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# Assessing High-Impact Practices (Engaged Learning) at IUPUI

# High Impact Practices

*Through the LEAP initiative, AAC&U has published research on a set of widely tested teaching and learning strategies and programs that—when done well—have substantial educational benefits, especially for traditionally underserved students. The elements of good teaching and learning embedded in these practices can be applied in many settings, including in traditional classrooms as well as special programs, and in co-curricular settings.*

- ★ 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 and Projects
- ★ E-portfolios



# Markers of HIPs Done Well

- Expectations set at appropriately high levels
- Significant investment of time and effort
- Interactions with faculty and peers
- Experiences with diversity
- Frequent and constructive feedback
- Periodic and structured opportunities for reflection
- Relevance through real-world applications
- Public demonstration of competence

(Kuh, 2008; Kuh & O'Donnell, 2013)



# HIP Program Fidelity

- Fidelity is defined by Webster as “the quality or state of being faithful, the accuracy in details, exactness.”
- Program fidelity assessment offers another level of detail about the program as implemented by examining the degree to which interventions are implemented as theoretically planned.
  - Poor Fidelity Examples
    - LC implemented with no integrative learning assignments.
    - SL implemented with no structured reflection.
    - Undergraduate Research with no faculty mentoring.
- It is not possible to test the effectiveness of an intervention if the intervention failed to be implemented as planned (Scott & Sechrest, 1989).



# HIP Benefits and Outcomes

**High Impact practices are positively associated with:**

- Persistence and GPAs
- Deep approaches to learning
- Higher rates of student-faculty interaction
- Increases in critical thinking and writing skills
- Greater appreciation for diversity
- Higher student engagement overall

Bronwell, J & Swaner, L (2010); Hansen & Schmidt (in press; *Journal of The First-Year Experience and Students in Transition*); NSSE, (2007); Kuh (2008)



# Taxonomies - Background - IUPUI

- IUPUI
  - Executive Vice Chancellor and Academic Chief Officer asked that each unit with responsibility for a high impact teaching practice develop a taxonomy to serve as a frame work that can guide quality course design, implementation, assessment and improvement. This approach matches supports the campus assessment strategy, managed through the Office of Institutional Research and Decision Support (IRDS), to understand the value of HIPs on student learning and success.

All taxonomies may be found at <https://rise.iupui.edu/taxonomies>



# Taxonomies – Benefits

- Fidelity Issues (taxonomies can serve as a guide to curriculum committees and course schedulers tagging RISE courses)
- Assessment (the quality of the HIP experience can be evaluated and the intensity measured)
- Course development (guide/tool for instructors interested in creating or improving courses)
- Resource (can be used when evaluating applications for course development grants and other HIP awards connected to curriculum)

