

# **Supporting First-Generation Students: The Role of Learning Communities to Promote Deep Learning**

**AAC&U Annual Meeting, 2009**

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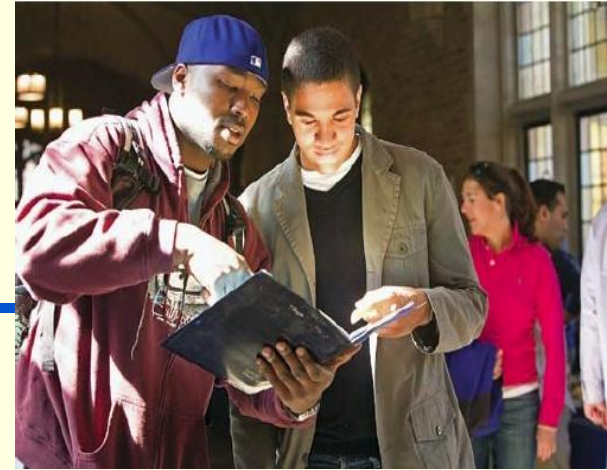
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Indiana University  
Center for  
Postsecondary Research***



**National Survey  
of Student Engagement**

# Supporting First- Generation Students

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- ◆ **College-going stakes higher today than at any point in history**
- ◆ **Enrollment & persistence rates of historically underserved students lag**
- ◆ **About 1 in 6 first-year students are first-generation – and are likely disadvantaged in comparison to students whose parents have college experience**
- ◆ **High proportion of FG Latinos; increased FG participation at 2-year colleges**



# First-Generation Students

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**Two general definitions:**

**1) Neither parent attended school beyond high school (Trio Program, etc)**

**2) Neither parent has a baccalaureate degree (NCES, etc)**

**Regardless of definition, each year first-generation students enroll on our campuses in substantial numbers.**



# First-Generation Students

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**Compared to non-first generation students, first-generation students generally...**

- **Are less prepared academically**
- **Have lower college GPAs**
- **Are much less likely to persist**
- **Have lower degree aspirations**
- **Are challenged by the transition to college**

# *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**
- ★ **“Science as Science Is Done”;  
Undergraduate Research**
- ★ **Diversity/Global Learning**
- ★ **Service Learning, Community-Based  
Learning**
- ★ **Internships**
- ★ **Capstone Courses and Projects**

*NSSE*



# Learning Communities

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**“Learning communities – clusters of courses organized around a curricular theme that students take as a group – strengthen and enrich students’ connections to each other, their teachers, and the subject matter they are studying.”**

**Laufgraben 2005, p. 371**

***In: Challenging & supporting the first-year student:  
A handbook for improving the first year of college .***



# LCs at Skagit Valley College

**Skagit LCs: Learning communities are linked courses (e.g., math & study skills) usually team-taught by two faculty members**

➤ **Students who have been part of a LC are more engaged and more frequently use higher-order thinking skills compared to peers who have not been part of a LC**

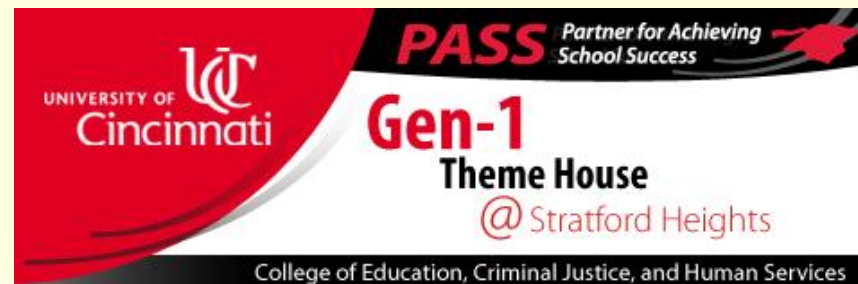
➤ **Skagit now requires every student enrolling in a degree or transfer program to participate in a LC**





# Learning Communities

- ◆ University of Cincinnati new *Gen-1 Theme House* off-campus residence
- ◆ Provide first-year, first-generation students with support to make a successful transition from high school to college
- ◆ *Gen-1* resident must be: first-generation, full-time, Pell-eligible U.C. first-year student



A CECH **PASS** Initiative







# Learning Communities

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## **Impact of Learning Communities:**

- **Improved persistence and achievement (Tinto, et al., 1993)**
- **Improved cognitive and intellectual development (Avens & Zelle, 1992)**
- **Greater satisfaction and participation in range of social and academic activities (Reumann-Moore, El-Haj, & Gold, 1997)**



# Surface- vs. Deep-Level Learning

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## *Surface-level*

**Emphasis on rote learning and memorization**

## *Deep-level*

**Emphasis on making meaning, connecting information, applying knowledge**



# NSSE Deep Learning Sub-Scale Reflective Learning

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- ◆ Examined the strengths and weaknesses of your own views on a topic or issue
- ◆ Tried to better understand someone else's views by imagining how an issue looks from his or her perspective
- ◆ Learned something that changed the way you understand an issue or concept



# NSSE Deep Learning Sub-Scale Integrative Learning

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- ◆ Worked on a paper or project that required integrating ideas or information from various sources
- ◆ Included diverse perspectives (different races, religions, genders, political beliefs, etc.) in class discussions or writing assignments
- ◆ Put together ideas or concepts from different courses when completing assignments or during class discussions
- ◆ Discussed ideas from your readings or classes with faculty members outside of class
- ◆ Discussed ideas from your readings or classes with others outside of class (students, family members, co-workers, etc.)

