



FIU BUSINESS INTELLIGENCE & ANALYTICS

DATA MODEL TRAINING



FIU Business Intelligence Manual

System Overview

FIU Business Intelligence & Analytics is intended to provide institutional leaders with easy access to strategic reports while providing departmental users with the ability to create on-demand reports and analytics based on common data models in order to make effective operational and strategic data-driven decisions.

FIU's university-wide business intelligence and analytics application is expected to:

- Minimize the dependence on IT and AIM for ad-hoc data requests
- Provide users with prebuilt data cubes with common data elements that get them one step closer to answering relevant strategic and operational questions
- Transition data consumers towards a different model of data delivery, one that is more visual, user-friendly and more flexible than our current mode

Requesting Access & Security

Users with an active domain account (AD) has the BI Consumer Limited role which authenticates the user. In order to request access to Answers, will need to submit a BI Access Request form. The approval process is based on the HR approval workflow.

- Login to MyFIU
- Navigate to the "Employee" Tab
- To request a role in BI, select "BI Access Request"
- To view the status of existing access requests, select "Access Request Status"

Business Intelligence

Please specify the Business Intelligence access being requested



Next >>

Basic User Guide

FIU Business Intelligence provides powerful operational reporting, just-in-time alerts, strategy management, a unique platform that enables users to uncover new insights and make faster, more informed business decisions by offering responsive visual analytics. Authors from each College and/or Business Unit will have access to the most granular level of data, thus getting critical information from the right people rapidly. Therefore, training for comprehensive understanding of the subject area that will be queried is imperative to generate accurate analysis.

Analysis

An analysis illustrates an answers to an organizational question in the form of visually presenting data in tables, graphs, pivot tables, and so on. In addition, an ad-hoc analysis may be in the form of statistical model, analytic report, or other type of data summary.

Dashboard

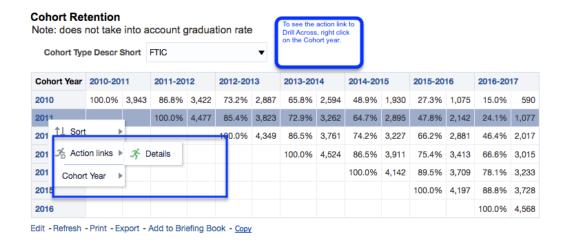
A dashboard is a portal that contains summarized data designed to meet the needs of the users. It is composed of various analysis and provide a personalized view of the information.

Hierarchy

The hierarchy or drill down feature provides the ability to view data from high-level information to more detailed, focused information. For example, an analysis of the annual credit hours by college may provide detailed information by department and academic plan within the same analysis.

Drill Through

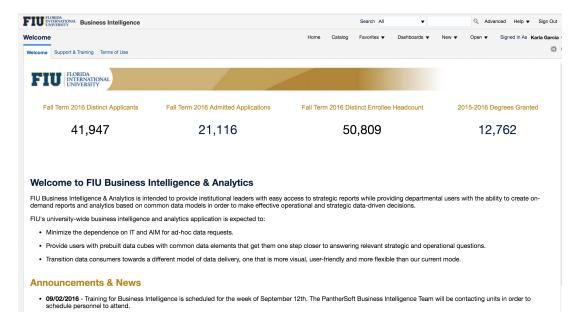
As opposed to drill down, which move through a database vertically, expanding and focusing the level of detail to browse data at different levels, drill through moves horizontally through analysis. With drill through capabilities provides a view of related files and data elements within another analysis. Below is a sample "Action Link" that allows the users to drill through. When the user clicks on the academic year, it provides the drill down to the term. However, when the user clicks on the Cohort Year, it takes them to another analysis that provides student detail.



Note: When hovering over a heading or value which appears as underlined it denotes a hierarchy or drill through.

