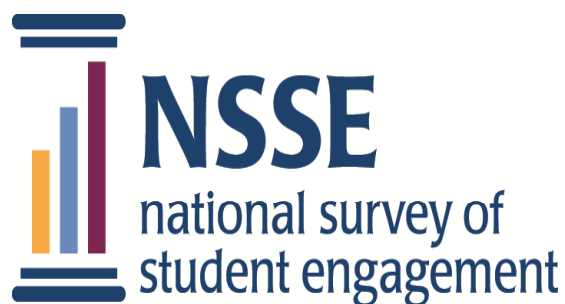
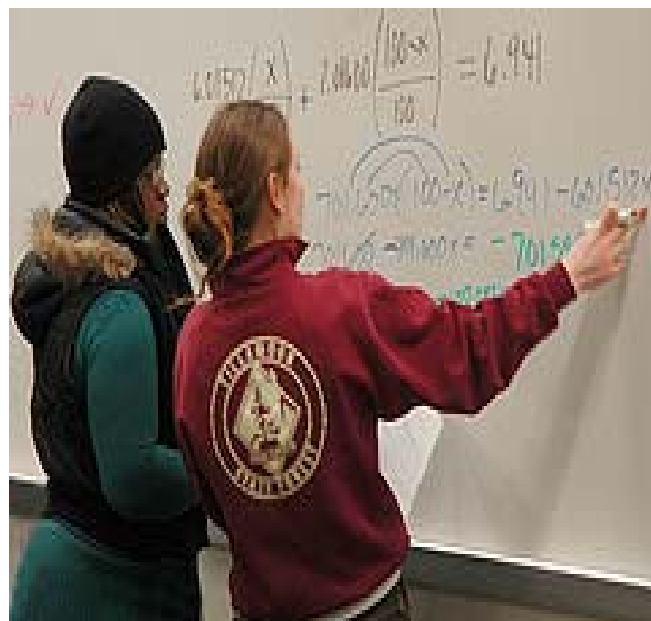


Using NSSE Data for Assessment

Symposium on Learning Outcomes Assessment: A Practical Guide



Jillian Kinzie

IU Center for Postsecondary Research

April 12, 2012



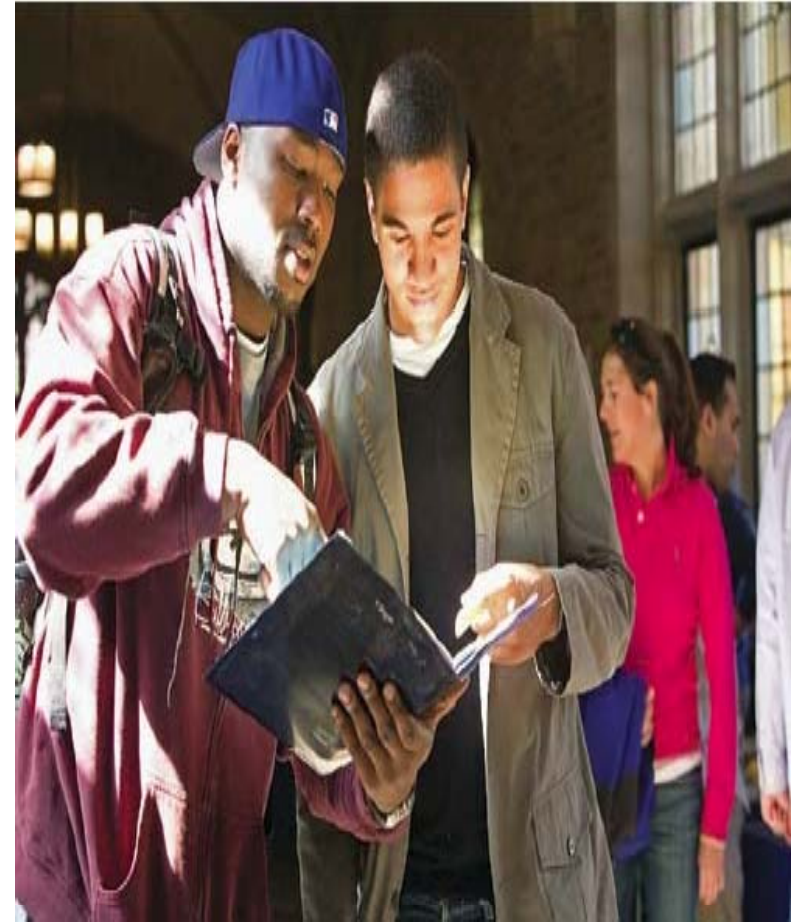
Agenda

- **Current Context in Higher Education – why assessing learning outcomes & improving quality matters**
- ***QUICK* NSSE Review: Three core surveys**
- **Using NSSE Data to Improve Learning**
- **NSSE 2.0 – Launching in 2013!!**
- **Discussion and Questions**



Today's Student Learning Agenda

- ✓ **Improve student learning**
- ✓ **Create enriched, quality learning experiences**
- ✓ **Increase student success – graduation rates, learning outcomes, post-graduation goals...**
- ✓ **Ensure skills, knowledge for 21st century**



Commitment to Quality Student Learning



Requires institutions to...

- ✓ **Set clear goals for student achievement**
- ✓ **Regularly measure performance against these goals**
- ✓ **Report evidence of success**
- ✓ **Continuously work to improve results**

What We Know About Student Success:



- **Student engagement in intentionally designed educationally purposeful activities is necessary to achieve desirable learning outcomes.**
- **Institutions need information about students experiences to deploy resources appropriately and encourage success behaviors.**

What is Student Engagement?



Student engagement is the time and energy students devote to educationally purposeful activities – practices shown to be related to desired educational outcomes

NSSE and the Current Educational Quality Debates

- Concern that “students aren’t learning” (Arum & Roksa, 2010) places renewed emphasis on effective educational practice
- Institutions need information about student engagement to improve learning experience



Using Student Engagement Results to Assess and Enhance Student Learning

NSSE and CCSSE results are meaningful indicators of educational quality and can be used in planning and for and documenting educational effectiveness. Even more, results can guide improvements and assess impact.



Engaged learning is a gateway to the desired outcomes of college.

Students who engage more frequently in educationally purposeful activities both in and outside the classroom get better grades, are more satisfied, and are more likely to persist and graduate.



NSSE Fundamentals QUICK REVIEW!