# RISE Type by School of Major at Fall 2016 Census

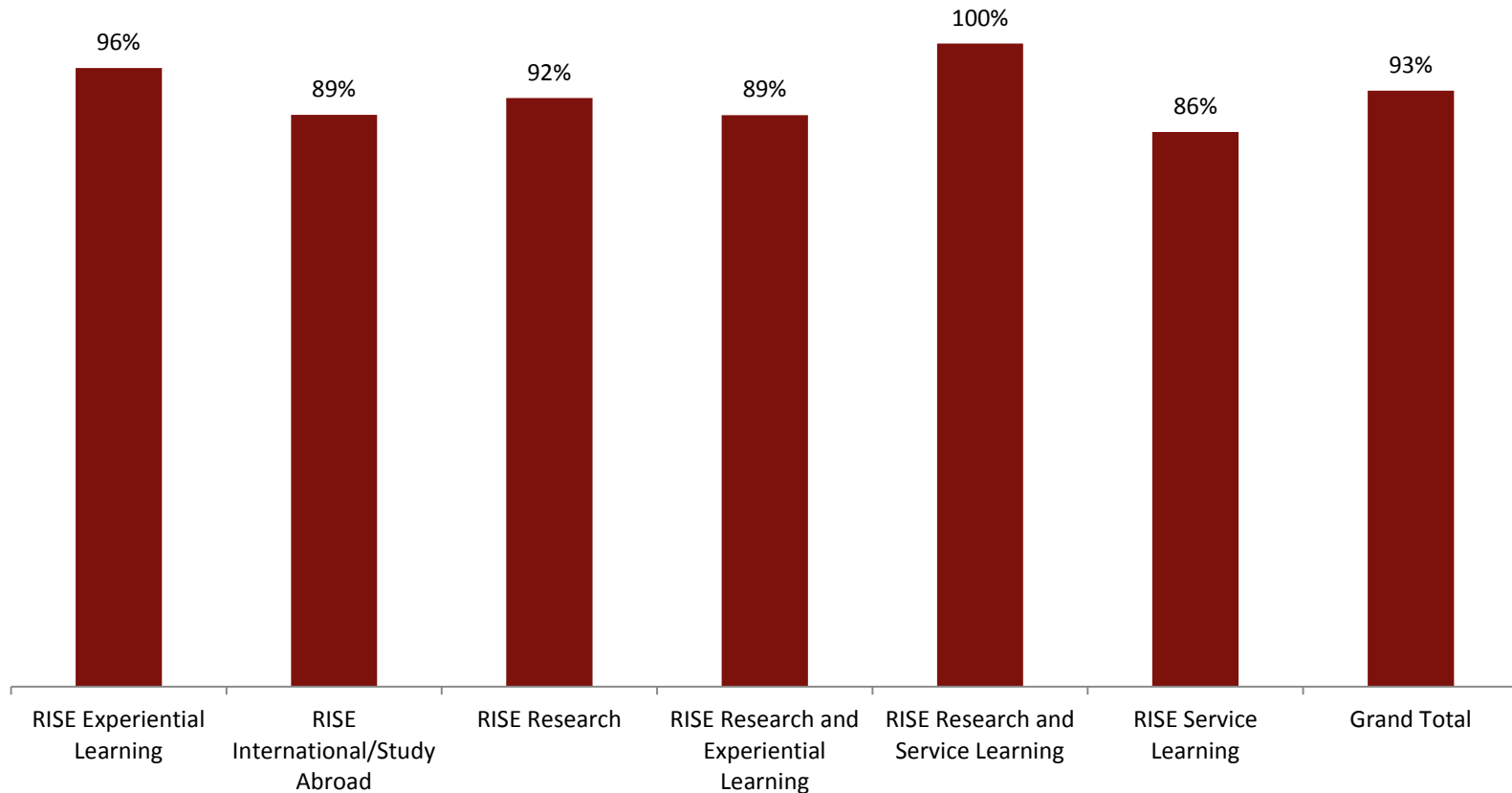
	RISE Experiential Learning		RISE International/ Study Abroad		RISE Research		RISE Research and Experiential Learning		RISE Research and Service Learning		RISE Service Learning		Total	Total
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
	Graduate Students	1	0%	1	0%	2	0%	0	0%	0	0%	1	0%	5
Undergraduate Non-degree	13	0%	17	2%	6	1%	0	0%	0	0%	27	1%	63	1%
Business Undergraduate	1,188	20%	300	39%	2	0%	0	0%	0	0%	146	6%	1,636	17%
Dental Aux Educ Undergraduate	1	0%	0	0%	0	0%	0	0%	0	0%	0	0%	1	0%
Education Undergraduate	1,154	20%	4	1%	6	1%	0	0%	0	0%	162	6%	1,326	13%
Engineering and Technology UGRD	303	5%	52	7%	88	13%	0	0%	0	0%	27	1%	470	5%
Health & Rehab Sci Ugrd	42	1%	6	1%	0	0%	0	0%	0	0%	12	0%	60	1%
Herron Art Undergraduate	101	2%	2	0%	65	10%	0	0%	1	33%	7	0%	176	2%
Informatics Undergraduate	137	2%	10	1%	48	7%	0	0%	0	0%	17	1%	212	2%
Liberal Arts & General Studies UGRD	285	5%	23	3%	182	28%	3	17%	2	67%	115	4%	610	6%
Medicine Undergraduate	248	4%	0	0%	1	0%	0	0%	0	0%	0	0%	249	3%
Nursing Undergraduates	1,084	19%	1	0%	0	0%	0	0%	0	0%	328	13%	1,413	14%
Philanthropy Undergraduate	38	1%	0	0%	13	2%	0	0%	0	0%	38	1%	89	1%
Phys, Educ. & Tourisn Mgmt	314	5%	80	10%	47	7%	0	0%	0	0%	275	11%	716	7%
Pub & Envir Aff Undergraduate	167	3%	4	1%	2	0%	0	0%	0	0%	224	9%	397	4%
Public Health Undergraduate	63	1%	1	0%	1	0%	0	0%	0	0%	31	1%	96	1%
Science Undergraduate	293	5%	13	2%	182	28%	15	83%	0	0%	226	9%	729	7%
Social Work and Labor Studies UGRD	113	2%	1	0%	2	0%	0	0%	0	0%	13	0%	129	1%
University College Undergraduates	254	4%	260	34%	14	2%	0	0%	0	0%	959	37%	1,487	15%
<b>Grand Total</b>	<b>5,799</b>	<b>100%</b>	<b>775</b>	<b>100%</b>	<b>661</b>	<b>100%</b>	<b>18</b>	<b>100%</b>	<b>3</b>	<b>100%</b>	<b>2,608</b>	<b>100%</b>	<b>9,864</b>	<b>100%</b>





