FROM DATA TO DECISIONS: SMART ANALYTICS FOR STUDENT SERVICES

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SESSION ORDER

- Rationale
- Intro to Data-Driven Decision-Making
- Stakeholders and Clients
- How to Collect and Utilize Data Strategically
- Do’s and Don’ts of Data Collection
- Do’s and Don’ts of Data Communication
- Your Anecdotes, and Discussion
RATIONALE

- Accreditation and a data-driven Dean
- Repairing ineffective strategies
- Desire for office best practices
- Strategic thinking vs. day-to-day record-keeping
- Forward thinking – how to tell your own story
STAKEHOLDERS AND CLIENTS

- **Internal**
  - Career Services and Student Services
  - Deans and Faculty
  - Prospective and Current Students, Alumni

- **Other University Internal**
  - Central Administration – Alumni Office
    Other Career or Student Services Offices

- **External**
## Accreditation Template

### Destination of Graduates by Employment Type 2012

<table>
<thead>
<tr>
<th>Employment Type</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employed</td>
<td>75</td>
</tr>
<tr>
<td>Continuing education/training</td>
<td>15</td>
</tr>
<tr>
<td>Actively seeking employment</td>
<td>35</td>
</tr>
<tr>
<td>Not seeking employment</td>
<td>0</td>
</tr>
<tr>
<td>Unknown</td>
<td>15</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>140</strong></td>
</tr>
</tbody>
</table>

## Internal Data

### % Employed, 2012

<table>
<thead>
<tr>
<th>Type</th>
<th>% Employed</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S.</td>
<td>90%</td>
</tr>
<tr>
<td>International</td>
<td>89%</td>
</tr>
<tr>
<td>Government</td>
<td>89%</td>
</tr>
<tr>
<td>Nonprofit</td>
<td>85%</td>
</tr>
<tr>
<td>Hospitals/Medical</td>
<td>92%</td>
</tr>
<tr>
<td>Business/Industry</td>
<td>95%</td>
</tr>
</tbody>
</table>
BASIC PLANNING STEPS

1. Articulate Problem, Mission and Goals
2. Collect and Analyze Data: Interviews, Focus Groups, Surveys, Existing Data, and Benchmarking
3. Plan, Present, and Communicate
4. Implement
5. Assess and Modify
WHY COLLECT DATA?

- Support internal office goals
- Support School goals to attract, retain, educate, and graduate highly qualified students into positions of meaningful employment or leadership
- Support School goals to develop relationships with potential employers, and business/industry, for job placement, partnerships, and corporate giving
- Conduct research that leads to effective and testable strategies
GETTING STARTED: OFFICE NEEDS

- Staff member(s) devoted to data collection, analysis, and reporting
- Organized calendar of data collection and reporting
- Up-to-date database of student information
- Access to and experience with tools for designing and administering surveys/form
- Experience with and understanding of survey/data analysis
- Template for survey/data reporting
- Understanding of reporting needs for stakeholders
TYPES OF ASSESSMENT

- Database analysis of your students
- Satisfaction, or Needs and Preferences Surveys
- Program Evaluation
- Outcomes Assessment, incl. Learning Outcomes, Success
- Exit Interview or Survey; Career Path/Alumni Survey
- Accreditation Self-Study
- Benchmarking: Individual or group peers, aspirational; professional standards

Collect enough data to pay careful attention to sub-group analyses in addition to the aggregate:

By degree program, year in program, length of program, age of students, full-time vs. part-time, GPA, international vs. domestic, for-profit vs. non-profit employer, etc.
EXAMPLE: YALE CAREER OFFICE

**Goal**: To Create a System and Sustainable Process for Collecting and Presenting Employment Outcome Information

Who needs/requests career office data –

- Accrediting agencies
- Deans, Faculty
- Prospective Students
- Administrators, Admissions and Student Affairs Colleagues
Challenges and Opportunities:

1. No past data – had to start from scratch
2. Budget Constraints
3. Staff Training Needed
4. Sustainable – data that could be built upon and integrated into Admissions and other Student Affairs data collection efforts
Data must be methodologically sound

- Needed help determining “data points”
- Did not want the “throw everything at the wall and see what sticks” approach
What Data did we collect and why?

<table>
<thead>
<tr>
<th>MPH</th>
<th>FIRST_NAME</th>
<th>LAST_NAME</th>
<th>DEPT</th>
<th>GENDER</th>
<th>CITIZENSHIP</th>
<th>JOB_TITLE</th>
<th>EMPLOYER</th>
<th>SECTOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>Tommy</td>
<td>Totin</td>
<td>HPM - HCM</td>
<td>F</td>
<td>US</td>
<td>Coordinator, GME</td>
<td>Danbury Hospital</td>
<td>Hospitals and Medical Centers</td>
</tr>
<tr>
<td>2010</td>
<td>Mary</td>
<td>Sinclair</td>
<td>CDE</td>
<td>F</td>
<td>US</td>
<td>Research Assistant</td>
<td>Calvary Hospital</td>
<td>Hospitals and Medical Centers</td>
</tr>
</tbody>
</table>

What others things can be included?

-- Previous year data
-- Gender
-- Internship data
-- Starting Salary
CAREER OFFICE ANALYTICS

Aggregate 2010/2011/2012

- Business and Industry: 26%
- Hospitals and Medical Centers: 24%
- Further Study: 19%
- Government and Public Sector: 14%
- University Research: 9%
- NGOs and Non-Profits: 8%
YALE CAREER OFFICE: IMPLEMENTATION

2012-2013 Calendar Year Uses:

- Website revision
- Dean and Faculty Chair presentations
- Annual Report
- Accreditation

Still to Do: Student Services Handout

*Good data, well-presented, makes you look good!*
SUMMARY OF RESEARCH METHODS

**QUALITATIVE**
1. Interviews
2. Focus Groups
3. Peer Benchmarking (e.g., types of activities or programs)

**QUANTITATIVE**
1. Online survey: Individual link, group, fillable form
2. Paper survey
3. Telephone survey
4. Data analysis, data modeling
5. Peer benchmarking, or other research (e.g., % with jobs at graduation, starting salaries)
DO’S AND DON’TS OF SURVEYS

- Effective questions
- Not slanted
- Pitfalls of ratings scales
- Better question design
- Analysis –
  - Problem with Averages
  - Precision
- Good tools (Can Survey Monkey deliver?)
DO’S AND DON’TS OF EFFECTIVE DATA COMMUNICATION

- Types of charts (Line, Bar, Pie)
- How much do you share, and with whom?
- Easy on the eye....
- Charts and tables, vs. narrative
The population is still growing, but the rate of growth has slowed. From 1980 to 1990, the population grew 82%, and from 2000 to 2010, only 29%. What this chart does not show is that the countries of origin that are fueling the continual growth have changed. India remains a strong source; the new powerhouses are China and the Middle East.
INTEGRATED STUDENT SERVICES EXAMPLE

- Regularize data collection and analysis as an informative part of planning

- Establish “feedback loops” from data collection to analysis to administrative adjustments
SHARING

• Your success stories, or not….

• Stories of:
  • Poor response rates, making data unusable
  • Data collected and ignored
  • Data collection successful, but didn’t collect what was most useful or most needed
  • Difficulty understanding results
  • Difficulty conveying results
  • Sharing among internal School or University offices?

• Questions?
REFERENCES

Thank you for attending!

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