Answers

Once you log in, you will be directed to the *Welcome* dashboard, where you will find *Announcements* & *News, Manuals* and the *Term of Use*. Please read the Term of Use Agreement to ensure you are aware of the various policies and procedures found in the *Terms of Use* tab.



Terms of Use Agreement

The information to be supplied under the provisions of this Agreement relates to the usage of the Florida International University's Business Intelligence and Analytics (BI) system.

By logging in, System Users Agree to:

- 1. Use of the Florida International University Business Intelligence and Analytics (BIA) system is contingent upon proper authorization.
- 2. Understand, acknowledge, and agree that analytics, reports and dashboards are the sole responsibility of the person that originated it. The Division of Information Technology (DIT) does not monitor, edit or screen any reports and/or dashboard not created by DIT staff.
- 3. Restrict circulation, and disclosure of the information within FIU "authorized" users and follow proper Family Educational Rights and Privacy Act (FERPA), State of Florida Board of Governors' (BOG) rules, and University's policies and procedures.
- 4. Take the necessary precautions to electronically and physically safeguard reports and dashboards that contain information downloaded or transmitted by the BI system.
- 5. Not disclose any personally identifiable information from student records to a person or entity who does not have a legitimate educational interest therein, and only use the information for the purposes for which the access is granted.
- 6. Not upload sensitive data from external data sources that is not already provided by the BI system.
- 7. Understand that the University will not be responsible for any willful or negligent use of any accessed or transmitted information from the BI system, and reserves the right to revoke access privilege to the system to any party who misuses the system, who poses a security risk, or who fails to abide by the University's regulations and policies.
- 8. Misuse or misappropriation of the University's information technology resources or violation of any applicable law, rule, regulation, or University policy may result in other action(s) deemed appropriate by the University.

Subject Areas

A subject area represents an organization's business process. Phase I contains subject areas as they relate to student's transition from admissions to graduation. The following subject areas are available:

- CS Application Details
- CS Application Test Scores
- CS Campus Life
- CS Courses
- CS Course Meetings & Instructors
- CS Degrees
- CS Enrollment Activity
- CS Periodic Snapshots Applications
- CS Periodic Snapshots Enrollment

Future Enhancements

- Add additional transactional fields from Campus Solution
- Admission missing Non-Degree Students
- Track non-fee liable dropped students (we currently we have fee-liable students)
- Class schedule Snapshots
- Subject Area
 - Advising
 - Student Success
 - Retention and Graduation
 - Financial Aid Subject Area

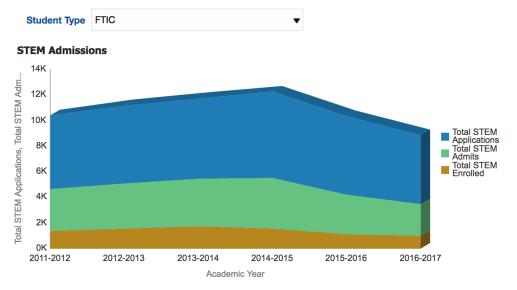
CS - Admissions Details

The CS – Admissions Details subject area provides data pertaining students' application information, and other admissions' characteristics. It provides details about the students who applied, were admitted and subsequently enrolled. In addition, it provides the capability to generate analysis based on total number of applications as well as a unique number of applicants. The table below shows the admissions information by academic year. Based on the information, we can see that the number of STEM Indicator by the admissions process. Note: Only students that submitted an application are included.



