

Nontraditional and Traditional Student Persisters and Nonpersisters in the Community and Technical College

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ABSTRACT

A study was conducted with Community and Technical College students enrolled at the University of Akron, a major urban university, during the **1978-1979** academic year. Students were divided into traditional and nontraditional persisters and nonpersisters, and if they were placed on academic probation, they were removed from the study. These students were given modified National Center for Higher Education Management Systems (NCHEMS) questionnaires for program completers and noncompleters. The questions tested for varying degrees of satisfaction with the University and reasons for withdrawal concerning various academic, socioeconomic, and environmental press variables. In addition, selected demographic variables from the student **masterfile** were tested, along with the questionnaire responses in 99 research hypotheses using multiple linear regression and corrected for multiple comparisons. Results indicate that 13 hypotheses were found to significantly discriminate between traditional and nontraditional community college students. The persisting nontraditional students appeared to be more satisfied with the University concerning a few variables, greater proportion attended part-time, during the day, enrolled for less hours, and had a greater high school grade point average than their traditional counterparts. The nonpersisting, nontraditional students were similar to their persisting counterparts, except that traditional nonpersisting students had a higher high school grade point average, lived at greater distances from the school, and attended day time classes as compared to nontraditional students.

INTRODUCTION

Dropping out of college and its related academic problems has been a heavily researched topic, evidenced by the large number of recent dissertations on the subject. This research often focuses on counting numbers and establishing causal relationships that may not exist. These studies use one of three research strategies: analysis of exit **interviews**, analysis of data collected on self-reported questionnaires solicited sometime after the student has

departed from the institution, and multiple correlation and regression analysis of selected academic, test, or demographic variables which might relate to student attrition. The following authors: Aitken,¹ Astin,² Bayer,³ Clegg, Prichard and Weigand,⁴ believed that demographic data collection and its statistical manipulation traditionally has been a major technique in the analysis of student attrition rates. Community and technical college students have been shown in the literature to be motivated by different forces than their baccalaureate degree seeking counterparts. Thus, it is reasonable to assume that their satisfaction with a university's functions and reasons for withdrawal are different from their traditional 4-year counterparts and should vary with age. It is also assumed from the literature that significant differences among student persisters and nonpersisters concerning institutional, academic, and socioeconomic variables should be expected.

METHOD

Institution

The institution under study is The University of Akron, located in Akron, Ohio. At the time of the study, the University enrolled more than 23,000 day and evening students in credit courses, with an additional 7,000 in "informal" adult education. The University of Akron has a significant population of students who are older, working full or part-time, day and/or evening, and living at home. They are first generation students from middle and lower class socioeconomic backgrounds in the community which the University is located.

Instruments

The two instruments selected for this study were developed by the National Center for Higher Education Management Systems at WICHE (Western Interstate Commission for Higher Education). The two questionnaires were developed to assess the potential uses of attrition studies in general. Bower and Myers indicated that the general kinds of uses that may be abstracted in an attrition study are:

- to provide information about dropouts that may lead the post-secondary institution to possible corrective action;
- to document the numbers and percentage of college students who leave for stated reasons not amenable to corrective action by the institution; and
- to build models that may allow the prediction of which students will most likely drop out and the actual numbers of students who will eventually drop out.⁵

¹ N.D. Aitken, *College Student Performance, Satisfaction, and Retention: Specification and Estimation of a Structural Model*. *The Journal of Higher Education*, 53, No. 1 (1982) 32-50.

² A.W. Astin, *Preventing Students from Dropping Out*. (San Francisco: Jossey-Bass, 1975).

³ A.E. Bayer, *The College Dropout: Factors Affecting Senior College Completion*. *Sociology of Education*, 41, (1968), 305-316.

⁴ A.A. Clegg, Jr., K. Prichard, and P. Weigand. *Multiple Regression as a Technique for Predicting College Enrollment*. *Multiple Linear Regression Viewpoints*, 9, No. 5 (1979), 1019.

⁵ C. Bower and R. Myers, *A Manual for Conducting Student Attrition Studies in Institutions of Post-Secondary Education*. (Boulder, Colo.: National Center for Higher Education Management Systems at Western Interstate Commission for Higher Education, 1976).

