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ABSTRACT

A longitudinal study at a large predominantly White university revealed that faculty/student interaction had a significant impact on African-American students' decision to persist. Subjects included 310 freshmen (128 African Americans, 131 Whites, 49 Hispanics, and 2 Asians). Hispanics and Whites were better retained after the 4 years than African-Americans, though African-Americans showed higher retention rates than Hispanics and Whites in the first 2 years. For all students, more dropped out at the end of the second year than any other time. High-achieving African-American students who talked with faculty outside class were better retained than those who did not. Faculty/student interaction, including advisor help in scheduling courses, knowing advisor's name, and being impressed with the faculty, was found to have significant effects on retention for all African-American students. Results indicate that there are different profiles for students who stop attending at different times during the college career, and suggest that freshman experiences can predict those students who are prone to drop out in later years. (Contains 22 references.) (Author/JDD)

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Faculty/Student Interaction: Impact on Student Retention

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Jean Endo
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Abstract

A longitudinal study at a large predominately white university revealed that faculty/student interaction had a significant impact on African-American students' decision to persist. High-achieving African-American students who talked with faculty outside class were better retained than those who did not. Faculty/student interaction, including advisor help in scheduling courses, knowing advisor's name and being impressed with the faculty, was found to have significant effects on retention for all African-American students. Findings suggest that freshman experiences can predict those students who are prone to drop out in later years. Also, results indicate that there are different profiles for students who stop attending at different times during the college career.

Faculty/Student Interaction: Impact on Student Retention

Introduction

With the changing demographics of students enrolling in colleges today, there is a need to identify institutional factors which make a difference in retention for diverse college groups. Issues of retention and attrition are especially critical for African American students because of their lower retention rates compared to whites (Centra, 1980; College Board, 1985). However there remains a void in research on how institutional factors affect diverse groups of college students, especially African-American students (Pascarella, 1986; Terenzini & Pascarella, 1991).

Background

With the exception of a few studies (Kraft, 1991; Tracey & Sedlacek, 1985), most race comparison studies describe pre-admission measures as having the greatest influence on retention and academic progress. (Gosman & et.al, 1983; Wilson, 1981). For most students, ability measures such as SAT or ACT scores and high school GPAs are most reliable in predicting first year progress. However, they are less reliable in predicting academic success for African-American students in the first year (Nettles, Thoeny, & Gosman, 1986). We know very little about when and why any students leave after the first three semesters (Tinto, 1988).

Willett and Singer (1991) suggest that more information about the reasons students persist or fail to persist may be gained when

students in the same cohort are studied over time. Terenzini, Rendon, Upcraft, Millar, Allison, Gregg, and Jalomo (1994) concur that how students make personal adjustments to college differ over time. Therefore, what may not affect retention in the early college career may have an impact later. Krotseng (1992) found that a survey instrument which had very high accuracy in predicting retention and attrition after one semester showed a dramatic decline in predictability after two and three semesters. There is a need to identify factors which affect retention beyond the freshman year (Terenzini & Pascarella, 1991).

Tinto (1988) argues that the events that shape departure in one part of the college career may not be the same events that lead to departure at other points. Terenzini and Wright's (1987) findings about effects on academic growth show support for this theory. When they conducted four annual follow-up surveys on the same cohort, they found that academic growth was most influenced by faculty involvement in the early college years, yet faculty influence decreased steadily through the years until peer involvement became a more important factor in the senior year. The Terenzini and Wright (1987) study did not address retention. However, one could assume that faculty involvement and peer involvement will result in a similar pattern of influence on retention. In addition to the change in influence that occurs due to growth and maturity, environmental conditions continue to play a part in students decisions to persist.

It is the intensity of the push and pull of certain events

over time that helps to shape persistence (Terenzini et.al., 1994). Consequently, students might choose to stay at a university in the freshman and sophomore years for reasons that may not be enough to ensure that they stay until graduation. Billson and Terry (1987) suggest that weighing the benefits of continuing a college education compared to the benefit of stopping out and getting a job play an important part in students' departure decisions. These concerns may be especially relevant to low income students (Tracey and Sedlacek, 1985). In addition to choosing a job over continuing college, students may also choose to leave and go to another college if they do not perceive the value of their education being worth the cost of staying at their original institution.

If we assume that students who experience high levels of academic and social integration in the freshman year will continue to exhibit similar behaviors in later years, then we might expect that students who contact faculty outside class will continue to do so as time passes. However, the level of influence may differ at different times in students' college experience. One important question that gets at this is: Does faculty involvement in the freshman year affect student retention in later years?

