

Towards Excellence

Assessment and Retention in the CCCU

News From the Comprehensive Assessment Project

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Editor's note:

In May 2000, Karna Walter, then a graduate student at the Center for the Study of Higher Education at the University of Arizona, completed her dissertation on the link between student satisfaction and persistence rates at Christian colleges.

Entitled "Staying or Leaving: A Multilevel Approach to Explaining Variation in Persistence Rates Among Christian College Undergraduates", the study examines the roles various institutional characteristics and student characteristics (including student satisfaction) play in explaining why some students left the Christian college in which they were enrolled, while others stayed.

Walter, a graduate of Calvin College (MI), has a longstanding interest in Christian higher education. Walter conducted much of her research in collaboration with the CCCU's Quality/Retention Project, led by Dr. Laurie Schreiner. We have asked her to summarize her findings here.

Exploring The Connection Between Student Satisfaction And Persistence

by Karna Walter

A Summary of the Findings

My research focused on both student-related and institution-related predictors of student persistence at CCCU institutions. I learned that students' *individual characteristics* (class level, employment, graduate aspirations, etc.) and their *level of satisfaction* with their college (social, academic and religious satisfaction) contributed to their decision whether to stay enrolled.

But student-related factors don't tell the whole story. I also found that three *institutional factors* seem to play a role in students' decisions – the size of the underclass student body, the tuition rate and the gender makeup of the student body.

This article discusses all significant predictors of persistence that emerged from my research. It concludes with a list of 11 steps you can take to promote persistence at your CCCU institution.

A Multi-Level Approach

In conducting research for this study, I used the hierarchical linear modeling (HLM) statistical technique. This multilevel approach is designed to examine the impact of both institutional and individual data on an outcome within an individual.

My **individual data** included student background characteristics (see Table 1, Page 4) and student satisfaction factors (see Table 2, Page 6) created from a factor analysis of fall 1998 Student Satisfaction Inventory scores from CCCU institutions. Fifty-five CCCU institutions provided follow-up persistence data reflecting whether respondents were still enrolled in fall 1999. My final sample consisted of 8,732 students – first-year students, sophomores and juniors – from the 55 participating institutions.

The **institutional data** included selectivity, size, tuition and other structural characteristics (see Table 3, Page 6). I entered these variables into HLM equations to determine which characteristics had a significant impact on students' enrollment decisions.



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Questions?

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Part 1 Results: Individual Predictors Of Student Persistence

Of the respondents in the 1998 sample, 83% returned to their campuses in 1999 (77% of first-year students, 84% of sophomores and 90% of juniors). But what about the 17% who didn't? What variables help explain their decisions to leave?

Let's start with significant **student characteristics**. Obviously, class level matters: sophomores were 64% more likely to persist than first-year students, while juniors were 42% more likely. In addition:

- Students who were attending their third-choice institution (or lower) were 70% less likely to persist.
- Students employed full-time off campus were 79% less likely to persist than their peers, while students working part-time off campus were 55% less likely to persist.
- Students living on campus were 26% more likely to persist than those living off campus.
- Students with graduate or professional school aspirations were 22% more likely to persist than those without them.

Satisfaction factors also helped explain variation in persistence. Religious satisfaction, satisfaction with the campus climate, academic satisfaction (as measured by satisfaction with course content, instruction and intellectual atmosphere) and satisfaction with academic advising were all positively associated with persistence. Following are the relationships between each factor on students' likelihood of persisting, expressed in percentages:

- Satisfaction with campus climate - increases the odds of persisting by 50%.
- Religious satisfaction - increases the odds of persisting by 29%
- Academic satisfaction - increases the odds of persisting by 27%
- Satisfaction with academic advising - increases the odd of persisting by 7%

Two other factors, reflecting satisfaction with student support services and with faculty, did not have a statistically significant impact on persistence.

