DOCUMENT RESUME

ED 283 511 IR 012 715

AUTHOR Schmidt, William D.
TITLE Learning Resources Programs That Make a Difference. A Source of Ideas and Models from Exemplary Programs in the Field.
INSTITUTION Association for Educational Communications and Technology, Washington, D.C.
REPORT NO ISBN-0-89240-046-3
PUB DATE 87
NOTE 124p.
AVAILABLE FROM Association for Educational Communications and Technology, 1126 16th Street, NW, Washington, DC 20036.
PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS Budgets; Case Studies; Computer Uses in Education; Distance Education; *Educational Media; *Educational Television; Elementary Secondary Education; Financial Support; Higher Education; *Instructional Development; *Learning Resources Centers; *Library Services; Organization Size (Groups); Productivity; Program Descriptions; Two Year Colleges
IDENTIFIERS Organization Charts

ABSTRACT

Case studies for 27 exemplary learning resources programs, varying in scope from the more traditional audiovisual services center to the integrated learning resources center, are presented in this volume. Public tax-supported programs selected by a national survey of learning resources leaders are included. The programs described are classified by institution as: (1) doctorate-granting universities; (2) comprehensive universities and colleges (i.e., institutions that offer a liberal arts program and have one or more professional or occupational programs but lack a doctoral program); (3) two-year colleges and institutes; (4) public school districts; and (5) regional education agencies. In addition to data about the institution and program--e.g., its physical size, enrollment, and faculty--each case study provides a program description and information on budgeting and financial support, current projects/practices, and staffing. Photographs, organizational charts, and floor plans acccmpany the case studies. Brief descriptions of 14 additional programs, additional information on the case study programs, and an index of learning resources applications, projects, and services conclude this report. (MES)

Learning Resources Programs That Make A Difference

A SOURCE OF IDEAS AND MODELS FROM EXEMPLARY PROGRAMS IN THE FIELD

LEARNING RESOURCES PROGRAMS THAT MAKE A DIFFERENCE

A Source of Ideas and Models From Exemplary Programs in the Field

LEARNING RESOURCES PROGRAMS THAT MAKE A DIFFERENCE

A Source of Ideas and Models From Exemplary Programs in the Field

William D. Schmidt
Professor of Instructional Media
Central Washington University

Association for Educational Communications and Technology

ISBN: 0-89240-046-3

Library of Congress Cataloging in Publication Data:

Schmidt, William D.
Learning resources programs that make a difference.

VIDEOTAPE BASED ON BOOK

A twenty minute videotape, entitled "Exemplary Learning Resources Programs: Vignettes of Media Uses," highlights some of the practices and projects of thirty-three learning resources programs featured in this book. This videotape is a transfer of a multi-image Special Presidential Presentation at the AECT Annual Conference in Las Vegas entitled "Exemplary Media Centers: Exemplary Practices."

The videotape is available from the Media Resources Center, Iowa State University, Ames, Iowa 50011. (½" VHS: $59.95; ¾" U-matic: $69.95—postage included)

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PREFACE

With the prospect of visiting over thirty widely-scattered learning resources programs nominated as being exemplary, I had a feeling that many of the programs would be very similar. That was not the case. While many were alike in regard to providing basic media circulation, production, and maintenance services, their ways of organizing and delivering these and other services varied considerably. I was especially impressed with the diverse approaches used by the different programs to demonstrate to their constituents and administrators the viability of their programs.

Traveling from west to east and north to south, every program presented to me, and hopefully to others as well, new and different ways of doing things or solving problems. While the details of these approaches or techniques are revealed in the case studies, at the outset I would like to present a preview sampling of some unique features of some of the programs:

- Montgomery County Public Schools (Maryland) has a library media specialist in all 152 schools of the district.
- The Instructional Media Center at California State University, Chico, has an extensive regional television microwave system that is used to deliver instruction throughout northeastern California. Chico State is also one of the few universities in the nation with satellite uplink capability.
- The Regional Media Center at Heartland Area Education Agency (Iowa) probably has as much high-volume production equipment as can be found in an educational setting in the nation.
- Kirkwood Community College's (Iowa) Telecommunication Division has several interactive telecommunications links with communities and schools in a seven-county area of Iowa.
- Indiana University's Audio-Visual Center clients first contact is an instructional design generalist.
- Media Services at St. Cloud Community Schools (Minnesota) is heavily involved in the curriculum development process.
- North Lake College (Texas) opened in 1977 with a goal of having fifty per cent of all classes available in self-paced options within five years.
- The Media Resources Center at Iowa State University has bucked the recent national trend by showing growth in budget increases and staff additions.
- Portland Community College (Oregon) is doing more with teleconferencing than any of the other programs visited.
- The Professional Resource Center at Wayne County Intermediate School District (Michigan) is using computer technology so heavily that it describes itself as an "electronic library."
- Miami University's (Ohio) Audio Visual Service puts heavy emphasis on a systematic consultation process with media production clients.
- New Mexico Military Institute recently completed construction of a learning resources center: an unusual feat in the 1980's.
- Both Learning Resources at the University of Wisconsin—Stout and Learning Resources Services and the Center for Information Media at St. Cloud State University (Minnesota) have integrated all learning resources (print and audiovisual) and the training of media specialists into one program.
- The District Media Center of Birmingham Public Schools (Michigan) is supported by a school board that is very interested in having students understand and use the newer communication technologies.
- The University of Connecticut's Center for Instructional Media and Technology has made a major commitment to university promotion (image-building, public relations, fund raising).
- San Diego County (California) Office of Education's Media Services distributes high demand for 16mm films via television. In terms of people reached, this program also has one of the largest Instructional Television Fixed Service systems in the nation.

In this field, as in most areas of education, there has existed some pessimism about the future. I admit to having shared some of those negative feelings. However, having seen the programs highlighted above, and others, I came away reassured that all is not nearly as bad as it might appear to be. There are many good learning resources programs surviving and thriving! The purpose of this publication is to report on those programs and perhaps lead others in the learning resources field to study them and select from their descriptions some of the elements that might help them in improving their own programs.

ACKNOWLEDGEMENTS

I would like to express my gratitude to my employer for the last twenty-three years, Central Washington University, for making it possible for me to undertake this study. I was awarded a sabbatical leave and a small (but helpful) research grant by Central Washington University. Without that support, this study would have been impossible.

I am particularly grateful to Dr. Charles W. Vlcek and Darwin F. Davis of that institution's Instructional Media Center who, in my ten-month absence, assumed many of my job responsibilities. I would also like to thank staff photographers Dave Mitchell and Larry Watson for doing much of the photographic processing and printing, Darwin F. Davis for preparing the organizational charts for each program, and Jan Hein and Carla Freeman for typesetting the chart and table information.

I would also like to acknowledge and thank the following programs for supplying some of the photographs and graphic illustrations used to accompany the text: Audio Visual Service, Miami University; Media Resources Center, Iowa State University; Learning Resources Center, Virginia Polytechnic Institute and State University; Learning Resources Services, University of Wisconsin—Stout; Instructional Media Center, California State University, Chico; Telecommunications Division, Kirkwood Community College; Learning Resources Center, Richland College; Learning Resources Center, North Lake College; Toles Learning Center, New Mexico Military Institute; Instructional Support Services, Portland Community College; Media Services, St. Cloud District 742 Community Schools; District Media Center, Birmingham Public Schools; Department of Instructional Resources, Montgomery County Public Schools; Division of Media, Grant Wood Area Education Agency; Professional Resource Center, Wayne County Intermediate School District; and the Instructional Media Center, Jackson Education Service District.

Finally, I would like to thank all the directors and staffs of the learning resources programs contacted in this study. Considering the several survey instruments completed, the on-site visitations, and the follow-up calls and correspondence, a significant amount of time was contributed by them to help make this study possible.

INTRODUCTION

During the past decade many educational programs have faced severe budgetary reductions or had found their budgets stagnating during a period of high inflation. Learning resources programs at all educational levels have not been spared from these developments. While it was felt that few learning resources programs have been completely untouched by austerity measures, there might be some that have weathered the storm reasonably well.

Furthermore, perhaps the learning resources field has reached another cross-roads, where, beset with problems and pressures to change, models of successful programs might be useful to serve as a database of information. These models might provide answers to some of the following questions:

- Is there a better administrative structure for my program?
- Are there some services that we should be offering, but are not at the present?
- How do programs handle charge-backs and other revenue-producing procedures?
- Given enrollment figures, number of teachers having center access, and the extent and types of services, how does my program compare in terms of budget and staffing with some of the models?
- What strategies have been successful for different program directors to allow their programs to survive and perhaps even thrive?
- What are some of the "cutting edge" programs and practices in the field?
- Where can I go to see some good learning resources programs?

These kinds of considerations existed against a backdrop of comments by some of those in leadership positions in the learning resources field:

> By identifying and describing exemplary programs in instructional media and technology, models for structures and practices can be provided for those who will be seeking new solutions to our pressing educational problems.—Dr. Paul Welliver, Past President, Association for Educational Communications and Technology, and Professor of Education, Pennsylvania State University.
>
> With increased emphasis on distance education systems using television and other technologies, on adult and continuing education, and on providing information about various subjects for personal and professional interests, opportunities for educational technologists exist on many fronts. Basic and applied research can provide us with ways to make learning more meaningful and efficient. Through careful planning and cooperative interinstitutional efforts, cost effective programs may be implemented. Model programs using communications technology need to be identified.—Dr. Stanley A. Huffman, Jr. Past President, Division of Media Management, Association for Educational Communications and Technology. In *Media Management Journal*, Vol. 3, No. 3, Spring, 1984.

With these kinds of considerations and motivations, a decision was made to undertake a national study of exemplary learning resources programs. The methods of selecting these programs will be taken up in the next section.

THE PROCEDURES USED

Public tax-supported learning resources programs at five levels were selected for study: *doctorate-granting universities, comprehensive universities and colleges, two year colleges and institutes, public school districts, and regional education agencies. The study focused on those types of learning resources programs that provide services to an entire system or institution as opposed to departmental or building level programs.

A clarification of terms is necessary at this point. While the early survey instruments used in this study referred to instructional media support programs, it was found during the field visitations that the title, learning resources programs, is rapidly gaining in use. Consequently, learning resources programs will be the basic title used in this publication except in cases where reference is made to the survey instruments in which the title instructional media support programs was used. In any event, these two titles are considered to be synonymous when used in this publication. By definition, an instructional media support program or a learning resources program was one which provided a full range of learning resources (both print and audiovisual or audiovisual only) for use in instructional programs. A program that was predominantly print-oriented or one that offered primarily only one audiovisual service (e.g., television) would be excluded from this definition. When referring to professional personnel working in the learning resources field, the title instructional media professional or specialist was chosen for use. For the purposes of this study an instructional media professional or specialist and an educational technologist were considered to be the same or similar educational personnel.

The first task was to develop a method of identifying a group of exemplary learning resources programs. A search of the literature for the past five years revealed that no study as comprehensive as the one planned had been conducted. It was felt that any studies before that time would probably be irrelevant in view of the rapid changes that have occurred in this field in recent years. The recent applicable studies that were found were limited to one level of education (e.g., higher education) or to one technology (e.g., computer technology) and none of them attempted to identify and study exemplary learning resources programs.

*The Higher education classifications that are cited above were taken from *A Classification of Institutions of Higher Education* by the Carnegie Council of Policy Studies in Higher Education.

Having looked at the recent work in this area, a strategy was developed for the conduct of a national survey and study of exemplary learning resources programs. The plan was three-fold:

Phase 1:

Conduct a national survey of learning resources leaders to ask for nominations at the various educational levels of "some of the best instructional media support programs in terms of delivering comprehensive services to their patrons." The group of leaders selected was truly a "blue ribbon" panel. It included instructional media specialists in state departments of education, heads of university departments training media specialists, presidents of state affiliates of the Association for Educational Communications and Technology (AECT), past and present AECT regional coordinators, a group of recognized leaders in the field (former AECT presidents as well as well-known writers, researchers, and consultants), and presidents and past presidents of selected national learning resources associations (AECT, National Association of Regional Media Centers, Community College Association for Instruction and Technology, and the AECT Division of School Media Specialists). Table 1 summarizes the results of this survey. Over 356 programs in 42 states were nominated at least one time. One hundred and twenty-nine of 250 questionnaires sent were returned (63 per cent).

Phase 2

Send a second survey instrument to 101 programs that were nominated more than once in order to learn more about each program and to help to determine if these programs might be considered to be exemplary. An exemplary instructional media support program was defined as one which provided a full range of learning resources for use in instructional programs and one that is commendable and worthy of being considered for use as a model. Respondents were asked if they felt their programs fit this definition and were asked to provide evidence that their programs were exemplary (e.g., evaluations, citations, awards, feelings, etc.).

Phase 3

Of the 101 survey instruments sent out, 86 or 85% were returned. Of the 86 programs on which information was obtained, 32 were selected for visitation. The final selections for visitation were arrived at by considering the number of times programs

were nominated along with the information submitted on the second survey instrument. In no case was a program selected for visitation that did not receive at least three nominations.

Prior to each visitation, the selected program's director was asked to complete an additional instrument requesting statistical and narrative information on their program. They were also requested to supply an organizational chart, a floor plan, and other descriptive material. The typical visitation involved a tour of the facility, an interview of the director, and an opportunity to return to certain areas of the program for taking photographs and talking to some of the employees. A case study of each program was written later using the two completed survey instruments, notes and tape recordings of the director's interview, notes based on the tour or later conversations with employees, and descriptive material supplied by the director or other employees.

Table 1

NOMINATIONS OF EXEMPLARY INSTRUCTIONAL MEDIA SUPPORT PROGRAMS

NOMINATORS	NO. OF QUESTIONNAIRES SENT	NO. OF QUESTIONNAIRES RETURNED	% (RETURNED) OF SENT)
1. Media Specialists in State Departments of Education	40	26	65
2. Heads of University Departments Training Media Specialists	56	32	57
3. Presidents of State Affiliates of AECT	39	22	56
4. Past and Present AECT Regional Coordinators	18	11	61
5. Recognized Leaders of Learning Resources Field	44	31	70
6. Presidents and Past Presidents of Selected National Learning Resources Associations	8	7	87
TOTALS	205	129	63

CASE STUDIES OF EXEMPLARY LEARNING RESOURCES PROGRAMS
An Eclectic's Sourcebook

A dictionary definition of an eclectic is one who chooses the best from various sources and systems. Most educators are eclectics and, in this regard, learning resources people take the back seat to no one. We are constantly looking for new ideas, new organizational structures, and for leads to others who have tried something in which we are interested. The case studies in this section are presented to help meet these types of needs.

This section will provide a description of four to seven learning resources programs for each of the five different classifications. While these programs were nominated as being some of the best instructional media support programs in the nation, they are not being touted as being "the best." Undoubtedly, there are other programs that are equally as good or perhaps better than the ones selected. Those other programs may not have surfaced due to newness, remoteness, or perhaps for other reasons. Even the programs selected as being among some of the best learning resources programs have not been spared from problems. The two most frequently-mentioned problems were inadequate space and the lack of sufficient funds. Following closely behind were the problems associated with the loss of employee positions and a workload that exceeds the available staffing. Despite these qualifying remarks, it can probably be safely assumed that the programs assembled and described here represent a good cross-section of some of the better learning resources programs in the nation.

The programs described vary in scope from the more traditional audiovisual services center to the integrated learning resources center (audiovisual plus print materials and services) to either of the preceding type in combination with another untypical element (e.g., an instructional media specialist training program, a mail service, a research unit, or an instructional development service). Many of the programs described have similar elements, but their differences in scope, organizational structure, and mission are quite marked. For these reasons, the reader is cautioned to avoid trying to compare programs by their listed budgets. Some of the programs' budgets represent all or nearly all expenditures for learning resources at that institution or agency, while others represent only a portion of the total budget for expenditures for learning resources. If comparisons are desired, it might be more appropriate to find a program (or programs) that, by description, is similar to your own and then draw your own conclusions. The programs selected for case study are listed in Table 2.

Beginning on the following page are the individual case studies. Several clarifications of terms might be helpful at the outset. In the section on staffing, some explanation of the use of the terms classified and professional needs to be made. While the term classified staff is pretty generally used to indicate civil service or non-teaching personnel, at some institutions there are other terms used or there are additional categories such as exempt or non-contractual. In this study, classified staff is used to categorize all positions not professional in nature. The use of the word professional has its own set of problems, but here it is defined as those employees who are certified as instructional media specialists or librarians or by degree attained or position occupied are considered professional leader/manager personnel. Also relating to staffing, all staff and student count statistics are given on a full-time equivalent (FTE) basis. In regard to the type of learning resources program (integrated or separate), an integrated program is one that combines most learning resources (print, audiovisual, and others) into one organization. A separate learning resources program typically includes audiovisual and other services, but a print library is usually a separate entity within the institution.

The five classifications of institutions or agencies are self-explanatory with the possible exception of "Comprehensive Universities and Colleges". Comprehensive universities and colleges were defined by the Carnegie Council on Policy Studies in Higher Education as institutions that offer a liberal arts program, have one or more professional or occupational programs such as teacher training or nursing, but lack a doctoral program or have an extremely limited doctoral program.

The budget figures for public school districts do not include salaries and benefits for building level learning resources staffs and generally do not (unless noted) include expenditures made for learning resources for individual schools.

Table 2
EXEMPLARY PROGRAMS SELECTED FOR CASE STUDY

DOCTORATE-GRANTING UNIVERSITIES

- MIAMI UNIVERSITY (OHIO)
- IOWA STATE UNIVERSITY
- UTAH STATE UNIVERSITY
- UNIVERSITY OF CONNECTICUT
- UNIVERSITY OF IOWA
- VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY
- INDIANA UNIVERSITY

TWO YEAR COLLEGES AND INSTITUTES

- KIRKWOOD COMMUNITY COLLEGE (IOWA)
- RICHLAND COLLEGE (TEXAS)
- NORTH LAKE COLLEGE (TEXAS)
- NEW MEXICO MILITARY INSTITUTE
- PORTLAND COMMUNITY COLLEGE (OREGON)

COMPREHENSIVE UNIVERSITIES AND COLLEGES

- ST. CLOUD STATE UNIVERSITY (MINNESOTA)
- UNIVERSITY OF WISCONSIN — STOUT
- CALIFORNIA STATE UNIVERSITY, CHICO
- SAN JOSE STATE UNIVERSITY (CALIFORNIA)

PUBLIC SCHOOL DISTRICTS

- ST. CLOUD COMMUNITY SCHOOLS (MINNESOTA)
- BIRMINGHAM PUBLIC SCHOOLS (MICHIGAN)
- WEST HARTFORD PUBLIC SCHOOLS (CONNECTICUT)
- MONTGOMERY COUNTY PUBLIC SCHOOLS (MARYLAND)
- PORTLAND PUBLIC SCHOOLS (OREGON)

REGIONAL EDUCATION AGENCIES

- HEARTLAND AREA EDUCATION AGENCY (IOWA)
- GRANT WOOD AREA EDUCATION AGENCY (IOWA)
- WAYNE COUNTY INTERMEDIATE SCHOOL DISTRICT (MICHIGAN)
- SAN DIEGO COUNTY OFFICE OF EDUCATION (CALIFORNIA)
- JACKSON EDUCATION SERVICE DISTRICT (OREGON)
- LANE EDUCATION SERVICE DISTRICT (OREGON)

DOCTORATE-GRANTING UNIVERSITIES

CASE STUDY #1
Consultation Services Are a Major Focus

The Institution:	
Name: Miami University	
Location: Oxford, Ohio	
Type: Doctorate-Granting University	
Enrollment (FTE):	17,300
Number of Campuses Served:	4
Number of Faculty Having Center Access:	850
Total Operating Budget:	$121,048,015
The Learning Resources Program:	
Name: Audio Visual Service	
Type: Separate Learning Resources Program	
Year Established:	1949
Number of Staff (FTE):	20
Total Usable Square Footage:	21,227
Total Operating Budget (including charge-back and fees, but excluding grants)	
With salaries and benefits	$1,005,580
Without salaries and benefits	335,600

MIAMI UNIVERSITY
Audio Visual Service

Program Description

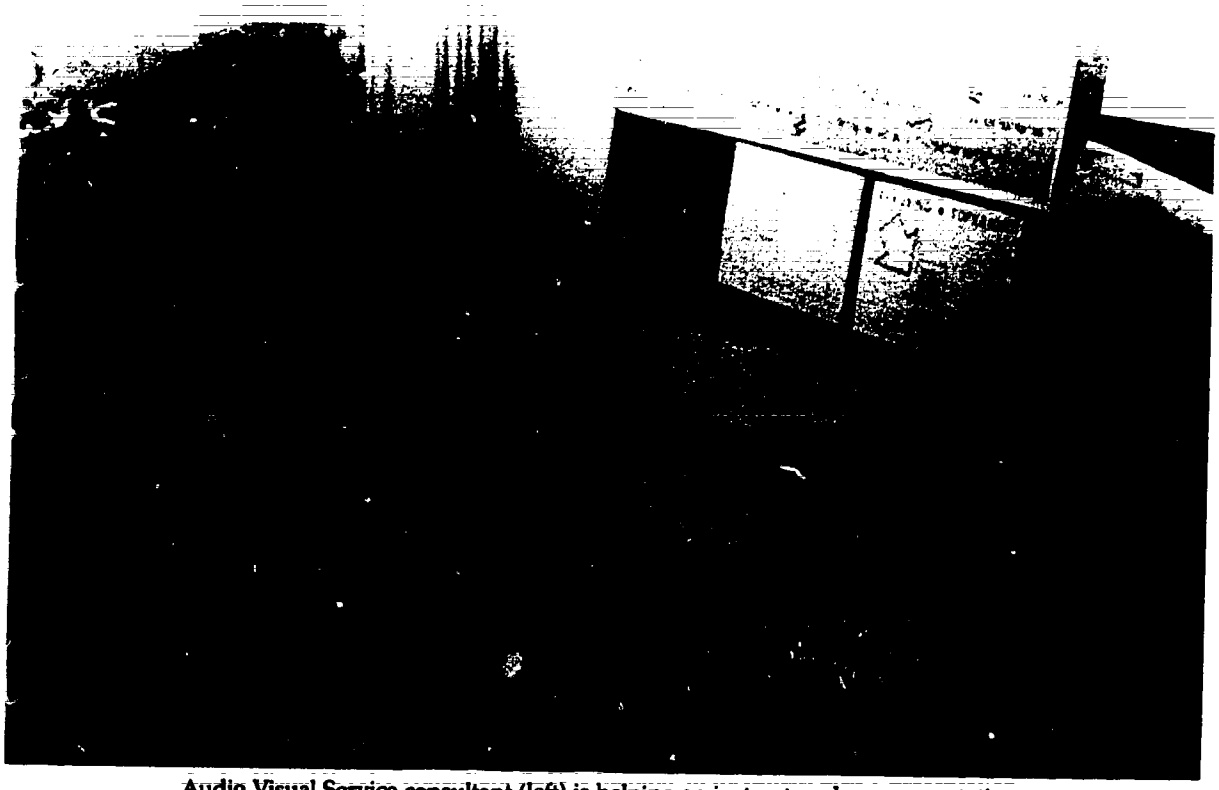
Miami University's Audio Visual Service is strong in the area of consultation. All clients (except those of the Copy Center) who come to Audio Visual Service for production services go to the *Consultation Unit* where a consultant may make suggestions about design, production, and utilization of the requested materials and services. Clients are urged to make appointments. Consultation helps to insure that all instructional and presentational materials are not only of the best quality in a technical sense, but they also incorporate design, production, and utilization principles which should result in improved communication. Other consultation services in the form of class audits and instructional diagnosis will be explained later. The consultants work very closely with the staff of Production Services during and after the initial contact with the client. *Production Services* provides a full complement of graphic, photographic, and printing services. A third division of Audio Visual Service is *Technical Services*. This unit encompasses the scheduling, delivery, and maintenance of audiovisual equipment; the booking, preview, and distribution of 16mm films and videotapes; and consultation on the design of electronic systems and audiovisual facilities. The staff of Technical Services also produces audio and video materials and programs. Other units of Audio Visual Service are a Learning Technology Center, a Materials Production Lab, and a Copy Center. The *Learning Technology Center* is a facility for students and faculty to review or study instructional materials. Materials are placed in this center for required viewing or for optional study at the discretion of the instructor. A faculty microcomputer lab is also located in this center. The *Materials Production Lab* is available for students, faculty, and staff who wish to produce their own presentational materials. The *Copy Center* serves as a campus-wide service for Xerox copying. This center currently has a Xerox 9900 Copy System and Xerox 5600 and 1055 copy machines.

Budgeting and Funding Information

Routine materials used to present information to students enrolled in official university courses are produced at no cost to the requesting faculty member or his/her department. Some projects requiring higher than normal financial support may necessitate supplemental departmental funding or may be funded under an Audio Visual Service mini-grant. Materials produced in support of faculty research are billed at a cost of supplies only. Materials produced for purposes other than instruction or research are billed at a cost for supplies plus a nominal service fee for labor (currently $6.00 per hour).

Some Current Projects/Practices

Class Audits: For faculty who wish to consider possible instructional improvement strategies for a course, a consultant can be scheduled to work with the faculty member on a one-to-one basis through an entire semester. Together the faculty member and the consultant review the course syllabus and/or objectives, consider optimum materials and methods for instructional delivery, and develop a means for measurement and evaluation. The consultant then inconspicuously sits in during each class session. Bimonthly conferences provide the faculty member with feedback and suggestions for instructional strategies. Since audits are initiated at the request of the individual faculty member and the class audit is con-



Audio Visual Service consultant (left) is helping an instructor plan a presentation.

sidered confidential, only the faculty member receives the post-audit report. Audits can also be arranged for a single class presentation or a limited number of class sessions. The class audit program was initiated at Miami University in 1963.

Instructional Diagnosis: Consultants are also available to analyze and evaluate course instruction. Using a procedure of Small Group Instructional Diagnosis (SGID), the consultant will meet with a class, divide class members into small groups, and solicit evaluative comments relative to course organization and content, presentational techniques, teaching materials, and other aspects of the course. Student responses are then shared with the faculty member in an atmosphere of improving teaching and learning.

Mini-Grants: The Audio Visual Service has a fund to cover the cost of the purchase or production of materials for new or existing courses undergoing revision. These grants usually range from $100 to $400. Interested faculty members may apply at any time.

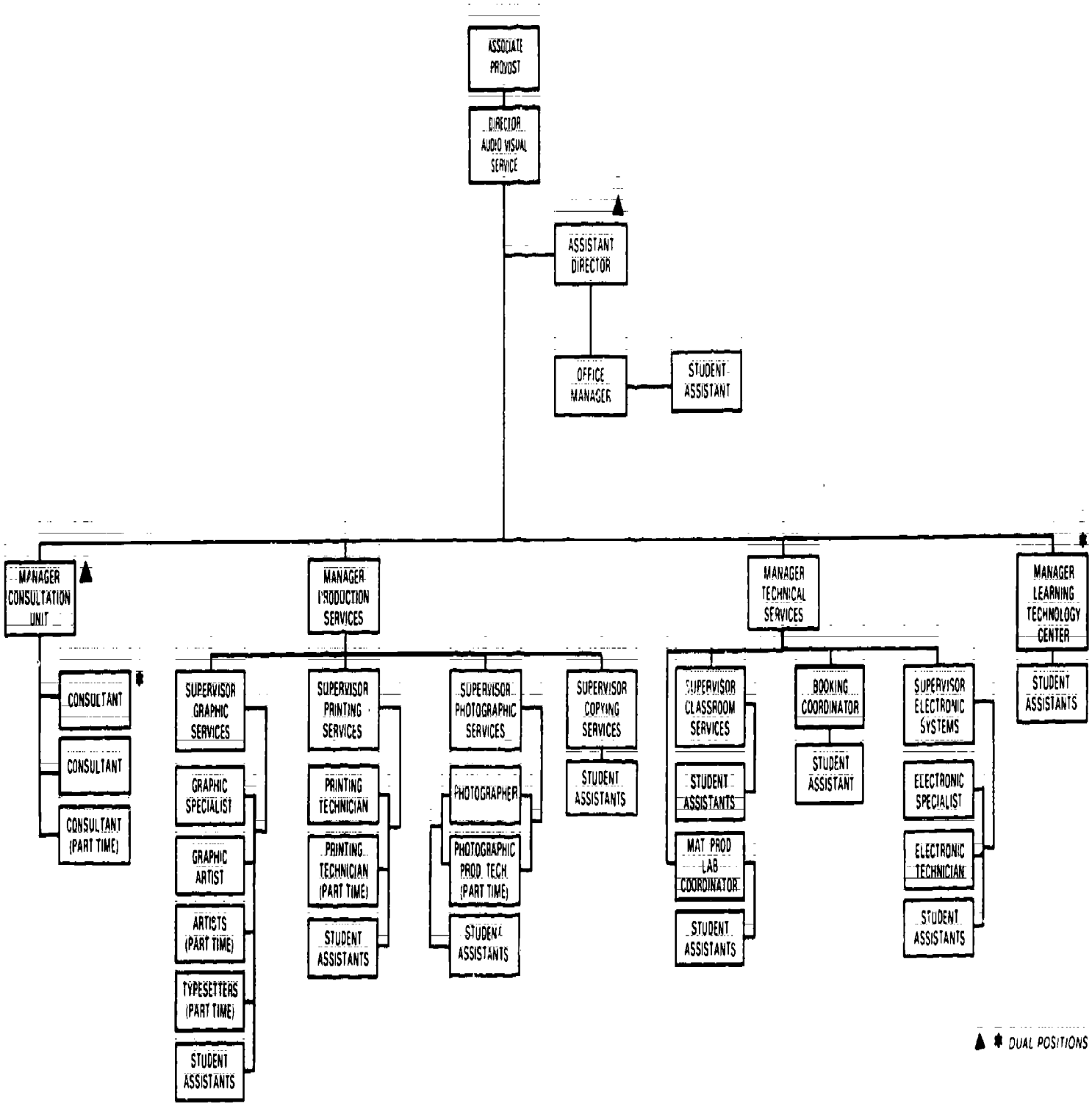
Staffing

Miami University's Audio Visual Service has a total of 20 staff members. Of that total, 6 are considered to be professional positions and 4 of the 6 have faculty status. Five of the 14 "classified" positions are classified staff. The others have various other designations. Not shown below are 7 part-time positions, about 50 student employees per term, and approximately 3 graphic artists employed on a per job basis.

Classified Staff:	*FTE*
Photographers	2.0
Graphic Artists	3.0
Electronic Specialists (Audio and TV Production & Maintenance/Repair)	3.0
Booking/Circulation/Acquisition Staff	2.0
Printing Personnel	2.0
Clerical/Secretarial	1.0
Supervisor, Copy Center	1.0
Total Classified Staff	14.0
Professional Staff:	
Director	1.0
Assistant Director/Manager of Consultation	1.0
Manager of Technical Services	1.0
Manager of Production	1.0
Manager of Learning Technology Center	1.0
Consultant	1.0
Total Professional Staff	6.0
TOTAL STAFF	20.0

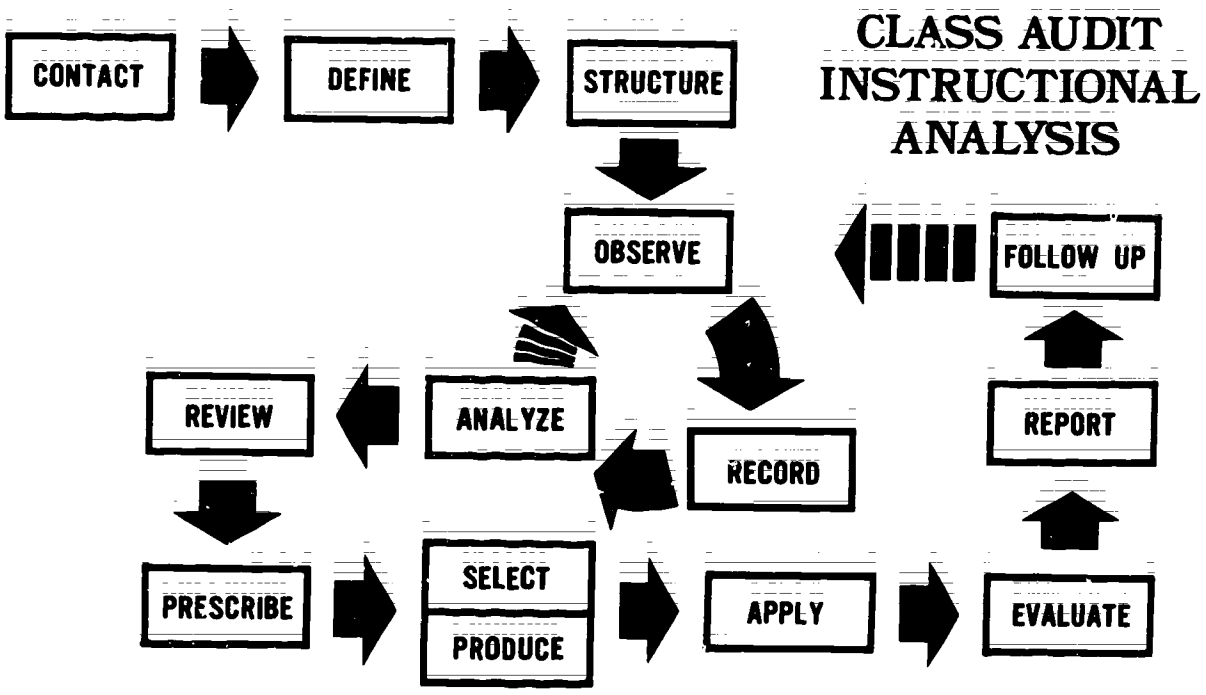
Contact Person

William L. King, Director, Audio Visual Service, Miami University, Oxford, Ohio 45056. Telephone: (513)529-6013.



MIAMI UNIVERSITY
AUDIO VISUAL SERVICE

Campus of Miami University.



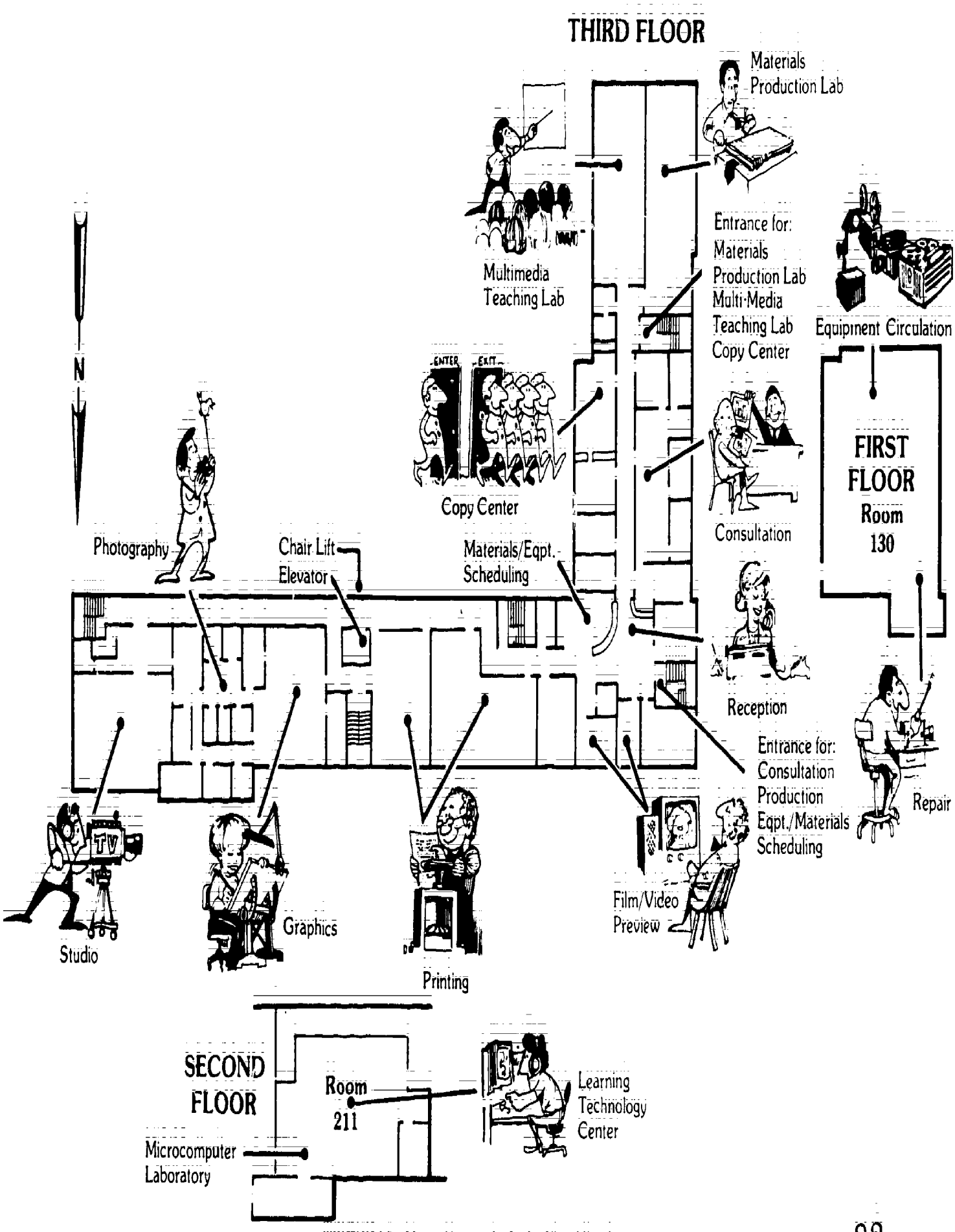


Illustration by Miami University Audio Visual Service.

CASE STUDY #2
A Learning Resources Program That Has Grown During Hard Times

The Institution:

Name: Iowa State University	
Location: Ames, Iowa	
Type: Doctorate-Granting University	
Enrollment (FTE):	26,020
Number of Campuses Served:	1
Number of Faculty Having Center Access:	1,895
Total Operating Budget:	$136,532,196

The Learning Resources Program

Name: Media Resources Center	
Type: Separate Learning Resources Program	
Year Established:	1969
Number of staff (FTE):	42
Total Usable Square Footage:	12,00
Total Operating Budget (including charge-back and fees, but excluding grants)	
With Salaries and Benefits:	$1,240,000
Without Salaries and Benefits	468,000

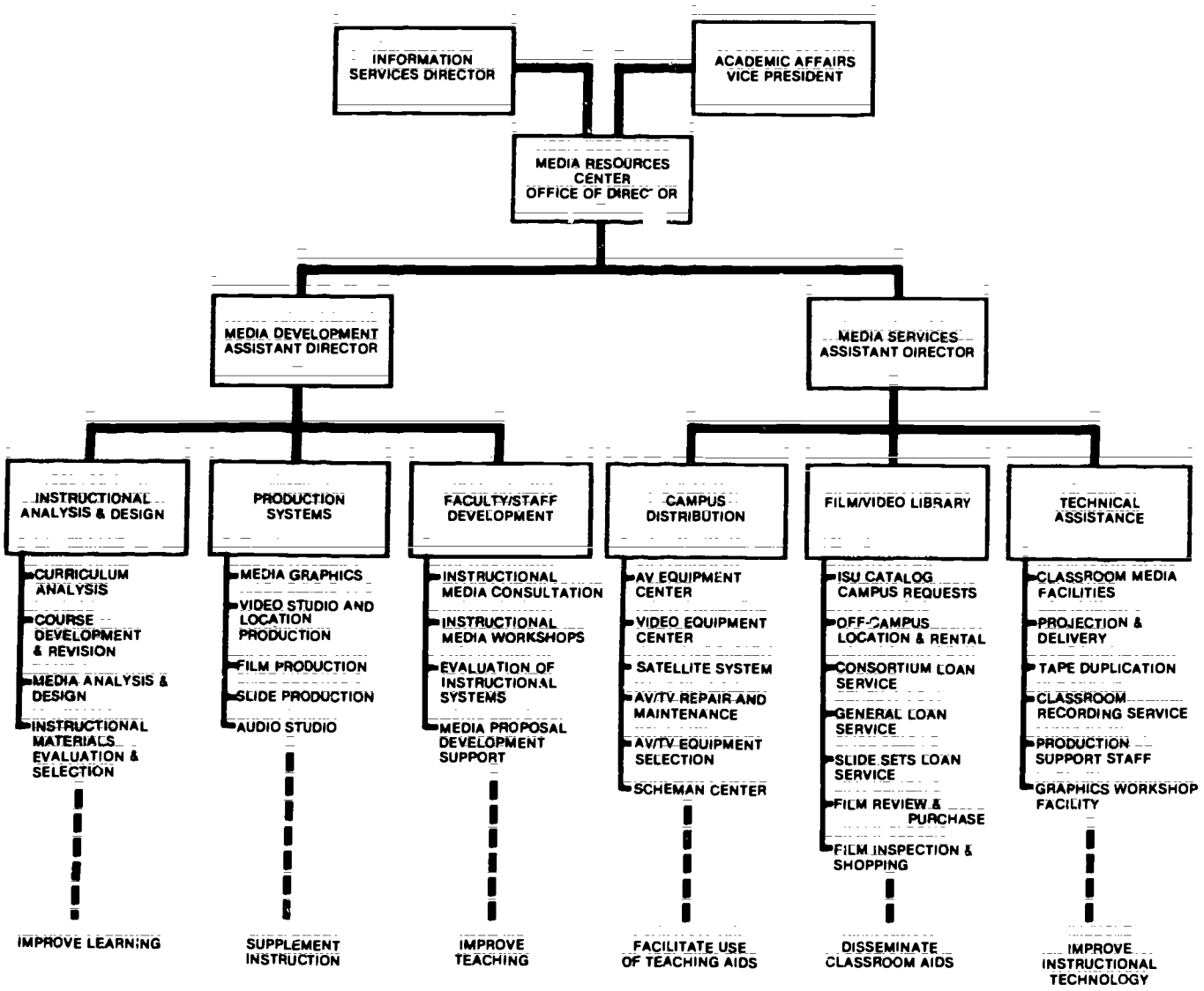
IOWA STATE UNIVERSITY
Media Resources Center

Program Description

The Media Resources Center at Iowa State University has grouped a wide range of services into two divisions: Media Development and Media Services. The Media Development division is concerned with instructional and informational projects that involve analysis, design, and production of materials. The Media Services division provides the day-to-day support required for effective classroom and presentation activity. Each unit is supervised by an assistant director.

Media Development has the capability to design and produce virtually any type of media from video, to motion pictures, to slide/tape, to graphics. Having both motion picture and video production within the same unit appears to eliminate the kind of competition between the staffs working in the two media which often exists when they are in separate departments. The end result of this organizational structure leaves the potential for each medium to be tapped and used according to its true capability. Besides having all production units together, add to that situation

The multi-faceted production capability of the Media Resources Center.



IOWA STATE UNIVERSITY
MEDIA RESOURCES CENTER

the availability of instructional design and production specialists who collaborate with faculty in systematically developing learning units and course packages for large group, small group, and individualized instruction. The *Media Services* division distributes audiovisual equipment from the Media Resources Center and from satellite facilities across the campus. This division also provides projectionist service for a modest fee, provides video and audio recording, maintains and repairs equipment, and provides consultation. Media Services operates a Film/Video Library serving on-campus clientele and generates revenue through off-campus rentals of 16mm films and videotapes. Finally, a do-it-yourself Graphics and Media Lab is a part of this division. This lab is available to students, faculty, and staff to produce their own transparencies, slides, charts, and other materials.

Budgeting and Funding Information

The Media Resources Center generates enough revenue to offset about 46% of its annual expenditures with the rest of its fiscal support coming from state appropriations. These generated revenues come primarily from off-campus film and video rentals, from contracts to install campus media systems, and for charges for media productions. For media productions, a charge is made for all supplies and labor except in the case of instructional requests where charges are made only for supplies used. Most of the on-campus services of the Media Resources Center are provided without charge.

Some Current Projects/Practices

Computer Graphics Capability: The Media Resources Center combined with several departments

on campus to jointly purchase a computer graphics software package (ISSCO). This software is available on a campus VAX computer. With the purchase of a high resolution terminal, the center's graphics unit will be able to produce a full-range of business graphics in the form of slides, transparencies, and printed copy. Slide reproduction is processed electronically by the university's Photo Services using a newly-purchased Matrix QCR digitizing camera output device that interfaces with the VAX system and the ISSCO software.

Contracting for Design and Installation of Media Systems: Media Services has convinced the university administration that it can save the university substantial amounts of money by permitting the division to design and install elaborate media systems on campus rather than using outside contractors. In addition to cost savings, the use of Media Services personnel has the potential of providing better communication between designers, installers, and the department that will use the system.

Media Resources Center Grows During Hard Times: The Iowa State University's Media Resources Center has grown significantly in terms of budget increases and staff additions during the past seven or eight years. The director of the center views a learning resources program from a business perspective and he has adopted a number of business procedures to enable the center to grow during a period of cutbacks and no growth (see "Money Management in a Media Resources Environment," by Alvin Kent, *Media Management Journal*, Vol. 2, No. 3, Spring, 1983).

Media Breaks: Since 1977, the Media Resources Center has held a series of presentations/workshops to inform on-campus users of services available to them (occasionally on Saturday mornings). This program started small but has grown dramatically to the point where Media Breaks currently draw as many as 500 people.

Staffing:

Of a total staff of 42, 15 are media professionals. Of the 15, one has faculty status and the others have a Professional and Scientific classification.

Classified Staff	*FTE*
Graphic Artists	3.0
Television Production	
Motion Picture/Video Specialist	1.0
Production Assistants	3.0
Maintenance Technicians	3.0
Booking/Circulation/Acquisition Staff	3.0
Clerical/Secretarial	5.0
Film/Video Library Technician	1.0
Audio/Video Technician	1.0
Media Lab Technician	1.0
Audiovisual Equipment Specialists	6.0
Total Classified Staff	27.0
Professional Staff	
Director	1.0
Assistant Directors	2.0
Coordinator of Instructional Development	1.0
Coordinator of Media Graphics	1.0
Coordinator of Film/Video Library	1.0
Coordinator of Media Distribution	1.0
Coordinator of Media Operations	1.0
Writer/Directors	4.0
Graphics Designers	2.0
Computer Graphics Specialists	1.0
Total Professional Staff	15.0
TOTAL STAFF	42.0

Contact Person:

Alvin Kent, Director, Media Resources Center, Iowa State University, Ames, Iowa 50011. Telephone: (515) 294-8022.