Institutional factors such as faculty contact and administrative policies may serve to enhance or inhibit student retention at different times in the college career (Terenzini & Wright (1987). Qualitative studies are beginning to reveal the complexity of interwoven events that are exerted on students and especially on African American and non-traditional students

(Kraft, 1991; Terenzini et.al., 1994; Tracey and Sedlacek, 1985). The good news according to Chapman and Pascarella (1983) is that fixed characteristics of students and institutional environment account for relatively little impact on retention. Even though they are talking about the academic and social integration at the freshman level, we can be encouraged that change in student behavior and institutional environment can bring about increased retention. What we don't know is what dynamic factors affect retention after the first year and when and how they impact retention.

The current study addresses the following questions about student retention:

1. When are students more prone to leave and do leaving times differ for different groups of students?
2. When does faculty involvement impact retention?
3. What factors make a difference in faculty/student contact outside class?

Methodology

This was an exploratory study to determine if there were differences in students and their experiences who dropped out at different times during their college careers. There was interest also in finding out if faculty involvement made an impact on retention at the various points when students dropped out.

Therefore, both quantitative and qualitative methods of analysis were used.

Design

The design of the study was longitudinal with initial data collected during summer, 1990, by mail survey and additional data collected each semester on student progress and enrollment. The survey instrument included 67 questions about college experiences thought to impact retention based on Tinto's model of academic and social integration. The majority of items were scored on 4 and 5 point scales, in addition to 15 yes/no questions on lifestyle. Space was provided for comments students wished to make about their experiences at the university. Items included were intended to be used individually or with other items to form scales. The questionnaire had a reliability of $\alpha = .79$. A discriminant analysis resulted in a 70 percent predictability rate for retention through the fifth year.

Sample

The sample was comprised of 310 students from a class of 2,576 freshmen who entered a public university of 28,000 students in fall, 1989. The sample included 128 African Americans, 131 whites, 49 Hispanics and 2 Asians. This sample was composed of 200 females and 110 males. The entire African American and Hispanic freshman cohort and a 10 percent random sample of all other freshmen were

sent surveys. The return rates after two mailings were 44% for African Americans, 60% for Hispanics, and 51% for whites. Both African American and Hispanics were over represented because of the interest in minority students. Subsequent analysis of those who did not respond indicated that the high school GPA, SAT and ACT scores were similar to those who returned completed surveys.

Survey respondents were asked to include their social security numbers and were told that their progress would be monitored in efforts to help improve student retention. Information such as sex, race, high school GPA, admissions-test scores, college cumulative GPA, major, and last term of enrollment were merged with survey information to form a data base for tracking the retention of each individual respondent.

After reviewing the survey results of fourth-year students, the researcher formed three focus groups of from five to six African American students from the cohort group. There were a total of five male and twelve female participants. A female graduate student, who was of the same race as the students, conducted the video-taped interviews. Students were asked general questions about their experiences. They were also asked to follow-up on questions asked in the survey and to discuss special challenges and opportunities they encountered while attempting to graduate.

Data Analysis

All of the biographic and institutional factors included in this study were categorized, some were dichotomized. The categories

are as follows: Ethnicity (African Americans vs Others); Admissions category (Special vs Regular), Achievement level, Cumulative GPA at the end of spring 1990 (4.00-3.00, high achievers; 2.99-2.00, average achievers; 1.99-0, low achievers); Status within department as of spring 1990 (accepted, provisional, undecided); and Type of department (liberal ed., professional, music, undecided).

Retention status is defined as a student who has already graduated or was enrolled at the time of interest. This factor was dichotomized (fifth year retention), as well as coded for the term when stopping out occurred.

Retention was cross-tabulated with each of the 66 survey items. Chi square (Mantel-Haenszel) was used to identify significant distributions. Phi correlations were estimated between the factor(s) of interest and retention. In all these analyses a p of < 0.10 was regarded as an appropriate probability of incorrectly deciding on significance.

This study proceeded on the assumption that the decision to stop out is a complex process in which the factors exerting greater effect change over time. This analysis, in addition to testing Tinto's theory of involvement, also sought to explore these effects and how they change over time. The belief was very strong that the decision to stop out was arrived at differently by members of various subgroups of the population. This implies that different decision models exist for different strata of the population. For example, students stopping out during year one were treated as a

sub-group, and they were compared with those retained during that year. In analyzing the data therefore stratification by race and last term attended was done in order to identify the appropriate decision models.

Findings

Significant differences in retention over the four year period were found between African-American and both Hispanics and whites. Hispanics and whites were better retained after the four years than African-Americans. For all students, more dropped out at the end of the second year than any other time. This was the case for African-Americans, whites and Hispanics. Dropout patterns also differed according to race. Table 1 shows the percent of students who did not return each semester as compared to all those who stopped attending.