Editor's Note:

Satisfaction with faculty and with student support services did not reach statistical significance in this study, which is counter-intuitive. However, much of this is due to the way the items were organized on scales. For example, the student support items included registration and assessment as well as weekend activities, athletics and other student life programs. As organizational psychologist Herzberg has pointed out, these issues tend to be "dissatisfiers" or maintenance factors rather than "satisfiers" or motivational factors. Student life issues can be a source of dissatisfaction because of the hassles they can create, but simply

having positive experiences in the student life area is not enough to motivate a student to stay in school. In addition, a positive student life program can contribute to a welcoming climate in which students feel a sense of belonging, so the campus climate items may have absorbed many of the student life contributors. In a similar way, satisfaction with faculty failed to reach statistical significance because the items on the scale related to faculty being available outside the class and caring about students, which may have been absorbed into the climate scale.

Analysis: Understanding The Individual - Level Results

What can we learn from this? Many of the findings support previous research on persistence – research conducted at institutions quite different from CCCU schools. Other findings, particularly those related to student satisfaction, represent new ways of understanding persistence. Let's look at the results more closely.

Student Characteristics

Class level: That first-year students are less likely to persist than sophomores and juniors is no surprise. The vast majority of retention research focuses on why students fail to persist after their first year. First-year students are more likely to leave because they have less invested personally, socially and financially than students who have been on campus longer. But note that sophomores are also leaving at a higher than expected rate. Previous retention research indicates that the sophomore to junior attrition ought to be half of what the first-year to sophomore year attrition was. In this CCCU sample, we lost 23% of first-year students, but we lost 16% of sophomores, when predications indicate we should have only lost 11% of sophomores.

Graduate aspirations: Students who believe they will attend graduate or professional school are more likely to stay. Several reasons may be at work. First, such students may enter college with strong academic preparation, as well as the family support that helps them believe they can handle graduate or professional work (self-efficacy). Second, students with graduate aspirations are more likely to invest energy into their academic situation. Third, such students may be more inclined to become academically integrated into campus life by developing close relationships with faculty.

Living arrangements: Students living on campus are more likely to persist. Again, this isn't surprising. Living on campus provides students with many opportunities to integrate into the campus

community. Such opportunities are likely to increase students' attachments to the institution. Also, students who live on campus at their own expense (rather than through financial aid) are likely to have the financial stability to afford tuition; they are not likely to leave for financial reasons.

Off-campus employment: Students working off campus, either part-time or full-time, are less likely to persist than students who work on campus. That's because students who work on campus do more than earn a paycheck; they also have the opportunity to build social connections with faculty, staff and other students. These interpersonal connections enhance integration and involvement, both of which foster persistence. Working off campus does not provide the same benefits, because students are not likely meeting other members of their campus community. Their work prevents them from becoming more involved in campus life.

College Choice: Why might a student attending her third-choice institution be dissatisfied and, therefore, likely to leave? She may be dissatisfied simply because she wasn't accepted at her first-choice institution, or she may be attending a Christian college because of parental pressure rather than out of personal desire. She may also continually compare her experiences to her beliefs about how much better it would have been at her first-choice institution. Students are likely to retain the impressions they have about a college upon entering – whether positive or negative.

Student Satisfaction

Satisfaction with the Campus Climate: This factor represents social satisfaction – whether students feel a sense of welcome and belonging on campus, enjoy being a student on campus and feel a sense of pride about their campus. Students who indicated that their campus met or exceeded their expectations in these ways were 50% more likely to persist than their peers who were less satisfied with the campus climate.

Students may be attracted to CCCU institutions because they believe the environment will give them the opportunity to build relationships with students who share their core beliefs. Indeed, By Baylis, in his "Report on the 1996 First-year Entering Students" (1997), shows that CCCU students reflect a different social profile than those who enter secular institutions. He found that CCCU students were less likely to be "hedonists" and "status strivers" than their peers at secular institutions. It seems fair to assert, then, that students who enter Christian colleges are, in general, looking for a social atmosphere that they are unlikely to find elsewhere. When they find it, they are satisfied and stay.

