Unlocking the Power of THECB data using Tableau

Sushil Pallemoni
Director of Institutional Research, Del Mar College

Agenda

- Dashboard Best Practices
- Tableau Public – (Access via web)
- Tableau Server – (Secure On/Off campus access)
- Demo –THECB Data and Tableau (60x30tx.com, CBM, Colleague Data)
- Tableau Resources
- Question & Answer

Why Dashboards?

- Easy to read, access and interpret
  - Concise one point access
- Visual Analytics
  - Visually analyze data to identify Trends and Patterns
- Key Performance Indicators
  - Enrollment data
  - Persistence data
  - Graduation data
  - Employment data

Best Practices

- Identify key metrics that matter to your institution
- Cleanse your data.
- Keep it simple and visual.
- Make it Interactive.
- Five to ten years of data for longitudinal analysis.
- Easy to use and access.

Tableau Public (Free)

- Support for data sets of up to 10 million rows
- An increased storage limit of 10 GB
- The ability to limit the downloading of files from Tableau Public

https://www.delmar.edu/offices/spir/

Tableau Server

- Student Level Dashboards
- Create dashboards in Tableau Desktop and share them securely with Tableau Server
- Secure Data (In-House Server)
- Empower everyone to use data
- Tableau Server is fast and easy to install and maintain

SYSTEM REQUIREMENTS

- Microsoft Windows Server 2012, 2012 R2, 2008 SP2 with platform update, 2008 R2; Windows® 10, 8.1, 8 or 7 on x86 or x64 chipsets1
- 32-bit or 64-bit versions of Windows

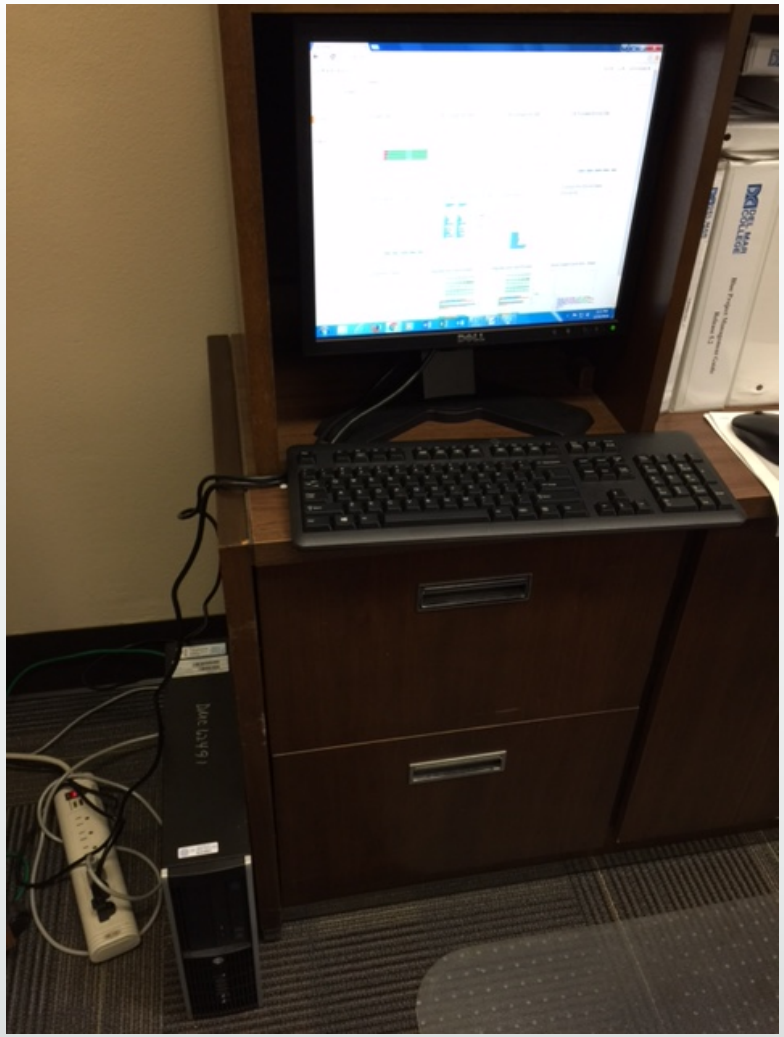
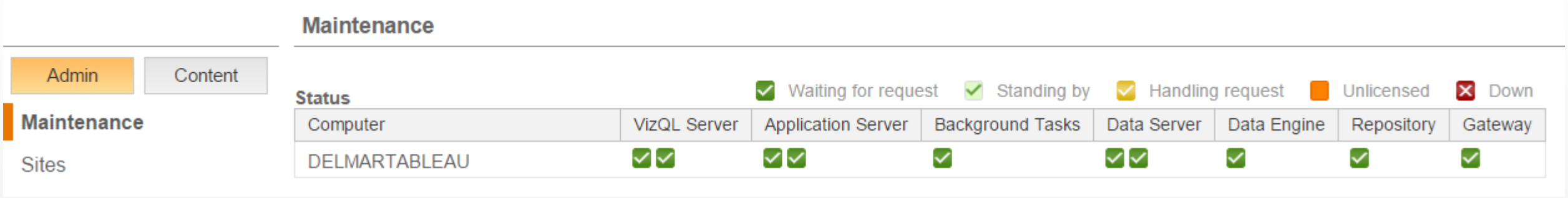
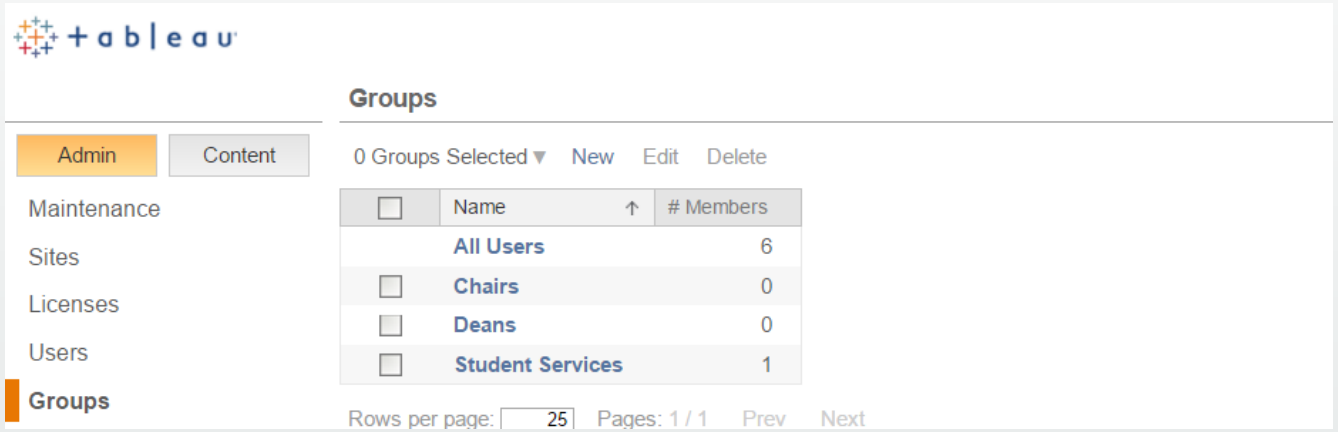