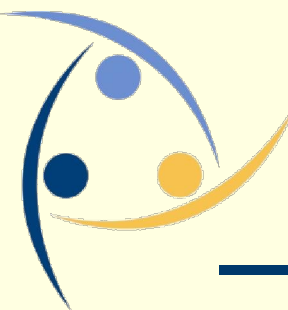


# NSSE Deep Learning Sub-Scale Higher-Order Learning

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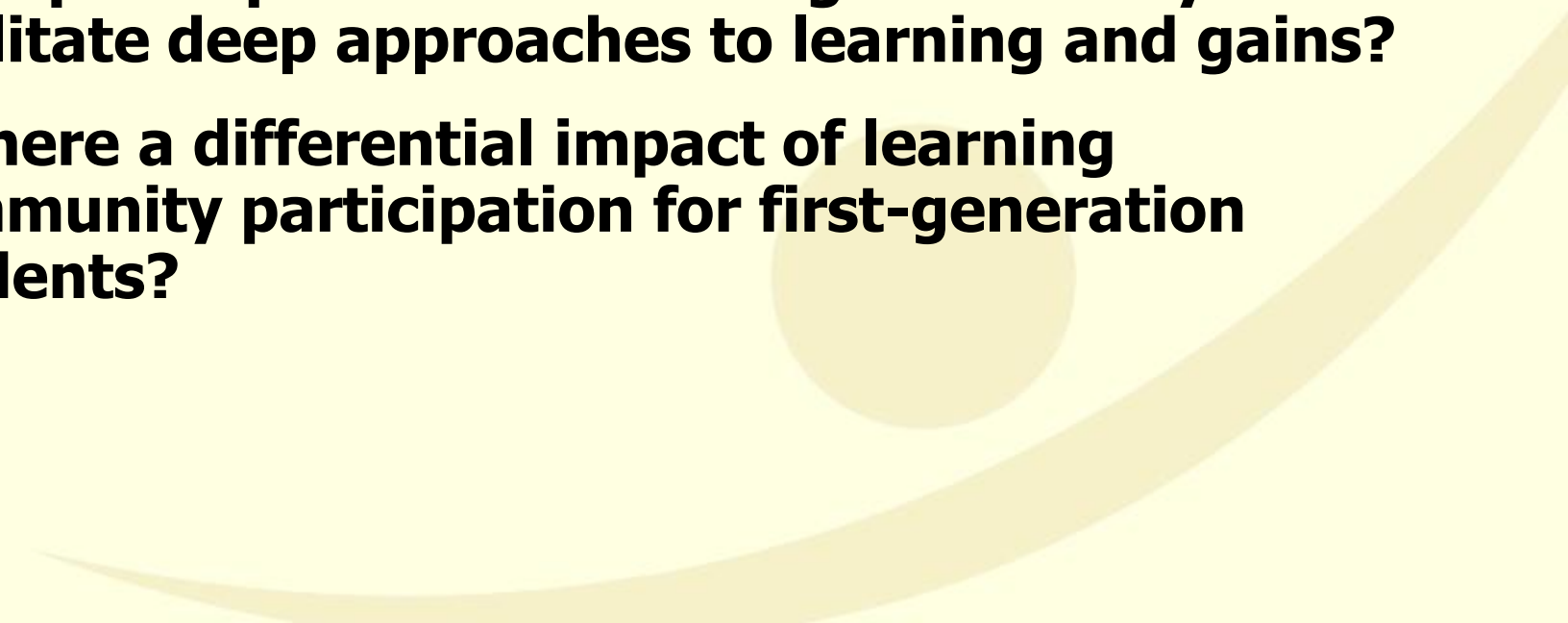
## Coursework emphasizes...

- ◆ **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



# Study Questions

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- 1) How do the experiences and preparation of first-generation students compare with that of others?**
  - 2) What are the expectations and attitudes of first-generation students?**
  - 3) Does participation in a learning community facilitate deep approaches to learning and gains?**
  - 4) Is there a differential impact of learning community participation for first-generation students?**
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## Data & Methods

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**Approximately 12,000 first-year students enrolled at 95 4-year institutions who completed the Beginning College Survey of Student Engagement (BCSSE, summer/fall 2007) and the National Survey of Student Engagement (NSSE, spring 2008).**



# Data Source

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## *Beginning College Survey of Student Engagement*

### Purpose of BCSSE:

- To measure entering first-year students' pre-college academic and co-curricular experiences.
- As well as their expectations and attitudes for participating in educationally purposeful activities during the first college year.



The logo features a stylized blue and orange arc with three colored dots (blue, yellow, and blue) positioned above the text.

# BCSSE Content

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- High school academic and co-curricular engagement
- High school academic preparation
- 6 scales used in this study
  - High School Academic Engagement
  - Expected First-Year Academic Engagement
  - Academic Perseverance
  - Expected Academic Difficulty
  - Academic Preparation
  - Importance of Campus Environment



# Data Source



- ❖ **NSSE assesses the extent to which students engage in educational practices associated with high levels of learning and development**
- ❖ **NSSE measures...**
  - ❖ **What students do** -- time and energy devoted to educationally purposeful activities
  - ❖ **What institutions do** -- using effective educational practices to induce students to do the right things



# Data & Methods

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**For this study, we use two definitions of first-generation student, differentiated by how we treat parents with some college or an associate's degree**

**1) Neither parent continued education after high school**

**2) Neither parent has a *bachelor's degree***

## Parental Education

<b>HS only</b>	<b>Some college</b>	<b>BA/BS</b>
14%	25%	61%



## **Data & Methods**

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**Dependent variables include the three deep learning subs-scales and self-reported gains in general education and personal/social development.**

**MANCOVA was used to calculate adjusted means for each dependent variable. Institution-level covariates included Barron's selectivity, institutional control, and size. Student covariates included gender and ethnicity (White/Asian versus all others).**



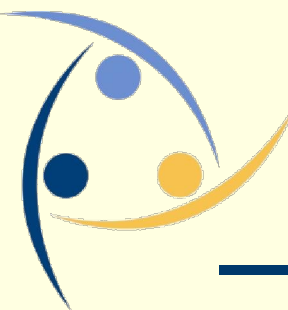
# Student Characteristics

## Parental Education

Gender	HS only	Some college	BA/BS
Male	29%	28%	33%
Female	71%	72%	67%
	<i>100%</i>	<i>100%</i>	<i>100%</i>

## Race/Ethnicity

Asian	8%	3%	4%
Black	10%	11%	5%
Caucasian	64%	73%	79%
Hispanic	9%	6%	3%
All others	9%	7%	9%
	<i>100%</i>	<i>100%</i>	<i>100%</i>



# Characteristics

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## Parental Education

Major	HS only	Some college	BA/BS
<b>Arts &amp; Humanities</b>	<b>10%</b>	<b>12%</b>	<b>16%</b>
Business	17%	14%	14%
Education	13%	12%	10%
Social Science	12%	13%	14%
Undecided	5%	5%	5%
Other	25%	26%	21%
	<i>100%</i>	<i>100%</i>	<i>100%</i>



# Characteristics

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# High School Experiences

## Parental Education

HS Grades	HS only	Some college	BA/BS
<b>A, A-</b>	<b>49%</b>	<b>54%</b>	<b>63%</b>
B+, B, B-	46%	42%	35%
C+ or lower	5%	4%	2%
	<i>100%</i>	<i>100%</i>	<i>100%</i>

## HS Type

Public	89%	88%	79%
Private	10%	12%	19%
Other	1%	0%	2%
	<i>100%</i>	<i>100%</i>	<i>100%</i>





# High School Experiences

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# Institutional Characteristics

