

Strategic Retention Initiatives: The Role of First-year Experiences

First-year Seminars

Introduction to an Honors University Seminars

Living Learning Communities

Office of Institutional Research

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www.umbc.edu/oir

Objectives

- Evaluate the implications of engaging in FYEs during the first semester:
 - How many students participate?
 - Who are they?
 - Does it help?
- Review the baseline statistical model predicting retention

Guiding Principles

FYEs at UMBC embody best practices in undergraduate education; these best practices are related to student engagement & success.

- Active & collaborative learning
- Academically challenging coursework
- Time on Task
- Enriching educational activities
 - Engagement in out-of-class experiences
 - Cultural diversity
- Student & faculty interaction
- Collaborations across Academic & Student Affairs' divisions
- Student cooperation & collaboration
- Supportive campus environment

Astin (1984, 1993); Tinto (1987, 1993); Chickering & Gramson (1987); Kuh (2001); Kuh et al. (2005); Pascarella & Terenzini (2005)

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First-year Experiences at UMBC

First-year Seminars

- Implemented in fall 2002
- Designed to provide first-year students (including transfer students) a small group academic experience that allows for active & collaborative learning with faculty & peers
- Incorporates traditional reading, writing, and lecture formats with field work, original research, group projects or performance

First-year Experiences at UMBC

Introduction to an Honors University Seminar

- One-credit academic orientation & transition seminars paired with popular freshman courses in content areas
- Learning goals of the IHU's include:
 - Academic integrity
 - Time management
 - Academic expectations and skills
 - Information & technological fluency
 - Academic & career goal development
 - Interpersonal communication & teamwork skills
 - Involvement in UMBC community

First-year Experiences at UMBC

- IHU seminars are linked to the following courses:
 - ENGL 100—English Composition
 - ENES 101—Introduction to Engineering Science
 - AMST 100—Ideas & Images in American Culture
 - MATH 106—Algebra and Elementary Functions
 - IS 101—Introduction to Computer-based Systems
 - PHIL 100—Introduction to Philosophy
 - PHIL 152—Introduction to Moral Theory
 - SCI 100—Water: An Interdisciplinary Study

First-year Experiences at UMBC

Living Learning Communities

- Programs where undergraduate students live on a residence hall floor and participate in academic and co-curricular programming developed for them
- Living Learning Communities have included:
 - Shriver (2000)
 - Intercultural Living Exchange (2001)
 - Humanities (2002)
 - Emergency Health Services (2002)
 - Women Involved in Learning & Leadership (2003)
 - Visual & Performing Arts (2003)
 - Honors College (2003)
 - CWIT (2004)
 - Exploratory Majors (2006)

The NSSE (2005) shows...

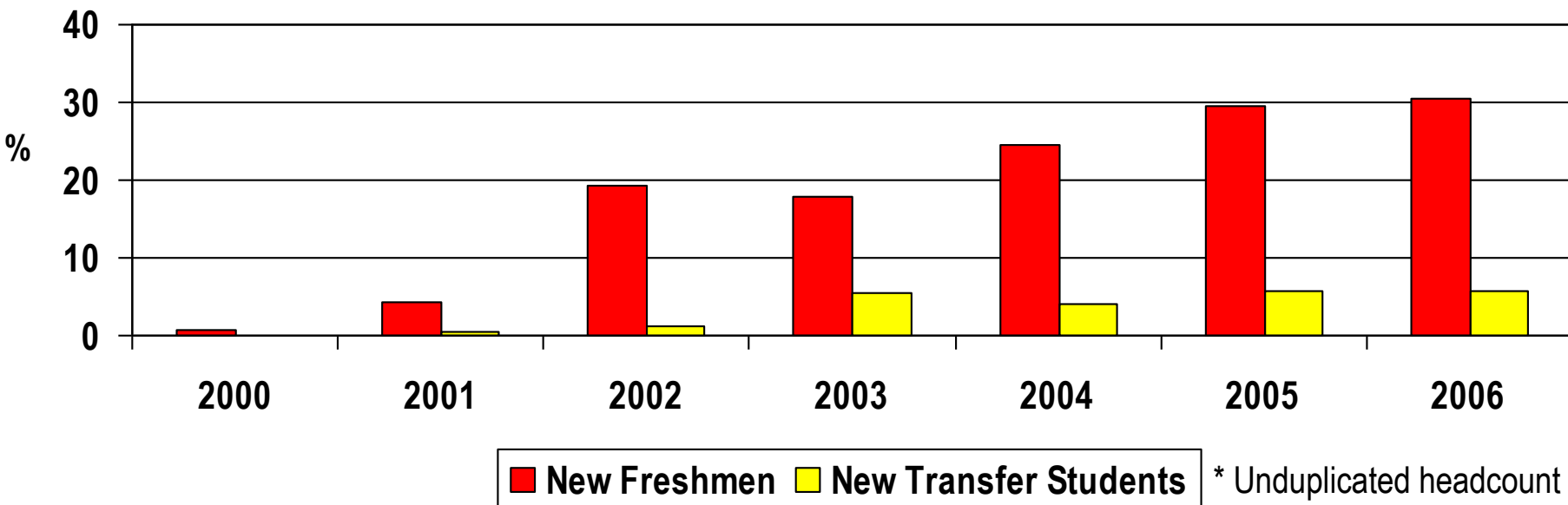
- UMBC's FYS & IHU's goals are consistent with NSSE's Benchmarks of Effective Educational Practice
- FYS participants reported significantly higher scores on:
 - Two benchmarks:
 - Level of Academic Challenge
 - Active & Collaborative Learning
 - UMBC has contributed to their ability to:
 - Write clearly & effectively
 - Speak clearly & effectively
 - Contributing to the welfare of your community