Because of these concerns, the NCHEMS developed a project labeled "Information About Students" (IAS). This project had as one of its primary goals, "the development of procedures and materials to assist institutions of post-secondary education in conducting attrition studies"⁶. This awareness of the special problems in designing a questionnaire to survey former students, by locating, and obtaining responses from those students (especially from students no longer in residence, at or near the institution), helped to create a final adaptable project. Two questionnaires were developed to survey former student and program completers.

The questionnaire for former students is called the NCHEMS' "Confidential Questionnaire for Non-returning students." It is lengthy and comprehensive in nature. However, Bower and Myers, the authors of this questionnaire, suggested that it only be used as a guideline in the construction of individual questionnaires designed to suit the unique environment of each institution. The guidelines are based on "recommended survey administration practices as well as the experience gained from conducting pilot test attrition studies at four institutions." Therefore, the NCHEMS questionnaire, designed to be used with minor variations to suit individual institutional settings, contained questions dealing with:

- Demographic and basic student background data;
- student's status and activities before leaving school;
- open-ended questions dealing with the student's reasons for leaving;
- a series of standard checklist of reasons for leaving;
- degree of student satisfaction with the institution in checklist form;
- open-ended question allowing the student to list three subjective changes that, if acted upon, would have encouraged the former student to remain at the institution; and
- information about the student's current or future plans and activities.

Bower and Myers recommended that the questionnaire be designed to obtain the required demographic data (sex, ethnic category, grade point average, major field, length of enrollment, etc.) from the student. Depending on the institution, these items are frequently found in the student's master-file, and the information is invaluable if accuracy is to be achieved. According to the authors, a valid argument in favor of not including these items is that the questionnaire can be shortened and thus encourage a better response rate from students.⁸ Unfortunately, most student master-files are either missing these data elements on 20 percent or more of their students, or inaccurate and out-of-date for a large proportion of their students. Also, if accurate matches cannot be made for each returned questionnaire due to matching difficulties with the student master-files, valid data will be lost. Bower and Myers said that all items of interest to the institution should be included on the

⁶ C. Bower and R. Myers.

⁷ C. Bower and R. Myers.

⁸ C. Bower and R. Myers.

questionnaire, and institutional records should not be relied on exclusively. The "users should add or delete items. . . to suit their individual needs," since the questionnaire was "intended to provide a flexible framework for institutions to conduct attrition studies."

Population and Variables Studied

The population under investigation included students who were enrolled during the Fall Semester, 1978, and either returned or failed to return to register for the Spring Semester, 1979. In addition, the population of enrolled undergraduate students in the Community and Technical College was investigated for this time period. The major focus of the study was determining the factors related to the attrition of students enrolled in this college based on age differences. The population was also divided into enrollment status according to persistence and nonpersistence and traditional (age less than 25 years) and nontraditional (age 25 years and older). Community and Technical College students have relatively large noncompletion rates (see Figure 1), and differences between nontraditional and traditional student completion rate also exist (see Figure 3).

The variables considered for the present study concerning expressed degrees of satisfaction with the University were:

- a. Counseling and advising services;
- b. registration processing and library services;
- c. Part-time employment services and financial aid opportunities;
- d. cultural opportunities and intellectual stimulation;
- e. location of the school and residence/living accommodations;
- f. grading system and quality of instruction;
- g. class size and television courses;
- h. amount of contact with teachers and course content in field of study;
- i. times classes are scheduled and relevance of major to career goals;
- j. admissions services and parking availability.

The variables that were used for analyses in the present study concerning reasons stated by student nonpersisters for leaving The University of Akron were also initially developed by the National Center for Higher Education Management Systems. A few of the items were later revised by the University of Akron's Retention Committee. The variables that were studied concerning reasons for leaving the University were as follows:

- Low grades and found courses too difficult;
- inadequate study techniques or habits or needed temporary break from studies;
- major or courses not available or unsure of major;

^a C. Bower and R. Myers.

