

# 1st to 3rd Semester Retention Models (96-99 freshman cohorts, International Students excluded), Indiana University-Bloomington

Results have been adjusted for campus program participation (i.e., Groups, Maps/Mass, Briscoe Academic Center, Intensive Freshman Seminar, Figs, Honors, and 21st Century Scholars)

		Residents			Nonresidents				
		Sig.	Odds Ratio	Delta-P <sup>^</sup>	Sig.	Odds Ratio	Delta-P <sup>^</sup>		
Demography	<b>Female</b>	#	0.71	-5.4%	#	0.76	-3.6%		
	Race	<b>African-American</b>	***	1.42	4.4%	**	1.77	5.5%	
		<b>Latino</b>		0.97	-0.4%		1.35	3.2%	
	Reference Group: Non African-Americans and Latinos								
	<b>Rural residency status</b>			0.90	-1.6%				
Rural residency status missing		**	1.58	5.5%					
Socio-Economic Status	Income Level	<b>Parental/Student Income: \$11,001 to \$30,000</b>	***	1.43	4.5%		0.93	-0.8%	
		<b>Parental/Student Income: \$30,001 to \$60,000</b>	*	1.22	2.6%		1.02	0.3%	
		<b>Parental/Student Income: &gt; \$60,000</b>	***	1.46	4.7%		0.99	-0.1%	
	Reference Group: < \$11,001								
	<b>Financially independent student</b>			1.39	4.1%		1.36	3.2%	
	Parental Education	<b>Mother's education: No data</b>			0.95	-0.8%		1.49	4.1%
		<b>Mother's education: less than high school education</b>			1.07	1.0%		1.33	3.0%
		<b>Mother's education: college graduate</b>			1.07	1.0%		1.02	0.3%
		Reference Group: high school education							
		<b>Father's education: No data</b>			1.01	0.1%		0.96	-0.5%
<b>Father's education: less than high school education</b>		#	0.61	-8.1%	*	0.49	-10.9%		
<b>Father's education: college graduate</b>		#	1.23	2.8%		1.14	1.5%		
Reference Group: high school education									
Academic Ability	<b>SAT (00s)</b>			1.05	0.7%	*	1.79	5.6%	
	<b>SAT squared</b>			1.00	-0.1%	**	0.97	-0.4%	
	SAT score missing		**	0.74	-4.7%	***	0.36	-17.2%	
	<b>Percentile rank in high school class</b>			0.99	-0.1%		0.97	-0.3%	
	<b>Percentile rank in high school class squared</b>			1.00	0.0%		1.00	0.0%	
Academic Preparation	H.S. Units	<b>Lab science units in high school</b>	***	1.10	1.3%		1.01	0.1%	
		<b>Foreign language units in high school</b>		1.01	0.2%	*	1.06	0.7%	
		<b>English units in high school</b>	**	1.12	1.5%		1.06	0.6%	
		<b>Math units in high school</b>	**	1.09	1.2%		1.06	0.7%	
		High school academic units missing	**	0.56	-9.9%		0.66	-5.7%	
	Math	<b>On-Campus Math Assessment Score</b>			1.00	0.0%	**	1.02	0.3%
		Math Assessment Score missing			1.15	0.0%		0.71	-4.5%
		<b>Hours studied outside of class in high school</b>		**	1.09	1.2%		1.10	1.1%
		Hours studied outside of class in high school data missing			1.13	1.6%		1.16	1.6%
Financial Aid	Financial Aid	<b>Total loans offered as a % of total cost</b>	**	1.01	0.06%		1.00	-0.03%	
		<b>Total grants received as a % of total cost</b>	#	1.01	0.09%	*	1.01	0.06%	
		<b>Unmet financial need as a % of total cost</b>		1.00	0.02%	#	0.99	-0.13%	
		<b>Unmet financial need as a % of total cost squared</b>	**	0.999	0.00%				
	<b>Non-aid applicants</b>		#	1.64	5.9%		0.93	-0.9%	

