

UNIVERSITY OF ALASKA FAIRBANKS

Drumbeats Alaska: Place-Based Solutions for Alaska Native Food & Energy Sovereignty 2023-26 Evaluation Report

2023 USDA NIFA ANNH Grant
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Executive Summary

The overall goal of the U.S. Department of Agriculture Alaska Native and Hawaiian-Serving (ANNH) Institutions program is to enable institutions of higher education to improve and expand their capacity to serve Alaska Native and Native Hawaiian students. *Drumbeats Alaska: Place-Based Solutions for Alaska Native Food & Energy Sovereignty 2023-26* aims to further food and energy security of Alaska Native communities through place-based curricula and increased access to academic courses and experiential learning. The Drumbeats Alaska 2023 goal is:

Goal: Advance place-based Alaska Native food and energy sovereignty through equitable education.

To accomplish this goal, Drumbeats Alaska has established 2 objectives and 4 outcomes:

1. **Increase Alaska Native access to, and equity in, academic pathways related to food and energy sovereignty.** All five campuses have made progress towards this objective. More information is provided by each outcome below.

1.1. Provide student support and retention efforts for Drumbeats Alaska Students and Campuses as measured by student tuition, travel, and stipends. Tuition assistance and travel funds were provided to students across the five Drumbeats Alaska campuses. Fiscal data is not available in year 1 but will be tracked in future years.

1.2. Coordinate targeted recruitment, outreach, and communication for Drumbeats Alaska students and campuses within UAF to create further opportunities for students and faculty, and uplift Alaska Native voices and knowledge, as measured by articles submitted to UAF publications and UAF leadership participating in site visits and class/event attendance. Two articles were submitted to academic publications, and two webinars were provided for the UAF A Place for Knowledge Exchange. There is room for improvement in involving leadership in site visits and classes, and this is an area targeted for growth in future grant years.

2. **Increase Alaska Native opportunities to build technical and leadership skills and knowledge to address food and energy sovereignty and strengthen local economies.** All five campuses have made progress towards this objective. More information is provided by each outcome below.

2.1. Provide course offerings including new curricula and partnerships as measured by faculty positions, new curricula developed, and summer courses. There were 0.7 FTE faculty positions, at least 7 new curricula developed, and 15 summer courses offered during grant year 1.

2.2. Increase professional development networks and uplift Alaska Native voices and knowledge, as measured by Drumbeats faculty's and students' participation in annual conferences, food, agriculture, natural resources and health sciences (FANH) relevant events, and UA initiatives. At least seven faculty shared that they had participated in conferences and FANH-relevant events.

Overall, Drumbeats Alaska made substantial progress on its project plan during the first grant year. The evaluation found that 86% of planned Year 1 actions had been fully completed, and an additional 6% were in progress or expected to be ongoing throughout the grant period.

Background

The overall goal of the Alaska Native and Hawaiian-Serving Institutions is to enable institutions of higher education to improve and expand their capacity to serve Alaska Native and Native Hawaiian students. Drumbeats Alaska: Place-Based Solutions for Alaska Native Food & Energy Sovereignty 2023-26 aims to further food and energy security of Alaska Native communities through place-based curricula and increased access to academic courses and experiential learning. To that effect, the Drumbeats Alaska Consortium has established the following goal:

Goal: Advance place-based Alaska Native food and energy sovereignty through equitable education.

To accomplish this goal, the Drumbeats Alaska Consortium established two objectives:

Objective 1: Increase Alaska Native access to, and equity in, academic pathways related to food and energy sovereignty.

Outcome 1.1: Provide student support and retention efforts for Drumbeats Alaska Students and Campuses as measured by student tuition, travel, and stipends.

Outcome 1.2: Coordinate targeted recruitment, outreach, and communication for Drumbeats Alaska students and campuses within UAF to create further opportunities for students and faculty, and uplift Alaska Native voices and knowledge, as measured by articles submitted to UAF publications; UAF leadership participating in site visits and class/event attendance.

Objective 2: Increase Alaska Native opportunities to build technical and leadership skills and knowledge to address food and energy sovereignty and strengthen local economies.

Outcome 2.1: Provide course offerings including new curricula and partnerships as measured by faculty positions; new curricula developed; summer courses.

Outcome 2.2: Increase Professional Development Networks and uplift Alaska Native voices and knowledge, as measured by Drumbeats faculty and students' participation in annual conferences, FANH-relevant events, and UA initiatives.



Alaska Native Food & Energy Sovereignty

The University of Alaska Fairbanks, with the support from the USDA National Institute of Food and Agriculture (NIFA), Alaska-Native Serving and Native Hawaiian-Serving Institutions Education Competitive Grants Program (ANNH), is working to advance place-based Alaska Native food and energy sovereignty through equitable education.

To implement this project, UAF developed the Drumbeats Alaska Consortium, a group of academic and community outreach programs from partner campuses in the UAF College of Indigenous Studies. These campuses include Bristol Bay (BBC), Chukchi (CC), Kuskokwim (KuC), Interior Alaska (IAC), and Northwest (NWC).

<https://uaf.edu/drumbeats>

A logic model, which outlines the project goal, objectives, activities/strategies and/or tasks, outputs, and outcomes, is presented in Figure 1. The purpose of a program logic model is to test feasibility and to illustrate the causal connections within the project. The logic model maps the implementation of the activities to the project's intended outcomes, showing how they relate to the program goal.

At the time of the writing of this plan, this UAF project was beginning the second year of a 3-year grant term.

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Study Design

Purpose of Study

The purpose of this study is to conduct an external evaluation of the University of Alaska Fairbanks Drumbeats Alaska Consortium's 2023 United States Department of Agriculture (USDA) National Institute of Food and Agriculture (NIFA) Alaska Native and Native Hawaiian-Serving Institutions (ANNH) grant award to understand the project's impact on Alaska academic pathways that support access to and equity in food and energy sovereignty. Fidelity of implementation is also tracked through the evaluation because fidelity not only moderates the relationship between an intervention and its outcomes, but its assessment may also prevent potentially false conclusions from being drawn about an intervention's effectiveness. The evaluation also serves to strengthen the management of the project and lead to better knowledge of what works in producing the desired outcomes.

Evaluation Approach

As noted in the section above, this evaluation study consists of three components: 1) a fidelity of implementation study; 2) a formative evaluation study; and 3) a summative evaluation study. Each of these components is described below.

Fidelity of Implementation study: The purpose of the fidelity of implementation study is to describe in measurable language the degree to which activities were carried out as planned. The guiding evaluation questions for a fidelity study¹ are:

- *To what extent was the project implemented as designed?*

Common methods used in fidelity studies are comparative analyses between the project activities as originally described in the funding application or modified implementation schedules and plans of work approved by the funder and actual implementation as documented in project documentation; review of project records that describe the duration or frequency of activities; and observations, audits or third-party reviews of implementation that assess implementation quality; and analysis of participant feedback. See the Fidelity of Implementation in Appendix A for more details. The full evaluation matrix is available upon request.