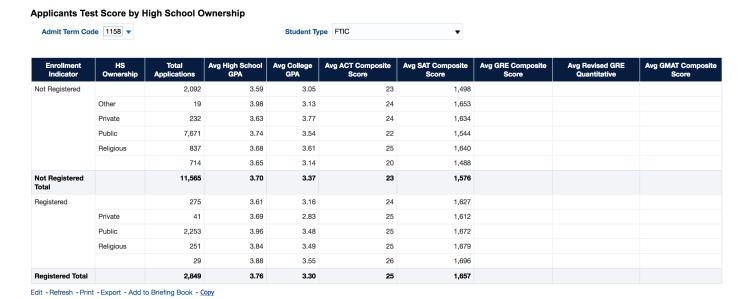


Admissions by Strategic Emphasis and Student Type



CS - Application Test Score

The CS – Application Test Score subject area provides test score information pertaining students who applied and submitted a test score. For the students that provided a test score, this subject area provides the same level of details as the CS - Admissions Details. The table below provides information pertaining admitted students and their enrollment status. We can see that the public school's high schools (HS) are FIU's main feeder of students with the highest average HS GPA, but not the highest average SAT composite score.



CS - Campus Life

The CS – Campus Life subject area provides information pertaining all student councils, organizations and clubs on campus as well as the affiliated students' academic structure and other attributes.

Campus Life Student Affiliations

Affiliation Name	Total Affiliated Students
"Astronomy Club at FIU	1
"Caribbean Students Association	2
"Disciples on Campus ""DC""	5
"Disciples on Campus ""DC"""	7
"Gamma Epsilon Phi	1
"Garden Club	2
"InterVarsity Christian Fellowship	1
"International Affairs Society	1
"International Student Club	1
"Medically Engaged Diverse Students	2
"Musical Minds Org	1
"Network Security Organization (NSO)	1
"UNICEF @ FIU	1
AEROBOTS@FIU	4
AIESEC Miami@ FIU	69

CS - Courses

The CS - Courses subject area provides the capability to generate analysis at the course level without duplicating the values based on the scheduled meeting patterns. In the table below, we see a percent distribution of the total number of sections offered by each college by academic year as well as the variance between each year. For example, 37.3% of the course section in 2014-2015 were scheduled by the College of Arts, Science and Education. In 2015-2016, the College of Arts, Science and Education decreased their scheduled by 0.9%.

Course Sections by College

						Total Course Se	ections Offered			
College	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2013-2014 Variance	2014-2015 Variance	2015-2016 Variance	2016-2017 Variance	4-Year Variance
College of Arts, Sciences and Education	38.0%	38.3%	37.3%	36.4%	37.8%	0.3%	-1.0%	-0.9%	1.4%	-4.3%
College of Business	10.5%	9.8%	10.4%	10.6%	11.3%	-0.6%	0.5%	0.2%	0.7%	1.3%
College of Communication, Architecture and The Arts	9.8%	10.0%	10.2%	10.3%	9.8%	0.2%	0.2%	0.1%	-0.5%	4.6%
College of Engineering and Computing	10.9%	11.2%	11.5%	11.9%	12.2%	0.3%	0.3%	0.3%	0.3%	9.2%
College of Law	1.4%	1.4%	1.3%	1.3%	1.3%	0.0%	-0.1%	0.0%	-0.1%	-5.0%
College of Medicine	1.3%	1.5%	2.4%	2.9%	2.4%	0.2%	0.9%	0.5%	-0.5%	123.5%
College of Nursing and Health Sciences	4.9%	4.7%	4.6%	5.0%	5.4%	-0.2%	-0.1%	0.4%	0.4%	1.9%
College of Public Health and Social Work	3.7%	3.3%	3.4%	3.0%	3.1%	-0.4%	0.0%	-0.4%	0.1%	-20.0%
Military Science	0.1%	0.1%	0.1%	0.1%	0.1%	-0.0%	-0.0%	-0.0%	-0.0%	-9.4%
No College Found	1.2%	1.2%	1.3%	1.3%	1.3%	-0.0%	0.1%	0.0%	0.1%	5.5%
School of Hospitality and Tourism Management	2.9%	3.4%	3.5%	3.2%	2.9%	0.5%	0.0%	-0.2%	-0.3%	10.2%
School of International and Public Affairs	15.2%	15.0%	13.9%	14.0%	12.5%	-0.2%	-1.0%	0.0%	-1.5%	-8.0%
Grand Total	100.0%	100.0%	100.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%

