Creation of a Data Superstore:

How the IR Office at The University of Texas at El Paso Developed Web-based Data Tools to Support Policy Analysis, Accountability, Planning and Longitudinal Research on Student Success

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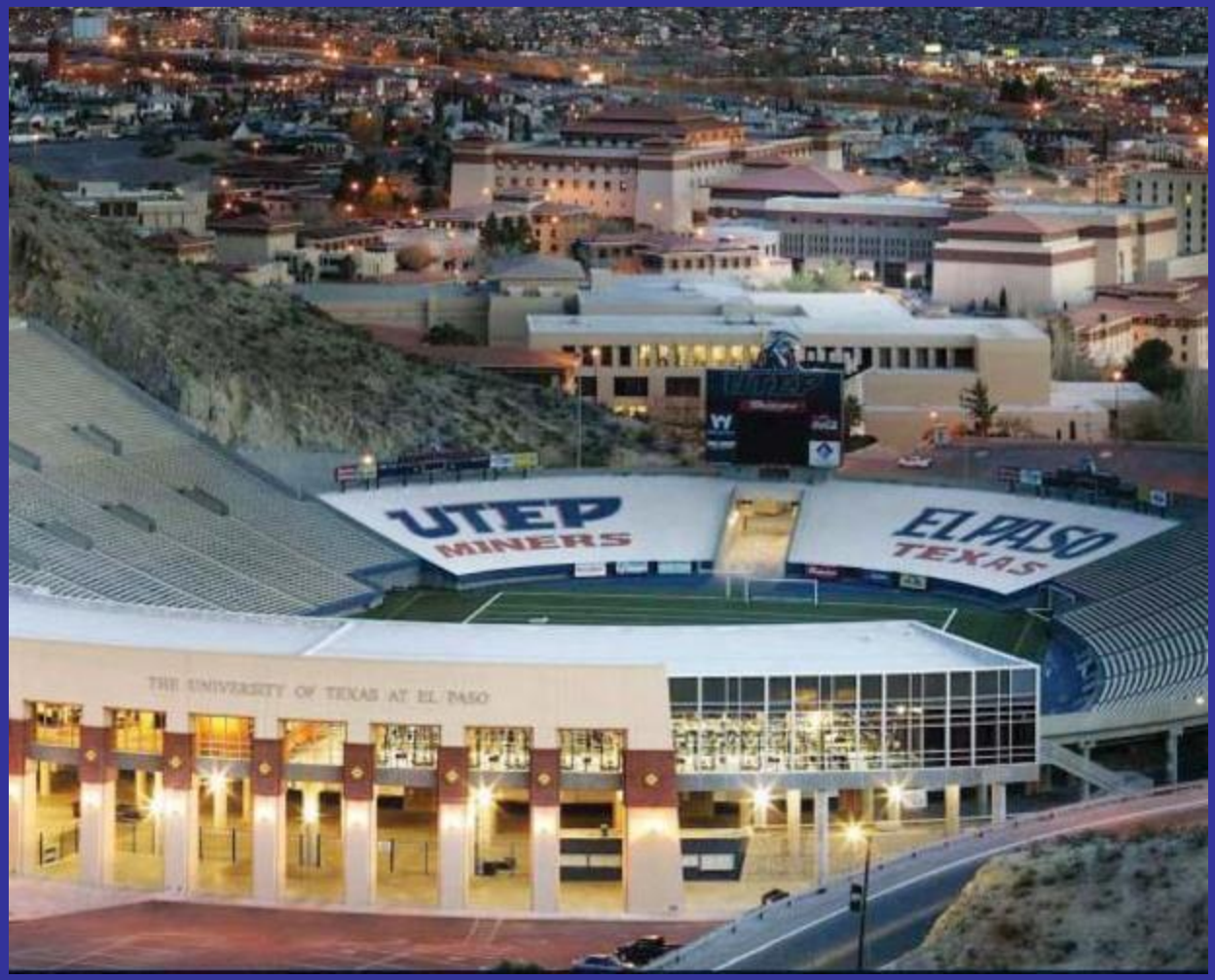
The University of Texas at El Paso

Presentation Outline

- Rationale and Overview
- Process: Building Blocks & Construction Used to Build the Store of Data Tools
- Examples and Uses of Data Tools
  - Data Requests
  - State Reports
  - Planning and Policy
  - Institutional Research
- Implications and Take-Home Message

Rationale and Overview



The Emergent Need for a Data System

- Increase in demand for data required for internal planning and management at college and department levels
- Proliferation of external reports and surveys and need for reliability and accuracy
- Increase in federal, state and system accountability reports and need for generation and verification of data
- Increase in demand for data for institutional research

UTEP Data Tools Overview

Three Tool Types

- **Planning and Management**
  - 50 tools in six categories
- **Reporting and Query**
  - 57 in thirteen categories
- **Institutional Research**
  - 53 in eight categories, not including Planning and Management, or Reporting and Query

UTEP Data Tools

Category	Security	Link
Fact Book		Fact Book
		Interactive Fact Book
Main Report		High School Profiles, Accountability, Common Data Set, IPEDS, LBB, CB Endorsement, CB Data Integrity Check, Surveys
Student Tracker	*	Student Search by Entry Term
	*	History Search
		Retention and Graduation Rates
	*	Course Search
	*	Student Tracking by course Taken
		Doesn't Every Graduate Count? / Doesn't Every Student Count?
Fact Book Extension		[Enrollment]Student Enrollment by Department and Full-Time Equivalent (FTE)
		[Courses] Semester Credit Hours By Department of Faculty Member
		[Courses] SCH/Enrollment by Tenure and College
		[Courses] Semester Credit Hours By Department - LDUD
		[Courses] First-Time Freshmen Enrollment in Developmental Education Courses
		[Courses] Semester Credit Hours By Tenure and Rank
		[Majors & Degrees] Majors By Level
		[Majors & Degrees] Five Year Distribution of Majors By Level
		[Faculty] Faculty by Department (Tenured/Tenure-Track & Nontenure-Track)
		[Faculty] Faculty by Department (Tenure and Rank)
New Students		Placement of High school Graduates who enrolled in UTEP
		Placement (Fall/First-Time/Undergraduate)
		Placement and Enrollment in Developmental Education Courses
		College Level Math Enrollment and Pass Rates of First-time freshmen
		Applicants Profile
		First-Time Graduate Student GRE/GMAT Average Test Scores
		New Students (Undergraduate)
		New Students by College (Undergraduate)
Enrollment	*	Student Enrollment Detail Search
		Enrollment by Zip Code of Student
		Enrollment and SCH Projections
		Enrollment -- Doctoral Students
		Student FTE
		Unduplicated Headcount
Degree		Time to Degree (Undergraduate)
		Time to Degree (Masters & Doctoral)
	*	Degrees Detail Search (Undergraduate)
		Degree -- Doctoral Students

UTEP Planning and Management Tools

FACT BOOK

Title	Interactive	Link
Overview	I	University Fact Page (by Gender) (1-1 ~ 1-3)
	I	Undergraduate Student Fact Page (1-4)
	I	Graduate Student Fact Page (1-5)
	I	International Students from Mexico Fact Page (1-6)
	I(Show Fa,Sp)	Faculty Fact Page (1-10)
New Students	I(Show Fa)	New Undergraduate Enrollment by Status and Semester (2-1)
	I(Show Fa)	History of START (Provisional) Students (2-2)
	I(Show Fa)	First-Time Freshmen Enrollment by Gender and Ethnicity (2-3)
	I/DM[HighSchools](Show Fa)	New Student Characteristics / First-Time Freshmen (2-4)
	I/DM[HighSchools](Show Fa)	High School of Origin / First-Time Undergraduates (2-5)
	I/DM[TestScore](Show Fa)	First-Time Undergraduate Admission Test Scores by College (2-6)
	I/DM[TermGPA](Show Fa)	New Student Characteristics / Transfer Students (2-7)
	I/DM[TermGPA](Show Fa ~Prev)	First-Year Performance Data (2-8)
	I(Show Fa 200510~)	New Graduate Student Enrollment by Gender and Ethnicity (2-9)
Enrollment	I	Enrollment History (3-1)
	I/D(Show Fa)	Enrollment Characteristics - Fall Semesters (3-2)
	I	Enrollment by Gender and Ethnicity - Total/Undergraduate/Graduate Degree Seeking/Graduate Certifications (3-3, 3-6 ~ 3-8)
	I	Class Distribution by Gender (3-4)
	I/D(Show Fa)	Full/Part-Time Status by Gender (3-5)
	I	Age Distribution - Undergraduate/Post-Baccalaureate/Graduate (3-9 ~ 3-11)
	I	Semester Credit Hours of Enrollment (3-12)
	I/D(Show Fa)	Student Enrollment by College, Full/Part-Time, and Full-Time Equivalent (FTE) (3-13)
	I	Residence Distribution (3-17)
	I(Show Fa)	Retention & Graduation Detail (First-Time Full-Time Freshmen) (3-29)
	I(Show Fa)	Retention & Graduation Summary (First-Time Full-Time Freshmen) (3-30)
Majors and Degrees	I	Five-Year Distribution of Undergraduate Majors By Department (4-1)
	I	Undergraduate Majors By Gender and Ethnicity (4-2)
	I	Five-Year Distribution of Graduate Majors By Department (4-7)
	I	Graduate Majors By Gender and Ethnicity (4-8)
	I	Certificate & Endorsement Seeker (4-13)
	P/D(Show Fa)	Student FTE To Teacher FTE Ratio (4-14)
	I	Undergraduate Degrees Conferred by Gender and Ethnicity (4-15)
	I	Graduate Degrees Conferred by Gender and Ethnicity (4-16)
	I	Degrees Conferred by Department and Level (4-17)
	I	Degrees Conferred by Major and Level (4-17)
	I/D	Semester Credit Hours By Department (5-1)

UTEP Reporting Tools

Main Report

Title	Security	Link
High School Profiles		High School Profiles
Academic Affairs Key Metrics		Academic Affairs Key Metrics
Accountability Report		Accountability Report - Participation
		Accountability Report - Success
		Accountability Report - Excellence
		Accountability Report - Developmental Education
UT System Accountability		Faculty Headcount/Top 10 Percent High School Graduates
		ACT/SAT and GRE/GMAT
Common Data Set		Enrollment and Persistence
		Admission
		Freshman Profile
		Instructional Faculty and Class Size
		Degrees Conferred
IPEDS		Historical Change Log
		Completions
		Enrollment Part A
		Enrollment Part B
		Enrollment Part C
		Enrollment Part DE
		12-Month Enrollment
		Graduation Rates
		Human Resources
LBB		LBB Summary Page (November Reports)
		LBB Summary Page (March Reports)
		LBB Summary Page (November Reports)-% of TSI Students retained after 1 Year
CB Endorsement		CB1 Endorsements - Student Report
		CB2 Endorsements - Texas Success Initivative Report
		CB4 Endorsements - Class Report
		CB5 Endorsements - Building and Room Report
		CB6 Endorsements - End of Semester Report
		CB8 Endorsements - Faculty Report
		CB9 Endorsements - Graduation Report
		CBB Endorsements - Admissions Report
		Census Day Memo
	*	CB1 Data Integrity Check
	*	CB2 Data Integrity Check
	*	CB4 Data Integrity Check
		CB4 & CB6 Data Integrity Check

UTEP Institutional Research Tools

Student Tracker	*	Student Search by Entry Term
	*	History Search
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	*	Course Search
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		Degree -- Doctoral Students