This viewing/listening area in the university library was designed and installed by the Media Resources Center.

Media breaks at the Iowa State University draw as many as 500 people.

CASE STUDY #3
University Combines Most Learning Resource Programs

The Institution:

Name: Utah State University	
Location: Logan, Utah	
Type: Doctorate-Granting University	
Enrollment (FTE):	11,070
Number of Campuses Served:	1
Number of Faculty Having Center Access:	700
Total Operating Budget	$51,738,400

The Learning Resources Program:

Name: Merrill Library and Learning Resources Program (MLLRP)	
Type: Integrated Learning Resources Program	
Year Established:	1971
Number of Staff (FTE):	94.5
Total Usable Square Footage:	178,640
Total Operating Budget (including charge-back and fees, but excluding grants)	
With Salaries and Benefits:	$2,062,742
Without Salaries and Benefits:	1,288,517

UTAH STATE UNIVERSITY
Merrill Library and Learning Resources Program (MLLRP)

Program Description

Utah State University is one example of a large university that has combined into one program most of the units that impact on learning. In addition to *Library and Information Services*, which is somewhat unusual in that it includes both media distribution and maintenance, there are Design and Production and Telecommunications divisions. *Design and Production Services* includes graphics, photography, printing, and an editorial service (edits university publications). *Telecommunications* includes both on-campus and broadcast television, a FM radio station, and an audio-video engineering unit. Complementing these services is an *Instructional Development* unit. The mission of this program is to support the faculty in creating a better instructional environment for teaching and learning. A team of specialists work with academic departments and individual faculty members to prepare instructional materials, to conduct needs assessment and evaluation studies, and to encourage the use of new teaching strategies. As academic programs undergo revision and new subject matter is added to the curriculum, the instructional development team provides assistance.

The full range of services provided by the Merrill Library and Learning Resources Program are shown in the organizational chart on the next page. Some of the units listed existed prior to 1971, but most of them were then independent of each other.

Budgeting and Funding Information

Utah State University's MLLRP has a rather substantial charge-back program. Since the 1940's, Photographic Services has been on a total charge-back basis. All costs, except building use and utilities, are recouped to sustain the program. Substantial quantities of work from off-campus clients (including commercial firms) keep their volume high. Graphic Ser-

vices also charges for all services. It has to recover about two-thirds of its expenditures with the balance being subsidized by the university. For film purchases, university departments are usually asked to pay 50 per cent of the cost of each acquisition. It is felt this arrangement helps departments to arrange their priorities and helps them to make a commitment to use the films requested. Most of the other services of the MLLRP are provided without charge to university programs.

Some Current Projects/Practices

A-V Reserve Collection: University faculty request certain audio-visual materials be placed on reserve for student use in a carrel area. This program operates much like a traditional print library reserve program.

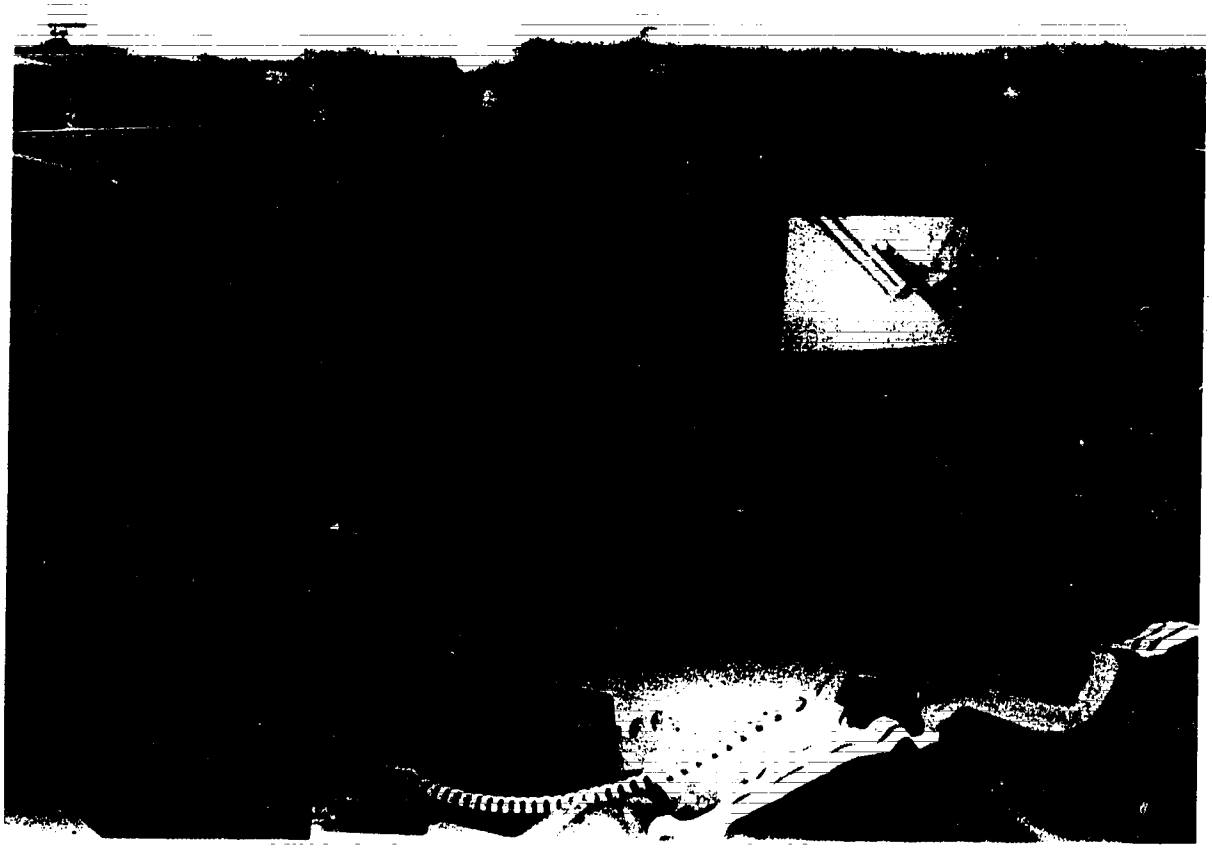
Computer Graphics Beyond Experimental Stage: Graphics Services used an Artron 2000 graphics system to produce video graphics for an irrigation training project for the government of Ecuador. The graphics generated on this system were outputed onto videotape for incorporation into training tapes. Graphic Services is also using a Digital Rainbow to produce charts and graphs for use in research and is using an Apple III computer for administrative purposes (e.g., cost accounting).

State-Wide Delivery of Instruction: In 1984, the Telecommunications division began providing off-campus instruction to points around the state of Utah via telephone lines. This telelecture system includes the use of an Electronic Blackboard and slow-scan television.

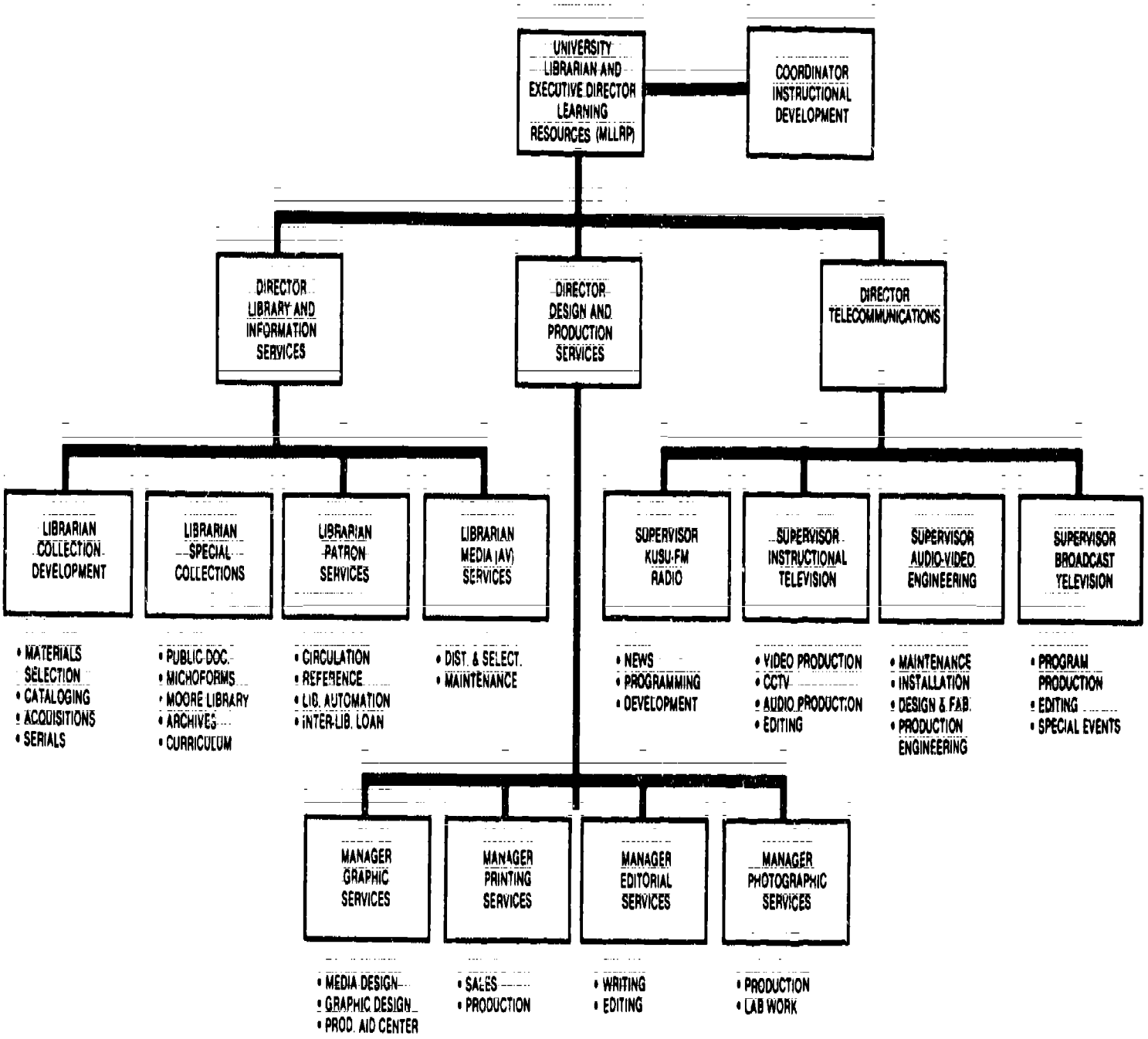
Center Includes Campus Printing Unit: A complete printing unit does about 85% of the university's printing (including four-color jobs). This unit also operates four copy centers at various locations across campus. Each of these centers is equipped with high volume Xerox machines.

Staffing

The Merrill Library and Learning Resources Program has 64.5 classified staff and 30 professional positions. Of the 30 professional positions, 18 have faculty sta-

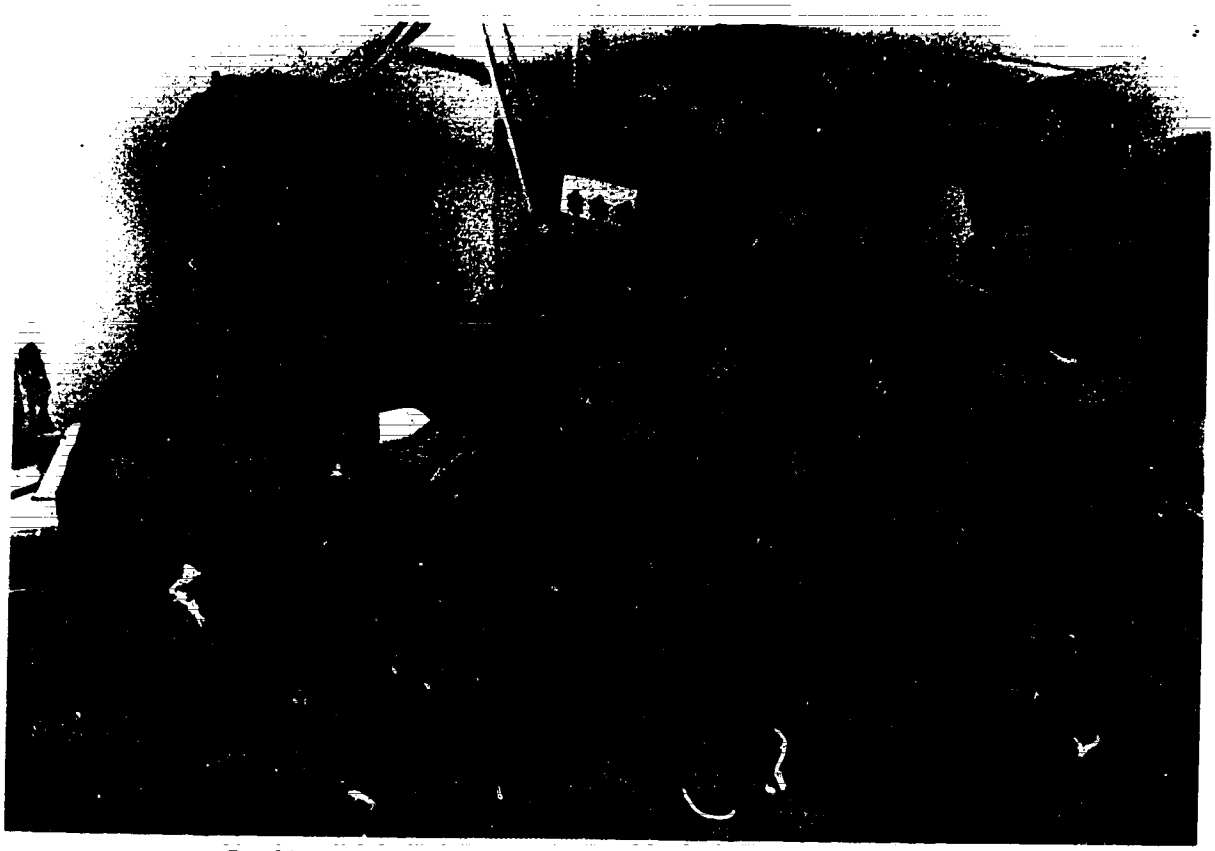


Students work on "media reserve" assignment in Merrill Library.



UTAH STATE UNIVERSITY

MERRILL LIBRARY & LEARNING RESOURCES PROGRAM



Graphic artist designing computer graphics for irrigation training project.

tus and the remainder have Professional (Non-Teaching) classifications.

Classified Staff:	*FTE*
Photographers	3.0
Television Production	
Producer/Directors	2.0
Production Assistant	1.0
Writer	.5
Audio Technicians	3.0
Maintenance Technicians	2.5
Catalogers	3.0
Booking/Circulation/Acquisition Staff	10.0
Computer Specialists	1.5
Printing Personnel	6.0
Bindery Finishing	2.0
Compositors	2.0
Reference Assistants	3.0
Interlibrary Loan Assistants	3.0
Customer Consultants	2.0
Clerical/Secretarial	20.0
Total Classified Staff	64.5

Professional Staff:	
Director	1.0
University Editor	1.0
Writer/Editor	1.0
Audio-Visual Librarian	1.0
Photographic Manager	1.0
Affiliate Librarians	2.0
T.V. Engineer	1.0
Director, Instructional Development	1.0
Associate Librarians	2.0
Assistant Librarians	5.0
Librarians	5.0
Manager, Printing Services	1.0
Assistant Manager, Printing Services—On Campus	1.0
Assistant Manager, Printing Services—Off Campus	1.0
Graphic and Film Artist	1.0
Supervisor, T.V. Production	1.0
News Director	1.0
Supervisor, Engineering Services	1.0
T.V. Producer/Directors	2.0
Total Professional Staff	30.0
TOTAL STAFF	94.5

Contact Person:

Dr. Robb Russon, Instructional Development, Merrill Library and Learning Resources Program, Utah State University, UMC 30, Logan, Utah 84322. Telephone: (801) 750-2697.

CASE STUDY #4: Making a Commitment to University Image-Building

The Institution:

Name: University of Connecticut	
Location: Storrs, Connecticut	
Type: Doctorate-Granting University	
Enrollment (FTE):	26,000
Number of Campuses Served	6
Number of Faculty Having Center Access:	1,200
Total Operating Budget	$207,000,000

The Learning Resources Program:

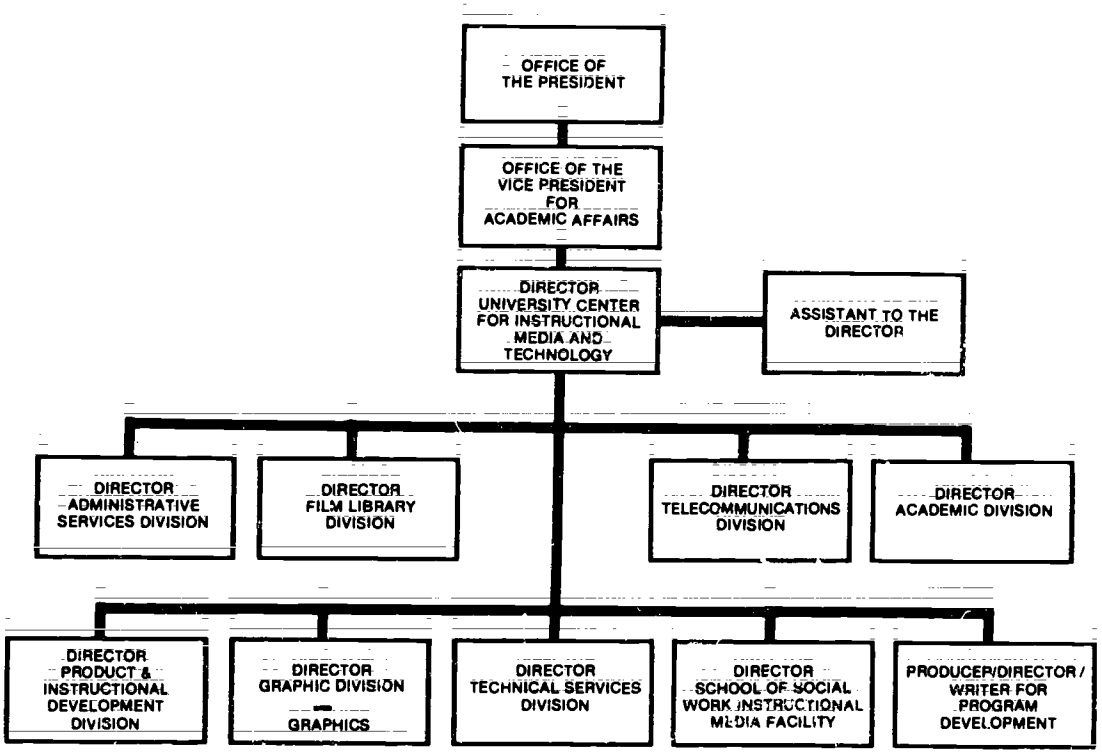
Name: University Center for Instructional Media and Technology (UCIMT)	
Type: Separate Learning Resources Program	
Year Established:	1944
Number of Staff (FTE):	33
Total Usable Square Footage:	8,801
Total Operating Budget (including charge-back and fees, but excluding grants)	
With salaries and benefits	$1,000,000
Without salaries and benefits	300,000

UNIVERSITY OF CONNECTICUT
Center for Instructional Media and Technology (UCIMT)

Program Description

The primary mission of the University Center for Instructional Media and Technology (UCIMT), given today's economic conditions and the environment of higher education, is "to utilize media technologies and systems strategies to contain cost and increase efficiency and visibility of the total university mission of teaching, research, service, and public relations." While the major energies of the center have been directed toward the university's academic programs, this is currently under examination due to the increasing requests to use the center's resources to support the outreach functions of the university community. This changing emphasis will be examined in more depth later.

UCIMT has a rather complex organizational structure in that there are eight divisions, each having a director. This structure is shown in the chart reproduced below. Among the divisions, the *Film Library Division* maintains and circulates a collection of over 7,000 16mm films for university instructional use and



UNIVERSITY OF CONNECTICUT
UNIVERSITY CENTER FOR INSTRUCTIONAL MEDIA & TECHNOLOGY

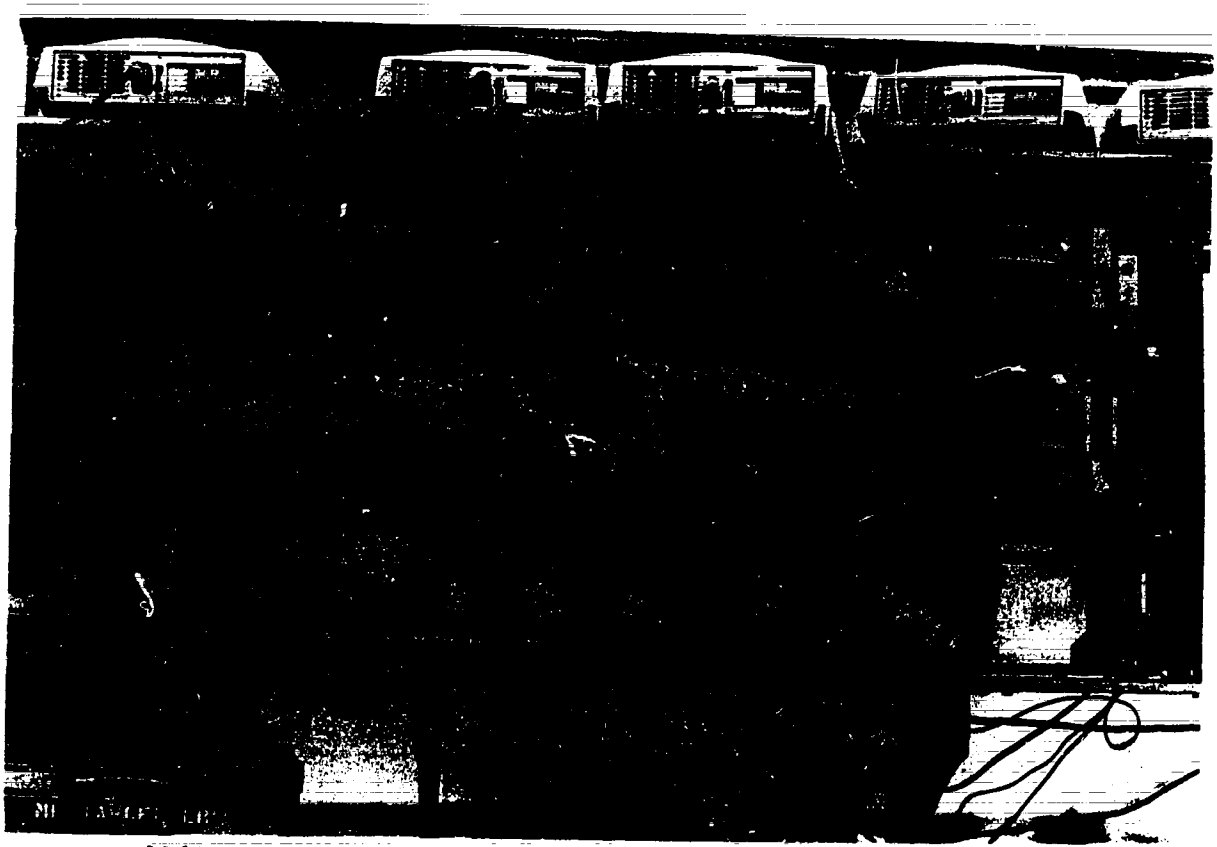
for rental to external institutions and agencies. It is the nation's fifth largest university-based rental library. The *Telecommunications Division* produces several courses each semester and broadcasts them to the five regional campuses of the university via microwave (one-way video and two-way audio). An earth satellite has been installed and is used primarily for teleconferencing. In this regard, being able to interconnect with over 50 other U.S. universities is viewed as a potentially powerful capability. The *Product and Instructional Design Division* designs, produces, and evaluates media programs for instructional and non-academic university programs as well as programs for governmental, business/industrial, and educational clients. Projects undertaken for non-university clients always include university students interested in learning the practical side of media design and production. The *Graphics Division* provides full graphic and photographic services to university and non-university clients. It also becomes involved in the production of programs designed by the Product and Instructional Design Division. The *Technical Services Division* provides audio-visual equipment and operators for university classes. Staff members of this division also maintain and repair the inventory of equipment in the center. The *Academic Division* is the vehicle through which faculty on the staff of the center teach undergraduate and graduate courses in numerous schools and colleges of the university.

Budgeting and Funding Information

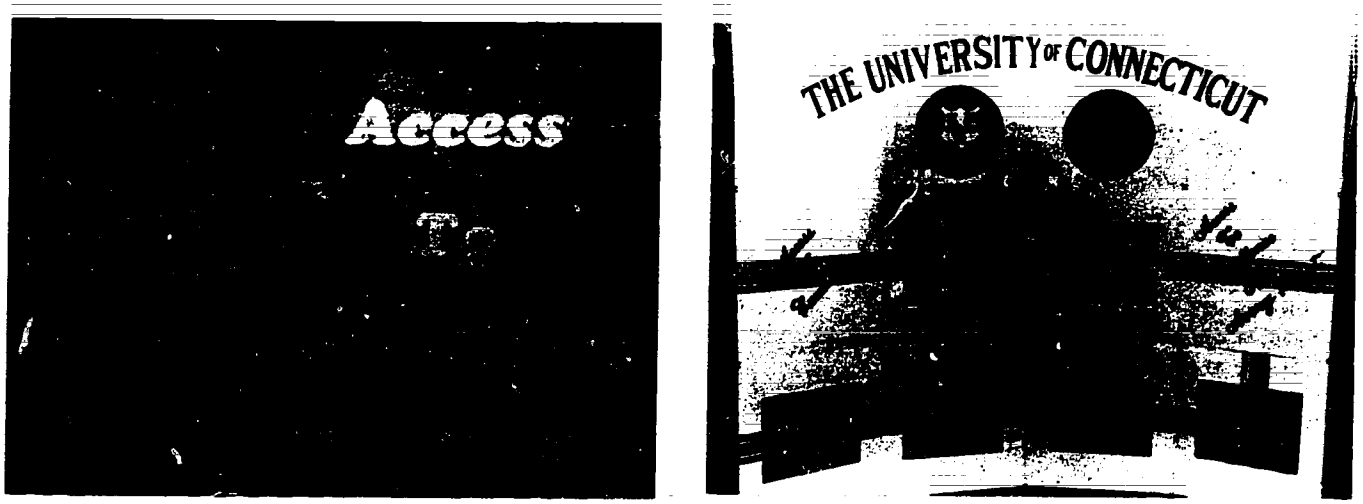
Media services that are used to directly support the teaching of courses are provided at no cost. Services for non-academic and university outreach functions are provided on a cost basis. UCIMT has been very active in seeking external funding. In the past ten years, the center has received in excess of 3 million dollars from grants, donations, and other sources.

Some Current Projects/Practices

Emphasis on University Promotion: UCIMT is moving extensively into producing materials for university public relations and is beginning to downplay the typical academic support services. In this regard, they have received a mandate to work closely with the university president's Office of University Relations Council. Much of the efforts of the *Product and Instructional Development Division* goes into this type of activity. Projects have been undertaken (1) to help the university administration to sell their budget requests to the legislature, (2) to help the university in its Second Century Fund effort to raise $25 million,



Multi-image projection/viewing studio used to screen university promotion productions.



(Left) Photograph of title image of a current university image-building production. (Right) Display on portable exhibit unit used in same promotional campaign.

(3) to promote colleges and schools of the university plus the five regional campuses, and (4) to explain to the general public and prospective students the variety and excellence of the university's offerings. The center has produced over 38 media productions in various formats to support these efforts; e.g., multimage and television productions, television commercials and public service announcements, radio programs, and special exhibits.

The center director is convinced these types of efforts gain support from the university administration relative to the value of the University Center for Instructional Media and Technology to the university's mission; whereas, in his opinion, the typical academic support services elsewhere in the United States are not often understood or well-supported by their administration.

Film Subscription Plan: Film Library users may deposit a minimum of $100 to be used for film rentals. A credit equal to 10% of the amount deposited will be applied to all future film rentals. This plan saves the user money while at the same time, having that money on deposit, helps the Film Library in planning for the purchase of new or replacement titles.

Staffing

The center has a total staff of 33 which is almost equally divided between classified and professional positions. Of the 17 professional positions, four individuals have faculty status and the remainder are classified as Professional Non-Teaching. Listed below are the positions on the staff of the center. Not included are student positions. The center employs in excess of 200 students annually at a cost of $86,000.

Classified Staff:	*FTE*
Television Engineers	2.0
Maintenance Technicians	4.0
Booking/Circulation/Acquisition Staff	3.0
Clerical/Secretarial	5.0
Assistant to the Director of the Film Library Division	1.0
Tape Duplicating Technician	1.0
Total Classified Staff	16.0
Professional Staff:	
Director of Center	1.0
Assistant to the Director	1.0
Director of Administrative Services Div.	1.0
Assistant Director-Administrative Services	1.0
Director of Film Library Division	1.0
Director of Product and Instructional Development Division	1.0
Director of Telecommunications Division	1.0
Assistant Director of Telecommunications	1.0
Director of Technical Services Division	1.0
Assistant Director of Technical Services	1.0
Director for School of Social Work Instructional Media Facility	1.0
Director, Cable TV and Production	1.0
Producer/Director/Writers	2.0
Academic Division	3.0
Total Professional Staff	17.0
TOTAL STAFF	33.0

Contact Person

Dr. Phillip J. Sleeman, Director, University Center for Instructional Media and Technology, University of Connecticut, Box U-1, Room 3, 249 Glenbrook Road, Storrs, Connecticut 06268. Telephone: (203) 486-2530.

CASE STUDY #5: One of the Nation's Oldest Media Programs

The Institution:

Name: University of Iowa	
Location: Iowa City, Iowa	
Type: Doctorate-Granting University	
Enrollment (FTE):	30,000
Number of Campuses Served:	1
Number of Faculty Having Center Access:	1,600
Total Operating Budget:	$493,702,433

The Learning Resources Program

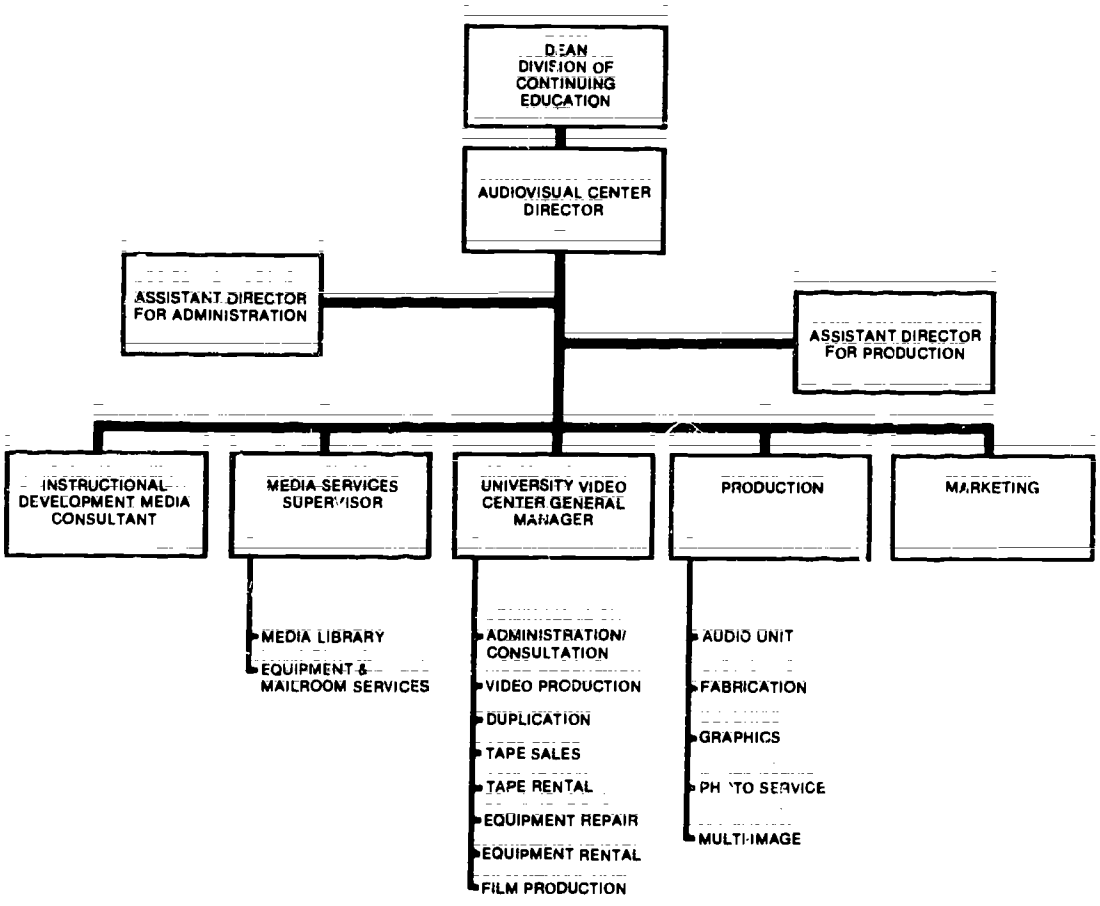
Name: Audiovisual Center	
Type: Separate Learning Resources Program	
Year Established:	1914
Number of Staff (FTE):	38
Total Usable Square Footage:	20,000
Total Operating Budget (including charge-back and fees, but excluding grants)	
With Salaries and Benefits	$1,750,000
Without Salaries and Benefits	900,000

UNIVERSITY OF IOWA
Audiovisual Center

Program Description

Dating back to 1914, the University of Iowa has one of the nation's oldest learning resources programs. Many media professionals from throughout the nation became acquainted with this program and some of its staff members through its long-time sponsorship of the Okoboji leadership conferences.

The program today has a primary mission to assist faculty and students in the improvement of the teaching-learning process through the effective use of instructional technology. There are five units within the Audiovisual Center: Media Services, University Video Center, Production, Marketing, and Instructional Development. *Media Services* has developed a collection of non-print media (including over 8,000 16mm educational films) for use by university faculty, students, and other patrons throughout the United States. This unit also has a Learning Center for listening/viewing of materials and an Equipment Service to provide audiovisual equipment to classrooms and



UNIVERSITY OF IOWA AUDIOVISUAL CENTER

auditoriums. This unit also operates an on-call delivery and repair service. The *University Video Center* is one of the newer units within the Audiovisual Center. This unit provides video and film production plus the usual complement of editing, duplication, designing, and repair. The *Production* unit provides audio, graphic, photographic, and multi-image services to the university and to outside clients. *Marketing* is an outcome of production activities and is related to it administratively. Its function is to provide promotional and sales services for the Audiovisual Center's products (films, audio tapes, slide shows, etc.) and services. Finally, the *Instructional Development* unit's mission is to assist in the design of new and revised courses. In addition, the staff member in this area helps locate audiovisual materials, prepares bibliographic lists of audiovisual materials, provides media consultation on grant preparation, and consultation and workshops on the utilization of audiovisual materials.

In keeping with the philosophy that instructional technology becomes more effective as it becomes more accessible, satellite audiovisual centers have been formed within the following colleges and schools: College of Medicine, College of Dentistry, College of Nursing, School of Music, and the College of Education. These units are staffed and financed by the individual college or school, but, in two cases, the administrator of a satellite center holds a joint appointment with the Audiovisual Center.

Budgeting and Funding Information

Nominal charges are made to clients for all audiovisual services, except for certain services relating to consultation, the use of classroom films and audiovisual equipment, and for television production. A Video Production Fund was created in 1983 by the Office of Educational Development and Research to provide support for instructional and research video projects produced at the University Video Center. Production services other than television are charged on a basis of costs for labor and supplies. Overall, state funds provide about 30 to 50% of the Audiovisual Center's budget, the rest of the funds are generated through charge-back, sales, fees, and rentals.

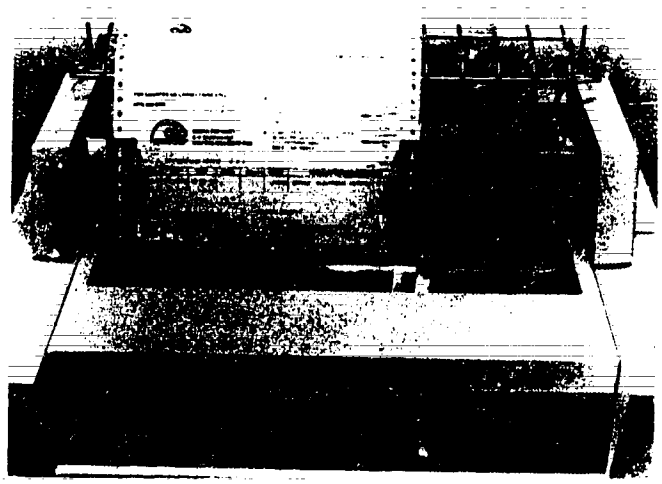
Some Current Projects/Practices

Film Library Management System (FLMS): This system, created in 1970, was one of the first fully computerized film library systems. Film rental orders are telephoned, mailed, or brought to the center. Once a request is confirmed by the computer, the system generates a confirmation slip and a shipping label and does the billing. FLMS was replaced with a new system in the fall of 1985. This system, called Audiovisual Library Management System (ALMS), is a more powerful, updated version of FLMS. It employs advanced language and database characteristics.

Audiovisual Information System (AVIS): This on-line computer system provides time-accounting records for all Audiovisual Center employees, production management, inventory control, product sales, accounts receivable, and automated billing. It was installed as an on-line program on July 1, 1984.

Images Graphic Arts System: This computerized system enables an operator to generate graphics by use of a digitizing pad or by copying a graphic design on a copystand (black and white graphics can be converted to color).

Video Transfer System: This video standards conversion system is one of the few in a university setting. It is used primarily to convert tapes obtained by international agreement from European countries (PAL and SECAM to the U.S. standard NTSC).



The Audiovisual Center developed one of the first fully computerized film library systems.

Video transfer system enables center employees to duplicate videotapes in other television standards (e.g., from NTSC to PAL).

Staffing

Of a staff of 38, 13 are considered to be media professionals. One of the 13 has faculty status.

		FTE
Classified Staff:		
Photographers		3.0
Graphic Artists		2.5
Television Production		
TV Specialist		1.0
Video Engineers		4.0
Electronics Technician		1.0
Maintenance Technicians		2.0
Booking/Circulation/Acquisition Staff		5.0
Driver		1.0
Clerical/Secretarial		5.5
	Total Classified Staff	25.0
Professional Staff:		
Director		1.0
Media Consultants		2.0
Assistant Directors		2.0
Managers		5.0
Senior Producer		1.0
Video Writer-Director		2.0
	Total Professional Staff	13.0
	TOTAL STAFF	38.0

Contact Person

Dr. William B. Oglesby, Director, Audiovisual Center, University of Iowa, Iowa City, Iowa 52242. Telephone: (319) 353-3724.

CASE STUDY #6: Housed in Five Buildings, But Still a Strong Program

The Institution:

Name: Virginia Polytechnic Institute and State University	
Location: Blacksburg, Virginia	
Type: Research and Doctorate Granting University	
Enrollment (FTE):	20,000
Number of Campuses Served:	1
Number of Faculty Having Center Access:	1,800
Total Operating Budget:	$260,000,000

The Learning Resources Program:

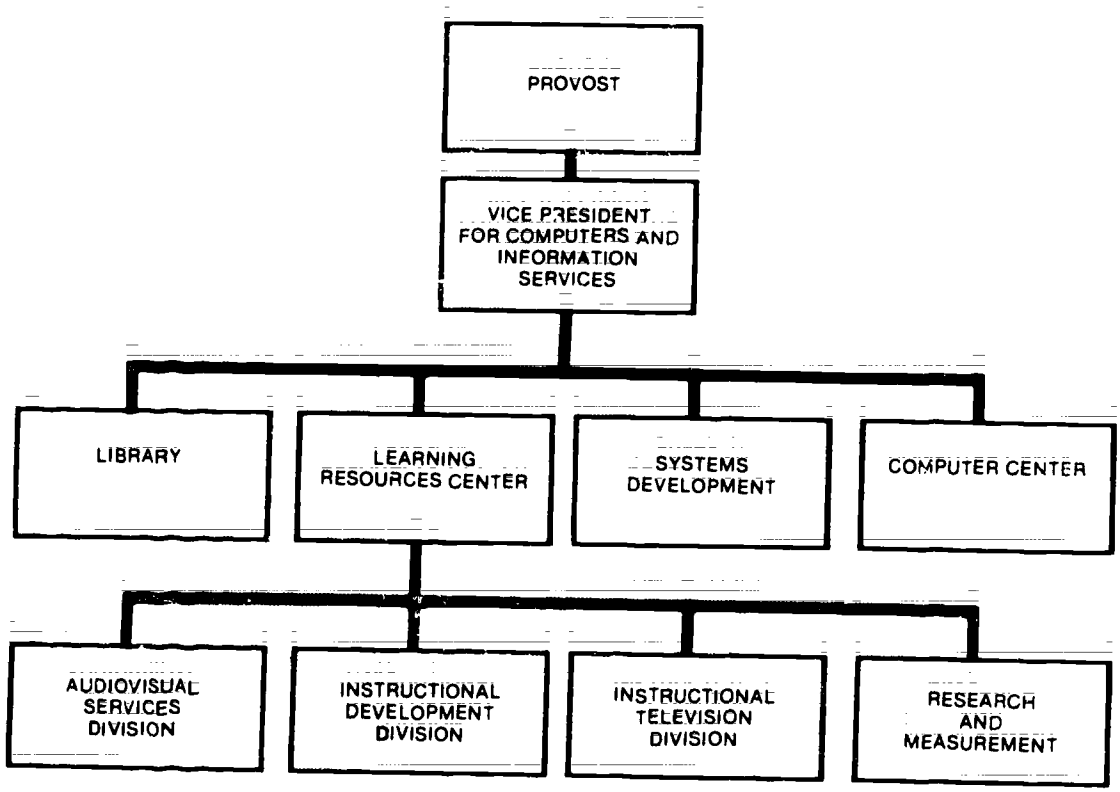
Name: Learning Resources Center	
Type: Separate Learning Resources Program	
Year Established:	1971
Number of Staff (FTE):	38
Total Usable Square Footage:	16,000
Total Operating Budget (including charge-back and fees, but excluding grants)	
With salaries and benefits	$1,900,000
Without salaries and benefits	900,000

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY
Learning Resources Center

Program Description

Even with the Learning Resource Director in one building and each of four main divisions in separate buildings, the Learning Resources Center at Virginia Tech is successful in delivering a wide range of instructional services. The center also supports research and other units with media-related needs.

The four divisions are Instructional Development, Audiovisual Services, Instructional Television, and Research and Measurement. *Instructional Development* is primarily an instructional improvement service. Staff members will design anything from a single transparency to assisting in the design of a new course or revision of an existing one to assisting in developing a new approach to instruction. This division also conducts a faculty development program consisting largely of workshops and seminars. Most of the items or units designed are produced by the staff of the Audiovisual Services Division. However, a Faculty Self-Service Area is located within the Instructional Development Division for faculty and graduate teaching assistants to do their own small production projects. The *Audiovisual Services Division* provides graphic and photographic services, plus audiovisual materials and equipment. A Learning Resources Specialist is available to coordinate slide/tape projects, including scriptwriting, photography, graphics, and narration/music mixing. *Instructional Television* is involved in television production and program distribution. Staff members also assist colleges or departments in the planning of learning laboratories and independent study units and in writing specifications for the purchase of television equipment. This division is using a computer to schedule the playback of videotapes at prearranged times to classrooms via campus cable. The fourth division, *Research and Measurement*, is responsible for providing educational measurement and research services to faculty members. These services include instructional testing consultation and machine scoring, administering a faculty course evaluation program, and the processing of computer-readable survey or questionnaire sheets. The director of this unit also provides assistance on the evaluation component of research projects and grant proposals.



VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY
LEARNING RESOURCES CENTER

Industrial employees in Richmond listen to an engineering class televised live from Virginia Tech.

Budgeting and Funding Information

All services are provided without cost except in graphics and photography where charges are made for time and supplies. In the graphics area an hourly rate is charged. In photography, charges are by the piece.

Some Current Projects/Practices

Graduate Engineering Television Project: With the opportunity to use the state public television microwave network, Virginia Tech and the University of Virginia started teaching graduate engineering courses via live television. These courses are broadcast to three different areas of the state. Students enrolled in the courses are employees of firms like Dupont, AT&T, Allied Chemical, and Reynolds Metal. The system uses one-way video and two-way audio.

Computer TV Channel: A campus TV channel is being used to broadcast video programs about computers and their usage throughout the university.

Learning Resources Center Self Study, 1984: The Learning Resources Center was created in 1971. In 1984, it was decided by the director and the university provost that it was an appropriate time to review the activities of the center. Using a self-study approach, data was gathered from six sources: (1) an analysis of Learning Resources Activity Reports, (2) a university-wide faculty survey, (3) comments from heavy users of the center's services, (4) a survey of classified staff of the center, (5) a survey of faculty of the center, and (6) interviews of center faculty by a team of Virginia Tech faculty and an outside media center director. As a result of this study, a list of observations, recommendations, and conclusions were forwarded to the Virginia Tech Office of the Provost.

Improvement of Instruction Grants: The Learning Resources Center administers a grant program for imaginative approaches to improving instruction at Virginia Tech. Grant limits are up to $2,000. Some of these grants are used as an incentive to motivate faculty to become involved in Learning Resource Center Instructional Development Division projects.

Interactive Video Project: An interactive computer/videotape program in vocational/technical education has been developed and tested.

High Tech Emphasis: Virginia Tech has acquired computer capacity ranking it among the highest in computing power in the southeastern United States. The College of Engineering was first in the nation to require all 1985 entering freshmen to have their own computers.

