

Entering Student Survey (ESS)

ACT-COMPASS 2007-2009

Research Brief

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Indiana University Purdue University Indianapolis (IUPUI)

University College

Introduction

For the past several years, IUPUI has employed a variety of methods and instruments in an effort to collect information from entering students about their initial expectations and attitudes about college. The information collected from incoming students can be particularly useful for understanding and responding to the needs expressed by beginning freshmen. Since, 2001 all beginning freshmen entering IUPUI have completed the ACT/COMPASS instrument (herein after referred to as the ACT-ESS) as a component of taking their initial placement tests. This report will use the results of the Entering Student Survey (ESS) instrument to compare the characteristics of incoming first-time full-time (FTFT) students across three administration years (2007, 2008, and 2009), using 2009 as the basis for comparison.

Respondent Characteristics

Table 1 displays the demographic characteristics for each of the three cohort years examined, including significant differences. Several statistically significant differences between the samples of cohort students were found. Demographic characteristics of the fall 2009 sample were compared with those of 2008 and 2007 cohorts. All differences were measured using either an independent samples t-test of independence, or chi-square test of independence, as appropriate. We required a ($p < .01$) to indicate significance due to the large number of tests administered. All tests in this report yielded very large samples of student responses. These large sample sizes often produced statistically significant differences that might not necessarily be practically significant. Throughout this report mean averages (M) are reported. Numerical data for grade point averages (GPAs) are based on a 0 – 4.0 scale with 0 representing (F) and 1 indicating (A). Data obtained from Likert style survey questions are based on a 1 – 5 point scale, with 1 representing “Strongly Disagree” and 5 indicating “Strongly Agree”.

The 2009 cohort had significantly higher reported high school GPA's (M = 3.31) than both the 2008 cohort (M = 3.25) and the 2007 cohort (M = 3.19). Freshmen were

Highlights

Over 7,500 first-time full-time (FTFT) freshman students completed surveys during placement testing providing information about their backgrounds, needs and expectations for college across three administration years (2007, 2008, 2009).

The percentage of students with first generation status fell significantly in 2009 (40.7%), as compared to both previous years 2008 (56.4%) and 2007 (56.9%).

The percentage of students who were conditionally admitted was significantly lower in 2009 (6.9%) as compared with both the 2008 cohort (23.8%) and 2007 cohort (28.4%).

When students were asked to indicate their most important reason for attending class, “Take courses for personal interest” rose as a response from 16% in 2007 to 17% in 2008, and finally to 18% in 2009.

When students were asked whether or not they expected to receive a degree and/or a certificate from IUPUI, 9% of students in 2009 and 10% of students in both 2007 and 2008 selected “Undecided”.

The most expected first semester grade range for all three years examined was “A- to B”. This was selected by 50% of students in 2009 and 2007. In 2008, 51% of students selected this range.

The subjects that students in all three years reported having the most years of high school level course work in were English (M = 3.94 years) and Science (M = 3.41 years). Means are reported for the 2009 cohort.

Students' reported high school level grades significantly improved from 2007 to 2009 in all but one subject, Calculus.

The statement, “I am certain I made the right choice in attending IUPUI” was “Agreed” or “Strongly Agreed” with by 94% of students in 2009 (M = 4.51); an improvement from 2007 (M = 4.39).

identified as first-generation students if they self-reported that their parents had not completed a four year college degree. The percentage of students with first generation status fell significantly in 2009 (40.7%), as compared to both previous years 2008 (56.4%) and 2007 (56.9%). The percentage of students who were conditionally admitted was also significantly lower in 2009 (6.9%) as compared with both the 2008 cohort (23.8%) and the 2007 cohort (28.4%). The percentage of students who reported English as a first language was significantly higher in 2008 (95.5%) as compared to 2009 (92.8%). Regarding SAT scores reported by students, the 2009 cohorts' scores ($M = 1016$) were significantly higher than the 2007 cohort ($M = 999$). It should also be noted that the demographic characteristics of FTFT incoming students also changed significantly from 2007 to 2009. One aspect of this difference is the reduced amount of Non-Resident / International students from 4.4% in 2007 to 3.2% in 2009.

2009 First-time, Full-Time Freshmen Cohort

In 2009, a total of 2082 first-time full-time (FTFT) freshmen completed the ACT-ESS. This sample of 2082 students represents 83% of the total 2516 FTFT freshmen for Fall 2009. The 2009 sample was comprised of 59.8% females and 40.2% males. The mean age for incoming students in Fall 2009 was 19.10 years. Beginning full time freshmen in 2009 had the following demographic characteristics: 80.0% White, 9.0% African American, 3.6% Hispanic, 2.8% Asian American, 0.4% American Indian, and 3.2% Non-Resident / International students.

