Usibelli Award-winning Professor Tom Clausen teaches organic chemistry in a Natural Sciences Facility classroom.

STANDARD TWO

Educational Program and its Effectiveness

2.A. General Requirements

The University of Alaska, predecessor to the University of Alaska Fairbanks, graduated its first student in 1923 and its first Ph.D. in 1955. The university was reorganized into separate campuses in 1975 when the University of Alaska Fairbanks was formed at the original campus. Including its predecessor, UAF has been accredited by the Northwest Association of Schools and Colleges continuously since 1934 [W2.19]. In 1987, when the community colleges were merged with the universities, UAF added the responsibilities of offering certificate programs, associate degrees, and continuing adult education to that of offering the traditional bachelor's, master's, and doctoral degrees.

The decade of the 1990s brought a general budget decline to the university and this, coupled with the Retirement Incentive Program (R.I.P.), affected the academic departments and programs unevenly [departmental notebooks]. Some departments saw little change, including little growth, while others suffered major impact and loss of faculty. Due in part to budget concerns and possibly in part to bad publicity resulting from those concerns, enrollment and graduation numbers declined during this period [G6]. The overall budget history is detailed in Standard 7 and the impact of R.I.P. on the faculty is addressed in Standard 4.

Evidence-Based Description

UAF, with a student headcount somewhat over 8,000 [G6], offers fifteen certificate programs, nineteen associate degree programs, sixty-four bachelor's level programs, fifty-two master's level programs, and fifteen Ph.D. programs [G1:81]. Courses are offered on the Fairbanks campus and at five community campuses. Included is the spectrum from certificate in Airframe to Ph.D. in Space Physics, from certificate in Culinary Arts to Ph.D. in Anthropology. Courses offered range from pre-algebra to state-of-the-art computer modeling using super computing. The Appendix [A2.11] provides a list of degree offerings and programs that have specialized accreditation. An expanding list of courses and programs is offered via distance delivery (see Standard 2.G).

To satisfy the requirements of such academic diversity while setting a high academic standard, UAF has a student/faculty ratio of approximately 10.7 to 1 [G6]. Educational facilities include a major campus in Fairbanks, a downtown center in Fairbanks (the Tanana Valley Campus), rural campuses in Dillingham, Nome, Bethel, and Kotzebue, and the distributed Interior-Aleutians campus. Included on the Fairbanks campus are a major library with an extensive Alaskan collection, two specialized science libraries, the University of Alaska Museum, several internationally recognized research institutes, and the Arctic Region Supercomputing Center. Off-campus facilities include a rocket range, an agricultural experiment station, the *Alpha Helix* oceanographic research ship, and other resources for the study of biology, agriculture, fisheries, and mining. Funding is commensurate with the extensive facilities, low student/faculty ratio, and substantial research program (see Standard 7). Instructional funding for the 2000 school year was $588 per student credit hour [G10] (2.A.1).

Every academic department or division prepared a self-study notebook that contains extensive information about their programs. Additionally, a short summary of each department/division and its programs is provided at the end of the Appendix.

The various educational programs and the corresponding course offerings are described in the UAF Catalog published annually and available online [G1]. The catalog lists admission procedures, information on tuition, fees, housing, general degree requirements, and academic regulations. In addition, each major field of study is presented with a description of its goals, courses of study, and a list of degree requirements. The catalog also contains descriptions and prerequisites for each regularly offered class and the frequency of offering (e.g. every fall, alternate spring, etc.) (2.A.4, 2.A.6). Class designators are typical of those used in higher education, and class workload is indicated by standard semester credit hours (2.A.6). By Faculty Senate policy, a credit hour represents 800 minutes of class time [G1:168]. Most classes actually involve the equivalent of fourteen 60-minute class periods per credit hour, totaling 840 minutes (somewhat in excess of the more traditional fifteen 50-minute class periods totaling 750 minutes). When classes are delivered in a compressed time period such as in the Summer Sessions, it is the responsibility of the appropriate academic department to verify that content, assessment, and contact hours coincide with the normal offering (2.A.5). By Faculty Senate policy, classes may not be compressed into fewer than three calendar days per credit hour [G11]. Credit for prior learning is available [G1:12] and satisfies the Commission policy 2.3 (2.A.10) (see details in Standard 2.G).

Class schedules are published well in advance of each semester (including Summer Sessions) [G8]. It should be noted that the Fairbanks campus, Tanana Valley Campus, and the rural campuses have separate class schedules. Included in the class schedules are registration information, academic calendar, final exam schedule, and listing of any special fees. Most special fees were eliminated in 2000, but a few fees for laboratory or specialized computer usage remain and are listed together with their purposes (2.A.6). A discussion of the student information contained in the catalog and the class schedules can be found in Standard 3. Academic departments schedule classes to meet student demand and to ensure course availability adequate for timely graduation of students in the various majors (2.A.9). In particular, degree programs can be completed in the traditional two years for associate degrees, four years for bachelor's, and two years for master's [departmental notebooks] (2.A.6, 2.A.9). Classes meeting at the same time as the previous year are given preference in scheduling of rooms, thus enhancing the predictability of frequently offered classes (2.A.9). Many classes also are available by correspondence through the Center for Distance Education and Independent Learning [W2.1]. Distance delivery is discussed in Standard 2.G and 2.H.

Appraisal

The broad range of postsecondary and degree programs is an important strength of UAF. This range of programs necessarily means diversity of faculty, which in turn implies expanded educational opportunities for students and broader academic perspective. Conversely, the diversity brings a reduction in shared outlook and tradition among faculty with regard to curricular philosophy. The Core Curriculum in the baccalaureate program is an attempt to cross

discipline lines and establish a common vision of a liberal arts basic curriculum [A2.9]. (See Appraisal in Standard 2.C.)

Projections

The pace of expanding technical knowledge and the increasing demand for an educated workforce in the nation and particularly in Alaska will likely result in new curricula and new degree and certificate programs. This will be particularly true at the University of Alaska with its renewed emphasis on training Alaskans for employment and its role as an engine for economic development [G25; E2.6]. The challenge will be to maintain high academic standards and at the same time meet the demand for more graduates.

Program and Curriculum Review and Approval

The rules and procedures for curricular change and new program review and approval have been stable over a long period. The last notable change was the formation of the Faculty Senate in 1987, which replaced some earlier organizations and became the faculty authority for courses, degree programs, and academic policy.

Evidence-Based Description

The Appendix provides a simplified flow chart describing the approval procedures for the new course or course approval changes [A2.15; G13:8]. The process is the same for all courses at all levels, with these exceptions: the final Faculty Senate review for graduate courses is the Graduate Academic and Advisory Committee; for undergraduate Core Curriculum courses it is the Core Review Committee; and for all other undergraduate courses it is the Curriculum Review Committee. Despite its somewhat different administrative standing (see Standard 6), the College of Rural Alaska is treated as any other college for purposes of academic policy and course and degree approval. A figure in the Appendix [A2.16] depicts the procedure for the addition or deletion of programs. Basically a new course, course change, or new program is initiated by faculty, approved by the cognizant department, reviewed by the curriculum committee of the appropriate college or school, approved by the dean of that college or school and, for courses, finally approved by a committee of the senate. The approval process for creation, deletion, or major change (e.g., offering at a new location or wholly by distance) of a program is similar but requires in addition full Faculty Senate approval, provost, chancellor, and president approval, and finally approval by the Board of Regents (2.A.7). For either courses or programs, there is a comment period of at least ten days between the approval by the dean and consideration by the senate committee. During this period a synopsis of the course or program proposal is distributed via e-mail to all deans, directors, and department chairs. This comment period allows for review to detect any unintended or controversial consequences of the proposal (2.A.2). A sixty-day comment period prior to Board of Regents consideration allows the other elements of the system to consider the impact of the program on their offerings.

It is the responsibility of the initiating faculty, the college or school curriculum committee, and the senate committee to verify that the course or program meets academic standards and that it is appropriate to the mission of the department, the college or school, and the mission of the

university (2.A.2). The department chair and dean also verify that the proposal is consistent with the budget, staffing, and other constraints (2.A.1). Finally, the senate committee verifies that all academic policy and mission issues have been addressed satisfactorily (2.A.2). Use of the library and impact on library resources is a component of the review process and a line item in the approval process [G13:30, 32] (2.A.8). In this latter regard it should be noted that many library staff hold faculty rank and sit on the senate and its committees.

In the case of new programs, the review is more detailed and consideration is given to the overall design of the program, its prerequisite structure, and delivery (2.A.3). An outcomes assessment plan is mandated for all new program proposals (2.A.3). The president and Board of Regents review new programs to verify the availability of sufficient resources and consistency with the university mission, the overall system effect, board planning, and state needs (2.A.2). By senate policy [G13:34], deletion of a program requires accommodation for students currently enrolled in the program (2.A.12). With few exceptions, notably the Bachelor of Education, programs deleted by action of the Faculty Senate and the Board of Regents have been programs that were phased out previously by the academic departments and had not had students for a number of years. In the case of the Bachelor of Education, the School of Education made provisions for students already in the program and gave an alternative to entering students (2.A.12).

The policies and procedures for course and program approval are informally reviewed annually by the newly appointed senate committee members during orientation. They are reviewed aperiodically as needed by the senate, the administration, and the Board of Regents (2.A.11). In the last ten years, the policies have received little modification except for the addition of the assessment component to the forms and the review process.

Appraisal

The procedure outlined above has received little significant revision over the past ten years (and before) other than the addition of the assessment component. This is evidence that the procedure works well. However, two weaknesses are noted in department notebooks. First, some faculty, particularly new faculty, are confused as to the process or form to use for different curricular changes. The Faculty Senate needs to improve communication with the faculty and particularly assure that new department heads are aware of policy. Second, there has been some dissatisfaction with the long time frame required for even minor course changes. To some extent the time frame has been dictated by catalog publication constraints. Recently the senate instituted semi-annual rather than annual course change review time lines for new courses [G11 Minutes], and that should substantially mitigate this issue.

Projections

It seems unlikely that there will be significant change to the course and program review procedures in the near term. With the emergence of an online catalog, it is possible to respond more quickly to course changes, but that raises new problems of catalog configuration control that will have to be addressed.

2.B. Educational Program Planning and Assessment

Declining budgets during the 1990s and the need to reallocate available funds forced UAF and the university system to devote increased attention to mission, strategic planning, and the quality of programs. Three major efforts to evaluate programs and plan the allocation of resources accordingly are described in detail in Standard 1. The resulting budget reallocation plans were followed through 1997, but no continuing systematic assessment of the effectiveness of academic programs was put in place as part of these efforts.

On the recommendation of faculty governance and the academic administration systemwide, the Board of Regents adopted Policy 10.06.02 – Educational Effectiveness in 1996 [G2; A2.2]. At the same time, UAF formed a team of faculty and administrators to coordinate student learning assessment activities and draft an Educational Effectiveness Policy for UAF [A2.1]. (The term "evaluation" was used to avoid the term "assessment," which had become negatively associated with the budget-cutting aspects of "Program Assessment.") The proposal was also adopted in 1996 with approval by the Faculty Senate and signature of the chancellor [G11 Minutes].

Education of the broader UAF community in outcomes assessment was accomplished through local presentations by Ted Marchese of the American Association for Higher Education and James Ratcliff of the National Center for Teaching, Learning, and Assessment as well as by sending people to national conferences and workshops. To initiate the development of outcomes assessment programs, eight degree programs and one area of the Core Curriculum, oral communication, were chosen as pilot programs for development in 1997-98.

A part-time position of Provost's Faculty Associate for Assessment was established in 1995 to coordinate assessment efforts and to administer an annual budget, which has ranged from $30,000 to $80,000 annually, provided by the provost. The budgets initially funded faculty development in the area of assessment, and more recently they have been used to extend faculty contracts for those involved in reviewing and summarizing Core Curriculum assessment. A web page guides programs in the development and implementation of outcomes assessment and serves as a center for information [W2.2].

In accordance with the system-wide educational effectiveness policy, UAF has reported on its assessment activities to the Board of Regents annually since 1996. These reports are provided in the Core Curriculum notebook.

In addition to outcomes assessment conducted by individual departments, UAF undertook in the late 1990s as part of its emphasis on enrollment management a series of assessments of student opinion regarding UAF and its educational and student support programs (see Standard 3). UAF also began rebuilding its institutional research capacity with the establishment of PAIR (Planning, Analysis and Institutional Research) to support its analysis and assessment activities (see Standard 1).

As a result of the review for the accreditation self-study of the various program evaluation exercises, the provost realized that, except for its graduate programs, UAF did not have a means for the systematic review of programs for continuation as called for by university regulation

[G3 R10.06.01]. The provost also acknowledged that such a process could strengthen the various academic planning and evaluation activities currently in place. Accordingly, the provost and the Faculty Senate put in place for implementation in the 2001-2002 academic year a "UAF Academic Program Review" (see next section) [A2.6].

Evidence-Based Description

UAF's Educational Effectiveness Policy [A2.1] broadly defines the process for assessment of educational programs (2.B.1). Instructional programs and support services are expected to develop processes appropriate to each program, consistent with this policy and any appropriate specialized accreditation bodies or professional standards. The policy identifies the following four major areas of assessment:

Student Information
Students shall be assessed upon entry to the university for purposes of course advising and placement, especially in mathematics and English, and for describing the gender, age, ethnicity, and previous education of students recruited, retained, and graduated over time.

Evaluation of the Core Curriculum
Assessment of the Core Curriculum shall include course assessment embedded within Core courses as well as the assessment of students in upper division courses, especially oral and writing intensive courses.

Programmatic Assessment
Each degree and certificate program shall establish and maintain a student learning outcomes assessment process useful for curricular reform and consistent with institutional and specialized accreditation standards.

Out-of-Class Learning
An important element of a student's overall education is learning that occurs outside of classes. Therefore, an evaluation of activities and student support services will be conducted.

The policy sets a systematic and periodic process for collecting and reporting outcomes assessment information (2.B.1). The chair of each department (or equivalent) is required to prepare a report at least every four years summarizing outcomes assessment information for each certificate and degree program (undergraduate and graduate) offered by that department. Similarly, the Core Review Committee of UAF's Faculty Senate is required to prepare yearly reports summarizing the educational effectiveness of the components of the Core Curriculum.

UAF assessment activities are developed, implemented, summarized, reported, and led by faculty (2.B.3). The outcomes assessment policy was reviewed and approved by the Faculty Senate, and the provost's faculty associate for assessment is a faculty member. Faculty within departments draft assessment plans for certificate and degree programs, and the Faculty Senate Core Review Committee is responsible for assessing the Core Curriculum. The provost has mandated that assessment is part of the workload of at least one faculty member per program.

Student Information

Entering test scores (ACT, SAT, COMPASS, GMAT, and GRE) are recorded in the Banner information system for entering students (Policy 2.2.a). High school GPA, ACT and SAT scores are summarized annually and are available in the online UAF Fact Book [G5], including breakdowns by gender and ethnicity. The Advising Center compiles the results of test scores and provides analyses for appropriate test score achievement for placement into UAF mathematics and English courses. The Faculty Advisor Manual, where this information is provided, is updated annually by the Advising Center through cooperation with the department chairs for Mathematical Sciences and English [G17]. The percent retention and graduation rates of first-time full-time baccalaureate degree-seeking freshman students, by gender and ethnicity, are followed for six years [W2.3] (Policy 2.2.c). Gender, age, and ethnicity characteristics of students are summarized in numerous ways (headcount, credit count, campus, etc.) and used to breakdown other data, such as the examples above.

UAF's Career Services has conducted a survey of graduates each year since 1998. This report provides information on employment and graduate study by UAF graduates for the institution as a whole and for each college/school [E1.26] (Policy 2.2.g).

UAF had also engaged in several public and student surveys over the past ten years (see Standard 3). The results are available for use in academic programmatic assessment and for monitoring the success of the Enrollment Management Plan, a joint effort between academic programs and student services to improve the recruitment and retention of students (Standard 1, Standard 3) [E1.3; E1.5; E1.20; E3.8; E3.6; E3.7].

Core Curriculum

The Core Curriculum philosophy is detailed in the document "The Baccalaureate Experience: Core Curriculum Requirements [A2.9]. A complete Core assessment plan is on exhibit [Core notebook]. A brief synopsis of expected student learning outcomes for the Core Curriculum is provided in the catalog, [G1:28] (2.B.2). A course-embedded approach to assessment processes is in place for the five areas of the Core. Information from individual courses is collected annually and summarized every other year on a rotating basis. The Mathematics Literacy and Natural Science areas are reported one year, and Communication Literacy, Perspectives on the Human Condition, and Library and Information Skills areas the next. The Core Review Committee report also summarizes Core assessment activities and curricular change for the year. Any issues arising regarding individual courses or departmental offerings are addressed by memorandum from the chair of the Core Review Committee to the instructor and department chair. Expected student learning outcomes, assessment criteria and methods for each component of the Core Curriculum, and resulting implementation of curricular improvements are provided in the Core Curriculum notebook available on exhibit. In accordance with Board of Regents Policy 10.06.02, annual outcomes assessment reports to the board [G2; A2.2] are made to document that UAF has used assessment information to improve education in the Core Curriculum (2.B.3). A brief description of assessment practices for each area of the Core Curriculum and resulting curricular changes is provided below.

Communication Literacy
A sampling of student portfolios from lower-division English Core courses and final papers from a sample of upper-division writing intensive courses, designated by "W" in the catalog, are used to assess written communication (Policy 2.2.b). The English Department's Assessment Committee reviews the portfolios and final papers and summarizes the results in a written report for the Core Review Committee. These summaries have indicated that student learning objectives are generally being met, so no curricular changes have been made. Written skills are found to improve over successive assignments and over the sequence of courses. Noticeable improvement is evident in the writing skills associated with research paper writing. Several departments have received feedback about whether or not their individual "W" courses are meeting Core Curriculum expectations, including suggestions for change. For example, when a mathematics instructor did not follow "W" guidelines, the department chair was informed and, in response, discussed the guidelines with the course instructors.

Competency scores in oral communication are recorded for every presentation of each student in each section of the lower division Core Communication courses. A nationally standardized instrument is used to evaluate competency. Faculty and teaching assistants train regularly in the use of the instrument to maintain reliability among raters. This process has resulted in improved course content, particularly in helping students communicate across cultural boundaries. In addition, the assessment process, as an embedded part of the course content, has produced an additional learning experience for students as they use the assessment instrument to observe and evaluate peer presentations. Final student presentations in a sample of upper-division oral intensive courses, designated by "O" in the UAF catalog, are videotaped. A group of faculty members review the videotapes, assign competency scores, and summarize assessment results (Policy 2.2.b). The Department of Communication offers workshops in useful methods of embedded evaluation of oral competencies. A growing body of evidence indicates that the Communication area of the Core is functioning as those courses are intended. Competency scores rated against nationally normed standards demonstrate that UAF students are learning the skills taught in the courses. Scores increase on each successive assignment throughout the course [Core notebook].

Library and Information Literacy
A pre-test and post-test is conducted in each section of the Library Science courses. This process has shown that knowledge of entering students concerning bibliographic records has been better than previously assumed, while understanding of electronic sources of information was less than assumed. In addition, it was found that students overly trusted web information sources. Course content in LS 100X and 101X has been adjusted in response to this information.

Perspectives on the Human Condition
- Individual Society and Culture. Initially the cross-listed Anthropology / Sociology courses were evaluated by comparing student work upon entering and exiting courses. This method is under revision, but early results indicate that although a majority of students are achieving the expected learning outcomes, students have difficulty identifying ethnocentrism in themselves and in understanding the distinction between society and culture.

- Political Economy. Pre-tests and post-tests emphasizing key concepts, the roles of political institutions, and current and past developments in the U.S. political economy are administered to a sample of course sections in this cross-listed Economics / Political Science course. While results indicate that expected learning outcomes of this Core course are generally being met, a change was made to provide more course time on the concepts of globalization.

- Modern World History. Students in a sample of the sections of this course write an essay on the historical significance of an icon, for example a nuclear blast mushroom cloud or a student blocking a tank in Tienemen Square. A group of faculty reviews the sample of essays and summarizes their conclusions about student learning. The Department of History is not satisfied with this assessment process and is revising it.

- World Literatures: Art and Culture. A test/questionnaire assessing student knowledge and attitudes is administered at the beginning and end of a sample of course sections of the cross-listed English/ Foreign Languages course. Student learning has been found to be above expectations and student satisfaction with the courses is very high.

- Aesthetic Appreciation. Attitudes and knowledge of students are assessed early and late in the semester in a sample of sections of the cross-listed Art/ Music/ Theatre course. Originally a team of faculty members with representatives from each discipline taught this course. Assessment results indicated that student learning and satisfaction improved with a shift to a single instructor and smaller section sizes. In addition, increased emphasis is placed on participatory assignments as a result of assessment.

- Values and Choice. Multiple departments share presentation and assessment responsibility for the courses in this area of the Core Curriculum. Ethics courses are offered in five disciplinary settings and in distance delivery modes. A national association is currently revising an assessment instrument for student learning in this area, which the departments involved in ethics courses plan to use when it becomes available. In the interim, a common student survey and review of course content has been conducted for the courses in this area. A faculty group reviewing the responses found that students come to understand value systems but have difficulty connecting course content with their own values. The faculty are currently discussing how to change courses to meet this learning expectation.

Mathematics Literacy

The Department of Mathematical Sciences uses common examination questions across all sections of the Core Mathematics courses. Assessment results confirm the nationally pervasive problem of proper placement of students into mathematics courses with respect to their skill levels. The department is using the assessment findings in an examination of its policy regarding placement in order to alleviate the problem as much as possible. Assessment data also revealed that students across sections were having less success with word problems than with computation problems. The courses were altered to include more work and instruction in this area. Another issue identified was that coordination between courses was not maintained at a desirable level because adjunct faculty members teach many sections. Coordinators of the Core courses offered by the Mathematics Department are now taking a more active role in course oversight.

Natural Sciences

Portfolios of lab reports and examinations from a sample of courses are used to assess learning in this area. Two issues relating to unevenness across courses presented by different departments have been identified. First, some courses did not address interconnections between science and society called for by the Core document. Second, some courses seemed weak in content on the history of science. Other matters were also addressed that are not specifically requirements of the course (e.g., use of the Internet). Departments in the College of Science, Engineering, and Mathematics have been charged by the dean with strengthening these weaknesses.

Foreign Language Option

Assessment processes for the Department of Foreign Languages and Literatures consist of pre- and post-course questions related to culture. Results indicate that foreign language students expanded their appreciation for cultural diversity between and within cultures.

Programmatic Assessment

UAF has used many of the wide variety of outcomes measures discussed in the Commission's Policy 2.2 on Educational Assessment on programmatic assessment. A compilation of the methods used is provided in the Appendix [A2.3; A2.4] and in the notebook on Assessment of UAF Degree Programs provided as an exhibit. Outcomes assessment plans and implementation summaries collected from departmental self-studies are also provided in the notebook, along with copies of survey instruments. Vocational programs pay particular attention to whether training is current for the occupation and meeting the needs of employers. The wide variety of methods used reflects the broad spectrum of programs at UAF. Assessment processes include analysis of student information and end-of-program analyses as well as, particularly for vocational programs, employment and employment satisfaction measures (see also Standard 2.C.7) (Policy 2.2). These assessment processes are consistent with the UAF's plan for assessment of educational effectiveness (2.B.1). The Provost's Office is working to centrally publish expected learning outcomes for all certificate and degree programs. Plans are to complete this web site in fall 2001 [W2.2] (2.B.2).

All certificate and degree programs have developed assessment plans. About half of all programs indicated that outcomes assessment activities had been implemented but only a handful showed curricular feedback from the process [Assessment notebook]. As of 1998, the Faculty Senate has required an outcomes assessment plan with submission of proposals for new certificate and degree programs. These plans and implementation summaries are an integral part of the new academic program review process [A2.6].

Academic Program Review

University regulation [G3 R10.06.01] requires an academic program review process to be used as the basis for planning and budgeting for the initiation, augmentation, reduction, or discontinuance of programs. The following elements are to be employed in the reviews:
- The centrality of the program to the mission, needs and purposes of the university and the unit.
- The quality of the program compared with its peers nationally and with other comparable programs at the unit and elsewhere in the statewide system.

- The demand for program services, as indicated by measures such as credit hour production appropriate to the program's mission, services performed by the program in support of other programs, graduates produced, the prospective market for graduates, expressed need by clientele in the service area, documented needs of the state and/or nation for specific knowledge, data, or analysis.
- Timeliness of an action to augment, reduce or discontinue the program.
- The cost of the program relative to the cost of comparable programs or to revenue produced.
- Unnecessary program duplication resulting from the existence of a similar program or programs elsewhere in the University of Alaska statewide system.

The program review plan adopted by UAF for implementation in 2001-2002 calls for the review of all degree and certificate programs on a five-year cycle relative to mission, quality, and efficiency [A2.6]. The data used in the review are to include an updated version of departmental notebooks prepared for this accreditation self-study and outcomes assessment plans and results. The review committee will consist of faculty members. Each dean is to assign at least one service workload credit for "assessment" to at least one faculty member in a department. This faculty member will be responsible for keeping materials up to date and, with the department chair, preparing the department for its review. Beginning in FY02 the assessment budget in the Provost's Office will be increased by $20,000 per year to be used initially for faculty and administrator development in program review.

Out-of-Class Learning

In September 1998 the UAF Faculty Senate named an ad hoc committee to identify priorities for out-of-class learning. The group decided to focus on experiential activities and uniquely Alaskan experiences for students attending UAF. A questionnaire was drafted but not implemented.

Assessment of student support services is discussed in Standard 3.

Appraisal

Assessment for curricular improvement first began at UAF in 1996. Assessment of the Core Curriculum has resulted in some curricular improvements. Entry-level assessment (student information) is well established. Assessment of certificate and degree programs and out-of-class learning are the least developed at this time.

Student Information

The online UAF Fact Book provides for easy access to institutional information useful for planning from the departmental level to the institution level [G5]. In 1998 the Provost's Instructional Working Group recommended specific data on students (see 1999 Annual Report to the UA Board of Regents [Assessment notebook]). To date, PAIR has been able to provide much but not all of this information. A periodic review of data collection to ensure that the needs of program assessment and review are met should be established (see also Standard 1). Better coordination between PAIR and other units gathering information, such as the Advising Center (placement score analyses, student opinion polls), would also make data more easily available to faculty who may not know it exists. More direct knowledge of faculty needs would indicate

better the detail needed for data analyses. For example, although retention information for students by gender and ethnicity was available, retention by major was not. Closer interaction might also improve the quality of information entered as well as retrieved on faculty, student credit hour generation, and numbers of graduates for some units. For example, as data are entered now, it is difficult to identify those education students who are advised by School of Education faculty located at rural sites and those who are advised by College of Rural Alaska faculty. Also it is difficult to identify enrolled students associated with the local military bases and to obtain information on students' previous education.

Core Curriculum

Assessment of the Core Curriculum continues to provide valuable insight into teaching and learning, and has resulted in positive curricular change. Several Core assessment processes—Communication, English, Ethics—are or will soon be based on nationally developed examinations. The assessment of oral communication has received recognition at national association meetings. The Core Review Committee has taken an active role in working with departments toward implementation of assessment and in providing feedback. Two major issues to be resolved with regard to the Core Curriculum are the establishment of common assessment processes across campuses, including distance delivered courses, and better establishment of responsibility and authority for ensuring that assessment is conducted and reported upon.

Although assessment of Core courses is generally well established at the Fairbanks campus, departments responsible for offering Core Curriculum courses are not consistent in working closely with the community campuses or the Center for Distance Education and Independent Learning to implement common assessment processes. Communication faculty members on the Fairbanks campus have trained faculty members from community campuses in the procedures for presenting and assessing oral competencies, and the English faculty on the Fairbanks campus and the Tanana Valley Campus have established common processes [Assessment notebook]. On the other hand, there is no common assessment of student learning in Core math or science subjects between courses taught at the Fairbanks campus and those taught by the College of Rural Alaska. Thus, UAF has processes to provide evidence that student learning is similar no matter where or how a course is offered for some, but not all, components of the Core Curriculum.

The Core Review Committee's lack of success in establishing common assessment processes is related to its having no clear authority for dealing with programs that do not follow Core Curriculum assessment practices. Similar problems have been encountered when departments have not submitted reports or have not collaborated effectively for common assessment for cross-listed courses. The Core Review Committee has had to seek assistance from the provost and the cognizant deans to resolve such issues.

Programmatic Assessment

While all certificate and degree programs have developed outcomes assessment plans, some are better implemented than others. Programs that have specialized accreditation—Social Work, Music, Engineering, and School of Management programs—have well-established outcomes assessment programs that are periodically reviewed through their accreditation evaluations.

Other programs have assessment plans based solely on indirect measures of learning such as student, employer, or alumni surveys. National standards in assessment for curricular reform urge programs to use multiple direct measures of student learning such as portfolios, local or national examinations, and capstone course information or projects [W2.4]. Each of the Provost's Faculty Associates for Assessment has informally reviewed assessment plans and implementation and has given feedback related to these issues. Some programs have responded with revised plans while others have not. A more formal review process for assessment planning and implementation is needed, again with clearer definition of responsibility and authority.

One reason that some certificate and degree programs use simplistic one-dimensional processes or have not implemented assessment appears to be that faculty members are avoiding personal involvement in implementation. The American Association for Higher Education, at its 2000 Assessment Conference on "Why Do Faculty Resist Assessment?", listed at least two factors that seem applicable to UAF: 1) Faculty recognize economic differences between collegial and managerial cultures, and 2) Faculty dread yet another thing that has to be done.

The conference suggested that, as solutions, the university should address needs for rewards and avoid duplication of work; various assessment processes should be interrelated [W2.5].

Until this year, recognition of assessment activities in workload agreements had not been systematic across the institution. Most programs attempted to implement elaborate assessment programs that shared no economy of scale through collaboration with other units. This year, however, the provost has asked each dean to identify for each program a faculty member responsible for programmatic assessment and program review and assign one workload unit for that purpose in the faculty member's workload [A2.6].

Programmatic Assessment and Program Review

One of the AAHE "Nine Principles of Good Practice for Assessing Student Learning" states "Assessment is most likely to lead to improvement when it is part of a larger set of conditions that promote change" [W2.4]. In the past UAF assessment activities have not been well connected to such a larger set of conditions. There is thus only a small amount of demonstrable evidence as yet that outcomes assessment information is integrated into overall planning and evaluation (2.B.1). The program review process to go into effect next year, however, will be used as a basis for planning and budgeting. It pulls learning outcomes assessment into the larger planning and evaluation arena. The evaluative work put into the departmental notebooks used in the accreditation process also becomes part of planning and evaluation.

Outcomes Assessment of Other Programs

UAF's Educational Effectiveness policy, as a first step in instituting learning outcomes assessment, has not specifically mandated outcomes assessment beyond the Core Curriculum and degree and certificate programs. Nevertheless, other instructional programs such as Developmental Education have long seen the value of such assessment and are working toward its implementation (see Standard 2.C.6). The Center for Distance Education and Independent Learning is also undertaking outcomes assessment of its correspondence courses. It is working to ensure that assessment of those courses that come under the Core Curriculum will be coordinated appropriately with assessment of the contained classroom version of the course [E2.1].

Out-of-Class Learning
This area has received little attention (see Projection).

Projection

The reestablishment of a periodic program review process with the requirement for use of learning outcomes assessment will provide more rationale to faculty and administration for undertaking outcomes assessment and will lead to more enthusiasm in its meaningful development and application. Additional funding for faculty and administration development in outcomes assessment and program review and acknowledgement of this effort in faculty workload assignment will help overcome barriers to engagement.

Student Information
Periodic review by the Faculty Senate and the Instructional Working Group is needed to ensure that needed data are entered into the system and that analyses are conducted appropriately for assessment needs. In addition, some assessment of how departments and colleges/schools are using entry-level assessment, such as placement scores in mathematics and English courses, should be made to determine if needs for information are being met and to identify needed changes in data collection and analysis.

Core Curriculum
Departments responsible for delivering Core Curriculum courses must work cooperatively with the College of Rural Alaska to ensure that student learning outcomes are the same no matter where or how courses are offered. The executive dean of the College of Rural Alaska has directed that correspondence courses will be assessed in fall 2001 in cooperation with responsible academic departments [E2.1].

Programmatic Assessment
Economies of scale across departments for implementation of more sophisticated assessment processes must be sought. The Tanana Valley Campus serves as a good model in this respect in the adoption of a common survey instrument [Assessment notebook] and technology for surveying graduates and their employers, thus reducing stress on individual programs. Colleges and schools across UAF should consider adopting such centralized approaches to indirect measures of student learning as part of their processes.

As assessment of student learning matures, UAF should use more direct measures of student learning such as portfolio assessment, standardized exams, certification exams, and capstone courses and/or projects.

Out-of-Class Learning
The Faculty Senate should consider revising the assessment policy to eliminate this area of assessment or identify and direct the implementation of processes. Discussions on diversity issues and undergraduate research and internships should continue.

2.C. Undergraduate Program

General Education / Related Instruction

In 1983 the University of Alaska system, which then consisted of three universities and eleven community colleges, established six categories for a common core of general education requirements for baccalaureate degrees, plus course credit distribution requirements among those categories. These general education requirements were established in part to effect more efficient transfer of general education coursework from the community colleges' associate of arts program to the universities' baccalaureate programs. With few modifications, the university regulation that codified the requirements was updated in 1985 and again in 1996 after the restructuring of the university system (discussed in the Introduction). The regulation and the accompanying policy now support a minimum commonality of general education requirements within the system and facilitate transfer of general education coursework among the MAUs.

In 1985, the UAF chancellor asked the faculty to establish "a clear statement of the values we hold essential for all who graduate from this institution, and the processes by which these can be obtained." In 1990 the faculty abandoned the general education requirement based on broad categories of coursework for a more sharply focused curriculum created in the tradition of a liberal arts education. As a result, "The Baccalaureate Experience: Core Curriculum Requirements" was designed to reflect intellectual experiences the faculty deemed essential for all baccalaureate students: conduct of intellectual inquiry, advanced literacy in language and mathematics, the nature and use of science, studies in history, language and culture, and humanistic expressions.

The Faculty Senate formed a Core Review Committee, composed of elected members of the faculty from each area of the Core Curriculum. The Core Review Committee has made the following changes since inception of the curriculum:
- Speaking Across the Curriculum and Writing Across the Curriculum were added with no increase in credit hours (1991).
- Interpersonal Communication was dropped as an option (1991).
- Non-English Language substitution option was added in Perspectives on the Human Condition (1991).
- Transfer Guidelines Approval was added (1992).
- World Literatures option was added (1993).
- American Sign Language option was added (1996).
- Wider Range of Ethics options were added (1997).
- Functions for Calculus option was added (1998).
- Language Proficiency Test Credit Transfer was added (1999).

In 1996-1997 the Faculty Senate assigned to the Core Review Committee responsibility for planning, implementation, and oversight of an on-going Student Learning Outcomes Assessment of the Core Curriculum.

Requirements for related instruction in certificates and the associate of applied science (AAS) degree have been discussed by faculty and administration at the system level, but have never

been established in system-wide Regents Policy and University Regulation. UAF's present requirements for related instruction as stated in the catalog for the AAS were established by the community colleges prior to restructuring.

Evidence-Based Description

Although UAF is an open-admissions university, matriculation into a bachelor's degree program requires high school graduation with a minimal C average and completion of specific high school classes. Entry into some bachelor's programs requires the completion of additional classes. The Associate of Arts, Associate of Applied Science, and certificate programs are open to students who have graduated from high school or equivalent or are 18 years old [G1:10, 11].

The University of Alaska Board of Regents asserts the importance of general education in baccalaureate programs in Policy 10.04.04, and broadly outlines its rationale [G2]. The philosophy and rationale of the UAF approach to general education are contained in "The Baccalaureate Experience: Core Curriculum Requirements" [A2.9] (2.C.2). The general education requirements for the baccalaureate and associate of arts degrees and the general degree requirements for the associate of applied science degrees are published in the UAF Catalog [G1:27-29] (2.C.1). UAF's associate of arts and baccalaureate general education requirements meet and expand upon the common requirements for the UA system set forth in University Regulation 10.04.04 [G3].

Core Curriculum
The Core Curriculum is composed of five learning areas:
- Mathematics Literacy (Quantitative Reasoning and Application, two courses).
- Communication Literacy (two courses in written literacy skills and one course in oral skills competency, plus upper division oral and written intensive courses).
- Library and Information Literacy (one course, recommended to be taken before upper division coursework).
- Perspectives on the Human Condition (one course in Individual, Society, and Culture; one course in World History; one course in Political Economy; one course in World Literatures; one course in Aesthetic Appreciation; and one course in Values and Choice (Ethics).
- Natural Science (two courses with laboratory experience, with a choice of emphasizing breadth or depth of exposure).

