

INSTITUTIONAL PRACTICES IN STUDENT PERSISTENCE

**The Experiences of Students in Their
First, Second, or Third Year at a
Metropolitan University**

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Grappling with Questions

The limits of current theories and research on student persistence provide the backdrop

- What policies and practices do institutions enact to try to enhance student persistence?
- How do students' experiences with institutional practices influence their success and graduation?



What is the Institutional Role in Student Persistence? The Literature



- Many have pointed to importance of this question
Braxton, 1999; Hossler, 2005; Perna and Thomas, 2006; Tinto and Pusser, 2006
- Policy levers
 - ▣ Pivotal practices identified
Braxton, Hirschy, and McClendon, 2004; Pascarella and Terenzini, 1991; Stage and Hossler, 2000
 - ▣ Directions identified through theory and research
Braxton and McClendon, 2001-2002; Peterson, 1993
 - ▣ Empirical record uneven and focused on first year
Patton, Morelon, Whitehead, and Hossler, 2006

College Board Pilot Study on Student Retention

- Students surveyed in spring 2007
 - ▣ Three institutions; in-class, paper-and-pencil survey
 - ▣ Primary focus: First-year students
 - ▣ One institution: Second- and third-year student data also
 - ▣ Follow-up data collected on fall 2007 enrollments
 - ▣ View of persistence comparing first-year students with second- and third-year students

- Urban, commuter, research university
 - Cluster sampling of introductory courses
 - Response rate: 43%

Survey Focus: Student Experiences With Actionable Institutional Practices



- Orientation
- First-year seminar
- Academic support services
- Perception of bias
- Perception of diversity
- Interaction with faculty
- Interaction with advisors
- Financial aid services

Creation of Policy Lever Factors

- From first pilot study, found we needed more differentiated information on institutional policy levers
- Returned to literature, theory, and professional organizations to develop questions that measure success in meeting outcomes of these levers
 - ▣ E.g., orientation: Making social connections, learning sources of assistance, understanding institutional academic context
- Used these questions in factors to develop more refined understanding of policy levers

Institution-Specific Analyses

- **Descriptive information**
 - ▣ Participation in student programs
 - ▣ Classroom experiences
 - ▣ Time diary items
 - ▣ Satisfaction
- **Factor analyses** of student experiences and attitudes
- **Logistic regression** models in two blocks of variables
 - Student background: Race, gender, financial certainty, SAT scores
 - Student experiences with policy levers: Interaction with faculty and advisors, orientation and first-year seminar experiences, perception of diversity and bias, academic and social integration

General Results: Urban University

- Year-to-year persistence rate: 88% of first-year students; 90% of second- and third-year students
- Logistic regressions showed persistence models enhanced prediction of which students did not persist
 - ▣ Blocks with policy levers significantly improved prediction
- Significant variables had some similarities across class years, but each had a unique model estimation

Model Comparison

Variables	All Students		1 st Yr Students		2 nd /3 rd Yr Students	
	Odds Ratio	Sig.	Odds Ratio	Sig.	Odds Ratio	Sig.
Female	0.46	*	0.39		0.51	
Class Year	2.84	***	N/A		1.97	
Advising Frequency	1.37		1.35		1.94	
Student Interaction	1.21		0.59		2.60	**
Transition Support	1.39		1.33		1.49	
Significant Connection	1.34		1.27		1.53	
Family Encouragement	2.48	****	3.29	***	2.78	***
Class Absences	0.82		1.04		0.72	
Distance from Campus	1.62	**	2.09	**	1.66	
Friend Network x Age	1.34	*	1.75	***	0.85	
Race x Diversity Perception	0.64		0.94		0.46	*
	N=174		N=171		N=176	
Non-returned Correctly Predicted	90%		65%		88%	
* $p < .10$, ** $p < .05$, *** $p < .01$, **** $p < .001$						

First-Year Model Comparison

Variables	1st Yr Students		2 nd /3 rd Yr Students	
	Odds Ratio	Sig.	Odds Ratio	Sig.
Female	0.30	*	0.56	
Under 21 Years Old	6.58	**	1.69	
Attending Office Hours	0.48	**	1.13	
Perception of Bias	2.85	*	0.75	
Hours Worked Off Campus	0.72		0.99	
Transition Support	2.17	**	1.24	
Friend Network	0.42	**	0.67	
Significant Connection	1.91	*	2.26	
Family Encouragement	2.82	***	2.17	**
Class Absences	0.70		0.73	
	N=174		N=181	
Non-returned Correctly Predicted	90%		56%	
*p<.10, **p<.05, ***p<.01, ****p<.001				

Second- & Third-Year Model

2nd/3rd Yr Students

Variables	Odds Ratio	Sig.
Female	0.51	
Class Year	1.97	
Advising Frequency	1.94	
Student Interaction'	2.60	**
Transition Support	1.49	
Significant Connection	1.53	
Family Encouragement	2.78	***
Class Absences	0.72	
Distance from Campus	1.66	
Friend Network x Age	0.85	
Race x Diversity Perception	0.46	*
	N=176	
Non-returners Correctly Predicted	88%	
*p<.10, **p<.05, ***p<.01, ****p<.001		

