

How to Condense, Improve and Automate IR reports

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Challenge:

To reduce redundancies in reporting by creating automated reports that are visually appealing and contain all of the relevant information on one page.

Resources used:

Microsoft Excel

Ruby – open source programming language (<http://www.ruby-lang.org/en/>)

Step 1:

Analyze the current reports to identify redundant or unnecessary fields and uncover any inconsistencies in the reporting process.

2008 column should come before 2009

Report #1 - Enrollment

Labels do not align with column

2009 Spring Quarter: All Students

Headcounts

College	Career	2009	2008	1-Year	2008	2008	2008	2008	2009	2009
		YTD (3/6/2009)	YTD (3/6/2008)	Comparison #	FINAL (4/29/2008)	% of Final	Budget	YTD % of Budget	Budget	YTD % of Budget
Commerce	UGRD	4,000	3,900	100	4,000	100.00%	4,100	97.56%	4,200	92.86%
	KGSB GRAD	2,000	1,800	200	2,000	100.00%	2,000	100.00%	2,200	81.82%
	All	6,000	5,700	300	6,000	100.00%	6,100	98.36%	6,400	93.00%
Communic	UGRD	900	1000	-100	1,000	90.00%	1,000	90.00%	1000	100.00%
	GRAD	150	200	-50	250	60.00%	200	75.00%	200	100.00%
	All	1,050	1,200	-150	1,250	84.00%	1,200	87.50%	1200	100.00%
CDM	UGRD	50	100	-50	150	33.33%	100	50.00%	100	100.00%
	GRAD	1,500	1,000	500	1,500	100.00%	2,000	75.00%	1,800	55.56%
	All	1,550	1,100	450	1,650	93.94%	2,100	78.57%	1,900	57.86%
Education	UGRD	600	700	-100	700	85.71%	600	100.00%	700	100.00%
	GRAD	900	900	0	1,300	69.23%	1,200	75.00%	1,200	75.00%
	All	1,500	1,600	-100	2,000	75.00%	1,800	83.33%	1,900	84.21%
LA&S	UGRD	4,000	4,200	-200	4,500	88.89%	4,500	88.89%	4,500	93.33%
	GRAD	1,200	1,200	0	1,500	80.00%	1,000	120.00%	1,500	80.00%
	All	5,200	5,400	-200	6,000	86.67%	5,500	84.55%	6,000	80.00%
Law	PROF	0	0	0	0	#DIV/0!	0		0	
Music	UGRD	150	200	-50	200	75.00%	200	75.00%	200	100.00%
	GRAD	50	50	0	100	50.00%	100	50.00%	100	50.00%
	All	200	250	-50	300	66.67%	300	66.67%	300	83.33%
SNL	UGRD	800	900	-100	1,000	80.00%	1,700	47.06%	1,700	52.94%
	GRAD	50	100	-50	150	33.33%	200	25.00%	100	100.00%
	All	850	1000	-150	1,150	73.91%	1,900	44.74%	1,800	55.56%
Theatre	UGRD	250	300	-50	350	71.43%	200	125.00%	200	150.00%
	GRAD	50	25	25	50	100.00%	100	50.00%	100	25.00%
	All	300	325	-25	400	75.00%	300	100.00%	300	100.00%
IPD	UGRD	0	0	0	0		50	0	50	0
	GRAD	0	0	0	0		50	0	50	0
	All	0	0	0	0		100	0	100	0
University	UGRD	10,750	11,300	-550	11,900	90.34%	12,450	86.35%	12,650	89.33%
	PROF	0	0	0	0		0		0	
	GRAD	5,900	5,275	625	6,850	86.13%	6,850	86.13%	7,250	72.76%
	All	16,650	16,575	75	18,750	88.80%	19,300	86.27%	19,900	83.23%