Tableau Server - Administration





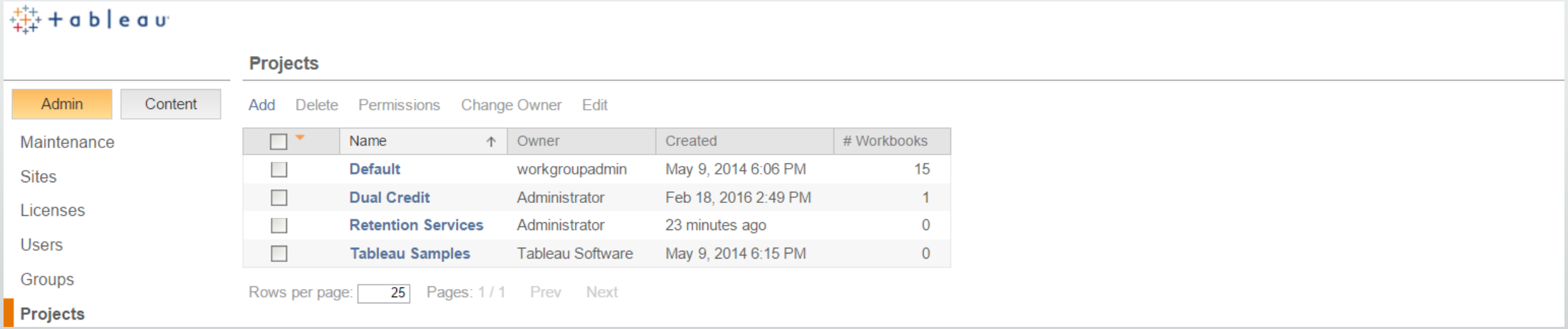


Tableau Server - Content

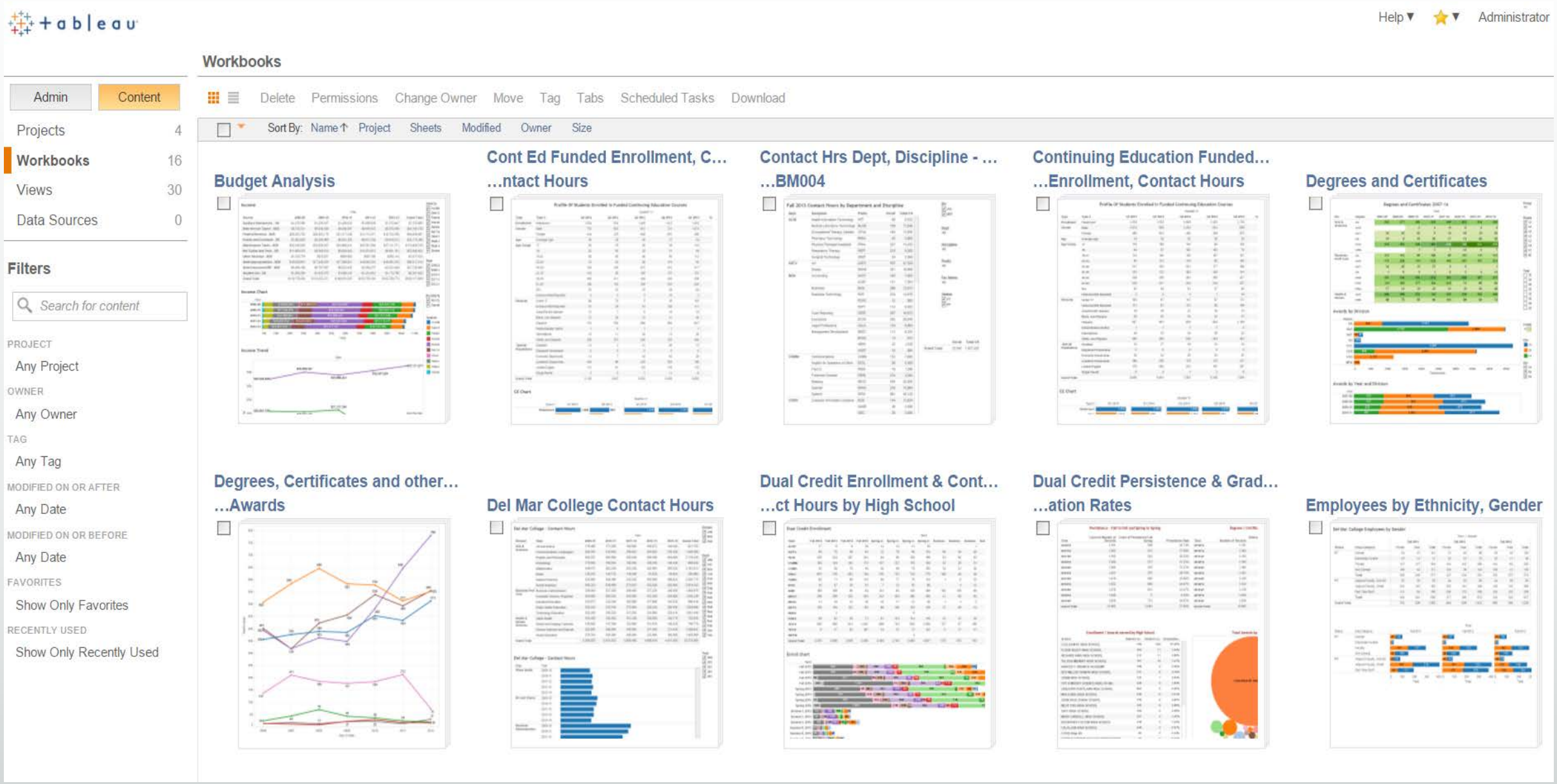


Tableau Dashboards

Access	Learning	Completion	Success
Enrollment • Credit • Continuing Education Enrollment by Zip codes Area High School Graduates Contact Hours (Trends) • Credit • Continuing Education	• Persistence • Course Success/Withdrawal Rates	• Degrees & Certificates • TSI Trends (M/R/W) • Success Points • Graduation Rates	• Transfer Rates • Graduate Outcomes