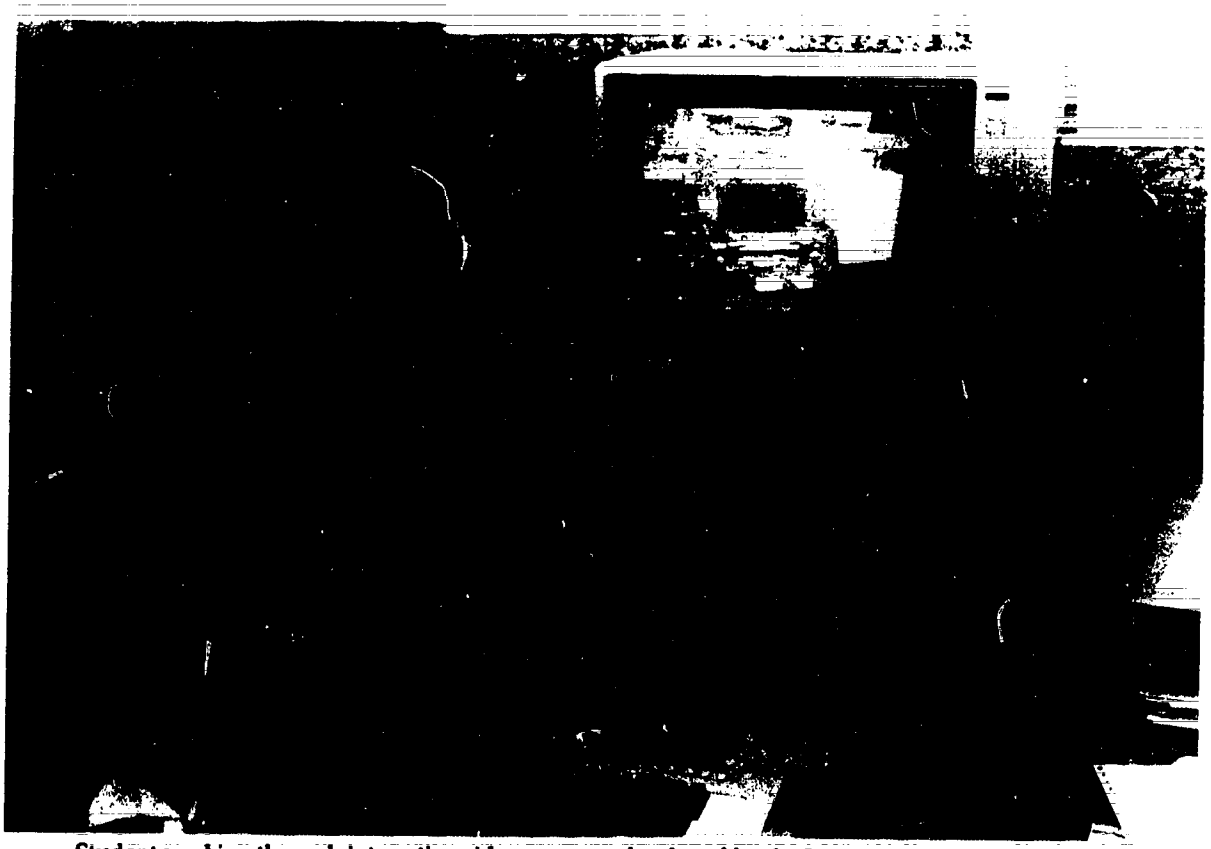
Staffing

Seven of the staff of 38 are professionals with faculty status.

Classified Staff:	*FTE*
Photographers	5.0
Graphic Artists	6.0
Television Production	
Producer/Directors	4.0
Engineers	5.0
Production Technician	1.0
Booking/Circulation/Acquisition	1.0
Computer Specialist	1.0
Learning Resources Specialist	1.0
Audiovisual Technicians	3.0
Editorial Assistants	1.0
Clerical/Secretarial	3.0
Total Classified Staff	31.0
Professional Staff:	
Director	1.0
Assistant Directors:	
Audiovisual Services	1.0
Instructional Television	1.0
Instructional Development	1.0
Research and Measurement	1.0
Instructional Developer	1.0
Instructional/Faculty Developer	1.0
Total Professional Staff	7.0
TOTAL STAFF	38.0

Contact Person

Dr. Stanley A. Huffman, Jr., Director, Learning Resources Center, Virginia Polytechnic Institute and State University, Blacksburg, Virginia 24061. Telephone: (703) 961-6664.



Student working through interactive video program developed by the Learning Resources Center staff

CASE STUDY #7
First Line of Contact to Program Is With An Instructional Development Generalist

The Institution:

Name: Indiana University	
Location: Bloomington Indiana	
Type: Doctorate-Granting University	
Enrollment (FTE)	
—Bloomington Campus:	32,0127
—System-Wide:	79,345
Number of Campuses Served:	8
Number of Faculty Having Center Access—System-Wide Full-Time:	3,299
Total Operating Budget	
—Bloomington Campus:	$374,844,310
—System-Wide:	$830,619,052

The Learning Resources Program:

Name: Audio-Visual Center	
Type: Separate Learning Resources Program	
Year Established:	1912
Number of Staff (FTE):	65.68
Total Usable Square Footage:	61,278
Total Operating Budget (including charge-back and fees, but excluding grants)	
With Salaries and Benefits	
—Bloomington Campus:	$2,314,462
—System-Wide:	Not Available
Without Salaries and Benefits	
—Bloomington Campus:	$813,317
—System-Wide:	Not Available

INDIANA UNIVERSITY
Audio-Visual Center

Program Description

Whenever media specialists gather at state, regional, or national media conferences, seminars, or workshops, it is not unusual to meet graduates of the Indiana University instructional technology program. Many of those graduates gained valuable experience working in the Indiana University Audio-Visual Center. The center remains a large and successful program. The director of the program reports to a Dean for Learning Resources and has four divisions reporting to him: Production Services, Instructional Development, Media Resources, and Field Services (Sales). This relatively new organizational structure emphasizes instructional development and consulting, faculty development, and computer-assisted instruction design. It was created largely because it was felt that the Audio-Visual Center had been perceived as being a traditional service organization which was not in the mainstream of instructional and faculty development activities.

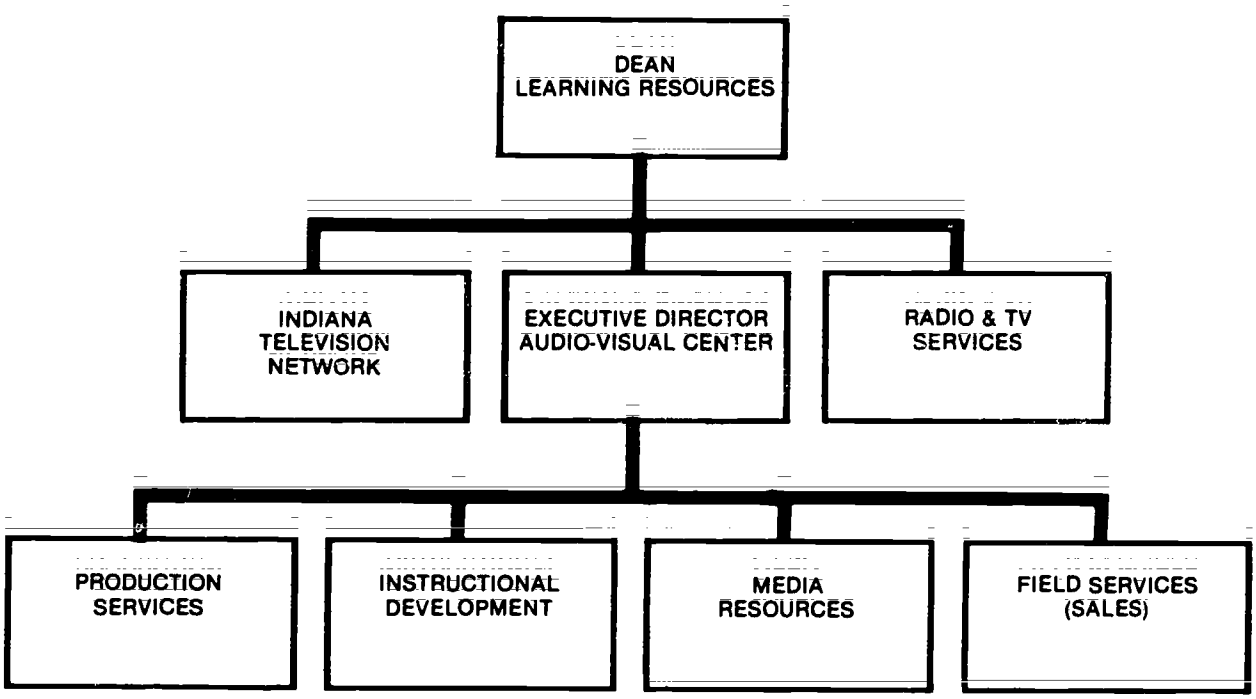
In the first of the four divisions, *Production Services*, skilled staff members render a variety of services at reasonable costs to contracting departments, agencies, and individuals. Services available are graphic design and production, audio recording, still photography, and motion picture production. Video production is provided by another campus unit, Radio and TV Services. The primary goal of *Instructional Development* is to ensure effective student learning. Clients are assisted in improving their teaching strategies. This program is decentralized into seven satellite centers on campus with developers working in each of them. The developers who have first contact with clients are generalists who have a working knowledge of testing, evaluation, media production, and instructional development. Those that need a specific production job done are directed to the appropriate specialist. However 60–70% of requests come from clients who are not completely sure what they want. These are the individuals that the instructional development generalists assist. They form a team of specialists to meet the needs of each individual client. The *Media Resources* division directs the circulation and maintenance of 8500 educational film titles, provides preview services, and offers information on films and other media. The fourth division, *Field Services (Sales)*, markets materials produced by the Indiana University public television station and other educational agencies.

Budgeting and Funding Information

The Audio-Visual Center provides free service for in-class instructional activities. Charges for time and materials are made for public service and research activities. Other income-generating activities are film rentals, the sale of films and other media, and the providing of workshops and consulting for outside firms and agencies.

Some Current Projects/Practices

Instructional Development Projects: Instructional development projects vary widely in scope. A recent large project is the redesign of a course for five math professors that enrolls 6,000 students each year. This project has had about six staff members working on it and it will take two or three years to complete. The smallest recent project was helping a faculty member teaching her first college course to overcome some classroom problems. At any one time, there are roughly one hundred instructional development projects in progress. About one-third of the projects are computer-assisted instruction programs.



INDIANA UNIVERSITY AUDIO-VISUAL CENTER

Computers play a big part in learning or performing instructional development at Indiana University's Audio-Visual Center.

Indiana University continues to be a leading university producer of educational 16mm films.

Film Production: The Audio-Visual Center has a long tradition of producing educational films. Several recent productions were on the subjects of theater safety, the Nicaraguan election process, and the work of a Spanish shoemaker.

Post-Doctoral Teaching Fellowship Grants: This program, funded by the Lilly Endowment, released junior faculty members to develop their teaching competence.

Automation of Learning Resources Program: The Audio-Visual Center has received funding for a one million dollar computer project. A combination of vendor concessions, grants, and university monies were assembled for the project. The project will provide automation for the following: booking and scheduling of media software and hardware, an electronic catalog, computer graphics services, computer-assisted instructional design, and automated office procedures, financial analysis, and project planning.

Staffing

The Audio-Visual Center has a total staff of 65.68 positions (FTE). Over one-half of these positions are classified as professional (33.88) and seven of the professionals have faculty status.

Classified Staff	*FTE*
Photographers	3.0
Graphic Artists	2.8
Audio Technician	1.0
Maintenance Technician	1.0
Cataloger	1.0
Booking/Acquisition/Circulation	7.0
Driver	1.0
Computer Specialists	2.0
Mail Room Supervisors	2.0
Clerical/Secretarial	11.0
Total Classified Staff	31.8
Professional Staff	
Executive Director	.75
Director of Development and Special Projects	1.0
Director of Production Services	.63
Director of Field Services	1.0
Director of Media Services	1.0
Director of Personnel	.5
Director of Campus Services	1.0
Director of Motion Pictures	1.0
Associate Director of Technology	1.0
Manager, Photo Lab	1.0
Manager, Graphics	1.0
Project Directors, Development	7.0
Project Directors, Production	3.0
Research Associates and Graduate Assistants	14.0
Total Professional Staff	33.88
TOTAL STAFF	65.68

Contact Person

Dr. Tom Schwen, Executive Director, Audio-Visual Center, Indiana University, Bloomington, Indiana 47405. Telephone: (812) 335-2854.

COMPREHENSIVE UNIVERSITIES AND COLLEGES

CASE STUDY #8
All Learning Resources Are Under One Roof

ST. CLOUD STATE UNIVERSITY
Learning Resources Services and Center for Information Media

The Institution:

Name: St. Cloud State University	
Location: St. Cloud, Minnesota	
Type: Comprehensive University	
Enrollment (FTE)	9,415
Number of Campuses Served:	1
Number of Faculty Having Center Access:	612
Total Operating Budget:	$32,476,372

The Learning Resources Program

Name: Learning Resources Services and Center for Information Media	
Type: Integrated Learning Resources Program	
Year Established:	1955
Number of Staff (FTE):	53
Total Usable Square Footage:	120,598
Total Operating Budget (including charge-back and fees, but excluding grants)	
With salaries and benefits	$2,073,688
Without salaries and benefits	933,070

Program Description

St. Cloud State University's learning resources program is truly a unique program: a university library, an instructional media center, and an information media personnel training program—all integrated into one program and all housed in a single building. Integration of all elements of this program appears to be so complete that it is often difficult to ascertain where "library" functions end and "media or audiovisual" functions begin. Furthermore, it is difficult to readily determine who are "librarians" and who are "media folk". A few examples will serve to illustrate this total integration: (1) books and non-print media are processed and cataloged together, (2) Learning Resources Services faculty teach courses in the Center for Information Media which is housed in the center, and (3) some "audiovisual" functions are integrated with "print" functions.

St. Cloud State University's Learning Resources Services are located in Centennial Hall, a building

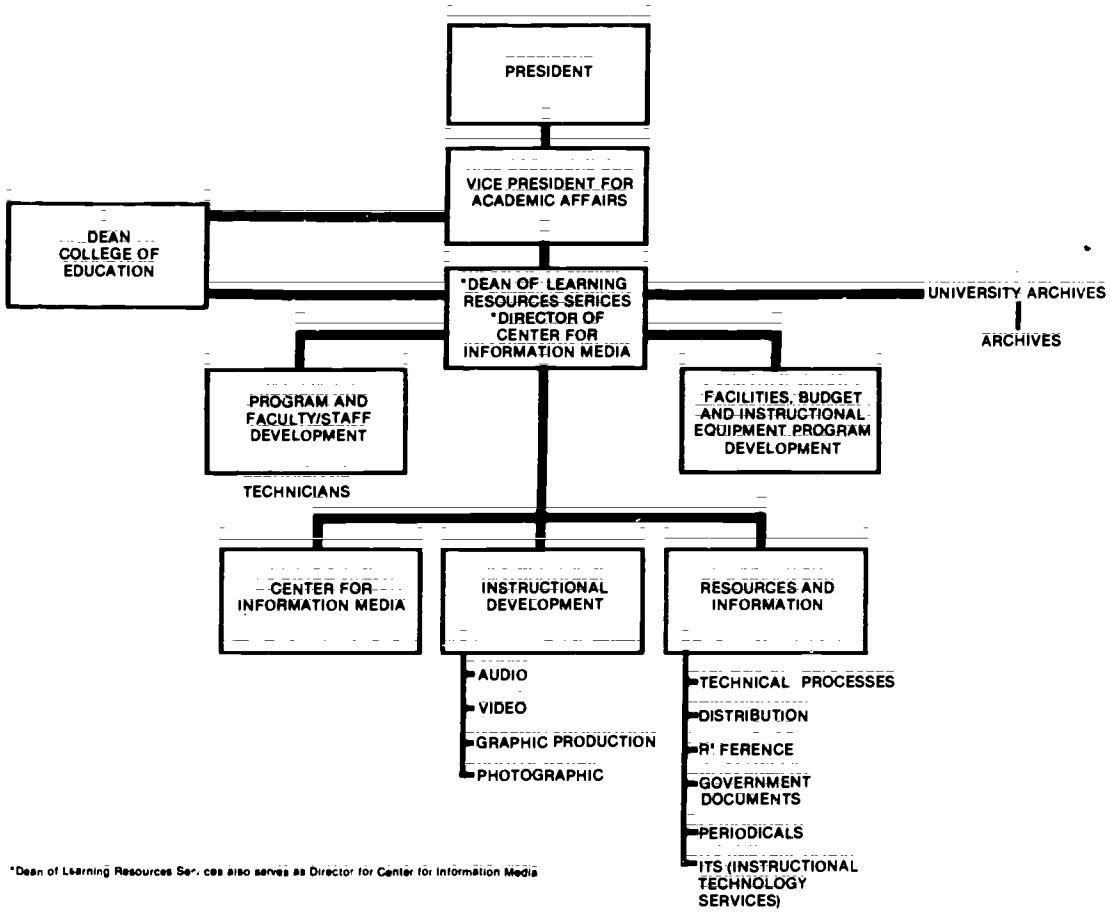
All learning resources are integrated into a single building at St. Cloud State University.

designated as the official centennial year building during the university's 1968–69 centennial year. Completed in 1971, Centennial Hall Learning Resources Services encompasses all media and technology used in support of the instructional program at St. Cloud State University. It includes what would be found in a modern university library and an instructional media center along with a program to train information media specialists.

There are three main divisions: Resources and Information, Instructional Development, and the Center for Information Media. The *Resources and Information* division includes library functions such as technical processes, reference, government documents, and periodicals, plus Instructional Technology Services (non-print resources for listening-viewing and check-out and a student production area).

The *Instructional Development* division is comprised of both faculty and staff organized to serve the instructional development needs of the university community. On a limited basis, this division also offers services to departments and agencies of the university for needs not directly related to instruction. State agencies and organizations separate from St. Cloud State University can also be served with the appropriate administrative approval. Faculty assigned to this division not only teach media courses, but also engage in the development of major instructional improvement projects. This division also handles the design and production of routine requests for audio, video, graphic, and photographic materials. Consequently, clients can come to this division and request services as routine as the duplication of a set of slides to the development of a major media production to the curricular redesign of a university course.

The third division, the *Center for Information Media*, is a program designed to train media specialists for schools, colleges, public libraries, government, and business and industry. While degrees for this program are granted through the College of Education and teaching faculty hold rank in that college, this program is housed and largely administered in Learning Resources Services. An undergraduate minor plus a master's and specialist's degree in Information Media is offered. The faculty of Learning Resources Services teach courses in this program, e.g., a practicing cataloger teaches cataloging, a television



ST. CLOUD STATE UNIVERSITY LEARNING RESOURCES CENTER AND CENTER FOR INFORMATION MEDIA

Faculty on staff of Learning Resources Services teach in the Center for Information Media.

producer teaches the television production class, and so on.

Budgeting and Funding Information

Instructional requests requiring less than $25.00 for supplies are provided without charge. Larger instructional projects often involve supplemental funding by the requesting department. Departments or agencies requesting services for other than direct instruction are charged for all costs incurred.

Some Current Projects/Practices

Making an Integrated Learning Resources Program Work: At the university level, successfully integrating many media-related elements into one program in one building and making it work over a substantial period of time is exemplary. From a user's standpoint, being able to obtain most of your learning resources and services in one location makes a great deal of sense. Much of the credit for this accomplishment must go to the administration involved in this program from its inception. Also crucial is choosing the right type of faculty and staff to work in this kind of environment. New faculty hired may be specialists, but they must be a generalist first. For example, a person entering the organization with a master's degree in library science must also have in addition a required number of credits in the instructional media areas.

There is evidence of a prevailing philosophy that, even in higher education which has been print-oriented, all parties must come to realize that the solving of communication or information problems must be approached without having preconceived notions that a given medium—print or non-print—will solve the problem.

On-line Catalog: The entire card catalog has been replaced with an on-line catalog. Computer terminals are located throughout Learning Resources Services where users can retrieve information on all library and audiovisual materials. Microfiche of the card catalog entries serve as a back-up for this system.

Staffing

Learning Resources Services at St. Cloud State University is in the unique position of having more professional staff members than classified. All 28 professionals have faculty status and have dual roles—providing administrative and technical expertise for Learning Resources Services and teaching in

the Center for Information Media. A profile of the staff follows.

Classified Staff:	*FTE*
Photographers	1.0
Graphic Artists	2.0
Maintenance Technicians	3.0
Catalogers	2.0
Booking/Circulation/Acquisition Staff	2.0
Library Technicians	3.0
Clerical/Secretarial	12.0
Total Classified Staff	25.0
Professional Staff:	
Dean, Learning Resources Services and Center of Information Media	1.0
Faculty	27.0
Total Professional Staff	28.0
TOTAL STAFF	53.0

Contact Person

Dr. John G. Berling, Dean, Learning Resources Services and Center for Information Media, St. Cloud State University, St. Cloud, Minnesota 56301. Telephone: (612) 255–2022.

CASE STUDY #9
A Place Where the Seeker Can Find the Best Available Material Regardless of Format

The Institution

Name: University of Wisconsin – Stout	
Location: Menomonie, Wisconsin	
Type: Comprehensive University	
Enrollment (FTE):	7,400
Number of Campuses Served:	1
Number of Faculty Having Center Access:	524
Total Operating Budget:	$49,500,000

The Learning Resources Program

Name: Learning Resources	
Type: Integrated Learning Resources Program	
Year Established	1970
Number of Staff (FTE):	70.5
Total Usable Square Footage:	101,810
Total Operating Budget (including charge-back and fees, but excluding grants)	
With Salaries and Benefits	$2,979,370
Without Salaries and Benefits	1,452,717

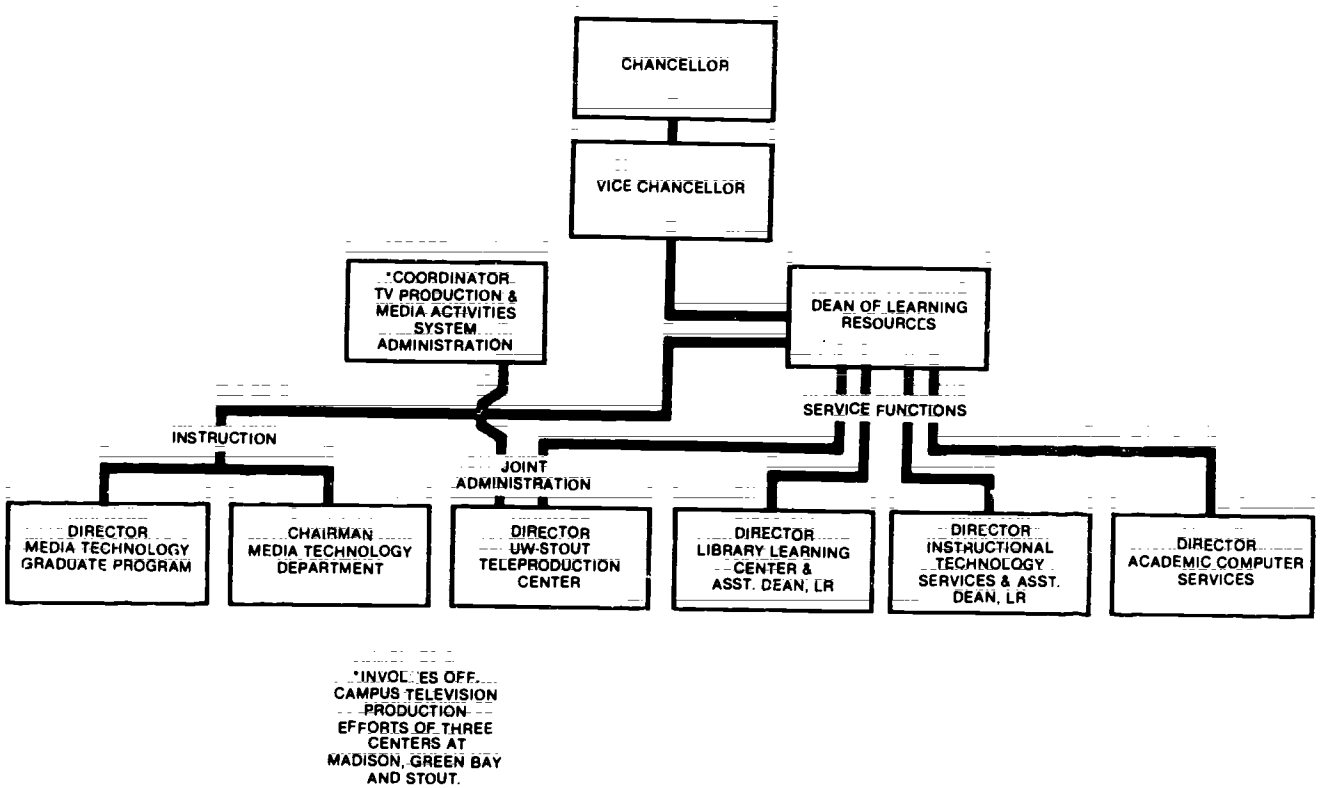
Student using on-line catalog.

UNIVERSITY OF WISCONSIN – STOUT
Learning Resources

Program Description

In 1970, the incumbent Dean of Learning Resources at the University of Wisconsin – Stout was given the charge "to merge the existing audiovisual services and library into a completely integrated print and non-print learning resources center in which the seeker will find, or be directed to, the best available material on his subject, regardless of the form in which it occurs." Today, Learning Resources provides most of the academic support services at the university.

The organization is divided into four service units and an instructional media personnel training program. Each unit is headed by a director or chairperson. The *Library Learning Center* has an integrated audiovisual and print resource collection. The word "integrated" should be accented as audiovisual and print materials are placed side-by-side on the shelves. An Automated Library Information System (ALIS) provides an on-line public catalog plus circulation control, acquisition, and reserve and materials' booking modules. The card catalog is still in the center, but it is not being kept current and will be removed. Computer-output microfiche will be the backup system. This center also provides on-line computerized literature searches from 200 specialized databases. To facilitate the use of the intershelved audiovisual materials, audiovisual equipment is located on each floor of the center. Audiovisual equipment is also situated in instructional buildings throughout the campus. Additional equipment is available for loan at the circulation desk. Students and faculty have equal access to audiovisual equipment and resources. *Instructional Technology Services* provides instructional development services for individuals working on specific lesson, unit, and course projects plus assistance to individuals writing instructional improvement project proposals. Other services of Instructional Technology Services are instructional graphics, photography, audio recording and duplicating, equipment maintenance (including microcomputers and terminals), and instructional and closed circuit television. Television services include playbacks through the CCTV network and videotape production in both studio and at remote locations. The *Teleproduction Center* is a fully equipped, broadcast quality television facility which produces programs for local, state, and national distribution. A service of the state university system, the center produces programs of both an in-



UNIVERSITY OF WISCONSIN—STOUT
LEARNING RESOURCES

A student using the on-line catalog.

Computer terminal, printer, and microcomputer maintenance facility

structional and educational nature. *Academic Computer Services* provides hardware and programming support for the instructional and research needs of the university. The instructional computer may be accessed via 150 remote terminals located at various places across the campus including terminals in the Library Learning Center, the Academic Computer Center, residence halls, and classrooms. The *Media Technology Department* is the instructional arm of Learning Resources. A master's degree program in Media Technology is offered as well as media support courses for other graduate and undergraduate programs on campus. Some of the faculty and academic staff teaching in this program are administrators or specialists in the learning resources center. A Media Self-Instruction Lab is available for students and faculty in this and other programs to use in learning media production and utilization skills and techniques.

Budgeting and Funding Information

The University of Wisconsin – Stout receives most of its funds from the state of Wisconsin. Services are provided without charge except for the production of media or programs where departments pay only for the materials used. Grants or self-sustaining programs are usually charged for all costs. Off-campus clients of the Teleproduction Center also pay for all costs of productions. Many of the employees of the Teleproduction Center are on short-term contracts specifically for a project or a series of projects.

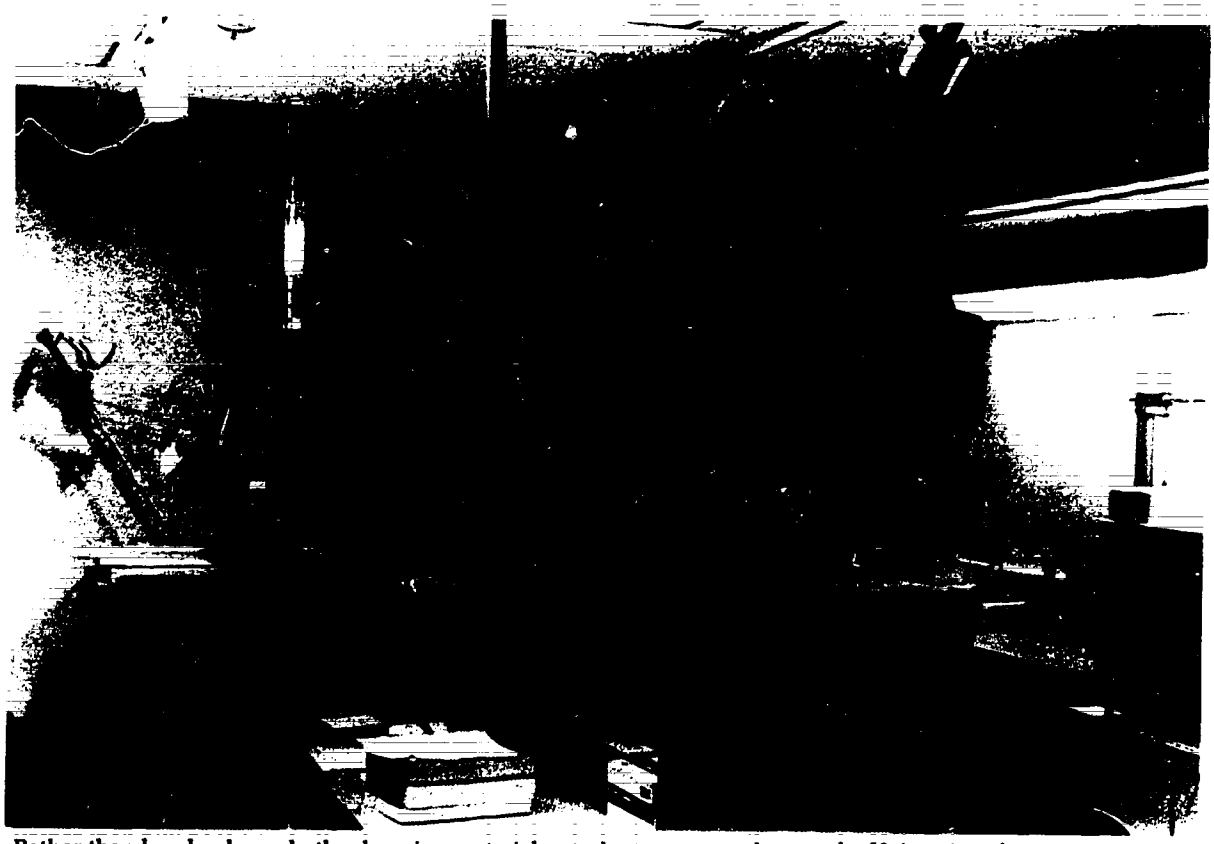
Some Current Projects/Practices

Integrated Shelving of Materials: Throughout the Library Learning Center print and audiovisual materials (except 16mm films) are shelved side-by-side. Listening/viewing equipment is placed in the same location on each floor of the center for use with the audiovisual materials. According to center personnel, this system has been well-received by the users.

Rental Resources Services: A unique service not found in many universities is a facility where students can rent or purchase all formats of learning materials including textbooks, paperbacks, micro-formats, reprints of articles, instructional packages developed by professors, and tapes. Undergraduate students pay a rental fee as part of their tuition payment which is based on the number of credits taken. Students also have an option to purchase materials they would like to retain. Rental Resources Services obtains copyright clearances when necessary, e.g., the renting of journal article reprints.

Micrographics Service: This service was established in 1972. It serves campus clients by reducing records'

Audio tapes and other media are shelved along with print materials.



Rather than buy books and other learning materials, students can rent them at the University of Wisconsin – Stout.

A complete micrographics service is available in Learning Resources.

storage space, by reducing wear and tear on documents, and by packaging instructional materials. This service is also available to local government agencies and other public educational institutions within the University of Wisconsin system.

Staffing

Learning Resources has a large professional staff (20 faculty and 14 classified as academic staff or limited appointees) plus a classified staff of 36.5 and a large number of student employees (32 full-time equivalent positions not included in the totals shown below).

Classified Staff:	*FTE*
Graphic Artists	1.0
Assistant to the Dean	1.0
Television Production	
TV/Audio Technician	1.0
Production Engineer	1.0
Maintenance Engineer	1.0
Maintenance Technicians	5.0
Cataloging Assistants	2.0
Booking/Circulation/Acquisition Staff	3.0
Computer Specialists	3.0
Clerical/Secretarial	13.5
Storekeeper	1.0
Serials Assistant	1.0
Head of Processing	1.0
Materials Repair	1.0
Micrographics Technician	.5
Limited Term Special Project Employee	.5
Total Classified Staff	36.5
Professional Staff	
Dean for Learning Resources	1.0
Director, Instructional Technology Services	1.0
Instructional Development Consultant	1.0
ITV/Audio Coordinator	1.0
Instructional Systems Engineer	1.0
Photographer Coordinator	1.0
Instructional Graphics Coordinator	1.0
Teleproduction Center Director	1.0
Teleproduction Center Engineering Manager	1.0
Teleproduction Center Audio Specialist	1.0
Producers/Directors	3.0
Studio Supervisor	1.0
Art Director	1.0
Producer/Host	1.0
Instructional Television Production Manager	1.0
Director of Academic Computing	1.0
Computer Programmer/Line Analyst	1.0
Coordinator of Public Services	1.0
Coordinator of Technical Services	1.0
Collection Development Librarian	1.0
Head of Cataloging	1.0
Reference Librarian – Bibliographic Instruction	1.0
Reference Librarian – Computer Assisted Reference	1.0
Reference Librarian – General	1.0
Automation Librarian	1.0
University Archivist	1.0
Director of Library Learning Center	1.0
Coordinator of Rental Resources Services	1.0
Director of Media Technology Graduate Program and Media Technology Department Chairperson	1.0
Media Technology Instructors	3.0
Total Professional Staff	34.0
TOTAL STAFF	70.5

CONTACT PERSON

Dr. David P. Barnard, Dean for Learning Resources, University of Wisconsin – Stout, Menomonie, Wisconsin 54751. Telephone: (715) 232–2246.

CASE STUDY #10
Chico State Ranked Highest in Innovation

The Institution

Name: California State University, Chico	
Location: Chico, California	
Type: Comprehensive University	
Enrollment (FTE):	12,757
Number of Campuses Served:	1
Number of Faculty Having Center Access:	1,082
Total Operating Budget:	$59,420,797

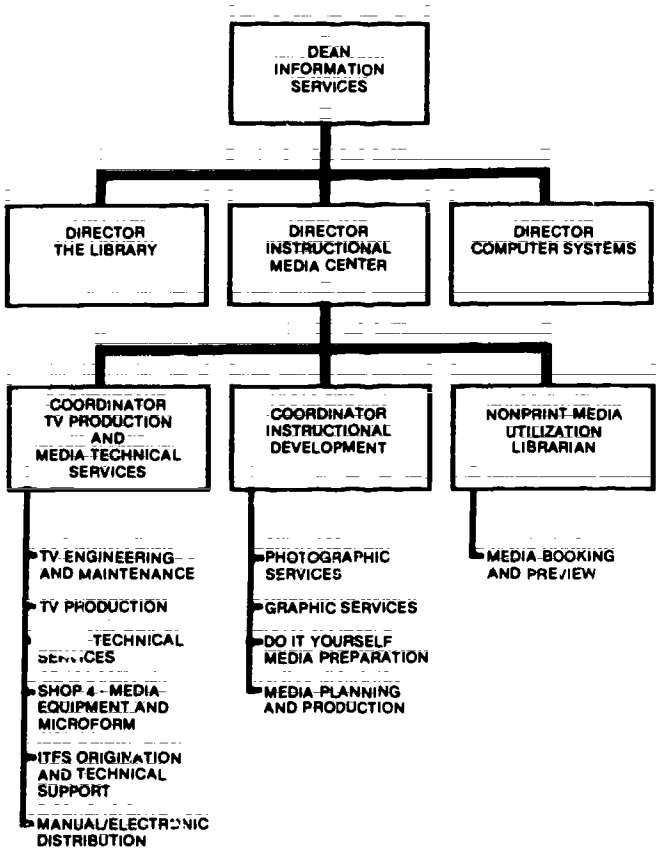
The Learning Resources Program

Name: Instructional Media Center	
Type: Separate Learning Resources Program	
Year Established:	1972
Number of Staff (FTE):	23
Total Usable Square Footage:	22,000
Total Operating Budget (including charge-back and fees, but excluding grants)	
With Salaries and Benefits	$590,000
Without Salaries and Benefits	48,000

CALIFORNIA STATE UNIVERSITY, CHICO
Instructional Media Center

Program Description

In a 1984 independent survey of the nineteen California state universities, California State University, Chico, was ranked number one in innovation. The survey report indicated that Chico State's well-known innovations are an instructional television program that serves communities throughout northeastern California, long-established continuing education and external degree programs, and a computerized library.



CALIFORNIA STATE UNIVERSITY — CHICO
INSTRUCTIONAL MEDIA CENTER

The Instructional Media Center at Chico State is directly or indirectly involved in all these programs. The director of the center indicated that he has given up parts of what you usually find in a learning resources center (cataloging of materials, mediated carrels for viewing and listening, equipment distribution) in order to maximize what is left. This means that he can divert full energies and resources to television, instructional development, and non-print media utilization. Mediated carrels and cataloging of materials are now functions of the university library and equipment distribution is minimized by permanently placing most of the equipment in classrooms.

Service delivery at Chico State's Instructional Media Center is organized into three departments: Television Production and Media Technical Services, Instructional Development, and Nonprint Media Utilization. *Television Production and Media Technical Services* includes equipment and facilities for producing television programs in the studio as well as on location using a mobile van. Noteworthy in this department is the operation of a regional television network by microwave throughout northeastern California. This network, created in 1975, links sixteen learning center sites with an origination classroom located in the Instructional Media Center. In this classroom the instructor can call up slides, films, and videotapes on demand. The instructor can freely move around the room, sit at the desk, write on the blackboard, or let an overhead camera pick up written information and display it on television sets in the room and throughout the system. In an adjoining room, an operator controls four remote cameras and other media equipment. Live and interactive programs are possible with two-way audio and one-way video transmission. The most distant site is 173 miles from the Chico campus. An examination of a recent announcement of current televised classes being offered by the Center for Regional and Continuing Education showed over thirty regular upper division courses. With a transmit/receive 10-meter earth station, Chico State can send or receive information throughout the state, nation, or world via satellite. Teleconferencing and repair and maintenance of audiovisual and television equipment are other services of this department.

The *Instructional Development* department consists of photographic and graphic services, media program planning and production services, and a Do It Yourself Media Preparation Lab. Most of the graphics designed in the Instructional Development department are for publications or illustrations for various university programs. Photographers are available for studio as well as on location using a mobile van. A unique feature of this unit is the possession of a Dubner computer graphics system for creating state-of-the-art graphic designs for publications and media productions. The *Nonprint Media Utilization* department provides reference assistance and circulates nonprint media for classroom presentations by an instructor or via closed circuit television.

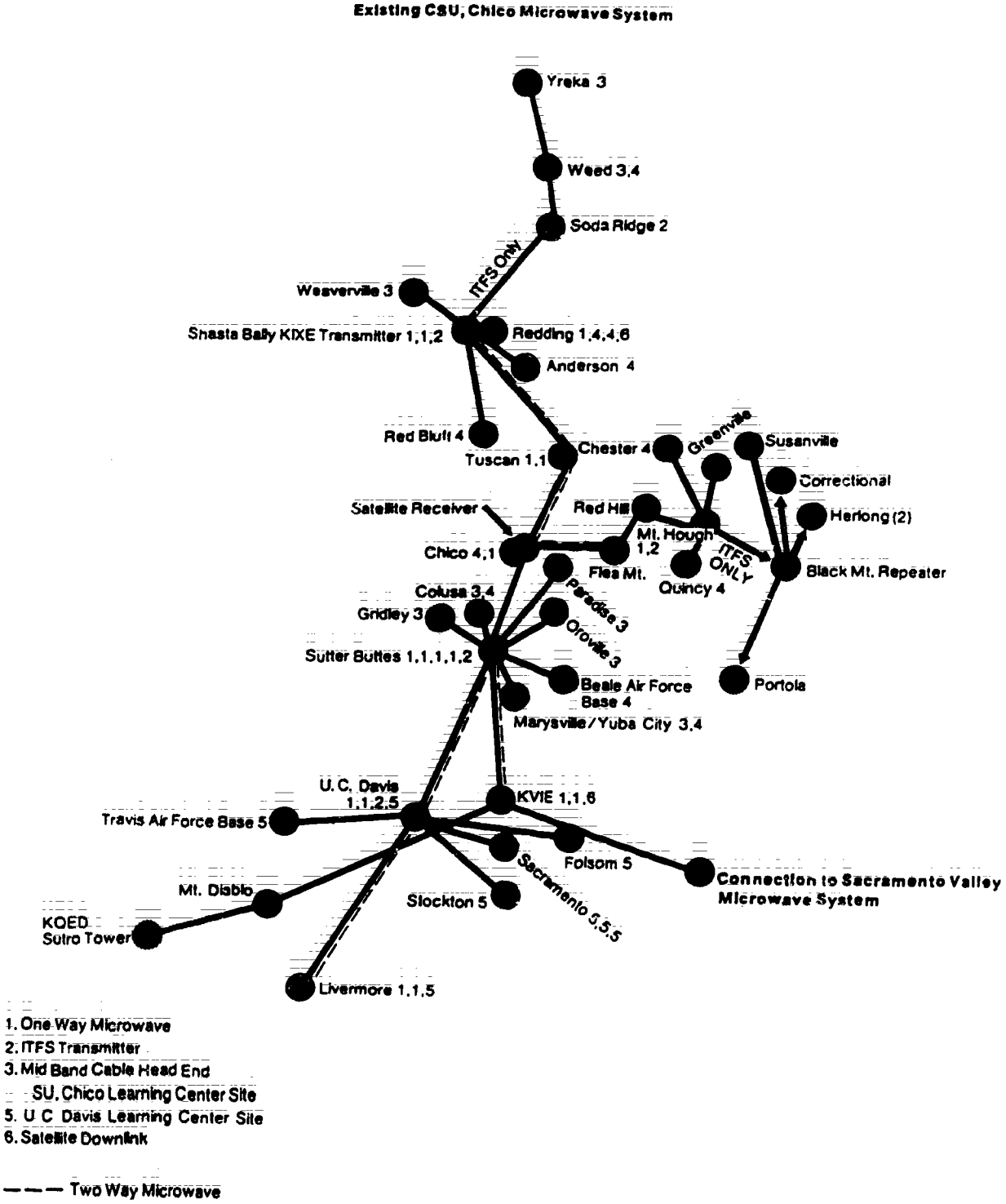
Budgeting and Funding Information

California State University, Chico, as a state university, receives most of its funding from the state of California. Most services are provided without charge except in the area of media production (graphics, photography, etc.) where charges are assessed for materials, but not for labor. When work is done for external agencies, full costs are charged.

Some Current Projects/Practices

Computer Graphics: A sophisticated Dubner graphics system enables designers to produce many of the same special effects as are seen on network television. This system is the same as the one used by the ABC network.

Cooperation with Industry: Grass Valley Group Electronics (a firm for audio electronic research, devel-



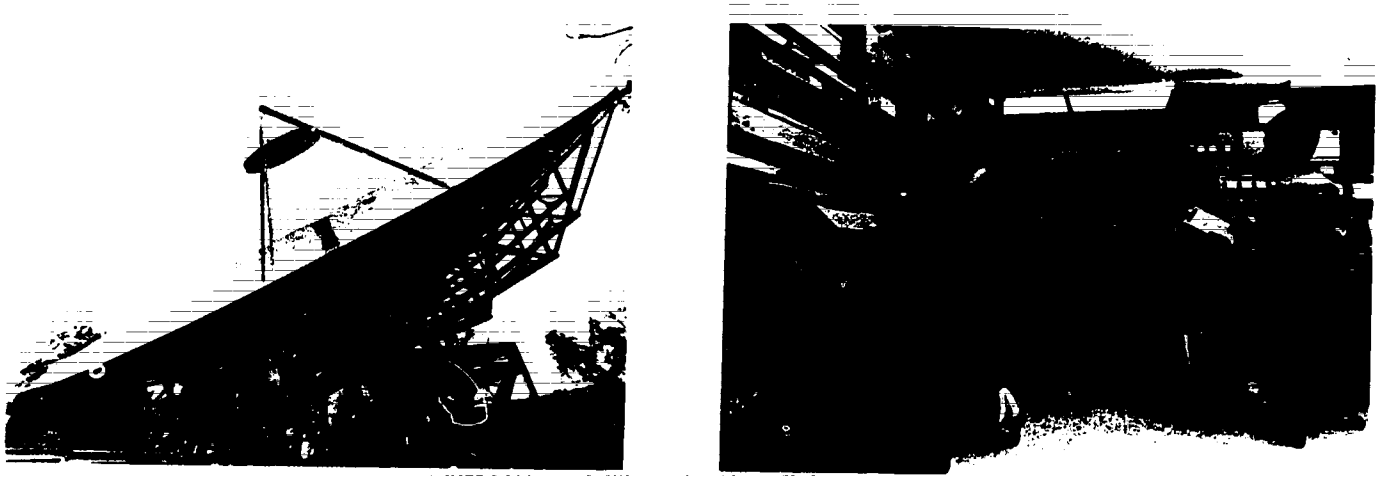
opment, and consulting) and Hewlett Packard have used Chico State's distant learning system for on-site training of employees. Receiving sites are in California and as far away as Boise, Idaho.

Satellite Uplink: Chico State is one of the few universities in the nation capable of sending (uplinking) TV programs from its earth station to sites throughout the nation and the world. The program cited above with Hewlett Packard is an example of the use of this technology.

Media Utilization in Classroom System: Each classroom on campus has permanently installed equipment (an overhead projector, motion picture projector, tape recorder, television receiver, and slide projector). Outside each classroom is a lockable metal box to which audiovisual materials are delivered. In-

Television control room.

Origination classroom for regional television network.



Chico State's satellite uplink/downlink equipment.

side each classroom, the same style of box contains controls for the media hardware located in the room.

