This report describes how the University of Alaska Fairbanks provides library and information services to students in rural Alaska. The Elmer E. Rasmuson Library in Fairbanks created the Extended Campus Services unit for undergraduate students, graduate students, faculty, researchers, nondegree students, and specific patron groups who needed library services at a distance from Fairbanks. The library established two electronic mailboxes where students could request books and articles on interlibrary loan or pose questions and have them answered. The Rasmuson Library also instituted a toll-free telephone number for the state. Initially, voice mail was placed on this telephone service, but was later replaced by a library staff member at the request of the students. The goal for turnaround time was 48 hours from receipt of request to mail pickup. From fall 1989 through December 1990, the library answered 586 information requests, which came from 90 Alaskan villages and towns. During this period, there was an enrollment of 8,087 students in rural Alaska, giving a 7.2% use rate. There was an increase from 5.6% use in fall 1989 to 9.5% use in fall 1990. Over 40% of the requests were filled within the 48-hour turnaround goal. More students than faculty used Extended Campus Services, and the majority of users were female. The library has begun using the facsimile machine extensively, and is planning an information-seeking skills course for rural students. This document contains several maps and figures. (KS)
Meeting the Information Needs of Rural Alaskan Students: A Strategy for Delivery
Meeting the Information Needs of Rural Alaskan Students: A Strategy for Delivery

BACKGROUND

The University of Alaska Fairbanks (UAF) is the state's land-grant institution and foremost research center in the Alaska. Established in 1917, UAF was originally the state's sole institution of higher education. In the 1970's the decision was made to extend the higher education function to other locations through the establishment of university units in Juneau and Anchorage.

Additionally, the university added community college campuses in many places throughout Alaska. Each of these units had its own administrative structure and faculty. Each had its own curriculum and support services, including library services. Some campuses developed substantial libraries, such as the Kuskokwim Peninsula Community College in Bethel which had 25,000 volumes for a village of approximately 3,500 people.

In 1987, due to extreme budget reductions, the statewide university system radically restructured the university, eliminating as many administrative units as possible, yet retaining the instructional missions of these colleges. As part of this restructuring effort, UAF no longer was solely the residential campus in Fairbanks, it also became a statewide university unit with branch campuses, rural education centers, research centers, the sites of the Cooperative Extension Service, and the Marine Advisory Program. (See Map 1)

As can be seen from Map 1, UAF took over the branch campuses of Kotzebue, Nome, and Bethel. Many other sites became rural education centers, such as Dillingham, McGrath, and Galena. Other villages such as Barrow developed their own educational institutions, which through consortium arrangements, became part of UAF. When the reorganization was complete, the university had made the commitment to offer courses and locate faculty and staff throughout more than 500,000 square miles of the state, most of it in northern Alaska.

Unlike other extended campus programs offered in the lower 48 where there may be a gradual thinning of both population and available services from a core zone, there is an abrupt drop-off once one leaves the urban areas. Unlike other U.S. states where rural may mean cities with a population under 2,500 people, rural in Alaska means villages not located on any road system, with access only by air. Since Alaska only has 5,679 (3,003 unpaved; 2,676 paved) miles of roads, most of the students, faculty, and staff in extended UAF live in rural areas.

Obviously, these students usually do not attend class by commuting to Fairbanks or to one of the branch campus sites. Instead student's pursue their
Locations:

- University of Alaska Fairbanks main campus
- Branch campuses
- Rural education centers
- Research centers
- Cooperative Extension Service
- Marine Advisory Program
- XCED Cross-Cultural Education Development program

University of Alaska Fairbanks
Meeting the Information Needs of Rural Alaskan Students
course work through audioconferencing, some very limited videoconferencing, computer conferencing, correspondence studies and itinerant instructors. From the fall semester of 1988 through the spring semester of 1990, there were 15,548 non-Fairbanks students enrolled in these courses. These students pursue degrees at all levels--associate, baccalaureate, and master's.

As mentioned above, some former community colleges had developed libraries prior to restructuring. These included Kuskokwim Campus in Bethel and the Northwest Campus in Nome. As restructuring took hold, the community and university campus of Kotzebue jointly formed a library for the Chukchi Campus. Barrow, which had never had a library, developed a library to support the North Slope Higher Education Center. Altogether these libraries held only approximately 40,000 volumes in 1988, of which 25,000 were in one library.

Students, faculty, and researchers have always required access to information. Our information age has continued to provide better--faster and more comprehensive--access to information. This is reflected in such technologies and services as on-line databases, CD-ROMs, and network gateways. At the same time that the breadth and depth of information access experiences tremendous growth, segments of the population are increasingly bypassed by the burgeoning information highways. As Wilde (1984) has pointed out, a major problem of rural degree programs has been the lack of information resources to support them. One of the aims of a university education is to teach students lifelong learning skills--such as using information resources. Critics of extended graduate programs often argue that students do not utilize library resources (Dobson, 1985). These criticisms were certainly true of the library resources available to UAF extended campus students.

