



Four-Year Graduation Rates of Full-Time, First-Time Freshmen by Responses on the Fall 2009 Freshman Cooperative Institutional Research Program (CIRP) Survey

*Prepared by the Office of Institutional Research, Planning & Effectiveness
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This report examines four-year graduation rates of full-time, first-time students entering Stony Brook University in Fall 2009 by their responses to questions asked on the Cooperative Institutional Research Program (CIRP) Freshman Survey administered by the Higher Education Research Institute (HERI) at the University of California Los Angeles.

Major findings confirm other research that indicates **grades earned during high school represent the factor most related to graduation rates**. Beyond this, however, a range of other self-reported factors were associated with higher graduation rates at statistically significant levels.

High school academics

- Taking AP Exams in high school
- Not skipping school/classes in high school
- Taking notes during class in high school
- Working with other students on high school class assignments
- Performing community service as part of a high school class
- Self-rated drive to achieve
- Self-rated intellectual self-confidence

Social experience in high school

- Not smoking cigarettes in high school
- Not drinking alcohol in high school
- Disagreement that marijuana should be legalized
- Less time spent playing video games in high school
- Self-rated spirituality
- Parents' status (alive, living together)

Admissions and financial aid

- Importance to parents of student attending Stony Brook
- Financial assistance from Stony Brook
- Not offered financial aid by first choice
- Could not afford first choice
- Admission through early decision
- Rankings in national magazines

Plans for campus engagement

- Living on campus
- Goal to participate in a community action program
- Plans to participate in volunteer or community service work
- Plans to participate in student groups
- Agreement that colleges have the right to ban controversial speakers
- Goal to become an authority in a field

Methodology

From 1971 through 2006, Stony Brook University conducted the CIRP Freshman survey almost every fall during freshmen orientation. Now the campus administers the survey on a three-year cycle, surveying the entering classes in 2009 and 2012. In fall 2009, 2,795 students entered Stony Brook as full-time, first-time freshmen, and 2,467 students took the survey. Of these, 996 provided their student ID numbers and gave consent for additional research to be conducted on their responses.

Overall responses were compared to national norms for highly selective public universities as well as public universities overall. These results are available on the Office of Institutional Research, Planning & Effectiveness (IRPE) web site. Responses of students who provide ID numbers were linked to graduation rate outcomes, maintained by IRPE. Of the group who provided ID numbers, 478 or 48.0% graduated within four years of entry (on or before Aug. 31, 2013), compared to 46.2% of the entire 2009 cohort of full-time freshmen, suggesting the group of respondents with IDs was roughly comparable to the student population at large.

Graduation rates by response categories were calculated and tested for statistical significance using a 2-tailed chi-square test and flagged using the following notations: *** p<0.001, ** p<0.01, * p<0.05, † p<0.10. Results are only highlighted or discussed when p<0.05.

Caveats: Correlation vs. Causation and the Limitations of Survey Data

As with all analyses of this type, caution should be taken not to confuse correlation with causation. For instance, results indicate that students who reported they smoked cigarettes frequently or occasionally during high school graduated at a rate about 20 percentage points lower than students who reported they did not smoke cigarettes during high school. Clearly smoking cigarettes prior to college *did not cause* fewer students to complete degrees in four years, but rather this behavioral factor *is associated with* lower graduation rates.

Further, survey research inherently includes biases and uncertainties introduced by self-reported responses; survey participants may forget things, they may exaggerate, or even fabricate responses. Such uncertainties should be taken into account when interpreting results.

Highlights

Statistically significant results can be roughly grouped into four categories: high school academics, plans of campus engagement, the social experience in high school, and admissions and financial aid. It is important to recognize that higher grades earned in high school was by far the most significant factors associated with higher graduation rates, and this relationship dwarfs the relationship observed between other survey items and graduation rates.