2008 First-time, Full-Time Freshmen Cohort

In 2008, a total of 1690 FTFT freshmen students completed the ACT-ESS instrument. The sample of 1690 students represents 66% of the total 2551 IUPUI, FTFT, Fall 2008 freshmen cohort. The lowered response rate may be due to the fact that the survey instrument was updated and therefore some entering students were unable to participate. The 2008 sample was comprised of 59.0% females and 41.0% males. The mean age for beginning freshmen in Fall 2008 was 19.23 years. The demographic characteristics of incoming students for Fall 2008 were as follows: 78.7% White, 9.5% African American, 3.4% Hispanic, 4.4% Asian American, 0.3% American Indian, and 3.7% Non-Resident / International students.

Highlights (Continued)

When students were asked to provide their perceptions related to personal and academic goals the survey item that students agreed with the most in 2009 was, "It is important for me to graduate from college"; which 99% of students either "Agreed" or "Strongly Agreed" with. Overall, student agreement with eight out of eighteen (8/18) survey items relating to academic and personal goals was significantly higher in 2009 than in 2007.

The activity that students in all three years reported expecting to spend the most time on was preparing for class ($M = 19.23$ hours). Students in 2009 expected to spend the second most amount of time relaxing and socializing ($M = 13.15$ hours), followed closely by working for pay off campus ($M = 12.49$ hours). These responses were significantly different in 2007, with students expecting to spend more time working off campus ($M = 15.00$ hours) and less time relaxing and socializing ($M = 10.82$ hours).

Students' hours planned to spend "working off campus" during their first semester was significantly negatively related to their subsequent fall semester GPAs; planned hours "working on campus" were significantly associated with fall GPAs.

2007 First-time, Full-Time Freshmen Cohort

In 2007, a total sample of 1974 first-time full-time freshmen students completed the ACT-ESS survey instrument. The 1974 respondents represented 81% of the total of 2450 IUPUI students in the Fall 2007 FTFT cohort. The 2007 sample was comprised of 60.6% females and 39.4% males. The mean age for beginning freshmen in Fall 2007 was 19.12 years, and the demographic characteristics of incoming students for Fall 2007 were as follows: 80.7% White, 8.5% African American, 3.2% Hispanic, 2.9% Asian American, 0.1% American Indian, and 4.4% Non-Resident / International students.

Demographic Characteristics Continued

Results were also examined to determine if there were significant differences between student demographic characteristics and other respondent information. In order to make meaningful comparisons, student participants were grouped into one of six categories: "White", "African American", "Hispanic", "Asian

American”, “American Indian / Alaskan Native”, and “Non-Resident / International”. Significant differences between the average age of students and their self-reported demographic information were found. For example, “American Indian /Alaskan Native” students (M = 20.37 years) and “Non-Resident / International” students (M = 20.56 years) were on average significantly older than “White” students (M = 19.06 years, $p < .01$). The proportion of students classified as being first generation also varied significantly across demographic groups.

For example, 65.9% of “Hispanic” students and 62.3% of “African American” students were classified as first generation students compared to 39.6% of “Asian Americans” and 52.4% of “White” students. Significant differences were also found among conditional admit status and students’ self-reported demographic characteristics. For example, 37.9% of “African American” students were conditionally admitted, compared to 18.9% of “White” students and 15.3% of “Hispanic” students.

Table 1: Demographic Characteristics by Year

Gender by Cohort Year^a

Year	Valid N	Male	Female
2009	2516	40.2%	59.8%
2008	2551	41.0%	59.0%
2007	2450	39.4%	60.6%

Veteran Status by Year^a

Year	Valid N	Missing	Active	No	Yes
2009	2124	392	0.9%	98.3%	0.8%
2008	1723	828	0.8%	98.4%	0.9%
2007	1977	473	0.8%	98.2%	1.1%

First Generation Status by Year^a

Year	Valid N	Yes	No
2009	2516	40.7%	59.3%
2008	2551	56.4%	43.6%
2007	2450	56.9%	43.1%

English as Primary Language by Year^a

Year	Valid N	Missing	Yes	No
2009	2251	265	92.8%	7.2%
2008	1792	759	95.5%	4.5%
2007	2039	411	92.4%	7.6%

Mean Age by Year^b

Year	Valid N	Mean	STD
2009	2516	19.10	2.14
2008	2551	19.23	2.42
2007	2450	19.12	2.03

High School GPA by Year^b

Year	N	Missing	Mean	STD
2009	2316	200	3.31	0.41
2008	2338	213	3.25	0.45
2007	2281	169	3.19	0.46

SAT Score by Year^b

Year	N	Missing	Mean	STD
2009	2357	159	1016.25	150.14
2008	2359	192	1014.99	147.44
2007	2287	163	999.37	152.39

