

# Sense of Peer Belonging and Institutional Acceptance in the First Year: The Role of High-Impact Practices

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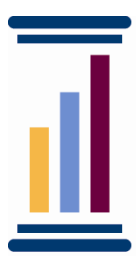
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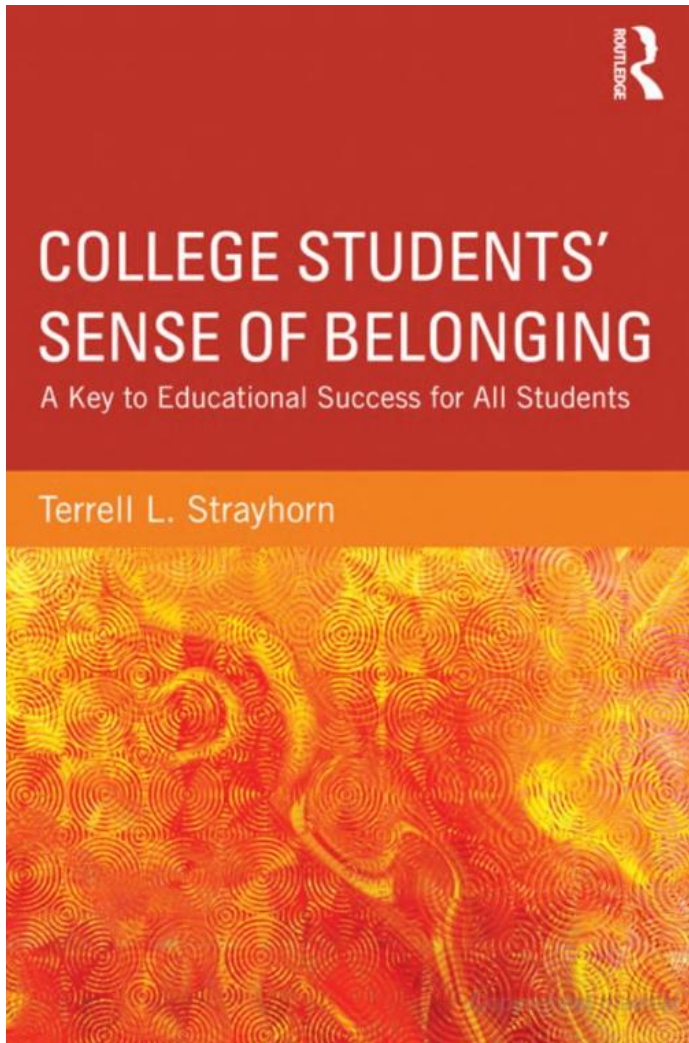
*Center for Postsecondary Research*

*National Survey of Student Engagement*

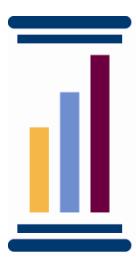
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# SENSE OF BELONGING

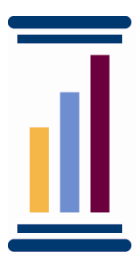


“In terms of college, sense of belonging refers to **students’ perceived social support on campus**, a feeling or sensation of connectedness, the experience of mattering or feeling cared about, accepted, respected, valued, and important to a group (e.g., campus community) or others on campus (e.g., faculty, peers). It’s a cognitive evaluation that **typically leads to an affective response or behavior** (p. 3).”



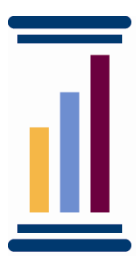
# SENSE OF BELONGING

- Precursor to student departure (and engagement) (Hurtado & Carter, 1997)
- Historically underrepresented students (e.g., Hausmann et al, 2007; Ostrove & Long, 2007)
- Effective educational practices (e.g., Hoffman et al. 2002; Maestas et al. 2007)
- Institutional types (e.g., Maestas et al., 2007)
- Interactions with diverse others (Strayhorn, 2008)



# FIRST-YEAR EXPERIENCE

- Supportive campus environment  
(e.g., Flowers & Pascarella, 2003)
- Student perceptions and satisfaction (Kuh, 1993)
- Domino effect (Berger & Milem, 1999)

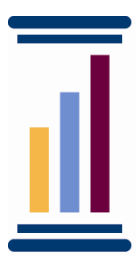


# HIGH-IMPACT PRACTICES

## National Survey of Student Engagement (NSSE)

- Service-learning
- Learning communities
- Research with faculty
- Senior culminating experience
- Study abroad
- Internship

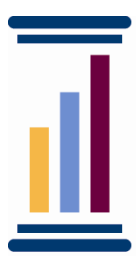
Kuh (2008) recommends every student should participate in at least two high-impact activities--one in the first year and one later, in the major.