Every area of the Core Curriculum provides course-specific instruction in critical analysis and logical thought. Courses in English, communication, and mathematics educate students in basic skills required of higher education. Social and natural sciences instruct students in the methods and logic of inquiry. Critical aesthetic consciousness is developed through study of the production and value judgements involved in humanistic creation. Unique features of the Core Curriculum include courses in intensive oral and written communication across the curriculum at the upper-division level, and the inclusion of a values and choice course (2.C.3).

The application of the Core Curriculum requirements takes into account that most students who graduate from UAF are transfer students. Transfer guidelines have been established by the senate

and published in the catalog [G1:13, 14). Board of Regents Policy [G2 P10.04.06] assures that general education coursework from another part of the UA system is fully transferable. Determinations about the transfer of credit are made by the Registrar's Office in consultation with the Core Review Committee when necessary. Students may petition alternate interpretations of transfer credit through the senate's Core Review Committee.

Baccalaureate Degrees

All bachelor's degrees require completion of the Core Curriculum and require a minimum of 120 total credit hours of study [G1:22-29].

In addition, general degree requirements for the Bachelor of Arts specify 18 credits in humanities and social science beyond the Core, three additional credits in mathematics, and a minor or emphasis in a foreign or Alaska Native language. The Bachelor of Fine Arts is similar with the deletion of the requirement for a minor.

The Bachelor of Science degree requires an additional eight credits of natural science, three credits of mathematics, and that the Core mathematics be satisfied by a calculus course.

The Bachelor of Business Administration specifies an additional 44 to 47 credits in mathematics, economics, and specific business classes. Additional requirements for the Bachelor of Education, Music, Fine Arts, and Technology are subsumed in the various major programs.

Associate of Arts

The Associate of Arts degree is intended to serve both as a terminal degree and as a gateway to additional study leading to a bachelor's degree. This program, which requires 60 credit hours, is described in the catalog [G1:27-28]. General education requirements for the associate of arts, parallel those of the Core Curriculum with the following departures, resulting in a total of 37 credits:
- A business, grant, and report writing course can replace the second literacy skills course.
- A second mathematics or a science course without a laboratory can substitute for the second laboratory course required by the Core Curriculum.
- A humanities or social sciences elective can substitute for the Values and Choice course.

Associate of Applied Science

The Associate of Applied Science degree is viewed as a terminal degree. This program, which requires 60 credit hours, is described in the catalog [G1:28]. Fifteen credits of related instruction are required:
- Communication requirements are those of the Core with the exception that a business, grant, and report writing course can replace the second literacy skills course.
- Three credits are selected from mathematics or natural science.
- Three credits from humanities, social science, mathematics, natural science, or the perspectives on the human condition.

Certificate Programs

Students must complete at least 30 credits to earn a certificate. The general requirements for these programs are given in the catalog [G1:27]. New certificate programs approved in Spring

2001 by the Board of Regents have identified components of related instruction in the areas of communication and computation, some of which are embedded within the program curriculum. Certificate programs approved earlier than this year contain coursework to achieve skills in these areas, but since the content cannot be clearly identified, the extent to which certificate programs meet the intent of Policy 2.1 is unclear at this time.

The Honors Program
The University of Alaska Fairbanks Honors Program offers an enriched Core Curriculum for approximately one hundred gifted students [W2.20]. Courses specially designed for Honors students are offered in all disciplines. Honors students take at least one Honors course per semester toward completion of the 27 Honors credits required to graduate in the program. Students may also earn Honors credits by studying abroad or through internships. The UAF Honors Program is open to students in all majors. The program emphasizes undergraduate research, which has been most beneficial for students applying to top-ranked graduate programs. In the senior research project, all students have the opportunity to work directly with faculty members. All Honors students must complete a senior Honors Thesis in their major discipline. See the catalog for details [G1:69-70].

Appraisal

The baccalaureate Core Curriculum is strengthened by continual review and revision by the faculty through the Core Review Committee. Over the decade since its adoption, changes in both UAF and its student population have led to changes in the Core Curriculum course offerings, but not to the Core philosophy. The results of two full cycles of Core Curriculum assessment give strong indication that the Core Curriculum is providing the intended learning experience for UAF students (see Standard 2.B).

Coordination of Core Curriculum course delivery and assessment among UAF campuses is essential, whether the course is taught primarily to associate degree or baccalaureate degree candidates. Managing such coordination has been only partially successful. Excellent cooperation has been accomplished in the Core area of Communication. The English Department has worked to create synchrony with Tanana Valley Campus. Also, the Department of Mathematics has coordinated with counterparts at Bristol Bay. Yet beyond this good beginning there remains much to be accomplished to coordinate Core Curriculum presentation and assessment throughout UAF. Lines of communication between administrative units and campus locations must be improved.

A concern of the Core Review Committee is that as Core Curriculum courses are passed along to new faculty there is no mechanism for ensuring that the requirements by which the courses have been designated Core courses continue to be met. The Core Review Committee, having called for syllabi from all faculty teaching Core Curriculum in fall of 2000 and 2001, will continue to monitor whether courses continue to meet the requirements for inclusion in the Core Curriculum.

The success of the Core Curriculum is monitored through the petition process, by which students may request academic exceptions, as well as more formal assessment. Students who have difficulties in meeting the requirements may petition for relief of the requirements of the Core

Curriculum. Tracking such petitions since 1996 has revealed patterns that have resulted in changes in the course offerings and have provided the basis for precedent on specific petition requests. For instance, petitions from students who could not schedule a required class led to new options from a broader range of disciplines being added to the Core Curriculum to satisfy that requirement (e.g., in the Values and Choice menu). Dissemination of the decisions of the Core Review Committee has resulted in a more uniform understanding of what might successfully be petitioned and a resultant decline in student petitions. Petitions from students who have completed courses without the prerequisites and then request waiver of the prerequisite raise concern over whether prerequisite requirements need stricter adherence.

The 1990 accreditation Evaluation Committee Report to the Commission noted the need for UAF to include related instruction in its certificate programs [G24]. Faculty, particularly at rural campuses, have observed that students are more likely to complete related instruction if it is embedded in the program curriculum. In 1992, the Commission found the progress reported by then School of Career and Continuing Education in including related instruction in the curriculum to be acceptable [E2.7]. At present, however, UAF has no stated certificate requirements for related instruction in the catalog nor any statement of a standard for the inclusion of related instruction in certificate programs to guide the design of curricula. Consequently, it has not been widely recognized that there is such a requirement.

As presently designed, it is possible for an AAS student to avoid either computation or a human relations course in selecting courses to meet degree requirements. UAF currently relies upon advising and degree audits to ensure that graduates of its AAS programs receive the required related instruction in communication, computation, and human relations outlined in Policy 2.1 – General Education/Related Instruction Requirements (2.C.). This situation is currently under discussion by the faculty within the College of Rural Alaska and by the Faculty Senate, with the intent to determine a solution in the upcoming academic year.

Projections

The Core Review Committee and Faculty Senate will continue to oversee the Core Curriculum. The revised philosophy redraft [E2.2] will be submitted for senate approval in fall semester of 2001. The complete, updated "Core Curriculum Requirement" document will be widely disseminated throughout UAF.

UAF will renew its effort to bring appropriate faculty together across the institution to assure that courses in the Core Curriculum, regardless of location or format of presentation, are consistent with curricula and assessment. During the coming year, cognizant faculty will review, and update where necessary, all certificate programs for compliance with standards for related instruction set by the Association, with the understanding that separate courses in these required skill areas may not best serve students in all certificate programs. UAF will clarify in its catalog statements that AAS and certificate programs include the three areas of related instruction and that students are expected to demonstrate competency appropriate to the program. UAF will continue to monitor the effectiveness of the related instruction included in its programs.

Transfer of Credit

Evidence-Based Description

Transfer and acceptance policies are set forth in Board of Regents Policy [G2 P10.04.01] and University Regulation [G3 R10.04.06], which include the statement that "In accepting credits from accredited colleges and universities, maximum recognition of courses satisfactorily completed will be granted to transfer students toward satisfying requirements at the receiving institution. Coursework must be at the 100 level or above to transfer and, from institutions outside the University of Alaska, must be completed with a grade of C or better." UAF's rules and procedures for transfer of credit are defined and made readily available in the university catalog [G1:13], on the Admissions web page [W2.21], and in individual brochures for transfer of credit from within and without the UA system [E3.18] (2.C.4).

A student must be a degree or certificate candidate to be eligible for transfer of credit. Transfer credit is credit accepted by UAF that has been earned at other regionally accredited institutions or through military educational experiences, or credit accepted by special approval. Where possible, transfer credit is equated with UAF courses. These rules apply to associate and baccalaureate degree programs as well as certificate programs.

UAF's rules and procedures for transfer reflect the tenets of the Association's "Policy 2.5: Transfer and Award of Academic Credit":
- The applicability of transfer credit to major and/or minor requirements is ultimately subject to approval by the relevant major and/or minor department. A transfer student must fulfill the UAF graduation and residency requirements, including those required for a particular program.
- Undergraduate credits earned at the 100 level or above with a C grade or higher at institutions accredited by one of the six regional accrediting agencies will be considered for transfer. Transfer credit normally is not granted for courses with doctrinal religious content or for graduate courses (for undergraduate programs).
- Credits may be awarded for formal service schooling and military occupational specialties based on recommendations in the "Guide to the Evaluation of Educational Experience in the Armed Services," published by the American Council on Education [E2.3]. A total of 49 credits from these sources can be applied toward an associate or bachelor's degree. Credit completed through the Community College of the Air Force or Department of Defense courses is included in the category of military experience.
- Credit will be awarded for those government and professional certifications that have been reviewed and approved for designated course equivalencies at UAF. A list of these programs is available on exhibit [E2.8].
- Credit may also be awarded for satisfactory completion of training programs, based on recommendations of the American Council on Education and the National Program on non-Collegiate Sponsored Instruction. The award of credit is subject to review and approval of appropriate UAF faculty.
- The Office of International Programs processes transfer credit from foreign institutions (2.G.12). (See Standard 2.G&H for more information.)

If the transfer evaluator in the Admissions Office is unable to make a determination on course content, if the courses are not exact equivalents, or if the student contests the evaluation, approval from the appropriate department chair is required (2.C.4)

Although there is no set limit on the number of transfer credits accepted toward a baccalaureate degree, a minimum of 15 credits for an associate degree and 30 credits for a baccalaureate degree must be earned in residence. Transfer students must earn at least 24 upper-division semester credits, at least 12 semester credits in the major, and at least three semester credits in the minor at UAF for a baccalaureate degree.

Within the University of Alaska system, an articulation agreement facilitates transfer of credit, and specifically transfer of general education coursework [G1:14] (2.C.4). This policy is in accord with Board of Regents Policy [G2 P10.04.06] and University Regulation [G3 R10.04.06]. If students have completed the general education requirements at another of the UA institutions, they are deemed to have completed the requirements of the UAF Core. These policies were adopted to accommodate the mobility of students within the state, particularly the older students, and the anticipated growth in students taking courses from several MAUs by distance delivery. The Statewide Academic Council—consisting of the provosts from UAF, UAA, and UAS— reviews concerns of units within the UA system about transfer credit problems from other MAUs (see Standard. 6.B).

No fixed articulation agreements exist with any other institution. However, any student who has completed a bachelor's degree from a regionally accredited institution will be considered to have completed the equivalent of the baccalaureate Core when officially accepted to a baccalaureate degree program at UAF [G1:12].

Appraisal

Transfer practices seem to be working well. Their strength is flexibility. For instance, if course comparability is not evident, a faculty member or staff advisor may suggest that an academic petition be completed. The petition may ask that a transferred course be used to satisfy a specific degree requirement or that a specific degree requirement be waived as appropriate to the content of the transferred course.

Projections

An increase in the availability of distance delivery courses from other MAUs within the UA system may result in pressure to change the way transfer courses are treated. For example, students have recently raised the question of whether transfer credit from within the system can be included in computing a student's UAF grade point average. As these questions arise, they will be put before the faculty for consideration.

Student Advising

Evidence-Based Description

UAF faculty and advising staff have designed academic advising programs to meet student needs for information and advice. UAF continually works to improve student advising as part of its student retention effort (2.C.5). Most advising of undergraduates who have chosen a major is performed by a faculty member in the department offering the degree. Faculty advisors generally meet with advisees at least twice per year during registration or pre-registration for each semester. In Fairbanks, undergraduates who have not chosen a major are directed to the Fairbanks campus Advising Center, Rural Student Services, or to the Student Assistance Program at Tanana Valley Campus, which work closely together. Staff are also used to provide academic advising and do the major part of it at the rural community campuses and centers and the School of Education.

The Academic Advising Center was formed on the Fairbanks campus during the restructuring of the university system in 1987 as a result of concern of the Faculty Senate about providing advising for those students without a declared major [G18]. This advising is now provided by faculty and peer advisors who are trained and compensated by the Advising Center on the Fairbanks campus. Rural Student Services, founded in 1969, provides an integrated approach to advising on curricular matters and student support targeted toward rural and Alaska Native students [W2.22]. Each undergraduate program has its own method of assigning faculty advisors (see Standard 4).

Many departments sponsor professional student organizations and interest groups in which faculty interact with students in an informal setting [E3.11]. This provides an opportunity for informal advising activity.

Faculty also assist students in determining career options as described in Standard 4. New and continuing faculty and staff throughout UAF are provided advising training opportunities which address current policy or procedural changes and focus on specific student issues (2.C.5). The Advising Center writes and distributes to all faculty and staff advisors a comprehensive 200-page Faculty Advisor Manual [G17], updated annually to provide accurate and timely information. Other pertinent information is distributed to faculty advisors as needed. Additional training is conducted for the faculty advisors in the Advising Center due to the breadth of issues and knowledge of all degree requirements that are needed for the diverse students being seen by the Advising Center. All degree programs use degree requirement check sheets for academic advising and for determining if all graduation requirements have been met. These check sheets are jointly developed by the Graduation Office and individual academic departments and are on exhibit [E2.9].

Appraisal

While student advising is a priority at UAF, it is effective only to the extent that students use it. In particular, students are free to select courses in any way they wish after obtaining an advisor signature. As one faculty member observed, "UAF is the land of the free and the home of the

brave; students are free to do as they wish if they are brave enough to take the consequences." Standards 3 and 4 also address advising.

Programs of Developmental, Remedial, and Academic Support

UAF, and in particular its community campuses, has long provided developmental, remedial, and academic support to its students. In 1992 a Developmental Studies Division within the College of Rural Alaska was formed. Also, during the 1990s, the Division of Student Services provided tutorial assistance and developmental coursework on the Fairbanks campus via a federally funded program called the Student Support Services Program. When grant funding ended, this program was eliminated.

Evidence-Based Description

Mission, Goals, and Policies
UAF is an open-admissions university with goals that include community college goals [A1.4]. As such, developmental or remedial work is not required for admission to the institution (2.C.6). The purpose of UAF's developmental programs is described in the catalog [G1:60].

Board of Regents Policy [G2 P10.04.08] and University Regulation [G3 R10.04.09] govern the procedures followed in the granting of credit for remedial and developmental work (2.C.6). UAF policies allow developmental coursework below the 100 level to count for GPA, full-time status, and financial aid. However, sub-100 series courses are not applicable to associate or baccalaureate degree requirements. These policies also allow 100-level developmental coursework credit to count toward full-time status, the student's GPA, financial aid, and as elective credit in any degree with electives.

Placement testing is required of all freshmen and transfer degree-seeking students who have less than 30 semester credit hours (3.D.3). Students may submit the results of the SAT, or ACT test for any bachelor's degree program and the results of the SAT, ACT, ASSET, or COMPASS for any certificate or associate program requiring English or mathematics coursework (G1:9). Non-degree seeking students must submit the results of the SAT, ACT, ASSET, or COMPASS tests prior to enrolling in an English or mathematics course. Placement ranges for developmental and 100-level math and English, as well as standard freshman Core courses, have been established by participation with the ACT Course Placement Services for the ACT and COMPASS test. An ACT - SAT score equivalency table is used for placing students taking the SAT test. The Faculty Advisor Manual provides these tables and specific placement recommendations. Additional information on placement may be found in Standard 3.

A system-wide committee reviewed institutional research summaries for developmental programs in 1991 and made specific recommendations for improvement. A copy of the summary report of this committee is on exhibit [Developmental Studies notebook]. However, these recommendations were not implemented.

Developmental Students

Many of UAF's entering students are either under-prepared for postsecondary coursework or their skills have become rusty. Among first-time freshmen taking the ACT test, 59.9 percent in math and 35.5 percent in English placed below the requirements for placement into 100-level coursework. A recent analysis by the UA Office of Statewide Budget and Institutional Research determined that at UAF, 22.4 percent of first-time freshmen who were also recent high school graduates were enrolled in developmental courses during Fall 2000 [Developmental Studies notebook]. This percentage is lower than in previous years.

In the 2000 fall semester, 1,102 students completed developmental courses; 29 percent of these students were first-time freshmen.

Developmental Services

In line with the goals of the National Association for Developmental Education (NADE), the primary goal of UAF's developmental services is to increase the likelihood of student success by helping students improve their learning skills as well as their skills in specific discipline areas [Developmental Studies notebook]. Developmental services are available to students on all campuses and include academic and career advising, tutoring for specific courses, professional development workshops, and developmental coursework in the areas of English, reading, mathematics, cognitive skills development, and science. Support services provided by Career Services, the Academic Advising Center, Rural Student Services, and ASUAF for Fairbanks campus and TVC students complement and supplement the services offered by the TVC Developmental Studies faculty. Recently several rural community campuses received a federal Title III grant, which will increase the capacity to deliver services to rural students.

Developmental courses are offered on-site at each campus and by distance delivery. UAF offers 33 developmental courses: three in English, 13 in math, and 17 in general developmental studies (reading, science preparation, cognitive skills development, academic probationary programs, and preparation for college). The UAF Catalog provides course listings and descriptions [G1:223-225]. An average of 87 sections of developmental courses were given per year over the last seven semesters, with an unduplicated average headcount of 615. The average student credit hour (SCH) generation per semester is 2,244 [Developmental Studies notebook]. Additionally, the Tanana Valley Campus offers a non-credit pre-college seminar, Project College and Career, which works with students prior to their enrollment. At the Kuskokwim Campus, developmental students participate in the Emerging Scholars program.

At the Fairbanks campus, where most developmental course instruction takes place, the increase in the number of sections of some classes has not kept pace with the increase in enrollment. For example, class sizes for the entry-level developmental math course, DEVM 050, have doubled over the past several years while enrollment in this course has increased by one-third. In all other Developmental Math courses, class size has had only minor variations, remaining essentially the same, approximately 26 students per class [Developmental Studies notebook].

Developmental Faculty

UAF has 36 full- and part-time faculty members who regularly teach developmental courses. Most of these faculty teach both developmental and collegiate-level courses. The following table

illustrates the employment status and location of those faculty or staff teaching developmental courses during fall 2000:

Location	Full-time regular	Full-time term	Part-time	Total
Bristol Bay	2			2
Chukchi	1			1
Kuskokwim	4 (2 are staff)			4
Northwest	1			1
Interior-Aleutians	2			2
Fairbanks†	3	5	10	18
Total	13 (2 are staff)	5	10	28

†Fairbanks includes Fairbanks campus, Tanana Valley Campus, and the Center for Distance Education and Independent Learning.

All but two of these faculty members are associated with the community campuses within the College of Rural Alaska. Of the 11 full-time regular faculty one holds a Ph.D., eight have master's degrees, and two have the baccalaureate as the highest degree attained. The 18 full-time faculty and staff (13 regular, 5 temporary) accounted for 64 percent of the courses and 62 percent of the student credit hours during fall 2000. Faculty are involved in the development and revision of relevant policies and regulations through the Developmental Studies Committee of the Faculty Senate. A developmental studies notebook on exhibit provides additional information.

Opportunities for faculty professional development in the developmental area have been limited. Although the executive dean of the College of Rural Alaska has instituted a program to fund professional development travel and some funding is available through the UAF Office of Professional Development, most conferences are located out-of-state and costs are generally much higher than the support available. Nonetheless, faculty have participated in technology conferences, math and English discipline-based conferences, and the annual National Association for Developmental Education conference.

Assessment
During the period of fall 1992 to summer 1997, developmental faculty members collected and analyzed developmental student success in English and mathematics (Developmental Studies notebook). In cooperation with the Faculty Senate Developmental Studies committee the following conclusions were made from this analysis:
- Students who complete DEVE 070 with a B or better (Mastery level) successfully complete English 111X with a C or better at a higher rate than do the students at UAF who did not take a developmental course (77 percent compared to 72 percent).
- The greater need that students have in math, the less likely they are to ultimately succeed in a subsequent 100-level math class. Students who were placed at the DEVM 050 level were less likely to be successful in Math 107, 131, or 161 than were students who were placed at the DEVM 070 level.
- Students who complete DEVM 070 with a B or better (Mastery level) successfully complete any of their 100-level math requirements with a C or better at a higher rate than do the students at UAF who did not take a developmental course (Math 107, 63 percent

compared to 52 percent; Math 131, 77 percent compared to 67 percent; Math 161, 81 percent compared to 61 percent).

Appraisal

In concert with its mission and goals, UAF delivers a wide range of developmental and remedial coursework via multiple delivery modes across the state. Policies and regulations for developmental and remedial coursework are well established and are student centered with respect to how credits count toward full-time status, GPA, financial aid, and elective credit. The purpose and use of developmental and remedial offerings are communicated well to faculty, staff, and students through the catalog.

Course placement criteria are published in a broadly distributed Advisor's Manual, which is updated regularly based on periodic analyses of placement and success rates. The limited assessment data available suggest that some areas of the developmental program have been successful.

The Emerging Scholars program at Kuskokwim Campus and the Project College and Career at TVC reflect integrated and collaborative approaches to the delivery of developmental course content and other supportive services. Faculty work together to assure that skills taught in each class support the other classes and that services needed for student success are readily available and integrated. Both include on-going advising and tutoring support through the students' first semester and subsequent semesters as necessary.

The following challenges with respect to developmental programs were identified in this self-study:
- There is no institution-wide management or coordination of developmental and remedial programs and related services. This results in uneven cooperation, funding, services, and staffing among locations and programs. In particular, there has been little assessment or institutional analysis of student success in completing developmental coursework or subsequently completing collegiate-level work or programs. Data collection and analysis efforts should be institutionalized and used to improve the program. A thorough review of the developmental program (including staffing and funding) should be conducted and alternative models for improvement considered.
- Placement test results indicate that more students should be placed in developmental courses than are currently taking these courses. Student retention may be hurt when unprepared students attempt to take to collegiate-level courses and fail. Improved advising and placement control should be examined.
- Developmental coursework has been focused on preparing students for the baccalaureate Core Curriculum, especially in math and English. While this is necessary, the preparatory needs of technical and vocational students pursuing certificates and associate degrees differ and to date have not received the attention needed. Faculty associated with these programs assert that the needs of these students are often better met through developmental-related instruction (computation and communication) material embedded in technical courses.

- Part-time and temporary faculty teach most of the developmental courses provided on the Fairbanks campus. The lack of full-time permanent faculty with a majority of their workload associated with Developmental Studies can be viewed both positively and negatively. Because the full-time permanent faculty's workload is divided between developmental courses and traditional college disciplines, faculty are able to develop and expand on connections with these departments. Additionally, since they often teach 100-level courses, they bridge the distance between the skills that students have upon entering college and the skills needed to be successful in their first college-level courses. While there are benefits to shared discipline-based teaching, the lack of faculty whose workloads are primarily or wholly in the developmental area results in fragmented workloads, thus limiting the ability to coordinate services. Heavy reliance on adjunct faculty further exacerbates this problem.
- Few full-time regular faculty have formal developmental training, and those who do are approaching retirement age. No new faculty with formal training in developmental education have been hired nor have new discipline-based faculty been offered formal training in developmental education. The addition of well-trained developmental faculty, particularly in Fairbanks, should be considered when examining alternative models for the developmental program.
- The NADE Guide for Developmental Coursework, page 125, item XV.4 [Developmental Studies notebook], states that "Developmental classes are no larger than 18 students." All UAF developmental math classes fail to meet this standard. Developmental English classes generally meet the standard.

Projections

The delivery of developmental academic support for students should have coordinated leadership. Tanana Valley Campus developmental faculty have submitted a grant proposal through the federal Fund for the Improvement of Postsecondary Education and an internal budget request to create a Student Learning Center on the Fairbanks campus. If funded as proposed, this learning center would be one step toward establishing coordinated delivery of developmental programs. Recently acquired Title III funds will provide improved student support resources for rural students.

An institutionalized data collection initiative should be implemented to provide for the routine collection and dissemination of data such as incoming student ACT/SAT/COMPASS/ASSET scores, developmental course completion data, student outcomes assessment, and student demographics. Outcomes assessment information for developmental courses should include student performance in subsequent courses as compared to students who did not need developmental coursework and compared to students who did need developmental coursework but who did not avail themselves of it.

With the capacity to identify students who register for a course without the required placement score or prerequisite coursework, the Faculty Senate should assess the extent to which faculty should shape actual student preparedness in their courses.

The developmental program and university administrators should consider revisions to student placement policies, probation requirements, and student outcomes expectations. These revisions should be considered in light of information on the performance of developmental students who have completed their developmental coursework at the mastery level and in light of student performance after completing Project College and Career and the Emerging Scholars program.

Developmental faculty are now working with faculty in several certificate and associate programs to appropriately identify courses or improve embedded content to meet their students' needs.

A comprehensive external review of the developmental program is planned for 2001-2002. The College of Rural Alaska and the Faculty Senate Developmental Studies Committee have initiated steps to implement this review. Certification of the developmental program by NADE should be considered subsequent to the external program review.

Qualifications of the Faculty to Deliver the Educational Program

The changes in the composition of the faculty in terms of full- and part-time appointments shown below reflect state appropriations during the last decade, actions taken in response to Program Assessment in 1994, and the Retirement Incentive Program.

Faculty by Employment Status and Year

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Full-time Regular Faculty numbers	526	525	531	513	514	500	441	428	461	478
Part-time and temporary faculty numbers	220	207	216	173	183	203	226	227	236	250
Total	746	732	747	686	697	703	667	655	697	728
% FT Regular	71%	72%	71%	75%	74%	71%	66%	65%	66%	66%
Student/faculty ratio	N/A	N/A	12.5	13.1	12.3	12.6	13.7	12.1	11.1	10.7

From data provided in "UA in Review"

In the last two years as funding to replace faculty has become available the number of permanent ("regular") full-time (greater than 50 percent FTE) faculty has grown, as has the number of part-time (less than 50 percent FTE) or temporary faculty. By headcount, the full-time faculty has remained at about 66 percent of the total faculty for the last four years, down from earlier in the decade.

Evidence-Based Description

The following table illustrates the current deployment of full-time permanent faculty to deliver the instructional program.

Faculty Responsibility for Instruction, Fall 2000

School/ College Responsible for discipline/ program *	Number courses	% Courses Taught by Full-time Faculty	Student Credit Hours (SCH)	% SCH Taught by Full-time Faculty	Majors	
					Under-graduate	Graduate
College of Liberal Arts	803	67%†	24,363	67%†	871	150
College of Rural Alaska	586	41%†	15,305	39%†	1643	15
College of Science, Engineering, and Math.	414	78%†	16,651	81%†	843	271
School of Agriculture and Land Resources Management	67	70%†	1,483	79%†	102	23
School of Fisheries and Ocean Sciences	37	81%†	951	77%†	19	98
School of Education**	76	71%†	2,187	63%†	175	141
School of Mineral Engineering	34	91%†	288	95%†	69	11
School of Management	92	82%†	4,414	73%†	309	57

*See also the college and school summaries at the end of Standard 2 for program responsibility.
**Excluding professional development courses, for which the majority of instructors were unknown and likely part-time.
†Graduate students, staff, part-time, and unknown make up the remaining percentage.

This table summarizes these statistics by the school/college responsible for the individual programs and for certifying the qualifications of the faculty. (Note that faculty, regardless of the school/college to which they are administratively assigned, are here counted with the school/college responsible for the programs for which they taught courses in fall 2000. Thus, all English courses and the faculty teaching them are counted under the College of Liberal Arts; all vocational courses and faculty are counted under the College of Rural Alaska.)

Full-time faculty in fall 2000 taught 71 percent of the courses and generated 70 percent of the student credit hours for the associate of arts, baccalaureate, and graduate programs, and 41 percent and 39 percent respectively for vocational associate and certificate programs. In order to provide a further sense of the extent of full-time faculty responsibility, the table above also summarizes the fall 2000 number of undergraduate and graduate majors for which the faculty were responsible. Details at the program level upon which this summary is based are provided in the exhibits [E2.4].

With few exceptions, full-time faculty have responsibility for, or teach in, each field in which coursework leading to a degree or certificate is offered (2.C.7). The exceptions are in the following vocational programs:

- The Community Health Aide program is a partnership between the Indian Health Service's statewide Community Health Aide/Practitioner Program (CHA/P) and the university whereby the training needed is determined by the four CHA/P training centers, which also hire the instructors. The university, through a part-time coordinator who is a full-time faculty member at the Kuskokwim Campus, approves the faculty as affiliate appointments, provides faculty development to ensure that courses taught are appropriate for a certificate or associate degree, and participates with CHA/P in evaluation of the program.

- The Process Technology program, without full-time faculty during the analysis year, has just been approved by the Board of Regents at the certificate and associate level and has hired a full-time faculty member.
- The Aviation Technology program, while coordinated by a part-time faculty member, is taught primarily by full-time faculty from the aviation division of the Maintenance Technology program. All instructors are FAA approved.
- The Drafting Technology program, taught entirely by part-time faculty, is recognized as needing a full-time faculty member to coordinate and develop the program and is under review.

UAF ensures that faculty are well qualified to deliver the education program at the levels offered (2.C.7). UAF guidelines [E2.5] require approval of faculty by the discipline responsible for a program, regardless of the campus, school, or college to which the faculty member is administratively assigned. Standard 4 describes the qualification of the faculty overall in terms of tenure status. The following table describes the full-time faculty in terms of highest degree attained and years experience with UAF. Again, the snapshot is fall 2000, of faculty teaching in (not administratively assigned to) programs for which the school/college is responsible [E2.4].

Full-time Instructor Profile by School/College - Fall 2000 Programs

School/ College Responsible for discipline/ program *	Total Faculty	Terminal Degrees					Years Experience at UAF		
		Doc	Mas	Bach	Prof Lic	Less Than Bach	Min	Med	Max
College of Liberal Arts	135	82	49	1	1	2	1	10	32
College of Rural Alaska	54	8	29	8	3	6	1	9	31
College of Science, Engineering, and Mathematics	110	98	10	1		1	1	10	37
School of Agriculture and Land Resources Management	18	18					1	13	28
School of Fisheries and Ocean Sciences	16	15		1			1	19	37
School of Education	26	18	6	1		1	1	5	31
School of Mineral Engineering	12	9	2			1	2	11	26
School of Management	23	19	4				1	10	27

*See also the college and school summaries at the end of Standard 2 and Standard 4 for program responsibility.

The CRA faculty who teach in disciplines (course designator) housed in other colleges and schools are included in the data for CLA, CSEM, SALRM, SOE, and SOM [E2.4].

Appraisal

Since 1999 UAF has been recovering from a reduction in faculty numbers. Because the reductions in faculty were uneven among programs, some programs remain challenged to meet

student demand. The emphasis of the initiative process [G25] on meeting state economic needs has led to hiring toward this end, rather than rebuilding faculty to address other needs. In order to keep instructional programs within the capacity of the faculty to maintain quality, program expansion has been constrained (see also standard 4.A).

The lower percentage use of full-time faculty in the programs and courses offered on CRA campuses reflects, in part, the much smaller student body and instructional load on rural campuses than in Fairbanks. Cross-regional distance delivery was developed to enable the CRA and Fairbanks campus full-time faculty to reach the student body across campuses and increase access of students to faculty responsible for the programs. The lower use of full-time faculty in CRA's vocational programs is not unexpected, since it is common for such programs to seek practicing professionals to assist in instruction.

Projections

To make analysis of the delivery of vocational and technical programs and of the instructional program in general on the community campuses easier and more accurate, PAIR will provide more detail to identification of CRA faculty with the programs taught. Currently faculty are portrayed in UA in Review and the UAF Fact Book as either vocational or transfer/general program, without discipline differentiation.

UAF will use the new Academic Development plan to provide direction for the priority for rebuilding the percentage of full-time faculty to the levels of the early 1990s.

Vocational Programs: Job Placement Rates, State Licensing Examination Pass Rates

Evidence-Based Description

Most UAF certificate and associate degree vocational programs attempt to determine job placement and/or self-employment rates (2.C.8) [A2.3]. Many program assessment reports state that surveys of graduates have yielded disappointing return rates, making analysis of job placement rates for many programs difficult. Departments are using personal interviews with employers, graduates when they can be found, and students who are employed and taking classes to upgrade their skills. Information regarding employer and student satisfaction is obtained and used, but informative employment rates are elusive.

The degree and certificate vocational programs do not include passing licensure exams as part of their assessment plans (2.C.8) [A2.3]. Currently all licensing and certification testing is reported back to TVC on a voluntary basis by students. The welding program prepares students for a national certification. Allied Health prepares students for certification and licensing in Medical Assistance. Maintenance Technology's Airframe and Powerplant program prepares students for Federal Aviation Administration certification. Office Management Technology proctors a Certified Professional Secretary review and now serves as a testing site for Microsoft certification. The Maintenance Technology Automotive program prepares students for the ASE

test after they have successfully been employed for two years in the field. There is no system available to receive these scores back from the testing agency. In many cases, the testing agencies do not allow notification to anyone other than the student.

Appraisal

In order to come into compliance with Standard 2.C.8 regarding the tracking of state and other licensing examination pass rates, where applicable, and of job placement rates, better methods to reach and survey students who have graduated or left the program for employment will need to be developed. Tanana Valley Campus is working with the state Department of Labor to develop a means of determining, anonymously, the number of its certificate and AAS graduates who obtain and sustain employment in the state. A trial of the proposed methodology was scheduled for June 29, 2001. If this system proves effective, UAF will have a better means of assessing its pre-baccalaureate programs.

Projections

The College of Rural Alaska is working on improvements to be made to the assessment of student achievement and assessment of vocational programs. Means to improve the survey methodology or other means of obtaining a measure of job placement rates must be found.

2.D. Graduate Program

UAF offers fifty-two master's degree and fifteen doctoral programs (not counting separate areas of concentration such as Botany and Zoology within Biology). Master's degrees offered are the Master of Arts, Master of Science, Master of Fine Arts, Master of Business Administration, Master of Education, Master of Arts in Teaching, Master of Civil Engineering, and Master of Electrical Engineering. UAF is the only Ph.D.-granting institution in Alaska. The graduate programs involve faculty from twenty-two departments and programs across the institution and are administered by the dean of the Graduate School. From 1993 to the present, the full-time equivalent (12 credit hours) enrollment in UAF graduate programs has averaged 461. Over the same period the average number of graduate students enrolled (headcount) has been 748 [G6].

Evidence-Based Description

The level and nature of the university's graduate programs are consistent with the UAF mission statement and "Strategic Plan: UAF 2005" [A1.4] (2.D.1). Graduate faculty in all programs actively engage in research, teaching, and service, contributing to the university's goals to "function as a national center of excellence in northern research and related graduate education" and to "be the academic gateway to the North Pacific and the Circumpolar North." A Northern focus is integral to all graduate departments. Some are committed to understanding the flora, fauna, and natural phenomena of the North, Northern social systems, or cold regions engineering. Others, such as Business Administration and Education, respond to the economic

and social conditions and opportunities of the region. Graduate programs in Music and Creative Writing also often reflect the inspiration of Northern social and natural landscapes.

Consistent with the 2005 goals [A1.4] of fostering interdisciplinary research and positioning the university to respond to national and international research initiatives, several graduate programs, such as Biological Sciences, Geology and Geophysics, Physics, Natural Resources Management, Marine Biology, and Oceanography, are affiliated with the major internationally recognized research institutes at UAF. The availability of interdisciplinary master's and doctoral degrees [G1:128] fosters connections among programs and serves to train students who will be prepared to continue research that cuts across traditional disciplines. The graduate faculty's research activities lead directly to support for graduate students as research assistants and collaborators.

Increased graduate enrollment, in particular greater Ph.D. production, is a goal of "Strategic Plan: UAF 2005" [A1.4]. The Graduate School [G19] has established a goal of increasing enrollment to 1,200 by 2005. UAF is a Doctoral/Research University-Intensive institution in the Carnegie classification. Seven new graduate degrees—M.S. and Ph.D. in Environmental Chemistry, Ph.D. in Marine Biology, M.F.A. in Art, M.A. in Rural Development, M.A. in Administration of Justice, and M.S. in Statistics—have been approved by the Board of Regents since 1998, and other programs, particularly in the College of Liberal Arts, are planning new degrees. The Psychology Department, for example, is developing a Ph.D. program. The growth of new programs should ultimately increase graduate enrollment. The Graduate School has also increased the number of teaching assistantships and instituted a graduate fellowship program as enrollment incentives.

