

**RESEARCH BRIEF**

**Islands of Disadvantage with Low Educational  
Attainment in Northern Virginia**

Northern Virginia is one of the most affluent regions in the Commonwealth. However, within Northern Virginia, there still exists a wide disparity across communities in regards to income and resources. Research shows, for example, that education, housing, and transportation can positively influence social and economic mobility. While many communities in Northern Virginia consist of residents with high levels of education and access to affordable housing and transportation, this Research Brief shows other communities in the region—known as “islands of disadvantage”—do not experience these same favorable circumstances.<sup>1</sup>

NOVA can increase outreach in islands of disadvantage communities in order to improve educational attainment, which can enhance the quality of life and socioeconomic mobility of the individuals living in these regions. By focusing on NOVA’s affordability, NOVA can devise enrollment strategies and support services for low-income high school students that will help them to attain their higher education and career goals.

**I. Islands of Disadvantage with Low Educational Attainment**

- **Islands of Disadvantage:** Fifteen “islands of disadvantage” are located among other more affluent areas in Northern Virginia. These islands are clusters of census tracts<sup>2</sup> where residents experience poverty, poor education, unaffordable housing, and often lack health insurance. The majority of the population of these islands are minorities who face greater challenges for economic and social mobility.
- **Economically Disadvantaged:** Public high schools in the NOVA service area classify students as economically disadvantaged if they are eligible for free and reduced-price meals, receive temporary assistance, are eligible for Medicaid, are migrants, and/or are homeless.

Approximately 520,000 individuals live in the 15 islands of disadvantage across Northern Virginia. Table 1, on the following page, shows that these communities also have high populations of economically disadvantaged high school students. Within or very near the 15 islands of

<sup>1</sup> Woolf, S.H., D.A. Chapman, L. Hill, L.K. Snellings. (2017, November). Getting Ahead: The Uneven Opportunity Landscape in Northern Virginia. Center on Society and Health. Northern Virginia Health Foundation. Richmond, VA.

<sup>2</sup> A census tract is an area roughly equivalent to a neighborhood established by the Bureau of Census for analyzing populations. Census tracts encompass a population between 2,500 to 8,000 people.

disadvantage, there are 12 Northern Virginia public high schools in which more than 40 percent of the student population is classified as economically disadvantaged.

**Table 1. Islands of Disadvantage Census Tracts with Low Educational Attainment in Northern Virginia**

"Islands of Disadvantage" in Northern Virginia	High Schools with Greater than 40% of Students Classified as Economically Disadvantaged	Educational Attainment	
		High School or Higher Under 75% (18 Tracts)	Bachelor's Degree or Higher Under 25% (26 Tracts)
Leesburg		✓	✓
Sterling Park	Park View	✓	
Herndon/Reston		✓	
Centreville/Chantilly			
Fair Oaks/Oakton			
Springfield/Annandale/Landmark	Annandale, Robert E. Lee	✓	✓
7 Corners/Bailey's Xroads/Alex. West	Stuart, TC Williams, Wakefield	✓	✓
Columbia Pike/Douglas Park		✓	
Buckingham/Fort Myer		✓	✓
Arlandria		✓	
Old Town Alexandria/Huntington			
Route 1 Corridor/Fort Belvoir		✓	✓
Bull Run/Manassas	Osborn, St. Jackson, Manassas Park	✓	✓
Dale City/Woodbridge	Freedom (PWC), Gar-Field, Potomac Sr.	✓	✓
Dumfries			✓

Sources: Five-year data from the American Community Survey, 2013 and Virginia Department of Education

Northern Virginia public high schools with the highest percentage of economically disadvantaged students (between 41 and 66 percent) are located in the 15 islands of disadvantage census tracts (Table 2, below). The percentage of students from each of these high schools who enrolled at NOVA in Fall 2016 ranged from 23 percent to 39 percent. Therefore, there is room for NOVA to increase specialized high school outreach by sending targeted mailings to households in these regions (see Table A2 in the Appendix for ZIP codes).