https://www.delmar.edu/offices/spir/

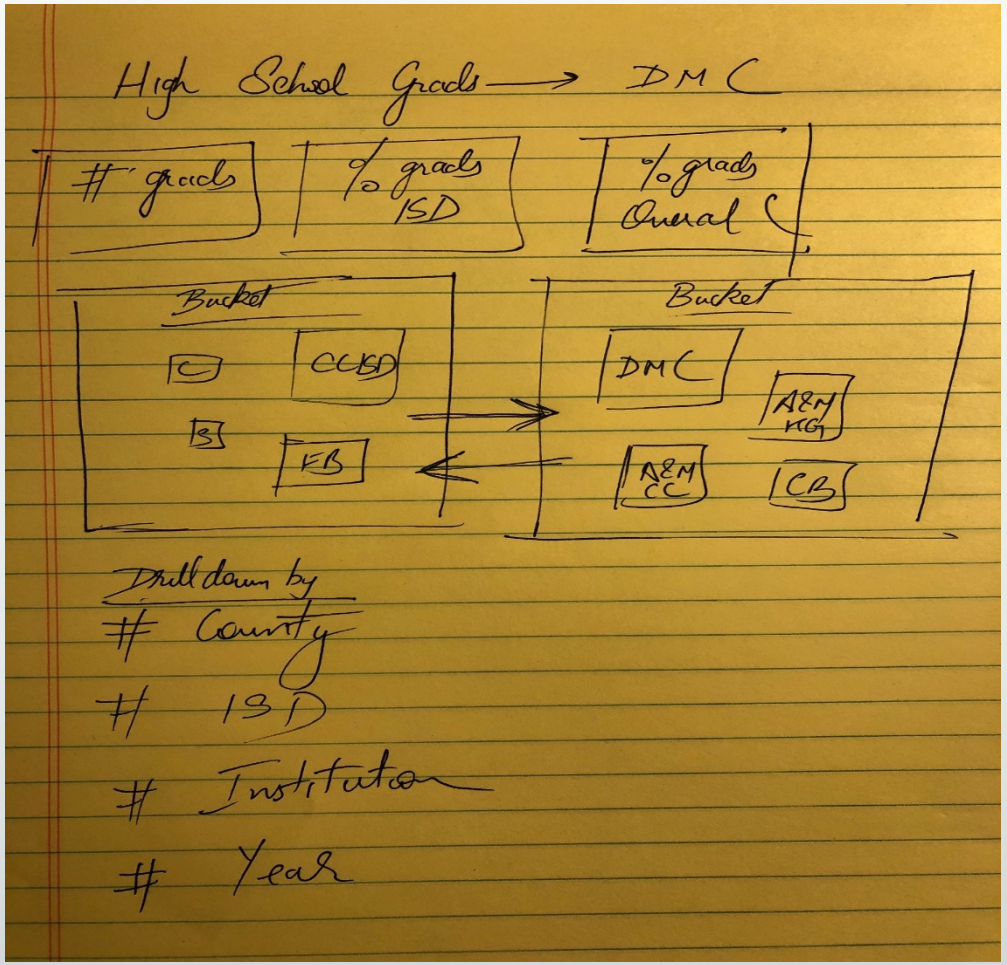
ACCESS:

Enrollment Data (CBM001/CBMA/Colleague Data)

- Credit Enrollment
- Continuing Education
- Annual Enrollment
- Mapping: Enrollment by Zip codes
- Dual Credit Enrollment
- High School Graduates Enrolling in Higher Education

ACCESS:
Enrollment Data (CBM001/CBMA/Colleague Data)

- High School Graduates Enrolled in higher education (Design Notes)



- **Key Points**
  - **High Schools**
  - **Higher Education Institutions**
  - **Number of Graduates**
  - **Number Enrolling in Higher Ed**
  - **County**
  - **Institution**

ACCESS:
Enrollment Data (CBM001/CBMA/Colleague Data)

- High School Graduates Enrolled in higher education (http://www.txhighereddata.org/)

1	**Texas High School Graduates From FY 2016**				
2	**Enrolled in Texas Public or Independent Higher Education Fall 2016**				
9	**County**	**District**	**Code**	**Institution**	**Students**
10					
11	ANDERSON	CAYUGA ISD	001902	TRINITY VALLEY COMM COLLEGE (003572)	10
12	ANDERSON	CAYUGA ISD	001902	Other Pub/Ind 4-yr Institution (6)	7
13	ANDERSON	CAYUGA ISD	001902	Other Pub/Ind 2-yr Institution (3)	4
14	ANDERSON	CAYUGA ISD	001902	Not found	24
15	ANDERSON	CAYUGA ISD	001902	Total high school graduates	45
16					
17	ANDERSON	ELKHART ISD	001903	TRINITY VALLEY COMM COLLEGE (003572)	12
18	ANDERSON	ELKHART ISD	001903	TYLER JUNIOR COLLEGE (003648)	5
19	ANDERSON	ELKHART ISD	001903	Other Pub/Ind 4-yr Institution (8)	13
20	ANDERSON	ELKHART ISD	001903	Other Pub/Ind 2-yr Institution (1)	3
21	ANDERSON	ELKHART ISD	001903	Not found	41
22	ANDERSON	ELKHART ISD	001903	Total high school graduates	74
23					
24	ANDERSON	FRANKSTON ISD	001904	TYLER JUNIOR COLLEGE (003648)	9
25	ANDERSON	FRANKSTON ISD	001904	TRINITY VALLEY COMM COLLEGE (003572)	7
26	ANDERSON	FRANKSTON ISD	001904	TEXAS A&M UNIVERSITY (003632)	5
27	ANDERSON	FRANKSTON ISD	001904	UNIVERSITY OF NORTH TEXAS (003594)	5
28	ANDERSON	FRANKSTON ISD	001904	Other Pub/Ind 4-yr Institution (3)	3
29	ANDERSON	FRANKSTON ISD	001904	Not trackable	1
30	ANDERSON	FRANKSTON ISD	001904	Not found	20
31	ANDERSON	FRANKSTON ISD	001904	Total high school graduates	50