Building Blocks & Construction

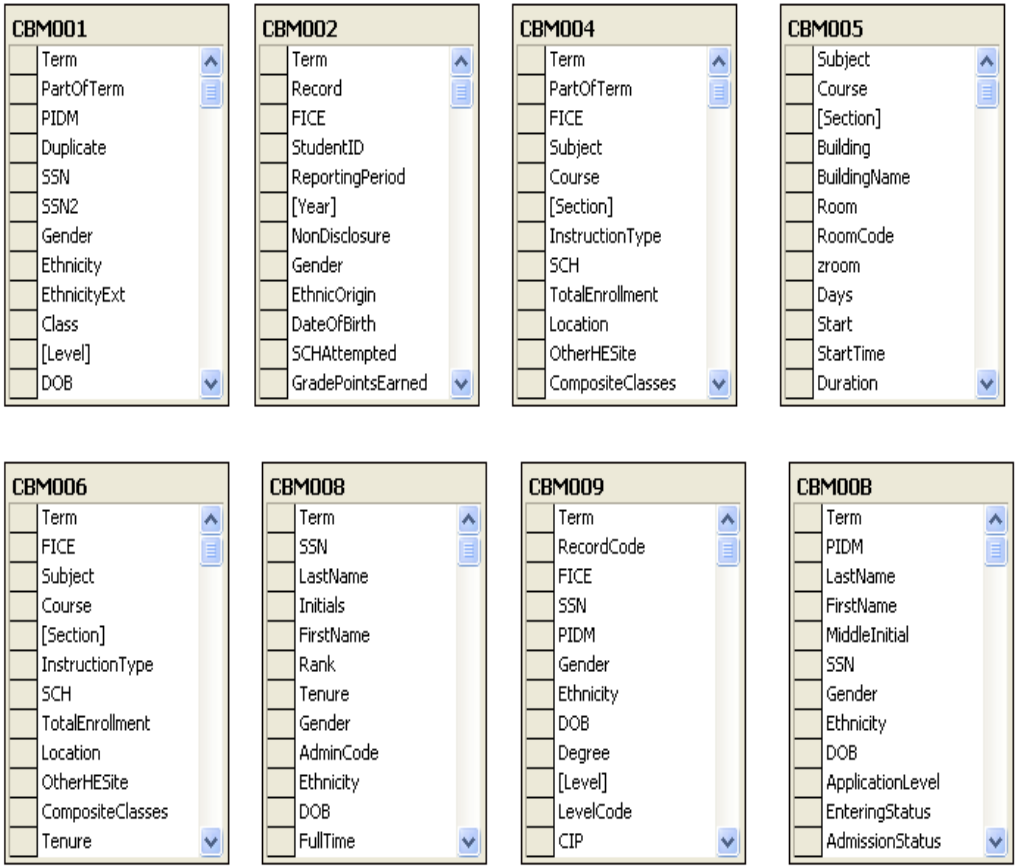
Building the Store of Data Tools

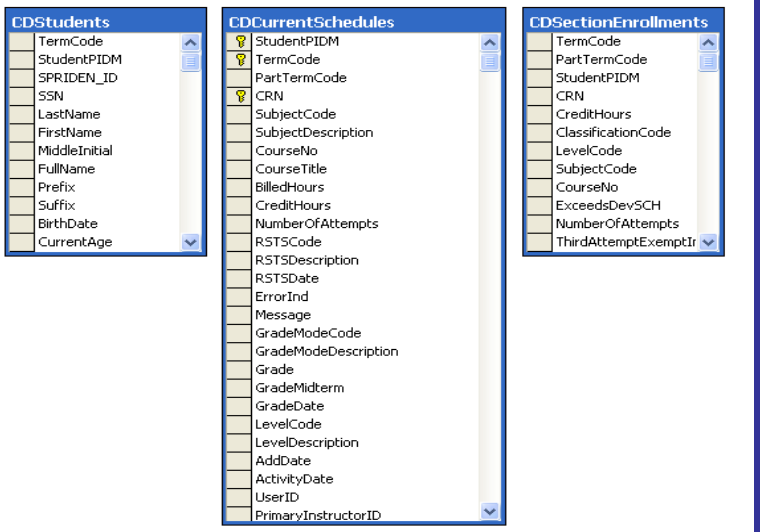
Building Basics: Software

No specialized software needed

- **Database Program**
  - Microsoft SQL Server 2000
- **Application for Interface and Website Development**
  - Microsoft Visual Studio.Net 2003 with ASP.Net Web application and C#
- **OS**
  - Microsoft Windows Server 2003

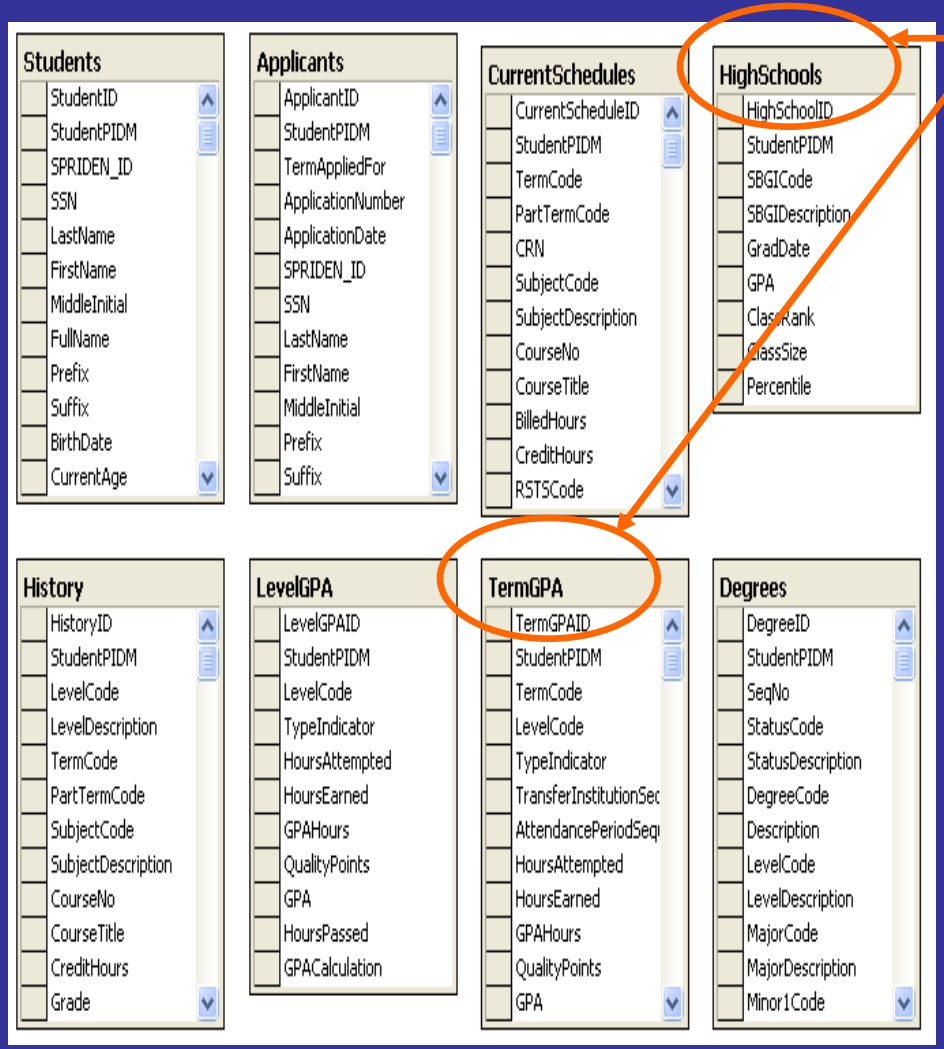
Building Blocks: Data Tables Maintained by IT Used for State Reports to the Coordinating Board



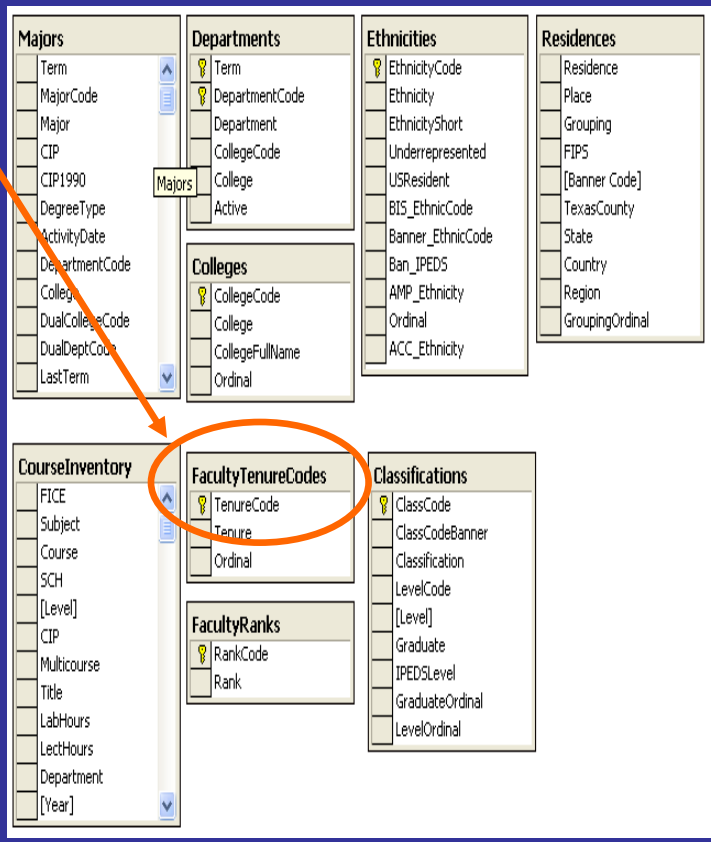


Annual State reports and Census Day reports

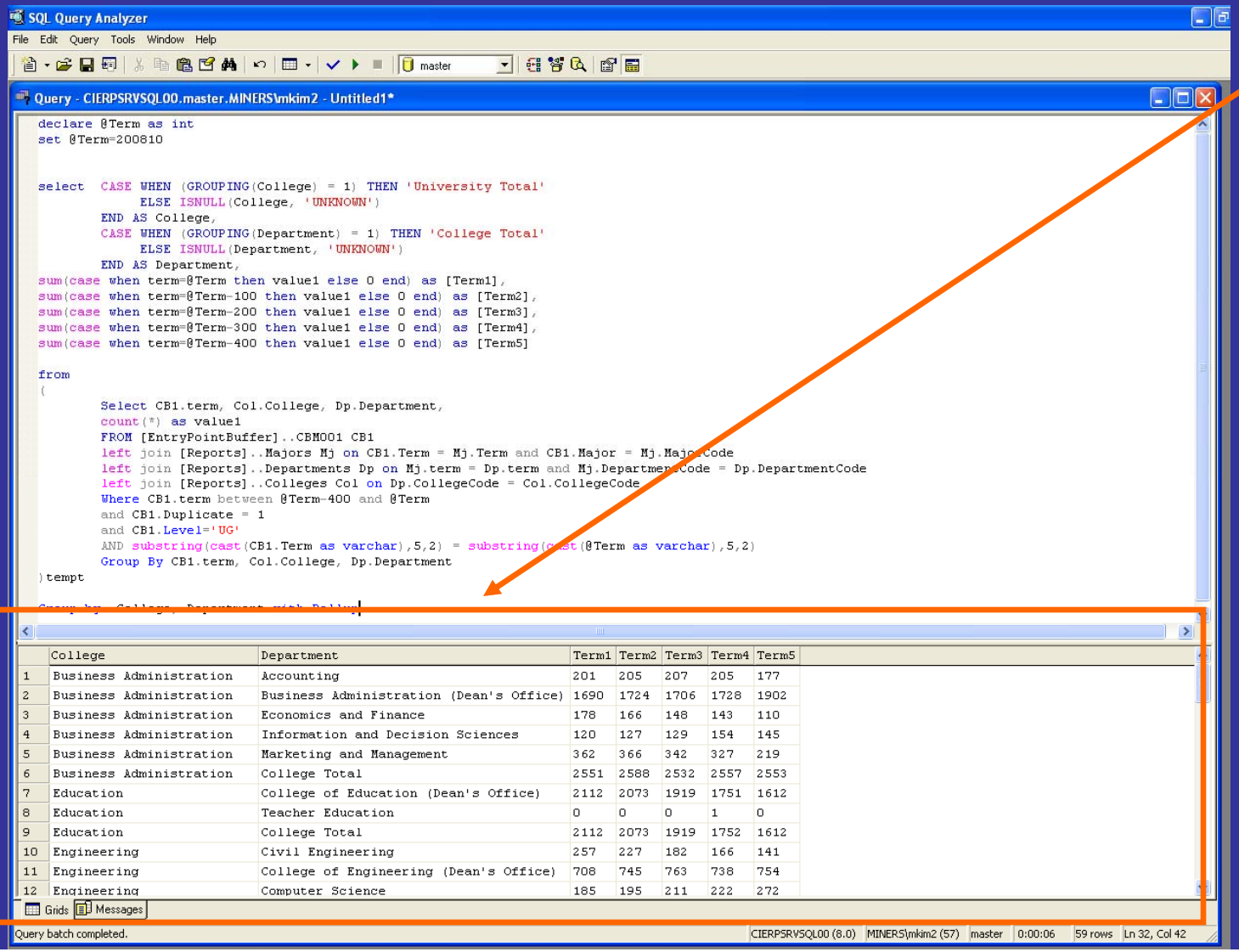
Building Blocks: More Data Tables maintained by IT-not used in reports



