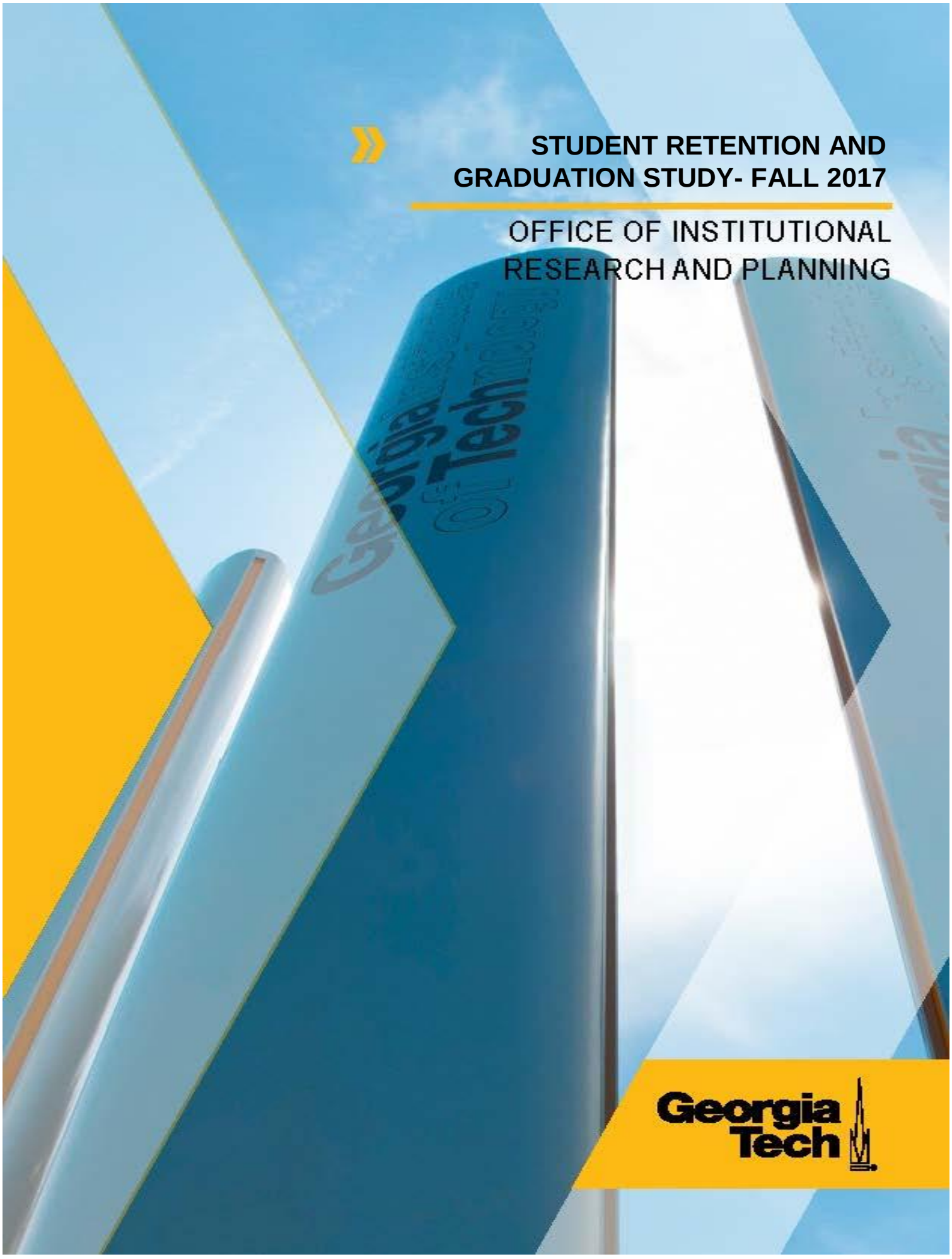

STUDENT RETENTION AND GRADUATION STUDY- FALL 2017

OFFICE OF INSTITUTIONAL RESEARCH AND PLANNING

Georgia Tech

Executive Summary

Purpose and Rationale

- The purpose of this study is to provide a comprehensive review of the institution's first-time freshman student population. Specifically, this study explores and describes trends and behaviors regarding: (a) student retention, (b) time-to-graduation, (c) graduation rates, (d) excess credit hours, (e) grade point average, (f) use of financial aid, (g) change-of-major, (h) internship/co-op participation, and (i) critical influencers of student retention.

Summary of Major Findings

The major findings describe how student academic performance, major, level of professional engagement, gender, and race impact retention and graduation rates of students who enrolled as first-time freshmen (See Table 1). Using multiple-comparisons revealed certain student behaviors based on student characteristics, retention and attrition patterns, and level of engagement in pre-professional learning activities.

- The first year student retention rate has continually increased over the past five years, with a six-year average of 91.4%. The 2011 cohort had the greatest drop in retention (-4.1%) between their second and third year from 94.8% to 90.7% (See Table 1; see also Appendix A).
- The College of Computing and the Scheller College of Business have historically had the highest first year retention rates, with the 2016 Cohorts at 99.0% and 98.8% respectively (See Figure 1; see also Appendix A-1).
- The average six-year graduation rate for students across all cohorts (2010-2014) is 85.8% (See Table 3; See also Appendix B).
- Approximately 82.3% of students who received bachelor's degrees in 2017, graduated within five years.
- Students who are currently enrolled at Georgia Tech as *first-time freshmen* have an average of 18.7 excess credit hours that are either unused or have not been applied to their degree program, which could be attributed to changes in major (See Appendix F).
- First-time freshman with 32.5 to 39.0 credit hours is a critical range for retaining students. Students who matriculate into their second year fall into that credit hour range; thus, confirms the decline in retention from second to third year.
- Hispanic and Latino students had the highest pre-professional learning participation (37.6%) with 15.6% of students participating in co-ops and 22.0% participating in internships (See Figure 8).
- Black/African-American students had the lowest pre-professional learning participation (18.6%) with only 8.7% participating in co-ops and 9.9% participating in internships (See Figure 8).
- Of the students who enrolled at Georgia Tech as first-time freshmen between 2010-2016, 29.0% changed their major at least once, which may contribute to their time-to-graduation, as well as the number of excess credit hours.

Detailed Findings and Conclusions

First-year Retention Rate for Students Who Enrolled as *First-Time Freshmen*

RQ1. What is the first-year retention rate of students who enrolled at Georgia Institute of Technology as *first-time freshmen* between Fall 2010 and Fall 2016?

- The first-year student retention rate has continued to increase over the past five years consecutively, with the 2016 cohort retained at 96.9%.
- The 2011 cohort had the greatest drop in retention (-4.1%) between their first and second year from 94.8% to 90.7% (See Table 1; See also Appendix A).

Table 1. Retention by Cohort

Cohort	N (Count)	Retention by Cohort													
		Retained 1 Year		Retained 2 Years		Retained 3 Years		Retained 4 Years		Retained 5 Years		Retained 6 Years		Retained 7 Years	
		N	*%*	*N*	*%*	*N*	*%*	*N*	*%*	*N*	*%*	*N*	*%*	*N*	*%*
2010	2,706	2,567	**94.9%**	2,476	**91.5%**	2,430	**89.8%**	2,398	**88.6%**	2,402	**88.8%**	2,408	**89.0%**	2,404	**88.8%**
2011	2,692	2,553	**94.8%**	2,442	**90.7%**	2,381	**88.4%**	2,378	**88.3%**	2,374	**88.2%**	2,377	**88.3%**		
2012	3,039	2,903	**95.5%**	2,781	**91.5%**	2,749	**90.5%**	2,739	**90.1%**	2,728	**89.8%**				
2013	2,669	2,563	**96.0%**	2,496	**93.5%**	2,488	**93.2%**	2,457	**92.1%**						
2014	2,805	2,713	**96.7%**	2,626	**93.6%**	2,586	**92.2%**								
2015	3,087	3,005	**97.3%**	2,924	**94.7%**										
2016	2,873	2,783	**96.9%**												

