

UNF Study Abroad and SUS Metrics



Warren Butler, UNF exchange student at American University in Cairo (Egypt), Spring 2017



Division of Student Affairs

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UNF Study Abroad and SUS Metrics

This study was conducted to investigate if the academic data on UNF study abroad students contributed positively to the BOG Performance Based Funding Metrics for UNF. After a study abroad indicator was created and associated with all students who have participated in study abroad activities from Academic Year AY 2011-2012, the office of International Affairs requested Institutional Research to run data queries in a variety of areas. A number of positive differences was found for study abroad students in comparison to non-study abroad students, e.g., higher GPAs, higher Academic Progress Rates, higher retention rates, higher graduation rates. These positive differences held true even with students receiving financial aid and across different Estimated Family Contribution ranges. The findings point out that students interested in study abroad look to be a highly desirable target group for recruitment purposes, as they have positive effects on Metrics 4 and 5, and they bring other decidedly favorable student attributes to the University.

Study Abroad at UNF

A total of 713 UNF students traveled abroad to over 40 countries during the 2016-2017 academic year. This number is a significant increase from the previous year's total of 648 students, and this is the highest number in UNF Study Abroad history. Of this 713 total, 471 students participated in UNF faculty-led programs, and 242 participated as individuals. Table 1 below shows information on total number of study abroad students for the past 4 academic years.

2013-14	2014-15	2015-16	2016-17
544 students	589 students	648 students	713 students

* numbers taken from International Center Annual Reports

UNF continues to rank among the top 20 universities nationwide for the total number of study abroad students in our Carnegie Classification (Master's Colleges and Universities). UNF was 15th in the nation in 2015-2016 for total number of study abroad students among the institutions in our classification, according to Open Doors 2017, the latest annual report in international education published by the Institute of International Education with funding from the U.S. Department of State's Bureau of Educational and Cultural Affairs. In the "Short-Term" study abroad duration category, UNF ranks #10 in the nation among schools in our classification.

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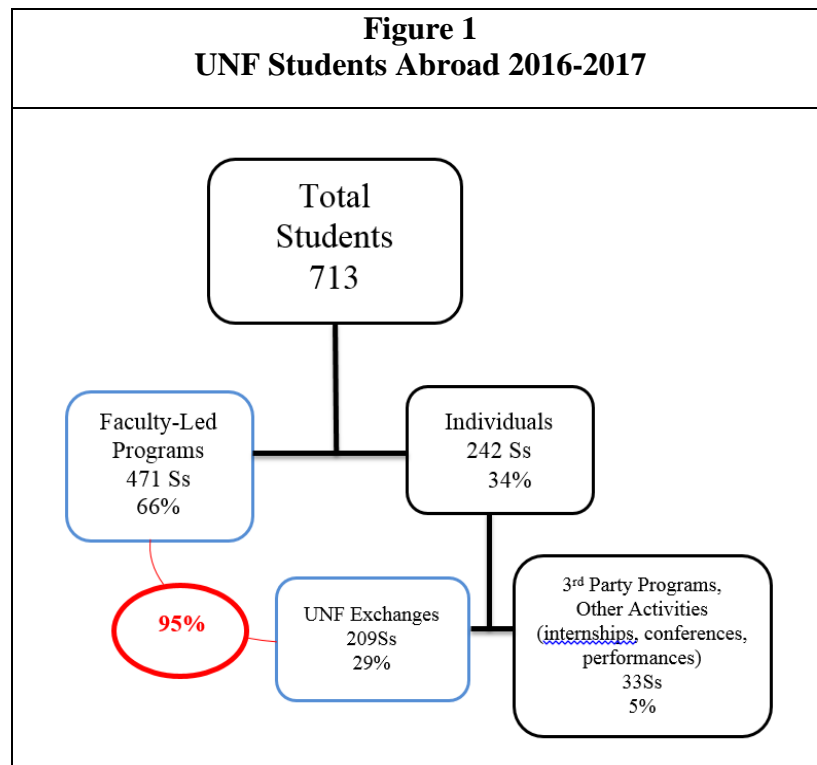
The breakdown by College of the 471 students on Faculty-Led programs is presented in Table 2.

Table 2		
2016-2017 Study Abroad Information by College		
College	# of faculty-led programs	# of students on faculty-led programs
BCH	5	97
CCB	8	150
CCEC	2	9
COAS	14	165
COEHS	5	30
Honors	1	20
TOTAL	35	471

Of the 242 total individuals studying abroad (those students who went abroad but NOT on any faculty-led programs) 209 were on academic exchanges. The university has some 45 exchange agreements with foreign universities in 24 countries. France was the destination with the highest number of students (45), with Spain having the second highest number (27), followed by Germany (23), and then Italy (20).

There were 33 additional students who went abroad on third-party programs, internships, or conducting research for credit.

Figure 1 below gives a summary presentation of the types and percentage of study abroad activities that UNF students participated in during AY 2016-2017.



Background to UNF Study Abroad Analysis and SUS Metrics

In July 2015, Albert Colom, Associate Vice President for Enrollment Services, gave a presentation to Student Affairs on the SUS metrics and their effects on the University. After that presentation, Vice President Mauricio Gonzalez (Student and International Affairs) requested that the Division units think of ways that they do and could positively affect the metrics. In several ongoing meetings, one suggestion was that research be done on how study abroad activities at UNF have positive effects on students, which then have positive effects on the SUS metrics. In the international education field, it is commonly held that study abroad has many positive effects on students, some of the information being anecdotal and some of it documented. But this suggested research would look at UNF students and give us data on positive effects within our SUS metrics context.

In late January 2016, the Director of the UNF International Affairs office contacted ITS about needed technical support, and in early February submitted an IT Project Proposal Request titled “Attribute for Study Abroad Metric”

The rationale of the request stated that the VP for Student and International Affairs reiterates “the importance of the Division’s role in student support and engagement that underlies success in Metrics #4 (6 year graduation rate) and Metrics #5 (Academic Progress Rate). In addition, certain units are also significant in their effect on Metrics #1 (Percent of Employment) and Metrics #2 (Median Wages). Study Aboard is often cited as not only why students initially choose a university, but is also credited with helping to retain students, to show increased GPAs, and to graduate faster (Metrics 4 and 5). Furthermore, study abroad is described as being a positive experience to employers--which should affect Metrics 1 and 2.”

However, as there was no existing way, at that time, to track UNF students on study abroad activities due to the variety of formats and how they might or might not be recorded on a transcript, the request asked that “an attribute [be] created, perhaps similar to attributes that currently exist in SGAUSDF (INB).”

Requested were three variations of that attribute:

- SA1 = short-term (summer or up to 8 weeks)
- SA2 = mid-length (one semester)
- SA3 = long-term (academic or calendar year)

NOTE: These three variations are what is used in the national survey “Open Doors” done every year by IIE (Institute for International Education) on study abroad at tertiary institutions across the nation. UNF participates in this annual survey and usually ranks high nationally in at least two categories. As stated above, UNF was #15 in the nation in 2015-2016 for total number of study abroad students among master’s institutions, according to Open Doors 2017. In the “Short-Term” study abroad duration category, UNF ranked #10 in the nation among master’s institutions.

