Student Engagement and Retention of Cohort 2010

This report covers the following areas about student engagement and retention:
1) One-year retention of Cohort 2010
2) Students from the secondary market
3) Students with the first-year college GPA below 2.5
4) St. John’s College: Undecided and science majors
5) Retention by ethnicity
6) Students who lost University scholarships
7) Retention by students’ college choice
8) Reasons students left St. John’s
9) Factors affecting the second to third-year retention

This report has two parts, a brief summary and highlights of information. The appendix to this report provides detailed data.

I. SUMMARY

Both related literature and St. John’s data reveal that freshman and sophomore years is the critical period of student engagement and retention. Based on St. John’s Cohorts 2007 – 2009 data, the average of the first to second-year retention was 77%, and the second to third-year retention was 84%, resulting in a two-year retention of 66%. College GPA has been identified as the most consistent and significant predictor of retention. Other factors affecting retention include: 1) Students from the secondary market had a lower retention than those from the primary market, especially for one-year retention; 2) Students with an undecided major had a lower retention; and 3) Students who lost the University scholarship had a lower retention.

African and Hispanic students entered St. John’s with a lower high school GPA and SAT scores than Asian and white students. The low academic preparedness led to low college GPA, and then to low retention of African and Hispanic students.

On Queens campus, nearly one half of the students who left St. John’s during the first year claimed that they left for financial reasons. However, over one-third of them had their first-year college GPA below 2.5. This reveals the compounding nature of reasons for which students left St. John’s. For Staten Island campus, 45% said they left for academic reasons, including for choice of program and choice of college.
II. HIGHLIGHTS

Following are some highlights of the findings in the data analysis. The appendix to this report provides the detailed data.

1. One-year retention of Cohort 2010

The final one-year retention of Cohort 2010 was 78.7%, 0.5% higher than Cohort 2009. Coincidentally, the additional 177 students in the PharmD program in 2010 contributed just about half a point to the University overall one-year retention. (Table 101)

As the following table (from Table 101 in the appendix) indicates, from the end of June to the freeze date of mid-October, about 4% melted in one-year retention (from 82.5% to 78.7%). The retention of students with the first-year GPA of 2.0 – 2.4 melted most, by 8%, from 76% to 68% (for those who lost the University scholarship, 15% melted), followed by the 2.5 – 2.9 GPA range, from 86% to 79%.

<table>
<thead>
<tr>
<th>1st-Year College GPA</th>
<th># of Students</th>
<th>% of Total</th>
<th>Returned in Fall 2011</th>
<th>% Melted from June 28 to Oct. 15</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>As of June 28</td>
<td>As of October 15 (Final Count)</td>
</tr>
<tr>
<td>Cohort 2010</td>
<td>3,047</td>
<td>2,513</td>
<td>82.5%</td>
<td>2,397</td>
</tr>
<tr>
<td>0.0 - 1.9</td>
<td>319</td>
<td>10%</td>
<td>134</td>
<td>138</td>
</tr>
<tr>
<td>2.0 - 2.4</td>
<td>354</td>
<td>12%</td>
<td>269</td>
<td>241</td>
</tr>
<tr>
<td>2.0 – 2.4 Lost STJ Scholarship</td>
<td>191</td>
<td>153</td>
<td>80.1%</td>
<td>125</td>
</tr>
<tr>
<td>2.5 - 2.9</td>
<td>593</td>
<td>19%</td>
<td>509</td>
<td>471</td>
</tr>
<tr>
<td>3.0 - 3.4</td>
<td>896</td>
<td>29%</td>
<td>780</td>
<td>745</td>
</tr>
<tr>
<td>3.5 - 4.0</td>
<td>885</td>
<td>29%</td>
<td>821</td>
<td>802</td>
</tr>
</tbody>
</table>