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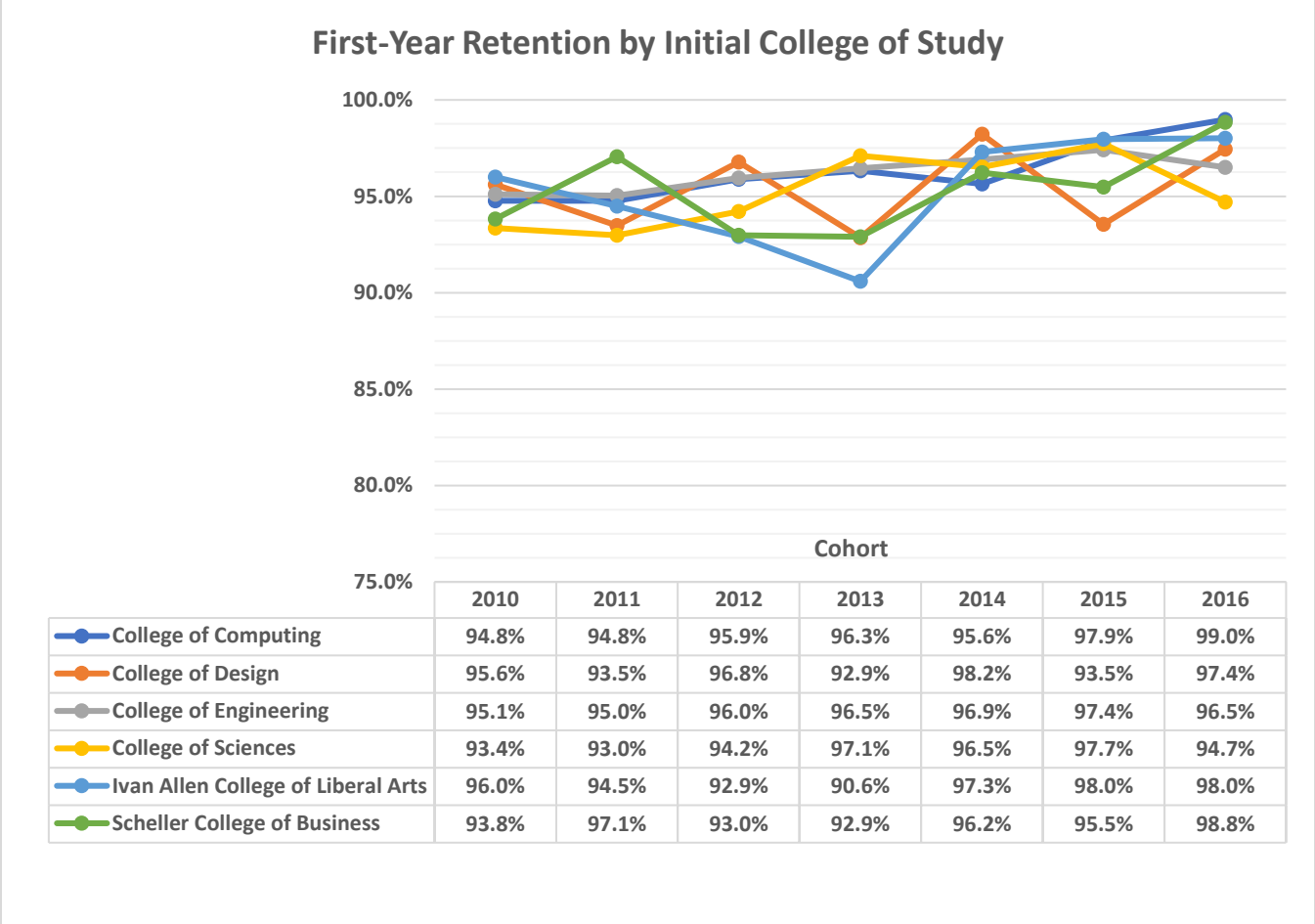
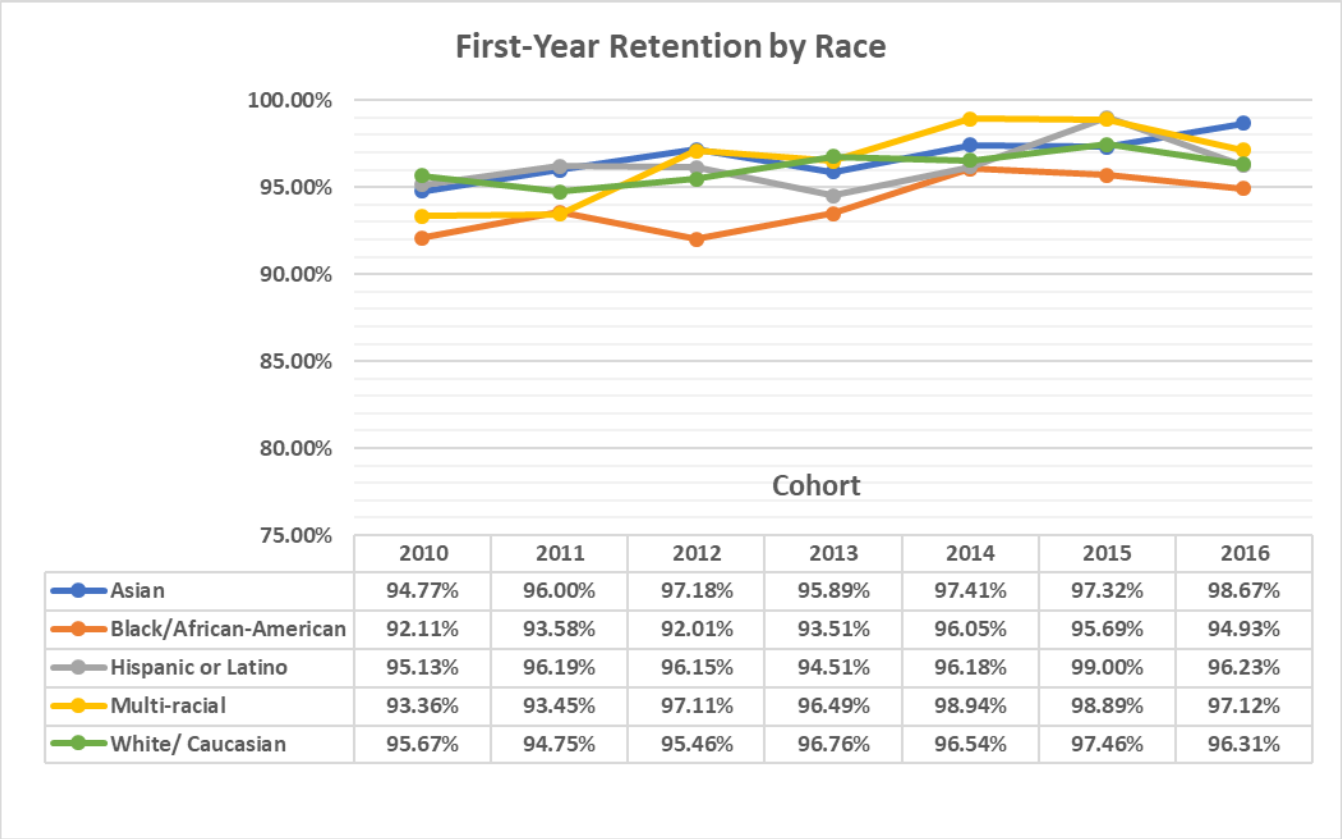


	2010	2011	2012	2013	2014	2015	2016
College of Computing	94.8%	94.8%	95.9%	96.3%	95.6%	97.9%	99.0%
College of Design	95.6%	93.5%	96.8%	92.9%	98.2%	93.5%	97.4%
College of Engineering	95.1%	95.0%	96.0%	96.5%	96.9%	97.4%	96.5%
College of Sciences	93.4%	93.0%	94.2%	97.1%	96.5%	97.7%	94.7%
Ivan Allen College of Liberal Arts	96.0%	94.5%	92.9%	90.6%	97.3%	98.0%	98.0%
Scheller College of Business	93.8%	97.1%	93.0%	92.9%	96.2%	95.5%	98.8%

Figure 1. Student Retention by Initial College of Study

- Although not relatively low in comparison to other colleges of study, the College of Sciences has the lowest first-year student retention rate at 94.7% for the 2016 cohort, while the College of Computing has the highest first-year retention rate (99%) followed by the Scheller College of Business (98.8%).
- From 2010 to 2016, the first year retention rate for all Colleges has experienced an upward trajectory. Fluctuations have occurred over time due to changes in business practices or policy that take place within each individual college.