**Table 2. Northern Virginia Public High Schools in the Islands of Disadvantage by Percentage of Economically Disadvantaged Students and Enrollment at NOVA: 2015-16**

High School	School District	"Islands of Disadvantage" in Northern Virginia	% Econ. Disadv'd, 2015-16	Number of HS Grads, 2015-16	Enrolled at NOVA Fall 2016	
					#	% of 2015-16 HS Grads
Park View	Loudoun County	Sterling Park	66.2%	258	85	32.9%
T.C. Williams	Alexandria City	7 Corners/Bailey's Xroads/Alex. West	61.7%	728	174	23.9%
Freedom	Prince William County	Dale City/Woodbridge	60.0%	436	126	28.9%
Gar-Field	Prince William County	Dale City/Woodbridge	55.8%	550	172	31.3%
Wakefield	Arlington County	7 Corners/Bailey's Xroads/Alex. West	52.2%	437	110	25.2%
Stonewall Jackson	Prince William County	Bull Run/Manassas	50.2%	498	123	24.7%
Stuart	Fairfax County	7 Corners/Bailey's Xroads/Alex. West	43.3%	396	121	30.6%
Manassas Park	Manassas Park City	Bull Run/Manassas	43.2%	218	56	25.7%
Robert E. Lee	Fairfax County	Springfield/Annandale/Landmark	42.7%	403	137	34.0%
Potomac Senior	Prince William County	Dale City/Woodbridge	42.1%	390	120	30.8%
Osborn	Manassas City	Bull Run/Manassas	41.8%	457	107	23.4%
Annandale	Fairfax County	Springfield/Annandale/Landmark	40.7%	538	212	39.4%

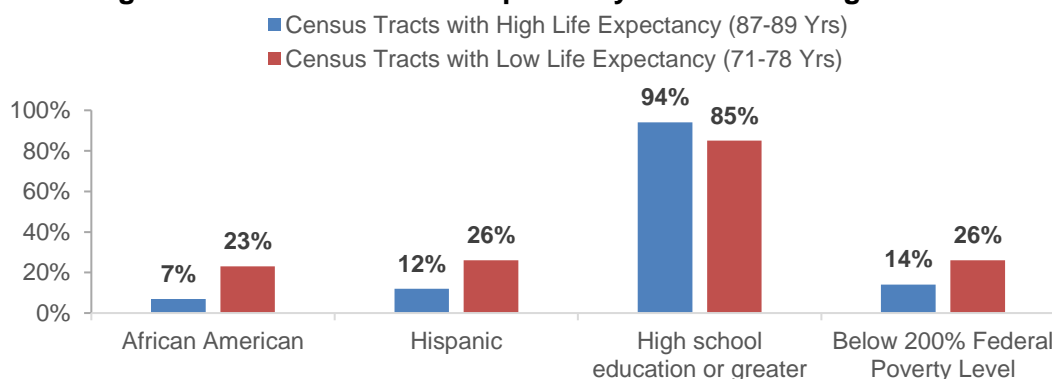
Sources: Virginia Department of Education and NOVA PeopleSoft Data

## II. Variations in Life Expectancy in Northern Virginia

Research shows that educational attainment is positively associated with increased life expectancy.<sup>3</sup> Although Northern Virginia is known for high levels of educational attainment among residents, there are vast differences in education—and therefore differences in life expectancy—from neighborhood to neighborhood. According to the 2013 American Community Survey (Figure 1, below):

- The regions in Northern Virginia with the lowest life expectancy (71-78 years; 26 census tracts) also had lower educational attainment and greater poverty than regions with the highest life expectancy (87–89 years; 27 census tracts).
- The regions with the lowest life expectancy also had a larger proportion of African American and Hispanic residents than the regions with the highest life expectancy.

