



# IPAS RESEARCH BRIEF

## ITCCI RICHMOND'S PILOT ORIENTATION PROGRAM: Effects on Student Persistence

The Indiana Project on Academic Success (IPAS) collaborated with ITCCI Richmond to help facilitate and evaluate a new mandatory orientation program for all students new to the ITCCI Richmond campus. The orientation program revolved around three challenges: a) the needs of first-generation students, b) the provision and reinforcement of academic support, and c) students' knowledge about vital aspects of financial aid.

The ITCCI Richmond IPAS team believed that increasing students' academic literacy would address needs in these three areas and they designed the orientation program within that framework. The team defined academic literacy as practical knowledge about college processes and services. With greater levels of academic literacy, the team believed, students would have more success—broadly defined as the achievement of students' academic goals, whatever they may be, at ITCCI Richmond—and that this would lead to increased persistence.

### Executive Summary

In total, 402 students at ITCCI Richmond participated in the orientation program in fall 2005—20 percent of all students enrolled. The persistence rate from fall to spring for orientation participants was 65 percent, only slightly lower than the persistence rate of 67 percent for continuing students—ITCCI Richmond students who had first enrolled at ITCCI Richmond before fall 2005. Although we expected a lower persistence rate among first-time attendees and transfer students, who generally have a lower rate of persistence than

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continuing students, the difference between these two groups was not large. We next looked at the relationship between persistence and orientation participation. We found orientation participants less likely to persist when we did not control for factors known to affect persistence such as academic preparation, major declaration status, or race/ethnicity. However, when we controlled for these factors, we found orientation participants neither more likely nor less likely to persist than their continuing peers.

Because all new students and transfer students were required to participate in orientation, there was no appropriate comparison group for this study. Thus, caution is warranted in interpreting the finding that orientation participants are as likely to persist as nonparticipants. However, considered alongside findings from previous qualitative work<sup>1</sup> the findings from this study lead us to conclude that orientation had a positive effect at ITCCI Richmond.

### Method and Limitations

Data for this study came from the student information system (SIS) of ITCCI and included information about postsecondary enrollment, financial aid, and academic preparation for all students who enrolled at ITCCI Region Nine in 2005. These data were merged with a list of those who participated in orientation. SIS data were available for fall 2005 and spring 2006, enabling us to evaluate the effects of program participation on the likelihood of persisting from fall to spring. The data showed that 2,007 students registered for fall 2005, including 402 students who participated in fall 2005 orientation (See Table 1).

	<b>Count</b>	<b>Col %</b>
<b>Orientation Participants</b>	<b>402</b>	<b>20.0</b>
First-time attending student	307	15.3
Transfer student	95	4.7
<b>Orientation Nonparticipants</b>	<b>1605</b>	<b>80.0</b>
Continuing, same degree or program	1027	51.2
High school student	209	10.4
Internal transfer between regions	14	0.7
Continuing, new to degree	2	0.1
Continuing, new to program	223	11.1
Readmitted	130	6.5

<sup>1</sup>*Finding Their Way: Evaluation of the Pilot Orientation at Ivy Tech Richmond* is available at the IPAS Web site: <http://www.indiana.edu/~ipas1/documents/IvyTechRichmondFINAL.pdf>.

Findings from the descriptive comparison of orientation participants to the rest of the student body at ITCCI Richmond and from the regression models are reported here. We used logistic regression to examine what factors related to students' background, academic preparation, college experiences, and financial aid status were helpful in predicting persistence. Logistic regression is a statistical method that allows the researcher to determine the unique contribution of the variable of interest by controlling for a variety of other potentially influential factors.

The most significant limitation in our analysis was the lack of an appropriate control group (i.e., first-time attendees and transfer students who did not participate in orientation). Thus, we were unable to make certain comparisons that might have revealed unique ways in which orientation affected the participants' academic success.