Some variables are not required for State reports but will be needed for Tool Develop-ment



Construction: SQL Programming for Generating a Report about Undergraduate Enrollment in Majors by Department



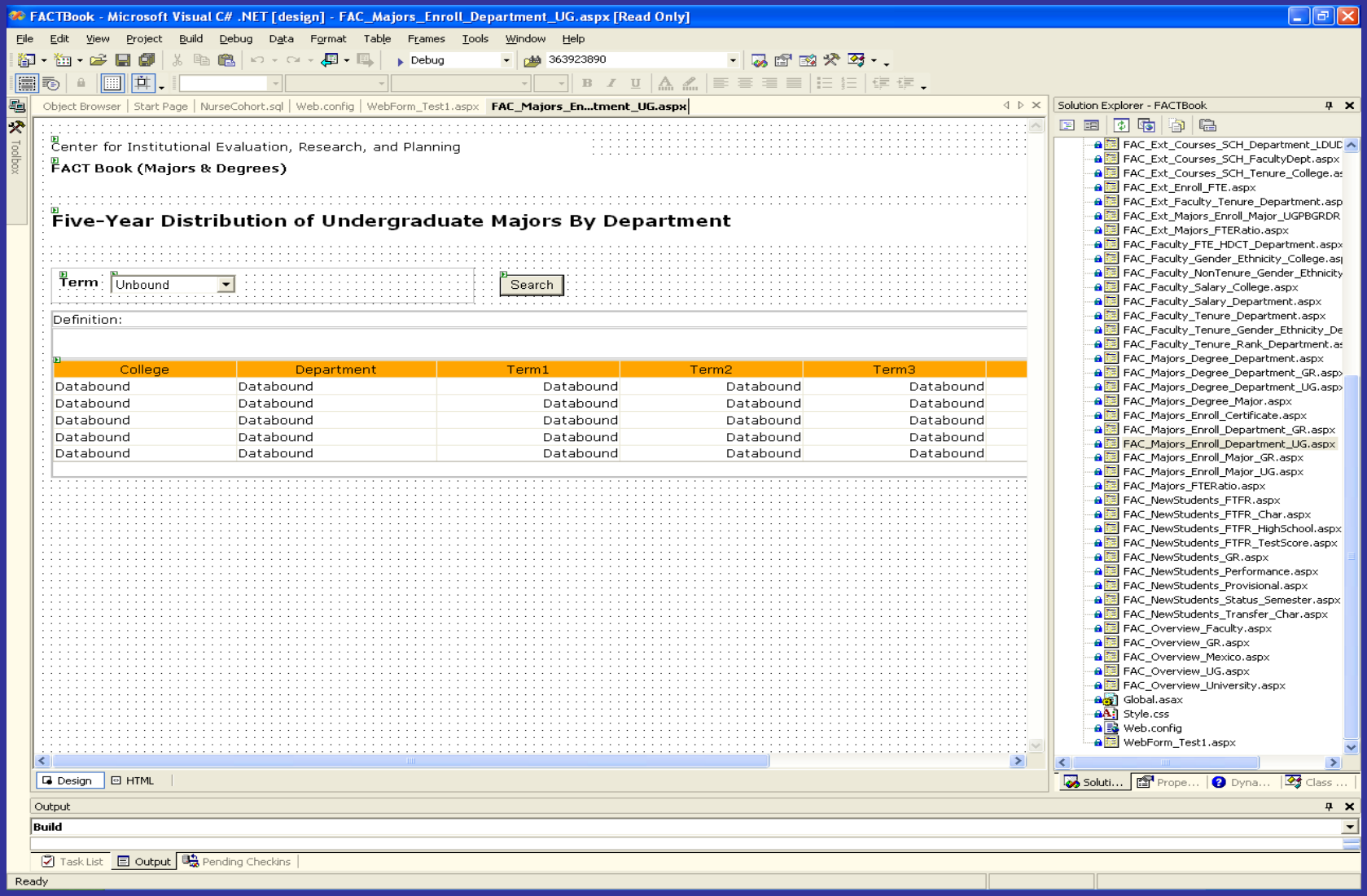
	College	Department	Term1	Term2	Term3	Term4	Term5
1	Business Administration	Accounting	201	205	207	205	177
2	Business Administration	Business Administration (Dean's Office)	1690	1724	1706	1728	1902
3	Business Administration	Economics and Finance	178	166	148	143	110
4	Business Administration	Information and Decision Sciences	120	127	129	154	145
5	Business Administration	Marketing and Management	362	366	342	327	219
6	Business Administration	College Total	2551	2588	2532	2557	2553
7	Education	College of Education (Dean's Office)	2112	2073	1919	1751	1612
8	Education	Teacher Education	0	0	0	1	0
9	Education	College Total	2112	2073	1919	1752	1612
10	Engineering	Civil Engineering	257	227	182	166	141
11	Engineering	College of Engineering (Dean's Office)	708	745	763	738	754
12	Engineering	Computer Science	185	195	211	222	272

Output obtained after running the SQL Query

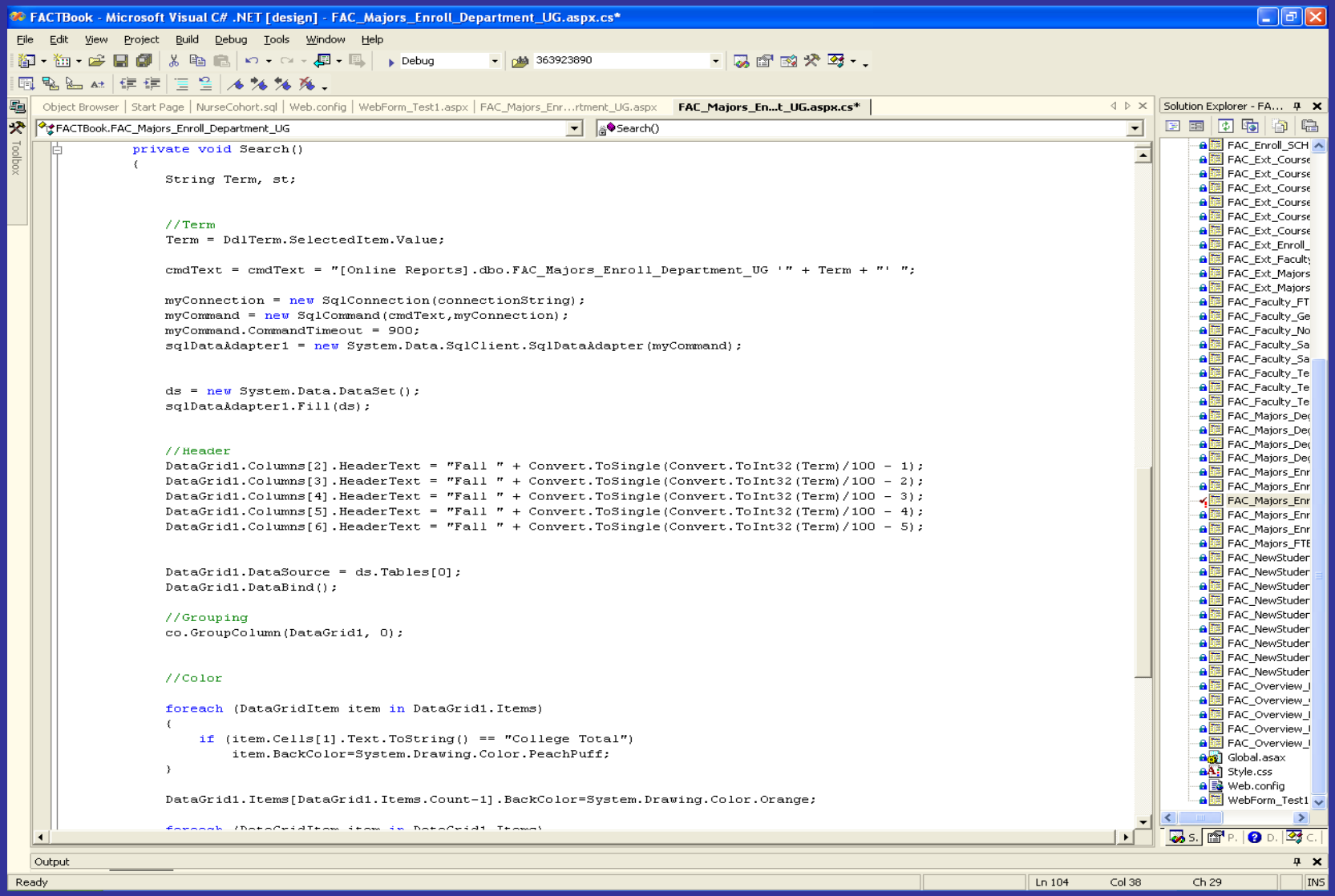
Next Step:

Build the Web-based Interface

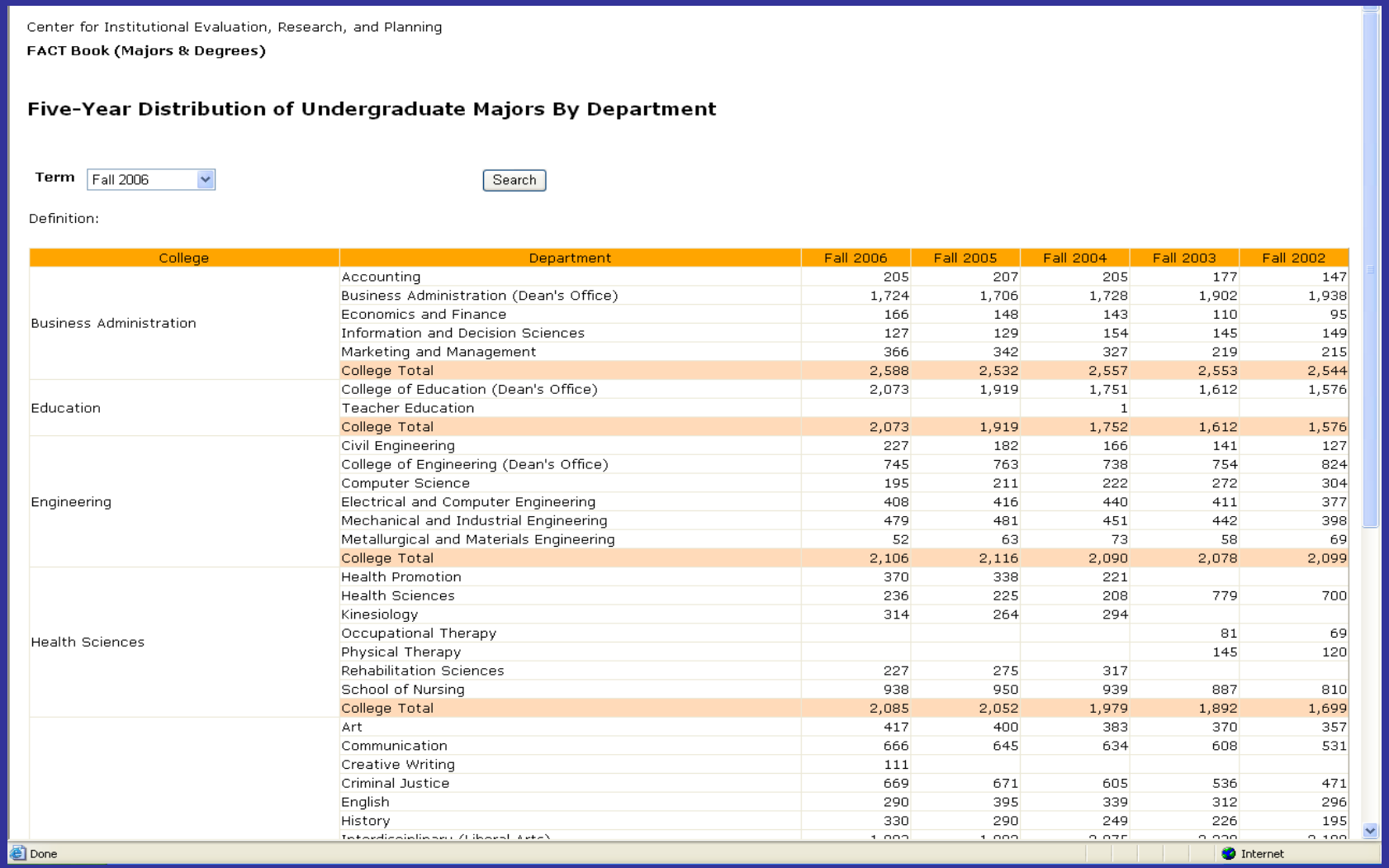
Construction: Use ASP.NET Web Application to Develop the Web Reporting Interface



Construction: ASP.NET Web Application
C# Programming for Defining the Display of Data



Final Result: Web-based Tool for Finding Enrollment Numbers by Department and College



Center for Institutional Evaluation, Research, and Planning

FACT Book (Majors & Degrees)

Five-Year Distribution of Undergraduate Majors By Department

Term: Fall 2006 | Search

Definition:

College	Department	Fall 2006	Fall 2005	Fall 2004	Fall 2003	Fall 2002
Business Administration	Accounting	205	207	205	177	147
	Business Administration (Dean's Office)	1,724	1,706	1,728	1,902	1,938
	Economics and Finance	166	148	143	110	95
	Information and Decision Sciences	127	129	154	145	149
	Marketing and Management	366	342	327	219	215
	College Total	2,588	2,532	2,557	2,553	2,544
Education	College of Education (Dean's Office)	2,073	1,919	1,751	1,612	1,576
	Teacher Education			1		
	College Total	2,073	1,919	1,752	1,612	1,576
Engineering	Civil Engineering	227	182	166	141	127
	College of Engineering (Dean's Office)	745	763	738	754	824
	Computer Science	195	211	222	272	304
	Electrical and Computer Engineering	408	416	440	411	377
	Mechanical and Industrial Engineering	479	481	451	442	398
	Metallurgical and Materials Engineering	52	63	73	58	69
	College Total	2,106	2,116	2,090	2,078	2,099
Health Sciences	Health Promotion	370	338	221		
	Health Sciences	236	225	208	779	700
	Kinesiology	314	264	294		
	Occupational Therapy				81	69
	Physical Therapy				145	120
	Rehabilitation Sciences	227	275	317		
	School of Nursing	938	950	939	887	810
	College Total	2,085	2,052	1,979	1,892	1,699
	Art	417	400	383	370	357
	Communication	666	645	634	608	531
	Creative Writing	111				
	Criminal Justice	669	671	605	536	471
	English	290	395	339	312	296
	History	330	290	249	226	195
	Interdisciplinary (Liberal Arts)					

Done | Internet

Summary of Data Tool Construction

- **Steps to Building a Data Tool**
  1. Identify Data Sources
  2. Develop Query
  3. Develop Web-based Interface

- **Versatility is a Key Feature**

  This tool was created to meet OUR needs.

  Create tools for the needs of YOUR campus.

Examples and Uses of Data Tools

Examples of Data Tools & Uses

- Planning and Management
- State and Federal Reports
- Accountability
- Institutional Research

Data for Planning and Management

Scenario 1:

Dean of the College of Science wants detailed information about trends in the number of degrees

Solution:

use interactive Fact Book to generate a report for the dean

[Data Tools Link]

Interactive Fact Book

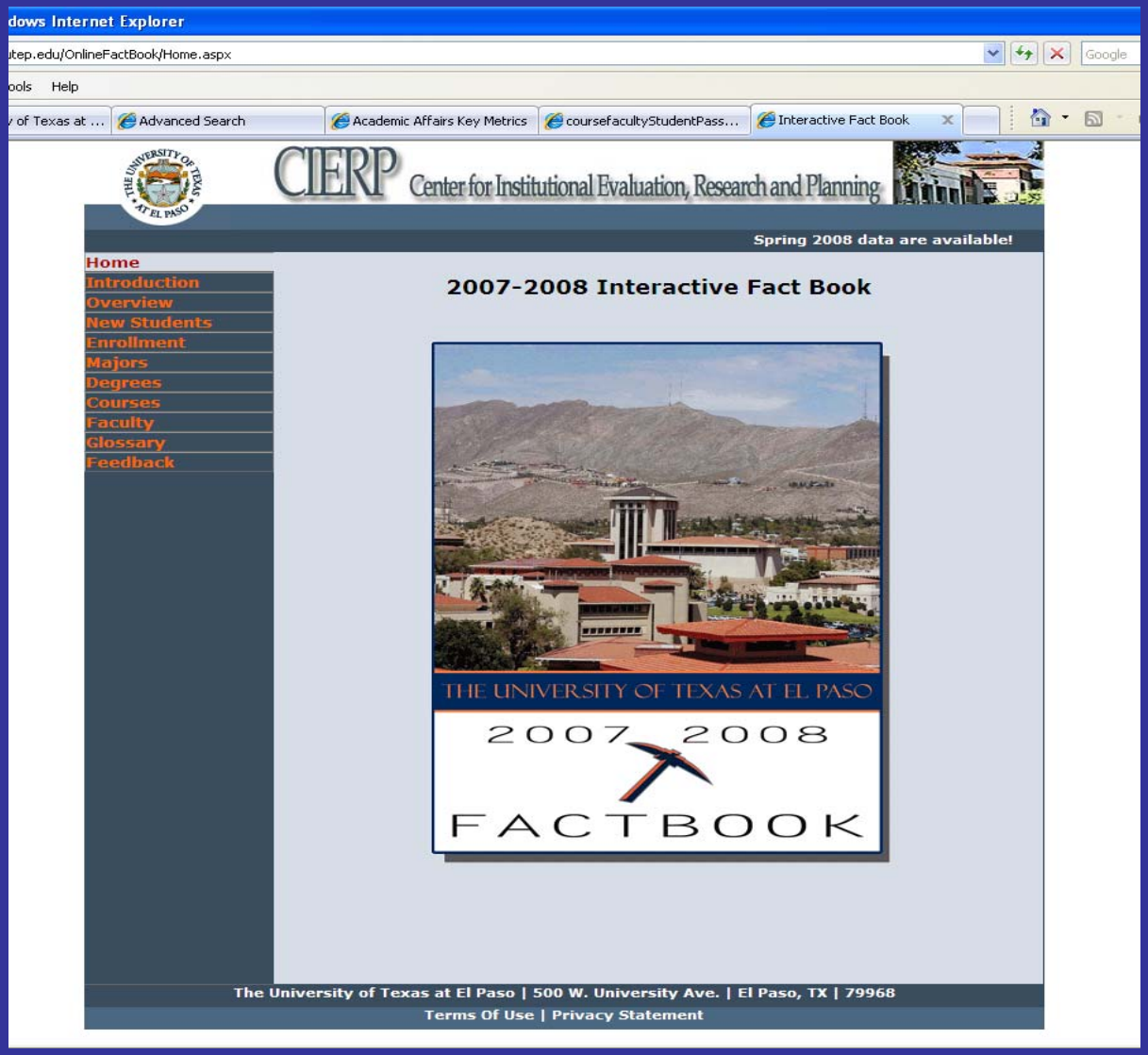
Public Information

Accessible on the Web to

anyone,

anytime, and

anywhere

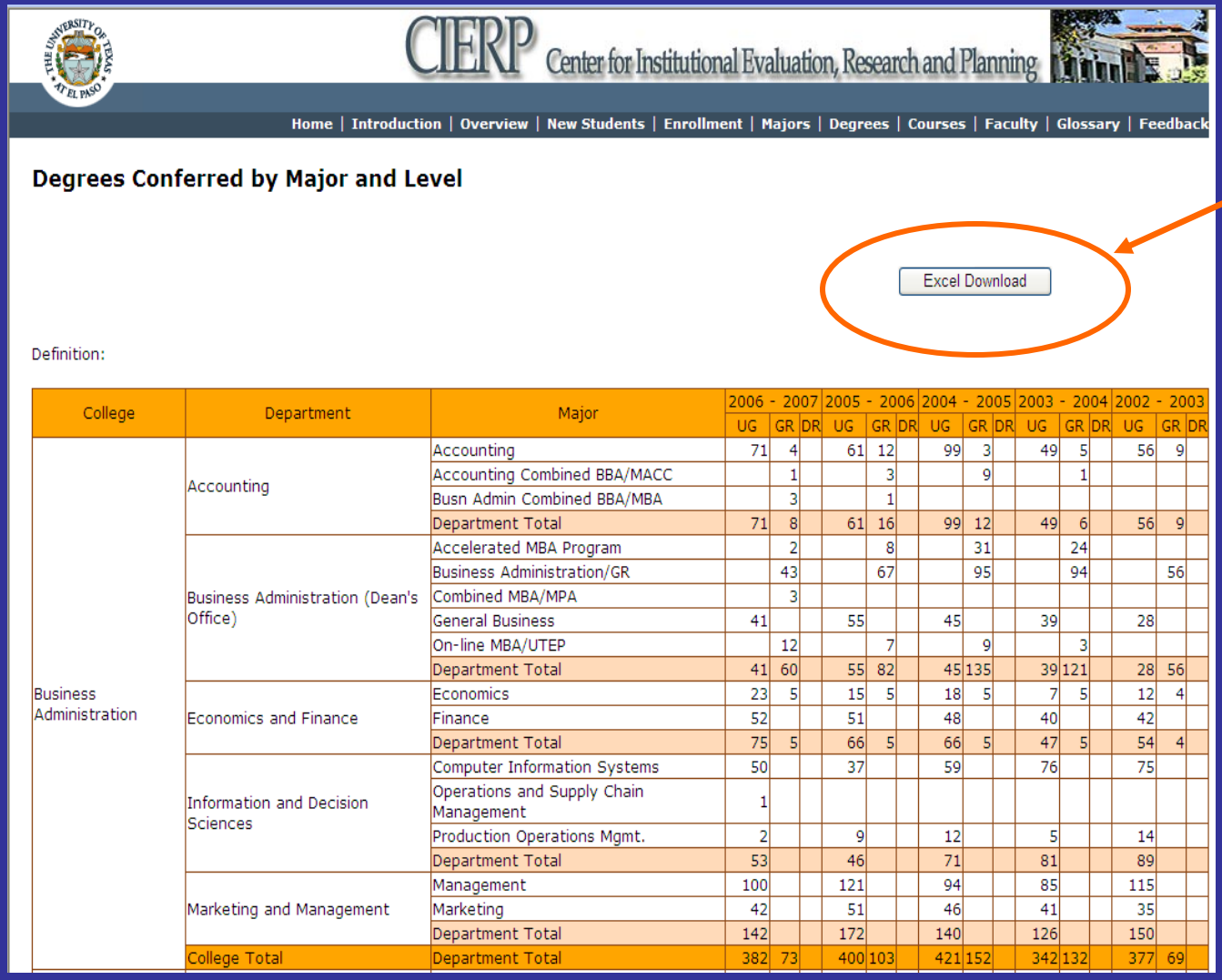


Degrees Conferred

Undergraduate & Graduate Levels

- **by Gender & Ethnicity**
- **by Department**
- **by Major**

Degrees by Level & Major, Last Five Years



CIERP Center for Institutional Evaluation, Research and Planning

Home | Introduction | Overview | New Students | Enrollment | Majors | Degrees | Courses | Faculty | Glossary | Feedback