**Figure 1. Variations in Life Expectancy in Northern Virginia: 2013**



Source: American Community Survey, 2013

## III. Comparison of Disadvantaged Areas to Affluent Neighborhoods

Throughout the region, islands of disadvantage are in close proximity of affluent neighborhoods. For example, the Bailey's Crossroads census tract (4516.01), which has challenging living conditions, lies east of the affluent neighborhood of Lake Barcroft (4511). While the two tracts border each other, they could not be more disparate. (Figure 2, next page)

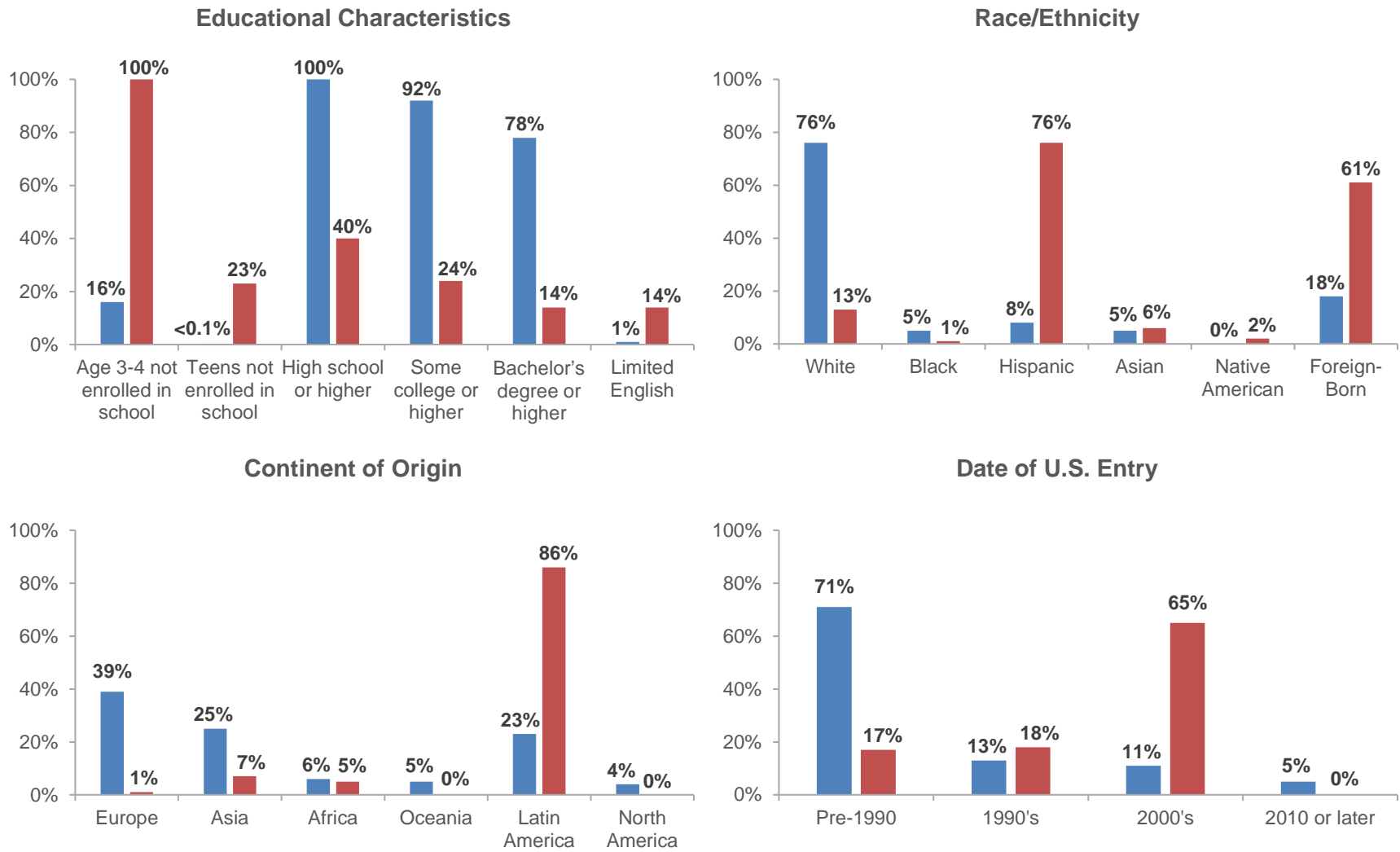
- Bailey's Crossroads: Similar to other islands of disadvantage in the region, a large proportion of Bailey's Crossroads' residents are people of color. Two-thirds of the population is Hispanic and only 13 percent are White. Eighty-six percent came from Latin America originally, and nearly two-thirds are immigrants.
- Lake Barcroft: In contrast, the Lake Barcroft census tract is majority White, and immigrants account for only 18 percent of the population. Most residents originally came from Europe (39 percent) or Asia (25 percent), and 71 percent entered the US before 1990.