Poor color choices throughout report

Missing revenue info on this report

Inconsistent spacing makes it difficult to read

Italics are unnecessary and distracting

Report #2 - Revenue

Report date is not included

Irrelevant info for this report

Spring Student Budgeted Revenue/Headcount Comparison

College	Headcount						Revenue						Average Rate per Student		
	08-09 Budgeted	08-09 Actual	% Variance from Budget	% of Total	09-10 Budgeted	% Variance from 08-09 Actual	08-09 Budgeted	08-09 Actual	% Variance from Budget	% of Total	09-10 Budgeted	% Variance from 08-09 Actual	08-09 Budget	08-09 Actual	09-10 Budget
CMV															
UGRD	1,000	900	-10.00%	5.41%	1,000	11.11%	\$1,000,000	\$900,000	-10.00%	1.28%	\$1,000,000	11.11%	\$1,000	\$1,000	\$1,000
GRAD	200	150	-25.00%	0.90%	200	33.33%	\$500,000	\$480,000	-4.00%	0.68%	\$500,000	4.17%	\$2,500	\$3,200	\$2,500
Commerce															
UGRD	4,200	4,000	-4.76%	24.02%	4,200	5.00%	\$3,000,000	\$2,900,000	-3.33%	4.12%	\$3,000,000	3.45%	\$714	\$725	\$714
GRAD	2,200	2,000	-9.09%	12.01%	2,200	10.00%	\$1,100,000	\$1,200,000	9.09%	1.70%	\$1,100,000	-8.33%	\$500	\$600	\$500
CDM															
UGRD	100	50	-50.00%	0.30%	100	100.00%	\$7,000,000	\$6,700,000	-4.29%	9.51%	\$7,000,000	4.48%	\$70,000	\$134,000	\$70,000
GRAD	1,800	1,500	-16.67%	9.01%	1,800	20.00%	\$5,000,000	\$4,000,000	-20.00%	5.68%	\$5,000,000	25.00%	\$2,778	\$2,667	\$2,778
Education															
UGRD	700	600	-14.29%	3.60%	700	16.67%	\$5,000,000	\$5,200,000	4.00%	7.38%	\$5,000,000	-3.85%	\$7,143	\$8,667	\$7,143
GRAD	1,200	900	-25.00%	5.41%	1,200	33.33%	\$4,000,000	\$4,000,000	0.00%	5.68%	\$4,000,000	0.00%	\$3,333	\$4,444	\$3,333
LAS															
UGRD	4,500	4,000	-11.11%	24.02%	4,500	12.50%	\$34,000,000	\$32,000,000	-5.88%	45.41%	\$34,000,000	6.25%	\$7,556	\$8,000	\$7,556
GRAD	1,500	1,200	-20.00%	7.21%	1,500	25.00%	\$5,000,000	\$4,800,000	-4.00%	6.81%	\$5,000,000	4.17%	\$3,333	\$4,000	\$3,333
LAW															
Music															
UGRD	200	150	-25.00%	0.90%	200	33.33%	\$2,000,000	\$1,800,000	-10.00%	2.55%	\$2,000,000	11.11%	\$10,000	\$12,000	\$10,000
GRAD	100	50	-50.00%	0.30%	100	100.00%	\$500,000	\$240,000	-52.00%	0.34%	\$500,000	108.33%	\$5,000	\$4,800	\$5,000
SNL															
UGRD	1,700	800	-52.94%	4.80%	1,700	112.50%	\$4,000,000	\$3,500,000	-12.50%	4.97%	\$4,000,000	14.29%	\$2,353	\$4,375	\$2,353
GRAD	100	50	-50.00%	0.30%	100	100.00%	\$500,000	\$450,000	-10.00%	0.64%	\$500,000	11.11%	\$5,000	\$9,000	\$5,000
Theatre															
UGRD	200	250	25.00%	1.50%	200	-20.00%	\$2,000,000	\$2,100,000	5.00%	2.98%	\$2,000,000	-4.76%	\$10,000	\$8,400	\$10,000
GRAD	100	50	-50.00%	0.30%	100	100.00%	\$200,000	\$200,000	0.00%	0.28%	\$200,000	0.00%	\$2,000	\$4,000	\$2,000
IPD															
UGRD	100	0	-100.00%	0.00%	100		\$200,000	\$0	-100.00%	0.00%	\$200,000		\$2,000		\$2,000
UGRD	12,600	10,750	-14.68%	64.56%	12,600	17.21%	\$58,000,000	\$55,100,000	-5.00%	78.19%	\$58,000,000	5.26%	\$4,603	\$5,126	\$4,603
GRAD	7,200	5,900	-18.06%	35.44%	7,200	22.03%	\$16,800,000	\$15,370,000	-8.51%	21.81%	\$16,800,000	9.30%	\$2,333	\$2,605	\$2,333
Total	19,900	16,650	-16.33%	100.00%	19,900	19.52%	\$75,000,000	\$70,470,000	-6.04%	100.00%	\$75,000,000	6.43%	\$3,769	\$4,232	\$3,769

Colleges listed in different order than Report #1

Missing year-to-date info on this report

Redundant columns from Report #1

Font color and size is not consistent throughout report

Step 2:

Combine relevant information from two reports into one and remove irrelevant information.