With these requested attributes in place in student Banner records, the Division would be able to identify students who have participated in study abroad activities during their academic career and thus be able to report on:

- Percent of graduating students who participated in study abroad (variation of a current UNF recruiting item)
- Comparative GPA of study abroad students (expecting it to be higher than general population, supporting engagement efforts)
- Comparative graduation rate (Metric #4)
- Comparative progress rate (Metric #5)
- Comparative percent of graduates employed (Metric #1)
- Comparative wages of graduates (Metric #2)

In late March 2016, the ITS request was approved. The Director of International Affairs subsequently made a presentation to the Student Records Committee (SRC) in April 2016 for the creation of such attributes. After approval by the SRC, and subsequent discussion, it was determined that 3 “elements” would be created that could be entered through INB (Internet Native Banner) via form SGAUSDF. Those elements were created in late April 2016.

Staff in International Affairs and the International Center worked together over the next several months creating comprehensive lists of students who participated in Study Abroad starting from Academic Year 2010-2011. To date, 4,103 student records (from AY 2011-11 to AY 2016-17) have been coded with one of these study abroad elements. As the elements are specific to a term, there are a small number of students who have two or more of these study abroad elements on their records, i.e., those students who have participated in more than one study abroad activity.

Analysis of Data Collected on Study Abroad Students

In March 2017 the Director of International Affairs met with Abby Willcox, Director of Institutional Research, to explain desired support through collection and analysis of the data on these students. After several meetings to review and fine-tune the content and the format of the data, we can now present the findings. Please note that the data presented in this report will only be related to undergraduate students. Information about graduate students will be prepared in the near future. In addition, we learned that we did not have the access needed to look at how study abroad related to metrics #4 and #5 (employment and wages), so information on those two metrics are not included in this report.

Item 1 – Gender of Study Abroad Students

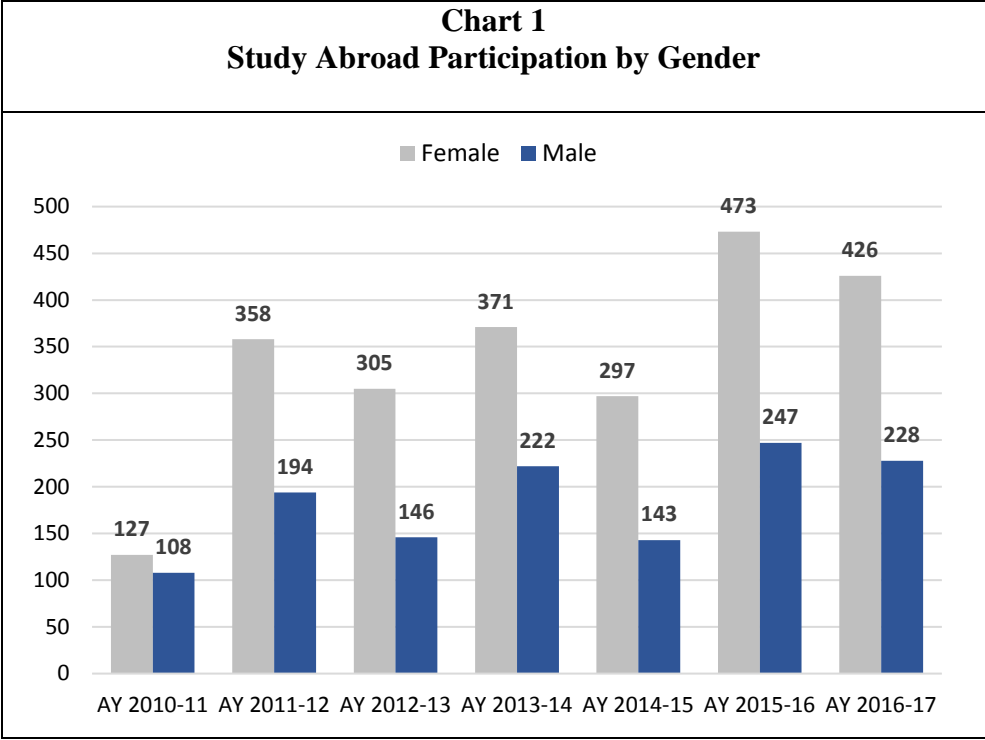
UNF shows the same typical male to female numbers difference that is reported nationwide, with more females going abroad than males in any given year. As seen in Chart 1, for the past three academic years, the average percentage of females going abroad was steady at about 66% and the average for males at about 34%. While female students at UNF do indeed outnumber male students, the population ratio for Fall 2017 was 57% females to 43% males, so the UNF study abroad ratio does indeed show a disproportionate difference between the two groups.

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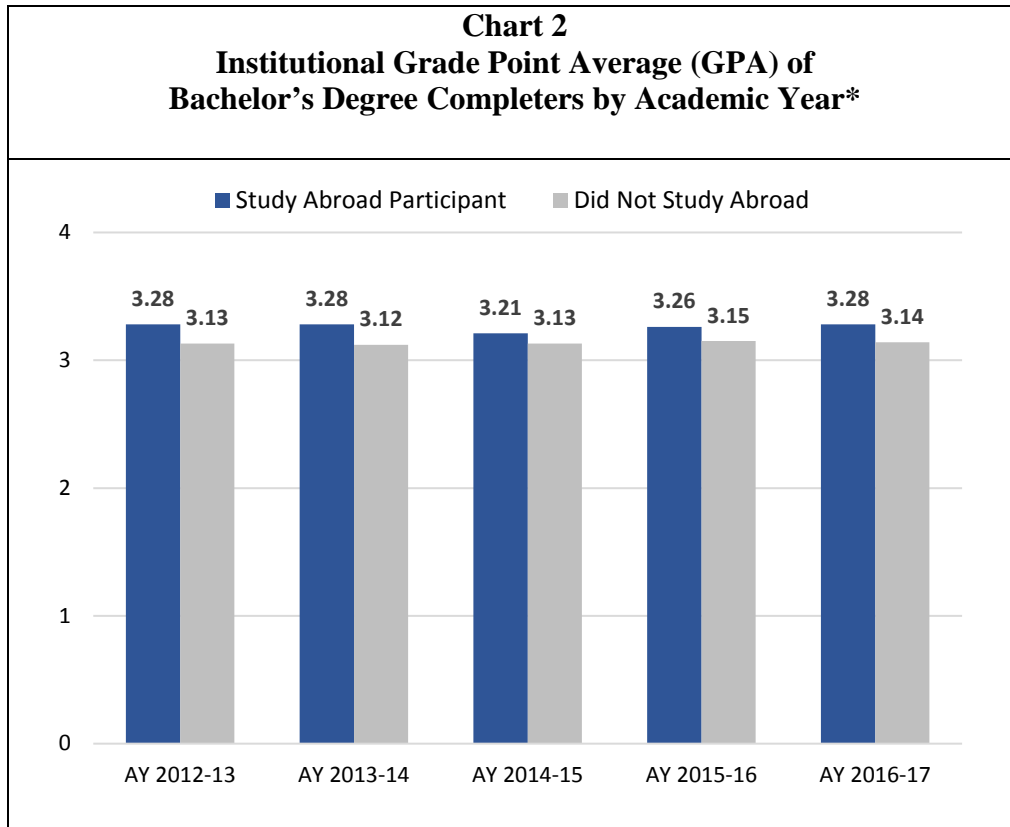


While the cause for this difference in participation by gender has not been studied or determined, one anecdotal explanation is that females are more organized and conscientious about planning and meeting requirements than males are. So females, it is suggested, are more often exploring options months ahead of any deadlines, while males, on the other hand, are more likely to drop into the study abroad offices when deadlines are passed, or applications are closed, and announce that they are interested in studying abroad. So study abroad might not be the field where “Vive la difference” would be a popular expression, at least in terms of numbers. This difference in gender could be an interesting follow up research project.

