



AIR Forum 2011
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No Do Overs:

Tips for Implementing a Business Intelligence Solution

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Background

- WKU
- IR
- Timeline

Before You Start

- Decide if a Business Intelligence (BI) solution is right for you
 - BI Does
 - Allow users desktop access to data
 - Allow for faster turnaround on some data requests
 - Allow users to track KPIs
 - Allow users to manipulate data
 - Free up staff time



BI Does (Continued)

- Provide a way to distribute traditional reports in a secure manner
- Allow more flexibility in data presentation
- Provide transparency to stakeholders
- Help users find answers to questions they never asked
- Integrate analysis into reporting



BI does not:



- Answer every ad hoc data/research question asked
- Work as an ad hoc system
- Create itself
- Launch itself
- Maintain itself
- Automatically fix data quality issues
- Replace administration systems

- Decide what you want BI to do for you.
 - Who are your stakeholders?
 - What information do you want to provide through a BI solution?
 - Who will have access to the information and at what level?



- Once you've committed to the project, get the right people on your team.

~One of the most important traits of organizations that succeed is having the right people in the key seats.



(Jim Collins in *How the Mighty Fall: And Why Some Companies Never Give In*, (2009, pgs. 56-57, 159-160).

Now You're Off & Running



- Involve your stakeholders.
 - Management
 - IT
 - Potential Users

- Attack data quality issues.
- Plan to expand.
- Anticipate and resolve potential conflicts.



