

IUPUI 2011 Summer Bridge Program Evaluation Report (DRAFT)

Results Highlights

- The purpose of this report is to: 1) determine the characteristics of students participating in the 2011 Summer Bridge program compared to students not participating in the program, 2) enhance understanding of how Summer Bridge participation influences students' academic performance levels and retention rates and, 3) understand the benefits of providing scholarships for African American and Latino(a) Summer Bridge students.
- A total of 455 Fall 2011 first-time, full-time (Indianapolis only) students participated in the Summer Bridge program. A total of 76 Summer Bridge students were African American and a total of 48 were Hispanic/Latino(a). There were a number of important differences between the students participating in Summer Bridge and the nonparticipants. Fall 2011 first-time, full-time students participating in the Summer Bridge program were more likely to be female. The proportion of African American students participating in the Summer Bridge program was greater compared to the nonparticipating cohort (17% and 10%, respectively). The proportion of Hispanic/Latino(a) students participating in the Summer Bridge program was greater compared to the nonparticipating cohort (11% and 5%, respectively). Results are displayed in Table 1 and 3.
- The higher proportion of African American and Latino(a) students participating in Summer Bridge compared to the overall cohort as well as the high levels of academic performance among African American scholarship recipients seems to suggest that scholarships have some positive implications in terms of: 1) attracting under-represented students to the program and 2) serving as an incentive for attaining high levels of academic performance. Results are displayed in Tables 1, 2, 3 and 4.
- Overall, the Summer Bridge participants had higher levels of academic performance (Fall GPA 2.90) compared to nonparticipants (Fall GPA 2.75). Students participating in Summer Bridge also had lower DFW rates (14%) compared to nonparticipants (19%). Results are displayed in Table 2. Summer Bridge participants had significantly higher first semester cumulative GPAs compared to nonparticipants, even when entering High School GPA, SAT Scores, Low Income (received a Pell Grant), and Application Date (as a proxy for motivation) as the first step in a linear regression model. Results are shown in Table 5.
- African American students who participated in Summer Bridge had notably higher GPAs, lower DFW rates, and higher fall-to-spring retention rates compared to nonparticipating African American Students. African American students who received the IUPUI Sukhatme Bridge Scholarship and/or the Diversity Initiative Bridge Scholarship and participated in Summer Bridge had notably higher rates of high academic performance (GPAs above a 3.0) (54%) compared to African American students who did not receive either of these IUPUI scholarships and participated in Summer Bridge (35%) as well as African American students not participating in Summer Bridge (23%). Results displayed in Table 2.
- Hispanic/Latino(a) students who participated in Summer Bridge had notably higher GPAs, lower DFW rates, and higher fall-to-spring retention rates compared to nonparticipating Hispanic/Latino(a) students. Hispanic/Latino(a) students who received the IUPUI Sukhatme Bridge Scholarship and/or the Diversity Initiative Bridge Scholarship and participated in Summer Bridge had higher rates of high academic performance (GPAs above a 3.0) (58%) compared to Hispanic/Latino(a) students who did not receive either of these scholarships and participated in Summer Bridge (53%) as well as Hispanic/Latino(a) students not participating in Summer Bridge (44%). Differences for Hispanic/Latino(a) students were not as great as differences noted in the African American student population and DFW rates for those receiving the scholarships was not lower than for those who did not receive a scholarship. Please note that caution should be used when making inferences about the academic success of Summer Bridge Latino(a) students given the low number of Latino(a) students. Results displayed in Tables 3 and 4.

- Fall-to-spring retention among Hispanic/Latino(a) students participating in bridge (96%) was notably higher than for Hispanic/Latino(a) students not participating in bridge (89%). Results are displayed in Tables 3 and 4.
- There was a great deal of variation between sections in terms of retention rates and first-semester cumulative GPAs. Students enrolled in the Liberal Arts Themed Learning Community sections 17163 and 18219, Science section 17175, Nursing Themed Learning Community Sections 15975 and 15976, Psychology Themed Learning Community, Engineering section 19301, Technology section 19302 and the Science, Engineering, and Technology combined section 32874 performed notably better than predicted in terms of their first-semester cumulative GPAs (adjusted for SAT scores, High School GPAs, and Gender). The Business Themed Learning Community, SPEA Themed Learning Communities University College Themed Learning Communities, University College section 17525, Physical Education Themed Learning Community, Dental Hygiene Themed Learning Community, and those students attending summer bridge but not participating in a bridge first-year seminar performed notably worse than predicted in terms of their first-semester cumulative GPA. Results are displayed in Table 6.
- A noteworthy limitation of this investigation is that students self-select into the Summer Bridge program. It is possible that the positive effects of the Summer Bridge program on academic performance and retention are due to the fact that students who decide to participate may have differed in substantial ways from students who decided to not to participate and these differences (not the program) may have caused the positive outcomes. Thus, the reader should be cautious when attempting to make causal inferences based on the information contained in this report.