English as Primary Language (Year)^a

Year	Valid N	Missing	Yes	No
2009	2251	265	92.8%	7.2%
2008	1792	759	95.5%	4.5%
2007	2039	411	92.4%	7.6%

Admit Type by Year

	2009		2008	2007
	N	%	%	%
Regular	2343	93.1%	76.2%	71.6%
Conditional	173	6.9%	23.8%	28.4%
Total	2516			

^aBolded Years are significantly different from the 2009 cohort (Chi-Square, $p < .01$)

^bBolded Years are significantly different from the 2009 cohort (Independent Samples T-Test, $p < .01$)

Note: Bolded Years are significantly different from the 2009 cohort (Chi-Square, $p < .01$)

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Table 1: (Continued)

Ethnicity Category by Year	2009		2008	2007
	N	%	%	%
White	1958	80.0%	78.7%	80.7%
Black/African American	220	9.0%	9.5%	8.5%
Hispanic	89	3.6%	3.4%	3.2%
Asian American	92	3.8%	4.4%	2.9%
American Indian/Alaskan Native	10	0.4%	0.3%	0.1%
NR International	78	3.2%	3.7%	4.4%
Total	2447			
Missing	69			

Note: Bolded Years are significantly different from the 2009 cohort (Chi-Square, p<.01)

Ethnicity Category by Age***	2009 Sample Age		
	N	Mean*	STD
White	5854	19.06	1.91
Black/African American	660	19.25	2.74
Hispanic	249	19.24	3.34
Asian American	270	18.97	2.04
American Indian/Alaskan Native	20	20.37	5.19
NR International	276	20.56	3.04

Ethnicity Category by First Generation*	Percent First Generation	
	N	%
White	3068	52.4%
Black/African American	411	62.3%
Hispanic	164	65.9%
Asian American	107	39.6%
American Indian/Alaskan Native	12	60.0%
NR International	23	8.3%

Ethnicity Category by Admit Type*	Percent Conditional	
	N	%
White	1105	18.9%
Black/African American	250	37.9%
Hispanic	38	15.3%
Asian American	42	15.6%
American Indian/Alaskan Native	5	25.0%
NR International	5	1.8%

Note: ***Bolded groups are significantly different from the comparison group (White) based on K-Group ANOVA results (p<.01)

Note: First Generation status is significantly different by ethnicity based on the chi square test for independence (p<.01).

Note: Admit type is significantly different by ethnicity based on the chi square test for independence (p<.01).

Respondents v. Non Respondents

Statistical analyses were conducted to determine whether student characteristics were significantly different for students responding to the Entering Student Survey (ESS) as compared to those incoming students who did not respond to the ESS survey. Table 3 shows the results of tests of significance for all three cohort years. Significant differences were found with respect to Fall 2009 students' reported high school GPA and SAT scores, as well as first generation status (Table 2). Survey respondents had significantly lower high school

GPA's ($M = 3.30$) than non-respondents ($M = 3.37, p < .01$); had lower SAT scores ($M = 1010$) than non-respondents ($M = 1049, p < .01$); and were more likely to be first generation students (42.2%) as compared to non-respondents (33.2%) in the Fall 2009 cohort. A possible explanation for these results, as well as those regarding other years (reported below), is that students enrolled in the Honors Program are not required to take placement tests and therefore do not participate in the ESS survey.

Table 2: Responders v Non Responders, Characteristics (2009)

High school GPA

	Respondents		Non-Respondents ^b
	N	Mean	Mean
HS GPA ^c	1933	3.30	3.37
<i>p < .01</i>			

SAT Score

	Respondents		Non-Respondents ^b
	N	Mean	Mean
Best SAT Score	1960	1009.6	1048.61
<i>p < .01</i>			

First Generation Status

	Respondents		Non-Respondents ^b
	N	%	%
No	1203	57.8%	66.8%
Yes	879	42.2%	33.2%
Total	1493		<i>p < .01</i>

^a Source: IUPUI institutional data.

^b Non-respondents are beginning freshmen who did not respond to either ESS instrument.

Values are shown only if significantly different than those from the 2009 respondents based on the chi square test for independence ($p < .01$).

Table 3: Comparison of Responders to Non-Responders (all years)

	Gender (% Male)		HS GPA		% 1st Gen		% Conditional		Age		SAT Score	
	Chi-Square		T-Test		Chi-Square		Chi-Square		T-Test		T-Test	
	R	NR	R	NR	R	NR	R	NR	R	NR	R	NR
2009			3.30	3.37	42%	33%					1010	1049
2008	39%	44%			59%	51%	28%	16%	18.97	19.75	1004	1040
2007			3.17	3.29			29%	24%			989	1043

Note: "R" is used to denote responders whereas "NR" is used to denote non-responders. Only values significantly different at the $p < .01$ level are displayed.

