

CENTER OF INQUIRY IN THE

Liberal Arts

AT WABASH COLLEGE

Critical factors affecting the outcomes of liberal education

Phoenix, March 2006

<http://liberalarts.wabash.edu>

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“A society that demands quantitative measures greets with growing skepticism the anecdotal evidence typically used to support the effectiveness of the liberal arts.”

– Proposal to the Lilly Endowment, Inc. 2000



\$33 million from Lilly Endowment, Inc.

- Trippet Hall
- Support for Wabash programs
- Support for the Center’s research

<http://liberalarts.wabash.edu>

Research

- Collaborators
 - Ernest Pascarella (University of Iowa)
 - Greg Wolniak (Human Capital Research Corporation)
 - Tricia Seifert (University of Iowa)
 - Ty Cruce (Indiana University)
 - Kathleen Goodman (University of Iowa)
 - Carol Geary Schneider (AAC&U)
- Two Studies
 - National Study of Student Learning (1992-1995)
 - First phase of the Wabash National Study of Liberal Arts Education (2005)

- National Study of Student Learning
 - 16 institutions, 2900 students
 - 3–year longitudinal study
 - Pre–college measures on all variables
 - 11 outcome measures
 - 19 measures of good teaching practices
- First phase, Wabash National Study of Liberal Arts Education
 - 4 institutions, 650 students
 - Cross–sectional study
 - Wider array of outcome measures
 - Similar measures of teaching practices

1 - Test

- Reading
- Writing skills
- Mathematics
- Science
- Critical thinking
- Openness to diversity/challenge
- Learning for self-understanding
- Sense of responsibility for one's own academic success
- Preference for deep and difficult intellectual work
- Positive attitude toward literacy
- Plans to obtain a graduate degree

2 - Survey

Ask students
about teaching
conditions

3 - Retest

Same
items as
first test

0

Years at College

3

ACT Collegiate Assessment of Academic Proficiency (CAAP) Test

- Designed to test general education outcomes
- Includes multiple-choice tests on
 - Reading
 - Writing skills
 - Mathematics
 - Science
 - Critical thinking
- Each test is 45–60 minutes long

Scales measuring

- Openness to diversity and challenge
- Learning for self-understanding
- Internal locus of control for academic success
- Preference for higher-order cognitive tasks
- Positive attitude towards literacy

These are modest liberal arts outcomes

- Multiple-choice tests and surveys are limited
- Do not represent our most ambitious goals

Teaching conditions

- Student–faculty contact
- Cooperative and peer learning
- Active learning/time on task
- Prompt feedback
- High expectations
- Quality of teaching
- Interactions with other students

Differences among institutional types?

- Yes on teaching practices and institutional conditions
 - Liberal arts colleges had higher levels on many supportive practices and conditions
- No on outcomes
 - Variability “washed out” any differences among institutional types

What if we examine a core set of practices and conditions —

- High quality non-classroom interactions with faculty
- Faculty interest in teaching and student development
- Instructional skill, clarity, organization, and preparation
- Scholarly/intellectual emphasis
- Academic effort, involvement, and challenge
- Number of essay exams in courses
- Quality of interactions with students
- Extracurricular involvement
- Integration of ideas across courses
- Coursework in arts and sciences

—But pay no attention to where these practices occur?

This combination of practices and conditions produced gains in:

- Reading comprehension
- Critical thinking
- Science reasoning
- Writing skills
- Openness to diversity/challenge
- Learning for self–understanding
- Sense of responsibility for one’s own academic success
- Preference for deep and difficult intellectual work
- Positive attitude toward literacy
- Plans to obtain a graduate degree

Additional findings

- Institutions with higher average levels of these conditions had greater average gains in the outcomes
- Combination effective at all institution types
 - Community colleges, historically black institutions, liberal arts colleges, regional universities, and research universities
- Combination effective to date in Wabash National Study
 - New outcomes: need for cognition, well-being, leadership
 - Replication: openness to diversity, valuing literacy