TABLE 1

Percentage Dropout by Semester for all
Dropouts by Race

Semester	Percentage Students Not Returning by Semester			
	Total N = 73	Black N = 37	Hispanic N = 9	White N = 26
Fall 1989	0	0	0	0
Spring 1990	1.4	0	11.1	0
Fall 1990	17.8	5.4	11.1	34.6
Spring 1991	11.0	16.2	11.1	0
Fall 1991	27.3*	21.6*	33.3*	38.5*
Spring 1992	16.4	18.9	33.3	7.7
Fall 1992	8.2	13.5	0	3.8
Spring 1993	4.7	2.7	0	7.7
Fall 1993	1.4	2.7	0	0
Spring 1994	12.3	18.9	0	7.7

*mode

One third of all Hispanics and whites who dropped out did so within the first two years. One-fifth of all blacks dropped out during the same period. Consequently, blacks showed higher retention rates than Hispanics and whites in the first two years. Yet, by the end of the third year, the overall black-dropout rate had exceeded that for both Hispanics and whites. By then, 52% blacks who dropped out had done so, all Hispanics who dropped out had done so, and 81% of all whites who drop out had dropped out. In the third year, 40% of all African-Americans who stopped attending did so, while for Hispanics it was two-thirds, and for whites 46%. The period that African Americans had the greatest attrition was after year three.

The pattern of attrition is different for each of the three races. These findings suggest the need to pay attention to student retention throughout the college career especially for African-American students.

Faculty/student contact outside of class had a positive impact on retention. Further analysis showed that faculty contact with students outside of class was found to have a positive impact on retention for high-achieving African-American students (those who had 3.0 cum GPA or better at the end of the freshman year). Table 2 indicates the variables for faculty/student interaction that were significant and those that were significant by race.

TABLE 2

Yearly Retention by Faculty/student
Involvement and for Blacks and Others

Variables	Retention by Faculty Involvement			
	Year 1	Year 2	Year 3	Year 4
Impressed with faculty	*			
Blacks			*	
Others				
Faculty interested in students				
Blacks	*			
Others				
Knew advisor's name			*	
Blacks				*
Others			*	*
Advisor helped plan course schedule	*			
Blacks	*			
Others				
Faculty contact outside class	*			
Blacks				
Others				

Of all those who were retained the first year, 62.5% were impressed with the caliber of their instructors, while for those not retained the percentage was 35.7%. Of all those retained the first year, 58.6% had advisors help them plan their course schedules, while those not retained 35.7% had advisors help plan their schedules.

Variables related to faculty/student involvement had

significant effects for retention in the freshman and junior years for African American students. African-American students who interacted with faculty were better retained into the third semester than those who did not. Analysis did not show this effect for any other group. Also, African-American students who had advisors help plan their course schedules were better retained than those who did not.

There were no significant effects found for second year retention for any race. However, of all those retained after the third year, 75.3% of them knew their advisor's name, therefore were at least familiar with their advisor. While, of all those not retained after the third year, 91.7% knew their advisor's name. This suggests that students who were more familiar with their faculty advisor in the freshman year were more likely to stop attending after the third year. An explanation of this surprising finding is presented later when describing those who stopped attending after the third year.

Table 3 provides the level of significance for variables of interest that are expected to impact retention:

TABLE 3

Chi-square Probabilities, and Phi Correlations
between Retention and Select Variables

Variable	Retention	
	px ²	R
Race	.29	.219*
Achievement	.00*	.37*
Socializing with friends	.79	.24*
Partying	.00*	.28*
Impressed with faculty	.34	.17
Faculty care about students	.77	.09
Know advisor's name	.58	.20*
Advisor helped plan course schedule		
Blacks	.04*	.27*
Others	.76	.11
Faculty/student contact outside class		
High-achieving Blacks	.02*	.50*
Self Confidence	.04*	
Got in major choice		
Blacks	.43	.33*
Others	.71	.11

*p value < 0.1

Results indicate that there are no differences between those retained and those not retained based on race. However, African-American students are less likely to be retained than others. Partying and socializing with friends had a positive effect on retention.

There were significant differences between those who stopped attending based on the year of last enrollment. Results suggest

that students drop out for different reasons at different times. Table 4 illustrates how those who stopped attending in each year compare with all those who stopped attending over four years.