Most rural students live in villages with limited or no local library services and is largely Native American. For example, the Chukchi campus in Kotzebue serves a population of 6,000 people of whom 88 percent are Inupiaq Eskimo and other Alaska native groups. The Kuskokwim Campus serves approximately 4,000 people, many of whom still speak Yup'ik as their primary language and who retain their traditional cultural values (University of Alaska Catalog, 1989). For many of our students, their distance delivery courses may represent their first (and sometimes only) contact with higher education.

Alaska natives have traditionally relied upon oral tradition and often do not readily use libraries in their daily lives. Few students have a library available to them even if they do wish to use one. The rural students may not think of a "library" as a place to answer an information need or may be hesitant about approaching a library for assistance--especially one located in Fairbanks and available only via telecommunications.

PROBLEM DEFINITION AND OUTCOME
The problem thus faced by the Elmer E. Rasmuson Library in Fairbanks was two-fold: 1) How do we provide library services to students in rural Alaska; and, 2) How do we overcome their natural hesitancy about approaching a large academic library? In 1989, based upon a report of the faculty in the Rasmuson Library (Smith, 1988), the library instituted the Extended Campus Services (ECS) unit. It was created to meet four levels of patron information needs:

Meeting the Information Needs of Rural Alaskan Students: A Strategy for Delivery
1. Student pursuing undergraduate degrees at a distance;

2. Graduate students, faculty, and researchers working at points remote from any research library;

3. Nondegree students taking courses at a distance;

4. Specific patron groups throughout the state needing access to government information or the general and special collections at the Rasmuson library.

The first problem to be solved was communication between the student and the library in Fairbanks. There already existed in Alaska several statewide data networks: a university computer network, a commercial data network with access available from many of the state's villages, and a state government administrative network. To take advantage of these networks, the library established two mailboxes on the University of Alaska Computer Network (UACN): a mailbox where students could request books and periodical articles on interlibrary loan; and, a reference mailbox where students could pose questions and have them answered.

Next, the Rasmuson Library instituted a 800 free toll number for the state so that any student could call the library free of charge. This was an important factor since most students live in areas of economic underdevelopment in a cash-poor society. We initially placed voice mail on the 800 number.

Publicity was an important factor since most students and faculty were initially unaware of any extended library services. A flyer was developed and distributed to all faculty who were headquartered offcampus. Flyers were also distributed to the branch campuses.

We knew that the key to student use of our service was faculty involvement so we met with each group of rural faculty as they came to Fairbanks for orientation. We also sent a faculty member from the Rasmuson Library to each branch campus at least once a year for consultation and input review sessions. These faculty have included the Coordinator of Technical Services, the Collection Development Officer, and the Director of Libraries. It is the intent that all library faculty will visit each branch campus at least once. The purpose is two-fold: 1) to show the commitment of the Rasmuson Library to the rural educational mission; and 2) to learn from our rural colleagues and students the problems and needs they face on a daily basis.

If faculty and students need information resources, they contact us via electronic mailbox or via the 800 telephone number. A staff member who has been trained in interview techniques takes the request, transcribes it onto a form and sends it to the reference librarian. If possible to do so, the reference librarian conducts the library research, selects the materials, and passes the information to the interlibrary loan office. The interlibrary loan office retrieves the materials, photocopies it if necessary, processes the necessary paperwork and sends out the materials to the student. The stated goal for turnaround time from receipt of request to mail pickup is 48 hours.
Originally all material was sent out from Fairbanks via first-class priority mail (which in Alaska is the same as airmail). We did try to electronically scan and digitize some periodical articles and pump them over the University of Alaska Computer Network (UACN), but found it presented some major technical problems and was too time consuming. In 1990, as facsimile machines became ubiquitous in Alaska, we added a facsimile machine to our unit and started faxing materials to the rural areas.

RESULTS
The results have been beyond our expectations. We assumed that the demand for the service would be varied but relatively low in number since the libraries in Nome, Kotzebue and Bethel would provide library service to their students directly. From Fall 1989 through December 1990, we answered 586 information requests which came from 90 Alaskan villages and towns. Map 2 shows the geographic location of the villages and towns served; the map illustrates that our services are being delivered virtually to the entire state of Alaska. It should be noted that each of the 586 requests represents between 1.5 and 2 hours of library faculty/staff work each. To fill 586 requests took between 879 to 1,172 hours of staff time.

During this time period, we had an enrollment of 8,087 students in rural Alaska, giving us a 7.2% use rate. While this rate may seem low, a factor which must be considered is that 31% of these students were taking vocational, developmental, and non-credit courses which typically do not require the use of information resources.