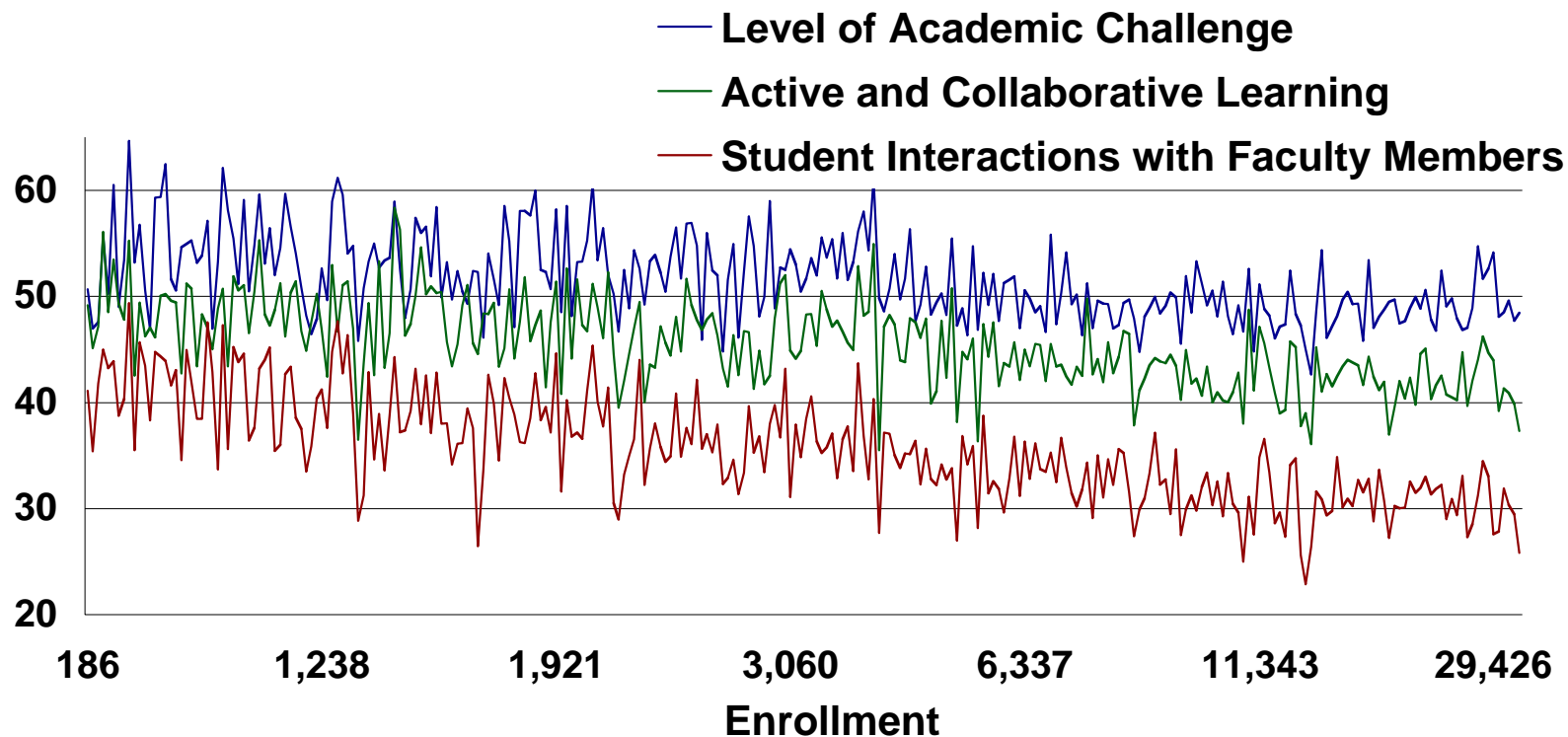
Additional findings

- The presence of these teaching practices and institutional conditions ***was not*** related to institutional selectivity
- These teaching practices and institutional conditions had the largest positive impact for:
 - Students of color
 - Women
 - At-risk students

Importance of variability

- Why no outcome differences among types of institutions?
- What about the differences among our students?