Staffing

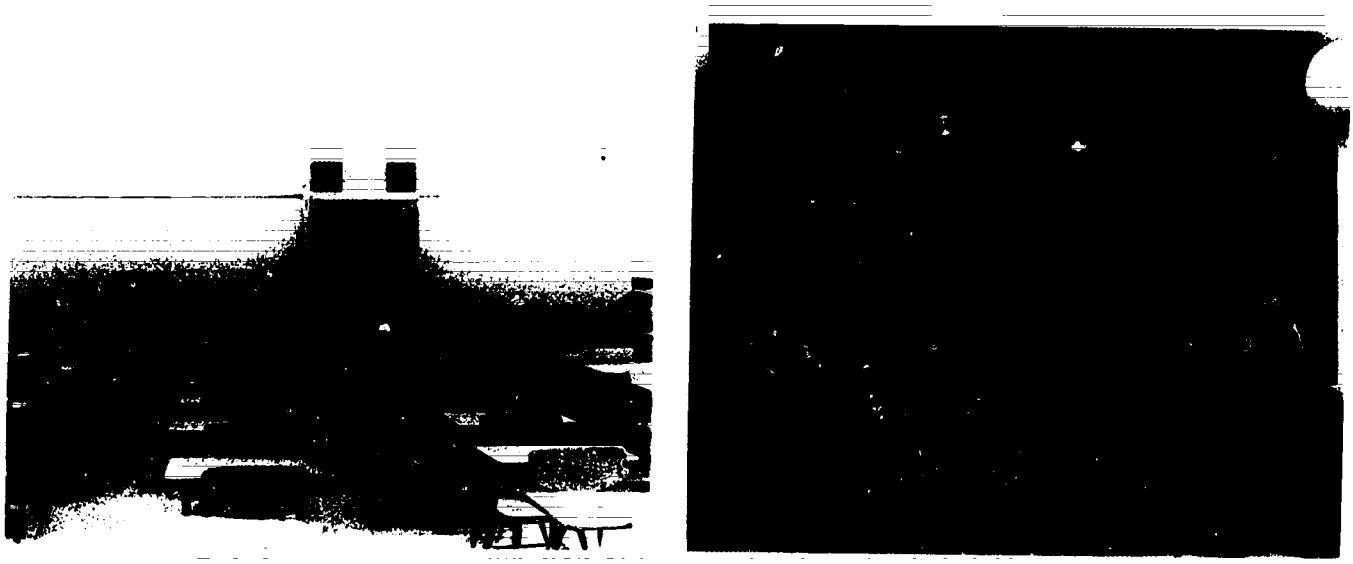
Of the twenty-three staff members of the Instructional Media Center, four are professional media specialists. Three of these four have faculty status, and the fourth, the director, has administrative status.

Classified Staff:	*FTE*
Photographers	2.0
Graphic Artists	2.5
Television	
Television Engineer	1.0
Other TV Staff	5.0
Maintenance Technicians	3.0
Booking/Circulation/Acquisition Staff	3.0
Other (Clerical, Production, etc.)	2.5
Total Classified Staff	19.0

Professional Staff:	
Director and Associate Dean of Information Services	1.0
Coordinator of Instructional Design	1.0
Coordinator of Television and Technical Services	1.0
Associate Librarian for Utilization Services	1.0
Total Professional Staff	4.0
TOTAL STAFF	23.0

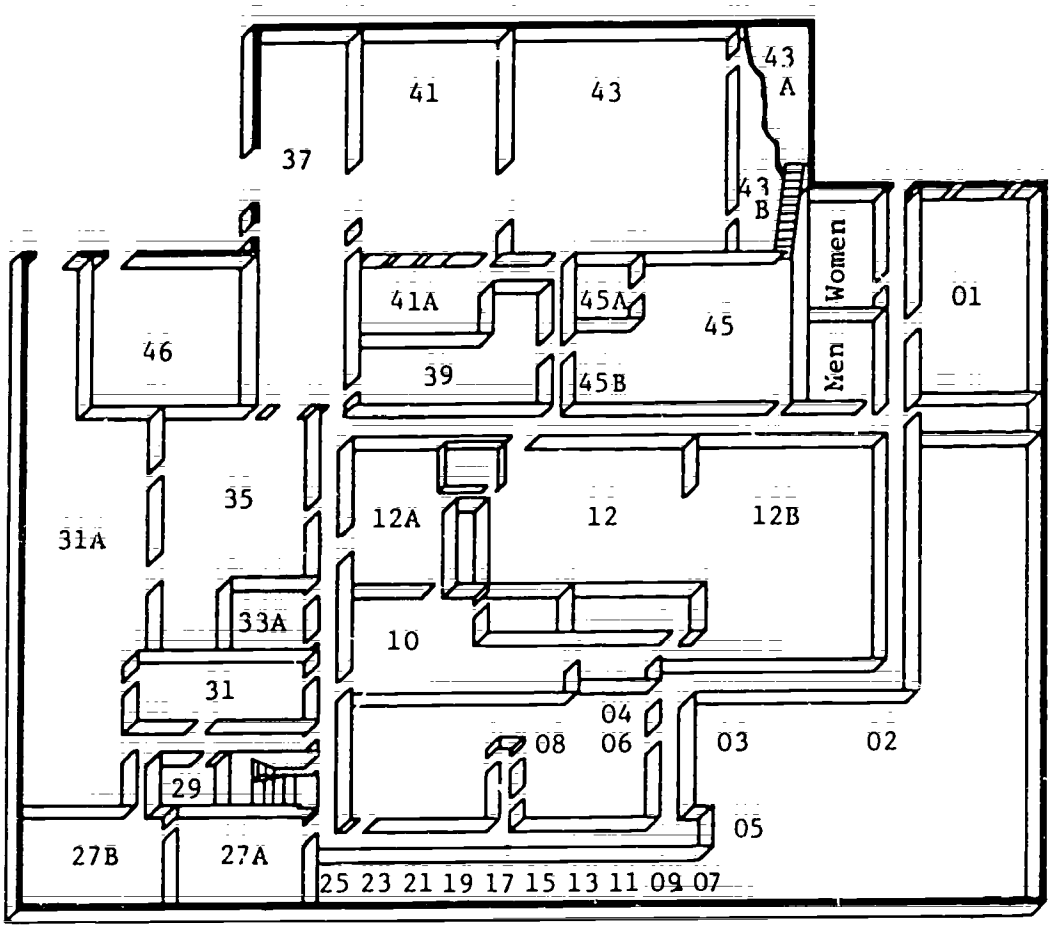
Contact Person

Dr. Royd L. Weintraub, Director, Instructional Media Center, California State University, Chico, Chico, California 95929. Telephone: (916) 895–6112.



Each classroom has permanently installed audiovisual equipment and a lockable control box.

INSTRUCTIONAL MEDIA CENTER
CALIFORNIA STATE UNIVERSITY, CHICO
FLOOR PLAN



01	Administrative Offices
02-09	and 13-25 (odd numbers only), Classrooms, Offices and KCHO Radio Station
10	Special Effects Control Room (future)
12A	Electronic Graphics
12	Graphics
12B	Photography
27A	ITFS Overflow Room
27B	ITFS Classroom (and Control Room)
29	Film Editing Room
31	Media Preparation Area
31A	Film Booking & Equipment Check Out
33	Audio Recording Studio
35	AV/TV Maintenance & Repair Shop
37	Wood Shop & Prop Storage
39	Tape Vault
41A	Control Room: Studio B
41	Studio B (Black & [illegible]e)
43	Studio A (Color)
43A	Teleconference C[illegible] Room
43B	Control Room: Studio A
45	Electronic Distribution
45A	A-B Edit Suite
45B	Equipment Storage

CASE STUDY #11
Primary Mission is Service to Instruction

The Institution

Name: San Jose State University	
Location: San Jose, California	
Type: Comprehensive University	
Enrollment (FTE):	18,500
Number of Campuses Served:	1
Number of Faculty Having Center Access:	1,500
Total Operating Budget:	$80,672,292

The Learning Resource Program

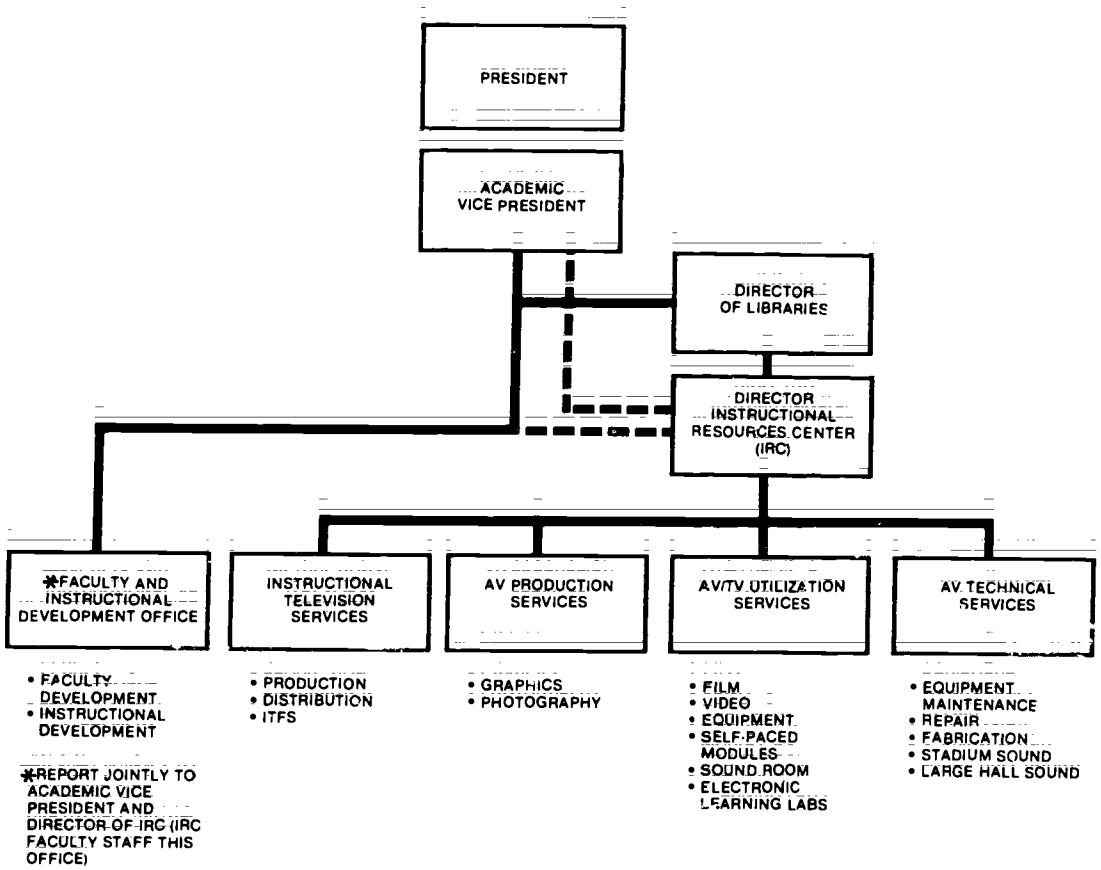
Name: Richard B. Lewis Instructional Resources Center	
Type: Separate Learning Resources Program	
Year Established:	1949
Number of Staff (FTE):	26.5
Total Usable Square Footage:	20,000
Total Operating Budget (including charge-back and fees, but excluding grants)	
With Salaries and Benefits	$675,000
Without Salaries and Benefits	155,000

SAN JOSE STATE UNIVERSITY
Richard B. Lewis Instructional Resources Center

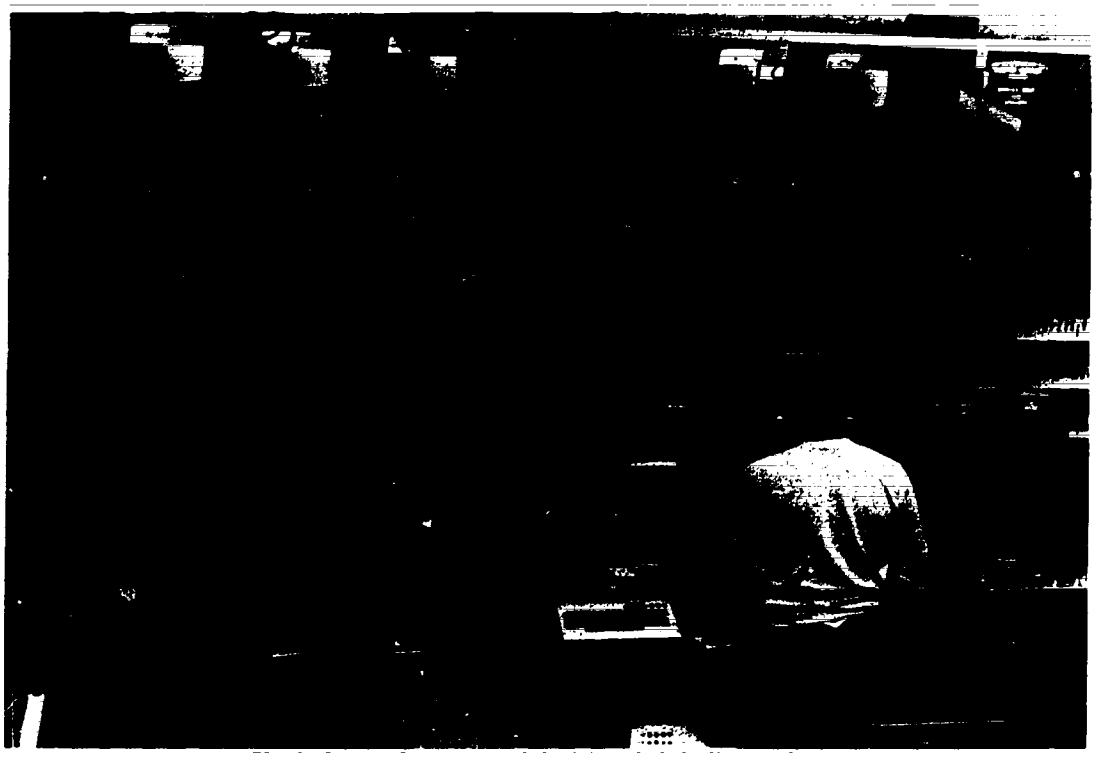
Program Description

San Jose State University has been well-known throughout the nation for over twenty years for the excellent leadership in the learning resources field provided by numerous members of the Instructional Resources Center staff. Some of these individuals continue to work in the center and/or teach in the Instructional Technology program.

The mission of the Instructional Resources Center is to provide instructional development services and media support for the instructional programs and official field services of San Jose State University. The prevailing philosophy is to serve all instructional users, even those requesting the most mundane services—for the individuals requesting those types of services are in the majority. Services are organized into five units. The *Faculty and Instructional Development Office* provides assistance to faculty members interested in changing and improving their teaching techniques, in exploring or developing new instruc-



SAN JOSE STATE UNIVERSITY
INSTRUCTIONAL RESOURCES CENTER



Control room for campus television distribution system.

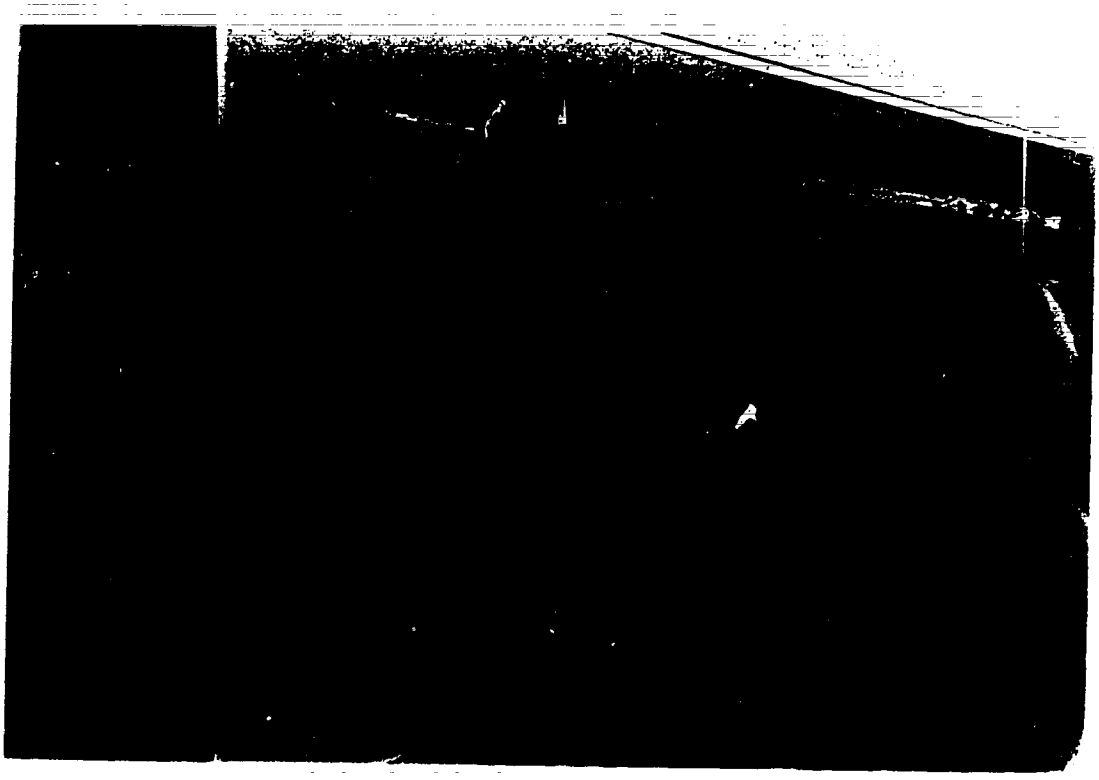
tional approaches in courses they teach, and other areas of faculty development and improvement. One Instructional Resources Center faculty member works full-time and the center director spends about one-fourth of his time in these efforts. *Instructional Television Services* offers original production of television programs and a campus television distribution system. Playbacks to classes of previously recorded materials are available to over 350 campus rooms (see additional information under Some Current Projects/Practices). *AV Production Services* exists to produce instructional materials for university faculty. Production requests for public relations, non-instructional, and student projects are usually diverted elsewhere for completion. *AV/TV Utilization Services* provides audiovisual and television portable equipment and materials, trained operators for classroom film projection, a preview service, a self-operated audio tape duplication service for faculty, an audio production facility, and an Electronic Learning Lab for independent study through use of media. Students are able to use materials and equipment for functions that are directly related to university programs of instruction and for course-connected activities for which credit is given. *AV Technical Services* maintains and services university audiovisual equipment, provides consultation on planning facilities and on procuring and using equipment, and consultation and technical support for university functions such as commencement, conferences, meetings, and workshops.

Budgeting and Funding Information

The source of funds for the Instructional Resources Center is state appropriations. No charge-backs or fees are assessed. When costs for projects exceed the availability of funds, requesting faculty and departments are asked to assist in funding. Research and grant activity must be funded by sources other than the state-allocated budget for instruction.

Some Current Projects/Practices

TV Distribution System: Instructional Television Services is linked by cable to the campus library, to other areas of the Instructional Resources Center, and to classrooms. Instructors can call in and make a reservation for a videotape playback during a prescribed class period. Classrooms are connected to the television service center by phone intercom and the instructor can call and request a reserved playback at any time during the class period for which it is scheduled. Reservations are made at least twenty-four hours in advance or faculty members must take a chance of the videotape and equipment being available at the requested time (about 80% of requests on a non-reservation call-in are filled). Thirteen channels are available for playback use in this system and the service is available from 7:00 a.m. to 10:00 p.m. on Mondays through Thursdays and until 5:00 p.m. on Fridays. The peak load has been 80 playbacks per day. Users in the library and in the Instructional Re-



Instructional developer working on a project.

sources Center can also request playbacks on this system.

Instructional Television Fixed Service (ITFS): An ITFS system was recently installed to link five area community colleges with San Jose State University. The system has one-way video and two-way audio. The university's continuing education division uses the system to deliver university classes to those five colleges.

Instructional Development Projects: The instructional developer has recently been involved in two major projects. Both projects were funded by external sources. One is an interdisciplinary humanities project integrating six courses and using team teaching, self-paced learning modules, and computer-based instruction. The second project is a multicultural/multidisciplinary health promotion project.

Faculty Development Efforts: Each year faculty members participate in workshops to enhance competencies in lectures, discussions, faculty-student relationships, testing, self-paced learning, and in media use. The *Faculty Development Self-Instructional Modules and Workshop* materials prepared and used here are being used by over 400 institutions throughout the United States and in 50 other countries.

Staffing

Of the 26.5 positions in the Instructional Resources Center, 3 positions are considered to be professional in nature. Two of the three individuals occupying those positions have faculty status.

Classified Staff:	*FTE*
Photographers	3.0
Graphic Artists	2.0
Television Services	
Production Specialist	1.0
Engineer	1.0
ITFS Technicians	1.5
Distribution Supervisor	1.0
Maintenance Technicians	5.0
Catalogers	1.0
Booking/Circulation/Acquisition Staff	5.0
Clerical/Secretarial	2.0
Electronic Learning Lab Supervisor	1.0
Total Classified Staff	23.5
Professional Staff:	
Director	1.0
Coordinator, Instructional Development	1.0
Coordinator, Technical Services	1.0
Total Professional Staff	3.0
TOTAL STAFF	26.5

Contact Person

Dr. Ron J. McBeath, Director, Instructional Resources Center, San Jose State University, San Jose, California 95192. Telephone: (408) 277–3411.

TWO YEAR COLLEGES AND INSTITUTES

CASE STUDY #12
Telecommunications Dominates the Learning Resources Program

The Institution:

Name: Kirkwood Community College	
Location: Cedar Rapids, Iowa	
Type: Two Year College	
Enrollment (FTE):	8,300
Number of Campuses Served:	1
Number of Faculty Having Center Access:	211
Total Operating Budget:	$17,000,000

The Learning Resources Program:

Name: Telecommunications Division	
Type: Separate Learning Resources Program	
Year Established:	1972
Number of Staff (FTE):	29
Total Usable Square Footage:	*13,000
Total Operating Budget (including charge-back and fees, but excluding grants)	
With Salaries and Benefits	$696,982
Without Salaries and Benefits	191,584

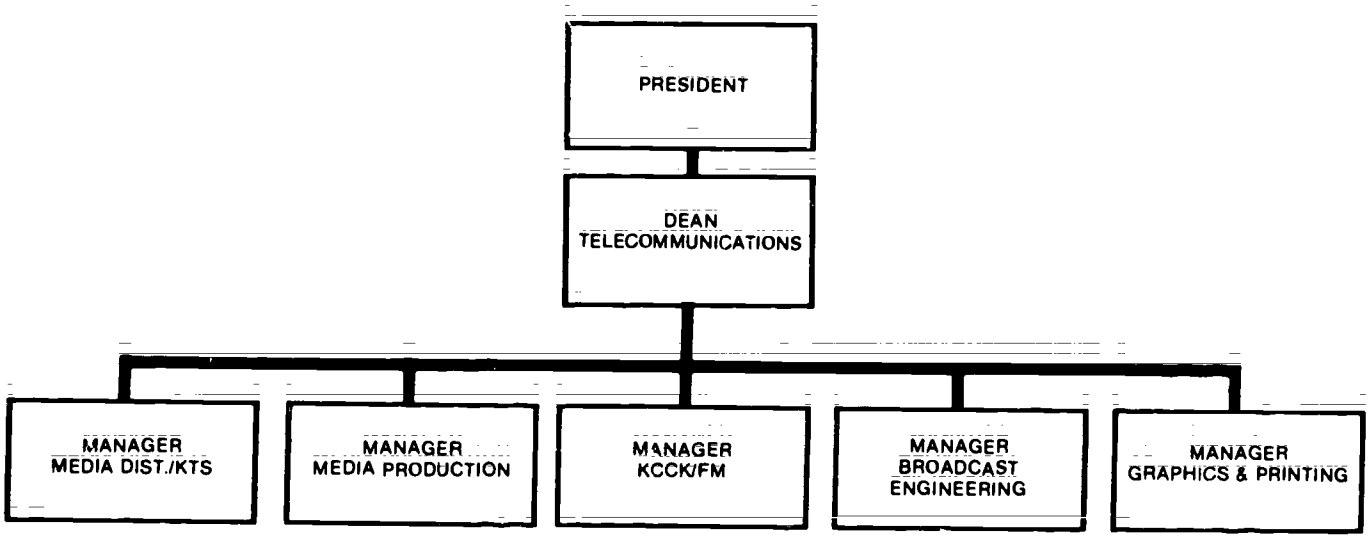
*Includes 7 off-campus learning centers which serve as television origination sites.

KIRKWOOD COMMUNITY COLLEGE
Telecommunications Division

Program Description

How many media or learning resources programs exist that are directed by a Dean of Telecommunications? Kirkwood Community College may be unique in this regard, but the title seems to be appropriate because this institution has made a major commitment to telecommunications as a means of delivering instruction. At Kirkwood there are elements normally found in more traditional programs, such as audiovisual equipment distribution, printing, television production, graphics, photography, and audio; but here they are overshadowed by the activities in the telecommunications area. A packet of materials designed to disseminate information on the Kirkwood program describes its purpose as follows:

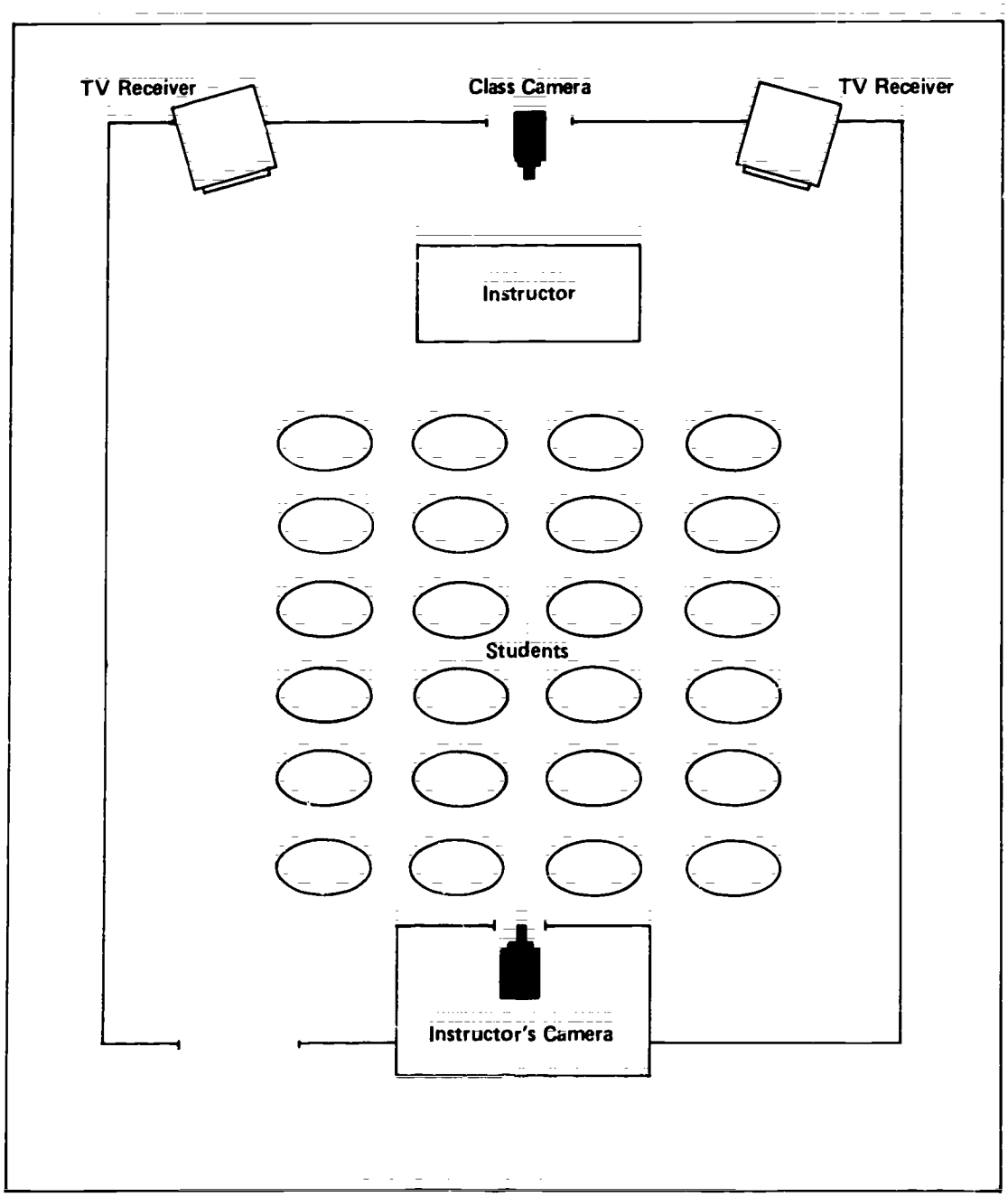
> Kirkwood Community College serves a seven-county area that extends over 4,300 square miles. The population of this service area is about 350,000 and includes the larger communities of Cedar Rapids and Iowa City as well as a large number of smaller and rural communities. The Kirkwood Telecommunication System is one of the ways in which Kirkwood addresses the problem of extending educational opportunities to all residents of this large and diverse area.



KIRKWOOD COMMUNITY COLLEGE
TELECOMMUNICATIONS DIVISION

The *Kirkwood Telecommunications System* (KTS) offers several interactive telecommunications services: (1) Telelink (a 12 ghz interactive microwave network) inter-connects the main campus in Cedar Rapids with classrooms in each of seven outlying communities. This system allows students to enroll in classes in their home communities and still be able to interact with their instructor and other students. This is possible because each microwave path carries color video and audio signals in both directions simultaneously. Faculty can originate classes in about a half-dozen classrooms/auditoriums on the Kirkwood campus or in any of the seven distant classrooms. Below is a diagram showing the design of a typical classroom in the system. From Cedar Rapids, any classroom can be connected to any other system classroom individually or in multiples, depending on the nature of the activity occuring. (2) Instructional Television Fixed Service (ITFS) is a 2.5 ghz broadcast signal which can be received within an approximately twenty mile radius of the transmitting tower. To receive this signal, special dish antennas and receivers have been placed

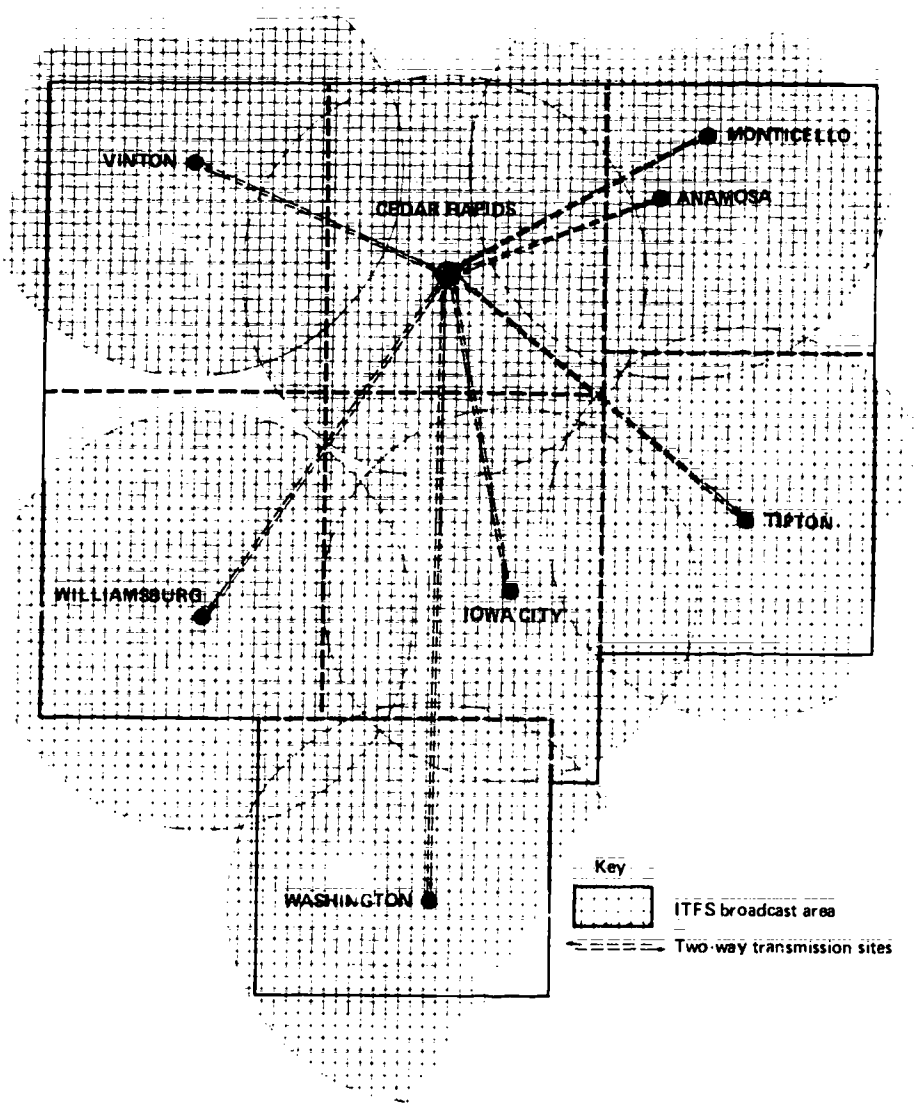
KTS CLASSROOM
(overhead view)



in the communities shown in the diagram below. Fully interactive instruction is possible with this system using one-way television transmission and special FM radio-response transmitters (audio and video outgoing transmissions and audio only return from any receiver site). Numerous options exist for varying the coverage of programs broadcast. Current programming on this system includes a Secondary School Network (area high schools share special course offerings); programs for inmates of the state reformatory; special recertification credit offerings for professions such as nursing, cosmetology, real estate, and insurance; and community education classes.

Kirkwood Community College also operates educational cable channels in eight communities within its service area. This network uses 12 ghz microwave transmission. Programs offered include credit and non-credit telecourses, live and recorded programs, film and video programs from local and national sources, an electronic billboard message system, and selected satellite programming.

At the heart of the whole system is the master con-



The Telelink microwave system interconnects the campus with seven outlying communities, thereby providing community college classes to individuals without their having to come on campus. Color video and audio signals are carried both directions simultaneously. The circular pattern overlay shows the coverage of a supplementary system, ITFS, which uses audio and video outgoing transmissions and audio only return from any receiver site.

Master control facility for the entire Kirkwood Telecommunication System.

trol facility located on the Kirkwood campus. This programming and switching center is equipped with two film chains, two character generators, a computer-assisted routing switcher, a bank of video cassette recorders, and a panel to control all system signals.

The Telecommunications Division also operate a 10,000 watt public radio station, *KCCK–FM*, a *Media Production* unit with fullcolor television production capability, and a *Graphics and Printing* department.

Budgeting and Funding Information

About five years ago, a change was made from a charge-back system to self-standing budgets. Budgets are based on trends and being able to supply the needs of the college. Consequently, no internal charges are normally made. This even includes printing (except for extremely large jobs where there may be a charge for paper). Charges are made to non-college agencies that request services.

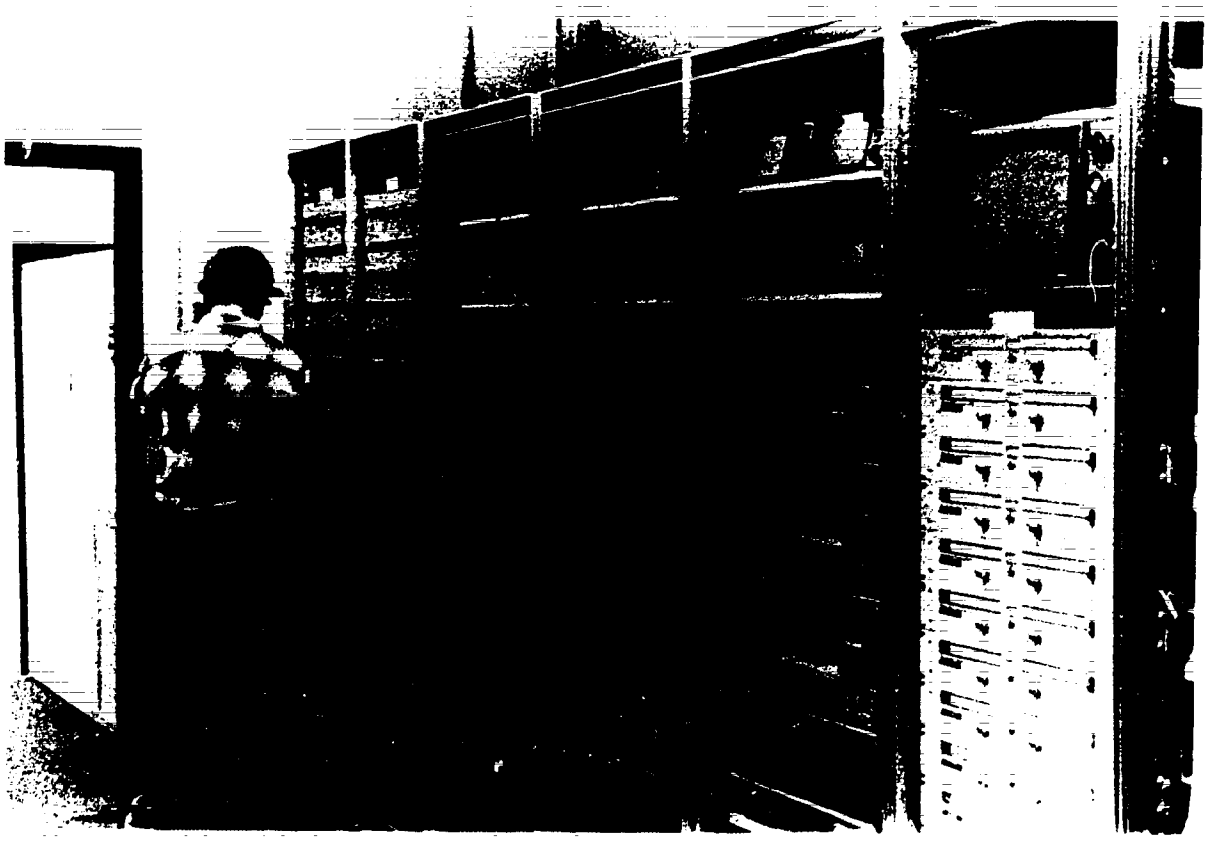
Partial funding for the telecommunications system was provided by the Public Telecommunications Facilities Program, a part of the National Telecommunications and Information Administration within the U.S. Department of Commerce. It was funded in three phases beginning in 1979 and ending in 1982.

Some Current Projects/Practices

Campus TV Distribution System: This program is a campus call-in system for playing back video tapes. Through a telephone-type intercom system with outlets in classrooms, shops, labs, and the campus library, students and faculty can, by using a catalog, identify by number one of approximately 4,000 instructional programs (most produced by Kirkwood) make a request on the telephone receiver, and have a videotape begin playing within thirty seconds. The system has 36-channel capacity and there is no prior scheduling of programs, no reserved tapes, and no censorship. The system operates fourteen hours a day and has reached a peak playback load of 800 tapes per day.

Staffing

Kirkwood Community College's Telecommunication Division has 23 classified staff employees and 6 professional media specialists. The professional staff members are classified as supervisors or professional support personnel. A complete listing of all the staff positions follows. Not included are the equivalent of 5 full-time equivalent positions which are held by part-time employees.



Operator receiving a telephone request to play a videotape on the campus television distribution system.

Classified Staff:	*FTE*
Photographers	1.0
Graphic Artists	2.0
Television Production	
Media Production Specialists	2.0
KTS Coordinator	1.0
Media Artist	1.0
Coordinator of Kirkwood Student Productions	1.0
KCCK-FM Staff	
Programming Coordinator	1.0
News & Public Affairs Coordinator	1.0
Program Producers	3.0
Development Coordinator	1.0
Maintenance Technicians	4.0
Press Operators/Printing Personnel	2.0
Clerical/Secretarial	3.0
Total Classified Staff	23.0

Professional Staff:	
Dean, Telecommunication	1.0
Manager, Broadcast Engineering	1.0
Manager, Media Production	1.0
Manager, Media Distribution/KTS	1.0
Manager, Graphics and Printing	1.0
Manager, KCCK-FM	1.0
Total Professional Staff	6.0
TOTAL STAFF	29.0

Contact Person

Dr. Rich Gross, Dean of Telecommunications, Kirkwood Community College, P.O. Box 2068, Cedar Rapids, Iowa 52406. Telephone: (319) 398–5481.

CASE STUDY #13
A Young Community College that Has Grown Rapidly

The Institution

Name: Richland College	
Location: Dallas, Texas	
Type: Two Year College	
Enrollment (FTE)	6,579
Number of Campuses Served:	1
Number of Faculty Having Center Access:	
Full-Time:	169
Part-Time:	742
Total Operating Budget	$20,118,829

The Learning Resources

Name: Learning Resources Center	
Type: Integrated Learning Resources Program	
Year Established	1972
Number of Staff (FTE)	45.85
Total Usable Square Footage	29,060
Total Operating Budget (including charge-back and fees, but excluding grants)	
With Salaries and Benefits:	$1,208,252
Without Salaries and Benefits:	$387,965

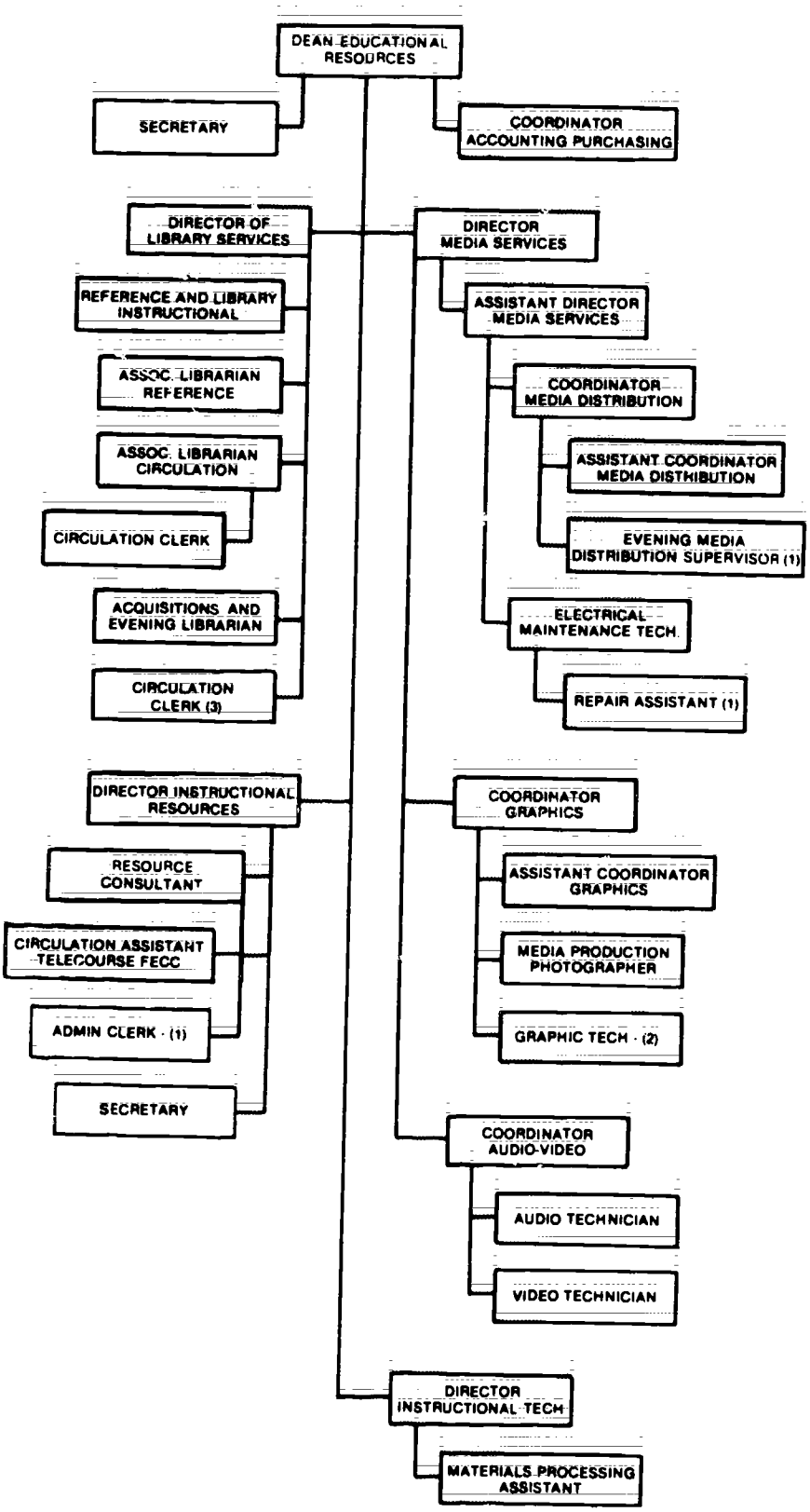
RICHLAND COLLEGE
Learning Resources Center

Program Description

Opened in 1972, Richland College is one of seven colleges in the Dallas County Community College District. It was the fourth college of the district to be opened and now has the largest enrollment.

The Learning Resources Center has three main divisions: Library Services, Instructional Development, and Media Services. *Library Services* includes the usual acquisition, circulation, and reference services, plus facilities for audio and television listening/viewing. *Instructional Development Services* provides assistance for lesson, unit, course, or program curriculum review, revision, and development. Services are also available for classroom test construction, evaluation, and research assistance. This division also administers an instructional development grant program. The third division, *Media Services*, includes distribution of audiovisual materials and equipment, production services (graphics, audio and video production and duplication, and photography), and electronic maintenance. Educational computing services will likely be added to the Learning Resources Center in the near future.

Campus of Richland College with Learning Resources Center in building on right.



RICHLAND COLLEGE
LEARNING RESOURCES CENTER

Staff member working with microcomputer program on audiovisual equipment depreciation.

Budgeting and Funding Information

Richland College, as a part of the Dallas County Community College District, receives about 65% of its funding from the state, 15% from local taxes, and about 15% from tuition and fees. All services are provided without charge except for requests for personal services (which are discouraged).

Some Current Projects/Practices

Instructional Development Grant Program: A fund is established each year to finance instructional development projects conducted by individuals or groups of faculty and staff. Support may be for additional compensation or for released time as well as for the expenses of printing, typing, and media production. Instructional Development Mini-Grants are also available and they are awarded without requiring the recipients to go through the formal application process. The mini-grants usually average several hundred dollars.

Instructional Development Mentor Program: A new program being developed involves individual faculty or staff who have been involved in instructional development projects to act as consultants to those who are embarking on an instructional development project for the first time. This program will be particularly beneficial for projects involving the use of computers.

Equipment Depreciation Program: A microcomputer program has been developed to schedule audiovisual equipment depreciation using standards published by the Educational Product Information Exchange. This program has made it easier to justify increased budgets for equipment purchases.

Telecourses: The Learning Resources Center offers telecourses to reach area students. Some of the courses are locally produced and the balance are obtained from other sources. To implement this system, videotapes are taken to different cable companies in the area for playing on their systems.