# Fall 2016 RISE Course Tags and One-Year Retention

**One-Year Retention for all Students in a Course Tagged as RISE**  
**IUPUI Retention Rate for 2016 All Students Retained or Graduated**  
**One Year Later 83%**



Students are counted once for every RISE course enrolled in. They may be enrolled in more than one course tagged as RISE. This is duplicated headcount.



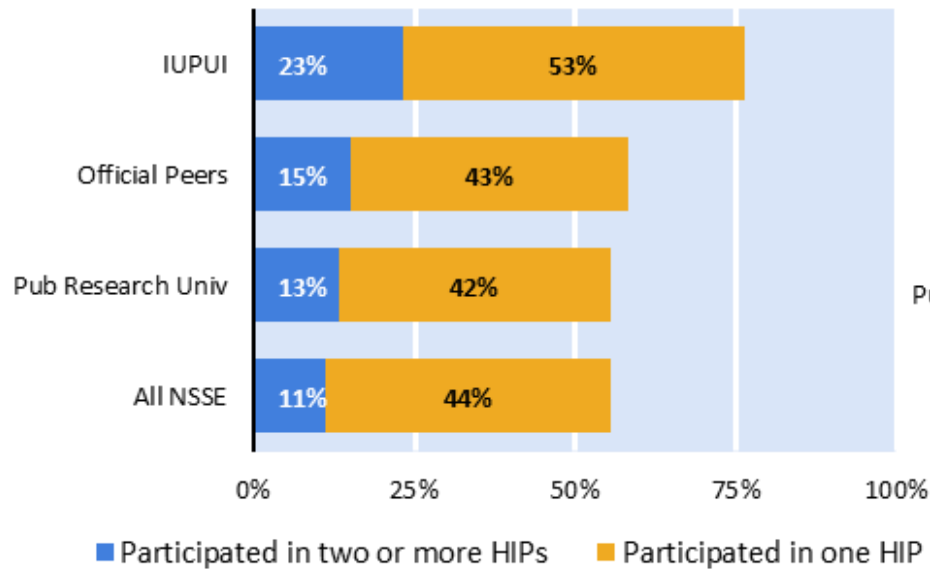
# Assessment Methods

- Employ mixed-method designs using qualitative and quantitative methods.
- Attempt to understand how HIP experiences influence students' success levels (e.g., retention rates, GPAs, engagement, civic outcomes).
- Administer end-of-course questionnaires (designed to provide information on students' perceptions of course benefits, learning outcomes, satisfaction levels, why decided to enroll)
- Administer campus-wide questionnaires
- Administer National Survey of Student Engagement
- Conduct focus groups and individual interviews.
- Collect direct measures of student learning (e.g., electronic portfolios and embedded course assessment)