- dissatisfied with major and course work not challenging;
- dissatisfied with instructors, or "learned what I came to learn";
- conflict between job and studies or accepted job and did not need more school;
- applied but could not obtain financial aid or financial aid not sufficient;
- child care not available or too costly and this school too expensive;
- found study too time consuming or illness (personal or family);
- personal or family problems or "fulfilled my personal goals in schooling";
- transportation problems, "moved out of the area, and did not feel I was part of the University."

The following student demographic variables were taken from the student master-file: Year of birth, county for Ohio residents, financial aids, year of high school graduation, high school class rank, high school grade point average, college class rank, total **ACT** score, total CEEB score, attendance status, semester hours enrolled, college major, ethnic classification, degree sought, **full-time/part-time** enrollment status, and **daytime/evening** time enrollment status.

The participants selected in this study were nonpersisters who returned a questionnaire designed for them specifically by the National Center for Higher Education Management Systems, (NCHEMS) with slight variations made by the Retention Committee at the University; and also persisters who returned the completed questionnaire.¹⁰ The questionnaire completed by the persister segment of the population was also designed by NCHEMS with slight modification by the Retention Committee at The University of Akron." Table I presents pertinent information concerning the continuing and **noncontinuing** students under study.

Statistical Techniques

An F-test using multiple linear regression analysis was utilized to test for significance between the criterion variable student's age and the various demographic and questionnaire variable for **99** specific research hypotheses. The assigned alpha level of .05 for a two-tailed test was considered statistically significant. However, when the employment of the correction for multiple comparisons was necessary, the corresponding alpha level obtained was used before the specific research hypothesis was considered statistically significant using the **Newman** and **Fry method**.¹²

The **Newman** and Fry Correction for Multiple Comparisons was developed to control post-priori tests by correcting the levels of significance. Since a number of **non-independent** comparisons were made in the course of the present study, the **Newman** and Fry Correction method was used to keep the desired alpha level of 0.05 constant across a

¹⁰ C. Bower and R. Myers.

¹¹ M. Byers, *Information Exchange Procedures Outcomes Study Procedures*. (Boulder, Colo.: National Center for Higher Education Management Systems at Western Interstate Commission for Higher Education, 1975).

¹² I. Newman and J. Fry, A response to 'A Note on Multiple Comparisons' and a Comment on Shrinkage. *Multiple Linear Regression* **1972**, 2, No. 3 (1972). 36-39.

TABLE I

Continuing Students, Minus New Freshmen, At The University of Akron
Spring Semester, 1979, by College, Daytime/Evening-Time
Enrollment Status, and Sex (N = 10,449)

College	M/D ^a	M/E ^b	F/D ^c	F/E ^d	DT ^e	ET ^f
General College (N = 6,730)	2,885	602	2,573	670	5,458	1,272
Community and Technical College (N = 3,719)	972	760	1,341	646	2,313	1,406
TOTAL	3,857	1,362	3,914	1,316	7,771	2,678

Note: Total students included only those students who did not graduate Spring Semester, 1979.

- ^a Denotes male/daytime student
- ^b Denotes male/evening-time student
- ^c Denotes female/daytime student
- ^d Denotes female/evening-time student
- ^e Denotes daytime student
- ^f Denotes evening-time student

number of comparisons determined in the study. This was accomplished by taking the desired alpha level to keep constant across a number of comparisons (α_0) and divide that specific α_0 by the number of comparisons one wishes to make (N). Hence, the formula, according to Newman and Fry, would give an easy method that could be used without the assistance of relatively difficult computations and/or tables.¹³

RESULTS

Demographic data were gathered from the student masterfile and selected items on the questionnaires received from the student nonpersisters and persisters sampled. The response rate of usable questionnaires in both cases varied from a low of approximately 22 percent for the nonreturning student population (N = 485) to a high of about 28 percent of the continuing student population (N = 2995). Discriminative analyses were performed on the student nonpersister questionnaire respondents and nonrespondents to assess selection bias. The findings, all tested at the nondirectional, two-tailed alpha level of .05 were: Black students were under represented in the sample of questionnaire respondents; questionnaire respondents were found to have a greater high school class rank and high school grade point average; student nonpersisters who answered the questionnaire were found to have higher total ACT scores than those student nonpersisters who did not return the questionnaire; student nonpersisters who returned the mailed questionnaire were enrolled for more hours of academic course work than nonreturning students who did not answer the questionnaire. In fact, if corrections were made on the alpha level to adjust for multiple comparisons among the hypotheses which tested discriminative relationships among

¹³ I. Newman and J. Fry.

the various demographic variables derived from the student master-file, these previously mentioned differences would not be statistically significant.