Degrees Conferred by Major and Level

Excel Download

Definition:

College	Department	Major	2006 - 2007			2005 - 2006			2004 - 2005			2003 - 2004			2002 - 2003		
			UG	GR	DR	UG	GR	DR	UG	GR	DR	UG	GR	DR	UG	GR	DR
Business Administration	Accounting	Accounting	71	4		61	12		99	3		49	5		56	9	
		Accounting Combined BBA/MACC		1			3			9			1				
		Busn Admin Combined BBA/MBA		3			1										
		Department Total	71	8		61	16		99	12		49	6		56	9	
	Business Administration (Dean's Office)	Accelerated MBA Program		2			8			31			24				
		Business Administration/GR		43			67			95			94			56	
		Combined MBA/MPA		3													
		General Business	41			55			45			39			28		
		On-line MBA/UTEP		12			7			9			3				
		Department Total	41	60		55	82		45	135		39	121		28	56	
	Economics and Finance	Economics	23	5		15	5		18	5		7	5		12	4	
		Finance	52			51			48			40			42		
		Department Total	75	5		66	5		66	5		47	5		54	4	
	Information and Decision Sciences	Computer Information Systems	50			37			59			76			75		
		Operations and Supply Chain Management	1														
		Production Operations Mgmt.	2			9			12			5			14		
		Department Total	53			46			71			81			89		
	Marketing and Management	Management	100			121			94			85			115		
		Marketing	42			51			46			41			35		
		Department Total	142			172			140			126			150		
	College Total	Department Total	382	73		400	103		421	152		342	132		377	69	

Data for Planning and Management: Scenario 2

The Office of the Provost requests information about the number of students who Pass, Withdraw and Fail Calculus I, by section.

Solution:

Use Pass Rates Tool to generate requested data

Data Tools Home Page

Center for Institutional Evaluation, Research, and Planning

CIERP Data Tools

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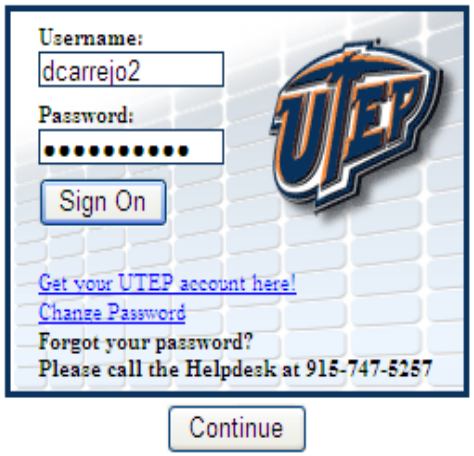
Degree		Time to Degree (Undergraduate)
		Time to Degree (Masters & Doctoral)

Important:

Some tools are password-protected

Password Access Required for Non-Public Data



Unauthorized use of this system is prohibited. Usage may be subject to security testing and monitoring. Misuse is subject to criminal prosecution; and no expectation of privacy except as otherwise provided by applicable privacy laws.

Use of this site is subject to UTEP's policies. Any use of this site not covered by UTEP policy is prohibited.

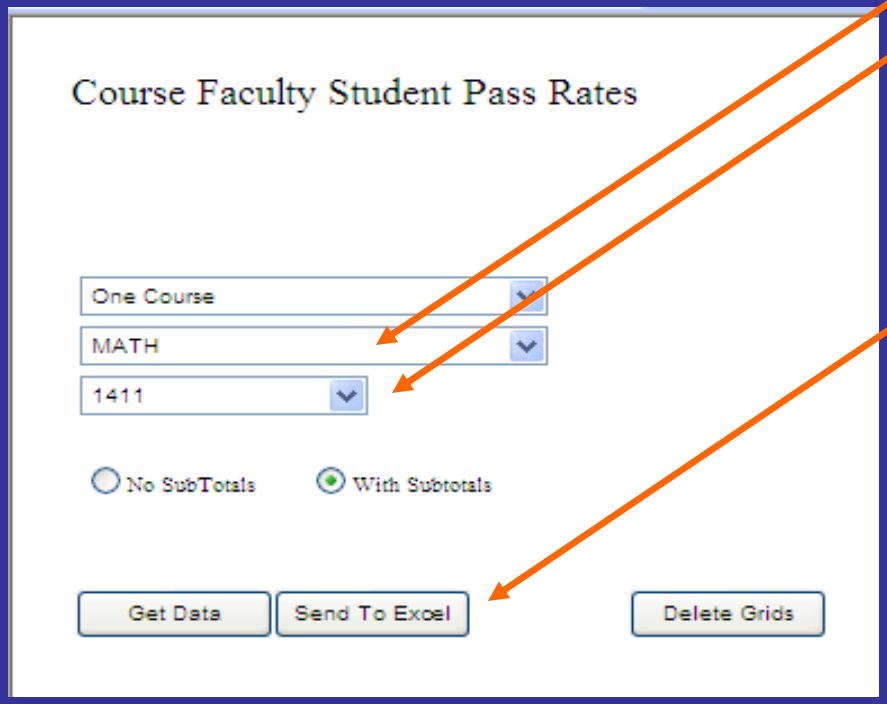
http://www.utep.edu/privacy.aspx

Go to Secured Tool for Pass Rates

Courses	*	Pass Rates of Courses and Detailed Student Enrollment
		Math Pass Rates by term
		Math Enrollment by Major
	*	Failure Rate for Courses by Term
		Face-to-face & Distance learning
		SCH for University Instruction and Operations Formula Funding Request
	*	SCH for University Instruction and Operations Formula Funding Request (Detail)
		SCH by Course and Level

Use Pull-Down Menus to Select Options

Subject and Course Number



If desired, select "Send to Excel"

Output: Course Enrollment and Student Pass, Failure, and Withdrawals, by Section*

Term	subject code	courseno	primary Instructor Firstname	Primary Instructor Last name	primary instructor id	Course Enrollment	ABC Headcount	Withdrew Headcount	D Headcount	F Headcount
Fall 2007	MATH	1411	Ann	Arbor	800xxxxxx	42	16	3	0	4
Fall 2007	MATH	1411	Bob	Baker	800xxxxxx	52	25	5	0	5
Fall 2007	MATH	1411	Cathy	Carr	800xxxxxx	34	20	0	0	3
Fall 2007	MATH	1411	David	Dominguez	800xxxxxx	48	27	4	0	7
Fall 2007	MATH	1411	Elmore	Edwards	800xxxxxx	39	17	4	0	6
Fall 2007	MATH	1411	Frank	Fandango	800xxxxxx	43	20	1	0	9
Fall 2007	MATH	1411	Geoff	Gonzalez	800xxxxxx	41	18	3	0	4
Fall 2007	MATH	1411	Henry	Hamm	800xxxxxx	40	19	5	0	5
Fall 2007	MATH	1411	Irene	Ingle	800xxxxxx	45	20	1	0	8
Fall 2007	MATH	1411	Juan	Johnson	800xxxxxx	32	26	0	0	2
Fall 2007	MATH	1411	Kate	Khan	800xxxxxx	23	15	0	0	4
Fall 2007	MATH	1411	Larry	Lang	800xxxxxx	37	23	1	0	7
SubTotal in [Fall 2007]						476	246	27	0	91

*Instructor names and headcounts by grade are masked.

Data For Planning and Management:

Scenario 3

Provost and deans want to track changes in key metrics at the college and institutional level

Solution:

Use Academic Affairs Key Metrics Tool to generate data

Separate Webpage Created for a Group of Individuals who Need Data on a Recurring Basis

Result: SCH by Tenure and Rank for Departments and Colleges

Semester Credit Hours by Tenure and Rank of Instructor (based on Home-department of Faculty)

Term Fall

Excel Download

College	Department	Tenure	Rank	Fall2007	Fall2006	Fall2005	Fall2004	Fall2003
Business Administration	Accounting	Non-tenured	Lecturer	2,259	1,998	2,250	2,268	2,178
		Tenure-track	Assistant Professor	363	171	810	498	576
		Tenured	Assistant Professor	390	372	483	357	657
			Associate Professor	1,369	1,506	849	1,365	1,275
			Professor	258	162	24		108
		Accounting Total		4,639	4,209	4,416	4,488	4,794
	Business Administration (Dean's Office)	Non-tenured	Teaching Assistant	2,403	2,022			
		Tenured	Associate Professor					39
		Business Administration (Dean's Office) Total		2,403	2,022			39
	Economics and Finance	Non-tenured	Lecturer	1,965	2,604	1,662	2,067	2,046
		Tenure-track	Assistant Professor	1,575	900	1,347	1,104	1,017
			Associate Professor	63				
		Tenured	Associate Professor	1,533	873	1,005	1,266	1,296
			Professor	681	297	213	414	495
		Economics and Finance Total		5,817	4,674	4,227	4,851	4,854
	Information and Decision Sciences	Non-tenured	Lecturer	2,580	2,286	2,554	3,072	3,084
		Tenure-track	Assistant Professor	174	1,167	1,407	1,064	1,242
			Associate Professor			303	183	
		Tenured	Associate Professor	1,455	1,524	831	918	984
			Professor	1,056	224	234	351	261
		Information and Decision Sciences Total		5,265	5,201	5,329	5,588	5,571

