Program Quality Assessment
CGS Summer Workshop

Mark J. T. Smith

Dean, Purdue University Graduate School

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Academic Program Assessment

Most of us do program quality assessments (or feel compelled to do program reviews). Why?

Undergrad Program Reviews (longer history)

Graduate Program Reviews (mixed history)

Academic Program Assessment

What are we doing at Purdue? What have we learned? What are we learning?

At Purdue:
   Academic Program Assessment
   New 5-year Program Reviews
   Assessments required by the Higher Learning
     Commission

Academic Program Assessment

- Academic Program Assessment (APA)
  - Provost & OVPR mandated 2011-2012
  - To be done every 2 years (or 3-yrs)
  - 330+ programs (UG, Grad, Professional)
- Purpose: identify strengths and weaknesses, budget allocations, cuts, mergers

APA examines several metrics, e.g.

 # Students   # Faculty and Staff

Sponsored awards   Fundraising

External engagement

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Academic Program Assessment

Academic Program Assessment Process

- Data collection by Office of Institutional Research

- Review by team from across university

- Data (and comments) sent to Deans who distribute to departments for comment

- Deans meet with, or respond back to the review team

- Review team submits draft report to Deans and Provost

- Final report sent to Provost

- Deans develop action plans

- Provost presents results, report and action plan to Board of Trustees

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Academic Program Assessment

APA findings/actions of review of 247 academic programs

- 89 retired
- 7 programs with sparse and declining enrollment identified for retirement or merger
- Action plans developed for each college

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Academic Program Assessment
5-year Review Criteria

- Evaluation based on 6 main metric areas
— *Recruitment* (GPA, GMAT TOEFL, GRE, Diversity, Yield rate, Acceptance rate)
— *Resources* (Faculty and Staff #, Student funding, R&D expenditures, Professional dev. funding, Course work availability)
— *Graduate Committees* (Advisor/Advisee ratio, Yearly feedback & committee mtgs., Semesters to POS, Ave. # of grad committees/fac.)
— *Progress* (Time to degree, # MS & PhD awarded, Attrition/Retention)
— *Student Life* (Committee service by students in dept., college, university; Leadership roles)
— *Outcomes* (Awards, Publications, Placement, Exit survey ratings and comments, Salaries)

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Academic Program Assessment

5-year Review Process

1. Baseline data provided to department

2. Department develops self-study to examine

3. External Review Team conduct site visit. Report given to Graduate School with recommendations (written and oral)

4. Response by department. Plan of action.

Higher Learning Commission of the North Central Association of Colleges and Schools

- Assessment of Graduate Programs
- Identification of learning outcomes (research, communicate, critical thinking, problem solving, ethical conduct, professionalism)
- Assessments performed using **BALOTS** (Boilermaker Accreditation and Learning Outcomes Tracking System)

What have we learned?
What are we learning?

- Many parallel efforts. Coordination is a challenge.
- Burden on departments.
- Data overload.
- Listen to departments. Be flexible, as one size does not fit all.

Lessons learned from active departments with national department heads associations

Example: Electrical and Computer Engineering Department Heads Association (ECEDHA)

Data sharing helps everyone

ECEDHA ECEDHA

ELECTRICAL AND COMPUTER ENGINEERING DEPARTMENT HEADS ASSOCIATION

Electrical and Computer Engineering Department Heads Association

Dear ECEDHA member,

Welcome to the ECEDHA Survey portal and our new Interactive Data System (IDS). The portal will be open for data entry until mid November. Please answer all questions; some are optional; some are required (denoted by the asterisk). To assist as you enter your data, we provide your numerical information from last year (or the latest information we have) next to the entry box. There are preset bounds in place to help detect accidental entry errors. For example, if you are asked to enter an academic year salary and you enter a monthly salary by mistake, you will receive a message that says your entry is outside of the expected bounds. The message is just a courtesy alert to allow you to correct errors. Your data entry will still be saved. Non-numeric entries (such as $, %) are not saved and will generate an error message to that effect. For example, 50,000 should be entered as 50000 and $20k should be entered as 20000.