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CS – Course Meeting & Instructors

Course College College of Business

The CS – Course Meeting & Instructors subject area provides information pertaining course schedule including meeting patterns by meeting dates, the list of primary instructors as well as room facility characteristics based on Campus Solutions. In the table below, the **% Room Utilization** and the **% Enrollment Request Capacity** can be used to determine if the course can be moved to another facility with less room capacity. The **% Room Utilization** is calculated based on the total enrollment divided by the total room capacity as defined in the facility characteristics. The **% Enrollment Request Capacity** is calculated based on the enrollment request capacity divided by the facility's room capacity.

Course Facility Utilization

Term 1158 ▼

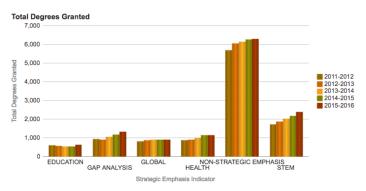
Facility ID	Class Number	Subject & Catalog Number	Instruction Mode	Meeting Pattern	Enrollment Capacity	Enrollment Total	Total Room Capacity	% Room Utilization	% Enrollment Request Capacity
AC1130	80102	MAR 3023	Half In Person, Half Online	w	50	50	472	0.11%	0.11%
	91843	MAR 4354	Half In Person, Half Online	w	50	32	472	0.07%	0.11%
AC1194	80056	FIN 4604	In Person	М	55	53	114	0.46%	0.48%
AC1226	80004	MAR 4354	Half In Person, Half Online	М	50	46	440	0.10%	0.11%
	91712	MAR 4233	Half In Person, Half Online	М	50	45	440	0.10%	0.11%
AC1264	80086	MAN 4602	In Person	Т	60	41	90	0.46%	0.67%
AC1326	80015	CGS 3300	In Person	w	35	33	36	0.92%	0.97%
	91271	CGS 3300	In Person	R	35	35	36	0.97%	0.97%
AC2110	80047	QMB 3200	In Person	w	60	58	77	0.75%	0.78%
	80142	MAN 4720	In Person	М	60	27	77	0.35%	0.78%
AC2115	80019	FIN 3403	In Person	w	60	58	77	0.75%	0.78%
	80267	MAN 4504	In Person	Т	65	20	77	0.26%	0.84%
	80331	MAR 3023	Half In Person, Half Online	М	50	47	616	0.08%	0.08%
	91865	MAR 4503	Half In Person, Half Online	м	50	50	616	0.08%	0.08%

CS - Degrees

The CS – Degrees subject areas provides information on degrees awarded, graduated students as well as details for the respective degrees. In the graph and tables below, in 2015-2016 there has been a significant growth in Education, Gap Analysis, and STEM degrees. Areas with no significant change is seen in the Global and Health.



Includes Medicine



We can further analyze this information by reviewing the degrees granted by level in the table below. The hierarchy or drill down capability of this table allows users to review the information to the academic sub-plan level.