Summary of Findings

- Patterns of persistence vary, even within institutions
 - Factors were quite similar across groups
 - 1st year students at this institution qualitatively different in terms of retention patterns
 - Self-selection may lead to some of the changes
 - E.g., Office hours or perception of bias
- Support critical at all levels
 - Family encouragement
 - Social support system (network of friends)

IUPUI Findings

- Age (under 21) +
- Family encouragement +
- Perception of bias +
- Transition support +
- Hours worked off campus -
- Use of academic support services -

Age (Under 21) [+]

- Several years ago, older adult learners had higher retention & graduation rates than traditional-age students
- Our own research shows this relationship has changed as the entering class has become more traditional
- **Conclusion:** IUPUI needs to reevaluate how it serves older adult learners

Family Encouragement [+]

- This study's finding is consistent with research by Terenzini and colleagues showing that parents of first-generation students may inadvertently hinder student success
- **Conclusion:** Given its lower retention and graduation rates for first-generation students, IUPUI needs to reevaluate how it communicates to parents the need for family encouragement

Perception of Bias [+]

- IUPUI's very active Black Student Association has been bringing perception of bias issues to the attention of the campus
- This factor may well be a proxy for engagement
- **Conclusion:** IUPUI needs to do more to foster engagement (hopefully around more positive topics)

Transition Support [+]

- Research at IUPUI indicates that orientation programs such as the Summer Bridge Program and themed Learning Communities have a positive impact on student success
- Although most students participate in learning communities, participation is lower in the Summer Bridge Program, particularly among at-risk students
- **Conclusion:** IUPUI needs to expand the Summer Bridge Program for at-risk students

Hours Worked Off Campus [–]

- A consistent finding of our research is that students who work *off campus* are disadvantaged, whereas students who work 20 hours or less *on campus* are advantaged
- Too many offices on campus do not utilize student workers
- **Conclusion:** IUPUI needs to do much more to hire part-time student workers

Academic Support Services [–]



- Students' academic skills are important in student success at IUPUI
- The negative effect for use of academic support services appears to represent students' skill deficits rather than ineffective services
- **Conclusion:** IUPUI should continue to evaluate its admission standards to ensure students can be successful (and to develop an early warning system)

Summing Up



- Understanding institutional contexts for student success
 - ▣ Further research on commuter institutions
 - ▣ Experiences beyond just those of first-time, first-year students

- Uses for Institutions
 - ▣ Empirical evidence grounded both in theory and in responses from students at the individual institution
 - ▣ An external source of additional information for institutions already looking into these questions

Implications, Questions & Next Steps

□ Insights from results

- Extend empirical record on institutional policies & practices:
Role of family and work

□ Methodological points

- Extend applied research in this area
 - Potential sampling and nonresponse issues
 - Theoretically grounded exploration of complexity
- Need for collaboration
 - Researchers studying retention
 - Institutional researchers



Factors

Factor Name	Variables	Reliability	
Factor_FYE	FYE_ACAD	All Students	0.857
	FYE_SUCC	1st Years	0.802
	FYE_FIN	2nd/3rd Years	0.898
	FYE_HLTH		
	FYE_FRND		
Factor_Orient	OR_HLTH	All Students	0.780
	OR_SUCC	1st Years	0.734
	OR_ACAD	2nd/3rd Years	0.787
	OR_FIN		
	OR_FRND		
Factor_AdvisFreq	FBK_ADV	All Students	0.901
	SUP_ADV	1st Years	0.880
	IMP_ADV	2nd/3rd Years	0.914
	ADV_ADV		
Factor_AdvisQual	ADV_DEG	All Students	0.866
	ADV_CRSE	1st Years	0.849
	ADV_GOAL	2nd/3rd Years	0.878
	CN_ADVIS		
	ADV_PROF		
Factor_AcRegs	FAIR_GR	All Students	0.446
	CN_INCMP	1st Years	0.505
	CL_CHEAT	2nd/3rd Years	0.391

Factor Name	Variables	Reliability	
Factor_FacInt	FBK_INST	All Students	0.819
	SUP_INST	1st Years	0.826
	IMP_INST	2nd/3rd Years	0.802
	ADV_INST ¹		
Factor_StuInt	ADV_STUD	All Students	0.877
	SUP_STUD	1st Years	0.882
	IMP_STUD	2nd/3rd Years	0.863
Factor_SocInt	CONNECTN	All Students	0.825
	SA_SOC	1st Years	0.791
	AG_NTWRK	2nd/3rd Years	0.839
Factor_DivrPer	OF_DIVER	All Students	0.765
	OF_CONT	1st Years	0.775
	OF_MULTI	2nd/3rd Years	0.751
	OF_BACK		
Factor_BiasPer	OF_HARAS3	All Students	0.799
	OF_HARAS2	1st Years	0.805
	OF_HARAS1	2nd/3rd Years	0.798
Factor_FinAid	CN_AIDK	All Students	0.710
	SA_AID	1st Years	0.700
	CN_AIDT	2nd/3rd Years	0.707
	CN_FUND		

¹ Not included in factor for 2nd/3rd Year Students

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