LEARNING
Persistence

- THECB Student Migration Report (http://www.txhighereddata.org/)
  - (Location one year later)

Student Migration Report											
Fall 2015 to Fall 2016											
				Found Second Fall at:							
				Same Inst		Other 2-Year		Other 4-Year		Not found		
Institution	FICE Code		Demographic	N	%	N	%	N	%	N	%	Total
Statewide summary		GRADUATES	Academic	5,521	14.31	957	2.48	16,595	43	15,519	40.21	38,592
Statewide summary		GRADUATES	Technical	5,332	18.81	739	2.61	2,088	7.37	20,182	71.21	28,341
Statewide summary		GRADUATES	Tech-Prep	1,280	19.45	57	0.87	537	8.16	4,706	71.52	6,580
Statewide summary		GRADUATES	Male	5,378	17.69	675	2.22	7,115	23.41	17,227	56.68	30,395
Statewide summary		GRADUATES	Female	6,755	15.67	1,078	2.5	12,105	28.07	23,180	53.76	43,118
Statewide summary		GRADUATES	White	3,949	15.09	619	2.36	6,098	23.3	15,509	59.25	26,175
Statewide summary		GRADUATES	Afr. Amer.	1,512	16.73	270	2.99	2,305	25.5	4,953	54.79	9,040
Statewide summary		GRADUATES	Hispanic	5,496	17.68	693	2.23	9,043	29.08	15,860	51.01	31,092
Statewide summary		GRADUATES	Asian	496	16.71	78	2.63	950	32.01	1,444	48.65	2,968
Statewide summary		GRADUATES	Inter.	257	14.18	18	0.99	192	10.59	1,346	74.24	1,813
Statewide summary		GRADUATES	Other	423	17.44	75	3.09	632	26.06	1,295	53.4	2,425
Statewide summary		GRADUATES	TOTAL	12,133	16.5	1,753	2.38	19,220	26.15	40,407	54.97	73,513
Statewide summary		NON-GRADUATES	Academic	200,199	42.47	29,354	6.23	59,958	12.72	181,919	38.59	471,430
Statewide summary		NON-GRADUATES	Technical	56,238	42.29	8,907	6.7	6,310	4.74	61,533	46.27	132,988
Statewide summary		NON-GRADUATES	Tech-Prep	13,495	49.93	513	1.9	1,266	4.68	11,752	43.48	27,026
Statewide summary		NON-GRADUATES	Male	114,030	41.86	15,327	5.63	29,056	10.67	114,014	41.85	272,427
Statewide summary		NON-GRADUATES	Female	155,902	43.42	23,447	6.53	38,478	10.72	141,190	39.33	359,017
Statewide summary		NON-GRADUATES	White	88,493	40.89	14,354	6.63	30,604	14.14	82,964	38.34	216,415
Statewide summary		NON-GRADUATES	Afr. Amer.	29,952	35.48	6,473	7.67	7,115	8.43	40,888	48.43	84,428
Statewide summary		NON-GRADUATES	Hispanic	122,354	46.31	14,202	5.38	21,844	8.27	105,797	40.04	264,197

LEARNING
Persistence

- THECB Student Migration Report (Location one year later)

Student Migration Report												
Fall 2015 to Fall 2016												
				Found Second Fall at:								
	FICE			Same Inst		Other 2-Year		Other 4-Year		Not found		
Institution	Code		Demographic	N	%	N	%	N	%	N	%	Total
Statewide summary		GRADUATES	TOTAL	12,133	16.5	1,753	2.38	19,220	26.15	40,407	54.97	73,513
Statewide summary		NON-GRADUATES	TOTAL	269,932	42.75	38,774	6.14	67,534	10.7	255,204	40.42	631,444
Statewide summary		CORE CURRICULUM COMPLETERS	TOTAL	5,586	43.01	597	4.6	3,664	28.21	3,142	24.19	12,989
Statewide summary		FIELD OF STUDY COMPLETERS	TOTAL	150	24.96	10	1.66	264	43.93	177	29.45	601
DEL MAR COLLEGE	003563	GRADUATES	TOTAL	148	13.82	4	0.37	242	22.6	677	63.21	1,071
DEL MAR COLLEGE	003563	NON-GRADUATES	TOTAL	4,993	51.77	156	1.62	943	9.78	3,553	36.84	9,645
DEL MAR COLLEGE	003563	CORE CURRICULUM COMPLETERS	TOTAL	78	60.94	0	0	25	19.53	25	19.53	128
DEL MAR COLLEGE	003563	FIELD OF STUDY COMPLETERS	TOTAL	4	50	0	0	1	12.5	3	37.5	8

LEARNING
Persistence

- THECB Student Migration Report (Location one year later)

2015-2016	Del Mar College									
	Same Inst.		Other 2-year		Other 4-year		Not Found			
	N	%	N	%	N	%	N	%	Total	
Graduates	168	12.89	8	0.61	241	18.5	886	68	1,303	
Non-Graduates	5,077	50.52	152	1.51	963	9.58	3,858	38.39	10,050	
CCC Completers	176	52.85	5	1.5	76	22.82	76	22.82	333	
FOS Completers	0	0	0	0	1	33.33	2	66.67	3	
Total	**5,421**	**46.4%**	**165**	**1.4%**	**1,281**	**11.0%**	**4,822**	**41.3%**	**11,689**	**58.7%**
									100.0%	
	Statewide									
	Same Inst.		Other 2-year		Other 4-year		Not Found			
	N	%	N	%	N	%	N	%	Total	
Graduates	12,940	16.42	1,831	2.32	20,856	26.46	43,188	54.8	78,815	
Non-Graduates	272,030	42.48	37,351	5.83	68,118	10.64	262,850	41.05	640,349	
CCC Completers	5,556	43.43	566	4.42	3,587	28.04	3,084	24.11	12,793	
FOS Completers	111	34.26	8	2.47	117	36.11	88	27.16	324	
Total	**290,637**	**39.7%**	**39,756**	**5.4%**	**92,678**	**12.7%**	**309,210**	**42.2%**	**732,281**	**57.8%**

Term	Institution	Retention Same Institution	Enrolled at Other 2 yr College	Enrolled at Other Senior College	Total Retention
2004 to 2005	Del Mar College	47.9	1.9	9.3	59.1
2004 to 2005	Texas Community Colleges	40.5	5.5	12.1	58.2
2005 to 2006	Del Mar College	47.1	1.8	8.9	57.9
2005 to 2006	Texas Community Colleges	40.6	5.5	12.1	58.2
2006 to 2007	Del Mar College	48.9	1.8	10.1	60.7
2006 to 2007	Texas Community Colleges	40.4	5.4	12.5	58.4
2007 to 2008	Del Mar College	47.8	2.2	10.9	60.9