The NSSE (2005) shows...

- IHUs participants reported significantly higher scores on:
 - One benchmark:
 - Supportive Campus Environment
 - UMBC has contributed to their ability to:
 - Working effectively with others
 - Personal code of ethics & values
 - Deepened sense of spirituality
 - Analyzing quantitative problems
 - Solving real world problems

First-Year Experiences: 1st Semester Participation Rates *

(Fall Cohorts of Degree-seeking New Freshmen & New Transfer Students, 2000 – 2006)



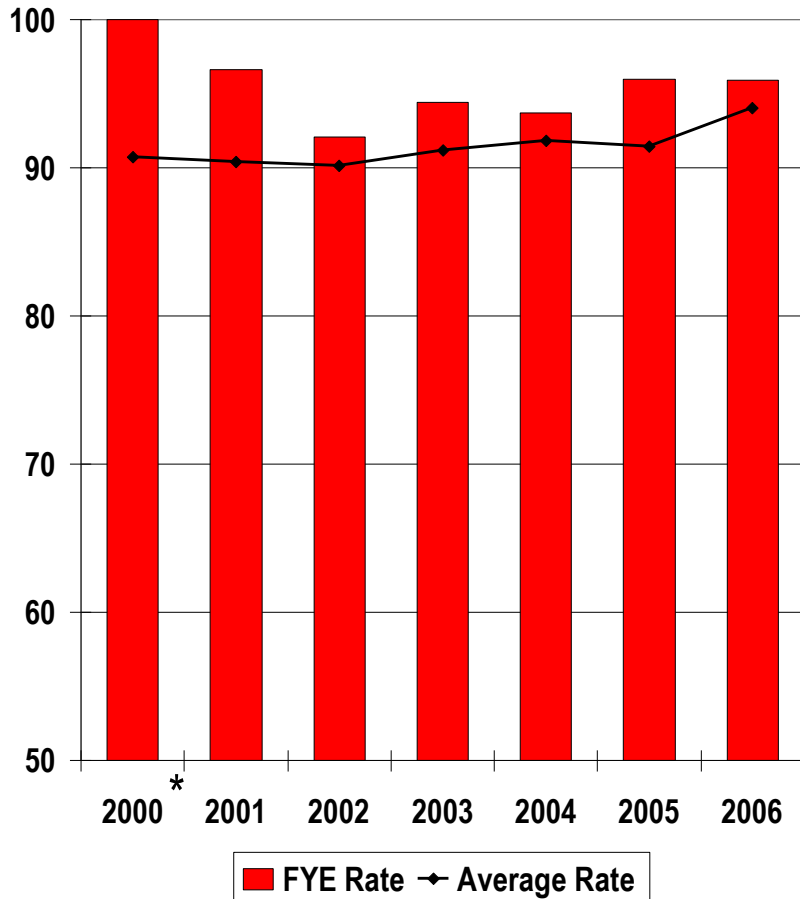
FYE 1 st Semester Participation Rates by Program														
	2000		2001		2002		2003		2004		2005		2006	
	%F	%T	%F	%T	%F	%T	%F	%T	%F	%T	%F	%T	%F	%T
LLC	0.7	0.0	4.4	0.4	8.0	0.9	6.6	1.7	7.0	2.2	5.6	2.5	10.9	1.4
FYS	---	---	---	---	7.4	0.2	7.3	2.9	10.0	1.1	12.4	2.6	6.8	0.9
IHUS	---	---	---	---	5.2	0.0	5.7	0.8	10.0	0.8	14.3	0.5	17.3	3.3