Degrees Awarded by Strategic Emphasis

Includes Medicine

Degree Granted	Strategic Emphasis Indicator	2011-20)12	2012-20	013	2013-20	014	2014-20	015	2015-20)16
Baccalaureate	EDUCATION	388	5.3%	405	5.2%	357	4.4%	352	4.1%	377	4.2%
	GAP ANALYSIS	692	9.5%	677	8.7%	732	9.1%	839	9.9%	979	10.8%
	GLOBAL	622	8.6%	681	8.8%	639	7.9%	617	7.2%	625	6.9%
	HEALTH	389	5.4%	391	5.0%	536	6.7%	599	7.0%	584	6.4%
	NON-STRATEGIC EMPHASIS	3,955	54.5%	4,283	55.3%	4,392	54.6%	4,566	53.6%	4,782	52.7%
	STEM	1,211	16.7%	1,306	16.9%	1,393	17.3%	1,544	18.1%	1,730	19.1%
Baccalaureate To	otal	7,256	100.0%	7,742	100.0%	8,049	100.0%	8,517	100.0%	9,076	100.0%
Masters	EDUCATION	198	6.7%	146	4.9%	162	5.1%	182	5.7%	250	8.0%
	GAP ANALYSIS		8.0%	235	7.8%	320	10.1%	339	10.6%	340	10.9%
	GLOBAL	179	6.0%	201	6.7%	263	8.3%	268	8.4%	291	9.4%
	HEALTH	437	14.7%	442	14.7%	369	11.6%	391	12.3%	376	12.19
	NON-STRATEGIC EMPHASIS	1,456	49.1%	1,513	50.3%	1,518	47.7%	1,468	46.0%	1,277	41.19
	STEM	459	15.5%	473	15.7%	548	17.2%	542	17.0%	576	18.5%
Masters Total		2,965	100.0%	3,010	100.0%	3,180	100.0%	3,190	100.0%	3,110	100.0%
Specialist	EDUCATION	20	44.4%	6	26.1%	16	44.4%	5	20.0%	2	11.19
	NON-STRATEGIC EMPHASIS	25	55.6%	17	73.9%	20	55.6%	20	80.0%	16	88.9%
Specialist Total		45	100.0%	23	100.0%	36	100.0%	25	100.0%	18	100.0%
Doctorate	EDUCATION	15	7.7%	15	7.3%	16	7.5%	16	6.5%	15	6.8%
	GLOBAL	11	5.6%	4	1.9%	9	4.2%	11	4.5%	7	3.2%
	HEALTH	55	28.1%	57	27.7%	64	29.9%	76	31.0%	80	36.4%
	NON-STRATEGIC EMPHASIS	62	31.6%	46	22.3%	38	17.8%	59	24.1%	39	17.79
	STEM	53	27.0%	84	40.8%	87	40.7%	83	33.9%	79	35.9%
Doctorate Total		196	100.0%	206	100.0%	214	100.0%	245	100.0%	220	100.0%
Law, LLB or JD	NON-STRATEGIC EMPHASIS	185	100.0%	168	100.0%	156	100.0%	146	100.0%	157	100.0%

CS - Enrollment Activity

The CS – Enrollment Activity subject area provides information pertaining student enrollment characteristics including basic admissions data, demographics, cohort data (if applicable), academic structure, program characteristics, course information such as credit hours, and other relevant information. The table below shows the total academic year student credit hour (SCHs) by the Program Category which is determined by the academic plan and sub-plan table.

Student Credit Hours (SCHs) by Program Category

Academic Year	Academic Plan Category	Total Credit Hours		
2014-2015	FIU 2.0	27,134.00		
	FIU 2.0 Lite	315.00		
	Market Rate	46,864.00		
	Self Supporting	2,328.00		
	Tuition Assessed by Plan	23,238.00		
	Other	1,200,676.00		
2014-2015 Total		1,300,555.00		
2015-2016	FIU 2.0	50,897.00		
	FIU 2.0 Lite	820.00		
	Market Rate	48,444.00		
	Self Supporting	9,347.00		
	Tuition Assessed by Plan	22,544.00		
	Other	1,179,663.00		
2015-2016 Total		1,311,715.00		
2016-2017	FIU 2.0	40,612.00		
	FIU 2.0 Lite	651.00		
	Market Rate	30,574.00		
	Self Supporting	11,380.00		
	Tuition Assessed by Plan	15,160.00		
	Other	688,478.00		
2016-2017 Total		786,855.00		

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The Headcount by Strategic Emphasis table provides the Fall term student headcount which is defined as the distinct number of student enrolled in the Fall term by the Strategic Emphasis indicator.

