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Are Leavers and Persisters Really Different: A Comparative Study of Issues Reported in

GC Advising Files

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ABSTRACT

The purpose of this study was to examine whether GC leavers and persisters had different issues reported in their advising files. Information from persisters' files was compared to a prior analysis of leavers from the GC 2003 NHS cohort. It was found that persisters and leavers were not significantly different in frequency and categories of issues reported. Persisters and leavers had similar proportions of issues reported in four categories: student academic, student non-academic, institutional academic, and institutional non-academic issues. Among both groups, academic issues were reported more often than non-academic issues, and student issues were reported more often than institutional issues. Persisters and leavers were also similar in rank orders of frequency of individual issues, although compared to leavers, persisters seemed to have a lower frequency of academic alerts and low motivation issues and a higher frequency of other issues.

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Studies of student retention suggest that students' behavior of persisting or

leaving college is affected by many personal and institutional factors (Ishitani &

DesJardins, 2002; Nippert, 2000). It is important for researchers and administrators to

understand why students leave higher education, and thus to develop interventions to

improve student retention and graduation rates. Researchers at the University of

Minnesota (UMN) have made attempts to understand students' departure behavior, given

their lower retention and graduation rates than would be expected (Matross & Huesman,

2001). Several studies have focused on UMN General College (GC) students who are

considered at higher risk of leaving college because of lower high school ranks and ACT

test scores than students admitted to other UMN colleges (Wambach, Hatfield, Mayer, &

Franko 2003; Wambach, Mayer, Hatfield, & Franko, 2003; Xie, Franko, Wambach,

Jansen & Connor, 2005). These studies have attempted to explain GC students' departure

behavior by analyzing student and institutional issues reported in advising files. Two of

the studies have found that poor academic performance, financial and work issues,

emotional/mental health issues, and conflicts between family/cultural expectations and

demands of college were regularly noted in leavers' advising files (Wambach et al., 2003;

Xie et al., 2005). A recent study has also found that for leavers, student issues (e.g., poor

academic performance, family issues) were reported more frequently than institutional

issues (e.g., complaints about teaching and registration), and academic issues were

reported more often than non-academic issues (Xie et al., 2005).

To better understand if these issues lead to student departure, research is needed to examine if similar issues are present among persisting students. Wambach and colleagues (2003) compared student issues reported in GC persister and leaver advising files. They found that leaver advising files had more issues reported than persister advising files, and the leaver files were more likely than the persister files to document financial/work issues, personal reasons for leaving, and dissatisfaction with school for personal reasons. However, persister files were more likely to note performance not good enough to transfer into program of choice and other issues (e.g., problems with dorm environment, difficulty with computer-based classes) compared to the leaver files.

Wambach et al's (2003) findings were primarily based on paper advising files, and about half of the files they reviewed had no advisor notes available or contained little information. Since 2003, GC advisors have recorded their notes in an electronic database. This study was designed to examine differences between GC leavers and persisters by comparing issues reported in their electronic advising files. There has been evidence that electronic files are less likely to have no advisor notes available for a student than the written files (Xie et al., 2005). Specifically, this study was designed to answer the following questions:

1. To what extent do persisters and leavers differ in issues reported in their advising files?

2. Is there a difference in frequency of contacts with advisors between persisters and leavers during their first year of enrollment at GC?

Method

Subjects

A sample of 100 persisters was randomly selected from GC Fall 2003 New High School (NHS) students who had records of enrollment during spring 2005. These students (N = 616) were considered 2003 NHS persisters. A total of 100 leavers were also randomly sampled from the 2003 NHS cohort, and their data were used in this study for comparison. Leavers were those who did not enroll in spring 2005. The details about the sampling and descriptive data of leavers were reported in a previous study (Xie et al., 2005).

Materials and Procedure

The advising files for the 100 persisters were printed out from the GC Student Database, and were coded by one of the authors. Each file was read three times. During the first two readings, the rater made notes on all the student issues reported and coded them into an Excel file. Then the rater assessed the quality of advising notes (have little, enough, or thorough information) and the number of advisor contacts during the student's first year in GC. Advisor contacts include direct contacts between a student and an advisor and the indirect contacts that concern the student but do not directly involve the student (e.g., contacts between an advisor and an instructor).

In addition, another author reviewed the 100 persisters' transcripts to collect information about their academic performance, including cumulative GPA and frequency of withdrawals. Frequency of withdrawals was measured by the total number of "W"s recorded on a student's transcript.