Note: Duplicates and the deceased are excluded. IHU excludes PHED202, as athletes are required to take this course.

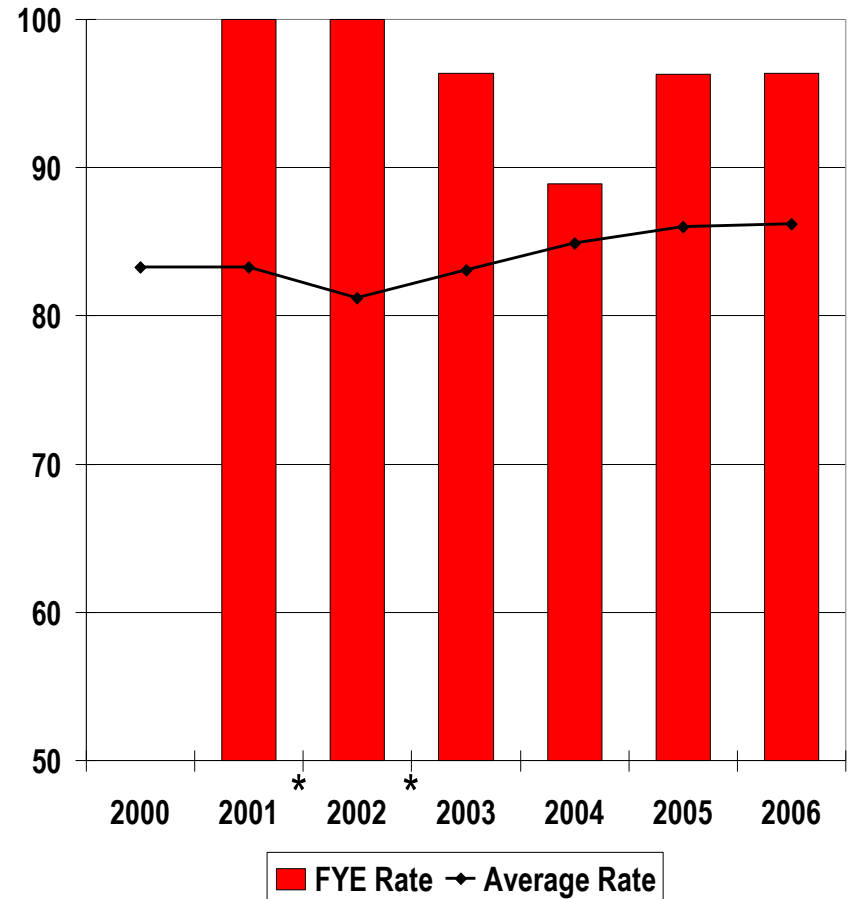
Semester Retention Rates of FYE Participants

(Fall Cohorts of Degree-seeking New Freshmen & New Transfer Students, 2000 – 2006)

New Freshmen



New Transfer Students



* Interpret retention rates with caution. There were nine students engaged in an FYE fall 2000. There were less than 30 transfer students who engaged in an FYE fall 2001 and fall 2002.

BUT...

Who Engages in an FYE the 1st Semester?