All of the graduate programs have well-defined and appropriate educational objectives, as documented in the Student Learning Outcomes Assessment plans included in each department notebook (2.D.2). All meet or exceed the UAF requirements for the master's and Ph.D. [G1:42-44]. Those requirements are more than sufficient to ensure that graduates have completed intellectually and creatively demanding studies that address the discipline in greater depth than the undergraduate programs. Proposed graduate courses are reviewed by the Faculty Senate and must represent sufficient depth to merit designation at the graduate level. Syllabi of joint upper-level undergraduate/graduate courses must clearly state appropriate additional requirements for the graduate level. Graduate programs have been on a six-year review cycle since 1995 to ensure quality and consistency [G19; E2.10].

Those programs that note some variability in standards are working toward more consistency. In 1997 UAF's Education program, for example, was directed by an on-site review team (National Council for Accreditation of Teacher Education) to develop consistent mission statements that match programs, and to develop a policy handbook. The Geology and Geophysics Department notebook states that there is some variability in the standards for individual degrees within that unit, and the department is working to minimize inconsistencies. There is also some latitude for departments to set their own requirements within the general graduate degree requirements. For example, each department determines the form of the comprehensive examination for the master's degree. The exam may be written or oral, standardized or individualized, and either separate or combined with the thesis defense. Sufficient rigor, however, is expected regardless of

the format of the examination. All Ph.D. students must pass a written, and in some cases an oral, comprehensive examination before advancement to candidacy.

All programs offering the Ph.D. have high expectations for students, and those expectations are clearly distinguished from those for master's students, as documented in catalog descriptions and student outcome assessment plans (2.D.3). Doctoral research is expected to make an original contribution to the candidate's field. Graduate programs in the sciences, mathematics, resource management, and fisheries and ocean sciences offer graduate-level courses beyond those specifically required for the master's degree, which give doctoral students the means to increase their breadth and depth of knowledge beyond that of a master's degree recipient [G1]. Anthropology has no specific courses for Ph.D. students, but it has substantial additional requirements such as a foreign language and a research tool (or two foreign languages) and extensive fieldwork and/or laboratory research.

Engineering programs, natural resource management, and departments in the liberal arts (other than Anthropology) offer doctoral degrees only through the Interdisciplinary Program. However, in order to ensure that expectations are comparable to single-discipline Ph.D. degrees, interdisciplinary Ph.D. committees must include at least one member from a department that offers doctoral degrees. Where the interdisciplinary degree is delivered in a context of established interdisciplinary and interdepartmental relationships, such as Environmental Studies or Computational Studies, programs report satisfaction with its definition and demands. The interdisciplinary Ph.D. in the liberal arts, however, is highly individualized and some programs report that more comprehensive guidelines are needed to ensure standards comparable to departmental degrees. The Graduate School has responded by constituting a university-wide committee to oversee admissions and ensure quality delivery of all interdisciplinary degrees.

Appraisal

Graduate programs at UAF excel at producing scientists and scholars who fulfill significant roles for education and industry in Alaska, nationally, and internationally. On the whole, graduate education is an integral part of this institution. In some departments, full doctoral programs have yet to take shape, and these would benefit from additional guidance and formulation of objectives. Continued institutional and departmental resources are essential for ensuring that recruitment and retention in the smallest departments are sufficient to maintain a critical number of students.

Certain programs, (Interdisciplinary Natural Resource Management, Mathematics, and interdisciplinary degrees housed within several Engineering programs) have small enrollments and some apparent difficulty in recruiting students. This problem is concentrated in fields that require a strong background in math or physical sciences, and is due to a very small pool of qualified applicants.

Projections

Existing master's and doctoral degree programs have high standards and sufficient resources and will continue to further UAF's mission for the foreseeable future. However, Ph.D. programs are

concentrated in the sciences while UAF's mission also includes a responsibility for a broad range of Ph.D.-level research and graduate education in the liberal arts and engineering. Increasing the number of graduate programs offered is a way to achieve UAF's goal of increasing graduate enrollment, although achieving the stated goal of 1,200 students seems unlikely. Engineering has recently proposed adding a Ph.D. program, and several other programs may follow in the next decade. It is important to ensure that resources grow to meet the needs of new programs and to maintain the quality of UAF's graduate education.

2.E. Graduate Faculty and Related Resources

The loss of faculty through budget cuts and the Retirement Incentive Program, which targeted senior faculty (see Standard 4), had negative effects on graduate and undergraduate programs, particularly because vacant positions were distributed without regard to unit productivity, faculty workload, or the UAF strategic plan. Although all graduate programs survived the cutbacks and continued to offer high-quality education, there were fewer faculty in graduate-degree granting departments overall, and some continuing faculty saw their undergraduate teaching workloads increase, leaving less time for graduate courses and advising. However, the year 2000 saw a rise in state funding, and new faculty are now being hired in several areas of critical need.

In a climate of decreasing resources, the faculty was urged to increase graduate enrollment and degree production, particularly at the Ph.D. level. Most programs found this difficult or impossible to accomplish and, as discussed in some departmental notebooks, some programs questioned the Graduate School's approaches to this goal. In fact, Ph.D. enrollment rose slightly from 1995 to 1999, but enrollment at the master's level dropped by 20 percent, though new enrollment appears to have rebounded in 1999 [G5].

The effects of state funding cuts on graduate programs were buffered somewhat by vigorous pursuit of external funding. One positive trend in resources over the past decade has been a growth in private donations spurred by a tax incentive program enacted by the Legislature. This has resulted in new resources available for support of graduate students, including funds administered through the Graduate School and funds granted to individual programs. These donations have been used to provide student travel grants, tuition scholarships, thesis and dissertation completion scholarships, teaching assistantships, and fellowships for new students.

Evidence-Based Description

All graduate programs on the Fairbanks campus have the required resources for faculty, facilities, equipment, laboratories, and library and information resources (2.E.1). These resources are described in standards 4, 5, and 8. In particular, graduate degree-granting programs and associated research institutes have more than 260 full-time faculty (Standard 4). Major research facilities are located on the Fairbanks campus as well as laboratories and field stations around the state (Standard 8). Library holdings are sufficient to serve research needs with an extensive collection of traditional and online resources (Standard 5). These are excellent research facilities, among the best in the United States for Arctic and sub-Arctic research and graduate education.

Many programs noticed some reduction or lack of growth in library resources in their disciplines. In the sciences cuts in periodical subscriptions are the main issue, but this problem has been substantially offset by the availability of individual articles from online services. In the liberal arts, needs for library resources span a wider variety of media, and these are less likely to be addressed by online sources, since their availability is not as great as in the sciences (see also Standard 5).

Reflecting a pattern common to many universities, research assistantships supported through external grants and contracts are a key source of support for graduate students in the sciences. Most graduate students in the liberal arts, business, and education have teaching assistantships or are self-supporting. Several graduate programs stated in their notebooks that they need more resources from the Graduate School to aid student recruitment and retention. Specifically they mentioned teaching assistantships, research assistantships or tuition waivers, or wanted the resources administered differently. These comments were echoed in the College of Science, Engineering, and Mathematics notebook. Suggestions included improving consistency in the criteria used for distribution of funds, making more funds available, and waiving out-of-state tuition for international students on research assistantships or teaching assistantships.

The vast majority of available resources for graduate student support are departmental teaching assistantships wholly administered by individual programs as they see fit, or research assistantships funded by external grants and contracts. Even though resources available through the Graduate School have increased during the 1990s (now providing full stipends for thirty students and tuition and travel support for many others), many departments remain critical of funding and allocation methods. In some programs these resources have not compensated for earlier cuts in departmental research and teaching assistantships that were forced by funding reductions.

At present all graduate programs with the exception of the Fisheries M.S. and Ph.D. programs, the M.Ed., the M.A. in Rural Development, and the M.A. in Cross-Cultural Studies are offered solely at the Fairbanks campus. Education courses in the M.Ed. program are offered by distance delivery via a combination of audio-conferencing and web-based materials. Education has only recently resumed offering the M.Ed. at rural sites, but has long had faculty at these sites who work closely with Fairbanks faculty and with graduate students. M.Ed. students are encouraged to attend summer courses in Fairbanks. The M.Ed., the M.A. in Rural Development, and the M.A. in Cross-Cultural studies are only recently available via distance delivery. A few graduate courses in other programs are given by distance delivery, but these are a small minority of offerings.

M.S. and Ph.D. degrees in Fisheries offered at the Juneau Center of the School of Fisheries and Ocean Sciences are quite conventional in structure and delivery. The Juneau Center includes on-site faculty, course offerings, research programs, and all other resources needed to complete a degree. The degree programs are offered in Juneau and on the Fairbanks campus, as described in the Fisheries notebook. Students can take all required courses for the degree at either site, and some courses are distance-delivered to increase the breadth of graduate-level offerings. The program has seven faculty members, which is a sufficient number to constitute advisory committees at both sites. Committees often include both Fairbanks and Juneau faculty members,

and faculty can be drawn from other programs in Fairbanks. Both sites have sufficient facilities, equipment, laboratories, and library and information resources. However, facilities in Juneau are currently inadequate (see Standard 4.B and Standard 8).

UAF has a continuing commitment of resources for faculty, space, equipment, laboratories, and library and information services (2.E.2). "Strategic Plan: UAF 2005" includes the goal of becoming a world leader in Arctic research and graduate education [A1.4]. Specifically, the plan proposes to "Improve and maintain the infrastructure for scientific research at UAF. This includes state-of-the-art facilities, equipment, and computer networking." The strategic plan supports access to "appropriate levels of information technology" for all students and it sets for UAF the goal of becoming "a resource center for digital archiving and delivery of scholarly resources concerning the North."

The initiative process [G25] is providing funding for new faculty positions with strong involvement in research and graduate education, including faculty for the Institute of Arctic Biology, the School of Fisheries and Ocean Sciences, and Computer Science. In addition, the Experimental Program to Stimulate Competitive Research (EPSCoR) [E4.16]—a partnership of higher education, federal and state government, K-12 education, and business—is providing seed money for several new faculty positions and research equipment. Specific examples of new facilities germane to graduate programs include the Natural Sciences Facility and the Institute of Arctic Biology Research Greenhouse (both completed in 1994), and the International Arctic Research Center (completed in 1999). The government of Japan provided substantial funding for construction of the latter facility. UAF has recently begun the planning process for a new biosciences research and teaching building.

All of the graduate programs have a sufficient number of faculty with terminal degrees, and many with post-doctoral experience, in disciplines appropriate to the degrees offered. The vast majority of faculty are employed full time by UAF [G5] (see standards 2.C and 4.A) (2.E.3). In the Biological Sciences, Physics, Geology and Geophysics, Marine Biology and Oceanography programs, and Computer Science, some or all faculty have split appointments between the academic department and a research institute, the Institute of Arctic Biology, Geophysical Institute, Institute of Marine Science, or Arctic Region Supercomputing Center (see Standard 4.B). Administration of the research institutes and academic departments is separate but usually well coordinated.

All of the graduate programs have a faculty large and diverse enough to provide effective teaching, advising, scholarly and/or creative activity, as well as to participate appropriately in curriculum development, policy development, evaluation, institutional planning, and development. Even so, several programs would benefit from additions to cover specific specialties in teaching or research [G5 Fall 1995-1999 Faculty by Department and Full Time/Part Time Status] (2.E.4). The smallest numbers of full-time faculty supporting a graduate program are those in Psychology (six), Journalism and Broadcasting (five), Communication (seven for the M.A. in Professional Communication), and Electrical Engineering (seven). The M.A. program in Northern Studies has only one full-time faculty member, but it is an interdisciplinary degree that draws faculty from many departments including Alaska Native Studies, Art, Anthropology, Economics, English, Geography, History, Library Science, Political Science, and Psychology.

The smallest full-time faculties supporting Ph.D. programs are in Fisheries (seven), Anthropology (nine), and Mathematics (nine).

Graduate programs delivered at off-campus and rural locations include sufficient faculty and adequate research and teaching facilities (2.E.5). The M.Ed., M.A. in Rural Development, and M.A. in Cross-Cultural studies are newly available via distance delivery; in the case of the M.Ed., delivery outside of Fairbanks was restored after an earlier discontinuation. These programs include rural site faculty in planning and delivery. The Fisheries graduate programs offered at the Juneau Center include sufficient faculty to provide program planning, delivery, and assessment conducted along with that of the Fisheries program as a whole. Graduate students who conduct research at rural sites nearly always also spend time in residence at the Fairbanks campus, benefiting from the resources there, and include Fairbanks faculty on their advisory committees.

On the Fairbanks campus there is a large group of faculty active in graduate programs (2.E.6). For example, the eighty-one Ph.D. graduates during the past three years have had seventy-one different major advisors from twenty-two departments or programs. Twenty of the faculty, from non-Ph.D.-granting departments, participated via the Interdisciplinary Program. Faculty at the Juneau Center are mainly responsible for graduate education and research. This group collaborates with the SFOS faculty in Fairbanks, particularly in constituting graduate committees.

Appraisal

Faculty offering graduate programs at UAF are well qualified and have excellent educational credentials. They are active in research and scholarly activity and often participate in faculty development activities (see also Standard 4) [departmental notebooks; A4.2]. Obtaining approval of new graduate degree programs is a rigorous process, requiring preparation of an extensive proposal justifying the need for the program, describing the academic requirements, and demonstrating the availability of faculty, facilities, and other resources needed to deliver it effectively (see also Standard 2.A). This ensures that all approved programs have more than adequate resources initially. Programs have expressed some concerns about the cutbacks of the 1990s, particularly relative to total faculty numbers and availability of faculty in certain specializations, increased undergraduate teaching loads that impact time available for graduate education and research/creative activity, reduction in institutional support for the library, and limited funding for equipment. These are important issues that the present UAF and statewide administrations are making substantial, and initially successful, efforts to correct. However, none of the reductions have been so large as to compromise UAF's ability to offer a quality graduate education.

The extensive, high-quality research and creative activity being conducted by UAF faculty is a strength of graduate education programs; UAF is among the top one hundred research universities nationally (see Standard 4.B). UAF faculty are successful in securing external grants and contracts. These external grants and contracts have a wide variety of direct benefits to graduate education. These include salary support, which allows UAF to employ faculty with a wider range and depth of expertise than is possible with state support alone; research

assistantships for graduate students; research equipment; a skilled technical staff; and field logistics support.

The Interdisciplinary Program is an important part of UAF's graduate educational opportunities, offering students a wider range of academic disciplines than is available through department-based programs, particularly at the Ph.D. level. Interdisciplinary Ph.D.s during the past three years comprised almost 25 percent of the total awarded by UAF. Recent steps taken to increase faculty participation in the oversight, development, and evaluation of this program are important to its continued success. Several programs whose faculty have been participants in the Interdisciplinary Program, including Psychology, Mining and Geological Engineering, and Engineering, are aiming to establish their own Ph.D. programs. This is a positive trend toward increased direct faculty and departmental control. Several departmental notebooks expressed concerns about the administration, goals, and quality of the Interdisciplinary Program, which apparently arose in part because it did not have a core of faculty responsible for its oversight, development, and evaluation. Although the Graduate School dean has directed efforts toward these issues in recent years, problems still remain. Recently the dean has appointed an Interdisciplinary Program faculty advisory committee to work on some of these problems.

Most UAF graduate programs cite a need for one to three additional faculty to increase the breadth of their course offerings, expand research opportunities for graduate students, address changes in emphasis or new developments, or to support a new Ph.D. program. All of these needs are important, but generally are not absolutely critical to the ability of these programs to continue to offer high-quality education. Also, the Academic Development Planning and Initiative processes are allowing faculty to request these positions and the UAF and statewide administrations are working toward securing funding for them [G25; A1.6].

The Education program is one of UAF's largest master's degree programs. It is, according to its notebook, "emerging from a decade of turmoil." Rapid turnover of administrators and faculty has led to difficulties in continuity of planning and development activities. A large proportion of all courses, including graduate courses, are taught by adjunct faculty, primarily K-12 teachers who provide valuable perspectives based on their experiences. Although the use of adjunct faculty is more common in Education than in most other fields, the current reliance on adjuncts is excessive (see the School of Education summary following Standard 2). Administrative and faculty turnover has probably also contributed to the slow acquisition of teaching technology and the expertise to use it. The UAF administration is acutely aware of these issues and is developing strategies to resolve them.

Most departmental notebooks discuss some library, equipment, and facilities needs. These often include instructional technology, especially that required for distance delivery, and instructional and research laboratory instruments in scientific fields. State support for equipment purchases was limited through most of the 1990s, and maintenance of UAF's research infrastructure has substantially relied on faculty success in obtaining external funds. However, these external funds when added to available state funds have been sufficient to meet most needs. On the positive side, UAF has devoted considerable resources to the Technology Refreshment Program [E8.16] (see Standard 5), to improving high-speed web access and networking, and to centralized equipment funds. The recently completed connections are beneficial to graduate education and

research; the instructional and research equipment funds have provided substantial resources for equipment, which is essential for graduate programs. Library resources remain good, but faculty are increasingly relying on electronic article delivery services and interlibrary loan. A careful assessment of certain fields' needs for in-house collections is warranted. Many departments, schools, and colleges noted needs for additional space or renovation of existing space. Programs particularly lacked room for expansion despite opportunities to hire new faculty, and graduate student office space is in short supply. While these needs did not seriously interfere with current graduate education, they could hinder plans to increase graduate enrollment and Ph.D. production.

Graduate assistantships are important to recruiting and retention of students, and hence are a key resource for all UAF graduate programs. The most widespread complaint in this area is that the Graduate School has instituted changes in policies and procedures for distribution of funds, which the Graduate School viewed as necessary to increase productivity but which some departments viewed as confusing and counterproductive. Many departments would like substantial increases in financial aid for graduate students, but additional state funding is difficult to obtain and the Graduate School does not have sufficient staff for private fund-raising efforts. On the positive side, recent reallocations have raised stipends for teaching assistants and have provided funds for other additional stipends.

Off-campus programs are as yet a small component of UAF's graduate offerings. The distance delivery of the M.A. in Rural Development and Cross-Cultural Studies is new, and so it cannot be assessed.

The School of Fisheries and Ocean Sciences program in Juneau benefits from its ties to the National Marine Fisheries Service, the Alaska Department of Fish and Game, the University of Alaska Southeast in Juneau, and SFOS faculty Fairbanks. The Fisheries and SFOS notebooks identify the Juneau laboratory and teaching facilities as being less than optimal for support of research and graduate education because the limited quantity and quality of space restricts the number of faculty and students who can be accommodated and the scope of some research programs (see also Standard 8).

Projections

UAF will be able to offer an excellent graduate education via all of the current degree programs for the next decade. UAF has all the necessary resources to accomplish the needed changes, but it will require careful planning and execution to achieve the programs' great potential. The renewed School of Education faculty involvement in decision-making has brought needed stability to the program and resulted in curriculum changes benefiting graduate students.

"Strategic Plan: UAF 2005" and the goals of the Graduate School include increasing Ph.D. degree production to thirty-five by 2005 and fifty by 2010, from the recent average of about twenty-five per year [A1.4; G19]. This is an ambitious goal that will require new resources to reach. These include increased financial aid to improve recruiting and retention for graduate students, new faculty with the ability and interest to establish substantial research programs involving graduate students, and approval of new Ph.D. programs with new faculty positions and

other start-up needs. Explicit acknowledgment of graduate student mentoring in workload assignments, as is done in the College of Science, Engineering, and Mathematics, should be implemented on an institutional basis.

The Graduate School and several departments have the goal of establishing a variety of online professional master's degrees. One, the M.A. in Rural Development, has already been approved by the Board of Regents and was first offered in fall 2000. At least five more are planned, including new degrees as well as established degrees newly offered online. This is a new endeavor for UAF and needs active, broad-based faculty involvement, special training in technology and instructional approaches, and substantial new resources to deliver high quality programs. One issue that will need resolution is the appropriate faculty workload assignment for developing online materials. Such distance delivery of graduate programs is likely a large part of the future of graduate education and is already quite successful at other institutions. It is well suited to Alaska's large size and many isolated communities.

2.F. Graduate Records and Academic Credit

Policies concerning graduate admission and graduate degree requirements have received significant attention in recent years and a number of changes have been implemented. As an example, a Graduate School requirement that all applicants supply general Graduate Record Examination test scores has been relaxed for students who maintained an undergraduate GPA of 3.0 or better. The decision as to whether to require GRE test results is now left up to the individual departments, allowing for more departmental control over the admission process. In addition, recent revisions of the graduation requirements for the master's degree have recognized the differences between research-oriented (thesis or project) and professional practice-oriented (non-thesis) programs. The changes were aimed at ensuring that UAF's requirements for degrees emphasizing professional practice were competitive with similar programs offered at other universities. Other recent changes have included modification of the residency and credit requirements for the Ph.D. degree.

Evidence-Based Description

Graduate School admission policies are structured to ensure that all applicants meet a set of reasonable minimum admission standards and that appropriate application materials are submitted in a timely fashion (2.F.1). An in-depth review of each application occurs at the departmental level, allowing the graduate faculty associated with the proposed degree program direct input into the admission decision. In this way, a direct link between the individual graduate programs and the admission process is assured.

Graduate admission requirements and related policies and procedures are published in the UAF Catalog as well as on the institutional web page and the Graduate School web page [G1; G7; G19]. Upon request, departments also send out informative material to prospective students outlining additional departmental admission requirements and other general information. Most departments also maintain departmental web sites with graduate program information. These sites are linked to the main UAF web page [G7].

Application materials, including an application form and application fee, transcripts from other colleges or universities, at least three letters of recommendation, a current resume/vita, and a statement of academic goals are submitted to the Admissions Office (2.F.2). In addition, the application materials may include results of standardized tests such as the GRE or other evaluation aids, depending on the program to which admission is sought. The completed application files are forwarded to the appropriate department for review and recommendation. Some departmental notebooks made reference to delays in receiving application materials of prospective students from the Admissions Office, which hampered recruiting. The departmental process typically involves an admissions committee that reviews the files and solicits input from faculty. Evaluations are based on the applicant's background, including prior academic performance, letters of recommendation, required test scores, and the match between the desires of the applicant (as expressed in the statement of academic goals) and the resources available within the departmental program. The department head and college or school dean review each admission recommendation, and then it is forwarded to the dean of the Graduate School, who makes the final admission decision after verifying that policies and standards have been adhered to. In some cases, special consideration is given to applicants who do not meet minimum admission requirements, and exceptions are possible.

Faculty teaching in graduate programs at UAF are involved in establishing and modifying admission criteria and policies at both the institutional and departmental levels (2.F.3). At the institutional level, these processes occur though the well-established system of faculty governance; it is one of the functions of the UAF Faculty Senate [G12; G11]. The Graduate Academic and Advisory Committee of the Faculty Senate is responsible for considering suggested changes or modifications to the general graduate admissions policies brought forward by the faculty. After consideration, this committee forwards recommendations to the chancellor for action.

At the departmental level, faculty teaching in specific graduate programs are directly involved in establishing admission criteria through the activity of the departmental admissions committee. Departmental admission criteria are generally enforced in addition to the general UAF requirements and may be more stringent. These criteria are typically more detailed than the general requirements and include consideration of the characteristics of each degree program as well as specific test score requirements, if applicable.

Graduation requirements for advanced degrees at UAF are specified and established in a two-level system similar to that used for admission criteria (2.F.4). The campus has established a set of graduation requirements that apply to all graduate degrees [G1:42-44]. In addition, individual departments and/or graduate student advisory committees specify the coursework requirements that must be completed for specific degree programs. The general requirements specify that students must complete all work toward a graduate degree within a seven-year time limit and maintain an overall GPA of 3.0. Issues dealing with credit requirements, qualifying and thesis examinations, proficiency requirements, and thesis or research project requirements are also addressed in the general policies. These policies are established and modified via the same faculty-controlled process that was described above for institutional admission criteria.

In addition to the general university graduation requirements, many individual graduate degree programs have specific course requirements established by faculty teaching within the program. In cases where specific course requirements do not exist, the courses to be taken for the degree are determined by the student's advisory committee after considering the student's background and educational objectives. Once the advisory committee has formulated the proposed program, a Graduate Study Plan is forwarded to the Graduate School and follow-up is maintained via annual progress reports. Typically the chair of the student advisory committee is the student's major research advisor, allowing for a tight integration of research activities and coursework.

A thesis or research project (if required) is supervised by the student's major advisor in conjunction with other members of the student advisory committee. The committee also completes a final evaluation of the research effort (project or thesis) which is based, in part, on a public thesis defense. In addition, qualifying or comprehensive examinations required by the degree program are formulated and evaluated by the advisory committee. For oral examinations that occur at the Ph.D. level, the dean of the Graduate School will appoint an outside examiner from a department other than that of the candidate and chair of the advisory committee. The outside examiner is responsible for determining that a stringent, unbiased examination is given and that it is administered and evaluated fairly.

General university requirements specify that up to one-third of all graduate credits required for a degree program may be transferred from accredited institutions outside the University of Alaska system, while up to one-half may be transferred from other universities within the system (2.F.5). In all cases these transfer credits must be approved for inclusion in the degree program by the student's advisory committee, and the student must have achieved a minimum grade of B. The evaluation of proposed transfer courses is typically based on an examination of the content and level of the course in conjunction with an assessment of the suitability and relevance of the course to the degree program being pursued at UAF.

Several UAF graduate programs offer credit for internships, practicums, or field work (2.F.6). This is typically done through designated course offerings that become an integral part of the degree program and are supervised and evaluated by appropriate faculty members. Examples include the graduate programs in Anthropology, Education, Northern Studies, Justice, and Psychology. In no case is credit given for prior or concurrent experiential learning that occurs outside the graduate degree program.

Appraisal

UAF has well-developed and well-publicized policies concerning graduate admission, retention, and graduation. These policies are in line with nationally accepted norms and congruent with Standard 2.F. The policies have been formulated and periodically modified through the faculty governance process or through faculty-driven discussions at the departmental level. At the university level, faculty have direct input to this process via the Graduate Academic and Advisory Committee of the Faculty Senate, which forwards recommendations on matters of graduate education directly to the chancellor.

The system of graduate student guidance employed at UAF is responsive to student needs and allows faculty who are closely associated with the degree program to be directly involved in formulating programs of study for each individual student. This helps to ensure that student expectations are in line with departmental and institutional goals. The Graduate Student Advisory Committee works closely with the Graduate School and the student to ensure that a reasonable and relevant study plan is formulated when the student first enters the program. These same entities work together during the course of study to ensure that the student meets all program requirements.

In many departments, success in recruiting graduate students is limited by the availability of teaching or research assistantships. In response to "Strategic Plan: UAF 2005" [A1.4], which includes emphasis on increased graduate student enrollment, the Graduate School has introduced new assistantship and fellowship programs during the past few years to improve funding opportunities for graduate students. This has helped to improve recruitment capabilities in many departments.

To help meet the goal of increased graduate enrollment, UAF must strive to publicize its degree programs and unique strengths in many areas of arctic research. The current structure relies largely on the departments themselves to distribute (or publicize on the web) programmatic information. This can lead to inconsistencies in the way information is passed to prospective students due to variations in staffing in the various programs. A renewed institutional commitment to recruitment and public dissemination of graduate program information might help to further the goal of increasing the quantity and quality of graduate admission applications. Such an effort should be coordinated at the institutional level and staffed appropriately to allow UAF to present its best image in a clear and consistent way.

Projections

No major changes are needed in admissions standards or procedures. However, the admissions process could benefit from better communications among the three groups involved—the Admissions Office, the departments, and the Graduate School. Recruitment remains a challenging issue in Alaska because of the state's small population and geographical isolation from other more populated areas from which recruitment could take place. Increased use of Internet resources by students seeking graduate programs will increase the visibility of UAF for prospective students. UAF should exploit this vehicle in recruitment efforts. Graduate student recruitment will be a major focus of the new office of the dean of enrollment. As recruitment efforts increase, UAF must also ensure that students have adequate financial, academic, and facilities resources to succeed in their chosen fields.

2.G., 2.H. Continuing Education and Special Learning Activities, Non-Credit Programs and Courses

Continuing Education and Special Learning Activities at UAF are broadly divided into four types.

1. Procedures for granting degree credit other than by conventional coursework
   Advanced Placement
   Credit for prior learning
2. Educational activities directed at high school students
   Concurrent enrollment
   Various summer camps
3. Educational activities not directed at degree-seeking students
   Cooperative Extension
   Marine Advisory Program
   Elderhostel
4. Delivery of semester-length collegiate-level courses to degree-seeking students
   Distance Delivery
   Summer Sessions
   Internships
   Programs for study outside of the United States

1. Procedures For Granting Degree Credit Other Than By Conventional Coursework

Advanced Placement
Advanced Placement credit is awarded based on national or departmental placement examinations. Local Advanced Placement credit is available for English, Foreign Language, and Math courses based on a combination of standardized test scores and successful completion of subsequent courses.

UAF grants advanced credit, with waiver of fees, for a score of three or higher in the College Board (CEEB) Advanced Placement Tests. UAF accepts as language credit for the Core Curriculum the successful completion of accredited testing in languages not offered by UAF. Only tests that are equivalent to the first two semesters of specifically language study (5+5 or 3+3+3 in ASL) may be applied to the core curriculum language requirements. Other language tests and transfer credit are accepted for humanities credit. Credit is also awarded for successfully completing DANTES tests as recommended by the American Council of Education. Acceptance of the DANTES exam for a specific catalog course or as a major/minor requirement is subject to departmental approval (2.G.9, 2.G.11) [G1:15-16].

Credit For Prior Learning
Local Credit by Examination is available to currently enrolled students. Subject to departmental approval, most non-special topics courses are available for credit by exam.

Credit for Prior Learning is available for certificate, associate or bachelor's degree students for up to 25 percent of the total program requirements. (2.G.9) (Policy 2.3 b;g) The process is described in the catalog [G1:17] (Policy 2.3 a). Credentials are reviewed by faculty from participating departments who determine if this process is appropriate and make recommendations for awarding prior learning credit. Review is based on equivalency to courses listed in the catalog (Policy 2.3 d;e) Credit received for prior learning does not impact a student's GPA and is not considered as residence credit. UAF awards credit for authorized national/state authorization, certificates, credentials, or examinations. A certificate or license must be current at the time it is presented for credit, and the student must be actively pursuing a degree program (admitted or enrolled) at UAF [G17:89].

2. Educational Activities Directed At High School Students

These programs allow high school students to experience the Fairbanks campus and in some cases to earn UAF credit before they finish high school. The for-credit courses involved are regular UAF courses, subject to the same adoption and review procedures as all others and delivered by regular UAF faculty (2.G.1-3).

Concurrent Enrollment
The dual enrollment program allows high school students to register for UAF classes [G1:12].

The Tech Prep program allows students to earn credits toward a UAF certificate or associate degree by completing classes in high school that have been approved for college credit by UAF. Tech Prep programs available are Business/Information Systems and Drafting. Students must complete these courses with a B grade or better and be formally enrolled in the Tech Prep program. College credit is awarded when the student is formally admitted to a certificate or associate degree program at UAF.

Summer Camps
Summer Camps include Music, Art, Theater, Creative Writing, Dance, and Sports programs [W2.10; W2.11]. Finance and Science camps are being held in the summer of 2001 for the first time [W2.6; W2.12]. Some are non-credit; others include UAF lower-division courses offered for credit as described above. An example of a non-credit program is the Alaska Summer Research Academy, an Alaskan statewide program for high school students who are interested in science, engineering, mathematics, and computers [W2.6]. It provides these students with opportunities to pursue science related interests in the setting of a major research institution.

In addition to these academic programs, there are various short-term orientation and familiarization programs offered by either the Office of Admissions or by individual schools and colleges (2.H.1). These are aimed at high school students in general or at students in particular disciplines (math, science, economics, engineering) that do not carry credit or continuing education units.

Rural Alaska Honors Institute
The Rural Alaska Honors Institute is a summer program for students attending rural high schools [W2.7]. RAHI is aimed primarily at rural Alaska Native Students, but others may apply. RAHI is a six-week college preparatory campus residency program providing participants with a chance to explore career choices, develop support networks with other students, celebrate the Native cultures of Alaska, learn how to live and be productive in a university setting, and learn how to join that environment in order to improve their chances for college success. It includes an intensive college freshman writing course along with study skills, orientation to the college system, swimming, Native dance, and several major electives in Business Administration, Biology, Petroleum Engineering, and Alaska Native Studies. Qualified students may also choose courses offered by UAF Summer Sessions. All courses except swimming are taken for full college credit. Students can be expected to earn anywhere from six to nine college credits.

Upward Bound
UAF has two Upward Bound programs: classic and math/science [W2.8; W2.9]. These are TRIO programs established by Congress and funded through the U. S. Department of Education. They expose high school students to a university environment and prepare them for higher education and future careers. The programs are specifically designed for students who meet certain low-income and first-generation college student eligibility criteria. UAF is one of about 80 Math/Science Regional Centers throughout the country set up to help students who might not otherwise have access to college. The program pays all expenses for a six-week summer program, including round-trip transportation to UAF, room and board, and other expenses during the program.

3. Educational Activities not Directed at Degree-Seeking Students

Cooperative Extension
The mission of the Alaska Cooperative Extension Service (CES) is to "interpret and extend relevant research-based knowledge in an understandable and usable form; and to encourage the application of this knowledge to solve the problems and meet the challenges that face the people of Alaska." This statement responds to the federal mandate for Land Grant universities to fulfill three missions: teaching, research and public service [W2.13].

The Cooperative Extension Service is unique in its methods of educational delivery and in the process used to define the focus of the four major program areas: home economics, community resource development, 4-H youth development and land resources. District and statewide advisory councils represent the stakeholders of the CES and have an active role in defining program and audience priorities at the local and statewide level. CES district faculty, statewide faculty specialists and staff provide the educational links from the people of Alaska to the educational resources at the University of Alaska and other Land Grant universities throughout the United States. Methods of educational delivery are designed to meet the needs of the clientele CES serves and include: non-credit classroom teaching, consultations with individuals and organizations, publications, newsletters, newspaper articles, radio spots, television appearances, correspondence courses, conferences, symposiums and distance delivery of programs via audio-conferencing.

The Cooperative Extension Service defines its educational goals and objectives at the state and district with a four year Federal Plan of Work. The current goals are 1) a competitive agricultural production system, 2) a safe, secure food and fiber system, 3) a healthy, well-nourished population, 4) greater harmony between agriculture and the environment, and 5) enhanced economic opportunity and quality of life.

The Marine Advisory Program
The goal of the UAF Marine Advisory Program is to assist in the wise development, utilization, and enjoyment of Alaska's marine resources without detrimental impact on the resources. The educational activities of the Marine Advisory Program are governed by policies and objectives of the University of Alaska public service programs. These objectives are to impart educational and cultural information and to provide communication channels through which the university system may best serve as an intellectual, scientific, and cultural resource to Alaskans [W2.14].

The following general objectives and procedures have been established.
1. Aid in the development of leadership in maritime areas and affairs.
2. Serve as liaison between the university and maritime communities to transfer the problems and needs of the maritime public to researchers and academicians. Stimulate researchers to answer these needs.
3. Provide technical information to harvesters, developers, and users of marine resources, including information on the development of new technologies as well as new applications of existing technologies to marine problems.
4. Develop public awareness of marine resource management and conservation and provide assistance in solving multiple-use conflicts.
5. Promote understanding between marine resource users and marine resource managers.
6. Provide information and assistance to coastal communities on problems of coastal stabilization, coastal zone management, and development of port facilities.
7. Provide continuing marine safety education to the maritime public.
8. Aid in the development of marine awareness programs specifically for communities and their schools.
9. Assist in the development of a unified Sea Grant program of research and extension in Alaska which addresses both regional and national needs

Elderhostel
Elderhostel provided non-credit educational opportunities for senior citizens during the summer at UAF. The Fairbanks campus has recently ended its contractual agreement with Elderhostel. The Bristol Bay Campus continues such a program.

4. Delivery Of Semester-Length Collegiate-Level Courses To Degree-Seeking Students

Distance Delivery
UAF has been a leader in reaching under-served populations through distance delivery systems since 1970. The first approach used was based on outreach courses and traditional correspondence courses. It started with a few courses and grew to more than 111 courses and

3,556 students by spring 2000. The university's 1988 to 1999 Mission Statement guided the commitment to distance learning. UAF has committed itself to offering educational opportunities to remote rural and Alaska Native communities.