Coding

      Issues. A coding system that had been used for coding leavers' issues was adopted in this study. Issues indicated in advisor files were categorized into two dimensions, academic versus non-academic and student versus institution. Thus, four large groups of issues were formed: student academic issues, student non-academic issues, institutional academic issues, and institutional non-academic issues. Table 1 presents the four categories and issues in each category.

      Most of the issues are self-explanatory except for academic alerts and incongruities. An "academic alert" is an e-mail message system used by GC instructors to warn students who have attendance issues, are behind in a class, or are at risk to fail a class. Advisors also receive copies of alerts. Alerts are used by instructors in a verity of situations, ranging from warning a student who missed his/her first class to suggesting a student withdraw because he/she is failing the class. In this study, academic alerts were coded only when the files indicated that the student was far behind in the class, was failing the class, or had excessive absences. The incongruities/resistances subcategory was created for the prior study to identify students who appeared to be unwilling to follow advice or institutional processes (Wambach, Hatfield, et al., 2003). This study adapted this concept and coded cases in this subcategory if students were reported not to follow advice, to change registration plans without advisors' permission, or to appear overconfident when advisors warned them about their risk of failing a class.

      Issues were not coded in a mutually exclusive manner. A student may have multiple issues reported in his/her file and some of the issues may relate to each other such as work and financial issues or family and emotional issues. However, if the same

issue was reported more than once in a student's file, this issue was only coded once for

the student.

Table 1
Issues That Are Associated with Leaving College

Student Academic issues	Student Non-Academic Issues
• Academic alert (e.g., failing one or more classes, excessive absence) • Poor performance (GPA<2.0, probation, suspension) • Performance not good enough to transfer into program of choice • Lack of academic skills (e.g., math skills, time management) • Overwhelmed by course work • Low motivation/lack of effort • Major undecided/having difficulty deciding major	• Physical health issues (including pregnancy) • Emotional/Mental health issues (e.g., substance abuse, depression, family/relationship issues affecting concentration on school) • Disability issues (lecture delivery issues, problems getting to class, special aids in lab) • Financial issues (tuition issue, FA suspension) • Work issues (work too long, conflict with study) • Family issues • College adjustment issues (e.g., isolation, no connection with campus, having difficulty adjusting to UMN systems) • Incongruities/resistances/over confidence • Personal reasons (need time off, military, moving)
Institutional Academic Issues • Major/vocational training not available at the UMN (less desirable than alternatives available elsewhere) • Unsatisfied with GC or UMN because of registration, coursework, instructors, stigma or other academic related issues.	**Institutional Non-Academic Issues** • UMN not a good fit for non-academic reasons (too big, far away from home, transportation/parking)
•**Other Issues**	• **No issues reported**

One issue, performance not good enough to transfer into program of choice, was

coded differently for leavers and persisters. In the previous study of leavers, this issue

was coded when a student was in good academic standing (GPA > 2.0) but was still

denied admission to his/her first choice of transfer program because of the

competitiveness of the transfer program. In the present study, performance not good

enough to transfer into choice of program was defined in a broader way. It included not

only those who had attempted but were not able to transfer into a program, but also those who made an early decision to change destination colleges or programs because of lack of a high GPA. This coding change was made because we hypothesized that persisters might adjust their choice of transfer program after they understood the competitiveness of various programs. We believed, based on prior studies (Wambach et al., 2003) that this was especially likely to happen when students were initially interested in design, business, health sciences, and computer sciences.

Quality of advisor notes. Given the variability in the amount of information included in advisor notes (Wambach, Hatfield, et al., 2003; Wambach, Mayer, et al., 2003), the current study used a 4-point numeric scale to capture the variation. Files were rated on a scale of 1 to 4; the higher the rating, the more information in a file (see Table 2). The higher rating also indicated the extent to which the advisor file contained information beyond the documentation of registration plans, academic alerts, mid-semester review (MSR), and probation or financial holds.

Table 2
Coding for Quality of Advisor Files

Rating Category	Category Description
1	No notes exist for the student
2	Little information contained in the file to understand the student
3	Enough (standardized) information contained in the file to understand the student
4	Comprehensive information contained in the file to understand the student

Advisor contact. An advisor contact was defined as any form of information delivery or exchange (e.g., appointment, phone call, email) between an advisor and a student or between an advisor and other persons (e.g., instructors, parents) regarding the student. A contact between a student and an advisor was called a direct advisor contact. A

contact between an advisor and an instructor or other people about the student but without the student present was called indirect advisor contact. Two numbers of contacts were counted for each persister. One was the number of direct advisor contacts, and the other was the total number of advisor contacts that included both direct and indirect contacts.