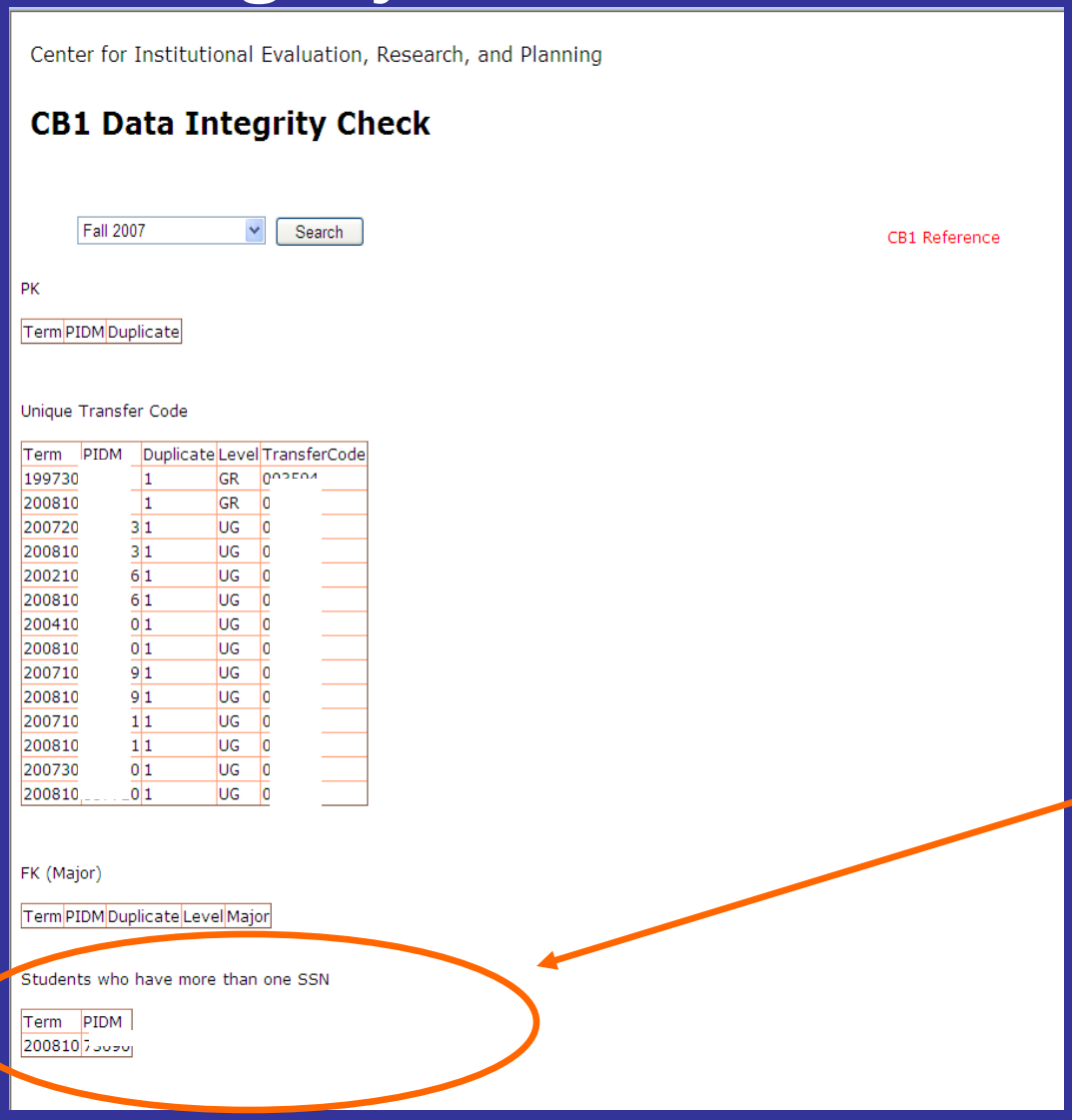
State and Federal Reports: Scenario 1

Evaluate completeness and integrity of data before reports are generated for the State's Higher Education Coordinating Board.

Solution:

Use Data Integrity Tool to access the data and identify inconsistencies

State & Federal Reports: Data Tool for Integrity Checks



Center for Institutional Evaluation, Research, and Planning

CB1 Data Integrity Check

Fall 2007 Search

CB1 Reference

PK

Term	PIDM	Duplicate

Unique Transfer Code

Term	PIDM	Duplicate	Level	TransferCode
199730		1	GR	003594
200810		1	GR	0
200720	3	1	UG	0
200810	3	1	UG	0
200210	6	1	UG	0
200810	6	1	UG	0
200410	0	1	UG	0
200810	0	1	UG	0
200710	9	1	UG	0
200810	9	1	UG	0
200710	1	1	UG	0
200810	1	1	UG	0
200730	0	1	UG	0
200810	0	1	UG	0

FK (Major)

Term	PIDM	Duplicate	Level	Major

Students who have more than one SSN

Term	PIDM
200810	75090

Result: Inconsistent Data can be Flagged for Checking

State and Federal Reports: Scenario 2

Center needs to evaluate trends in data submitted to the State's Higher Education Coordinating Board.

Solution:

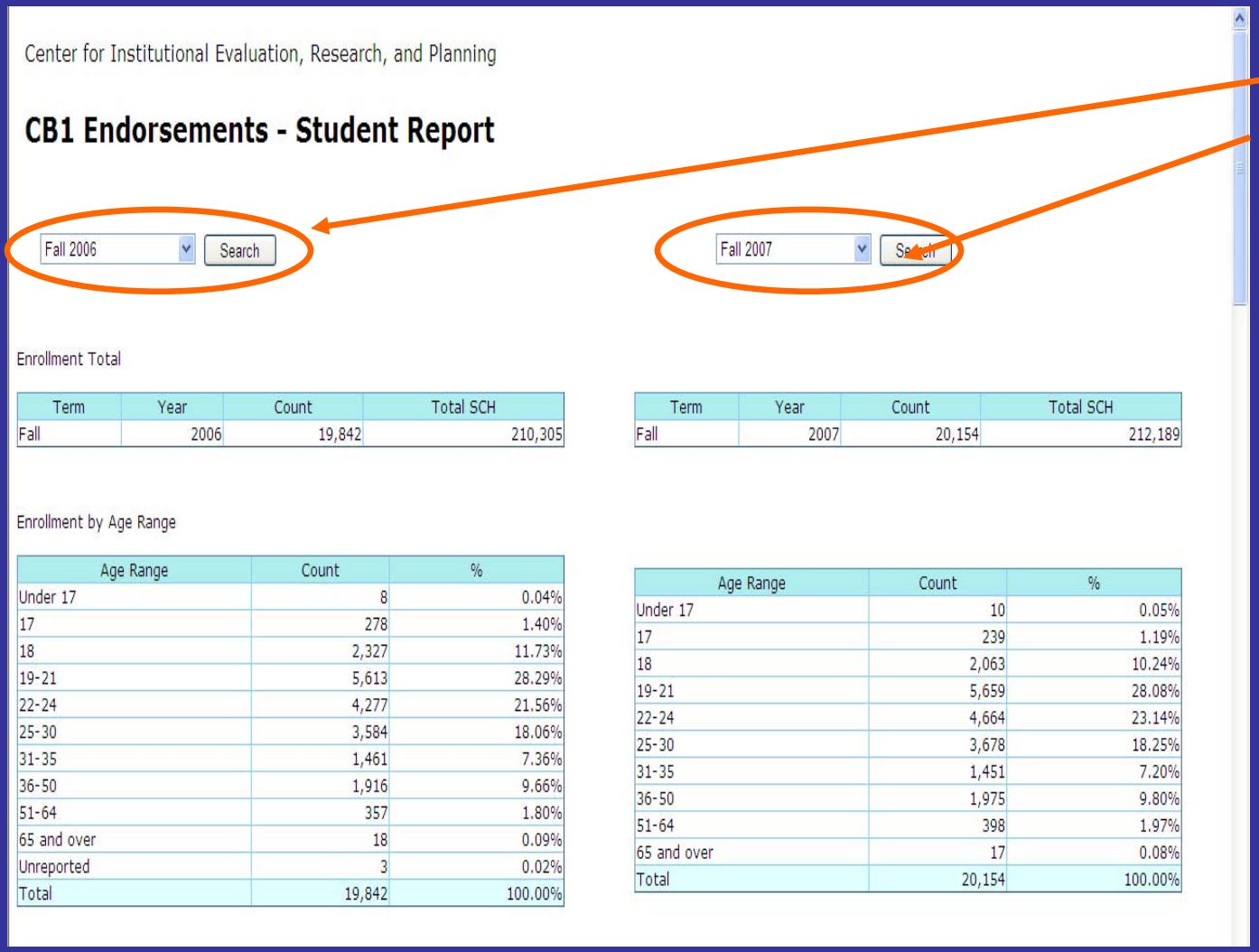
Use CB Endorsement Tool to compare trends across terms

State & Federal Reports: Data Tools

Main Report

Title	Security	Link
High School Profiles		High School Profiles
Academic Affairs Key Metrics		Academic Affairs Key Metrics
Accountability Report		Accountability Report - Participation
		Accountability Report - Success
		Accountability Report - Excellence
		Accountability Report - Developmental Education
UT System Accountability		Faculty Headcount/Top 10 Percent High School Graduates
		ACT/SAT and GRE/GMAT
Common Data Set		Enrollment and Persistence
		Admission
		Freshman Profile
		Instructional Faculty and Class Size
		Degrees Conferred
IPEDS		Historical Change Log
		Completions
		Enrollment Part A
		Enrollment Part B
		Enrollment Part C
		Enrollment Part DE
		12-Month Enrollment
		Graduation Rates
		Human Resources
LBB		LBB Summary Page (November Reports)
		LBB Summary Page (March Reports)
		LBB Summary Page (November Reports) - % of TSI Students retained after 1 Year
CB Endorsement		CB1 Endorsements - Student Report
		CB3 Endorsements - Texas Success Initiative Report
		CB4 Endorsements - Class Report
		CB5 Endorsements - Building and Room Report
		CB6 Endorsements - End of Semester Report
		CB8 Endorsements - Faculty Report
		CB9 Endorsements - Graduation Report
		CBB Endorsements - Admissions Report
		Census Day Memo
	*	CB1 Data Integrity Check
	*	CB2 Data Integrity Check
	*	CB4 Data Integrity Check
		CB4 & CB6 Data Integrity Check

Result: State Report Data



Center for Institutional Evaluation, Research, and Planning

CB1 Endorsements - Student Report

Fall 2006 Search

Fall 2007 Search

Enrollment Total

Term	Year	Count	Total SCH
Fall	2006	19,842	210,305

Term	Year	Count	Total SCH
Fall	2007	20,154	212,189

Enrollment by Age Range

Age Range	Count	%
Under 17	8	0.04%
17	278	1.40%
18	2,327	11.73%
19-21	5,613	28.29%
22-24	4,277	21.56%
25-30	3,584	18.06%
31-35	1,461	7.36%
36-50	1,916	9.66%
51-64	357	1.80%
65 and over	18	0.09%
Unreported	3	0.02%
Total	19,842	100.00%

Age Range	Count	%
Under 17	10	0.05%
17	239	1.19%
18	2,063	10.24%
19-21	5,659	28.08%
22-24	4,664	23.14%
25-30	3,678	18.25%
31-35	1,451	7.20%
36-50	1,975	9.80%
51-64	398	1.97%
65 and over	17	0.08%
Total	20,154	100.00%

This design allows for side-by-side comparisons.

State and Federal Reports: Scenario 3

CIERP wants to ensure the reliability in data submitted to IPEDS

Solution:

Use Data Tools to access the requested data and print out of the data.