Item 2 - Grade Point Average (GPA) of Study Abroad Students

It was expected (at least by the writer of this report) that the GPA of students who studied abroad would be higher than those students who did not. Chart 2 shows the GPAs for those students who studied abroad versus those students who did not over the past 5 academic years.

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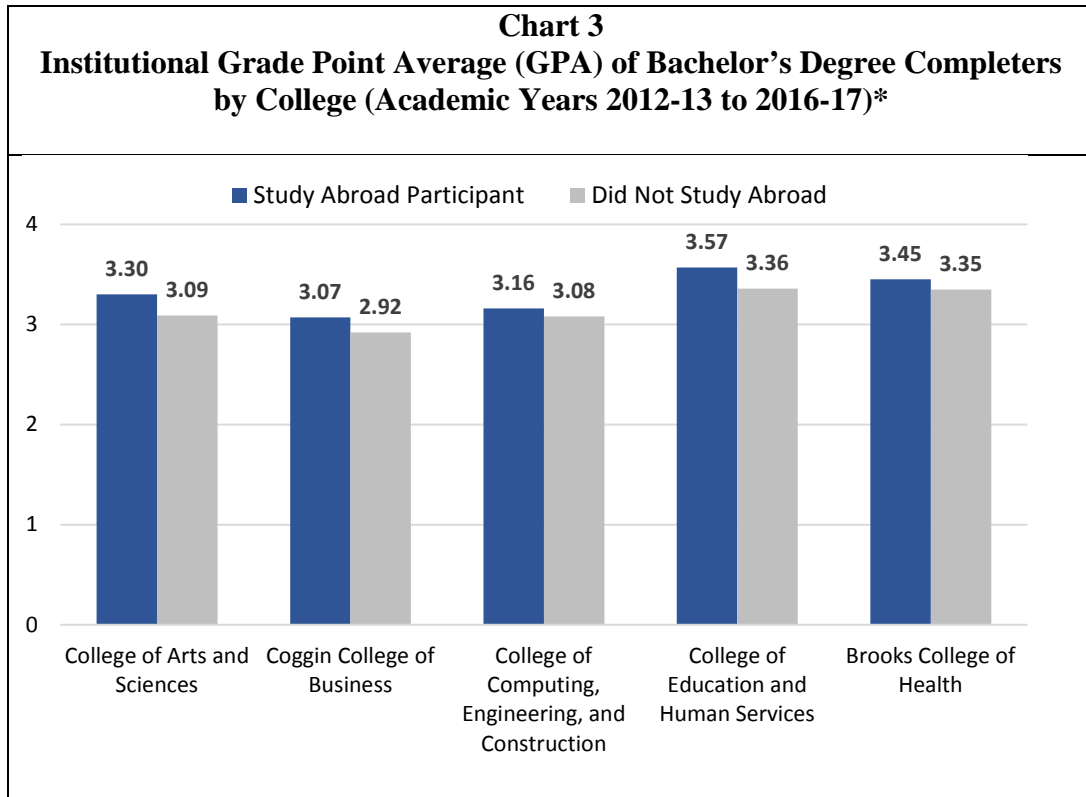
*GPA calculation is the total sum of institutional quality points divided by the total sum of institutional GPA hours at the time of bachelor's degree completion.

Table 3 provides additional information on the numbers of and the percentages of students in each group that were used for the GPA calculations in Chart 2.

	AY 2012-13	AY 2013-14	AY 2014-15	AY 2015-16	AY 2016-17
Study Abroad Participant <u>n</u>	318	358	398	427	453
Study Abroad Participant %	9.9%	11.3%	12.4%	13.1%	14.1%
Did Not Study Abroad <u>n</u>	2904	2823	2810	2829	2753
Did Not Study Abroad %	90.1%	88.7%	87.6%	86.9%	85.9%

Institutional Research (IR) analyzed this GPA data and determined “the results showed that the difference between the populations with regard to institutional GPA is statistically significant, $t(16071) = 9.871, p = .000$. Therefore, there is sufficient evidence to support the hypothesis that students who study abroad have a higher institutional GPA than those that do not.” The full IR report is provided in Appendix 1. It is not suggested that there is a causal relationship between study abroad and GPA, but the data does show that study abroad students have higher GPAs than non-study abroad students.

Chart 3 shows a similar difference in GPAs across Colleges; those students who studied abroad had higher GPAs than students who did not study abroad.



*GPA calculation is the total sum of institutional quality points divided by the total sum of institutional GPA hours at the time of bachelor’s degree completion.

Table 4 provides additional information on the numbers of and the percentages of students in each group that were used for the GPA calculations in Chart 3.

Table 4
Number and Percentages of Bachelor’s Degree Completers by College (Academic Years 2012-13 to 2016-17)*

	COAS	CCB	CCEC	COEHS	BCH
Study Abroad Participant <u>n</u>	840	609	94	165	246
Study Abroad Participant %	10.8%	22.1%	8.0%	11.5%	8.4%
Did Not Study Abroad <u>n</u>	6931	2143	1076	1269	2700
Did Not Study Abroad %	89.2%	77.9%	92.0%	88.5%	91.6%

Institutional Research (IR) analyzed this GPA data and determined “The results were consistent when looking at the individual academic years as were the results when looking at the bachelor’s degree completions from the individual academic colleges with the exception of the College of Computing, Engineering, and Construction (CCEC) [which did not have a statistically significant difference between the two populations].” The full IR report is provided in Appendix 1.

Item 3 - Study Abroad Students and Graduation Numbers

Another preliminary analysis was related to the number and percent of students who had participated in study abroad activities in each academic year graduating class. Chart 4 below shows the number of undergraduate students participating in study abroad in the AY graduating classes since AY 2011-12. Note that the numbers have been steadily increasing, with a slight dip this last year that most likely relates to the overall graduation numbers dipping also. Over this six-year period, the number of graduating students with a Bachelor’s degree each academic year who have participated in study abroad has increased by 66.6%.