Staffing

The Learning Resources Center has a total staff of 45.85 with 9 of that number being professionals. Seven of the professionals have faculty status and the other two are classified as administrators.

Classified Staff:	*FTE*
Photographers	1.0
Graphic Artists	4.0

Television	
Coordinator	1.0
Audio Technician	1.0
Video Technician	1.0
Maintenance Technicians	1.5
Booking/Circulation/Acquisition Staff	1.5
Associate Librarians	2.5
Other Classified Staff (clerical, aides, etc.)	23.35
Total Classified Staff	36.85
Professional Staff:	
Dean of Educational Resources	1.0
Director of Library Services	1.0
Director of Media Services	1.0
Director of Instructional Development	1.0
Assistant Director of Media Services	1.0
Instructional Developer	1.0
Collection Development Librarian	1.0
Public Services Librarian	1.0
Director of Technical Services	1.0
Total Professional Staff	9.0
TOTAL STAFF	45.85

Contact Person

Larry Kitchens, Dean of Educational Resources, Richland College, 12800 Abrams Road, Dallas, Texas 75243. Telephone: (214) 238–6150.

CASE STUDY #14
Instructional Development Is Very Much Alive Here

The Institution

Name: North Lake College	
Location: Irving, Texas	
Type: Two Year College	
Enrollment (FTE)	4200
Number of Campuses Served:	1
Number of Faculty Having Center Access:	
Full-Time	72
Part-Time	200
Total Operating Budget:	$8,000,000

The Learning Resources Program

Name: Learning Resources Center	
Type: Integrated Learning Resources Program	
Year Established:	1977
Number of Staff (FTE):	26
Total Usable Square Footage:	5,20[illegible]
Total Operating Budget (including charge-back and fees, but excluding grants)	
With Salaries and Benefits	$892,000
Without Salaries and Benefits	$356,000

NORTH LAKE COLLEGE
Learning Resources Center

Program Description

Located in the Las Colinas area of Irving near the Dallas/Ft. Worth Airport, North Lake College is one of the newest colleges in the Dallas County Community College District. The campus has a striking architectual design which blends the buildings into the natural environment. It is situated in a business and industry park that is home to many major national and international corporations and organizations.

The Learning Resources Center at North Lake College is divided into three divisions: Instructional Media Services, Technical Occupational Media Center and Testing Center, and Information Science and Library Service. Instructional development is a major emphasis of the center as two of the three division heads are instructional development consultants. *Instructional Media Services* includes production services (graphics, photography, audio, and video), distribution of media equipment and materials, and maintenance of media equipment. The *Technical Occupational Media Center* is a lab for listening/viewing of media programs which help students to master techniques used in nursing, mechanics, and other curricular areas. The *Testing Center* was designed to permit testing to occur in a setting outside the classroom and to allow students to select a convenient time for taking tests, particularly in courses that are self-paced. Approximately 50,000 individual tests are administered annually in this center. *Information Science and Library Service* includes the collection of books, periodicals, pamphlets, recordings, and videotapes; a professional library for faculty and staff; and the basic components of reference, acquisition, interlibrary loan, and circulation. Books are located by using microfiche catalogs. Typewriters and a cassette duplicator are provided for use without charge.

Budgeting and Funding Information

As with Richland College, North Lake College, as a part of the Dallas County Community College District, receives about 65% of its funding from the state, about 15% from local taxes, and 15% from tuition and fees. All services are provided without charge.

Some Current Projects/Practices

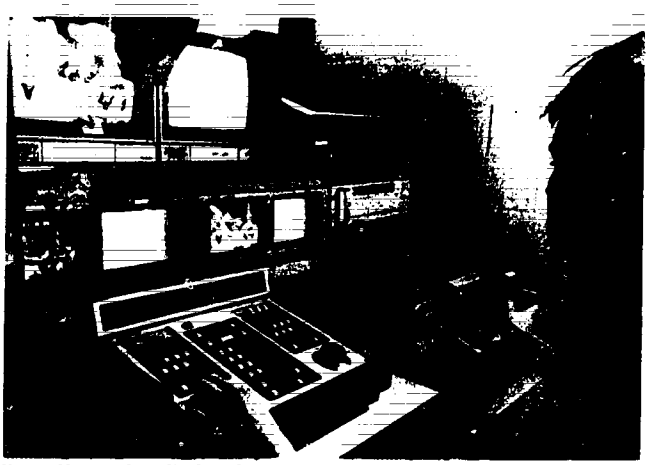
Video Technology Program: North Lake College is the only college in the Dallas County Community College District with an instructional program within its center. The purpose of this program is to train video production personnel (camera operators, edi-

Learning Resources Center at North Lake College.

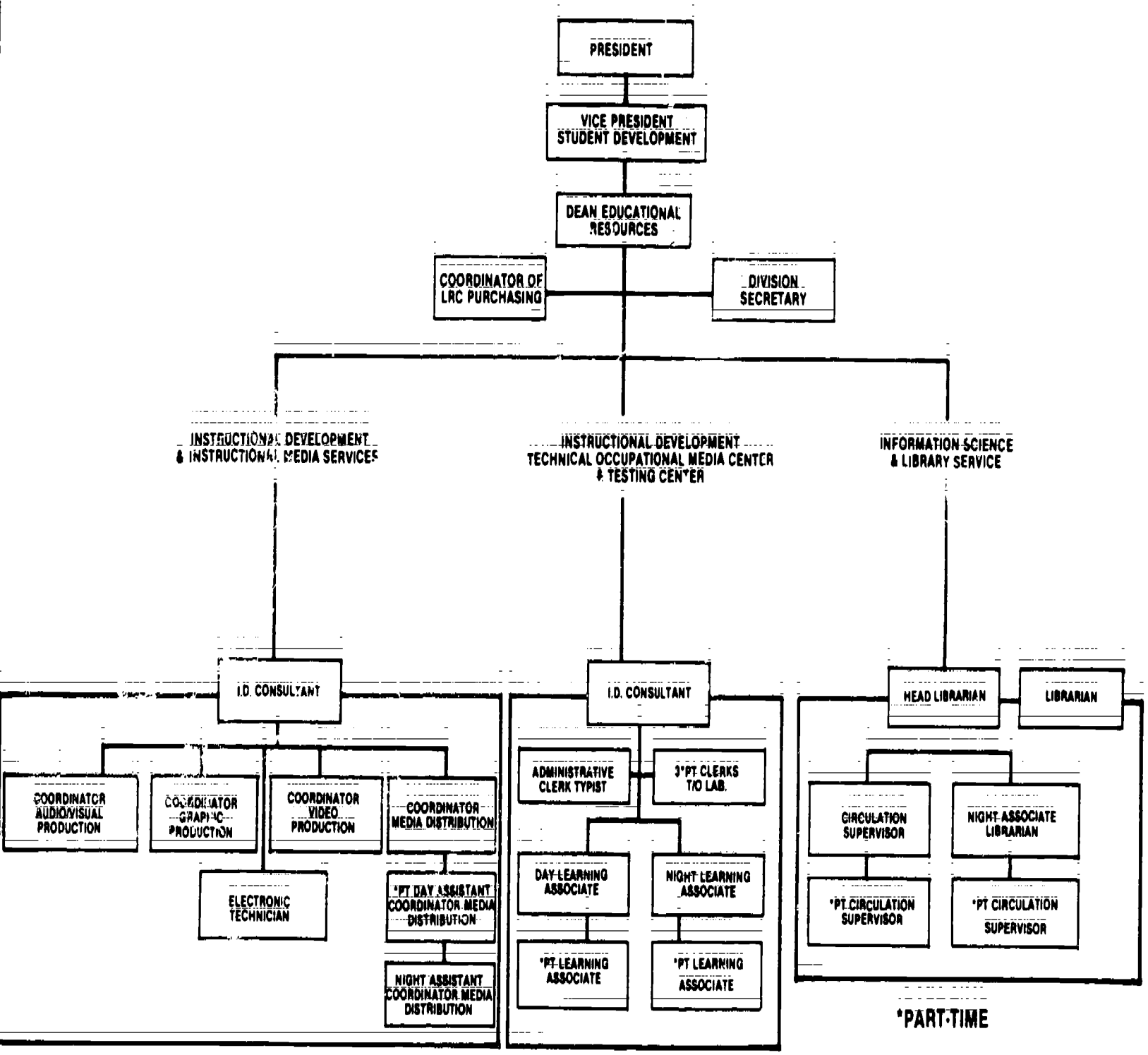
tors, grips, etc.) as opposed to producers or directors. This two year associate degree program helps meet the personnel needs for the many corporate video programs in the area. New facilities to house this program were completed in the fall of 1985.

Instructional Development Activities: A goal of the institution was to have 50% of all classes available in self-paced options five years after opening in 1977. This required a large amount of instructional design activity. During that five year period, the two instructional designers worked on an average of 45 to 50 projects (whole courses) per year. The Learning Resource Center has a budget of about $14,000 to subsidize faculty who are working on instructional development projects. Designers also contract to do instructional development work with area corporations and organizations.

Self-Paced Labs: To complement the instructional development activity in designing self-paced instructional units, a number of labs are located throughout



Students learning television production skills in the Video Technology Program.



NORTH LAKE COLLEGE
LEARNING RESOURCES CENTER

Students in one of North Lake College's self-paced labs.

the campus where students use media to learn concepts in the different curricular areas.

Staffing

The learning Resources Center has a total staff of 26 employees. Eight of that total are professionals. Seven have faculty status and one is classified as an administrator.

Classified Staff:	*FTE*
Graphic Artists	1.5
Television	
Coordinator of Video Production	1.0
Assistant	.5
Maintenance Technicians	1.0
Booking/Circulation/Acquisition Staff	3.0
Coordinator of Accounts & Purchasing	1.0
Coordinator of Audiovisual Production	1.0
Coordinator of Media Distribution	1.0
Clerical/Secretarial	2.0
Other Staff	6.0
Total Classified Staff	18.0

Professional Staff:	
Director	1.0
Instructional Development Consultants	2.0
Library/Information Science Consultants	2.0
Video Technology Program	
Full-Time Instructors	1.0
Part-Time Instructors	2.0
Total Professional Staff	8.0
TOTAL STAFF	26.0

Contact Person

James P. Picquet Dean, Educational Resources, North Lake College, 5001 North McArthur Boulevard, Irving, Texas 75038. Telephone: (214) 659-5340.

CASE STUDY #15
A Rarity in the 80's: The Building of a New Learning Resources Center

The Institution

Name: New Mexico Military Institute	
Location: Roswell, New Mexico	
Type: Two Year Institute (Plus Four-Year High School)	
Enrollment (FTE)	935
Number of Campuses Served:	1
Number of Faculty Having Center Access	76
Total Operating Budget:	$4,000,000

The Learning Resources Program

Name: J. Penrod Toles Learning Center	
Type: Integrated Learning Resources Center	
Year Established:	1970
Number of Staff (FTE):	*12
Total Usable Square Footage:	38,000
Total Operating Budget (including charge-back and fees, but excluding grants)	
With Salaries and Benefits:	*$152,825
Without Salaries and Benefits:	*$ 61,530

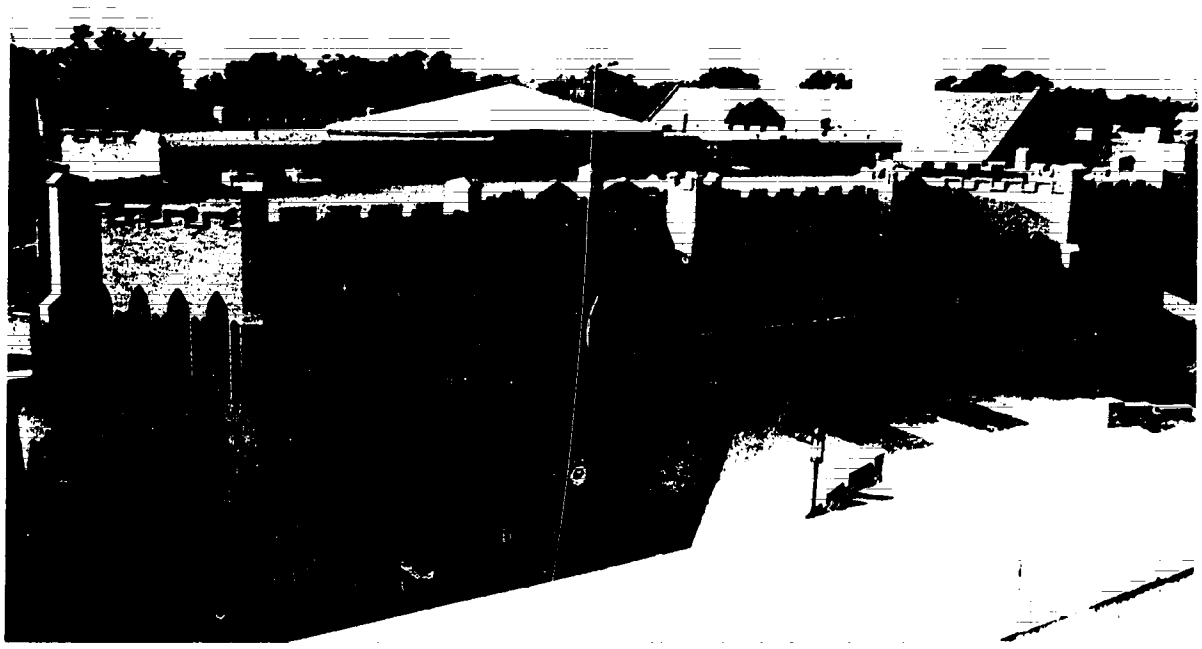
*Staff total and budget figures include the print and audiovisual programs only and not the 24 employees in the Student Assistant Center and Computer Center. The budgets of these two programs are not under the control of the Associate Dean of Learning Resources who heads the print-audiovisual program.

NEW MEXICO MILITARY INSTITUTE
J. Penrod Toles Learning Center

Program Description

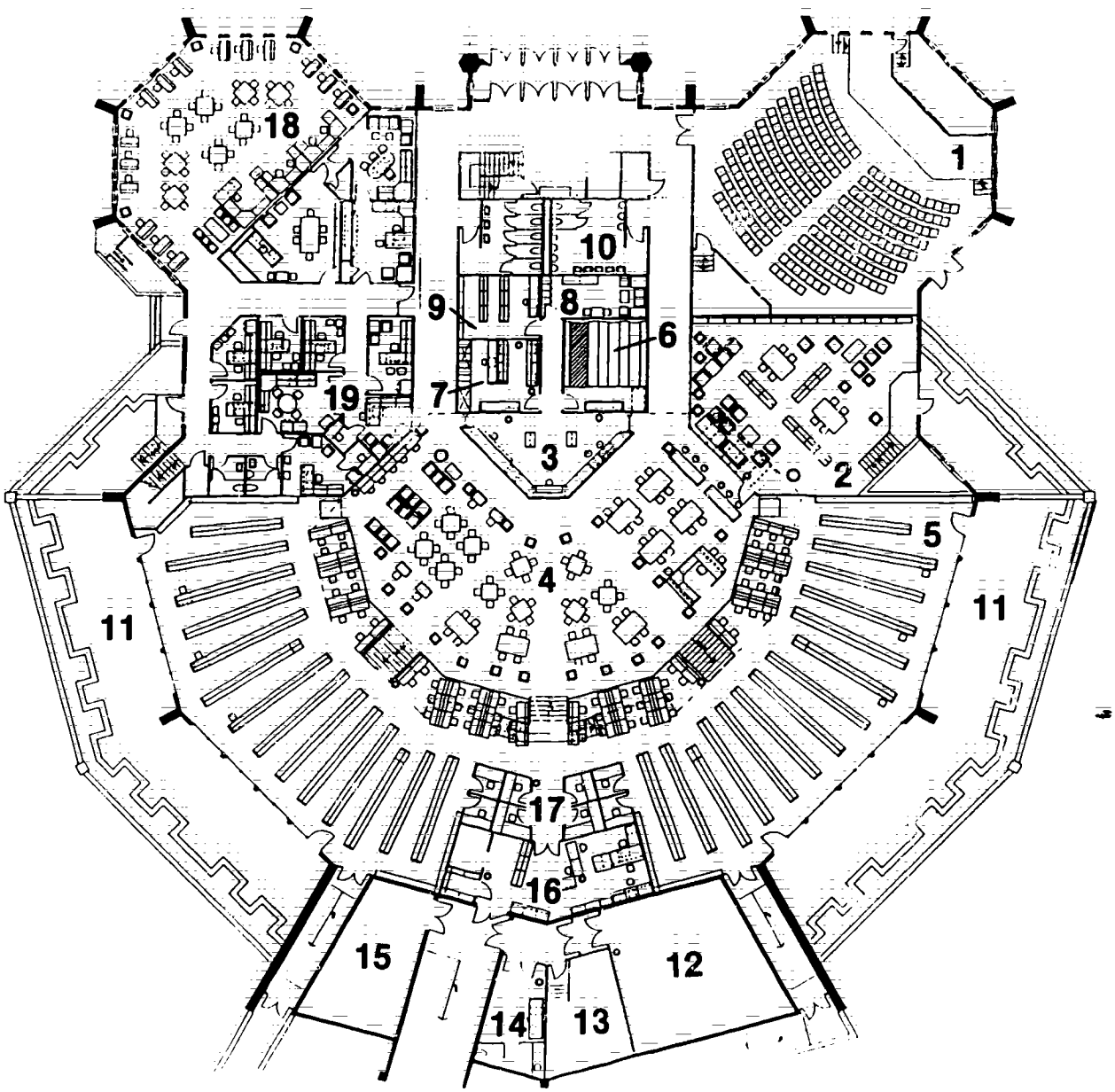
With a military gothic style matching architectually other campus buildings, the J. Penrod Toles Learning Center opened in July of 1985. This new center is a dramatic addition to the New Mexico Military Institute's learning resources program. Founded in 1891, the New Mexico Military Institute is the largest military junior college in the nation. It ranks second to West Point in commissioning U.S. Army officers. The institute also operates a four-year high school program.

During the planning stages, the goal set for the J. Penrod Toles Learning Center was to "develop the Southwest's most modern and advanced learning facility." The completed center has in one location most, if not all, the resources the students need. The new learning center includes the *Horgan Library*. The library collection is arranged in a radial pattern with the reference area in the center. The library has a fully automated computer system (LIBS 100 System by C L Systems, Inc.) for a public access catalog, circulation control, reserve book room operations and interlibrary loan. An electronic transmission system, Datafax, has been installed which allows the library to acquire copies of information (a magazine article, for example) in seconds from libraries throughout the United States. Other services of the learning center



J. Penrod Toles Learning Center Was Dedicated October 26, 1985

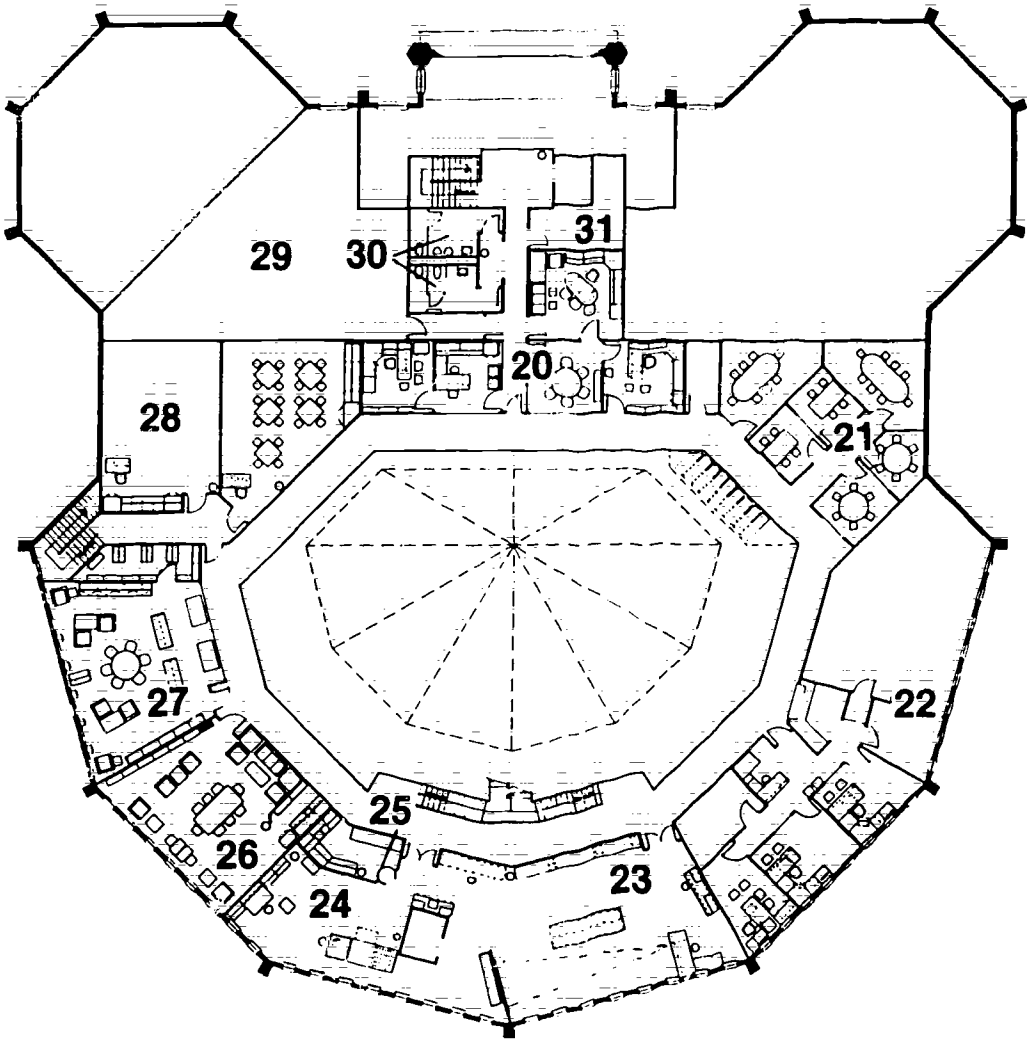
TOLES LEARNING CENTER



LEVEL I

1. Mabee Lecture Hall
2. Patterson Reading Room
3. Circulation Desk
4. Circulation Area (Study Area-Upper Level)
5. Stacks and Carrels (Lower Level)
6. Current Periodicals/Reserves Room
7. Mail/Microform Room
8. Staff Lounge
9. AV Materials Room
10. Restroom
11. Courtyard (Patio)
12. Daniels TV Center
13. Control Room
14. AV/TV Maintenance Room
15. Mechanical Equipment Room
16. Technical Services Room
17. Typing/Word Processing Rooms
18. Franklin Student Assistant Center (SAC)
19. Offices (SAC)

TOLES LEARNING CENTER



LEVEL II

20. Library Administration Offices
21. Group Study Rooms
22. Glover Computer Center
23. Beck Media Production Room
24. Graphics Area
25. Darkroom
26. Marks Professional Library Room
27. Ward Rare Book Room/White Archives
28. Learning Lab
29. Mechanical Equipment Room
30. Restroom
31. Storage

are *Media Production* (graphics, printing, television, and multi-image production), a *Large Group Lecture Hall* (seating 200 and having both front and rear projection), a *Student Assistance Center* for testing, advising, and assisting students, and a *Computer Center*. Eighty-two terminal points in the Toles Learning Center tie into the institute's academic computer.

Budgeting and Funding Information

The New Mexico Military Institute is a state-supported institution. Most services of the Toles Learning Center are provided without cost to the institute's faculty, staff, and students except for some media production requests where charges are made for materials (e.g., tape duplication, transparency production, film processing, laminating, and dry mounting). A nominal fee is also charged for database searching.

It is significant that the state legislature did not appropriate any funds to build the Toles Learning Center. At a cost of $3.8 million, New Mexico Military Institute used its ending balance from its Land and Permanent Fund (revenues from grazing and oil-producing land) and from bonding to produce the capital needed. In order to equip the building, a fund raising drive aimed at alumni and patrons yielded $750,000.

Staffing

As previously mentioned, the print-audiovisual program and the two other programs housed in the Toles Learning Center are under separate administrators. The print-audiovisual program has a total staff of 12 with 3 of them being professionals classified as administrators. The Computer Center has a staff of 4 and the Student Assistance Center has 20 employees. The print-audiovisual program's staff is detailed below.

		FTE
Classified Staff:		
Television Engineer		1.0
Booking, Circulation, Acquisition Staff		4.0
Clerical/Secretarial		1.0
Paraprofessionals		3.0
	Total Classified Staff	9.0
Professional Staff:		
Associate Dean of Learning Resources		1.0
Media Specialists		2.0
	Total Professional Staff	3.0
	TOTAL STAFF	12.0

Contact Person

LTC M. Bruce McLaren, Associate Dean of Learning Resources, New Mexico Military Institute, Roswell, New Mexico 88201. Telephone: (505) 622-6250.

CASE STUDY #16
A Community College Heavily Involved in Teleconferencing

The Institution	
Name: Portland Community College	
Location: Portland, Oregon	
Type: Two Year College	
Enrollment (FTE):	14,049
Number of Campuses Served:	5
Number of Faculty Having Center Access:	
Full Time:	395
Part Time:	1,342
Total Operating Budget:	$41,967,589

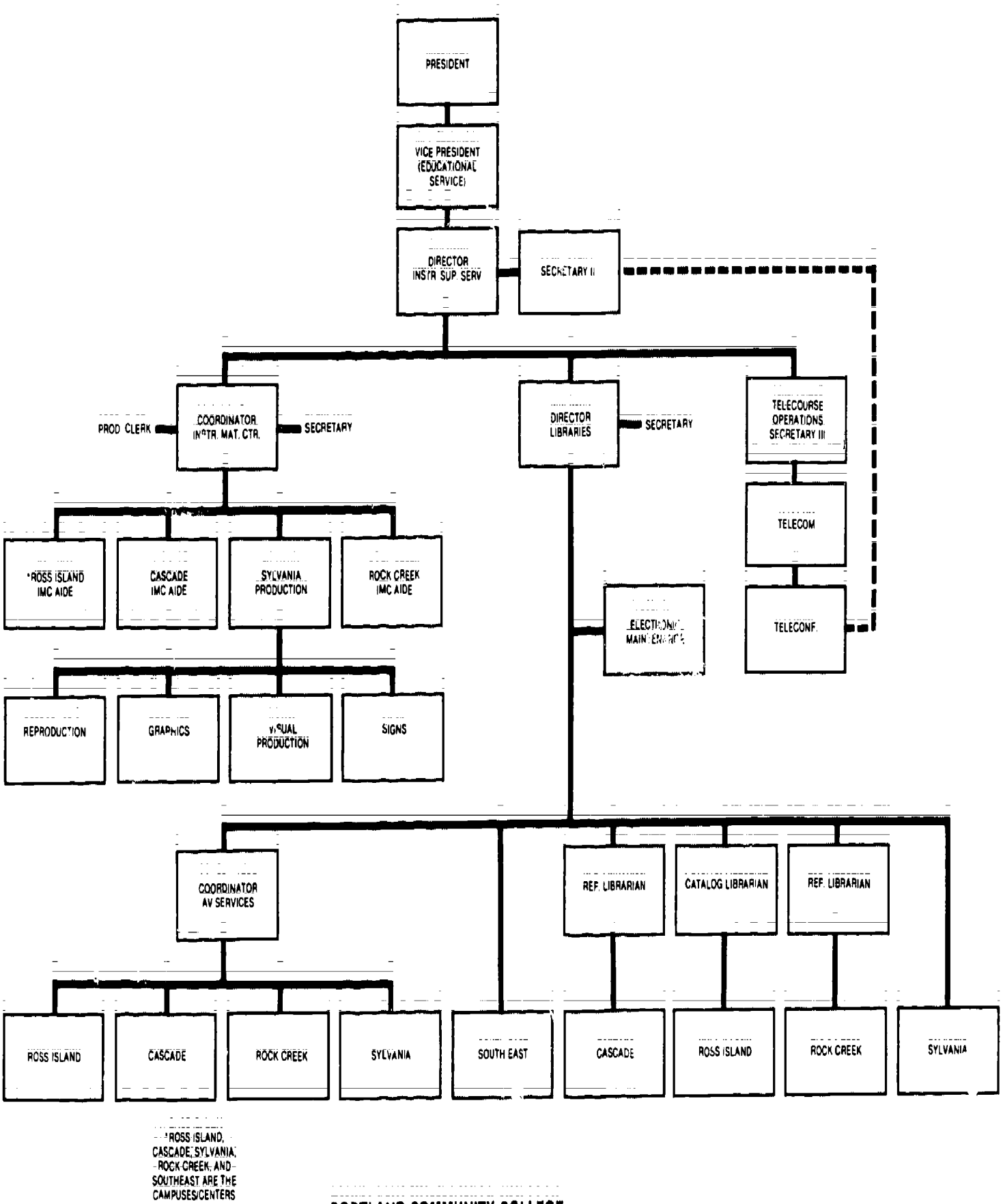
The Learning Resources Program	
Name: Instructional Support Services	
Type: Integrated Learning Resources Program	
Year Established:	1964
Number of Staff (FTE):	54.32
Total Usable Square Footage	
Sylvania Campus	27,040
All Campuses	44,065
Total Operating Budget (including charge-back and fees, but excluding grants)	
With Salaries and Benefits	$1,921,440
Without Salaries and Benefits	942,095

PORTLAND COMMUNITY COLLEGE
Instructional Support Services

Program Description

Since 1980 Portland Community College has worked to break down central control over the various campuses or centers and establish autonomous structures for each. The learning resources program, Instructional Support Services, has been an exception to that trend in that all services are grouped into one system-wide organization, but with service units at the various campuses or centers.

Portland Community College serves a five-county area in the metropolitan Portland area with five campuses or centers. All but one of the five (Ross Island) have a library/media facility. Services are divided into four main units: Instructional Materials Center (or Graphic Reproduction), Telecommunications, AV Services, and Library. At the three campuses, Sylvania, Rock Creek, and Cascade, AV Services and the Library are housed adjacent to each other and are collectively called the Media Center. The organizational chart on the next page shows how these different services are delivered to the different campuses or centers. The Sylvania campus is the largest campus



*ROSS ISLAND, CASCADE, SYLVANIA, ROCK CREEK, AND SOUTHEAST ARE THE CAMPUSES/CENTERS

PORTLAND COMMUNITY COLLEGE
INSTRUCTIONAL SUPPORT SERVICES

in the system. Most Graphic Reproduction and Telecommunications services are delivered from that campus.

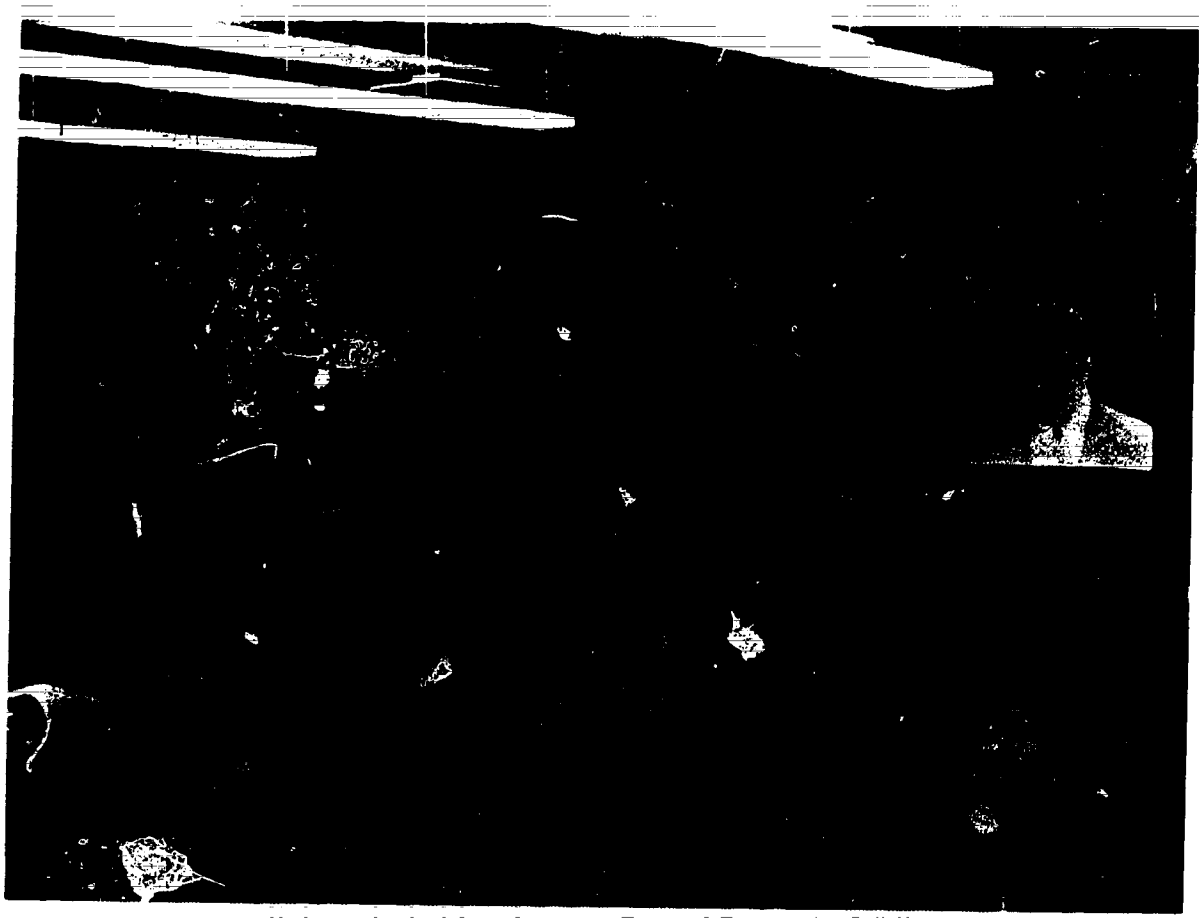
The first of the four units, the *Instructional Materials Center (Graphics Reproduction)* provides a full line of printing and reproduction, graphic, visual production (displays, photography, etc.), and sign making services. Materials are produced for instruction, the administration, and public information (in that priority order). As indicated, the Sylvania campus Instructional Materials Center serves all campuses directly. Three of the other campuses have small quick copy centers operated by the Instructional Materials Center. *Telecommunications* at Portland Community College is primarily distributive in nature. Using the campus cable system, videotapes can be played back to classes from the Telecommunications unit. Another service is to offer telecourses. In a recent academic year, 21 different courses were offered via television. 2,700 students enrolled in those courses and most of them received the courses in their homes. This is possible because Portland Community College can cablecast to five different cable companies in the Portland area. These courses were all produced elsewhere. *AV Services* main function is to provide instructional materials and audiovisual equipment to support instructional activities at each campus or center and to provide the technical support for telecommunication's offerings. The *Library* service function exists at four of the five campuses or centers and is essentially a service to provide books, periodicals, and other print materials.

Budgeting and Funding Information

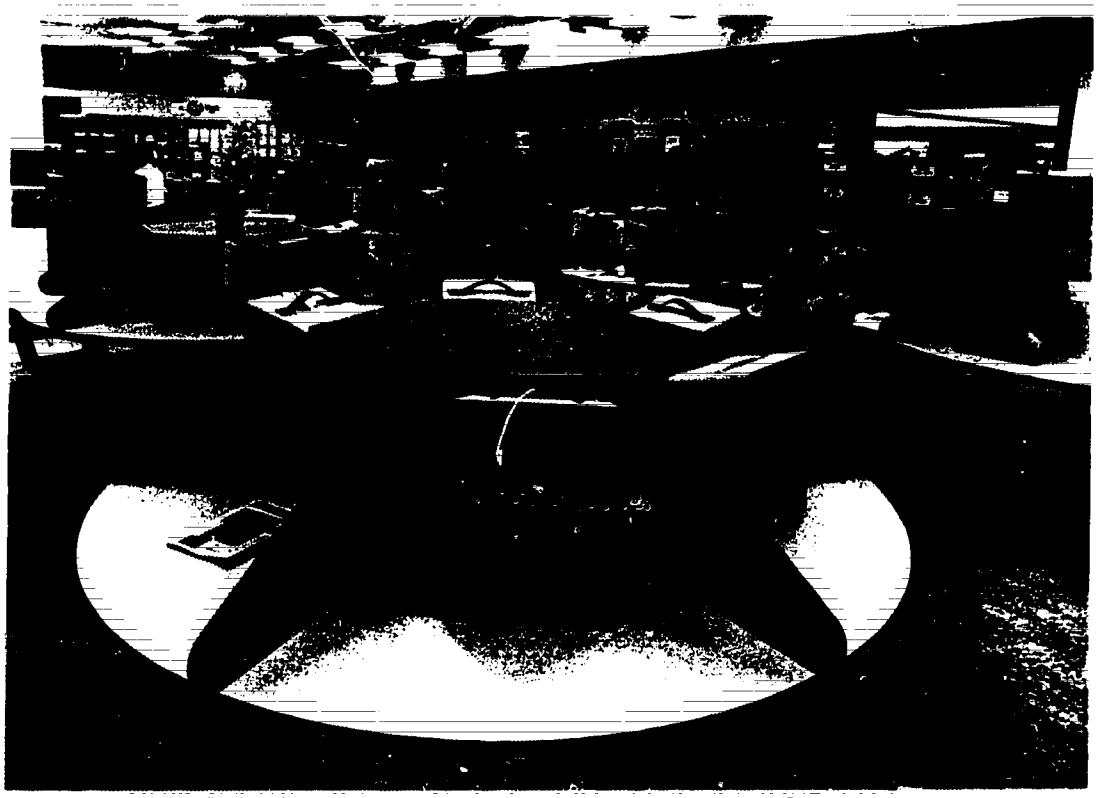
Funding at Portland Community College is a mix of 50% from state aid, 25% from property taxes, and 25% from tuition. Most services of Instructional Support Services are provided without charges. Charges are assessed for photocopying and for some printing as well as for setting up teleconferences or doing tape duplicating for non-college agencies or individuals.

Some Current Projects/Practices

Video Conferencing: With its earth station, Instructional Support Services participates in many teleconferences each year. An example of an individual teleconference was one for the National Trucking Association. This conference originated in Washington, D.C. and Portland Community College was one of 45 receiving sites in the nation.



Participants at a teleconference at Portland Community College.



Health Technology Resource Center (a satellite of Instructional Support S

Campus Video: Vi. eotapes can be played back from Instructional Support Services to any of 200 rooms connected by cable at the Sylvania campus. Instructors need to reserve a class period for receipt of the playback. Then by telephone from the classroom, the instructor may request a playback at any time during that reserved period. A maximum of five programs can be played at any one time.

Satellite Labs: In addition to the library/media facilities on each campus or center, satellite labs have been established in close promimity to some academic programs to provide students with self-study materials.

Staffing

A total of 54.32 staff positions are currently available to deliver learning resources to the total Portland Community College system. Of that total, 9.5 positions are occupied by professionals. 4.5 of that number are librarian positions which carry faculty status, while the remainder of the professional staff members are classified as administrators.

Classified Staff:	*FTE*
Photographer	1.0
Graphic Artists	2.0
Television Services	
Teleconferencing/Cable Operations Specialist	1.0
Audio/Video Recording Technician	1.0
Audio Technician	1.0
Maintenance Technicians	1.5
Cataloger	1.0
Booking/Circulation/Acquisition Staff	22.32
Printing Staff	
Signmaker	1.0
Bindery Staff	2.0
Word Processor	1.0
Clerical/Secretarial	4.0
Total Classified Staff	44.82
Professional Staff:	
Director, Instructional Support Services	1.0
Director of Libraries	1.0
Coordinator, AV Services	1.0
Coordinator, Instructional Materials	1.0
Electronic Specialist	1.0
Reference Librarians	3.5
Catalog Librarian	1.0
Total Professional Staff	9.5
TOTAL STAFF	54.32

Contact Person

Ray Pirkl, Director, Instructional Support Services, Portland Community College, 12000 SW 49th Avenue, Portland, Oregon 97219. Telephone: (503) 244–6111, extension 398.

PUBLIC SCHOOL DISTRICTS

CASE STUDY #17
Curriculum Involvement Gives Strength to Media Program

The Institution:

Name: St. Cloud District 742 Community Schools	
Location: St. Cloud, Minnesota	
Type: Public School District	
Enrollment (FTE):	8,948
Number of Schools in District:	10
Number of Teachers Having Center Access:	500
Total Operating Budget:	$23,377,177

The Learning Resources Program:

Name: Media Services	
Type: Integrated Learning Resources Program	
Year Established:	1968
Number of Staff (FTE):	22.5
Total Usable Square Footage:	11,000
Total Operating Budget (including charge-back and fees, but excluding grants)	
With Salaries and Benefits	$429,753
Without Salaries and Benefits	204,690

ST. CLOUD DISTRICT 742 COMMUNITY SCHOOLS
Media Services

Program Description

Curriculum involvement is the main focus of the media program at the St. Cloud Community Schools. This involvement makes media a basic part of the instructional program; it makes media viable and an indispensable part of the district. Media Services is the curriculum development center for the school district. It is where curriculum teams develop or revise curriculum. The media center's director and building-level media specialists are members of these teams. It is also where media and resources are examined, selected, ordered, and correlated to instructional objectives.

The viability of Media Services as an integral part of the curriculum development process was demonstrated when the school district had to cut-back on administrators. Because of its past reputation of serving district curriculum development needs, Media Services was spared any reductions. Instead, the position of Director of Elementary Education and its program were eliminated. Media Services took over all elementary curriculum and materials services.

To support its role in the curriculum development and instructional processes, Media Services has developed the necessary support units. A *Media Library* is a centralized collection of films, computer software, video tapes, kits, resource books, textbooks, and a variety of curriculum/instructional items which are shared with the ten schools in the district. This department orders, processes, and distributes all materials, including textbooks, that are used in the elementary schools and in programs such as special education. *Graphics* and *Printing* units produce materials for the instructional programs and other activities of the district. Other services available are a photo lab, a television production facility, and equipment repair. The equipment repair service repairs all district media equipment including computers.

Budgeting and Funding Information

All services are provided without charge to the district's schools except for printing. The costs of printing jobs are charged-back to other district or school budgets.

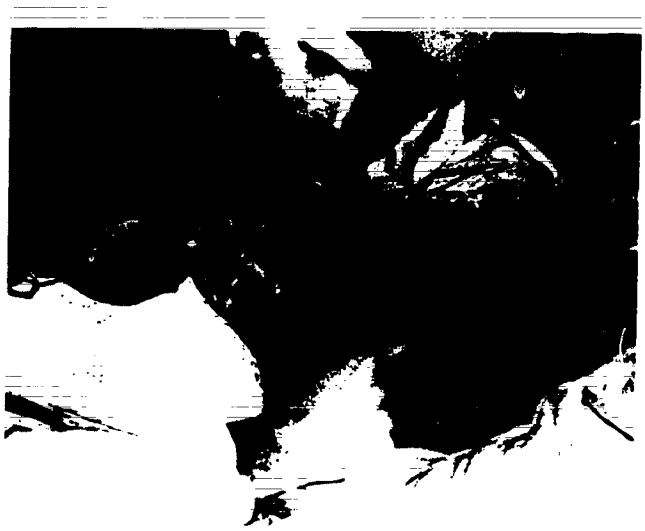
Some Current Projects/Practices

Community Video: Media Services produces video programs which are aired on the local community access channel. These community awareness programs are produced collaborately by center staff members, St. Cloud State University students, and community members. Some recent titles produced were *Waste Water Treatment Plant, Battered Women, Halloween Safety,* and *Be a Better Spender.*

One-Room School: A unique resource of Media Services is a small, one-room rural school. This turn-of-the-century school has been preserved and restored. Groups of students are taken to the school on field trips when they are studying units related to American life in the early 1900's; e.g., a pioneer unit in fifth grade social studies.

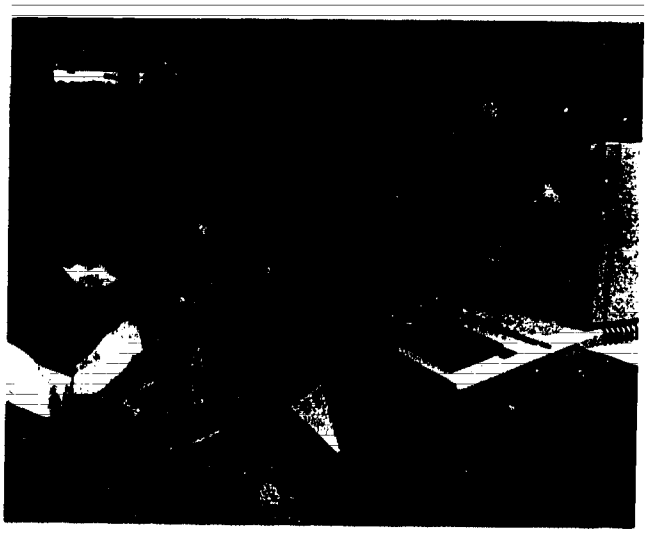
Staffing

There are two and one-half media professional positions in each of the two high schools. In the eight elementary schools each media professional has two buildings. A full-time media aide is employed in each of the elementary schools. An effort is being made to

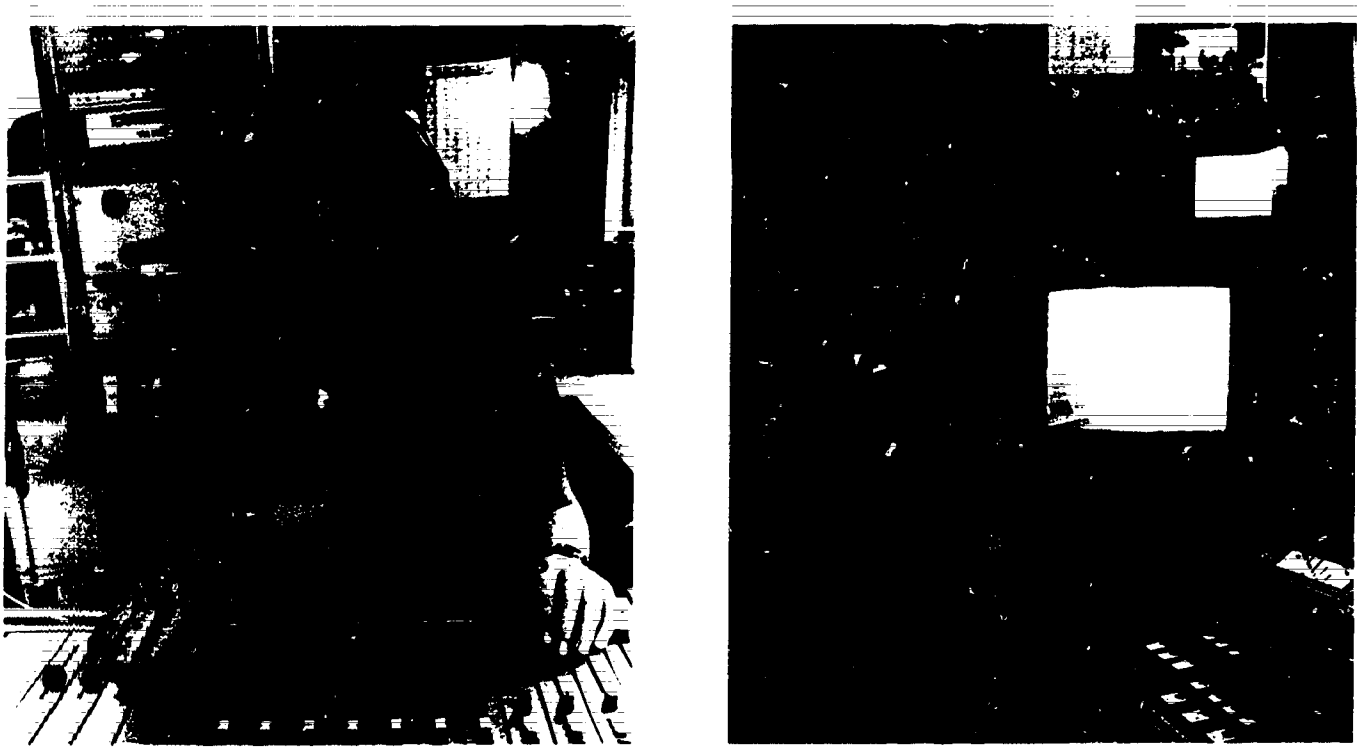


Media specialists assist in in-service training for newly developed or revised curriculum. This photograph was taken at an inservice session on new materials in a map skills program.

