DOCUMENT RESUME

| ED 308 803   | HE 022 934                                                                                                                                                                                            |
|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AUTHOR       | Mellon, John N.                                                                                                                                                                                       |
| TITLE        | Trends in Faculty Involvement in Marketing,                                                                                                                                                           |
|              | Technology and Part-Time Teaching on the College<br>Campus.                                                                                                                                           |
| INSTITUTION  | ERIC Clearinghouse on Higher Education, Washington, D.C.                                                                                                                                              |
| SPONS AGENCY | Office of Educational Research and Improvement (ED),<br>Washington, DC.                                                                                                                               |
| PUB DATE     | Jul 89                                                                                                                                                                                                |
| CONTRACT     | ED-RI-88-062014                                                                                                                                                                                       |
| NOTE         | 20p.                                                                                                                                                                                                  |
| PUB TYPE     | Reports - Descriptive (141) Information Analyses -<br>ERIC Information Analysis Products (071)                                                                                                        |
| EDRS PRICE   | MF01/PC01 Plus Postage.                                                                                                                                                                               |
| DESCRIPTORS  | *College Faculty; College Students; *Computer Uses in                                                                                                                                                 |
|              | Education; Educational Technology; Full Time Faculty;<br>Higher Education; Microcomputers; Part Time Faculty;<br>*Student Recruitment; Teacher Role; *Teacher Student<br>Relationship; Trend Analysis |

#### ABSTRACT

ς.

Three aspects of faculty involvement are discussed: how computer technology affects personal relationships between faculty i d students; how faculty talents help colleges and universities recruit students; and what role part-time faculty members play. Computer use can help faculty and students establish new patterns of sharing data, and computer aided relationships built. around specific question and answer data can influence their frequency of contact. The computer is good for making instructional management more efficient. Its question and answer model lets faculty members become process centered expediters. Part-time teaching performance affects the institution's overall quality of academic progress. Institutional excellence includes faculty that combines part-time professionals with the core full-timers. Issues regarding part-time faculty involve status, use, workload, evaluation, support, and compensation. Colleges and universities must specify employment requirements for part-time faculty who meet the standards established by accrediting agencies. Recruitment strategy (integrating marketing and faculty involvement) is inclusive and involves all members of the campus community. The campus community must look at: where they are; where they want to go; and how they can develop an information system to keep them informed. The college/university mission must be rethought. Faculty involvement is critical to make the plan reflect the institution's academic mission. Institutional health is diagnosed on the basis of enrollment, and marketing is the common prescription for health. Contains 23 references. (SM)

| **** | ***********   | ******** | **** | ***** | **** | **** | ****  | **** | ****      | * * * * | **** | ***** |
|------|---------------|----------|------|-------|------|------|-------|------|-----------|---------|------|-------|
| *    | Reproductions | supplied | by   | EDRS  | are  | the  | best  | that | can       | be      | made | *     |
| *    |               | from t   | :he  | origi | inal | docu | iment | •    |           |         |      | *     |
| **** | ********      | *******  | **** | ***** | **** | **** | ***** | **** | * * * * . | ****    | **** | ***** |



. .

N N

Ø

N

N

# TRENDS IN FACULTY INVOLVEMENT IN MARKETING, TECHNOLOGY AND PART-TIME TEACHING ON THE COLLEGE CAMPUS

John N. Mellon

Assistant Professor Marywood College Scranton, Pa.

Doctoral Student in Higher Education The George Washington University Washington, DC

July 1989

U S DEPARTMENT OF EDUCATION Office of Educational Research and Improvement EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

This document has been reproduced as received from the person or organization originating it

Minor changes have been made to improve reproduction quality

Points of view or opinions stated in this document do not necessarily represent official OERI position or policy



One Dupont Circle, Suite 630 Washington, DC 20036

# INTRODUCTION

Has computer technology changed the personal relationship between faculty and student? What sorts of changes in this relationship are emerging as computers change the face of colleges and universities? •

Are the talents of faculty members being used in helping colleges and universities recruit students in an increasingly competitive market? Can faculty members and admissions officers cooperate more effectively in marketing?

What role are part-time faculty members playing at institutions of higher education today? How dependent are colleges and universities on parttime faculty?

Those questions are at the heart of the topic addressed by this paper. In presenting some trends and issues concerning college and university faculty, the paper surveys some of the literature on the topic as it covers the three areas of faculty use of computers in dealing with students, the role of faculty in marketing the institution, and part-time faculty.