LEARNING
Persistence

- THECB Student Migration Report (Location one year later)

2015-2016	Del Mar College									
	Same Inst.		Other 2-year		Other 4-year		Not Found			
	N	%	N	%	N	%	N	%	Total	
Graduates	168	12.89	8	0.61	241	18.5	886	68	1,303	
Non-Graduates	5,077	50.52	152	1.51	963	9.58	3,858	38.39	10,050	
CCC Completers	176	52.85	5	1.5	76	22.82	76	22.82	333	
FOS Completers	0	0	0	0	1	33.33	2	66.67	3	
Total	**5,421**	**46.4%**	**165**	**1.4%**	**1,281**	**11.0%**	**4,822**	**41.3%**	**11,689**	**58.7%**
									100.0%	
	Statewide									
	Same Inst.		Other 2-year		Other 4-year		Not Found			
	N	%	N	%	N	%	N	%	Total	
Graduates	12,940	16.42	1,831	2.32	20,856	26.46	43,188	54.8	78,815	
Non-Graduates	272,030	42.48	37,351	5.83	68,118	10.64	262,850	41.05	640,349	
CCC Completers	5,556	43.43	566	4.42	3,587	28.04	3,084	24.11	12,793	
FOS Completers	111	34.26	8	2.47	117	36.11	88	27.16	324	
Total	**290,637**	**39.7%**	**39,756**	**5.4%**	**92,678**	**12.7%**	**309,210**	**42.2%**	**732,281**	**57.8%**

Term	Institution	Retention Same Institution	Enrolled at Other 2 yr College	Enrolled at Other Senior College	Total Retention
2004 to 2005	Del Mar College	47.9	1.9	9.3	59.1
2004 to 2005	Texas Community Colleges	40.5	5.5	12.1	58.2
2005 to 2006	Del Mar College	47.1	1.8	8.9	57.9
2005 to 2006	Texas Community Colleges	40.6	5.5	12.1	58.2
2006 to 2007	Del Mar College	48.9	1.8	10.1	60.7
2006 to 2007	Texas Community Colleges	40.4	5.4	12.5	58.4
2007 to 2008	Del Mar College	47.8	2.2	10.9	60.9

LEARNING
Course Success Rates

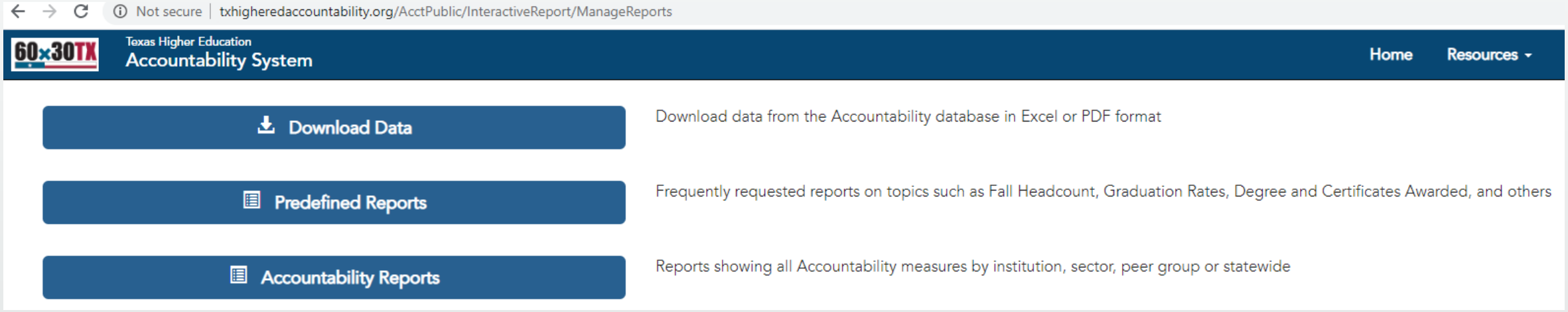
- Course Completion and Withdrawal Rates (CBMOOS & Ellucian Colleague Data)

Term	Year	Semester	Division	Dept	Modality	Developm	Grade	Total
2014FA	12/31/2014	Fall	AS	ARTS	eLearn	No	A	12
2014FA	12/31/2014	Fall	AS	ARTS	eLearn	No	B	10
2014FA	12/31/2014	Fall	AS	ARTS	eLearn	No	C	3
2014FA	12/31/2014	Fall	AS	ARTS	eLearn	No	F	2
2014FA	12/31/2014	Fall	AS	ARTS	eLearn	No	W	1
2014FA	12/31/2014	Fall	AS	ARTS	Face	No	A	360
2014FA	12/31/2014	Fall	AS	ARTS	Face	No	B	162

- **Key Points**
  - **Pass Rates By Term**
  - **Withdrawal Rates Term**
  - **Division Wide**
  - **Dept Wide**
  - **Course Type**
  - **Modality**
  - **Overall Pass/Failure Rates**

COMPLETION
Texas Higher Education Accountability System

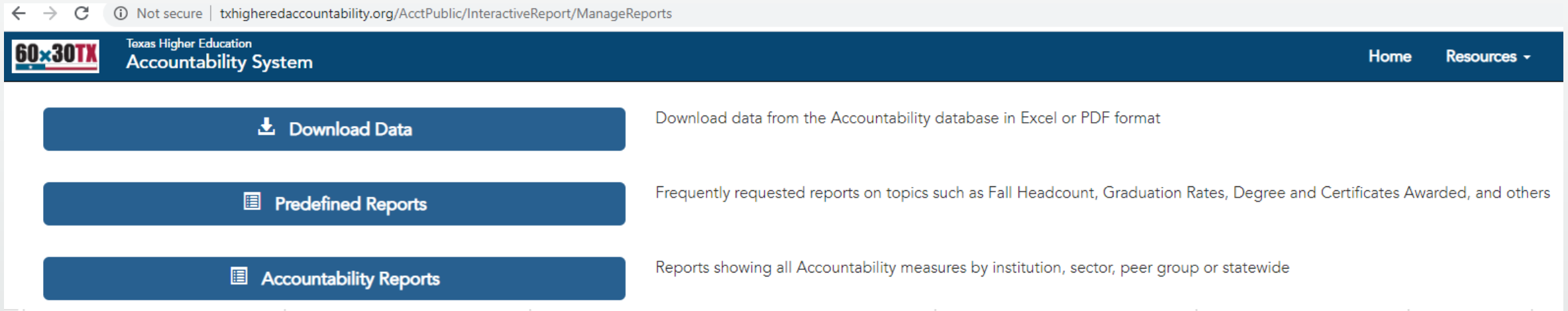
- THECB Degrees and Certificates by Region (http://www.60x30tx.com/)
- http://www.txhigheredaccountability.org/AcctPublic/InteractiveReport/ManageReports