	Parental Education		
Barron's	HS only	Some college	BA/BS
Less/non-competitive	<b>16%</b>	14%	7%
Competitive /very comp	75%	76%	71%
Highly/most competitive	<b>9%</b>	10%	22%
	<i>100%</i>	<i>100%</i>	<i>100%</i>
Control			
Public	50%	46%	31%
Private	50%	54%	69%
	<i>100%</i>	<i>100%</i>	<i>100%</i>
Size			
UG Enrollment (mean)	5,700	6,000	6,000



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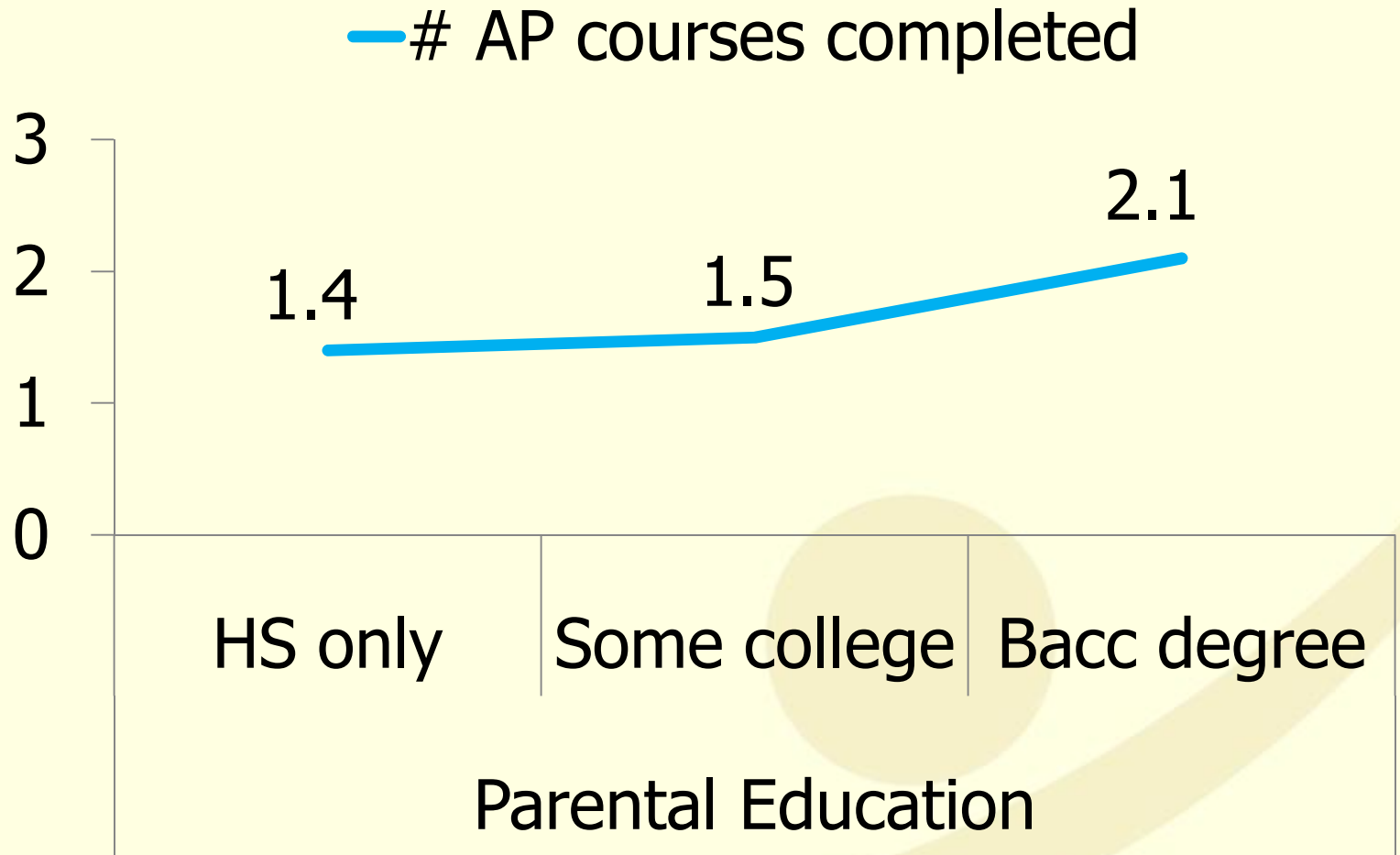


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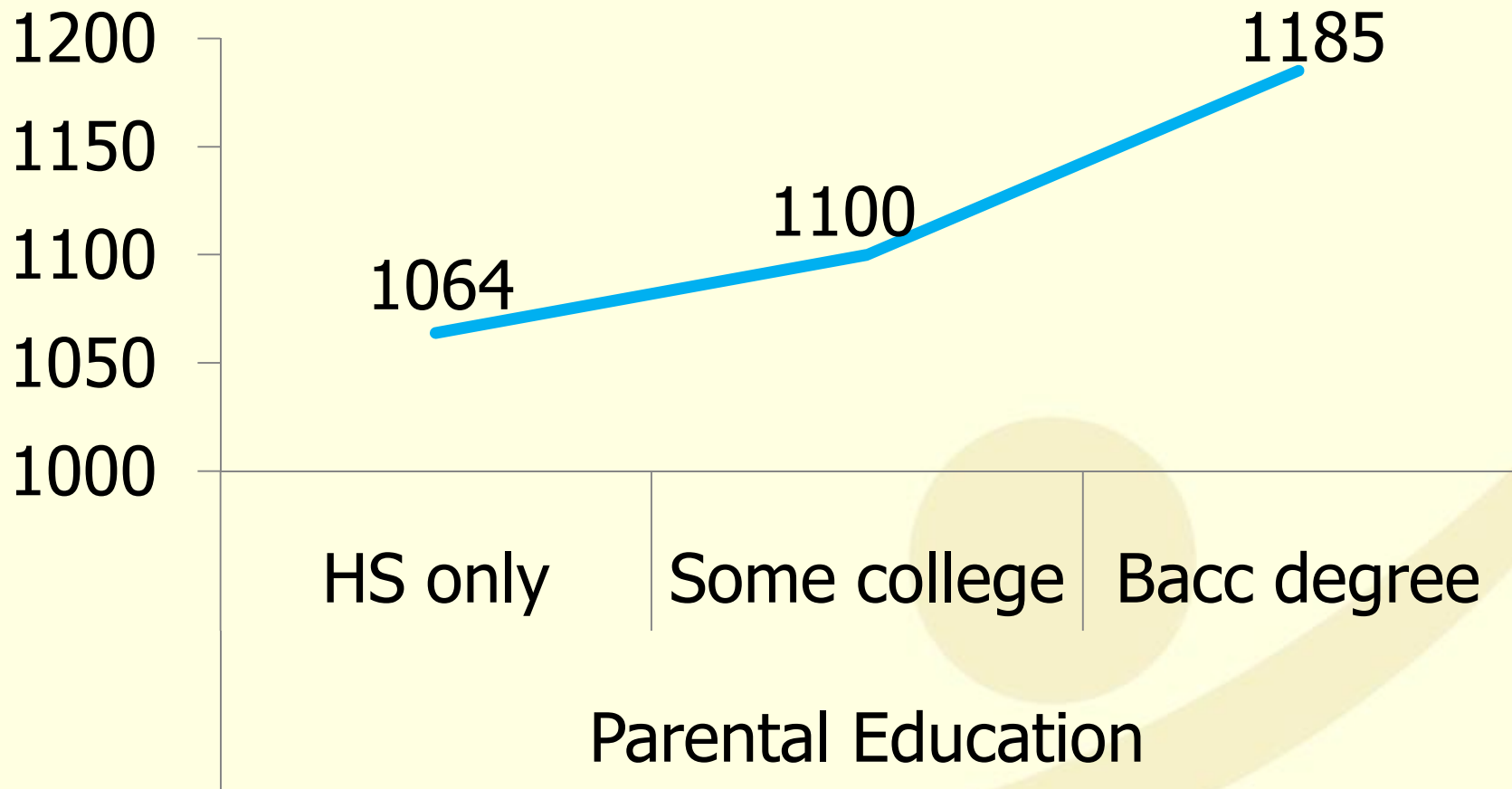
# High School Experiences





