Benchmarking in Higher Education

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What Is Benchmarking?
Definitions Vary Depending On Perspective

Jackson & Lund (2000-UK): Benchmarking involves comparing organizational or industry practices, performance, and process to improve the focal organization or business.

Schuler (1998): A structural approach for looking outside an organization to study and adapt the best outside practices to complement internal operations with new, creative ideas.

What Is Benchmarking?
Definitions Vary Depending On Perspective

Bender & Schuler (2002): A process of comparison for purposes of assessment and innovation.

Assessment – comparing one's own organizational activities with those of others provides a context in which to gauge one's own outcomes and activities.

What Is Benchmarking?
Definitions Vary Depending On Perspective

Innovation – comparing to provide new insights to inspire and motivate useful and profound change.

Above all benchmarking is a process of comparison.

Types of Benchmarking

Two Typologies:

1) General (Yarrow & Prabhu, 1999)
   Three types:
   - Performance or Metric Benchmarking
     - Simplest type
     - Straightforward comparison of performance data (NCCBP)

Types of Benchmarking

1) General (Yarrow & Prabhu, 1999), continued
   - Diagnostic Benchmarking
     - A "health check"
     - Characterizes an organization's performance status
     - Identify areas for improvement
     - Performance benchmarking can be the first stage of Diagnostic Benchmarking (CCSSE & CSEQ)

Types of Benchmarking

1) General (Yarrow & Prabhu, 1999), continued
   - ❖ Process Benchmarking
     - ➢ Most expensive and time consuming
     - ➢ In-depth comparison of specific core practices at two or more institutions
     - ➢ Identification of "best practices" in an "aspirational peer" to develop specific improvement strategies

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Types of Benchmarking

2) Higher Education (Upcraft & Schuh, 1996)
   - ❖ Internal
     - ➢ Making comparisons between units within the institution
   - ❖ Generic
     - ➢ Making comparisons between institutions that share similar organizational practices and procedures (e.g., NCCBP, Kansas Study)
   - ❖ Competitive
     - ➢ Making comparisons between institutions that are direct competitors (may or may not be similar e.g., JCCC & Devry, Brown Mackie, etc.)

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The Difference Between Benchmarking & Benchmarks

Benchmarking (Kempner, 1993) – An ongoing, systematic process for measuring and comparing the work processes of one organization to those of another, by bringing an external focus to internal activities, functions, and operations.

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The Difference Between Benchmarking & Benchmarks

- ❖ A process of comparing quantitative indicators of activities, functions, & operations.
  - ➢ Graduation rates
  - ➢ Costs per credit hour
  - ➢ Fall-to-fall retention
- ❖ Emphasis is on the activities involved in compiling comparative data and discussing findings internally to assist an institution in evaluating its own performance compared to that of peers.

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The Difference Between Benchmarking & Benchmarks

Benchmark – A metric or standard; the actual measurements/data collected to carry out benchmarking.

Benchmarks may be:
- ❖ A threshold or minimum acceptable standard
- ❖ Aspirational; a goal an institution wants to achieve
- ❖ A definition of the norm – e.g. , the average of peer institutions on a given measure

All of which may assist in institutional improvement.

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Limitations of Benchmarks & Benchmarking

Two Categories of Limitations:

1. Limitations of Data/Technical Limitations
2. Limitations of Culture: Individual Colleges and Community Colleges as a Whole

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Limitations of Culture

1) Willingness/Ability to Adopt or Adapt Processes From Another Institution
   - ❖ Faculty & staff must be willing to take an honest hard look at organizational structures, policies & practices
     - ➢ May be entrenched
     - ➢ May be well-intended
     - ➢ May involve long-time faculty & staff
   - ❖ Overcoming resistance to change/inertia
   - ❖ Influence of politics/internal alliances
   - ❖ Spare the messenger

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Limitations of Culture

2) Accepting Surprises
   - ❖ Be willing to challenge Institutional "truths"
     - ➢ Evolved over time and become widely accepted
     - ➢ May (or may not) have accurately depicted reality in the past
     - ➢ Usually unexamined (purposefully or not)

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Limitations of Culture

3) Examining the New
   - ❖ Often colleges have not examined themselves in certain areas, particularly in comparison with other institutions
     - ➢ Resource limitations
     - ➢ "never came up"
   - ❖ Achieving the dream colleges are required to examine achievement differences among racial/ethnic groups
     - ➢ Some had never done so
     - ➢ Each participating institution now has the potential to compare its students' achievement with other institutions in the initiative