High School Academics

Figure 1. Four-Year Graduation Rates by Self-Reported High School Grades

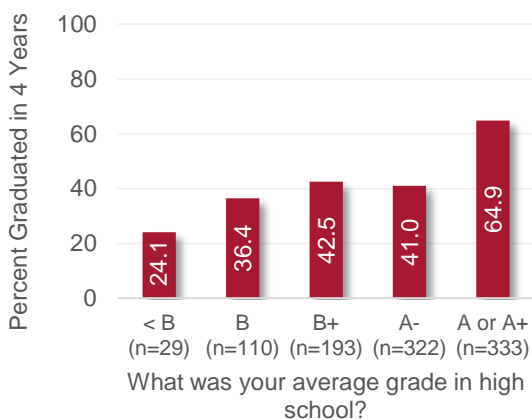


Figure 2. Four-Year Graduation Rates by Number of AP Exams Taken in HS

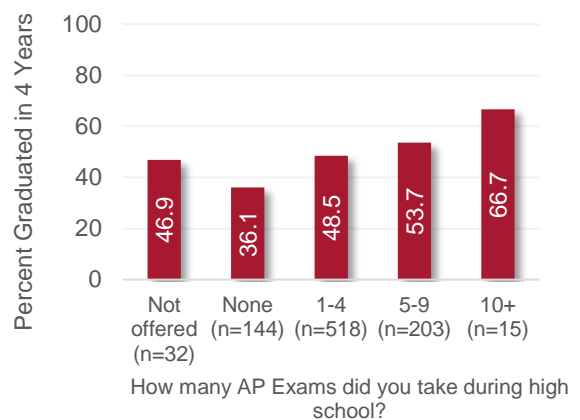


Figure 3. Four-Year Graduation Rates by Frequency of Skipping Class/School

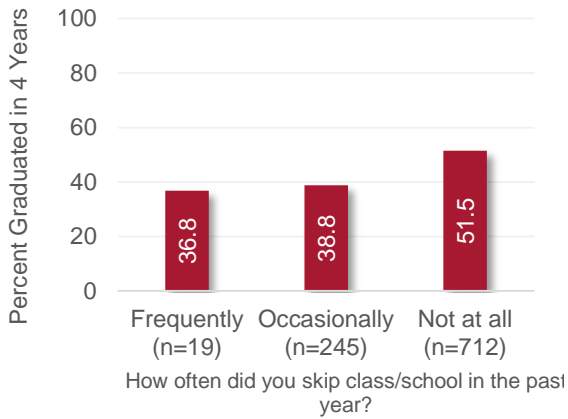


Figure 6. Four-Year Graduation Rates by Frequency of Community Service in Class

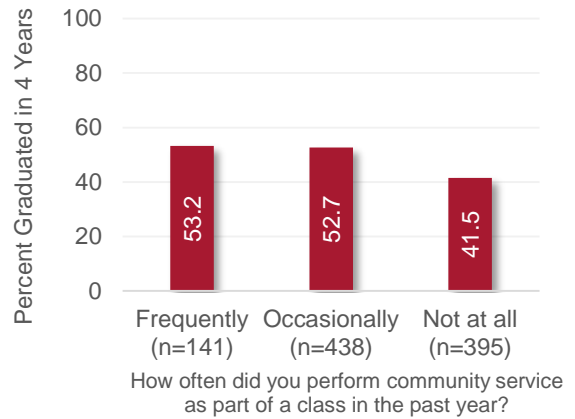


Figure 4. Four-Year Graduation Rates by Frequency of Taking Notes in Class

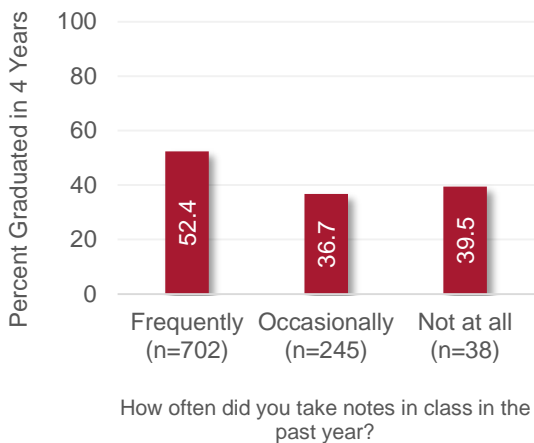


Figure 7. Four-Year Graduation Rates by Self-Rated Drive to Achieve

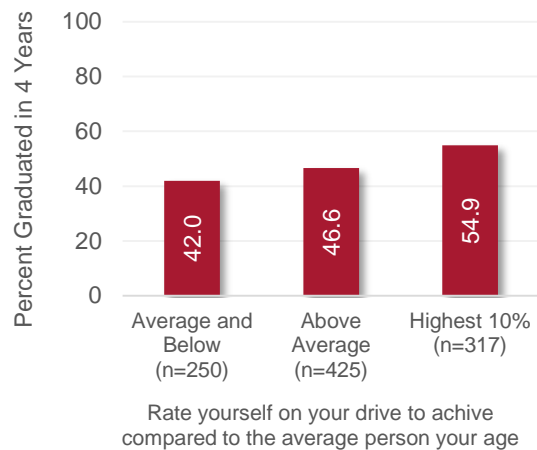


Figure 5. Four-Year Graduation Rates by Frequency of Working with Other Students

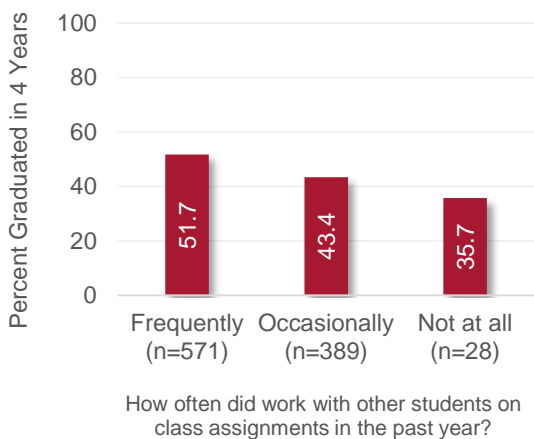
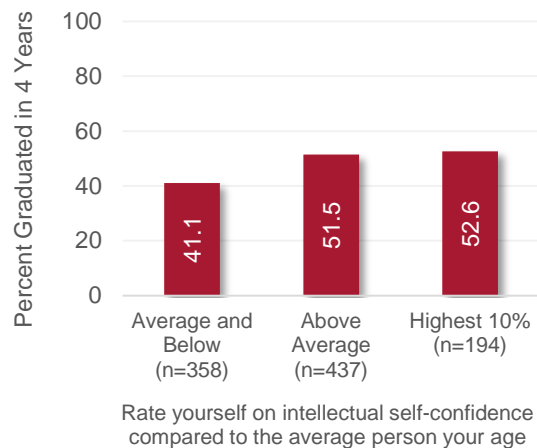