At UAF, the previous rural community colleges and rural education centers were united to form the College of Rural Alaska (CRA), and distance delivery efforts were brought together under this college. The correspondence study program and the audio-conference system were brought together in the Center for Distance Education and Independent Learning (CDE&IL) in a complex arrangement of responsibilities. Subsequently, CRA has sought to integrate distance education with campus offerings by making access to the various delivery modes transparent to rural students. The benefit to students is an expanded range of courses and programs supported and strengthened by the academic and institutional support services of the local community campuses.

Historically distance delivery has been viewed as a technique to serve rural students in the far-flung geographic area served by UAF. Thus, the responsibility for distance delivery has resided primarily within the College of Rural Alaska (see Standard 6 for academic organization). In the last several years it has become clear that a wider perspective is required, particularly with the advent of web-based courses. The results are that more emphasis is being placed on the development of distance-delivered curriculum, and new policies are being considered within both the University of Alaska system and UAF.

Evidence-Based Description

Overview and Purpose
"Strategic Plan: UAF 2005" identifies the use of asynchronous and distance delivery to provide access to educational programs for non-traditional and place- or time-bound students as a goal (Policy 2.6a) [A1.4]. Thus, distance education plays a significant role in course and degree delivery at UAF. More than 100 courses are offered to more than 1,000 students each semester. The university currently offers fourteen certificates, degrees and licensure programs in a wholly distance delivered mode as listed below:

Degrees and Programs Wholly Available by Distance Delivery

Title	Type
Early Childhood	Cert/AAS
General Studies	AA
Human Service Technology	AAS
Microcomputer Support Specialist	Cert/AAS
Arts and Sciences	BAS
Rural Development	BA/MA
Elementary Education	BED (not available after 12/2002)
Teaching Credential (Secondary or Elementary)	Post-baccalaureate licensure program
Social Work	BA
Education	MED in Cross-cultural Education

All these degrees are also available by the traditional face-to-face mode. Rural students may take all or part of their degree coursework through either of these delivery modes. A three-year plan of course offerings ensures that all degree requirements are offered on a predictable schedule [Distance Delivery notebook].

As the table below illustrates, of the 858 students who received a certificate or degree from UAF in the academic year 1999-2000, 53 percent had enrolled in at least one distance education course, 12 percent had enrolled in more than four distance education courses, and 3 percent had enrolled in more than fifteen distance education courses (percentages do not add to 100 percent because of rounding).

Percentage of graduating students taking UAF distance delivery courses

Academic year	Number of distance delivery courses taken by students						
	0	1	2	3	4	>4	>15
1997-98	54	19	9	5	3	9	1
1998-99	49	18	11	6	5	11	3
1999-00	47	17	10	9	5	12	3

The above table also illustrates that the use of distance education courses as a part of students' pathways to a degree has increased over the past few years. Fall and spring schedules of classes for CRA community campuses and the Fairbanks campus include courses offered via distance delivery [Distance Delivery notebook].

Distance delivery at UAF consists of several components:
- Regional and cross-regional audio-conference delivery.
- Independent Learning (correspondence) through the Center for Distance Education and Independent Learning.
- Internet web-based delivery or supplement of courses.
- Other approaches such as one or two-way television, video-conferencing, and radio delivery.

The number of courses offered by each distance delivery mode during 2000-2001 is summarized below.

Number of Courses by Distance Delivery Mode, Fall 2000/Spring 2001

Delivery Mode	Fall No. of Courses	Spring No. of Courses
Regional and Cross-regional Audio-conference	92	102
Independent Learning	106	106
Web-based	4	23
Television	3	4

Rural students are targeted for advertisement, marketing of courses, and recruitment to audio-conference-based distance education. Audio-conference classes are not advertised to students on the Fairbanks campus. Sequences of course offerings for cross-regional distance delivery are developed by a faculty council within CRA. CDE&IL coordinates with the Alaska Telephone

Network to schedule the audio-conference times over a 15-week semester. Additionally, CDE&IL prints syllabi, publishes course packs, orders textbooks, and mails all materials to cross-regional students.

Coordination of UAF's Independent Learning (IL) distance delivery program is accomplished by CDE&IL. Sixty-two faculty offer 106 independent learning courses to students throughout Alaska and the world [Distance Delivery notebook] through this center. These courses are offered as semester-based courses, yearlong courses or in both time periods. Semester-based courses allow students to include independent learning courses as a part of their course load to obtain full-time status for establishing eligibility for financial aid. The Distance Delivery notebook lists independent learning course offerings from the Center for Distance Education and Independent Learning. Fairbanks campus students have access to courses via traditional and independent learning delivery modes. However, for correspondence courses no more than fifteen semester hours are accepted toward an associate degree or thirty-two hours toward a bachelor's degree [G1:26].

Various departments outside of CRA offer courses via distance delivery. The School of Fisheries and Ocean Sciences (SFOS), School of Agriculture and Land Resources Management (SALRM), and the College of Liberal Arts (CLA) deliver some of their courses via distance delivery using a variety of modes including video-conferencing, web-based courses, and audio-conference. The School of Education has long delivered courses by distance in collaboration with the College of Rural Alaska. SALRM now offers its Natural Resources Management, Plant, Animal, and Soil Science B.S. degree option through the Palmer Research Center of the Agricultural and Forestry Experiment Station in Palmer. The individual distance delivered courses offered by SFOS, SALRM, and CLA are designed to meet specific student needs and generally focus on providing courses to students in Palmer, Juneau, and Anchorage where these colleges and schools have off-campus programs. The Graduate School encourages the development of web-based distance courses and programs via development grants.

Curriculum and Instruction (Policy 2.6 c-i).
The curriculum approval process for distance delivered courses and programs is the same as that for any other course (Policy 2.6 b) (see Standard 2.A). Thus, the faculty is responsible for the development and approval process for distance courses and programs (Policy 2.6 d). Some courses are first created specifically for distance delivery and subsequently adapted for face-to-face delivery while others are created first for face-to-face delivery and then adapted for distance delivery. Faculty who develop courses for distance delivery often coordinate with other faculty within their discipline as well as with the appropriate departments and divisions as they develop the courses to ensure that course content is current and outcomes and objectives are met (Policy 2.6 f).

The Distance Delivery notebook provides examples of syllabi for some specific courses currently being taught via distance delivery. Because faculty involved in distance delivery recognize that students will have numerous questions about the course, they try to provide answers to these questions in the syllabus so that all students have immediate answers to common questions. Frequently this makes for a rather extensive course syllabus as the examples demonstrate.

There are multiple ways in which faculty and student interaction takes place (Policy 2.6 c). Generally, the type of interaction is related to the distance delivery mode used. Interaction methods for audio-conference courses include extended office hours coupled with toll-free phone numbers, e-mail office hours, office hours via an online threaded mail discussion forum, fax, and mail. Correspondence courses commonly use the mail system, but some interaction takes place via e-mail for those students who have this capability (e-mail access is often limited or unavailable in many rural Alaska locations). Several correspondence courses are now being taught using Internet technologies and are incorporating use of discussion boards and e-mail for student-to-student and student-to-faculty interaction. At the heart of the correspondence program is the concept of independent learning, which places most of the responsibility for learning on the student. Within web-based courses, interaction occurs via the telephone, the fax, and the mail system as well as by e-mail, online discussion groups, and electronic transfer of student assignments. In both the audio-conference and the web-based delivery systems, student collaborative projects are commonly incorporated into assignments to encourage interactions among students.

Because not all students have the same capability to access distance-delivered classes, UAF has established a policy to make Core classes available via multiple delivery modes. Consequently, the same course will be available via correspondence and audio-conference and these courses are being added to web-based course offerings (Policy 2.6.e).

Policies regarding intellectual property rights and related issues are covered in Board of Regents Policy [G2 P10.07.05] and University Regulation [G3 R10.07.05] and the appropriate collective bargaining agreement for the three faculty unions involved [G14; G15; W2.24]. Union and university administration have not yet resolved all issues surrounding university and faculty member rights and responsibilities relating to distance education in these areas. Several issues relating to workload, course materials ownership, and intellectual property rights remain to be discussed. In association with CDE&IL, individuals assigned to the correspondence courses are considered to be "paper graders" rather than faculty. Faculty who create courses for independent learning offerings through CDE&IL are required to sign away all intellectual property rights under a "work for hire" concept [Distance Delivery notebook]. This same policy is not applied to other areas of distance education, for example, the audio-conference.

Library and Information Resources
All distance students have access to the Fairbanks campus library via Interlibrary Loan (ILL).The Rasmuson Library has established an off-campus librarian position, which handles all requests for library support from distance students [A5.1]. Contact may be made either via a toll-free phone number or via a web-based ILL request form. The entire library catalog and several searchable databases are available online. Off-campus students request library services at a rate which has been relatively consistent over the last five years. The Off-Campus Library Services annual report, provides a complete assessment of library services use by distance students and faculty [E5.19]. Faculty, students, and staff can also submit requests for information, materials, and request a library card online from the Off-Campus Library Services web page [W2.23] (Policy 2.6 j-l).

Faculty and Faculty Support

With only the occasional exception, it is full-time faculty members at UAF who teach non-correspondence distance-delivered courses. Most of these faculty are members of CRA (thirty-two out of forty, or 73 percent) and have extensive experience teaching by distance delivery. The remaining faculty (27 percent) belong to SOE, SALRM, SFOS, or CLA (Policy 2.6. m. n.) [Distance Delivery notebook].

Of the sixty-two people teaching in the correspondence program, twenty-nine are full-time UAF faculty and thirty-three are retired UAF faculty or adjuncts with particular discipline-based expertise. (See Standard 4 and the CRA campus notebooks for additional information about faculty.) Academic departments approve all faculty members teaching correspondence courses. Often these faculty are full-time employees of that department. Similarly, courses taught by non-correspondence distance delivery methods within CRA are reviewed and updated by discipline-based faculty prior to the delivery of the course.

The foundation for distance delivery within CRA is a set of Guiding Principles developed by a faculty who have extensive experience in distance delivery and whose primary teaching responsibilities use distance delivery as the delivery mode. The goal established by this group is to provide high quality distance education to Alaskans through content rich, cost effective, learning opportunities and services [Distance Delivery notebook].

UAF selected and installed "Blackboard" course management software in the summer of 1999, and the system was activated August 19, 1999. As of April 2001, 487 courses have used this software. Of these, 145 (29.77 percent) have been used to deliver distance education content. The Center for Distance Education and Independent Learning offered 30 courses using Blackboard during the Spring 2001 semester out of a total of 139 courses available. Courses provided with this management tool consist of wholly distance delivered courses, traditional face-to-face courses with significant web-augmentation, and courses with an associated web site.

The College of Rural Alaska and the Faculty Technology Resource Center (FTRC) have provided and continue to provide training for faculty who teach via distance delivery or via web-based courses. CRA uses a combination of on-site mentoring and occasional conferences with distance delivery experts to provide training in audio-conference delivery of courses. Additionally, CRA has funded travel by FTRC and Center for Distance Education and Independent Learning technology specialists to go to the rural campuses and provide on-site training in electronic delivery.

On the Fairbanks campus, the Faculty Technology Resource Center provides training for faculty interested in the online delivery of courses through a series of periodic workshops and through drop-in services. During FY99 the FTRC provided twenty-six training sessions involving more than 100 different faculty, graduate teaching assistants, and staff. Training has included face-to-face software sessions, hands-on equipment seminars, guest speakers from various disciplines and institutions, and satellite programs from PBS and other providers. Cooperation across the UA system continues to improve in this area. Additionally, the Graduate School has provided funding for faculty to participate in professional development in online instruction. During academic year 2000, twenty-nine faculty participated in an online instructor training course

offered through Walden University. Ten additional faculty are participating in academic year 2001.

Each rural community campus is responsible for providing administrative support for distance delivery faculty. This support is a normal function of standard operations of all rural campuses. Additionally, new faculty members are paired with experienced faculty in distance delivery in a mentoring relationship. This relationship is established during the faculty members' first semester, before they are expected to distance deliver any course. It is continued during their first semester of distance delivery and is reduced as the new faculty member gains more experience. The College of Rural Alaska has also published a Handbook for Distance Educators by Dr. Kyle Franks, which is used with new and continuing distance instructors [Distance Delivery notebook].

Student Services
Distance students register for classes by contacting any campus or the CDE&IL. Advisors and financial aid information are available at each campus. Each rural campus has responsibility for the villages in its immediate area. This responsibility includes advertisement, recruitment, academic advising, testing and placement, counseling, and financial aid. Textbooks are provided by the campus or from CDE&IL. Students taking departmentally based distance delivered courses also have access to Fairbanks campus student services. Some services, such as those provided by the Writing Center and the Advising Center, are available through a toll-free number. Additional access is becoming available to students who have Internet access. CDE&IL also runs a bookstore in support of the distance delivery program. Full details on the support provided by CDE&IL may be seen in its notebook. Since July 2000, the CDE&IL bookstore has provided materials for 867 correspondence students and 1,616 audio-conference students. Students also have access to a toll-free Math Hotline as a tutoring service as well as the facsimile tutoring service provided by the English writing lab (Policy 2.6. o-r).

For students needing technical support, the Rasmuson Library's Division of Computing and Communications maintains a help desk that can be accessed by a local telephone number or via an 800 number accessible from anywhere in Alaska. Additionally, online help is available [W2.15].

Facilities and Finances
UAF has been doing distance delivery for so long that it is an integral part of normal business. For example, several rural campuses (Kuskokwim, Chukchi, and Bristol Bay) possess their own audio-conference bridge. Additionally, UAF contracts with ATN (Alaska Teleconferencing Network) to provide the backbone for audio-conference courses. Within the area of online delivery, several servers have been dedicated for use with this program and are evaluated, upgraded, and replaced as necessary to accommodate the growing needs of distance education. Distance delivery to remote villages is limited by Internet connectivity. While modern web-based delivery can be used for urban areas, methods such as audio-conferencing are used predominantly in many remote villages.

The Center for Distance Education and Independent Learning has created two new positions in support of online instruction: a Web and Training Coordinator position and Technical Manager.

In addition to the facilities and services provided by CDE&IL and CRA, UAF has committed extensive resources through the following means:

- Purchase of dedicated servers for use with the Blackboard course administration program.
- Development of smart classrooms that have the capability of delivering content off the Fairbanks campus.
- Development of a media classroom that allows for the participation of Fairbanks campus students and faculty in distance delivery generated by other educational entities throughout the United States.

KUAC, the local public broadcasting station, also provides video taping services and has broadcast a distance-delivered music appreciation course (Policy 2.6. s. t.).

Commitment to Support
UAF's distance-delivery program focuses on providing postsecondary educational opportunities to residents outside of Fairbanks. This commitment is seen in the mission statement and in "Strategic Plan: UAF 2005" [A1.1; A1.4]. It is also evident in the number of students who have depended on distance delivery to complete courses and degrees.

UAF and the statewide system are committed to ensuring that distance-delivered programs will remain accessible to students. If a degree or program is cancelled, UAF continues to provide opportunities for all degree-seeking students to complete the program before it is eliminated (Policy 2.6. u).

Evaluation and Assessment
The assessment of student learning outcomes across modes of delivery is discussed in Standard 2.B. Additionally, UAF has conducted several surveys [Distance Delivery notebook] designed to solicit student and faculty responses regarding the effectiveness of distance education offerings. Outcomes assessment for distance-delivered Core courses by audio-conference are in place for English, Philosophy, and History. The Instructional Assessment Survey (IAS) instrument is used to collect student opinion of instruction regardless of method of delivery or location. However, for distance-delivered classes, the survey forms are subject to loss, damage (e.g. folding), or incorrect coding when transported through the mail, resulting in small return (Policy 2.6. v-x).

UA's Institute of Social and Economic Research conducted a study of the current and future demand for distance education in 1997. It found that during fall 1997, 4,115 students in 178 Alaska locations were enrolled in 293 distance education courses (ISER report, Feb 1998). Additionally, ISER found that nearly one-third of the students (1,323) resided in the Anchorage and Fairbanks areas, and more than two-thirds (2,792) resided in smaller communities or in rural Alaska. These results apply to the University of Alaska system. Excluding correspondence, almost all UAF students who enroll in distance classes live in rural Alaska [Distance Delivery notebook].

Appraisal

Distance learning is an integral part of course and program delivery at UAF. Faculty who teach the courses face-to-face, teach the same course by audio-conference, Internet, or independent

learning. All that varies is the delivery mode. Course and program descriptions as listed in the catalog remain the same.

Several areas of UAF's distance delivery system need a change in method of operations or added or improved capabilities. This need for change, addition, and improvement is based on the anticipated continual growth of distance learning, particularly web-based distance learning. However, for the foreseeable future, the growth of web-based instruction will be negatively affected by the technological limitations in Alaskan villages.

As more instructors develop web-based courses to supplement traditional courses or as fully distance-delivered courses, UAF will need to expand faculty and student support. This includes providing faculty with instruction in how to teach online and at a distance as well as how to construct an effective distance delivered course. Academic and administrative policies relating to web-based delivery will need to be developed and implemented as well. For example, workload expectations and faculty support tools will need to be re-evaluated. Ongoing plans to evaluate and upgrade existing server size will need to be developed and policies related to UAF web-site access from non-UAF Internet service providers will need to be reevaluated.

Uniform procedures for the approval of traditional and distance delivered courses promote consistency in academic standards and criteria. As a result of appointing faculty as "graders" for CDE&IL course offerings independent of their other assignments, issues of academic authority, responsibility, and workload are poorly defined. Issues of administration, authority, student support, communication, and common outcomes assessment for some Core courses remain.

Projections

Although UAF has more than thirty years of experience in distance delivery, demand and expectations are rising significantly. Distance delivery of courses and entire degree programs, particularly over the Internet, remain in their infancy and will receive considerable attention over the next decade. The University of Alaska statewide system will play a major role in the coordination of the efforts of the three universities [E2.5]. The challenge will be to develop a cooperative, non-duplicative curriculum within the statewide system while retaining the academic integrity and autonomy of the individual universities.

As the Fairbanks campus expands its involvement in distance delivery and related support, issues will need to be addressed either through integration with existing Fairbanks-based support, through the development of new department or college-based support mechanisms, or through integration with the existing Center for Distance Education and Independent Learning. CDE&IL plans to broaden its program to include student counseling, tutoring, advising, and career counseling; development of individual education degree plans; and assistance with academic logistics such as registration, transcript evaluation, financial aid, and textbooks.

The Graduate School is supporting the development of distance courses to deliver additional graduate degrees, and the School of Education is developing courses to deliver a baccalaureate degree in Elementary Education.

The long-standing policy of allowing the unfettered growth of distance delivery courses, particularly web-based courses, will need to be reevaluated. In a period of rapid growth and limited resources, there appears to be a need for a review of the entire UAF distance delivery program. Although student learning outcomes assessment has been implemented consistently across face-to-face and distance delivery for some programs and Core courses, further effort is needed to make this statement true for all areas and delivery modes. In order to ensure that courses remain current, CDE&IL is implementing a policy in summer 2001 to have every correspondence course reviewed at least every two years by the department with discipline responsibility for the course. This process will provide an opportunity to ensure that the courses remain current, that they continue to meet course outcomes expectations, and that the discipline-based departments remain connected to CDE&IL.

UAF's distance education program will have the following characteristics:
- Cost-effective, content-rich courses and educational opportunities to students.
- Strategic partnerships with governmental, educational, and private sector entities.
- The conduct of research and evaluation that advances knowledge and assures program quality.
- Training new teachers in the use of electronic technologies as a vehicle for learning.
- Training UAF faculty—especially those based on the Fairbanks campus—in technology-based curriculum development and delivery and the encouragement of their participation in the delivery over distance of UAF's academic program.
- New curricula appropriate to advance knowledge of distance education.
- Support for promising activities.

Summer Sessions
Summer Sessions classes are regular UAF classes offered during the summer semester. These courses have the same approval process as do regular classes and meet for the same number of hours (2.G.2). The principal difference between them and regular term classes is that many are offered on an accelerated half-term basis. Approximately 325 sections will be taught in summer 2001 [G8; W2.16].

Summer classes are approved using institutional procedures established by the UAF Faculty Senate. Departmental and school/college review takes place on an annual basis, with summer program development anchored in academic departments. The majority of course development and instruction is conducted by full-time faculty. However, when course development is undertaken, the review and evaluation of course material takes place within the appropriate discipline (2.G 1, 2.G.7, 2.G.8).

Summer programs are administered centrally to minimize administrative expense. Summer Sessions reports to the provost. The office is guided in academic matters by the department/school or college hierarchy. Academic decisions relating to summer classes devolve to the unit involved (2.G.3, 2.G.4, 2.G.5).

University policies and regulations pertaining to collection and refund of tuition and fees are maintained during summer sessions and are clearly stated in printed and web materials prepared for students (2.G.6).

Internships
Two types of internships are available at UAF. The first is a credit-bearing practicum, supervised by a faculty member who oversees internships as part of his or her workload assignment. These provide students with an opportunity to apply classroom instruction in a real world setting (2.G.2, 2.G.3, 2.G.4). Credit is assigned based on time spent on academic-related activities using the same formula as regular courses. Such internships are available in Accounting, Agriculture and Land Resources Management, Applied Business, Business Administration, Computer Science, Education, Emergency Medical Services, English, Fire science, Food Science and Nutrition, Geological Engineering, History, Journalism and broadcasting, Natural resource management, Political Science, and Seafood Technology. Additional related internships are available though the Land, Sea, and Space Grant programs (2.G.7).

In addition to the above programs, which are tightly integrated with the appropriate curricula (2.G.1), the office of Career Services works with faculty advisors to help arrange non-credit summer internships where students combine a summer job with application of the skills required in their chosen profession [W2.17]. Organizations participating in these internship programs (other than the various administrative branches of UAF) include the Alaska Department of Environmental Conservation, Alaska Department of Fish and Game, Alaska Department of Transportation, Alaska Permanent Fund Corporation's Outside Internship Program, Alyeska Pipeline Service Co., ARCO, Alaska Army Corps of Engineers, AT&T Alascom, BP Exploration, Bureau of Indian Affairs, Bureau of Land Management, CIA (Central Intelligence Agency), Chevron Corp., Coeur Alaska, Dowell Schlumberger, Emcon Alaska, Enterprise Rent-A-Car, FAA (Federal Aviation Administration), FBI (Federal Bureau of Investigation), IBM, Intel, Kennedy Space Center, Kiewit Construction, Knauss Marine Policy Fellowship, Microsoft, National Park Service, SIEMENS Building Technologies, U.S. Fish and Wildlife Service, U.S. Geological Survey, U.S. Navy, and Western Geophysical (2.H.1).

Programs For Study Outside of the United States
Programs for study outside of the United States have grown considerably at UAF in the last ten years and have been accompanied by extensive reorganization. Ten years ago, study abroad was limited to a few cooperative programs, primarily for foreign language majors, and a few exchange programs driven primarily by individual faculty interest. They were overseen by an International Programs Council consisting of faculty with interests in international issues and overseen by a part-time faculty director. In addition, individual schools and colleges ran their own programs. The number of alternatives available to students grew slowly during the early 1990s, driven in part by bottom-up faculty interest and in part by "Strategic Plan: UAF 2000" [G22]. In 1996, an external review of international activities at UAF was conducted, and as a result the current Office of International Programs [W2.18] was created, accompanied by 100 percent staff turnover. Since that time, the development of programs for study outside of the United States has accelerated (from thirteen alternatives to sixty-six) and has been integrated into a broader section of the curriculum. In 1998 an internal assessment was carried out to determine how well the new structure was meeting the recommendations made by the external reviewers, as well as the needs of the University (Policy 2.4 n). Study outside of the United States has played an increasing role in UAF's recruiting and in its curriculum (Policy 2.4 b). Detailed information about both reviews is contained in the International Programs notebook.

Evidence-Based Description

The Office of International Programs is responsible for working with all students coming to UAF from outside the United States and for all UAF students studying outside of the United States. It consists of an international student advisor who handles administrative matters for incoming students, an assistant to the director who handles administrative matters for outgoing students as well as program promotion, and a part-time director who is responsible for coordinating international activities with UAF curriculum and planning. The latter two positions are filled by faculty members. International Programs reports directly to the provost, who also appoints the members of the advisory committee that represents the schools and colleges, as well as student services (2.G.1, 2G.3). See the catalog for international student advising [G1:60].

Currently all programs for study outside of the United States are administered though the Office of International Programs. The one exception is for Canadian participants in the National Student Exchange, who are administered though the Office of Student Services. Students submit a formal application to study abroad (Policy 2.4 d;m), and courses to be taken are approved in advance by a faculty member in the Office of International Programs and, if applicable, by the student's faculty advisor in his or her major area. Granting credit at the end of the program also requires UAF faculty review and approval (2.G.4). Most programs involve classroom study with a pre-approved set of courses (2.G.2, 2.G.7, 2.G.8). The only travel-study tours are those conducted by UAF faculty as part of an approved course. There are three forms of study outside of the United States available: exchanges, study abroad, and individually tailored programs (2.G.12). In cases where exchange and study abroad sites have not been visited and inspected by personnel in the Office of International Programs, UAF relies on visits by either UAF faculty or colleagues from other institutions in the case of consortia and joint programs (Policy 2.4 k). Areas of study available and language requirements at each site are documented on the International Programs web site [W2.18]; assessment of language background is done in consultation with the foreign language faculty (Policy 2.4 f).

Exchanges are bilateral programs whereby UAF students pay UAF tuition (subject to the same policies as resident students Policy 2.4.o) and study at an exchange partner, and (a usually equal number of) students study at UAF for a semester or a year (2.G.6). Most of these programs are at institutions with strong programs in northern studies (the only exceptions are those in Brighton, England and Nagoya, Japan). At all of them, there is a full-time international office maintained by the host university to help US students with administrative and academic issues (Policy 2.4 i-j). UAF students studying at these programs are registered at UAF during their period of study abroad and register for courses at the partner university approved by a UAF faculty advisor. On their return, the students receive UAF credit for work successfully completed based on their transcripts. UAF credit is assigned based on written approval from a faculty member, and if a regular UAF course number is to be used rather than a generic study abroad course number, they must have the written approval of the department in which the credit is granted (many of these courses are pre-approved) (Policy 2.4 l).

Study abroad programs are arrangements whereby UAF students study at a foreign site with which UAF does not have a bilateral exchange, but where we have a formal agreement [G1:66-69]. Students pay fees and are subject to policies published by the other institution and reviewed

by the UAF Office of International Programs. (2.G.6) Most of these are consortia with other universities. With the exceptions of the Australearn programs in Australia and new Zealand and two of the Northwest Council on Study Abroad sites, all of these programs involve foreign language study. At all of them, there is a full-time site director to help U.S. students with administrative and academic issues, as well as supplementary library resources when needed (Policy 2.4 i-k). Students studying at these programs are registered at UAF during their period of study abroad, and the system of assigning credit is the same as that for exchange programs.

Individually tailored programs are intended for students with degree-related needs for study outside of the United States which are not met by UAF's existing agreements (usually because of low demand). Generally these students enroll in a study abroad program sponsored by another university. Enrollment in such programs requires prior approval from both the student's academic advisor and from the Director of International Programs (Policy 2.4 m). Credits earned in such programs are treated as transfer credits from the institution sponsoring the program. An example is the intensive math program in Budapest, Hungary, to which UAF has sent two students in the last three years.

Students participating in any of these programs have access to the same financial aid sources as they do on campus (Policy 2.4 e). All students studying outside of the United States undergo both general pre-departure orientations and one specific to their program. In exchange and study abroad programs, they also receive an on-site orientation from the site director or the study abroad office at the university where they study (Policy 2.4 g,h).

Appraisal

During the first half of the 1990s, UAF programs for study outside of the United States grew considerably but, except for Japanese and Russian studies, were not linked to the curriculum. A major part of the explanation for this problem was concentration on the element of "Strategic Plan: UAF 2000" [G22] that called for UAF to become the educational center for the Russian Far East. During this period, there was little linkage between the strategic plan and the curriculum, and the expansion of international study was based in large part on federal support for Russian exchanges. Unfortunately, many of the participants in these programs were not degree-seeking students, and their activities were not connected with UAF academic programs. At the same time, the schools and colleges experienced increasing frustration that opportunities for study abroad did not meet the academic needs of their students.

During the last five years, there have been institution-wide efforts to align programs for study outside of the United States with the academic needs of degree-seeking students and to expand the opportunities for such experience beyond the traditional audience of foreign language students (Policy 2.4 a,c). The number of programs available has increased from thirteen to sixty-six, and the number of students studying outside the United States averages over thirty (2-3 percent of juniors and seniors). An increasing number of students in management, the sciences, and engineering now participate in international study.

Projections

The number of students studying outside of the United States will probably increase somewhat over the next five years as students become more aware of increased opportunities and as such study becomes better integrated into degree programs. For example, both the College of Liberal Arts and the School of Management are integrating international experience into their curricula in the form of minors or concentrations. The major constraint appears to be the lack of foreign language skills on the part of the students. The major potential change is the increase in English language professional programs in Europe. The Instructional Working Group, an institutional planning committee, is examining how study outside of the United States can become better integrated.

Standard 2 Documents List

Appendices
A1.1 UA and UAF Mission Statements (extracts from UA Regents Policies)
A1.4 UAF Strategic Plan 2005
A1.6 UAF Academic Development Plan
        (http://www.uaf.edu/provost/academic_plan/index.html)
A2.1 UAF Educational Effectiveness Policy
A2.2 Regents' Policy on Educational Effectiveness
A2.3 Methods of Assessment: Undergraduate Certificate and Degree Programs
A2.4 Methods of Assessment: Graduate Certificate and Degree Programs
A2.5 Inventory of Documents that demonstrate the Appraisal of Educational Outcomes
A2.6 Provost's Memo on Program Review
A2.7 Inventory of Degree Programs that have been Added or Deleted in last Five Years
A2.8 UAF Degree Awards by Major and Type, FY 1996-2000
A2.9 The Baccalaureate Experience: Core Curriculum Requirements
A2.10 UAF Graduate Programs: Admissions/Degree Requirements and Statement of Faculty
A2.11 UAF's Specialized Accreditations
A2.12 Organizational Chart Showing Relationship of Continuing Education to Academic Units
A2.13 Summary Listing of Off Campus Programs, Directors, and Sites
A2.14 Policy and Procedures for Institutional Approval of Off-Campus and Special Programs
        and Courses
A2.15 Approval Process for New Courses and Course Changes Flow Chart
A2.16 Approval Process for Program Additions and Deletions Flow Chart
A4.2 Table #1, Institutional Faculty Profile
A5.1 UAF Libraries Organizational Chart

Exhibits
G1   UAF Catalog (http://www.uaf.edu/catalog/)
G2   Board of Regents Policy (http://www.alaska.edu/bor/)
G3   University Regulations (http://www.alaska.edu/bor/)
G5   UAF Fact Book (http://www.uaf.edu/pair/factbook.html)
G6   UA in Review (http://www.alaska.edu/oir/Review/index.html)
G7   UAF Home Page (http://www.uaf.edu)
G8   UAF Class Schedules (http://www.uaf.edu/reg/schedule/index.html)
G9   Yellow Book (http://www.alaska.edu/swbudget/yellowindex.htm)
G10 Red Book (http://www.alaska.edu/swbudget/redindex.htm)
G11 Faculty Senate Home Page (http://www.uaf.edu/uafgov/faculty/index.html)
G12 UAF Faculty Senate Directory & Handbook
        (http://www.uaf.edu/uafgov/faculty/fsdir.html) and
        (http://www.uaf.edu/uafgov/faculty/fscom.html)
G13 Faculty Senate Course & Degree Procedure Manual
        (http://www.uaf.edu/uafgov/faculty/cd/cdman.html)
G14 Union Contract UNAC (http://www.alaska.edu/labor/current/united/table2001.html)
G15 Union Contract ACCFT (http://www.alaska.edu/labor/current/accft/Contract/table.html)
G17 Faculty Advisor Manual (http://www.uaf.edu/acadadv/Manual_TOC.htm)

G18   Advising Center Home Page (http://www.uaf.edu/acadadv/)
G19   Graduate School Home Page (http://www.uaf.edu/gradsch/)
G22   UAF Strategic Plan 2000 (http://www.uaf.edu/univrel/plan/index.html)
G24   1990 UAF Accreditation Self-Study Report
G25   Initiative Planning & Budgeting Process (http://www.alaska.edu/swacad/planninGhtml)

E1.3   Enrollment Management Planning Documents
E1.5   *An Analysis of Public Opinion in the State of Alaska*, Evans/McDonough Company, 1994
E1.20 *A Survey of the Higher Education Priorities and Needs of Alaska Households,*
       McDowell Group, 1998
E1.26 Career Services Graduation Reports 1998, 1999, 2000
E2.1   Memo from Executive Dean Gabrielli to CDE&IL on assessment of Core Curriculum
       courses
E2.2   Draft Revision of Core Curriculum
E2.3   Guide to the Evaluation of Educational Experience in the Armed Services
E2.4   Instructional Faculty Summary Information
E2.5   System-wide Academic Council white papers on distance
E2.6   President Hamilton's presentations on UA Economic Role in the State
E2.7   Evaluation report from NASC on Tanana Valley Campus related instruction 1992
E2.8   List of government and professional certifications approved for course equivalencies at
       UAF
E2.9   Graduation Checklists for all programs
E2.10 Graduate School Program Reviews
E2.11 Noel Levitz Student Satisfaction Inventory, 2000
E3.6   ACT Student Opinion Surveys 1993, 1994,1997, 2000
E3.7   Cooperative Institutional Research Program (CIRP) Surveys 1998, 1999, 2000
E3.8   Noel-Levitz Student Satisfaction Inventory (SSI) 2000
E3.11 Student clubs list (http://www.uaf.edu/woodctr/activity/clubs/club_list.html)
E3.18 Brochure regarding transfer of credit
E4.16 Experimental Program to Stimulate Competitive Research (EPSCoR) Documentation
E5.19 Off-Campus Library Services Report
E8.16 Technology Refreshment Program

Notebooks of specific interest
Core Curriculum notebook
Outcomes Assessment notebook
Developmental Studies notebook
Distance Delivery notebook
International Programs notebook

Additional Web Sites
W2.1   Center for Distance Education and   http://www.dist-ed.uaf.edu/
       Independent Learning
W2.2   Outcomes Assessment   http://www.uaf.edu/provost/outcomes/

W2.3   Retention Data   http://www.uaf.edu/pair/99ffretent.html
W2.4   AAHE Assessment principles   http://www.aahe.org/assessment/principl.htm

W2.5   AAHE Assessment Conference Notes   http://www.aahe.org/assessment/2000_notes.htm

W2.6   Alaska Summer Research Academy   http://www.uaf.edu/csem/asra/index.html

W2.7   Rural Alaska Honors Institute   http://www.uaf.edu/rahi/

W2.8   Upward Bound Classic   http://www.uaf.edu/upbound/

W2.9   Upward Bound Math/Science   http://www.uaf.edu/ubms/

W2.10 Summer Fine Arts Camp   http://www.uaf.edu/music/artscamp/index.html

W2.11 Athletics Summer Camps   http://www.uaf.edu/athletic/camps.html

W2.12 School of Management Finance Camps   http://www.som.uaf.edu/fep/

W2.13 Cooperative Extension   http://www.uaf.edu/coop-ext/

W2.14 Alaska Marine Advisory Program   http://www.uaf.edu/MAP/

W2.15 Computing and Communications On-line Help   http://www.uaf.edu/DCC/help/online.html

W2.16 Summer Sessions   http://www.uaf.edu/summer/

W2.17 Career Services   http://www.uaf.edu/career/

W2.18 Office of International Programs   http://www.uaf.edu/oip/index.html

W2.19 Northwest Association of Schools and Colleges   http://www.cocnasc.org/

W2.20 Honors Program   http://www.uaf.edu/honors/

W2.21 Admissions   http://www.uaf.edu/admmrec/

W2.22 Rural Student Services   http://www.uaf.edu/ruralss/

W2.23 Off-Campus Library Services   http://www.uaf.edu/library/libweb/services/off-campus_services.html

W2.24 Adjunct (UNAC) Faculty Contract   http://www.alaska.edu/labor/indexes/Adjuncts.html

W2.25 Graduate Enrollment and Productivity   http://www.uaf.edu/gradsch/Statistics.html

UAF student Jill Hansen is a painter who is working on her bachelor of fine arts degree.