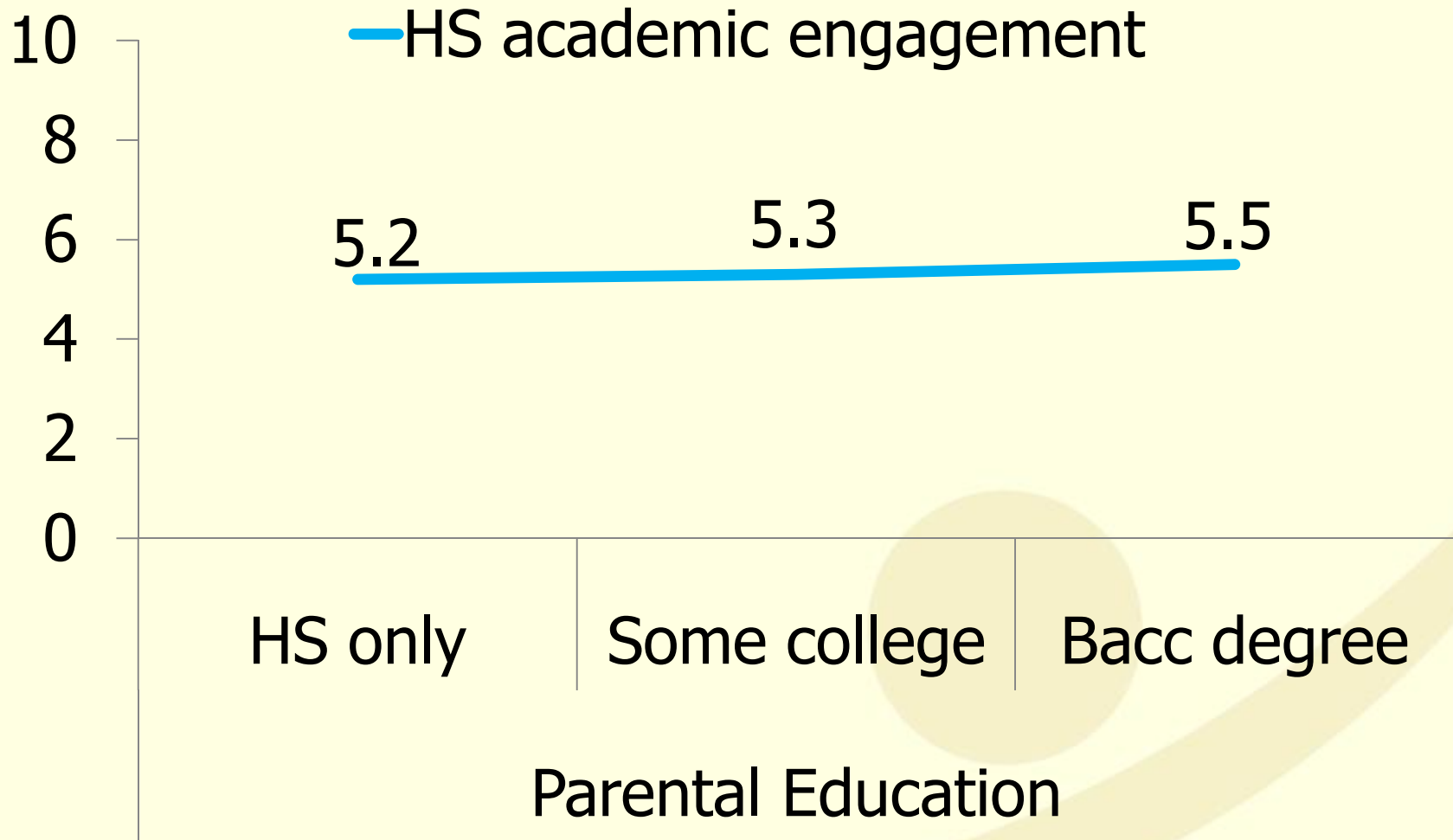
# High School Experiences

—SAT/ACT scores





# High School Experiences



<sup>a</sup> Scale scores are expressed as 0 (minimum) to 10 (maximum)



# Expectations and Attitudes

Expected Grades	Parental Education		
	HS only	Some college	BA/BS
A-, A	<b>34%</b>	<b>40%</b>	<b>48%</b>
B-, B, B+	63%	59%	51%
C+ or lower	3%	2%	1%
	<i>100%</i>	<i>100%</i>	<i>100%</i>
<hr/>			
Intention to Graduate			
Yes	85%	82%	86%
No	2%	2%	2%
Uncertain	13%	16%	12%
	<i>100%</i>	<i>100%</i>	<i>100%</i>