1

#### TECHNOLOGY FOR INSTRUCTION

Effective communication between students and faculty is the cornerstone of education. Traditionally, student-faculty interaction involved face-to-face classroom queries and discussions, office visits, telephone calls, and written notes, as well as encounters in hallways, dining rooms, and at social occasions (Downing et al 1988, p. 247).

The use of computers can encourage both students and faculty to establish new patterns of sharing information. Computers thus become a valuable supplement to traditional ways of student-faculty interaction. Faculty and students can become more productive in the environment established by creative exchanges.

Higher education has only begun to comprehend the complex relationships existing between the power of computers and the use of computers to improve dramatically the personalization of student-faculty relationships. One of the more fruitful areas of study to increase understanding of this subject matter is communication theory (Selfe and Wahistrom 1985, p. 2).

An investigation of the components of communication theory can be conducted using computers to explore how electronic technologies alter the social, psychological, and organizational dimensions of student-faculty communication relationships. Students and faculty indicate that the traditional boundaries, which reduce communication between students and faculty, begin to break down when individuals come together on a CRT screen in a collaborative activity (Selfe and Wahistrom 1985, p. 4).

New technologies can alter the relationship of people using information



2

that affects the communication process. Computers modify human interaction in the communication process. When the student views the CRT screen, the computer immediately can expand, and/or suggest to the student goal-setting questions or identification questions relating to a specific course assignment.

Students may have questions before, during, or after a specific assignment? Before the faculty member presents a specific assignment, therefore, he or she would put into the computer, in a user-friendly manner, any questions with accompanying answers which the student might ask about the assignment. The faculty member uses his or her intuition in creating possible student questions.

While engaged in using the computer to complete a specific course assignment, the student can receive answers to specific questions relating to the assignment by reviewing the questions and answers file the faculty member inserted at the start of the assignment With this academic tool, the student can receive answers to specific questions without visiting or calling the instructor.

The following is a sample of an intuitive question that a faculty member might put in the computer:

After selecting a specific recipe, what unit of measure do I use to show the amount of each ingredient input into the cells of the spreadsheet?

The answer (in a user friendly manner) would appear on the

screen:

All ingredients must be converted into ounces because the computer memory will extend the amounts of each ingredient by multiplying the numeric ounces.

(Fremember, 16 ounces to one pound, 32 ounces to one



quart, and 128 ounces to one gallon.)

ſ

From a psychological perspective, the student who can receive answers to questions 24 hours a day, seven days a week will perceive the student-faculty relationship in more personal terms through using such computerized questions and answers.

One of the most interesting outcomes that computer technology makes possible in student-faculty relationships is to encourage and stimulate faculty to think more about each individual student's specific abilities, needs, and aspirations.

When faculty start introducing technology into their professional teaching and office environment, they often become more self-conscious about their own role and the role of the student. Using computer technology, faculty can focus more on the quality of student-faculty relationships than on the delivery of course content (Field, Lewis and Spitzberg, Jr., 1985, p. 32).

Technology lets faculty members begin to think about what they're doing to communicate on a more personal basis with students. The result is that computers can change the ways in which users share information. Computers actually can dictate the kind of information users share. Computers also can establish new ways of "knowing" for students and faculty (Selfe and Wahistrom, 1985, p. 6).

Consider the following example:

A student logs onto the computer and information dominates the CRT screen before the student can begin using the word processor, spreadsheet, or



database. The computer (in a user-friendly manner) begins to ask questions related to the specific assignment. The faculty member supports the premise that the student should be able to answer these specific questions related to the assignment before moving on to the next step. A sample question might be:

One liquid gallon equals how many ounces?

The question expands the student's schema by "suggesting" that he or she continue with the assignment or return to the library to review cookbooks, food purchasing manuals, and/or weight-measure conversion charts.

What is the rationale for having faculty create such questions?

- Some students are find asking questions of faculty on a face-toface basis threatening. These students can use a computer to ask questions. Also, the computer can encourage students to spend more time in preparing to complete an assignment, something a poor student would ignore completely (Strickland 1984, p. 11-12).
- o 'f poor preparation is the problem, or if the student is unable to consider the full rhetorical context of the assignment or to set priorities, the computer affords a way that the student can present individual questions relating to the assignment (Strickland 1984, pp. 11–12). This type of help from a computer in answering assignment-related questions can change or modify the student's behavior.
- o It also gives the faculty member time to use more productively than in preparing and reviewing 20 to 25 outlines for students to answer an assignment completely.