	2010	2011	2012	2013	2014	2015	2016
Asian	94.77%	96.00%	97.18%	95.89%	97.41%	97.32%	98.67%
Black/African-American	92.11%	93.58%	92.01%	93.51%	96.05%	95.69%	94.93%
Hispanic or Latino	95.13%	96.19%	96.15%	94.51%	96.18%	99.00%	96.23%
Multi-racial	93.36%	93.45%	97.11%	96.49%	98.94%	98.89%	97.12%
White/ Caucasian	95.67%	94.75%	95.46%	96.76%	96.54%	97.46%	96.31%

Figure 2. Student Retention by Race/Ethnicity

- The first-year retention rates have increased over time from 2010 to 2016 for all race/ethnicity categories.
- The retention rate for Black/African-American students has been historically lower than other races; however, has continued to increase since 2014 (See also Appendix A-2).

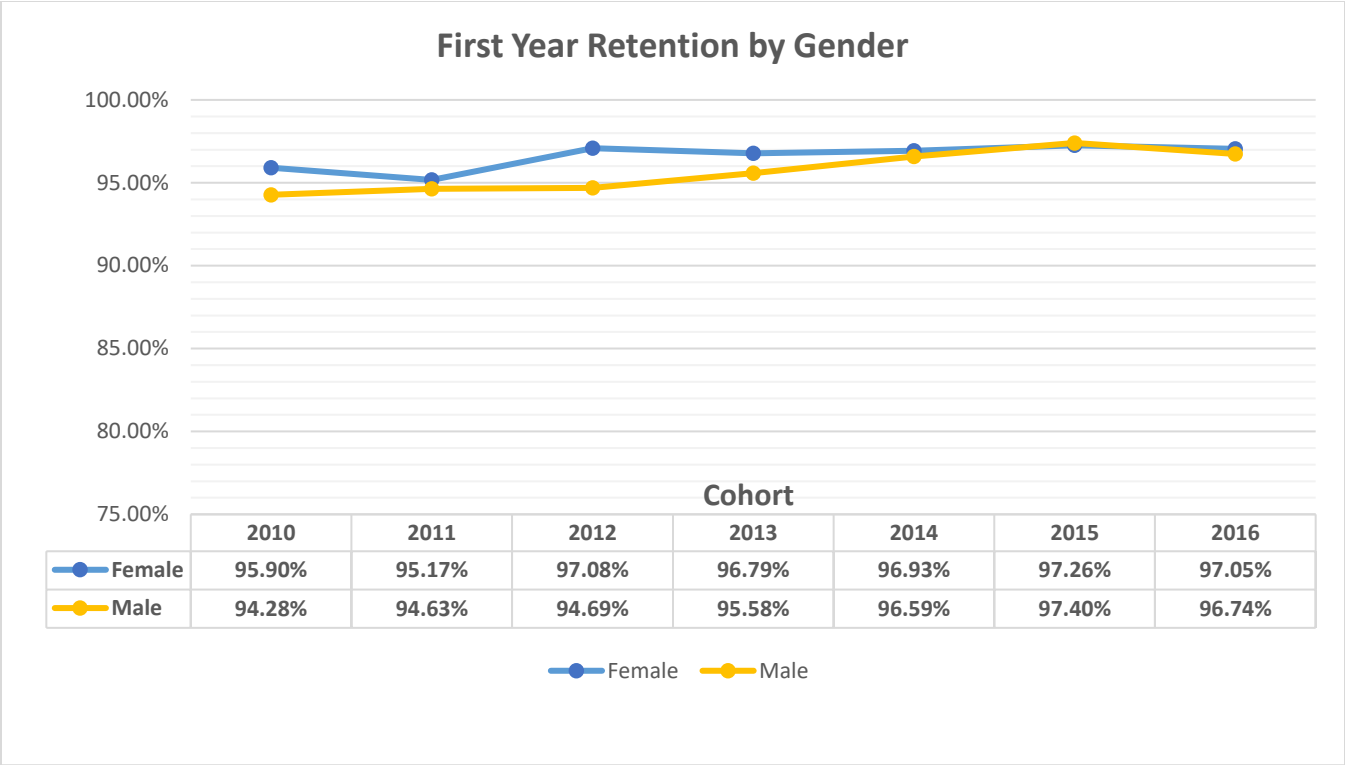


Figure 3. Student Retention by Gender

- From 2010 to 2016, females have slightly higher retention rates than male students.
- First-year retention rates for both males and females have increased from 2010 to 2016.

Six-Year Graduation Rate for Students Who Enrolled as *First-Time Freshmen*

RQ2. What is the six-year graduation rate of students who enrolled at Georgia Institute of Technology as *first-time freshmen* between AY2010 and AY2016?

- The average six-year graduation rate for students across all cohorts is 85.8% (See Table 3; See also Appendix B). The six-year graduation rate was measured iteratively at or less than (≤) four years (41.4%), five years (80.8%), and culminating at six years. Appendices B-1 and B-2 provide further details of graduation rates by race and gender, as well as college of study. As with the previous section, the following annotated outline describes the findings revealed from data analysis.
- Although graduation rates have remained steady over the last five years, the 4-year graduation rates have continued to increase from 39.1% to 45.7% with 80.8% of students graduating in five years (See Table 2; See also Appendix B).
- When disaggregated by race and completion year, Blacks/African-American students have the lowest 4-year and 5-year graduation rates at 20.3% and 65.1% respectively (See Figure 4).
- Asian students have the highest graduation rates across all intervals (4-yr, 5-yr, and 6-yr) and among all races at 41.8%, 82.6%, and 87.5% respectively.

- The five-year and six-year graduation rates for initial majors in the Scheller College of Business and Ivan Allen College of Liberal Arts are higher than the other colleges of study (See Figure 5), however, could be attributed to lower credit hour requirements for programs housed under each of those colleges.

Table 3. Graduation Rates by Cohort and Completion Year

Cohort	N	4-Yr Graduation Rate		5-Yr Graduation Rate		6-Yr Graduation Rate	
		N	%	N	%	N	%
2010	2,706	1,111	**41.1%**	2,172	**80.3%**	2,335	**86.3%**
2011	2,692	1,052	**39.1%**	2,147	**79.8%**	2,296	**85.3%**
2012	3,039	1,213	**39.9%**	2,502	**82.3%**		
2013	2,669	1,221	**45.7%**				
2014	2,805						
	Avg (μ):	**41.4%**		**80.8%**		**85.8%**	