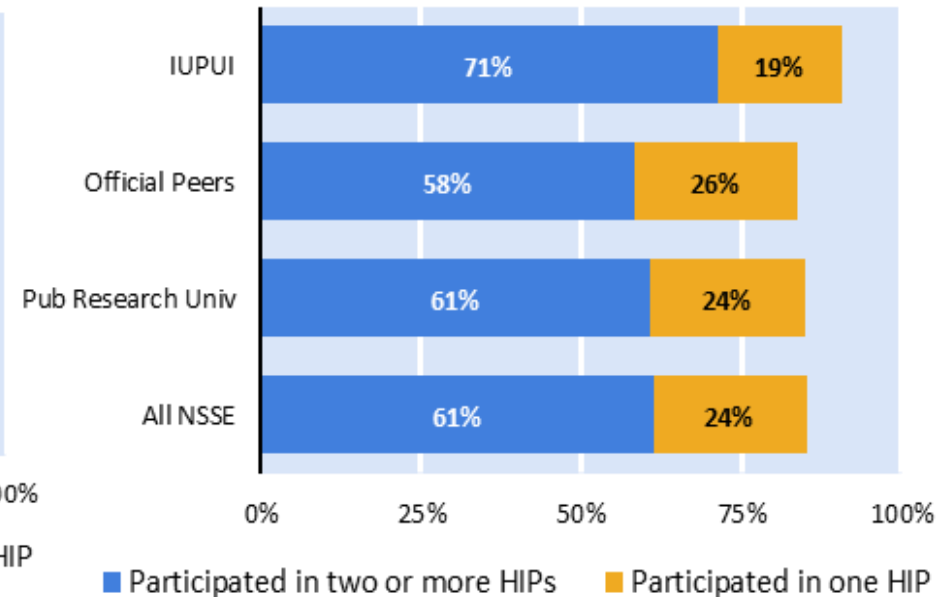


# High Impact Practices

## First-Year Students



## Seniors



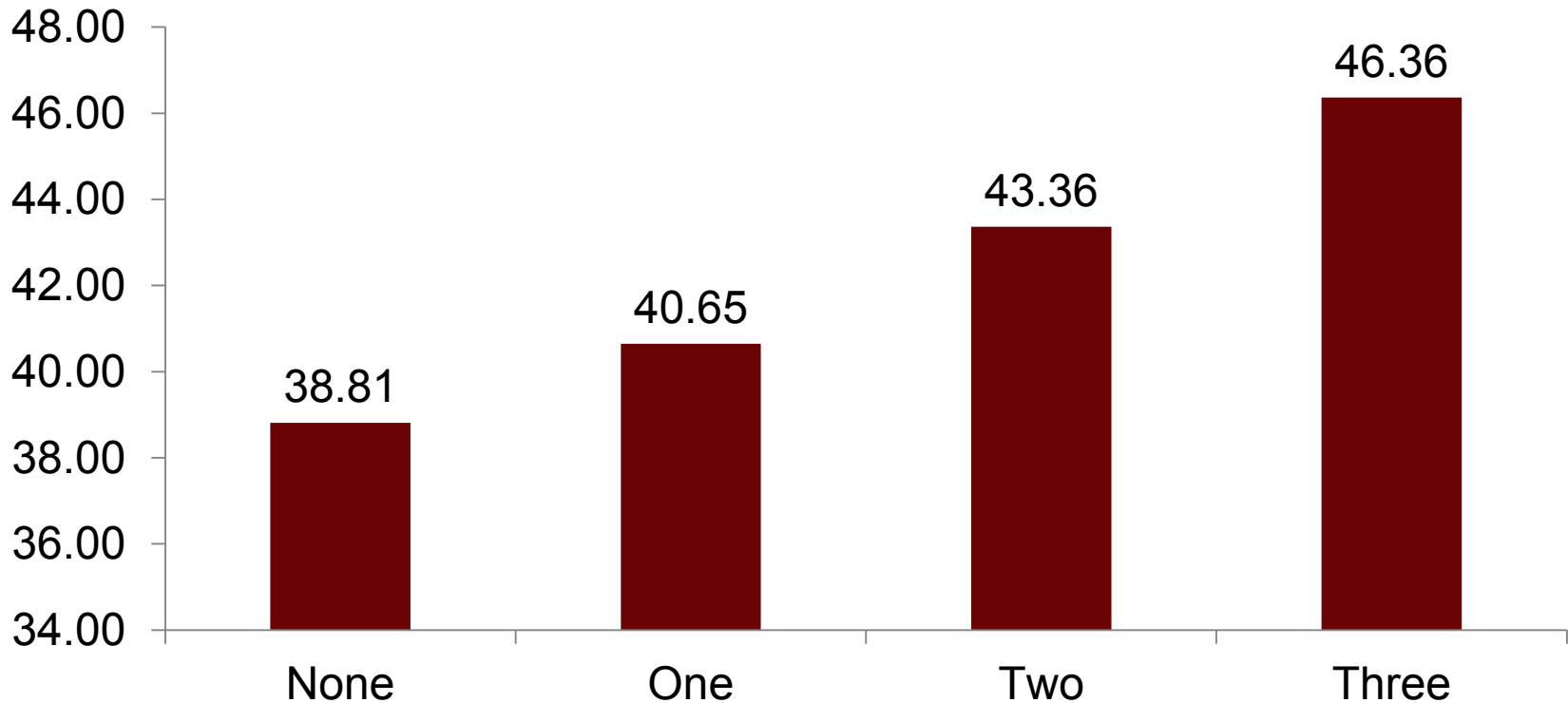
- IUPUI students significantly more likely to participate in learning communities, service learning, internships or field experience, and capstones.
- IUPUI students less likely to participate in study abroad.
- Similar levels of participation in undergraduate research.