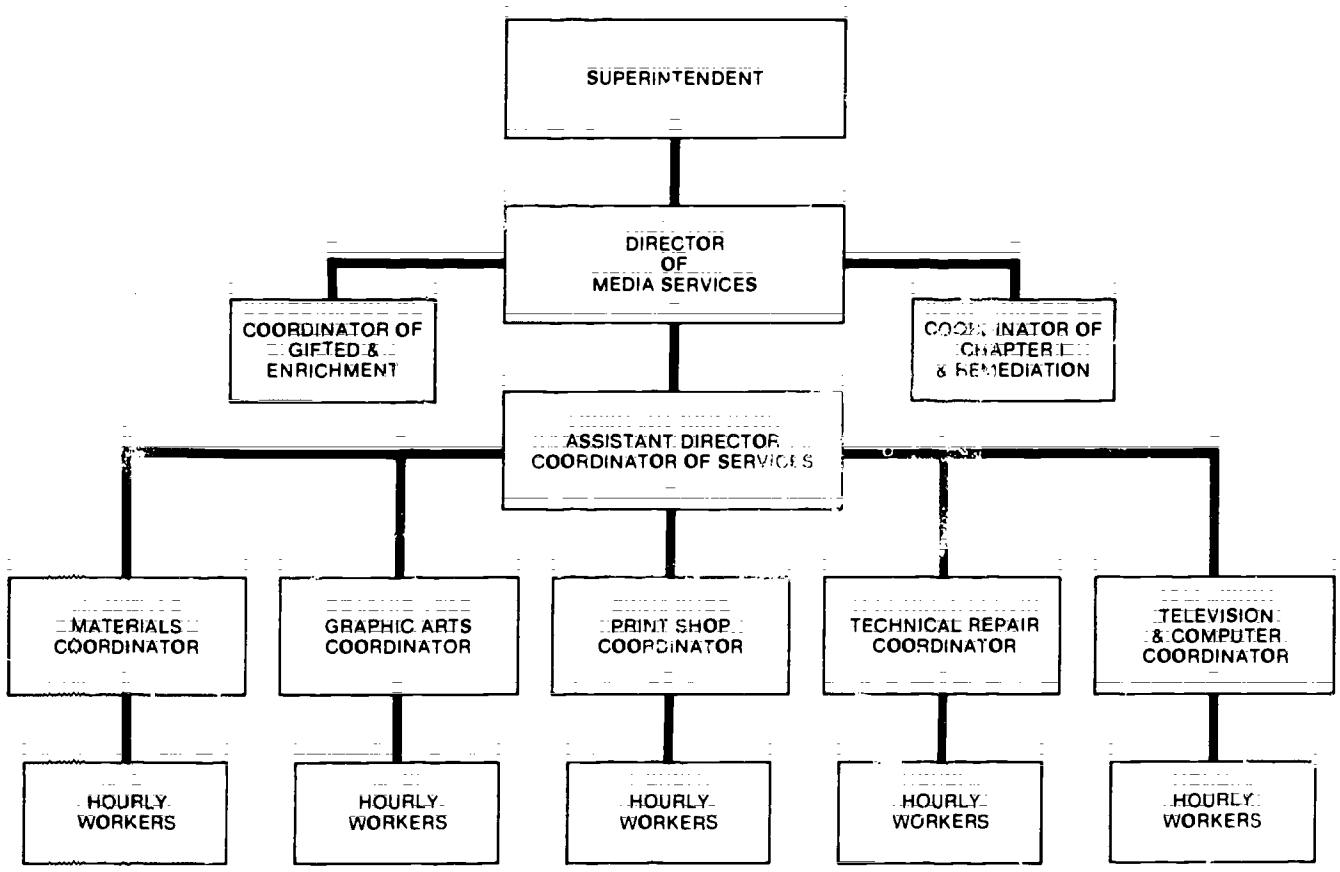
Media specialists are involved with the development and revision of curriculum. They assist in securing resources and correlating materials to teaching objectives.



The gifted education coordinator, a staff member of Media Services, works with media specialists and teachers on curriculum development.



Media services produces video programs for airing on the local community access channel.



ST. CLOUD DISTRICT 742 COMMUNITY SCHOOLS
MEDIA SERVICES

A one room school has been restored for use in several curricular areas.

restore full-time media professional positions to each elementary school. At the district center, the staff consists of 22.5 positions. Those positions are shown below.

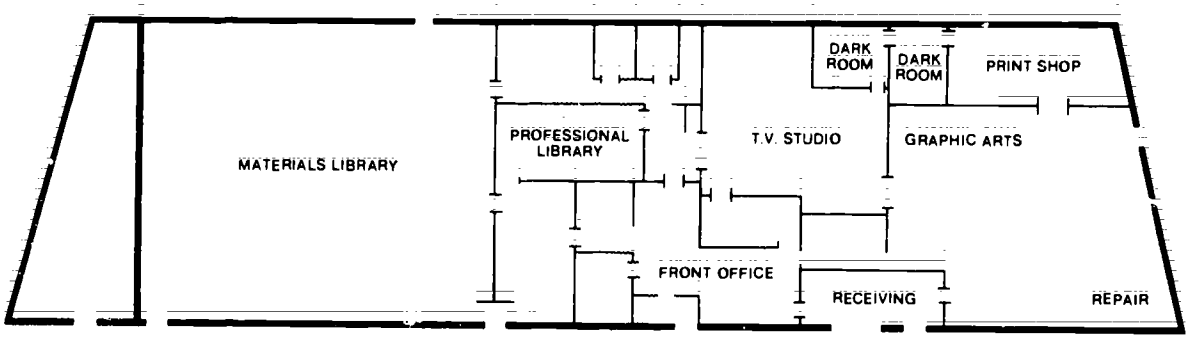
Classified Staff:	*FTE*
Photographer	1.0
Graphic Artists	1.5
Television Production	1.5
Maintenance Technicians	2.5
Cataloger	.4
Booking/Circulation/Acquisition Staff	3.5
Driver	.5
Computer Specialist	1.0
Printing Personnel	3.5
Clerical/Secretarial	2.0
Coordinator of Services	1.0
Total Classified Staff	18.4

Professional Staff:	
Director of Media Services	1.0
Coordinator of Enrichment	1.0
Coordinator of Remedial	1.0
Curriculum Developer-Material Reviewer	.5
Coordinator of Computer Inservice	.6
Total Professional Staff	4.1
TOTAL STAFF	22.5

Contact Person

Duane Radeke, Director of Media Services, District 742 Community Schools, 115 – 13th Avenue South, St. Cloud, Minnesota 56301. Telephone: (612) 252–8770

MEDIA SERVICES 742
St. Cloud, Minnesota



11,000 Sq. Ft.

CASE STUDY #18
School District Residents Encourage High Technology in Schools

The Institution:

Name: Birmingham Public Schools	
Location: Birmingham, Michigan	
Type: Public School District	
Enrollment (FTE):	7,858
Number of Schools in District:	16
Number of Teachers Having Center Access:	507
Total Operating Budget:	$38,000,000

The Learning Resources Program:

Name: District Media Center	
Type: Integrated Learning Resources Program	
Year Established:	1973
Number of Staff (FTE):	13.9
Total Usable Square Footage:	6,800
Total Operating Budget (including charge-back and fees, but excluding grants)	
With Salaries and Benefits	*$620,399
Without Salaries and Benefits	*$454,611

*These budget figures include $176,794 that is used to centrally purchase books and audio visual materials and equipment for individual school buildings.

BIRMINGHAM PUBLIC SCHOOLS
District Media Center

Program Description

Birmingham Public Schools is a school district located in an area of highly-educated, affluent residents on the outskirts of metropolitan Detroit. The district school board and many members of the community are concerned that their schools are not left outside the communications revolution. They are interested in and support modern technology's use in their schools.

With this kind of philosophy prevailing in the district, it is not surprising to find a very comprehensive use of cable television and computers in the Birmingham Public Schools. The District Media Center has led the development of and supervises the operation of Channel 21, a local education access channel that has twenty hours of programming per week. As a part of a fifteen-year contract with their cable company, two key provisions were the installation of 644 cable outlets in district school buildings and the hiring of an educational cable consultant. As a means of training production teams to provide all of this weekly programming, the District Media Center conducts workshops for parents and teachers to acquaint them with the basics of planning and producing television programs. These teams produce programs

The cable consultant, video technicians, and other personnel meet weekly to plan cable programming.

Computers are widely used throughout the curriculum at Birmingham Public Schools.

covering everything from spelling bees to guest lectures to school board meetings to graduations. There are also two video technicians employed by the district to assist these production teams. The total is considered to be "the school district's electronic highway to the home."

The District Media Center has employed a Consultant for Instructional Computing to help integrate the district's 300-plus computers into the entire curriculum. No longer are computers just used in isolated classes. The Technology Advisory Committee's report on instructional computing contained this introductory statement:

> Today's students will have extensive access to computers throughout their adult lives. Those who have not been exposed to them will be at a dangerous disadvantage when competing with those that have. If they are intimidated by technology, they will not be placed in leadership positions. The effective use of technology to improve the quality of life is, for them, the basic skill of the twenty-first century.

This type of philosophy pretty much prevades the thinking of Birmingham school district leaders in their efforts to incorporate computer experiences in the existing curriculum at all grade levels and in all academic areas.

It is probably safe to say that this type of commitment to high technology is enhanced by leaders in a strong district media program. Elements of Birmingham's District Media Services include *Cataloging and Processing* which provides centralized purchasing, cataloging, and processing for all elementary libraries in the school system. *Equipment Maintenance* inventories and maintains all district audiovisual and video equipment, microcomputers, public address system installations, and language labs. The *A-V Loaning Library* houses materials and equipment for loan to schools which are too expensive or used too infrequently to justify purchase at the building level. Representative samples of items available are 1,299 motion picture films and three video tape production systems. *Production and Graphics* has space, equipment, supplies, and technical assistance available for any member of the total school system to use in producing graphics and mediated programs.

Budgeting and Funding Information

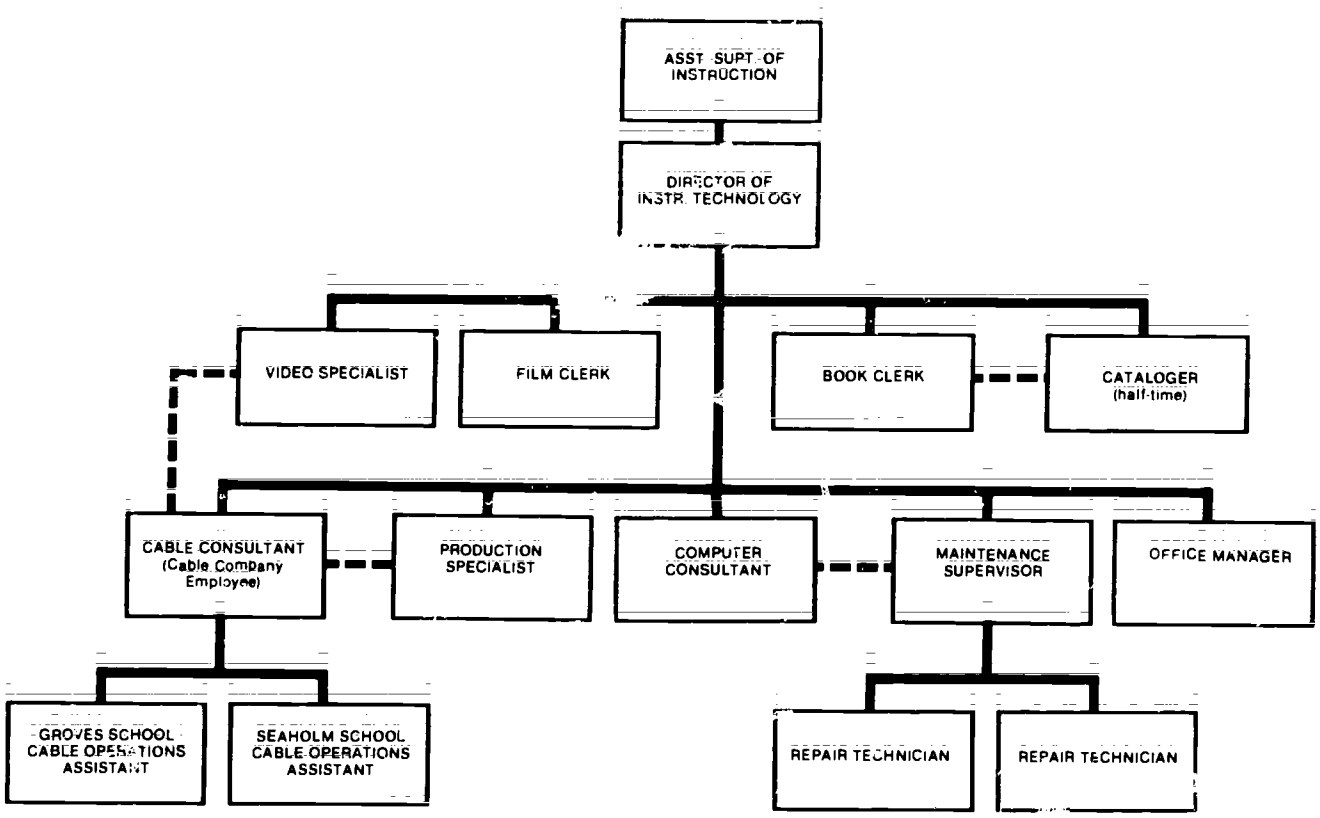
Practically all revenues to support the Birmingham Public Schools come from local tax monies. Most services are provided without charge to district programs except for production (graphics, television, etc.). For production projects charge-backs are made to school building or administrative budgets for supplies only.

Some Current Projects/Practices

Design of Integrated Telecommunications System: A proposal has been funded to study the implementation of an integrated voice, video, and data communication system for use by all district staff and students. This will be made possible using the two-way cable loop which links together 18 of the district's 20 buildings. This loop was installed by the community's cable franchise holder. This system will be used for intradistrict transmission of data files, for electronic mail, for videoconferencing, for an energy and security monitoring system, and for phone communications.

Staffing

The District Media Center of Birmingham Public Schools has a staff of 13.9 with 2 of that number being professional media specialists.



BIRMINGHAM PUBLIC SCHOOLS
DISTRICT MEDIA CENTER

	FTE
Classified Staff:	
Photographer	.5
Graphic Artist	.5
Television Production	3.5
Maintenance Technicians	3.0
Cataloger	.4
Booking/Circulation/Acquisition Staff	2.5
Clerical/Secretarial	1.5
Total Classified Staff	11.9
Professional Staff:	
Director of Instructional Technology	1.0
Teacher Computer Consultant	1.0
Total Professional Staff	2.0
TOTAL STAFF	13.9

Contact Person

Lucy Ainsley, Director of Instructional Technology, Birmingham Public Schools, 1525 Covington, Birmingham, Michigan 48010. Telephone: (313) 644–9300, extension 329.

CASE STUDY #19
Extensive Media Center Services that Include a 16mm Film Rental Library

The Institution:

Name: West Hartford Public Schools	
Location: West Hartford, Connecticut	
Type: Public School District	
Enrollment (FTE):	7,391
Number of Schools in District:	14
Number of Teachers Having Center Access:	547
Total Operating Budget:	$33,414,162

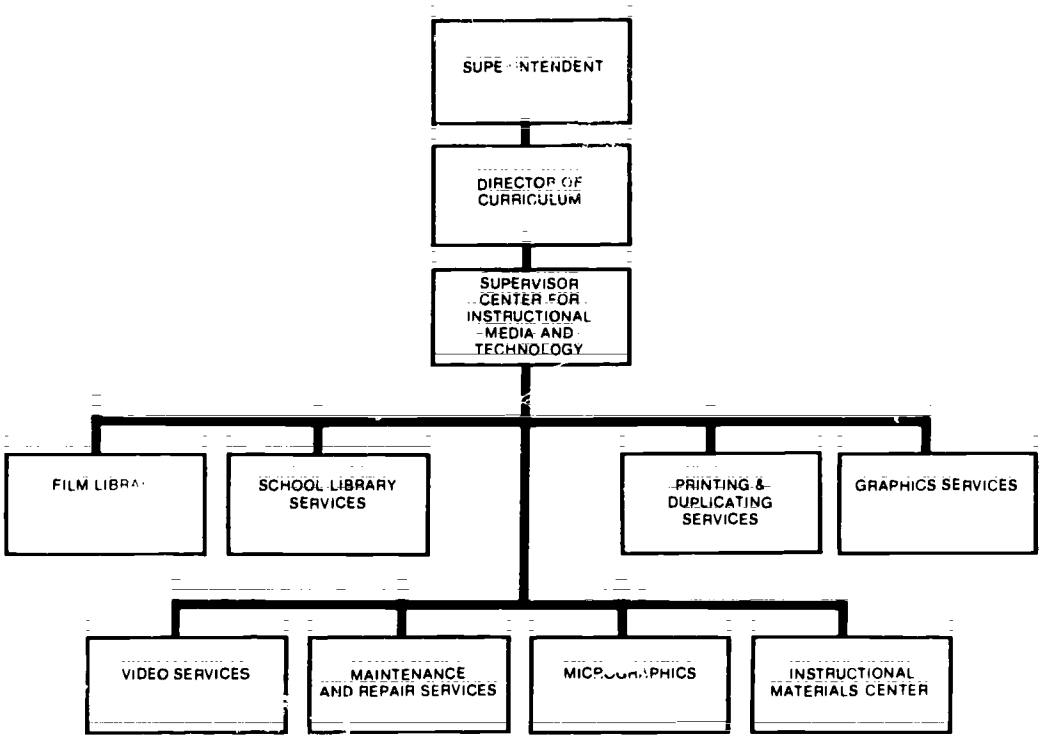
The Learning Resources Program:

Name: Center for Instructional Media and Technology	
Type: Integrated Learning Resources Program	
Year Established:	1977
Number of Staff (FTE):	17
Total Usable Square Footage:	10,000
Total Operating Budget (including charge-back and fees, but excluding grants)	
With Salaries and Benefits	$492,448
Without Salaries and Benefits	91,495

WEST HARTFORD PUBLIC SCHOOLS
Center for Instructional Media and Technology

Program Description

Some elements of a media program at West Hartford Public Schools go back to the early 1960's, but in 1977 the separate elements were integrated into what is now the Center for Instructional Media and Technology. This center has an extensive collection of learning resources. Heading the list is its unique *Film Library.* This department has over 6,000 16mm film prints for use in the district's instructional programs and for use on a rental basis to schools and agencies in over 16 other states. This library was established when several commercial rental libraries ceased operation and the district bought their collections and customer lists. Revenues from this activity are used to improve and maintain the collection. *School Library Services* provides central processing of instructional materials for the district's school building programs. *Printing and Duplication Services* provides most of the printing and reproduction needs of the school district. *Graphics Services* prepares camera-ready copy for printing projects as well as produces materials for



WEST HARTFORD PUBLIC SCHOOLS
CENTER FOR INSTRUCTIONAL MEDIA & TECHNOLOGY

instruction and for television productions. *Video Services* prepares video materials for instruction and promotion. Staffing in this area includes two video technicians and volunteers who are trained to serve as production crew members. *Maintenance and Repair Services* maintains and repairs all audiovisual, public address, video, and microcomputer equipment for the district. Two newer units are *Micrographics*, responsible for microfilming all business, budget, computer, and personnel records, and the *Instructional Materials Center*, a location and distribution system for materials too expensive or scarce to be purchased for each school. Materials in this center include professional books and literature, publisher catalogs and samples, curriculum materials and guides, videotapes, and microcomputer software.

Budgeting and Funding Information

All services for district patrons are provided without charge except for printing. Printing charges range between 1 to 2¢ per impression. Non-district personnel are charged a rental fee for the use of 16mm films.

Some Current Projects/Practices

PSA's Produced for Commercial Television: The center's Video Services unit has produced three Public Service Announcements (PSA's) providing information about the district's learning resources program. These PSA's have been run on commercial television stations in Hartford.

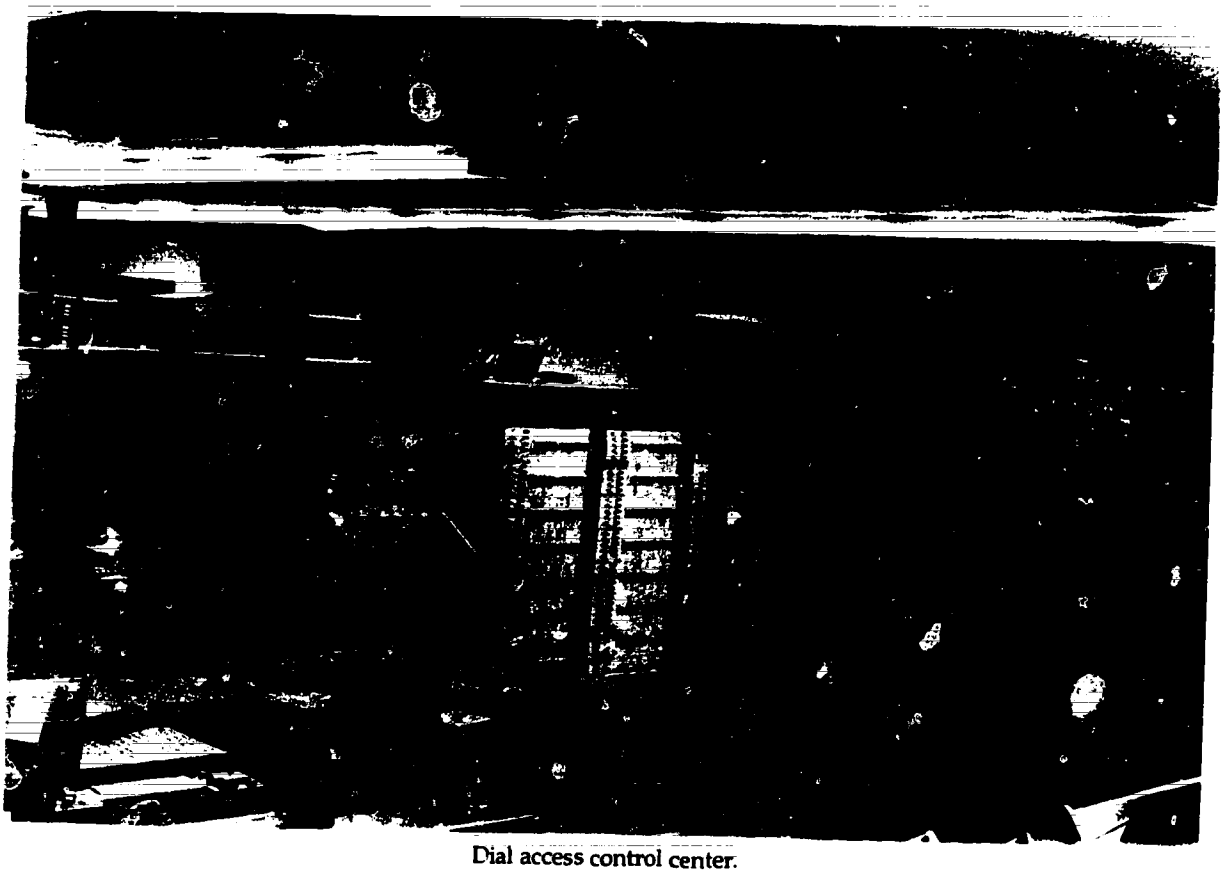
TV Standard Converter: The center has purchased a TV standard converter system primarily to accommodate the needs of a foreign language instructor who makes summer visits to foreign countries. The video materials he acquires can be converted to the standard used in the United States. Five video standards are possible with this special system.

Dial-Access: A dial-access system built in 1968 still is in use. Originally connected to all district buildings, it is now limited to the one high school where the original equipment hub was located.

Staffing

All ten elementary and two middle schools are staffed with full-time certified media specialists. Each of the two high schools have media professionals plus a half-time aide or clerk. The district's center is staffed as shown.

Public service announcements produced for airing on commercial television stations.



Dial access control center.

		FTE
Classified Staff		
Graphic Artists		1.0
Television Production		
Producer/Director		1.0
Video Volunteer Coordinator		1.0
Maintenance Technicians		2.0
Catalogers		1.0
Booking/Circulation/Acquisition Staff		3.0
Press Operators/Printing Personnel		4.0
Clerical/Secretarial		1.0
Dial-Access Operator		1.0
Micrographer		1.0
	Total Classified Staff	16.0
Professional Staff		
Supervisor		1.0
	Total Professional Staff	1.0
	TOTAL STAFF	17.0

Contact Person

Robert W. Markarian, Supervisor, Center for Instructional Media and Technology, West Hartford Public Schools, 211 Steele Road, West Hartford, Connecticut 061.7. Telephone: (203) 236–6081.

CASE STUDY #20
A Library Media Specialist in All 152 Schools of the District

The Institution:

Name: Montgomery County Public Schools	
Location: Rockville, Maryland	
Type: Public School District	
Enrollment (FTE):	9,563
Number of Schools in District:	152
Number of Teachers Having Center Access:	8,356
Total Operating Budget:	$396,14[illegible],839

The Learning Resources Program:

Name: Department of Instructional Resources	
Type: Integrated Learning Resources Program	
Year Established:	1961
Number of Staff (FTE)	105.8
Total Usable Square Footage:	29,255
Total Operating Budget (including charge-back and fees, but excluding grants)	
With Salaries and Benefits	$3,744,928
Without Salaries and Benefits	920,121

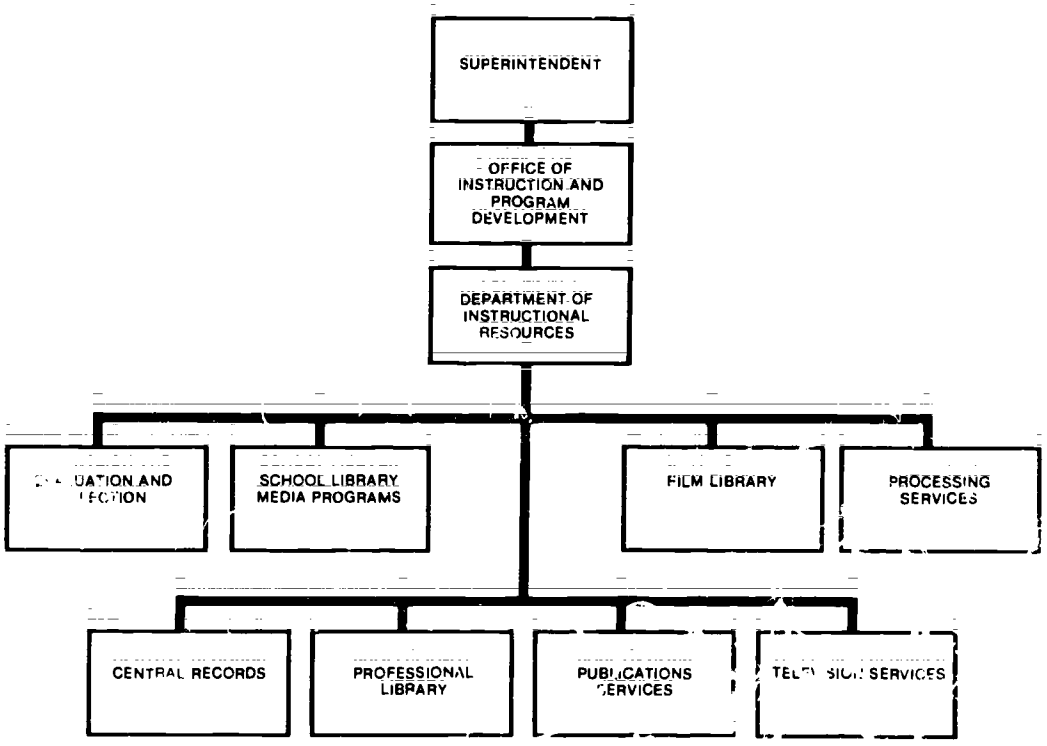
MONTGOMERY COUNTY PUBLIC SCHOOLS
Department of Instructional Resources

Program Description

This large county-wide school district has a huge charge: to support the instructional media needs of 152 schools! From all indications, it achieves that mission well. In a book published in 1977, *A Model School District Media Program* by John T. Gillespie, the author made this observation about the Montgomery County learning resources program:

> The success and the uniqueness of this district's total media program have given it an enviable national reputation. Much evidence attests to its prominence: the number of journal articles that have reported on the exemplary qualities of various aspects of this program, the accolades of leaders of the library profession . . . , the number of guests (approximately 1,000 a year) who visit the district media center, and the federal and state funds that have been given to ensure that it will be a demonstration center for the school library profession.

A wealth of resources and services are available. *School Library Media Programs* is housed within the center that works directly with individual schools to improve their media services. Staff members of this division conduct inservice workshops and meetings, serve in a consultive role, and directly assist building personnel in improving their programs. They also have established and operate a Media Self-Service Lab (a place where teachers can come to produce instructional materials) and they administer a student intern program. The *Film Library* maintains and circulates a collection of approximately 16,000 16mm films and 2,000 videotapes. To get an idea of the magnitude of this division's operation, over 130,000 films were circulated during a recent school year (an average of about 800 films per day). This film collection is used exclusively by district schools and is not made available on a rental basis for any outside parties. The *Publications Services* division includes an editor, a central duplicating operation and print shop, and graphic arts and phototypesetting sections. This division also manages five satellite copying machines. About one-half of the output of this division is to support curriculum development and instruction and the other half is for staff, administrative, and public relations use. A *Professional Library* is rich in resources including over 47,000 books, 250,000 non-print items and microforms, 1,926 periodical subscriptions, and access to approximately 200 databases by computer.



MONTGOMERY COUNTY PUBLIC SCHOOLS
DEPARTMENT OF INSTRUCTIONAL RESOURCES

Evaluation and Selection performs the function its title implies for all instructional materials to be used by students and circulates instructional equipment. This division also writes bid specifications for purchase of equipment and duplicates audiotapes. *Television Services* produces instructional and public relations programs, conducts a county-wide film festival, and participates in the student internship program. Finally, *Processing Services* provides the technical services to order, process, catalog, and distribute the multitude of print and non-print materials to be housed in the Department of Instructional Resources and to be used in the district's schools.

Budgeting and Funding Information

The Superintendent of Montgomery County Schools prepares the district's budget and submits it to the board of education. After public hearings are conducted and the board of education approves the budget, it is submitted to the county council for final ratification. The county council sets tax rates to generate revenues for both capital and operating budgets. With this system, there are no bond or millage referendums.

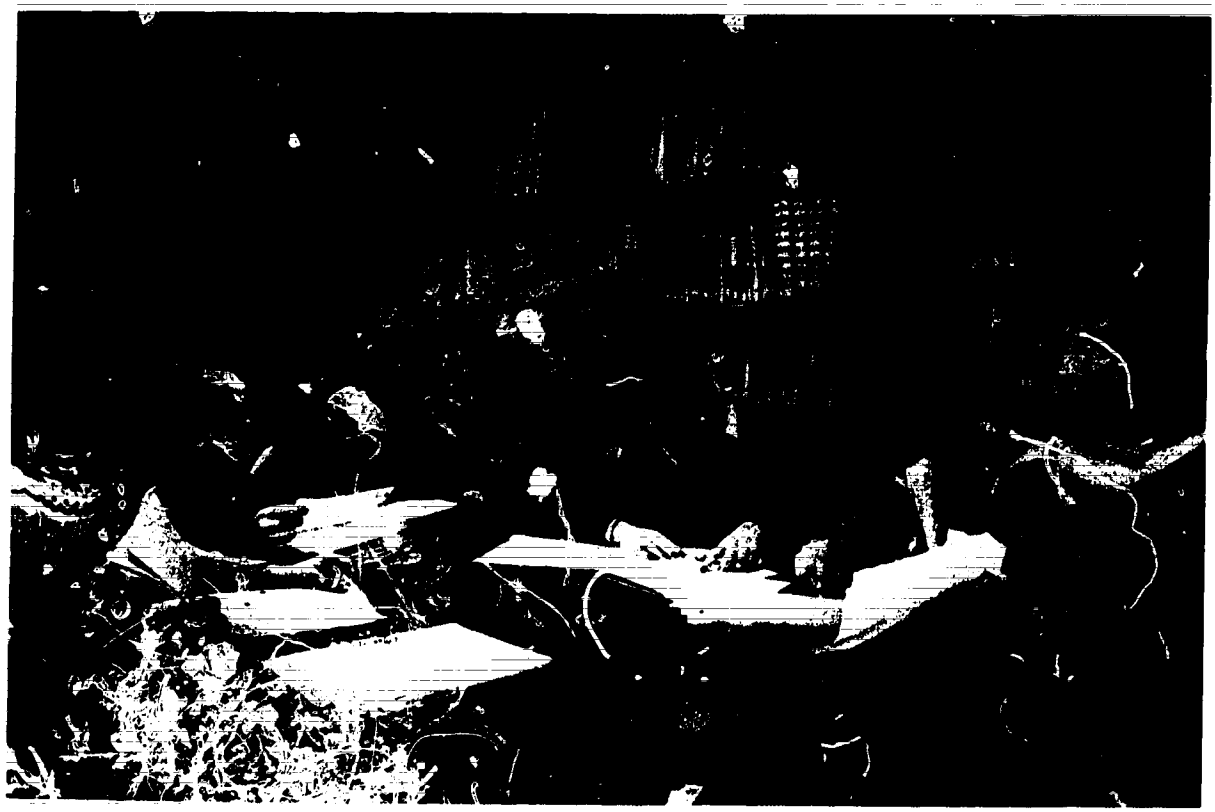
All services of the Department of Instructional Resources are available without charge to schools of the entire district. There are no chargebacks or fees. All services provided are allocated with funds in the budget.

Some Current Projects/Practices

Student Intern Program: The Department of Instructional Resources sponsors a work intern program for students in grades nine through twelve. The objective of the program is to train students on computer and television skills in order that those skills can be put to work in individual school building programs. In the computer area, students learn word processing, software preview, on-line information retrieval, and programming. In television, they learn equipment operation, program production, and cable television utilization.

Staffing

While many school districts did, at one time, have library media specialists in all schools, cut-backs have taken their toll. Montgomery County Public Schools has been able to maintain its policy of having a library media specialist in all 152 schools in the district. In the district center, the Department of Instructional Resources, there are 105.8 staff positions, with 12 of that total being classified as professional personnel.



One of the district's building media specialists and a teacher working with Gaithersburg Junior High School students.

Classified Staff:	*FTE*
Photographer	1.0
Graphic Artists	5.0
Slide/Tape Producer	1.0
Television Services	
Program Specialist	1.0
Technicians	2
Producer/Director	
Equipment Technicians	
Booking/Circulation/Acquisition Staff	5.7
Typesetting/Printing/Binding Staff	9.0
Clerical/Secretarial	
Total Classified Staff	91
Professional Staff:	
Director	1.0
Coordinator of School Library Media Programs	1.0
Teacher/Specialist	3.0
Director of Publication Services	1.0
Editor	1.0
Supervisor of Printing Services	1.0
Supervisor of Graphic Artists	1.0
Supervising Printer	1.0
Curriculum Librarian	1.0
Manager of Processing Services	1.0
Processing Center Librarian	1.0
Evaluation and Selection Specialist	1.0
Total Professional Staff	14.0
TOTAL STAFF	105.8

Contact Person

Mrs. Frances C. Dean, Director, Department of Instructional Resources, Montgomery County Public Schools, Educational Services Center, Room 55, 850 Hungerford Drive, Rockville, Maryland 20850. Telephone: (301) 279–3241.

CASE STUDY #21
Strong Teacher Support Has Allowed Program to Develop and Progress

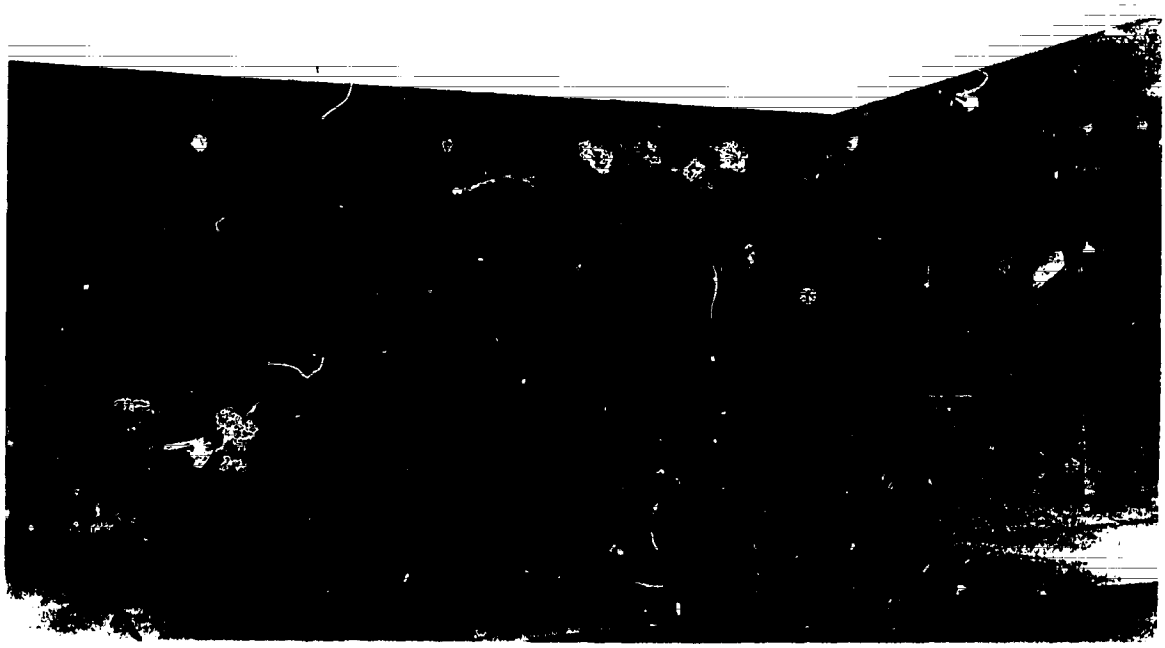
The Institution

Name: Portland Public Schools	
Location: Portland, Oregon	
Type: Public School District	
Enrollment (FTE):	50,986
Number of Schools in District:	98
Number of Teachers Having Center Access:	2,700
Total Operating Budget:	$6,791,454

The Learning Resources Program

Name: Educational Media	
Type: Integrated Learning Resources Program	
Year Established:	1920's
Number of Staff (FTE):	63
Total Usable Square Footage:	35,000
Total Operating Budget (including charge-back and fees, but excluding grants)	
With Salaries and Benefits:	*$5,555,010
Without Salaries and Benefits:	* 3,817,753

*Of these totals, $2,880,000 was used for purchase of library materials and textbooks for permanent placement and use in the district's school buildings.



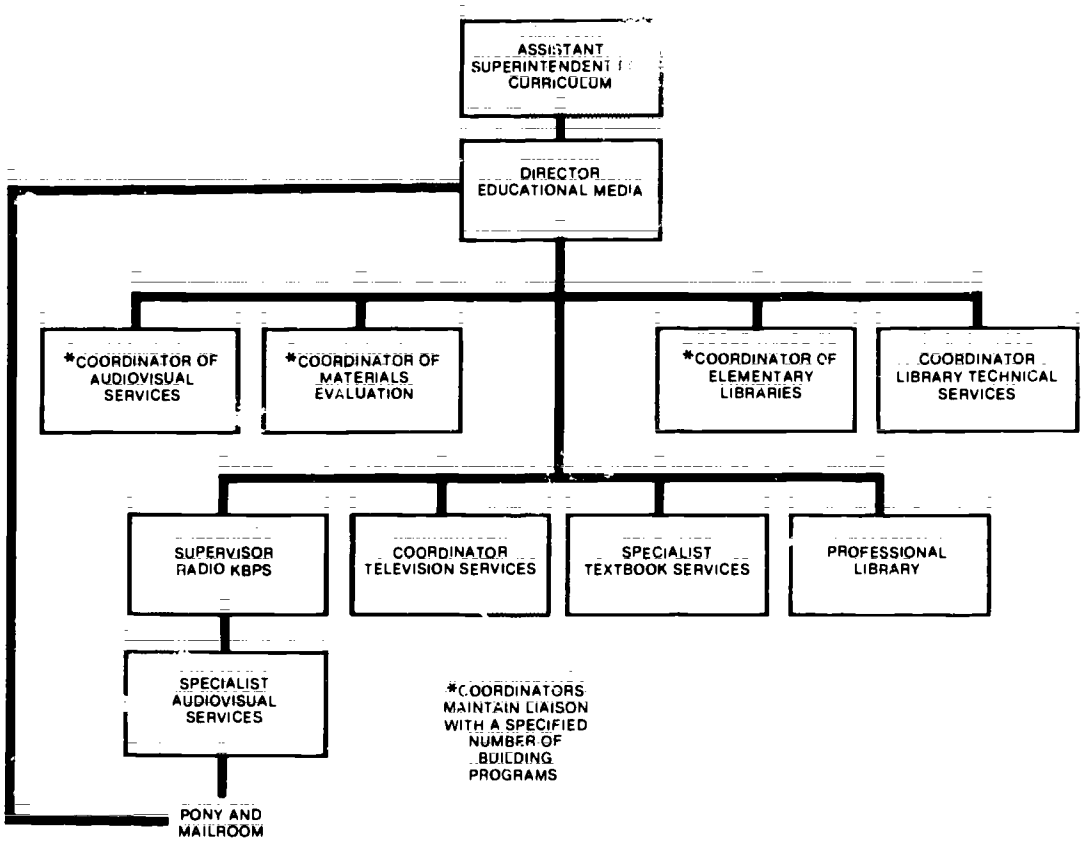
Entrance to Portland Public School's modern Education Service Center.

PORTLAND PUBLIC SCHOOLS
Educational Media

Program Description

Educational Media, a support unit to serve instructional and/or administrative programs of Portland Public Schools, is principally located in the school district's modern education service center building near downtown Portland. Television Services and Radio Station KBPS are located elsewhere in the city. This program, with elements of it reaching back to the 1920's, has remained relatively unscathed by the budgetary problems many learning resources programs have faced during the past decade. The administrators of this program attribute the continuing financial good health to strong support by the district's teaching staff.

Educational Media is divided into eleven service areas. *Audiovisual Services* includes the central audiovisual collection of about 12,000 titles, a service to the district's schools of evaluating and purchasing of audiovisual equipment, and a service of evaluating audiovisual materials and computer courseware for consideration of purchase for central and building collections. *Television Services* produces video programs to meet district needs, coordinates the distribution of video equipment to schools from a central loan pool, evaluates all requests for video equipment purchases by schools, plans for the use of cable television in the schools, and develops workshops on the effective use of television for instruction. *School Library Services* reviews and produces a monthly list of sources for all print, audiovisual material, and computer courseware that might be used in school libraries, consults with individual schools on matters of library design and the equipment and the program needed, and displays approved print and audiovisual materials for consideration of purchase. The *Professional Library* is an extension of each building's program of serving the needs of teachers and administrators who require specialized information to solve problems, design curriculum, or prepare instructional activities. The collection contains over 15,000 volumes and several on-line computerized databases are available. *Library Technical Services* centrally orders and processes all library materials used in elementary and secondary schools in Portland. All acquisition and cataloging of materials are automated. *Radio Station KBPS* provides for the production and distribution of instructional radio broadcasts, for opportunities of students to participate in radio broadcasts as a



FORTLAND PUBLIC SCHOOLS
EDUCATIONAL MEDIA

part of language arts or career education experiences, and for access to audio production studios. This station also serves as a public radio station for Portland (member of the National Public Radio Network). *Textbook Services* provides for the evaluation, purchase, and distribution of elementary textbooks and prepares and distributes lists of approved high school and elementary textbooks and supplementary materials. These materials are displayed in a section of the Professional Library. *Photography and Graphic Arts* provides administrators, teachers, and other district personnel with production services for use in instructional, informational, and publication projects. Educational Media also manages a *Mail and Delivery Service*, a *Music and Musical Instruments* service (music library and musical instruments lending), and *Curriculum Publications*, (a warehouse of curriculum materials for the school district). Electronic equipment maintenance is performed by the physical plant maintenance unit which is located elsewhere in the education service center building.

Budgeting and Funding Information

Operational funds come primarily from tax sources. In addition, Multnomah County supplies funds for operating a media library for and by Portland Public Schools. A separate media library is operated by Multnomah County for the other school districts in the county. All services are provided without charge to the schools throughout the district.

Some Current Projects/Practices

Audiovisual Services is Computerized: Audiovisual Services (the central audiovisual collection) is almost entirely computerized. This includes catalog preparation, the booking and circulating all types of materials, the inventorying of equipment, and the keeping of records of previews of materials.