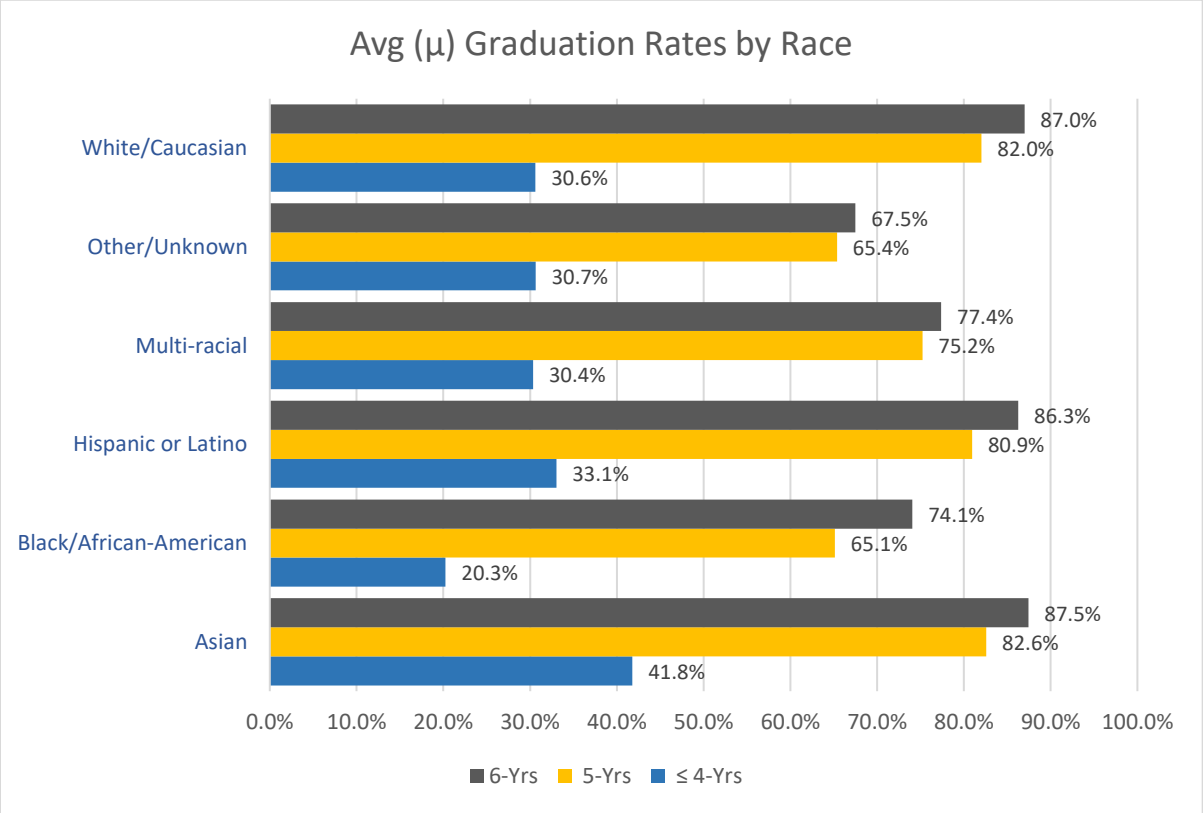


Figure 4. Graduation Rates by Race and Completion Year

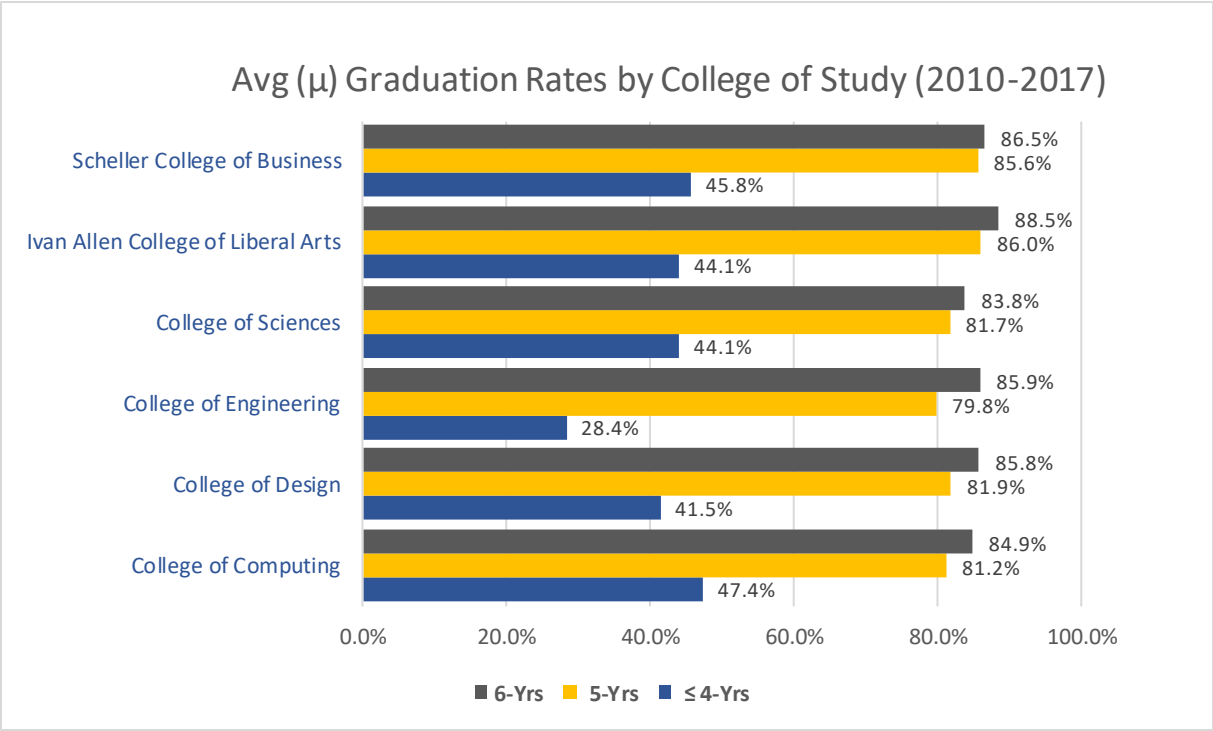


Figure 5. Graduation Rates by College of Study

Average Time-to-Graduation for Students Who Enrolled as *First-Time Freshmen*

RQ3. What is the average time-to-graduation of students who enrolled at Georgia Institute of Technology as *first-time freshmen* between AY2010 and AY2016?

- The average time-to-graduation across all cohorts for students who enrolled as *first-time freshmen* is five years, with 40.8% of students graduating at five years of *continuous matriculation* (See Figure 6). Appendix C provides empirical data regarding time-to-graduation by cohort over a six-year period.

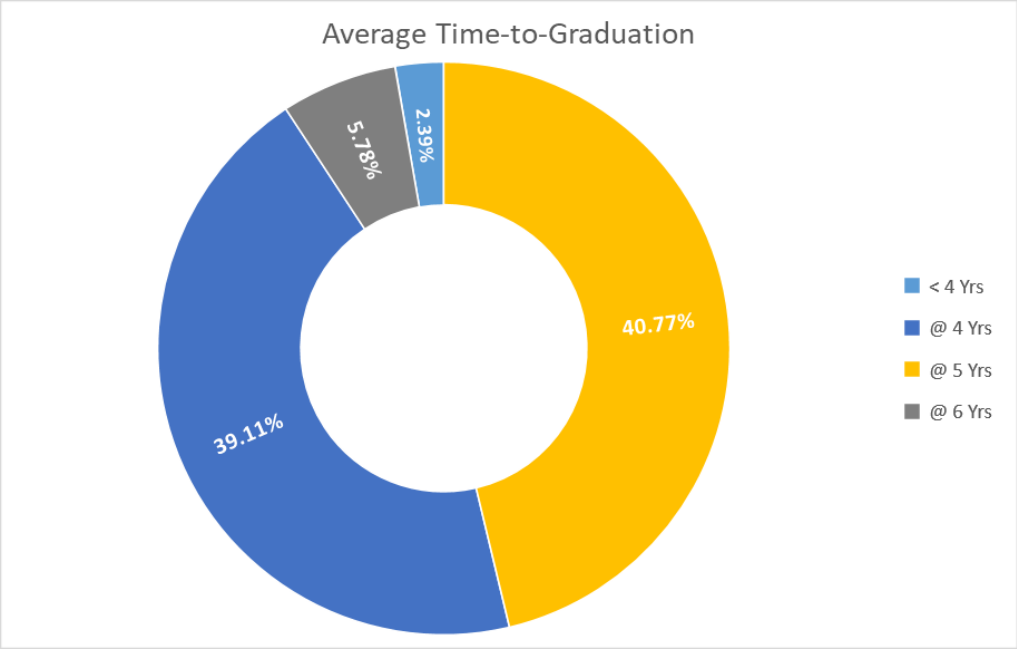


Figure 6. Students' Average Time-to-Graduation

- Only 39.1% of students graduate after four years of *continuous matriculation* (See Figure 6; see also Appendix C).

