

# RESEARCH BRIEF

20-17

April 2017

## Achievement Gap Analysis – Retention and Graduation Rates: Annandale Campus

NOVA's commitment to student success is demonstrated by the College's participation in the Achieving the Dream (ATD) National Reform Network. ATD is a comprehensive nationwide reform movement for student success in which NOVA has been a member since 2007 and a Leader College since 2010. NOVA's participation in ATD encourages continuous monitoring of student outcomes in order to identify areas for improvement. Such attempts are based on research that leads to student success and closing achievement gaps.

This Research Brief examines recent trends in achievement gaps among first-time in college (FTIC) students at NOVA's Annandale Campus for the following indicators of student success: Fall-to-Spring retention, Fall-to-Fall retention, and four-year graduation rates. Achievement gaps are analyzed by student demographics: enrollment status (full-time or part-time), gender, age, race/ethnicity, and program placement.<sup>1</sup>

### **Section 1. Achievement Gaps in Fall-to-Spring Retention Rates at the Annandale Campus: Fall 2014 through Fall 2016 Cohorts**

This section examines achievement gaps in the Fall-to-Spring retention rates at the Annandale Campus across three cohorts of FTIC students (Fall 2014 through Fall 2016). Fall-to-Spring retention measures the percentage of the fall cohort of FTIC students who enrolled in the spring semester of the same academic year.

#### **Key Findings**

- Overall, the data in this section reveals a number of achievement gaps at the Annandale Campus among FTIC students in terms of Fall-to-Spring retention.
- Students who were part-time, age 22 and older, White, enrolled in Certificate programs, or not program placed were **less likely** than other students to return to NOVA in the spring semester.

<sup>1</sup> All demographics are as of the student's first term.

Table 1 shows the overall Fall-to-Spring retention rates of FTIC students at the Annandale Campus from Fall 2014 through Fall 2016. In each cohort, between 78 and 80 percent of FTIC students returned to NOVA in the spring semester.

**Table 1. Fall-to-Spring Retention of FTIC Students at the Annandale Campus: Fall 2014 through Fall 2016 Cohorts**

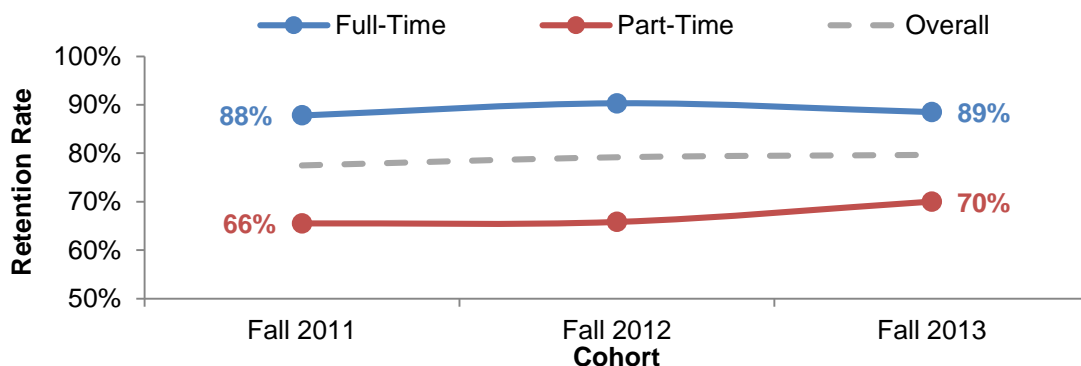
Fall 2014 Cohort			Fall 2015 Cohort			Fall 2016 Cohort		
Total Enrolled	Returned in Spring		Total Enrolled	Returned in Spring		Total Enrolled	Returned in Spring	
	#	%		#	%		#	%
3,721	2,884	77.5%	3,495	2,769	79.2%	3,599	2,870	79.7%

### Enrollment Status

Fall-to-Spring retention was consistently higher (by up to 25 percentage points) for full-time students than part-time students.

- Full-time students' retention rates increased from 88 to 89 percent, while part-time students' Fall-to-Spring retention rates increased from 66 to 70 percent from the Fall 2014 cohort to the Fall 2016 cohort.
- Full-time students comprised over half of students in each cohort.