NSSE in Ontario



- **Algoma University**
NSSE: 2009, 2011, 2012
- **Brescia University College**
NSSE: 2007, 2009, 2010, 2011, 2012
- **Brock University**
NSSE: 2006, 2008, 2011
- **Carleton University**
NSSE: 2004, 2005, 2006, 2008, 2011; FSSE: 2006; BCSSE: 2007
- **Humber College Institute of Tech.& Advanced Learning**
NSSE: 2010 FSSE: 2010
- **Huron University College**
NSSE: 2007, 2009, 2011
- **King's University College at the Univ. of Western Ontario**
NSSE: 2007, 2008, 2010, 2011, 2012 FSSE: 2010
- **Lakehead University**
NSSE: 2006, 2008, 2011
- **Laurentian University/Université Laurentienne**
NSSE: 2006, 2007, 2008, 2011
- **McMaster University**
NSSE: 2004, 2006, 2008, 2011
- **Nipissing University**
NSSE: 2006, 2008, 2011
- **OCAD University**
NSSE: 2006, 2007, 2008, 2011
- **Queen's University**
NSSE: 2004, 2006, 2008, 2011 LSSSE: 2006, 2009
- **Ryerson University**
NSSE: 2005, 2006, 2008, 2011
- **Sheridan College Institute of Tech. Advanced Learning**
NSSE: 2012 FSSE: 2012
- **Trent University**
NSSE: 2006, 2007, 2008, 2010, 2011
- **Tyndale University College and Seminary**
NSSE: 2010, 2011, 2012
- **Université de Hearst**
NSSE: 2010, 2012
- **Université d'Ottawa / University of Ottawa**
NSSE: 2005, 2006, 2007, 2008, 2009, 2010, 2011
- **University of Guelph**
NSSE: 2005, 2006, 2008, 2011; FSSE: 2007, 2011 BCSSE: 2010
- **University of Ontario Institute of Technology**
NSSE: 2006, 2008, 2011
- **University of Ottawa / Université d'Ottawa**
LSSSE: 2007, 2009
- **University of Toronto**
NSSE: 2004, 2006, 2008, 2011 ; LSSSE: 2007, 2011
- **University of Waterloo**
NSSE: 2004, 2006, 2008, 2011
- **University of Western Ontario**
NSSE: 2004, 2006, 2008, 2011 ; LSSSE: 2007, 2008, 2009, 2010
- **University of Windsor**
NSSE: 2005, 2006, 2008, 2011 ; LSSSE: 2006, 2007, 2009, 2011
- **Wilfrid Laurier University**
NSSE: 2006, 2008, 2011
- **York University**
NSSE: 2004, 2005, 2006, 2008, 2011, 2012
LSSSE: 2005, 2006, 2007, 2008, 2010, 2011; BCSSE: 2007, 2010

Testing NSSE/CCSSE in the Canadian Context



According to the HEQCO sponsored research:

“Both the NSSE and CCSSE surveys are generally valid and reliable tools in the Canadian context and student engagement measures may help predict learning outcomes.”

Student Engagement Surveys Forge Pathways to Quality Improvement




What is NSSE?

- NSSE annually gathers information on the extent to which students engage in and are exposed to proven educational practices that correspond to desirable learning outcomes.
 - Results provide estimate of how students spend their time and what they gain.
 - NSSE items represent empirically confirmed ‘good practices’; behaviors associated with student learning and development.

NSSE Basics: The Survey

- Research based on effective educational practices
- Designed and tested for validity & reliability
- Stable over time
- High credibility of self-reported data
- Over 275,000 students at 600+ institutions annually

 National Survey of Student Engagement 2012
The College Student Report

1 In your experience at your institution during the current school year, about how often have you done each of the following? Mark your answers in the boxes. Examples: or

	Very often	Often	Some-times	Never		Very often	Often	Some-times	Never
a. Asked questions in class or contributed to class discussions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	r. Worked harder than you thought you could to meet an instructor's standards or expectations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Made a class presentation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	s. Worked with faculty members on activities other than coursework (committees, orientation, student life activities, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Prepared two or more drafts of a paper or assignment before turning it in	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	t. Discussed ideas from your readings or classes with others outside of class (students, family members, co-workers, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Worked on a paper or project that required integrating ideas or information from various sources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	u. Had serious conversations with students of a different race or ethnicity than your own	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Included diverse perspectives (different races, religions, genders, political beliefs, etc.) in class discussions or writing assignments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	v. Had serious conversations with students who are very different from you in terms of their religious beliefs, political opinions, or personal values	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Come to class without completing readings or assignments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
g. Worked with other students on projects during class	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
h. Worked with classmates outside of class to prepare class assignments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					
i. Put together ideas or concepts from different courses when completing assignments or during class discussions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					

2 During the current school year, how much has your coursework emphasized the following mental activities?

	Very much	Quite a bit	Some	Very little
i. Tutored or taught other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

NSSE Survey Item Organization

- Q.1 – Academic activities
- Q.2 – Learning mental activities
- Q.3 – Reading & writing
- Q.4 – Homework
- Q.5 – Academic challenge
- Q.6 – Co-curricular activities
- Q.7 – Enriching educational experiences
- Q.8 – Campus relationship
- Q.9 – Time usage
- Q.10 – Institutional emphasis
- Q. 11 – Gains
- Q.12-14 – Satisfaction

Benchmarks of Effective Educational Practice

**Level of
Academic
Challenge**

**Active &
Collaborative
Learning**

**Supportive
Campus
Environment**

**Student-
Faculty
Interaction**

**Enriching
Educational
Experiences**

NSSE Basics: Self-Reported Data

Self-reported data are valid if 5 conditions are met:

1. Information is known to respondents
 2. Questions are phrased clearly
 3. Questions refer to recent activities
 4. Respondents think questions merit thoughtful response
 5. Answering questions does not threaten or embarrass students, or encourage them to respond in socially-desirable ways
- NSSE/CCSSE intentionally designed to satisfy these 5 conditions

NSSE Basics

- **Indirect measure** of student learning
- **Direct measure** of extent to which students experience and participate in effective educational practices
- Engagement gets at student behaviors and also extent to which institution deploys resources important to student success

Core Surveys: FSSE

- Faculty perceptions of how often their students engage in different activities
- Importance faculty place on various areas of learning and development
- Nature and frequency of interactions faculty have with students
- How faculty members organize class time



Core Surveys: BCSSE

- BCSSE designed for **entering first-year students** as a companion to NSSE
- Measures:
 - **pre-college** academic and co-curricular experiences
 - **expectations** for educationally purposeful activities during college