In accordance with longstanding ECEDHA practice, we have taken great care to construct the interactive data system in a way the preserves confidentiality. After the data collection period ends and we open the system for interactive customized query, ECEDHA users will be able to view individual responses from peer cohorts in graphical form. All names will be replaced by a letter designation (A, B, C, ...) and the designated letters that are assigned will be randomized as a privacy safeguard every time a plot is generated. As an

Login

User name:	
Password:	

Sign in

Forgot your password?

ECEDHA

ELECTRICAL AND COMPUTER ENGINEERING
DEPARTMENT HEADS ASSOCIATION

Data Entry   **Query Data**   **My Account**

View Peer Data: 2011-12

Select a question to examine. Questions are written in blue.

- 2011-12 ECEDHA DEPARTMENT SURVEY
- I. Faculty Demographics (Fall Term)
    - A. Full-time university faculty (FTE)
    - B. Part-time faculty (FTE)
- II. Faculty Numbers, Salaries, and Diversity
- III. Department Head's Compensation
- IV. Research Staff
- V. Faculty support
    - A. Department funded travel expenditures
    - B. Clerical employees
    - C. Number of technicians (FTE)
    - D. Number of graduate assistants (RAs and TAs)
    - E. Average Graduate Stipends (in $ per month)
    - F. Average faculty office size
    - G. Department space
    - H. Space breakdown in terms of percent of total space
- VI. Laboratory Equipment Expenditures and Donations
- VII. Productivity Measures
    - A1. Degrees Completed
    - A2. Degrees completed by women and underrepresented minorities
    - A3. Undergraduate Student Enrollments
    - A4. Undergraduate Student Enrollment Diversity
    - A5. Graduate Student Enrollment
    - A6. Graduate Student Enrollment Diversity
    - B. External federal, state, and industrial research funds
    - C. Research-active faculty teaching load in semester courses per year
    - D. Non-research active teaching load
    - E. Percent of salary per term needed to buy out of teaching one course.
- Comments

Your Peer Group

- 00. Upper State University
- 01. Golden State University
- 02. Orange State University
- 03. Mellon State University
- 04. Lower State University
- 05. Out-of-State University
- 06. In-State University
- 07. Private University
- 08. Eastern Canada University
- 09. Western Canada University
- 10. Richie Rich University
- 11. Sunshine Institute of Technology
- Modify Peer Group

averages:

Subpart D, titled "New Assistant Professors" refers to the subset of Assistant Professors counted in subpart C who were hired in the last 12 months.

Faculty: (select one or more)

☑ A. Professor
☑ B. Associate Professor
☑ C. Assistant Professor
☑ D. New Asst Profs hired within 1 yr

Measures: (select **one**)

◉ Number of faculty members
○ Average Salary
○ Number of African-American, Hispanic-American, and Native American faculty (FTE)
○ Number of women faculty

Charting options:

☐ Include explicit zero responses in average calculations
☐ Normalize applicable values per faculty

Update Chart

The chart below shows data from your peer group. To assure anonymity, peers are assigned a random letter on each chart generation. The most recent data from each peer data shown. If data were collected before the most recent survey session, it is noted.

Zoom in on a portion of the chart by clicking and dragging your mouse to select a region of the chart. **Print** or **download** the chart using the icons in the upper right corner of the chart.