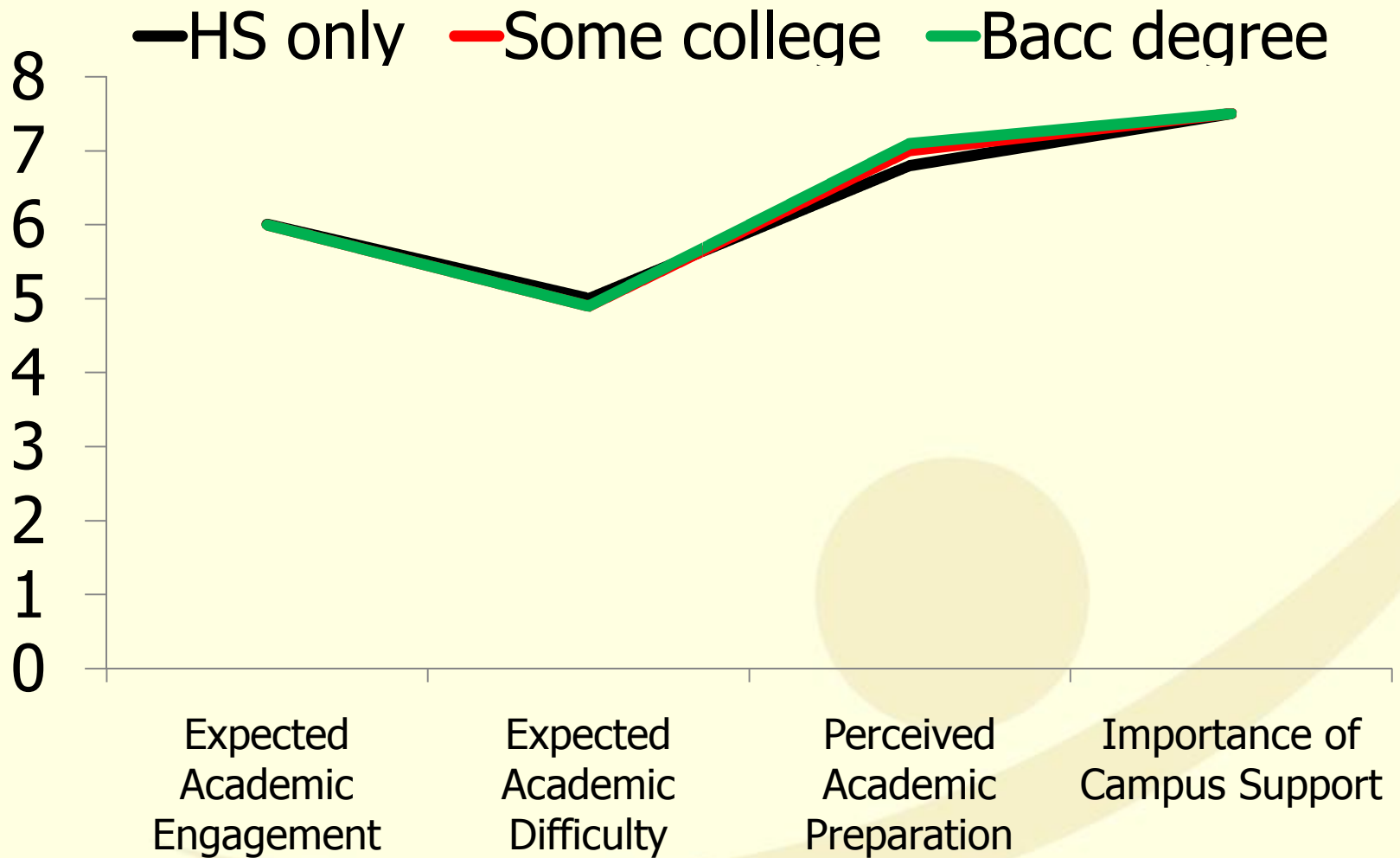


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# Expectations and Attitudes





# Participation in Learning Communities

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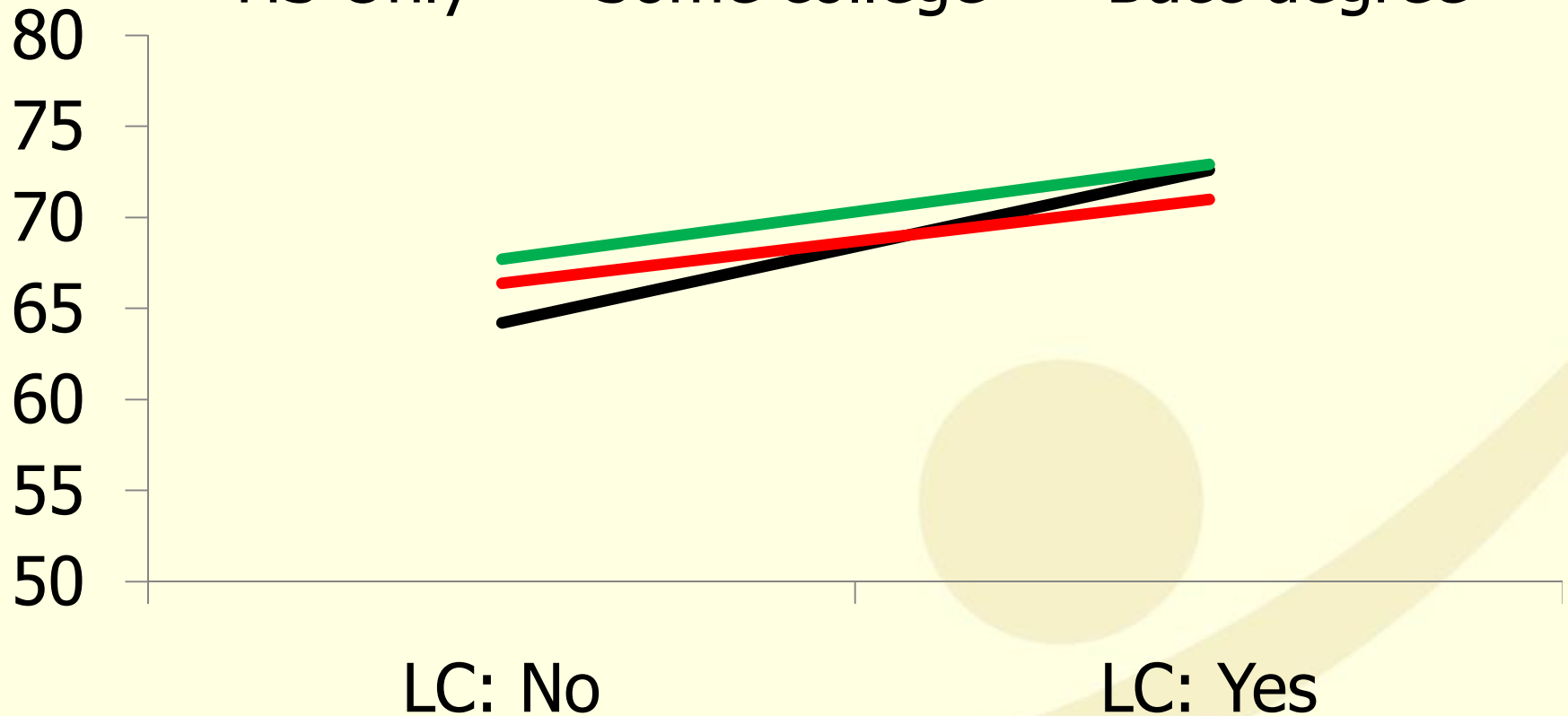
Participated in a LC	Parental Education		
	HS only	Some college	BA/BS
Yes	18%	18%	18%
No	82%	82%	82%
	<i>100%</i>	<i>100%</i>	<i>100%</i>