¹ Carroll, C., Patterson, M., Wood, S. *et al.* A conceptual framework for implementation fidelity. *Implementation Sci* 2, 40 (2007). <https://doi.org/10.1186/1748-5908-2-40>

Formative Evaluation study: The purpose of the formative evaluation is to provide information to project staff to inform improvements to program implementation. The formative evaluation study builds upon data collected in the fidelity study, using a mixed methods approach to collect information that identifies the extent to which the project achieves its intended outputs. The formative evaluation study also describes factors that have positively or negatively affected implementation, as well as implementation successes and challenges. In addition to utilizing performance data provided by project staff (e.g., course descriptions, enrollment/attendance records, etc.), this study uses a series of stakeholder focus groups (project workgroups) to collect formative data on program implementation. The formative evaluation also includes REEport measures required by NIFA. The guiding REEport research questions are:

- *What was accomplished under the project goal(s)?*
- *What opportunities for training and professional development has the project provided?*
- *How have the results been disseminated to communities of interest?*
- *What do you plan to do during the next reporting period to accomplish the goal(s)?*
- *How many FTEs were there in this reporting period?*
- *What student support was provided?*
- *What other products have been created as a result of this grant?*

Additional guiding research questions are:

- *What successes has the project achieved? Which component of the project has contributed the most to these successes?*
- *What challenges has the project faced and what actions were taken in response? Which component of the project has contributed the most to these challenges? Were any major changes made to the project as a result of challenges?*
- *What factors (internal or external) have affected project implementation? What were the impacts of these factors on implementation?*
- *What steps have been taken by the institution that demonstrate a commitment to sustainability or institutionalization of grant-funded personnel, programs, and services?*
- *How has this project affected the college overall? How has it affected the regional campuses overall?*

Summative Evaluation study. The purpose of the summative evaluation is to assess the degree to which the project met its intended goal(s) and outcomes as described in the logic model. Goals (identified in the application narrative, Section B) will be assessed by the degree to which objectives associated with the goals were met. Outcomes (identified in the application narrative, Section B) will be assessed using student-level data provided by the institution. The guiding research questions are:

- *To what extent has the project met its goal(s)?*
- *To what extent has the project met its intended objectives?*

Evaluation Framework

The evaluation framework for this study, based on the logic model, provides in tabular form the crosswalk between the evaluation questions, analytical methods, and data sources. The full evaluation framework is available upon request.

Consent and Data Security

This evaluation study involves a cross-section of project stakeholders including project staff, other staff, students, and faculty. This section provides detail on the criteria for selecting and process for involving participants in non-routine data collection, including focus groups. All consent language provides information about the evaluation study, assured confidentiality of information shared, and confirms the voluntary nature of the study.

Project Staff. Project staff are asked to maintain project documentation, including administrative data, for use in the evaluation and to participate in an interview or focus group discussion with the evaluator during each academic year. Informed consent language is incorporated into the focus group discussion protocol.

Faculty/Campus Directors. Faculty/Campus Directors involved at each campus are asked to submit responses to questions via a spreadsheet, sharing information about activities at their campuses. In the future, a sample of faculty who support, or observe the effects of, project implementation may be asked to join a focus group discussion or interview with the evaluator during the annual site visit and to complete a survey questionnaire. Informed consent language will be incorporated into the focus group discussion/interview protocol and survey introduction. Data collected from faculty will be de-identified.

The evaluation team will work with the project staff to obtain aggregated and de-identified administrative data and documentation to support the study. As part of its normal practice, SEG uses policies and procedures for data handling that are consistent with FERPA and other Federal and State confidentiality and privacy provisions to protect personally identifiable information (PII) from education records from further disclosure (except back to the disclosing entity) and unauthorized use. SEG staff are trained in FERPA and how to protect PII.

All sensitive project data, such as interview transcripts, are stored in cloud-based, password-protected files while in use. Only SEG staff assigned to a project have access to the associated folder. For digital file storage, SEG uses Dropbox Business, which utilizes advanced security features to ensure data privacy and security. When physical copies of data are received, they are locked in a cabinet to which only principal investigators have access. Within thirty days of the final delivered report, SEG will destroy all data connected to this evaluation.

Data Sources

This study uses several data sources including, but not limited to, campus administrative data and documentation. The list below is provided as an overview of data sources; please see the evaluation framework for more detail.

- Course reference numbers (CRNs) for all courses, workshops, and intensives
- Course enrollment data for all courses, workshops, and intensives
- Project fiscal data, including stipends
- Conferences and professional development opportunities
- Research topics and communications products
- Annual site visit, including but not limited to focus groups and meetings with project staff, faculty, and students
- Surveys of faculty and students
- Project documentation

Limitations

Because of the timing of the evaluation contract and start date, evaluation activities were constrained due to a limited timeline. As a result, this evaluation report is heavily reliant on information gathered through review of project documentation and meetings with the project director and campus directors.

Findings

Fidelity of Implementation (Fol)

Fol 1. To what extent was the project implemented as it was designed?

A comprehensive review of the first-year action plan took place through an analysis of project documentation and a series of discussions with the project director. It was found that 86% of planned Year 1 actions had been fully completed and 6% were in progress. A detailed listing of the status of first year actions is presented in Appendix B.

92%
First year actions
completed or in progress

Formative Evaluation (F)

F1. What was accomplished under the project goals?

The evaluator reviewed the project’s intended outputs during the project’s first year (AY 2023-24).

Objective 1: Increase Alaska Native access to, and equity in, academic pathways related to food and energy sovereignty.

Table 1. Objective 1 Findings

Outcomes	Status	Detail						
1.1. Provide student support and retention efforts for Drumbeats Alaska students and campuses as measured by student tuition, travel, and stipends.	Complete for Year 1	Across all campuses, students were provided tuition and travel support to participate in courses, intensives, workshops, and professional development opportunities. Data about student stipends were unavailable at the time of this report.						
		<table><tr><th>Target</th><th>Status</th></tr><tr><td>Support 453 students</td><td>497 unduplicated students supported</td></tr><tr><td>Provide tuition support (\$ amount TBD)</td><td>Unable to access fiscal data this year</td></tr></table>	Target	Status	Support 453 students	497 unduplicated students supported	Provide tuition support (\$ amount TBD)	Unable to access fiscal data this year
Target	Status							
Support 453 students	497 unduplicated students supported							
Provide tuition support (\$ amount TBD)	Unable to access fiscal data this year							

1.2. Coordinate targeted recruitment, outreach, and communication for Drumbeats Alaska students and campuses within UAF to create further opportunities for students and faculty, and uplift Alaska Native voices and knowledge, as measured by articles submitted to UAF publications; UAF leadership participating in site visits and class/event attendance.	In Progress for Year 1	<p>Outreach and communication from Drumbeats campuses to external entities was successful. Involvement of UAF leadership was low, with few site visits and class attendances.</p> <table><tr><th>Target</th><th>Status</th></tr><tr><td>2 recruitment/retention programs developed</td><td>No formal programs developed, however, recruitment and retention efforts are active across campuses</td></tr><tr><td>0 communications products developed</td><td>32 products, including:<ul style="list-style-type: none">• 2 articles• 27 presentations• 2 webinars• 1 podcast episode</td></tr><tr><td>UAF leadership participating in site visits (number TBD)</td><td>No UAF leadership participation was identified</td></tr></table>	Target	Status	2 recruitment/retention programs developed	No formal programs developed, however, recruitment and retention efforts are active across campuses	0 communications products developed	32 products, including: <ul style="list-style-type: none">• 2 articles• 27 presentations• 2 webinars• 1 podcast episode	UAF leadership participating in site visits (number TBD)	No UAF leadership participation was identified
Target	Status									
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UAF leadership participating in site visits (number TBD)	No UAF leadership participation was identified									

1.1. Across all campuses, faculty agree that substantial progress continued to support students. A large success of the Drumbeats project is the number of student and community member participants engaged with Drumbeats courses and activities. Quantitative datasets for student and participant outcomes are generated annually by the UAF Office of Institutional Research Analysis and Planning. Datasets include aggregated data on student enrollment in programs and courses supported by the Drumbeats Consortium. The ANS dataset for fall semester 2023, spring semester 2024, and summer semester 2024 showed 497 unduplicated students (703 duplicated students) took Drumbeats-sponsored courses in Year 1. Out of 497 unduplicated students, 53.1% self-reported as Alaska Native. However, these data do not capture student nor community member participation in workshops or other events that were not assigned a course reference number (CRN). Thus, the number of students participating is higher than these data indicate. More specific findings are shared below and organized by campus.