NSSE Purpose & Use

NSSE Purpose & Uses



- **Measures key areas of educational effectiveness**
- **Helps pinpoint areas of strength and need for improvement**
- **Offers cross-sectional and multi-year evidence**
- **Enables institutions to benchmark against similar, aspirational, and customized comparison groups**
- **Engagement, student success, and high-impact practices are important themes and frameworks for examining educational effectiveness and learning outcomes**

Using NSSE for Quality Assurance

- **NSSE as evidence, ASSURANCE**
 - Provides student learning process & outcomes indicators
 - Benchmarking
 - Participation demonstrates ongoing evaluation, institutional improvement, & effectiveness activities
- **NSSE in QUALITY improvement efforts**
 - Catalyst for institutional action
 - Guide for improvement plan
 - Baseline & outcomes measures to assess improvement

Example 1: Mission Effectiveness: “Are students & faculty experiencing our service-learning mission?”

- NSSE results show that nearly 50% of FY and 75% of Seniors do service-learning or community service – significantly more than comparable peer institutions
- **Faculty Survey of Student Engagement (FSSE)** results show **65%** faculty teaching FY think “service-learning” is “important” and **42%** do this in their courses.
- ***Data provide evidence of service-learning mission.***

Example 2: Assessing Educational Effectiveness “To what extent are our students experiencing active learning?”

- Only 52% of our First-Year students report that they **frequently** (often + very often) ask questions in class, compared to 70% at similar Private, Liberal Arts Colleges
- Plus, only 42% of our First-Year students report that they **frequently** work with peers on projects in class...
- ***Should this be higher given our institutional size, type, and expressed commitment to active learning in the first year experience?***

Example 3. Using Data for Assessment & Improvement

- **Midwest University is interested in enhancing opportunities for active & collaborative learning among it's mostly commuter student population. The Center for Teaching Excellence reports rising interest in workshops about designing experiential learning activities; they also want to assess the impact of change. *What do NSSE results suggest?***

Example 3. Using Data

NSSE Benchmark: Active and Collaborative Learning (ACL)

Are your students actively involved in their learning, individually and working with others?

Active and Collaborative Learning (ACL)

Mean Comparisons

Midwest University Compared to

Class	Midwest Univ. Mean ^a	Urban Universities			Carnegie Class			Comp Peers		
		Mean ^a	Sig ^b	Effect Size ^c	Mean ^a	Sig ^b	Effect Size ^c	Mean ^a	Sig ^b	Effect Size ^c
First-Year	41.5	43.7	*	-.13	41.8		-.02	41.5		.00
Senior	47.7	51.0	**	-.19	49.0		-.08	46.9		.04

^a Weighted by gender and enrollment status (and by institution size for comparison groups).

^b * p<.05 ** p<.01 ***p<.001 (2-tailed).

^c Mean difference divided by the pooled standard deviation.

Example 3. Using Data

Examine Frequency of Collaborative Learning practices. **How does Midwest Compare to Urban peers?**

		<i>Frequency Distributions</i>		<i>First Year Students at Midwest University Compared to</i>					
		Midwest Univ.		Urban Universities		Carnegie Class		Comp Peers	
1g. Worked with other students on projects during class	CLASSGRP	Never	27 15%	375 9%	3,009 14%	470 12%			
	P	Sometimes	134 45%	1,560 39%	9,235 42%	1,618 44%			
	(ACL)	Often	110 32%	1,448 37%	6,728 31%	1,157 31%			
		Very often	42 8%	585 16%	2,513 12%	431 12%			
		Total	313 100%	3,968 100%	21,485 100%	3,676 100%			
1h. Worked with classmates outside of class to prepare class assignments	OCCGRP	Never	70 21%	785 18%	2,202 10%	579 15%			
	(ACL)	Sometimes	132 44%	1,657 42%	9,172 42%	1,548 42%			
		Often	87 25%	1,073 27%	6,925 32%	1,113 31%			
		Very often	26 10%	465 13%	3,235 15%	459 13%			
		Total	315 100%	3,980 100%	21,534 100%	3,699 100%			

40% of Midwest's FY students "frequently" (very often + often) worked with peers in class; only 35% worked with peers outside of class. Compared to 53% and 40% of first year students at Urban Univ.

Example 3. Using Data

Is the difference in collaborative learning significant?

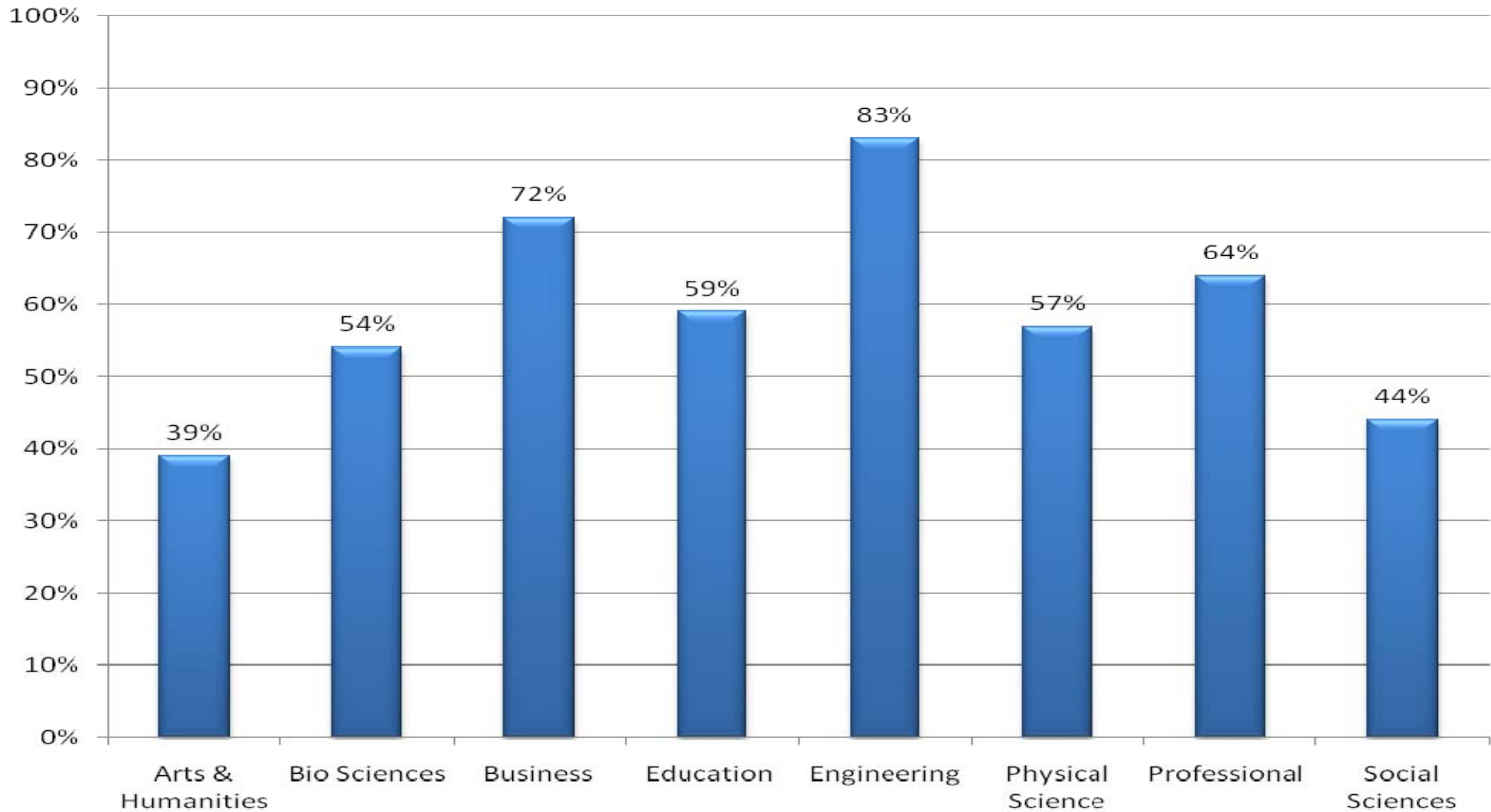
- Mean comparisons: How often have you worked with classmates **outside of class** to prepare class assignments?