II. Faculty Numbers, Salaries, and Diversity
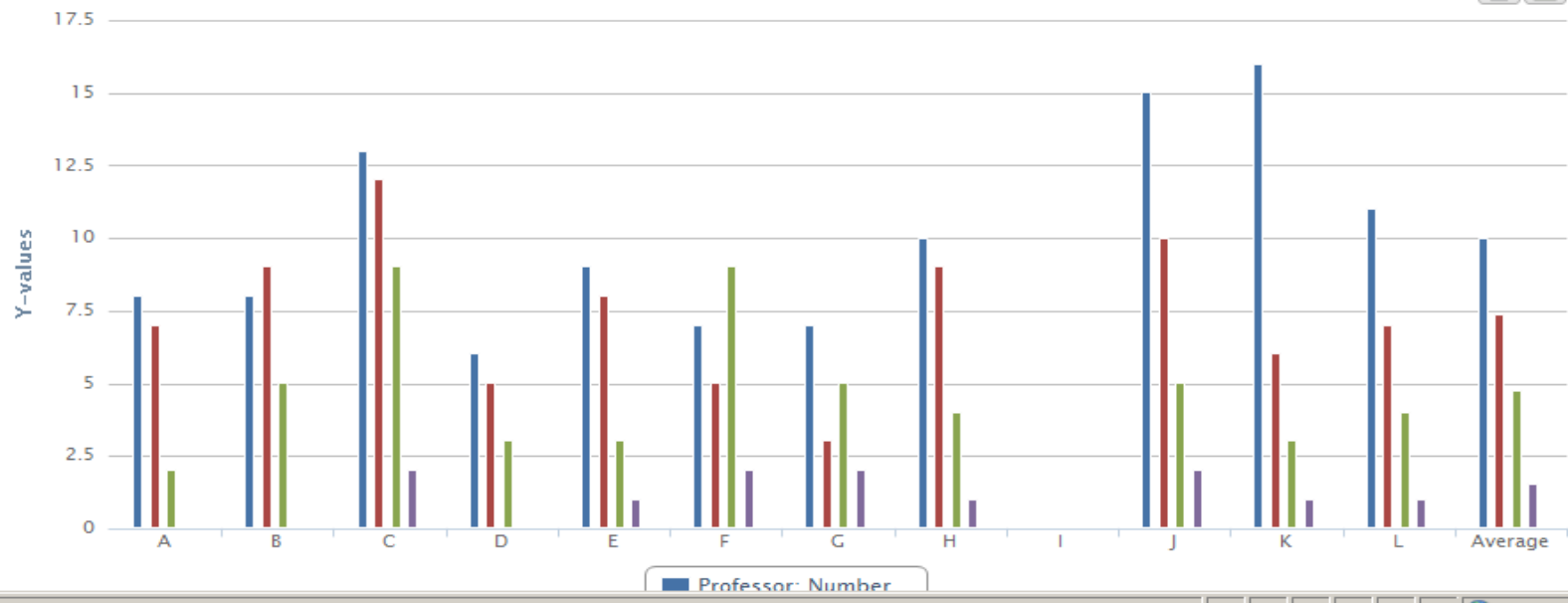
Professor: Number

Lessons learned from ABET

ABET Criteria

1. Student

2. Program Educational Objectives

3. Student Outcomes

4. Continuous Improvement

5. Curriculum

6. Faculty

7. Facilities

8. Institutional Support

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ABET Student Outcomes

1. an ability to apply knowledge of mathematics, science and engineering
2. an ability to design and conduct experiments, and analyze and interpret data
3. an ability to design a system, component, or process to meet desired needs within realistic constraints , e.g. economic, environmental, social, political,
4. an ability to function on multidisciplinary teams
5. an ability to identify, formulate, and solve engineering problems
6. an understanding of professional and ethical responsibility
7. an ability to communicate effectively
8. the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context
9. a recognition of the need for, and an ability to engage in life-long learning
10. a knowledge of contemporary issues
11. an ability to use the techniques, skills, and modern

   engineering tools necessary for engineering practice.

Lessons learned from ABET

ABET Criteria

1. Student

2. Program Educational Objectives

3. Student Outcomes

It's about the process

4. **Continuous Improvement**

5. Curriculum

6. Faculty

7. Facilities

8. Institutional Support

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Lessons learned from ABET

- Backlash from programs with respect to assessing objectives. Too much effort. Little benefit.

- Two different issues: assessing metrics and assessing process. Consider both.

- Direct and indirect measures. Consider using both.

- Don't invest in collecting too much data. Collect the right data. And use the data that you collect.

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Quality is important

Food for thought:
Are we assessing the right things?

Conventional thinking was challenged in an article by Brandon Busteed (Executive Director of Gallup Education)
"Is College Worth It? Yes, But We Need New Metrics"

Brandon Busteed suggests that the goal of a college education is to improve one's wellbeing: career, social, financial, physical, and community.

Career wellbeing is the most important predictor of wellbeing across the board.

Gallup has done research and is able to assess "wellbeing"

Take away points:

Program Quality Assessment is in vogue.

- Are we overly taxing our departments? (Too much data collection).
- Are we over assessing at the expense of educating?
- Are we using our assessment results?
- Are our processes flexible enough to accommodate differences among programs an cultures?
- Are we listening to our departments? (ex. of ABET reversed its position on assessing objectives).
- Are we assessing the right things?

The End

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