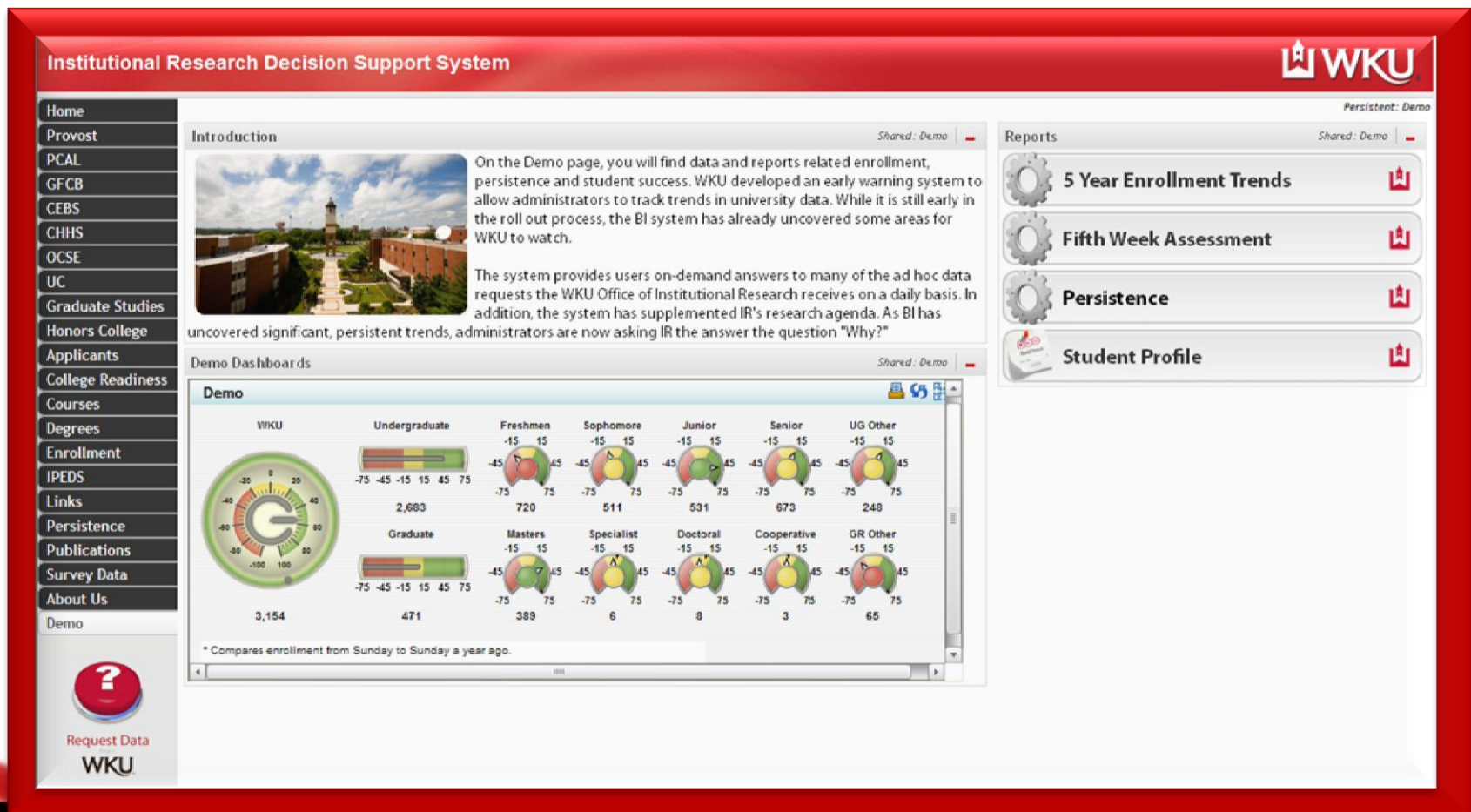


- Pick a catchy name for your system.
- Get the appropriate training—the sooner the better.

- Take advantage of consultants.
- Dare to be creative.



- Invest time in design.





Institutional Research Decision Support System

Persistence of First-Time, Full-Time Baccalaureate Degree-Seeking Students: 2000 - 2008 Cohort

Prepared on Tuesday, May 10, 2011 10:12:22 AM CDT

Applied filters: Persistence Detail Only equal to Cohort, Enrolled - University, Graduated - Cohort Degree, Not Retained, Exclusions AND Grs Cohort equal to Full-Time AND Student Count equal to Headcount AND Cohort Degree Type equal to Baccalaureate