Bristol Bay Campus (BBC). Through the Sustainable Energy program at BBC, 12 students completed a solar installation “train the trainer” program. Then in spring 2024, two of those students went on to teach a solar installation class in Kotzebue and seven students co-taught an off-grid solar class. Two new solar installation classes were developed for fall 2024, both of which will be taught by this cohort of students. Additional place-based learning opportunities were created, including a home energy basics and solar class (12 adults), a half-day introduction to solar energy activity (K-12 students), a home energy basics curriculum at the Rural Alaska Community Environmental Job Training program, and Indigenous culture and science camps that explored food sovereignty in relation to environmental sustainability. The financial student support provided by the ANS program makes these classes accessible to all students served at BBC.

Chukchi Campus (CC). The Food Security and Sovereignty program at CC provided students and community members with open garden events twice a week for the duration of the growing season. Attendees were invited to take part in the gardening, learn about arctic gardening, and harvest fruits and vegetables to take home. Three additional garden learning opportunities were available, covering the basics of arctic gardening, digging deeper into arctic gardening, weeding and thinning, and a composting workshop. A

caravan tour (through a partnership with the National Park Service) drew approximately 17 attendees. All these events were open to the public and free of charge.

Kuskokwim Campus (KuC). Faculty at KuC shared that the ability to provide tuition assistance for Alaska Native students is a key factor in increasing access to academic pathways related to food and energy sovereignty. Students consistently share that the training in the program has prepared and encouraged them to pursue careers and personal goals in the wider field of food sovereignty and tradition revival as it relates to plants.

Interior Alaska Campus (IAC). The IAC Tribal Governance and Stewardship program further increased student enrollment and public participation by providing more than \$57,000 in direct scholarships to students (Alaska Native and non-native) for curriculum related to Alaska Native food and energy sovereignty. Furthermore, IAC provided over 120 individual course scholarships.

Northwest Campus (NWC). The High Latitude Range Management program at NWC has continued to provide students with the knowledge and skills to transition into leadership positions within their communities, which is demonstrated by two Stebbins/St. Michael HLRM students being hired as Reindeer Herd Managers in their respective communities. The opportunities provided to students through this program have expanded the campus's ability to provide access to even more students, increasing not only the number of students, but also the number of opportunities available to the students. Efforts have been so successful that NWC is seeing student recruitment through positive experiences of other students. For example, one adult student recruited their high school age daughter to participate in several classes.

- 1.2. Across all campuses, the Drumbeats Alaska project has provided increasing numbers of classes as well as increasing outreach efforts to serve UAF students and the surrounding communities. Between the opportunities available to the students and the dissemination and outreach efforts, the Drumbeats Alaska Consortium is continually uplifting Alaska Native voices and knowledge. While there has been continued success in uplifting voices, the project director shared that there is a desire to increase the involvement of UAF leadership in the Drumbeats Alaska programs. More specific findings are shared below and organized by campus.

Bristol Bay Campus (BBC). A new opportunity allowed students from the Bristol Bay region to travel to Juneau and meet with legislators, learning about the legislative process. Two opportunities were provided for high school students to engage with solar technologies and energy efficiency technologies. Students took their new knowledge and went on to conduct weatherization in their own homes. Finally, a student in the TG F161 Tribal and Community Leadership Development course gave a presentation at the Bristol Bay Leadership Forum, highlighting the student view of the Bristol Bay Regional Career and Technical Education program, as well as its partnership with the Bristol Bay campus.

Chukchi Campus (CC). The garden at CC has continued to grow, providing more opportunities for recruitment and outreach. In addition to garden hours provided to the Boys and Girls Club, garden field trips have been available to local K-5 students, providing place-based learning experiences and engaging students in gardening at an early age.

Kuskokwim Campus (KuC). Elevating Alaska Native voices and knowledge has been further supported through dual enrollment Science and Culture Camps, which project staff have reported as effective at encouraging local students to attend college. Additionally, the final presentations of the EBOT 100 field course in Bethel have become an annual community event, with 53 people in attendance this year.

Interior Alaska Campus (IAC). To continue increasing public knowledge and participation, IAC also provided two webinars to the larger UAF community as part of the Place for Knowledge Exchange. The webinars focused on tribal food security and co-stewardship to inform viewers about Tribal perspectives and issues. IAC delivered the Co-Stewardship Symposium in conjunction with federal employees and decision makers related to wild food stewardship and management. This symposium provided 39 students with direct access to federal agency staff.

Northwest Campus (NWC). HLRM Occupational Endorsement students at regional high schools have participated in the Intertribal Agriculture Council Alaska Youth Summit (Fairbanks) and attended the Food and Farm Festival, hosted by the Alaska Food and Policy Council in November 2023 (Anchorage). Other students have served on panels (e.g., Panel for Climate Change) and received awards for their contributions (e.g., Elder Award for Sitnasuak). Travel support allowed NWC to send Alaskan Reindeer husbandry delegates on a Sápmi trip in Finland. Upon their return, delegates used their new skills to write EPA grants for the Reindeer Herders Association and HLRM.

Objective 2: Increase Alaska Native opportunities to build technical and leadership skills and knowledge to address food and energy sovereignty and strengthen local economies.

Table 2. Objective 2 Findings

Outcomes	Status	Detail								
2.1. Provide course offerings including new curricula and partnerships as measured by faculty positions; new curricula developed; summer courses.	Complete	Faculty positions supported by this program include 0.7 FTEs.								
		There were 55 for-credit course offerings across the entire consortium. 21 took place in fall 2023, 22 in spring 2024, and there were 12 opportunities in summer 2024.								
		<table><tr><th>Target</th><th>Status</th></tr><tr><td>6 curricula/academic programs developed</td><td>Across all Drumbeats campuses, there were 7 courses/curricula/ programs identified as new for this year</td></tr><tr><td>28 educational materials/opportunities for distance education or experiential learning</td><td>A specific number of educational materials/opportunities for distance education is not available. The evaluator has provided implementation logging tools to campus directors. Faculty are encouraged to use these tools as data tracking protocols for implementation in future grant years.</td></tr><tr><td>3.85 FTE faculty positions supported by Drumbeats</td><td>0.7 FTE faculty positions supported by this Drumbeats project</td></tr></table>	Target	Status	6 curricula/academic programs developed	Across all Drumbeats campuses, there were 7 courses/curricula/ programs identified as new for this year	28 educational materials/opportunities for distance education or experiential learning	A specific number of educational materials/opportunities for distance education is not available. The evaluator has provided implementation logging tools to campus directors. Faculty are encouraged to use these tools as data tracking protocols for implementation in future grant years.	3.85 FTE faculty positions supported by Drumbeats	0.7 FTE faculty positions supported by this Drumbeats project
		Target	Status							
		6 curricula/academic programs developed	Across all Drumbeats campuses, there were 7 courses/curricula/ programs identified as new for this year							
28 educational materials/opportunities for distance education or experiential learning	A specific number of educational materials/opportunities for distance education is not available. The evaluator has provided implementation logging tools to campus directors. Faculty are encouraged to use these tools as data tracking protocols for implementation in future grant years.									
3.85 FTE faculty positions supported by Drumbeats	0.7 FTE faculty positions supported by this Drumbeats project									

2.2. Increase Professional Development Networks and uplift Alaska Native voices and knowledge, as measured by Drumbeats faculty and students' participation in annual conferences, FANH-relevant events, and UA initiatives.	Complete	Faculty and students across all campuses participated in numerous conferences, FANH-relevant events, and UA initiatives.	
		Target	Status
		Number TBD faculty participating in annual conferences, FANH-relevant events, and UA initiatives	7 faculty shared having participated in annual conferences or FANH-relevant events.
		Number TBD of students participating in annual conferences, FANH-relevant events, and UA initiatives	A specific number of students participating is not available. The evaluator has provided implementation logging tools to campus directors. Faculty are encouraged to use these tools as data tracking protocols for implementation in future grant years.