State & Federal Reports: Data Tools

Main Report

Title	Security	Link
High School Profiles		High School Profiles
Academic Affairs Key Metrics		Academic Affairs Key Metrics
Accountability Report		Accountability Report - Participation
		Accountability Report - Success
		Accountability Report - Excellence
		Accountability Report - Developmental Education
UT System Accountability		Faculty Headcount/Top 10 Percent High School Graduates
		ACT/SAT and GRE/GMAT
Common Data Set		Enrollment and Persistence
		Admission
		Freshman Profile
		Instructional Faculty and Class Size
		Degrees Conferred
IPEDS		Historical Change Log
		Completions
		Enrollment Part A
		Enrollment Part B
		Enrollment Part C
		Enrollment Part DE
		12-Month Enrollment
		Graduation Rates
		Human Resources
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		LBB Summary Page (November Reports)-% of TSI Students retained after 1 Year
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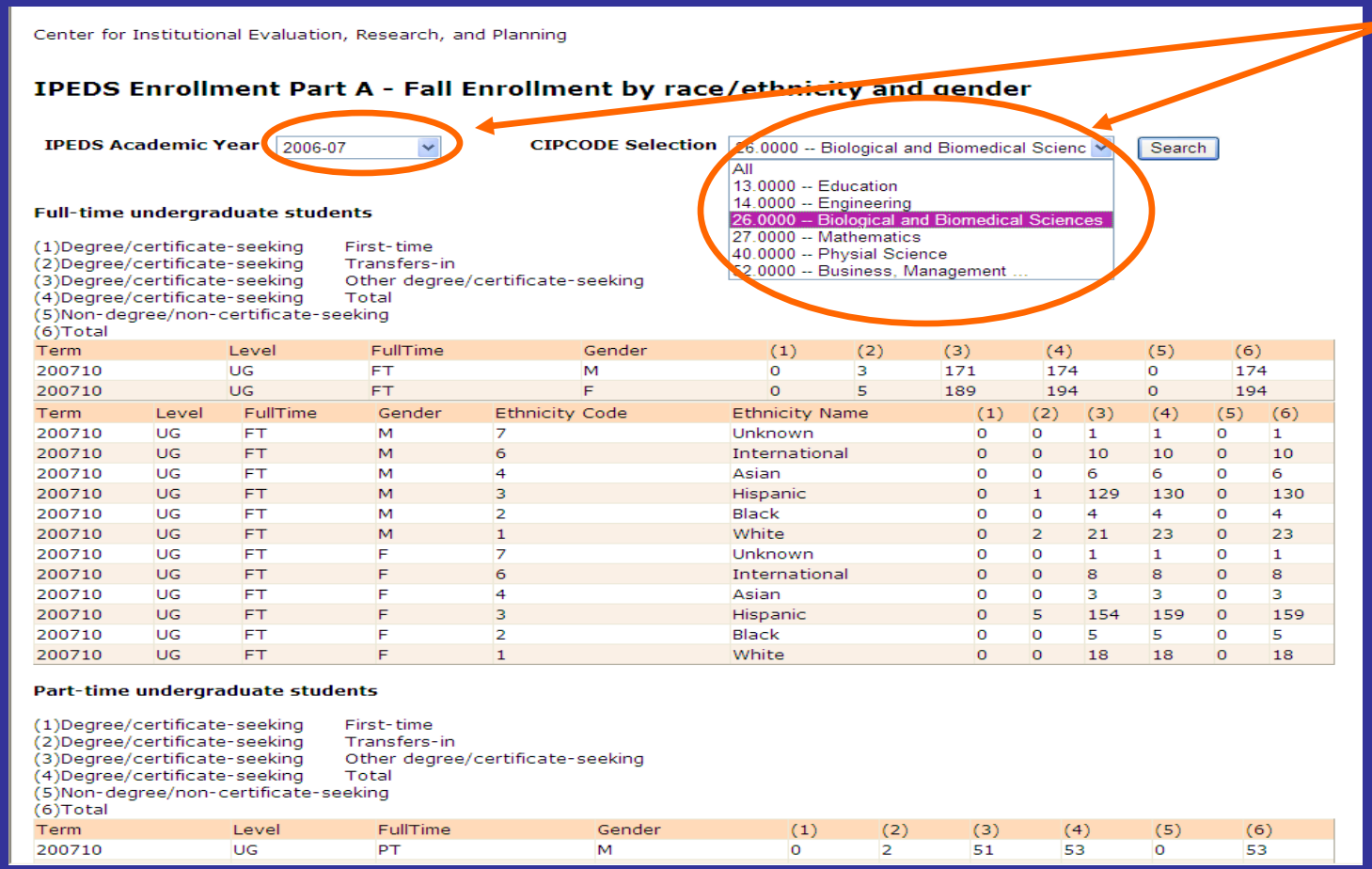
		CB4 Endorsements - Class Report
		CB5 Endorsements - Building and Room Report
		CB6 Endorsements - End of Semester Report
		CB8 Endorsements - Faculty Report
		CB9 Endorsements - Graduation Report
		CBB Endorsements - Admissions Report
		Census Day Memo
	*	CB1 Data Integrity Check
	*	CB2 Data Integrity Check
	*	CB4 Data Integrity Check
		CB4 & CB6 Data Integrity Check

IPEDS

Result: IPEDS Report Data



Center for Institutional Evaluation, Research, and Planning

IPEDS Enrollment Part A - Fall Enrollment by race/ethnicity and gender

IPEDS Academic Year 2006-07 **CIPCODE Selection** 26.0000 -- Biological and Biomedical Scienc Search

All
13.0000 -- Education
14.0000 -- Engineering
26.0000 -- Biological and Biomedical Sciences
27.0000 -- Mathematics
40.0000 -- Physial Science
52.0000 -- Business, Management ...

Full-time undergraduate students

(1)Degree/certificate-seeking First-time
(2)Degree/certificate-seeking Transfers-in
(3)Degree/certificate-seeking Other degree/certificate-seeking
(4)Degree/certificate-seeking Total
(5)Non-degree/non-certificate-seeking
(6)Total

Term	Level	FullTime	Gender	(1)	(2)	(3)	(4)	(5)	(6)
200710	UG	FT	M	0	3	171	174	0	174
200710	UG	FT	F	0	5	189	194	0	194

Term	Level	FullTime	Gender	Ethnicity Code	Ethnicity Name	(1)	(2)	(3)	(4)	(5)	(6)
200710	UG	FT	M	7	Unknown	0	0	1	1	0	1
200710	UG	FT	M	6	International	0	0	10	10	0	10
200710	UG	FT	M	4	Asian	0	0	6	6	0	6
200710	UG	FT	M	3	Hispanic	0	1	129	130	0	130
200710	UG	FT	M	2	Black	0	0	4	4	0	4
200710	UG	FT	M	1	White	0	2	21	23	0	23
200710	UG	FT	F	7	Unknown	0	0	1	1	0	1
200710	UG	FT	F	6	International	0	0	8	8	0	8
200710	UG	FT	F	4	Asian	0	0	3	3	0	3
200710	UG	FT	F	3	Hispanic	0	5	154	159	0	159
200710	UG	FT	F	2	Black	0	0	5	5	0	5
200710	UG	FT	F	1	White	0	0	18	18	0	18

Part-time undergraduate students

(1)Degree/certificate-seeking First-time
(2)Degree/certificate-seeking Transfers-in
(3)Degree/certificate-seeking Other degree/certificate-seeking
(4)Degree/certificate-seeking Total
(5)Non-degree/non-certificate-seeking
(6)Total

Term	Level	FullTime	Gender	(1)	(2)	(3)	(4)	(5)	(6)
200710	UG	PT	M	0	2	51	53	0	53

Use pull-down menus to access data by Year and CIPCODE.

Accountability:
Scenario 1

The President wants us to confirm the data published in the State's Accountability Report.

Solution:

Create a parallel report and compare data in the State Accountability Report to data generated by our parallel system.

Accountability Report: Data Tools

Main Report

Title	Security	Link
High School Profiles		High School Profiles
Academic Affairs Key Metrics		Academic Affairs Key Metrics
Accountability Report		Accountability Report - Participation
		Accountability Report - Success
		Accountability Report - Excellence
		Accountability Report - Developmental Education
UT System Accountability		Faculty Headcount/Top 10 Percent High School Graduates
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		CB8 Endorsements - Faculty Report
		CB9 Endorsements - Graduation Report
		CBB Endorsements - Admissions Report
		Census Day Memo
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	*	CB2 Data Integrity Check
	*	CB4 Data Integrity Check
		CB4 & CB6 Data Integrity Check

Result: Accountability Report Measures

Center for Institutional Evaluation, Research, and Planning

Accountability Report - Participation

Term Fall 2007 Search

<<Key Measures>>

Headcount Enrollment
In Fall 2005, 11 students from Katrina are not counted.

Full-Time Equivalent Enrollment
CB1 (15/12/9)

<<Contextual Measures>>

First-time undergraduates from Texas top 10%

First-time entering applicants accepted
Undergraduate students

First-time accepted to enroll
Undergraduate students (Could not be replicated exactly)

Percent of enrollment(UG) that are Transfers with at least 30 SCH
Although all transfer students with at least 30 SCH are counted, the percentage is less than the number of Accountability Report.

Semester credit hour

Ethnic composition of Texas high school graduates

Result: Accountability Population

Accountability Report - Participation

Term Fall 2007 Search

<<Key Measures>>

Headcount Enrollment
In Fall 2005, 11 students from Katrina are not counted.

Ethnicity	Fall 2001	Fall 2002	Fall 2003	Fall 2004	Fall 2005	Fall 2006	Fall 2007
1 White	2,273	2,183	2,380	2,326	2,277	2,176	2,125
2 African-American	391	409	447	461	477	549	547
3 Hispanic	11,239	12,245	13,164	13,556	13,945	14,454	14,826
4 Asian	214	227	226	226	239	235	226
5 Other	2,103	2,168	2,325	2,349	2,319	2,428	2,431
Total	16,220	17,232	18,542	18,918	19,257	19,842	20,155

Full-Time Equivalent Enrollment
CB1 (15/12/9)

Ethnicity	Fall 2001	Fall 2002	Fall 2003	Fall 2004	Fall 2005	Fall 2006	Fall 2007
1 White	1,626	1,576	1,652	1,598	1,607	1,505	1,478
2 African-American	311	324	332	340	360	419	414
3 Hispanic	8,337	9,056	9,559	9,702	10,039	10,443	10,675
4 Asian	163	173	165	172	182	171	170
5 Other	1,737	1,784	1,895	1,875	1,824	1,896	1,838
Total	12,174	12,913	13,603	13,687	14,012	14,434	14,575

<<Contextual Measures>>

First-time undergraduates from Texas top 10%

First-time entering applicants accepted
Undergraduate students

Fall 2001	Fall 2002	Fall 2003	Fall 2004	Fall 2005	Fall 2006	Fall 2007
94.1%	93.9%	97.6%	97.8%	98.8%	98.1%	94.9%

First-time accepted to enroll
Undergraduate students (Could not be replicated exactly)

Fall 2001	Fall 2002	Fall 2003	Fall 2004	Fall 2005	Fall 2006	Fall 2007
70.0%	66.9%	63.8%	61.3%	58.1%	46.1%	47.4%

Percent of enrollment(UG) that are Transfers with at least 30 SCH
Although all transfer students with at least 30 SCH are counted, the percentage is less than the number of Accountability Report.

Institutional Research:
Scenario 1

Provost, deans and chairs want to know the graduation and retention rate for students