# **NSSE Engagement Indicators**

# HIPs – Higher Order Learning FY Students

## Means Higher-Order Learning Scores

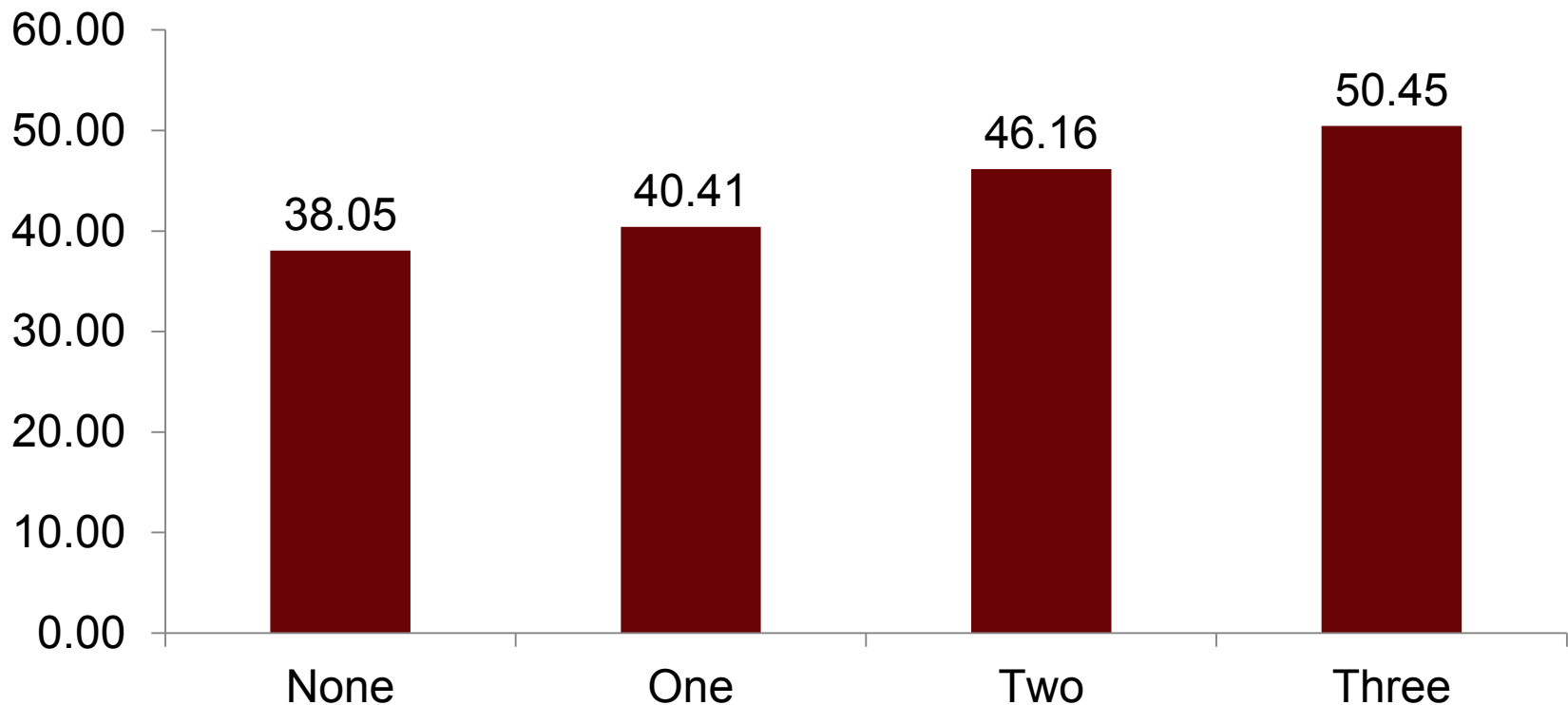


Each EI is scored on a 60-point scale. To produce an indicator score, the response set for each item is converted to a 60-point scale (e.g., Never = 0; Sometimes = 20; Often = 40; Very often = 60), and the rescaled items are averaged. Thus a score