2.1. Curricula are provided at every Drumbeats campus and can take many forms. Traditional courses along with workshops, intensives, symposiums, and events are offered to the students and larger community. Many of these courses have CRNs, but not all workshops or events are assigned a CRN. This report discusses both types of educational opportunities, but this section will focus mostly on courses with CRNs available, unless otherwise specified. More specific findings, organized by campus, are shared below.

Bristol Bay Campus (BBC). During program year 1, faculty at BBC provided 27 courses across the three semesters. Twelve of these courses were offered in fall 2023 (for a total of 16 available credits), 12 courses were offered in spring 2024 (for a total of 15 available credits), and three courses were offered in summer 2024 (for a total of four available credits). These courses were catalogued under environmental studies, tribal government, rural development, and writing.

Chukchi Campus (CC). While no opportunities at CC had CRNs attached, many educational opportunities and summer courses were offered involving the Chukchi Gardens, particularly during the peak growing season. In summer 2024, there were three classes, two tours, one workshop, and recurring field trips. Additionally, every garden open house provided gardening education, regardless of whether or not a formal class was scheduled.

Kuskokwim Campus (KuC). This year, faculty at KuC provided 13 courses across the three semesters. Four of these courses were offered in fall 2023 (for a total of seven available credits), four courses were offered in spring 2024 (for a total of eight available credits), and five courses were offered in summer 2024 (for a total of 11 available credits). The ethnobotany courses offered by Kuskokwim Campus (KuC) have become a central part of the mission identified by the University of Alaska Fairbanks' College of Indigenous Studies. In support of this, two new courses were developed and offered: EBOT 120 and EBOT 193.

EBOT 120 (Intro to Edible and Medicinal Plants) was a direct response to requests received from the communities served by Kuskokwim Campus. After taking the course, students shared that they felt more confident in harvesting their own plants for food and medicine. EBOT 193 (Practical Applications of Traditional Healing for Health and Wellness) was well received, with multiple course participants planning to offer similar

events in their communities. Students shared that they learned about healing in a traditional and spiritual context, and that the experience was essential for tradition revival and provided a basis for healing and sovereignty.

Interior Alaska Campus (IAC). In total, IAC provided eight courses across two semesters. Four courses were available in fall 2023 (for a total of eight available credits), and four courses were available in spring 2024 (for a total of seven available credits).

Beyond course counts, IAC directly increased Alaska Native peoples' participation, voice, and knowledge in decisions that impact wild food resources by designing and implementing a tribal natural resources stewardship and wild food academic curriculum. This curriculum included five uniquely designed intensive opportunities, which were designed in collaboration with three wild food decision making forums: the North Pacific Fisheries Management Council, the Alaska Board of Game, and the Alaska Local Fish and Game Advisory Committees. The curriculum also included three semester-long courses. Combined, these opportunities gave 127 students the opportunity to participate and learn more about wild food resources.

Northwest Campus (NWC). Faculty at NWC provided seven courses across the three semesters of this project year. One course was offered in fall 2023 (for a total of one available credit), two courses were offered in spring 2024 (for a total of three available credits), and four courses were offered in summer 2024 (for a total of seven available credits). Additional non-credit workshops and opportunities were offered. These classes were catalogued as High Latitude Range Management and Applied Arts.

- 2.2. The Drumbeats Alaska Consortium excels in uplifting Alaska Native voices and knowledge and is continually providing opportunities for faculty and staff to participate in annual conferences and FANH-relevant events. Faculty and students from every campus had opportunities to participate in such events, and these are described in F2 (below).

F2. What opportunities for training and professional development has the project provided?

Trainings and professional development opportunities were available to students and instructors across all campuses. Courses, intensives, and workshops provided to students provided training and skill development. Some faculty also participated in workshops and intensives at various campuses as professional development opportunities to increase their effectiveness as instructors and leaders on their own campuses. Additional opportunities utilized included conferences, professional meetings, symposia, and travel opportunities. Specific opportunities highlighted by faculty are shared below, organized by campus.

Bristol Bay Campus (BBC). Faculty from BBC attended the Alaska Forum on the Environment conference in February 2024, the Alaska Mariculture Conference in February 2024, and the Western Alaska Interdisciplinary Science Conference (WAISC) in April 2024. Other faculty participated in the Bristol Bay Leadership Forum in fall 2023 and in the Indigenous Language Summit in spring 2024. Beyond meetings and conferences, BBC faculty also engaged in training opportunities. One faculty member participated in emergency first aid training, and another completed two courses on the Alutiiq language. Each course was four credits, and the classes helped support the language portion of the TGF160 Indigenous Culture and Science Camps hosted by this faculty member.

Chukchi Campus (CC). Staff from CC participated in numerous training and learning opportunities. One opportunity was a rural farm training at the Calypso Farm and Ecology Center to learn about what other rural residents are growing and share information about what they are growing in Kotzebue. A major highlight from this training was learning how to preserve flowers for future pollination when male flowers weren't ready and female flowers were. This opportunity also provided information on composting and the role it plays in avoiding many plant and soil issues. On the return trip, this staff member visited an urban fruit orchard in Anchorage to learn about propagating fruit trees and varieties that may work in the arctic. In July, staff participated in the field class portion of the Ethnobotany 101 class at KuC and learned techniques to improve native and tundra plant workshops. In August, staff participated in a Native Plants for Food and Medicinal Purposes class at Calypso Farm and Ecology Center. This knowledge will be used to provide more informative workshops on native plants and cultivating native food plants in the home garden at CC.

Kuskokwim Campus (KuC). Many of the professional development activities at KuC focused on student professional development. Most of the students in the program are enrolled in the EBOT Occupational Endorsement Certificate (OEC), and KuC had nine students graduate from the program in 2024. Project staff at KuC have also prioritized taking students to conferences so that they can learn how to prepare and share their work while building professional relationships with people in related fields. Additionally, a co-instructor was added to the EBOT 100 field course and mentored by campus faculty so that she could be a future instructor.

Interior Alaska Campus (IAC). Faculty from IAC attended and served as a supporting host at a Tamamta Dialogue in December 2023 at the College of Fisheries and Ocean Sciences in Juneau. The dialogue was sponsored by the First Alaskans Institute and the Tamamta project, with a goal of facilitating support for Indigenous students in fisheries. Faculty also attended an ISM Writing Retreat in Fall 2023 with the Indigenizing Salmon Management working group at the National Center for Ecological Analysis and Synthesis. This retreat was used to develop related publications. Finally, in March 2024, IAC faculty attended the Federal Subsistence All-Council meeting, to stay up-to-date on current issues affecting Federal Subsistence Management.