Results

Most Important Reason for Attending Class

Students were asked to indicate their most important reason for attending class. Table 4 shows the results of this question across all three years (2007 – 2009). Consistently, the most important reason for attending class reported by students across years was to “Learn skills to get a new job”. This response was selected by 46% of the incoming freshmen in 2009, and 45% of the incoming freshmen in both 2008 and 2007. The least selected choice indicated by participating students in all

three years was to “Improve Basic Skills”. This response was selected by 4% of survey participants in 2009 and 2008 and 3% of students in 2007. The 2007 cohort gave significantly different answers to the question as compared to the 2009 sample. One reason for this finding could be the increase of responses to the second most selected choice, “Take courses for personal interest” which rose from 16% of student responses in 2007 to 17% in 2008, and finally to 18% in 2009.

Table 4: Which of the following is the most important reason for attending classes this term?

	N	2009	2008	2007
Learn skills to get new job	937	46%	45%	45%
Learn skills to advance in job	146	7%	7%	7%
Transfer to four year college	96	5%	5%	7%
Satisfy general education requirements.	225	11%	9%	10%
Improve basic skills	81	4%	4%	3%
Take courses for personal interest	363	18%	17%	15%
Other	202	10%	12%	12%
Total	2050	100%	100%	100%
Missing	466			

Note: Bolded groups are significantly different from 2009 Cohort (Chi-Square, $p < .05$)

Reason for Attending IUPUI

Students were also asked whether or not they expected to receive a degree and/or a certificate from IUPUI (Table 5). Student participants’ responses did not vary significantly across cohort years. The overwhelming majority of students in all three years examined selected “Yes, Degree” as their choice. It was chosen by 87% of

students in 2009, 86% in 2008, and 85% in 2007. “No” was selected by only 1% of students across all three years. It is noteworthy that 9% of students in 2009 and 10% of students in both 2007 and 2008 selected “Undecided”.

Table 5: Do you plan to earn a certificate or degree at this institution?

	N	2009	2008	2007
Yes, certificate	70	3%	3%	3%
Yes, degree	1801	87%	86%	85%
No	13	1%	1%	1%
Undecided	190	9%	10%	10%
Total	2074	100%	100%	100%
Missing	442			

Expected Course Grade(s)

Responses to the question asking students what grades they expected to receive during their first semester rose significantly from 2007 to 2009 (Table 6). For example, in 2007 only 33% of respondents indicated that they expected to receive an average grade of A or A- during their first year. This percentage rose to 36% in 2009

while the number of students expecting an average grade of B or B- fell during this same period from 15% to 12%. The most indicated expected earned grade range for all three years was “A- to B” This was selected by 50% of student participants in 2007 and 2009 and 51% of students in 2008.

Table 6: What is the average grade you expect to receive during your next term?

	N	2009	2008	2007
A to A-	763	36%	34%	33%
A- to B	1057	50%	51%	50%
B to B-	252	12%	12%	15%
B- to C	36	2%	2%	1%
C- to C	1	1%	0%	0%
Total	2109	100%	100%	100%

Missing 407

Note: Bolded groups are significantly different from 2009 Cohort (Chi-Square, $p < .05$)

High School and Post High School, Education by Subject

Student participants were asked to provide information on how many years of education they received at the high school and post high school levels regarding a variety of subjects, ranging from English to Vocational Skills (Table 7). Students were also asked to provide the average course grade that they earned in these subjects. The subjects that students in 2009 reported having the most years of high school level coursework in were English ($M = 3.94$ years) and Science ($M = 3.41$ years). The third most reported studied subject at the high school level was Foreign Language ($M = 2.88$ years). The majority of students in 2009 responded that they had less than a year of study in the following subjects: Vocational skills ($M = 0.73$ years), Business Math ($M = 0.65$ years), and Calculus ($M = 0.55$ years).

The only significant differences across years in terms of student participants' reported “years studied” were in the subjects of Computer Skills and Calculus. The reported average years of study in Computer Skills courses decreased from $M = 1.48$ in 2007 to $M = 1.35$ in 2009. Students' reported years of Calculus course study also fell from $M = 0.57$ in 2007 to $M = 0.55$ in 2009. Students reported the highest high school level grades in Computer Skills ($M = 3.78$) and Vocational Skills ($M =$

3.67). Reported high school grades significantly improved from 2007 to 2009 in all but one subject, Calculus ($M = 2.92$). Reported grades in English rose from $M = 3.24$ in 2007 to $M = 3.33$ in 2009. Grades in Science also rose from $M = 3.14$ in 2007 to $M = 3.23$ in 2009.