In order to help break the cycle of disadvantage, NOVA can provide additional support to these communities to ease their transition into higher education and provide academic and financial support services while enrolled. By working with local community service providers and employers, NOVA can provide more financial stability services and opportunities to the low-income population in these islands of disadvantage.

<sup>3</sup> Hummer, R.A. and E.M. Hernandez. (2013, June). The Effect of Educational Attainment on Adult Mortality in the United States. *Population Bulletin*. 68(1): 1-16.

**Figure 2. An Example of Disadvantage in Close Proximity to Affluence: Lake Barcroft versus Bailey's Crossroads**

■ Lake Barcroft ■ Bailey's Crossroads



## Conclusion

In Northern Virginia, many islands of disadvantage are nestled among affluent neighborhoods. Despite their close proximity, these islands do not have access to the same resources found among the more affluent communities—such as affordable housing, transportation, or healthcare—which may prohibit their ability to pursue higher education.

Therefore, NOVA should develop tailored marketing and support services to increase enrollment of students in economically disadvantaged communities. By aligning census tract cluster data with public high schools and ZIP codes, NOVA can increase specialized high school outreach and send targeted mailings to residents in these areas. High school outreach can focus on increased support for low-income student enrollment, provide help to submit the Free Application for Federal Student Aid (FAFSA) for Pell Grants and federal loans, and guide students through the college application process.

Additionally, once enrolled, NOVA can help low-income students persist through college by providing a wide range of support services such as academic support, career support, personal support, and financial support designed for their needs.

- Academic Support: college readiness programs, navigational coaching, and learn while you earn.
- Career Support: flexible pathways, work-based learning, accelerated pathways to credentials.
- Personal Support: first-year success programs, convocation, success seminars, bridge courses, and mentoring and coaching.
- Financial Support: provide campus and community resources and form campus-community partnerships to support low-income student well-being.

NOVA can offer financial support to low-income students by providing information on budgeting, saving, debt reduction, and loan repayment. Students can also benefit from support from community-based organizations, food pantries, and emergency funding. These low-income student enrollment strategies support NOVA's mission to deliver a postsecondary education to the region and Virginia, leading to an educated population and a globally competitive workforce.

Appendix

Table A1, below, shows the 15 islands of disadvantage in Northern Virginia by 13 characteristics of disadvantage. Seven Corners, Bailey’s Crossroads, Alexandria West, Springfield, Annandale, Landmark, Dale City, and Woodbridge have some of the highest numbers of disadvantage characteristics.

**Table A1. Islands of Disadvantage Census Tract Clusters in Northern Virginia by Characteristics of Disadvantage**

15 Clusters of Census Tracts	Pre-School Enrollment LT 0.1% (15 Tracts)	Teens Out of School GT 20% (11 Tracts)	High School or Higher Education LT 75% (18 Tracts)	Bachelor’s Degree or Higher LT 25% (26 Tracts)	Households with Limited English GT 20% (15 Tracts)	Households with Single Parents GT 50% (5 Tracts)	Unemployment Rate GT 10% (18 Tracts)	Median Household Income LT \$50,000 (12 Tracts)	Poverty Rate GT 15% (42 Tracts)	Child Poverty GE 33% (26 Tracts)	Public Assistance GT 15% (10 Tracts)	Over-Crowding GT 10% (23 Tracts)	Uninsured Rate GT 25% (45 Tracts)
Leesburg													
Sterling Park													
Herndon/Reston													
Centreville/Chantilly													
Fair Oaks/Oakton													
Springfield/Annandale/Landmark													
7 Corners/Bailey’s X-roads/Alex. West													
Columbia Pike/Douglas Park													
Buckingham/Fort Myer													
Arlandria													
Old Town Alexandria/Huntington													
Route 1 Corridor/Fort Belvoir													
Bull Run/Manassas													
Dale City/Woodbridge													
Dumfries													

Note: Merrifield, Lake Braddock/Kings Park West, Tyson’s Corner, Pentagon City/Crystal City, and Nokesville are not located within the 15 clusters in this table, but these locations met at least one of the conditions of disadvantage.

