Identifying Key Performance Indicators: The Foundation of an Institutional Dashboard

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What is a Dashboard in Higher Education?

- A brief document that graphically displays critical institutional information in a succinct, easily understood, visually appealing format
- A tool to communicate the current health of the organization and its progress toward its strategic objectives
### Purposes of Dashboards

- To communicate current information about major indices of organizational performance to primary stakeholders
- To provide information to assist in evaluation of organizational performance
- To provide a comprehensive analysis of how the organization’s achievement of its strategic objectives leads to effectively carrying out its mission and vision
- To provide information about organizational performance compared to appropriate benchmarks

### Why Do We Need Dashboards in Higher Ed.?

- Institutional leadership has a responsibility to be accountable to both internal and external stakeholders
- Stakeholders want/need accurate, concise, easy-to-understand, up-to-date data & information about organizational performance
- Traditional communication sources in higher ed. (e.g., annual reports) are usually obsolete by the time they reach stakeholders and typically fail to provide necessary/sufficient detail about organizational performance
### Components of Dashboards

- A limited set of measures—usually referred to as “**Key Performance Indicators**” (or KPIs)
- An integrated data structure for that set of measures
- A source of comparative benchmarks for the measures
- Graphics for displaying the measures

### Characteristics of an Effective Dashboard

- Operationally focused—tied to the institution’s mission and strategic plan
- Timely
- Accurate
- Easy to understand
- Represents the current state of the organization
- Provides a straightforward summary of organizational performance
KPIs — What Are They?

Data elements that:

– Measure core inputs, outputs, and outcomes
– Reflect the institution’s strategic plan and core business
– Measure high priority operations of the institution
– Measure institutional characteristics that are important and meaningful to stakeholders
– Measure institutional performance in areas in which it must be successful to survive and be competitive

Examples of KPIs

• **Enrollment**
  – Fall headcount enrollment
  – Percent of area high school grads enrolling subsequent fall

• **Student progress**
  – Fall-to-fall persistence
  – Term-to-term persistence

• **Student success**
  – Graduation rate
  – Transfer rate
  – Workforce placement rate
Sources of KPIs

- Institution mission statement and strategic plan
- For community colleges—“Core Indicators of Effectiveness for Community Colleges” (Alfred, Shults, & Seybert), published by AACC
  - Identifies and describes 16 core indicators in six major categories:
    - Student progress
    - General education
    - Outreach
    - Workforce development
    - Contribution to the public good
    - Transfer preparation

Identification of KPIs—Who’s involved

- Effort usually led by a Dashboard Development Team
  - Representative of senior leadership
  - Representative of IR
  - Representatives of key constituencies
    - Faculty
    - Student affairs
    - Others
- Team solicits input from affected work groups and administrators
- Senior leadership (President’s cabinet?) makes final determination of which measures reflect key functions and are included in the dashboard
NCTC KPI Workshop Participants

• **President & Members of President’s Cabinet**
  – Vice President of Instruction
  – Vice President of Student Services
  – Vice President of Institutional Advancement
  – Dean – Bowie Campus
  – Senior Director of Campus Operations

• **Instructional Leadership Team**
  – Dean of Health Sciences
  – Dean of Arts & Sciences
  – Dean of Advanced & Applied Technology
  – Dean of Lifelong Learning
  – Department Chair – College Preparatory Studies

NCTC KPI Workshop Participants

• **Other Administrators**
  – Dean – Corinth Campus
  – Associate Dean of Student Services (Corinth Campus)
  – Director of Admissions/Registrar
  – Chief Information Officer
  – Director of Institutional Research & Effectiveness
  – Director of Academic & Student Support Services
  – Coordinator – Student Success Center
The KPI Day-long Kickoff Workshop

- Selecting a facilitator
  - Critical decision
    - Internal or external
    - Experience & expertise
- Team solicits input
- Pre-workshop “homework”
  - Mission/vision/values statements
  - Strategic plan
  - AACC “Core Indicators of Effectiveness for Community Colleges”