Degrees and Certificates Awarded by Gender	Ethnicity	Level and Region					
DimYear	InstTypeList	InstList	GenderDesc	EthnicityDesc	DegreeLevelDesc	RegionDesc	Count
2014	Community Colleges	Alamo CCD-Northeast Lakeview College	Female	African American	Associate	South Texas	2
2014	Community Colleges	Alamo CCD-Northeast Lakeview College	Female	African American	Core Curriculum Completer	South Texas	2
2014	Community Colleges	Alamo CCD-Northeast Lakeview College	Female	Asian	Core Curriculum Completer	South Texas	1
2014	Community Colleges	Alamo CCD-Northeast Lakeview College	Female	Hispanic	Associate	South Texas	4
2014	Community Colleges	Alamo CCD-Northeast Lakeview College	Female	Hispanic	Core Curriculum Completer	South Texas	19
2014	Community Colleges	Alamo CCD-Northeast Lakeview College	Female	Other	Associate	South Texas	1
2014	Community Colleges	Alamo CCD-Northeast Lakeview College	Female	Other	Core Curriculum Completer	South Texas	1

COMPLETION
Texas Higher Education Accountability System

- THECB Graduation Rates (3/4/6 year) (http://www.60x30tx.com/)
- http://www.txhigheredaccountability.org/AcctPublic/InteractiveReport/ManageReports



DimYear	InstTypeList	InstList	ReportTypeDesc	CohortYearDesc	Pct
2014	Community Colleges	Alamo CCD-Northeast Lakeview College	3-Year Graduation Rate	2011	6.60%
2014	Community Colleges	Alamo CCD-Northeast Lakeview College	4-Year Graduation Rate	2010	22.20%
2014	Community Colleges	Alamo CCD-Northeast Lakeview College	6-Year Graduation Rate	2008	31.30%
2014	Community Colleges	Alamo CCD-Northwest Vista College	3-Year Graduation Rate	2011	21.80%
2014	Community Colleges	Alamo CCD-Northwest Vista College	4-Year Graduation Rate	2010	19.70%
2014	Community Colleges	Alamo CCD-Northwest Vista College	6-Year Graduation Rate	2008	37.60%
2014	Community Colleges	Alamo CCD-Palo Alto College	3-Year Graduation Rate	2011	16.40%

COMPLETION
Del Mar College: Fall FTIC Graduation and Persistence rates

- Fall FTIC Graduation Rates (CBM001/CBM009/Colleague)

ENROLL_TER	sintent	PROG1	Degree	Maj	Major	sex	fullpart	IPETH_REV	IPETH
2012FA	Earn an associate degree (2 yrs)	EMTI.CER	CER	EMTI	Emergency Medical Technician Intermediate	Men	Part-time	Black, non-Hispanic	Black or African American
2012FA	Earn an associate degree (2 yrs)	HCRN.AAS	AAS	HCRN	Health Care-Registered Nursing	Women	Part-time	White, non-Hispanic	White
2012FA	Earn an associate degree (2 yrs)	HCPH.AAS	AAS	HCPH	Health Care-Pharmacy Technician	Women	Full-time	Hispanic of any race	Hispanic/Latino
2012FA	Earn a certificate (less than 2 yrs)	BUAD.AA	AA	BUAD	Business Administration	Women	Full-time	Hispanic of any race	Hispanic/Latino
2012FA	Earn an associate degree (2 yrs)	LIBA.AA	AA	LIBA	Liberal Arts	Men	Part-time	White, non-Hispanic	White

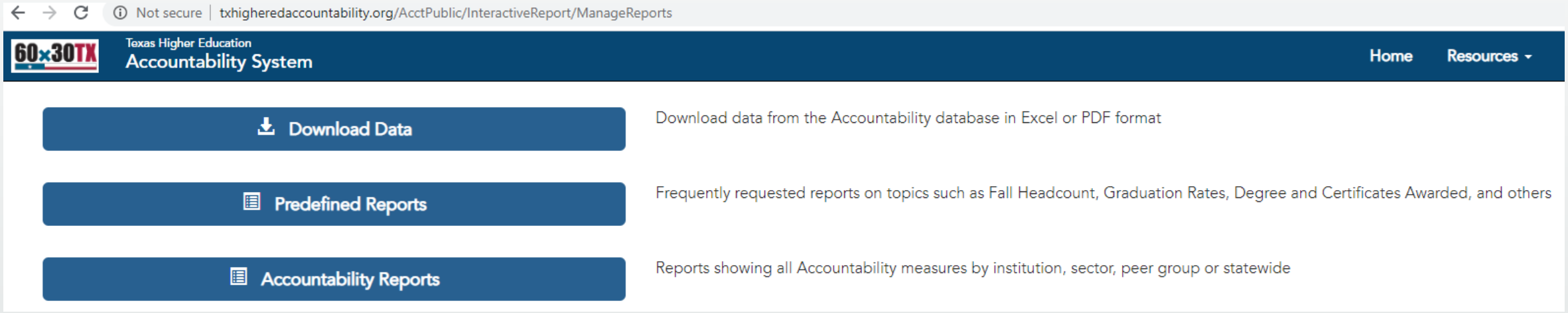
RET1	RET2	RET3	GRAD3	GRAD4	GRAD6
Yes	Yes	Yes			
Yes	Yes	Yes			Yes
Yes					
Yes	Yes				
Yes	Yes		Yes	Yes	Yes
Yes	Yes		Yes	Yes	Yes
Yes					
Yes	Yes	Yes			Yes