# Approaches to Deep Learning

## Higher Order Thinking

— HS Only    — Some college    — Bacc degree





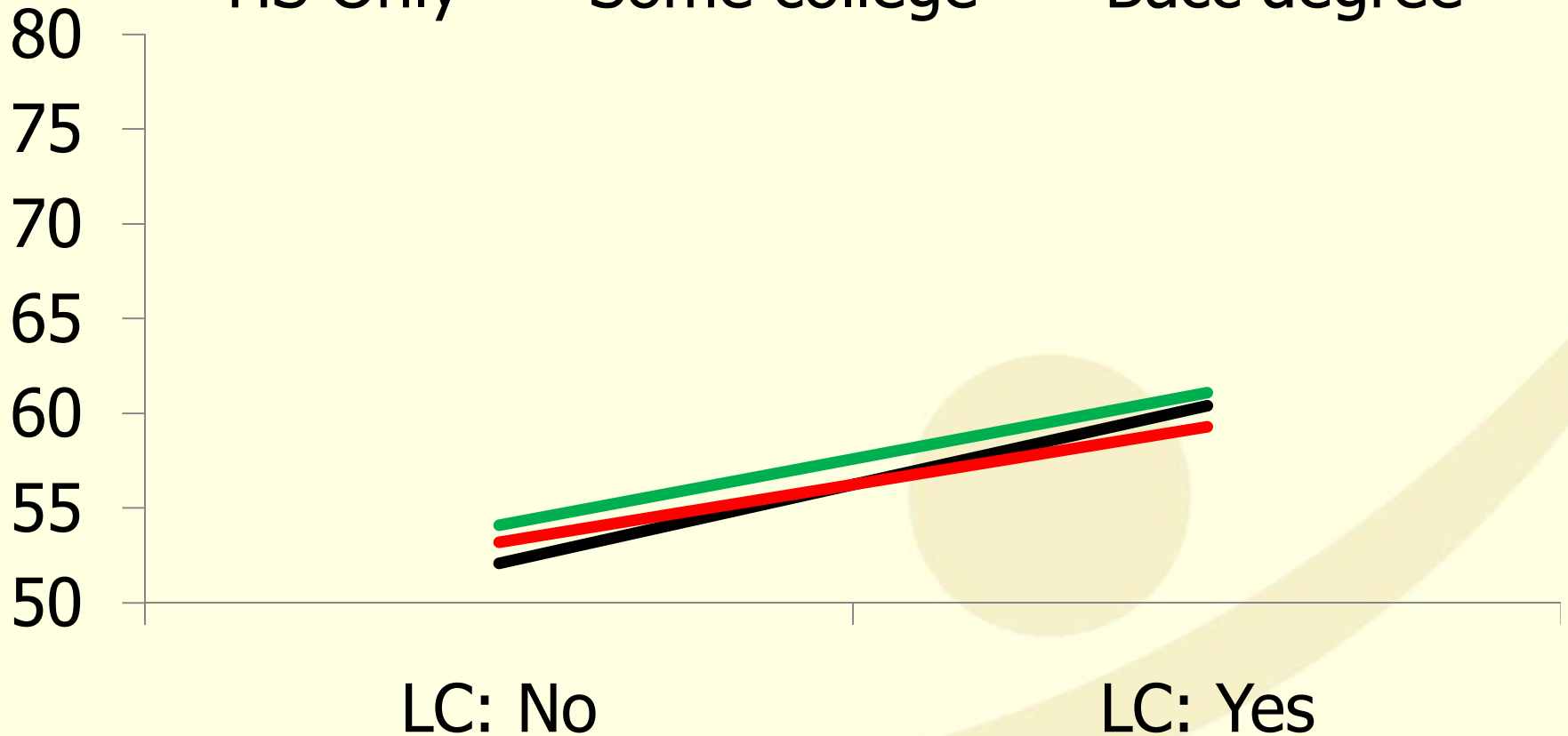
# Approaches to Deep Learning

## Integrative Learning

— HS Only

— Some college

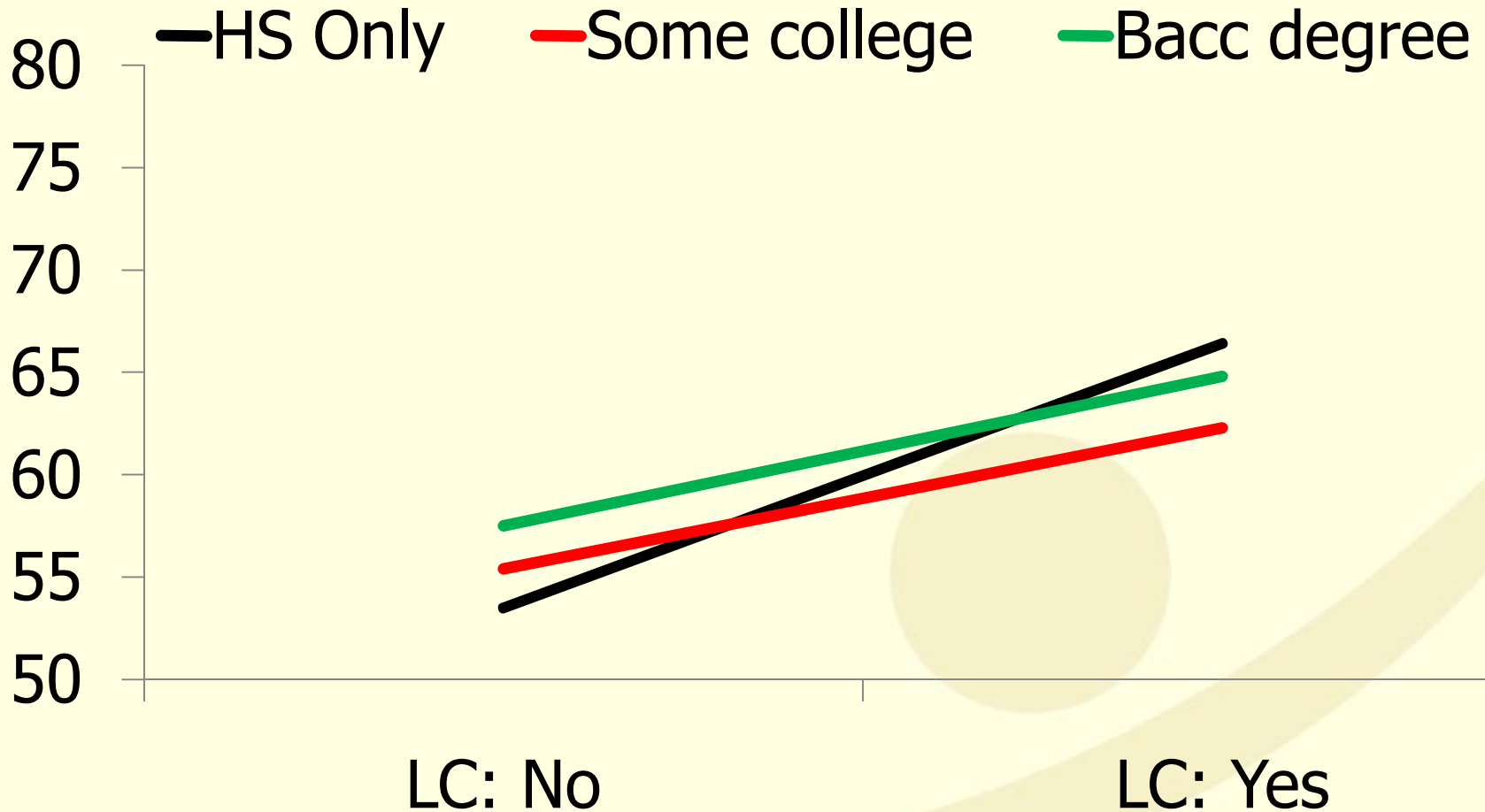
— Bacc degree



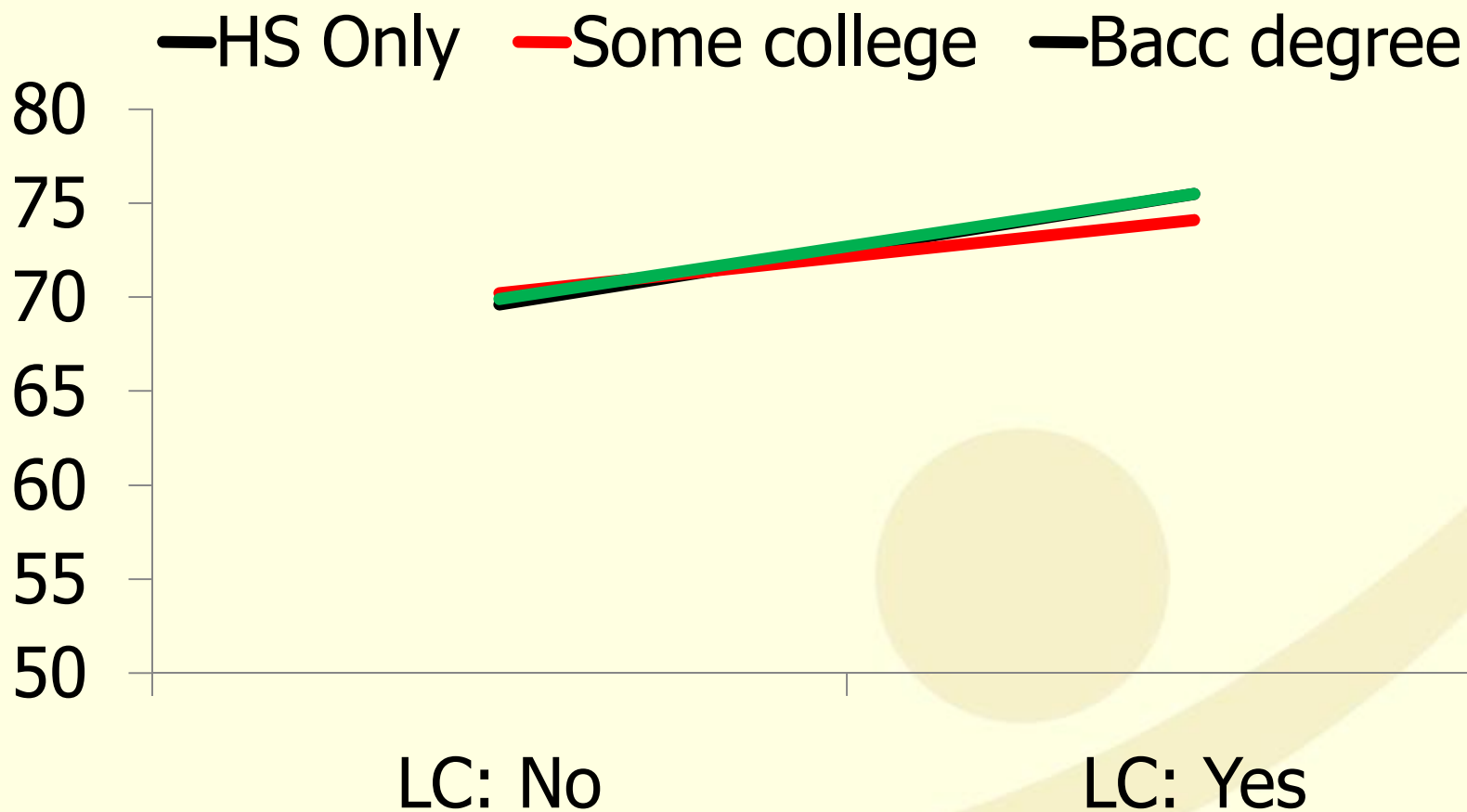


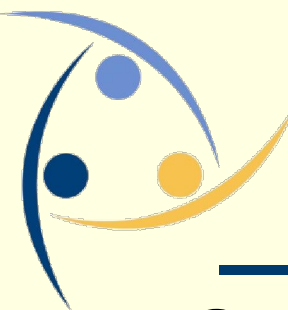
# Approaches to Deep Learning

## Reflective Learning



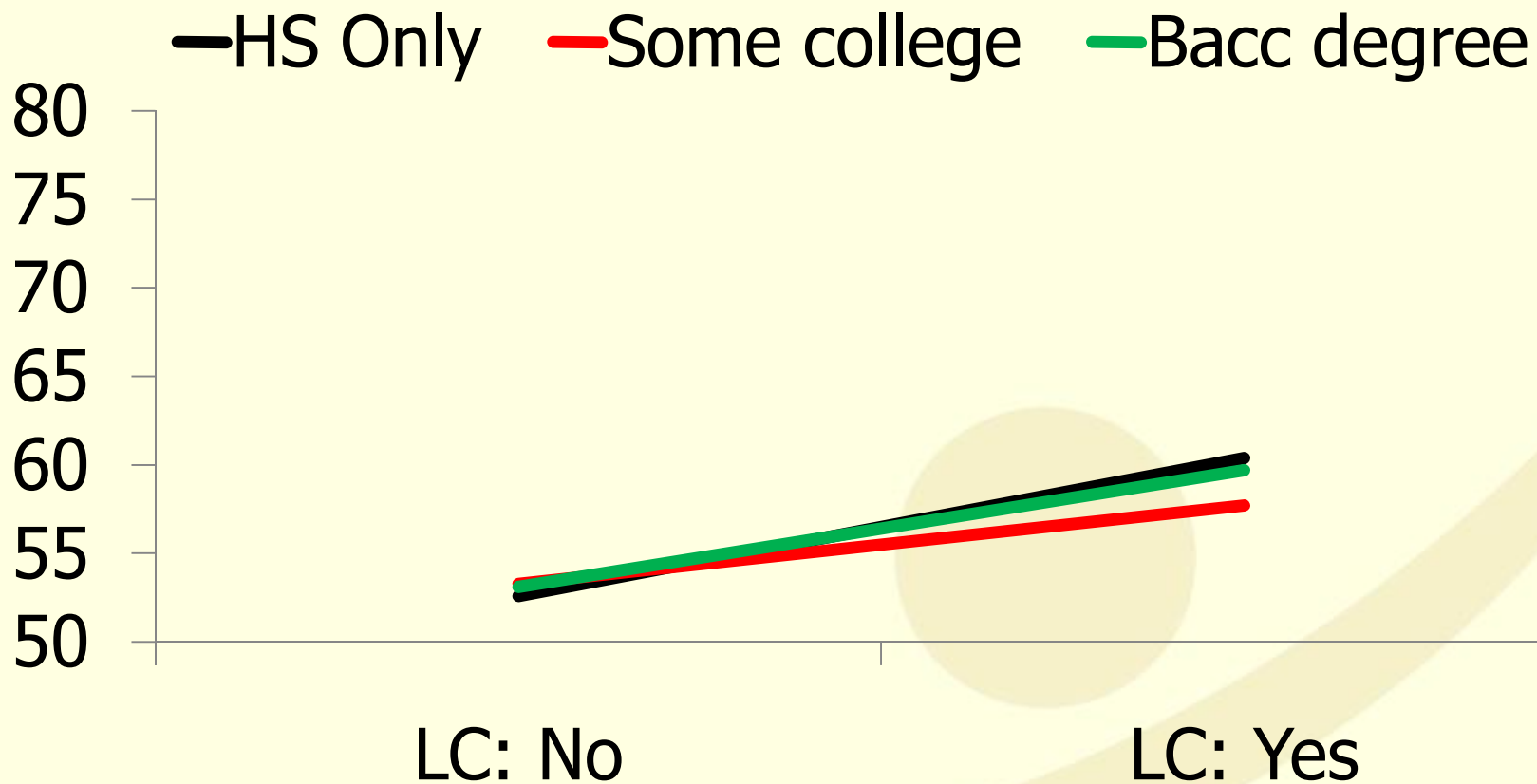
## Gains in General Education



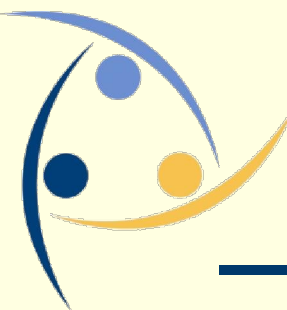


# Outcomes

## Gains in Personal and Social Development







# Study Limitations

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- ◆ Limited to 4-year institutions that participated in BCSSE & NSSE
- ◆ Limited to first-year students who persisted to Spring term
- ◆ No information about the specific nature of the different learning communities
- ◆ Participation in a learning community may be related to other predispositions



# Summary and Conclusions

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## **1) How do the experiences and preparation of first-generation students compare with that of others?**