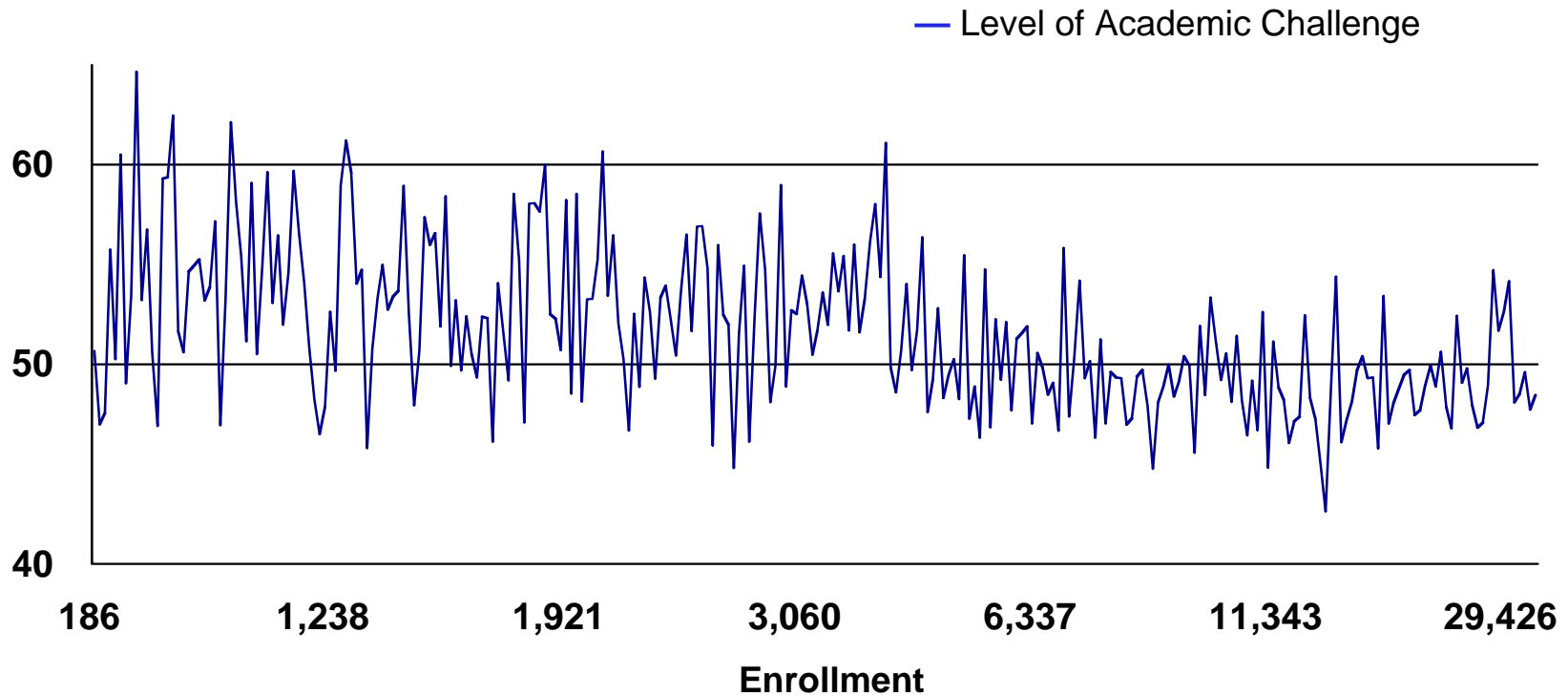
Courtesy George D.
Kuh and NSSE



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Discussed ideas from your readings or classes with faculty members outside of class

	Doc-Ext	Master's	Bac-LA
Never	48%	43%	31%
Sometimes	37%	38%	45%
Often	11%	14%	16%
Very often	4%	5%	8%

Who experiences our combination of practices and conditions?

- Race
 - Students of color experience lower levels than white students
- Class
 - Students in the lowest SES quartile experience lower levels than students in the highest quartile

Conclusion

- We have identified a set of teaching conditions and institutional practices that:
 - Produce a broad spectrum of outcomes
 - Are easily measured by student self-report
 - Work across different types of institutions
- We also found important variation both between and within institutions

Wabash National Study of Liberal Arts Education

- Longitudinal study
- 18 institutions and 5,500 students
- Qualitative and quantitative methods
- Outcomes include:
 - Effective reasoning and problem solving
 - Inclination to inquire and lifelong learning
 - Integration of learning
 - Intercultural effectiveness
 - Leadership
 - Moral character
 - Well-being