TABLE 4

Comparison of Dropouts for Each Year to All Other
Dropouts by Select Variables

Variable	Dropouts at the End of Each Year			
	Year 1	Year 2	Year 3	Year 4
Impressed with faculty	*		*	
Faculty interested in students				
Know advisor's name			*	
Advisor helped in planning course schedule	*			
Faculty contact outside class		*		
Self concept			*	
Type Admission		*		
Achievement	*			*
Type major				
Status of major				

* Significant, $p < .1$

Most of the students who stopped attending after the first year were not impressed with the caliber of the faculty. Of all those who stopped attending after the first year, 37% were impressed with faculty as compared with 63% of all others who

stopped attending. Fewer students (36%) who stopped attending after the first year had their advisor help them plan their schedule as compared to 58% of all others. Of all those who stopped attending after the first year, 57% received a cumulative GPA of less than 2.0. While for all others that percent was 14.2%.

Second Year Dropouts

Of all those who stopped attending after the second year, 51.5% had no contact or less than one hour of contact with faculty as compared to 73% of all other dropouts. Of all of those who stopped out after the second year, 45.5% had below 2.0 cumulative GPAs at the end of the first year; compared to 12.6% for all others. Students who dropped out after the second year differed from others who stopped attending on the type of admission, whether a regular admission or an exception to the admission criteria.

Third Year Dropouts

Third year leavers fit a pattern. They were more familiar with their advisor and showed lower self confidence than others who stopped attending. Confidence refers to responses to questions about feeling academically prepared, satisfaction with their intellectual development, knowing how to study, feeling out of place, being aware of abilities, and being able to make your own decisions. Of all those who stopped attending in the third year, only 76.5% had high level of self confidence as compared to 91.5% for all others who stopped attending.

Fourth Year Dropouts

All of those who stopped attending in year four had cumulative GPAs less than 2.0 in the spring of their freshman year. While for all others, only 15.6% had cumulative GPAs below 2.0. Fewer African Americans got into the major of their choice.

Limitations

This study was an exploratory study to determine when students stop attending at a single university. Therefore, the results may not be generalizable to other institutions. Another limitation is that there were only two times during the five years of follow up that information was collected from students. Focus groups were not done with white and Hispanic students in the fourth year.

Discussion

Faculty involvement was found to have a significant impact on student retention through the first three semesters and in the third year for African-American students. An important finding is that African-American students who achieved a 3.0 cumulative GPA at the end of the first year were better retained across all eight semesters if they had contact with faculty outside class during their freshman year. This finding coincides with studies reviewed by Pascarella (1980). Previous studies suggest that faculty interactions were most important for students with low commitment to the institution and low academic and social integration. Pascarella (1980) also suggests that faculty contact with such students compensates for lack of peer involvement.

African-American seniors confirm that they do feel isolated from others in the classroom. They suggest that faculty could help them become more involved in the class by making group assignments to insure diversity instead of allowing students to choose who they want to work with. They acknowledge that it is important to learn from each other as well as from the faculty.

For African-American students in general, faculty/student involvement impacted retention to a much greater extent than for whites and Hispanics. Those African-American students who met with faculty to plan their course schedules, and who remembered their advisor's name and who were impressed with the caliber of their instructors were better retained the first three semesters. The impact of faculty involvement in the freshman year may explain why African-Americans were better retained than whites and Hispanics in the first two years.

African-American seniors, however, did not expect instructors to be their pals. However, seniors felt contact with faculty was crucial to their success and they felt faculty should spend time with them explaining course work when needed. All of the seniors interviewed said that they spent some time each week with faculty outside class. Some of the students concluded that more timid students would not make it at the university. Their explanation may suggest why African-American students stopped attending after the third year.

Based on their profile, third year dropouts appear to have needed faculty involvement to persist. Yet, according to seniors,

to be successful they had to be the aggressors in getting the respect and time they required from faculty. Seniors also felt they had a right to expect both. Note that third year dropouts were more familiar with the faculty, during the freshman year, than other leavers but they also had lower self confidence. Seniors thought that faculty who taught freshman and sophomore courses were more helpful than those who taught junior and senior courses. Therefore, we can expect that students with less confidence would seek more help in the first two years than in later years.

One senior expressed his view by saying, "If somebody is shy and real withdrawn, they don't need to be at (this university). That may be a strong statement, but this atmosphere is only conducive to people who are able to step-up. I have a lot of teachers...who are real receptive but you must be the type of person to step-up and go across the line to ask for help." Other students disagreed and emphasized that faculty should reach out more to students.

The results of this study suggest that we can predict who may be dropout prone after the first two years. Also, retention patterns differed according to race. This suggests that there is a need for different models to explain the dynamics of retention and the dynamics of attrition for the three racial/ethnic groups. Improvement in retention can be expected if there are changes in those institutional variables that impact retention. Therefore, we should expect increased retention for African-Americans with increases in involvement with faculty and with classroom peers.

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