# HIGH-IMPACT PRACTICES

## Several Common Traits

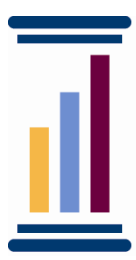
- ✓ Demand considerable amount of time and effort
- ✓ Provide learning opportunities outside of the classroom
- ✓ Require meaningful interactions with faculty members and students
- ✓ Provide frequent meaningful feedback
- ✓ Encourage interactions with diverse others



# PURPOSE

**First-year participation in HIPs influences students' sense of belonging as it relates to:**

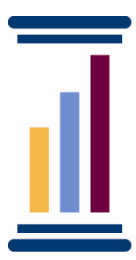
- Feelings of connection with peers (peer belonging)
- Feelings of acceptance by members of the institution such as faculty, staff, and student affairs professionals (institutional acceptance)



# RESEARCH QUESTIONS

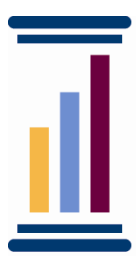
1. What are the overall participation rates of HIPs among FY students?
2. Do FY students experience peer belonging and institutional acceptance differently by race or ethnicity, parental education, and gender?
3. Are FY students' sense of peer belonging and institutional acceptance positively affected by participation in HIPs?





# DATA SOURCE

- National Survey of Student Engagement (NSSE)
- In 2014, more than 473,000 first-year and senior respondents from 713 four-year colleges and universities
- Reasons for participation vary:
  - National and regional accreditation
  - Departmental/program reviews
  - Curricular reform (general education)
  - Institutional improvement efforts (e.g., retention rates, high-impact practices, FYE programming)



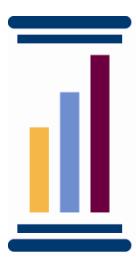
# SAMPLE

## Limited to:

- 44 four-year institutions
- First-year students (n=9,371)
- Experimental item set on topic of campus environment appended to core survey

	Valid %	Valid n
First-generation	40%	7,305
Traditionally-aged (23 or younger)	94%	7,282
Female	63%	5,866
<b><i>Race/ethnicity</i></b>		
Asian, Asian American	2%	150
Black, African American	15%	1,246
Latino, Hispanic	8%	640
White	61%	5,090

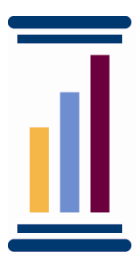
	Valid %	Valid n
Private	45%	4,241
Minority-serving	9%	804
<b><i>Selectivity</i></b>		
Highly	13%	1,180
Moderately	56%	5,224
Liberally	32%	2,967
<b><i>Carnegie type</i></b>		
Research/Doc	38%	3,591
Master's	17%	1,576
Bac. colleges	41%	3,812
Other	4%	392



# EXPERIMENTAL ITEMS

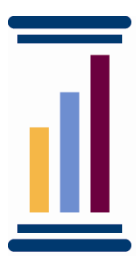
**How much do you agree or disagree with the following statements?**

You fit in with the other students at your institution	<input type="checkbox"/> Strongly Agree <input type="checkbox"/> Somewhat Agree <input type="checkbox"/> Somewhat disagree <input type="checkbox"/> Strongly disagree  <input type="checkbox"/> Not applicable
It is difficult to make friends at this institution	
No one would notice if you missed class	
It is easy to get involved with student clubs and organizations at this institution	
Your faculty got to know you and your background	
This institution treats students like individual people instead of just numbers	
You have very few friends or acquaintances at this institution	
There are other students at this institution who share your views and beliefs	



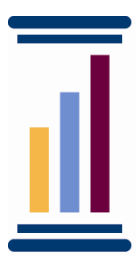
# EXPERIMENTAL ITEMS

	Factor loadings
<b>PEER BELONGING</b>	
You fit in with the other students at your institution	.76
It is difficult to make friends at this institution (reverse coded)	.80
You have very few friends or acquaintances at this institution (reverse coded)	.80
There are other students at this institution who share your views and beliefs	.58
<b>INSTITUTIONAL ACCEPTANCE</b>	
No one would noticed if you missed class (reverse coded)	.72
It is easy to get involved with student clubs and organizations at this institution	.51
Your faculty got to know you and your background	.58
This institution treats students like individual people instead of just numbers	.83