Results for students' self-reported years studied at the post high school level mirrored that of high school level courses (Table 8). Again, English ($M = 2.06$ years) and Science ($M = 1.76$ years) received the highest reports of years studied. The only significant difference of years studied at the post high school level across years (2007 – 2009) was in Computer Skills. The reported average years of study in Computer Skills fell from $M = 0.74$ in 2007 to $M = 0.68$ in 2009. Grades for post high school level courses also reflected high school level results. Students reported earning the highest grades in the subjects of Computer Skills ($M = 3.73$) and Vocational Skills ($M = 3.63$). The only significant differences across years for reported post high school class grades were in Algebra and Business Math. Algebra grades rose from $M = 3.04$ in 2007 to $M = 3.19$ in 2009 and grades for Business Math rose from $M = 3.23$ in 2007 to $M = 3.42$ in 2009.

Table 7: High school courses completed and grades earned.

Subject	2009				Years Studied					Grades			Years Studied ^d		Grades ^e	
	Valid N	No resp.	Mean	SD	0 yrs.	1 yr.	2 yrs.	3 yrs.	4+ yrs.	Valid N	Avg. ^e	SD	2008	2007	2008	2007
English	2077	439	3.94	0.30	0%	0%	1%	32%	96%	2077	3.33	0.69				3.24
Science	2051	465	3.41	0.68	0%	1%	6%	43%	50%	2030	3.23	0.70				3.14
Foreign language	2033	483	2.88	0.92	2%	6%	18%	50%	24%	1972	3.14	0.81				3.05
Algebra	2055	461	1.87	0.69	1%	27%	61%	9%	3%	2042	3.24	0.75				3.08
Computer skills	1872	644	1.35	0.97	15%	50%	23%	7%	5%	1591	3.78	0.48		1.48		3.72
Vocational skills	1467	1049	0.73	1.12	59%	23%	9%	3%	6%	628	3.67	0.55				3.53
Business math	1531	985	0.65	1.04	61%	25%	7%	2%	5%	688	3.35	0.73				3.23
Calculus	1687	829	0.55	0.63	51%	44%	4%	1%	0%	853	2.92	0.84		0.57		

Table 8: Post high school courses completed and grades earned

Subject	2009				Years Studied					Grades			Years Studied ^d		Grades ^e	
	Valid N	No resp.	Mean	SD	0 yrs.	1 yr.	2 yrs.	3 yrs.	4+ yrs.	Valid N	Avg.	SD	2008	2007	2008	2007
English	1415	1101	2.06	1.986	47%	2%	1%	2%	49%	836	3.31	.67				
Science	1398	1118	1.76	1.764	48%	1%	3%	24%	25%	761	3.24	.70				
Foreign Language	1390	1126	1.43	1.559	50%	4%	10%	24%	12%	722	3.11	.81				
Algebra	1400	1116	1.00	1.094	48%	14%	32%	5%	2%	770	3.19	.77				3.04
Computer skills	1360	1156	.68	.983	57%	27%	10%	3%	3%	624	3.73	.53		0.740		
Vocational skills	1299	1217	.35	.850	80%	12%	4%	2%	3%	313	3.63	.58				
Business math	1307	1209	.31	.787	80%	13%	3%	2%	2%	331	3.42	.71				3.23
Calculus	1325	1191	.25	.549	79%	19%	2%	1%	0%	336	2.95	.84				

^e Responses reported on a 4-point GPA scale where 4=A, 3=B, 2=C, 1=D, and 0=F.

^d Items entered are significantly different (In terms of years studied) from 2009 Cohort (Independent Samples T-Test, p < .01)

^e Items entered are significantly different (In terms of grades reported) from 2009 Cohort (Independent Samples T-Test, p < .01)

Note: Items are sorted in decreasing order of mean years studied

Students' Perceptions of Last School Year

Students were asked three questions related to their perceptions of their last school year (Table 9). The first question asked, "During your last school year (either in high school or at a previous college or university), how often were you able to comprehend/understand assigned class readings?" Student answers did not differ significantly across cohort years. "Very Often" was the most often selected choice across all three years and was selected by 65.5% of the 2009 ESS student participants. "Often" was the second most selected choice across all three years; selected by 31% of the 2009 survey participants.

Responses to a similar question, "During your last school year (either in high school or at a previous college or university), how often were you careful in completing assignments?" followed the same pattern as

in 2009. "Very Often" was selected by 60.7% of student survey participants and "Often" was selected by 35.3% of student participants in 2009. Results from 2007 were significantly different, with only 44.4% of students responding "Very Often". Additionally, the answer "Occasionally" was selected by 3.8% of students in 2009 but was chosen by 16.2% of students in 2007.

The third related survey item designed to look at students' perceptions of their last school year; focused on how often students completed their class assignments on time. Student participants' most frequent responses were "Very Often" (82.2%) and "Often" (16.2%) in 2009. The 2007 results were significantly different from those in 2009, with only 56.2% of students selecting "Very Often". The second most selected response in 2007 was "Occasionally" (21.6%), compared with only 1.5% of students choosing this response in both 2008 and 2009.