<div align="center">Results</div>

Description of The Sample

One hundred persisters were randomly selected for advising file analysis. Advising notes were available for all but one of the students. That student was excluded from all analyses. Table 3 presents the gender and ethnicity information for this sample of 99 students. The proportions of male, female, and four ethnic groups were comparable to the proportions of total persisters in the 2003 NHS cohort that was examined in a previous study (Xie, et al., 2005).

Table 3
Demographic information of the persisters for advising file analysis (N=99)

	Gender			Ethnicity					
	Male	Female	Unknown	White	African American	Asian	Hispanic	Native American	Unknown
n	47	51	1	44	20	26	4	2	3
%	47.5	51.5	1.0	44.0	20.2	26.3	4.0	2.0	3.0

Preliminary Comparison Between Leavers and Persisters

Given the association between retention and academic performance (Wambach, Franko & Connor, 2005), preliminary analyses were performed to examine whether persisters and leavers were different in cumulative GPA and number of withdrawals from courses. A t-test result indicated that the two groups were significantly different in

cumulative GPA, t (196) = 7.78, p < .001. Persisters had a higher average cumulative

GPA (mean = 2.69, SD = .62) than leavers (mean = 1.75, SD = 1.01). Frequencies of

withdrawals, presented in Table 4, indicate that the leaver group may have more students

with a higher number of withdrawals (3 times or more) than the persister group. A Chi-

square test was performed to examine the difference in frequencies of withdrawals

between those two groups. In order to conduct valid Chi-square tests, the expected

frequency in each cell cannot be too small (Howell, 2002), therefore students with three,

four, and five to eight withdrawals were collapsed into one category. Among the 99

leavers, 22 had three or more withdrawals from courses, and among the 99 persisters, six

individuals had three or more withdrawals. The Chi-square result indicated that overall

leavers and persisters were significantly different in frequencies of withdrawals, $\chi^2 (3) =$

13.88, p = .003. A post-hoc Chi-square test indicated a significant difference between

leavers and persisters who had three and more withdrawals from courses, $\chi^2 (1) = 9.14$, p

<.01.

Table 4
Frequency of Withdrawals for Leavers and Persisters

Number of Withdrawals	group		Total
	Leavers	Persisters	
0	45	54	99
1	26	24	50
2	6	15	21
3	4	1	5
4	11	2	13
5 to 8	7	3	10
Total	99	99	198

Differences in Frequency of Issues Between Leavers and Persisters

Among the 99 persisters whose advisor notes were available, 80 had one or more

issues reported in his/her file while 19 had no issues reported. The number of issues

reported for each persister ranged from 0 to 7, and on average each persister had 2.13

issues (SD = 1.63), which is similar to the range and mean of total number of issues

reported for leavers (mean = 2.60, SD = 1.84). A t-test result indicated that leavers and

persisters were not significantly different in average number of issues reported for each

student, t (196) = 1.05, p = .30. In addition, a Chi-square test was conducted to examine

if leavers and persisters differed in the number of issue reported. As seen in Table 5,

persisters seemed to have more students with no issues, and fewer students with six and

seven issues reported. The result indicated no significant difference in numbers of issues

between leavers and persisters, χ^2 (6) = 2.69, p > .05.

Table 5
Frequency Distribution of Leavers and Persisters by Number of Issues (N = 198)

	Number of issues reported for each leaver or persister							Total
	0	1	2	3	4	5	6 and 7	
Number of leavers	13	15	27	18	11	5	10	99
Number of persisters	19	17	28	15	11	6	3	99

The number of issues reported for each student was also computed by four

categories of issues: student academic issues, student non-academic issues, institutional

academic issues, and institutional non-academic issues. Two t-tests were conducted to

examine whether there was a difference between leavers and persisters on average

numbers of student academic issues and student non-academic issues reported. The

results indicated no significant difference between leavers and persisters in these two

categories. On average, leavers had 1.35 (SD = 1.07) student academic issues and .82

(SD = .96) student non-academic issues reported, while persisters had 1.20 (SD = 1.05)

academic issues and .68 (SD = .85) non-academic issues. In addition, two Chi-square

tests were performed to examine the difference in institutional academic and non-

academic issues, given that the maximum number of institutional academic and non-

academic issues reported for each student was one. Leavers and persisters were not

significantly different in these two categories either.