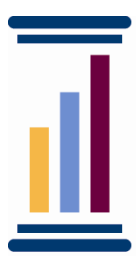
# METHODS

- Exploratory and Confirmatory Factor Analysis
  - Peer Belonging ( $\alpha=.722$ )
  - Institutional Acceptance ( $\alpha=.667$ )
- Frequencies
  - High-impact practice items, by sub-groups
- Two OLS regression models



# OLS Dependent Variables

- Dependent variables
  - Peer Belonging
  - Institutional Acceptance
- Standardized prior to entering the model
- Coefficients interpreted as effect sizes



# OLS Independent Variables

## **S1. Student demographics**

First-generation

Age

Gender

Race/Ethnicity

## **S1. College experiences**

Enrollment status

Took all courses online

Majored in STEM

College grades

Living situation

Greek Life

## **S1. Institutional context**

Control

Minority-serving institution

Selectivity

Carnegie type

## **S2. High-impact practices\***

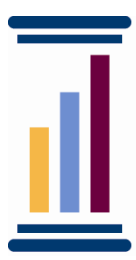
Service-learning

Learning communities

Research with faculty

Student leadership

\*Entered individually



# OLS Independent Variables

## High-impact practices

- **Service-learning** .....→
- **Learning communities**
- **Research with faculty**
- Senior culminating experience
- Study abroad
- Internship
- **AND Student leadership**

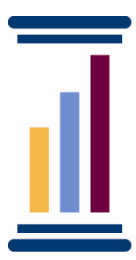
# of courses included community-based project (service learning):

- None
- Some**
- Most**
- All**

Response Categories:

- Have not decided
- Do not plan to do
- Plan to do
- Done or in progress**

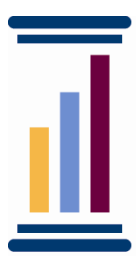




# Q1 RESULTS: Participation

## Level of Participation by First-Year Students

	Valid N	Valid %
Service learning (HIP)	3,779	48.8
Learning community (HIP)	1,259	16.2
Campus leadership role	1,042	13.3
Research with faculty (HIP)	511	6.6



# Q2 Results: Peer Belonging

## S1. Student demographics

First-generation

Traditionally-aged

Women

Asian, Asian American

Black, African American

Latino or Hispanic

Other race/ethnicity

White (ref group)

## S1. Institutional context

Private

Minority-serving institution

Selectivity

## S1. College experiences

Full-time

Took all courses online

Majored in STEM

Mostly As (ref group)

Mostly Bs

Mostly Cs

Living situation

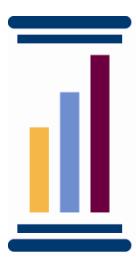
Greek member

Carn-Research/DRU

Carn-Masters

Carn-Other

Carn-Bac (ref group)



# Q2 Results: Peer Belonging

## S1. Student demographics

**First-generation (-)**

Traditionally-aged

Women

White (ref group)

**Asian, Asian American (-)**

**Black, African American (-)**

**Latino or Hispanic (-)**

**Other race/ethnicity (-)**

## S1. Institutional context

Private

Minority-serving institution

Selectivity

## S1. College experiences

Full-time

Took all courses online

Majored in STEM

Mostly As (ref group)

**Mostly Bs (-)**

**Mostly Cs (--)**

Living situation

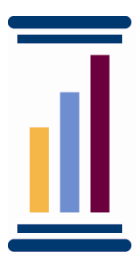
Greek member

Carn-Research/DRU

Carn-Masters

Carn-Other

Carn-Bac (ref group)



# Q2 Results: Peer Belonging

## S1. Student demographics

**First-generation (-)**

Traditionally-aged

Women

White (ref group)

**Asian, Asian American (-)**

**Black, African American (-)**

**Latino or Hispanic (-)**

**Other race/ethnicity (-)**

## S1. Institutional context

Private

**Minority-serving institution (-)**

**Selectivity (-)**

## S1. College experiences

Full-time

Took all courses online

Majored in STEM

Mostly As (ref group)

**Mostly Bs (-)**

**Mostly Cs (--)**

Living situation

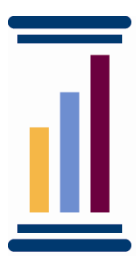
Greek member

Carn-Research/DRU

**Carn-Masters (-)**

Carn-Other

Carn-Bac (ref group)



# Q2 Results: Peer Belonging

## S1. Student demographics

First-generation (-)

Traditionally-aged

Women

White (ref group)

Asian, Asian American (-)

Black, African American (-)

Latino or Hispanic (-)

Other race/ethnicity (-)

## S1. Institutional context

**Private (+)**

Minority-serving institution (-)

Selectivity (-)