NCTC KPI Workshop

- The “Work”
  - Introductory presentation by facilitator (45-60 minutes)
  - Divide into small groups
  - Round 1
    - Goal is to identify the college’s “core business”/most important institutional functions/key mission components (60-75 minutes)
    - Reconvene: groups report progress (30-45 minutes)
    - Entire group comes to consensus on core functions (60 minutes)
  - Lunch
  - Round 2
    - Teams begin discussion of first-level KPIs (60-75 minutes)
    - Reconvene: groups report progress (30-45 minutes)
    - Entire group comes to consensus on first-level KPIs (60 minutes)
How KPIs are Identified

- They are an outgrowth of strategic planning
  - Important and meaningful to stakeholders
  - Viewed as important to the organization
  - Linked to strategic plan and organizational priorities
  - Help determine the extent to which the organization is progressing toward its stated goals
- Team can begin with a large number of potential KPIs and then whittle down to the vital few—no more than 6-8

Context for KPIs: Benchmarks & Target Values

- Process also requires establishing benchmarks and target values
  - Benchmarks
    - What are reasonable values for measures
      - Upper and lower limits
      - What is “good” and “bad” for a given measure
  - Targets
    - How do we know where we want to be?
    - Based on both benchmarks and past performance
    - Must be reasonable and achievable
      - Can (should?) be “stretch objectives”
  - Possible Sources: NCCBP
    - Achieving the Dream Database
    - IPEDS Peer Analysis System
A Valuable Source for Community College Benchmarks: The NCCBP

- A national community college data collection/reporting consortium
- Collects and reports on over 120 benchmarks covering all areas of interest to community colleges:
  - Institutional characteristics
  - Student characteristics
  - Student learning outcomes
  - Community outreach
  - Faculty and staff data
- 250 colleges participated in 2015
- www.nccbp.org

A KPI in Detail

Performance Indicator (PI 22): Transfer Rate

**Definition:** The percent of Fall, transfer-intent, first-time SCC enrolled students who also enter a degree program at a four-year institution within three years (9 terms).

**How the PI is measured:** To be eligible for the cohort, students had to have the following characteristics:
1. Were enrolled at SCC for the first time in a Fall cohort term.
2. Were 18-22 years old.
3. Were enrolled full time in a Fall cohort term (i.e., taking 12 or more hours).
4. Cumulated at least 12 SCC credit hours three years after their first Fall cohort term at SCC.
5. Specified a transfer intent on their SCC application.

**Source:**
- National Student Loan Clearing House data
- STACS

**PI Standard:**
- Exceeding Expectation: > 60%
- Meeting Expectation: 50% - 60%
- Needs Improvement: 40% to 49.9%
- Alarm Bells: <40%
Sample NCCBP Benchmark

Percentile ranks are the percents of benchmark values that fall below the institution’s values.

<table>
<thead>
<tr>
<th>Institution</th>
<th>NCCBP Percentiles</th>
<th>Reported Value</th>
<th>% Rank</th>
<th>N</th>
<th>10th</th>
<th>25th</th>
<th>Mdn</th>
<th>75th</th>
<th>90th</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time, First-time in Fall, 2005</td>
<td>19.12%</td>
<td>–</td>
<td>55%</td>
<td>210</td>
<td>8.34%</td>
<td>12.28%</td>
<td>18.19%</td>
<td>25.65%</td>
<td>34.50%</td>
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<tr>
<td>Part-time, First-time in Fall, 2005</td>
<td>23.73%</td>
<td>–</td>
<td>91%</td>
<td>172</td>
<td>2.18%</td>
<td>3.25%</td>
<td>6.37%</td>
<td>11.40%</td>
<td>20.41%</td>
</tr>
</tbody>
</table>

FORM 2: Proportions of Students That

% Completed in Three Years (Col 2)

<table>
<thead>
<tr>
<th>Institution</th>
<th>NCCBP Percentiles</th>
<th>Reported Value</th>
<th>% Rank</th>
<th>N</th>
<th>10th</th>
<th>25th</th>
<th>Mdn</th>
<th>75th</th>
<th>90th</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time, First-time in Fall, 2005</td>
<td>29.43%</td>
<td>–</td>
<td>89%</td>
<td>192</td>
<td>8.66%</td>
<td>13.15%</td>
<td>18.12%</td>
<td>22.42%</td>
<td>29.90%</td>
</tr>
<tr>
<td>Part-time, First-time in Fall, 2005</td>
<td>13.07%</td>
<td>–</td>
<td>77%</td>
<td>192</td>
<td>2.86%</td>
<td>4.86%</td>
<td>9.17%</td>
<td>13.64%</td>
<td>20.33%</td>
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</tbody>
</table>