Northwest Campus (NWC). Faculty at NWC attended and brought students to the Alaska Food and Farm Festival in November 2023. In the same month, faculty also attended the Bureau of Indian Assistance (BIA) Tribal Providers Conference as well as the Kawerak Reindeer Herders Association Annual Meeting in Nome. In December, NWC faculty introduced HLRM to Smithsonian National Museum of the American Indian staff and director, then attended the Intertribal Agriculture Council Annual Convention. In 2024, a faculty member attended the Alaska Reindeer Council Annual General Meeting in Nome (February), where they also presented about the High Latitude Range Management program. As the annual WAISC meeting was located in Nome during April 2024, HLRM faculty served as members on the steering, planning, and organizing committee, and one faculty was the session chair for two days of the conference. Finally, in June 2024, HLRM faculty attended and served as a committee member at the Kawerak Reindeer Herders Program Advisory Committee Meeting and attended the Intertribal Agriculture Council Annual Conference in Fairbanks.

F3. How have the results been disseminated to communities of interest?

Dissemination has taken many forms across the five campuses. At the Drumbeats Alaska Consortium level, the Consortium Project Manager continues to update Drumbeats Alaska social media pages on Facebook and maintains the Drumbeats website at uaf.edu/drumbeats. Campus specific dissemination efforts are described below.

Bristol Bay Campus (BBC). Outreach at BBC was done through building/maintaining relationships, presentations, and multiple media channels. Building relationships with local organizations (e.g., United Tribes of Bristol Bay, Alaska Power Association, Renewable Energy Alaska Project, Teaching Through Technology, and Bristol Bay Regional Career and Technical Education Program) helped to increase student enrollment in the courses. Additionally, outreach was done through partnerships with the Smithsonian Arctic Research Center, Bristol Bay Native Corporation, Bristol Bay Regional Career and Education Center, Bristol Bay Native Association, the United Tribes of Bristol Bay, and the Bristol Bay Economic Development Corporation. BBC continues to do outreach for classes and presentations on social media and has made announcements on the local radio station (KDLG) in Dillingham. One faculty member presented at community sustainable energy meetings that were organized by the United Tribes of Bristol Bay in Dillingham, Aleknagik, Ekwok, New Stuyahok, and Koliganek. They also provided presentations on alternative energy systems for fishing boats at the Alaska Forum on the Environment, green energy in mariculture at the Alaska Mariculture Conference, and solar installation training at WAISC. Additionally, this faculty member presented to the Nushagak Electric Board about solar power potential in Dillingham.

Another faculty member presented on Worldviews and Leadership at the Dillingham Ciulistet Retreat. They also presented on project planning at the King Salmon Ciulistet Retreat and served as a panelist on the Bristol Bay Regional Seafood Development Advisory event. In addition to the presentations, this faculty member served as a judge for the Bristol Bay Business Marketplace Competition.

Chukchi Campus (CC). The primary method of dissemination for CC is through email and word-of-mouth. Frequent emails are sent that include the Chukchi garden progress, compost progress, as well as advertise events and open garden hours. These advertising/update emails are typically sent at least every other week but happen much more frequently at the beginning and end of the growing season. Additional education emails are sent with information about garden maintenance, such as thinning, weeding, identifying plants, watering, and cold frame management. These emails are sent at the same frequency as the advertising and update emails. Information is also sent through group text messages, which include invitations as well as education/mentoring information. As needed one-on-one meetings with gardeners or students who can't make it to scheduled activities are held almost every Saturday.

Further dissemination occurs through events, such as the wildflower caravan tour in June and the garden tour in July. Information is shared with kids from the Boys and Girls Club every Thursday, who attend the open garden hours. Final outreach methods have included UAF cooperative extension gardening webinars, and occasional social media posts.

Kuskokwim Campus (KuC). One central piece of outreach done by staff at KuC is through maintenance of an easily searchable program website as well as the Project Jukebox Ethnobotany website. Project Jukebox is dedicated to Ethnobotany, Ethnoherbalism, and Traditional Ways of Healing, and is an oral knowledge collection that documents plant knowledge. Additional outreach is done through presentations at conferences such as the Farm and Food Festival, and through the students, who reside in the communities of interest, and are often active on social media. Dissemination also occurs through public events, such as the EBOT 100 final presentations and participating at the North Curren Day, an event organized by the UAF Botanical Garden.

Interior Alaska Campus (IAC). All outreach at IAC is done through existing partnerships and networks, many of which are long-standing relationships. Dissemination of project results is often done by working directly with tribal partners. IAC has worked specifically with the Tanana Chiefs Conference, the Yukon River Inter-Tribal Fish Commission, and the Ahtna Inter-Tribal Resources Commission. In addition to tribal partners, IAC has also worked directly with federal partners, including the Office of Subsistence Management and North Pacific Fisheries

Management Council staff. The Tribal Governance program at IAC has also maintained relationships with the Protecting Our Ways of Life working group and with Native Peoples Action.

Northwest Campus (NWC). Dissemination from NWC has been multifaceted. Dissemination occurred through traditional media, social media, presentations, as well as traveling and recruitment. For traditional media, two HLRM faculty participated in the Sun and Soil podcast, for episode three of their six-part “Feeding the Last Frontier” series. The episode was titled “A Reindeer Called Rhonda” and was released in November 2023.

Social media outreach has occurred on Facebook, where photo summaries were posted after every class or trip taken. These photo summaries highlight the higher education opportunities available from the UAF NWC HLRM program, effectively recruiting potential students from the circumpolar reindeer husbandry community. Additionally, there is a private HLRM Facebook group that allows past and current students to share information with each other about different activities happening with reindeer enterprise, Indigenous meat production, rural community grant opportunities, and more.

Additional outreach has been through opportunities to present at the annual Kawerak Reindeer Herders Association meeting (see F2), which was attended by the Indigenous reindeer herders of Alaska. The HLRM faculty and staff updated attendees about the HLRM outreach and offered new communities the opportunity to visit the NWC and HLRM programs.

Finally, a large amount of outreach is done through traveling and word-of-mouth. In April 2024, the Kawerak Reindeer Herders Association flew in their 16 community members to tour the Northwest Campus and meet the current HLRM students. The program manager attended government agency conferences and meetings in Washington, D.C. with Senators and House Representatives to promote food sovereignty. The program manager also networked with the Alaska Federation of Natives, Intertribal Agriculture Council, and the University of the Arctic Board of Directors. After the 2023 trip to Sápmi, Finland, HLRM faculty shared news about the global exchange through emails, meetings, and conferences. These outreach efforts spurred directors to apply for USDA and EPA grants to help Alaskan rural communities. Also due to this word-of-mouth, Aleut and Cup’ik reindeer owners have reached out to the HLRM program and requested guidance in creating high school reindeer husbandry curricula for their communities.

F4. What do you plan to do differently during the next reporting period to accomplish the goal(s)?

The primary activity in ANS project year 2 is program evaluation in coordination with the project manager on monitoring activities and with UAF PAIR on data collection, review, and synthesis. Ongoing meetings will be held by the evaluation team with each of the five campus' faculty and site directors and staff throughout Year 2. Interviews will also take place with ANS faculty and administrative staff for each campus to reflectively collect data specific to challenges and accomplishments of project objectives and lessons learned on collaborations and partnerships. Data synthesis, campus overview documents, and a summary of findings will be written up to provide a summative description of Year 1 ANS activities.