Bench- mark	Class	Midwest Univ.	Urban Universities			Carnegie Class			Comp Peers		
		Mean ^a	Mean ^a	Sig ^b	Effect Size ^c	Mean ^a	Sig ^b	Effect Size ^c	Mean ^a	Sig ^b	Effect Size ^c
<i>In your experience at your institution during the current school year, about how often have you done each of the following? 1=never. 2=sometimes. 3=often. 4=very often</i>											
ACL	FY	2.11	2.34	***	-.27	2.33	***	-.24	2.36	***	-.28
	SR	2.52	2.70	**	-.20	2.65	*	-.15	2.75	***	-.26

Results support Midwest University's decision to invest in a "First Year Initiative" (FYI) to enrich collaborative learning in intro courses, and begin working with departments to explore how to implement more collaborative learning.

Differences by Major?

% SR frequently (very often+ often) “worked with classmates outside class” by 8 major fields



Assessing Impact

Evidence of Improvement?

FY NSSE scores	2009	2011
Frequently* worked with other students on projects during class	40%	45%
Frequently* worked with classmates outside of class to prepare class assignments	35%	39%

What other evidence might Midwest use to demonstrate improvement?

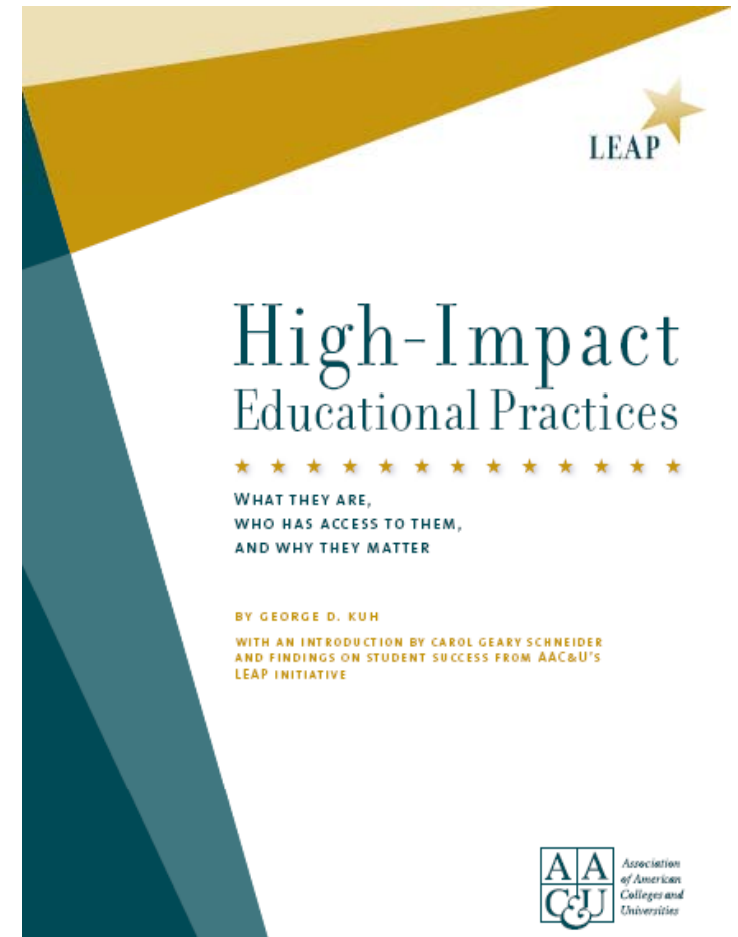
Wabash National Study (WNS) Findings

4 categories of teaching practices & institutional conditions predict growth on student outcomes including moral reasoning, leadership, openness to diversity and challenge, and positive attitude toward literacy

- **Good Teaching & High-Quality Interactions with Faculty**
- **Academic Challenge and High Expectations**
- **Diversity Experiences**
- **Deep Approaches to Learning (higher order learning, reflection, integration)**

Some Educational Activities are Unusually Effective

Growing evidence that “high-impact practices” provide substantial educational benefits to students



[*High-Impact Educational Practices: What They Are, Who Has Access To Them, and Why They Matter* (2008) AAC&U]