The computer has the capacity to change the way students and faculty approach specific questions by presenting the questions as process-oriented exercises leading to concrete conclusions. The computer allows the faculty member to do what he/she never has been able to do: Answer questions 24



5

hours a day, seven days a week during the student's preparation time. The computer can supply the student a smorgasbord of questions, and suggest different strategies to use during the process of completing an assignment.

Computer-aided relationships built around specific question and answer data can influence the frequency of contact between students and faculty. The us^ of such questions and answers dramatically improves the personalization of student-faculty relationships.

In implementing an instructional system, sophisticated programming may be involved. Some of the characteristics that must be present to implement such an instructional system are:

- 1. The system must be capable of supporting any instructional model.
- 2. The system must have immediate access to the information requested.
- 3. The system must be easy to use.
- 4. The system must produce information that is concise and appropriate.
- 5. The system must handle continuous monitoring with ease.
- 6. The system's assessment must be made with valid and reliable test items (Hall 1988, p. 36).

Generally, faculty are willing to interact with students beyond the classroom. New technologies in computers can accomplish this objective in creative ways, allowing faculty to work with students on a higher professional level.

The computer is an ideal tool for making instructional management more efficient and helpful. The computer can be directed to follow one strategy from a menu of choices. It also offers a number of choices, or "branches," within a



single program (Strickland 1984, p. 5).

Another advantage to a computer-based question and answer format relating to a specific course assignment is that the student saves time. There is no need to play telephone tag with the faculty member; no need to wait outside an office while another student meets with the faculty member; no need to schedule an appointment; and the student's questions may be asked and answered any time (Downing et al 1988, p. 249).

Future efforts to increase the usefulness of the question-answer model will focus on two goals:

- o expanding the pool of instructional models;
- o enhancing the realism of the actual training experiences for faculty to create the models (Strang and Loper 1985, p. 128).

The computer question and answer model offers a chance for faculty members to become process-centered expediters, matching pedagogy to knowledge (Strickland 1984, p. 10).

### PART -TIME FACULTY: A VALUABLE RESOURCE

A standard definition of part-time faculty does not exist. At larger institutions, the definition varies among departments. In the 1980s, part-time faculty carry 20 percent of the total teaching load in colleges and universities in



7

 $\boldsymbol{9}$ 

the United States. At community colleges, 50 percent of all faculty teach part time.

Part-time faculty teaching performance can and does affect the overall quality of academic progress for the institution, with educators arguing both sides of the issue. Those critical of the use of part-time faculty complain that they are poorly prepared. not available to students, do not contribute to institutional research or publications, and do not participate in college or university governance. Those in favor argue that employment of part-time faculty increases staffing flexibility and is economical for the institution.

The Carnegie Commission on Higher Education reported in 1972 that colleges and universities needed to maintain budgetary flexibility in the face of shifting or declining enrollments and, furthermore, that institutions needed to reduce- expenditures in higher education by 20 percent in the 1970s. The commission said that in carrying out these goals colleges and universities might need to hire more part-time faculty members in the late 1970s (Mayhew 1973, p. 42). Yet it was only in 1978 that Howard Tuckman, a prominent researcher in the subject of part-time faculty, first asked the question, "What is part time in academe?" (Tuckman 1978, p. 305).

Teaching part time may be considered part of an overall career development thrust. A definition of career development is:

Any activity or set of activities designed to enhance an organization through the promotion of the personal-professional growth of the management and/or employees of that organization (Clapp 1987, p. 12).

An institution's strategy for achieving academic excellence is based on a faculty that combines part-time professionals with its core of full-time faculty.



8

Part-time faculty members teach for a variety of personal and professional reasons. Some enjoy the status and stimulation that teaching in a college or university provides.

Other part-time faculty, however, have their own personal perception that they are academe's second-class citizens. Reasons for this perception include such factors as contracts for part-time faculty renewal are based on enrollment, not excellence in teaching performance, and part-time faculty often are hired with little time to prepare for their first class (Smith 1987, p. 9). This situation causes destructive work-related stress. In addition, staff orientation, development and support for part-time faculty often is inconsistent at colleges and universities.