**Figure 1. Fall-to-Spring Retention Rates by Enrollment Status at the Annandale Campus: Fall 2014 through Fall 2016 Cohorts**

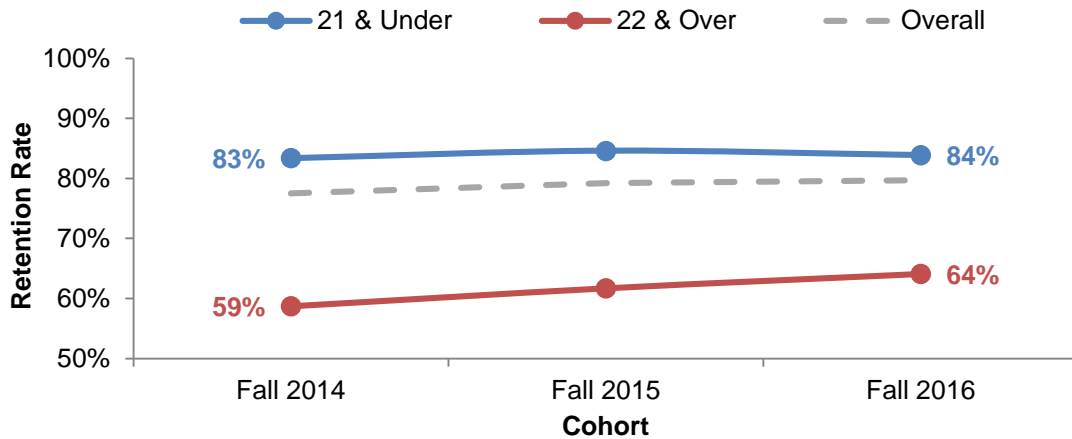


### Age

Fall-to-Spring retention rates show an achievement gap by age. Younger students (age 21 and under) had better Fall-to-Spring retention rates than older students. Nearly 80 percent of students in each cohort were ages 21 and under.

- While 83 to 85 percent of students age 21 and under returned to NOVA in the spring, only 59 to 64 percent of older students did so.
- This achievement gap decreased over time. The difference in retention rates between younger and older students decreased from a 25 percentage point gap in Fall 2014 to a 20 percentage point gap in Fall 2016.

**Figure 2. Fall-to-Spring Retention Rates by Age at the Annandale Campus:  
Fall 2014 through Fall 2016 Cohorts**

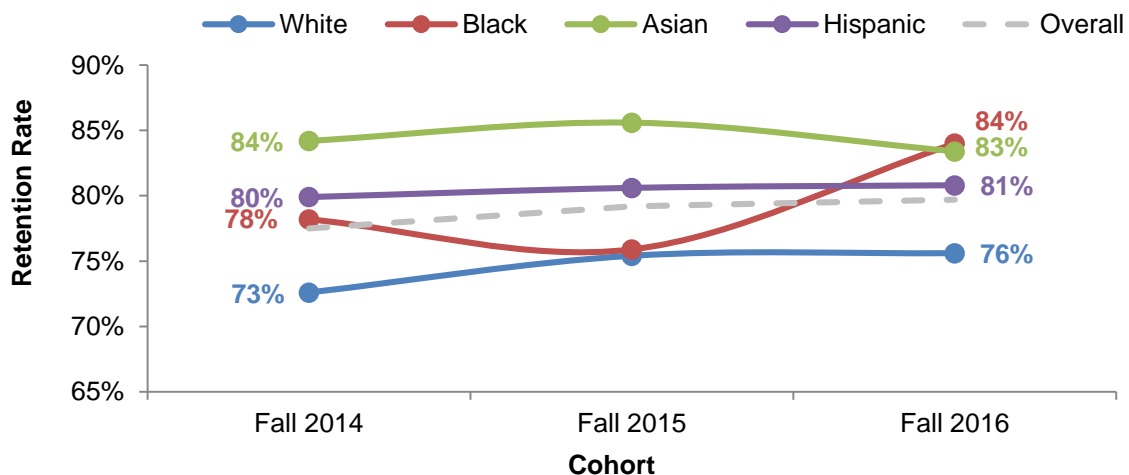


### Race/Ethnicity

The data shows an achievement gap in the Fall-to-Spring retention rates of FTIC students at the Annandale Campus by race/ethnicity.

- Achievement gaps between all racial/ethnic groups decreased from Fall 2014 to Fall 2016.
- By Fall 2016, Fall-to-Spring retention rates for Asian, Black, and Hispanic students were similar (within 3 percentage points).
- Fall-to-Spring retention showed the greatest increase among Black students (6 percentage points).
- White students consistently had the lowest Fall-to-Spring retention rates (73 to 76 percent).
- These gaps appear correlated to enrollment status. For example, on average, 64 percent of Asian students attended NOVA full-time. In contrast, only 45 percent of White students – who had the lowest retention rate – attended full-time.

**Figure 3. Fall-to-Spring Retention Rates by Race/Ethnicity at the Annandale Campus:  
Fall 2014 through Fall 2016 Cohorts**