% Completed in Three Years (Col 6)

<table>
<thead>
<tr>
<th>Institution</th>
<th>NCCBP Percentiles</th>
<th>Reported Value</th>
<th>% Rank</th>
<th>N</th>
<th>10th</th>
<th>25th</th>
<th>Mdn</th>
<th>75th</th>
<th>90th</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time, First-time in Fall, 2005</td>
<td>49.55%</td>
<td>–</td>
<td>84%</td>
<td>192</td>
<td>22.99%</td>
<td>27.88%</td>
<td>37.72%</td>
<td>44.42%</td>
<td>52.03%</td>
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<tr>
<td>Part-time, First-time in Fall, 2005</td>
<td>34.72%</td>
<td>–</td>
<td>89%</td>
<td>139</td>
<td>7.83%</td>
<td>11.11%</td>
<td>16.63%</td>
<td>25.90%</td>
<td>27.03%</td>
</tr>
</tbody>
</table>

| FORMAL 3: Student Performance at

Transfer Institutions (Most Recent AY)

Cumulative First-year GPA (Col 2) – – 87 2.62 2.79 2.89 3.08 3.17
Average First-year Credit Hours (Col 4) – – 55 15.36 16.09 20.66 25.30 25.32
Percent Enrolled Next Year (Col 5) – – 55 63.90% 71.50% 76.77% 82.61% 86.91%

| FORMAL 4: Fall 2007 Credit Students Who

Enrolled Next Term and Next Fall

Retention Persistence Rate (Col 4) – – 206 57.93% 63.47% 68.41% 71.70% 74.62%
|
**Dashboard Examples – St. Charles Community College**

### SCC PI Report: Executive Dashboard Summary

##### Student Success
1. Persistence Rate Fall To Fall
2. Occupational-Technical Degree Satisfaction
3. Transfer Degree Satisfaction

##### Student Self-Assessment Of General Education Gains
19. Personal/Social Gains
20. General Education Gains
21. Practical Competencies

##### Career Preparation
4. Licensure Pass Rate
5. Placement Rate In Workforce

##### Transfer Success
22. Transfer Rate
23. Academic Success After Transfer
24. Persistence After Transfer

##### Student Satisfaction
6. Overall Student Satisfaction
7. Student Services
8. Academic Services
9. Administrative Services
10. Non-Academic Facilities
11. Academic Facilities

##### Developmental Education
12. Math
13. English

##### Transfer Rate
14. Licensure Pass Rate
15. Placement Rate In Workforce

### Dashboards – Strengths

- Relatively straightforward way to monitor current institutional performance
- Provide metrics on KPIs that represent core institutional goals, issues, and operations
- Easy to understand
- Engaging presentation format to communicate important information
- Can be used at all levels of the institution (institution as a whole, division, department)

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**PI Standard**
- Exceptional performance
- Above Benchmark
- Below Benchmark
- Alarm Bells
Dashboards – Challenges

• Design and implementation require a comprehensive understanding of complex data definitions, sources, appropriate analyses, and sources of appropriate benchmarks
  – Requires appropriate expertise (internal or external)
• Don’t provide an in-depth understanding of underlying data that drive the KPIs
  --Limited in scope and somewhat simplistic
  --Lack of detail makes it difficult to understand the “whys” of institutional performance
• Provide no information regarding what should be done—no guidance for institutional action
• To be optimally effective need to be supported by formal underlying data structure with drill-down capabilities—a balanced scorecard

Exercise I

1. Identify three elements of your institution’s mission/“core business.”
2. Identify first-level KPIs for each of the elements of your institution’s core business.
<table>
<thead>
<tr>
<th>Contact</th>
<th></th>
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<tr>
<td><strong>Jeff Seybert</strong></td>
<td><a href="mailto:jseybert@jccc.edu">jseybert@jccc.edu</a></td>
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<tr>
<td><strong>NCCBP</strong></td>
<td><a href="http://www.nccbp.org">www.nccbp.org</a></td>
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