Institutional Dashboards: Navigational Tools for Colleges and Universities

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Management Reporting Tools

- Balanced Scorecard
- Baldridge 7 Quality Criteria
- Strategic Performance Measures
- Six Sigma
- Performance Indicators
- Dashboard Indicators
Dashboard \(\text{ˈdɑʃ-,bə(ə)rd}\) n

1: a panel extending across an automobile, airplane, or motorboat below the windshield and usually containing dials and controls (Webster)

2: a group of financial indicators and other operational outcomes measures that reflect key elements of an entity’s strategic direction used to “navigate” the organization, much in the same way a pilot uses the array of indicators in the cockpit to monitor and navigate an airplane. (Doerfel & Ruben, “Developing more adaptive, innovative and interactive organizations”, New Directions for Higher Education, no. 118, 2002.)
Our Definition

A one to two page document that presents critical information (indicators) in a succinct, easily understood, visually appealing format. A tool used to inform viewers of the current state of affairs, to provide information to evaluate performance and to help decision makers move an institution forward. (Terkla, 2005)
Methodology

- 66 dashboards
- Google Search
- On-line request
  - Electronic Air
  - NEAIR List Serve
  - SAIR Newsletter
  - HEDS List Serve
Important Aspects

- Only the most important indicators
- Operationally focused – tied to mission/strategic plan
- Easy to comprehend – instant visual impact
- Number of indicators varies greatly (3 to 68)
- Grouped measures into 11 broad categories
- Within categories – subgroups with 6 to 100 indicators
Developing List of Indicators

- What information will help us measure progress?
- Who will provide input in determining appropriate indicators?
Indicators

- Financial
- Admissions
- Enrolment
- Faculty
- Student Outcomes
- Student Engagement
- Academic Information
- Physical Plant
- Satisfaction
- Research
- External Ratings
Financial Indicators

- 80% Endowment & Expense Data
  - Market value
  - Endowment per FTE
  - Endowment growth rate
- 73% Advancement
  - Alumni giving rate
  - Total gifts
  - Alumni gifts
- 64% Financial Aid Information
  - Tuition discount
  - % students receiving aid
  - % receiving institutional grants
- 47% Fees/Tuition Data
Admissions Indicators

- **79% Admissions Scores**
  - Average SATs or ACTs
  - % in top 10 percent of high school class
  - Average high school GPA

- **71% General Admissions Data**
  - Yield rate
  - Admit rate
  - Number of applications

- **21% Graduate Admissions Information**
  - Graduate test scores
  - Admit rate
Enrolment Indicators

- 77% Enrolment Figures
  - Undergraduate enrolment
  - Graduate headcount
  - Number of new freshmen

- 72% Enrolment Figures special populations
  - % of minority students
  - % of international students
  - % of female/male students
Faculty Indicators

- 77% Faculty
  - FTE
  - % with terminal degrees
  - Average faculty salary by rank
- 33% Composition of Special Populations
  - % minority
  - % female/male
  - % female/male by tenure
Student Outcomes

- 73% Graduation Rates
  - 4, 5, & 6 year rates
- 71% Retention Rates
  - Freshmen retention rate
  - Fall to fall retention
- 41% Measures of Success
  - % employed
  - % going to graduate school
- 23% Completions & Awards
  - Number of degrees awarded
  - Number of students who graduated with special honors
- 15% Graduation Rates – Special Populations
Student Engagement

- 57.6% Student Engagement
  - % of students studying abroad
  - % of students writing honors thesis
  - % of students living on-campus
Academic Information

- 55% Student/Faculty Contact
  - Student-Faculty ratio
  - Number of classes < 20 students
  - Number of classes > 50 students

- 47% Academic Information
  - Number of fellowships
  - Number of course sections offered
  - ARL ranking of library
Physical Plant

- 38% Physical Plant Information
  - Plant reinvestment rate
  - Seats/station utilization
  - Space utilization
Satisfaction

- 35% Student Satisfaction
  - % Undergraduate satisfaction
  - Alumni satisfaction
  - Student satisfaction with instruction
- 11% Employer/Staff Satisfaction
  - Employer satisfaction
  - Employee satisfaction
  - Community satisfaction
- 5% Faculty Satisfaction
Research

- 35% Research Measures
  - Expenditures
  - Total research support
  - # of patents awarded
  - Total externally funded research
External Ratings