UAF photo by Yumiko Uchiro

COLLEGE OF LIBERAL ARTS

College of Liberal Arts

Programs

Alaska Native Studies	B.A.
Anthropology	B.A., B.S., M.A., Ph.D.
Art	B.A., B.F.A., M.F.A.
Communication	B.A.
Community Psychology	M.A.
Creative Writing	M.F.A.
English	B.A., M.A.
Eskimo	B.A.
Inupiaq Eskimo, Yup'ik Eskimo	
Foreign Languages	B.A.
French, German, Russian, Spanish	
History	B.A.
Japanese Studies	B.A.
Journalism	B.A.
News-Editorial, Broadcast Journalism, Photojournalism,	
Public Relations-Advertising, Publishing-Multimedia	
Justice	B.A.
Linguistics	B.A.
Music	B.A.
Music	B.M.
Music Education, Performance	
Music	M.A.
Conducting, Music Education, Music History,	
Performance, Theory/Composition	
Native Language Education	Cert., A.A.S.
Athabaskan, Inupiaq Eskimo	
Northern Studies	B.A., M.A.
Philosophy	B.A.
Political Science	B.A.
Professional Communication	M.A.
Psychology	B.A., B.S.
Russian Studies	B.A.
Social Work	B.A.
Sociology	B.A., B.S.
Theater	B.A.

Students

Number of Degrees & Certificates Awarded
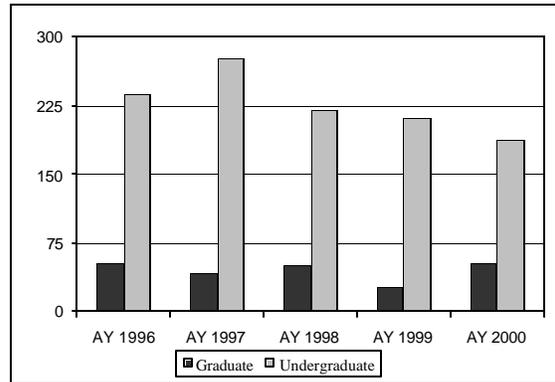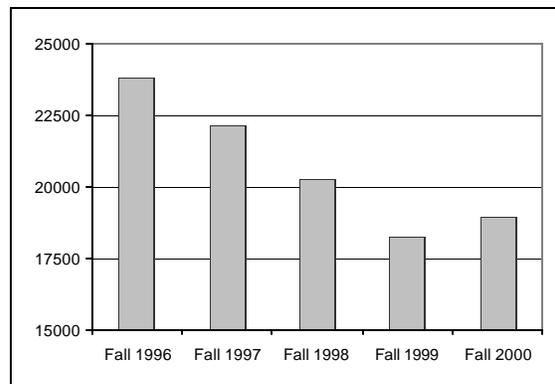
Student Credit Hours

Budget

Expenditures
(Unrestricted Funds, in thousands)
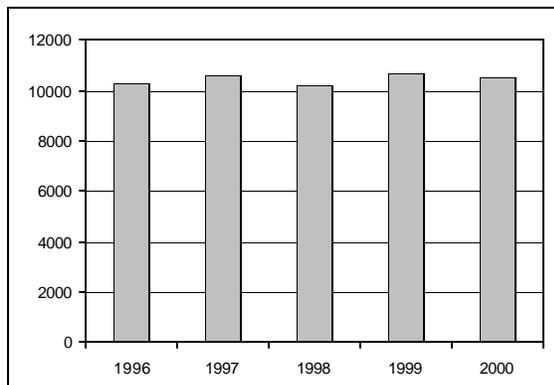
Faculty

Faculty Headcount
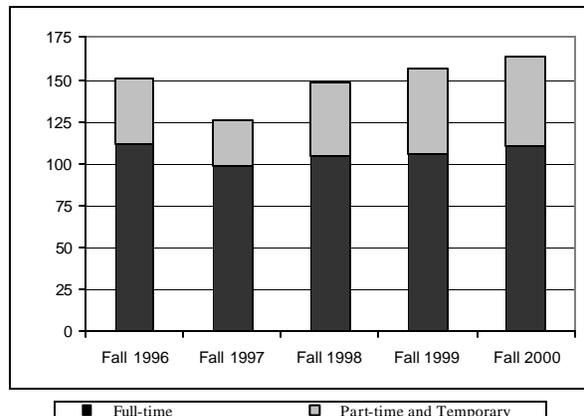
*Programs are those offered in the 2001-2002 UAF Catalog.

College of Liberal Arts

Partly in response to budget constraints and partly because of senior administrative decisions, the College of Liberal Arts (CLA) has changed shape several times over the last ten years, in strong contrast to the previous stability as reported in the 1989-90 Self-Study (p. 31). For example, in 1997 the School of Education was moved into the college as a semi-autonomous unit, and two years later it was moved out again. That same year the largest department in CLA, the Department of Mathematical Sciences, moved into the newly formed College of Science, Engineering, and Mathematics. The Department of Behavioral Sciences and Human Services moved in 1992 into CLA from the Rural College (now the College of Rural Alaska) and split into separate Psychology, Social Work, and Sociology departments. After these and other changes, CLA is the smallest it has been in the last twenty years, but it still represents one-fifth of all UAF faculty.

There have also been a number of internal changes, and four different deans, over the last ten years. The Northern Studies Department was created in 1991 (offering bachelor's and master's degrees). Physical Education, which offered bachelor's degrees, was phased out by fall 2000. The Department of Political Science / Justice split into two separate departments. The Department of Foreign Languages and Literatures no longer offers courses in Korean or Danish.

Several changes took place among graduate programs in the college. As mentioned above, Northern Studies created an M.A. degree. English dropped its new Master of Arts in Professional Writing after just a few years. Communication and Journalism instituted in 1994 an M.A. in Professional Communication with separate tracks in Communication and Journalism, and after a few years Journalism decided to suspend its program. Art began a Master of Fine Arts program in fall 1999. A new M.A. in Justice was approved to begin in fall of 2001. The number of teaching assistants in the college grew enormously from fewer than twenty in 1986 to a high of more than seventy in 1998, and in the spring of 2000 the Graduate School created a new fellowship program, with eleven of those fellowships going to CLA departments.

Evidence-Based Description

CLA includes the following academic departments: Alaska Native Language Program, Alaska Native Studies, Anthropology, Art, Communication, English, Foreign Languages and Literatures, History, Journalism, Justice, Library, Music, Northern Studies, Philosophy and Humanities, Political Science, Psychology, Social Work, Sociology, and Theater. The college is also responsible for minor-only programs in Women's Studies, Film Studies, and Military Science, as well as Personal Recreation classes. CLA is the administrative home for a variety of non-credit programs, including KUAC television and radio, the Rural Alaska Honors Institute, Elderhostel and Interhostel, and the Summer Fine Arts Camp, as well as one research institute, the Alaska Native Language Center.

CLA is a complex organization with different configurations depending on how some of its semi-autonomous units are counted. Elderhostel has since left UAF, and RAHI will be moving to the College of Rural Alaska in July of 2001. However, as a rough summation, currently CLA

consists of just over one hundred full-time tenure-track faculty, a half-dozen full-time instructors, another twenty affiliated faculty members in the Rasmuson Library and ROTC, sixty part-time instructors, sixty teaching assistants, fifty staff members (plus twenty-five staff working for KUAC), 1,250 FTE students, and thirty-six degree programs (nine graduate and twenty-seven baccalaureate) graduating about 225 students a year.

Student Learning Outcomes Assessment was first implemented within CLA with Core Curriculum courses. All but one CLA Core course had submitted assessment plans to the provost and were collecting data for assessment by the end of the 1997-98 academic year. Departments and programs followed on a two-year cycle, and all CLA programs completed plans for assessment of student learning by spring semester 2000. The faculty response has been guardedly positive, with a few departments and programs moving more slowly into compliance.

Distance delivery is widely practiced throughout CLA, with some complete degree programs, such as the B.A. in Social Work and the M.A. in Community Psychology, being available via distance delivery. Psychology uses a combination of audio-conferencing, web-based courses, ERES library services, and two-week, face-to-face intensive classes.

Baccalaureate and graduate degree production in CLA has remained remarkably level for the last five years, with an anomalous one-year increase of about 23 percent in 1997. The M.F.A. in Art is new and so has had no graduates, but in the last five years the remaining eight graduate programs produced 115 M.A. degrees, forty-three M.F.A. degrees, and seven Ph.D. degrees, for a total of 165 graduate degrees (or more than four graduates a year per program).

The standard teaching load for tenure-track faculty in CLA is fifteen course credits per year, although this varies among and within departments. In general, excluding externally funded "buy-outs," CLA faculty workloads are roughly divided 75 percent teaching, 20 percent research, and 5 percent service. Faculty research output in the college has increased over the past ten years, mostly the result of newer faculty being more productive. The amount of time spent on university service has also increased, which is a source of tremendous frustration for many faculty members.

Faculty salaries in the college vary from $29,000 for a new term instructor to more than $90,000 for each of four full professors, two of whom were former administrators and one of whom has been at UAF for thirty years. The range for instructors is from $29,000 to $37,000, for assistant professors from $34,000 to $45,000, for associate professors from $44,000 to $59,000, and for full professors from $53,000 to $94,000. The CLA mean for instructors is $32,600, for assistant professors is $39,700, for associate professors is $49,700, and for full professors is $68,300. These numbers are quite low compared to other colleges within UAF and well below national averages for those fields represented in CLA. Over the last three years the average salary for a new assistant professor in CLA was $37,964, and several searches went unfilled at least partly because candidates indicated that the salary offer was insufficient. In 2000-2001 all new offers at the assistant professor level ranged from $40,000 to $47,000.

UAF library holdings have suffered from a decade of decreasing funding, and CLA faculty report significant losses of disciplinary journals and sparse acquisitions of textual resources.

However, faculty members from across the college have praised the library for improving electronic research capabilities.

CLA faculty have been extensively involved in governance over the last ten years. Two of the last five Faculty Senate presidents, the current UA/AAUP president, and the current UAF executive vice-president of the union are CLA faculty, as are many other important committee chairs.

CLA has a total Fund I budget of about $8,350,000, of which about $7,706,000 (92 percent) is dedicated to salary and benefits, with the remainder covering travel, services, supplies, equipment, and student employment. From 1993-1997 the Dean's Office reduced all its discretionary budget lines to the point where there was not much left except salary. Internal reallocations by the provost in 1998, 1999 and 2000 paid off some of the college's accumulated debts and helped cover some of the "extras" assigned to CLA that were financial drains on the college, including recreation classes and summer programs. Currently the college is in the best financial shape it has been in for at least eight years, although it still has no technology budget. Reflecting this change, CLA increased all department budgets in 2000-2001 and has committed funds to replace all computers on a three-year cycle with 80 machines being replaced in 2001-2002 alone.

Over the last few years CLA has averaged more than $2 million a year in funded research. The number of medium-sized and large grants in the college has remained steady or decreased slightly over the last five years (see particularly the Psychology notebook). Other areas of CLA have been equally productive. For instance, in the Arts faculty production has been extensive. In creative writing, Dr. Frank Soos was awarded the nationally prestigious Flannery O'Connor Prize for short fiction. Members of the Music program have been invited to perform as soloists in nationally recognized symphonies (see Music Department notebook). Members of the Art Department have shown by invitation at galleries throughout the country (see Art Department notebook). Department of Communication faculty have revised a nationally recognized assessment instrument that is now being used by many colleges and universities

College staff include twenty-two administrative assistants assigned to departments and programs (two are grant-funded), three staff members in the Dean's Office, five grant-funded teaching and research specialists in the Alaska Native Language Center, six-and-one-half grant-funded positions in the Center for Cross-Cultural Studies, three grant-funded positions in Psychology, two technical staff positions in Theater and one in Journalism, and twenty-seven KUAC staff members who are independently funded.

Facilities master planning and scheduled maintenance will have a strong effect on CLA in the next few years. As many as half of the college's departments will be moving some or all of their offices by the summer of 2002, and this will require both an extensive planning process and some additional money for furnishings and remodeling.

UAF department chairs are elected by the faculty of the departments, with the dean's input only in exceptional cases. Faculty workloads are recommended by chairs, but assigned by the dean.

The college currently employs one half-time vice-dean who is not in the bargaining unit and two 49 percent associate deans who are in the bargaining unit.

<u>Appraisal</u>

The most immediate challenge for the College of Liberal Arts is to work its way out of the siege mentality that has prevailed over more than a decade of budget cuts and threats to programs. Hiring a permanent dean and replacing most of the losses due to the Retirement Incentive Program were important steps to that end, as are efforts in the latest round of budget initiatives to include the liberal arts mission as central to the university. But there is still a lot of work to be done, particularly in developing a new college ethos based on principles of collaboration rather than concern for maintaining turf.

As the college considers adding new graduate programs and as new faculty are encouraged to pursue outside funding more aggressively, CLA may need to support such efforts with additional staff and equipment, with the hope of recouping that investment by overhead returns. A FY03 initiative proposal currently being considered includes new funding for a grant administration specialist for CLA.

Important work is being carried on in areas of Alaskan and circumpolar northern research in just about every department in CLA: Alaska Native Studies, the Alaska Native Language Center, Political Science, English, Northern Studies, Journalism, Psychology, Justice, History. These different projects need greater visibility and more funding support, and the college must find a way to make that happen, perhaps by exploring the idea of one or more "centers," "institutes," or "consortia." Over the long term, outside funding might be pursued for endowed chairs and new buildings aimed at making research and creative activity in the arts, humanities, and social sciences as prominent at UAF as is the work done in the sciences and engineering.

Despite budget cuts, CLA still offers relatively small classes, with senior professors teaching every level from freshman to graduate. The Core Curriculum is in good shape after ten years in operation, thanks in large part to the serious attention of senior faculty members who worked to improve the original models. The liberal arts programs that are central to the mission of any comprehensive university have been maintained through years of near exigency.

Both the strengths and the weaknesses of CLA can be summed up by the word *diversity*. The College of Liberal Arts is spread thinly across crucial intellectual and pedagogical territory, and the challenge is to maintain that ground, expand offerings where demand and faculty resources indicate a need, and continue demonstrating to the citizens of Alaska just how important liberal arts programs are to the future of the state.

CLA's weaknesses include the various challenges of small faculties (sometimes just three or four people) offering baccalaureate and graduate degree programs; lack of adequate budget for computers and other technological needs; a small centralized travel budget that, given the costs of travel from Alaska, doesn't fully support research and faculty development; eroding salary and benefits packages for both faculty and staff that are making it increasingly difficult to fill

positions; and difficulty in pursuing long-term goals because of uncertain funding and frequent changes in structural configurations.

CLA's strengths include a wide variety of degree programs, with special expertise in circumpolar topics, and a commitment to the study of Alaska Native peoples and languages; a relatively young and productive faculty who are both quality teachers and promising researchers; small classes, taught at all levels (in most departments) by senior faculty members; and strong links to the Fairbanks community and to many parts of rural Alaska through outreach and research programs in many fields.

Projections

The college mission statement has just been revised to be more closely in line with the new UAF mission statement. New programs are being developed within the overall guidelines of responding to strong student demand (as in the master's degree in Justice), meeting state needs (as in support for teacher training), and maximizing research and teaching strengths (as in the proposed center for northern indigenous peoples and languages). Planning has been difficult, as UAF is still recovering from so many years of decremental budgeting, and as the budget process itself has changed several times in the last few years. But with UAF solidifying its planning around accreditation, assessment, and the budget initiative process, CLA looks forward to a period of cautious and selective growth in response to state and national needs.

Over the last three years CLA has hired twenty-eight new tenure-track professors, and they will become the core of a renewed college in the years to come. CLA must find a way to boost the entire faculty salary range, beginning with new hires, so it can continue to attract quality professors to this remote location. Besides reasonable salaries, new faculty members deserve a reasonable travel budget and a new computer at least every three years. CLA must find a way to rebuild the non-salary budgets that were eroded over the last decade if it expects to keep its best professors and to keep pace with educational technology.

Short-term goals for the college include establishing a regular program for replacing staff and faculty computers, increasing travel and faculty development money, and cautiously pursuing new graduate programs and new methods of delivery for existing programs. Long-term goals include building smaller departments up to appropriate levels for delivery of degrees, improving the quality of and recognition for teaching, and pursuing a new research center to link existing college strengths in northern indigenous peoples and languages.

Interior-Aleutians student Wilbur Brown Sr. uses what
he has learned from the Rural Human Services Program
at his job at an addiction treatment center.

Photo courtesy Interior-Aleutians Campus
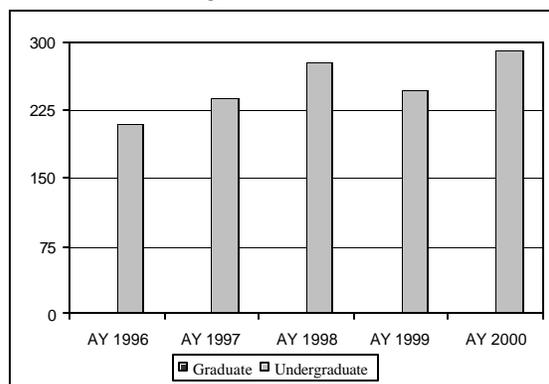
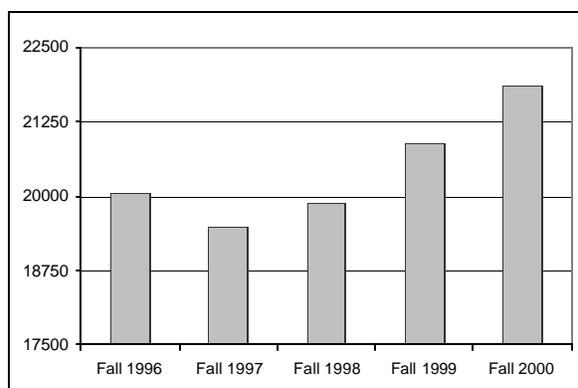## COLLEGE OF RURAL ALASKA

College of Rural Alaska

Programs

Program	Degree
Accounting, Applied	A.A.S.
Accounting Technician	Cert.
Airframe	Cert.
Apprenticeship Technology	A.A.S.
Associate of Arts	A.A.
Aviation Maintenance Technology	Cert.
Aviation Technology	A.A.S.
Business, Applied	A.A.S.
Business-Management, Applied	Cert.
Community Health	Cert., A.A.S.
Culinary Arts	Cert., A.A.S.
Drafting Technology	Cert.
Early Childhood Education	Cert., A.A.S.
Emergency Services	Cert., A.A.S.

Hazardous Materials Control, Municipal Fire Control, Public Safety, Wildlands Fire Control

Program	Degree
Ground Vehicle Maintenance Technology	Cert.

Automotive, Diesel/Heavy Equipment, Power Generation

Program	Degree
Human Service Technology	A.A.S.
Maintenance Technology	A.A.S.

Aviation Maintenance Technology, Automotive, Diesel/Heavy Equipment

Program	Degree
Medical Assistant	A.A.S.
Medical/Dental Reception	Cert.
Microcomputer Support Specialist	Cert., A.A.S.
Office Management and Technology	Cert., A.A.S.

Comprehensive, Legal, Medical

Program	Degree
Paralegal Studies	A.A.S.
Phlebotomy	Cert.
Powerplant	Cert.
Renewable Resources	A.A.S.
Rural Development	B.A.

Community Organizations and Services, Community Research and Cultural Documentation, Land/Renewable Resources, Tribal and Local Government Administration, Rural Health and Human Services Management, Small Business Management

Program	Degree
Rural Human Services	Cert.

Students

Number of Degrees & Certificates Awarded

Student Credit Hours

Budget

Expenditures
(Unrestricted Funds, in thousands)
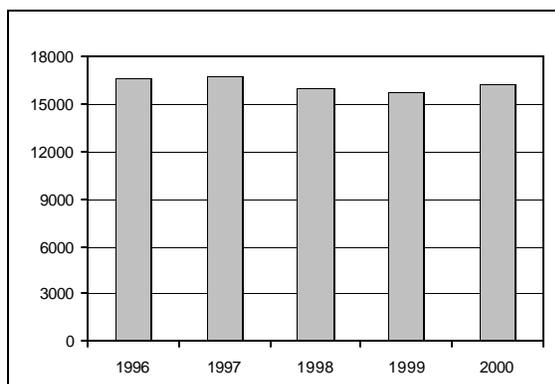
Faculty

Faculty Headcount
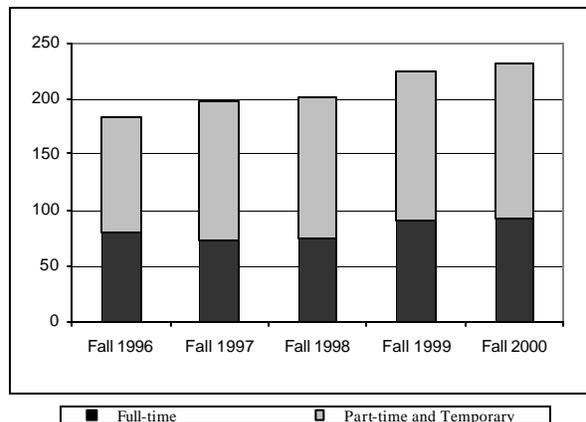
*Programs are those offered in the 2001-2002 UAF Catalog.

College of Rural Alaska

The College of Rural Alaska (CRA) is one of the eight major academic units of the University of Alaska Fairbanks. The college serves a diverse student body in more than 180 communities covering two-thirds of the state. Most students are Alaska Natives who live in remote villages beyond the road system. The college is organized into nine interdependent units: six community campuses, the state's Cooperative Extension Service, the Center for Distance Education and Independent Learning, and the Department of Alaska Native and Rural Development. Five of the campuses are in "bush" locations, i.e. beyond the road system. These campuses offer the single point of higher education access for the majority of Alaska Native and rural residents throughout the Aleutian, western, southwestern, and interior regions of Alaska. The combined efforts of the College of Rural Alaska's units produce about one-third of UAF's total credit hours.

Evidence-Based Description

Educational Effectiveness
The College of Rural Alaska extends the educational mission of the university to the most remote parts of the state through academic certificate and degree programs available at its six community campuses and the Center for Distance Education and Independent Learning. Between 1995-1999 CRA awarded 1,288 university degrees and certificates and 1,350 Cooperative Extension Service certificates. Of the academic awards, 55 percent were certificates and AAS degrees, and 45 percent were at the associate level or higher. All of UAF's vocational programs are conducted by CRA and within CRA especially through the extensive programs at the Tanana Valley Campus. The number of certificates and AAS degrees awarded through CRA is expected to rise over the next five years. This increase is due to the university-wide expansion of vocational programs in high-demand employment sectors such as health and information technology, a major goal of President Hamilton's statewide agenda.

Equal focus is given to general education in CRA's instructional program. Between 1995 and 1999, 37 percent of all CRA graduates earned the associate of arts degree in general studies (AA) reflecting the degree's usefulness to students, the majority being part-time and non-traditional [G6]. Since 1990, the associate of arts has been the primary degree path consistently available at all the CRA community campuses. The AA degree is campus-based at the Tanana Valley Campus but predominantly delivered through audio-conference at the five rural community campuses. For the majority of CRA students, the AA degree provides either achievable skill development before transfer to degree specialization or a terminal degree that meets minimum employer standards for higher education. In either case, degree status reinforces self-esteem and increases confidence.

In the last ten years, the college has developed instructional expertise in responding to the learning needs of Alaska Native students. Of particular significance are two academic programs, Rural Development and Rural Human Services. In the Rural Human Services (certificate) program, Alaska Native values and ways of helping and healing are integrated with western knowledge. This educational approach provides students with both the skills to succeed in life and the understandings necessary to carry on cultural values. The Rural Development bachelor's

and master's degree programs, on the other hand, focus on topics and issues central to the successful preparation of Alaska Native leaders. Both programs are delivered through a field-based approach that features regular seminars in retreat settings offered over concentrated one- or two-week time periods.

Non-credit and continuing education courses are offered through all CRA community campuses. Qualified adjunct instructors are recruited based on educational preparation and demonstrated subject area expertise with academic review through the established process at each campus. CRA submits faculty credentials and course outlines to cognizant UAF academic departments for approval to teach specific courses when appropriate. Adult Basic Education (ABE) programs that lead to the General Educational Development (GED) diploma are in place at the Bristol Bay, Kuskokwim, and Northwest campuses. Between 1995 and 1999, 235 GED diplomas were awarded through these programs. Since many of the students served at the rural community campuses either speak English as a second language or have limited literacy in any language, the use of skilled ABE teachers is vital to their college and employment success.

The Cooperative Extension Service (CES) provides non-formal education in the major program areas of land resources and community development, home economics, and 4-H and youth development. CES is a major outreach unit and delivers its programs statewide. It uses a network of district offices, with more than seventy faculty and staff located in eleven communities across the state. The impacts of these educational programs are multiplied through well-trained volunteer leaders working in CES-supported clubs and organizations. CES has produced more than 300 publications that, in the last year, reached more than 160,000 people.

Students
Most CRA students are adults over 30. Alaska Natives comprise 50 percent of the student population at rural community campuses and 12 percent of the Tanana Valley Campus student body. The college serves predominantly female students (two-thirds overall, as high as 77 percent in the Kuskokwim unit [G6]. Full-time students approach 15 percent at the Tanana Valley Campus and comprise from 0 percent to 5 percent at the other campuses.

At the rural community campuses, consistent and responsive student support is hampered by a lack of resources. Five-year funding from the U.S. Department of Education Title III, Strengthening Developing Institutions Program at all of the rural campuses targets the specific development of access and support programs for place-bound students in village communities.

The college's open enrollment policy allows students to enter courses for which they have adequate background. This is especially critical to the newly developing career pathway partnerships between campuses, major employers and K-12 districts that are in place or being built at the college campuses.

Faculty
Regular CRA faculty are organized by academic divisions, each led by a division coordinator. The division coordinators form the CRA Faculty Council, which is responsible for overall quality assurance of the college's academic programs. The council provides a forum for debate

and to develop recommendations on academic policy and governance issues. The nine CRA Academic Divisions are

Humanities	Rural and Economic Development	Business Technologies
First People	Industrial & Service Technologies	Developmental Studies
Social Sciences	Math and Natural Sciences	Health Technologies

Rural Education is a tenth division. While these particular faculty are organized under the School of Education, they are resident at the community campuses and so are included among the divisions for purposes of communication and collaboration. Cooperative Extension Service (CES) faculty are organized separately within the college. Faculty are grouped into three major program areas: Land Resources and Community Development, Home Economics, and 4-H and Youth Development. Each program area has an elected faculty chair who, with the CES director, oversees programs and charts future directions.

Adjunct faculty are key to the CRA community college mission. These highly qualified faculty, who teach primarily in vocational areas, link programs more closely to industry standards and campuses more closely to the communities they serve. Currently, approximately seventy-five adjunct faculty are employed at the rural community campuses and in the Department of Alaska Native and Rural Development [UAF PAIR DATA 2001]. At the Tanana Valley Campus, 150-175 adjunct faculty extend the instructional program by approximately 470 course sections per year.

Library and Instructional Technology

Community campus libraries mirror the uniqueness of their regions and are usually formally linked to local or regional government for resource sharing. At the Kuskokwim Campus, the Consortium Library serves both the regional population and campus community through a subsidy from the City of Bethel. A similar arrangement on a smaller scale is in place at the Chukchi Campus with the Northwest Arctic Borough. The Northwest Campus has its own library and staff. For reasons of size and decentralization, neither the Bristol Bay Campus nor the Interior-Aleutians Campus has its own library. All the rural campuses maintain links to the UAF Rasmuson Library and the State Library. Tanana Valley Campus students use the UAF and Fairbanks Libraries.

Distance delivery of instruction is a significant part of the total CRA academic program. The hub of this activity is the college's Center for Distance Education and Independent Learning, which includes online delivery of courses, traditional correspondence, and audio-conferencing. Responding to the demand for more online courses and multiple delivery modes, CDE&IL has assisted in the development of 23 web-based courses in 1999, compared to four that were developed in 1998. Unfortunately, lack of village Internet connections in rural Alaska limits online course delivery at the rural community campuses, where audio-conference remains the primary modality.

Governance and Administration

The College of Rural Alaska's academic authority is the same as other UAF schools and colleges. Academic oversight is provided by the college's Faculty Council and the UAF Faculty

Senate. Eight senators represent the College of Rural Alaska on the thirty-three member UAF Faculty Senate (Standards 6.A and 6.D).

Administrative oversight is accomplished through the CRA Directors Council which is composed of all the unit heads and the executive dean. In addition to raising and resolving key policy issues, this body guides the day-to-day operation of all CRA programs and facilities.

Finance
All CRA units process and maintain financial and accounting activities within the centralized statewide university Banner computer system. The transition to this system in 1995 challenged the institution. In CRA, the rural community campuses were most challenged by the change to Banner due to complex conversion of prior data, technology infrastructure limitations, and lack of consistent and specific user training. Since 1996, the UA statewide office has targeted training to key staff throughout the university, and all CRA units have benefited from training provided both in Fairbanks and at community campuses.

An analysis of change in general fund budgets from 1995 to 1999 generally shows a college-wide reduction of 14 percent. Two important things should be noted. The first is that during the long period of budget decline, the College of Rural Alaska used every opportunity to indemnify instructional programs and faculty capacity from reduction. This came at heavy cost of human resources especially in the administrative area where, for a time, two campus directors had to be assigned half-time instructional workloads. Likewise, numerous core support positions were reduced or eliminated including a campus registrar, two fiscal officers, and two personnel officers. Resultant reductions and reassignments of support and administrative staff throughout CRA have created unwieldy workloads. It is not unusual for one person to do two administrative jobs today.

To compensate, CRA sought external funding with mixed and uneven results. The current funding picture, however, appears brighter. U.S. Department of Education Title III funding and the turnaround in legislative support for university budget priorities have resulted in increased funding and will advance the mission and activities of the CRA units.

Facilities for Instructional and Staff Support
As state budgets decreased, capital funding for new construction and for maintenance and repair of all university facilities fell below needed levels. College of Rural Alaska facilities share their deteriorating condition with other units throughout the statewide university system and must compete for available dollars. Federal Title III funding will offset some of the need for maintenance and repair. A maintenance and renovation project funded by Title III has begun at the Chukchi Campus. Significant UAF funding has been committed to the Northwest and Chukchi campuses, and a permanent reallocation of nearly a quarter of a million dollars has been dedicated by UAF Administrative Services to facilities maintenance at rural sites. Most recently, federal EDA funding plus a 25 percent UAF match has resulted in a $1.2 million renovation/expansion for the Interior-Aleutians Center in Fort Yukon. Finally, an FY02 legislative appropriation for $1.5 million will expand the undersized Bristol Bay Campus.

Institutional Integrity

While the College of Rural Alaska, in general, does not have major issues of institutional integrity, items of concern do exist between the college and other UAF entities. Primarily, the concern is over authority and control of the curriculum and programs delivered by CRA's community campuses. Questions about the college's exercise of academic authority and governance may simply have to do with the main campus-based faculty wishing to exercise proper diligence over programs for which they feel responsible. Better communication is needed here. The college and its faculty are aware that control over course designators, for example, resides in the academic department that oversees the designator. For example, the English Department is responsible for the content and quality of English courses whether taught in Fairbanks, Tuntatuliak, or by correspondence. The management and oversight of programs, especially at a distance, requires a level of trust and communication which CRA continues to seek and which most concerned faculty are satisfied has been achieved, but which some continue to question. This is not an area of curricular weakness, but one in which communication has been imperfect.

Appraisal

Strengths
- CRA faculty and staff are experts in meeting the needs of non-traditional students.
- CRA Advisory Councils provide valuable guidance and direct connection to those served by CRA and its mission.
- Numerous active partnerships with tribal entities, businesses, government, and school districts lead to strong grassroots support of CRA programs.
- Education models are in place that lead to success of Alaska Native students.
- Extensive knowledge and expertise in distance education/technology.
- Significant external funding through Title III supports program development in student services, curriculum development and distance education.

Weaknesses
- Aging college workforce makes significant recruitment of talent needed through 2005.
- Recent, closely spaced changes and resignations in key CRA leadership positions.
- Low student enrollment among Alaska Native men.
- Aging and rapidly deteriorating technology infrastructure throughout the college.
- Disparity of Internet access in rural communities throughout the state.
- Student support, particularly for students at a distance, is limited.

Projections

- Secure consistent, external funding through federal grants to develop new campus and Cooperative Extension Service initiatives that strengthen the college in achieving the rural mission beginning in 2000.

- Develop new collaborative models that leverage resources and expertise within and external to the college, beginning in 2001 with the CRA distance education initiative.
- Identify alternative funding sources to address operational needs caused by reduced or flat state funding throughout the college by the end of 2001.
- By 2005 all CRA rural campuses will have co-located CES personnel/facilities to create stronger service linkages and outreach throughout rural Alaska.
- By 2006, through the development of new programs and expanded student services, realize a 30 percent increase in Alaska Native student enrollment at CRA campuses.
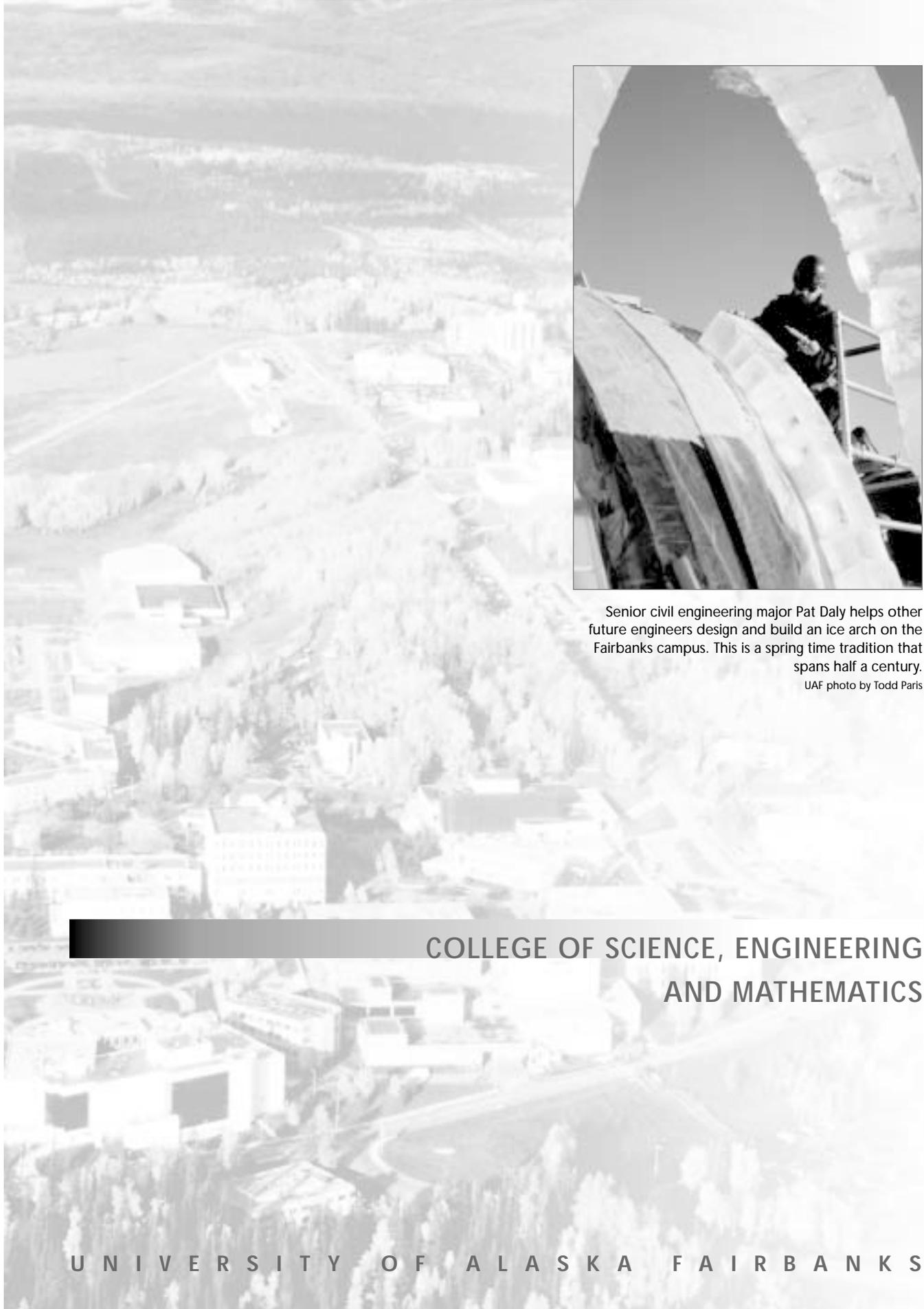
Senior civil engineering major Pat Daly helps other future engineers design and build an ice arch on the Fairbanks campus. This is a spring time tradition that spans half a century.