Table 1. Fall 2011 Summer Bridge Results: First-Time, Full-Time Cohort Characteristics and African American Students Student Academic Preparation and Background Characteristics

	N	Avg. H.S. GPA	Avg. SAT Score	% Female	% African American	% First Generation	% Received Pell Grant	Average Units HS Math	% Awarded Core 40 Honors Diploma
<i>Afr. Amer. Sukhatme Bridge Scholarship and/or Diversity Scholarship Recipients *</i>	28	3.15	865.36	64%	100%	64%	68%	7.90	57%
<i>All Other Afr. Amer. Bridge</i>	48	3.13	888.33	75%	100%	50%	92%	7.93	46%
Afr. Amer. Bridge Participants Total	76	3.14	879.87	71%	100%	55%	83%	7.92	50%
Af. Amer. Cohort Students - Not Bridge	218	3.11	888.03	72%	100%	49%	75%	7.74	38%
All Cohort Bridge Participants	455	3.30	989.98	68%	17%	50%	55%	7.81	56%
All Cohort Non-Bridge Participants	2096	3.29	1022.21	57%	10%	40%	42%	8.20	50%
All Cohort Students	2551	3.29	1016.22	59%	12%	42%	44%	8.13	51%

*Thirteen students received both the Sukhatme Bridge and the Diversity Scholarships. Six students received the Sukhatme scholarship only. Nine students received the Diversity Initiative Scholarship only.

Table 2. Fall 2011 Summer Bridge Results: First-Time, Full-Time Cohort and African American Student Academic Success Outcomes

Academic Performance

	N	% Fall GPA above 3.0	% Fall GPA below 2.0	Avg. Fall GPA	DFW Rate	Fall-Spring Retention Rate	Fall-Fall Retention Rate	First Year GPA
<i>Afr. Amer. Sukhatme Bridge Scholarship and/or Diversity Scholarship Recipients*</i>	28	54%	8%	3.11	4%	100%	NA	NA
<i>All Other Afr. Amer. Bridge</i>	48	35%	23%	2.58	19%	96%	NA	NA
Afr. Amer. Bridge Participants Total	76	37%	21%	2.64	17%	97%	NA	NA
Af. Amer. Cohort Students - Non-Bridge	218	23%	33%	2.15	32%	81%	NA	NA
All Cohort Bridge Participants	455	56%	15%	2.90	14%	94%	NA	NA
All Cohort Non-Bridge Participants	2096	49%	21%	2.71	20%	87%	NA	NA
All Cohort Students	2551	50%	20%	2.75	19%	88%	NA	NA

Note: Retention is based on enrollment in the following semester at any IU campus or having received a degree or certificate before census of the following semester.

*Thirteen students received both the Sukhatme Bridge and the Diversity Scholarships. Six students received the Sukhatme scholarship only. Nine students received the Diversity Initiative Scholarship only.

Table 3. Hispanic/Latino(a) Fall 2011 Summer Bridge Results: First-Time, Full-Time Cohort Characteristics Student Academic Preparation and Background Characteristics

	N	Avg. H.S. GPA	Avg. SAT Score	% Female	% Latino(a)	% First Generation	% Received Pell Grant	Average Units HS Math	% Awarded Core 40 Honors Diploma
<i>Hispanic/Latino(a) Sukhatme Bridge Scholarship and/or Diversity Scholarship Recipients*</i>	13	3.15	889.23	77%	100%	54%	85%	7.67	69%
<i>All Other Hispanic/Latino(a) Bridge</i>	35	3.34	926.97	66%	100%	60%	77%	7.14	43%
Hispanic/Latino(a) Bridge Participants Total	48	3.28	916.30	69%	100%	58%	79%	7.38	50%
Hispanic/Latino(a) Cohort Students - Not Bridge	113	3.22	963.33	53%	100%	63%	65%	7.93	49%
All Cohort Bridge Participants	455	3.30	989.98	68%	11%	50%	55%	7.81	56%
All Cohort Non-Bridge Participants	2096	3.29	1022.21	57%	5%	40%	42%	8.20	50%
All Cohort Students	2551	3.29	1016.22	59%	6%	42%	44%	8.13	51%

*Nine students received both the Sukhatme Bridge and the Diversity Scholarships. Three students received the Sukhatme scholarship only. One student received the Diversity Initiative Scholarship only.