More interesting has been the increasing degree of use. In fall, 1989, 5.6% of all students used Extended Campus Services. In Spring, 1990, 6.4% of all students used the service and in Fall, 1990, 9.5% of all students used the service. Figure 1 shows the increasing use of Extended Campus Services for the period indicated.

FIGURE 1

UAF RASMUSON LIBRARY
Extended Campus Services Requests

Meeting the Information Needs of Rural Alaskan Students: A Strategy for Delivery
The stated goal for turnaround time was 48 hours. Figure 2 shows the results. 85 requests had inadequate data kept on them so that the completion date is unknown. 16.5% of the requests were filled the same day received; 17% were filled within 24 hours; and 7.3% were filled within 48 hours--for a total fill rate of 40.8% within 48 hours.

**FIGURE 2**

**Extended Campus Services**

**Response Time to Incoming Requests**

We found that, if a request was not filled within 48 hours, it tended to take much longer to complete. This was usually due to the complexity of the request. Additionally, as the number of requests continue to increase, response time is beginning to lag. Without additional resources, during high use periods, turnaround in 48 hours is becoming increasingly difficult to achieve.

A slightly greater number of students than faculty used Extended Campus Services (Figure 3).

**FIGURE 3**

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583 Total # of Participants
However, when examined by gender, a much greater number of students using ECS were female (Figure 4). This corresponds to the enrollment patterns of rural Alaska wherein a much greater percentage of students were female.

**FIGURE 4**

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<th>Male/Student Participants</th>
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**CONCLUSION**

As stated above, we realized from the beginning that clear, rapid communication between the library and ECS user was paramount. Using voice mail on the 800 toll free number was counter-productive to that goal. Hang-ups were numerous with voice mail and messages left were few. Very shortly after the institution of ECS, we eliminated voice mail in favor of staff answering the telephone.

Staff performing this function were given interview training to assist them in being responsive and sensitive to the needs of the ECS users. An emphasis was also given to getting the most complete information possible as to what the requestor really wanted us to supply to them.

The computer mailboxes, both interlibrary loan and the reference box, are very little used. Almost 95% of all requests for ECS service are received via the 800 toll free number. Many of the individuals calling in want to speak with the librarian personally and leave a message for a callback.

Experience has shown that, in most cases, a callback by the librarian before beginning work on the request saves time in the filling of the request and also improves the level of satisfaction expressed by the ECS user when receiving the materials. Personal expressions of thanks and appreciation are often received by the ECS from rural students.

We found that interpersonal contact was vital to the success of ECS. Nonuse of electronic means of communication was not due to students not being able to use the technology; many of them use a computer and modems to communicate with their instructors. The University of Alaska’s on-line catalog,
Gnosis, is available to students via three data networks with a local telephone call, yet few students have used it to identify materials before calling ECS. Students perceive that their needs are being better met when they can personally communicate them to the Rasmuson Library staff.

We also instituted a procedure whereby the ECS project officer would periodically call rural faculty and solicit their feedback on the performance of the library. We found that students would comment to their instructors if unhappy or dissatisfied with library service but would not communicate this back to the ECS staff. Rural faculty were willing and helpful in providing constructive feedback to us for improvement of services.

We began using fax extensively when we realized that the technology was so widespread in rural areas and that it was extremely sturdy. Almost every village has at least one fax—usually in the school or in the village grocery store. Noneducational and businesses institutions have been very generous in allowing students to receive fax from us on their fax machines.

There are some technical problems to be overcome. The quality of telephone lines is so poor that we often must send materials at a much reduced speed substantially increasing the amount of time needed to fax the material and thus increasing our costs. Fax machines in the village must often share the line with other uses; getting the receiver to hook the fax up to the line and to leave it on the line long enough for the transmission has sometimes been a challenge. However, when the mail plane has not gotten in for 2 weeks due to poor weather, fax is a very viable alternative. We have found that, in the majority of cases, 1st class mail has been adequate to meet the needs of the users.

We continue to receive strong support of the ECS from the rural faculty and students. We continue to work with faculty to increase the percentage of students utilizing the ECS. We are beginning the installation of an array of technological solutions (networking, etc.) to assist the student in the identification of information. Since we are know from our experience to date that students and faculty will not readily use the technology available to them, we are planning to send librarians to the rural users to assist them in using the technology. We believe some face-to-face training on using Gnosis and our online periodical indexes will make their use more palatable to students.

Beginning in fall, 1991, we will be teaching a course via distance delivery to teach information seeking skills to rural students. The course will assume that most students do not have local access to a library. A major objective of the course will be to make students comfortable with using telecommunications to access the electronic library.

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Meeting the Information Needs of Rural Alaskan Students: A Strategy for Delivery
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*The authors gratefully acknowledge the assistance of graduate assistant Crystal Goula in the preparation of this paper.*