UAF photo by Todd Paris

COLLEGE OF SCIENCE, ENGINEERING AND MATHEMATICS

UNIVERSITY OF ALASKA FAIRBANKS

College of Science, Engineering, and Mathematics

Programs

Applied Physics	B.S.
Arctic Engineering	M.S.
Atmospheric Sciences	M.S., Ph.D.
Biochemistry and Molecular Biology	M.S., Ph.D.
Biological Sciences	B.A., B.S.
Biological Sciences	Ph.D.
Biology, Botany, Wildlife Biology, Zoology	
Biology	M.S., M.A.T.
Botany	M.S.
Chemistry	B.A., B.S.
Biochemistry and Molecular Biology, Environmental	
Chemistry	
Chemistry	M.A., M.S.
Civil Engineering	B.S., M.C.E., M.S.
Computer Science	B.S.
Computer Science	M.S.
Software Engineering, Technical	
Earth Science	B.A.
Electrical Engineering	B.S., M.E.E., M.S.
Engineering Management	M.S.
Environmental Chemistry	M.S., Ph.D.
Environmental Quality Engineering	M.S.
Environmental Quality Science	M.S.
General Science	B.S., M.S.
Geology	B.S.
Economic Geology, General Geology, Petroleum Geology	
Geology	M.S.
Economic Geology, General Geology, Petroleum Geology,	
Quaternary Geology, Volcanology Geology	
Geology	Ph.D.
Geophysics	M.S.
Snow, Ice and Permafrost Geophysics, Solid Earth Geophysics	
Geophysics	Ph.D.
Mathematics	B.A., B.S., M.S., M.A.T., Ph.D.
Mechanical Engineering	B.S., M.S.
Physics	B.A., B.S., M.S., M.A.T., Ph.D.
Science Management	M.S.
Space Physics	M.S., Ph.D.
Statistics	B.S.
Technology	B.T.
Wildlife Biology	B.S., M.S.
Zoology	M.S.

Students

Number of Degrees & Certificates Awarded
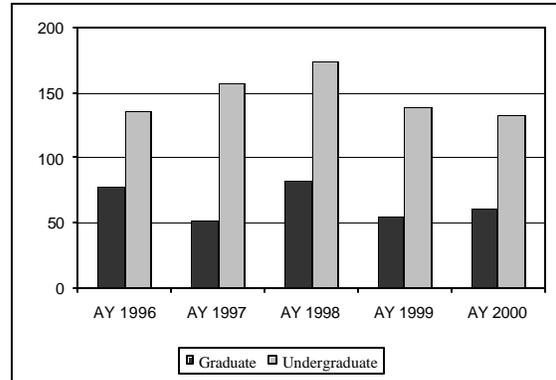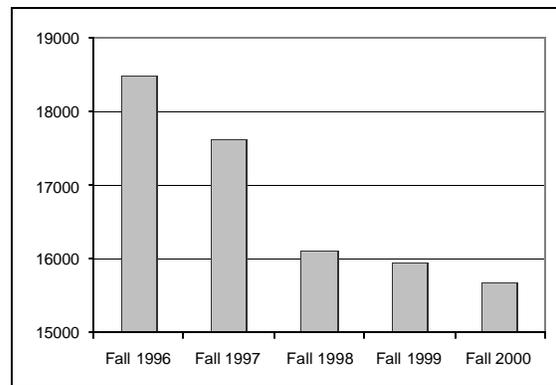
Student Credit Hours

Budget

Expenditures
(Unrestricted Funds, in thousands)
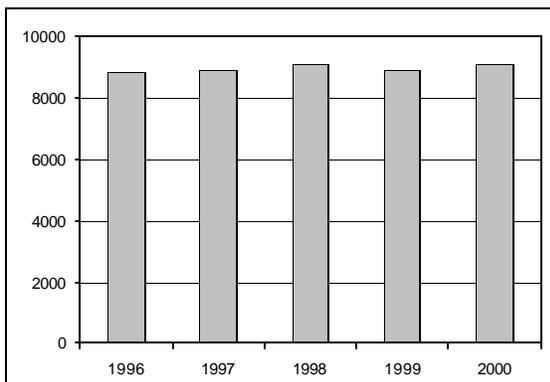
Faculty

Faculty Headcount
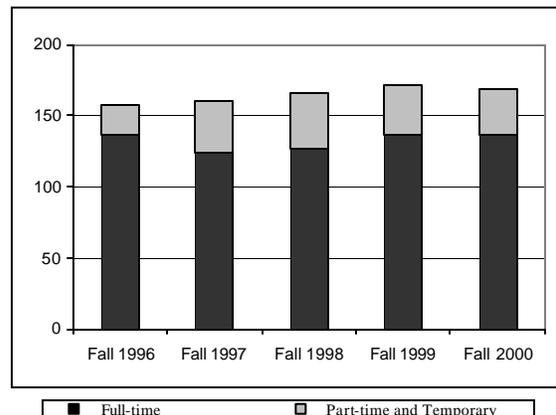
*Programs are those offered in the 2001-2002 UAF Catalog.

College of Science, Engineering and Mathematics

The College of Science, Engineering and Mathematics (CSEM) was created in the 1996-97 academic year. CSEM brought together the Department of Mathematical Sciences, which had been housed in the College of Liberal Arts for the previous decade, the Departments of Civil and Environmental, Electrical, and Mechanical Engineering, which had constituted the School of Engineering since the fall of 1977, and the Departments of Biology and Wildlife, Chemistry and Biochemistry, Geology and Geophysics, and Physics, which together had formed the College of Natural Sciences since the fall of 1985. The following paragraphs describe the college and highlight its strengths. A more detailed description with specific strengths and weaknesses identified is contained in the college notebook.

Current Situation

There were 111 faculty members in the college in FY00, supported by 25 staff members. There were 1,100 students enrolled in the college, with 290 of them in graduate programs. The college generated 15,128 student credit hours that year. Many faculty members in the college have research appointments in institutes or centers of the university, with typical appointments being in the Geophysical Institute, the Institute for Arctic Biology, the Institute for Northern Engineering, the Arctic Region Supercomputing Center, the International Arctic Research Center, the Institute of Marine Sciences and the UA Museum. Each department is responsible for a number of undergraduate and graduate degree programs, delineated in the college notebook. The strengths of the college include dedicated and capable faculty members, a devoted staff, and an excellent breadth of programs, from the bachelors to the doctoral level. There are opportunities for faculty members to participate in research with nationally-recognized research centers and institutes and for undergraduate students to participate in quality research with these faculty members.

CSEM is the university's most productive college for graduate degrees. The college produces the majority of doctorates awarded by UAF, indeed the entire University of Alaska system. The number of degrees awarded has held reasonably steady over the last five years. Although there has been a decrease in the degrees awarded in Physics over the last few years, this downward trend is more than compensated for by Chemistry, which has seen a steady increase in graduate student enrollment.

Almost all advising of undergraduate majors within CSEM is performed by a faculty member in the department offering the degree, rather than by the campus-wide Advising Center. Each department has its own method of assigning faculty advisors, and some major differences are evident. For example, in Biology and Wildlife, advisors are assigned a number of undergraduate advisees that is scaled to the percentage of their appointment that is academic as opposed to research. In contrast, in Physics faculty members with 100 percent academic appointments do most of the undergraduate advising and faculty with joint institute appointments advise very little. Furthermore, some departments assign undergraduates roughly equally among tenure-line faculty, while in others such as Geology and Geophysics and Mathematical Sciences the faculty

members differ markedly in the number of their undergraduate advisees. In Chemistry and Biochemistry, three senior faculty members advise all undergraduate majors.

The college notebook and department notebooks include descriptions of the academic programs offered by the college. The programs in the college are generally strong, and many have high enrollments, for example Biology, Computer Science and Chemistry. The low-enrollment programs are generally problematic, due to the teaching resources that must be allocated to all programs offered. Graduate programs with a small enrollment are especially difficult for the college. There is the conflicting need to have a minimal enrollment in each course, usually three to ten for graduate courses, and the need to regularly make the Core Curriculum available to all students in the program.

CSEM academic programs are designed to provide a sequence of courses that supply a foundation for advanced study and professional careers for graduates. As part of all undergraduate programs, the Core Curriculum at UAF assures a broad-based educational experience in the liberal arts and humanities. College curricula are designed so that a student can complete the degree in four years. However, many students change majors early in their academic careers and may choose to major in a science or engineering curriculum during their sophomore or junior year. For these individuals an additional semester or more will often be needed before it is possible to complete the degree requirements due to the structured nature of the degrees.

Several CSEM departments are active in continuing education and special instructional activities. Details appear in specific departmental notebooks. Faculty members are active in pre-college education thorough Math Awareness Week, Engineering Week, Math Counts, Science Potpourri, the Science Center, and science fair judging. A variety of short courses have been provided to the mining community. The Space Grant program has provided summer classes during the past three years for high school teachers. Physics faculty members teach K-12 teachers science skills to help them in their classrooms. Engineering faculty provide educational workshops as well as Professional Engineering examination review courses.

Evidence-Based Strengths

Program currency is encouraged and measured, in part, by external professional program accreditation standards. The Computer Science Accreditation Commission (CSAC) accredits the program in computer science. The B.S. degree in chemistry reflects the American Chemical Society (ACS) standards. The undergraduate wildlife program adheres to the standards of The Wildlife Society. The engineering programs were re-accredited following an Accreditation Board for Engineering and Technology (ABET) site visit in September 1999. In addition, engineering graduates are required to take the Fundamentals of Engineering (FE) examination prior to graduation. This examination is a nationally administered requirement for eventual professional engineer registration. The pass rate at UAF is typically about 20 percent higher than the national average.

Faculty in all programs perform research and publish their results in peer reviewed journals. This activity encourages currency of courses and enthusiasm in course delivery. The availability of

web-based curriculum information at other schools also makes it easy to compare programs at UAF with those at other nationally recognized institutions. At the M.S. and Ph.D. levels, advisory committees occasionally have members from outside the faculty to supply both currency and expertise.

Faculty members across the college are committed to their tripartite duties in teaching, research and service, with a particular emphasis on the first two. There is widespread excellence in teaching within the college. A member CSEM faculty has won the Emil Usibelli Award for Distinguished Teaching, which recognizes one UAF faculty member each year, most years since the award was instituted in 1992. Gary Gislason was awarded the Usibelli for Teaching in 1992; John Zarling in 1993; Mark W. Oswood in 1995; Larry Bennett in 1997; Thomas P. Clausen in 1998; and Richard Benner in 1999. F. Stuart Chapin III won the award for distinguished research in 2000; R. Terry Bowyer in 1998; Davis D. Sentman and Eugene M. Westcott in 1997; Wilford F. Weeks in 1996; John P. Bryant in 1995; and Lou-Chuang Lee in 1994. Douglas L. Schamel, 1994, and John Aspnes, 1995, were awarded the Emil Usibelli Award for Distinguished Service. Numerous faculty members serve on national professional committees. Dr. Lawrence K. Duffy is the Associate Director for the NW region in Sigma Xi. Dr. David M. Woodall, Dean of CSEM, has served on the Engineering Accreditation Commission of ABET and is currently on the board of directors of ABET. Several faculty members have held offices in international professional organizations in recent years.

A well-trained and competent staff provides an important interface with students from the college. The college recognizes that its administrative assistants are often the primary personal contact for students with problems, such as paperwork associated with registration, problems with access to the computer labs, and emergency scheduling problems. CSEM staff takes the time to aid students in need of assistance. Recent accolades for staff include the selection of Sheila Chapin of the Department of Chemistry and Biochemistry as the recipient of the President's Make Students Count Award for 2000. Marlys Schneider of Chemistry and Biochemistry received the Outstanding Staff Service Award for her work on the college's annual Science Potpourri, and Howard Fruhwirth of Civil and Environmental Engineering received the Chancellor's Award for Outstanding Staff Member in 2000.

CSEM recognizes that the undergraduate teaching laboratories, in many cases, are the primary contact new students have with the department. For this reason the college places particular importance on having high quality teaching assistants who run the laboratories. The college offers a TA Orientation Workshop at the beginning of the fall semester to address issues such as TA training, graduate school requirements, safety issues and required safety workshops, coordination between lecture and lab, TA role, contact hours, expectations of science and math courses already taken, non-science majors, and communication and appropriate behaviors with students. The workshop encourages the TA to take additional training offered by individual departments. Department training includes topics such as course organization and expectations of instructors. In addition TAs are given instruction using videotaping of their pre-lab presentations.

The establishment of the college in 1996 brought together units that had traditionally been high quality. As a result, the quality of the students and their accomplishments continue to be high. The recruitment of excellent students into a well-established program has led to continued

outstanding performance as judged by the receipt of national and university-wide awards by our graduating students. The impact of restructuring to create the college has led to more interaction of faculty with students from the diverse disciplines represented by the college.

Evidence-Based Planning Process

A new dean joined the college in the fall of 1999. The dean held a planning retreat in October of that year with two purposes. The first was the rapid transfer of information to the new dean on the challenges and opportunities faced by each department. The second was the development of a new strategic plan for the college. There were forty-five attendees, with at least three representatives from each department. Faculty, students and staff were all well represented. Products of that retreat included a set of 90-day priorities for the new dean, draft goal and mission statements for the college, and a set of draft objectives for the coming years.

In the spring of 2000 the dean appointed a College Mission/Vision Committee to review the outcomes from the fall retreat and to recommend college mission and vision statements. Simultaneously the university was conducting strategic planning activities. The college committee used the outcomes of that process as input to its efforts. Near the end of the semester the dean held a half-day college strategic planning retreat on campus with about forty faculty, staff, and students. Attendees at the retreat approved the college mission and vision statements that are now published on the college web page. They also developed a set of objectives and an action plan for the coming year. Those documents are also available on the web page (www.uaf.edu/csem).

In the spring of 2001 a full-day strategic planning retreat was again held. The faculty, staff and student attendees totaled approximately forty. This retreat focused on updating the college strategic plan, in light of UAF strategic planning in the fall of 2000. The university planning resulted in a new university mission/vision statement, "UAF 2005." In addition, the provost initiated the development of an Academic Development Plan for UAF, consistent with "UAF 2005." The college Strategic Plan is available in the college notebook.

The dean's office has collected exit questionnaires from graduating master's and Ph.D. students over the years. Departments have compiled similar exit questionnaires for their graduating baccalaureate students. With an occasional exception, the responses from these questionnaires have indicated that students are very satisfied with the education they received . The only general dissatisfaction was from undergraduates regarding the university's Core Curriculum requirements. Unfortunately the CSEM faculty generally feel that this assessment procedure has served only to make departments feel good about themselves. The exit questionnaires have not provided clear guidance on how CSEM should enhance its programs.

To obtain better guidance for enhancing programs, the dean worked with each department to initiate an external advisory committee. The make-up of the advisory boards was left up to each department. Some departments have chosen to select alumni from a range of professions (government, education, business, health, etc.) while other departments are recruiting members from institutions similar to UAF. Although not all departments have yet implemented such a committee, such external professionals are expected to provide valuable feedback to individual

departments on their current programs. In addition, a member from each departmental advisory board will be invited to serve on an external college advisory board and will be invited to participate at annual college retreats.

Each CSEM department is also using an outcomes assessment process to evaluate and improve its programs, although many are in the early stages of implementation. Expected outcomes were developed and published in the 1998-99 academic year. In the 1999-00 and 2000-01 academic years annual reviews of outcomes are made and areas are identified for improvement. Because of the newness of the process, there have been few examples of changes made as a result of the process. Much of the feedback from students, alumni, and employers has been positive.

Each departmental notebook, which will be updated annually, contains short-term and long-term goals that form the basis of much of the college's and university's planning process. These goals deal with diverse issues such as new hires, new programs or research endeavors, enhanced curricula, and prioritized equipment list.

Projections

The college is in a rapid growth mode that promises to enhance the goals set forth in its Vision and Mission statements. Major programs are being enhanced (Atmospheric Science Program), developed (Specialized Neuroscience Research Program, Environmental Program to Stimulate Competitive Research), or are in the beginning stages of obtaining funding (Biomedical Research Infrastructures Network, Nanotechnology). New faculty hires are being made to replace recent retirements and to support these new programs. CSEM is in the early stages of planning for a new BioSciences building that will support its goals of becoming a leader in addressing health concerns of the state. CSEM is nearing construction of a major addition to the museum to better serve UAF researchers and the public alike.

Funding to support departmental programs, faculty and staff development, and research projects is available from a number of sources. A recent National Institutes of Health award (SNRP) has as a major goal to encourage long-term NIH support for researchers in the area of neuroscience. The initiative process will continue to provide major state funding for innovative proposals. The college is confident that it will receive funding from a recent agreement between British Petroleum and the University of Alaska. The EPSCoR program will continue to provide funding for NSF initiative. The college is also planning to administer some National Science Foundation and NIH proposals which will allow it to recover some overhead costs to support everyday operations such as equipment and computer upgrades and maintenance.

Recent promotional activities by the college and university promise to have significant positive impacts on recruitment of undergraduate and graduate students. The UA Scholar's program has been a large success in recruiting quality undergraduates, and the college has formed a committee to determine how to increase the program effectiveness. During the summer of 2000 a communication specialist was engaged to improve the college web page materials and to develop a CD-ROM on the college for external promotion of its programs. Updated web page materials were published in September of 2001, and a part-time webmaster was hired for the college late in the fall of 2001 to create regularly updated departmental and college web pages. Faculty

members are also being strongly encouraged to incorporate promotion and recruitment during their trips off campus.

Finally, the college has initiated a self-assessment procedure to ensure it meets the needs of the state and its students. This outcomes assessment will continue to be refined to assure maximum guidance for the college.

UAF Associate Professor Charlie Knight harvests barley with a combine in a field below the Fairbanks campus.

UAF photo by Heather Tipton

SCHOOL OF AGRICULTURE AND LAND RESOURCES MANAGEMENT

UNIVERSITY OF ALASKA FAIRBANKS

School of Agriculture and Land Resources Management

Programs

Geography	B.A.
Geography (Environmental Studies)	B.S.
Natural Resources Management	B.S.
Forestry, Plant, Animal and Soil Science, Resources	
Natural Resources Management	M.S.

Students

Number of Degrees & Certificates Awarded
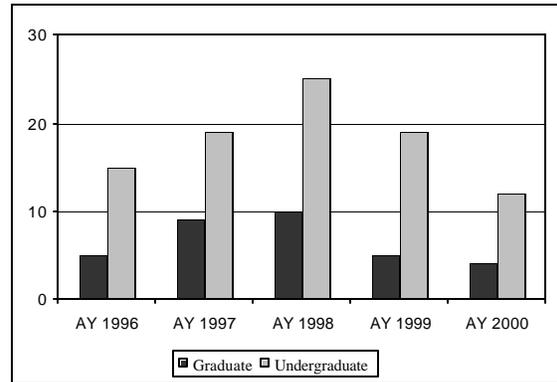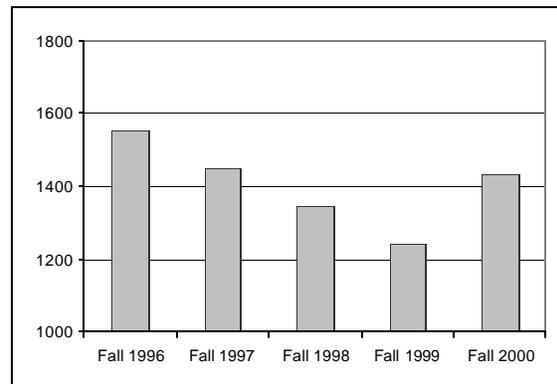
■ Graduate   □ Undergraduate

Student Credit Hours

Budget

Expenditures
(Unrestricted Funds, in thousands)

Faculty

Faculty Headcount

■ Full-time   □ Part-time and Temporary
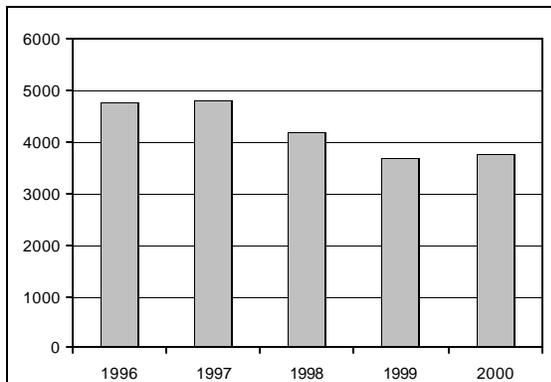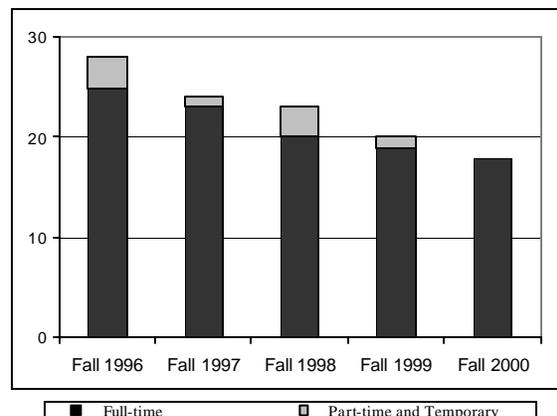
*Programs are those offered in the 2001-2002 UAF Catalog.

School of Agriculture and Land Resources Management

The Alaska Agricultural College and School of Mines was established in 1915 under the 1887 Morrell Act as the Land Grant institution in the territory of Alaska. The University of Alaska remains the Land Grant institution of the state of Alaska. This status is centered in the Agricultural and Forestry Experiment Station and the School of Agriculture and Land Resources Management, both institutions of the University of Alaska Fairbanks.

The experiment station in Alaska was established in 1898. Early in its history, the Alaska Agricultural Experiment Station operated research farms at Sitka (1898-1931), Kodiak (1898-1931), Kenai (1899-1908), Rampart (1900-1925), and Copper Center (1903-1908). As demand for research and information from these research farms diminished in the area and/or they became too expensive to operate, they were closed by the federal government. Today the Fairbanks Experimental Farm (established in 1906), the Matanuska Experimental Farm (established in 1915) and the Palmer Research Center (established in 1948) remain in operation. Collectively, the farms (and later the Palmer Research Center) and their administration and staff were the Agricultural Experiment Station administered by a single director reporting to the U.S. Department of the Interior. The mission of the experiment station was applied research directed toward agriculture in the broadest sense of definition. The Hatch Act of 1862 governs this continuing applied agricultural research effort. When the Alaska Agricultural College and School of Mines was formed in 1915, the Agricultural Experiment Station was transferred to the college. During the 1940s and 1950s, the directorship of the Agricultural Experiment Station was combined with the Cooperative Extension Service. They were separated in the 1960s and the experiment station became the Institute of Agricultural Sciences.

After a 1973-1974 recommendation by an external accreditation team to create a degree program for resource management and agriculture, the School of Agriculture and Land Resources Management became a reality in 1975 offering B.S. and M.S. degrees in Natural Resources Management. The Institute of Agricultural Sciences became a part of the newly formed school and was renamed the Agricultural Experiment Station. In 1976, a dean of the School of Agriculture and Land Resource Management and director of the Agricultural Experiment Station was retained to head both the school and the station.

Three options in the B.S. degree were created in 1981 to clarify educational goals of the school: Forest Sciences; Resources Management; and Plant, Animal, and Soil Sciences. Forestry was added to the experiment station title in 1985 to reflect administration of McIntyre-Stennis federal funds provided for forestry research by the 1953 McIntyre-Stennis Act. This was followed in 1989 by the development of three departments with the same names as the degree options. The School of Agriculture and Land Resources Management is the academic home of the Agricultural and Forestry Experiment Station. The station today includes its faculty (who also hold joint appointments in the school), its staff and technicians, the experiment station director, as well as two experimental farms, the Georgeson Botanical Garden, the Palmer Research Center including the Palmer Research Laboratory, a 400-acre Delta Research Site, the Reindeer Research Program in Nome, and the Bonanza Creek Experimental Forest (the latter also

supported by the National Science Foundation Long Term Ecological Research program and the USDA Forest Service Bonanza Creek Research Unit).

The experiment station and the school develop programs to meet the evolving needs of Alaska. In the early 20th century, basic techniques of food production were addressed. In mid-century, it aided the war effort by maintaining information flow to a population outpost in the far north. In the last decades, it contributed to determining the extent and capabilities of Alaska's natural resources as part of Alaska statehood. Today focus is on practical academic training and research to equip resource managers with the knowledge and skills to develop, sustain, and protect the unique and vast renewable resources of Alaska.

Evidence-Based Description

An attempt was made again in 1990 to combine the Cooperative Extension Service with the Agricultural and Forestry Experiment Station. For numerous reasons, it did not succeed. In 1995, the dean and director of the school and experiment station retired and the school and experiment station were combined with the School of Mineral Engineering and the School of Management into the College of Natural Resource Development and Management. This was a short-lived attempt at consolidation. The title of 'dean' for each school was changed to 'director' with the intent to hire a dean for the college. An interim director for the School of Agriculture and Land Resources Management was appointed and headquartered in Fairbanks and also was named the acting dean of the college. The associate director of the experiment station became the acting director, headquartered in Palmer. A college dean was not hired. The situation created was untenable and the college structure was eliminated in June 2000. The title of 'dean' was restored to the heads of the individual schools. An interim dean and acting director now head the school and experiment station respectively

In 1997, the Geography Department was transferred to SALRM to provide new opportunities for cooperation between closely allied disciplines. The University of Alaska first offered courses in geography in 1923, and geography degrees were first awarded in the 1960s. Geography offers a B.A. degree and in 1996 began offering a B.S. degree in environmental studies. Both integrate well with the mission and degree offerings of the school.

Present Organizational Structure
The current structure of SALRM and the Agricultural and Forestry Experiment Station includes the offices of the interim dean of the school in Fairbanks and the acting director of the experiment station in Palmer. Recruitment is in process for a dean of the school and director of the station. Staff to the interim dean and acting director includes an administrative assistant to the dean, the business office, the experiment station editor's office, the student recruiter in Fairbanks, and three administrative assistants in Palmer. Four department chairs head the departments: Forest Sciences; Geography; Plant, Animal and Soil Sciences; and Resources Management.

Connection to Research Units
The Agricultural and Forestry Experiment Station is designated as an institute and is the research arm of the school. It and the school conduct research in natural resource areas, agriculture and

forestry, and the social sciences of policy, economics, planning, recreation, and geography. The director of the station reports to the dean of the school. The station is linked to USDA through the Hatch and McIntyre-Stennis Acts and applies national research directives at the state and regional level. All current faculty, with the exception of the two geography faculty, hold joint appointments in the school and station.

The organizational chart of the school and experiment station can be found in the School of Agriculture and Land Resources notebook. Details about the activities of the experiment station are found in the Agricultural and Forestry Experiment Station notebook.

Faculty and Students
There are 22 faculty in four departments: Forest Sciences (6); Plant, Animal and Soil Science (10); Resources Management (4); and Geography (2). Four Plant, Animal, and Soil Science faculty are at the Palmer Research Center. Seven positions have been lost in the past six years; one is filled. Recruitment is in process for recreation management and range management and two new positions in forest sciences. Budget constraints preclude filling others. New positions and funding for them have been requested for geography, horticulture, soil science, resource economics, and subsistence law and policy.

The number of students in the Natural Resource Management degree program averaged 120 from 1995 through 2000. Natural Resources Management student numbers have decreased. Uncertainty about the future of the school contributed to this decline, as has the loss of key faculty positions such as recreation management. The B.A. in Geography averaged 14 students over these same years; the B.S. begun in 1997 now has 17. The recruitment program in the school is being strengthened. The natural resources and geography programs are under-funded and under-publicized at the UAF level.

Outcomes Assessment
SALRM's Natural Resources Management outcomes assessment program was an early model for outcomes assessment at UAF. The flagship course, NRM 101: Introduction to Natural Resources Management and Policy, the capstone course, NRM 304: Perspectives in Natural Resources Management, and the senior thesis NRM 405 and 406, form the core. The Geography Department is planning its assessment process.

The Natural Resources Management formal outcomes assessment began in 1997 and is a five-step program. Entry-level survey exams are given to students in NRM 101 providing a baseline measure of knowledge first-year students have of natural resources and their management. In NRM 304, students synthesize and integrate knowledge in written and oral presentations. Writing and speech samples are kept from beginning and end course exercises to help the team of instructors modify their approach if needed both during the course delivery and over years. A three-faculty committee guides each senior thesis. The thesis proposal and final product are presented orally to faculty and student peers. The formal written theses are retained electronically. A group of faculty administers an exit exam to graduating seniors during an informal interview. The exam results are compared to those of first-year students to determine knowledge gained. The dean of the school conducts formal exit interviews with graduating seniors. Students take this opportunity to talk about their experience as Natural Resources Management majors. SALRM has been using the results of the outcomes assessment to modify

individual courses. In 2000, it began an extensive curriculum review of all the degrees offered by the school. Outcomes assessment is an integral part of this process.

The Geography Department plans a three-step process. An entry and exit survey of general geographic knowledge will be implemented in 2001. A portfolio of student work, and a one-page evaluation questionnaire completed for all term papers and oral presentations will be retained and reviewed. Geography students will be included in the dean's exit interviews.

Suggestions and comments by graduating seniors in the formal exit interviews have led to increased field trips as a part of classroom instruction. SALRM created out-of-classroom experiences such as "Why do Boreal Forests Matter?", "Alaska Soil Geography", and "Wilderness Leadership Education" in the mid to late 1990s. It conducted its first alumni survey and employer interviews in 1989. Based on responses to the survey and interviews, it revised the curriculum in 1990 to include the senior thesis and a ten-day field trip, NRM 290: Resource Management at High Latitudes. SALRM also developed NRM 106: Orientation to Resources Management in 1997 to help students explore career opportunities.

Distance Delivery
The school and experiment station began to deliver courses electronically in 1995 with the help of the University of Alaska's Operation Services statewide system. It began with a DOS-based PC system for a class of six students in Fairbanks, five in Palmer, and one in Ft. Yukon. The school now use a combination of Microsoft NetMeeting, Blackboard, and the Internet to deliver up to five courses. Students are primarily enrolled in the Plant, Animal, and Soil Science Option of the Natural Resources Management B.S. degree and are located in the Palmer/Anchorage area. Line limitations and funding govern choices of technology which minimally meet requirements. Further improvements and infrastructure at UAF including funding for personnel for technology support at the school and college level are necessary to address expected future demand for distance-delivered education.

Finance
The budget for the school and experiment station is provided from federal sources (Hatch general formula funds and regional formula funds and McIntyre-Stennis formula funds), state appropriations, grants and contracts, and program receipts including overhead recovery. The budget has been relatively flat at approximately $6 million from 1995 through 2000. State appropriations fell from $3.9 million in 1995 to $3 million in 2000, a decrease of nearly $1 million despite the addition of the Geography Department budget. While federal dollars remained relatively flat at $1.4 million, grants and contracts increased $700,000 (including $38,000 from the Geography Department) despite the loss of seven faculty.

The Agricultural and Forestry Experiment Station is unique because it receives formula funds. These funds are provided for research in agriculture and forestry and must be matched by state appropriations. State appropriations must be adequate to meet this match. Federal grant funds cannot be used to match federal formula funds. Faculty write peer and USDA reviewed grants to receive formula funding. This funding provides faculty salary and travel funds for multi-state projects. Those faculty receiving formula funds hold joint appointments in the school and experiment station. At this writing, all faculty with the exception of those in the Geography Department receive formula funds.

Faculty contracts are for nine months with an additional three months provided only if funding is available from formula funds or faculty generated grants. As faculty numbers increase, Hatch and McIntyre-Stennis funds will not be sufficient to provide all faculty (excepting Geography Department faculty) with three months of salary unless the formula funding is increased at the federal level.

Staff Support
The reduction in the number of faculty has also resulted in a reduction in staff. At the present time, technical, secretarial/administrative assistant support, financial service support, editorial staff, and student recruitment and retention are adequate. As faculty are added, key staff positions will have to be addressed. These include technician support in range management and two potential positions in forestry.

SALRM has adjusted job descriptions and duties among secretarial/administrative support staff to allow the school to conduct business with current staffing. The business and personnel office of SALRM and the Agricultural and Forestry Experiment Station also serves the Cooperative Extension Service. It is operating with a minimal staff. Accelerated grant production by faculty and addition of new faculty will put pressure on the business and personnel office that will have to be addressed. Without adequate services in budget preparation, hiring, and personnel management, faculty productivity of grant monies will be stymied. Additionally, increasing requirements for reporting and accountability from the federal government, state, and university add to the time the business office must spend on fiscal and personnel matters. The school is making modifications within its present budget that will provide at least temporary assistance to faculty in preparing grant proposals. To meet reporting requirements, it is highly likely the school will have to increase the number of people in its business office in the very near future despite relatively flat budgets. Recruitment of students is also an important component of staff support. The recruiter's job description has been rewritten to allow a more aggressive approach to recruitment and retention. The editor's office has undergone revisions and is now equipped with reasonable technology to produce the required annual report and publications typical to experiment stations.

Facilities
The school and experiment station are headquartered on the Fairbanks campus, although at present the acting director for the experiment station resides in Palmer. SALRM is struggling for space, as are other units on the campus. At present, faculty and staff on the Fairbanks campus are housed in the O'Neill Building and the Arctic Health Research Building, with the Geography Department faculty located temporarily in Skarland Hall. A recent space reallocation recommendation has the potential to provide more space through use efficiency. Even with reallocation, new faculty hires beyond those planned will be difficult without new space. Laboratory space is at a particular premium without mentioning funding for renovation.

The school and experiment station oversee a number of research sites. The Fairbanks and Matanuska Experimental Farms and Palmer Research Center are the major research sites. A portion of the maintenance cost of the Fairbanks farm is supported through University of Alaska facilities. SALRM supports the Palmer Research Center and Matanuska farm (with the exception

of major repairs performed on a sporadic basis), a portion of the Bonanza Creek Experimental Research Site, the Reindeer Research Program remote site in Nome, and the Delta Research Station. Facilities maintenance is a constant drain on the budget. The school is not afforded a reduction in overhead rate that reflects this support.

Institutional Integrity

In general, staff members and faculty believe they are treated well by the school and experiment station. Injustices seem to be due to individual relationships between supervisors and employees, not policy. One major problem voiced by senior staff is the lack of pay increases for long years of service. Compensation is also an issue among faculty. New faculty may be hired at salaries exceeding that of existing faculty at higher rank and longer years of service. Faculty morale has been eroded by salary disparity across units within the university system. Another point of contention is the difference between 9-month contracts and 9 + 3 contracts issued for faculty who are employed for 12 months but must generate 3 months or more of their own salary. As new faculty are hired in the school with 9-month contracts, this difference will have to be addressed.

The school and experiment station often work in controversial areas. The goal is to present a broad view of perspectives on issues. Faculty adhere strongly to the scientific principle to reach conclusions. When faculty have an individual perspective on a controversial topic, they are free to express that perspective.

Appraisal

SALRM and the Agricultural and Forestry Experiment Station serve a state with a vast and diverse resource base. They are unique in the United States in their emphasis on natural resource management issues in the fragile ecology of the far north. To serve a state with as diverse a resource base as Alaska, the program must necessarily be broad and encompassing. Its strength is in this diversity but even more so in the very specific focus in research, instruction, and outreach the school has developed in its Strategic Plan and strategic planning process. Focus is important and must be maintained. The weaknesses will be magnified if this focus is lost. SALRM is committed to the Land Grant mission, to students, clients, and the state of Alaska as it emerges in an international economy.

Strengths
- Broad-based program balanced in biophysical and social sciences.
- Diversity of training and experience in faculty providing flexibility to meet individual student objectives within a balanced curriculum.
- Department structure that solidifies academic options yet fosters multidisciplinary interaction among faculty allowing students to appreciate a 'systems approach' to problem solving.
- Curricula designed to allow students to observe Alaska's natural resources and their management first-hand through field courses and workshops.
- Distance delivery to offer the Plant, Animal, and Soil Sciences option off-site.
- Strong outcomes assessment process allowing continuous improvement of curricula.

- Working relationship with agencies and the private sector that fosters internships and employment opportunities for students.
- Strong student-advisor interactions from the time a student enters the program.
- Geography program that contributes to the liberal education of the university with an explicit connection to natural resources management.
- Geography faculty who interpret the character of the Earth with humans as an integral part of the ecosystem.
- Environmental science B.S. degree offering a science-based option to geographers.
- Sense of family among the faculty, staff, and students that enhances the learning atmosphere.

Weaknesses

A blatant weakness lies outside the School of Agriculture and Land Resources Management and the Agricultural and Forestry Experiment Station. There is a lack of institutional understating of the importance of the Land Grant status of the university in a state whose major economic resources are tied to the land. Thus there is a lack of effective institutional support for the school and the experiment station. Within this cause-and-effect scenario, the following are weaknesses of the school and experiment station:

- Lack of faculty in key disciplines: recreation management, range ecology, food science, resource economics, subsistence policy, forage crops, and molecular physiology.
- Lack of depth in the number of faculty in key disciplines.
- Insufficient support for instruction forcing use of critical research funds to subsidize teaching.
- Shortage of space for specialized and general instruction in dedicated computer laboratories.
- Lack of support in personnel and funding to offer degree options off site.

