# Retention of Students

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## Background

"Institutional efforts to increase retention are probably the most cost effective investment possible for maintaining and enhancing enrollment" (Green, 1981).

Recent declines in first-time enrollments has led to increased efforts to retain student at colleges and universities across the United States. For many years, schools of higher education had a large pool of recent high school graduates to draw from in order to meet their enrollment quotas. This pool was a result of the post World War II "Baby-boom". During the late 1980's, however, this enrollment pool shrunk and the competition among universities for potential college students increased. The net effect has been an increased effort by university personnel to retain students after initial enrollment (White & Bigham, 1982).

The decline in first-time enrollment has affected colleges of agriculture and home economics across the nation. Enrollment in our land-grant colleges dropped 25 percent from 1980-84 (Reisch, 1984). The enrollment in the College of Agriculture and Home Economics (CAHE) at Washington State University (WSU) has followed national trends.

## Purpose and Objectives

The purpose of this study was to identify characteristics and trends pertaining to the retention of students in Agriculture and Home Economics disciplines at Washington State University. This study assumed that increasing the CAHE's retention rate at Washington State University was one method of maintaining stable enrollments. This study focused on identifying factors that put students at risk as first-time enrolling freshmen. The specific objectives were:

1. To determine the effects high school background, including enrollment in selected vocational courses, had upon academic retention.
2. To develop a profile of the CAHE students at WSU and determine the effect college lifestyle had upon academic retention.
3. To determine the effect college academic advisors had on the retention of students within the College of Agriculture and Home Economics.

## Procedures

The population consisted of all 1984 WSU entering freshmen who declared an interest in majoring in either agriculture or home economics. Official records kept by the WSU registrar's office was used to identify these individuals. Current WSU addresses and permanent home addresses were used to contact the original population. A total of 169 individuals were surveyed by mail and 108 (63.9%) of the surveys were returned. A total of 72 respondents (66.7%) that had enrolled during the fall of 1984 were still attending WSU during spring semester of 1988. Thirty-six respondents (33.3% were no longer attending WSU. The Total Design Method (TDM) was used to develop the format of the questionnaire (Dillman, 1978).

The questions found in the survey were of three types:

1. Multiple choice, and simple yes/no questions.
2. Questions using a Likert scale to rate student opinion.
3. Open-ended questions with an unlimited response scope.

The information was analyzed through descriptive statistics. Frequencies, means, percentages, and standard deviations were used to report results. Chi-squares, correlations, and pooled t tests were used to identify relationships between two variables. The 5% significance level was chosen.

## Results

### High School Background

The authors hypothesized that there would be significant differences between the mean high school grade point average (GPA), WSU first semester GPA, and cumulative WSU GPA of retained and non-retained students (Table 1). As predicted, retained students had significantly higher first semester and cumulative WSU GPA's than non-retained students. However, there was no significant difference between retained (M=3.30) and non- retained (M=3.15) regarding cumulative high school grade point average, $T(104)=1.84$, $P<.05$. Thus, it was not possible to predict the retention of students based solely on high school GPA in this study.

Many of the respondents had taken Agricultural Education and Home Economics courses in high school. There was significantly no difference between the overall retention rates of those respondents who said they took a primar-

**Table 1. Mean GPA and Standard Deviation of Respondents.**

| Variable | Mean | SD | N |
|---|---|---|---|
| NOT-RETAINED | | | |
| HS GPA | 3.15 | 0.41 | 35 |
| WSU 1st sem GPA | 2.20 | 0.84 | 36 |
| WSU cumulative GPA | 2.26 | 0.75 | 36 |
| RETAINED | | | |
| HS GPA | 3.30 | 0.42 | 71 |
| WSU 1st sem GPA | 2.75 | 0.69 | 72 |
| WSU cumulative GPA | 2.92 | 0.49 | 72 |

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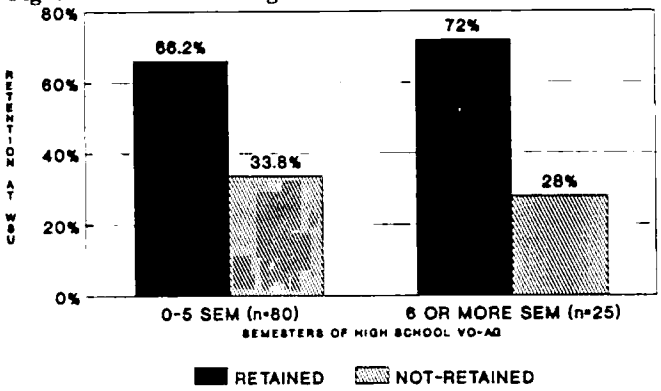
Figure 1. Semesters of Ag Ed vs. Retention of 1984 Students.




ily college prep track (67.9% retained) versus those who took Agricultural Education classes in high school (67.6% retained). Figure 1 illustrates that the 25 respondents who took 6 or more semesters of Agricultural Education had a higher retention rate (72.2%) than those who took 0-5 semester Agricultural Education (66.2%).