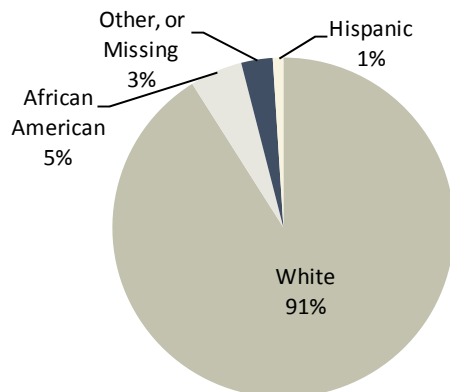
### **Findings**

Descriptive analysis of orientation participants along the selected characteristics showed some differences between orientation participants and the rest of the ITCCI Richmond student body (See Table 2, page 5). In total, 402 students participated in fall 2005 orientation. The majority of orientation participants (76%) were first-time attendees; 24 percent were transfer students from other institutions. Female students comprised about 70 percent of orientation participants, while females constituted about 73 percent of the entire student body. Thus, 30 percent of the orientation participants and 27 percent of the general student population were male.

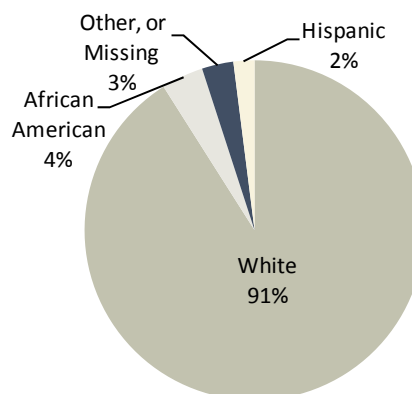
There was variation across racial/ethnic groups in their representation in the orientation program and in the ITCCI Richmond student body (See Figures 1 and 2, page 4). In fall 2005, 91 percent of students were White—both in the student body overall and among orientation participants. Hispanics had a somewhat disproportionately larger percentage of participation in orientation—being 2 percent of orientation participants while comprising only 1 percent of the student population. African Americans, in contrast, were less represented in orientation participation (4%) than in the general student population of ITCCI Richmond (5%).

The ages of those who participated in orientation were distributed differently from the ages of the rest of the student body at ITCCI Richmond. Traditional-age students—under age 21—comprised 42 percent of the orientation participants and only 29 percent of the general student population. Students between ages 22 and 30 comprised 29 percent of the orientation participants and 31 percent of the student body. Finally, while only about 29 percent of the orientation participants were 31 and over, 40 percent of the student body at ITCCI Richmond were in this age range.

**Figure 1.**  
Racial/Ethnic Composition, ITCCI Richmond,  
Fall 2005



**Figure 2.**  
Orientation Participation by Race/Ethnicity,  
ITCCI Richmond, Fall 2005



Given the available data, the best indicator of academic preparation in this study was high school rank. Not surprisingly for an open-admissions institution that does not necessarily require students to produce prior academic credentials to enroll, the majority of the orientation participants (59%) had no reported high school rank. Of those who did have a reported high school rank, 10 percent of the orientation participants were from the top quartile, 12 percent from the second quartile, 13 percent from the third quartile, and 6 percent from the lowest quartile.

At the end of their first academic year at ITCCI Richmond, 29 percent of the orientation participants were reported to hold GPAs equivalent to A, 20 percent had B GPAs, and 15 percent had C or lower GPAs. Approximately 36 percent had no reported GPA. By the end of spring 2006, approximately 47 percent of the orientation participants had not taken any developmental courses, 34 percent had taken only a developmental math course, and 16 percent had taken both developmental math and language courses. Regarding dependency status, more participants were reported to be independent (45%) than dependent (26%).

A look at the divisions in which participants were enrolled showed some differences. By the end of the academic year, 48 percent of all orientation participants had no declared major. Business was the division where 22 percent of orientation participants were enrolled, followed by 11 percent in the health sciences, 7 percent in technology fields, 7 percent in public service fields, and 5 percent in general education.