Table 6 presents the frequency of issues in each category for persisters and

leavers. Similar to the findings for leavers, the majority of issues reported for persisters

were student academic issues (56.4%), among which academic alerts and poor

performance were reported most frequently. Performance not good enough to transfer

into desired program was also reported regularly for persisters (21.2%). However, it

should be noted that this issue was not comparable between leavers and persisters, given

that this issue was coded differently for persisters and leavers. Like leavers (35.9%),

persisters also had a large proportion of issues in the student non-academic category

(31.7%), among which financial issues, work issues, family issues, and emotional/mental

health issues were reported more often than other student non-academic issues.

Compared to student issues, institutional issues were reported less often among both

leavers (7.6%) and persisters (6.1%).

Table 6

Issues Reported in Advisor Files for Leavers and Persisters (N=198)

Categories	Issues	Frequency of issues				Frequency of issues in category (Σn)	
		Leaver (n_1=99)		Persister (n_2 = 99)		Leaver	Persister
		n	% of n_1	n	% of n_2		
Student	Academic alert *	66	66.7	49	49.5	134	119

Academic Issues	Poor performance	34	34.3	24	24.2	(56.5%)	(56.4%)
	[a]Performance not good enough to transfer into program of choice	2	2.0	21	21.2		
	Lack of general study skills	8	8.1	8	8.1		
	Overwhelmed	9	9.1	12	12.1		
	Low motivation *	10	10.1	3	3.0		
	Having difficulty deciding major	5	5.0	3	3.0		
Student Non-Academic Issues	Physical issues	6	6.1	11	11.1	85 (35.9%)	69 (32.7%)
	Emotional/Mental health issues	11	11.1	11	11.1		
	Disability issues	5	5.0	2	2.0		
	Financial issues	14	14.1	14	14.1		
	Work issues	14	14.1	9	9.1		
	Family issues	15	15.2	10	10.1		
	College adjustment issues	4	4.0	4	4.0		
	Incongruities	8	8.1	7	7.1		
	Personal reason (moving, military, need time off)	6	6.1	0	6.1		
Institutional Academic Issues	Training not available	5	5.0	1	1.0	11 (4.6%)	10 (4.7%)
	Unsatisfied with registration, classes or the program	6	6.1	9	9.1		
Institutional Non-Academic Issues	UMN not a good fit for non-academic reason	7	7.1	3	3.0	7 (3.0%)	3 (1.4%)
	Other issues *	2	2.0	10	10.1		
Total						237 (100%)	211 (100%)

a The issue of "Performance not high enough" was not included in analyses of difference between leavers and persisters, given that this issue was coded differently for leavers and persisters. * p<.05

Leavers seemed to have more academic alerts and low motivation issues reported, while persisters had more other issues reported. The results showed that 66.7% of leavers received academic alerts while the rate for persisters was 49.5%. Leavers also seemed to have a relatively high proportion (10.1%) of individuals with low motivation issues compared to persisters (3.0%). In contrast, persisters (10.1%) were more likely than leavers (2.0%) to have other issues reported. Other issues reported in persisters' files included legal issues, complaints about transfer college, problems with study environment at a dorm or home, conflicts with classmates or roommates, addiction to computer games, and misinformation from peers. In addition, persisters and leavers were different in the frequency of personal reasons for leaving. Six percent of leavers had this issue reported in their files while no persisters had this issue reported. Given that this issue was originally designed for leavers, it is not surprising that no persisters had this issue reported. However, caution should be used when interpreting and generalizing the above differences in leavers and persisters. Although Chi-square tests showed that the differences in academic alerts [$\chi^2(1) = 5.99$], low motivation [$\chi^2(1) = 5.68$], and other issues [$\chi^2(1) = 7.69$] between leavers and persisters were significant at a .05 level, the inflation of Type I error weakens the conclusion when 19 Chi-square tests were performed to examine the differences on 19 individual issues.

Advisor Contacts and Quality of Advisor Notes

Two t-tests were conducted to examine the difference in advisor contacts between leavers and persisters. The results indicated that these two groups were not significantly different in either the total number of contacts [t ((166) = 1.78, *p* = .08] or the number of direct contacts [t (196) = .91, *p* = .36] during their first year of enrollment. Table 7

presents the means and standard deviations of the frequency of advisor contacts for

leavers and persisters.

Table 7
Descriptive Statistics of Advisor Contacts for Leavers and Persisters During First Year of Enrollment (N = 198)

	Total Number of Contacts		Direct Contacts	
	Leavers	Persisters	Leavers	Persisters
Mean	9.59	7.73	5.52	5.04
SD	8.73	5.56	3.95	3.37

Quality of advisor notes was also examined in this study. Table 8 shows that the

majority of advisor notes, both for leavers and persisters, contained enough or

standardized information to understand a student. Leavers and persisters also had similar

proportions of files that had no advisor notes or contained little information to understand

the student. Although leavers appeared to have a higher proportion of notes containing

comprehensive information (38%) than persisters (23%), this difference was not

statistically significant. A Chi-square test result indicated that there was no significant

difference in the variation of advisor notes between leavers and persisters, $\chi^2 (3) = 5.34$, p

= .15.