TERM	Year	Gender	Status	Ethnicity	Intent	Cohot_Count	RET1	RET2	RET3	GRAD3	GRAD4	GRAD6
2011FA	2011	Women	Full-time	White, non-Hispanic	Earn an associate degree (2 yrs)	55	29	21	12	4	7	12
2011FA	2011	Women	Full-time	White, non-Hispanic	Earn credits for transfer	22	14	6	3	3	5	6
2011FA	2011	Women	Part-time	White, non-Hispanic	Earn credits for transfer	14	4	3	2	1	1	1
2011FA	2011	Women	Full-time	Hispanic of any race	Courses for personal enrichment	6	1	0	1	0	0	0
2011FA	2011	Women	Full-time	Hispanic of any race	Earn an associate degree (2 yrs)	172	99	74	44	14	22	29
2011FA	2011	Men	Full-time	White, non-Hispanic	Earn an associate degree (2 yrs)	56	30	10	5	6	6	8
2011FA	2011	Men	Full-time	White, non-Hispanic	Did not respond	4	2	2	1	1	1	1
2011FA	2011	Women	Part-time	Black, non-Hispanic	Earn credits for transfer	1	1	1	1	0	0	0
2011FA	2011	Women	Full-time	Hispanic of any race	Did not respond	14	9	8	5	0	1	1

SUCCESS

Texas Higher Education Accountability System

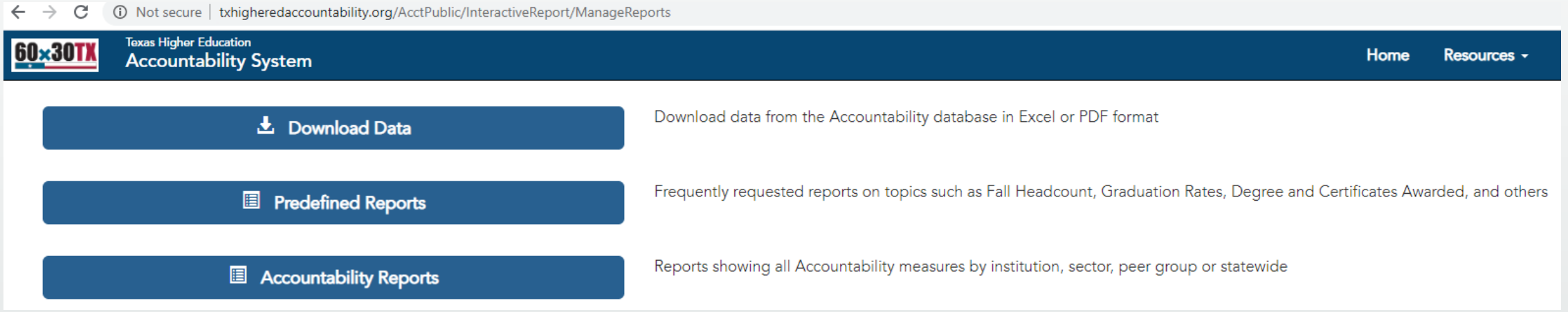
- THECB Transfer Rates (6 year) (http://www.60x30tx.com/)
- http://www.txhigheredaccountability.org/AcctPublic/InteractiveReport/ManageReports



DimYear	InstTypeList	InstList	MajorTypeDesc	CohortYearDesc	CCTransDesc	Count
2014	Community Colleges	Alamo CCD-Northeast Lakeview College	Academic	2008	0-12 Hours	17
2014	Community Colleges	Alamo CCD-Northeast Lakeview College	Academic	2008	13-24 Hours	26
2014	Community Colleges	Alamo CCD-Northeast Lakeview College	Academic	2008	25-29 Hours	6
2014	Community Colleges	Alamo CCD-Northeast Lakeview College	Academic	2008	30-42 Hours	11
2014	Community Colleges	Alamo CCD-Northeast Lakeview College	Academic	2008	43+ Hours	3
2014	Community Colleges	Alamo CCD-Northeast Lakeview College	Academic	2008	All Transfers	63

SUCCESS
Texas Higher Education Accountability System

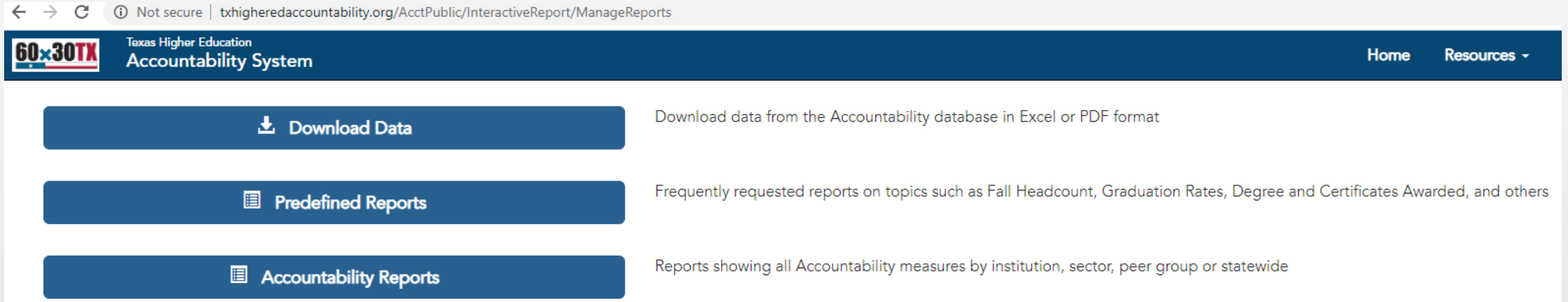
- THECB Success Points Weighted by Institution (http://www.60x30tx.com/)
- http://www.txhigheredaccountability.org/AcctPublic/InteractiveReport/ManageReports



Success Points Weighted				
DimYear	InstTypeList	InstList	PointCategoryDesc	Count
2016	Community Colleges	Alvin Community College	Degrees or Certs in Critical Fields	808
2016	Community Colleges	Alvin Community College	Degrees, CCCs, or Certs (Undup)	1,594
2016	Community Colleges	Alvin Community College	Math Readiness	167
2016	Community Colleges	Alvin Community College	Read Readiness	106
2016	Community Colleges	Alvin Community College	Student Transfers to a 4-Yr Inst	1,166
2016	Community Colleges	Alvin Community College	Students Who Complete 15 SCH	1,686
2016	Community Colleges	Alvin Community College	Students Who Complete 30 SCH	1,080
2016	Community Colleges	Alvin Community College	Students Who Pass FCL Math Course	781
2016	Community Colleges	Alvin Community College	Students Who Pass FCL Read Course	1,138

COMPLETION
Texas Higher Education Accountability System

- THECB Underprepared/Prepared Students who Satisfy TSI (http://www.60x30tx.com/)
- http://www.txhigheredaccountability.org/AcctPublic/InteractiveReport/ManageReports