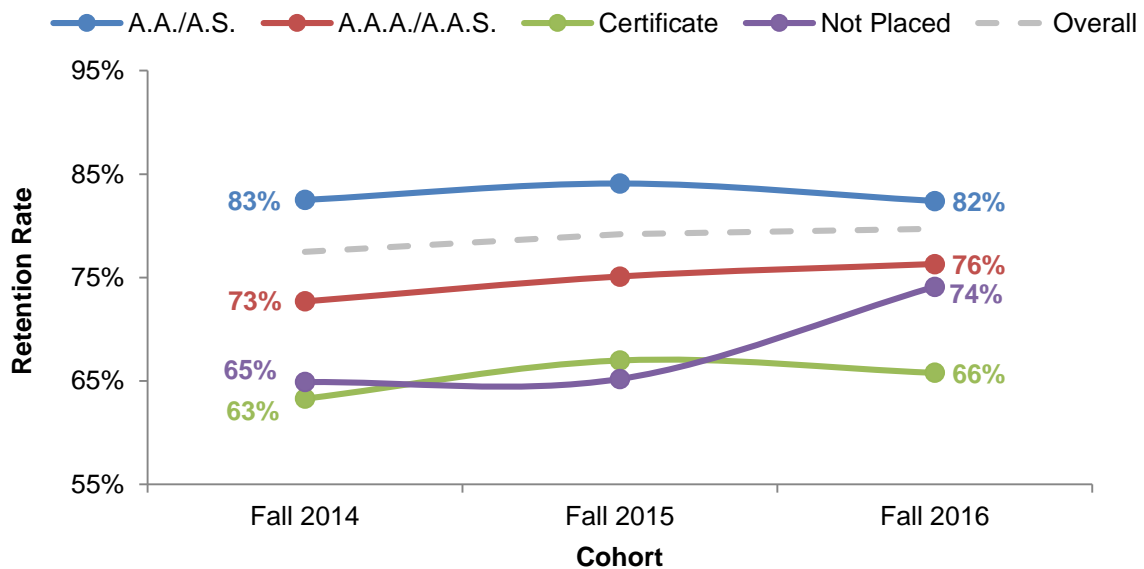


## Program Placement

The data shows an achievement gap in Fall-to-Spring retention based on students' choice of degree or certificate program.

- Nearly 70 percent of FTIC students at the Annandale Campus were enrolled in an A.A. or A.S. degree program. Of these students, 82 to 84 percent returned to NOVA in the spring.
- Retention rates of A.A./A.S. students were 6 to 10 percentage points higher than A.A.A./A.A.S. students and 16 to 20 percentage points above students in Certificate programs.
- While retention rates decreased slightly from Fall 2014 to Fall 2016 for A.A./A.S. students, rates increased over the same time period for A.A.A./A.A.S., Certificate, and Not Placed students.

**Figure 4. Fall-to-Spring Retention by Program Placement at the Annandale Campus: Fall 2014 through Fall 2016 Cohorts**



## Gender

There was not a notable achievement gap in Fall-to-Spring retention rates by gender. Male students' retention rates increased from 77 to 80 percent across the three cohorts, while female students' rates remained steady at 79 percent.

## Section 2. Achievement Gaps in Fall-to-Fall Retention Rates at the Annandale Campus: Fall 2013 through Fall 2015 Cohorts

Section 2 examines achievement gaps in the Fall-to-Fall retention rates of three cohorts of FTIC students (Fall 2013 through Fall 2015) at the Annandale Campus. Fall-to-Fall retention indicates the percentage of the fall cohort of FTIC students who enrolled in the fall semester of the following academic year.

### Key Findings

- Overall, the data in Section 2 reveals a number of achievement gaps among FTIC students at the Annandale Campus in terms of Fall-to-Fall retention.
- In general, Fall-to-Fall retention rates were **lowest** among students who were part-time, age 22 and older, White or Black, and enrolled in Certificate programs or not placed.

Table 2 shows the overall Fall-to-Fall retention rates of FTIC students at the Annandale Campus from Fall 2013 through Fall 2015. Retention rates increased overall from 56 percent in Fall 2013 to 58 percent in Fall 2015.

**Table 2. Fall-to-Fall Retention of FTIC Students at the Annandale Campus: Fall 2013 through Fall 2015 Cohorts**

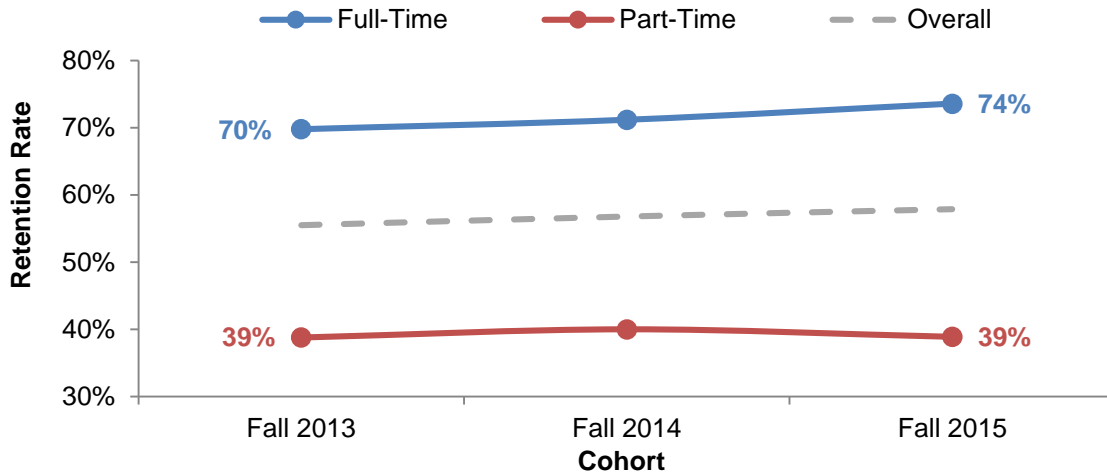
Fall 2013 Cohort			Fall 2014 Cohort			Fall 2015 Cohort		
Total Enrolled	Returned in Fall		Total Enrolled	Returned in Fall		Total Enrolled	Returned in Fall	
	#	%		#	%		#	%
3,758	2,084	55.5%	3,721	2,112	56.8%	3,495	2,024	57.9%

