

Indiana University of Pennsylvania

Interpreting the Benchmark Comparisons Report

Statistical Significance

Benchmarks with mean differences that are larger than would be expected by chance alone are noted with one, two, or three asterisks, denoting one of three significance levels ($p < .05$, $p < .01$, and $p < .001$). The smaller the significance level, the smaller the likelihood that the difference is due to chance. Please note that statistical significance does not guarantee that the result is substantive or important. Large sample sizes (as with the NSSE project) tend to produce more statistically significant results even though the magnitude of mean differences may be inconsequential. It is recommended to consult effect sizes to judge the practical meaning of the results.

Effect Size

Level of Academic Challenge (LAC)

Mean Comparisons

NSSEville State University compared with:

1

**NSSE 2009 Benchmark Comparisons
Indiana University of Pennsylvania**

Active and Collaborative Learning (ACL)

Mean Comparisons

Indiana University of Pennsylvania compared with:

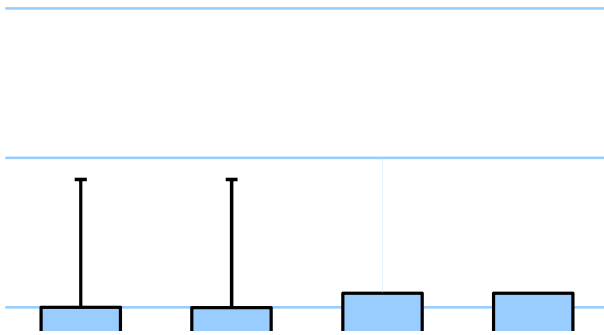
Class	IUP	PASSHE			Carnegie Class			Selected Peers Mean		
	Mean ^a	Mean ^a	Sig ^b	Effect Size ^c	Mean ^a	Sig ^b	Effect Size ^c	Mean ^a	Sig ^b	Effect Size ^c
First-Year	41.1	40.6		.03	43.0	***	-.11	41.5		-.02
Senior	52.1	50.9		.07	51.2		.05	49.6	***	.15

^a Weighted by gender, enrollment status, and institutional size.

^b * p<.05 ** p<.01 ***p<.001 (2-tailed).

^c Mean difference divided by the pooled standard deviation.

Distributions of Student Benchmark Scores



**NSSE 2009 Benchmark Comparisons
Indiana University of Pennsylvania**

Student-Faculty Interaction (SFI)

Mean Comparisons

Indiana University of Pennsylvania compared with:

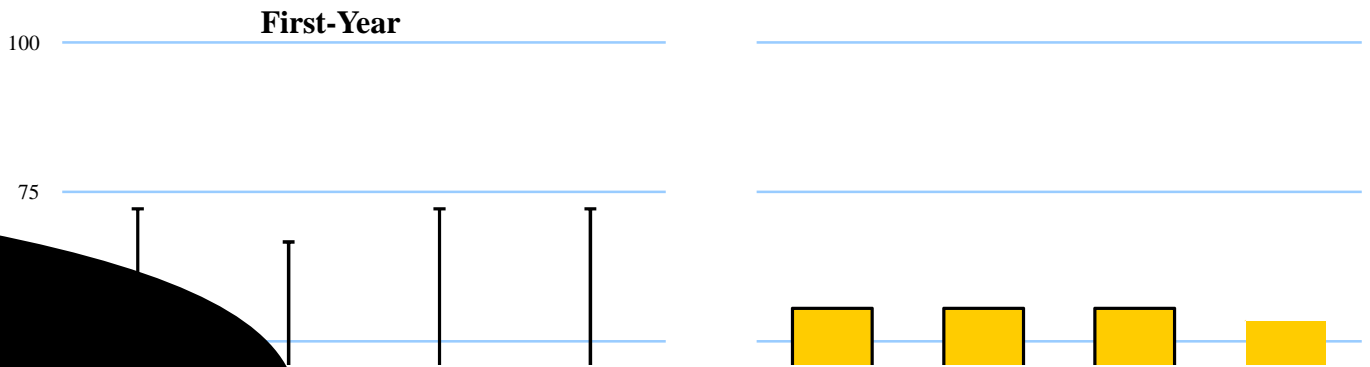
Class	IUP	PASSHE			Carnegie Class			Selected Peers		
	Mean ^a	Mean ^a	Sig ^b	Effect Size ^c	Mean ^a	Sig ^b	Effect Size ^c	Mean ^a	Sig ^b	Effect Size ^c
First-Year	34.0	32.9		.06	34.8		-.04	34.3		-.01
Senior	44.4	45.0		-.03	41.0	***	.16	40.2	***	.20

^a Weighted by gender, enrollment status, and institutional size.

^b * p<.05 ** p<.01 ***p<.001 (2-tailed).

^c Mean difference divided by the pooled standard deviation.

Distributions of Student Benchmark Scores



<i>Class</i>	<i>Mean</i> ^a	<i>Sig</i> ^b	<i>Effect</i> <i>Size</i> ^c	<i>Mean</i> ^a	<i>Sig</i> ^b	<i>Effect</i> <i>Size</i> ^c	<i>Mean</i> ^a	<i>Sig</i>
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**NSSE 2009 Benchmark Comparisons
Indiana University of Pennsylvania**

Supportive Campus Environment (SCE)

Mean Comparisons

Indiana University of Pennsylvania compared with:

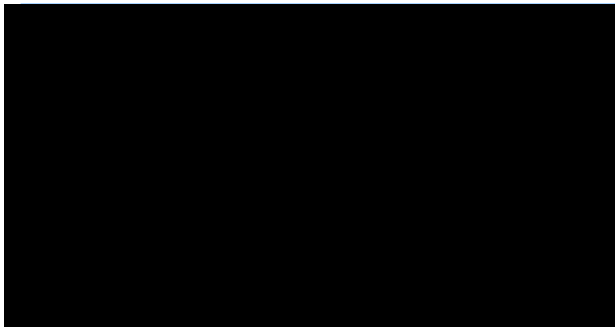
<i>Class</i>	IUP	PASSHE			Carnegie Class			Selected Peers		
	<i>Mean</i> ^a	<i>Mean</i> ^a	<i>Sig</i> ^b	<i>Effect Size</i> ^c	<i>Mean</i> ^a	<i>Sig</i> ^b	<i>Effect Size</i> ^c	<i>Mean</i> ^a	<i>Sig</i> ^b	<i>Effect Size</i> ^c
First-Year	58.3	61.3	***	-.16	60.8	***	-.13	59.3		-.05
Senior	57.1	60.0	**	-.16	56.9		.01	55.5	*	.08

^a Weighted by gender, enrollment status, and institutional size.

^b * p<.05 ** p<.01 ***p<.001 (2-tailed).

^c Mean difference divided by the pooled standard deviation.

Distributions of Student Benchmark Scores



NSSE 2009 Benchmark Comparisons With Highly Engaging Institutions

Interpreting the Top 10% and Top 50% Comparisons

This section of the NSSE Benchmark Comparisons report allows you to estimate the performance of your average student in

Example

		<i>NSSEville State compared with</i>						
		NSSE 2009 Top 50%			NSSE 2009 Top 10%			
		NSSEville State Mean	Mean	Sig	Effect size	Mean	Sig	Effect size
First-Year	LAC	57.1	55.8	*	.10	60.5	***	-0.28
	ACL	50.3	45.8	***	.28	50.7		-0.02
	SFI	37.3	37.2		.01	42.0	***	-0.24
	EEE	21.8	30.0	***	-.63	34.4	***	-0.98
	SCE	60.9	64.7	***	-.21	69.7	***	-0.49

	IUP							
	<i>Mean</i> ^a	<i>Mean</i> ^a	<i>Sig</i> ^b	<i>Effect size</i> ^c	<i>Mean</i> ^a	<i>Sig</i> ^b	<i>Effect size</i> ^c	
Senior	LAC	51.4	56.8	***	-.41	58.9	***	-.57
	ACL	41.1	47.8	***	-.40	51.7	***	-.61
	SFI	34.0	39.1	***	-.26	43.7	***	-.47
	EEE	24.9	31.0	***	-.45	32.8	***	-.58
	SCE	58.3	66.2	***	-.44	69.1	***	-.59
	LAC	56.8	60.1	***	-.24	62.8	***	-.45
	ACL	52.1	55.7	***	-.21	59.1	***	-.40
	SFI	44.4	48.8	***	-.21	54.2	***	-.45
	EEE	39.7	48.1	***	-.47	54.2	***	-.84
	SCE	57.1	64.1	***	-.37	67.5	***	-.56

First-Year Students

	Mean	SD ^b	SEM ^c	5th	25th	50th	75th	95th			Sig. ^f	
LEVEL OF ACADEMIC CHALLENGE (LAC)												
IUP (N = 1066)	51.4	13.4	.4	29	43	51	61	73				
PASSHE	49.8	13.0	.5	29	41	50	58	72	1,769	1.6	.009	.12
Carnegie Class	53.4	13.7	.1	30	44	53	63	76	13,515	-2.0	.000	-.15
Selected Peers	52.2	13.5	.1	30	43	52	61	74	12,690	-.8	.070	-.06
Top 50%	56.8	13.0	.0	35	48	57	66	78	74,149	-5.4	.000	-.41
Top 10%	58.9	12.9	.1	37	50	59	68	79	1,173	-7.4	.000	-.57
ACTIVE AND COLLABORATIVE LEARNING (ACL)												
IUP (N = 1138)	41.1	16.1	.5	19	29	38	50	71				

Seniors

	Mean	SD ^b	SEM ^c	5th	25th	50th	75th	95th			Sig. ^f	
LEVEL OF ACADEMIC CHALLENGE (LAC)												
IUP (N = 638)	56.8	14.4	.6	32	46	58	67	78				
PASSHE	55.4	14.1	.4	31	46	56	65	78	1,886	1.4	.041	.10
Carnegie Class	56.4	14.8	.1	32	47	57	67	80	20,101	.5	.448	.03
Selected Peers	55.7	14.4	.1	31	46	56	66	78	13,494	1.1	.068	.07
Top 50%	60.1	13.7	.0	37	51	61	70	82	646	-3.3	.000	-.24
Top 10%	62.8	13.3	.1	40	54	63	72	84	679	-6.0	.000	-.45
ACTIVE AND COLLABORATIVE LEARNING (ACL)												
IUP (N = 666)	52.1	16.9	.7	29	38	52	62	81				
PASSHE	50.9	17.3	.5	24	38	50	62	81	1,985	1.2	.128	.07
Carnegie Class	51.2	17.4	.1	24	38	52	62	81	21,211	.9	.179	.05
Selected Peers	49.6	17.3	.1	24	38	48	62	81	14,181	2.5	.000	.15
Top 50%	55.7	16.9	.1	29	43	57	67	86	73,982	-3.6	.000	-.21
Top 10%	59.1	17.2	.1	33	48	57	71	89	16,202	-6.9	.000	-.40
STUDENT-FACULTY INTERACTION (SFI)												
IUP (N = 644)	44.4	20.1	.8	17	28	39	56	8356				
PASSHE	45.0	21.6	.6	17	28	44	56					