While most project goals were achieved in year 1, the project staff across all campuses are consistently identifying ways to continue to grow the program and contribute to its success.

Bristol Bay Campus (BBC). BBC plans to roll out a campus credential in Cultural Knowledge of the Bristol Bay Region. This credential will provide the base courses for the Occupational Endorsement in Tribal Stewardship.

Chukchi Campus (CC). CC is planning for more outreach and engagement with the local schools, foster homes, church food banks, and other health organizations (e.g., diabetes prevention and behavioral health). There is a desire to bring in more involvement from the Community Advisory Council to better understand the community's needs and how they can be supported. They are also looking to create more opportunities for participant feedback that can be utilized to continue enhancing the program.

Kuskokwim Campus (KuC). KuC exceeded their goals on curriculum development and course offerings but wants to continue improving dual enrollment. This remains high on the agenda for future reporting periods, and project staff have already established a course that will be offered in Fall 2024 at a high school near Fairbanks.

Interior Alaska Campus (IAC). For the next reporting period, IAC plans to continue implementing a tribal stewardship occupational endorsement. In doing so, they hope to encourage more students to seek degrees, endorsements, or certificates. Although classes at IAC are highly attended, many students are currently not seeking any type of degree or endorsement.

Northwest Campus (NWC). At NWC, faculty and staff plan to continue updating the curriculum to be adaptive to student needs. In addition to supporting student needs, curriculum updates will also allow for the program to include the most recent and up-to-date information on reindeer husbandry. Faculty and staff also plan to augment Indigenous reindeer herder student persistence and continue educating the public on Indigenous reindeer husbandry.

F5. How many FTEs were there in this reporting period?

Data pulled from QMenu by Fiscal staff indicated 0.7 actual FTEs for this reporting period. These numbers are comprised of Scientist FTEs (0.6) and Administrative FTEs (0.1).

F6. What student support was provided?

At every campus, faculty were adamant that the work they do would not be possible without their ability to provide student support through this grant. Student support was in the form of tuition assistance, tuition waivers, as well as financial assistance for travelling and participating in activities. Due to turnover in the fiscal office and availability of tracking data, fiscal data were not available at the time of this report. The evaluator will make continued efforts to access this data for subsequent reports, so that student support can be reported in more depth.

F7. What other products have been created as a result of this grant?

There are many products created as a result of this grant, and they are as different as they are plentiful. The products can generally be categorized into events, collaborations, and speaking engagements/presentations. The project director represented the Drumbeats Alaska Consortium at a University of Arctic Board Reception in November 2023 and provided educational products in the form of a webinar on food security/insecurity and local implications (UAF's A Place For Knowledge Exchange), a presentation at the Alaska Tribal Resilience Learning Network in April 2024, and continued updates to the Drumbeats Alaska website and publications. Products are discussed below by campus.

Bristol Bay Campus (BBC). A workshop was held with participants through a partnership with the Smithsonian, and an additional workshop is coming up in Fall 2024. Faculty at BBC provided at least 10 presentations throughout this project year. Six of these presentations were for Community Sustainable Energy Meetings, organized by United Tribes of Bristol Bay. These presentations focused on Bristol Bay Campus and Bristol Bay Energy and took place between December 2023 and January 2024. Additional presentations focused on alternative energy systems for fishing boats, green energy in mariculture, solar installation training, and solar power potential in Dillingham.

Chukchi Campus (CC). Products produced at CC were heavily focused on gardening. These products, referenced above in F1 (Outcome 2.1), were hands-on opportunities provided to students and residents in the Chukchi Gardens. Events were free and open to the public, and included such topics as arctic gardening, weeding and thinning, wildflowers, and composting. In addition to documenting each event, faculty at CC provided continual newsletter updates monitoring the progress of the garden throughout the growing season.

Kuskokwim Campus (KuC). Faculty at KuC engaged in multiple collaborations and presentations. Collaborations included efforts with the Georgeson Botanical Garden to remove highly poisonous water hemlock from the pond, expanding Project Jukebox Ethnobotany (an oral history collection), and participation in the organizational committee for the 2024 Kuskokwim Cultural and Science Camp (a dual enrollment course for high school students). Presentations included distinguishing edible from poisonous berries at the Far North Currant Festival and the Georgeson Botanical Garden in August 2023 and deadly plants of Alaska at WAISC in April 2024. In addition to these, faculty at KuC mentored students participating in individual undergraduate research projects, which received funding by UAF's Undergraduate Research and Scholarly Activity's Office. These projects were about documenting Alaska Native uses of introduced plants in Bethel, AK, and unearthing the history of plant utilization in the Chena Townsite.

Interior Alaska Campus (IAC). The project director engaged in several speaking engagements and provided another webinar specific to IAC. The webinar was also for UAF's A Place For Knowledge Exchange, and the topic was co-stewardship and moving from concepts to action. In January 2024, the director presented on co-stewardship between tribes and federal land, water, and wildlife managers and non-profits at Alaska statewide Co-Stewardship Symposium. In March 2024, the project director was a guest speaker for the Central Council Tlingit and Haida Indian Tribes of Alaska Constitution Committee, where she presented on Tribal Governance and Stewardship Considerations in Tribal Constitutional Reviews.

Northwest Campus (NWC). Products produced at KuC were often in the form of presentations (e.g., at the Kawerak Reindeer Herders Association Annual Meeting, at the Food Sovereignty and Climate Resilience Session) as well as hands-on opportunities such as leather hand stitching and antler and hoof carving and making reindeer jerky. Additional products include high school instruction and a podcast about food security and reindeer herding.

F8. What successes has the project achieved? Which component of the project has contributed the most to these successes?

Every campus shared successes from the project. One consistent theme across every campus was the ability to reach and support students, increasing availability of educational opportunities, participation rates, knowledge and skills, and necessary resources in the surrounding local communities. Other major successes shared by the campuses include:

Bristol Bay Campus (BBC). Tribal Governance faculty is now able to offer Rural Development 400-level credit courses in their region, which supports students wishing to attain upper-level degrees. Additionally, development of “Cultural Knowledge of the Bristol Bay Region” is nearly complete. Student support was increased with a new system to get class flyers distributed more widely and tracking students registering for classes.

Chukchi Campus (CC). The Chukchi Gardens implemented composting this year and continued to expand knowledge of plants that grow well in arctic regions and best practices for each type of plant. CC was also successful in generating high levels of interest in gardening among local youth through the Boys and Girls Club. Garden development is another success. Covers have been added to the four additional food garden boxes that were set up in 2023. These covers turn the boxes into cold frames, making them “mini greenhouses”. This year, project staff also experimented with a new design for the cold frames to have better control over the air temperature and light. This has yielded knowledge on how to manage factors such as light, warmth, wind, pollinators, pests, moisture, and more. These learnings will help to extend the growing season and increase garden efficiency and harvests. The project staff also recruited volunteers to construct the foundation for the season extending greenhouse while the ground was still soft. The foundation has been laid, and project staff will observe snow drift and wind patterns this winter. Armed with this new information, they will plan different ways to modify the landscape that will minimize negative effects on the greenhouse. The full greenhouse should be constructed in Summer 2025, and a construction technology instructor has offered the assistance of his students for the project.

Kuskokwim Campus (KuC). At KuC, the EBOT 197 Practical Applications of Traditional Healing for Health and Wellness was a huge success, as this course was not planned for. Additionally, four Elder guest speakers participated in the EBOT 120 Introduction to Medicinal and Edible Plants, which made the course particularly popular with students. With increasing popularity, KuC also saw high community attendance at the EBOT 100 final presentations.