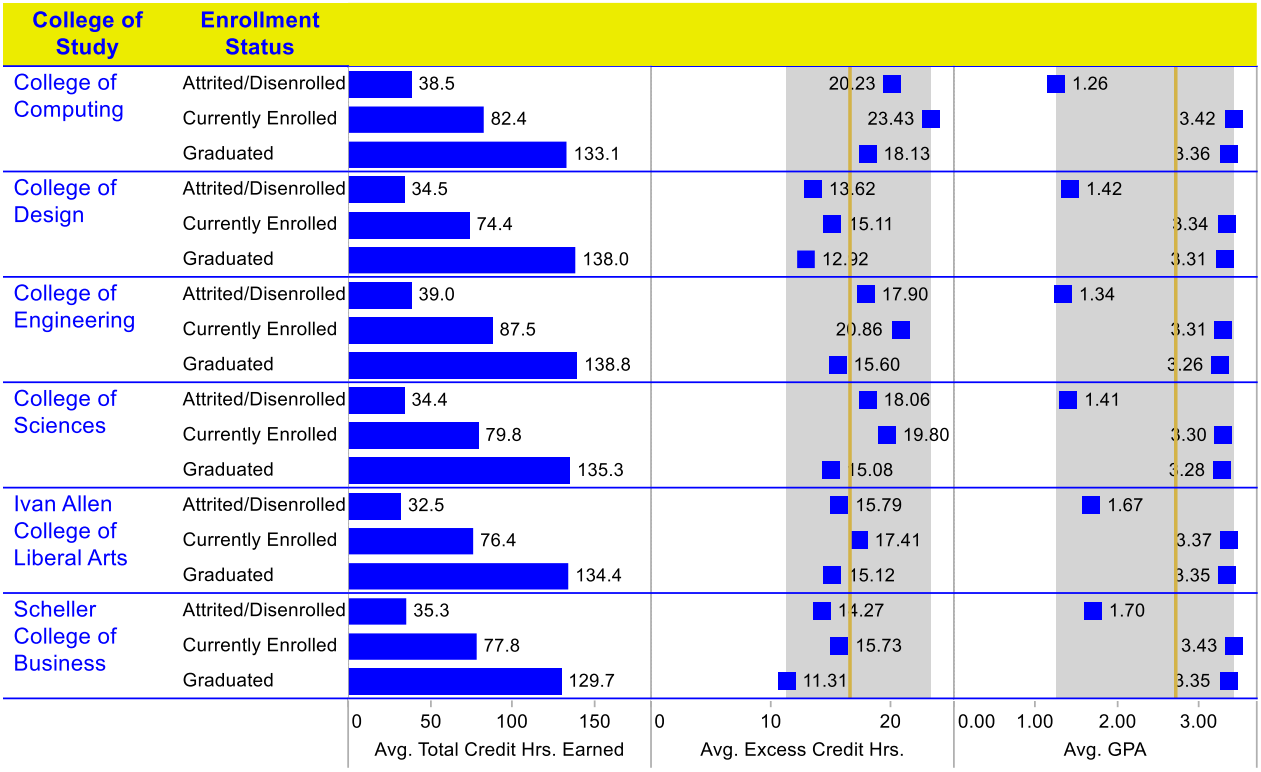
Credit Hour Distribution and Grade Point Average: Undergraduate Students Who Enrolled as *First-Time Freshmen*

RQ4. Of the undergraduate students who enrolled at Georgia Tech as first-time freshmen, how are credit hours distributed in terms of:
   a. The average number of credit hours for students currently enrolled?
   b. The average number of credit hours for students who attrited/disenrolled?
   c. The average number of excess credit hours upon graduation?

RQ5. What is the average GPA of students who enrolled at Georgia Tech as first-time freshmen in terms of:
   a. Students who have graduated?
   b. Students currently enrolled?
   c. Students who have attrited or disenrolled?

- The following annotated outline describes the findings revealed from data analysis in terms of (a) excess credit hours, (b) total credit hours earned, (c) credit hours by enrollment status, and (d) relationship to GPA (See Table 4). Appendix D and E provide additional details regarding credit hour distribution by college of study and impact on GPA upon graduation.

Table 4. Credit Hour Distribution for Students Who Enrolled as *First-Time Freshmen*



- The average number of excess credit hours for all students who enrolled as first-time freshmen between 2010-2017 is 16.7 (See Table 4; See also Appendix D).
- The average number of credit hours earned upon graduation for all students across all colleges of study is 134.9, with an average of 14.7 excess credit hours and GPA of 3.30 (See Table 4).
- Students within the College of Computing have the greatest number of excess credit hours with an average of 20.6. The Scheller College of Business and the College of Design have the least number of excess credit hours at 13.8 and 13.9 respectively (See Table 4).
- Students who are actively enrolled at Georgia Tech as *first-time freshmen* have an average of 18.7 excess credit hours that are either unused or have not been applied to their degree program, which could be attributed to changes in major (See Appendix F).

Critical Parameters Identified

RQ6. What are some key indicators critical for monitoring student retention?

- Students who were not retained at Georgia Tech had earned an average of 35.7 credit hours, which is congruent with first-year retention reflecting the greatest decline (attrition) during students' second year of study (See Appendices A and A-2). Consequently, those student's average GPA is 1.5. Together, those factors imply an *At-Risk* student population per critical parameters identified in the data (See Table 5; See also Appendix I). Identifying critical parameters may provide the Office of Undergraduate Education with some insight concerning retention-planning.

- 32.5 to 39.0 credit hours is a critical range for students who enrolled as *first-time freshmen*. Students who matriculate into their second year fall into that credit hour range; thus, confirms the decline in retention from second to third year.
- Given the average GPA of those students who were not retained is 1.5, it is inferred that those students' academic performance may have been subpar.
- While not exhaustive, the following table provides a list of critical factors in identifying an *At-Risk* student population by college of study and race. Further details are provided in Appendix I.

Table 5. Critical Factors in Identifying At-Risk Student Population (See also Appendix I)

Population		Critical Paremeters			
College of Study	Race	Attrition (2010-2016)	Critical Year(s) of Attrition	Avg. Cr. Hrs. Earned	GPA
College of Computing	Hispanic or Latino	21.3%	2nd Year	30 - 34 Cr. Hrs.	1.0 - 1.2
	Multi-racial	63.2%	2nd and 3rd Year	≥ 50 Cr. Hrs.	1.5 - 1.6
	White/Caucasian	28.9%	2nd Year	35 - 39 Cr. Hrs.	1.0 - 1.2
College of Design	Black/African-American	28.6%	2nd Year	0 - 29 Cr. Hrs.	1.7 - 1.9
	Multi-racial	94.1%	2nd and 3rd Year	≥ 50 Cr. Hrs.	1.3 - 1.4
	White/Caucasian	43.3%	2nd Year	30 - 34 Cr. Hrs.	1.5 - 1.6
College of Engineering	Black/African-American	30.4%	2nd and 3rd Year	35 - 39 Cr. Hrs.	1.3 - 1.4
	Hispanic or Latino	23.9%	2nd Year	30 - 34 Cr. Hrs.	1.0 - 1.2
	Multi-racial	49.8%	2nd and 3rd Year	≥ 50 Cr. Hrs.	1.5 - 1.6
	White/Caucasian	24.0%	2nd Year	35 - 39 Cr. Hrs.	1.3 - 1.4
College of Sciences	Black/African-American	40.3%	2nd Year	30 - 34 Cr. Hrs.	1.7 - 1.9
	Multi-racial	87.9%	2nd Year	40 - 44 Cr. Hrs.	1.5 - 1.6
	Other/Unknown	58.5%	2nd Year	30 - 34 Cr. Hrs.	1.0 - 1.2
	White/Caucasian	39.2%	2nd Year	30 - 34 Cr. Hrs.	1.3 - 1.4
Ivan Allen College of Liberal Arts	Black/African-American	47.6%	2nd Year	30 - 34 Cr. Hrs.	≥ 2.0
	Multi-racial	35.7%	2nd Year	40 - 44 Cr. Hrs.	≥ 2.0
	White/Caucasian	37.2%	2nd Year	30 - 34 Cr. Hrs.	1.5 - 1.6
Scheller College of Business	Black/African-American	53.8%	2nd and 3rd Year	40 - 44 Cr. Hrs.	≥ 2.0
	Multi-racial	35.4%	2nd Year	35 - 39 Cr. Hrs.	1.7 - 1.9
	White/Caucasian	23.5%	2nd Year	30 - 34 Cr. Hrs.	1.5 - 1.6

Methodology and Conceptual Framework

Dependent Variables by Continuous Measure	
D-Variable 1: **Retention Rate**	*D-Variable 2:* **Graduation Rate**
D-Variable 3: **Time to Graduation**	*D-Variable 4:* **Cr. Hrs. Needed to Graduate**
D-Variable 5: **GPA**	

Independent Variables by Category and Relative Group

Admissions Attributes	
I-Variable 1	*I-Variable 2*
Cohort	**College of Study**
AY2010	College of Computing
AY2011	College of Design
AY2012	College of Engineering
AY2013	College of Sciences
AY2014	Ivan Allen College of Liberal Arts
AY2015	Scheller College of Business
AY2016	

Ethno-Demography	
I-Variable 3	*I-Variable 4*
Gender	**Race**
Male	Asian
Female	Black/African-American
	Hispanic or Latino
	White/Caucasian
	Multi-Racial
	*Other - *(including Native Am., Pacific Islander, or Unknown)*

Measures of central tendency was employed first to provide a general description of student retention patterns and graduation rates of students who entered Georgia Tech as first-time freshmen. Secondly, the mean of each dependent variable (D-Variables 1-4) was compared against categorical means to determine and describe the relationship among the categorical set of independent variables (I - Variables 1-8) through relative grouping. Continuous dependent variables were descriptively compared through repeated measures to explore and explain student behaviors regarding (a) retention, (b) time-to-graduation, (c) graduation rates, (d) excess credit hours, (e) GPA, (f) financial aid, (g) changes in major, and (h) internship/co-op participation.