Combined Report

Poor color choices still make it difficult to read

		Headcount						Revenue							
		2008	2009	2008-2009 Chg		2008 Final	%	2008	2008 %	2009	2009 %	2009	2009	% from	% of
		(3/6/2008)	(3/6/2009)	#	%	(4/17/2010)	of Final	Budget	of Budget	Budget	of Budget	Budget	(3/6/2009)	Budget	Univ Total
Commerce	UGRD	3,900	4,000	100	2.6%	4,000	97.5%	4,100	95.1%	4,200	95.2%	\$3,000,000	\$2,900,000	-3.3%	4.1%
	GRAD	1,800	2,000	200	11.1%	2,000	90.0%	2,000	90.0%	2,200	90.9%	\$1,100,000	\$1,200,000	9.1%	1.7%
		5,700	6,000	300	5.3%	6,000	95.0%	6,100	93.4%	6,400	93.8%	\$48,299,142	\$46,216,270	-4.3%	65.6%
Communication	UGRD	1,000	900	-100	-10.0%	1,000	100.0%	1,000	100.0%	1,000	90.0%	\$1,000,000	\$900,000	-10.0%	1.3%
	GRAD	200	150	-50	-25.0%	250	80.0%	200	100.0%	200	75.0%	\$500,000	\$480,000	-4.0%	0.7%
		1,200	1,050	-150	-12.5%	1,250	96.0%	1,200	100.0%	1,200	87.5%	\$15,605,151	\$14,781,801	-5.3%	21.0%
CDM	UGRD	100	50	-50	-50.0%	150	66.7%	100	100.0%	100	50.0%	\$7,000,000	\$6,700,000	-4.3%	9.5%
	GRAD	1,000	1,500	500	50.0%	1,500	66.7%	2,000	50.0%	1,800	83.3%	\$5,000,000	\$4,000,000	-20.0%	5.7%
		1,100	1,550	450	40.9%	1,650	66.7%	2,100	52.4%	1,900	81.6%	\$17,978,529	\$19,240,891	7.0%	27.3%
Education	UGRD	700	600	-100	-14.3%	700	100.0%	600	116.7%	700	85.7%	\$5,000,000	\$5,200,000	4.0%	7.4%
	GRAD	900	900	0	0.0%	1,300	69.2%	1,200	75.0%	1,200	75.0%	\$4,000,000	\$4,000,000	0.0%	5.7%
		1,600	1,500	-100	-6.3%	2,000	80.0%	1,800	88.9%	1,900	78.9%	\$12,878,529	\$12,181,851	-5.4%	17.3%
LA&S	UGRD	4,200	4,000	-200	-4.8%	4,500	93.3%	4,500	93.3%	4,500	88.9%	\$34,000,000	\$32,000,000	-5.9%	45.4%
	GRAD	1,200	1,200	0	0.0%	1,500	80.0%	1,000	120.0%	1,500	80.0%	\$5,000,000	\$4,800,000	-4.0%	6.8%
		5,400	5,200	-200	-3.7%	6,000	90.0%	5,500	98.2%	6,000	86.7%	\$50,022,507	\$50,805,620	1.6%	72.1%
Law	PROF	0	0	0		0		0		0		\$0	\$0	0.0%	0.0%
Music	UGRD	200	150	-50	-25.0%	200	100.0%	200	100.0%	200	75.0%	\$2,000,000	\$1,800,000	-10.0%	2.6%
	GRAD	50	50	0	0.0%	100	50.0%	100	50.0%	100	50.0%	\$500,000	\$240,000	-52.0%	0.3%
		250	200	-50	-20.0%	300	83.3%	300	83.3%	300	66.7%	\$2,670,607	\$2,750,501	3.0%	3.9%
SNL	UGRD	900	800	-100	-11.1%	1,000	90.0%	1,700	52.9%	1,700	47.1%	\$4,000,000	\$3,500,000	-12.5%	5.0%
	GRAD	100	50	-50	-50.0%	150	66.7%	200	50.0%	100	50.0%	\$500,000	\$450,000	-10.0%	0.6%
		1,000	850	-150	-15.0%	1,150	87.0%	1,900	52.6%	1,800	47.2%	\$6,256,641	\$5,920,755	-5.4%	8.4%
Theatre	UGRD	300	250	-50	-16.7%	350	85.7%	200	150.0%	200	125.0%	\$2,000,000	\$2,100,000	5.0%	3.0%
	GRAD	25	50	25	100.0%	50	50.0%	100	25.0%	100	50.0%	\$200,000	\$200,000	0.0%	0.3%
		325	300	-25	-7.7%	400	81.3%	300	108.3%	300	100.0%	\$3,042,919	\$3,165,722	4.0%	4.5%
IPD	UGRD	0	0	0		0		50		50		\$200,000	\$0	-100.0%	0.0%
	GRAD	0	0	0		0		50		50		\$0	\$0	0.0%	0.0%
		0	0	0		0		100		100		\$200,000	\$0	-100.0%	0.0%
Total	UGRD	11,300	10,750	-550	-4.9%	11,900	95.0%	12,450	90.8%	12,650	85.0%	\$58,200,000	\$55,100,000	-5.3%	78.2%
	PROF	0	0	0		0		0		0		\$0	\$0	0.0%	0.0%
	GRAD	5,275	5,900	625	11.8%	6,850	77.0%	6,850	77.0%	7,250	81.4%	\$16,800,000	\$15,370,000	-8.5%	21.8%
University Total		16,575	16,650	75	0.5%	18,750	88.4%	19,300	85.9%	19,900	83.7%	\$75,000,000	\$70,470,000	-6.0%	100.0%