Interior Alaska Campus (IAC). The Co-Stewardship symposium was a history-making forum that brought together over 200 participants and dozens of speakers from across the state of Alaska. Attendees included Tribal Governments, Alaska Native Claims Settlement Act (ANCSA) Corporations, State and Federal Agencies, and multiple universities. The intent of this symposium was to build understanding, relationships, and knowledge for advancing Tribal Stewardship for the health and well-being of all Alaskans. Former Tribal Governance students have recently assumed positions on the Alaska Board of Game, the Federal Subsistence Board, the North Pacific Fisheries Management Council Advisory Panel, the Yukon River Panel, the Yukon River Inter-Tribal Fish Commission, the Kuskokwim River Inter-Tribal Fish Commission, the Ahtna Inter-Tribal Resources Commission, the Tanana Chiefs Conference Executive Board, the College of Indigenous Studies faculty, and more. The project director designed and taught two national courses on Tribal Food Sovereignty at the request of the American Indian Higher Education Consortium. Additional outreach from the US Fish and Wildlife Service with the Northwest Boreal Landscape Conservation Cooperative allowed IAC faculty to design and deliver an international course in Indigenous Led Land Planning in Alaska and Canada.

Northwest Campus (NWC). A large success at NWC was being able to learn and understand what additional needs the local community (and other rural communities) have regarding educational opportunities for high school students. Without this knowledge, NWC would not have been able to engage in additional grant applications for separate projects that continue to increase educational opportunities in rural communities. Another success is an upcoming student exchange with HLRM and Sámi reindeer husbandry students in Sápmi, Finland.

F9. What challenges has the project faced and what actions were taken in response? Which component of the project has contributed the most to these challenges? Were any major changes made to the project as a result of the challenges?

Challenges varied across campuses and are identified by campus below.

Bristol Bay Campus (BBC). Enrollment has been a challenge for some classes. Faculty adapted by changing the course offerings and strengthening partnerships to communicate course opportunities more broadly. As a result of enrollment challenges, additional efforts were made to reach students in more unconventional ways. For example, the professor of a required general education class revamped the class to focus on climate change and how it will impact food and energy security. Another challenge faced at BBC was losing a staff member who was not replaced, ultimately leaving the faculty unable to develop the planned wild food garden. In response to this, faculty from Kuskokwim Campus traveled to offer a wild foods class in Dillingham.

Chukchi Campus (CC). The biggest challenge at CC is getting people to come together and especially encouraging them to take the harvests. Many people do not want to take the fruits and vegetables harvested so that they can leave them for somebody else. With enough people leaving harvested foods for others, the impact of the garden was not as high as it could have been. Additionally, leaks were discovered in the hydroponics van piping system, and the outdated technology was in need of replacement. Future efforts with the hydroponics van will have to be shelved until the equipment can be replaced and the leaks fixed. There were also challenges with the greenhouse, as the foundation was not completely level. Once the foundation is fixed, the faculty will be able to move forward with constructing the greenhouse. Finally, leadership turnover (though beneficial) has made it difficult for project staff to find consistency in expectations and guidelines for implementation expectations and activities.

Kuskokwim Campus (KuC). One major challenge at KuC was that the ability to offer dual enrollment classes very heavily depends on the availability of qualified high school science teachers. These teachers need to have gone through the KuC program and be approved by UAF to teach the curriculum. At the same time, they need support from their schools to offer the classes. During the last year, two of the KuC teacher instructors moved and changed their schools. This meant that it took more time to reestablish the courses. High turnover rates within UAF and leadership struggles were also challenges faced by KuC.

Interior Alaska Campus (IAC). Although the Tribal Governance classes at IAC are highly attended, many students are not currently seeking any type of degree, certificate, or endorsement. This is a challenge in how student status data are reflected to the university leadership. The project director plans to continue implementing a Tribal stewardship occupational endorsement, in the hope of encouraging more students to seek degrees, endorsements, or certificates.

Northwest Campus (NWC). Early in summer 2024, UAF upper management started enforcing the need to teach courses that award credits towards an Occupational Endorsement or Certificate Program. This prompted a change in the HLRM program that will go into effect in summer 2025. Summer sciences courses needed to be reassigned with new designators that categorize them as elective courses in the HLRM Occupational Endorsement or Certificate program. However, it is predicted that this change will show an increase in student numbers. Additionally, applied arts credit classes are being rebranded.

F10. What factors (internal or external) have affected project implementation? What were the impacts of these factors on implementation?

Factors affecting project implementation were consistent across all campuses. One of the primary factors was unpredictable weather conditions, which affected travel conditions and student attendance. Another commonly shared factor was staff turnover. In some instances, staff were not replaced, which limited what campuses were able to achieve. In other instances, staff changes have affected underlying support and caused delays in course approval, resulting in some courses being cancelled or postponed.

Two additional factors affecting implementation were noted by faculty at BBC. These issues were technology for classes in remote areas (which makes it difficult to accommodate last minute changes to student enrollment) and pressure to offer classes that align with the standard academic semester dates. The students that BBC is trying to serve often need to enroll in classes with later start dates.

A positive factor affecting implementation at Drumbeats Alaska campuses is community support. In particular, faculty at KuC and NWC highlighted that community support and partnerships have aided the programs at these campuses through the challenges they have faced and overcome.

F11. What steps have been taken by the institution that demonstrate a commitment to sustainability or institutionalization of grant-funded personnel, programs, and services?

Across campuses, project faculty and staff have shown a commitment to sustainability in several ways:

- **Environmental Support:** The Drumbeats Alaska Consortium is filled with faculty and staff who champion the program. Their passion for the work is inspiring and contagious. They have continued to foster internal and external support from government entities, organizations, and communities.
- **Funding Stability:** This project is supported by multiple sources, and new funding opportunities are frequently considered. Funding is provided to the overall project, and some campuses have received additional funding to further support their programs.
- **Partnerships:** Faculty across campuses have partnered with community organizations, Tribal Leaders, and community leaders to ensure that the program is supporting community needs.
- **Program Adaptation:** The project director and campus directors continue to reflect upon and examine the effectiveness of their programs. Their willingness to adjust plans to best meet the needs of students and communities shows a commitment to ensuring program success.
- **Program Evaluation:** Commissioning an external evaluator for the project demonstrates a commitment to reflection and program evaluation to document results and inform actions for subsequent grant years.

F12. How has this project affected the college overall? How has it affected the regional campuses overall?

Faculty at every campus shared that this project makes their programs possible. The student support provided by the project makes the classes accessible to the students that they serve. This has manifested in increased enrollments, more degrees, and increased intensive opportunities. Increased students and opportunities have increased visibility of the UAF campus and accessibility of education in rural communities. The project has also increased representation of Alaska Native students. Additionally, the support for professional development opportunities continues to support the Drumbeats Alaska campuses in ensuring that the courses present the highest quality and most up-to-date information. This support also enables faculty and campuses to produce more communications and build greater awareness of food and energy sovereignty in Alaska.

Summative Evaluation (S)

S1. To what extent has the project met its goal?

This project also tracks summative evaluation measures. These are reported in full at the end of the project but are also reported annually for tracking purposes. For more information about project objectives and outcomes, please see the response to evaluation question F1.