Figure 8. Four-Year Graduation Rates by Self-Rated Intellectual Self-Confidence



Social Experience in High School

Figure 9. Four-Year Graduation Rates by Frequency of Cigarette Smoking in Past Year

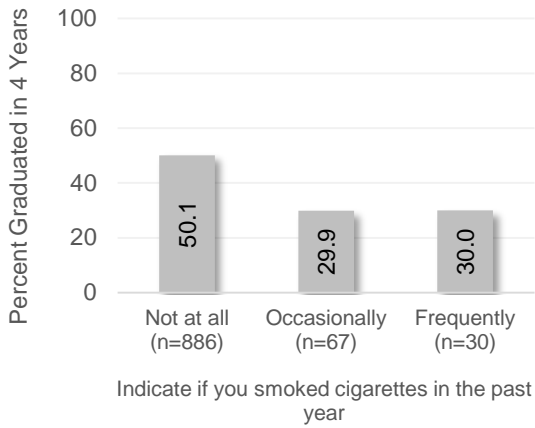


Figure 12. Four-Year Graduation Rates by Time Spent Playing Video Games

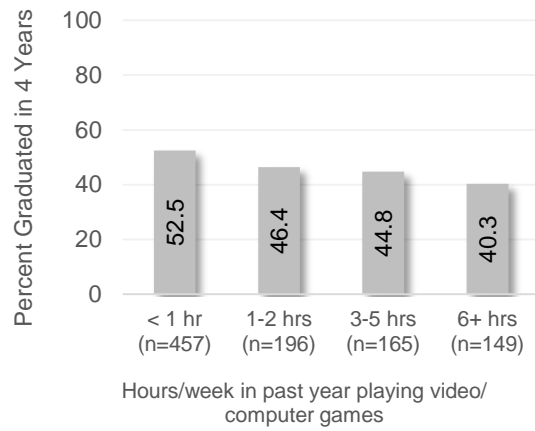


Figure 10. Four-Year Graduation Rates by Frequency of Drinking Alcohol in Past Year

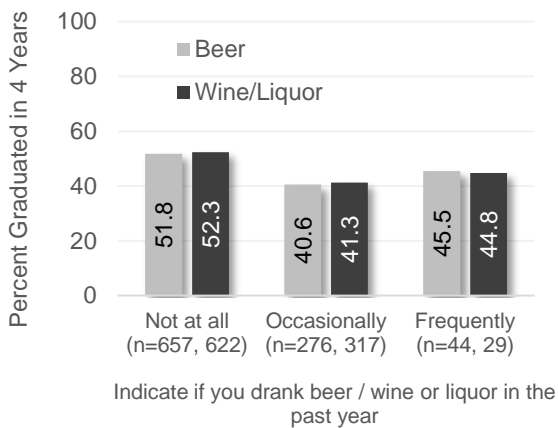


Figure 13. Four-Year Graduation Rates by Self-Rated Spirituality

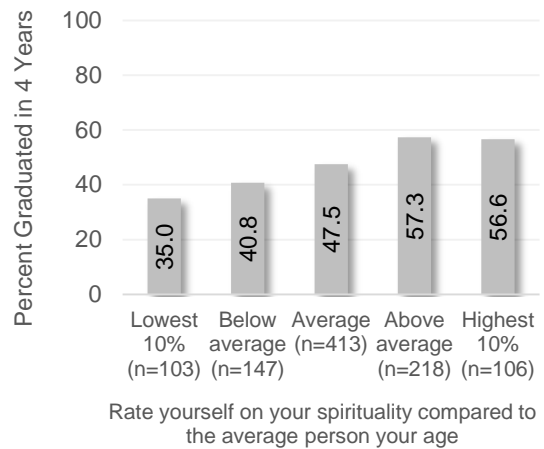


Figure 11. Four-Year Graduation Rates by View that Marijuana Should Be Legalized

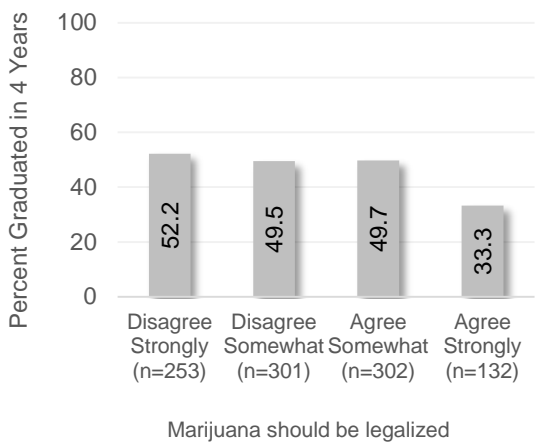
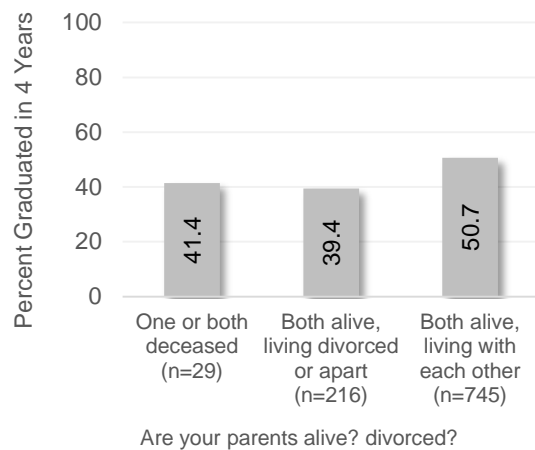