2. Students from the secondary market

Students from the secondary market had a similar high school GPA and SAT scores as students from the primary market, but their one-year retention remained lower. As the following table (from Table 162 in the appendix) reveals, for Cohort 2010 the one-year retention of the primary-market students was 82%, as compared to 77% for students from other NY counties, 73% for out-of-state students, and 87% for international students.
<table>
<thead>
<tr>
<th>Cohort 2010 By Market</th>
<th># of Students</th>
<th>% of Total</th>
<th>Enrolled in 2nd Year</th>
<th>1-Year Retention</th>
<th>1st-Year College GPA</th>
<th>HS GPA</th>
<th>SAT M &amp; V</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010 Total</td>
<td>3,047</td>
<td>100%</td>
<td>2,397</td>
<td>79%</td>
<td>3.0</td>
<td>87</td>
<td>1,097</td>
</tr>
<tr>
<td>Primary</td>
<td>1,643</td>
<td>54%</td>
<td>1,342</td>
<td>82%</td>
<td>3.0</td>
<td>87</td>
<td>1,101</td>
</tr>
<tr>
<td>Other counties in NY</td>
<td>375</td>
<td>12%</td>
<td>287</td>
<td>77%</td>
<td>3.0</td>
<td>88</td>
<td>1,093</td>
</tr>
<tr>
<td>Out of NY State</td>
<td>917</td>
<td>30%</td>
<td>671</td>
<td>73%</td>
<td>2.9</td>
<td>87</td>
<td>1,082</td>
</tr>
<tr>
<td>International</td>
<td>112</td>
<td>4%</td>
<td>97</td>
<td>87%</td>
<td>3.1</td>
<td>89</td>
<td>1,176</td>
</tr>
</tbody>
</table>

Table 121 in the appendix provides one-year retention by campus and by county. The table reveals that students on Queens campus from Queens county had a higher retention than students from other four counties in the primary market, 86% vs. 79% for Cohort 2010. The data also indicate that the retention of Suffolk county students on Queens campus increased from 70% in 2007 to 80% in 2008, and 76% in 2010; the retention of Westchester county students increased from 71% in 2008 to 81% in both 2009 and 2010.

3. **Students with the first-year college GPA below 2.5**

St. John’s data indicate that there is a strong positive relationship between high school GPA and first-year college GPA. As Table 153c reveals, the lower the high school GPA, the higher the proportion of students with the first-year college GPA below 2.5.

The following table (part of Table 153c) indicates that on the average of Cohorts 2006 – 2010, 23% of students had their first-year college GPA below 2.5. For students with the high school GPA of 75 or lower, 52% (N = 56) of them had the first-year college GPA below 2.5.

The last row in the following table provides a summary for students with high school GPA below 80: 10% (N = 321) of student population; contributing 21% (N = 159) of the students with the first-year college GPA below 2.5; 50% of them (N = 159) had the first-year GPA below 2.5.
4. St. John’s College: Undecided and science majors

Cohort 2010 data indicate that as compared to the University average, St. John’s college had a larger proportion of students with the first-year college GPA below 2.5, 26% as compared to 22% of the University average. Accordingly, St. John’s College had a larger proportion of students who lost the University scholarship in the second year (because they didn’t meet the college GPA criterion of 3.0), 26% vs. the University average of 22%. (Table 166b)

The following table (from Table 166c) presents St. John’s college data by students’ major status when they entered St. John’s. The table indicates that the first-year college GPA (2.9) for students with an undecided major was similar to the college average, but their retention was the lowest, 72% as compared to 74% for science majors and 77% for other majors.
4.1 Science majors

The above table also reveals that for students in science majors, their low first-year college GPA was compounded with losing the University scholarship (47% as compared to 19% of students in other majors).

Table 141v in the appendix presents the courses that science-major students took in their first year. The table indicates that MTH 1050 (Pre-Calculus & Trigonometry) was one of the most challenging courses in 2010-11 academic year, with an average course grade of 2.1 and 40% of students having a letter grade below C. Other challenging courses include CHE 1220 (average grade = 2.3; 38% below C) and PSY 1000C (average grade = 2.3; 30% below C).

4.2 Students with an undecided major when entering St. John’s

For students with an undecided major when entering St. John’s, some of them did apply for a major. Their applied majors were declined and then they elected to be in the undecided major category. Table 131b provides the distribution of their applied majors. The table indicates that there was an upward trend in the proportion of students who did apply for a major, from 37% in 2007 to 45% in 2010. The most applied majors include Biology, PharmD, and Physician Assistant.