**Table 2. Selected Student Characteristics of Orientation Participants**

Student Characteristics		Count	Col %
<b>Division</b>	Business	89	22.2
	General education	20	5.0
	Health sciences	44	11.0
	Public services	28	7.0
	Technology	29	7.2
	Undeclared	191	47.6
<b>Gender</b>	Female, or missing	280	69.7
	Male	122	30.3
<b>Race/Ethnicity</b>	White	365	90.8
	African American	18	4.5
	Asian, Pacific Islander	2	0.5
	Hispanic	8	2.0
	Native American	2	0.5
	Missing	2	0.5
<b>Age</b>	Multiracial/ethnic	5	1.2
	16 thru 21	170	42.3
<b>Hours Enrolled</b>	22 thru 30	117	29.1
	31 and over	115	28.6
	1 through 3	70	17.4
<b>High School Rank</b>	4 through 6	111	27.6
	7 through 9	64	15.9
	10 through 12	144	35.8
	13 or more	13	3.2
	Missing	235	58.5
<b>GPA</b>	Lowest quartile	26	6.5
	Third quartile	52	12.9
	Second quartile	48	11.9
	Top quartile	41	10.2
	Missing	143	35.6
<b>Developmental Course Work</b>	C or lower	61	15.2
	B	81	20.1
	A	117	29.1
	None	191	47.5
<b>Dependency Status</b>	Math only	138	34.3
	Language only	9	2.2
	Both	64	15.9
	Missing	119	29.6
<b>Total</b>	Independent	180	44.8
	Dependent	103	25.6
		402	100%

## Discussion

Descriptive analysis showed that the persistence rate from fall to spring was slightly lower for orientation participants than for the rest of the student body at ITCCI Richmond—65 percent and 67 percent respectively (See Table 3).

**Table 3. Within-Year Persistence for Orientation Participants and Nonparticipants**

	Persisted		Did Not Persist	
	Count	Row %	Count	Row %
<b>Orientation Participants</b>	261	65	141	35
<b>Orientation Nonparticipants</b>	1076	67	529	33

Because our primary interest in this evaluation was the effect of orientation on the likelihood of persisting from fall to spring, we first looked at the relationship between persistence and orientation participation without controlling for other factors thought to affect persistence such as academic preparation, major declaration status, and race/ethnicity. Absent controls for these factors, we found that orientation participants were less likely to persist (See Table 4).

This outcome was expected, as orientation participants included all first-time attendees and transfer students—groups with typically lower persistence than continuing students. Therefore, to ascertain the unique effects of orientation, we controlled for class level (i.e., student's year in college) in addition to academic preparation, major declaration status, and race/ethnicity. This time we found that orientation participation increased the odds of persisting. Although the increase was not statistically significant, practically speaking, we interpreted this finding as modest evidence that orientation may help equalize the opportunity to persist among its participants—compared to nonparticipants, that is, continuing students.

Our descriptive findings indicate that new students—orientation participants—persist at lower rates than continuing students at ITCCI Richmond. Once we statistically control for program participation and other factors that affect persistence we find that orientation participants are neither more likely nor less likely to persist than their continuing student peers.

Table 4. Logistic Regression Results				
Variable	Odds ratio	Sig.	Odds ratio	Sig.
Orientation Participation	0.76	**	1.11	
Gender			0.98	
Age			1.00	
Race/Ethnicity				
African American			1.07	
Hispanic			0.64	
Other			1.06	
High School Rank			1.17	****
Division				
Business			0.94	
General education			0.69	
Health			1.16	
Public services			1.09	
Technology			0.97	
Hours Taken in Fall 2005			1.17	****
GPA			1.84	****
Developmental Course				
Language			1.77	
Math			2.57	****
Language and math			5.39	****
Continuing Student			1.69	**
Transfer Student			2.23	
Dependency Status				
Dependent, or missing			0.38	****
Independent			0.65	*
Parental Contribution			1.00	
% correctly predicted	69.70		76.70	
Nagelkerke	0.00		0.33	
N=1,989				
****p<0.001, ***p<0.01, **p<0.05, *p<0.10				

Taken alone, the findings from this study might not warrant the conclusion that orientation has a positive effect on academic success. However, in concert with findings from IPAS's previous qualitative work at ITCCI Richmond, we believe the evidence points toward a positive program effect.

Findings from focus group discussions with students who participated in orientation revealed the positive impact of orientation. The students reported that attending orientation had increased their confidence and awareness. Having all the faculty and staff at orientation helped to establish positive communications from the start and to draw students into the college community. Interviews with faculty revealed a common sense among them that their first-year students, students who had participated in orientation, were more informed and better able to take initiative.

Other variables that increased the odds of persisting were the student's high school rank, the number of hours taken in the fall semester, the student's GPA, taking developmental math classes or developmental math and language arts classes, the student's dependency status and, finally, being a continuing student.

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