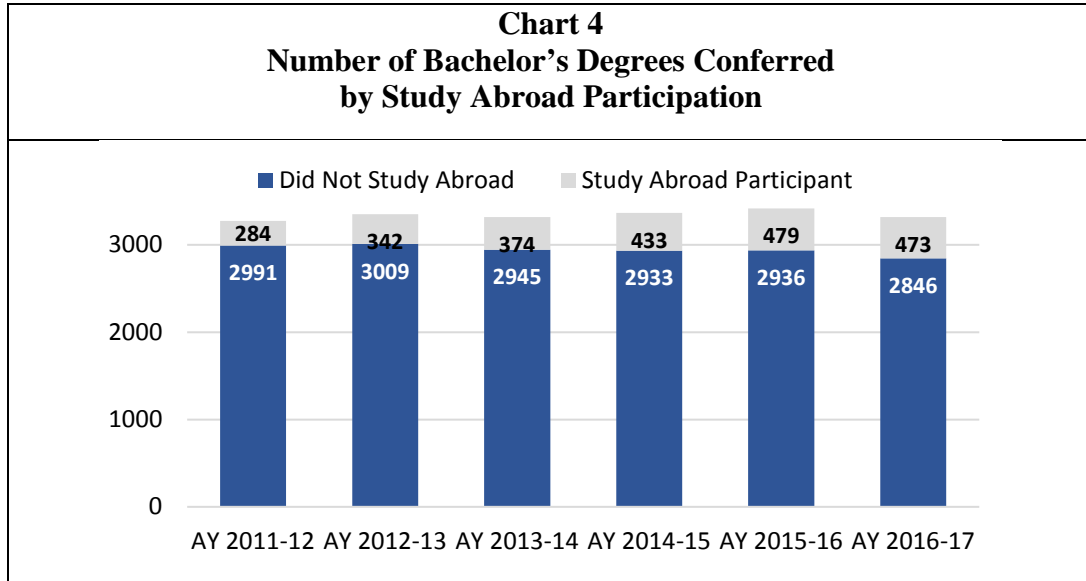
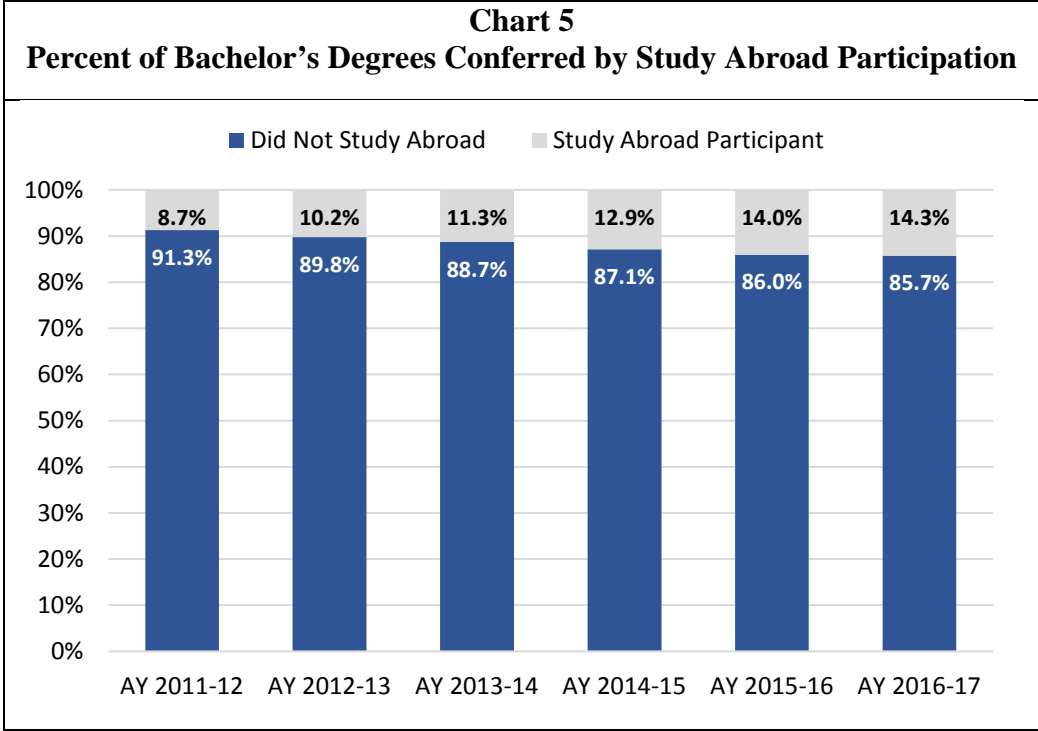


Chart 5 below gives information on the percent of study abroad students in terms of the different graduating classes. The percent figures reflect the increase in numbers each year as seen in Chart 4 above. Note, however, that even though the study abroad numbers dipped in AY 2016-2017 from the year before in Chart 4, the percent of study abroad students in that graduating class still increased from the previous year. The upward trend shown in the previous years continued.

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In terms of length of study abroad for the graduating students in AY 2016-2017, 427 students participated in short-term activities (summer / up to 8 weeks), 44 students participated in mid-length activities, and 2 students participated in long-term activities (academic or calendar year)

Item 4 - BOG Performance Funding Model Metric 5

Table 5 presents information on Metric 5 - Academic Progress Rate (2nd Year Retention with GPA Above 2.0).

Table 5 FTIC Retention (Academic Progress Rate)			
	Cohort %	Study Abroad %	No Study Abroad %
Fall 2016	77.9%	96.7%	77.2%
Fall 2015	75.4%	97.0%	74.9%
Fall 2014	74.6%	95.7%	74.0%
Fall 2013	77.8%	97.9%	76.9%
Fall 2012	76.1%	97.3%	75.2%

The data in Table 5 is dramatic in the extremely high progress rate into that second year for students participating in study abroad. Again, as with GPA differences, no causal relationship is suggested, but clearly study abroad students look to be a highly desirable population, for progress purposes, for inclusion in the general student body.

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Item 5 - BOG Performance Funding Model Metric 4

Chart 6 and Chart 7 present information on Metric 4 - Six Year FTIC Graduation Rate. As reported in Item 4 above, the Academic Progress Rate (first year to second year) is quite impressive for study abroad students. We see this positive difference for study abroad students continue throughout the next several years. Due to the limitation of accumulated data on the study abroad students, the following two charts present graduation and retention information on only four years for Fall 2012 FTIC students (Chart 6) and Fall 2013 FTIC students (Chart 7).

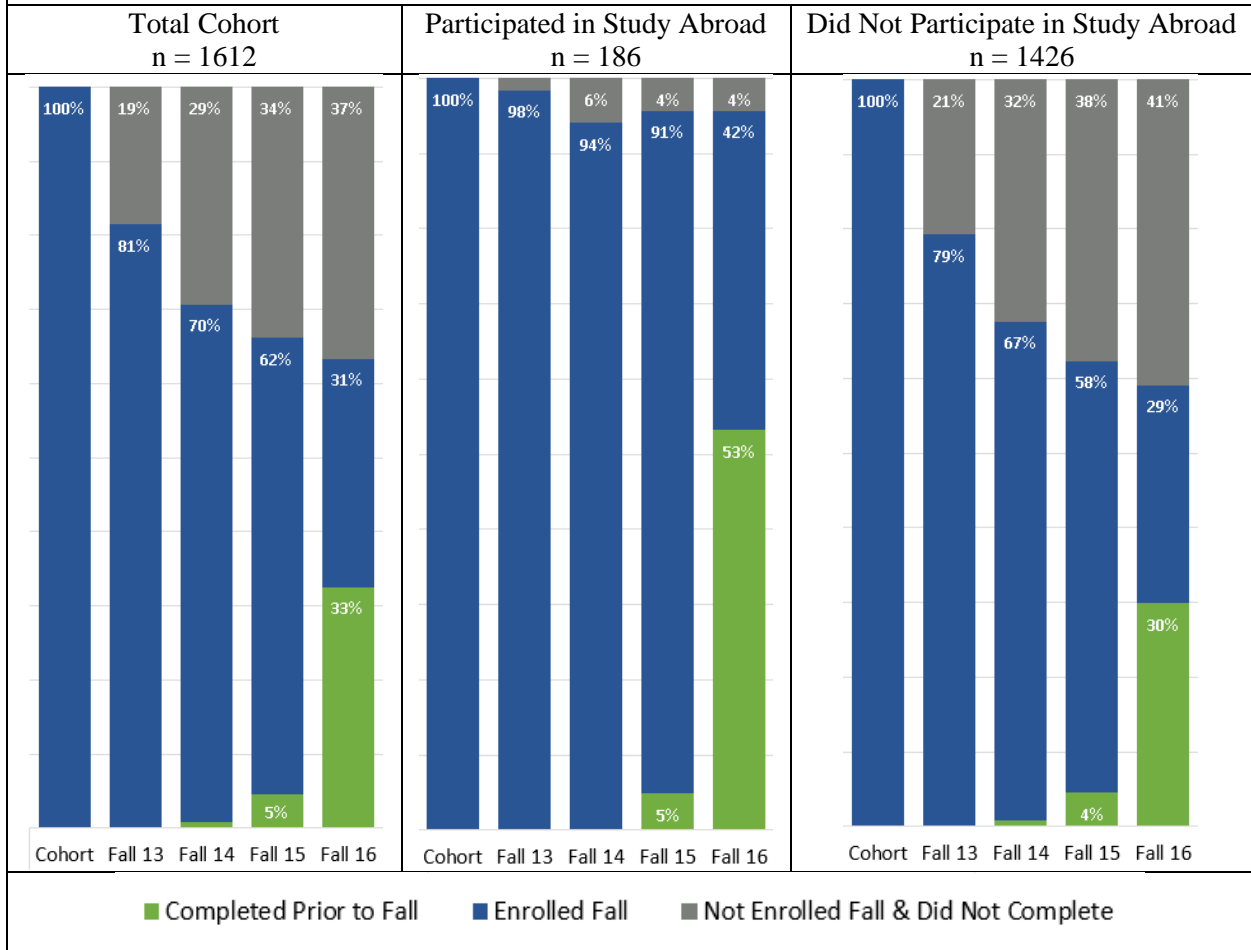
In Chart 6, for 2012 FTIC Study Abroad students, we see that the 2012 FTIC study abroad students had a graduation rate of 53% by their 4th year while the non-study abroad students had a rate of only 30%.