of zero means a student responded at the bottom of the scale for every item in the EI, while a score of 60 indicates responses at the top of the scale on every item.



# HIPs – Discussions with Diverse Others FY Students

## Means Discussions with Diverse Others

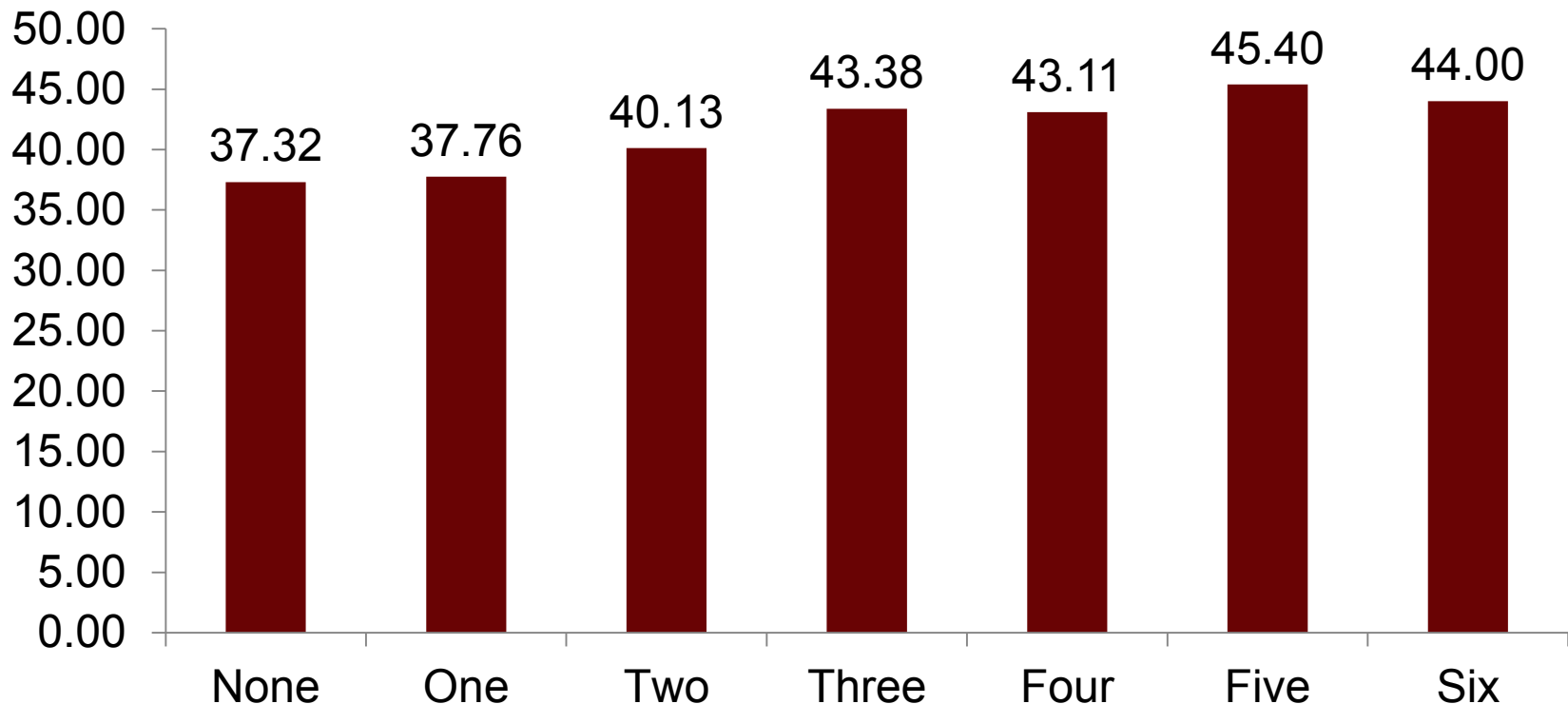


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# HIPs – Higher Order Learning Senior Students