From Report #1

From Report #2

All relevant information is on one page and irrelevant information has been removed

Step 3:

Develop a visually appealing and consistent template for all reports.

Revised Combined Report

Includes title and dates

Used color to highlight important information, not across entire report

Logo added to unify and brand all reports

Year-to-Date/Budgeted Headcount - All Students
Final Spring 2011 Enrollment Update Report
March 6, 2009



		Headcount						Revenue							
		2008	2009	2008-2009 Chg		2008 Final		2008	2008 %	2009	2009 %	2009	2009	% from	% of
		(3/6/2008)	(3/6/2009)	#	%	(4/17/2010)	of Final	Budget	of Budget	Budget	of Budget	Budget	(3/6/2009)	Budget	Univ Total
Commerce	ugrd	3,900	4,000	100	2.6%	4,000	97.5%	4,100	95.1%	4,200	95.2%	\$3,000,000	\$2,900,000	-3.3%	4.1%
	grad	1,800	2,000	200	11.1%	2,000	90.0%	2,000	90.0%	2,200	90.9%	\$1,100,000	\$1,200,000	9.1%	1.7%
		5,700	6,000	300	5.3%	6,000	95.0%	6,100	93.4%	6,400	93.8%	\$48,299,142	\$46,216,270	-4.3%	85.6%
Communication	ugrd	1,000	900	-100	-10.0%	1,000	100.0%	1,000	100.0%	1,000	90.0%	\$1,000,000	\$900,000	-10.0%	1.3%
	grad	200	150	-50	-25.0%	250	80.0%	200	100.0%	200	75.0%	\$500,000	\$480,000	-4.0%	0.7%
		1,200	1,050	-150	-12.5%	1,250	96.0%	1,200	100.0%	1,200	87.5%	\$15,605,151	\$14,781,801	-5.3%	21.0%
CDM	ugrd	100	50	-50	-50.0%	150	66.7%	100	100.0%	100	50.0%	\$7,000,000	\$6,700,000	-4.3%	9.5%
	grad	1,000	1,500	500	50.0%	1,500	66.7%	2,000	50.0%	1,800	83.3%	\$5,000,000	\$4,500,000	-20.0%	5.7%
		1,100	1,550	450	40.9%	1,650	66.7%	2,100	52.4%	1,900	81.6%	\$17,978,529	\$19,240,891	7.0%	27.3%
Education	ugrd	700	600	-100	-14.3%	700	100.0%	600	116.7%	700	85.7%	\$5,000,000	\$5,200,000	4.0%	7.4%
	grad	900	900	0	0.0%	1,300	69.2%	1,200	75.0%	1,200	75.0%	\$4,000,000	\$4,000,000	0.0%	5.7%
		1,600	1,500	-100	-6.3%	2,000	80.0%	1,800	88.9%	1,900	78.9%	\$12,878,529	\$12,181,851	-5.4%	17.3%
LA&S	ugrd	4,200	4,000	-200	-4.8%	4,500	93.3%	4,500	93.3%	4,500	88.9%	\$34,000,000	\$32,000,000	-5.9%	45.4%