Figure 14. Four-Year Graduation Rates by Parents' Status



Admissions and Financial Aid

Figure 15. Four-Year Graduation Rates by Importance to Parents to Attend SBU

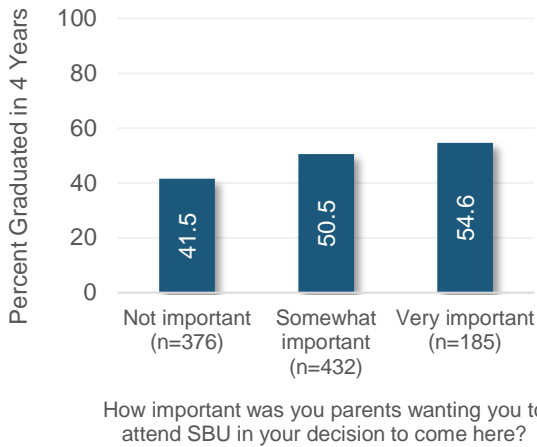


Figure 16. Four-Year Graduation Rates by Importance of Offer of Financial Aid

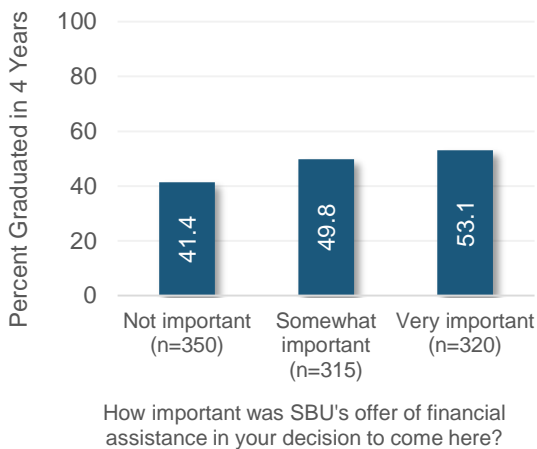


Figure 17. Four-Year Graduation Rates by Importance of Aid Offer from 1st Choice

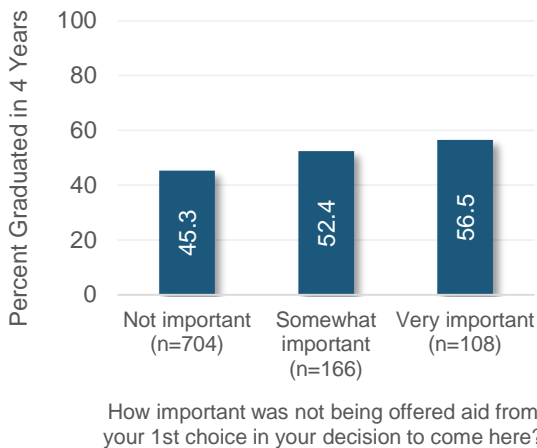


Figure 18. Four-Year Graduation Rates by Importance of Unaffordability of 1st Choice

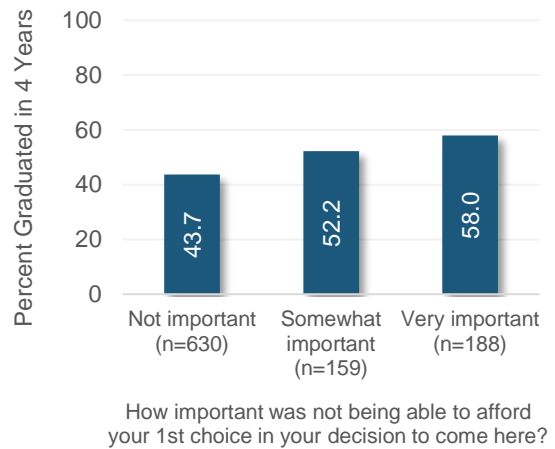


Figure 19. Four-Year Graduation Rates by Importance of Early Action/Decision

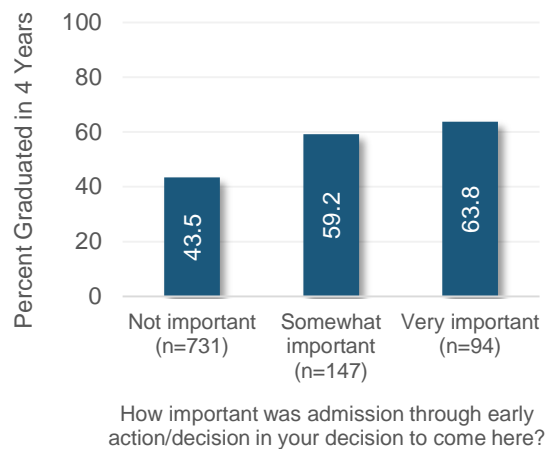
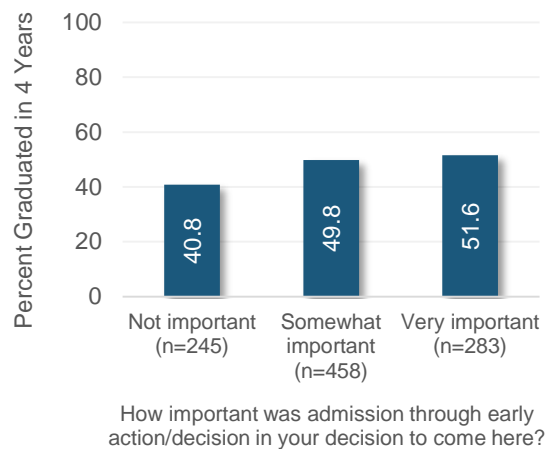