### Enrollment Status

Fall-to-Fall retention was consistently higher (by 32 percentage points) for full-time students than part-time students at the Annandale Campus. See Figure 5 on the next page.

- Full-time students' retention rates increased from 70 to 74 percent across cohorts
- Part-time students' Fall-to-Fall retention rates remained the same at 39 percent from the Fall 2013 cohort to the Fall 2015 cohort.
- Full-time students comprised 54 percent of students in each cohort.

**Figure 5. Fall-to-Fall Retention Rates by Enrollment Status at the Annandale Campus:  
Fall 2013 through Fall 2015 Cohorts**

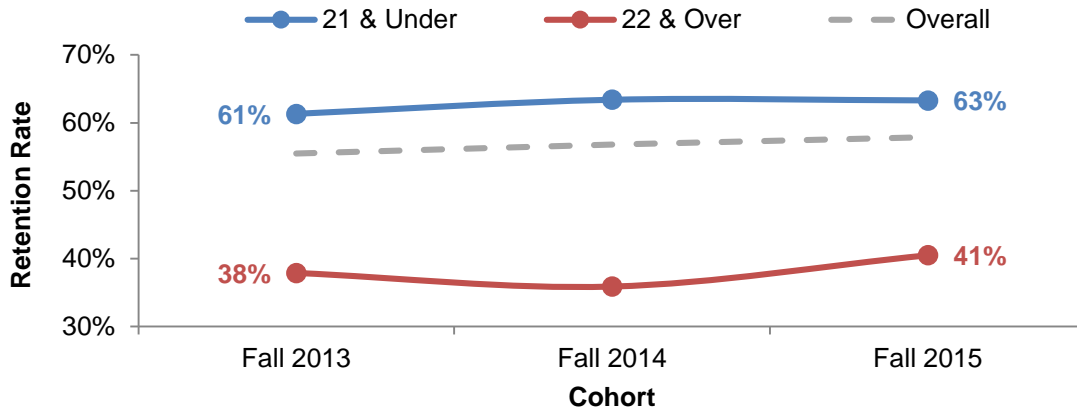


**Age**

Fall-to-Fall retention rates show an achievement gap by age at the Annandale Campus. Younger students (age 21 and under) had better Fall-to-Fall retention rates than older students. On average, over 75 percent of students in each cohort were age 21 and under.

- While an average of 63 percent of students age 21 and under returned to NOVA in the Fall, only about 38 percent of older students did so.

**Figure 6. Fall-to-Fall Retention Rates by Age at the Annandale Campus:  
Fall 2013 through Fall 2015 Cohorts**



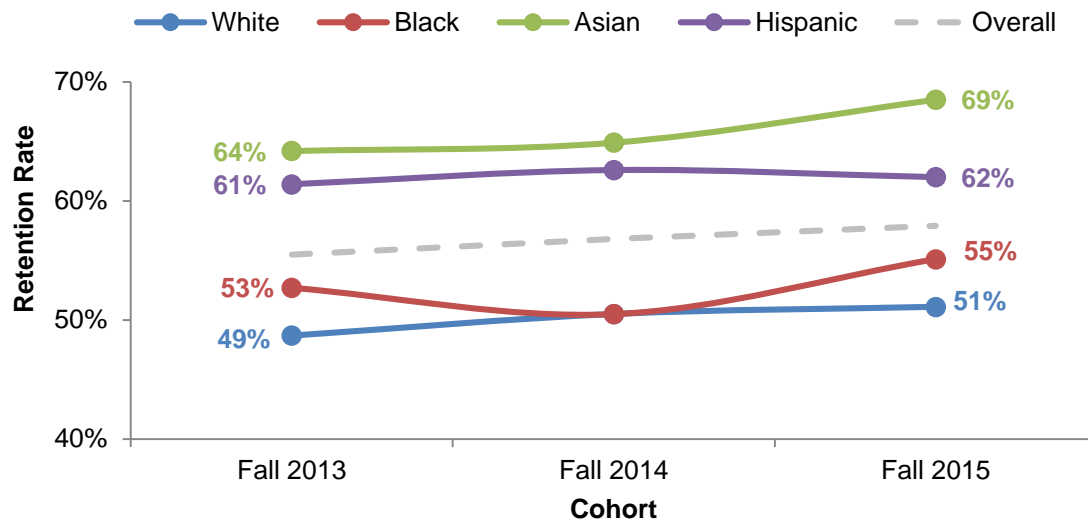
**Race/Ethnicity**

The data shows an achievement gap in the Fall-to-Fall retention rates of FTIC students by race/ethnicity at the Annandale Campus.