	grad	1,200	1,200	0	0.0%	1,500	80.0%	1,000	120.0%	1,500	80.0%	\$5,000,000	\$4,800,000	-4.0%	6.8%
		5,400	5,200	-200	-3.7%	6,000	90.0%	5,500	98.2%	6,000	88.7%	\$50,022,507	\$50,805,620	1.6%	72.1%
Law	prof	0	0	0		0		0		0		\$0	\$0	0.0%	0.0%
Music	ugrd	200	150	-50	-25.0%	200	100.0%	200	100.0%	200	75.0%	\$2,000,000	\$1,800,000	-10.0%	2.6%
	grad	50	50	0	0.0%	100	50.0%	100	50.0%	100	50.0%	\$500,000	\$240,000	-52.0%	0.3%
		250	200	-50	-20.0%	300	83.3%	300	83.3%	300	66.7%	\$2,670,607	\$2,750,501	3.0%	3.9%
SNL	ugrd	900	800	-100	-11.1%	1,000	90.0%	1,700	52.9%	1,700	47.1%	\$4,000,000	\$3,500,000	-12.5%	5.0%
	grad	100	50	-50	-50.0%	150	66.7%	200	50.0%	100	50.0%	\$500,000	\$450,000	-10.0%	0.6%
		1,000	850	-150	-15.0%	1,150	87.0%	1,900	52.6%	1,800	47.2%	\$6,256,641	\$5,920,755	-5.4%	8.4%
Theatre	ugrd	300	250	-50	-16.7%	350	85.7%	200	150.0%	200	125.0%	\$2,000,000	\$2,100,000	5.0%	3.0%
	grad	25	50	25	100.0%	50	50.0%	100	25.0%	100	50.0%	\$200,000	\$200,000	0.0%	0.3%
		325	300	-25	-7.7%	400	81.3%	300	108.3%	300	100.0%	\$3,042,919	\$3,165,722	4.0%	4.5%
IPD*	ugrd	0	0	0		0		50		50		\$200,000	\$0	-100.0%	0.0%
	grad	0	0	0		0		50		50		\$0	\$0	0.0%	0.0%
		0	0	0		0		100		100		\$200,000	\$0	-100.0%	0.0%
Total	ugrd	11,300	10,750	-550	-4.9%	11,900	95.0%	12,450	90.8%	12,650	85.0%	\$58,200,000	\$55,100,000	-5.3%	78.2%
	prof	0	0	0		0		0		0		\$0	\$0	0.0%	0.0%
	grad	5,275	5,900	625	11.8%	6,850	77.0%	6,850	77.0%	7,250	81.4%	\$16,800,000	\$15,370,000	-8.5%	21.8%
University Total		16,575	16,650	75	0.5%	18,750	88.4%	19,300	85.9%	19,900	83.7%	\$75,000,000	\$70,470,000	-6.0%	100.0%

~ Part of the EMM Enrollment Report Suite

Added conditional formatting to indicate decline with red text

Included subtle shading to highlight subtotals

Step 4:

Automate the reports using Ruby, an open source programming language.

Ruby code queries SQL Server, reads hidden rows and columns in Excel, and populates the report