Why are some students less satisfied with the campus climate, and therefore more likely to leave? Students

might believe the social atmosphere on campus is either too permissive or not permissive enough. In addition, if an institution is relatively small and does not have many subenvironments, students who do not "fit the mold" may not be inclined to stay.


Religious Satisfaction: Most studies of persistence do not consider the impact of religious satisfaction on persistence. Because of the explicitly religious nature of CCCU institutions, such a variable is necessary. And religious satisfaction certainly contributes to students' decisions to stay. Many students choose to attend a Christian college because doing so reinforces their worldview. Previous research with CCCU institutions indicates that attending a Christian college or university is likely to help students grow in their faith, which contributes to religious satisfaction.

On the other hand, students who are less satisfied religiously are more likely to leave. Some students may believe the religious

nature of the college is either too explicit or not explicit enough. And, again, some students may be attending a Christian college because of their parents' wishes rather than a personal desire. Integrating Christian faith into academics may feel suffocating to such students.

Academic Satisfaction: Satisfaction with the intellectual facets of campus life – such as course content, quality of instruction and intellectual atmosphere – is another important influence on students' enrollment decisions. Students who are satisfied with the level of challenge and the nature of academic life are more likely to stay than their peers who are not. Satisfied students are not likely to believe they could receive a better education elsewhere. Perhaps one reason for this belief is a student's commitment to learning through Christian lenses, which could not be done as explicitly and regularly on a secular campus.

But why might students be less satisfied with academic life on campus? Some may find that the relatively small size of CCCU schools limits their choice of majors and programs. Other reasons for dissatisfaction may be students' inadequate academic preparation, their discomfort with faith/learning integration or their perception of the quality of instruction.

Satisfaction With Academic Advising: This aspect of academic satisfaction, while statistically significant, explained the least amount of variation in student persistence. Students who were satisfied with academic advising were 7% more likely to persist than those who were less satisfied. Strong academic advising is characterized by assistance in goal-setting and decision-making and the formation of a bond between student and advisor. If these things don't happen, students may feel less connected academically and may choose to leave. 

Students employed full-time
off campus were 79% less likely
to persist than their peers.

Results: Institutional Predictors Of Student Persistence

But what about the institutional factors? When individual-level effects are held constant, how much do institution-level variables contribute to our understanding of persistence? Quite a bit. While individual level variables alone explain 19% of the variance in persistence, the combination of individual-level and institution-level variables explains 49% of the variance.

My research found that three institution-level predictors contributed the most to student persistence:

- Gender composition – institutions with higher percentages of men had higher persistence rates
- Undergraduate enrollment – institutions with relatively high undergraduate enrollments had higher persistence rates
- Tuition – higher tuition rates were associated with higher persistence rates

Analysis: Understanding The Institution-Level Results

Percentage of men students

Institutions with higher percentages of men students were likely to have higher persistence rates – among both men and women students. Why? An imbalance of men and women may affect social relationships, especially dating relationships. In addition, the nature of gender roles in our society and on our campuses may be taking its toll: male-dominated environments often are ascribed higher status and prestige than female-dominated environments, which may affect students' enrollment decisions.

Undergraduate enrollment

Larger institutions had higher persistence rates. This seems to contradict most research on retention: larger institutions generally have lower retention rates than their smaller peers. The difference in this case is the size range among CCCU institutions. Of the institutions

in the sample, the smallest enrolled 457 students, while the largest enrolled 3,935. If smaller institutions offer students many attractive options – such as a psychologically manageable size and a sense of cohesiveness and intimacy – why are students at small CCCU institutions more likely to leave? First, smaller institutions cannot offer as many academic or social opportunities. Second, small campuses might not include a well-equipped recreation center or other common “places to hang.” In addition, smaller institutions are likely to have fewer social subenvironments for students. Students who do not fit the dominant mold may be inclined to leave.