Population and Sample

- The specific sample used in this study consists of students who enrolled in Georgia Institute of Technology between AY2010 and AY2016 as *first-time freshmen*. Student data were pooled as this study explores retention and graduation within a given time series, as well as cross-sectionally as independent variables were categorized by relevance and viewed across all years at the same point.

Conceptual Framework

- The following conceptual models illustrate the variable relationships used to collect and analyze data given the complexity of this study, multiple-methods used, and use of large data sets. Conceptual models are arranged by inquiry and conditional relationships across and among dependent and independent variables.

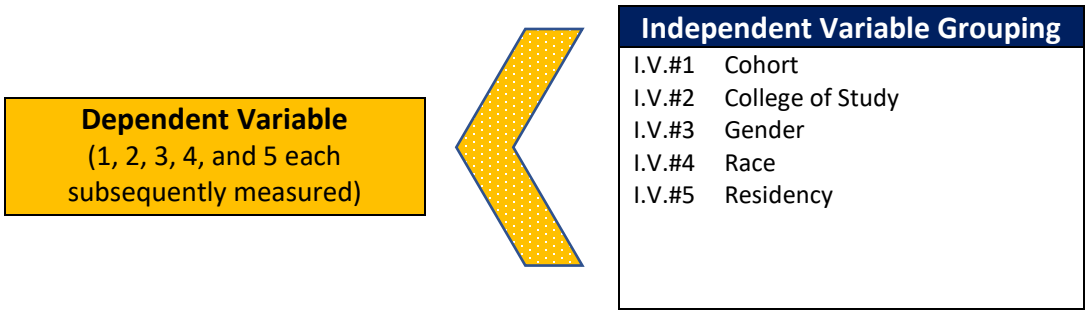


Figure 11. Measures of Central Tendency

Key Terms and Definitions

1. *Admissions Attributes* – The collective group of identifiable elements (e.g. cohort, admissions type, degree program, etc.) that indicate a student's status at the time of admission.
2. *Cohort* - A specific group of students [by term or year] established for tracking purposes.
3. *First-time freshmen* – per the USG Academic Data Mart Data Element Dictionary, first-time freshmen type refers to the "Admit Type" used to designate undergraduate student entering college for the first time.

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Appendix A. First-time Freshmen Students' First-year Retention Rates

Cohort	N (Count)	First Year Retention by Cohort														Cohort Attrition		Cohort Retention
		Retained 1 Year		Retained 2 Years		Retained 3 Years		Retained 4 Years		Retained 5 Years		Retained 6 Years		Retained 7 Years				
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
2010	2,706	2,567	94.9%	2,476	91.5%	2,430	89.8%	2,398	88.6%	2,402	88.8%	2,408	89.0%	2,404	88.8%	302	11.2%	88.8%
2011	2,692	2,553	94.8%	2,442	90.7%	2,381	88.4%	2,378	88.3%	2,374	88.2%	2,377	88.3%			315	11.7%	88.3%
2012	3,039	2,903	95.5%	2,781	91.5%	2,749	90.5%	2,739	90.1%	2,728	89.8%					311	10.2%	89.8%
2013	2,669	2,563	96.0%	2,496	93.5%	2,488	93.2%	2,457	92.1%							212	7.9%	92.1%
2014	2,805	2,713	96.7%	2,626	93.6%	2,586	92.2%									219	7.8%	92.2%
2015	3,087	3,005	97.3%	2,924	94.7%											163	5.3%	94.7%
2016	2,873	2,783	96.9%													90	3.1%	96.9%

Appendix B. First-time Freshmen Students' Six-Year Graduation Rates

Cohort	N	4-Yr Graduation Rate		5-Yr Graduation Rate		6-Yr Graduation Rate	
		N	%	N	%	N	%
2010	2,706	1,111	41.1%	2,172	80.3%	2,335	86.3%
2011	2,692	1,052	39.1%	2,147	79.8%	2,296	85.3%
2012	3,039	1,213	39.9%	2,502	82.3%		
2013	2,669	1,221	45.7%				
2014	2,805						
	Avg (μ):	41.4%		80.8%		85.8%	

Appendix C. First-time Freshmen Students' Time-to-Graduation

Cohort	N	Average Time-to-Graduation								Total Graduates	
		< 4 Yrs		@ 4 Yrs		@ 5 Yrs		@ 6 Yrs			
		N	%	N	%	N	%	N	%	N	%
2010	2,706	61	2.3%	1,050	38.8%	1,061	39.2%	163	6.0%	2,335	86.3%
2011	2,692	69	2.6%	983	36.5%	1,095	40.7%	149	5.5%	2,296	85.3%
2012	3,039	65	2.1%	1,148	37.8%	1,289	42.4%			2,502	82.3%
2013	2,669	64	2.4%	1,157	43.3%					1,221	45.7%
2014	2,805	73	2.6%							73	2.6%
2015	3,087	-								-	-
Avg (μ)		2.4%		39.1%		40.8%		5.8%			

Appendix D. First-time Freshmen Students' Credit Hour Allocation by College of Study and Enrollment Status

Freshman Credit Hour Allocation by College of Study and Enrollment Status				
College of Study	Enrollment Status	Avg. Total Credit Hrs. Earned	Avg. Excess Credit Hrs.	Avg. GPA
College of Computing	Attrited/Disenrolled	38.5	20.2	1.3
	Currently Enrolled	82.4	23.4	3.4
	Graduated	133.1	18.1	3.4
College of Design	Attrited/Disenrolled	34.5	13.6	1.4
	Currently Enrolled	74.4	15.1	3.3
	Graduated	138.0	12.9	3.3
College of Engineering	Attrited/Disenrolled	39.0	17.9	1.3
	Currently Enrolled	87.5	20.9	3.3
	Graduated	138.8	15.6	3.3
College of Sciences	Attrited/Disenrolled	34.4	18.1	1.4
	Currently Enrolled	79.8	19.8	3.3
	Graduated	135.3	15.1	3.3
Ivan Allen College of Liberal Arts	Attrited/Disenrolled	32.5	15.8	1.7
	Currently Enrolled	76.4	17.4	3.4
	Graduated	134.4	15.1	3.4
Scheller College of Business	Attrited/Disenrolled	35.3	14.3	1.7
	Currently Enrolled	77.8	15.7	3.4
	Graduated	129.7	11.3	3.4

Appendix E. First-time Freshmen Students' Grade Point Average upon Graduation

Avg (μ) GPA upon Graduation by Cohort						
Graduation Term	Graduation Term Code	2010	2011	2012	2013	2014
Jan-12	**201202**	3.39				
Aug-12	**201208**	3.59				
Jan-13	**201302**	3.50	3.13			
May-13	**201305**	3.47				
Aug-13	**201308**	3.46	3.97			
Jan-14	**201402**	3.43	3.63			
May-14	**201405**	3.21	3.67	3.26		
Aug-14	**201408**	3.25	3.54	3.55	2.83	
Jan-15	**201502**	3.15	3.47	3.64	3.79	
May-15	**201505**	2.91	3.27	3.39		
Aug-15	**201508**	2.97	3.28	3.55	3.82	
Jan-16	**201602**	2.86	3.18	3.49	3.65	3.90
May-16	**201605**	2.69	2.93	3.19	3.83	
Aug-16	**201608**	2.67	2.87	3.30	3.59	3.97
Jan-17	**201702**	2.68	2.95	3.22	3.52	3.68
May-17	**201705**	2.48	2.72	2.99	3.26	3.59
Avg (μ) GPA by Cohort		**3.11**	**3.28**	**3.36**	**3.54**	**3.79**

Appendix A-1. First-time Freshmen Students' First-year Retention Rates by College of Study