Projections

SALRM combines the biological, physical, and social sciences to effect appropriate management and development of Alaska's natural resources. Projections emanate from adherence to the Land Grant philosophy evident in the school's 1996 Strategic Plan. The school has a planning process and is now actively engaged in that process to produce an updated 2001 Strategic Plan.

Short-Term Goals

- Increase student enrollment.
- Establish a professional Master's in Natural Resources Management (in progress).
- Establish an M.A. in Geography.
- Restructure animal sciences to reflect changes in faculty and the industry (in progress).
- Integrate the Geography Department into the school and review the curriculum (in progress).
- Formalize relationships with 4-H (in progress).
- Assure animal facilities meet health, safety, and welfare standards (in progress).
- Integrate USDA programs more closely with the school and experiment station.
- Obtain appropriate space for student computer laboratories/classrooms.

- Identify high priority faculty positions, complete hiring of those currently approved (in progress).
- Increase delivery of online programs and effectiveness of distance delivery.
- Implement research programs in the Plan of Work for the experiment station.

Long-Term Goals
- Respond to the emerging and changing needs in resources management of the state of Alaska.
- Sustain and improve the quality of instruction.
- Maintain and enhance international leadership in research.
- Obtain a new building to co-locate all faculty and affiliate faculty.
- Maintain and strengthen international collaborative programs.
- Increase external grant funding that supports the Land Grant mission of the school and the experiment station.

Distinctive Efforts for the University of Alaska Fairbanks
- Outcomes Assessment – used as an early model for the process.
- Distance Delivery – multi-media delivery to infrastructure disadvantaged sites.
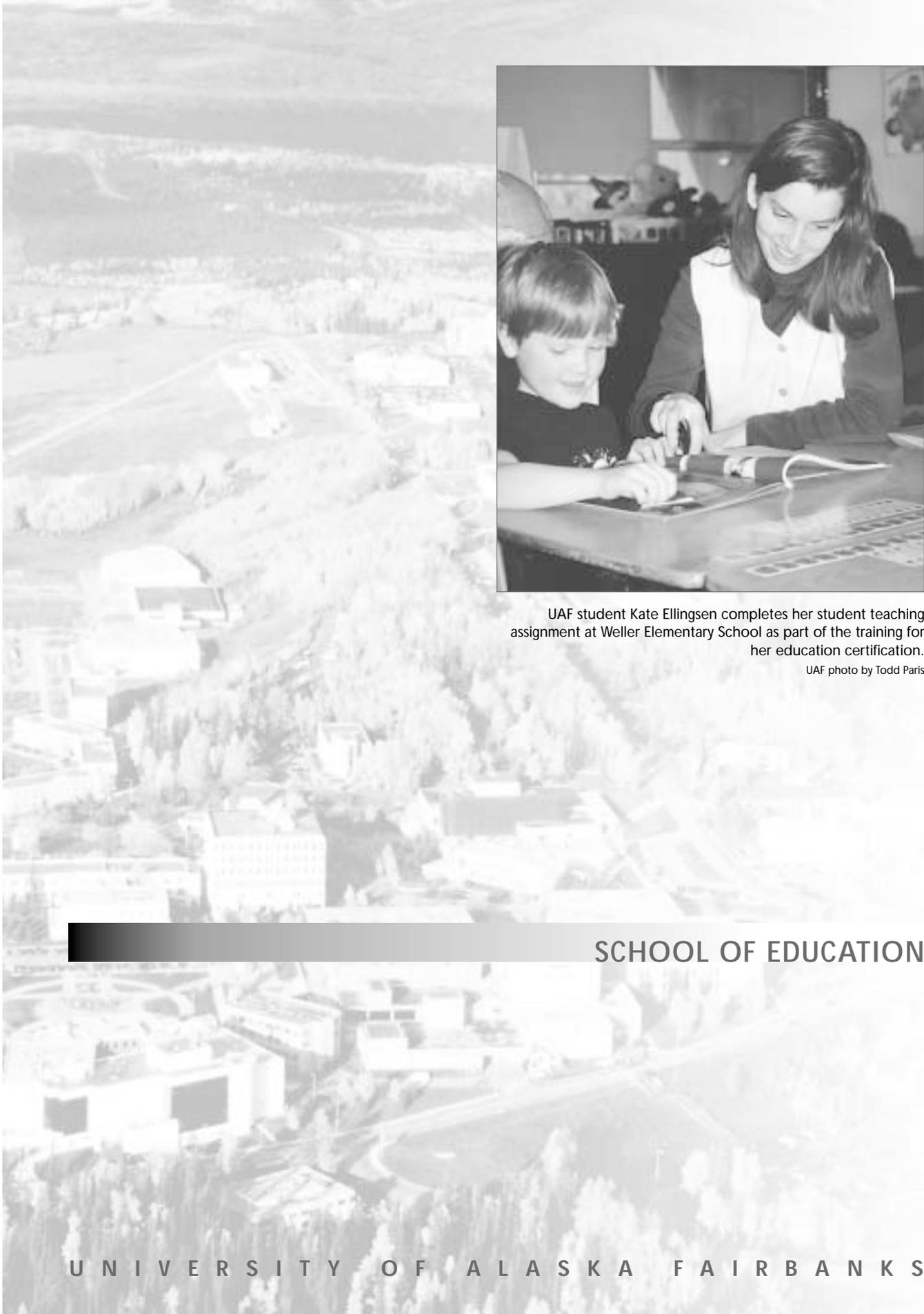
UAF student Kate Ellingsen completes her student teaching
assignment at Weller Elementary School as part of the training for
her education certification.

UAF photo by Todd Paris

SCHOOL OF EDUCATION

School of Education

Programs

Arts and Sciences	B.A.S.
Education Elementary	B.Ed.
Education	M.A.T.
Education	M.Ed.

Cross-Cultural, Curriculum and Instruction, Educational Leadership (Type B Licensure), Language and Literacy

Guidance and Counseling	M.Ed.

Elementary, Secondary
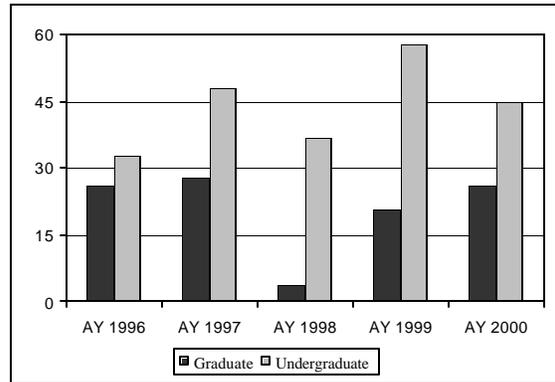
Students

Number of Degrees & Certificates Awarded

Student Credit Hours
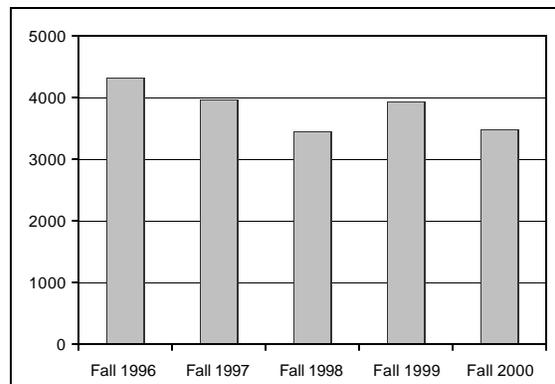
Budget

Expenditures
(Unrestricted Funds, in thousands)
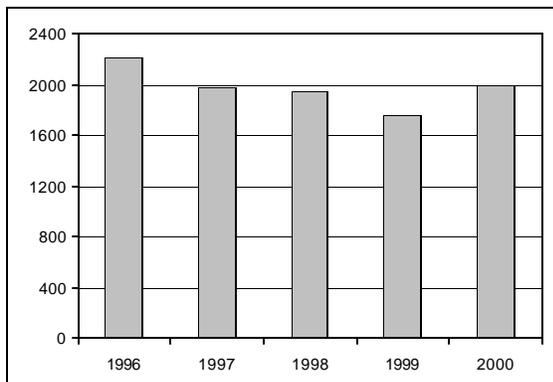
Faculty

Faculty Headcount
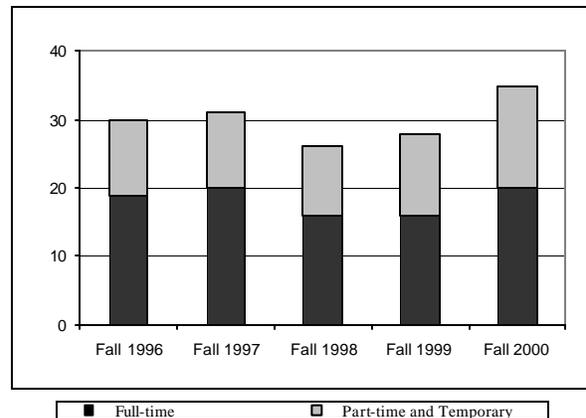
*Programs are those offered in the 2001-2002 UAF Catalog.

School of Education

The Bachelor of Education degree first became available in Fairbanks and by distance delivery to students in rural Alaska in 1970. The UAF School of Education (SOE) has undergone numerous changes to its organizational structure since then (see SOE notebook for details). In 1982, the Department of Education was placed within the newly formed College of Human and Rural Development. In 1988, the Department of Education was placed in the newly formed College of Rural Alaska. In 1992, the School of Education was formed and moved to the College of Liberal Arts. In 1998, the School of Education was moved to the Graduate School. In 1999, the School of Education was moved from the Graduate School to a unit of its own, with the director reporting directly to the provost. In 2000, the unit head was designated as a dean.

Evidence-Based Description

As of January 2001, the school has three departments, Elementary Education, Secondary Education, and Graduate Education. Each department is responsible for curriculum and instruction for programs both at the Fairbanks campus and by distance delivery to rural Alaska. The department chairs, along with a rural coordinator and a field experiences coordinator, form the Dean's Council (see notebook, section 1, to view the organizational chart).

The school mission includes a commitment to undergraduate and graduate education. To support a commitment to preparing Alaska Native educators and teachers for rural schools, for 30 years the school has provided distance-delivered programs to college students and K-12 educators in rural Alaska, where most communities are composed of a majority of Alaska Natives.

The School of Education provides several programs for preparing teachers for initial licensure:
- Bachelor of Education (B.Ed.) degree for preparation of elementary teachers (admission suspended by the Board of Regents) (100 percent of coursework available by distance delivery).
- Bachelor of Arts (BA) in Elementary Education degree for preparation of elementary teachers (approved by the Board of Regents, June 2001) (100 percent of coursework available by distance delivery).
- Post-baccalaureate programs for preparation of elementary teachers (the Elementary Teacher Education Partnership—ETEP—program available at the graduate level for students in Fairbanks; and the Rural Educator Preparation Partnership program—REPP—available at the undergraduate level for students in remote areas).
- Post-baccalaureate programs for preparation of secondary teachers (the secondary teacher preparation program available at the graduate level for students in Fairbanks, and the REPP program available at the undergraduate level for students in remote areas).

The school is also responsible for coordinating the Bachelor of Arts and Sciences (BAS) degree. Developed jointly with the Colleges of Liberal Arts and Science, Engineering, and Mathematics, the BAS degree was created in 1998 in response to the Board of Regents' decision to eliminate undergraduate teacher education. After completing the BAS degree, students can go into a post-

baccalaureate elementary teacher preparation program. Virtually all students in the BAS degree will migrate to the new BA in Elementary Education degree in fall 2001.

The school also offers the Master of Education (M.Ed.) degree. Teachers residing in rural areas can take coursework for the M.Ed. degree through a combination of distance-delivered courses and summer school courses in Fairbanks. Distance-delivered courses use both audio-conference and the Internet. The faculty regularly serve on graduate committees for students in Interdisciplinary Ph.D. programs.

Students

The UAF School of Education has 345 students (as of December 2000) in various programs.

Department	# majors
Elementary education	235 *
Secondary education	19
Graduate education	91

* In addition, the elementary education department is responsible for advising students taking the Bachelor of Arts and Sciences (BAS) degree (78 students 12/00), and students in the Bachelor of Music (BM) education degree (4 students 12/00).

Obtaining accurate data on students from the Department of Planning, Analysis, and Institutional Research (PAIR) has been complicated by the fact that rural students are listed on BANNER as being part of the College of Rural Alaska. In addition, many rural students have a double major (AA and B.Ed. degrees), with their primary major being the one counted by PAIR. As of June 2001, the school did not have corrected data from PAIR that accurately counted rural students or counted summer courses and professional development courses. Fortunately, the school maintains an up-to-date database on all its advisees.

The largest number of students is in the Bachelor of Education degree program (204 students). The following table shows the number of students who have completed various programs over the past five years.

UAF School of Education Program Completers	1996	1997	1998	1999	2000
B.Ed.	34	49	68	60	43
Elementary licensure Post-bacc.	22	19	30	15	21
Secondary licensure Post-bacc.	36	33	61	20	14
MAT	N/A	N/A	N/A	2	17
M.Ed.	26	25	11	22	9
Ed.S.	1	2	0	0	0
Int.Ph.D.	0	0	1	1	1
Total	**119**	**128**	**171**	**120**	**105**

Student credit hour production for teacher preparation programs remained steady from 1993-1997. A drop in SCH production occurred soon after two events. In May 1997 the school was not

granted re-accreditation by the National Council for Accreditation of Teacher Education (NCATE). In 1998, the deans and director of the three UA Colleges/Schools of Education (through their role on the UA Professional Educational Coordinating Committee, established by President Komisar) recommended that the Board of Regents eliminate undergraduate teacher education. While the board initially agreed, this decision had far-reaching implications, given the extent of teacher shortages in Alaska. At the urging of community leaders, schools, and the new dean and the faculty of the UAF School of Education, the board reversed its decision in 2000. The School of Education has since developed a new bachelor's degree for the preparation of elementary teachers, to be available fall 2001. The school anticipates that virtually all BAS degree students and any B.Ed. students unable to complete their degrees by the deadline of 12/02 will switch to the new BA in Elementary Education degree.

In fall 2000, the dean of the UAF School of Education, with the support of the faculty, suspended admission to the Master of Arts in Teaching (MAT) degree (first instituted in 1998 at the recommendation of the UA Professional Educational Coordinating Committee). An assessment by the faculty demonstrated that the post-baccalaureate programs would better suit the needs of students and schools if the students were provided with two options: pursuing licensure only or of applying some of their graduate teacher preparation coursework towards an M.Ed. degree.

Graduate student credit hour production rose from 1995-1997. It dropped in 1998, soon after the M.Ed. in Educational Leadership was removed from UAF and placed under the jurisdiction of the University of Alaska Anchorage. Recent recruitment efforts (which include television and radio public service announcements, and e-mailing and faxing announcements of program offerings to rural schools), an increase in faculty, and the renewal of a graduate program staff position already has resulted in a dramatic increase in the number of applicants to graduate programs in fall 2000 and spring 2001.

Thirty-six percent (124) of all students in the School of Education are Alaska Natives (see SOE notebook). Eight percent are from other minority groups. Ninety-three percent of the Alaska Native students are currently in the B.Ed. degree. The new BA in Elementary Education degree will replace the B.Ed. degree, making it possible for the school to continue its commitment to the development of Alaska Native teachers and teachers for rural Alaska. Thirty-four percent of our students (119) live in rural Alaska and take their courses primarily by distance delivery. Seventy-three percent of Alaska Native students in School of Education programs live in rural Alaska.

Student credit hour production for rural programs dropped from 1994-1996 as budget cuts and administrative policy changes resulted in loss of School of Education faculty at several rural campuses. Numbers rose again in 1997 when the Rural Educator Preparation Partnership began extensive student recruitment.

Faculty
The school lost seven tenure-track faculty positions between 1995 and 1999. In the 2000-2001 academic year, the school experienced the first increase in faculty numbers in several years. As of January 2001, the school has 19 full-time faculty members (4 tenured, 9 tenure-track, six non-tenure track). We anticipate adding three full-time positions by the end of summer 2001. The

number of term appointments and part-time adjuncts remains too high, however, in all departments.

The following table indicates numbers of full-time and part-time faculty who taught for each department in the 2000-2001 academic year. These numbers do not tell the whole story, however, since 16 full-time faculty members provide instruction for at least two departments of the unit. For example, all of the full-time faculty members who provide instruction for the Secondary Education Department also provide instruction for the Graduate Education Department. Several faculty members provide instruction for both the Elementary Education and the Secondary Education Departments. In addition, three tenured and seven tenure-track faculty members have administrative responsibilities (such as department chairs, coordinators of special unit responsibilities, or grant administrators) that cut into their instructional workloads.

Department	Full-time Faculty	Part-time Faculty
Elementary Education	15	22
Secondary Education	3	5
Graduate Education	12	9

Finance
As of March 2001, the budget remains divided between the School of Education and the College of Rural Alaska. The National Association of State Departments of Teacher Education (NASDTEC) accreditation review pointed out that a divided budget is neither cost effective nor does it make it possible to determine whether the budget is adequate to meet the program needs. The split budget also has made it impossible for the Department of Planning, Analysis, and Institutional Research to provide the school with accurate data on faculty, student credit hour production and student headcounts, since rural faculty have their appointment in the School of Education and their budgets in the College of Rural Alaska. Consolidation of the budget under the school is underway and should be completed by June 2001.

Appraisal

External Accreditation
The NCATE review cited numerous strengths of the unit (e.g., high quality of instruction, faculty, and students; and the multicultural focus of the programs). The major weaknesses cited were in the governance of the unit, lack of a clearly articulated conceptual framework/mission, and not enough collaboration with public schools. The review team wrote that "The constant reorganization within the unit and the lack of leadership longevity have caused confusion as to the role of faculty governance… and has interfered with curriculum changes and program reviews." "… faculty members are not involved in program planning and do not have a formal vehicle for communicating their ideas and concerns to the unit."

A few months after the NCATE review, the unit went through another accreditation review, based on the National Association of State Departments of Teacher Education standards. While programs received favorable review at that time, the review team still cited weaknesses with faculty governance and organizational structure. The School of Education teacher preparation

programs were granted approval by the Alaska Department of Education and Early Development in spring 1998. Along with UAA and UAS, the school is now preparing for an accreditation visit from NCATE in 2006.

In spring 2000, the chancellor and provost involved the faculty in the selection of a dean. In fall 2000, the dean engaged the faculty in the development of a unit departmental structure. These changes have restored faculty governance, stability, and sense of identity to the unit.

Commitment to Students

The dean, faculty, and staff are strongly committed to the mission of preparing K-12 educators who are ready for the unique challenges of teaching in Alaska's rural and urban multicultural schools. The UAF School of Education is the leader in the state and the nation in the preparation of Alaska Native teachers.

Since 1997, the unit has taken a leadership role statewide in the implementation of outcomes-based, standards-based teacher preparation. While completion of programs has always been contingent on performance assessments, new state and national standards for academic and professional preparation of educators began to form the foundation for School of Education programs with the development of the Rural Educator Preparation Partnership, a statewide program operated almost entirely by UAF faculty and staff. A capstone experience of a year-long internship in schools and assessment based on student portfolios is becoming the norm for programs in the school.

Research

Several faculty are engaged in long-term multimillion dollar projects funded by the National Science Foundation and the U.S. Department of Education. Faculty are noted internationally for their creative research on Alaska Native education. This research informs state, national, and international efforts related to culturally responsive pedagogy. The unit has responsibility for the annual distribution of $126,000 in funds from the Alaska Schools Research Fund. This unique fund, provided by the Legislature, offers financial support for individuals conducting research on Alaska schools and schooling.

Service Through Collaboration

Faculty engage in a large number of service activities, many related to Alaska's schools in Fairbanks and in over 25 school districts in rural Alaska. Through placement of faculty at rural campuses the school provides outreach to communities and schools throughout the state.

Faculty participate in numerous statewide collaborations essential to the quality and delivery of programs, including collaborations with UAA and UAS on statewide delivery of several graduate degree programs. The new BA in Elementary Education was developed in close collaboration with UAA and UAS to ensure ease of student transfer between institutions. The faculty also engage in numerous collaborations with faculty in other UAF units, particularly the Colleges of Rural Alaska, Liberal Arts, and Science, Engineering, and Mathematics.

The professional standards for Alaska Teachers and the state content standards for K-12 students were developed through the extensive efforts of teachers and education faculty statewide,

including faculty of the UAF School of Education, in collaboration with the Alaska Department of Education and Early Development.

Projections

Currently, the state institutions are unable to meet the demand for teachers and counselors for Alaska's schools, particularly in rural Alaska where the majority of K-12 students are Alaska Native. The school's funding requests focus on adding faculty, staff, and services that will enable it to provide a quality program to greater numbers of students, both at the Fairbanks campus and in rural Alaska.

Recruitment of students has always been closely linked to the availability of faculty and staff to work with students, particularly for students in rural areas. The loss of faculty at several rural campuses in the past decade has greatly decreased the school's capacity to recruit and work with rural students, most of whom are Alaska Native. Because of the importance of rural programs to the stability and enhanced quality of education in rural public schools, increased services for rural programs the school's highest priority. To that end, requests for funding through the UA President's Initiatives include funding to restore several faculty positions at rural campuses, to enhance distance delivery, and to enhance recruitment and advising services to rural-based students. The restoration of the undergraduate degree, available both in Fairbanks and by distance delivery to rural Alaska, enables the school to vigorously resume recruitment of students for elementary teacher preparation. Replacement of faculty at the Northwest Campus, the Kuskokwim Campus, and the Chukchi Campus will enable the school to recruit students in those regions much more effectively. Faculty at the rural campuses travel extensively to the villages in their regions to work with student teachers/interns and to recruit and advise students.

The school has long used performance assessment in evaluating students, and in the past three years the faculty have implemented performance-based, standards-based portfolio assessments for most programs. The addition of new faculty in the coming year or two should provide faculty, most of whom currently have significant administrative responsibilities, with the time needed to further develop and implement program assessment.

The school has already begun preparing for the NCATE accreditation visit through numerous faculty meetings in the last two years, and the assignment of a faculty member to coordinate preparations. These preparations involve all faculty in collaborations with faculty from the Colleges of Rural Alaska, Liberal Arts, and Science, Engineering and Mathematics.

Programmatic collaborations with the Colleges of Education of UAA and UAS will continue. These collaborations benefit college students by allowing more educational options, easing the student transfer process, and providing more services to rural students and teachers.

Prior to December 2000, the lack of a School of Education governance structure based on faculty process made articulation between programs and modes of delivery difficult. The new structure, which places rural and Fairbanks faculty in the same department, and the development of the Dean's Council brings faculty together regularly to address program articulation.

An essential aspect of providing quality preparation of K-12 educators is continuous involvement of School of Education faculty in collaborations with K-12 public schools. These collaborations provide faculty with continuous feedback from school teachers, counselors, administrators, and communities regarding the needs of Alaska schools. The School of Education has increased its collaboration with and involvement in schools both in Fairbanks and rural Alaska in the past few years and will continue to do so.

The R/V *Alpha Helix* is UAF's Seward-based seagoing research station.
Photo courtesy UAF School of Fisheries and Ocean Sciences

SCHOOL OF FISHERIES
AND OCEAN SCIENCES

U N I V E R S I T Y   O F   A L A S K A   F A I R B A N K S

School of Fisheries and Ocean Sciences

Programs

Fisheries	B.S., M.S., Ph.D.
Marine Biology	M.S., Ph.D.
Oceanography	M.S., Ph.D.
Biological, Chemical, Fisheries, Geological, Physical	
Marine Biology Option	Ph.D.

Students

Number of Degrees & Certificates Awarded
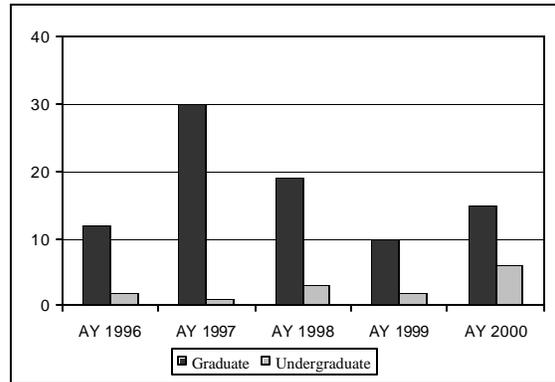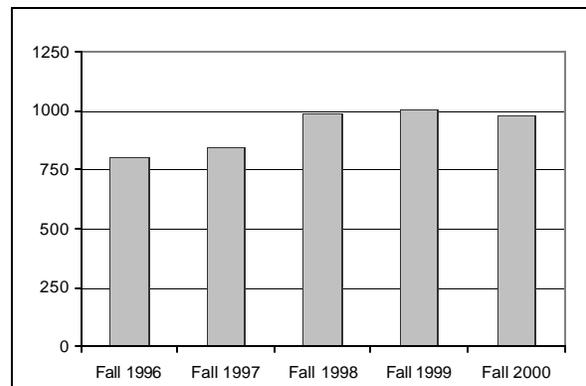
Student Credit Hours

Budget

Expenditures
### (Unrestricted Funds, in thousands)
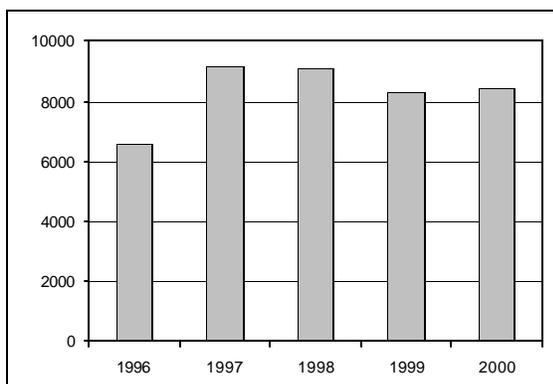
Faculty

Faculty Headcount
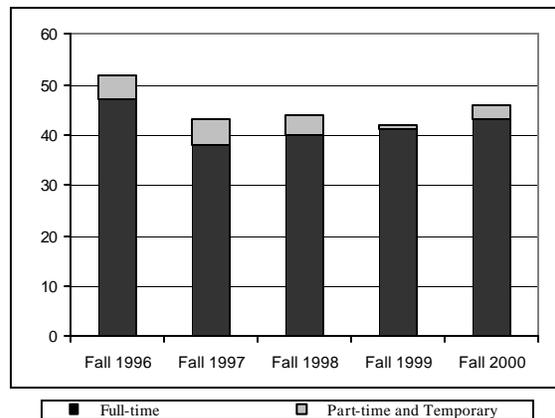
*Programs are those offered in the 2001-2002 UAF Catalog.

School of Fisheries and Ocean Sciences

The School of Fisheries and Ocean Sciences (SFOS) was formed in 1987, as part of a major restructuring of the entire University of Alaska system. The Board of Regents decided to establish the new school under the University of Alaska Fairbanks, although none of the geographically dispersed units were relocated. The Fairbanks campus was chosen as the home institution because it was the site of the highly successful and largest unit, the Institute of Marine Science, and also because it was, and remains, the primary research and graduate campus within the UA system.

Evidence-Based Description
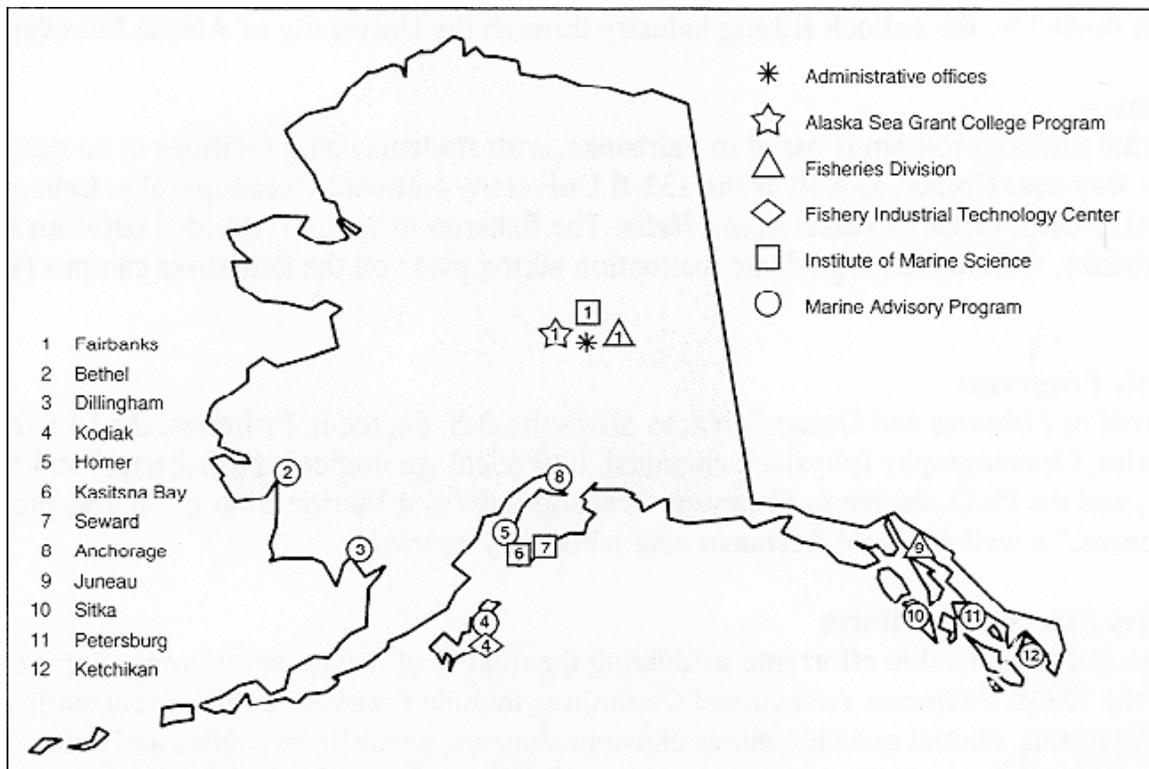
Mission
SFOS is dedicated to the acquisition, application, and communication of knowledge of marine and freshwater systems and resources for the benefit of Alaska, the nation, and the world.

Structure
Academic Units. SFOS is composed of three primary academic and research units: the Institute of Marine Science (with its affiliated teaching program, the Graduate Program in Marine Sciences and Limnology), the Fisheries Division, and the Fishery Industrial Technology Center

(FITC). The Marine Advisory Program (MAP) provides extension. Each unit is headed by a director.

Non-Academic Units. The Alaska Sea Grant College Program also falls within the school. In addition, the Global Undersea Research Unit (GURU) was built around the National Oceanic and Atmospheric Administration–supported West Coast and Polar Regions Undersea Research Center, to allow expansion of undersea research associated with the center. Tenured and tenure-track faculty may be associated with GURU, but it has no instructional responsibilities, and the faculty teach through the Graduate Program in Marine Sciences and Limnology.

Several cooperative arrangements or endowments have been established or are developing within the school. The Coastal Marine Institute is a cooperative effort among the U.S. Minerals Management Service, UAF, and the State of Alaska. The Rasmuson Fisheries Research Center has been underwritten by Elmer Rasmuson, with the purpose of supporting graduate student research through competitive fellowships, and the Pollock Conservation Cooperative Research Center is funded by the pollock fishing industry through the University of Alaska Foundation.

Locations
The marine science program is based in Fairbanks, with students using facilities at Seward and Kasitsna Bay near Homer, as well as the 133-ft University National Oceanographic Laboratory System (UNOLS) research vessel *Alpha Helix*. The fisheries program is divided between Juneau and Fairbanks, with the undergraduate instruction taking place on the Fairbanks campus (see map).

Academic Programs
The School of Fisheries and Ocean Sciences offers the B.S. degree in Fisheries; the M.S. degree in Fisheries, Oceanography (physical, chemical, biological, geological and fisheries) and Marine Biology; and the Ph.D. degree in Fisheries, Oceanography and Marine Biology. It also provides "The Oceans," a well-received freshman core laboratory course.

Outcomes Assessment Efforts
SFOS has put considerable effort into evaluating the quality of its student training. Some indices used by the SFOS Outcomes Assessment Committee include first-year employment statistics, qualifying exams, alumni questionnaires, capstone courses, portfolio examples and exit interviews. Outcome Assessment procedures have been developed for each of the degrees offered by the school. These evaluations have led to improvements in student training and services such as improved assessment techniques, more hands-on training through laboratory-based course offerings and an investment in teaching resources such as laboratory equipment.

Students
The following tables show the current student complement and degrees awarded since the formation of the school. SFOS does not anticipate any major changes in the near future, although with a growth in faculty numbers, it may increase enrollment somewhat.

SFOS Student Numbers — Fall 2000			
Total students: 126	**B.S.**	**M.S.**	**Ph.D.**
Fisheries Program			
Fairbanks	18	10	2
Juneau		27	15
Graduate Program in Marine Sciences and Limnology (GPMSL)			
Marine Biology		13	6
Biological Oceanography		10	4
Chemical Oceanography		1	4
Fisheries Oceanography		5	2
Geological Oceanography			
Physical Oceanography		3	3
Interdisciplinary			2
Food Science and Nutrition (FITC, Kodiak)			
Interdisciplinary			1

| SFOS Degrees Awarded 1988–2000				
	B.S.	**M.A.**	**M.S.**	**Ph.D.**
Fisheries	55		87	13
GPMSL			53	27
Interdisciplinary		1	4	2

Faculty

There are 23 tenured/tenure track faculty in the marine sciences, and seven research faculty and four active emeriti. In fisheries, there are ten tenured/tenure track faculty (three in Fairbanks, seven in Juneau) and two active emeriti. The Fishery Industrial Technology Center has four tenured/tenure track faculty, and the Marine Advisory Program has nine tenured/tenure track faculty and one research faculty.

		Number of	
Location	**Faculty by unit**	**Research staff**	**Admin & support staff**
Fairbanks (IMS + FD)	26 + 3	35	24
Juneau (FD)	7	10	4
Anchorage (MAP)	3		5
Kodiak (FITC + MAP)	4 + 2	4	4
Seward (IMS)	2	15	4
Kasitsna Bay		2	
Bethel (MAP)	1		
Dillingham (MAP)	1		1
Homer (MAP)	1		
Petersburg (MAP)	1		1
Ketchikan (MAP)	1		
Sitka			1
Kasilof (IMS)	1		
Monterey, Calif. (IMS)	1		

IMS – Institute of Marine Science, F – Fisheries Division, MAP – Marine Advisory Program, FITC – Fishery Industrial Technology Center

Budget
SFOS receives financial support from several sources. The state appropriation serves as the basis for leveraging a total expenditure budget of approximately $20 million. The total varies from year to year depending on funding sources. The school has several negotiated agreements which provide research funds from external entities, including the Minerals Management Service Coastal Marine Institute ($1 million per year) and the Pollock Conservation Cooperative Research Center (ultimately $1 million per year), as well as the Alaska Sea Grant College Program and the West Coast and Polar Regions Undersea Research Center.
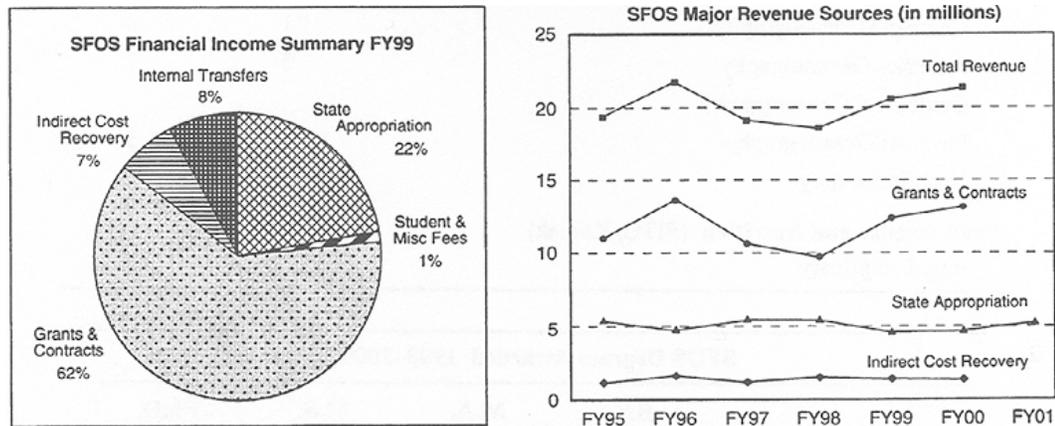
Each unit within the school receives a projection budget at the beginning of the fiscal year. This is a guideline for expenditures, but the actual numbers may differ as external receipts vary.

Appraisal

Weaknesses
The lack of adequate facilities for the Juneau Center is a major problem and threatens the viability of fisheries research and education. Facilities on the Fairbanks campus also are inadequate. There is a severe shortage of laboratory space, which is constraining the school's ability to recruit faculty, even though it now has the support to fill positions.