Specific research hypotheses 1 through 21 tested for predictive relationships between traditional and nontraditional student dropouts; hypotheses 22 through 46 tested for relationships concerning reasons for leaving the University for student nonpersisters; hypotheses 47 through 67 tested for differences among the degrees of satisfaction with respect to student persisters; hypotheses 60 through 83 tested for discriminative relationships among the various demographic variables for student dropouts; hypotheses 84 through 99 tested for differences among continuing traditional and nontraditional persisters' demographic data. Only 13 out of the 99 specific research hypotheses, once corrected for multiple comparisons, were found to be statistically significant.

DISCUSSION

The research findings of the testing for statistically significant differences between traditional and nontraditional or older continuing and noncontinuing students yielded several important relationships. The research findings relating to *continuing students* are summarized as follows: Nontraditional students cited more satisfaction with registration processing at the University than traditional students; nontraditional students cited greater satisfaction with the location of the school than traditional students; a greater proportion of nontraditional students attended daytime classes than traditional students in the community college; a greater proportion of traditional students attended school full-time than nontraditional students; traditional students were enrolled for more hours, as a whole, than nontraditional students; nontraditional students had a higher high school grade average (2.445) than traditional students (2.19). The research findings concerning *dropout students* are summarized as follows: Nontraditional students cited greater satisfaction concerning contact with teachers at the University than traditional students; a greater proportion of nontraditional students attended school in the evening as compared to traditional students; a greater percentage of nontraditional students lived in the same county as the University compared to traditional students; traditional students had a higher high school average than nontraditional students; traditional students enrolled for more hours than nontraditional students.

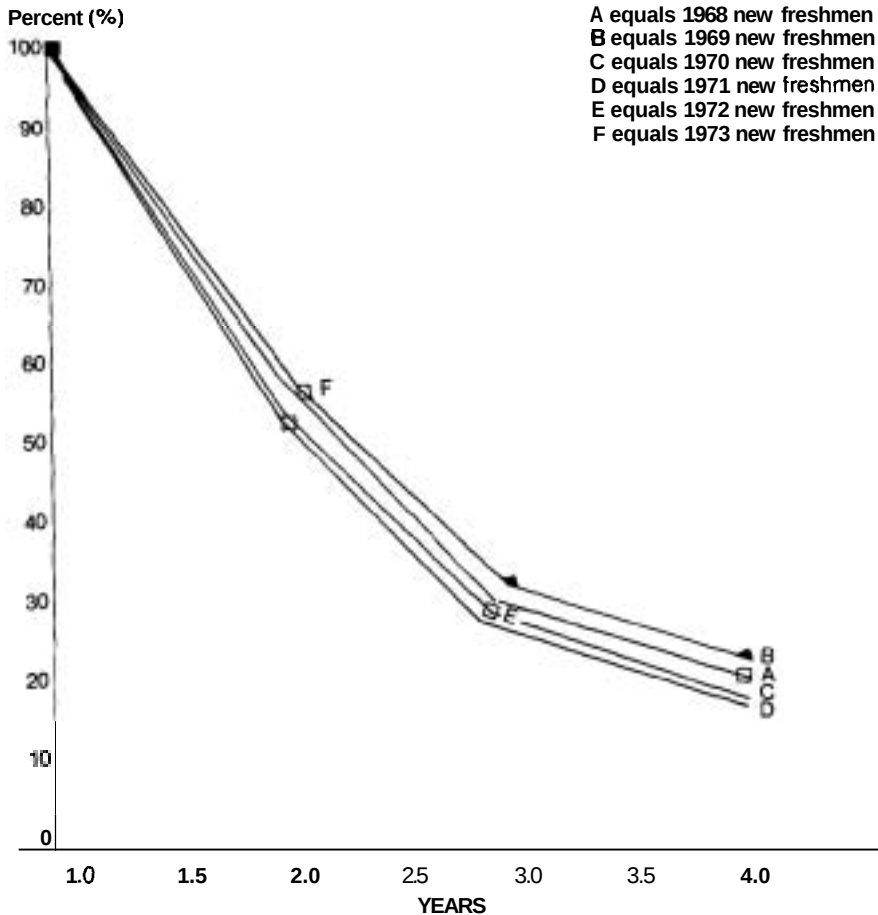
The continuing non-traditional students in the Community and Technical College appeared to show a greater maturity level and refinement of career goals when compared to their younger counterparts. Older students enroll in less hours of academic coursework, but they are better prepared to take those courses because of their high school performance. Surprisingly, a greater proportion of the older students are attending daytime classes than their younger counterparts, which indicates a possible trend for older students who are not working, working on a part-time basis, or leaving work during lunch hours to attend classes. Apparently older students are not as intimidated by traditional students, as once thought, and would welcome the opportunity to communicate and personally interact with the "younger crowd." Also, older students, due to life experience, appear to be more satisfied with registration processing functions and commuting to the University than the less experienced traditional students. Registration processing and parking commuting vehicles are persistent major complaints of most academic institutions.