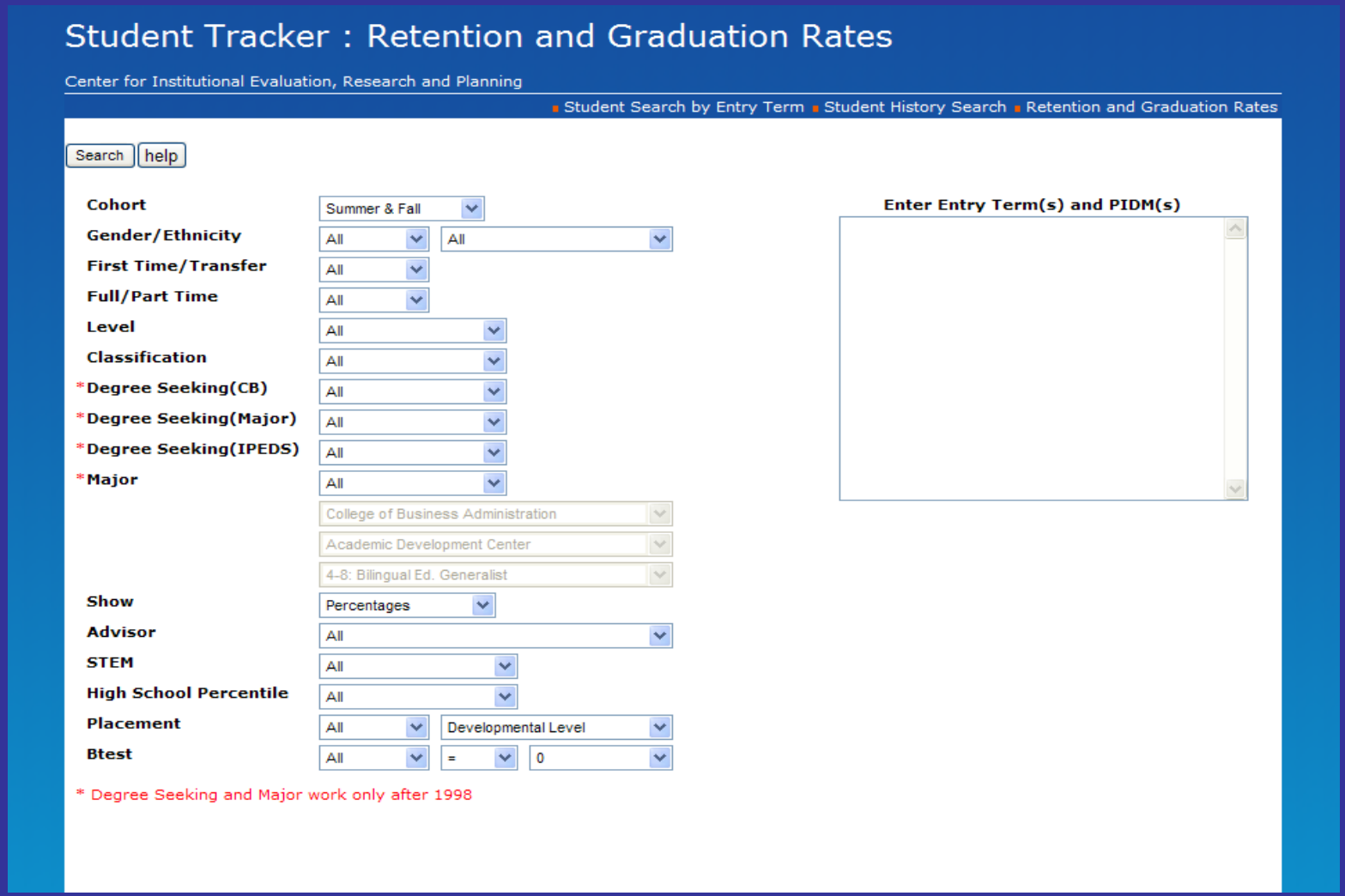
Solution:

Use the Retention and Graduation Rate tool to track the success of students.

Institutional Research Data Tools

Category	Security	Link
Fact Book		Fact Book
		Interactive Fact Book
Main Report		High School Profiles, Accountability, Common Data Set, IPEDS, LBB, CB Endorsement, CB Data Integrity Check, Surveys
Student Tracker	*	Student Search by Entry Term
	*	History Search
		Retention and Graduation Rates
	*	Course Search
	*	Student Tracking by course Taken
		Doesn't Every Graduate Count? / Doesn't Every Student Count?
Fact Book Extension		[Enrollment]Student Enrollment by Department and Full-Time Equivalent (FTE)
		[Courses] Semester Credit Hours By Department of Faculty Member
		[Courses] SCH/Enrollment by Tenure and College
		[Courses] Semester Credit Hours By Department - LDUD
		[Courses] First-Time Freshmen Enrollment in Developmental Education Courses
		[Courses] Semester Credit Hours By Tenure and Rank
		[Majors & Degrees] Majors By Level
		[Majors & Degrees] Five Year Distribution of Majors By Level
		[Faculty] Faculty by Department (Tenured/Tenure-Track & Nontenure-Track)
		[Faculty] Faculty by Department (Tenure and Rank)

Result: Retention & Graduation Tool



Result: FTFT Undergraduate Retention & Graduation in the College of Science

* Degree Seeking and Major work only after 1998

Cohort	Fall 1997	Fall 1998	Fall 1999	Fall 2000	Fall 2001	Fall 2002	Fall 2003	Fall 2004	Fall 2005	Fall 2006	Fall 2007
Cohort Size	0	141	178	148	146	150	182	178	191	223	252

Retention	Fall 1997	Fall 1998	Fall 1999	Fall 2000	Fall 2001	Fall 2002	Fall 2003	Fall 2004	Fall 2005	Fall 2006	Fall 2007
One Year	0	79.4%	79.2%	70.9%	82.9%	82.0%	78.0%	76.4%	79.6%	81.6%	
Two Years	0	68.8%	63.5%	61.5%	69.2%	72.0%	70.3%	65.2%	68.6%		
Three Years	0	54.6%	57.3%	54.7%	63.0%	65.3%	66.5%	58.4%			
Four Years	0	48.9%	44.4%	42.6%	43.2%	44.7%	46.2%				
Five Years	0	29.8%	27.5%	27.7%	29.5%	27.3%					
Six Years	0	19.9%	16.9%	18.9%	14.4%						
Seven Years	0	9.9%	11.2%	14.2%							
Eight Years	0	7.1%	7.3%								
Nine Years	0	5.7%									
Ten Years	0										

Graduation	Fall 1997	Fall 1998	Fall 1999	Fall 2000	Fall 2001	Fall 2002	Fall 2003	Fall 2004	Fall 2005	Fall 2006	Fall 2007
One Years	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Two Years	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%		
Three Years	0	0.0%	1.1%	0.0%	0.0%	0.0%	0.0%	1.1%			
Four Years	0	9.9%	13.5%	6.1%	17.8%	16.0%	18.7%				
Five Years	0	27.7%	30.3%	20.9%	31.5%	33.3%					
Six Years	0	39.0%	41.6%	29.7%	46.6%						
Seven Years	0	47.5%	46.6%	35.8%							
Eight Years	0	51.1%	50.0%								
Nine Years	0	53.9%									
Ten Years	0										

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Institutional Research:

Scenario 2

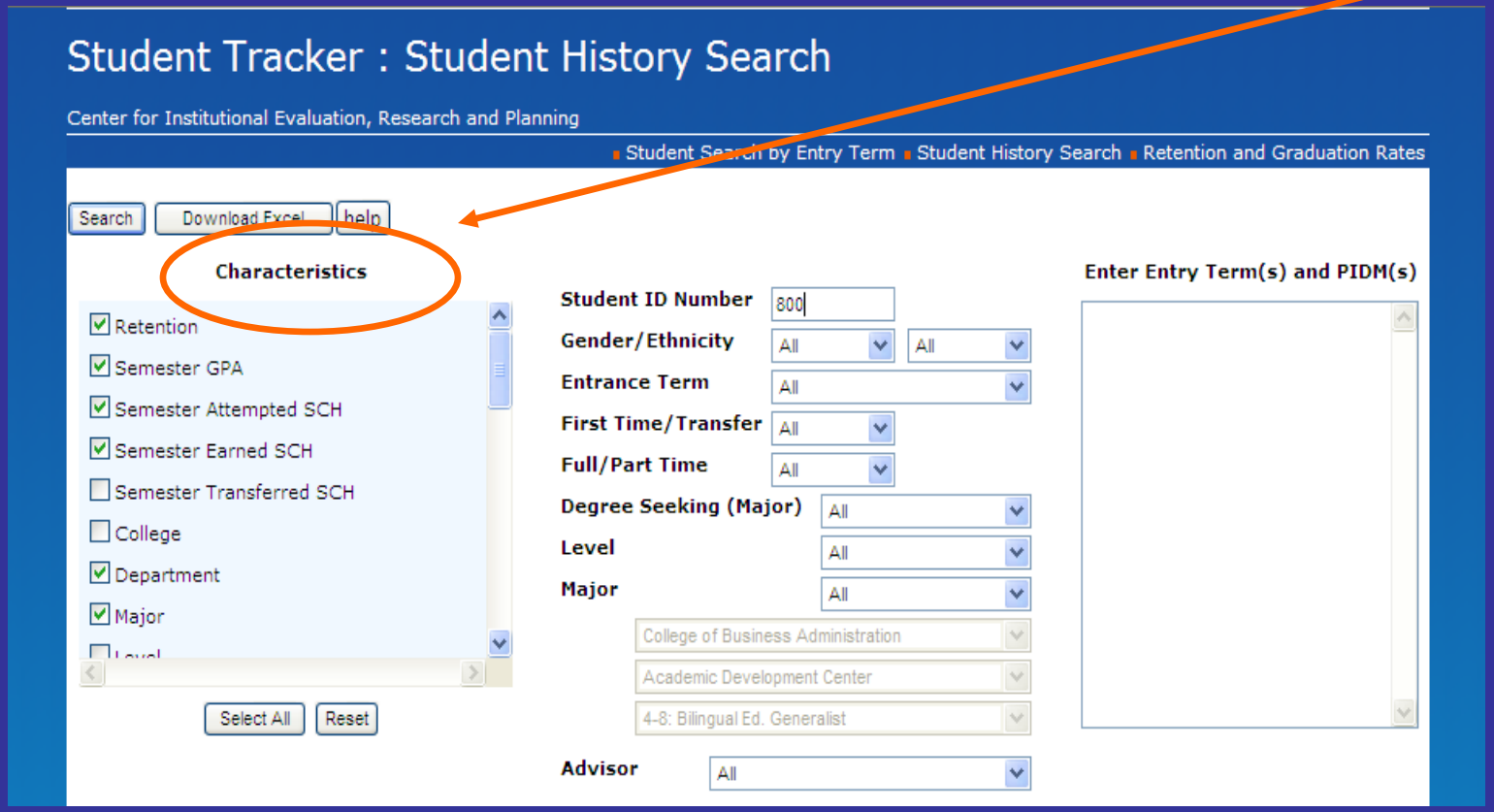
For a grant-funded project on student success, CIERP's research team wants to conduct a survival analysis of students who entered in 2000.

Solution:

Use the Student Tracker tool to access enrollment and academic performance data.

Result: Student Tracker Tool

Select Fields for Output



Result: Output of Student History*

ID	Entry Term	Characteristics	EntryTerm +0	EntryTerm +1	EntryTerm +2	EntryTerm +3	EntryTerm +4	EntryTerm +5	EntryTerm +6	EntryTerm +7	EntryTerm +8
800123456	200310	Retention	1	1	1	1	1	0	1	1	0
800123456	200310	Semester GPA	3.xxxx	3.xxxx	4	4	3.xxxx		3.xxxx	3.xxxx	
800123456	200310	Semester Attempted SCH	14	13	7	13	15		15	17	
800123456	200310	Semester Earned SCH	14	13	7	13	15		15	17	
800123456	200310	Department	Interdisciplinary (Liberal Arts)	Interdisciplinary (Liberal Arts)	Biological Sciences	Biological Sciences	Biological Sciences		Biological Sciences	Biological Sciences	
800123456	200310	Major	General Studies	General Studies	Microbiology	Microbiology	Microbiology		Microbiology	Microbiology	
800123456	200310	Classification	Freshmen	Freshmen	Freshmen	Sophomore	Sophomore		Junior	Junior	
800123456	200310	Graduation	0	0	0	0	0	0	0	0	0

*Student information has been masked.

Implications and Conclusion

How Can You Build a Data Store?

- Think beyond institutional IT departments.
- Look within your campus.
  - Expensive consultants are not needed.
  - Costly software products are not needed.
- You know best which questions need to be answered.
- You know what purposes the data will serve.

Building the Data Store: People

- Consider hiring graduate students with experience in information-systems development
- Our current full-time staff on our data team began as graduate student interns

The Take-home Message

- You, too, can build a data store.
- No need to build it all at once.
- No need to build all the tools shown here.
- The issue is not about finding a technical expert who knows all about IR data…

It's about identifying the important questions, defining the data needed to answer questions, and letting a skilled person develop the tools to access the data so you—the IR professional—can interpret the data, help others make decisions, and ask MORE questions.

Data and Reporting Team

- Cathe Lester, Ph.D.—Associate Director
- Myoung Kim, Research Associate and Doctoral Student
- Xiaojing Wang, Data Analyst and Doctoral Student
- Cynthia Alamillo, Undergraduate Assistant
- Edgar Reyes, Research Technician and Master's Student
- Terri Morales

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