Tuition level

More expensive institutions had higher retention rates. Why? Several factors may help explain this. Students who can afford the cost of tuition are not likely to leave for financial reasons. In addition, people with money often have other cultural advantages, such as a family history of education. When students have parents who attended college, they understand what college is like before they set foot on campus. 🏫

Table 1

Characteristics of Students in the Sample

- 62% women
- 85% Caucasian/white
- 41% first-year students
- 31% sophomores
- 28% juniors
- 78% on-campus residents
- 51% claimed grade point averages of 3.0 or higher
- 21% had earned no credit at the time they filled out the survey
- 34% aspired to attend graduate or professional school
- 65% were employed at least part-time
- 74% at first-choice institution
- 18% at second-choice institution
- 8% at third-choice institution or lower

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What About You?

Eleven Things You Can Do To Promote Persistence

These findings have important implications for how CCCU leaders can shape institutional environments in a way that promotes persistence. Here's what you can do:

1. Focus on the first and second-year experiences of your students.

First-year students are often testing the waters, knowing they can transfer if they don't like it. One year may be all you have to facilitate connections for these students. Setting up mentoring relationships between first-year students and faculty or older students can help students become more committed to your institution. For sophomores, CCCU research indicates that students find it difficult to justify the tuition if they do not know what they are doing with their lives. Helping sophomores discover their strengths and a sense of their calling can help in this process.

2. Provide opportunities for all students to dream about their futures.

Does your campus actively encourage students to consider graduate school? Do you plant seeds early in students' careers about graduate school and nationally competitive scholarship programs, such as the Fulbright, Rhodes and Marshall? Do you host staff from university graduate and professional school programs on your campus? Students who see graduate or professional school in their futures are more likely to stay enrolled.

3. Think about how to connect students who live off campus to campus life.

How do you engage students who do not live on campus? What academic and social programs could be created to encourage them to become involved in the campus community? How might on-campus students be partners in the process?

4. Provide job opportunities for students on campus.

What job opportunities are available for students on your campus? While some students must work off campus to afford the cost of

private education, others may do so because few jobs are available on campus.

5. Identify students who consider your institution their third (or lower) choice.

How do you identify students whose first or second-choice institutions were other schools? Do you know students' preferences before they begin their first year? If so, what might you do to target these students and intervene before they make the decision to leave?

6. Enhance academic satisfaction.

Are your faculty knowledgeable in their fields, capable teachers and strong advisors? Do you encourage students to pursue academic dreams, at the undergraduate and graduate level?

7. Improve religious satisfaction.

Does your campus regularly reevaluate how it integrates faith and learning? Do you encourage spiritual questioning as a means to spiritual growth? Do you provide relevant opportunities for students to do ministry, either on campus or off?

8. Focus on the campus climate.

Do *all* students on your campus feel welcome? What are you doing to ensure that this happens? What are your student leaders doing to enhance campus pride? How are your staff and faculty identifying students who do not seem as engaged in campus life? How can you intervene?

9. Highlight the strengths of your institution's size, and compensate for its deficiencies.


If you work at a smaller institution, consider partnering with larger institutions in your area. Could you create opportunities for your

students to take classes at other schools, use larger library facilities there or perhaps gain access to the university fitness center? How about strengthening study-abroad opportunities for your students?

10. Consider your pricing policies.

What is a just tuition cost? How can your institution cover expenses without "pricing out" lower-income students? Is it feasible to increase tuition without losing such students, or would increasing tuition simply cause your institution to attract wealthier students?

11. Work toward a balance of men and women in your student population.

What academic programs could you establish that might appeal to men as well as women? How can you target your recruiting appeals to both genders? 