Table 4. Hispanic/Latino(a) Fall 2011 Summer Bridge Results: First-Time, Full-Time Cohort Academic Success Outcomes Academic Performance

	N	% Fall GPA above 3.0	% Fall GPA below 2.0	Avg. Fall GPA	DFW Rate	Fall-Spring Retention Rate	Fall-Fall Retention Rate	First Year GPA
<i>Hispanic/Latino(a) Sukhatme Bridge Scholarship and/or Diversity Scholarship Recipients*</i>	13	58%	15%	2.96	18%	92%	NA	NA
<i>All Other Hispanic/Latino(a) Bridge</i>	35	53%	12%	2.89	15%	97%	NA	NA
Hispanic/Latino(a) Bridge Participants Total	48	52%	13%	2.90	16%	96%	NA	NA
Hispanic/Latino(a) Cohort Students - Not Bridge	113	44%	24%	2.65	21%	89%	NA	NA
All Cohort Bridge Participants	455	56%	15%	2.90	14%	94%	NA	NA
All Cohort Non-Bridge Participants	2096	49%	21%	2.71	20%	87%	NA	NA
All Cohort Students	2551	50%	20%	2.75	19%	88%	NA	NA

Note: Retention is based on enrollment in the following semester at any IU campus or having received a degree or certificate before census of the following semester.

*Nine students received both the Sukhatme Bridge and the Diversity Scholarships. Three students received the Sukhatme scholarship only. One student received the Diversity Initiative Scholarship only.

Table 5. Linear Regression Predicting First Semester GPA

Variable		<i>b</i>	SE <i>b</i>	β
Step 1	H.S GPA	1.042	.048	.429***
	SAT Score	.000	.000	.076***
	Low Income	-.152	.038	-.074***
	Application Date	.004	.002	.042*
Step 2	H.S GPA	1.034	.048	.426***
	SAT Score	.001	.000	.083***
	Low Income	-.166	.038	-.080***
	Application Date	.003	.002	.038*
	Summer Bridge	.212	.048	.080***

$R^2 = .238$ for Step 1; $\Delta R^2 = .244$ for Step 2 ($p < .001$). *** $p < .001$, ** $p < .01$, * $p < .05$

Note 1: Low Income is a dummy coded variable for received a Pell Grant or not. Summer Bridge is a dummy coded variable for participated in 2011 Summer Bridge or not.

Note 2: All first-time, full-time students included in the analysis.

Table 6. Fall 2011 Summer Bridge Results: First-Time, Full-Time Cohort By Bridge Section

Summer Bridge Section	Section #	N	Fall-Spring Retention Rate	Fall-Fall Retention Rate	First Semester GPA Actual	First Semester GPA Expected/Adjusted*	Expected vs. Actual GPA Difference
Business TLC	14541	21	86%	NA	2.64	2.96	-0.32
Nursing TLC	15974	22	95%	NA	3.28	3.27	0.01
Nursing TLC	15975	22	91%	NA	3.10	2.96	0.14
Nursing TLC	15976	24	96%	NA	3.40	3.14	0.26
Psychology TLC	16308	21	95%	NA	3.02	2.90	0.12
Public and Environmental Affairs (SPEA) TLC	16502	19	79%	NA	2.19	2.34	-0.15
UC TLC "Change Your World"	16667	18	94%	NA	2.90	3.08	-0.18
UC TLC "Pathway to Power"	16677	16	94%	NA	2.76	3.10	-0.34
UC TLC "Defining Success"	16680	22	95%	NA	3.07	3.03	0.04
Public and Environmental Affairs (SPEA) TLC	16723	13	92%	NA	2.53	2.71	-0.18
Liberal Arts TLC	17163	21	100%	NA	2.99	2.88	0.11
Science	17175	24	100%	NA	3.09	2.93	0.16
University College	17525	24	92%	NA	2.77	2.85	-0.08
Liberal Arts TLC	18219	15	100%	NA	3.56	3.44	0.12
Education TLC	18491	22	95%	NA	3.30	3.36	-0.06
Physical Education TLC	18643	16	94%	NA	2.41	2.61	-0.2
Liberal Arts TLC	18655	17	94%	NA	2.93	3.00	-0.07
Science	18794	12	100%	NA	2.64	2.68	-0.04
Dental Hygiene	19283	20	90%	NA	2.76	2.90	-0.14
Engineering	19301	22	91%	NA	2.68	2.55	0.13
Technology	19302	18	100%	NA	2.97	2.82	0.15
Technology	32873	4	100%	NA	2.55	**	**
Science – Combined with Engineering and Technology	32874	13	92%	NA	2.85	2.32	0.53
Engineering – combined with Science and Technology	32913	9	100%	NA	2.98	**	**
No bridge section	NA	20	85%	NA	2.48	2.76	-0.28
Overall	NA	455	94%	NA	2.75	2.74	0.01

*Adjusted by taking into account the SAT score, HS GPA, and Gender.

** Numbers are too small to calculate adjusted GPAs.

Values highlighted in red indicate sections with an average actual first semester GPA of at least 0.1 less than expected. Values highlighted in green indicate sections with an average actual first semester GPA of at least 0.1 more than expected.