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Limitations of Culture

4) Reporting Rather Than Responding
   - ❖ Enthusiasm for benchmarking may end at the reporting stage
     - ➢ More often the case when benchmarking is externally driven
     - ➢ Or when there's a need to demonstrate data-based decision making (e.g. reaccreditation self-study), whether it's actually occurring or not!
   - ❖ For benchmarking to be really effective it needs to be carried out in the context of an ongoing continuous quality improvement effort (measure → make changes to improve → re-measure)

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Limitations of Culture

5) Uniqueness and Local Nature of Community Colleges
   - ❖ Community colleges are expected to respond to local community needs and characteristics
     - ➢ Can lead to resistance to benchmarking because "nobody else is like us"

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Limitations of Culture

6) No demand for comparative ranking to attract students
   - ❖ Many four-year colleges & universities compete for the same students
     - ➢ This facilitated the development of national ranking schemes (U.S. News & Peterson's Guide; national data set)
     - ➢ Thus easier for four-year institutions to accept regional/national data sharing consortia
   - ❖ Not the case for community colleges
     - ➢ Thus we don't have a "culture" or tradition of this type of activity
     - ➢ Makes it more difficult to persuade colleges of the advantages and value of benchmarking

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Limitations of Data

1. Data definitions & Standards
   - ❖ Clear, agreed upon data definitions are mandatory for valid comparisons.
2. Different State Funding Formulas
   - ❖ States vary widely in the ways community colleges are funded
   - ❖ Maybe an important consideration when selecting peers for comparisons

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Limitations of Data

3. Comparing Instructional Costs
   - ❖ Multiple variables must be considered when making comparisons
     - ➢ Collective bargaining agreements
     - ➢ Salary placement factors
     - ➢ Factors used to determine raises
     - ➢ Geographic differences
     - ➢ Instruction by full-time vs. adjunct faculty
     - ➢ Budgeting policies & practices

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Limitations of Data

4. Measuring Success
   - ❖ Course Level
     - ➢ Passing grade
     - ➢ A, B, or C
   - ❖ Graduation Rates
     - ➢ Limitations of the IPEDS cohort
   - ❖ Transfer Rates
     - ➢ Definition of the denominator/who's in the cohort

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Limitations of Data

5) Measuring Success, Continued
   - ❖ Remedial/Developmental Ed.
     - ➢ Matriculation in college-level courses
     - ➢ Success in college-level courses
     - ➢ Program completion/transfer
     - ➢ Success in dev. courses/sequence
   - ❖ To successfully benchmark student success it is critical that data definitions be clear, unambiguous, and agreed upon by participants

     - AND –

     That data are collected and reported in accordance with those definitions

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Two National Benchmarking Projects

- The Kansas Study
  - Community College instructional costs and productivity
  - Modeled on the Delaware Study
  - Collects, analyzes, and reports data at the discipline level
- The National Community College Benchmark Project
  - Involves a wide array of student outcomes, access, workforce development, faculty/staff, human resources, and finance variables
  - Collects, analyzes, and reports data at the institutional level

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The Kansas Study

- Supported by a three-year, $282,000 grant from FIPSE (USDE).
- Colleges can analyze faculty workload and instructional cost at the academic discipline level of analysis.

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Kansas Study History

Summer 2002		FIPSE project approval and grant award
Fall 2002 – Fall 2003		Advisory committee identified data elements, designs, processes, and conducts two pilot studies
2004	Year 1	Project implementation • 50 institutions
2009	Year 6	• 77 institutions

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How Kansas Study Works

- Data Collection via KansasStudy.org
- Data Verification:
  - Missing data and logical errors
  - Partial Data OK (min. 10 disciplines)
  - Confidentiality assured
- Annual Reports
  - National Norms and Institutional Data
  - Access to Kansas Study Website for Peer Comparisons

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Kansas Study Timeline

February 1	Data collection starts
July 15	Participant institutional data due
July 30	Data verification process initiated
August 15	Data verification reports sent
Late October	Results available; online database opened for peer comparisons/benchmarking

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Website

- Kansas Study Website (www.kansasstudy.org)
  - Public Information
    - General Information
    - Sample Enrollment Form
    - Sample Data Collection Template
    - Advisory Committee
    - Participating Institutions
  - Information Available to Participants Only
    - Log In & Password
    - National Norms by Discipline
    - Peer Comparisons

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2009 Kansas Study Results

- Data were received from 70 institutions reporting on 164 disciplines/programs
- The national aggregate report included data on 95 disciplines/programs for which a minimum of 5 responding institutions supplied either cost or workload data; or both.