- 21% Peer Assessment Data
  - US News tier
  - US News peer assessment score
  - US News rating
Visual Presentations Vary

- Matrices of numbers
- Graphical presentations
- Trend lines
- Peer data
- Incorporation of symbols and/or color
## Tufts University Dashboard Winter 2004/2005

### Student Body
- Undergraduate Admissions:
  - Total Undergraduate: 11,114
  - Undergraduate Male: 5,555
  - Undergraduate Female: 5,559
  - % Minority: 23%
  - Average GPA: 3.9

### Faculty
- Tenure Track:
  - Total: 500
  - % Minority: 20%

### Instruction
- Undergraduate Faculty:
  - Number: 1,000
  - % Minority: 20%

### Research
- Research Expenditures: $375,000,000
- Research Faculty: 1,000

### Advancement
- Endowment:
  - Total: $750,000,000
  - % Minority: 20%

### Tufts University Dashboard Winter 2004/2005

### Undergraduates
- Percentage of Women: 52%
- % Minority: 32%

### Admissions
- Total Undergraduate: 11,114
- Undergraduate Female: 5,559
- Undergraduate Male: 5,555
- % Minority: 23%
- Average GPA: 3.9

### Faculty
- Tenure Track:
  - Total: 500
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### Instruction
- Undergraduate Faculty:
  - Number: 1,000
  - % Minority: 20%

### Research
- Research Expenditures: $375,000,000
- Research Faculty: 1,000

### Advancement
- Endowment:
  - Total: $750,000,000
  - % Minority: 20%
## Hamilton

<table>
<thead>
<tr>
<th>Enrollment</th>
<th>99/00</th>
<th>00/01</th>
<th>01/02</th>
<th>02/03</th>
<th>03/04</th>
<th>1 yr. Change</th>
<th>1 yr. Goal</th>
<th>5 yr. Trend</th>
<th>5 yr. Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>FT degree enrollment</td>
<td>1,710</td>
<td>1,744</td>
<td>1,707</td>
<td>1,808</td>
<td>1,755</td>
<td>Down</td>
<td>Up</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Freshman retention rate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Up</td>
<td>Up</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 year graduation rate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Up</td>
<td>Up</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Students of color</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Down</td>
<td>Up</td>
<td></td>
<td></td>
</tr>
<tr>
<td>International students</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Up</td>
<td>Up</td>
<td></td>
<td></td>
</tr>
<tr>
<td>States/countries of students</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Dwn/Up</td>
<td>Up/Up</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Admissions

| # of applicants                |       |       |       |       |       | Down         | Up         |             |            |
| Admit rate                     |       |       |       |       |       | Up           | Up         |             |            |
| Yield rate                     |       |       |       |       |       | Up           | Up         |             |            |
| Top 10% of class (enrolled)    |       |       |       |       |       | Up           | Up         |             |            |
| Average SAT (enrolled)         |       |       |       |       |       | Up           | Up         |             |            |
Prototype; data are fictitious.

**DARTMOUTH DASHBOARD**

### UNDERGRADUATE

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>10.6 10.4 &lt; &gt;</td>
<td>51% 51% &lt; &gt;</td>
<td>1450 1400 +</td>
<td>30% 30% +</td>
<td>6% 5% -</td>
<td>50% 50% ++</td>
<td>21% NCD</td>
<td>60% 57% ++</td>
<td>71% 67% -</td>
<td>12% 9% +</td>
<td>12 9 &lt; &gt;</td>
<td>69% NCD</td>
</tr>
<tr>
<td>7.7 9.3</td>
<td>48% 51%</td>
<td>1350 1420 7 years only</td>
<td>20% 25%</td>
<td>4% 5%</td>
<td>40% 45%</td>
<td>15% 19%</td>
<td></td>
<td>57% 63% 6 years only</td>
<td>9% 10%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Key**
- **Highest value past 10 years**: NN
- **Lowest value past 10 years**: NN
- **Current value**: NN

**Dartmouth’s Position (among 17, top-rank is most desirable)**

- ++: among the top 3
- +: 4th through 7th
- <>: 8th through 10th
- -: 11th through 14th
- - -: lowest 3

Orange caption indicates a condition of concern
Pink caption indicates major positive trend
### MSU-Bozeman