- Asian students and Hispanic students had consistently higher Fall-to-Fall retention rates than White students and Black students.
- Asian students had the highest retention rates (about 66 percent on average), followed by Hispanic students (around 62 percent).

- White students' and Black students' Fall-to-Fall retention rates were lower than the overall rate (about 57 percent), with an average retention rate of 50 percent and 53 percent, respectively.
- These gaps appear correlated to the enrollment status of each racial/ethnic group. For example, 64 percent of Asian students – the group with the highest retention rates – attended NOVA full-time. In contrast, only 46 percent of White students – who had the lowest retention rate – attended full-time.

**Figure 7. Fall-to-Fall Retention Rates by Race/Ethnicity at the Annandale Campus:  
Fall 2013 through Fall 2015 Cohorts**

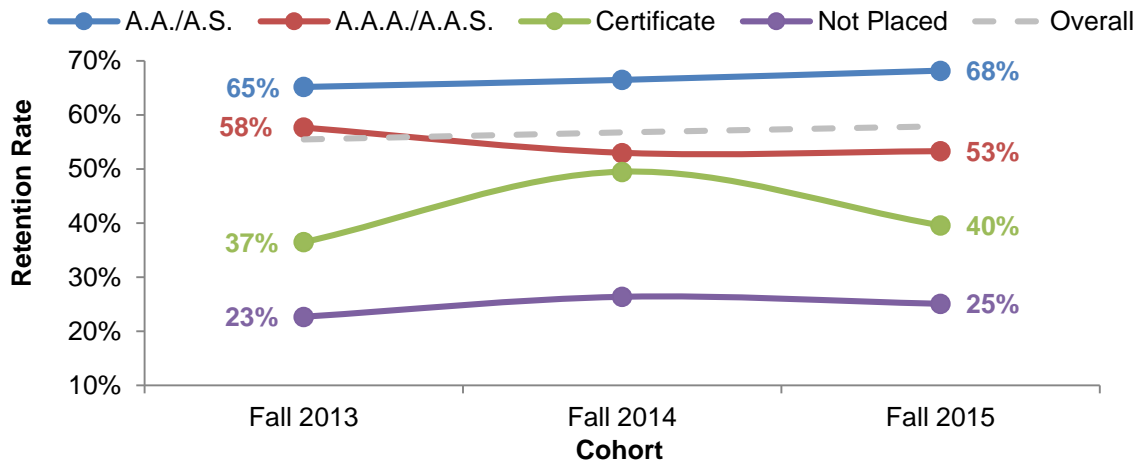


### Program Placement

The data shows an achievement gap in Fall-to-Fall retention based on students' choice of degree or Certificate program.

- Over half of FTIC students were enrolled in either an A.A. or A.S. degree program. Of these students, about 67 percent returned to NOVA in the Fall.
- The Fall-to-Fall retention rate of students in A.A.A. or A.A.S. degree programs averaged about 55 percent, compared to a rate of 42 percent for students in Certificate programs.
- Students who were Not Placed had the lowest Fall-to-Fall retention rates, about 25 percent. In each cohort, less than one-quarter were Not Placed.

**Figure 8. Fall-to-Fall Retention Rates by Program Placement at the Annandale Campus: Fall 2013 through Fall 2015 Cohorts**



### Gender

There was a small achievement gap in Fall-to-Fall retention by gender. Although female students' Fall-to-Fall retention rate was most often higher than that of male students, the difference was less than 1 percentage point on average.

### **Section 3. Achievement Gaps in Four-Year Graduation Rates at the Annandale Campus: Fall 2010 through Fall 2012 Cohorts**

This section examines achievement gaps in the four-year graduation rates among three cohorts of FTIC students (Fall 2010 through Fall 2012) at the Annandale Campus. The four-year graduation rate measures the proportion of students in a particular cohort who graduated from NOVA within four years of their original enrollment. The population examined in this Research Brief only includes FTIC students who were program placed in their first semester.

#### **Key Findings**

- Overall, the data in this section reveals a number of achievement gaps among FTIC students at the Annandale Campus in terms of four-year graduation rates.
- Students who were male, enrolled part-time, age 22 and older, Black or White, or enrolled in Certificate programs were **less likely** than other students to graduate within four years.

Table 3 shows the four-year graduation rates of FTIC students in the Fall 2010 through Fall 2012 cohorts. Overall, the percentage of FTIC students who graduated within four years of their initial enrollment at NOVA decreased from 25 percent in Fall 2010 to 22 percent in Fall 2012.