Look Year			Year 1			Year 2			Year 3			Year 4			
Persistence Detail			Cohort	Enrolled - University	Not Retained	Enrolled - University	Graduated - Cohort Degree	Not Retained	Enrolled - University	Graduated - Cohort Degree	Not Retained	Enrolled - University	Graduated - Cohort Degree	Not Retained	Enrolled - University
Cohort Term	College	Department	Cohort	%	%	%	%	%	%	%	%	%	%	%	%
Fall 2000			629	76.31%	23.69%	66.08%		33.92%	60.51%	0.32%	39.17%	37.32%	20.73%	41.95%	12.94%
Fall 2001			661	77.16%	22.84%	66.97%		33.03%	60.00%	0.30%	39.70%	35.45%	19.09%	45.45%	11.67%
Fall 2002			741	73.92%	26.08%	62.87%		37.13%	59.21%	0.27%	40.51%	33.70%	20.38%	45.92%	12.64%
Fall 2003	Arts & Letters	99AR: Undeclared	29	65.52%	34.48%	62.07%		37.93%	55.17%		44.83%	44.83%	13.79%	41.38%	20.69%
		Art	9	100.00%		55.56%		44.44%	55.56%		44.44%	55.56%		44.44%	
		Communication	4	50.00%	50.00%	25.00%		75.00%	25.00%		75.00%		25.00%	75.00%	
		English	11	81.82%	18.18%	72.73%		27.27%	63.64%		36.36%	27.27%	27.27%	45.45%	9.09%
		History	9	66.67%	33.33%	77.78%		22.22%	55.56%		44.44%	33.33%	22.22%	44.44%	33.33%
		Journalism and Broadcasting	80	80.00%	20.00%	71.25%		28.75%	65.00%		35.00%	37.50%	31.25%	31.25%	10.00%
		Modern Languages	3	66.67%	33.33%	66.67%		33.33%	66.67%		33.33%	33.33%	33.33%	33.33%	
		Music	13	69.23%	30.77%	76.92%		23.08%	69.23%		30.77%	46.15%	7.69%	46.15%	38.46%
		Philosophy and Religion	3	66.67%	33.33%			100.00%			100.00%			100.00%	
		Political Science	11	90.91%	9.09%	81.82%		18.18%	63.64%	9.09%	27.27%	27.27%	45.45%	27.27%	
		Sociology	4	75.00%	25.00%	75.00%		25.00%	75.00%		25.00%	75.00%		25.00%	50.00%
		Theatre and Dance	15	80.00%	20.00%	73.33%		26.67%	80.00%		40.00%	33.33%	26.67%	40.00%	6.67%
		Education & Behavioral Science	94	63.44%	36.56%	54.84%		45.16%	54.84%		45.16%	35.48%	19.35%	45.16%	15.05%
		Exploratory Studies	153	72.55%	27.45%	66.01%		33.99%	61.44%	0.65%	37.91%	38.56%	19.61%	41.83%	8.50%
		Gordon Ford Coll of Business	107	67.29%	32.71%	54.21%		45.79%	55.14%		44.86%	36.45%	16.82%	46.73%	9.35%
		Health & Human Services	90	63.33%	36.67%	51.11%		48.89%	54.44%	1.11%	44.44%	28.89%	20.00%	51.11%	11.11%
		Science & Engineering	146	78.77%	21.23%	68.97%		31.03%	68.28%		31.72%	35.86%	27.59%	36.55%	11.72%
Fall 2004			676	75.30%	24.70%	67.60%	0.15%	32.25%	61.24%	0.74%	38.02%	36.54%	21.60%	41.86%	12.72%
Fall 2005			708	72.42%	27.58%	65.86%		34.14%	62.55%	0.14%	37.30%	34.80%	23.30%	41.90%	
Fall 2006			747	73.63%	26.37%	63.59%		36.41%	58.63%	0.13%	41.23%				
Fall 2007			720	72.32%	27.68%	65.65%		34.35%							
Fall 2008			757	71.16%	28.84%										

Student Profile

Bookmark Publish E-mail

☐ Show only required items (denoted by *)

General

*Select a term

Spring 2010

*Would you like to run the report for WKU or a specific college, department or major?

Department

*Which college, department or major?

Biology

*Select the type of report

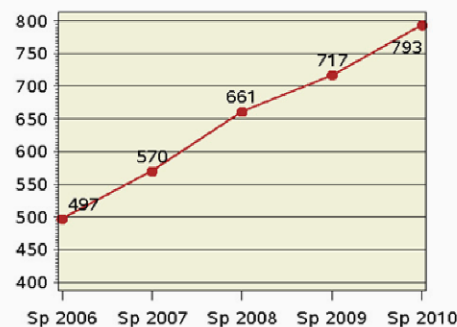
All Students

Run



Office of Institutional Research Spring 2010 Student Profile Sheet Department Report: Biology

Five Year Enrollment Trend



Level Code	Number	Percent
Graduate	56	7.06
Undergraduate	737	92.94

Full Part Time Status	Number	Percent
Full Time	709	89.41
Part Time	84	10.59

Gender	Number	Percent
Female	435	54.9
Male	358	45.1

Ethnicity	Number	Percent
Nonres Alien	20	2.5
Black, Non-Hispanic	55	6.9
Amer Ind or Ala Native	3	0.4
Asian or Pac Islander	14	1.8
Hispanic	14	1.8
White, Non-Hispanic	675	85.1
Not Supplied	12	1.5

Residence	Number	Percent
In-state	650	82.0
Out-of-state/US Territories	122	15.4
International Students	21	2.6

Age	Number	Percent
Traditional (Under Age 25)	667	84.1
Non-traditional (Age 25+)	70	8.8
Graduate Students	56	7.1