Administrators do not want the accountability that would accompany a formal part-time faculty appraisal system with salary step increases. Such an evaluation system would have an impact on the autonomy and flexibility of administrators in hiring temporary faculty. Thus, the problem of inadequate compensation is compounded by the lack of rewards and incentives.

Nonetheless, there still remains a large percentage of part-time faculty who have a long-term, permanent relationship with higher education institutions. Their rights, authority, power, and benefits vary.

The National Labor Relations Board (NLRB) can make decisions if parttime faculty are regarded and included as regular employees. The board uses four major criteria to determine if part-time faculty are regular employees. These include:

- o compensation
- o participation in university governance
- o eligibility for tenure
- o working conditions



9

The greater the community of interest between part-time and full-time faculty based upon these criteria, the greater the chances of their inclusion as regular employees (Gappa 1984, p. 50). Part-time faculty are an important and powerful resource in achieving academic excellence and in meshing the world of education with the world of professional work (Phelan 1986, pp. 9–10).

What are the major advantages and drawbacks to employment of parttime faculty? Consider this in connection with a specific major -- Hotel and Restaurant Management in a four-year curriculum.

The major is a hands-on discipline. Most institutions require a faculty member in this major to possess a minimum of five years hospitality industry experience. Part-time faculty, with hotel/restaurant management experience, bring to the classroom great value on the pragmatic outlook and real world wisdom, not demands on the students to do extensive library research and written reports. The science department may not see any value in the employment of a part-time faculty member who has not conducted research in over 10 years. One major wants research, one major considers research second to work experience for a part-time faculty member.

All professional sources agree that 1980 to 1995 will be a lean period for faculty seeking full-time positions (Gappa 1984, p. 16). Therefore, a continued increase of part-time faculty at most colleges and universities will be noticed.

To date, there is a continuing absence of data, a lack of good evaluation information, and simply no organized mechanism for collecting and retaining information on part-time faculty at many colleges and universities.

If colleges and universities have not established procedures to obtain substantial survey information on part-time faculty, they should do so in a



10

carefully executed manner (McMillan 1987, p. 8). Information relating to part-time faculty credentials, their individual personal concerns relating to institutional procedural policies, and current student-department chairperson evaluations should be examined as closely as those of full-time faculty. Part-time faculty members generally should be recognized as an integral part of institutions of higher education who have a continuing involvement and commitment to the institution.

institutions should be prepared to answer the following questions before seeking part-time faculty:

- 1. What do you want to achieve with part-time faculty?
- 2. Which departments or subjects are most appropriate for part-time professionals?
- 3. Does the use of part-time faculty conflict with accreditation?
- 4. Where can you find suitable part-time professional faculty? (Phelan 1986, p. 9).

Part-time faculty provide hiring flexibility and, in some cases, needed subject expertise at less cost than rull-time faculty. By retaining practicing professionals on a part-time basis, institutions ensure that students receive information about the professions. Part-time teaching also contributes significantly to the professional development of the in 'ividual professor (Clapp 1987, p. 15).

The issues regarding part-time faculty involve status, use, workload, support, evaluation, and compensation (Smith 1987, p. 2). The best protection for colleges and universities is to specify clearly the requirements of employment for part-time faculty meeting the constraints of standards established by accrediting agencies (Gappa 1984, p. 60).

The goal of colleges and universities must be to enhance, rather than



The goal of colleges and universities must be to enhance, rather than discourage, part-time teaching performance and individual face contributions to institutions.

#### **RECRUITMENT STRATEGY:**

#### INTEGRATING MARKETING AND FACULTY INVOLVEMENT

Marketing a college or university is not merely a series of isolated activities. It is an inclusive operation involving all members of the campus community. Marketing involves risks, without any simple, definitive answers. A success'ul admissions-marketing strategy is one whose successes serve larger institutional objectives (Devine 1987, p. 11).

Higher education has gone recently from a seller's market to a buyer's market (Devine 1987, p. 4). Therefore, the marketing plan of an institution must attract and retain new students. Students today are the <u>buyer</u>, while colleges and universities are the <u>seller</u>. Institutions must continue developing sound academic programs supported by an often decreasing budget.

Today, the ultimate purpose of every college and university is to attract, educate, and graduate students (Devine 1987, p. 6). Because of the decreasing number of traditional college-age students in the 17 to 22 age bracket, and the increasing cost of operations caused by inflation, every college and university is turning to marketing.