#### Dashboard Indicators, MSU-Bozeman

<table>
<thead>
<tr>
<th>Annual FTE Enrollment</th>
<th>FY98</th>
<th>FY99</th>
<th>FY00</th>
<th>FY01</th>
<th>FY02</th>
<th>FY03</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Resident</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Undergraduate</td>
<td>7,039.07</td>
<td>7,126.60</td>
<td>7,071.27</td>
<td>7,150.97</td>
<td>7,320.97</td>
<td>7,442.67</td>
</tr>
<tr>
<td>Graduate</td>
<td>451.04</td>
<td>474.17</td>
<td>555.42</td>
<td>589.05</td>
<td>606.34</td>
<td>641.62</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>7,490.11</td>
<td>7,600.77</td>
<td>7,626.69</td>
<td>7,740.02</td>
<td>7,927.31</td>
<td>8,084.29</td>
</tr>
<tr>
<td><strong>Nonresident</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Undergraduate</td>
<td>2,345.27</td>
<td>2,321.50</td>
<td>2,209.75</td>
<td>2,095.34</td>
<td>1,855.04</td>
<td>1,898.84</td>
</tr>
<tr>
<td>Graduate</td>
<td>179.92</td>
<td>198.96</td>
<td>231.21</td>
<td>199.38</td>
<td>202.08</td>
<td>237.76</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>2,525.19</td>
<td>2,520.46</td>
<td>2,440.96</td>
<td>2,294.92</td>
<td>2,057.12</td>
<td>2,136.60</td>
</tr>
<tr>
<td><strong>WUE</strong></td>
<td>194.02</td>
<td>253.19</td>
<td>334.20</td>
<td>376.50</td>
<td>459.50</td>
<td>453.58</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>10,209.32</td>
<td>10,374.42</td>
<td>10,401.95</td>
<td>10,411.44</td>
<td>10,443.93</td>
<td>10,674.47</td>
</tr>
</tbody>
</table>
### Actual Peer Institutions 1999-2000

<table>
<thead>
<tr>
<th>Institution</th>
<th>Academic Reputation</th>
<th>Mid-point SAT</th>
<th>Persist. Rate</th>
<th>Graduation Rate</th>
<th>% Alumni Giving</th>
<th>% E&amp;G to Instruction</th>
<th>Ave. Fac. Salary</th>
<th>Satisfaction Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Longwood College</td>
<td>2.9</td>
<td>1045</td>
<td>78%</td>
<td>60%</td>
<td>30%</td>
<td>51%</td>
<td>$47,400</td>
<td>**</td>
</tr>
<tr>
<td>Plymouth State College</td>
<td>2.6</td>
<td>960</td>
<td>67%</td>
<td>52%</td>
<td>18%</td>
<td>48%</td>
<td>$51,900</td>
<td>**</td>
</tr>
<tr>
<td>Salisbury State University</td>
<td>2.8</td>
<td>1115</td>
<td>83%</td>
<td>60%</td>
<td>13%</td>
<td>49%</td>
<td>$47,100</td>
<td>**</td>
</tr>
<tr>
<td>Shippensburg University (PA)</td>
<td>2.9</td>
<td>1050</td>
<td>77%</td>
<td>64%</td>
<td>25%</td>
<td>49%</td>
<td>$63,400</td>
<td>**</td>
</tr>
<tr>
<td>Sonoma State University</td>
<td>3.3</td>
<td>1040</td>
<td>76%</td>
<td>49%</td>
<td>6%</td>
<td>51%</td>
<td>$59,000</td>
<td>**</td>
</tr>
<tr>
<td>SUNY Fredonia</td>
<td>2.9</td>
<td>1090</td>
<td>80%</td>
<td>68%</td>
<td>14%</td>
<td>45%</td>
<td>$49,000</td>
<td>**</td>
</tr>
<tr>
<td>SUNY Plattsburg</td>
<td>2.7</td>
<td>1060</td>
<td>78%</td>
<td>61%</td>
<td>19%</td>
<td>51%</td>
<td>$46,700</td>
<td>**</td>
</tr>
<tr>
<td>SUNY Potsdam</td>
<td>2.7</td>
<td>1025</td>
<td>76%</td>
<td>55%</td>
<td>18%</td>
<td>46%</td>
<td>$44,900</td>
<td>**</td>
</tr>
<tr>
<td>UNC - Wilmington</td>
<td>3.2</td>
<td>1080</td>
<td>79%</td>
<td>54%</td>
<td>13%</td>
<td>57%</td>
<td>$50,700</td>
<td>**</td>
</tr>
<tr>
<td>Univ. of Wisconsin: River Falls</td>
<td>2.9</td>
<td>ACT</td>
<td>69%</td>
<td>44%</td>
<td>17%</td>
<td>50%</td>
<td>$50,000</td>
<td>**</td>
</tr>
<tr>
<td>Willamette University</td>
<td>3.0</td>
<td>1220</td>
<td>89%</td>
<td>74%</td>
<td>33%</td>
<td>33%</td>
<td>$56,800</td>
<td>**</td>
</tr>
</tbody>
</table>