Table 9: Students perceptions of their last school year

During your last school year (either in high school or at a previous college or university), how often were you able to comprehend/understand assigned class readings?

	N	2009	2008	2007
Never	3	0.2%	0.1%	0.0%
Occasionally	66	3.3%	3.3%	3.6%
Often	618	31.0%	31.7%	34.3%
Very Often	1306	65.5%	65.0%	62.1%
Total	1993	100%	100%	100%

During your last school year (either in high school or at a previous college or university), how often did you complete class assignments on time?*

	N	2009	2008	2007
Never	3	0.2%	0.1%	2.8%
Occasionally	29	1.5%	1.5%	21.6%
Often	323	16.2%	14.4%	19.4%
Very Often	1638	82.2%	84.1%	56.2%
Total	1993	100%	100%	100%
Missing	523			

* Bolded groups are significantly different from 2009 Cohort in terms of occasionality (Chi-Square, $p < .05$)

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Table 9: (Continued)

During your last school year (either in high school or at a previous college or university), how often were you careful in completing assignments (neat work, followed instructions, did any background work)?**

	N	2009	2008	2007
Never	4	0.2%	0.1%	5.0%
Occasionally	76	3.8%	4.1%	16.2%
Often	702	35.3%	35.1%	34.4%
Very Often	1208	60.7%	60.8%	44.4%
Total	1990	100%	100%	100%
Missing	526			

^c Bolded groups are significantly different from 2009 Cohort in terms of occasionality (Chi-Square, $p < .05$)

Students' Personal and Academic Goals

Students were also asked about their personal and academic goals (Table 10). All survey item responses related to personal and academic goals received a fair amount of agreement across student cohorts. The responses for all survey questions throughout the three years examined indicating that the majority of students either agreed or strongly agreed with the statements provided.

The survey item that students agreed with the most in 2009 was, "It is important for me to graduate from college", which 99% of students either agreed or strongly agreed with. Similarly, 98% of students agreed or strongly agreed with the statement "I feel confident that I will be able to complete my degree" ($M = 4.62$). Students also agreed with the statement, "I have a good understanding of my academic goals", which 96% of students either agreed or strongly agreed with ($M = 4.53$).

The two survey items receiving the lowest agreement responses from students in 2009 were, "There are lots of ways around any school related problems I may have" ($M = 4.09$) and "I have a good understanding of how to decide on a major or future career" ($M = 4.06$).

Two significant differences in student responses were found between the 2008 and 2009 cohorts. Students in 2008 reported being less certain of their career goals ($M = 4.15$) than the 2009 cohort ($M = 4.23$). Students in the 2008 cohort also reported being less certain about their choice of an educational program or major ($M = 4.14$) than students in the 2009 cohort ($M = 4.21$).

Conversely, students' positive agreement to eight out of eighteen survey items was significantly higher in 2009 than 2007. One notable item where student response agreement improved is "I have a good understanding of how to decide on a major or future career", which improved from 2007 ($M = 3.95$) to 2009 ($M = 4.06$). The statement "I am confident that I will complete my degree in a timely manner" also received more agreement in 2009 ($M = 4.52$) than in 2007 ($M = 4.44$).

Students' Commitment to IUPUI

Two survey items measured students' commitment to IUPUI (Table 11). The question, "I am certain that I made the right choice in attending IUPUI" was either agreed with or strongly agreed with by 94% of students in 2009 ($M = 4.51$); a significant improvement from 2007 ($M = 4.39$). The question "It is important for me to graduate from IUPUI" was either agreed with or strongly agreed by 88% of students in 2009 ($M = 4.48$). This was also significant improvement from the 2007 cohort ($M = 4.32$).