College of Study	Cohort	N (Count)	First Year Retention by College of Study														Cohort Attrition		Cohort Retention
			Retained 1 Year		Retained 2 Years		Retained 3 Years		Retained 4 Years		Retained 5 Years		Retained 6 Years		Retained 7 Years				
			N	*%*	*N*	*%*	*N*	*%*	*N*	*%*	*N*	*%*	*N*	*%*	*N*	*%*	*N*	*%*	
College of Computing	2010	172	163	94.8%	157	91.3%	150	87.2%	151	87.8%	149	86.6%	149	86.6%	149	86.6%	23	13.4%	86.6%
	2011	172	163	94.8%	157	91.3%	151	87.8%	148	86.0%	148	86.0%	148	86.0%			24	14.0%	86.0%
	2012	243	233	95.9%	220	90.5%	221	90.9%	221	90.9%	219	90.1%					24	9.9%	90.1%
	2013	245	236	96.3%	232	94.7%	232	94.7%	227	92.7%							18	7.3%	92.7%
	2014	344	329	95.6%	322	93.6%	315	91.6%									29	8.4%	91.6%
	2015	428	419	97.9%	403	94.2%											25	5.8%	94.2%
	2016	392	388	99.0%													4	1.0%	99.0%
College of Design	2010	91	87	95.6%	84	92.3%	83	91.2%	82	90.1%	81	89.0%	82	90.1%	81	89.0%	10	11.0%	89.0%
	2011	92	86	93.5%	84	91.3%	83	90.2%	83	90.2%	79	85.9%	80	87.0%			12	13.0%	87.0%
	2012	62	60	96.8%	57	91.9%	56	90.3%	56	90.3%	56	90.3%					6	9.7%	90.3%
	2013	42	39	92.9%	38	90.5%	37	88.1%	37	88.1%							5	11.9%	88.1%
	2014	56	55	98.2%	53	94.6%	53	94.6%									3	5.4%	94.6%
	2015	62	58	93.5%	54	87.1%											8	12.9%	87.1%
	2016	78	76	97.4%													2	2.6%	97.4%
College of Engineering	2010	1,799	1711	95.1%	1,650	91.7%	1,627	90.4%	1,601	89.0%	1,612	89.6%	1,612	89.6%	1606	89.3%	193	10.7%	89.3%
	2011	1,832	1741	95.0%	1,667	91.0%	1,624	88.6%	1,630	89.0%	1,629	88.9%	1,629	88.9%			203	11.1%	88.9%
	2012	2,177	2089	96.0%	2,006	92.1%	1,977	90.8%	1,969	90.4%	1,959	90.0%					218	10.0%	90.0%
	2013	1,921	1853	96.5%	1,795	93.4%	1,798	93.6%	1,780	92.7%							141	7.3%	92.7%
	2014	1,905	1846	96.9%	1,781	93.5%	1,754	92.1%									151	7.9%	92.1%
	2015	2,009	1957	97.4%	1,915	95.3%											94	4.7%	95.3%
	2016	1,740	1,679	96.5%													61	3.5%	96.5%
College of Sciences	2010	316	295	93.4%	286	90.5%	282	89.2%	279	88.3%	275	87.0%	277	87.7%	278	88.0%	38	12.0%	88.0%
	2011	299	278	93.0%	264	88.3%	256	85.6%	254	84.9%	254	84.9%	255	85.3%			44	14.7%	85.3%
	2012	259	244	94.2%	232	89.6%	231	89.2%	230	88.8%	230	88.8%					29	11.2%	88.8%
	2013	207	201	97.1%	196	94.7%	193	93.2%	187	90.3%							20	9.7%	90.3%
	2014	230	222	96.5%	213	92.6%	209	90.9%									21	9.1%	90.9%
	2015	264	258	97.7%	253	95.8%											11	4.2%	95.8%
	2016	340	322	94.7%													18	5.3%	94.7%
Ivan Allen College of Liberal Arts	2010	150	144	96.0%	135	90.0%	131	87.3%	131	87.3%	133	88.7%	133	88.7%	133	88.7%	17	11.3%	88.7%
	2011	127	120	94.5%	115	90.6%	114	89.8%	112	88.2%	113	89.0%	113	89.0%			14	11.0%	89.0%
	2012	127	118	92.9%	112	88.2%	113	89.0%	113	89.0%	112	88.2%					15	11.8%	88.2%
	2013	85	77	90.6%	75	88.2%	74	87.1%	73	85.9%							12	14.1%	85.9%
	2014	111	108	97.3%	105	94.6%	104	93.7%									7	6.3%	93.7%
	2015	147	144	98.0%	134	91.2%											13	8.8%	91.2%
	2016	151	148	98.0%													3	2.0%	98.0%
Scheller College of Business	2010	178	167	93.8%	164	92.1%	157	88.2%	154	86.5%	152	85.4%	155	87.1%	157	88.2%	21	11.8%	88.2%
	2011	170	165	97.1%	155	91.2%	153	90.0%	151	88.8%	151	88.8%	152	89.4%			18	10.6%	89.4%
	2012	171	159	93.0%	154	90.1%	151	88.3%	150	87.7%	152	88.9%					19	11.1%	88.9%
	2013	169	157	92.9%	160	94.7%	154	91.1%	153	90.5%							16	9.5%	90.5%
	2014	159	153	96.2%	152	95.6%	151	95.0%									8	5.0%	95.0%
	2015	177	169	95.5%	165	93.2%											12	6.8%	93.2%
	2016	172	170	98.8%													2	1.2%	98.8%

Appendix A-2. First-time Freshmen Students' First-year Retention Rates by Race and Gender