- ◆ Comparable high school engagement
- ◆ Lower high school grades
- ◆ Fewer AP courses
- ◆ Lower SAT/ACT scores



# Summary and Conclusions

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## 2) What are the expectations and attitudes of first-generation students?

- ◆ Comparable to peers with respect to expected difficulty, importance of campus support
- ◆ *Slightly* lower perceived academic preparation
- ◆ Lower expected grades
- ◆ Children of parents with “some college” are somewhat less optimistic about graduation



# Summary and Conclusions

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**3) Does participation in a learning community facilitate deep approaches to learning and gains?**

- ◆ **YES!!!**
- ◆ **Particularly pronounced impact for integrative and reflective learning**



# Summary and Conclusions

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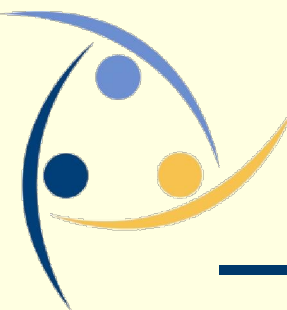
- 4) Is there a differential impact of learning community participation for first-generation students?**
- ◆ **Deep approaches to learning: **Yes****
    - ◆ **Strongest differential impact for reflective learning**
  - ◆ **Self-reported gains: **Limited evidence****
    - ◆ **Children of parents with “some college” show less benefit than other groups**



# Summary and Conclusions

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- ◆ Good news:
  - ◆ In these data, LC participation is as likely among first-generation as others
  
- ◆ Bad news:
  - ◆ Only about 1 in 5 students participate in learning communities



# Conclusions

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- ◆ Learning communities pay big dividends in the quality of the first-year learning experience
- ◆ We need to extend learning community participation to more students
- ◆ Need for deeper inquiry into specific learning community designs and their effects
- ◆ Some indications that children of parents with some college but less than a bachelor's degree need special support



# Discussion and Questions

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National Survey  
of Student Engagement

[www.nsse.iub.edu](http://www.nsse.iub.edu)

[www.bcsse.iub.edu](http://www.bcsse.iub.edu)