Similarly impressive, we see retention rates over the 4 years at 98%, 94%, 96% (graduated or enrolled), and 95% (graduated or enrolled). This is clearly higher than the percentages for non-study abroad students who have corresponding rates, respectively, of 79%, 69% (graduated or enrolled), 62% (graduated or enrolled), and 59% (graduated or enrolled).

If we look at this information in terms of attrition, over the 4 years in this chart, study abroad students end up with an overall 4% attrition percent, with non-study abroad students having a 41% attrition rate.

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**Chart 6
Fall 2012 FTIC Year-to-Year Retention**



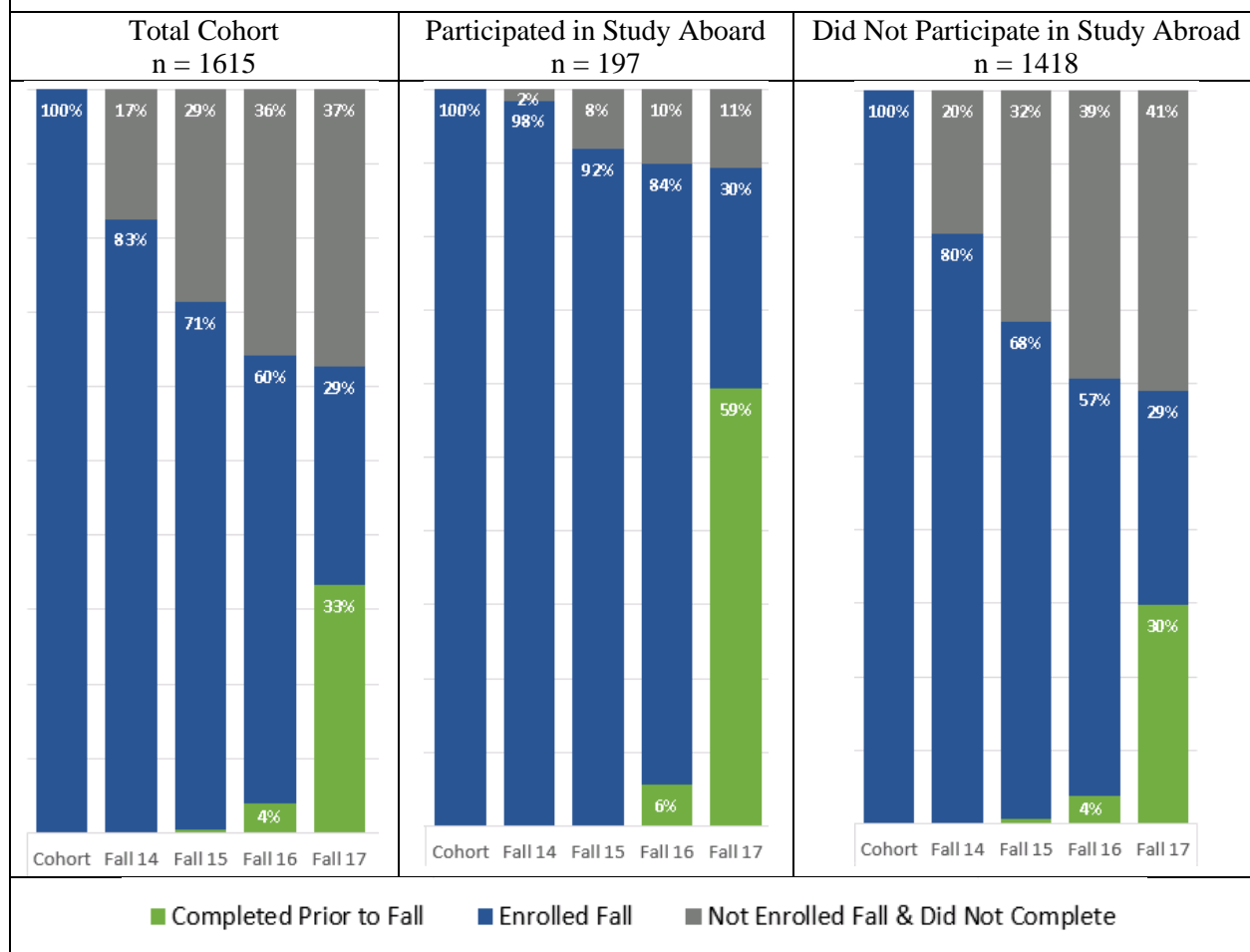
In Chart 7, for Fall 2013 FTIC study abroad students,

The Fall 2013 study abroad students had an even higher graduation rate than the Fall 2012 students, at 59% at the 4th year versus 53% at the 4th year, respectively, compared to the 30% graduation rate for the Fall 2013 non-study abroad students.

Although the Fall 2013 student abroad group had slightly lower retention than the 2012 group, at 98%, 92%, 90% (graduated or enrolled), and 89% (graduated or enrolled), this Fall 2013 study abroad group' numbers were still much better than their non-study abroad counterparts. The retention rates for the non-study abroad students was essentially the same as for Fall 2012, at 80%, 68%, 61% (graduated or enrolled), and 59% (graduated or enrolled).

And in looking at attrition, over the 4 years in this chart, study abroad students end up with an overall 11% attrition percent, with non-study abroad students having a 41% attrition rate.