High Impact Activities



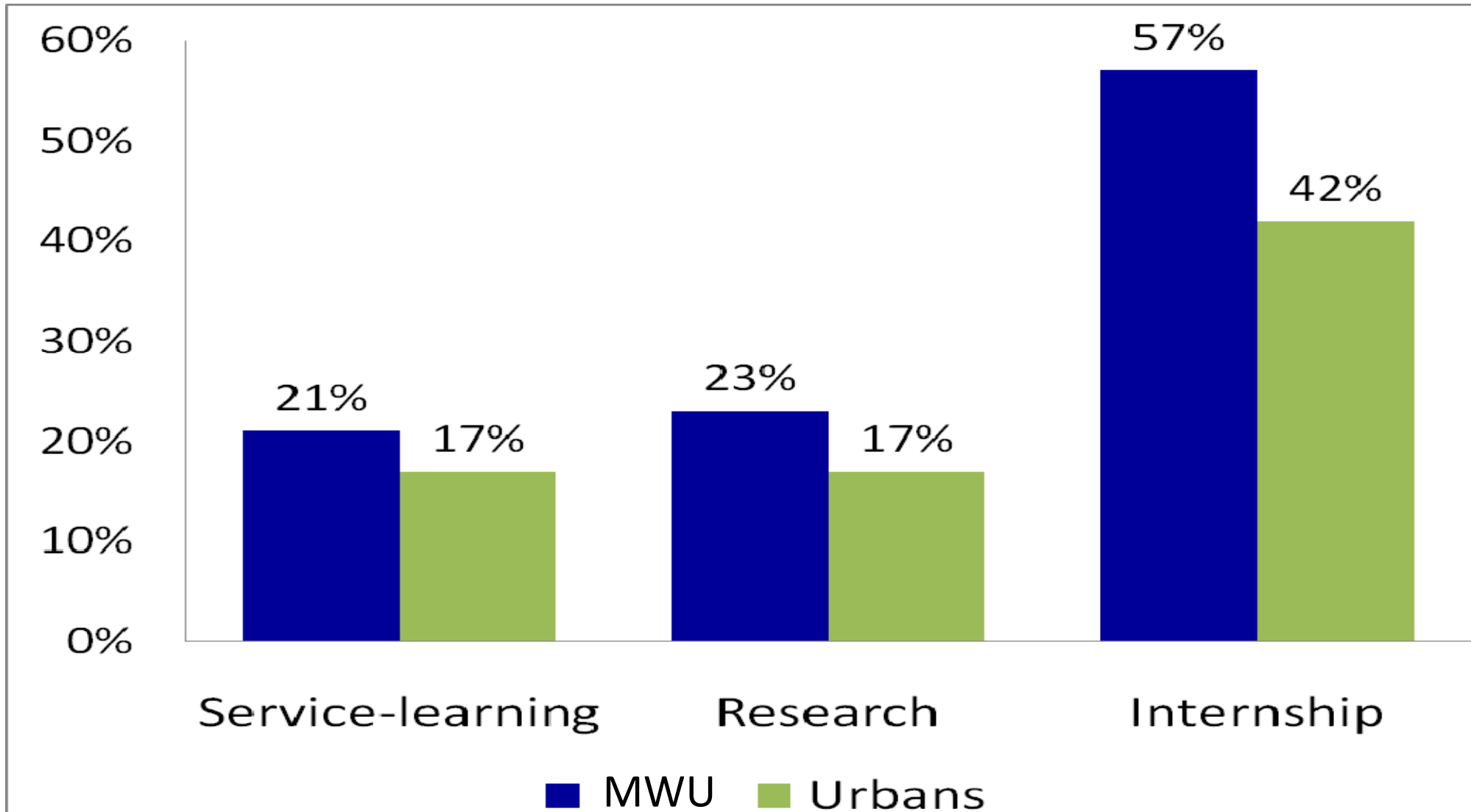
Association
of American
Colleges and
Universities

- ★ **First-Year Seminars and Experiences**
- ★ **Common Intellectual Experiences**
- ★ **Learning Communities**
- ★ **Writing-Intensive Courses**
- ★ **Collaborative Assignments and Projects**
- ★ **Undergraduate Research**
- ★ **Diversity/Global Learning**
- ★ **Service Learning,
Community-Based Learning**
- ★ **Internships**
- ★ **Capstone Courses/**



Percent Midwest U (MWU) Seniors “Done”

High-Impact Practices (HIPs): Service-Learning, Undergraduate Research, Internship



What does this suggest about students' HIP experience at MWU?



Narrow Learning is Not Enough: The Essential Learning Outcomes



- ★ ***Knowledge of Human Cultures and the Physical & Natural World***
- ★ ***Intellectual and Practical Skills***
- ★ ***Personal and Social Responsibility***
- ★ ***“Deep” Integrative Learning***



NSSE's Deep Approaches to Learning

1. Higher Order Learning Skills

Analyzing, Synthesizing, Applying theories/ concepts, Making judgments

2. Integrative Learning

Paper integrates ideas from various sources; include diverse perspectives; discuss ideas outside class with faculty, others

3. Reflective Learning

Tried to better understand someone else's views; Examined strengths & weaknesses of own view