**Longwood Rank (of 11)** 4 7 5 4 2 2 8 6

**NOTES:** Academic Reputation, Mid-point SAT, Persistence Rate, Graduation Rate, and Percent Alumni Giving are from the *U.S. News & World Report* Rankings for the Year 2000. (Mid-point SAT is the mid-point of the 25th and 75th percentiles reported in *U.S. News & World Report*, Persistence and Graduation Rates are averages over three years.) Percent E&G to Instruction (Instruction/Total E&G - Research -Scholarships - Mandatory Tuition) is from the IPEDS Finance Reports for 1995-96 (the most recent available). Average Salary is from the March 1999 issue of *Academe*, the Bulletin of the AAUP (again, the most recent available). Satisfaction Index is from the College Student Experiences Questionnaire. (Individual institution data are not available for the CSEQ; the ranking is based on five actual benchmark institutions and is interpolated to apply to all 11 institutions. Longwood ranks at the 48th percentile. Satisfaction level is not significantly different than the mean of these benchmark institutions.)
Miami

**UM Student Dashboard, 2004**

### Admission Indicators

<table>
<thead>
<tr>
<th>Top HS Decile</th>
<th>Average SAT</th>
<th>Accept Rate</th>
<th>Yield Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mid. of Peers</td>
<td>Below Peers</td>
<td>Mid. of Peers</td>
<td>Below Peers</td>
</tr>
<tr>
<td>80%</td>
<td></td>
<td></td>
<td>NA</td>
</tr>
</tbody>
</table>

*Data displayed is not actual data.*

### Student Body Indicators

<table>
<thead>
<tr>
<th>NF Enrollment</th>
<th>UG Enrollment</th>
<th>Grad. Enrollment</th>
<th>Prof. Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mid. of Peers</td>
<td>Mid. of Peers</td>
<td>Below Peers</td>
<td>Mid. of Peers</td>
</tr>
<tr>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Doctoral Degrees</th>
<th>NF Retention Rate</th>
<th>Graduation Rate</th>
<th>% On-campus-DUG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below Peers</td>
<td>Below Peers</td>
<td>Below Peers</td>
<td>Mid. of Peers</td>
</tr>
<tr>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>% Female-UG</th>
<th>% Minority-UG</th>
<th>% Int'l-UG</th>
<th>% Out-of-State-DUG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Above Peers</td>
<td>Above Peers</td>
<td>Above Peers</td>
<td>Mid. of Peers</td>
</tr>
<tr>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>
# Juniata

## How did JC CHANGE over Last Year?

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Goal</th>
<th>Change</th>
<th>Current Year</th>
<th>5-yr High/Low</th>
<th>Peer Worst</th>
<th>JC</th>
<th>Peer Best</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unfunded Tuition Discount</td>
<td>39%</td>
<td><img src="gray" alt="Unchanged" /></td>
<td>44.6%</td>
<td>44.6% 41.3%</td>
<td>43%</td>
<td><img src="red" alt="Worse" /></td>
<td>17%</td>
</tr>
</tbody>
</table>

**Color:** Blue = Improved/Better; Red = Worse; Gray = Neutral/Average

**Symbol:**
- ▲ Higher than last year
- ○ Unchanged
- ▼ Lower than Last year
Dashboard Indicators

Any dashboard has information that pertains to either what you need to know or what you want to know about how your car/institution is running. At FHSU, after careful consideration of what is essential to our effectiveness, we have identified a few "at a glance" measures to help anyone know what is going on at FHSU and how we are doing at it.