Overall

- New freshmen are more likely than new transfer students to participate
- New freshmen tend to participate in more than one FYE

First-year Seminars

- High-performing students (SAT scores, AP credit)
- Honors College students
- Dorm residents
- Non-STEM students

Living Learning Community

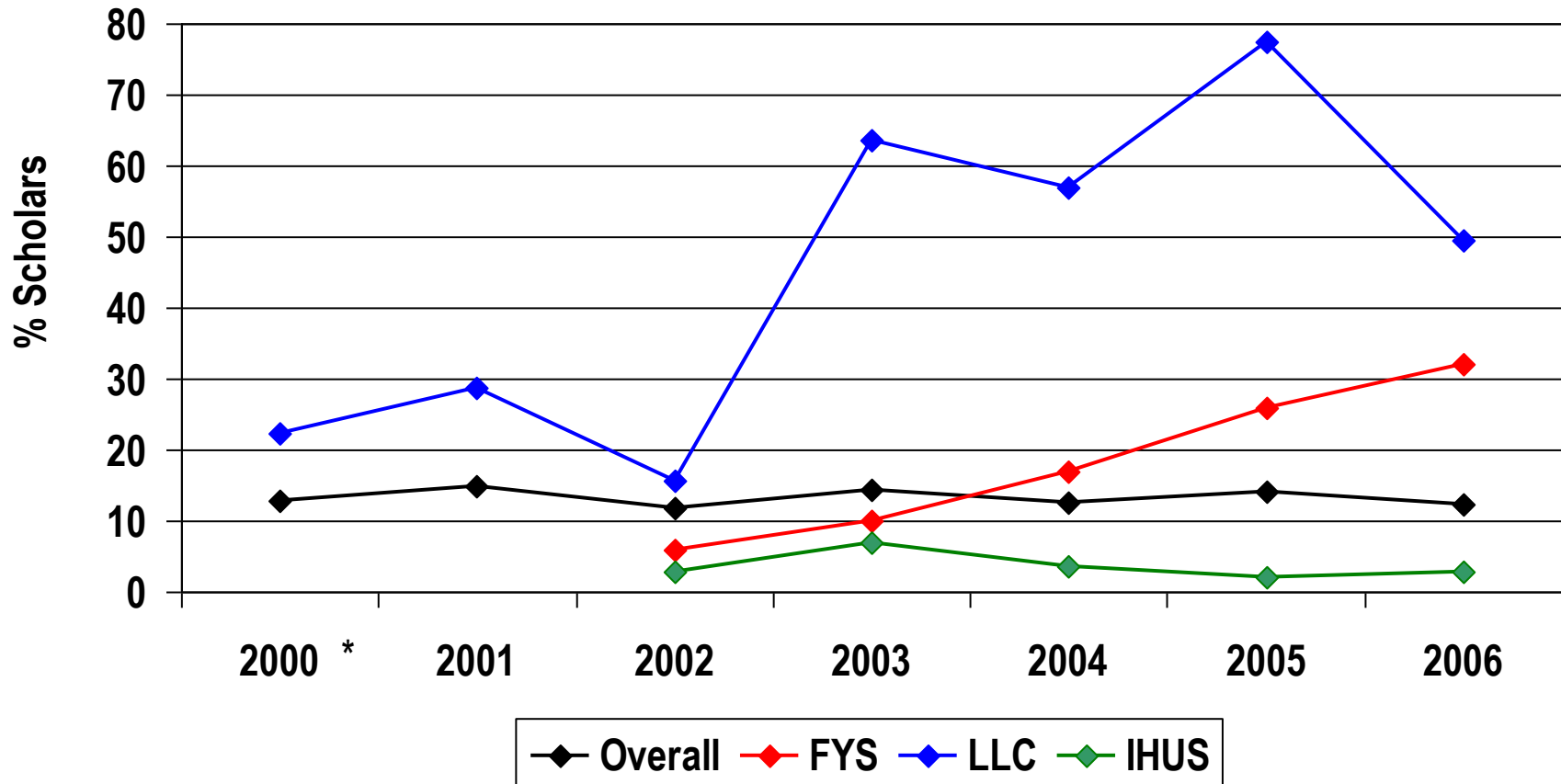
- High-performing students (HS GPA, SAT scores, AP credit)
- Honors College students
- Scholars program students
- Non-STEM students

Introduction to an Honors University

- STEM students

Students in Scholars' Programs are Overrepresented in Two FYEs

(Fall Cohorts of Degree-seeking New Freshmen, 2000 – 2006)



Note: "Scholars' Programs" include: Meyerhoff, Sondheim, CWIT, Humanities, Linehan, and the Honors College.

* Interpret Scholars' fall 2000 participation rate for LLC with caution. There were nine students engaged in an LLC fall 2000.