Center is Heavily Used: Educational Media has a record for longterm consistency of service and is heavily used. As an example, during a recent school year, over 95,000 16mm films and over 22,000 other audiovisual materials were booked.

Staffing

All high schools and middle schools and about 25% of the elementary schools have media specialists. Within Educational Media itself, there are 64 positions. Of that number, seven are professional posi-

The entire audiovisual collection is computerized.

tions (certified as teachers or administrators or have master's or doctorate degrees in library or instructional media).

Classified Staff:	*FTE*
Photographer	1.0
Graphic Artist	1.0
Television Services	
Production Assistants	2.0
Chief Engineer	1.0
Videographers	2.0
TV Technician	1.0
Production Manager	1.0
Radio Station, KBPS	
Producers	2.0
Chief Engineer	1.0
Technical Assistants	5.0
Program Information Coordinator	1.0
Traffic Clerk	1.0
Coordinator of Development/ Volunteers	1.0
Truck Drivers	3.0
Catalogers	3.0
Booking/Circulation/Acquisition Staff	23.0
Clerical/Secretarial	8.0
Total Classified Staff	57.0
Professional Staff:	
Director	1.0
Coordinator of Audiovisual Services	1.0
Coordinator of Materials Evaluation	1.0
Coordinator of Elementary Libraries	1.0
Coordinator of Technical Services	1.0
Manager, KBPS	1.0
Television Services Coordinator	1.0
Total Professional Staff	7.0
TOTAL STAFF	64.0

Contact Person

Dr. Richard Gilkey, Director, Educational Media, Portland Public Schools, P.O. Box 3107, Portland, Oregon 97208. Telephone: (503) 249–2000.

REGIONAL EDUCATION AGENCIES

CASE STUDY #22
A Regional Media Center With A Powerful Production Unit

HEARTLAND EDUCATION AGENCY, AREA 11
Regional Media Center

The Institution:

Name: Heartland Education Agency, Area 11	
Location: Ankery, Iowa	
Type: Regional Educational Agency	
Students in Service Area (FTE):	118,000
Number of School Districts Served:	63
Number of Teachers Having Center Access:	7,000
Total Operating Budget:	$19,614,340

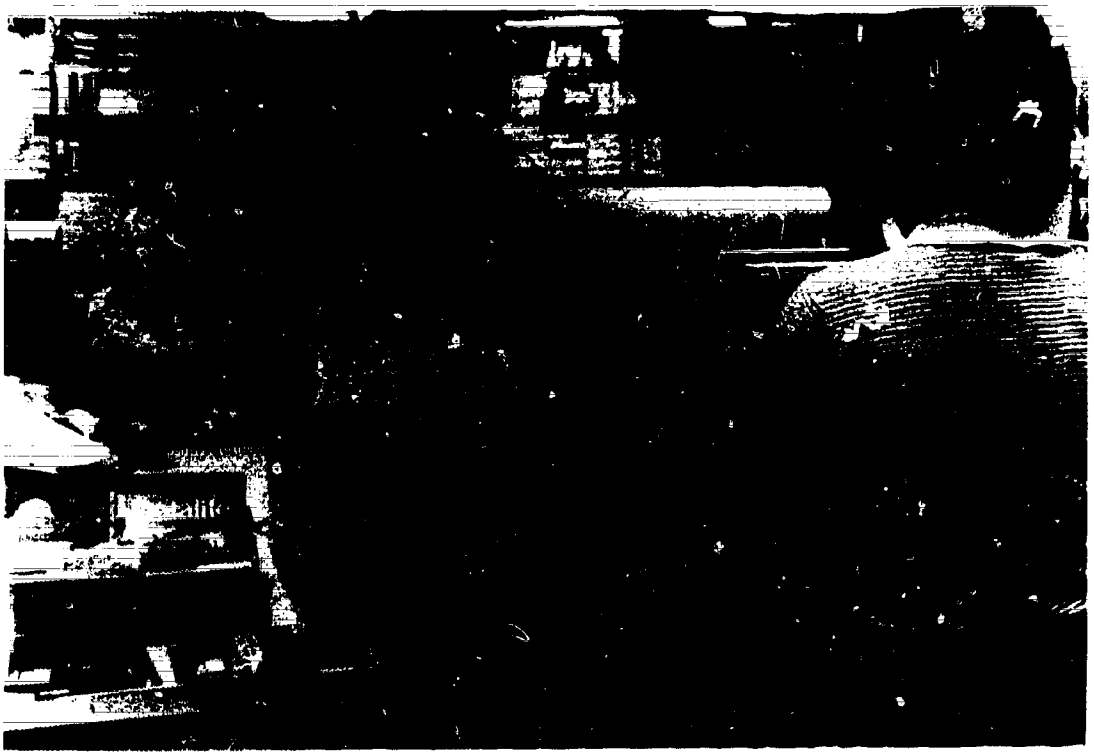
The Learning Resources Program:

Name: Regional Media Center 11	
Type: Integrated Learning Resources Program	
Year Established:	1975
Number of Staff (FTE):	54
Total Usable Square Footage:	16,000
Total Operating Budget (including charge-back and fees, but excluding grants)	
With Salaries and Benefits	$2,803,145
Without Salaries and Benefits	1,696,013

Program Description

Heartland Regional Media Center, one of two Iowa regional media centers included in this report, exists to provide curricular materials, supplementary production services, and professional assistance to educators in Area 11. Area 11 serves over 7,000 teachers and 118,000 students in sixty-three public school districts and private schools. About one-fifth of the state's population and the city of Des Moines is included in this area.

Heartland's *Media Production* unit probably has as much high-volume production equipment as can be found in one center in an educational setting in the nation. Industrial-type laminators, computer diskette duplicators, state-of-the-art photographic copy stands and duplicators, video and audio duplicators, and computerized type-setting and word processing devices are among the types of equipment used to produce and reproduce large quantities of materials for Area 11 educators. As one measure of



High speed microcomputer disk duplicator.

quantity, the center annually runs about 60 miles of laminating film. In Media Production, the use of this equipment is maximized by a staff of photographers, graphic artists, video specialists, printers, and other support staff. All these components together make this a very powerful production unit (see production organizational chart below). In 1984, an evaluation team composed of some nationally-known media specialists and educators made this statement about Heartland's Media Production unit: "In comparing the production facilities available in the AEAMC to business, industry, or other education institutions, this center has one of the finest production centers in the nation. Capital outlay in the past is certainly showing productivity in the present. The equipment and the staffing are exemplary. The production of 'local' programs for the teachers and students of Iowa is outstanding."

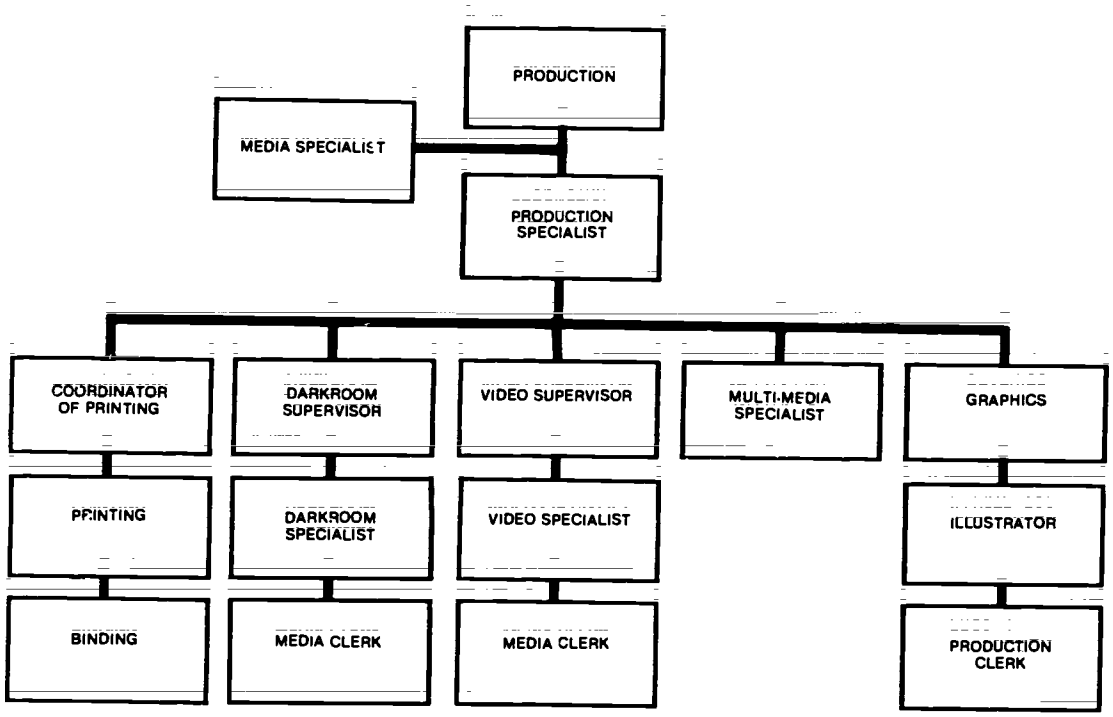
In addition to Media Production, there exists a Curriculum Lab, a Professional Library, and a Lending Library. The *Curriculum Lab* provides displays of the latest print and non-print materials available in the various subject areas. This unit also administers a small media leasing program which will be described in the section on current projects and practices. The *Professional Library* provides a collection of over 2,000 books, plus periodicals, multi-media kits, and other materials. Staff members of the Professional Library will conduct manual and computer literature searches for area teachers and administrators. The *Lending Library* houses over 9,000 16mm film titles (19,000 prints) and about 7,500 book titles. Non-print materials may be reserved in advance by telephone, printed request form, or in person. A computerized reservation system is used to quickly book and confirm requests made. Both print and non-print materials are delivered twice a week by vans to area schools.

Budgeting and Funding Information

Area education agencies in Iowa are tax-supported. That support level is currently about $20 per student. Created by the Iowa legislature in the mid-seventies, the main objectives of area education agencies are to equalize educational opportunities and to support districts in strengthening school programs. Consequently, all media services to school districts are made without charge. At Heartland, the only exception to that policy is for production services where a charge is made for supplies only.

Some Current Projects/Practices

Computer Reservation of Media: Teachers or administrators can call a telephone number in the center and bookers will quickly enter their requests for materials into the computer and indicate to the caller



HEARTLAND REGIONAL MEDIA CENTER (PRODUCTION UNIT)

A media specialist (center) confers with teachers while planning a media production.

Several operators are on duty at stations in the computerized media reservation area.

the availability status of materials on the requested dates. Confirmations of these requests are sent to the person making the request.

Evaluation Visit: A team of evaluators from Pennsylvania visited and evaluated the Heartland Regional Media Center in 1980. They concluded that it "was one of the finest in the nation." This team based their evaluation on observations and by interviews of all center staff members and personnel of selected schools served by the center.

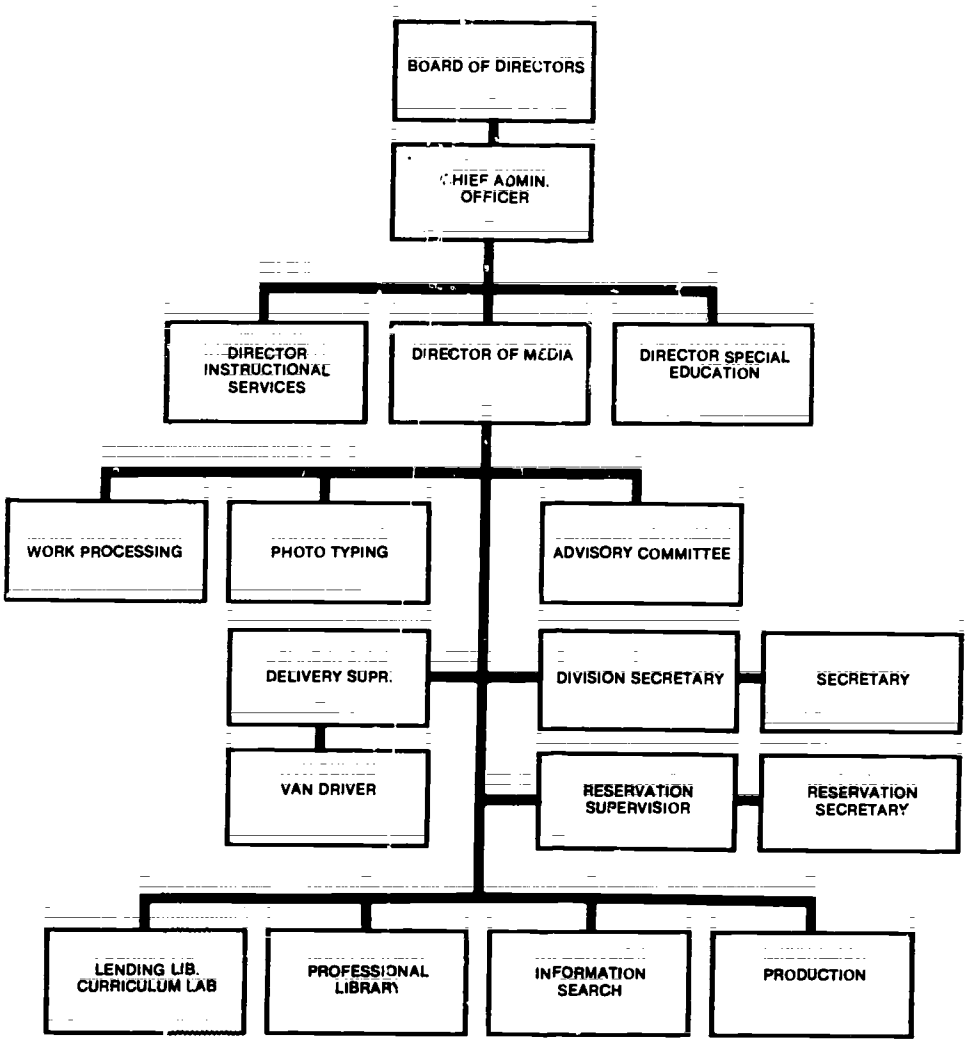
Satellite Earth Station: In 1982, an earth station was installed so that better video masters could be recorded of those programs for which rights were obtained. The earth station is also used for teleconferencing.

High Speed Microcomputer Disk Duplication: In 1984, a high speed duplicator was purchased to be used to rapidly duplicate software for which rights had been purchased. To date, over $100,000 worth of rights have been purchased. These programs are duplicated and sold to schools at about one-eighth of the current retail cost.

Small Media Lease Program: In 1979, realizing that small media (e.g., filmstrips and slide sets) were time-consuming to process for circulation and were not being used extensively, a small media lease program was initiated. Leases with about twelve companies have been arranged at about one-fourteenth of the retail cost. The regional media center pays one-half of the last $2,000 ordered per building and the materials are permanently housed in the participating schools.

Staffing

The Heartland Regional Media Center 11 has a classified staff totalling 46 and a professional staff of 8.



HEARTLAND EDUCATION AGENCY, AREA II
REGIONAL MEDIA CENTER

Classified Staff:	FTE
Photographers	1.0
Graphic Artists	5.0
Audio Technician	1.0
Maintenance Technicians	1.0
Catalogers	1.0
Booking/Circulation/Acquisition Staff	23.0
Drivers	6.0
Computer Specialists	1.0
Press Operators/Printing Personnel	4.0
Clerical/Secretarial	3.0
Total Classified Staff	46.0
Professional Staff:	
Director	1.0
Production Specialist	1.0
Coordinator, Nonprint	1.0
Coordinator, Print	1.0
Coordinator, Production	1.0
Coordinator, Professional Library	1.0
Coordinator, Media Specialist	1.0
Coordinator, Reference	1.0
Total Professional Staff	8.0
TOTAL STAFF	54.0

Contact Person

Dr. Marvin Davis, Director of Media Services, Heartland Area Education Agency 11, Ankeny, Iowa, 50021. Telephone: (515) 964-2550.

CASE STUDY #23
Entrance View Shows Vast Array of Learning Resources

The Institution:

Name: Grant Wood Area Education Agency	
Location: Cedar Rapids, Iowa	
Type: Regional Educational Agency	
Students in Service Area (FTE):	65,000
Number of School Districts Served:	39
Number of Teachers Having Center Access:	4,524
Total Operating Budget:	$16,412,956

The Learning Resources Program

Name: Division of Media	
Type: Integrated Learning Resources Program	
Year Established:	1974
Number of Staff (FTE):	31.5
Total Usable Square Footage:	17,629
Total Operating Budget (including charge-back and fees, but excluding grants)	
With Salaries and Benefits	$1,373,236
Without Salaries and Benefits	776,446

The entrance to the Division of Media.

GRANT WOOD AREA EDUCATION AGENCY
Division of Media

Program Description

Grant Wood Area Education Agency's Division of Media looks much like the interior of a large open concept school, with few room dividers except in the peripheral areas. The Division of Media provides materials, information, and the production of instructional media to 39 public school districts and 35 private schools in east central Iowa.

The *Materials Lending Library* has a large collection of 16mm films plus filmstrips, recordings, kits, and other media. Books and other non-print materials are also available for loan. The *Professional Library* is an information source for the educators of the area's schools. This library has a collection of educational journals, reference materials, access to films dealing with the profession, and a computerized information bank. A *Curriculum Laboratory* is available for preview of current educational materials (both print and nonprint) and to assist local schools with materials' selection and purchase. *Production Services* provides audio and video production, graphics, and printing. In addition, a room is provided for teachers to use in producing some of their own materials.

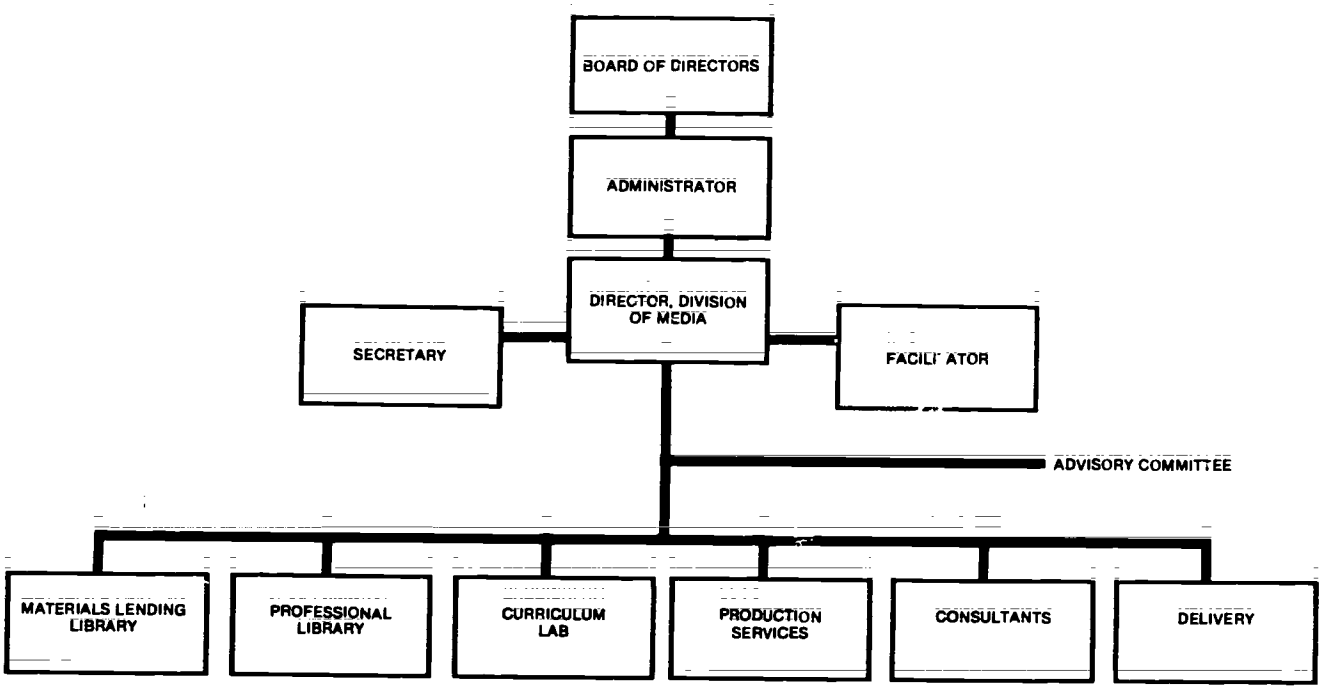
Beyond the confines of the media facility, technicians provide on-location photography, videotaping, and inservice training on equipment selection and repair. Media consultants also conduct inservice sessions on the effective uses of media, the selection of materials, and the development and management of media centers. Delivery vans provide twice-a-week service to and from area schools. The Division of Media has entered into a contract with Kirkwood Community College for the repair of audiovisual equipment owned by area schools.

Budgeting and Funding Information

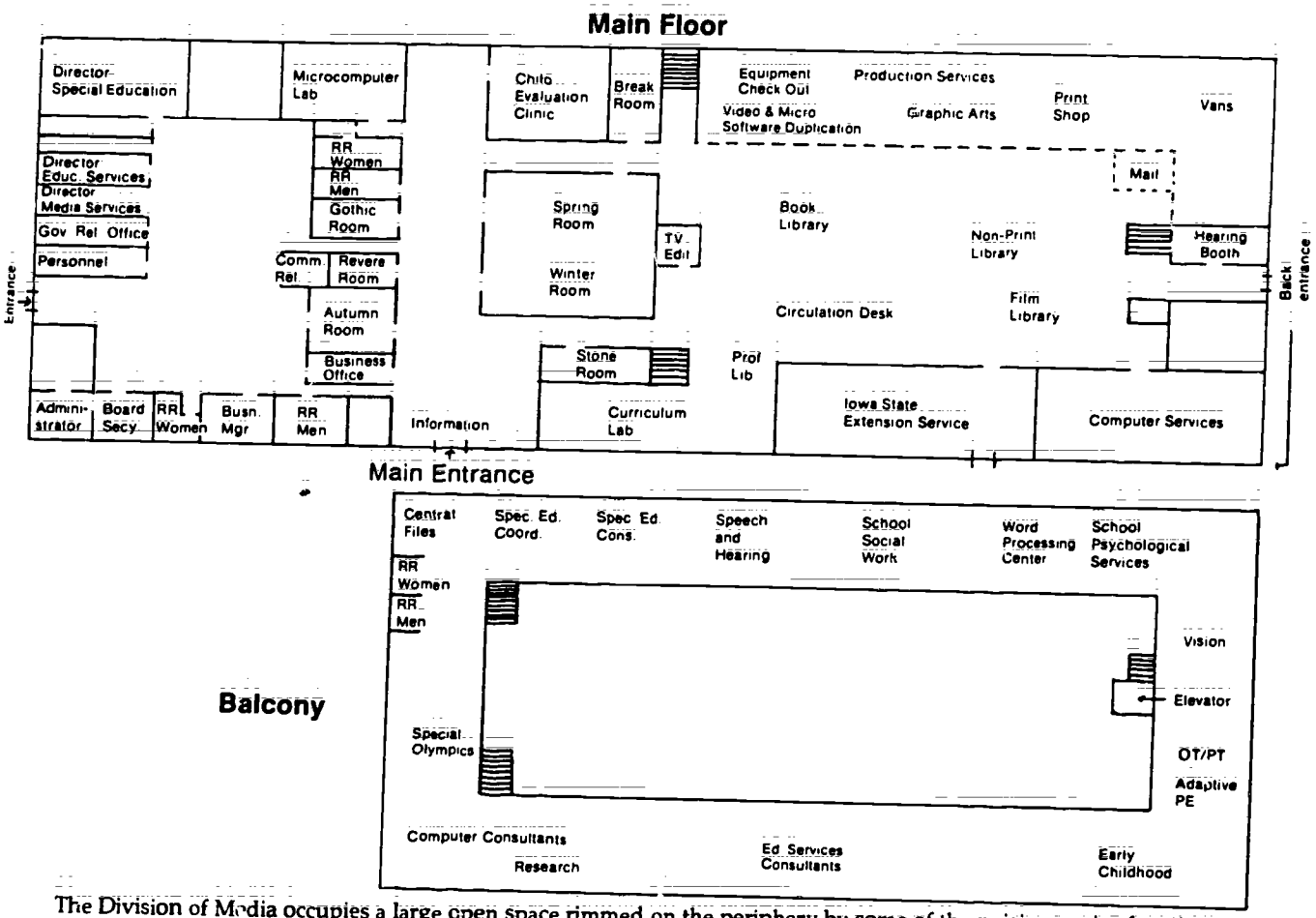
As with Heartland's Regional Media Center, Grant Wood's activities are tax-supported. As a result, all services are provided free of charge except for printing and production. In those areas, charges are assessed for the cost of supplies and, where the guidelines permit it, for labor.

Some Current Projects/Practices

Annual Assessment of Needs: Each year the director conducts an assessment of user's needs with either a written instrument or by informally going out and talking to media specialists and superintendents. This enables personnel in the area's schools to identify their needs and the Division of Media to attempt to match those needs with appropriate resources.



GRANT WOOD AREA EDUCATION AGENCY
DIVISION OF MEDIA



The Division of Media occupies a large open space rimmed on the periphery by some of the noisier service functions.

Staffing

Grant Wood's Division of Media has a staff of 31.5 with 7 of that total being media professionals. All professionals have Iowa state certification as media specialists or as librarians.

Classified Staff:	*FTE*
Photographer	.5
Graphic Artists	2.0
Television Services Technician	.5
Video Duplication Technician	.8
Audio Technician	.5
Booking/Circulation/Acquisition Staff	9.0
Drivers	3.0
Printing Personnel	3.0
Bindery Worker	1.0
Micro Duplication Technician	.7
Teacher Materials Production Technician	1.0
Clerical/Secretarial	2.5
Total Classified Staff	24.5

Professional Staff:	
Director	1.0
Media Assistants	3.0
Media Coordinator	1.0
Media Specialists	2.0
Total Professional Staff	7.0
TOTAL STAFF	31.5

Contact Person

Dr. Clifford J. Ehlinger, Director, Division of Media, Grant Wood Area Education Agency, 4401 6th Street S.W., Cedar Rapids, Iowa 52404. Telephone: (319) 399-6730

CASE STUDY #24
A Regional Media Center is Becoming an Electronic Library

The Institution:

Name: Wayne County Intermediate School District	
Location: Wayne, Michigan	
Type: Regional Educational Agency	
Students in Service Area (FTE)	480,000
Number of School Districts Served:	36
Number of Teachers Having Center Access:	25,000
Total Operating Budget	$60,000,000

The Learning Resources Program:

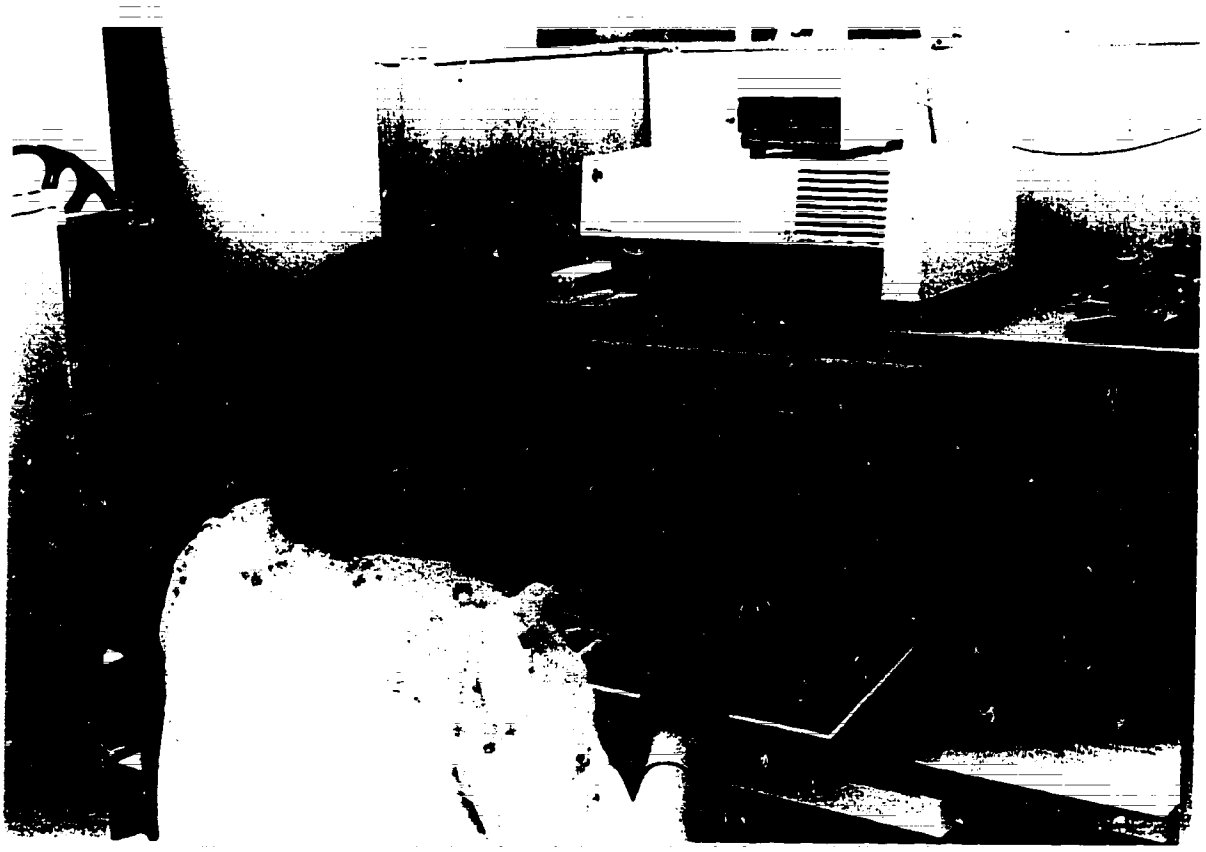
Name: Professional Resource Center	
Type: Separate Learning Resources Center	
Year Established:	1966
Number of Staff (FTE):	36
Total Usable Square Footage:	15,000
Total Operating Budget (including charge-back and fees, but excluding grants)	
With Salaries and Benefits	$1,400,000
Without Salaries and Benefits	400,000

WAYNE COUNTY INTERMEDIATE SCHOOL DISTRICT
Professional Resource Center

Program Description

A bill passed by the Michigan legislature in 1970 created twenty-two regional media centers in the state. Wayne County Intermediate School District's Professional Resource Center, as one of them, exists to provide services to the public and non-public schools of Wayne County. The center has a philosophy of making learning resources available—wherever they may exist—to the user. In fulfilling that commitment, the Professional Resource Center is using computer technology so extensively that the center is rapidly becoming an "electronic library."

Computer use in the center includes computerized search, retrieval, booking, circulation, and management of materials; computerized typesetting and word processing; electronic mail/bulletin boards; computerized community and human resources banks; and computerized access to databases. Many other "electronic library" uses of computers are in the planning stages or are being considered.



One of many computer terminals in the "electronic library" at Wayne County.

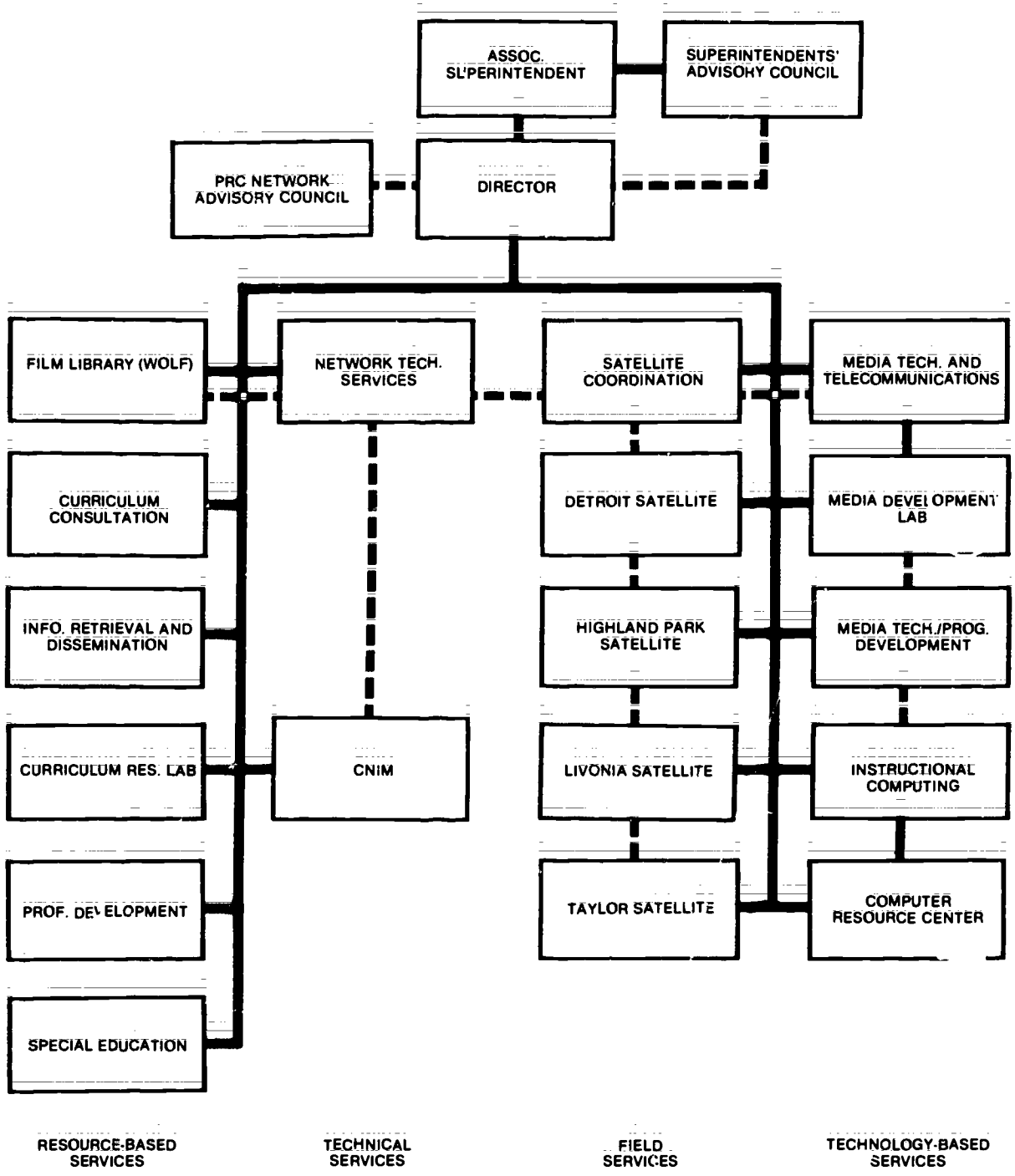
One of the services in the Media Development Lab is a color Xerox copier that will make full-color paper copies and overhead projector transparencies.

The Professional Resource Center provides a wide variety of services. *Ask/Action Line* is a source for answers to educational questions. A comprehensive reference collection as well as hundreds of computerized databases are used by professional and technical staff members to provide information—both verbal and printed—to clients' questions. *Curriculum Resource Service Consultants* offer an impressive array of services: needs analysis, curriculum planning, selection of resources, consultation, training, and program implementation. Dissemination of information and publications to selected educators in Wayne County include *Resource FLASH* (a listing of new key media in the center), *TOPICS* (copies of the table of contents of 40 key educational journals are sent out bi-monthly), and *NEED* (a flow of abstracts, articles, and information on user-selected topics of interest). A *Film/Video Library* contains over 12,000 films and videocassettes. The *Media Development Lab* is a do-it-yourself facility for quick and easy production of instructional materials. Skilled personnel are available to lend assistance. A wide range of processes are available from color Xeroxing to audio and video tape production and duplication to laminating to graphics and photography. Staff-prepared graphics and printing are available in a department separate from the Professional Resource Center. *Professional Development Workshops* are conducted periodically on curriculum, media utilization, mainstreaming, information retrieval, and other topics based on user needs. A *Special Education Collection* contains over 20,000 instructional materials and related equipment in all curricular areas for the education of handicapped children. Special education curriculum resource consultants are also available to provide assistance and inservice training in the effective use of these materials.

In addition to the main center, four satellite centers are located in Wayne County. Special education materials and services, professional development activities, and media development assistance are available at those centers.

Budgeting and Funding Information:

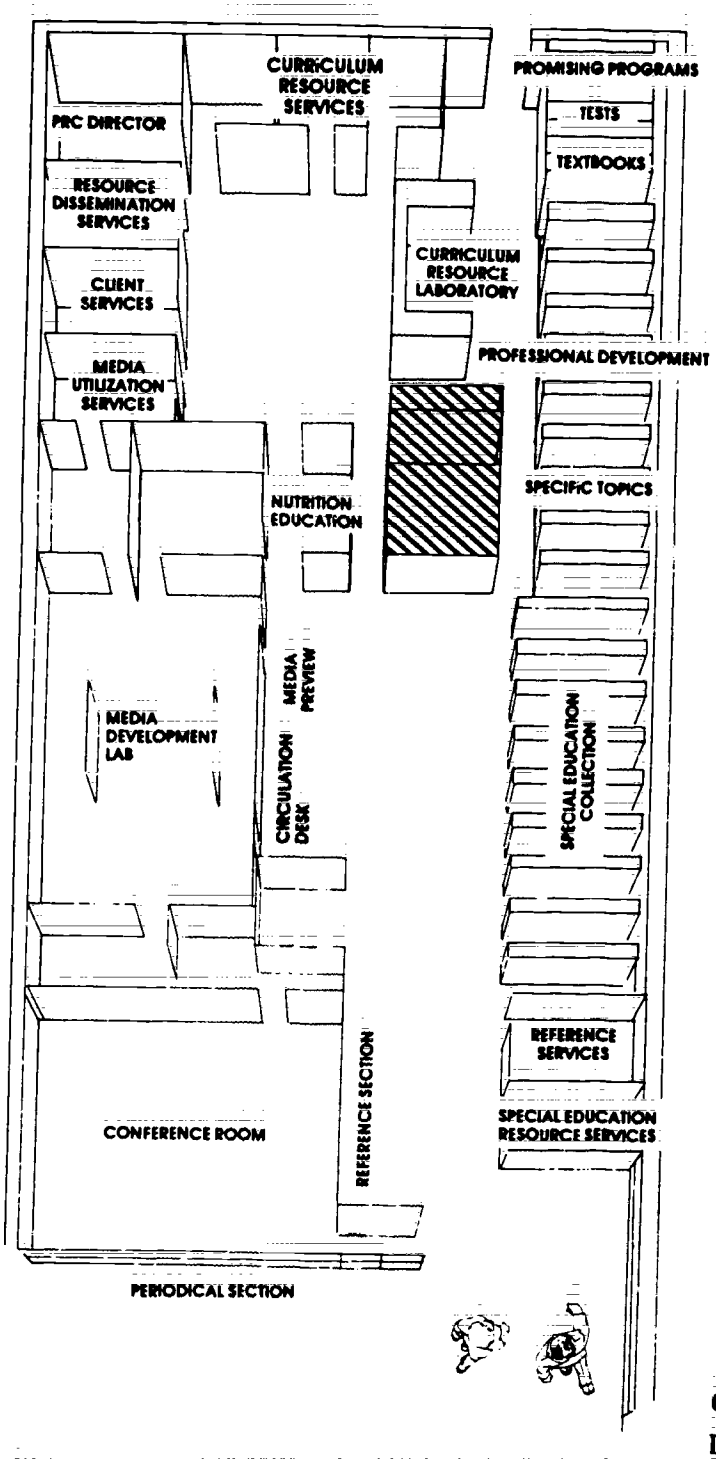
The Professional Resource Center is supported by a mix of state, federal, and local funds. Most services are provided without cost, but charges are assessed in several areas: (1) 80¢ is charged per film used per week, and (2) materials developed in the Media Development Lab are subject to a charge for supplies used with an additional amount factored in to provide for equipment upkeep.



WAYNE COUNTY INTERMEDIATE SCHOOL DISTRICT
PROFESSIONAL RESOURCES CENTER

Some Current Projects/Practices:

Electronic Communications Center: This center is being established to provide the latest information on electronic communications available. Included in this center will be information and demonstrations on cable television; satellite transmission reception, recording, and distribution; electronic mail transmission and receipt; microcomputer access to resource banks; telecopier receipt and transmission; and online video terminal/printer access to database services.



Wayne County Intermediate School District's Professional Resource Center. The Film/Video Library is located at another location.

Earth Station: A satellite transmission receiver has been installed and has been used in numerous ways, e.g., in a fire safety training program, and to receive programs from the National Diffusion Network.

National Practices File: The Professional Resource Center is one of several agencies involved in identifying and gathering materials from across the nation on promising educational programs and successful curriculum practices. This file will become a part of the ERIC database.

Staffing

Of a total staff of 36, media professionals occupy 12.5 positions. Each of the four satellites have a director and a graphic artist.

Classified Staff:	*FTE*
Graphic Artists	6.0
TV Post Production Technician	.5
Audio Technician	.3
Maintenance Technician	.2
Catalogers	1.5
Booking/Circulation/Acquisition Staff	5.0
Driver	1.0
Clerical/Secretarial	9.0
Total Classified Staff	23.5
Professional Staff:	
Director	1.0
Head of Reference	1.0
Head of Network Technical Services	1.0
Curriculum Resource Consultants (Special Education)	1.5
Computer Based Learning Specialist	1.0
Curriculum Resource Specialist	1.0
Head Audiovisual Technical Assistant	1.0
Media Technology and Telecommunications Specialist	1.0
Satellite Directors	4.0
Total Professional Staff	12.5
TOTAL STAFF	36.0

Contact Person

Dr. George Grimes, Director, Professional Resource Center, Wayne County Intermediate School District, P.O. Box 807, Van Born Road, Wayne, Michigan 48184. Telephone: (313) 467-1300.

CASE STUDY #25
One of Largest ITFS Systems in the Nation

The Institution

Name: San Diego County Office of Education	
Location: San Diego, California	
Type: Regional Education Agency	
Students in Service Area (FTE):	507,000
Number of School Districts Served:	48
Number of Teachers Having Center Access:	16,917
Total Operating Budget:	$13,775,597

The Learning Resources Program

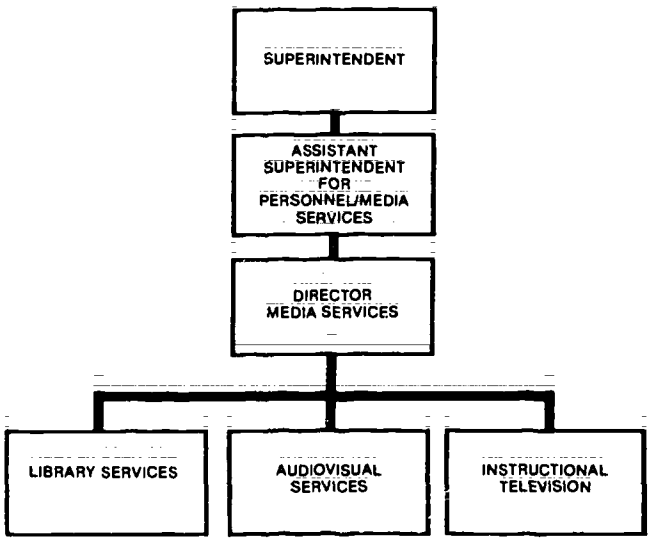
Name: Media Services	
Type: Integrated Learning Resources Program	
Year Established:	1940's
Number of Staff (FTE):	44
Total Usable Square Footage	20,000
Total Operating Budget (including charge-back and fees, but excluding grants)	
With Salaries and Benefits	$1,885,498
Without Salaries and Benefits	800,000

SAN DIEGO COUNTY OFFICE OF EDUCATION
Media Services

Program Description

In the 1960's, San Diego County had one of the outstanding learning resources programs in the United States. It was used as a model for creating regional media centers elsewhere. While this program has undergone numerous changes since that time period, it still continues to be a very viable regional media center.

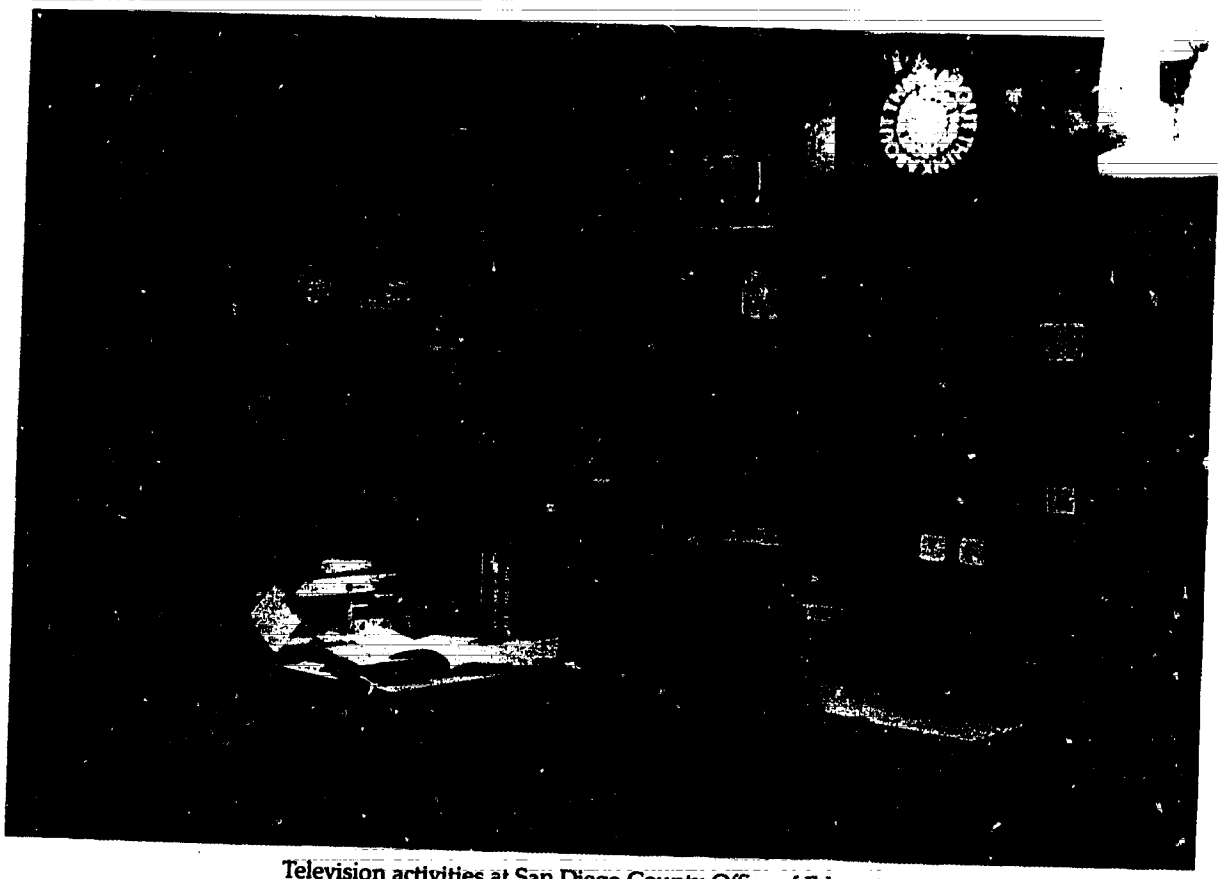
The program as it existed at the time of this study was divided into three main departments: Library Services, Audiovisual Services, and Instructional Television. *Library Services* maintains library collections at 47 branch libraries in schools and provides weekly shipments of books to teachers on request. Over 290,000 books are in these branch libraries. This unit also provides staff development workshops, conferences, and seminars for library media specialists, teachers, and library aides. Within this unit is a Professional Information and Resource Center which includes a library of professional resources (professional books and periodicals, textbooks, curriculum guides, and information on grants) and computerized literature retrieval services. *Audiovisual Services* maintains a 16mm film collection of over 5,800 titles for use in elementary grades through community college. A collection of community college films is a result of the creation of a Community College Media Consortium. Microcomputer repair is another service of Audiovisual Services. *Instructional Television* uses cable television and Instructional Television Fixed Service (ITFS) systems to provide instructional programming to students and teachers in 450 schools and 450,000 cable-connected homes in San Diego County. Potential audiences of that size make this system one of the largest of this type in the nation. One of the ITFS channels is carried by ten cable television companies. Broadcasts of programs are made every weekday during the school year between 8:00 a.m. and 2:00 p.m.. In addition, multi-channel transmission allows specific programs to be broadcast at a time convenient to a classroom teacher. This practice is appropriately called "Flex Time". Programming is available from over 4,500 teacher-selected instructional television programs in the center's collection and from a satellite earth station linking the county-wide television system to programming from throughout the nation and the world. In addition, a complete television production facility is available to produce local programs.