**Table 3. Four-Year Graduation Rates of FTIC Students at the Annandale Campus: Fall 2010 through Fall 2012 Cohorts**

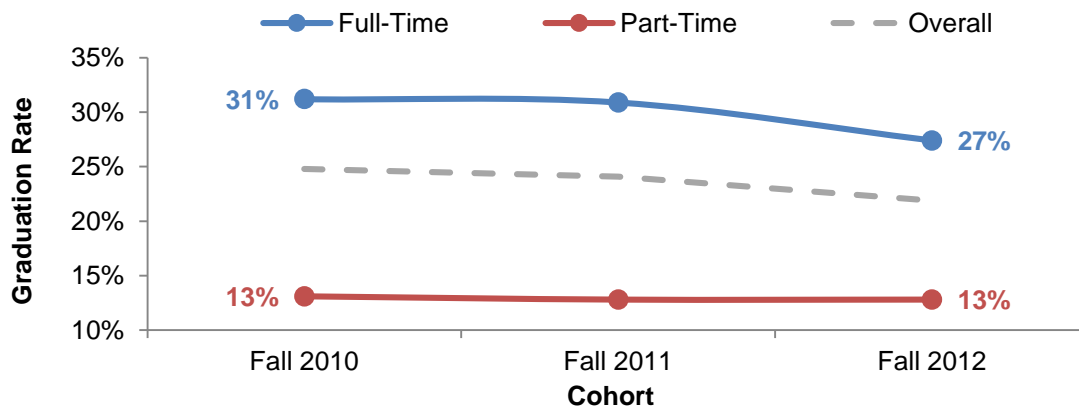
Fall 2010 Cohort			Fall 2011 Cohort			Fall 2012 Cohort		
Total	Graduated		Total	Graduated		Total	Graduated	
	#	%		#	%		#	%
2,695	668	24.8%	2,702	652	24.1%	2,963	649	21.9%

**Enrollment Status**

As expected, students who attended NOVA part-time were considerably less likely to graduate within four years than students who attended full-time.

- The four-year graduation rate of full-time students was up to 18 percentage points higher than that of part-time students.
- The graduation rate for full-time students decreased from 31 percent in Fall 2010 to 27 percent in Fall 2012, while that of part-time students remained stable at 13 percent across cohorts.

**Figure 9. Four-Year Graduation Rates by Enrollment Status at the Annandale Campus: Fall 2010 through Fall 2012 Cohorts**

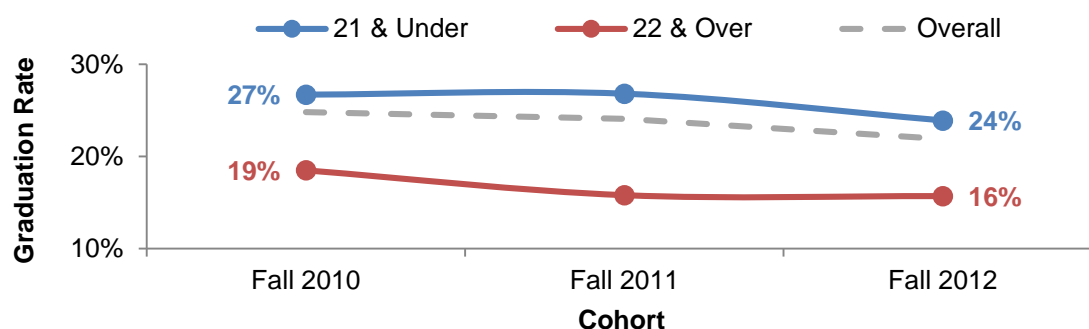


**Age**

The data shows an eight percentage point achievement gap between traditional college-age students (age 21 and under) and older students (age 22 and over).

- Between 24 and 27 percent of students age 21 and under graduated within four years, compared to 16 to 19 percent of students age 22 and over.
- Younger students were much more likely to attend NOVA full-time than older students. On average, 70 percent of students 21 and under attended full-time, compared to only 40 percent of students 22 and over.