Significance Level:  
 \* < .1  
 \*\* < .05  
 \*\*\* < .01  
 # < .001

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		Sig.	Odds Ratio	Delta-P	Sig.	Odds Ratio	Delta-P	
<b>Commitment</b>	<b>Institutional Commitment Scale (pre-enrollment)</b>		1.02	0.2%		1.02	0.3%	
	Scale missing data type 1--mean replacement		1.01	0.1%		0.96	-0.5%	
	Scale missing data type 2--all values set to 0		1.36	3.9%		1.77	5.5%	
<b>Social Integration</b>	Friends	<b># of close friends attending or planning to attend IUB</b>	***	1.06	0.8%	***	1.10	1.1%
		Missing Data	***	1.45	4.6%	**	1.52	4.2%
		<b># of high school classmates attending IU</b>				**	1.01	0.2%
		<b>% of high school graduating class attending IU</b>	#	1.02	0.3%			
	Activities	<b>Importance of joining organizations/participate in activities</b>	***	0.91	-1.3%	**	0.90	-1.4%
		Missing Data		0.76	-4.2%	*	0.61	-6.8%
		1 'very important' to 5 'not at all important'						
	Greek	<b>Expects to participates in Greek life</b>	***	1.26	3.0%	*	1.27	2.6%
		Missing Data	*	2.14	8.3%	*	3.63	9.5%
	First Semester Grades	<b>1st semester GPA &gt;= 3.0</b>	#	2.76	10.2%	#	1.83	5.7%
<b>1st semester GPA &lt; 3.0 and &gt;= 2.5</b>		#	1.85	7.0%	***	1.48	4.0%	
<b>1st semester GPA &lt; 2.0</b>		#	0.29	-24.8%	#	0.35	-17.3%	
Reference Group: >=2.0 and <2.5								
<b>Academic Integration</b>	First Semester School (based on intended major)	<b>Allied Health</b>		0.84	-2.5%		1.50	4.1%
		<b>Business</b>	**	1.19	2.3%		1.05	0.6%
		<b>COAS</b>		0.96	-0.6%	*	0.80	-2.9%
		<b>Education</b>		0.95	-0.8%		1.14	1.4%
		<b>HPER</b>		1.16	2.0%		0.98	-0.2%
		<b>Journalism</b>		0.93	-1.0%		0.90	-1.3%
		<b>Music</b>	**	0.70	-5.8%		0.76	-3.6%
		<b>Nursing</b>	#	0.45	-14.2%			
		<b>SPEA</b>		1.03	0.5%			
		<b>Other school (Dentistry,Optometry,Social Work;+ Nursing &amp; SPEA for NR)</b>		0.90	-1.6%		0.89	-1.4%
	Reference Group: Exploratory/Undecided majors within University Division							
	Study Plans	<b>Hours/week plan to study for college courses</b>		1.00	0.0%		1.00	0.0%
		Missing Data		0.76	-4.2%		0.88	-1.6%
1 '1-5 hrs.' to 6 '26+'								
U.Div Advising	<b># of credit hours attempted 1st semester</b>	#	1.10	1.4%	**	1.06	0.7%	
	# of credit hours attempted 1st semester missing	#	0.08	-53.9%	#	0.02	-76.5%	
	<b># of E-mail, letter, or phone contacts with Udiv advisor</b>		1.00	0.0%	*	0.94	-0.7%	
	<b># of appointments with Udiv advisor</b>	#	1.19	2.4%	#	1.20	2.0%	
	98-99 missing data for advising contacts for Honors, Groups, Direct admits	#	2.59	9.7%	#	2.11	6.7%	

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		Sig.	Odds Ratio	Delta-P	Sig.	Odds Ratio	Delta-P	
Other Factors	Work	<b>Hours/week plan to work for pay freshman year</b>	#	0.89	-1.6%	***	0.81	-2.6%
		Missing Data		0.96	-0.6%	**	0.60	-7.3%
		1 'none' to 5 '21+'						
	Residence Halls	<b>Theme hall resident</b>	#	1.48	4.9%	***	1.71	5.2%
		<b>Academic hall resident</b>	#	1.97	7.6%	#	2.14	6.8%
		<b>Off-campus resident</b>		1.04	0.5%		1.38	3.4%
		<b>98-99 campus residency data missing</b>	*	1.27	3.1%		1.03	0.3%
		Reference Group: Standard residence halls (98-99)						
	Class Size	<b>Alumni Connection</b>		1.00	0.0%		1.42	3.6%
		Alumni connection data missing	*	0.61	-8.2%		0.68	-5.1%
		<b>High school class size</b>		1.00	0.0%		1.00	0.0%
		Class size data missing: replaced with avg. class size in town		1.00	-0.1%		0.96	-0.5%
		Class size data missing: replaced with avg. class size		0.97	-0.4%		1.17	1.8%
				1.53	5.2%		1.41	3.6%
				1.46	4.7%		1.32	2.9%
				1.02	0.3%		1.45	3.8%
			***	0.04	-66.4%	*	0.03	-72.6%
		<b>Constant</b>	***	0.04	-66.4%	*	0.03	-72.6%
		<b>Retention rate of population</b>		<b>82.9%</b>			<b>86.3%</b>	
		<b>-2 Log Likelihood</b>		<b>12,733</b>			<b>5,163</b>	
	<b>X2 (p-value), df</b>		<b>3,003 (.000), 85</b>			<b>673 (.000), 78</b>		
	<b>Adjusted-R2</b>		<b>0.267</b>			<b>0.16</b>		
	<b>N</b>		<b>17,217</b>			<b>7,311</b>		

^ Note: The Delta-p statistic gives the expected change in probability from the group mean probability for a single unit change in each independent variable. Due to the non-linear nature of logistic regression models, subsequent unit changes would not have the same effect.

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