Admissions department officers and counselors represent the all-important marketing branch of the college today (Zuker 1986, p. 27). Yet, historically, admission officers have been viewed as having little in common with the academic mission of colleges and universities. This concept may have been permissible when admission officers' practiced "crowd control" (Devine 1987, p. 3). The market now belongs to the buyer.

Going from a seller's market to a buyer's market demands that colleges and universities use marketing in a more businesslike fashion. The professional literature for admission personnel now is full of the language and jargon of marketing specialists: market share, market niche, market demand, comparative advantage, competitive pricing models, and product packaging are some examples (Devine, 1987, p.4).

When deciding upon an appropriate marketing strategy for a college or university, there are several important factors to consider:

- 1. A college-university offers a service.
- 2. It is expensive.
- 3. Only a finite amount of money is budgeted for recruitment (Grossman 1985, p. 16).

A successful college or university marketing strategy should integrate those factors carefully. In addition, a comprehensive marketing plan for a college or university should include such factors as the institution's position, its possible market segment and its image.

Position Evaluating an institution's position includes what the college or university offers in relation to ``competitors.'' Successful marketing identifies



13

aistinct markets, the needs and interests of each segment, and uses an appropriate marketing mix to reach each segment (Grabowski 1981, p. 10). Evaluating an institution's image involves such factors as its environment, athletic fame, and noted alumni.

Market Segment: An institution's marketing plan must include strategies meeting the changing attitudes of students, parents, and high school counselors. Families today are comparison shopping among institutions. They carefully weigh the offers of financial aid and scholarship money from institutions to the prospective student (Zuker 1986, pp. 26–27).

Therefore, colleges and universitites must now promote themselves and their product, asking the question, "What is our product?" If they want to serve students most effectively, they must look at their product, at how they are perceived as institutions, and adjust their strategic planning accordingly. The campus community must answer these questions:

- 1. Where are we now?
- 2. Where do we want to go?
- 3. How can we develop an information system that keeps us informed on how we are doing getting there?

The first tasks of admission officers are to make sure of the institution's capacity for survival, its ability to adapt to sudden change, and to develop an overall marketing strategy (Hennessey 1985, p. 15).

Marketing today requires a rethinking of the college-university mission. An institution's mission statement is a commitment to a concrete, specific plan with clearly stated priorities. The mission statement includes suggestions on where to



deploy institutional resources, recommended changes, and a timetable for assessing the implementation of changes.

Faculty involvement is critical to ensure that the admission-marketing plan reflects the institution's academic mission. As faculty members become involved in planning, they become supportive of the admissions office's marketing strategy and aid in spreading support throughout the college (Rickard and Walters 1984, p. 36).

For a marketing program to succeed, an institution must not only be able to attract enough new students to maintain its enrollment, it also must attract students who will complete their course of study. In the long run, the success of a marketing plan depends on an institution's ability to develop sound academic programs that meet the educational needs of its students and its ability to portray honestly its progress in marketing (Grabowski 1981, i).

Enrollment management merges recruiting and retention of students (some call it "recruiting for retention"), and approaches marketing as a more holistic process that takes into account those issues important to the institution's mission after students matriculate (Devine 1987 p. 6). An institution's health is dependent on planning, research, student services, and other efforts.

A "people serving people" concept is the essence of a successful marketing strategy. This means placing people first in planning. Key ingredients to student satisfaction are teaching quality and a caring attitude on the part of faculty, staff, and campus community (Johnson 1987–88, pp. 14–15). Having promoted faculty as a key reason for students to select an institution, the admissions officers next must ask faculty members to help market their academic programs and the institution as a whole (Rickard and Walters 1984, p. 36).

Faculty members nationwide increasingly are becoming involved in direct-



15

contact programs with students and parents. Faculty are visiting high schools, conducting interviews, meeting students on campus and off, and talking with (and writing letters to) students and parents about their disciplines (Zuker 1985, p. 28). The most effective marketing plan includes bringing prospective students to the college campus accompanied by their parents for a structured visit with several representative faculty members.

Marketing in the context of college and university admission work is an allembracing process that includes all elements of an institution. Institutions should know as much as they can about the students currently attending their institutions because they are the best predictors of future enrollees in the same market segment (Grabowski 1981, p. 31).

Institutional health is diagnosed on the basis of enrollment, and marketing is the common prescription for health (Johnson 1987-88, p. 26). Colleges and universities need to develop tracking systems which will be able to accurately measure each marketing technique (Hennessey 1985, p. 19).