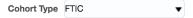
Headcount by Strategic Emphasis

		Tota	I Heado	ount
Strategic Emphasis	Student Program Category	1148	1158	1168
EDUCATION	Lower Division	274	231	277
	Upper Division	1,145	1,131	1,042
	FIU 2.0	76	148	190
	Graduate I	568	504	438
	Graduate II	127	127	136
	Market Rate		83	98
	Non-Degree Seeking	18	6	9
	Unspecified			3
EDUCATION Total		2,208	2,230	2,19
GAP ANALYSIS	Lower Division	762	769	838
	Upper Division	2,593	2,881	2,97
	FIU 2.0	314	490	583
	Graduate I	49	54	45
	Market Rate	318	314	277
GAP ANALYSIS Total		4,036	4,508	4,71

The Cohort Retention table is not to be confused with the 2nd Year Retention Performance Indicator. This table provides basic information pertaining the students that re-enrolled the following academic year. When the user clicks on the academic year, it drills down to display the data by term. However, when the user clicks on the Cohort Year, it takes them to another analysis of the Enrollment Details by Cohort Year that provides student detail. The enrollment student table can be used to determine the at-risk students

Cohort Re-enrolled

Note: does not take into account graduation rate



Cohort Year	Year 2010-2011 2011-2012		12	2012-201	13	2013-2014		2014-2015		2015-2016		2016-2017		
2010	100.0%	3,943	86.8%	3,422	73.2%	2,887	65.8%	2,594	48.9%	1,930	27.3%	1,075	15.0%	591
2011			100.0%	4,477	85.4%	3,823	72.9%	3,262	64.7%	2,895	47.8%	2,142	24.1%	1,081
2012					100.0%	4,349	86.5%	3,761	74.2%	3,227	66.2%	2,881	46.4%	2,018
2013							100.0%	4,524	86.5%	3,911	75.4%	3,413	66.7%	3,017
2014									100.0%	4,142	89.5%	3,709	78.2%	3,240
2015											100.0%	4,197	88.6%	3,720
2016													100.0%	4,568

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Enrollment Details by Cohort Year

Cohort Year	Cohort Type	Emplid	Transfer Credits Accepted	Total Credits Earned Towards Degree	Enrollment Term	Total Courses	Total Credits	AVG Term GPA	Avg Cumulative GPA
2012	FL. AA TRANSFER	0104360	60	60	Summer Term 2012	2	6	2.33	2.33
2012	FL. AA TRANSFER	0104360	60	63	Fall Term 2012	4	12	3.11	2.80
2012	FL. AA TRANSFER	0104360	60	73	Spring Term 2013	3	7	1.17	2.50
2012	FL. AA TRANSFER	0104360	60	76	Fall Term 2013	4	12	3.25	2.80
2012	FL. AA TRANSFER	0104360	60	88	Spring Term 2014	4	12	2.92	2.83
2012	FL. AA TRANSFER	0104360	60	100	Summer Term 2014	3	9	1.89	2.67
2012	FL. AA TRANSFER	0104360	60	106	Fall Term 2014	4	12	3.25	2.78

CS - Periodic Snapshots - Applications

The CS – Periodic Snapshots – Applications subject area provides the capability to compare point-in-time data by date, academic year, fiscal year, or end-of-term. This is helpful when you want to trend back and compare values in various point-in-time. Given that daily snapshots have been available since Spring 2017, only end-of-term comparison is available for previous terms.