Figure 20. Four-Year Graduation Rates by Importance of Rankings in Nat'l Magazines



Plans for Campus Engagement

Figure 21. Four-Year Graduation Rates by Planned Living Arrangements

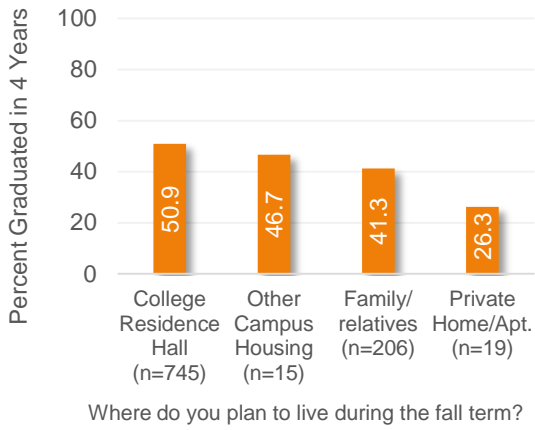


Figure 22. Four-Year Graduation Rates by Importance of Community Action Program

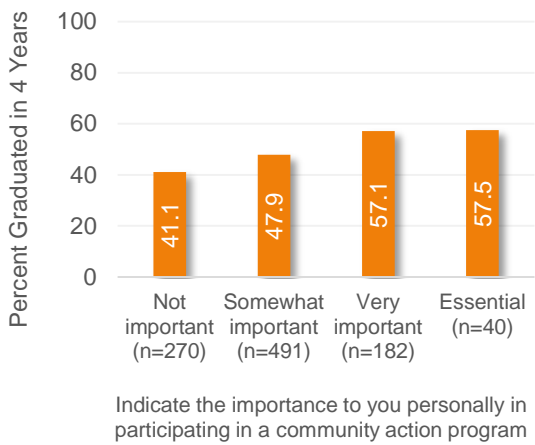


Figure 23. Four-Year Graduation Rates by Anticipated Participation in Volunteer Work

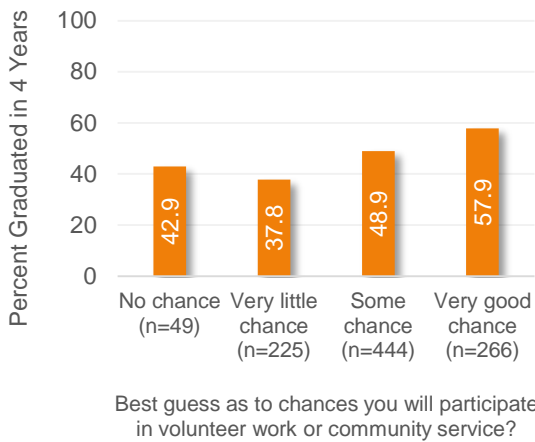


Figure 24. Four-Year Graduation Rates by Anticipated Participation in Student Clubs

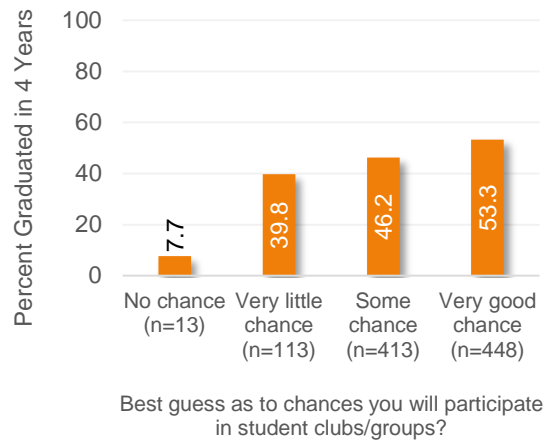


Figure 25. Four-Year Graduation Rates by College Right to Ban Extreme Speakers

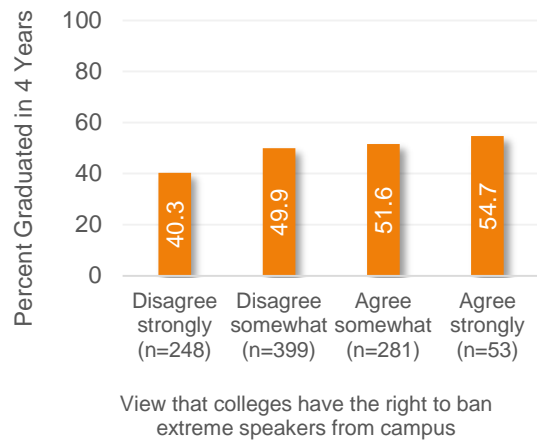


Figure 26. Four-Year Graduation Rates by Importance of Becoming Authority in a Field