**Chart 7
Fall 2013 FTIC Year-to-Year Retention**

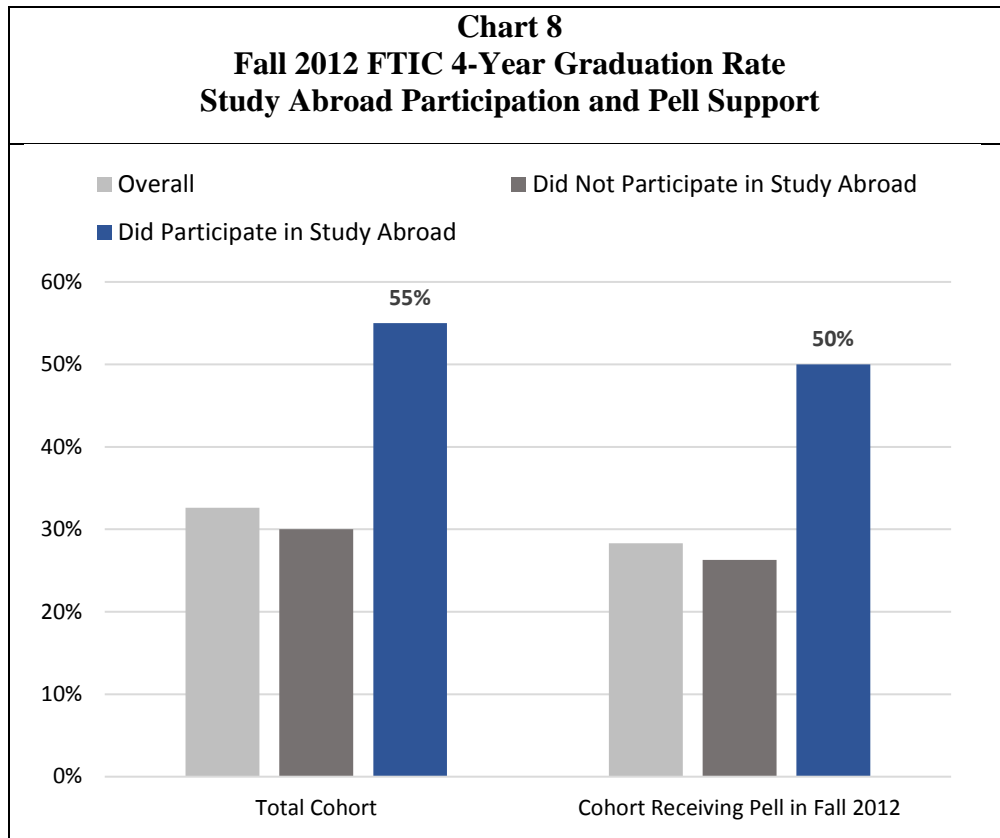


This pattern of significantly higher retention (and therefore significantly lower attrition) for study abroad students compared to non-study abroad students is also seen for the FTIC cohorts of Fall 2014 (through 3 years), of Fall 2015 (through 2 years), and of Fall 2016 (for 1 year). See Appendices 2, 3, and 4 for this information.

Item 6 - Study Abroad and Financial Need

Many might think that those UNF students who participate in study abroad, who have the associated high retention and graduation rates, can do so because they have the financial resources which might not be available to all students. And thus some might think that study abroad is for the affluent only, and not for those many UNF students who receive financial aid. While it is true that the University has a number of scholarship opportunities for students who wish to participate in study abroad activities, including TLO (Transformational Learning Opportunities), SAILS (Student Affairs International Learning Scholarships), and a number of scholarship offerings in the different Departments and Colleges, there are indeed real costs associated with study abroad that are in addition to a student’s normal study costs.

While these real costs do have an effect, we believe, on overall study abroad numbers, students at all ranges of the financial spectrum do study abroad. And very importantly, the positive correlation of a study abroad experience in regards to graduation is also very true for students who receive financial aid. Chart 8 shows that 55% of the total cohort of Fall 2012 FTIC study abroad students graduated in 4 years, in contrast to only 30% of the non-study abroad students in the same cohort. The comparison to the cohort receiving Pell funding is striking: of the cohort who received Pell funding, 50% of the study abroad students graduated in 4 years, in contrast to only 26% of non-study abroad students. In other words, financial need, as defined in this case as receiving Pell funding, does not seem to be a notable hindrance to the positive relationship of study abroad and graduation; there is only a small difference in graduation rate compared to the full cohort rate, and it is also much higher than the non-study-abroad rate.

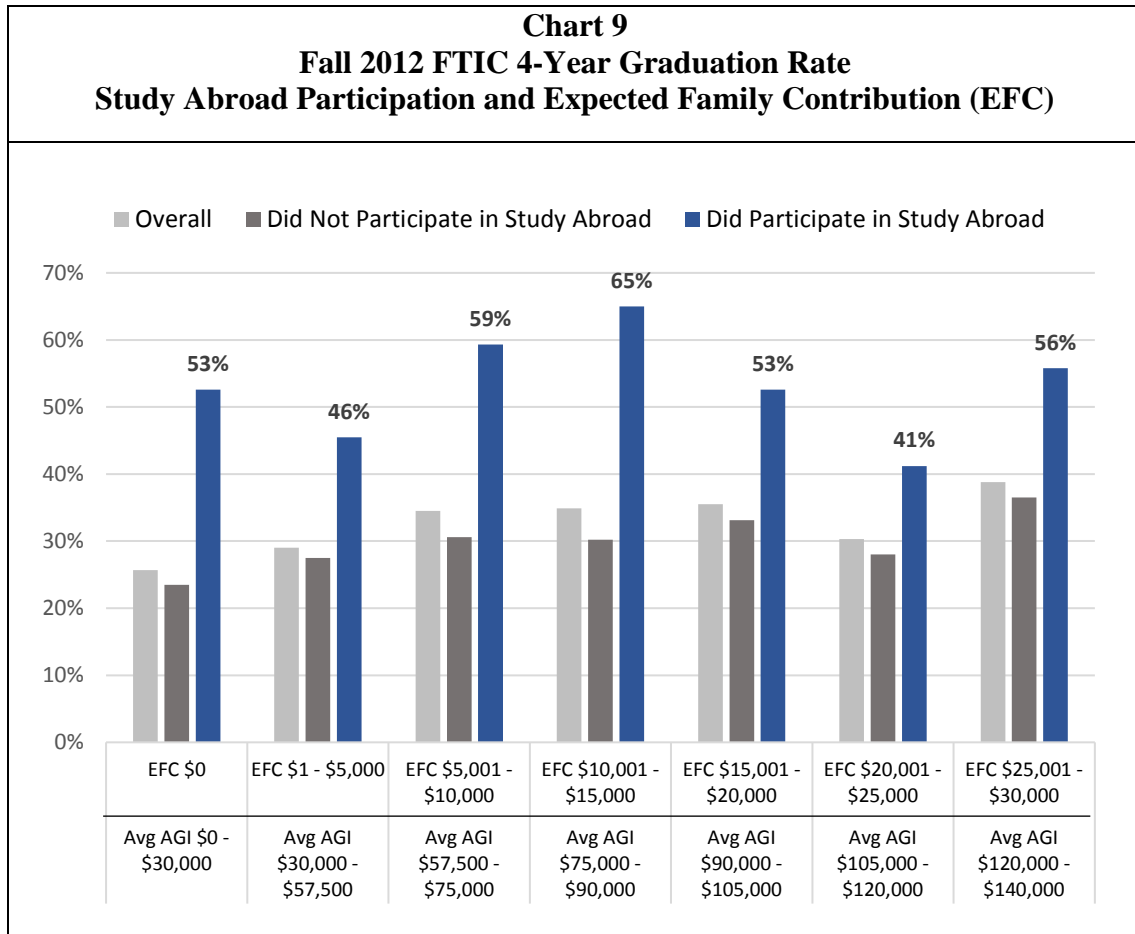


See Table 6 for additional information on the Fall 2012 FTIC cohort (4 year graduation).