Race	Cohort	N (Count)		First Year Retention by Race and Gender																				Cohort Retention		Cohort Retention
				Retained 1 Year				Retained 2 Years				Retained 3 Years				Retained 4 Years				Retained 5 Years				Retained 6 Years							
				N	N%	N	N%	N	N%	N	N%	N	N%	N	N%	N	N%	N	N%	N	N%	N	N%	N	N%	N	N%	N	N%	N	N%
		Female	Male	Female		Male		Female		Male		Female		Male		Female		Male		Female		Male		Female		Male			Female		Male
Asian	**2010**	215	416	207	96.3%	388	93.3%	203	94.4%	364	87.5%	200	93.0%	365	87.7%	195	90.7%	366	88.0%	196	91.2%	376	90.4%	196	91.2%	379	91.1%	196	91.2%	379	91.1%
	2011	234	410	229	97.9%	386	94.1%	229	97.9%	351	85.6%	224	95.7%	351	85.6%	224	95.7%	365	89.0%	227	97.0%	366	89.3%	227	97.0%	366	89.3%	227	97.0%	366	89.3%
	2012	289	609	286	99.0%	581	95.4%	275	95.2%	544	89.3%	276	95.5%	547	89.8%	274	94.8%	555	91.1%	276	95.5%	549	90.1%					276	95.5%	549	90.1%
	2013	288	478	280	97.2%	452	94.6%	273	94.8%	436	91.2%	275	95.5%	444	92.9%	269	93.4%	444	92.9%									269	93.4%	444	92.9%
	2014	264	492	260	98.5%	474	96.3%	257	97.3%	463	94.1%	254	96.2%	456	92.7%													254	96.2%	456	92.7%
	2015	322	457	316	98.1%	441	96.5%	313	97.2%	430	94.1%																	313	97.2%	430	94.1%
	2016	280	441	277	98.9%	434	98.4%																					277	98.9%	434	98.4%
Black/African-	**2010**	68	83	63	92.6%	76	91.6%	64	94.1%	77	92.8%	61	89.7%	72	86.7%	58	85.3%	69	83.1%	57	83.8%	68	81.9%	57	83.8%	68	81.9%	57	83.8%	68	81.9%
American	**2011**	73	95	69	94.5%	88	92.6%	66	90.4%	79	83.2%	62	84.9%	71	74.7%	61	83.6%	72	75.8%	62	84.9%	66	69.5%	63	86.3%	66	69.5%	63	86.3%	66	69.5%
	2012	64	99	57	89.1%	94	94.9%	53	82.8%	85	85.9%	52	81.3%	82	82.8%	53	82.8%	81	81.8%	52	81.3%	79	79.8%					52	81.3%	79	79.8%
	2013	67	94	64	95.5%	86	91.5%	60	89.6%	82	87.2%	57	85.1%	79	84.0%	56	83.6%	78	83.0%									56	83.6%	78	83.0%
	2014	62	98	59	95.2%	95	96.9%	57	91.9%	88	89.8%	59	95.2%	83	84.7%													59	95.2%	83	84.7%
	2015	89	121	85	95.5%	116	95.9%	83	93.3%	108	89.3%																	83	93.3%	108	89.3%
	2016	88	104	85	96.6%	97	93.3%																					85	96.6%	97	93.3%
Hispanic or Latino	**2010**	67	114	64	95.5%	108	94.7%	63	94.0%	106	93.0%	63	94.0%	102	89.5%	63	94.0%	102	89.5%	61	91.0%	100	87.7%	62	92.5%	99	86.8%	62	92.5%	99	86.8%
	2011	62	114	60	96.8%	109	95.6%	59	95.2%	107	93.9%	57	91.9%	103	90.4%	56	90.3%	101	88.6%	56	90.3%	101	88.6%	56	90.3%	101	88.6%	56	90.3%	101	88.6%
	2012	65	162	62	95.4%	157	96.9%	60	92.3%	150	92.6%	60	92.3%	144	88.9%	59	90.8%	141	87.0%	59	90.8%	141	87.0%					59	90.8%	141	87.0%
	2013	61	113	57	93.4%	108	95.6%	58	95.1%	107	94.7%	58	95.1%	107	94.7%	57	93.4%	106	93.8%									57	93.4%	106	93.8%
	2014	75	137	72	96.0%	132	96.4%	71	94.7%	127	92.7%	71	94.7%	123	89.8%													71	94.7%	123	89.8%
	2015	85	150	85	100.0%	147	98.0%	81	95.3%	142	94.7%																	81	95.3%	142	94.7%
	2016	95	137	92	96.8%	131	95.6%																					92	96.8%	131	95.6%
Multi-racial	**2010**	34	54	32	94.1%	50	92.6%	29	85.3%	45	83.3%	28	82.4%	44	81.5%	29	85.3%	43	79.6%	28	82.4%	40	74.1%	29	85.3%	42	77.8%	29	85.3%	42	77.8%
	2011	36	53	34	94.4%	49	92.5%	32	88.9%	49	92.5%	30	83.3%	46	86.8%	30	83.3%	45	84.9%	29	80.6%	45	84.9%	29	80.6%	44	83.0%	29	80.6%	44	83.0%
	2012	45	75	43	95.6%	74	98.7%	42	93.3%	70	93.3%	42	93.3%	70	93.3%	41	91.1%	66	88.0%	41	91.1%	68	90.7%					41	91.1%	68	90.7%
	2013	46	57	46	100.0%	53	93.0%	45	97.8%	53	93.0%	45	97.8%	52	91.2%	44	95.7%	50	87.7%									44	95.7%	50	87.7%
	2014	47	68	46	97.9%	68	100.0%	45	95.7%	66	97.1%	45	95.7%	63	92.6%													45	95.7%	63	92.6%
	2015	45	68	44	97.8%	68	100.0%	42	93.3%	65	95.6%																	42	93.3%	65	95.6%
	2016	47	55	46	97.9%	53	96.4%																					46	97.9%	53	96.4%
Other/Unknown	**2010**	11	13	10	90.9%	12	92.3%	9	81.8%	12	92.3%	9	81.8%	8	61.5%	9	81.8%	8	61.5%	9	81.8%	7	53.8%	9	81.8%	8	61.5%	9	81.8%	8	61.5%
	2011	10	20	9	90.0%	16	80.0%	9	90.0%	16	80.0%	9	90.0%	14	70.0%	9	90.0%	15	75.0%	9	90.0%	15	75.0%	9	90.0%	14	70.0%	9	90.0%	14	70.0%
	2012	5	13	5	100.0%	12	92.3%	4	80.0%	12	92.3%	4	80.0%	10	76.9%	4	80.0%	11	84.6%	4	80.0%	12	92.3%					4	80.0%	12	92.3%
	2013	4	15	4	100.0%	14	93.3%	4	100.0%	13	86.7%	4	100.0%	14	93.3%	4	100.0%	14	93.3%									4	100.0%	14	93.3%
	2014	40	79	38	95.0%	76	96.2%	36	90.0%	74	93.7%	36	90.0%	74	93.7%													36	90.0%	74	93.7%
	2015	85	138	80	94.1%	134	97.1%	78	91.8%	130	94.2%																	78	91.8%	130	94.2%
	2016	65	118	63	96.9%	115	97.5%																					63	96.9%	115	97.5%
White/Caucasian	**2010**	581	1,050	560	96.4%	997	95.0%	547	94.1%	957	91.1%	536	92.3%	942	89.7%	538	92.6%	918	87.4%	541	93.1%	919	87.5%	541	93.1%	918	87.4%	541	93.1%	918	87.4%
	2011	600	985	565	94.2%	939	95.3%	544	90.7%	901	91.5%	536	89.3%	878	89.1%	536	89.3%	864	87.7%	537	89.5%	861	87.4%	541	90.2%	861	87.4%	541	90.2%	861	87.4%
	2012	593	1,020	577	97.3%	955	93.6%	558	94.1%	928	91.0%	549	92.6%	913	89.5%	550	92.7%	904	88.6%	550	92.7%	897	87.9%					550	92.7%	897	87.9%
	2013	530	916	513	96.8%	886	96.7%	502	94.7%	863	94.2%	501	94.5%	852	93.0%	498	94.0%	837	91.4%									498	94.0%	837	91.4%
	2014	588	855	568	96.6%	825	96.5%	551	93.7%	791	92.5%	543	92.3%	779	91.1%													543	92.3%	779	91.1%
	2015	651	876	632	97.1%	857	97.8%	619	95.1%	833	95.1%																	619	95.1%	833	95.1%
	2016	611	832	588	96.2%	802	96.4%																					588	96.2%	802	96.4%

Appendix B-2. First-time Freshmen Students' Graduation Rates by College of Study and Completion Year

College of Study		Graduation Rates by Cohort and College of Study									
		2010		2011		2012		2013		2014	
College of Computing	N (Count)	172		172		243		245		344	
	Graduated within ≤ 4-Yrs	96	**55.8%**	86	**50.0%**	133	**54.7%**	167	**68.2%**	29	**8.4%**
	Graduated within 5-Yrs	142	**82.6%**	136	**79.1%**	199	**81.9%**	-	-	-	-
	Graduated within 6-Yrs	147	**85.5%**	145	**84.3%**	-	-	-	-	-	-
College of Design	N (Count)	91		92		62		42		56	
	Graduated within ≤ 4-Yrs	56	**61.5%**	47	**51.1%**	32	**51.6%**	23	**9.4%**	1	**1.8%**
	Graduated within 5-Yrs	76	**83.5%**	72	**78.3%**	52	**83.9%**	-	-	-	-
	Graduated within 6-Yrs	81	**89.0%**	76	**82.6%**	-	-	-	-	-	-
College of Engineering	N (Count)	1,799		1,832		2,177		1,921		1,905	
	Graduated within ≤ 4-Yrs	619	**34.4%**	590	**32.2%**	738	**33.9%**	768	**40.0%**	33	**1.7%**
	Graduated within 5-Yrs	1,420	**78.9%**	1,443	**78.8%**	1,777	**81.6%**	-	-	-	-
	Graduated within 6-Yrs	1,553	**86.3%**	1,567	**85.5%**	-	-	-	-	-	-
College of Sciences	N (Count)	316		299		259		207		230	
	Graduated within ≤ 4-Yrs	174	**55.1%**	163	**54.5%**	138	**53.3%**	116	**56.0%**	4	**1.7%**
	Graduated within 5-Yrs	259	**82.0%**	236	**78.9%**	218	**84.2%**	-	-	-	-
	Graduated within 6-Yrs	271	**85.8%**	245	**81.9%**	-	-	-	-	-	-
Ivan Allen College of Liberal Arts	N (Count)	150		127		127		85		111	
	Graduated within ≤ 4-Yrs	74	**49.3%**	70	**55.1%**	69	**54.3%**	48	**56.5%**	6	**5.4%**
	Graduated within 5-Yrs	126	**84.0%**	111	**87.4%**	110	**86.6%**	-	-	-	-
	Graduated within 6-Yrs	132	**88.0%**	113	**89.0%**	-	-	-	-	-	-
Scheller College of Business	N (Count)	178		170		171		169		159	
	Graduated within ≤ 4-Yrs	92	**51.7%**	96	**56.5%**	103	**60.2%**	99	**58.6%**	3	**1.9%**
	Graduated within 5-Yrs	149	**83.7%**	149	**87.6%**	146	**85.4%**	-	-	-	-
	Graduated within 6-Yrs	151	**84.8%**	150	**88.2%**	-	-	-	-	-	-