Student Learning Dashboard

1. First-time, full-time freshmen enrolling at FHSU

![Bar chart showing new freshmen enrollment from FY2001 to FY2003]
Dickinson College Strategic Plan

Strategic Indicators and Goals for 2010

<table>
<thead>
<tr>
<th>Admissions</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2010 Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Applicants</td>
<td>3801</td>
<td>3820</td>
<td>4095</td>
<td>4633</td>
<td>4968</td>
<td>6000</td>
</tr>
<tr>
<td>Acceptance Rate</td>
<td>64%</td>
<td>64%</td>
<td>51%</td>
<td>52%</td>
<td>49%</td>
<td>40%</td>
</tr>
<tr>
<td>Yield</td>
<td>24%</td>
<td>25%</td>
<td>27%</td>
<td>26%</td>
<td>25%</td>
<td>25%</td>
</tr>
<tr>
<td>Total Freshman</td>
<td>534</td>
<td>611</td>
<td>574</td>
<td>624</td>
<td>606</td>
<td>600</td>
</tr>
<tr>
<td>Average SAT</td>
<td>1216</td>
<td>1235</td>
<td>1239</td>
<td>1270</td>
<td>1274</td>
<td>1300</td>
</tr>
<tr>
<td>Top 10% Class Rank</td>
<td>50%</td>
<td>47%</td>
<td>45%</td>
<td>50%</td>
<td>51%</td>
<td>60%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Student Body</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2010 Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Matriculant</td>
<td>2050</td>
<td>2159</td>
<td>2218</td>
<td>2235</td>
<td>2260</td>
<td>2250</td>
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<tr>
<td>Enrollment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Male</td>
<td>39%</td>
<td>42%</td>
<td>42%</td>
<td>44%</td>
<td>45%</td>
<td>45%</td>
</tr>
<tr>
<td>% International</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>2%</td>
<td>3%</td>
<td>7%</td>
</tr>
<tr>
<td>% Minority</td>
<td>5%</td>
<td>6%</td>
<td>7%</td>
<td>8%</td>
<td>11%</td>
<td>18%</td>
</tr>
</tbody>
</table>
GRCC Dashboard: Learner Success

**Fall to Fall Retention**

**Definition:** Improving the retention of students is evidence of our commitment to student success.

**Course Success**

**Definition:** Student success in courses is calculated as the percent of students who finish a course with a grade of C or better.

**Workforce Placement Rate**

**Definition:** The percent of graduates who find employment or who continue their education at a 4-year college after leaving the community college.

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Learner Success: Course Success:

**Definition:** Student success in courses is calculated as the percent of students who finish a course with a grade of C or better. Students who withdraw from the course after the college’s official semester count date are considered as failures. The table below shows course success rates for the total group as well as selected student segments. Benchmark comparisons are provided from four Vanguard colleges. Our success rate of 71% for our total group of students is above our target of 70% and above rates for our four benchmark colleges.

<table>
<thead>
<tr>
<th>Course Success Rates (N, grade C or better/N, all grades)</th>
<th>Fall 1999</th>
<th>Fall 2000</th>
<th>Fall 2001</th>
<th>Fall 2002</th>
<th>Fall 2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>67%</td>
<td>67%</td>
<td>68%</td>
<td>67%</td>
<td>68%</td>
</tr>
<tr>
<td>Female</td>
<td>72%</td>
<td>72%</td>
<td>72%</td>
<td>72%</td>
<td>74%*</td>
</tr>
<tr>
<td>African American</td>
<td>51%</td>
<td>51%</td>
<td>53%</td>
<td>50%</td>
<td>54%</td>
</tr>
<tr>
<td>American Indian</td>
<td>55%</td>
<td>61%</td>
<td>57%</td>
<td>52%</td>
<td>59%</td>
</tr>
<tr>
<td>Asian</td>
<td>68%</td>
<td>69%</td>
<td>68%</td>
<td>68%</td>
<td>72%*</td>
</tr>
<tr>
<td>Hispanic</td>
<td>64%</td>
<td>59%</td>
<td>65%</td>
<td>64%</td>
<td>66%</td>
</tr>
<tr>
<td>White</td>
<td>72%</td>
<td>72%</td>
<td>73%</td>
<td>72%</td>
<td>73%*</td>
</tr>
</tbody>
</table>
Additional Questions

▪ Who requested the dashboard?
▪ Who is the primary audience?
▪ Who has access to the dashboard?
  ▪ 70% restricted access
▪ Is the dashboard paper or electronic?
  ▪ Most electronic, some available in print
▪ Number of dashboards being used at the institution?
  ▪ 75% single dashboard
Final Thoughts

- Dashboards are not “just” about the data.
- Dashboards are about presenting data that reflect the state of the institution in a succinct, easily understood, and visually appealing format.
- Dashboards are valuable management information tools.