	Overall	Study Abroad Participant	Did Not Participate in Study Abroad
Total Cohort Fall 2012 FTIC (4 yr. grad)	1612	186	1426
Cohort Receiving Pell Fall 2012 FTIC (4 yr. grad)	481	41	440

Finally, in Chart 9 we look at the Fall 2012 cohort 4-year graduation rate in relationship to the Expected Family Contribution (EFC) ranges; the ranges for Federal Average Adjusted Gross Income (AGI) for Families with 2 Dependent Children are included to help show what the EFC would look like in terms of family income. What first is seen is that in all ranges, from low to high, study abroad students have noticeably higher graduation rates than the non-study abroad students. For the middle range, with the EFC from \$10,001 to \$15,000, the study abroad group is more than double the graduation rate than the non-study abroad group.

We also see a very interesting tri-modal curve, with the highest peak in the middle, as one might expect with a typical Bell curve. But what is noteworthy is that at both ends of the curve the graduation percent of the study abroad students are nearly equal, at 53% (EFC = \$0) and 56% (EFC = \$25,001 - \$30,000). Study abroad students at the lowest end of the financial situation range graduate at nearly the same percent as study abroad students at the highest end of the range.



Note: The federal Average Adjusted Gross Income (AGI) is based on families with 2 dependent children.

The data in Table 7, which provides additional information on the Fall 2012 FTIC cohort (student numbers in the different EFC and AGI ranges), would indicate that the financial situation of a student does indeed have an impact on study abroad. The two lowest range shows a lower participation rate than the other ranges. So while federal financial aid can be used for study abroad purposes, and much institutional aid can be applied to many study abroad options, it is undoubtedly more difficult for students in the lower financial ranges to gather the money needed to cover those additional study abroad costs. Our TLO and SAILS scholarships, along with the different College funds available for study abroad, certainly can provide an incentive when those students in the middle and upper financial ranges are thinking about study abroad, but we surmise they do not (cannot?) have the same effect on those two lower ranges.

Study Abroad Participant n	20	22	28	21	19	17	10
Did Not Study Abroad n	233	247	169	128	136	82	60
Study Abroad Participant %	7.9%	8.2%	14.2%	14.1%	12.3%	17.2%	14.3%
EFC Range	\$0	\$1 - \$5,000	\$5,001 - \$10,000	\$10,001 - \$15,000	\$15,001 - \$20,000	\$20,001 - \$25,000	\$25,001 - \$30,000
AGI range (2 children)	\$0 - \$30,000	\$30,000 - \$57,500	\$57,500 - \$75,000	\$75,000 - \$90,000	\$90,000 - \$105,000	\$105,000 - \$120,000	\$120,000 - \$140,000

Summary

1. The number of students at UNF who participate in study abroad has been steadily increasing each year, with a total of 713 students in 2016-2017. UNF ranks nationally each year in its study abroad numbers.
2. Females participate in study abroad more than males do. UNF averages around 66% females (34% males) over the past 6 years, which is a higher ratio than seen in the general student population (57% females to 43% males).
3. From AY 2011-2012 to 2016-2017, for students completing their bachelor's degree, study abroad students have had statistically significant higher GPAs than non-study abroad students. This holds true both across the University and for each College, excepting CCEC.
4. Since AY 2011-2012, for students completing their bachelor's degree, study abroad students have been steadily increasing in numbers and in percentage, with 473 students in 2016-2017, who were 14.3% of the graduating class. This represents a 6 year increase of 66.6%.
5. (BOG Metric 5) From Fall 2012 to Fall 2016, study abroad students show a consistent 20 percentage points higher Academic Progress Rate (2nd Year Retention with GPA Above 2.0) over non-study abroad students. For Fall 2016, for example, study abroad students had an APR rate of 96.7% compared to 77.2% for non-study abroad students.

6. (BOG Metric 4) For the Fall FTIC cohort, student who participated in study abroad had a 4 year graduation rate of 53% versus a rate of 30% for non-study abroad students. There was a consistent higher retention rate for those 4 years for study abroad students (95%) than for the non-study abroad students (59%). The 4 year attrition rate for the study abroad students was 4% in contrast to the 41% of the non-study abroad group.
7. For FTIC 2012 study abroad students who received Pell funding, 50% graduated in 4 years compared to 26% of non-study abroad students receiving Pell funding. These figures show a similar positive correlation as is seen for the full cohort of FTIC 2012 students, of whom 55% of study abroad students graduated in 4 years versus 30% of non-study abroad students.
8. Data on the FTIC 2012 cohort and Expected Family Contribution (EFC) shows a positive rate of graduation across all EFC ranges for study abroad students in comparison to non-study abroad students, for some ranges more than double the graduation percentage rate.

Conclusion

The data on study abroad students at UNF, from AY 2011-2012 to the present, shows notable positive differences in comparison to non-study abroad students, including for BOG Metrics 4 and Metric 5. It would therefore benefit the University's scores in these two metrics to increase the number of students at UNF who participate in study abroad. However, because it is not suggested that study abroad causes the positive differences we see in the data, rather there is a correlational relationship between "strong student" and study abroad, it is not simply a matter of boosting study abroad participation numbers. Rather the conclusion is that the targeted recruitment and matriculation of those students who are planning to student abroad, who are pre-disposed to study abroad, would have a positive effect on two of the University's metric scores. The fact that we have strong support on campus for study abroad as well as the richness of our study abroad opportunities should aid in recruiting this very successful population of students.

Note: My deep appreciation is given to Ms. Abby Willcox, Director, UNF Institutional Research, for her help and interest throughout this project. Many thanks also go to Dr. Leslie Kaplan, Associate Director, Hicks Honors College, for her comments and suggestions on earlier drafts of this paper.

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March 2018*

Appendix 1

Study Abroad Institutional GPA Analysis

Participants

For the purposes of this analysis, data was used for bachelor's degrees completions from Summer 2012 to Spring 2017: the five most complete academic years. An indicator (Y/N) was added for the completions for students that participated in Study Abroad at any point in their time as a student at UNF.

Procedures

The analysis's objective was to determine if the institutional GPA at the time of bachelor's degree completion was different for students who participated in study abroad and those who did not participate. The data were analyzed using an independent samples t-test to determine whether there was statistical evidence that the population means were significantly different. Study abroad participation served as the independent variable and individual student institutional GPA served as the dependent variable with the hypothesis that students who study abroad will have a higher institutional GPA than those that do not.