Table 2. Population of Home Town vs. Retention & Cumulative WSU GPA of Respondents.

| Population | Retention Rate | Cumulative GPA | N |
|---|---|---|---|
| <2500 | 87.0% | 3.05 | 23 |
| 2501 - 5000 | 65.0 | 2.62 | 20 |
| 5001 - 25,000 | 60.9 | 2.63 | 23 |
| >25,000 | 61.0 | 2.58 | 41 |

Table 2 lists the overall retention rate and cumulative GPA at WSU according to the population of the respondent's home town. Individuals who came from towns of less than 2500 had very high retention rates and cumulative college GPA's in comparison with students from larger cities. The author's felt that respondents from high schools with enrollments of less than 100 may be at a disadvantage due to the limited number of college-prep courses available to them. However, respondents from high schools with less than 100 students in grades 10-12 were retained at a rate of 87.5% and had the highest WSU cumulative GPA of all respondents. Table 3 lists these results.

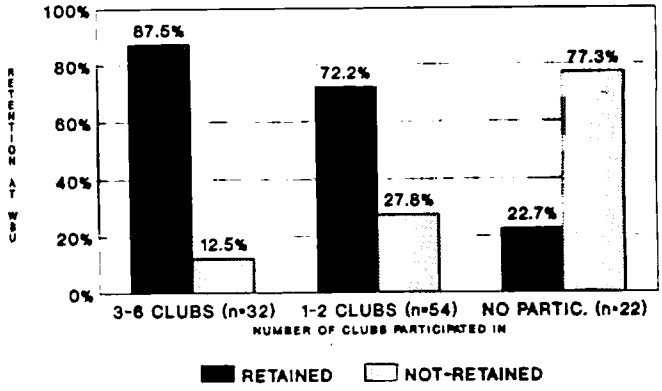
Table 3. Size of High School vs. Retention & Cumulative WSU GPA of Respondents.

| Size of H.S. | Retention Rate | Cumulative GPA | N |
|---|---|---|---|
| <100 | 87.5% | 3.01 | 16 |
| 101 - 250 | 61.1 | 2.72 | 18 |
| 251 - 500 | 68.2 | 2.73 | 22 |
| 501 - 1000 | 72.7 | 2.59 | 22 |
| >1000 | 59.3 | 2.62 | 27 |

## Effect of College Lifestyle Upon Retention

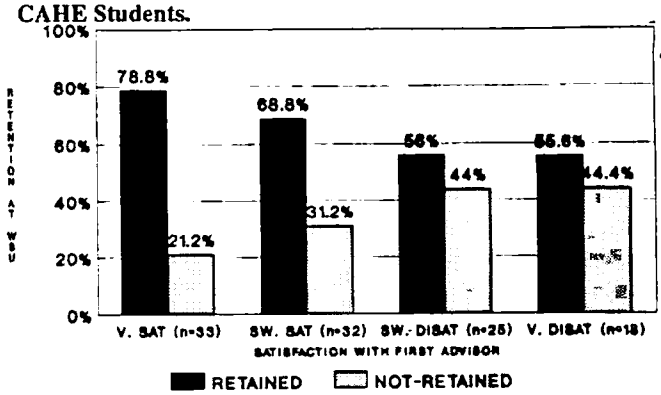
Active CAHE students were retained at high levels than their counterparts. Students studying over 30 hours a week were retained at the highest levels and had the highest cumulative GPA's at WSU. Respondents who took over 15 credits per semesters had higher cumulative GPA's (M=1.90) than those who took 15 credits or less (M=2.53). Pascarella (1982) found that freshmen persisters were more involved in college social life and involved in more activities on campus. Figure 2 depicts retention rates according to

Figure 2. Participation in Clubs vs. Retention of 1984 CAHE Students.




the number of clubs/organizations respondents were involved in. Those participating in 3 or more organizations were retained at a rate of 87.5%. A chi-square test of significance was computed and found significant differences in the retention rates of the three groups, X2 (2,n=108) = 26.35, p<.05.