Table A2, below, lists the census tracts within each disadvantaged cluster, the corresponding ZIP code, and the corresponding high schools. NOVA can focus specialized mailings to residents in the specified ZIP codes and increase high school outreach in the specific schools listed in the table.

**Table A2. Islands of Disadvantage Census Tract Clusters, ZIP Codes, and High Schools in Northern Virginia**

Location	Census Tract	ZIP Code	High School
Leesburg	6105.05	20175	Heritage, Loudoun County, Riverside, Tuscarora
		20176	
	6105.06	20175	
		20176	
Sterling Park	6116.02	20164	Dominion, Park View
Herndon/Reston	4805.05	20190	Herndon, South Lakes
		20194	
	4809.01	20170	
	4809.03	20170	
	4812.02	20191	
	4822.01	20190	
Centreville/Chantilly	4823.02	20191	Centreville, Chantilly, Westfield
	4911.03	20120	
	4912.02	20120	
	4913.03	20121	
Fair Oaks/Oakton	4916.01	20151	Centreville, Chantilly, Fairfax, Madison, Robinson, Oakton
	4918.01	22033	
	4618.01	22124	
		22181	
4619.02	22030	Annandale, Edison, Lake Braddock, Robert E. Lee, TC Williams, Wakefield, West Potomac	
Springfield/Annandale/Landmark	2003.03		22304
	2004.05		22304
	2004.06		22304
	2004.07		22304
	2005		22304
	4201		22312
			22150
	4306		22150
	4507.02		22003
	4519		22003
			22312
	4520		22003
	4521.01		22003
			22312
	4521.02		22003
	4522	22003	
4523.01	22003		
4523.02	22003		

Location	Census Tract	ZIP Code	High School	
Springfield/Annandale/Landmark (Cont'd)	4524	22151		
	4525.02	22312		
	4526	22312		
7 Corners/Bailey's Xroads/Alex. West	2001.02	22311	Stuart, TC Williams, Wakefield	
	2001.04	22311		
	2001.05	22311		
	2001.07			22311
				22302
				22206
	2003.01	22304		
	4502	22042		
	4503	22042		
	4506.02	22042		
	4514	22044		
	4515.01			22041
				22044
	4516.01	22041		
	4527			22041
				22311
4528.01		22311		
		22041		
4528.02	22041			
Columbia Pike/Douglas Park	1021	22204	Wakefield	
	1022	22204		
	1023.02	22204		
	1027.01	22204		
	1027.02	22204		
	1031			22206
				22204
1032	22204			
Buckingham/Fort Myer	1016.02	22201	Washington-Lee	
	1017.01			22201
				22209
	1018.02	22201		
	1018.03	22201		
	1020.01	22203		
	1020.03	22203		
	1025	22204		
1034.01		22211		
		22214		
Arlandria	2012.03	22305	TC Williams, Wakefield	
	2012.04			22305
				22301
Old Town Alexandria/Huntington	2007.03	22314	Bryant Alternative, West Potomac	



Location	Census Tract	ZIP Code	High School
Old Town Alexandria/Huntington (Cont'd)	2016	22314	
	2018.02	22314	
	4204	22303 22314	
	4205.02	22303	
Route 1 Corridor/Fort Belvoir	4154.01	22306	Bryant Alternative, Hayfield, Mt. Vernon, South County, West Potomac
	4162	22060 22079	
		4214	
	4215	22306	
	4216	22309	
	4217.01	22309	
	4218	22309 22060	
		4219	
Bull Run/Manassas	9014.07	20109	Manassas Park , Osbourn, Osbourn Park, Stonewall Jackson
	9014.08	20109	
	9015.04	20155	
	9016.02	20109	
	9017.01	20109 20110	
		9017.02	
	9102.02	20110	
	9103.01	20110	
	9103.02	20110	
	9104.01	20110	
9201	20111		
Dale City/Woodbridge	9002.01	22191	Freedom (PWC), Forest Park, Gar-Field Woodbridge
	9002.02	22191 22192	
		9002.03	
	9004.03	22193 22191	
		9004.04	
	9004.07	22193	
	9004.09	22193	
	9004.1	22193 22191	
		9005.01	
	9006	22191	
	9007.01	22191	
	9007.02	22191	
	9012.03	22193	