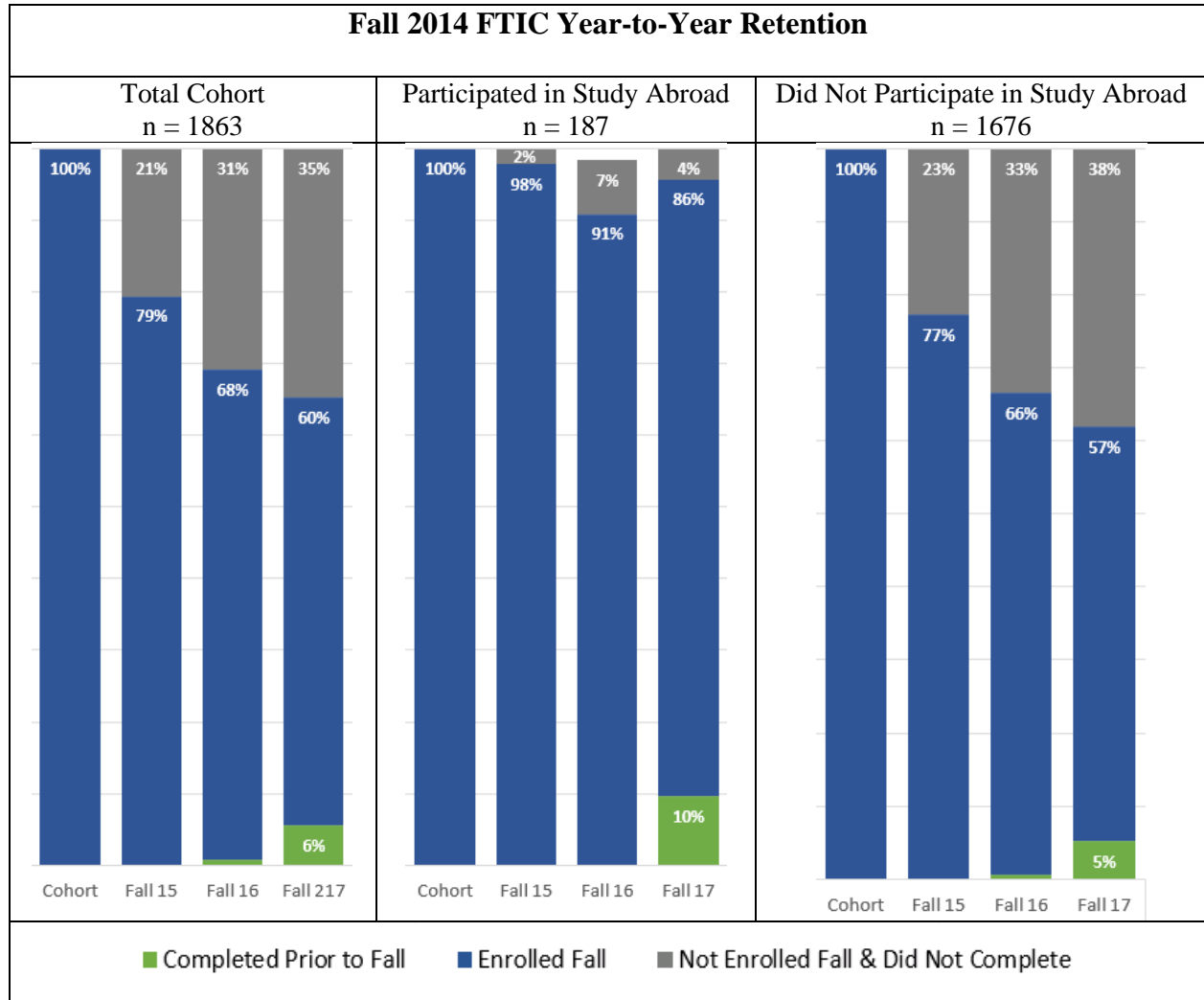
Results

The institutional GPA for those participating in study abroad and those not participating were $M=3.28$ ($SD=0.43$) and $M=3.17$ ($SD=0.45$), respectively. With an alpha level of .05, the results showed that the difference between the populations with regard to institutional GPA is statistically significant, $t(16071)=9.871$, $p=.000$. Therefore, there is sufficient evidence to support the hypothesis that students who study abroad have a higher institutional GPA than those that do not.

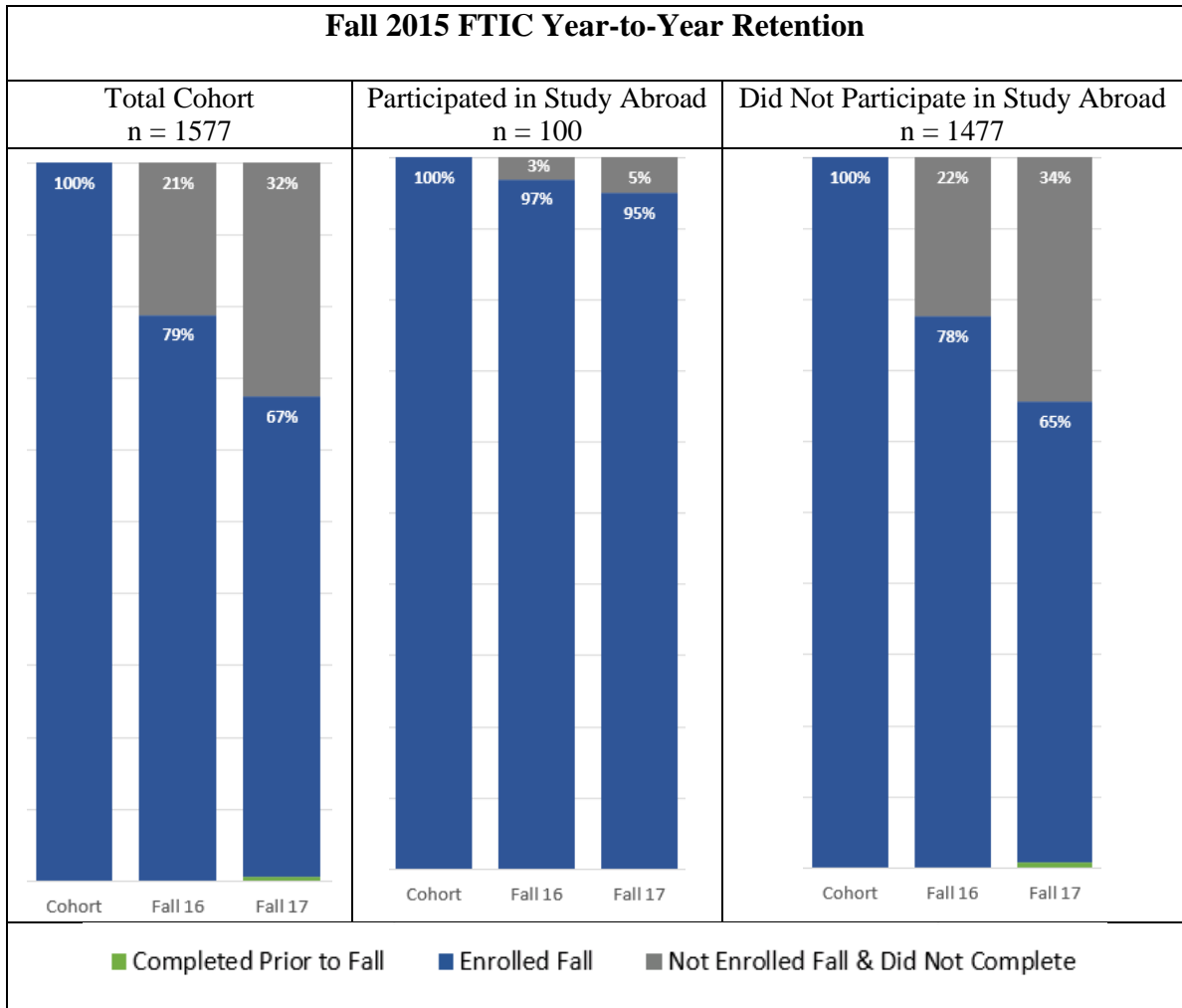
The results were consistent when looking at the individual academic years as were the results when looking at the bachelor's degree completions from the individual academic colleges with the exception of the College of Computing, Engineering, and Construction (CCEC). For the students completing a bachelor's degree from CCEC, the institutional GPA for those participating in study abroad and those not participating were $M=3.17$ ($SD=0.38$) and $M=3.11$ ($SD=0.42$), respectively. With an alpha level of .05, the results showed that the difference between the populations with regard to institutional GPA is not statistically significant, $t(1168)=1.385$, $p=.166$.

Abby Willcox
Institutional Research
2-11-18

Appendix 2



Appendix 3



Appendix 4