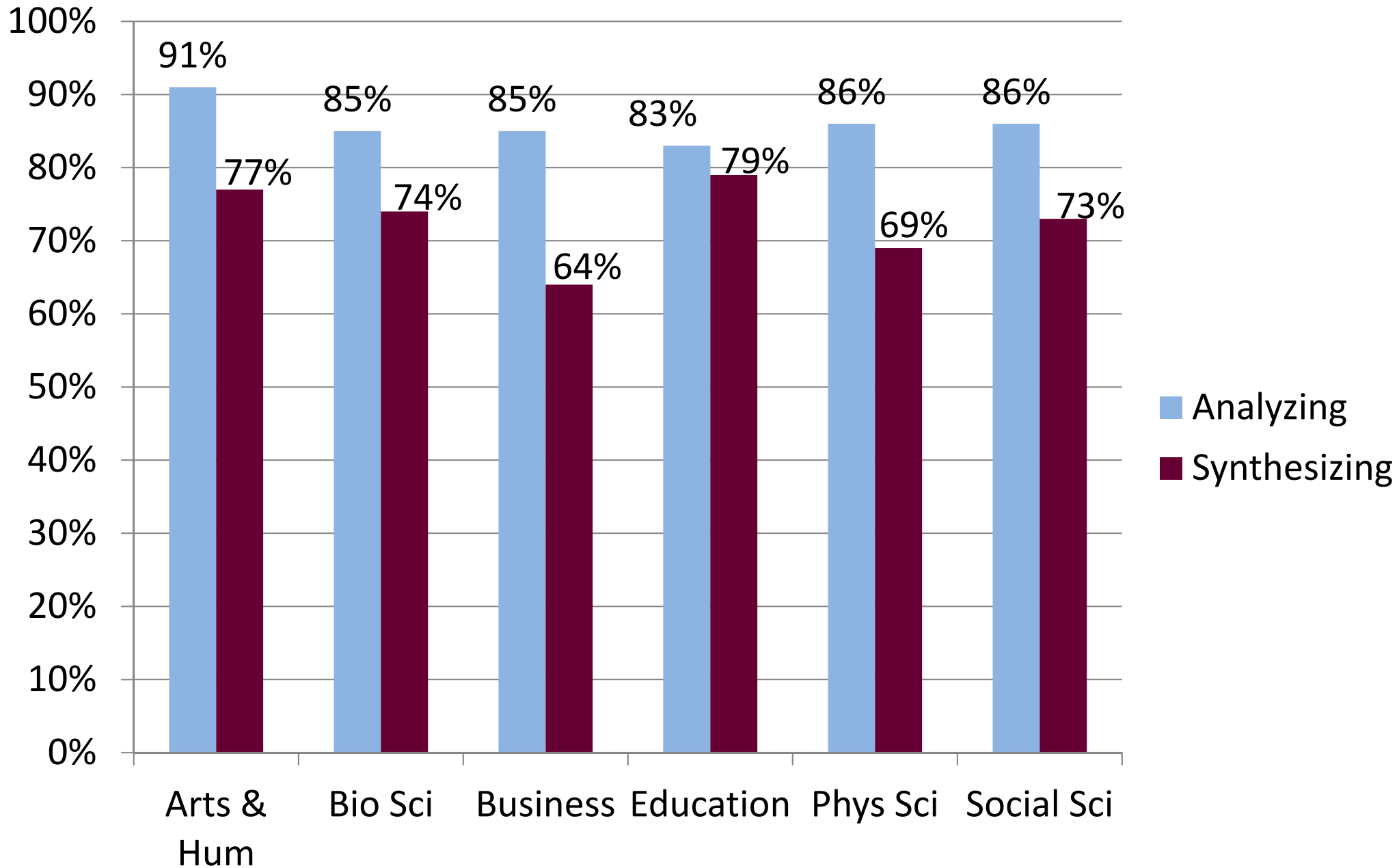


NSSE Deep Approaches to Learning Sub-Scale

Higher-Order Learning

- Analyzing the basic elements of an idea, experience, or theory, such as examining a particular case or situation in depth and considering its components
- Synthesizing and organizing ideas, information, or experiences into new, more complex interpretations and relationships
- Making judgments about the value of information, arguments, or methods, such as examining how others gathered and interpreted data and assessing the soundness of their conclusions
- Applying theories or concepts to practical problems or in new situations

MWU Seniors – Higher-Order Learning



Improvement Informed by

Data & Research:

Southern Connecticut State University



No First-year Experience in 2005; 50% students in FYE in 2007; All in FYE in 2009

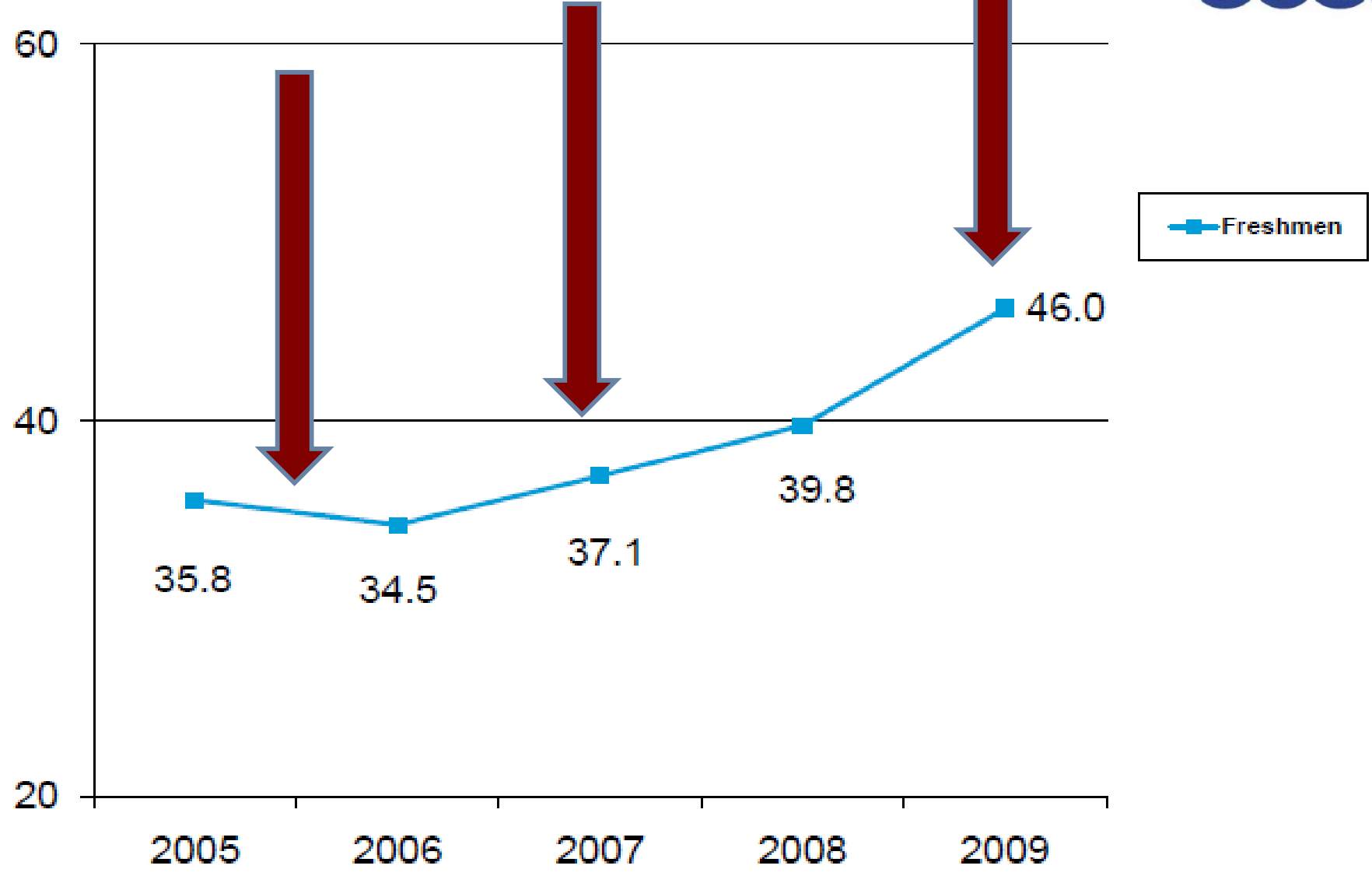
FYE components:

- Orientation
- Common read
- Learning communities
- Inquiry 101 seminar
- Faculty training
- Academic tracking & early intervention
- Student success workshops
- Academic support workshops & study groups
- FYE program office

Evidence of Improvement



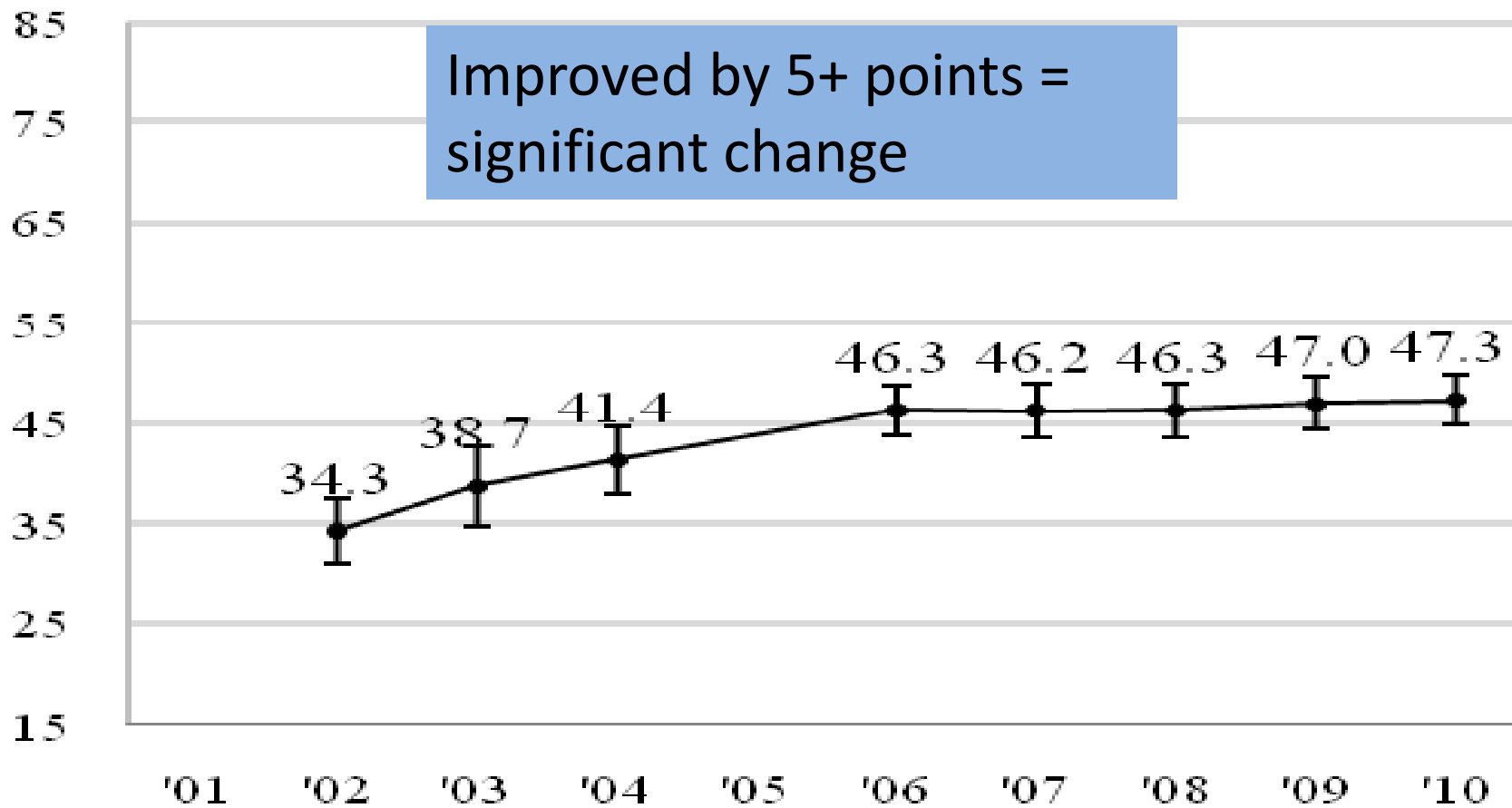
Student-Faculty Interaction



NSSE Results Over Time – Seniors at NSSEville University* (actual institution results)

SENIORS Stu-Faculty Interaction

Student-Faculty Interaction (SFC)^b



Example: Using NSSE with Direct Measures

Assessing Diverse Learning Experiences at UNC- Wilmington

Evidence from NSSE, Campus Climate survey, Miville-Guzman Universality-Diversity Scale – (M-GUDSS) that measures the learning outcome “Intercultural Effectiveness”. Used NSSE’s five diversity-related items.

*“UNCW students scored at or below, sometimes significantly below, students at master’s institutions, on items such as: ‘To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in the [area of] understanding people of other racial and ethnic backgrounds?’...**While NSSE does not directly measure student learning about diversity, there is a clear need to examine further the extent of diversity learning at UNCW with the ultimate goal of improvement.**”*





NSSE = Indirect Measure of Student Learning

- **NSSE gathers information on the extent to which students engage in & are exposed educational practices that correspond to desirable learning outcomes**
- **Lens for examining conditions that promote student learning**
- **Powerful when combined with student learning evidence to guide practice**

Use Multiple, Direct & Indirect Measures

- **NSSE, Wabash & CLA data to address quality of learning and retention for first-year students.**
 - **Analyses spurred **New College of Florida** to revise first year writing seminar & add writing staff support**
 - **Seminar associated with retention, and improved quality of writing**
- **POWER of multiple data points**
- **Relied on research about WRITING practice**