The following table (from Table 113e) indicates that students who applied for a major had a slightly lower academic profile (lower high school average, SAT, and first-year college GPA) and their one-year retention was only 1% lower than the students who didn’t apply for a major. However, within the students who applied for a major, those with Biology as their applied major had a lightly lower academic profile, but their retention was much lower, 65% as compared to 70% for those with Physician Assistant as their applied major, and 78% for those with PharmD as their applied major.
In Fall 2010, a one-year dual advisement program was implemented for St. John's College freshmen with an undecided major on the Queens campus. All the freshmen were advised by the Freshman Center advisors, and 225 of them were randomly selected for dual advisement (They were also advised by five faculty members, with each faculty advising 45 students.). The dual-advisement group (N = 225) and non-dual-advisement group (N = 120) were quite similar in high school GPA, SAT scores, and the percentage of out-of-state students and students with very high financial need. The results of the program indicate that there is no difference between the dual-advisement and non-dual-advisement groups in one-year retention (71% for both groups) or the proportion of students who secured a major by the end of the first year (33% for both groups). (Table 198)

5. Retention by ethnicity

Without considering students’ academic preparation (in terms of high school GPA and SAT scores), the 2010 overall retention of African Americans and Hispanic students was significantly lower than white and Asian students: 74.3% and 71.8% versus 81.1% and 82.9% respectively (Table 100b). Over time, retention rates for both African and Hispanic students have remained consistently lower when compared with retention rates of Asian and white students when Pharm D students are included in the analysis. In terms of factors impacting this disparity, various statistical methods were applied for the purpose of identifying potential drivers of retention by ethnicity. The most important driver was high school GPA plus SAT scores. Once high school GPA and SAT scores are factored in, the gap among ethnic groups becomes minimal. However, because of the lower academic preparedness of our African and Hispanic students, retention among these populations is correspondingly lower. These lower retention rates for African and Hispanic students continue to compound over time, resulting in lower six-year graduation rates (average of six-year graduation rates for Cohorts 2000 – 2005: African Americans, 51%; Hispanic, 54%; Asian, 62%; white, 64%). Therefore, academic preparedness would either need to be elevated or substantial and broad-based intervention would be required to address the college readiness and persistence question for many standard admitted students, but in particular, for many African and Hispanic students in order to achieve desired retention rates. Alternatively, retention targets might be adjusted given the national context and the likely growth of Hispanic students for the future.

Table 132d presents retention data (Cohorts 2005 to 2009 combined, not including PharmD) by high school GPA range. As the table indicates, for students with the high school GPA below 80, African Americans and Hispanic students had lower SAT scores, and their one-year retention was one or two points lower than the University average (61% for African Americans, 60% for Hispanic, vs. the University average of 62%); Asian students had an even lower retention of 55%; and white students had a higher retention of 67%. Within the high school range of 80 – 89, the retention gap in ethnicity was reduced: all had a retention of 75%
except Hispanic (71%). Within the high school GPA of 90 – 100, the gap was further reduced: African and Hispanic had the same retention as the university average (84%), Asians were two points lower, and white one point higher than the university average.

As for the change in one-year retention by ethnicity from Cohort 2009 to 2010, there are two factors that make the comparison a little difficult. The first factor is that the PharmD freshman size increased from 269 in 2009 to 446 in 2010. PharmD students are predominantly Asian and white. Therefore, the expansion in PharmD student population affects the retention by ethnicity for the whole University. The second factor is that two new categories in ethnicity were created, and that may have some effect on the retention by ethnicity.

Table 132m presents the one-year retention data by ethnicity for Cohorts 2009 and 2010. As the table indicates, excluding PharmD students, the one-year retention decreased by 0.6% from 2009 (76.6%) to 2010 (76.0%). The retention of white and Asian students increased by 0.3% and 0.6%, respectively; African Americans decreased by 1.8%; Hispanic students decreased by 1.3%. However, the retention of the newly-created category of Two or More Races in 2010 was 76.6% which was several points above the retention of African Americans and Hispanic students. The higher retention of the Two or More Races category likely explains part of the drop in retention of African and Hispanic students.

For PharmD students, the one-year retention rates of African and Hispanic students were all 100% for both Cohorts 2009 and 2010 (African Americans in 2009, N = 4; in 2010, N = 11; Hispanic in 2009, N = 3; in 2010, N = 9). The retention of white students increased from 93% to 97% while their first-year college GPA went up from 3.3 to 3.5. The retention of Asian students dropped from 97% in 2009 to 93% in 2010 while their college GPA dropped from 3.4 to 3.3.

6. Students who lost their St. John’s University scholarships

Based on the combined data of Cohorts 2007 to 2009, over three-fifths (62%) of St. John’s freshmen had $5,000 or more of St. John’s University scholarships. In the second year, about one-third (31%) of them lost their scholarships because they didn’t meet the college GPA requirement of 3.0. The first to second-year retention of those who lost their scholarships was 69% (8% lower than the university average), and their second to third-year retention was 68% (16% lower than the university average), resulting in a two-year retention of 47% (19% lower than the university average).