			Heads_YTD	Heads_Current			Heads_Final			Heads_Bud_YTD			Heads_Bud_Current			Revenue_Bud_Current	Revenue_Current
			Headcount								Revenue						
			2008 (3/6/2008)	2009 (3/6/2009)	2008-2009 Chg # %		2008 Final (4/17/2010)	% of Final	2008 Budget	2008 % of Budget	2009 Budget	2009 % of Budget	2009 Budget	2009 (3/6/2009)	% from Budget	% of Univ Total	
UGRD_CCOMM	Commerce	ugrd	4,252	4,019	-233	-5.5%	4,247	100.1%	4,419	96.2%	4,164	96.5%	\$36,722,638	\$35,393,413	-3.6%	22.6%	
GRAD_CCOMM		grad	2,123	1,911	-212	-10.0%	2,098	101.2%	2,263	93.8%	2,038	93.8%	\$12,324,925	\$11,319,324	-8.2%	7.2%	
				6,375	5,930	-445	-7.0%	6,345	100.5%	6,682	95.4%	6,202	95.6%	\$49,047,563	\$46,712,737	-4.8%	29.8%
UGRD_COMMU	Communication	ugrd	1,371	1,536	165	12.0%	1,376	99.6%	1,505	91.1%	1,597	96.2%	\$12,737,679	\$13,825,327	8.5%	8.8%	
GRAD_COMMU		grad	241	245	4	1.7%	241	100.0%	220	109.5%	250	98.0%	\$742,002	\$1,068,880	44.1%	0.7%	
				1,612	1,781	169	10.5%	1,617	99.7%	1,725	93.4%	1,847	96.4%	\$13,479,681	\$14,894,207	10.5%	9.5%
UGRD_SCTI	CDM	ugrd	1,240	1,375	135	10.9%	1,248	99.4%	1,082	114.6%	1,277	107.7%	\$8,925,110	\$11,886,402	33.2%	7.6%	
GRAD_SCTI		grad	1,767	1,814	47	2.7%	1,760	100.4%	1,593	110.9%	1,671	108.6%	\$6,169,682	\$7,951,730	28.9%	5.1%	
				3,007	3,189	182	6.1%	3,008	100.0%	2,675	112.4%	2,948	108.2%	\$15,094,792	\$19,838,132	31.4%	12.7%
UGRD_SEDUC	Education	ugrd	846	794	-52	-6.1%	849	99.6%	684	123.7%	845	94.0%	\$5,862,814	\$7,068,067	20.6%	4.5%	
GRAD_SEDUC		grad	1,460	1,415	-45	-3.1%	1,460	100.0%	1,304	112.0%	1,476	95.9%	\$4,428,396	\$5,258,855	18.8%	3.4%	
				2,306	2,209	-97	-4.2%	2,309	99.9%	1,988	116.0%	2,321	95.2%	\$10,291,210	\$12,326,922	19.8%	7.9%
UGRD_CLA&S	LA&S	ugrd	4,877	4,968	91	1.9%	4,893	99.7%	4,714	103.5%	4,930	100.8%	\$38,426,046	\$43,168,870	12.3%	27.6%	
GRAD_CLA&S		grad	1,723	1,860	137	8.0%	1,727	99.8%	1,548	111.3%	1,841	101.0%	\$5,651,986	\$7,740,788	37.0%	4.9%	
				6,600	6,828	228	3.5%	6,620	99.7%	6,262	105.4%	6,771	100.8%	\$44,078,032	\$50,909,658	15.5%	32.5%
PROF_CLAW	Law	prof	0	0	0		0		0		0		\$0	\$0	0.0%	0.0%	
UGRD_SMUSC	Music	ugrd	236	232	-4	-1.7%	236	100.0%	224	105.4%	218	106.4%	\$2,085,976	\$2,226,931	6.8%	1.4%	
GRAD_SMUSC		grad	111	110	-1	-0.9%	113	98.2%	97	114.4%	106	103.8%	\$448,213	\$512,560	14.4%	0.3%	
				347	342	-5	-1.4%	349	99.4%	321	108.1%	324	105.6%	\$2,534,189	\$2,739,491	8.1%	1.7%
UGRD_SNL	SNL	ugrd	1,947	1,769	-178	-9.1%	1,974	98.6%	1,941	100.3%	2,133	82.9%	\$5,457,356	\$5,487,650	0.6%	3.5%	
GRAD_SNL		grad	141	153	12	8.5%	145	97.2%	132	106.8%	102	150.0%	\$364,810	\$407,250	11.6%	0.3%	
				2,088	1,922	-166	-8.0%	2,119	98.5%	2,073	100.7%	2,235	86.0%	\$5,822,166	\$5,894,900	1.2%	3.8%
UGRD_THESC	Theatre	ugrd	281	287	6	2.1%	283	99.3%	287	97.9%	288	99.7%	\$2,692,374	\$2,783,373	3.4%	1.8%	
GRAD_THESC		grad	39	39	0	0.0%	39	100.0%	35	111.4%	36	108.3%	\$313,873	\$373,877	19.1%	0.2%	
				320	326	6	1.9%	322	99.4%	322	99.4%	324	100.6%	\$3,006,247	\$3,157,250	5.0%	2.0%
UGRD_IPD	IPD*	ugrd	21	28	7	33.3%	52	40.4%	56	37.5%	89	31.5%	\$259,620	\$60,700	-76.6%	0.0%	
GRAD_IPD		grad	0	10	10		0		0		0		\$0	\$21,750	0.0%	0.0%	
				21	38	17	81.0%	52	40.4%	56	37.5%	89	42.7%	\$259,620	\$82,450	-68.2%	0.1%

Other columns are calculated in Excel

Step 4:

Create checking system and update as needed.