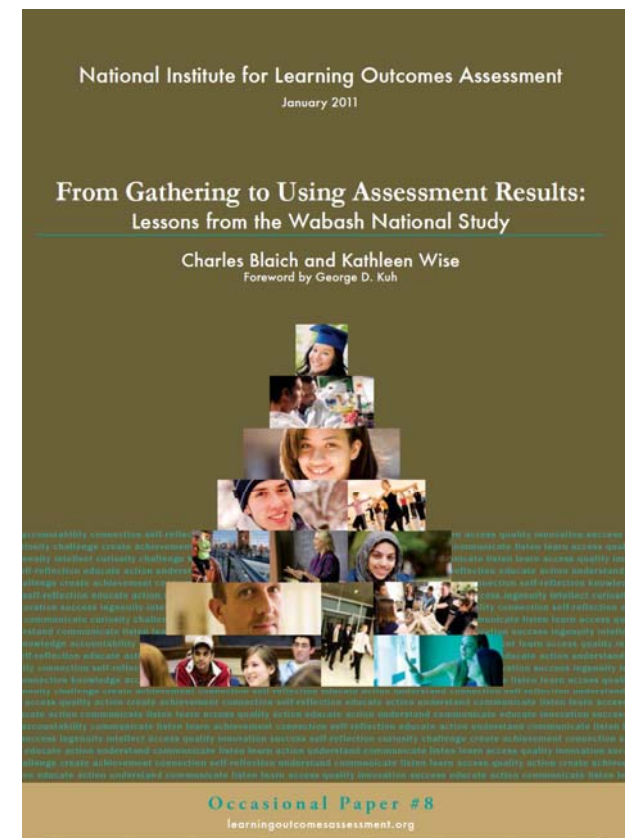


Emphasize Action & Improvement Use Evidence on Hand!

For assessment to be successful, Ask: ***“Do we have good enough knowledge to try something different that might benefit our students?”***

“The most fruitful way to learn if the conclusions that we have drawn from assessment data are correct is to try to change something and see what happens.”

Blaich & Wise, 2011, NILOA publication



***Reminders...* NSSE and Assessment of Student Learning**

- **Employ multiple measures to triangulate**
- **Consider existing educational research alongside assessment results**
- **Use results as a starting point – then probe more deeply with additional measures (rubrics, portfolios, focus groups)**
- **Drill down to the faculty or department level to illuminate differences in student experience**
- **Change something, assess again!**

NSSE 2.0 Purpose and Goals



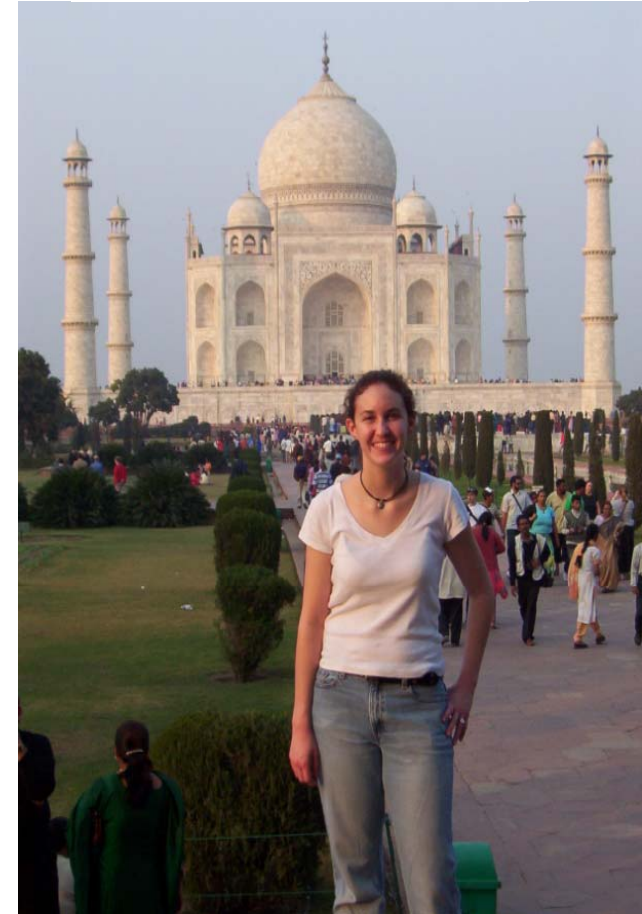
- Continue core purpose
- Apply what we've learned over 10yrs
- Stay current with trends in higher education
- Improve survey item clarity
- Refine existing measures and scales
- Incorporate new measures about teaching/learning



New Content



- **Teaching Clarity**
- **Quantitative Reasoning**
- **Learning Strategies**
- **Academic Advising**
- **Enriching Educational Experiences**



Revised Content

- Collaborative Learning
- Higher Order Learning
- Student-Faculty Interaction
- Supportive Campus Environment
- Diverse interactions
- Writing
- Demographics



Revised Content



More straightforward wording

How much has your coursework emphasized...

- *Current version* Making judgments about the value of information, arguments, or methods, such as examining how others gathered and interpreted data and assessing the soundness of their conclusions
- *Pilot version* Evaluating a point of view, decision, or information source

Revised Content



More inclusive so a greater number of important activities get included

How often have you...

- *Current version* Tutored or taught other students (paid or voluntary)
- *Pilot version* Explained course material to one or more students

Revised Content



Refined language for online learners

How often have you...

- *Current version* Asked questions in class or contributed to class discussions
- *Pilot version* Asked questions or contributed to **course** discussions in other ways

Longitudinal Comparisons



- **We will provide guidance and reference material to assist, including a detailed item-by-item crosswalk**
- **Many items will remain unchanged, but a good number will be modified, some will be added, and some will be deleted in the interest of survey length**

Modules



Topical areas

- Academic Advising
- Development of Transferable Skills
- Engagement with Diverse Perspectives
- Civic Engagement
- Use of Technology in Learning

Discussion and Comments

Contact: jikinzie@indiana.edu



- **NSSE 2013 Registration opens June 4 – with NSSE 2.0 Roll-out**
- **Register by mid-Sept 2012**
- **2013 pricing fixed at 2012 fees**
- ***NOTE* – Census (FY & SR) for all web administrations**

Updated NSSE in 2013

[Click for details](#)

View: “What to Expect in 2013” Webinar

<http://nsse.iub.edu/webinars/archives.cfm>

Reminders... NSSE and Assessment of Student Learning

- **Employ multiple measures to triangulate**
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- **Use results as a starting point – then probe more deeply with additional measures (rubrics, portfolios, focus groups)**
- **Drill down to the faculty or department level to illuminate differences in student experience**
- **Change something, assess again!**

***Assessment must ultimately be used
to help improve teaching and learning
and, student success...***

***What has
worked on
your campus?***

Thank you!

Jillian Kinzie

jikinzie@indiana.edu