For students with the University scholarships for the first year, as Table 276 reveals, African and Hispanic Americans had lower high school GPA and SAT scores which led to lower first-year GPA, resulting in a larger proportion losing scholarships in the second year than Asian and white students. For African Americans (first-year GPA = 2.8), 49% lost scholarship; Hispanic (GPA = 3.0), 35%; Asian (GPA = 3.2), 28%; white (GPA = 3.2), 25%.
For students who lost their scholarships in the second year, the difference in the first to second-year retention by ethnicity was not very big. Asian students had the highest retention of 72%, followed by African Americans (70%), Hispanic (68%), and white (67%).

For students who lost scholarships by were enrolled in the second year, white students were far ahead in the second to third-year retention, 74%, as compared to 66% for Hispanic, 65% for Asian, and 63% for African Americans.

7. Retention by students’ college choice

From Fall 2008 on, the University Freshman Center conducted a freshman survey. One of the survey items asked students about their college choice when they applied for college. The aggregated Fall 2008 to 2010 data (three cohorts) indicate that about one half of freshmen responded to the survey. The survey respondents had a higher academic profile and their one-year retention was also higher than the non-respondents. (Table 194)

For the survey respondents, 40% put St. John’s as their first choice, 33% as the second choice, 16% as the third choice, and the remaining 11% as the fourth or lower choice. The aggregated data reveal that the one-year retention rates of the first- and second-choice groups were similar, 83% and 82%, respectively. Students with St. John’s as their third or lower choices had slightly higher high school GPA and first-year college GPA, but their one-year retention was several points lower (79%).

8. Reasons students left St. John’s

For Cohort 2010 on Queens campus, 604 students didn’t return to St. John’s in Fall 2011, and 424 (70%) of them provided the reasons for leaving St. John’s to the University Freshmen Center through an exit survey. Of the 424 students who provided a reason, “financial” factors account for 47% of the students who left; personal and other reasons, 27%; academic, 19%; and environment, 7%. (Table 199a)

For Staten Island campus, 41 students didn’t return to St. John’s in Fall 2011, and 31 (76%) of them provided the reasons for leaving St. John’s. Of the 31 students who provided a reason, academic reasons account for 45% of the students who left (22% left for choice of program or choice of university; 16% because a program is not available at St. John’s; 6% because of poor academic performance); financial reasons, 39%; personal reasons, 13%; and environment, 3%. (Table 199a)

The profile of all Cohort 2010 students who left St. John’s indicates that their average first-year college GPA is only 2.4 (as compared 3.1 for students who returned), 45% of them had their first-year college GPA below 2.5, and 52% of them were from the secondary market (vs. 41% for those who returned). Even for students who said that they left due to financial reasons, 38% of them had their first-year college GPA below 2.5 (Table 199b). All this reveals the compounding nature of reasons for which students left St. John’s.
9. Factors affecting the second to third-year retention

College GPA remains to be the most important factor affecting the second to third-year retention. For Cohorts 2005 to 2009, the second to third-year retention didn’t fluctuate very much, ranging from 84% to 86%. As Table 201 indicates, Cohort 2009 students with the two-year GPA of 0.0 – 1.9 had the second to third year retention of 27%, 66% for GPA 2.0 – 2.4, 78% for GPA 2.5 – 2.9, 91% for GPA 3.0 – 3.4, and 95% for GPA 3.5 – 4.0.

For Cohort 2008, the second to third-year retention of the primary market was 2% higher than the secondary market, 86% vs. 84%, but for Cohort 2009, the gap disappeared, 84% for both the primary and secondary market. (Table 261)

The retention of resident students (living on campus) remained higher than commuters (commuting or living off campus). As Table 261 reveals, for primary market students of Cohort 2009, the second to third-year retention of residents was 87% as compared to 83% for commuters; for the secondary market students, the corresponding retention rates were 88% vs. 74%. In addition, the proportion of the secondary market students living on campus became smaller in the second year than in the first year, 70% vs. 92% for Cohort 2009.

Regarding students who lost the University scholarship, as Part 6 of this report reveals, the impact was bigger on the second to third-year retention than on the first to second-year retention.

For St. John’s College students with an undecided major when entering St. John’s, those with a high first-year college GPA were more likely to secure a major in their first year than students with a low GPA. Therefore, students still with an undecided major at the beginning of the second year had a lower two-year GPA and a lower retention than students who have secured a major. For Cohort 2009, the second to third-year retention of students with an undecided major was 72% (two-year GPA: 2.9) as compared to 81% (GPA: 3.2) for those with a decided major.