These are hidden columns in Excel that verify the populated numbers sum correctly

Revenue			
2011	2011	% from	% of
Budget	(4/16/2011)	Budget	Univ Total
\$36,722,638	\$35,297,364	-3.9%	22.7%
\$12,324,925	\$10,908,586	-11.5%	7.0%
\$49,047,563	\$46,205,950	-5.8%	29.8%
\$12,737,679	\$13,730,315	7.8%	8.8%
\$742,002	\$1,023,760	38.0%	0.7%
\$13,479,681	\$14,754,075	9.5%	9.5%
\$8,925,110	\$11,783,971	32.0%	7.6%
\$6,169,682	\$7,393,680	19.8%	4.8%
\$15,094,792	\$19,177,651	27.0%	12.4%
\$5,862,814	\$7,029,955	19.9%	4.5%
\$4,428,396	\$5,151,896	16.3%	3.3%
\$10,291,210	\$12,181,851	18.4%	7.9%
\$38,426,046	\$43,166,157	12.3%	27.8%
\$5,651,986	\$7,593,837	34.4%	4.9%
\$44,078,032	\$50,759,994	15.2%	32.7%
\$0	\$0	0.0%	0.0%
\$2,085,976	\$2,231,731	7.0%	1.4%
\$448,213	\$518,770	15.7%	0.3%
\$2,534,189	\$2,750,501	8.5%	1.8%
\$5,457,356	\$5,518,420	1.1%	3.6%
\$364,810	\$394,655	8.2%	0.3%
\$5,822,166	\$5,913,075	1.6%	3.8%
\$2,692,374	\$2,793,030	3.7%	1.8%
\$313,873	\$372,692	18.7%	0.2%
\$3,006,247	\$3,165,722	5.3%	2.0%
\$259,620	\$225,575	-13.1%	0.1%
\$0	\$28,275	0.0%	0.0%
\$259,620	\$253,850	-2.2%	0.2%
\$113,169,613	\$121,776,518	7.6%	78.5%
\$0	\$0	0.0%	0.0%
\$30,443,887	\$33,386,151	9.7%	21.5%
\$143,613,500	\$155,162,669	8.0%	100.0%

2008		2008-2009 Chg #	2009 Revenue Budget
Undergraduate	TRUE	TRUE	Undergraduate TRUE
Professional	TRUE	TRUE	Professional TRUE
Graduate	TRUE	TRUE	Graduate TRUE
Grand Total	TRUE	TRUE	Grand Total TRUE
2009		2008-2009 Chg %	2009 Revenue
Undergraduate	TRUE	TRUE	Undergraduate TRUE
Professional	TRUE	TRUE	Professional TRUE
Graduate	TRUE	TRUE	Graduate TRUE
Grand Total	TRUE	TRUE	Grand Total TRUE
2008 Final		% of Final	% of Budget
Undergraduate		TRUE	Undergraduate TRUE
Professional	TRUE	TRUE	Professional TRUE
Graduate	TRUE	TRUE	Graduate TRUE
Grand Total	TRUE	TRUE	Grand Total TRUE
2008 Budget		% of Budget	% of Total
Undergraduate	TRUE	TRUE	Undergraduate TRUE
Professional	TRUE	TRUE	Professional TRUE
Graduate	TRUE	TRUE	Graduate TRUE
Grand Total	TRUE	TRUE	Grand Total TRUE
2009 Budget		% of Budget	Sum % of Tot
Undergraduate	TRUE	TRUE	Undergraduate FALSE
Professional	TRUE	TRUE	Professional TRUE
Graduate	TRUE	TRUE	Graduate TRUE
Grand Total	TRUE	TRUE	Grand Total FALSE

False values indicate a problem that needs to be addressed

Conclusion:

This process allowed us to create automated reports that were visually appealing to readers and contained all the relevant information on one page which was vital for decision makers.

It also resulted in fewer questions about data inconsistencies between multiple reports and faster delivery of the information.

For more information...

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