**Figure 10. Four-Year Graduation Rates by Age at the Annandale Campus:  
Fall 2010 through Fall 2012 Cohorts**

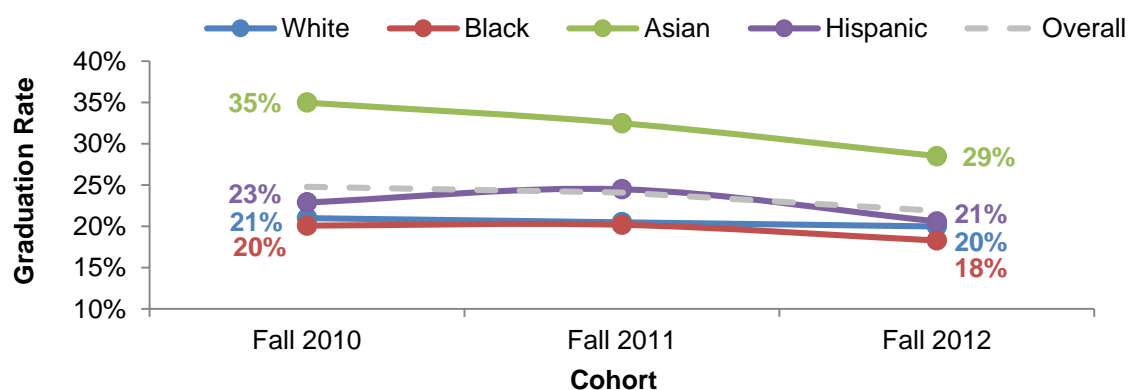


### Race/Ethnicity

The data shows an achievement gap in the graduation rates of Asian students compared to Black, Hispanic, and White students.

- Asian students' four-year graduation rates were 8 to 15 percentage points higher than those of other racial/ethnic groups. However, Asian students' graduation rate also showed the largest decrease of any racial/ethnic group – 6 percentage points – from 35 percent in Fall 2010 to 29 percent in Fall 2012.
- Hispanic students' four-year graduation rate was between one and five percentage points higher than that of Black or White students in each cohort.
- Black students generally had the lowest graduation rates in each cohort (18 to 20 percent).
- While the majority of students in all racial/ethnic groups were full-time, Asian students had the largest proportion of full-time students (about 73 percent attending NOVA full-time). In contrast, 61 percent of Black students attended NOVA full-time.

**Figure 11. Four-Year Graduation Rates by Race/Ethnicity at the Annandale Campus:  
Fall 2010 through Fall 2012 Cohorts**

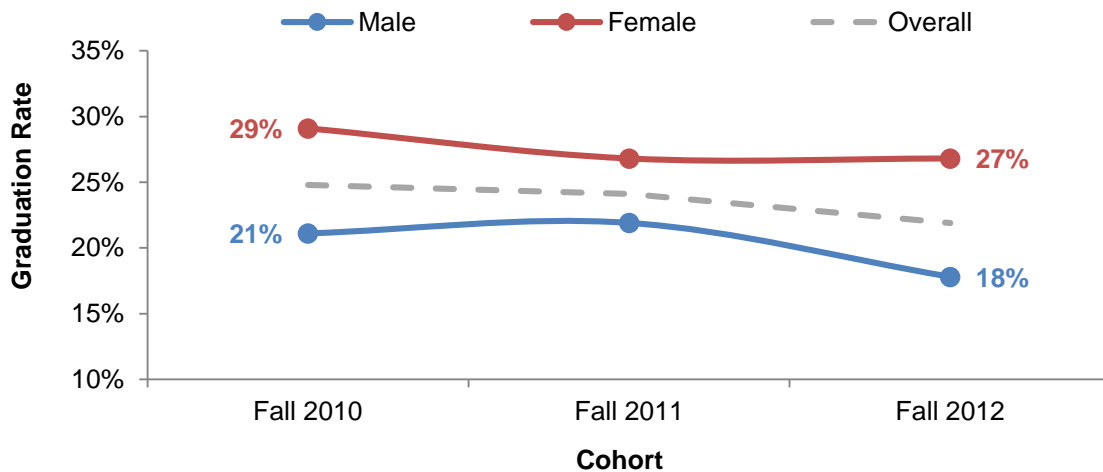


### Gender

The four-year graduation rate was consistently higher for female students (27 to 29 percent) than male students (18 to 22 percent) in each cohort.

- The gender gap increased slightly over time, from an eight-percentage point difference in Fall 2010 to a nine-percentage point difference in Fall 2012.