# REFERENCES

- Clapp, P. 1987 <u>Part-Time Teaching as Career Development</u>. University of Calgary. ED 289 049.
- Daniel, R.S. 1985. <u>What Have We Learned from Instructional Technology?</u> Evansville, Ind.: Mid-American Conference for Teachers of Psychology. ED 266 080.
- Devine, J.E. Fall 1987. "Advising and Admission: Partners in Enrollment Management." Journal of College Admissions 3-11.
- Downing, T.E.; Schooley, L.C.; Matz, E.M.; Nelson, L.N.; and Martinez, R. January 1988. "Improving Instructor-Student Interaction With Electronic Mail." <u>Encineering Education</u> 247-250.
- Field, H.; Lewis, R.; and Spitzberg, Jr., I.J. 1985. "Technology and the Faculty: A Panel Discussion." <u>Phi Kappa Phi Journal</u> 37 (2):32-33.
- Gappa, J.M. 1984. <u>Part-Time Faculty: Higher Education at a Crossroads</u>. ASHE-ERIC Higher Education Research Report No. 3, Washington, D.C.: American Association for Higher Education. ED 251 058.
- Grabowski, S.M. 1981. <u>Marketing in Higher Education</u>. ASHE-ERIC Higher Education Report No. 5. Washington, D.C.: American Association for Higher Education. ED 214 445.
- Grossman, R.J. March 1985. "Marketing Management Perspectives to Bolster Your Recruitment Efforts." Journal of College Admissions 109:14–18.
- Hall, M. 1988. "The Case for Computerized Instructional Management." <u>Educational Technology</u> 28 (6): 34–36.
- Hennessey, H.D. Spring 1985. "Corporate Marketing Techniques for Small Colleges." Journal of College Admissions 15-19.
- Johnson, B. Winter 1987-88. "Marketing: It's Not Everything." <u>The College</u> <u>Board Review</u> 146:14-15, 25-26.
- Kramer, G.L., and Megerian, A. 1985. "Using Computer Technology to Aid Faculty Advising." <u>NACADA Journal</u> 28 (2):51-61.
- Mayhew, L.B. 1973. "The Carnegie Commission on Higher Education". <u>New</u> <u>Directions for Higher Education</u>. San Francisco: Jossey-Bass.
- McMillan, V.K. July 1987. <u>Fiscal Year 1987 Illinois Public Community Colleges</u> <u>Faculty and Staff Characteristics: Analysis of Part-Time Faculty.</u> Springfield, III.: Illinois Community College Board. ED 283 544.



- Merrill, M.D. 1988. "The Role of Tutorial and Experiential Models in Intelligent Tutoring Systems." <u>Educational Technology</u> 28 (7):7-12.
- Phelan, A. 1986. <u>Boundary-Spanning Professionals: Value-Adding Roles for</u> <u>Part-Time Faculty.</u> Brooklyn, N.Y.: Pratt Institute. ED 279 233.
- Rickard, C.E., and Walters, J.C. Fall, 1984. "Attract Academically Strong Students." Journal of College Admissions 35-37.
- Selfe, C.L., and Wahistrom, B.J. 1985. <u>An Emerging Rhetoric of Collaboration:</u> <u>Computers, Collaboration, and the Composing Process.</u> Houghton, Mich.: Michigan Technological University. ED 261 384.
- Smith, J. October 1987. <u>Agenda Item 5 Part IV Part-Time Faculty.</u> Sacramento, Calif.: Board of Governors of the California Community Colleges. ED 287-531.
- Strang, H.R., and Loper, A.B. 1985. "Microcomputer Support of Teacher-Pupil Dialogue. <u>Educational Technology Systems</u> 14(2): 119–28.
- Strickland, J. 1984. <u>Problems and Promises: Invention on the Computer</u>. ED 273 987.
- Tuckman, H.P. December 1978. "Who Is Part Time in Academe?" <u>AAUP Bulletin</u> 64:305.
- Zuker, F. Summer 1986. "The Persistence of Anxiety: Life as a College Admissions Officer." <u>The College Board Review</u> 140:25-26.

This publication was partially prepared with funding from the Office of Educational Research and Improvement, U.S. Department of Education, under contract no. ED RI-88-062014. The opinions expressed here do not necessarily reflect the positions or policies of OERI or the Department.



<u></u>