Location	Census Tract	ZIP Code	High School
Dale City/Woodbridge (Cont'd)	9012.11	22193	
	9012.12	22193	
		22192	
	9012.23	22192	
	9012.27	22193	
	9012.34	20112	
22193			
Dumfries	9009.01	22172	Forest Park, Potomac Senior
		22026	
	9010.12	22025	
	9011	22134	
Merrifield	4402.01	22042	Falls Church, Oakton, Stuart, Woodson
		22031	
Lake Braddock/Kings Park West	4318.02	22151	Annandale
Tyson's Corner	4712.01	22102	McLean
	4802.03	22102	
Pentagon City/Crystal City	1035.02	22202	Wakefield
	1036.02	22202	
Nokesville	9013.05	20136	Patriot High, Stonewall Jackson
		20181	
	9014.17	20181	
		20187	

Source: <https://tigerweb.geo.census.gov/tigerweb/>

Table A3, below, presents public high schools in Northern Virginia by the percentage of economically disadvantaged students, the percentage of students enrolled at NOVA, and the percentage of students who received a Pell Grant.

**Table A3. Northern Virginia Public High Schools by Percentage of Economically Disadvantaged Students, Percentage Enrolled at NOVA, and Percentage Receiving a Pell Grant**

High School	School District	% Economically Disadvantaged 2015-16	Number of HS Grads 2015-16	2015-16 HS Grads Enrolled at NOVA in Fall 2016		2015-16 HS Grads Who Enrolled at NOVA in Fall 2016 and Received a Pell Grant*	
				#	%	#	%
Park View	Loudoun County	66.2%	258	85	32.9%	47	55.3%
T.C. Williams	Alexandria City	61.7%	728	174	23.9%	95	54.6%
Freedom	Prince William County	60.0%	436	126	28.9%	61	48.4%
Gar-Field	Prince William County	55.8%	550	172	31.3%	96	55.8%
Wakefield	Arlington County	52.2%	437	110	25.2%	55	50.0%
Stonewall Jackson	Prince William County	50.2%	498	123	24.7%	65	52.8%
Stuart	Fairfax County	43.3%	396	121	30.6%	69	57.0%
Manassas Park	Manassas Park City	43.2%	218	56	25.7%	21	37.5%
Robert E. Lee	Fairfax County	42.7%	403	137	34.0%	60	43.8%
Potomac Senior	Prince William County	42.1%	390	120	30.8%	53	44.2%
Osborn	Manassas City	41.8%	457	107	23.4%	42	39.3%
Annandale	Fairfax County	40.7%	538	212	39.4%	106	50.0%
Mt. Vernon	Fairfax County	38.8%	436	87	20.0%	28	32.2%
Falls Church	Fairfax County	37.1%	387	122	31.5%	57	46.7%
Bryant Alternative	Fairfax County	36.8%	123	18	14.6%	14	77.8%
Washington-Lee	Arlington County	35.3%	545	82	15.0%	46	56.1%
West Potomac	Fairfax County	33.1%	499	95	19.0%	51	53.7%
C. D. Hylton	Prince William County	32.7%	617	163	26.4%	68	41.7%
Woodbridge	Prince William County	32.3%	690	214	31.0%	83	38.8%
Dominion	Loudoun County	28.9%	370	89	24.1%	26	29.2%
Herndon	Fairfax County	28.6%	490	118	24.1%	39	33.1%
Mountain View Alt.	Fairfax County	26.7%	131	34	26.0%	11	32.4%
Edison	Fairfax County	26.2%	428	117	27.3%	54	46.2%
Osborn Park	Prince William County	25.3%	674	164	24.3%	50	30.5%
Forest Park	Prince William County	24.5%	535	135	25.2%	37	27.4%
Tuscarora	Loudoun County	24.5%	451	92	20.4%	18	19.6%
Potomac Falls	Loudoun County	23.4%	379	72	19.0%	18	25.0%
Hayfield	Fairfax County	23.1%	485	144	29.7%	54	37.5%
South Lakes	Fairfax County	22.2%	526	119	22.6%	44	37.0%
Heritage	Loudoun County	20.2%	311	70	22.5%	17	24.3%
Fairfax	Fairfax County	19.2%	631	176	27.9%	65	36.9%