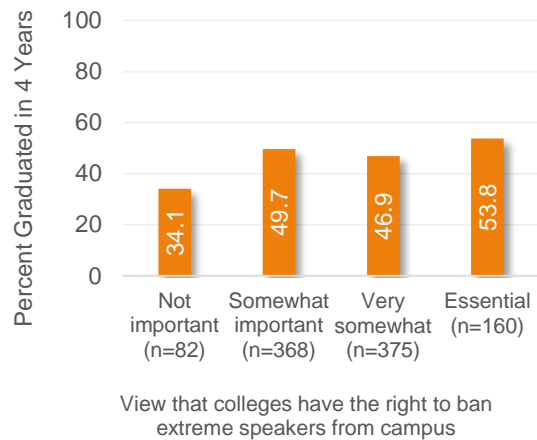


Table 1. 4-Year Graduation Rates of Full-Time, First-Time Students Entering in Fall 2009 by Responses on the CIRP Freshman Survey – Statistically Significant Responses only

Questions on which statistically significant differences were observed are below; effects may be nonlinear.

*** p<0.001, ** p<0.01, * p<0.05, † p<0.10

		Responses Count	Graduated in 4 years			
			No	Yes	Grad rate	
			Count	Count	Pct	Sig
Preliminary cohort grad rate (N=2,795)		2795	1504	1291	46.2	
Respondents with Student ID	Total	996	518	478	48.0	
Respondents w/o Student ID	Total	1471	--	--	--	
Is English your native language?	No	195	85	110	56.4	*
	Yes	793	428	365	46.0	
What was your average grade in high school?	D	0	0	0	--	***
	C	1	0	1	100.0	
	C+	2	1	1	50.0	
	B-	26	21	5	19.2	
	B	110	70	40	36.4	
	B+	193	111	82	42.5	
	A-	322	190	132	41.0	
	A or A+	333	117	216	64.9	
Where do you plan to live during the fall term?	With my family or other relatives	206	121	85	41.3	*
	Other private home, apartment, or room	19	14	5	26.3	
	College residence hall	745	366	379	50.9	
	Fraternity or sorority house	0	0	0	--	
	Other campus student housing	15	8	7	46.7	
	Other	0	0	0	--	
Citizenship status	Neither	18	8	10	55.6	†
	Permanent resident (green card)	71	28	43	60.6	
	U.S. citizen	898	478	420	46.8	
Are your parents alive? divorced?	One or both deceased	29	17	12	41.4	*
	Both alive, divorced or living apart	216	131	85	39.4	
	Both alive and living with each other	745	367	378	50.7	
Science: need special tutoring or remedial work	Not marked	927	490	437	47.1	*
	Marked	69	28	41	59.4	

Questions on which statistically significant differences were observed are below; effects may be nonlinear.
 *** p<0.001, ** p<0.01, * p<0.05, † p<0.10

		Responses	Graduated in 4 years				Sig
			No	Yes	Grad rate		
			Count	Count	Count	Pct	
AP Courses take during high school	Not offered at my HS	37	21	16	43.2	†	
	None	111	66	45	40.5		
	1-4	576	307	269	46.7		
	5-9	223	106	117	52.5		
	10-14	15	4	11	73.3		
	15+	1	1	0	0.0		
AP Exams take during high school	Not offered at my HS	32	17	15	46.9	*	
	None	144	92	52	36.1		
	1-4	518	267	251	48.5		
	5-9	203	94	109	53.7		
	10-14	14	4	10	71.4		
	15+	1	1	0	0.0		
Highest academic degree planned	None	5	2	3	60.0	†	
	Vocational certificate	0	0	0	--		
	Associate (A.A. or equivalent)	2	1	1	50.0		
	Bachelors degree (B.A., B.S., etc.)	73	47	26	35.6		
	Masters degree (M.A., M.S., etc.)	312	164	148	47.4		
	Ph.D. or Ed.D.	229	118	111	48.5		
	M.D., D.O., D.D.S., D.V.M.	214	96	118	55.1		
	J.D. (Law)	31	11	20	64.5		
	B.D. or M.DIV. (Divinity)	0	0	0	--		
Other	9	6	3	33.3			
Aid: Family resources (parents, relatives, spouse, etc.)	None	105	59	46	43.8	†	
	Less than \$1,000	96	50	46	47.9		
	\$1,000 - 2,999	156	83	73	46.8		
	\$3,000 - 5,999	183	84	99	54.1		
	\$6,000 - 9,999	134	83	51	38.1		
	\$10,000 +	235	113	122	51.9		
Act in Past Year: Smoked cigarettes	Not at all	886	442	444	50.1	*	
	Occasionally	67	47	20	29.9		
	Frequently	30	21	9	30.0		
Act in Past Year: Drank beer	Not at all	657	317	340	51.8	*	
	Occasionally	276	164	112	40.6		
	Frequently	44	24	20	45.5		

Questions on which statistically significant differences were observed are below; effects may be nonlinear.
 *** p<0.001, ** p<0.01, * p<0.05, † p<0.10