Underprepared/Prepared Students who Satisfy TSI

DimYear	InstTypeList	InstList	DEDesc	DETSIDesc	Count
2011	Community Colleges	Alamo CCD-Northeast Lakeview College	All Areas	Did Not Meet	55
2011	Community Colleges	Alamo CCD-Northeast Lakeview College	All Areas	Met	46
2011	Community Colleges	Alamo CCD-Northeast Lakeview College	Math	Did Not Meet	108
2011	Community Colleges	Alamo CCD-Northeast Lakeview College	Math	Met	70
2011	Community Colleges	Alamo CCD-Northeast Lakeview College	Reading	Did Not Meet	48
2011	Community Colleges	Alamo CCD-Northeast Lakeview College	Reading	Met	98
2011	Community Colleges	Alamo CCD-Northeast Lakeview College	Writing	Did Not Meet	56

SUCCESS
Equifax Study: Graduate Outcomes

- Tracked 2016-17 & 2017-18 graduated cohorts
- Full Time workers (employed for at least 30 days)
- Worked an average of at least 28 hrs/week Annual salary of atleast $8k

- Key Points
  - Median Income
  - Median Income by Degree Level
  - By Program
  - By Industry & Degree Level
  - Representation by Degree Level & State

Tableau Dashboards

- DMC Contact Hours Division and Dept. Trends (Credit)
- DMC Contact Hours Division and Dept. Trends (Cont Education)
- THECB Students who satisfy/do no satisfy TSI
- Fall Student Demographics
- Majors/Degrees Pathways (Sankey Diagram: In-works)

Tableau Resources:

Video Tutorials:

- http://www.tableau.com/learn/training

Step by Step Tutorial: Reporting & Charting

- http://www.tutorialgateway.org/tableau/

Practice Dataset

- http://www.peteraldhous.com/CAR/tableau_demo.pdf

Tableau Public Tutorial

- http://www.mulinblog.com/annotated-tableau-public-tutorial-video-a-quick-start-guide-for-instructors-and-first-timers/

Tableau Server Tutorial

- http://www.tableau.com/learn/tutorials/on-demand/getting-started-tableau-server-and-tableau-online
- https://www.youtube.com/watch?v=ZLcXwpfuAxM

YouTube Training

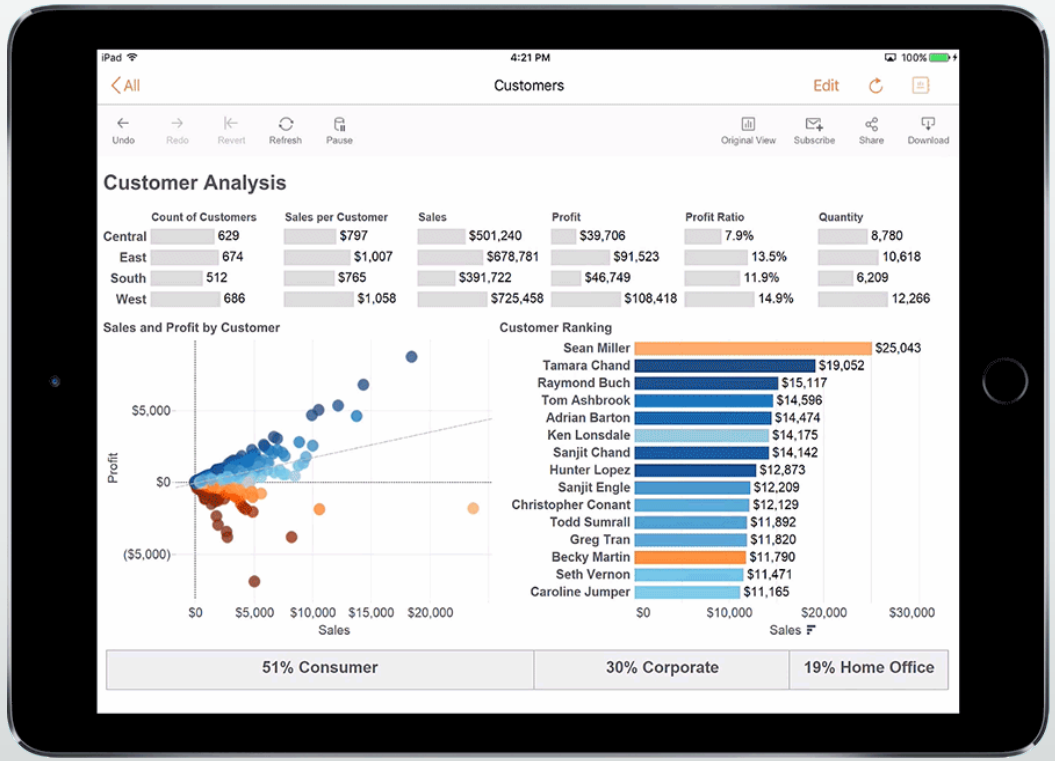
- https://www.youtube.com/watch?v=kIZDb_pHvXo
- https://www.youtube.com/watch?v=LuojrymqOGM

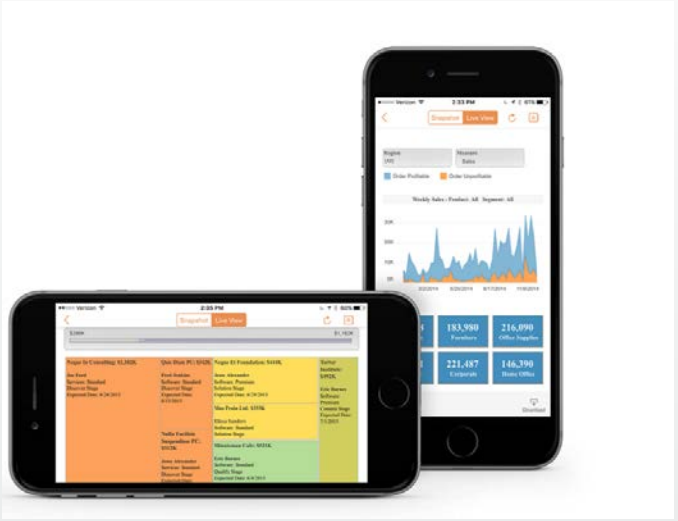
Udemy Training

- https://www.udemy.com/course/building-interactive-dashboards-with-tableau/
- https://www.udemy.com/course/tableau10/

Tableau Mobile

- Interact with your data using controls that are automatically optimized for touch





Thank you

Contact: Sushil Pallemoni
Email: spallemoni@delmar.edu
Tel: 361-698-1207