Concerning the students who do not persist or eventually drop out, older students still seem to evaluate their situation with more patience and maturity. Older students were less critical of their instructors, even though their academic backgrounds, as measured by their high school averages, appeared to be less adequate than the younger students who withdrew. It is evident that the large number of nontraditional students attend night classes because of the obligation to family and/or work may have been important enough to bring about a temporary suspension of their degree or career plans; and later cause a reevaluation of their present position.

SUMMARY

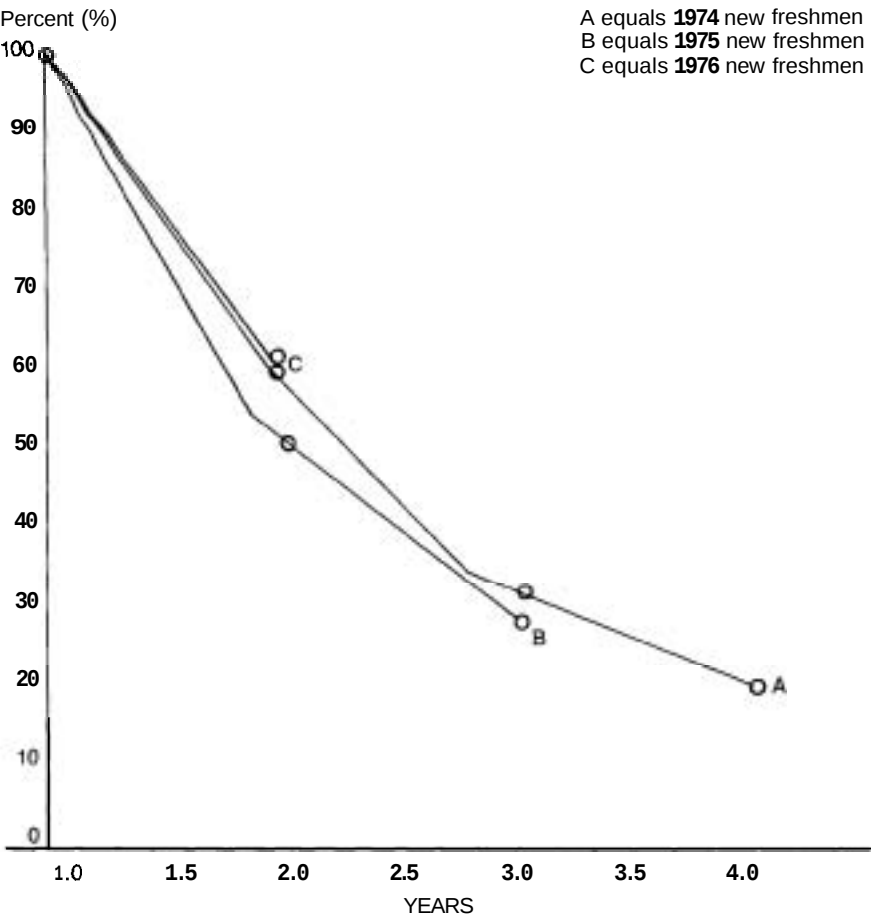
Although only 13 out of 99 research hypotheses that tested for discriminative relations between traditional and nontraditional student persisters and nonpersisters were significant, several interacting results were found. The persisting nontraditional students appeared to be more satisfied with the University concerning a few variables, greater proportion attended part-time, during the day, enrolled for less hours, and had a greater high school grade point average than their traditional counterparts. The nonpersisting older student was relatively similar with respect to most demographic variables to his/her persisting counterpart, except that traditional nonpersisting students had a higher high school grade point average, lived at greater distance from the school, and attended daytime classes as compared to nontraditional students.