Table 10: Students' Perceptions Related to Personal and Academic Goals

	Valid N	No resp.	Mean	STD	Percentages					2008	2007
					SD	D	N	A	SA		
I have a good understanding of my academic goals.	1988	528	4.53	.613	0%	0%	3%	38%	58%		4.42
I am certain about my career goals.	1981	535	4.15	.881	1%	3%	15%	40%	40%	4.23	4.07
I am certain about my choice of educational program or major.	1985	531	4.14	.905	2%	3%	16%	39%	41%	4.21	4.02
I have a good understanding of how to decide on a major or future career.	1900	616	4.06	.843	2%	2%	16%	49%	32%		3.95
I am able to identify links between my chosen major and possible careers.	1888	628	4.12	.823	1%	3%	14%	48%	35%		
I understand the importance of talking my course instructors outside of class.	1892	624	4.41	.642	0%	0%	6%	45%	49%		4.33
I know what is required of me to succeed academically.	1880	636	4.48	.626	0%	0%	5%	40%	54%		4.41
I am confident that I can maintain a balance between school and my personal life.	1849	667	4.42	.648	0%	0%	6%	45%	49%		
I am confident that I can maintain a balance between school and work demands.	1868	648	4.36	.657	0%	1%	6%	49%	44%		
If I found myself in a jam, I could think of many ways to get out of it.	1871	645	4.27	.675	0%	1%	9%	51%	39%		
At the present time, I am energetically pursuing my academic goals.	1870	646	4.34	.689	0%	1%	10%	44%	46%		4.20
There are lots of ways around any school-related problems that I may face.	1857	659	4.09	.699	0%	1%	16%	55%	28%		
Right now I see myself as being pretty successful.	1870	646	4.36	.697	0%	1%	8%	45%	46%		4.29
I can think of many ways to reach my current academic goals.	1872	644	4.30	.651	0%	1%	8%	51%	40%		
I have a good understanding of my strengths.	1866	650	4.32	.647	0%	0%	7%	51%	41%		
I feel confident that I will be able to complete my degree.	1874	642	4.62	.553	0%	0%	2%	33%	65%		4.55
I feel confident that I will complete my degree in a timely manner.	1861	655	4.52	.600	0%	0%	4%	39%	57%		4.44
It is important for me to graduate from college.	1884	632	4.90	.383	0%	0%	1%	8%	91%		

Table 11: Students' Commitment to IUPUI

	Valid N	No resp.	Mean	STD	Percentages					2008	2007
					SD	D	N	A	SA		
I am certain that I made the right choice in attending IUPUI.	1875	641	4.51	.630	0%	0%	6%	36%	58%		4.39
It is important for me to graduate from IUPUI.	1864	652	4.48	.727	0%	1%	11%	28%	60%		4.32

^d Items shown are significantly different from 2009 Cohort (Independent Samples T-Test, p < .01)

Students' Last Math Course

Student participants were asked two questions related to their experiences in their last math course (Table 12). First, participants were asked to report the amount of time since their last math course. Responses revealed that the average incoming freshman in 2009 had taken a math course in the last 3 to 6 months (M = 1.98). Responses to this question did not change significantly across cohort years. A second question asked students to name the title of their last math course. The most selected choice across the three years was Pre-Calculus,

which was chosen by 37% of students in 2009. The second most chosen course title in 2009 and 2008 was Differential Equations, which was selected by 19% of students in 2009. The second most selected course in 2007 was Algebra (21%). It should be noted that "Other" was selected by a fair amount of students across all three years, such as 15% in 2009. This response frequency could indicate the need to include additional course titles as potential question answers.

Table 12: Time Since Last Math Course

2009				Time Since Course*							2008	2007
Valid N	No resp.	M	STD	1	2	3	4	5	6	7		
1865	651	1.98	1.40	56%	17%	12%	12%	1%	1%	2%	1.89	2.06

*Key:

0 - 2 months	1
3 - 6 months	2
7 - 12 months	3
1 - 2 years	4
2 - 3 years	5
3 - 4 years	6
Over 4 years	7

Title of Last Math Course

	2009	2008	2007
Valid N^c	1872	1534	1044
No Response	643	1018	1408
Basic or Advanced Mathematics	2%	1%	3%
Algebra	15%	15%	21%
Geometry	3%	3%	4%
Trigonometry	4%	5%	5%
Pre-Calculus	37%	37%	36%
Differential Equations	19%	18%	17%
Probability and Statistics	0%	1%	1%
Other	15%	13%	14%
Not applicable/never completed a math class	6%	7%	0%

^c Bolded items are significantly different from 2009 Cohort (Independent Samples T-Test, p < .05)

Students' Expected Hours per Week of Engagement

Student participants' expected hours per week of engagement in activities during their first semester of college were also examined (Table 13). Items are shown in decreasing order of expected mean hours per week. The activity that students in 2009 expected to spend the most time on is preparing for class (M = 19.23 hrs.). Results for this activity did not change significantly across years. Students in 2009 expected to spend the second most amount of time relaxing and socializing (M = 13.15 hrs.), followed closely by working for pay off campus (M = 12.49 hrs.). These responses were significantly different in 2007, with students expecting

to spend more time working off campus (M = 15.00 hrs.) and less time relaxing and socializing (M = 10.82 hrs.). Additionally, students in 2007 planned to spend more time working on campus (M = 9.93 hrs.) as compared with 2009 students (M = 5.82 hrs.). Students in 2007 also planned to spend significantly more time commuting to class (M = 8.28 hrs), compared with students in 2009 (M = 6.50 hrs.). Students in 2007 reported planning to spend more time providing care to dependents (M = 4.71 hrs.) as compared to 2009 students (M = 3.78 hrs.).