		Responses	Graduated in 4 years				Sig
			No	Yes	Grad rate		
			Count	Count	Count	Pct	
Act in Past Year: Drank wine or liquor	Not at all	622	297	325	52.3	**	
	Occasionally	317	186	131	41.3		
	Frequently	29	16	13	44.8		
Act in Past Year: Performed volunteer work	Not at all	123	74	49	39.8	†	
	Occasionally	548	289	259	47.3		
	Frequently	312	149	163	52.2		
Act in Past Year: Used the Internet: To blog	Not at all	640	345	295	46.1	†	
	Occasionally	198	98	100	50.5		
	Frequently	138	61	77	55.8		
Act in Past Year: Performed community service as part of a class	Not at all	395	231	164	41.5	**	
	Occasionally	438	207	231	52.7		
	Frequently	141	66	75	53.2		
Act in Past Year: Skipped school/class	Not at all	712	345	367	51.5	**	
	Occasionally	245	150	95	38.8		
	Frequently	19	12	7	36.8		
Self Rating: Academic ability	Lowest 10%	0	0	0	--	*	
	Below average	1	1	0	0.0		
	Average	177	100	77	43.5		
	Above average	603	323	280	46.4		
	Highest 10%	210	91	119	56.7		
Self Rating: Creativity	Lowest 10%	6	2	4	66.7	*	
	Below average	71	28	43	60.6		
	Average	358	198	160	44.7		
	Above average	403	196	207	51.4		
	Highest 10%	154	92	62	40.3		
Self Rating: Drive to achieve	Lowest 10%	3	2	1	33.3	*	
	Below average	15	9	6	40.0		
	Average	232	134	98	42.2		
	Above average	425	227	198	46.6		
	Highest 10%	317	143	174	54.9		
Self Rating: Self-confidence (intellectual)	Lowest 10%	5	3	2	40.0	*	
	Below average	34	18	16	47.1		
	Average	319	190	129	40.4		
	Above average	437	212	225	51.5		
	Highest 10%	194	92	102	52.6		

Questions on which statistically significant differences were observed are below; effects may be nonlinear.
 *** p<0.001, ** p<0.01, * p<0.05, † p<0.10

		Responses	Graduated in 4 years			
			No	Yes	Grad rate	
			Count	Count	Count	Pct
Self Rating: Spirituality	Lowest 10%	103	67	36	35.0	*
	Below average	147	87	60	40.8	
	Average	413	217	196	47.5	
	Above average	218	93	125	57.3	
	Highest 10%	106	46	60	56.6	
Self Rating: Understanding of others	Lowest 10%	3	0	3	100.0	†
	Below average	21	7	14	66.7	
	Average	278	156	122	43.9	
	Above average	473	241	232	49.0	
	Highest 10%	216	111	105	48.6	
Self Rating: Tolerance of others with different beliefs	Lowest 10%	2	1	1	50.0	†
	Below average	8	2	6	75.0	
	Average	150	65	85	56.7	
	Above average	432	229	203	47.0	
	Highest 10%	394	216	178	45.2	
Habits of Mind: Revise your papers to improve your writing	Not at all	82	53	29	35.4	†
	Occasionally	534	274	260	48.7	
	Frequently	371	187	184	49.6	
Habits of Mind: Accept mistakes as part of the learning process	Not at all	16	12	4	25.0	†
	Occasionally	419	225	194	46.3	
	Frequently	554	277	277	50.0	
Habits of Mind: Take notes during class	Not at all	38	23	15	39.5	***
	Occasionally	245	155	90	36.7	
	Frequently	702	334	368	52.4	
Habits of Mind: Work with other students on class assignments	Not at all	28	18	10	35.7	*
	Occasionally	389	220	169	43.4	
	Frequently	571	276	295	51.7	
Race: White/Caucasian	Not marked	461	226	235	51.0	†
	Marked	535	292	243	45.4	
Race: American Indian/Alaska Native	Not marked	985	509	476	48.3	†
	Marked	11	9	2	18.2	
Race: Asian American/Asian	Not marked	691	378	313	45.3	*
	Marked	305	140	165	54.1	
Race: Mexican American/Chicano	Not marked	990	512	478	48.3	*
	Marked	6	6	0	0.0	
Race: Puerto Rican	Not marked	969	498	471	48.6	*
	Marked	27	20	7	25.9	

Questions on which statistically significant differences were observed are below; effects may be nonlinear.
 *** p<0.001, ** p<0.01, * p<0.05, † p<0.10

		Responses	Graduated in 4 years				Sig
			No	Yes	Grad rate		
			Count	Count	Count	Pct	
Race: Other Latino	Not marked	930	468	462	49.7	***	
	Marked	66	50	16	24.2		
View: There is too much concern in the courts for the rights of criminals	Disagree strongly	82	52	30	36.6	†	
	Disagree somewhat	400	211	189	47.3		
	Agree somewhat	442	214	228	51.6		
	Agree strongly	45	27	18	40.0		
View: Marijuana should be legalized	Disagree strongly	253	121	132	52.2	**	
	Disagree somewhat	301	152	149	49.5		
	Agree somewhat	302	152	150	49.7		
	Agree strongly	132	88	44	33.3		
View: Dissent is a critical component of the political process	Disagree strongly	39	28	11	28.2	†	
	Disagree somewhat	286	151	135	47.2		
	Agree somewhat	488	249	239	49.0		
	Agree strongly	124	64	60	48.4		
View: Colleges have the right to ban extreme speakers from campus	Disagree strongly	248	148	100	40.3	*	
	Disagree somewhat	399	202	197	49.4		
	Agree somewhat	281	136	145	51.6		
	Agree strongly	53	24	29	54.7		
Reason Attend: My parents wanted me to go	Not important	223	133	90	40.4	*	
	Somewhat important	404	198	206	51.0		
	Very important	340	173	167	49.1		
Hours per Week: Studying/homework	None	15	10	5	33.3	*	
	Less than one hour	114	74	40	35.1		
	1 to 2 hours	217	120	97	44.7		
	3 to 5 hours	270	138	132	48.9		
	6 to 10 hours	203	95	108	53.2		
	11 to 15 hours	79	34	45	57.0		
	16 to 20 hours	45	20	25	55.6		
	Over 20 hours	26	14	12	46.2		
Hours per Week: Volunteer work	None	247	147	100	40.5	†	
	Less than one hour	185	94	91	49.2		
	1 to 2 hours	257	121	136	52.9		
	3 to 5 hours	175	90	85	48.6		
	6 to 10 hours	59	32	27	45.8		
	11 to 15 hours	20	6	14	70.0		
	16 to 20 hours	10	6	4	40.0		
	Over 20 hours	16	7	9	56.3		