Strengths
Alaska provides the ideal environment for strong marine and freshwater programs. With the majority of the coastline of the United States and vast numbers of lakes of several types and several large river systems, the diversity of opportunity is extraordinary.

SFOS has a diverse and excellent faculty, covering a wide range of fields. They are successful in generating external research funds, attracting graduate students and are well respected.

The school's instruction is very effective, and the students receive a great deal of individual attention. They participate in research cruises and work on research projects hand in hand with their faculty supervisors. All of the faculty are very accessible to students.

Graduate students compete well for positions in their fields. Essentially all of the fisheries Ph.D. recipients are working in agencies, mostly within Alaska. Our marine science Ph.D. students

have successfully competed for faculty and senior research positions. Others are working for federal and state agencies or with private consulting enterprises.

The location of the core faculty on the Fairbanks campus allows the school to interact with the strong scientific programs there, with the other major research entities. The availability of a strong science faculty and good courses is important for the graduate students, and the faculty have colleagues beyond the unit. The inland location is an advantage for freshwater work, for lake and stream fisheries research. For at-sea work, access from Fairbanks to all coastal regions of Alaska is good.

SFOS coastal research facilities are well-placed in support of Institute of Marine Science needs: The Seward Marine Center serves as the home port for the UNOLS vessel R/V *Alpha Helix*, and also has its own laboratories, running seawater system and accommodations. It is located immediately adjacent to the Alaska SeaLife Center and has a State of Alaska–owned mariculture facility on the property. It is within a two hour drive south of Anchorage, and thus is ideal for an oceanographic staging port. The School of Fisheries and Ocean Sciences has access to the excellent facilities of the Alaska SeaLife Center for marine mammal and bird work. (The science director is a faculty member within the School.) The Kasitsna Bay Laboratory on Kachemak Bay across from Homer is an excellent location for marine biological research and teaching.

SFOS faculty and staff carry out research under approximately 250 grants from federal agencies and other sources. All waters surrounding Alaska are included, and many projects are cooperative with agencies and other universities.

SFOS is able to provide high quality central services for proposal preparation and submission and other day-to-day support needs.

Appraisal

The School of Fisheries and Ocean Sciences has developed as a major research and graduate instruction unit, with a wide range of faculty competence. The faculty are excellent, and its graduate students have been successful in finding employment and in their careers. The school is doing a good job, and in so doing is satisfying a vital need in Alaska. The development of Outcomes Assessment procedures has aided the school's focus on academic areas requiring improvement. The undergraduate fisheries program has been improved greatly though curriculum revision led by Associate Dean Al Tyler. The major constraint here is the lack of sufficient fisheries faculty based on the Fairbanks campus. A senior year in Juneau would help, and this still is in the plans, but facilities do not yet permit implementation.

The school's performance in marine advisory services suffers from a small number of agents, given the extent of Alaska's coasts and the importance of marine-related industry and subsistence. However, activities from the main Marine Advisory Program headquarters in Anchorage have been effective. These include Hazard Analysis and Critical Control Point (HAACP) training, assisting Sheldon Jackson College with teaching, and working on major constraints to industry, such as the impact of paralytic shellfish poisoning on shellfish aquaculture. The same is true for the more applied research conducted by the Fishery Industrial

Technology Center; there are insufficient faculty to form a critical mass. Here, there is an additional problem. While dependent on external funds for research support, the sources available to their kind of program do not allow for facilities and administration costs, so there are limited funds available to provide infrastructure and administrative support.

Projections

SFOS will face excellent opportunities over the next few years. The availability of financial support for new faculty has already had an impact, and will continue to do so. In addition, within a few years, four endowed chairs will be fully funded, allowing the school to fill positions with distinguished senior faculty. The marine science faculty numbers will be restored to the pre-1987 levels, and the complement of fisheries faculty will reach critical mass. These programs should stabilize at about 27 tenured/tenure track faculty in Marine Science, and should reach 15 fisheries faculty, split between Juneau and Fairbanks, within five years.

Outcomes Assessment procedures will lead to continuing improvements in student training and services. Undergraduate student numbers could increase slightly, given improvements in curriculum and increased course offerings through the new faculty. Graduate student numbers also will increase, especially in those areas in which the admission of students is constrained by limited course offerings and insufficient faculty to supervise additional students. Such areas include marine biology and the graduate fisheries program at the Juneau Center. Given success in obtaining suitable facilities for the Juneau Center, the program there should thrive. The creation of a Center of Excellence for Fisheries in Juneau, in consort with the National Oceanic and Atmospheric Administration, is a high priority. Success or failure in achieving this will determine the future effectiveness, if not survival, of fisheries instruction and research.

Research will continue at the current level, or increase with new faculty. A new vessel is being designed to replace the research vessel operated by the university, the R/V *Alpha Helix*. Given this more capable vessel, at-sea research will increase for faculty and students. New research programs for the North Pacific Ocean and the Arctic will provide compelling opportunities.

While no major change in direction is envisaged, the School of Fisheries and Ocean Sciences is in a good position to become a premier program within five years.

Business major Daniel Mainor refines his computer-aided presentation in a business department "smart" classroom.

SCHOOL OF MANAGEMENT

U N I V E R S I T Y   O F   A L A S K A   F A I R B A N K S

School of Management

Programs

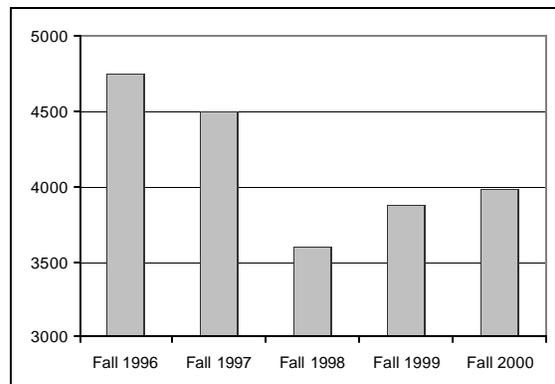|	
Accounting	B.B.A.
Business Administration	B.B.A.
Management and Organizations, Marketing	
Business Administration	M.B.A.
General Management, Capital Markets	
Economics	B.A., B.B.A.
Resource and Applied Economics	M.S.

Students

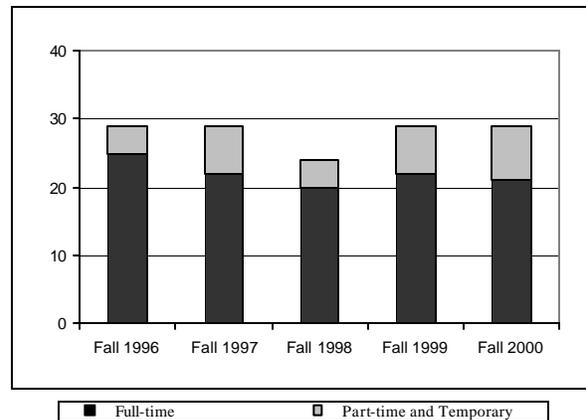Number of Degrees & Certificates Awarded
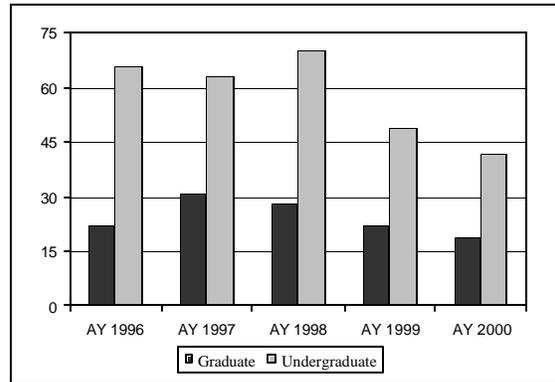
Student Credit Hours

Budget

Expenditures
(Unrestricted Funds, in thousands)
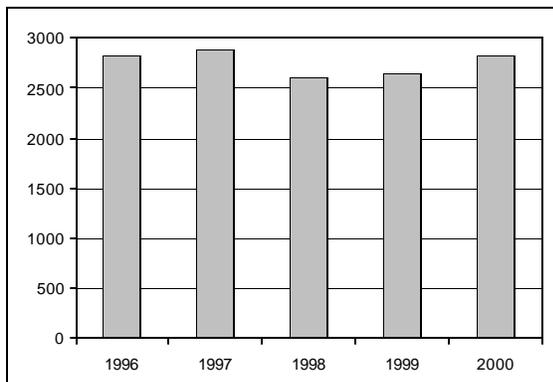
Faculty

Faculty Headcount

*Programs are those offered in the 2001-2002 UAF Catalog.

School of Management

The precursor of the School of Management dates back to the early 1920s. During the mid-1980s Dean Michael Rice and others recognized important nationwide changes in business education and modernized the school. These changes, described in the school's notebook, led to accreditation by the Association to Advance Collegiate Schools of Business (AACSB) for all the school's business programs, including specialized accounting accreditation. Only 140 business schools worldwide share this high level of AACSB accreditation.

The School of Management, the School of Mineral Engineering, the School of Agriculture and Land Resources Management were combined in 1997 to form the College of Natural Resource Development and Management (CNRDM) as a consequence of a program assessment process initiated in 1994 by the University of Alaska Board of Regents. The intent of the new college was to reduce overhead associated with fiscal operations by establishing a common college business office and to provide a voluntary framework for interdisciplinary projects related to natural resource development and management. In that regard, the college appeared to dovetail nicely with "Strategic Plan: UAF 2000." However, almost immediately the accrediting organizations associated with all three units expressed concern with the new structure. In addition to that, the new college did not enjoy deep support among the faculty of any of the units. Further, the intended cost savings never materialized nor was the newly created unit given reasonable financial support because of a university-wide budget crisis. Recognizing these problems, in June 2000 the Board of Regents dissolved the college and returned the schools to the structure that existed in 1997.

At present, the School of Management (SOM) comprises the Departments of Accounting and Information Systems, Business Administration, and Economics and is under the leadership of Dean James Collins. Undergraduate programs in Accounting, Business Administration, and Economics are offered as well as graduate programs in management and resource economics. The School of Management's relationship to the general university structure is that of all other schools and colleges. Dean Collins reports directly to the provost. Although some unintended consequences of the consolidation and its reversal remain, most of the school's faculty feel that the problems associated with this experiment have been resolved.

Evidence-Based Description

Mission
The current mission of the School of Management is to provide high quality management education, to be a valued resource and research center, and to develop managerial and leadership capabilities for Alaska and the North. In particular the School of Management shall:
1. Provide quality graduate and undergraduate education responsive to the needs of individual students and the diverse population of Alaska.
2. Foster an environment that encourages and supports research and establishes the school as a resource center.
3. Be the premier Alaskan school focusing on management and economic graduate studies and research particularly relevant to Alaska, the North and its diverse peoples.

The school views its strategy as an ongoing process that is directed toward the assessment and continuous improvement of the school and its programs. This proceeds in the context of a traditional committee structure that provides for faculty governance and continuous assessment of the school's academic programs and research projects. In particular, the Continuous Improvement Committee is responsible for identifying and resolving problems and opportunities as they arise. The Executive Committee, which comprises the dean and department chairs, provides the administrative structure to evaluate, and where appropriate, implement the recommendations of the Continuous Improvement Committee.

This planning process has resulted in the development of sets of generalized goals related to the areas of teaching, research, and service. In turn, these goals have resulted in a set of well-defined, action-oriented short-and long-term goals at both the departmental and school levels. These goals are described in detail in the individual notebooks and are selectively presented here, not in any order of importance, simply by title to indicate what areas are important to the School of Management:
- Improve the school's introductory courses.
- Introduce a finance option in the Business Administration Department.
- Reorganize the school's administrative staff.
- Develop appropriate unit criteria for tenure and promotion.
- Improve communication with the school's external constituencies.
- Improve the number and quality of intellectual contributions
- Provide for distance delivery of selected portions of the school's curriculum
- Increase the number of majors and credit hours.
- Improve faculty development.

Students
The total number of School of Management majors declined 7.5 percent from fall 1995 to fall 2001. The decline is not constant for all majors. Accounting, Business Administration, and Economics declined 8.2 percent, 5.5 percent, and 60 percent respectively. In percentage terms, more students, 74 percent, declare Business Administration a major than declare Accounting, 25 percent, or Economics, 1 percent. The number of majors, credit hour production, and student headcount for each of the school's academic areas are described in detail in the School notebook. The decline in total school majors is consistent with a nationwide decline in students declaring business as a major. However, at UAF this decline has slowed and, in the last year, was reversed.

Clearly the Business Administration Department appears to be the core of the school as this is where most of the its majors and credit hour production is found. This is not surprising because that department comprises the majority of the traditional business school disciplines. The Accounting and Information Systems Department enrollments and majors have remained very constant over the period, suggesting stability in demand for that specialized program. The data describing the Economics Department are troubling in one important aspect. Although credit hour production is high, the number of undergraduate majors declined sharply.

Faculty
The School of Management experienced a significant decline in the number of full-time faculty during the period studied. As departing faculty were not always replaced during the lean years of

the 1990s the structure of the faculty posed difficulties in meeting the school's curricular needs. For instance, the departure of a full professor of finance left a large hole that was only recently filled. Also, departures impacted faculty morale. In particular, a decision by the dean not to replace a retiring accounting faculty member with another accountant but rather to reallocate the position to the Business Administration Department to fill a critical gap in that department's faculty was viewed with alarm by the accounting faculty.

Administrative Support

Staff support within the School of Management has been problematic. After CNRDM was dissolved, a plethora of tasks previously completed at the college level became the responsibility of the school. The influx of duties and responsibilities from the college rendered the old strategy of assigning administrative personnel to departments inefficient. In an attempt to resolve these problems without increasing the resources directed toward administrative support, Dean Collins elected to reorganize the support staff along functional rather than departmental lines.

At present the school's position of Computer Support Program director is vacant because the incumbent resigned in December. This position supports the school's technical backbone including its servers, network, and workstations. It is unlikely that this position will be filled given market constraints posed by salaries paid competent technicians in the privates sector. The school is currently negotiating with UAF's Division of Computing and Communication to provide these services. In the interim, the fiscal officer is providing support in this area on an overload basis.

Appraisal

The school of Management is a professional school which educates students in the art and science of management in the context of many business-related disciplines. This provides the core strength of its programs. While other colleges based in the traditional disciplines of the academy often must produce convoluted arguments to demonstrate their practical efficacy in the real world, this efficacy lies at the heart and soul of the School of Management.

Strengths

It is not difficult to demonstrate that the educational programs of the School of Management add significant value to the career of graduates and the organizations that hire them. Even if an assumption of only partially efficient markets for employment of college graduates is made, SOM graduates perform well. For instance, traditionally all its accounting program graduates find professional employment. In a similar vein, graduates from the other school programs also find substantive positions. Exit and alumni surveys demonstrate that virtually all School of Management graduates find appropriate employment shortly after leaving the university. Clearly, employers value the skills students acquire during their time with the School of Management. It is the depth, experience, and strength of the faculty that makes this value creation possible.

The School of Management constitutes a major resource for the economic development of Alaska. It provides existing organizations with managerial talent and advances the cause of economic development through a wide range of educational and research initiatives. Evidence of its success may be found in the large number of School of Management graduates who find

professional employment in the state and in the relationships School of Management faculty have established with public and private organizations in the areas of accounting, capital management, natural resource development, and tourism. The is no doubt that School of Management faculty and students have made and will continue to make significant contributions to Alaska as the state attempts to expand and diversify its portfolio of economic activities.

Weaknesses

It is important to note that the fact that SOM students are in demand does not suggest that programs are without fault or that they could not be made better; it simply says that SOM is adding value to its students' complement of skills. Not only does SOM provide value to the portfolio of individual graduates, it provides value directly to the State of Alaska in terms of the economic value created by its graduates and the firms that employ them.

While the school has been able to attract quality faculty in the past two years, the issue of starting salary is a troubling one. While non-monetary aspects of Alaska are appealing to many potential applicants, the inability to offer competitive salaries—defined as AACSB discipline related median—unnecessarily contracts the pool of viable applicants. On the other hand, if market salaries are offered, the issue of salary compression becomes a major problem. This entire issue is in large measure related to system-wide compensation questions and cannot be resolved at the school level with current funding.

The numerous instructional, research, and service related accomplishments of the School of Management's faculty are fully described in the individual notebooks. Clearly, the faculty are heavily involved in their instructional and service duties. There are concerns about unevenness in the scholarly activity across individual departments and faculty. These concerns were extensively addressed by the Executive Committee, and an improved workload assignment process was developed to provide a context in which faculty can better articulate the balance of their tripartite accomplishments.

Certainly the school needs to provide more administrative support to buttress its teaching and research missions. The number of staff and the portion of the budget allocated to administrative support are lower today than before the school was consolidated. Unfortunately, absent additional increments to the school's base budget, it is unlikely that the proportionate or absolute level of support to this vital area can be increased in the near term. In the current environment, an increase to administrative support would result in a real cut in support for the school's instructional and research efforts. Again, this is a problem that is related to generalized fiscal issues, affects all university units, and cannot be resolved at a school level.

To serve the many diverse needs of its constituencies, the School of Management at times has attempted to "be all things to all people." This desire often resulted in the school offering too many programs or options within programs. This concern was uncovered during the school's AACSB reaccredited process. As a result of this analysis, a decision was made to concentrate the efforts of the school on particular areas where a critical mass of faculty and other resources could be decisively directed toward the education of students. For instance, in the Business Administration Department the faculty carefully examined its options and associated curriculum and elected to focus its attention on the areas of (1) management and organization and (2)

marketing. This decision was formed on the basis of a careful analysis of faculty expertise and market demand for graduates.

Projections

As the school took advantage of opportunities to expand its resources it did not lose sight of the principles that guided its academic consolidation in the late 1990s. Any new major, option, or emphasis must be consistent with the demands of the school's external constituencies, and must be initiated from a position of organizational strength. For example, the Business Administration Department designed a new undergraduate Finance option for that degree. But it only did so after assurances of a competent level of resources were available to design and implement a viable program. That program is progressing well, a new faulty member was hired and curriculum carefully designed. In addition to that, resources for data acquisition and necessary travel for faculty and students were incrementally added by the university.

In a similar vein, the school as a whole is examining strategies for offering instruction in the area that is commonly dubbed "e-commerce." Although there is considerable pressure to immediately implement such a program, the school's faculty is proceeding prudently, yet decisively. A search for a new faculty member with expertise in e-commerce is proceeding aggressively, but the faculty has yet to decide the final vision for this offering. It is unclear whether this area should be offered as a stand-alone option or be driven throughout the curriculum.

The ability to effectively marshal the resources of the School of Management toward opportunities and problems in the environment is one of the school's major strengths. This strength can be illustrated in the context of another example. The School of Management received considerable pressure to commit to the goal of offering its entire MBA curriculum in a web-based format. The faculty resisted this change primarily upon the basis that not enough resources were made available to do so in a competent fashion.
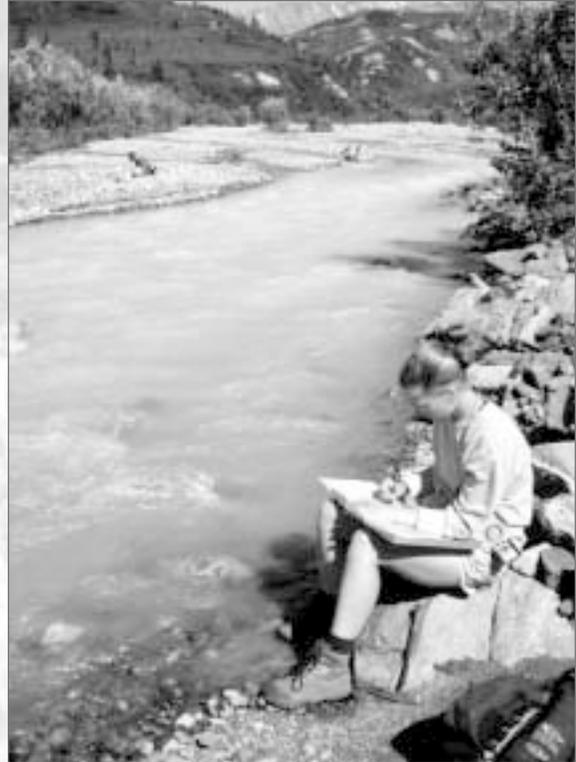
Andrea Dasovich takes notes for a UAF Summer Sessions
Geological Engineering field class near Summit Lake.

SCHOOL OF MINERAL ENGINEERING

UNIVERSITY OF ALASKA FAIRBANKS

School of Mineral Engineering

Programs

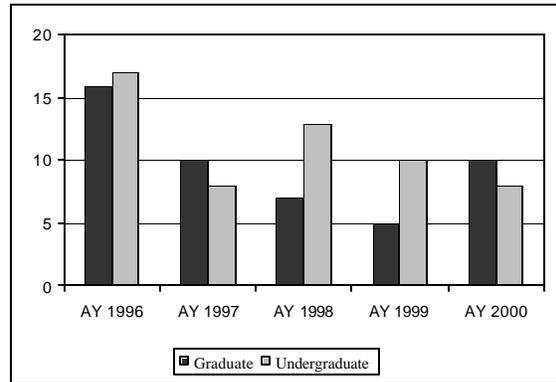|	
Engineer of Mines	E.M.
Geological Engineering	B.S., M.S.
Mineral Preparation Engineering	M.S.
Mining Engineering	B.S., M.S., E.M.
Petroleum Engineering	B.S., M.S.

Students

Number of Degrees & Certificates Awarded
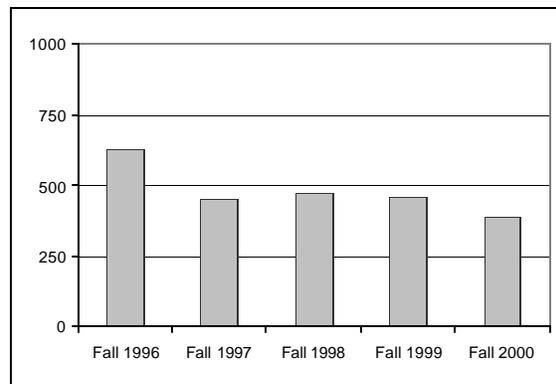
Graduate   Undergraduate

Student Credit Hours

Budget

Expenditures
(Unrestricted Funds, in thousands)

Faculty

Faculty Headcount

■ Full-time   □ Part-time and Temporary
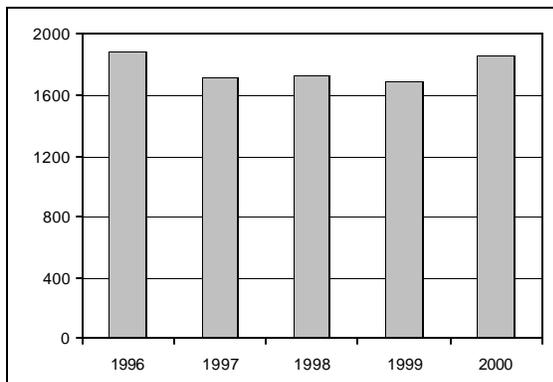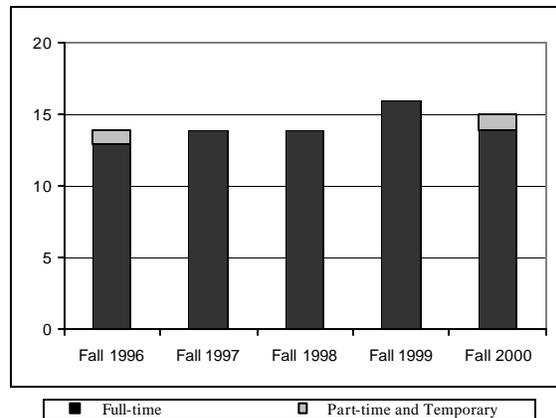
*Programs are those offered in the 2001-2002 UAF Catalog.

School of Mineral Engineering

The University of Alaska was founded as an agricultural and mining college in1915. From 1917 to 1962, the School of Mineral Engineering was known as the School of Mines. It became the College of Earth Sciences and Mineral Industry (CESMI) from 1962 to 1975 and consisted of four instructional programs including mining, geological, geology, geography and one research laboratory. The Mineral Industry Research Laboratory (MIRL) was created in 1963 by the State Legislature to conduct basic and applied research on issues concerning the mineral industry. In 1975, CESMI changed its name to the School of Mineral Industry as part of university reorganization initiated by President Robert Hiatt. The Petroleum Engineering Program was separated out from the Department of Mining and Geological Engineering and became an independent academic department in 1981. In 1984, the School of Mineral Industry changed its name to the School of Mineral Engineering (SME). Later in 1985, the Alaska State Legislature created the Petroleum Development Laboratory (PDL) with a mandate to explore various aspects of enhanced oil recovery research.

The School of Mineral Engineering consists of undergraduate and graduate programs in Mining Engineering, Geological Engineering, and Petroleum Engineering. A graduate degree in Mineral Preparation Engineering is also available. The school conducts research related to mineral exploration, mining, mineral preparation, strata control, permafrost technology, pipeline construction engineering, and petroleum engineering through its research laboratories: the Mineral Industry Research Laboratory (MIRL) and the Petroleum Development Laboratory (PDL). The school's structure can also be seen schematically in the notebook on exhibit.

The three undergraduate degrees—mining engineering, geological engineering, and petroleum engineering—are accredited by the Accreditation Board for Engineering and Technology (ABET). In 1951, the then School of Mines was first accredited by the Engineers Council of Professional Development (ECPD), the forerunner of ABET, and has retained accreditation since that time.

The School of Mineral Engineering is the only academic institute in the nation that offers resource engineering degrees with an emphasis on Arctic and sub-Arctic regions. Over the years, graduates of the school have been instrumental in the development of the state's natural resources including gold, lead and zinc, oil and gas, coal, and many other major minerals. In addition, the school's graduates have become managers and administrators in major corporations as well as state and federal governments worldwide.

Evidenced-Based Description

Overview and Changes
 On July 1, 1997, the School of Mineral Engineering officially merged with the School of Agriculture & Land Management (SALRM) and the School of Management (SOM) to form the College of Natural Resource Development & Management (CNRDM). The primary goal was to reduce administrative costs. The merger dictated reducing the SME budget by eliminating some staff positions and combining all units' individual business office functions into one college business office. The initial thought was that this consolidation would provide increased

functional efficiency and reduced labor costs. However, it soon proved the merger had not achieved the anticipated results.

In June 2000, the UA Board of Regents, with the recommendation from the UAF administration, voted to dissolve the College of Natural Resource Development & Management and return the three schools to their former independent stature. With the retirement of the SME dean on August 28, 2000, an interim dean was appointed and the task of conducting a nationwide search for a new dean has been set in motion.

Present Organizational Structure of SME
The current SME structure includes the dean's office, which is the central administration of the school. Dr. Robert Carlson is the interim dean. The staff includes the executive officer, the fiscal officer, and the payroll/personnel/accounts technician. The Department of Mining & Geological Engineering has four mining engineering professors and two geological engineering professors. There are, however, two vacant faculty positions in the geological engineering program soon to be filled. The department is chaired by Dr. Sukumar Bandopadhyay, and supported by the administrative assistant. The Department of Petroleum Engineering, chaired by Dr. Godwin Chukwu, consists of three additional faculty members. One full-time administrative assistant provides assistance to the department chair and services to the petroleum engineering faculty and students.

Two research laboratories are led by the dean of the school as the director of the laboratories. MIRL has two faculty members and one postdoctoral fellow. One additional faculty position in coal science and technology has been requested through the university's FY02 Initiative Program. The executive officer also works as the assistant to the director. PDL has one acting associate director, Dr. David Ogbe, who takes care of the daily business of the laboratory and one professor and one instructor. Other than faculty, PDL has one administrative assistant. Again, the executive officer also works as the assistant to the director.

The organization chart of SME can be found in the School of Mineral Engineering notebook.

Academic Units
The School of Mineral Engineering is composed of two instructional departments: the Department of Mining & Geological Engineering and the Department of Petroleum Engineering. The Department of Mining & Geological Engineering offers graduate and undergraduate study in mining and geological engineering and a graduate program in mineral preparation engineering. The faculty from MIRL provide the support of teaching in mineral preparation engineering. The Department of Petroleum Engineering offers both graduate and undergraduate degrees. The faculty of the academic units and research laboratories conduct formal instruction and carry out research responsibilities. The department chair manages and coordinates the departmental business including class scheduling, student recruitment, correspondence, public appearance and presentation, participation in the school's advisory board meeting, etc.

SME experienced a steady decline in student enrollment from 1997 to 2000. As indicated in the notebook, the rate of decrease was four to six students per year. However, SME did encounter an increase of seven students between Fall 1999 and Spring 2000. The Fall 2000 student enrollment in the School decreased by 16 percent as compared to the total student population in Fall 1997. The decline

for undergraduate student population was 11.4 percent. The decrease was almost three times as large (36.8 percent) for graduate students. Student enrollment figures can be found in the SME notebook.

In order to stop this continuous decline in student enrollment, the school has asked each academic department to implement an aggressive recruitment and retention plan and faculty to be actively involved in student recruitment and advising. An increase in external research funding alone probably will not be able to bring the graduate student population up to a satisfactory level. The school will explore other options such as allocating some Fund 1 money for graduate teaching assistants or using some of the SME scholarships for their support.

The unofficial count of the SME students is higher than that compiled by the university. One simple explanation of this deviation is that the Department of Petroleum Engineering also offers an M.S. degree program in petroleum engineering in Anchorage in order to reach those working in the industry who are not able to enroll as full-time students and also those seeking professional enhancement. This is a potential pool of students. The school will attempt to recruit or advise them to enroll as full-time students during their graduating year.

The credit hours generated by SME stayed at a constant level for undergraduate teaching between fall 1999 and fall 2000 (see Table 2 in the SME notebook). However, the production of graduate credit hours dropped from 127 to 70 during the same period of time. The methods for improvement mentioned in the student enrollment section should increase the credit hours production. Furthermore, offering basic service courses to the entire university community and teaching additional engineering sciences courses will considerably improve this record.

The size of faculty in the school has remained about the same from 14 full-time and one part-time in 1997 to 15 full-time and one part-time in 2000 (see Table 3 in the SME notebook). However, hiring of two new geological engineering faculty will increase the number of full-time faculty to 17. The budget for two additional faculty positions (one in petroleum engineering and one in MIRL) has been submitted. Approval of this request will bring the full-time SME faculty to 19.

There are currently three full-time and three part-time staff members in the school. Table 4 in the SME notebook shows the distribution of the school's staff. The dean's office has one full-time and two part-time staff. The part-time fiscal officer position might be converted to full-time for the reason that the arrangement of sharing one fiscal officer between SME and the School of Management might be subject to re-negotiation. The school will seek additional funding from the university administration to change this half-time position to a full-time position. Under the present arrangement, MIRL does not have its own staff support and PDL has only a part-time assistant. SME is considering converting the part-time PDL staff to a full-time position to provide support for both PDL and MIRL.

Outcomes Assessment
The School of Mineral Engineering continues to refine and evaluate the quality of its student preparation and guidance. Each of the degree programs has developed outcome assessment guidelines utilizing varied techniques, such as employment statistics, EIT exams, alumni questionnaires, and exit interviews. These assessments have led to improvements in student education, investments in laboratory and computer equipment for students, and increased awareness of student needs. While the outcomes assessment program is only a few years old,

ongoing development is being made to ensure that SME continues to stay at the forefront of cutting-edge industrial technology.

Connection to Research Units

The school conducts research related to mineral exploration, mining, mineral preparation, permafrost technology, pipeline construction engineering, strata control, and petroleum engineering through its research laboratories: the Mineral Industry Research Laboratory and the Petroleum Development Laboratory.

MIRL has two faculty members and a postdoctoral fellow engaged in ongoing mineral industry research and teaching mineral preparation engineering courses. The dean of the School of Mineral Engineering is also the director of the research laboratory. The Mineral Industry and Research Laboratory is the research institute through which faculty from the Department of Mining and Geological Engineering, and occasionally from other departments on campus, conducts mineral-related research. MIRL conducts studies concerning beneficiation and hydrometallurgy of Alaskan ores, geology and mineral deposits of Alaska, placer mining and gold recovery, innovative mining methods, feasibility studies of mineral deposits, environmental studies related to mining activities, remote sensing, ground control, and frozen ground engineering related to gas pipeline construction. Due to the collaborative nature of research in the department, the faculty of Mineral Industry Research Laboratory are often on the graduate thesis committees guiding the research for the graduate degrees.

In recent years, private companies have increased their funding for mineral-related research. This change is due in part to the closure of the U.S. Bureau of Mines. Increased mining and exploration activity in the state is also a contributing factor. Because of the interests in traditional and alternative energy, the school has redirected its attention to this new research field. The total research grants received in FY96 were $167,000 and it reached $1,279,000 in FY00 (see Table 5). The success of this new research direction has certainly given SME faculty an advantageous position to secure more funding in the future. The administrative budget in the school decreased from $287,000 in FY96 to $162,000 in FY00. The total state-appropriated budget changed from $1,844,000 to $1,774,000 between FY96 and FY00, a net loss of $70,000 without the consideration of inflation. As the overall university's budget situation improves, the university administration should implement a budget restoration plan to bring the school's annual allotment to a proper level.

The Petroleum Development Laboratory has two research faculty. The dean of SME is also the director of the research lab. Additionally, a faculty member in the Department of Petroleum Engineering serves as the Acting Associate Director of PDL. The vision for PDL can be summarized as follows:
- To serve as a center of excellence in basic and applied research leading to the development of technologies to extract, upgrade, manage and commercialize Alaska's oil and gas resources.
- To conduct basic and applied research in enhanced oil recovery to develop technology for maximizing production of heavy oil resources in West Sak and Ugnu fields, North Slope Alaska.
- To provide training and technology transfer that will prepare Alaska's work force to meet the challenges of economic development in a state whose economy depends on the effective and responsible management of natural resources located in Arctic and sub-Arctic environments.

- To cooperate with other state and federal agencies and with the natural resources industry to develop energy for rural Alaska.

The PDL faculty work closely with their colleagues in the Department of Petroleum Engineering in carrying out undergraduate and graduate instruction in petroleum engineering, service on graduate thesis and project advisory committees, and research.

Over the years research at PDL has been supported by industry and various federal and state agencies. The non-state appropriated research funding for PDL has averaged about $500,000 per annum during the last five years.

Appraisal

The School of Mineral Engineering is unique in that it is the only school in the nation that offers accredited degree programs in resource engineering with emphasis on Arctic and sub-Arctic regions. Over the years, graduates of the school have played key roles in the development of the state's natural resources including gold, coal, lead and zinc, oil and gas. Major strengths and weaknesses of SME are summarized below.

Strengths
- Due to its geographic location in Alaska, the school is in a leading position in engineering education and research as it pertains to mineral and petroleum development and production in arctic and sub-arctic conditions.
- SME has maintained a good working relationship with mineral and energy industries.
- The school, because of its many supportive alumni, has a relatively large scholarship fund to recruit quality students.
- All the academic programs of the school have received accreditation by ABET, the nation's engineering and technology schools accreditation body.
- The Petroleum Development Laboratory facilities are among the finest academic laboratories in the country and provide a major boost to the educational opportunities for the students and research opportunities for the faculty.
- The school has established a good reputation with the industry for the quality of its graduates. It has over 90 percent placement of its graduates, either in professional positions or as fully funded Ph.D. students at major research universities.
- A normal strength of small schools is the close student/teacher relationship facilitated by small enrollment. Unfortunately, this small enrollment often poses problems in resource allocation.

Weaknesses
- Chronic low enrollment and resultant criticism, proposed mergers and rumors of program elimination create perennial concerns for the continued existence of the school.
- Insufficient support and commitment from the university administration has severely restricted the school's ability to strengthen its position in industry and in the academic community.
- Lack of state research support and a very limited array of potential research funding sources severely limit the school's ability to develop research agendas focused on the state needs.
- The entire school suffers from a limited interaction with the major petroleum companies operating in Alaska.

Projections

Future plans for the SME include the following:

- Fill the SME dean position by early 2002. Fill at least one of the two vacant faculty positions in the geological engineering program by September 2001. Recruitment of a new faculty member to fill the vacant position in the Petroleum Development Laboratory will also enhance SME's capability to work on petroleum research projects that meet the needs of the state.
- Increase student recruitment and retention efforts to boost enrollment figures.
- Increase proposal submissions and facilitate industry-sponsored projects, and develop interdisciplinary research projects with other academic units.
- Work toward reaccreditation of all three academic programs under the ABET 2000 criteria.
- Increase the number of SME courses offered as online courses and by long-distance mode of course delivery.
- Provide instructional budget and funding for Mineral Preparation Program
- Prepare to offer Ph.D. programs in mining engineering, geological engineering, mineral preparation engineering, and petroleum engineering.
- Request additional funding for the school's departments and laboratories.
- Move all SME units into the remodeled Duckering Building by Fall 2001.