Table 8
Coding for Quality of Advisor Files

Rating Category	Leavers		Persisters	
	n	%	n	%
1 No notes exist for the student	1	1.0%	1	1.0%
2 Little information	10	10.0%	12	12.0%
3 Enough (standardized) information	51	51.0%	64	64.0%
4 Comprehensive information	38	38.0%	23	23.0%
Total	100	100%	100	100%

Discussion

The purpose of this study was to examine whether GC leavers and persisters had different issues reported in their advising files. We compared information from persisters' files to a prior analysis of leavers from the same cohort of GC 2003 NHS students. The study also examined the differences between these two groups in academic performance, frequency of advisor contacts, and quality of advisor notes.

Preliminary analyses indicated that persisters performed better academically than leavers, which is consistent with previous studies of GC leavers and persisters (e.g., Wambach, Hatfield, et al., 2003). Persisters had a higher average cumulative GPA and a lower frequency of withdrawals.

In this study, however, persisters were not found to be significantly different from leavers in frequency and categories of issues reported. On average, each persister and leaver had two to three issues reported. Persisters and leavers had similar proportions of issues reported in student academic, student non-academic, institutional academic, and institutional non-academic categories. Among both persisters and leavers, academic issues were reported more often than non-academic issues, and student issues were reported more often than institutional issues. The majority of issues reported for both groups were student academic issues (56%), while there was a large proportion of student non-academic issues reported for persisters (33%) and leavers (36%).

Persisters and leavers were also similar in rank orders of frequency of individual issues. For example, academic alerts and poor academic performance were the two issues reported most frequently for both leavers and persisters, although leavers had a higher proportion of academic alerts and poor performance than persisters. Several student non-

academic issues (e.g., work, financial, family, and emotional/mental health issues) that were reported relatively frequently for leavers were also reported for persisters. However, compared to leavers, persisters seemed to have a lower frequency of academic alerts and low motivation issues and a higher frequency of other issues. It was also found that some leavers departed due to personal circumstances such as military service or other life choices that did not suggest underlying issues or problems.

The results indicated that a relatively large proportion (21%) of persisters had the issue of GPA not high enough to transfer into desired programs. Although this issue was not compared for persisters and leavers in this study because of the change of coding procedure, previous analyses found that this issue was reported more often for persisters than for leavers (Wambach, Hatfield, et al., 2003).

This study also examined whether there were differences in frequency of advisor contacts and quality of advisor notes between leavers and persisters. It was found that the two groups were not significantly different in either total number of advisor contacts or direct advisor contacts during their first year of enrollment. The variation of advisor notes, which was found for leavers in previous analyses, was presented in this study as well, but there was no significant difference in quality of advisor notes between persisters and leavers.

This study has several limitations that may affect the generalization of the findings. First, this study had a relatively small sample size and the sample was based on only one cohort. This may partially explain the inconsistency of findings between this study and a previous study. For example, Wambach et al. (2003) found a difference in work and financial issues between persisters and leavers in the GC 2000 cohort, but the

present study did not find this difference in the 2003 cohort. The different results may be due to cohort differences, a sampling difference, or may reflect differences between information available in paper and electronic files. In addition to advisor notes, electronic files included a large amount of email correspondence, while paper files had program planning forms, leave of absence forms, petitions, and mailed correspondence.

Second, there is a limitation in the way "persisters" and "leavers" were defined in this study. We used enrollment in the fourth semester (spring 2005) as a criterion to differentiate leavers and persisters in the 2003 NHS cohort. It is likely that many of the persisters will eventually leave, and some of the leavers will return to the UMN. The fluctuation in leaver and persister status may explain the lack of difference in issues reported in advising files. Future studies may use different criteria (e.g., continued enrollment over along period of time) to categorize persisters and leavers. Third, there is likely to be a rater bias, given that all the files were coded by one author in this study.

Future studies could explore other factors that affect students' behavior of persistence and retention. These factors may include students' social support, life experience to cope with stress, resilience, career goals, and personality characteristics. To better understand student leaving, future studies also need to make use of multiple methods and sources to collect information, such as interviews with students, advisors or faculty members as well as information revealed in student petitions to withdraw from classes.

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