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Kansas Study - Highest Percentage Taught by Full-Time Faculty (2009)

Academic Discipline	Percent	N
Agriculture Operations, and Related Sciences	90%	6
Dental Hygienist	90%	10
Cosmetology	90%	11
Physical Therapist Assistant	89%	13
Diesel Engine Mechanic & Repair	88%	14
Agricultural, Forestry, & Fisheries	88%	9
Respiratory Care	87%	18
Precision Metal Workers	86%	6
Graphic and Printing Equipment Operators	86%	6
Electrical & Electronics Equipment Repair	85%	9

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Kansas Study – Highest Percent Taught by Part-Time Faculty (2009)

Academic Discipline	Percent	N
Real Estate	80%	8
Life Skills, Basic Skills	70%	5
Anthropology	68%	16
Human Services, General	64%	5
Finance, General	62%	7
Fire Science	61%	15
Psychology	56%	47
Philosophy and Religion	56%	28
Public Administration & Services	56%	8
Nurse Assistant-Aide	55%	9

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Kansas Study
Instructional Cost Per Student Credit Hour – Most Expensive (2009)

Academic Discipline	Instructional Costs	N
Dental Hygienist	$484	10
Occupational Therapist Assistant	$309	8
Medical Assistant	$300	12
Clinical-Medical Laboratory Technician	$262	9
Respiratory Care	$254	9
Physical Therapist Assistant	$253	13
Nursing	$240	50
Liberal Arts and Sciences-Liberal Studies	$235	6
Dental Assistant	$232	12
Licensed Practical Nurse	$217	16

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Kansas Study
Instructional Costs per Student Credit Hour Least Expensive (2009)

Academic Discipline	Instructional Costs	N
Anthropology	$50	16
Psychology	$58	47
History	$58	42
Life Skills, Basic Skills	$59	5
Humanities	$60	16
Social Sciences	$60	10
Real Estate	$61	8
Sociology	$62	35
Philosophy and Religion	$62	28
Political Science	$64	31

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The National Community College Benchmark Project

- Involves a wide array of student outcomes, access, workforce development, faculty/staff, human resources, and finance variables
- Collects, analyzes, and reports data at the institutional level

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Purposes

- To collect and report community college benchmark data on a national basis
- To provide data for comparisons and benchmarks of instructional, workforce-development, and other community college activities

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NCCBP History

2003		Project designed and piloted
2004	Year 1	First year implementation, website designed and launched • 110 institutions • SUNY, TN Systems
2007	Year 4	Project implementation • 179 institutions • SUNY, TN, PA, HI, KY Systems
2010	Year 6	• 268 institutions •SUNY , TN, PA, HI, MO, Ivy Tech Systems

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How NCCBP Works

- Data collection
  - Excel spreadsheets distributed electronically
  - Data verification: Mission data and logical errors
  - Partial data OK; no peer comparison for missing data
  - Confidentiality assured
- Cost: $1,250 or $1,450/year per institution
- Annual reports
  - Aggregate data delivered electronically
  - Access to NCCBP Website for peer comparisons
- Website: www.NCCBP.org

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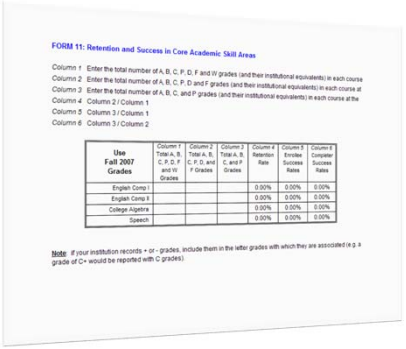
Data-collection Form



FORM 11: Retention and Success in Core Academic Skill Areas

Column 1 Enter the total number of A, B, C, P, D, F and W grades (and their institutional equivalents) in each course
Column 2 Enter the total number of A, B, C, P, D and F grades (and their institutional equivalents) in each course at
Column 3 Enter the total number of A, B, C, and P grades (and their institutional equivalents) in each course at the
Column 4 Column 2 / Column 1
Column 5 Column 3 / Column 1
Column 6 Column 3 / Column 2

Use Fall 2007 Grades	Column 1 Total A, B, C, P, D, F and W Grades	Column 2 Total A, B, C, P, D, and F Grades	Column 3 Total A, B, C, and P Grades	Column 4 Retention Rate	Column 5 Enrollee Success Rates	Column 6 Completer Success Rates
English Comp I				0.00%	0.00%	0.00%
English Comp II				0.00%	0.00%	0.00%
College Algebra				0.00%	0.00%	0.00%
Speech				0.00%	0.00%	0.00%

Note: If your institution records + or - grades, include them in the letter grades with which they are associated (e.g. a grade of C+ would be reported with C grades).