## S1. College experiences

Full-time

Took all courses online

Majored in STEM

Mostly As (ref group)

Mostly Bs (-)

Mostly Cs (--)

**Living situation (+)**

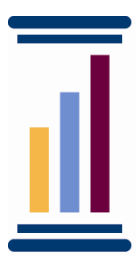
**Greek member (+)**

Carn-Research/DRU

Carn-Masters (-)

Carn-Other

Carn-Bac (ref group)



# Q2 Results: Peer Belonging

## S1. Student demographics

First-generation (-)

**Traditionally-aged**

**Women**

White (ref group)

Asian, Asian American (-)

Black, African American (-)

Latino or Hispanic (-)

Other race/ethnicity (-)

## S1. Institutional context

Private (+)

Minority-serving institution (-)

Selectivity (-)

## S1. College experiences

**Full-time**

**Took all courses online**

**Majored in STEM**

Mostly As (ref group)

Mostly Bs (-)

Mostly Cs (--)

Living situation (+)

Greek member (+)

Carn-Research/DRU

Carn-Masters (-)

Carn-Other

Carn-Bac (ref group)



# Q2 Results: Inst. Acceptance

## S1. Student demographics

First-generation (-)

**Traditionally-aged**

**Women**

**White (ref group)**

**Asian, Asian American**

**Black, African American**

**Latino or Hispanic**

**Other race/ethnicity**

## S1. Institutional context

Private

Minority-serving institution

Selectivity

## S1. College experiences

**Full-time**

**Took all courses online**

**Majored in STEM**

Mostly As (ref group)

Mostly Bs (-)

Mostly Cs (--)

**Living situation**

Greek member (+)

Carn-Research/DRU

Carn-Masters

Carn-Other

Carn-Bac (ref group)



# Q2 Results: Inst. Acceptance

## S1. Student demographics

First-generation (-)

**Traditionally-aged**

**Women**

**White (ref group)**

**Asian, Asian American**

**Black, African American**

**Latino or Hispanic**

**Other race/ethnicity**

## S1. Institutional context

**Private (++)**

Minority-serving institution

**Selectivity (+)**

## S1. College experiences

**Full-time**

**Took all courses online**

**Majored in STEM**

Mostly As (ref group)

Mostly Bs (-)

Mostly Cs (--)

**Living situation**

Greek member (+)

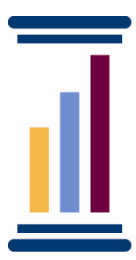
**Carn-Research/DRU (---)**

**Carn-Masters (-)**

**Carn-Other (-)**

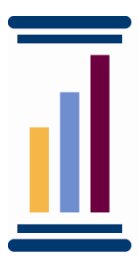
Carn-Bac (ref group)





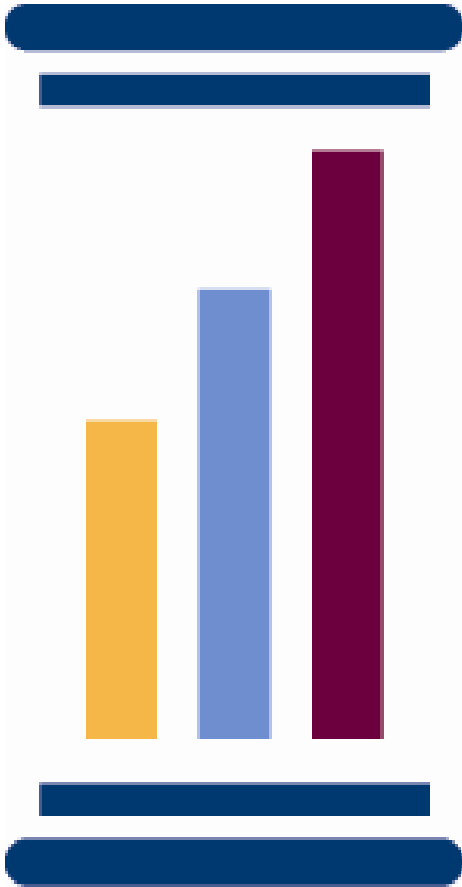
## Q3 RESULTS: HIPs

- All HIPs were positively related to both sense of belonging measures, *with the exception of research with faculty*
- However, research with faculty had a strong positive relationship with students' sense of institutional acceptance
- HIPs had a positive but weaker relationship with students' sense of peer belonging



# DISCUSSION

- Corroborates previous research in several ways
- Adds nuance to *sense of belonging* literature
- Expands generalizability of findings
- Sense of belonging and student engagement go hand-in-hand
- Limitations
- Direction for future research



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