## Means Higher-Order Learning Scores



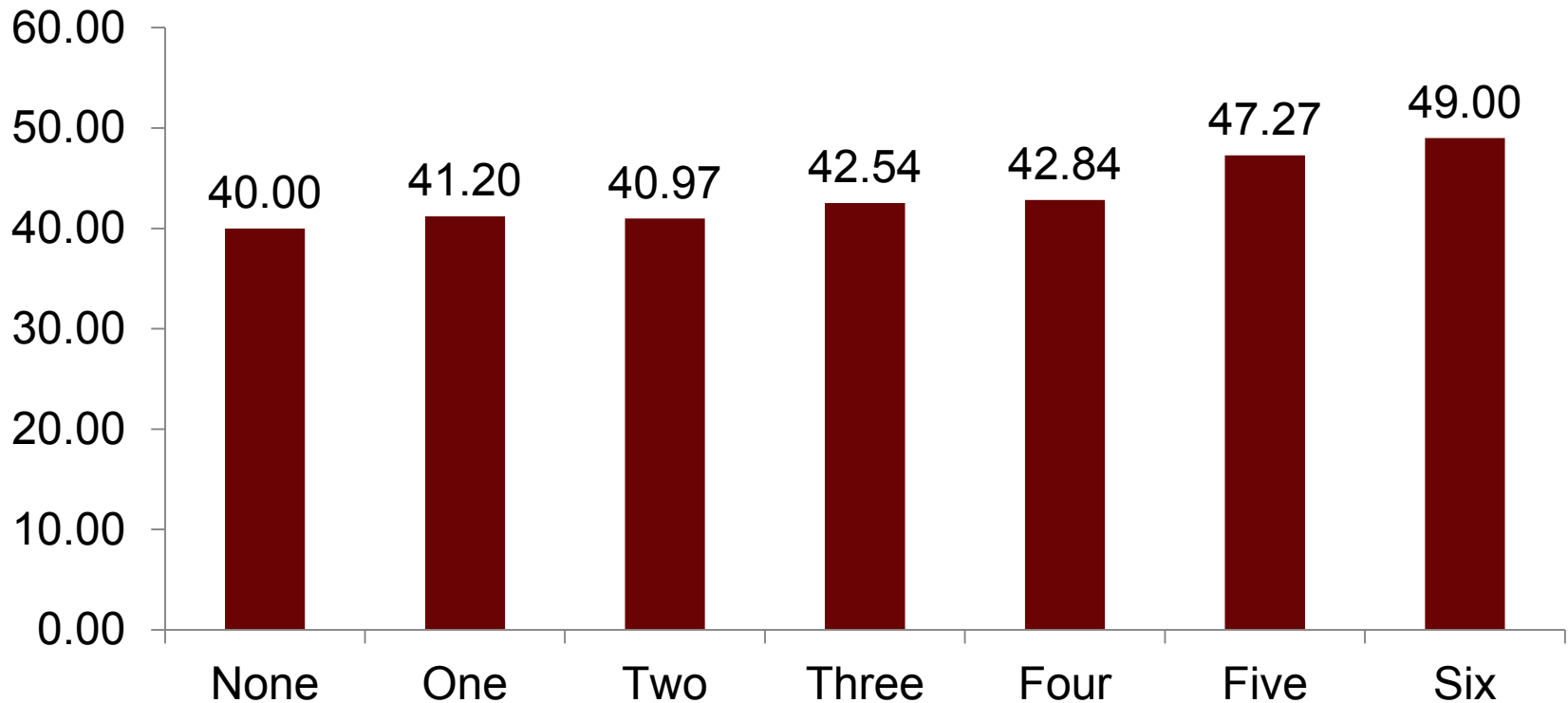
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# HIPs – Discussions with Diverse Others

## Senior Students

### Means Discussions with Diverse Peers



Each EI is scored on a 60-point scale. To produce an indicator score, the response set for each item is converted to a 60-point scale (e.g., Never = 0; Sometimes = 20; Often = 40; Very often = 60), and the rescaled items are averaged. Thus a score of zero means a student responded at the bottom of the scale for every item in the EI, while a score of 60 indicates responses at the top of the scale on every item.