Table 13: Expected Hours per Week of Engagement in Activities During the First Semester at IUPUI

Activity	Valid N	Mean	STD	2008	2007
Preparing for Class	1761	19.23	12.380		
Relaxing and Socializing	1496	13.15	9.530		10.82
Working for Pay (Off Campus)	1543	12.49	10.529		15.00
Commuting to Class	1440	6.50	7.323		8.28
Participating in Co-Curricular Activities	1417	6.27	6.517		
Working for Pay (On Campus)	1586	5.82	8.069		9.93
Engaging in Volunteer Activities	1402	4.77	5.052		
Providing Care to Dependents Living with You	1459	3.78	8.469		4.71

^d Items shown are significantly different from 2009 Cohort (Chi-Square, $p < .01$)

Note: Items are sorted in decreasing order of mean expected hours of engagement per week.

Predictors of First Semester Academic Performance (Fall GPAs)

In an effort to account for variation in students' first semester academic performance as measured by fall GPA scores, several components of the ACT-ESS instrument were examined (Table 14). One item that was evaluated based on results from previous reports was students' planned total working hours. Planned total working hours was computed by summing each student's answers to "hours planned to work off campus" and "hours planned to work on campus". The comparison with fall GPA was calculated using hierarchical linear regression with covariates entered in step 1 and total hours planned to work added in step 2. Covariates examined included: High school GPA, SAT score, age, gender, ethnicity, total credit hours, and First Generation status. Results indicated that total hours planned to spend working was a significant predictor of

Fall GPA ($\beta = -.112$, $p < .001$), with more hours planned to spend working resulting in lower mean GPA scores.

To identify if there were differences between hours planned to spend working off campus and hours planned to spend working on campus, each variable was looked at separately using the same hierarchical regression process described and with the same covariates. The interesting results revealed that while hours planned to spend working off campus did significantly negatively predict Fall GPA scores ($\beta = -.167$, $p < .001$) as above, hours planned to spend working on campus had a moderate positive effect on GPA ($\beta = .031$, $p = .051$). Results suggest that the hours spent working on campus may have a positive effect on subsequent grades. However, the more hours that students planned to spend

working off campus for pay, the lower the fall grades were.

First-generation status was also examined as another possible predictor of first semester academic performance. As with previous predictors, its correlation with fall GPA was calculated using hierarchical linear regression with the same covariates entered in step 1 and dummy coded first-generation status added in step 2. Results indicated that first-generation status is a significant predictor of Fall GPA ($\beta = -.070$, $p < .001$). First-generation students averaged lower fall GPAs ($M = 2.57$) as compared to non first-generation students ($M = 2.77$).

A final set of possible academic performance predictors examined participants' answers to the questions related to students' perceptions of their last school year. These questions' correlations with fall GPA were calculated using hierarchical linear regression with the same covariates entered in step 1 and answers to all three questions added together in step 2. Results indicated that answers to two of the three questions were significant predictors of Fall GPA. These included the questions on how often students were careful in completing their assignments ($\beta = .028$, $p = .082$), (moderately associated with academic performance) and how often students completed class assignments on time ($\beta = .048$, $p < .001$).

Table 14: Predictors of Successful First Semester Academic Performance (Fall GPA)

Fall GPA by Total hours per week planned to work

	N	Mean GPA	STD
None	263	2.93	0.90
1 to 10	343	2.86	0.87
11 to 20	1019	2.63	0.98
21 to 30	712	2.53	1.08
31 to 40	400	2.48	1.09
41 or more	218	2.39	1.17
Total	2955		

Note: Total hours planned to spend working is a significant predictor of Fall GPA while controlling for other variables: High school percentile, age, gender, ethnicity, SAT score, total credit hours, First Generation status.

Note: Total Hours planned to work was computed by summing answers to "hours planned to work off campus" and "hours planned to work on campus" questions

Fall GPA by Hours per week planned to work (Off Campus)

	N	Mean GPA	STD
None	687	2.91	0.88
1 to 10	487	2.77	0.90
11 to 20	1166	2.58	1.02
21 to 30	437	2.28	1.14
31 to 40	156	2.20	1.24
41 or more	6	2.11	0.91
Total	2939		

Note: Hours planned to spend working off campus is a significant predictor of Fall GPA while controlling for other variables: High school percentile, age, gender, ethnicity, SAT score, total credit hours, First Generation status.

Fall GPA by Hours per week planned to work (On Campus)

	N	Mean GPA	STD
None	1376	2.56	1.05
1 to 10	642	2.69	0.99
11 to 20	704	2.713	0.92
21 to 30	170	2.545	1.14
31 to 40	54	2.48	1.19
41 or more	26	2.75	1.14
Total	2972		

Note: Hours planned to spend working on campus is not a significant predictor of Fall GPA while controlling for other variables: High school percentile, age, gender, ethnicity, SAT score, total credit hours, First Generation status.

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