SAN DIEGO COUNTY OFFICE OF EDUCATION MEDIA SERVICES

Budgeting and Funding Information

About 60% of the funding of Media Services comes from the state general fund with the balance (40%) coming from service contracts. These contracts are for different amounts for different services going to different schools. The only area where user fees are charged is for the rental of 16mm films to non-public schools and other agencies.



Television activities at San Diego County Office of Education.

Some Current Projects/Practices

Mobile Media Van: A 27-foot van is equipped with multimedia materials, is staffed by a credentialed librarian, and makes regular visits to numerous contracting small districts (many of them having enrollment of under 900 students). Each visit features a planned program developed around stories, books, filmstrips, and other multimedia materials. Some basic local production equipment is also available for making simple instructional materials.

Community College Media Consortium: In 1971, a group of nine area community colleges and the San Diego County Office of Education developed a media consortium whereby member colleges have access to about 1500 film, videotape, and slide/tape programs. The materials are housed, maintained, and distributed by Media Services. Development of the collection is the responsibility of the colleges involved.

Film Distribution by Television: Certain films are in high demand during specific times each year. Working with San Diego City Schools, the ITFS system in the San Diego County Office of Education's Media Services is used to broadcast the identified high demand films during the weeks of greatest need. Permission from the copyright holders allows this type of use and also permits videotaping of the broadcasted films for use at a more convenient time. These tapes may be retained for ten days after broadcast.

Staffing

Of a staff of 44 employees, 9 are managers of units or sub-units. Six of the 9 are certified as teachers. Graphics and photography are not a part of Media Services, but are located elsewhere in the San Diego County Office of Education.

Classified Staff:	*FTE*
Television Services	
Television Engineers	2.0
Television Maintenance Technicians	2.0
Television Programming Personnel	4.0
Other TV Production Personnel	3.0
Booking, Circulation, Acquisition	6.5
Microcomputer Technician	1.0
Cataloger	1.0
Media Van Clerk/Driver	1.0
Clerical/Secretarial, Other	14.5
Total Classified Staff	35.0

Professional Staff:	
Director	1.0
Coordinator, Professional Information and Resource Services	1.0
Coordinator, School Library Service	1.0
Coordinator, Educational Media	1.0
Film Services Supervisor	1.0
Media Teacher	1.0
Coordinator, Educational Technology	1.0
Instructional Television Service Manager	1.0
Television Programming Manager	1.0
Total Professional Staff	9.0
TOTAL STAFF	44.0

Contact Person

Dr. Marvin Barbula, Director, Media Services, San Diego County Office of Education, 6401 Linda Vista Road, San Diego, California 92111. Telephone: (619) 292-3608.

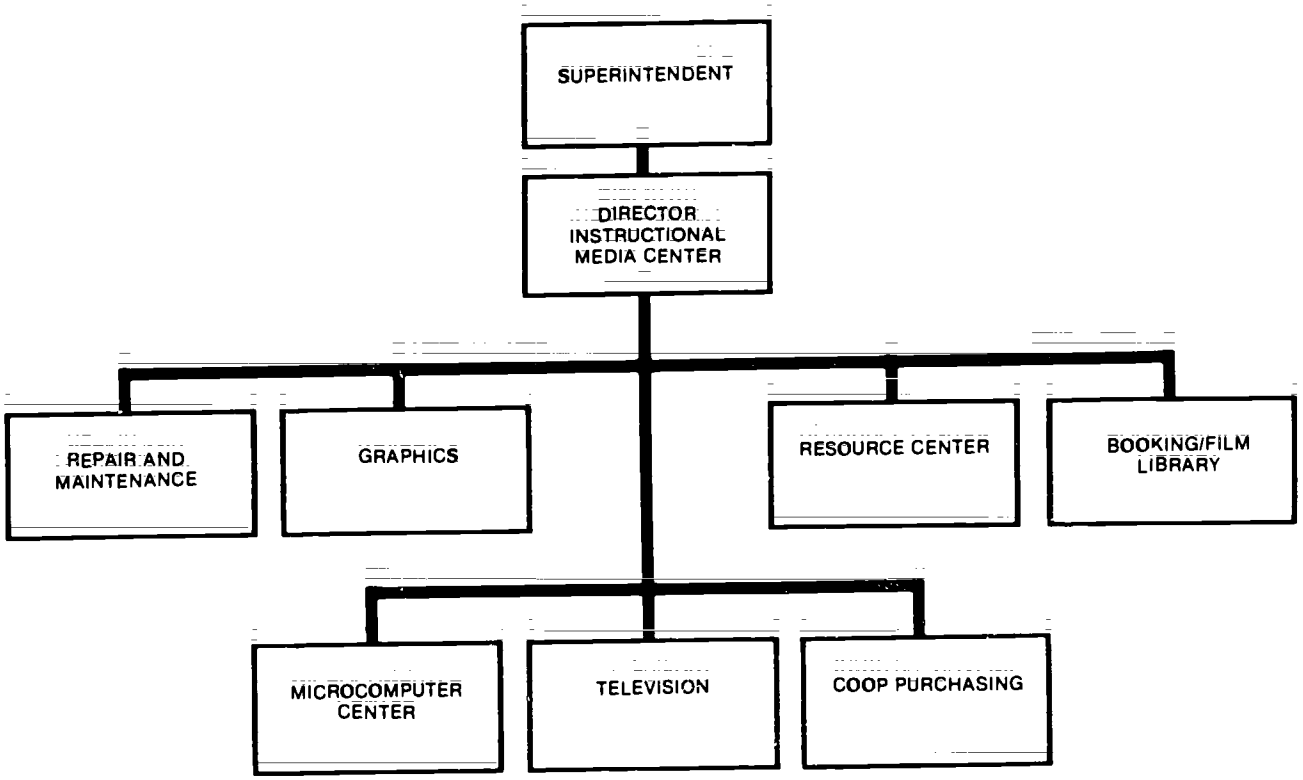
CASE STUDY #26
Oregon's Oldest Regional Media Center Began As a County Film Library

The Institution:

Name: Jackson Education Service District	
Location: Medford, Oregon	
Type: Regional Education Agency	
Students in Service Area (FTE):	36,437
Number of School Districts Served:	19
Number of Teachers Having Center Access:	2,156
Total Operating Budget:	$9,210,637

The Learning Resources Program

Name: Instructional Media Center	
Type: Integrated Learning Resources Center	
Year Established	1947
Number of Staff (FTE):	26
Total Usable Square Footage:	20,000
Total Operating Budget (including charge-back and fees, but excluding grants)	
With Salaries and Benefits:	$1,061,777
Without Salaries and Benefits:	385,507



JACKSON EDUCATION SERVICE DISTRICT
INSTRUCTIONAL MEDIA CENTER

JACKSON EDUCATION SERVICE DISTRICT
Instructional Media Center

Program Description

The Jackson Education Service District's Instructional Media Center dates back to 1947 when the Jackson County School Superintendents' Association allocated $250.00 to start a county film library. As this program grew and expanded into other areas, it became the early model for other education service district media programs in Oregon. In 1963, the production program of the Jackson Education Service District (then called Jackson County Public Schools) was one of fifteen outstanding local production programs featured in the publication *Improving the Learning Environment: A Study on the Local Preparation of Visual Instructional Materials* by Gene Faris, John Moldstad, and Harvey Frye.

Today, the program serves school districts throughout Jackson County with some limited services going to three other counties in northern California and southern Oregon. Through the years, this program which began as a county film library has evolved into a center with seven departments.

The first of these departments is *Repair and Maintenance.* This unit employs four full-time technicians who provide complete repair and installation service for all audiovisual and electronic equipment in Jackson County schools. Included in this service program are intercoms, public address systems, television equipment, and computers. These technicians also maintain wired cable systems in schools and television studios in four high schools. The second department, *Graphics,* continues the early tradition cited above of preparing visual instructional materials. The philosophy of this unit is to provide instructional materials not available commercially and designed to fit a specific curricular area, need, and teacher. The third unit is the *Resource Center* which assists teachers in improving the quality of classroom instruction by providing access to materials, publications, and consultant services. Staff members also acquire print and non-print materials for use in curriculum development projects and coordinate a preview system for evaluating instructional materials for purchase. The *Film Library* is where this program began and it re-

Jackson ESD storyteller reaches 12,000 students each year.

mains the heart of the Instructional Media Center's services. Included in this collection are films, videotapes, models, and multi-media kits. The entire process of scheduling, preparation, confirmation, and check-in of materials is computerized. A computer specialist supervises *Microcomputer Center* where school district personnel can review and evaluate hardware and software which they may want to acquire for their districts. The computer specialist also provides in-service training at the building level. *Television* operates a closed circuit television service via cable in schools in four of the county's cities. Those school districts not connected to the cable use a master antenna system in which tapes can be centrally played in each school and be received in each classroom on an unused channel. The majority of programs are commercially produced along with a limited number of locally-produced programs. *Cooperative Purchasing* is the final department. The Instructional Media Center administers bids for audiovisual equipment and materials for nine counties of central and southern Oregon a well as bids for other alignments of counties for other types of school supplies.

Budgeting and Funding Information

Local tax monies are the main source of revenue. Supplementary contracts are used in two areas. The center has a contract with individual school districts for repair and maintenance (currently 55¢ per student). The graphics department uses a contract approach also to recover costs for supplies used in producing materials (currently $6.00 per teacher).

Some Current Projects/Practices

Storytelling Program: The center employs a full-time storyteller whose objective is to encourage and motivate children's interest in books and reading. This person has face-to-face contact with approximately 12,000 students in grades 1–6 each year.

Earth Station: This satellite receiver is used primarily to receive and record programs for which the rights to duplicate have been obtained.

Homework Hotline: A new use of television that has been growing in popularity was recently initiated at Jackson ESD. Homework Hotline is a one hour per week opportunity for students to call in questions encountered while doing their homework and see two teachers on a cable television channel provide responses. The program is designed for the first through ninth graders and is limited to the subjects of math and language arts.

Staffing

Of the 26 full-time staff members, four are professionals and are certified as teachers or as media specialists.

Classified Staff:	FTE
Graphic Artists	3.0
Television Production	1.3
Maintenance Technicians	4.0
Booking/Circulation/Acquisition Staff	5.8
Drivers	2.5
Computer Specialists	1.0
Clerical/Secretarial	1.0
Warehousemen	2.0
Storyteller	1.0
Graphic Aide	.4
Total Classified Staff	22.0
Professional Staff:	
Director of Instructional Media Center	1.0
Field Services Coordinator	1.0
Television Specialist	1.0
Computer Specialist	1.0
Total Professional Staff	4.0
TOTAL STAFF	26.0

Contact Person

Robert Meinhardt, Director, Instructional Media Center, Jackson Education Service District, 101 North Grape, Medford, Oregon 97501. Telephone: (503) 776-8565.

CASE STUDY #27
Lane ESD Involved in Innovative Projects

The Institution:

Name: Lane Education Service District	
Location: Eugene, Oregon	
Type: Regional Education Agency	
Students in Service Area (FTE):	47,000
Number of School Districts Served:	16
Number of Teachers Having Center Access:	2,600
Total Operating Budget:	$10,818,822

The Learning Resources Program

Name: Media Services Division	
Type: Integrated Learning Resources Center	
Year Established:	1962
Number of Staff (FTE):	28.78
Total Usable Square Footage:	16,000
Total Operation Budget (including charge-back and fees, but excluding grants)	
With Salaries and Benefits:	$1,191,429
Without Salaries and Benefits:	472,680

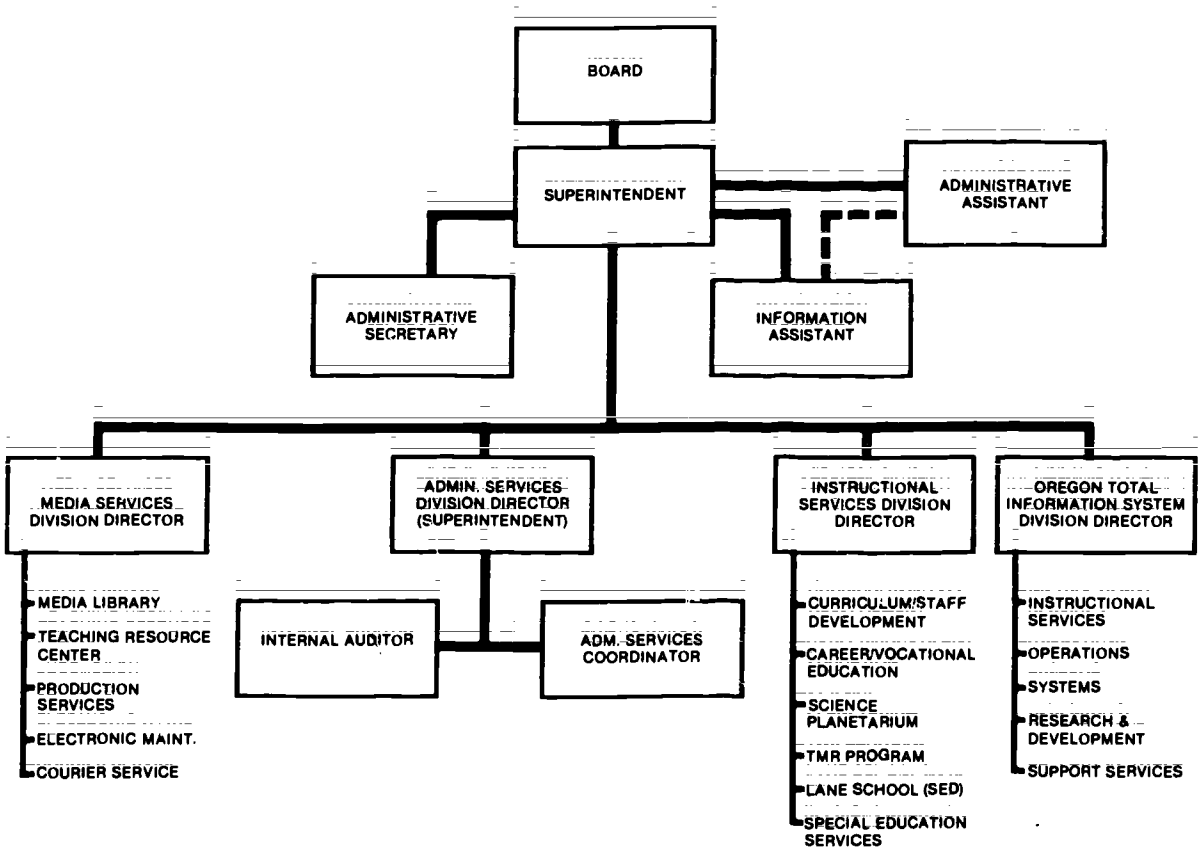
LANE EDUCATION SERVICE DISTRICT
Media Services Division

Program Description

When the Oregon legislature created the present education service districts (ESD's) in 1963, they saw the role of the new units as educational equalizers. These new units continued a tradition of ensuring equal opportunity to students in all districts that was begun in 1946.

Functionally, the Media Services Division offers five main types of services. The *Media Library* has put its emphasis on the development of a collection of instructional materials that are more economically shared by many users than if they were maintained by individual districts or school buildings. The collection of motion picture films, video tapes, sound filmstrips, models, and other items has grown to over 7,975 titles (many with multiple copies). A *Teaching Resource Center* provides general reference and information services, information on pricing and purchase of instructional materials and equipment, a textbook examination service, evaluative information on currently available audiovisual materials and recently published library books for children and young adults, and information on microcomputer software. The Teaching Resource Center staff members use a variety of computer resource bases to provide answers to questions posed by educators. The *Media Production Department* provides graphic, photographic, printing and binding, and audio and video duplication services. The *Electronic Maintenance Service* maintains and repairs ESD owned audiovisual and electronic equipment and provides maintenance and repair service to some of the school districts within the service district. This is either on a contract basis or a direct charge basis for parts and labor. The technicians also provide consultation to school districts about the quality of equipment available for purchase. To distribute these services and materials to the schools, the Media Services Division operates a *Courier Service*. Fourteen of the school districts receive deliveries and pick-ups every other school day. By the Media Services Division providing packing and shipping services, the Eugene and Springfield districts are able to use their own vehicles to make daily stops at each school. Finally, the staff of the Media Services Division provides additional consultation, technical assistance, and inservice training to the school districts served.

The services provided to the school districts within



LANE EDUCATION SERVICE DISTRICT
MEDIA SERVICES DIVISION

the service area are valued and appreciated. In a 1983 evaluation study of the Lane Education Service District by a team representing the Oregon Department of Education, the final report singled out the Media Services Division for special commendation "for the services rendered to constituent districts. Constituent district personnel voiced an affirmative response in this area."

Budgeting and Funding Information

The Lane Education Service District's Media Services Division is funded by a combination of tax monies, user charges, and contracts. In the area of media production, charges are assessed for the costs of materials and a fee for labor to cover accounting costs. For printing services, a sliding scale has been developed to recover full costs. Equipment maintenance and repair services are on a contractual basis or on a parts/labor charging arrangement. Most of the other services are provided without charge.

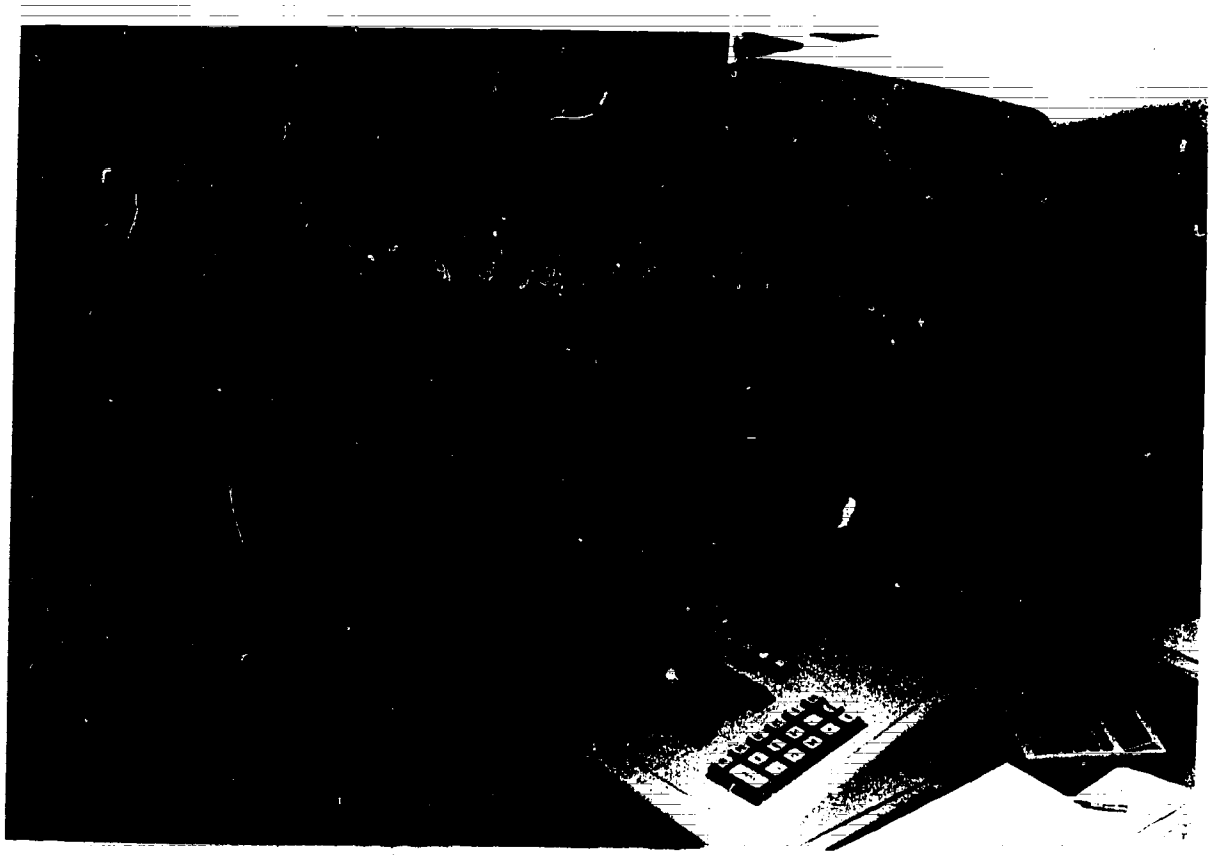
Some Current Projects/Practices

On-Line Booking of Media from Buildings: All ESD secondary and some elementary schools can book instructional materials using computer terminals located within their buildings.

Materials Evaluation System: For over 15 years, the Media Services Division has published an annual *Buying Guide for Recommended Media for District and Building-Level Purchase*. The evaluation group includes teachers and students and covers all types of media (library books, small format audiovisual materials, films, video tapes, microcomputer software, textbooks, etc.) Copies of this guide are available for purchase by schools or individuals outside the ESD.

Computerized Typesetting System: A Compugraphic MCS type-setting system is used to typeset for publications and media production projects. This system is also hard-wired to an Apple computer, a word processor, and to OTIS (Oregon Total Information System). OTIS is a state-wide data processing system which is located in the Lane Education Service District building. Data on any of these units or systems can be fed into the Compugraphic system for automatic typesetting.

Media Services Handbook: Available in every principals' and school librarians' office is a copy of a very comprehensive handbook which is designed to help the building library media specialist answer questions about all the services available from Media Services division.



Media Services Division's typesetting system is linked to micro and mainframe computers. (Lane County)

Staffing

The staff of the Media Services Division receives leadership from four state-certified media professionals.

Classified Staff:	*FTE*
Photographer	1.0
Graphic Artists	1.5
Maintenance Technicians	3.0
Typesetter	1.0
Production Technicians	1.5
Cataloger	.5
Booking/Circulation/Acquisition Staff	8.78
Drivers	2.0
Printing Personnel	1.5
Clerical/Secretarial	4.0
Total Classified Staff	24.78

Professional Staff:	
Director	1.0
Media Library Supervisor	1.0
Production Department Supervisor	1.0
Teaching Resource Center Supervisor	1.0
Total Professional Staff	4.0
TOTAL STAFF	28.78

Contact Person

James Maxwell, Director, Media Services Division, Lane Education Service District, 1200 Highway 99 North, P.O. Box 2680, Eugene, Oregon 97402. Telephone: (503) 689-6500.

VIGNETTES OF OTHER PROGRAMS

Of the 101 programs that were considered for case study, in addition to the twenty-seven selected, there were others that merit some mention. An additional fourteen were selected because there was some aspect of their programs that was unusual or interesting. Short descriptions of these programs follow.

Doctorate-Granting Universities

• Audio Visual Services at *Kent State University* has one of the most modern and visually-appealing facilities. Audio Visual Services is part of a Learning Resources program which includes as other separate programs the university libraries, computer-assisted instruction, and television services. Within Audio Visual Services, audio, graphic, and photographic production services are available along with media equipment and materials circulation. Within this circulation unit, the Film/Video Rental Center has over 9,000 16mm educational films for campus use and for rental to other schools, colleges, and agencies.

• *Pennsylvania State University's* Division of Learning and Telecommunication Services is one of the largest programs encountered in this survey. This division's operations are scattered in 12 different buildings of the main campus along with activities at the other twenty-one campuses and locations of the university. It has a staff of almost 200. Penn State was one of the pioneers in the use of educational communications in instruction, research, and public services. Its Department of Independent Learning dates back to 1911. In 1923 it began operating a radio station, and in 1952 it constructed one of the first on-campus closed-circuit television cable systems. Today the Division of Learning and Telecommunications Services is heavily involved in distance learning projects, instructional design, as well as the more traditional elements of media production and circulation.

• At *Louisiana State University,* the Division of Instructional Support and Development's television unit has been heavily involved in producing short instructional videotapes, not designed to be broadcast, but to be used in classrooms to illustrate concepts. Over 100 videotapes of this type have been produced for the science disciplines.

Entrance to Kent State University's Audio Visual Services.

Comprehensive Universities and Colleges

• In a response to requests from students who wanted to be able to produce instructional materials, *Central Washington University*'s Instructional Media Center created a Media Production Laboratory in 1965. Started with donated equipment, a "closet-sized" area, and student employees, it has grown to become a very large (over 4,000 sq. ft.) and well-equipped facility where students, staff, faculty, and administrators can do a variety of projects from general production to graphic, audio, and still and motion picture production. Patrons are assisted in learning production techniques by staff members or by using one of over fifty self-instructional programs. Charges are assessed for materials consumed—based on cost plus 15 per cent. While the facility is viewed as a service and not a business, it does generate considerable income—mainly from copy work done on a Xerox 8200. This income is used to purchase new or replacement equipment. This laboratory complements a comprehensive Media Production Services unit for those who want professional staff members to produce materials for them.

• As in New Mexico (the opening of the new Toles Learning Resources Center), the unusual feat of building a new learning resources center happened in Boise, Idaho. The new Simplot/Micron Technology Center at *Boise State University* opened in March of 1986. The center was funded by the gift of nearly $4,000,000 in stock from J. R. Simplot and other major stockholders in Micron Technologies, a Boise semiconductor firm.

The center will concentrate its efforts on (1) using communication and information technologies to develop instructional and training materials; (2) conducting research on the process and products of distant education systems and instructional technologies; and (3) providing the traditional campus services of media distribution, design and production of graphic, photographic and television materials/programs, and equipment maintenance/fabrication.

Newer technologies are or will be added to the center including computer graphics, microwave and ITFS systems for delivery of distant televised programs, and a satellite uplink unit. Working with the Army Research Institute and the Idaho National Guard, the university is creating the "Model Class-

Media Production Laboratory at Central Washington University

The Simplot/Micron Technology Center opened in March, 1986

room of the Future." The classroom is expected to make heavy use of appropriate technology and not be limited to a single geographic location.

The current Educational Media Services unit was dissolved in May of 1985 and incorporated in the new Simplot/Micron Technology Center. The Educational Media Services director became the new director of the Technology Center. While Educational Media Services had reported to the director of the Library/ Learning Center, the Technology Center will report directly to the Academic Vice-President.

Two Year Colleges and Institutes

• At *Trident Technical College* in Charleston, South Carolina, staff members in Media Services have developed a series of interactive video programs for the college's Aircraft Maintenance Program. These programs use videotaped instruction interfaced with a microcomputer. This systems allows the student to view a program and then interact via the computer. It allows for both instructional delivery (drill and practice, pre- and post-testing, and remediation) and record-keeping of the progress of individual students.

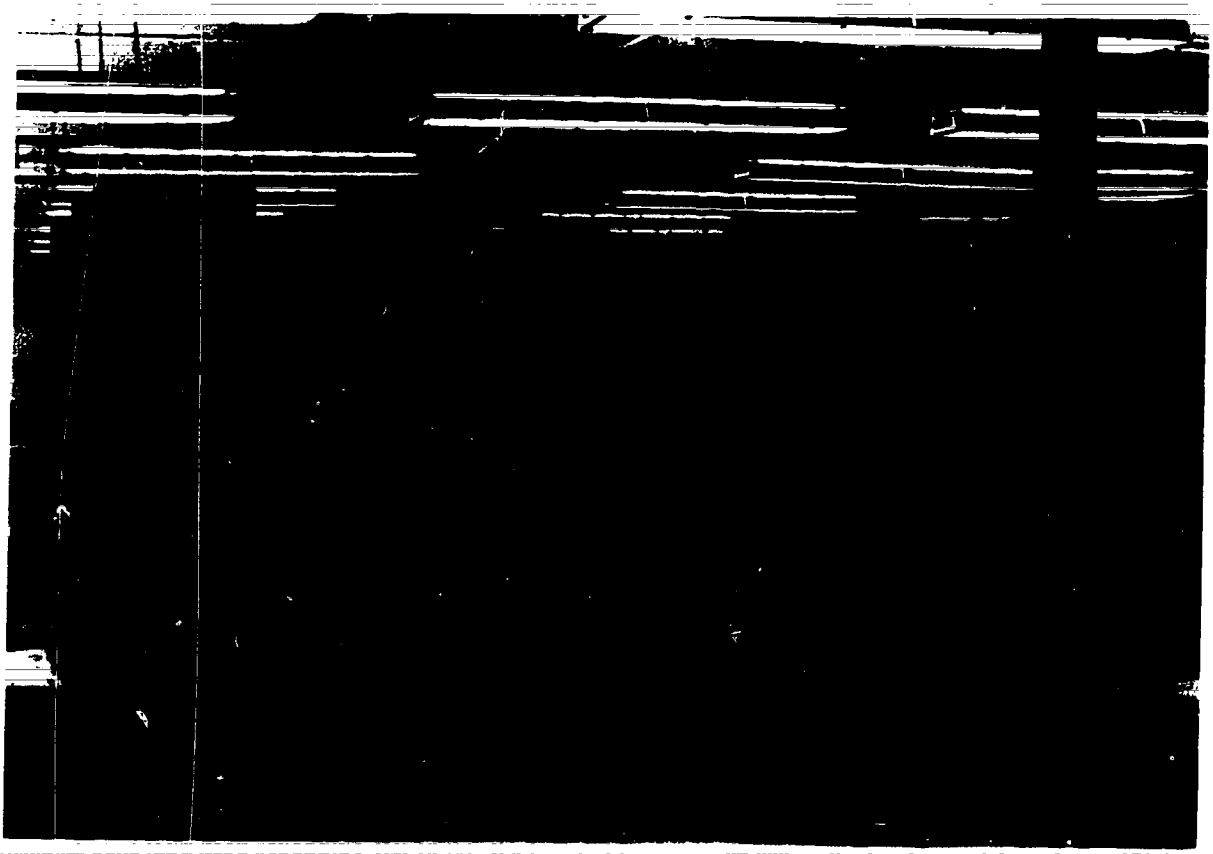
Public School Districts

• The Instructional Materials Center at *San Diego City Schools* is a huge "warehouse" of instructional materials; e.g., over 97,000 audiovisual instructional materials and over 850,000 volumes of elementary library books, sets, and kits. As San Diego City Schools has few elementary school libraries, many teachers come to the center and use a shopping cart to select their instructional materials. Nearly a million books and over a quarter million audiovisual materials are circulated during a school year.

• At the opposite end of the service spectrum is *Iowa City Community Schools*. While the district learning resources center is quite modest in terms of staff, space, and materials, it appears to place the main emphasis on strong building level programs. There is a media center staffed with a certified library media specialist in each of the twenty school buildings in the district.

• The Instructional Media Center at *Ann Arbor Public Schools* has good basic media circulation and production programs along with a lot of attention being directed toward the use of microcomputers in the educational process. This center is also working to expand its services to parents; e.g., a program to show how to use video in the home and a library skills testing program in which the results for each child are reported to the parent and the teacher. This center is severely limited in space, but plans are underway to remedy this situation.

• "Move our students into the microcomputer age as quickly and as good sense will allow." That was the 1980 mandate from the *Vancouver (Washington) School District's* superintendent and school board to the dis-



Teachers have long used "shopping cart approach" to select from over 97,000 audiovisual materials and over 850,000 books at the San Diego City Schools Instructional Media Center.

trict's Department of Instruction. At that time the district had three microcomputers, perhaps a half dozen teachers who knew how to use them, little software, and no curriculum for computers. Since that time the district has acquired over 400 computers and has a well-developed computer-assisted instruction program in place. Highlights of the program include a computer training program for teachers, software collections with an average of over 40 titles in each school, computer literacy courses for sixth grade and junior high school students, specialized computer classes in the high schools, and computer awareness programs for the community. For its efforts in the computer area, the district was named one of the ten "lighthouse" demonstration sites by the U.S. Department of Education.

• The *Anchorage School District* operates an extensive cable television program. The district's dedicated cable channel operates twenty-four hours per day. Over 147 different instructional television series are cablecast during a typical school year. Most of this material is received via the district's satellite receiver and is fed live to the cable system. After school, the channel is used to send a variety of public information to the community. This ranges from short programs called "School Showcase," which highlights a specific exemplary school or program, to a computer-generated bulletin board listing school activities, lunch menus, health tips, school board agendas, and decisions. One project receiving strong public support was live, gavel to gavel, coverage of the school district's budget hearings. With a budget up over 9 per cent to almost 232 million dollars and ever-present community forces calling for lower taxes, the ability to bring all 21 hours of debate into Anchorage homes was instrumental in achieving rapid approval with the smallest percentage reduction in years.

Regional Education Agencies

• A Living Science Materials Center is one of the unique services of *Region XX Education Service Center* in San Antonio, Texas. The center ships over 125,000 living specimens annually. The majority of the items are grown in their own labs and greenhouses. The program offers teachers an opportunity to order items ranging from gerbils and guinea pigs to different types of flies, frogs, and microscopic organisms, as well as preserved specimens, slides, and other services. They also have developed a 22 acre parcel of federal surplus property into a field study site for this

program. Funding for the Living Science Program is achieved by charging participating districts 40¢ per pupil in average daily attendance.

• In 1968 the *San Mateo County Office of Education* established the San Mateo Educational Resources Center (SMERC) to meet the need for quick and widespread information by schools in San Mateo County. The center now serves many additional counties in California and educational agencies in several other states. Subscribers to SMERC's services have access to information searches of ERIC and other databases. Access to SMERC's services is by entering into a contract for full services. The contractual agreement includes the training of an individual in the contracting agency to act as a "link agent" and the conducting of a workshop on computer retrieval. Special contracts can also be negotiated to fill special needs of an institution or agency.

• Over a decade ago, the *Multnomah County Education Service District* in Portland, Oregon joined two other regional service districts in the area to develop course goals in thirteen scholastic areas for grades kindergarten through grade 12. Subsequently, test items were gathered to link to the list of goals. Currently both the goal and test items are maintained in computerized form and are available as regional resources to local school districts in Multnomah County as well as educational agencies across the nation. More recently, a portion of the instructional materials (particularly films and videotapes) in the Multnomah County Education Service District and in the Portland Public Schools were connected to the bank of course goals. Plans have been made to continue this process.

MORE INFORMATION ON CASE STUDY PROGRAMS

In the process of gathering data on each case study program, some additional information was compiled that is either not reported in the case studies or is presented but not summarized or analyzed. This information consists of a discussion of the use of charge-backs, opinions on the use of film or video for presentations, the uses of computers, the patterns of staffing, the reasons for the strength of the individual learning resources programs, and the strategies for showing the viability of programs. While twenty-seven programs are a small sample, their selection as exemplary programs should help to offset the small numbers. In essence, all this section is purporting to do is present the practices and policies of a group of programs that have been selected as being among some of the best learning resources programs in the nation.

Use of Charge-backs for the Production of Materials

Of the institutions studied, if the program used charge-backs to recover costs, it was almost always for the production of materials. Production costs can grow very rapidly and charge-backs appeared to be used as a way to meet requests without rapidly depleting a program's budget. For instances in which charges were made for labor, the practice varied from attempting to recover all personnel costs to the practice of charging a nominal fee to partially cover labor costs. This latter practice was viewed as a way to control the making of requests of questionable value which might result if the service were without charge.

At the four-year university and college level (doctorate-granting universities and comprehensive universities and colleges), of the eleven case study programs, slightly more than one-half charge for supplies used in producing instructional materials while about one-fourth charge for both supplies and labor for instructional requests. Almost without exception, all the universities studied charged for supplies and labor in producing materials for research, public relations, and non-university work.

At the two-year college and institute level, one college charges for materials produced for instruction, research, and public relations but not for labor. Three of the other four do not charge for either. All charge full costs when they do non-institutional work. About five years ago, one college, Kirkwood Community College, changed from a charge-back system to self-standing budgets. Budgets are based on trends and the ability to supply the needs of the college.

Of the public school districts, three charge for supplies only for production jobs for instruction. The other two districts provide these types of production services without charges. None of the districts charge for labor on instructional requests, but one charges for both supplies and labor for research and public relations jobs. All five of the districts reported charging for both supplies and labor for noninstitutional requests.

Regional activities are funded differently in the four states visited. The two Iowa programs that receive their funds from taxes charge only for the supplies used in all production requests. One of the Oregon programs included in the study charges for graphic production requests on a contractual basis.

Film vs. Video as a Presentational Medium

Each director of a case study program was asked how they felt about the use of commercially-distributed motion picture films vs. videotapes for presenting moving images to classes. While there appears to be a trend toward using more and more videotape materials, film is still, by a large margin, the predominant medium for classroom use. The actual comments of the directors gives a good perspective of thinking on this issue. Their comments are listed below by the different educational levels.

Four-Year Universities and Colleges (Most with Rental Programs)

"Film is solid, but there is some growth in video purchases. We have 90 per cent film and 10 per cent video."

"The move toward videotape is bound to come."

"We buy in both formats. We buy video unless the requestor wants film."

"We have a heavy investment in film, but I see a trend toward video and I am not about to fight it."

"Video is growing. Our purchases are half and half. Video will eliminate our large film rental program as schools will buy on video."

"I was trained as a film person, but it is easier to access video."

"Going in direction of videotape. Video projection is still not as good as film, but is improving."

"I see a trend toward video based on cost."

"More and more of our dollars are going for video purchases."

Two Year Colleges and Institutes

"I do not see video as the save-all, cure-all. There are obvious advantages to 16mm (user-friendly and a larger image)."

"Instructors are beginning to pressure for more and more video."

"We see here a very strong trend toward video due to cost. It's great for small classes and labs."

"The movement is toward video."

"The trend is to video and VHS."

Public School Districts

"We lean toward film because of the high resolution of images."

"We are slowly moving toward video. Until now, we didn't have enough video equipment, but we are now acquiring it."

"Unless we provide a video projector, our teachers prefer film."

"We need to convert due to cost economics."

"Because of the cost factor, we are moving more and more toward videotape."

Regional Education Agencies

"We added video about four years ago—mostly VHS. Video is still lagging way behind because (1) more 16mm projectors are available, (2) materials are more broadly available on film, and (3) the screen size factor."

"Clients say they prefer films because that is the equipment they have in their schools."

"We do not circulate videotapes because there is no way to inspect the electronic parts for its integrity (as to whether anyone has edited in X-rated material or erased it or whatever). Schools also have three 16mm projectors per each video recorder. In addition, the majority of material is sought for use on a large screen because some of detail cannot be seen on a 19" TV with 30 kids."

"Costs of video equipment are coming down and schools are more able to afford the equipment."

"We are still committed to film because of the better image and the fact that video equipment is not available in every classroom."

"We surveyed the school districts. They prefer films 4 to 1."

Types of Staffing

A matter of interest to people in and outside the learning resources field is the type of staffing employed in learning resources programs. In this study, two areas of staffing were explored: (1) the ratio of professional to classified staff positions and (2) the number of university and college media professionals who have faculty status. While the statistics on staffing numbers are included in each case study, a tabular summary of all programs was not prepared. The reason for this omission is that it was felt that to compare the different programs could be very misleading as some included all elements of an institution's learning resources program while others were only one of several learning resources programs at an institution.

As was mentioned earlier in regard to comparing budgets of the case study programs, what would be more meaningful is for readers to find programs that are similar to theirs and then they can make their own comparisons. Having said this, however, several gross comparisons will be made. They are general enough that they should rest on solid ground and they might prove useful to media professionals in the field.

The comparison of numbers of professional to classified staff ranged from a high of 53 per cent professional to a low of 6 per cent. The median for all 27 case study programs was 20 per cent of all staff positions were professional. Professionals were defined as those employees who are certified as instructional media specialists or librarians or by degree attained or position occupied are considered to be professional leader/manager personnel.

In regard to the faculty status of university and college media professionals, at the doctorate-granting universities, the percentage of the professional staff who had faculty status ranged from a high of 100 per cent at one institution to a low of 7 per cent at another. All institutions has at least one faculty member on their learning resources program staff. The mean for all programs was 34 per cent of the media professionals had faculty status. At the comprehensive university and college level, the range was from 100 to 25 per cent having faculty status. Again all four programs had faculty on their staffs. The mean for these four programs was 78 per cent had faculty status. At the two-year college and institute level, the range was from 87 to 0 per cent of the media professionals had faculty status. Two of the five programs at this level did not have any staff members who had faculty status. The mean for all two-year college and institute programs was 48 per cent of all media professionals had faculty status.

At the three levels of higher education, the media professionals who did not have faculty status had a variety of designations; e.g., administration, professional (non-teaching), academic staff, or professional and scientific.

Computer Uses

Several generalizations can be made about the use of computers in the case study programs:

- Practically all case study programs have some computerized film circulation system.
- About one-fifth of the programs are using or experimenting with computer graphics.
- About one-fourth of the programs provide repair of microcomputers.

- While only four of the programs have a computer unit or department within their centers, in an additional three programs computer services is a parallel unit to the learning resources program. Each report independently to the same dean or vice-president.

Sources of Strength of Case Study Programs

During the interview process, each learning resources program's director was asked which single factor they would cite as the main source of their program's strength. It was not surprising that in education as in private business providing good service surfaced as one of the main reasons for the strength of an organization. In the book, **In Search of Excellence*, the authors quote IBM's marketing vice president as saying: "It's a shame that, in so many companies, whenever you get good service, it's an exception." They go on to say that is not the case in excellent companies. It will be left to the reader to judge whether these same types of remarks might sometimes apply to learning resources programs. Another frequent response to the above query was having a good staff, particularly professional and leader-manager types. Other responses were the need for administrative support, good communication, and for the right type of organizational arrangement. Listed below, categorized under the previously-mentioned headings and others, are the actual responses.

Service

"A philosophy of ensuring client satisfaction."

"A long-time record of consistency of good service."

"Good service!"

"Responding to users' needs."

"Providing good service to the faculty."

"The ability to serve the entire institution and not just an elite part of it."

"Helping the vice-president to meet mission goals in public relations."

"A service philosophy that no problem is too big or too small."

"The ability of staff members to help the faculty and staff of the college."

Staffing

"A highly-qualified professional staff."

"The leadership provided by eight professionals."

"The quality of the staff and their positive relationship with faculty at large (professionals having faculty rank helps achieve this)."

"The strength of the management people."

"A dedicated staff."

"Having a school library media specialist in every school in the district."

"The quality of the staff."

Administrative Support

"The support given by decision makers."

"The school board is very interested in students being trained to understand and use the newer technologies."

"The support of the administration."

"Having continued financial support with few cutbacks."

"Support from the administration."

"Administrative support in terms of budget for equipment and materials."

Communication

"Maintaining of close contact with users."

"Anticipating and meeting teachers and administrator needs."

"Communication with clients to assess their needs."

Organizational Arrangement

"Being able to report directly to the chief administrative officer of the agency."

"The centralization of all resources (rather than being fragmented)."

"The integration of all learning resources (including the training of media specialists) into one program."

Other

"The strength of our telecommunications distribution system using regional microwave and earth station."

"Curriculum involvement making media program a viable and indispensable part of the school system."

"Gained credibility as a general consulting service for instructional problem solving."

"A cost recovery program (through charge-back and fees) that has enabled the center to continue to deliver services during times of cut-backs."

Strategies for Showing Viability of Programs

From the above comments and other data gathered, it became apparent that directors of learning resources programs used a variety of strategies to convince their administrators and users of their programs' viability. One university learning resources program has made a major effort to support its university in its image-building efforts. A second university learning resources program makes a special effort to serve all instructional users, even those requesting the most mundane services—for the individuals requesting those types of services are in the majority.

*Thomas J. Peters and Robert H. Waterman, Jr. *In Search of Excellence: Lessons from America's Best-Run Companies*. New York: Warner Books, 1982, p. 14.

Another university's learning resources program gets a great deal of visibility with its faculty by providing class audit and instructional diagnosis services for them. Still another university program was reorganized to emphasize instructional development, faculty development, and computer-assisted instruction design. That change was made because it was felt that the program had been perceived as being a traditional service organization which was not in the mainstream of instructional and faculty development.

A public school district's learning resources program has produced a series of television public service announcements to sell the value of the program to the entire community. Capitalizing on a school board's commitment to have all students become familiar with modern communication technology has made the work of another public school district's learning resources program easier. A third public school district's learning resources program gains its place in the power structure by becoming enmeshed in all district curriculum development work.

Use of external or internal teams to evaluate their programs has been helpful to several learning resources programs to demonstrate their value. Several programs visited reported that being able to report directly to the institutions' chief administrators has enabled them to tell their story firsthand. Finally, faculty or user support has been a powerful asset to numerous of the learning resources programs that were visited. None of these strategies are new to the learning resources field, but professionals in the field perhaps need to be reminded that they do work in real programs during tough times!

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