High School	School District	% Economically Disadvantaged 2015-16	Number of HS Grads 2015-16	2015-16 HS Grads Enrolled at NOVA in Fall 2016		2015-16 HS Grads Who Enrolled at NOVA in Fall 2016 and Received a Pell Grant*	
				#	%	#	%
Centreville	Fairfax County	19.1%	558	131	23.5%	56	42.7%
Arlington Community	Arlington County	18.9%	53	12	22.6%	5	41.7%
Westfield	Fairfax County	18.3%	653	154	23.6%	58	37.7%
Loudoun County	Loudoun County	17.6%	363	68	18.7%	19	27.9%
Yorktown	Arlington County	17.5%	454	49	10.8%	18	36.7%
Broad Run	Loudoun County	17.2%	455	108	23.7%	33	30.6%
Rock Ridge	Loudoun County	14.9%	138	27	19.6%	9	33.3%
South County	Fairfax County	13.9%	527	119	22.6%	39	32.8%
Chantilly	Fairfax County	12.8%	634	133	21.0%	45	33.8%
Lake Braddock	Fairfax County	12.4%	654	130	19.9%	38	29.2%
George Marshall	Fairfax County	12.0%	426	76	17.8%	21	27.6%
Loudoun Valley	Loudoun County	11.8%	310	46	14.8%	7	15.2%
John Champe	Loudoun County	11.6%	322	62	19.3%	13	21.0%
Patriot	Prince William County	11.4%	642	150	23.4%	26	17.3%
Fairfax County Adult	Fairfax County	11.3%	88	7	8.0%	4	57.1%
Brentsville	Prince William County	10.2%	224	49	21.9%	5	10.2%
Battlefield	Prince William County	10.0%	596	134	22.5%	24	17.9%
Oakton	Fairfax County	10.0%	562	73	13.0%	25	34.2%
Freedom	Loudoun County	9.8%	371	73	19.7%	24	32.9%
Riverside	Loudoun County	8.9%	-	-	-	-	-
W.T. Woodson	Fairfax County	8.6%	583	94	16.1%	24	25.5%
Stone Bridge	Loudoun County	8.5%	450	69	15.3%	12	17.4%
James Madison	Fairfax County	8.4%	498	47	9.4%	9	19.1%
West Springfield	Fairfax County	8.2%	542	119	22.0%	30	25.2%
Woodgrove	Loudoun County	8.2%	367	55	15.0%	8	14.5%
Robinson	Fairfax County	7.9%	655	124	18.9%	28	22.6%
George Mason	Falls Church City	7.1%	187	15	8.0%	4	26.7%
McLean	Fairfax County	6.9%	523	66	12.6%	19	28.8%
Briar Woods	Loudoun County	4.8%	478	75	15.7%	10	13.3%
Thomas Jefferson	Fairfax County	1.6%	457	2	0.4%	0	0.0%
Langley	Fairfax County	1.3%	456	39	8.6%	7	17.9%
Cedar Lane	Fairfax County	-	-	2	-	1	50.0%
Colgan	Prince William County	-	-	-	-	-	-
<b>Total</b>		<b>-</b>	<b>27,243</b>	<b>5,962</b>	<b>21.9%</b>	<b>2,171</b>	<b>36.4%</b>

Sources: Virginia Department of Education and NOVA PeopleSoft Data

\*Students received a Pell Grant in the 2016-17 academic year.