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Comprehensive Assessment Project News

First-year Survey Results

In January, UCLA's Higher Education Research Institute (HERI) mailed the 2000 CIRP first-year survey results to participating campuses. More than 15,000 Christian college/university first-year students participated in the survey – our largest sample ever! The CCCU norms and dataset will be available soon on the Internet at www.gospelcom.net/cccu/projects/assessment/#load. People who wish to download the datasets and norm tables must have a username and password. If your institution paid your 2000-2001 CAP dues, you can get your username and password from Nita Stemmler at the CCCU office (nstemmler@cccu.org or 202-546-8713x336).

The CAP Assessment Web Site

is evolving this year. The goal for this Web site is to provide useful and timely findings, data and resources to CCCU participating campuses. This year we have added a data and table download section that allows individuals to copy survey data to their own computers. We have also added a section that allows people to compare their own institutional findings to those of all other CCCU schools involved in the survey. Look for the "Project Findings" section to be enlarged this spring. We intend to post numerous findings from this year's first-year student

survey (CIRP). These findings will allow you to quickly and accurately compare your first-year students to CCCU first-year students nationally. The assessment site is located at www.gospelcom.net/cccu/projects/assessment.

Next year's agenda is full!

CAP participants, for their dues of \$1200, will be able to use the Student Satisfaction Inventory (SSI), the Institutional Priorities Survey (IPS) and the College Student Survey (CSS). Noel-Levitz produces the first two surveys to help us increase our retention rates. The CSS is produced by the Higher Education Research Institute, and gives us a snapshot of our seniors as they are ready to graduate. Combining the CIRP first-year survey results with the CSS senior results gives us a wonderful view of how our students change in numerous domains, such as level of altruism, professional goals and social values. Campuses will also have the option of participating in HERI's Faculty Survey, which is given every three years (this is not included in the \$1200 participation fee). CCCU campuses have found this a very useful tool for helping

administrators understand their faculty and helping faculty understand how they are similar to and different from the students they teach.

Finally, we will be having a winter assessment conference in Florida, tentatively scheduled for February, 2002, in Tallahassee. This will be a warm and revitalizing conference to help us put to use the valuable information we are gathering. Plan on coming and consider presenting your work with the assessment and retention findings. Watch for details on the CCCU Web site at <http://www.cccu.org/events>.


Remember the \$1200 CAP participation fee gives your campus many benefits. These include a price break on the Noel-Levitz surveys, complete datasets from all HERI surveys, CCCU norms on each of the surveys, and full access to the CCCU Assessment Web Site. This site is growing constantly and will have a wealth of supporting information for you as you seek to improve education on your campus. Invitations to participate in the 2001-2002 project will be mailed out later this spring. 

Table 2

Measures of Student Satisfaction

The study examined the effects of academic, social and religious satisfaction on persistence. A factor analysis of the 41 items on the SSI related to these areas of satisfaction revealed these six measures:

1. Religious satisfaction
2. Satisfaction with campus climate (social satisfaction factor)
3. Satisfaction with student support services (social satisfaction factor)
4. Satisfaction with academic advising (academic satisfaction factor)
5. Satisfaction with course content, instruction, and intellectual atmosphere (academic satisfaction factor)
6. Satisfaction with faculty (academic satisfaction factor)

Table 3

Institution-Level Data

The study garnered institutional data from several sources: Peterson's Guides, the U.S. Department of Education's IPEDS database, college and university Web sites and official college and university publications. The following statistics reflect the *mean descriptive characteristics* of the 55 institutions in the sample:

Student composition

Women students: 59%
Minority students: 10%

Housing Status

Students living on campus: 57%

Selectivity

Applicants admitted: 80%
First-year students in the top 10% of their high school class: 26%
Faculty with terminal degrees: 63%
Peterson's Guide selectivity measure: 2.95
(entrance difficulty: 1=noncompetitive; 5=most difficult)

Structural characteristics

Cost of attendance: \$15,591
Tuition cost: \$10,947
Undergraduate enrollment: \$1,375