Point-in-Time Admissions Information

Admission Action	Student Type Bin	9/1/2016	9/2/2016	9/3/2016	9/4/2016	9/5/2016	9/6/2016	9/7/2016	9/8/2016	9/9/2016	9/12/2016
Admitted	Undergraduate	27	28	28	28	28	28	28	29	29	29
	Undergraduate Transfer	428	448	448	470	470	471	495	513	550	564
	Graduate	149	151	151	167	167	167	168	173	175	176
Admitted Total		604	627	627	665	665	666	691	715	754	769
Cancelled After Admission	Undergraduate Transfer	4	4	4	4	4	4	4	4	4	4
	Graduate		1	1	1	1	1	1	1	2	2
Cancelled After Admission T	otal	4	5	5	5	5	5	5	5 5 6		6
Cancelled Prior to Admission Decision	Undergraduate	604	599	599	602	609	614	632	635	643	656
	Undergraduate Transfer	907	914	914	928	950	964	977	1,003	980	1,013
	Graduate	1,570	1,579	1,578	1,553	1,561	1,568	1,584	1,579	1,592	1,619
Cancelled Prior to Admission Deci	Cancelled Prior to Admission Decision Total			3,091	3,083	3,120	3,146	3,193	3,217	3,215	3,288
Denied	Undergraduate	156	166	166	168	169	169	170	173	174	176
	Undergraduate Transfer	5	5	5	6	6	6	6	6	9	10
	Graduate	29	30	30	31	31	32	33	35	35	34
Denied Total		190	201	201	205	206	207	209	214	218	220
Provisionally Admitted, is an Exception to Policy	Undergraduate	14	17	17	17	17	17	18	19	20	20
	Graduate	4	4	4	4	4	4	5	5	6	6
Provisionally Admitted, is an Exception	to Policy Total	18	21	21	21	21	21	23	24	26	26
Provisionally Admitted, not an Exception to Policy	Undergraduate	299	302	302	304	304	304	306	309	312	313
	Undergraduate Transfer	441	453	453	468	468	468	482	489	521	538
	Graduate	122	125	125	145	145	145	150	166	168	169
Provisionally Admitted, not an Exception to Policy Total			880	880	917	917	917	938	964	1,001	1,020
Unspecified	Undergraduate	1	1	1	1	1	1	1	1	1	1
Unspecified Total		1	1	1	1	1	1	1	1	1	1
Grand Total			4,827	4.826	4,897	4,935	4,963	5,060	5,140	5,221	5,330

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CS - Periodic Snapshots - Enrollment

The CS – Periodic Snapshots – Enrollment subject area provides the capability to compare point-in-time data by date, academic year, fiscal year, or end-of-term. This is helpful when you want to trend back and compare values in various point-in-time. Given that daily snapshots have been available since Summer 2016, only end-of-term comparison is available for previous terms.

Point-in-Time Student Headcount per College

		Undergraduate	Graduate	Non-Degree Seeking	Unspecified	Total Distinct Enrollee Headcount
College - Reporting Bin Descr	Date	Total Distinct Enrollee Headcount				
Chaplin School of Hospitality and Tourism Management	9/1/2016	1,746	267	1		2,014
	9/2/2016	1,748	267	1		2,016
	9/3/2016	1,748	267	1		2,016
	9/4/2016	1,746	268	1		2,015
	9/5/2016	1,746	268	1		2,015
	9/6/2016	1,746	268	1		2,015
	9/7/2016	1,706	266	1		1,973
	9/8/2016	1,703	267	1		1,971
	9/9/2016	1,710	267	1		1,978
	9/10/2016	1,713	268	1		1,982
	9/12/2016	1,713	268	1		1,982
College of Arts, Sciences and Education	9/1/2016	13,888	1,645	25	5	15,563
	9/2/2016	13,893	1,643	25	8	15,569
	9/3/2016	13,893	1,643	25	8	15,569
	9/4/2016	13,896	1,644	25	8	15,573
	9/5/2016	13,896	1,645	25	8	15,574
	9/6/2016	13,896	1,645	25	8	15,574
	9/7/2016	13,621	1,630	23	8	15,282
	9/8/2016	13,594	1,623	21	8	15,246
	9/9/2016	13,633	1,623	22	10	15,288
	9/10/2016	13,655	1,621	22	10	15,308
	9/12/2016	13,655	1,622	22	10	15,309

College Dashboard Preview

The college dashboard was designed to assist users to create ad-hoc reports offering responsive visual analytics. Users can dynamically generate any report by selecting filters and columns (data points) they would like to see in the analysis.