# Qualitative Results: Understanding Students' Voices and Perspectives



# Team Work

“By participating in group activities and presentations, the RISE experience contributed to my learning by helping me collaborate with other group members in coming up with solutions to problems in class as well as on projects.”

“Learning to work with my peers and I learned patience.”

“Taught me to work in a group and delegate work based on group members' strengths and weaknesses.”

# Hands-On Experiences

“The course put me in a hands-on situation working with a real nonprofit organization. This allowed me to experience the issues firsthand and provide relevant recommendations accordingly.”

“I liked the fact that I was able to experience real applications of what I am learning at IUPUI. Oftentimes, students lose sight of the application of the academics and it’s important to maintain perspective.”

“Really applying class concepts, not regurgitating information for an exam.”

# Sense of Purpose/Commitment to Major

“The RISE class itself helped me to understand my purpose in life. I am a social work major student and it related so well to my passion of helping others.”

“I guess it helped me clarify that what I'm majoring in is what I do want to do.”

“I completed a project that directly impacted me in my current career that contained applications from the course.”



# Faculty Engagement in High Impact Practices

Percentage and number of faculty who have done the following in the past two years:	Tenure-track Faculty	Lecturer	Part-time Faculty
Include an internship, co-op, field experience, student teaching, or clinical placement for credit as part of a course	37.7% 81	36.6%* 34	14.7%*** 21
Include a study abroad/international travel experience as part of a course	8.4% 18	10.8% 10	1.4%* 2
Require an undergraduate research project as part of your course	55.9% 119	39.8% 37	21.0%*** 30
Teach as part of a Themed Learning Community for first-year students or some other formal program where groups of students take two or more classes together	4.7% 10	30.1%* 28	11.9%*** 17
Mentor an undergraduate student on a research project	59.3% 127	36.6% 34	15.4%*** 22
Teach a culminating senior experience (capstone course, senior project or thesis, comprehensive exam, portfolio, etc.)	44.6% 95	33.3% 31	4.9%*** 7
Require students to participate in a community-based project (service-learning) as part of a course	23.3% 50	32.3% 30	19.6% 28
Provide periodic and structured opportunities for reflection	53.1% 113	57.0% 53	44.1% 63
Advise a student organization or group	31.3% 67	49.5%* 46	13.4%*** 19

\*\*\*p<.001; \*\*p<.01; \*p<.05, group compared to tenure-track faculty. Not all faculty responded to all the items.



# Underserved Students Participation and Outcomes: 2016 Themed Learning Communities (TLCs)

Student Characteristic	TLC Participants				Nonparticipants			
	N	One-Year Retention (any IU)	One-Year Retention (IUPUI IN)	FY GPA	N	One-Year Retention (any IU)	One-Year Retention (IUPUI IN)	FY GPA
African American	69	<b>84%</b>	75%	2.54	285	<b>71%</b>	67%	2.39
Latino(a)/Hispanic	80	75%	70%	2.54	232	70%	64%	2.51
Afr. American, Latino,(a) Two or More Races	192	<b>79%</b>	<b>73%</b>	2.56	660	<b>70%</b>	<b>65%</b>	2.46
First Generation	277	74%	70%	2.63	847	68%	64%	2.55
Received Federal Pell Grant (proxy for low income)	332	<b>75%</b>	<b>70%</b>	2.57	1,133	<b>68%</b>	<b>64%</b>	2.56
Twenty First Century Scholars State Aid	230	<b>76%</b>	<b>70%</b>	2.58	724	<b>67%</b>	<b>61%</b>	2.49

Bolded items significantly different based on independent samples t-test or chi-square results.



# Lessons Learned From Local Assessment and National Literature

- High Impact Practices have differential impacts.
- Underserved and underrepresented students benefit from HIPs. So reach out and encourage participation.
- Important to design internally valid studies that employ comparison groups.
- Important to clearly describe HIPs (activities, instructional strategies, assignments, intended outcomes).
- Critical that HIPs are done well and with fidelity.
- Lack of studies that investigate direct measures of learning.



# NSSE HIP Dashboard

[NSSE Tableau Dashboard  
\(IUPUI Data Link\)](#)