FIGURE I
Community and Technical College Mortality Study
Fall Freshmen, 1968-1974



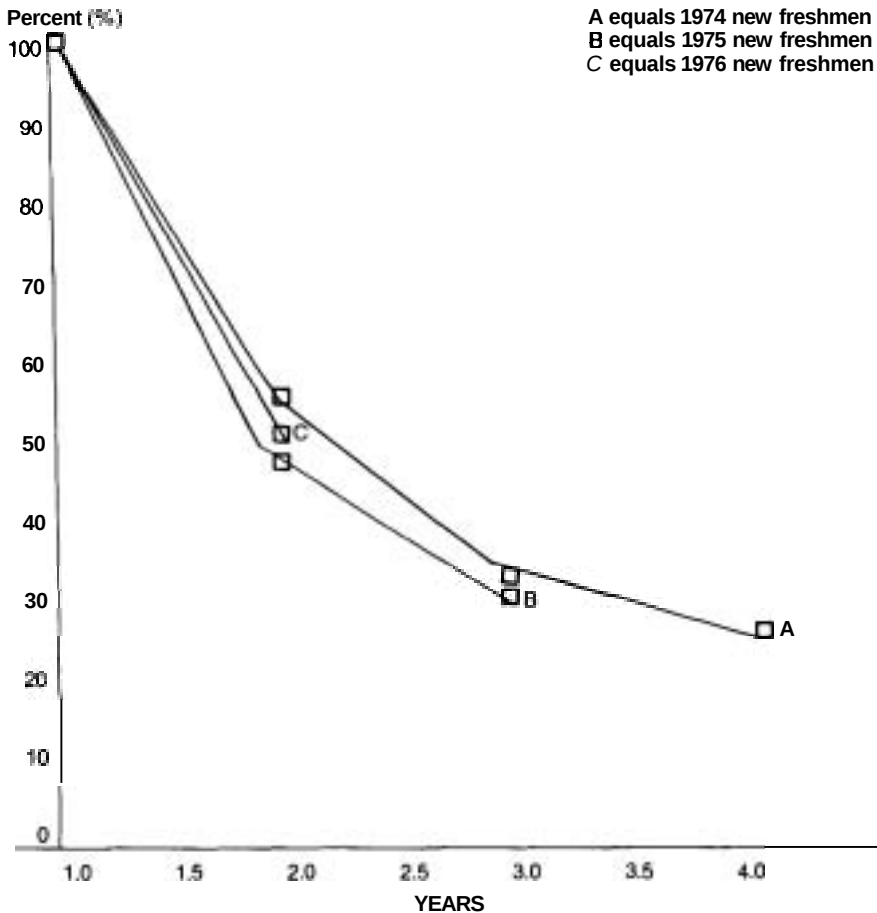
Source: Data obtained from the Office of Institutional Research and Systems Development, The University of Akron.

FIGURE 2
Multi-Year Mortality Study of Community and Technical College
New Freshmen, 1974-1977



Source: Data obtained from *Report of the Committee on Recruitment and Retention of Undergraduate Students, 1978*, (See note 1).

FIGURE 3
Multi-Year Mortality Study of Total Nontraditional Freshmen
Age 25-29, 1974-1977



Source: Data obtained from Report of the Committee on Recruitment and Retention of Undergraduate Students, 1978, (See note 1).