**Figure 12. Four-Year Graduation Rates by Gender at the Annandale Campus:  
Fall 2010 through Fall 2012 Cohorts**

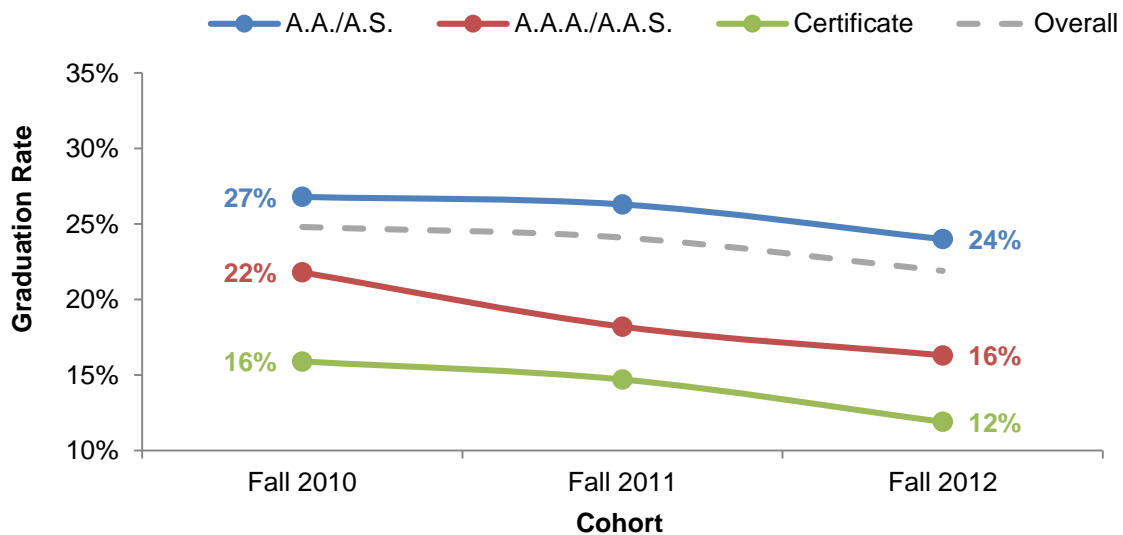


**Program Placement**

Among program-placed, FTIC students at the Annandale Campus, about 73 percent were enrolled in an A.A. or A.S. degree program. These students were more likely to graduate within four years than those enrolled in A.A.A., A.A.S., or Certificate programs.

- A.A./A.S. students had four-year graduation rates that were 5 to 8 percentage points higher than A.A.A./A.A.S. students and 11 to 12 percentage points higher than students in Certificate programs.
- Students in A.A. and A.S. programs were also more likely to attend NOVA full-time than students in A.A.A., A.A.S., or Certificate programs.

**Figure 13. Four-Year Graduation Rates by Program Placement at the Annandale Campus:  
Fall 2010 through Fall 2012 Cohorts**



## **Section 4. Discussion of Findings**

The achievement gaps revealed by the data in this Research Brief do not exactly mirror national trends. Current national research consistently shows that male persistence and achievement lag behind that of female students.<sup>2</sup> The gender gap is most pervasive among Black students, with Black female students earning 68 percent of all associate degrees awarded to Black students.<sup>3</sup> At NOVA's Annandale Campus as seen in this Research Brief, the gender gap is only apparent in four-year graduation rates but not in Fall-to-Spring or Fall-to-Fall retention.

In addition, national data shows that Black and Hispanic students trail Asian and White students on a number of student success metrics. As of 2008, only 30 percent of African Americans and 20 percent of Latinos between the ages of 25 and 34 had attained an associate degree or higher compared to 49 percent of White students and 71 percent of Asian students.<sup>4</sup> However, at NOVA's Annandale Campus as seen in this Research Brief, Asian students and Hispanic students outperformed White and Black students on all three metrics.

### **Closing Achievement Gaps at NOVA**

NOVA's Start Strong policy changes, launched in Fall 2014, were based on recommendations from the ATD Core Team. Such policy changes are expected to help in closing achievement gaps. For example, NOVA's orientation, advising, and Student Development course policies provide targeted interventions for FTIC students ages 17 to 24 through the GPS for Success program. The goal of GPS for Success is to help students succeed in college by fostering connections with professional advisors and faculty who help students plan for and attain their academic goals.

The Survey of Entering Student Engagement (SENSE) provides additional insight into how NOVA might approach closing achievement gaps. SENSE provides benchmark data in several areas that can help NOVA understand students' critical early experiences and improve policies and practices that affect student success in the first year. Results of the 2015 SENSE indicated that, relative to other community colleges nationwide, NOVA is underperforming in the "High Expectations and Aspirations," "Engaged Learning," and "Academic and Social Support Network" benchmarks. NOVA must continue to explore the implications of these benchmark scores and identify intervention strategies to help boost student success.

One of ATD's six capacity areas for student success is Equity. This capacity area is used as a framework for a faculty-led pilot on teaching and learning that promotes equitable outcomes for all students. In addition, NOVA faculty on ATD teams are currently examining strategies to improve equity in the classroom through teaching and learning. Future research on achievement gaps at NOVA should take a comprehensive approach to data analysis by triangulating NOVA student data along with surveys, focus groups, and outside research on community college best practices for FTIC students.

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<sup>2</sup> Lee, J. M., & Ransom, T. (2011). The Educational Experience of Young Men of Color: A Review of Research, Pathways, and Progress. Retrieved from College Board website:

<http://youngmenofcolor.collegeboard.org/sites/default/files/downloads/EEYMCResearchReport.pdf>.

<sup>3</sup> Center for Community College Student Engagement. (2014). Comprehensive Fact Sheet: Men of Color in Higher Education. Retrieved from: [http://www.ccsse.org/docs/MoC\\_Long\\_Fact\\_Sheet.pdf?ts=20170113182911](http://www.ccsse.org/docs/MoC_Long_Fact_Sheet.pdf?ts=20170113182911).

<sup>4</sup> Lee & Ransom 2011.