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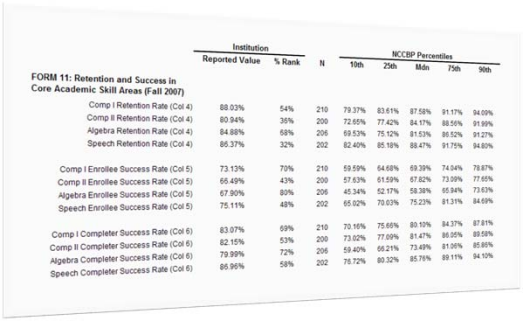
Reporting Data



FORM 11: Retention and Success in Core Academic Skill Areas (Fall 2007)	Institution Reported Value	Institution % Rank	N	NCCBP Percentiles 10th	25th	Mdn	75th	90th
Comp I Retention Rate (Col 4)	88.03%	54%	210	79.37%	83.61%	87.58%	91.17%	94.09%
Comp II Retention Rate (Col 4)	80.94%	36%	200	72.65%	77.42%	84.17%	88.56%	91.99%
Algebra Retention Rate (Col 4)	84.88%	58%	206	69.53%	75.12%	81.53%	86.52%	91.27%
Speech Retention Rate (Col 4)	86.37%	32%	202	82.40%	85.19%	88.47%	91.75%	94.80%
Comp I Enrollee Success Rate (Col 5)	73.13%	70%	210	59.59%	64.68%	69.39%	74.04%	78.87%
Comp II Enrollee Success Rate (Col 5)	66.49%	43%	200	57.63%	61.59%	67.82%	73.09%	77.65%
Algebra Enrollee Success Rate (Col 5)	67.90%	80%	206	45.34%	52.17%	58.38%	65.94%	73.63%
Speech Enrollee Success Rate (Col 5)	75.11%	48%	202	65.02%	70.03%	75.23%	81.31%	84.69%
Comp I Completer Success Rate (Col 6)	83.07%	69%	210	70.16%	75.66%	80.10%	84.37%	87.81%
Comp II Completer Success Rate (Col 6)	82.15%	53%	200	73.02%	77.09%	81.47%	86.05%	89.58%
Algebra Completer Success Rate (Col 6)	79.99%	72%	206	59.40%	66.21%	73.49%	81.06%	85.80%
Speech Completer Success Rate (Col 6)	86.96%	58%	202	76.72%	80.32%	85.76%	89.11%	94.10%

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Benchmark Categories

- Completion & Transfer Rates
- Persistence Rates
- Transfer Student Performance
- Student Satisfaction
- Student Performance Measures
- Career Preparation
- Academic Success
- Access & Participation
- Market Penetration
- Workforce Development
- Section Size, SF Ratio, Faculty Load
- Student Services Staff
- HR Statistics
- Instructional & Professional Development Costs

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Project Timeline

February 1	Data collection starts
May 30	Data-collection instruments are due
June 15	Data confirmation reports are distributed
July 15	Data updates are due
July 31	Outlier reports are distributed
August 15	Outlier reports are due
September 30	Results available; online database opened for peer comparisons/benchmarking

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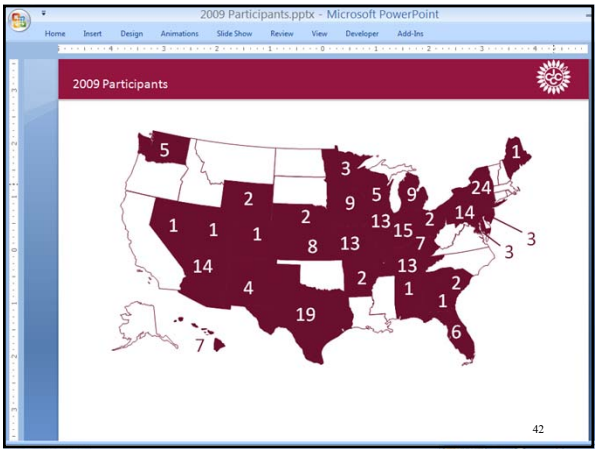

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College Characteristics

- Campus Environment
- Institution Type
- Institutional Control
- Academic Calendar
- Credit Enrollment
- Minority Students
- Percent State Revenue
- Operating Budget
- Faculty Unionized
- Service Area Population
- Unemployment Rate
- Household Income
- Service Area Percent Minority

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Questions

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