Methodology

Population

- Semester retention models
 - 2000 to 2006 cohorts of degree-seeking new freshmen (n = 9,772)

Dependent Variable

- Fall to Spring 1st semester retention

Independent Variables of Interest

- 1st semester engagement in an FYE
 - First-year Seminar (FYS)
 - Introduction to an Honors University Seminar (IHU) excluding PHED 202 (required for athletes)
 - Living Learning Community (LLC)

Methodology

Control Variables

- Fall cohort term
- Sex
- Race
- Geographic origin
- HS G.P.A.
- SAT Verbal
- SAT Math
- AP credit
- Math placement
- English placement
- Major area @ matriculation
- Dorm status
- Scholar program
- Honors College
- Athlete
- UMBC scholarship
- Applied for financial aid
- Expected family contribution
- Credits attempted (BOT)
- % STEM coursework (1st sem)
- Difficulty of coursework (1st sem)
- Withdrew 1st semester

Baseline Model of Semester Retention for Degree-seeking New Freshmen (n = 9,772)

Variable	Odds Ratio
Term (trend)	1.065**
Withdrew 1 st semester (yes = 1)	.027***
African-American student (ref = white students)	1.895***
Asian-American student (ref = white students)	.767*
Other races (ref = white students)	1.462*
Washington suburb geographic origin (yes = 1)	.701***
SAT (verbal)	1.002**
SAT (math)	.998*
AP credits (transferred in any)	1.575***
No English placement (ref = ENGL 100 placement)	.582**
English 100A placement (ref = ENGL 100 placement)	1.248*
Dorm resident (yes = 1)	1.728***
Scholars Program student (yes = 1)	9.103***
Honors College student (yes = 1)	3.910**
Athlete (yes = 1)	3.274***
UMBC merit award (yes = 1)	2.327***
Credit hours attempted (ln)	3.269***
% STEM coursework	2.233***
Difficulty of coursework	0.687*

***p < .001; **p < .01; *p < .05

**Semester Retention Regressed on Participation in a First-year Experience
controlling for the Baseline Model of Semester Retention (n = 9,772)**

First-year Experiences	Odds Ratio	
	Model 1	Model 2
Living Learning Community	1.220	---
First-year Seminar	1.444	---
Introduction to an Honors University	1.367	---
First-year Experience (LLC, FYS, or IHUS)	---	1.337*

***p < .001; **p < .01; *p < .05

Limitations

- Self-selection
- Time since treatment

**Estimated Effect of FYE on 1st Semester Stop-out Rate
(Fall Cohorts of Degree-seeking New Freshmen, 2000-2006)**

1st Semester Avg. = 8.3%

Program	Estimated Stop-out Rate		
	Base Model	Controlling for FYE	Percent decrease (1-(FYE/Base))*100
FYS	6.5%	5.1%	22%
IHU	7.7%	6.1%	21%
LLC	3.8%	3.3%	13%
Any FYE			
Any FYE	6.3%	5.3%	16%

Estimated Effect of FYE on 1st Semester & 1st Year Stop-out Rates (Fall Cohorts of Degree-seeking New Freshmen, 2000-2005)

1st Semester Avg. = 8.7%

1st Year Avg. = 17.6%

	Estimated Stop-out Rate		
Any FYE	Base Model	Controlling for FYE	Percent decrease (1-(FYE/Base))*100
1st Semester	6.9%	5.6%	19%
1st Year	15.9%	13.9%	13%

Estimated Effect of FYE on 1st Semester, 1st Year & 2nd Year Stop-out Rates (Fall Cohorts of Degree-seeking New Freshmen, 2000-2004)

1st Semester Avg. = 8.7%

1st Year Avg. = 17.6%

2nd Year Avg. = 29.2%

Any FYE	Base Model	Controlling for FYE	Percent decrease (1-(FYE/Base))*100
1st Semester	7.0%	6.3%	10%
1st Year	15.9%	13.8%	13%
2nd Year	26.2%	23.5%	10%

Conclusions

- Prior OIR analyses using the NSSE (2005) show that FYS & IHUS participants stated they were more engaged than non-participants.
- First semester engagement in an FYE is positively correlated with retention.
- There are groups who are under-represented in FYEs:
 - Non-Scholars and non-Honors College students
 - Transfer students
 - Commuting students