Questions on which statistically significant differences were observed are below; effects may be nonlinear.
 *** p<0.001, ** p<0.01, * p<0.05, † p<0.10

		Responses	Graduated in 4 years				Sig
			No	Yes	Grad rate		
			Count	Count	Count	Pct	
Hours per Week: Reading for pleasure	None	167	87	80	47.9	*	
	Less than one hour	247	127	120	48.6		
	1 to 2 hours	230	104	126	54.8		
	3 to 5 hours	199	107	92	46.2		
	6 to 10 hours	80	41	39	48.8		
	11 to 15 hours	27	20	7	25.9		
	16 to 20 hours	8	8	0	0.0		
	Over 20 hours	11	9	2	18.2		
Hours per Week: Playing video/computer games	None	259	133	126	48.6	*	
	Less than one hour	198	84	114	57.6		
	1 to 2 hours	196	105	91	46.4		
	3 to 5 hours	165	91	74	44.8		
	6 to 10 hours	77	40	37	48.1		
	11 to 15 hours	40	28	12	30.0		
	16 to 20 hours	9	5	4	44.4		
	Over 20 hours	23	16	7	30.4		
Choose to Attend: My parents wanted me to come here	Not important	376	220	156	41.5	**	
	Somewhat important	432	214	218	50.5		
	Very important	185	84	101	54.6		
Choose to Attend: I was offered financial assistance	Not important	350	205	145	41.4	**	
	Somewhat important	315	158	157	49.8		
	Very important	320	150	170	53.1		
Choose to Attend: Not offered aid by first choice	Not important	704	385	319	45.3	*	
	Somewhat important	166	79	87	52.4		
	Very important	108	47	61	56.5		
Choose to Attend: Could not afford first choice	Not important	630	355	275	43.7	**	
	Somewhat important	159	76	83	52.2		
	Very important	188	79	109	58.0		
Choose to Attend: Rankings in national magazines	Not important	245	145	100	40.8	*	
	Somewhat important	458	230	228	49.8		
	Very important	283	137	146	51.6		
Choose to Attend: I was admitted through an Early Action or Early Decision program	Not important	731	413	318	43.5	***	
	Somewhat important	147	60	87	59.2		
	Very important	94	34	60	63.8		

Questions on which statistically significant differences were observed are below; effects may be nonlinear.
 *** p<0.001, ** p<0.01, * p<0.05, † p<0.10

		Responses	Graduated in 4 years				Sig
			No	Yes	Grad rate		
			Count	Count	Count	Pct	
Goal: Becoming an authority in my field	Not important	82	54	28	34.1	*	
	Somewhat important	368	185	183	49.7		
	Very important	375	199	176	46.9		
	Essential	160	74	86	53.8		
Goal: Helping others who are in difficulty	Not important	22	14	8	36.4	†	
	Somewhat important	284	162	122	43.0		
	Very important	415	212	203	48.9		
	Essential	268	125	143	53.4		
Goal: Participating in a community action program	Not important	270	159	111	41.1	**	
	Somewhat important	491	256	235	47.9		
	Very important	182	78	104	57.1		
	Essential	40	17	23	57.5		
Future Act: Get a job to help pay for college expenses	No chance	31	17	14	45.2	†	
	Very little chance	91	49	42	46.2		
	Some chance	347	162	185	53.3		
	Very good chance	520	287	233	44.8		
Future Act: Participate in volunteer or community service work	No chance	49	28	21	42.9	***	
	Very little chance	225	140	85	37.8		
	Some chance	444	227	217	48.9		
	Very good chance	266	112	154	57.9		
Future Act: Participate in student clubs/groups	No chance	13	12	1	7.7	**	
	Very little chance	113	68	45	39.8		
	Some chance	413	222	191	46.2		
	Very good chance	448	209	239	53.3		
Future Act: Have a roommate of different race/ethnicity	No chance	136	84	52	38.2	†	
	Very little chance	73	40	33	45.2		
	Some chance	351	176	175	49.9		
	Very good chance	419	209	210	50.1		
Future Act: Discuss course content with students outside of class	No chance	8	7	1	12.5	†	
	Very little chance	73	40	33	45.2		
	Some chance	402	217	185	46.0		
	Very good chance	502	246	256	51.0		