	Number of Programs Offered at NOVA	Regional Institutions Offering Programs	Regional Program Completions (2013)
STEM	36	26	3,447
Non-STEM	36	21	9,661

Note: Numbers for regional institutions and regional program completions include NOVA.

Table 3. Annual Program Completions by Area Level and STEM Status: 2003 Through 2013

Year	Region				State				National			
	STEM	% Change from 2003	Non-STEM	% Change from 2003	STEM	% Change from 2003	Non-STEM	% Change from 2003	STEM	% Change from 2003	Non-STEM	% Change from 2003
2003	1,341	N/A	2,550	N/A	7,748	N/A	15,204	N/A	297,383	N/A	472,923	N/A
2004	1,605	19.7	2,943	15.4	8,597	11.0	15,883	4.5	333,919	12.3	509,923	7.8
2005	1,772	32.1	3,636	42.6	8,700	12.3	16,658	9.6	348,357	17.1	538,056	13.8
2006	1,732	29.2	3,244	27.2	9,385	21.1	16,528	8.7	356,070	19.7	558,630	18.1
2007	1,673	24.8	3,171	24.4	9,463	22.1	17,212	13.2	370,536	24.6	574,509	21.5
2008	1,788	33.3	4,068	59.5	10,598	36.8	18,733	23.2	383,832	29.1	594,634	25.7
2009	2,042	52.3	4,091	60.4	11,048	42.6	19,553	28.6	409,599	37.7	638,360	35.0
2010	1,969	46.8	5,156	102.2	11,268	45.4	22,811	50.0	432,887	45.6	673,649	42.4
2011	3,073	129.2	7,670	200.8	14,347	85.2	25,814	69.8	471,472	58.5	723,397	53.0
2012	3,427	155.6	9,615	277.1	15,979	106.2	29,681	95.2	488,262	64.2	748,043	58.2
2013	3,447	157.0	9,661	278.9	16,429	112.0	29,833	96.2	502,872	69.1	763,166	61.4

Table 4. Regional Program Completions by Award Level and STEM Status: 2013

Award Level	STEM		Non-STEM	
	#	%	#	%
Award of less than 1 academic year	386	11.2	366	3.8
Award of at least 1 but less than 2 academic years	37	1.1	1,488	15.4
Associate's degree	1,631	47.3	4,454	46.1
Bachelor's degree	1,016	29.5	1,652	17.1
Post baccalaureate certificate	19	0.6	58	0.6
Master's degree	323	9.4	1,605	16.6
Doctorate degree	35	1.0	38	0.4
Total	3,447	100.0	9,661	100.0