Figure 3. Satisfaction with 1st Advisor vs. Retention of 1984 CAHE Students.

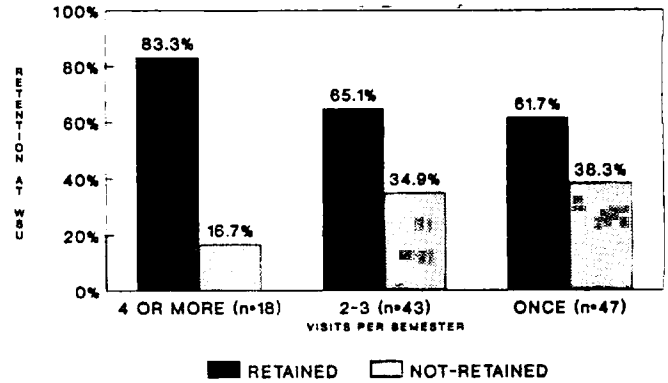



## Effects of Academic Advising Upon Retention

Good academic advising is very important in the CAHE at WSU. Figure 3 illustrates that retention rates increased with the overall level of satisfaction with one's first advisor. Those very satisfied with their first advisor were retained at a very high rate of 78.8%. Those lease satisfied with their first advisor were retained at a 55.6% rate.

Research by Schmedinghoff (1979) indicated that visiting the advisor often and establishing a good relationship

Figure 4. Visits to Advisor per Semester vs. Retention of 1984 CAHE Students.



# Qualitative and Quanitative Methods Add Depth to Recruiting Study

Wm. Jay Jackman and Regina A. Smick-Attisano


## Abstract

*Qualitative research methods were used to investigate the factors that influence prospective agriculture college students' choices of college and major at Virginia Tech and the interventions Virginia Tech's College of Agriculture and Life Sciences (CALS) might employ to encourage prospective students to consider their opportunities in agriculture and the life sciences. Results indicated that family members and the reputation of the college were important factors in students' college choices and that Virginia Tech CALS should be more visible in the high schools and communities from which prospective students come and should take an active role in informing the public about contemporary agriculture.*


## Introduction

Since the mid 1970s, undergraduate enrollments in colleges of agriculture in the United States have decreased drastically. Many factors have influenced this trend. Pescatore and Harter-Dennis (1987) suggested that the "decline can be attributed to two areas of concern: 1) a decline in the traditional college-age population, and 2) the failure of agriculture to compete with other professions in attracting students" (p. 22).

Obviously, little can be done about the declining number of college-age students; however, there should be ways that the colleges of agriculture can increase their share of the prospective college students. In an invited paper at the 32nd Annual National Association of Colleges and Teachers of Agriculture (NACTA) Conference, R. J. Hildreth (1986), Managing Director of the Farm Foundation, said, "If Colleges of Agriculture are going to provide the human capital desired by agribusiness firms, it is important to recruit the brightest and the best, as well as adjust their programs of education" (p. 12).

Coulter, Goecker, and Stanton (1990) have projected nearly an eleven percent annual shortage of college of agriculture graduates to meet the employment demands through 1995. Their report projects large career opportunities in agricultural marketing, merchandising, and sales; agricultural sciences, engineering, and related areas; and agricultural management and finance. These projections have been

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with him/her would be beneficial to the student. Figure 4 illustrates the retention rates of respondents based on the number of visits per semester with their advisor. Those who visited their advisor 4 or more times per semester were retained at a rate of 83.3%.

## Conclusions and Recommendations

Academic retention of college of agriculture and home economic students will become increasingly important in the 1990's as universities face a decline in first-time enrollments. No difference was found in the retention rates of those who took a college prep high school curriculum (67.9%) and those who took Agricultural Education classes (67.6%). Respondents from towns of less than 2500 and from high schools with enrollments of less than 100 students also had higher retention rates.

Active participation of on-campus clubs and organizations also appears to increase the retention rates of agriculture and home economic students. Advisors need to encourage students to take a full credit load and become involved in various campus activities.

Retention rates increased as overall level of satisfaction with one's first advisor increased. Students were also retained at higher rates as student made more frequent visits to their advisor. It is recommended that greater emphasis be put on the advising program within the CAHE. Outstanding advisors need to be recognized within individual departments of the CAHE and ineffective advisors need to be given instruction to help improve their advising skills.

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