On/Off Campus	Number	Percent
Off campus/commute	520	65.6
Live on campus	273	34.4

Transfer Status	Number	Percent
No	772	97.4
Yes	21	2.6

Degree Type	Number	Percent
Associate	2	0.3
Baccalaureate	735	92.7
Masters	56	7.1

Classification	Number	Percent
Freshman	172	21.7
First Time First Year	11	1.4
Sophomore	180	22.7
Junior	170	21.4
Senior	201	25.3
Other Undergraduates	14	1.8
Masters	56	7.1
First Time Masters	3	0.4

Honors Student	Number	Percent
No	656	82.7
Yes	137	17.3

Total 793 100.0



- Provide documentation.

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Level and Classification	
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5 Year Enrollment Trends

The tables in the Enrollment Status Report show enrollment from the current week to the same week last year. The UNIVERSITY report shows student HEADCOUNT, while the MAJORS report shows the counts of MAJORS of students enrolled by college, department and major. In the UNIVERSITY report, each enrolled student is counted only once, regardless of how many majors they have declared. This report should be used to find the actual number of students in a category and to calculate measures such as average ACT score.

In the MAJORS report, each enrolled student is counted in each major he or she has declared. This report should be used to show the number of MAJORS, not students, each college and department has enrolled this week compared to the same week last year. Demographic variables such as gender and race and academic variables such as ACT, GRE or GPA should be used only at the major level in the MAJORS report or in the UNIVERSITY report. Using these variables at the college or department level in the MAJORS report will overstate the numbers if students have declared multiple majors within a college or department.

Variables available for use:

ACA Coll Dept Lev Maj – Shows majors by college, department, level and major.

ACA Univ Level Class – Shows majors by level (Undergraduate or Graduate) and classification (freshman, sophomore, junior, etc.).

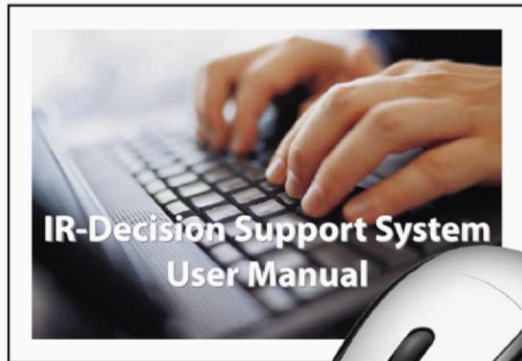
Ethnicity – Shows majors by ethnicity (International Students are shown as Nonres Alien).

First Generation College Student - Shows students who are first generation college students (Yes/No).

First-time Student – Shows first-time students in a major, excluding first-time transfer students.

Full or Part Time – Shows students by full or part-time enrollment status for the term. (Full-time enrollment consists of 12 credit hours/semester for undergraduate students and nine credit hours/semester for graduate students.

- Prepare thoughtful training materials.



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OLAP Cubes—Filtering Data
Once you have added data elements to filter, or subset, your table.

1) You must right mouse click in the **BLANK CELL** at the top left of the OLAP Cube to get the "Filter and Rank..." menu item.

LOOK: Right mouse clicking on the BLANK CELL is the ONLY way to get to the Filter screen.

2) Under **Categories**, select the data element from which you need to subset (ex. Honors Students).

3) Under **Type**, select the **Filter** option.

4) Select the filter values and click the right arrow to select.

5) Click **OK** for the filtered table to appear. Note that **Applied Filters** (at the top) will reflect the new filter.

Applied filters: ... **AND SOLO Honors equal to Yes**

QUICK TIP: You can use the **Assign Deter** menu item to hide the filtered variable and/or change the placement of other variables within the table.



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Office of
Institutional Research

**Decision
Support
Navigation
Guide**



After Implementation

- Act swiftly on user feedback.
- Keep a log of all suggestions.
- Remember:
It is a marathon,
not a sprint.





Questions?

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