Table 3. Summative Indicators for Project Goal

Grant Goal	Annual Target	Analytical Procedure	Data Collection Procedure	Status
Advance place-based Alaska Native food and energy sovereignty through equitable education.		<p>Numerator = # of affiliated objectives that are on target or met</p> <p>Denominator = # of affiliated objectives</p>	Use objectives affiliated with Goal 1; see objectives listed under Goal 1 in F1.	In Progress

Conclusions & Recommendations

During this reporting period, the Drumbeats Alaska Consortium created an infrastructure to ensure success during the remaining two years of the ANS 2.0 project.

Objective 1

The goal for objective 1 is to increase Alaska Native access to, and equity in, academic pathways related to food and energy sovereignty. The Drumbeats Alaska Consortium has supported this goal through providing student tuition and travel opportunities to students. Additionally, Alaska Native voices and knowledge have been uplifted through dissemination of academic articles and webinars on food and energy sovereignty.

Objective 2

The goal for objective 2 is to increase Alaska Native opportunities to build technical and leadership skills and knowledge to address food and energy sovereignty and strengthen local economies. The consortium is on track to meet all goals for this activity. 0.7 FTE faculty positions have been supported, new curricula were developed, and 15 summer courses were offered. At least seven faculty attended or presented in conferences and development opportunities.

Recommendations

This project is on track to meet both of its objectives within the grant period. The evaluator commends the project team on their substantial progress in development and implementation. The evaluator has four recommendations to support project success:

1. To facilitate a better understanding of project effectiveness and change overtime as related to the two primary outcomes, the project team should work to develop clear operational definitions for each objective and outcome. The evaluation team is ready and able to assist with this process.
2. Annual adjustments to campus and overall grant workplans are recommended to reflect new knowledge, learnings, and resources that may support achieving the largest impact.
3. The low rate of UAF leadership involvement should be addressed during the remainder of the project period. Encouraging site visits and engagement from UAF leadership would further elevate the project's visibility, and likely its impact, within the university, its campuses, and surrounding communities.
4. Finally, processes for tracking all project activities and products, ensuring the ability of faculty and staff to be able to fully report on all components of their work, need to be improved. The evaluator is willing and able to assist with this process.

Appendix A: Fidelity of Implementation (FOI) Results

FIDELITY OF IMPLEMENTATION EVALUATION			
Implementation Tasks	Time Frame	Grant Objective Progress	Notes
Drumbeats Alaska Consortium			
Drumbeats Alliance (DA) faculty share content and informational materials and news/success stories through PM & CRCD (CIS)/Marketing & Communications Coordinator	All campuses: AY 2023-2024	Completed	
UAF leadership included in DA courses and events	All campuses: AY 2023-2024	Not Completed	No UAF leadership participation was identified.
DA Faculty, staff, and students participate in related UAF program courses, events, and networking	All campuses: AY 2023-2024	Completed	
NWC to design and deliver HLRM courses in partnership with NIMA	NWC, NIMA: AY 2023-2024	Completed	
Alaska Gardens (AG): promote cultivation and knowledge of plants relevant to Alaska Native peoples' culinary traditions	KuC, CC, BBC: AY 2023-2024	Completed	Although the wild food garden was unable to be implemented at BBC, Alaska Native plants and foods were promoted at all three campuses.
CC to continue expanding their Edible Native Plants Garden in collaboration with AG, offering workshops to disseminate information	CC: AY 2023-2024	Completed	
Disseminate information to recruit students into Drumbeats programs	All campuses: AY 2023-2024	Completed	
All partner campuses collaborate with Raven's Group LLC, Shaffer Evaluation Group LLC on project evaluation and strategic planning	All campuses: September 2023 – August 2026	Completed	

University of Alaska Fairbanks Drumbeats Alaska 2023 USDA NIFA ANNH Grant (Award #2023-38470-40825)

Implementation Tasks	Time Frame	Grant Objective Progress	Notes
Bristol Bay Campus (BBC)			
Provide USDA courses in Energy and Environment as well as collaborative energy research	AY 2023-2024	Completed	
Provide TG courses that address community priorities through partnerships	Spring and Summer 2024	Completed	
Provide TG courses on food security and sovereignty through leadership development	Fall 2023; Spring 2024	Completed	
Provide TG courses integrating Indigenous knowledge and the value of sustainable natural resources	Fall 2023; Spring 2024	Completed	
Promote sustainable energy and environmental related programs at conferences/forums	Fall 2023; Spring 2024	Completed	
Disseminate information through media	Fall 2023; Spring 2024	Completed	
Implementation Tasks	Time Frame	Grant Objective Progress	Notes
Chukchi Campus (CC)			
Develop a variety of outdoor demonstration gardens using plants that thrive in the Arctic	AY 2023-2024	Completed	
Coordinated development of Native plant garden through the Alaska Gardens project	AY 2023-2024	Completed	
Purchase and install efficient hydroponics growing equipment for hydroponic connex and Vertical growing system	AY 2023-2024	Not Completed	This activity was unable to be completed due to leaks in the piping system and outdated technology.

University of Alaska Fairbanks Drumbeats Alaska 2023 USDA NIFA ANNH Grant (Award #2023-38470-40825)

Provide local gardening and food gathering workshops for community members	Summer 2024	Completed	
Develop printed and web-based materials from workshops taught	AY 2023-2024	Not Completed	
Disseminate information through media	AY 2023-2024	Completed	
Implementation Tasks	Time Frame	Grant Objective Progress	Notes
Kuskokwim Campus (KuC)			
Deliver all EBOT courses required for EBOT Occupational Endorsement Certificate (OEC), BA EBOT minor and Ethnobotany Conc. in AS degree	AY 2023-2024	Completed	
Continue to offer established EBOT dual enrollment courses at Culture Camps	AY 2023-2024	Partially Completed	This activity faced challenges this year due to two instructors moving and changing schools. Programs are set to resume in fall 2024.
Continue to offer dual enrollment courses at Culture Camps	Summer 2024	Completed	
Alaska Gardens (AG) – EBOT and partners from CC and BBC shift focus on creating a network of interested communities and individuals	AY 2023-2024	Partially Completed	
Create and pilot new course EBOT 1XX Plants in Cultural Context	AY 2023-2024	Completed	
Provide Student Support for EBOT OEC courses	AY 2023-2024	Completed	
Project Jukebox Ethnobotany, Ethnoherbalism and Traditional Ways of Healing (PJ EBOT)	AY 2023-2024	Completed	

University of Alaska Fairbanks Drumbeats Alaska 2023 USDA NIFA ANNH Grant (Award #2023-38470-40825)

Implementation Tasks	Time Frame	Grant Objective Progress	Notes
Interior Alaska Campus (IAC)			
Deliver 2 distance Tribal Governance and Stewardship (TGS) 3 credit courses	Fall 2023 (TNRS); Spring 2024 (CCMC)	Completed	
Develop and deliver a minimum of 2 intensive 1/2 credit TGS courses with Tribal Partners	Fall 2023; Spring 2024	Completed	
Provide student leadership opportunities through direct attendance at decision-making forums	Fall 2023; Spring 2024	Completed	
Provide financial support for increased educational equity	Fall 2023; Spring 2024	Completed	
Participation in guest lectures, public talks, and committees in related academic fields within UAF	Fall 2023; Spring 2024	Completed	
Implementation Tasks	Time Frame	Grant Objective Progress	Notes
Northwest Campus (NWC)			
Design and deliver HLRM courses for secondary and postsecondary students	AY 2023-2024	Completed	
Deliver two workshops in Bering Strait region	AY 2023-2024	Completed	
Provide Student Support for three HLRM intensives	AY 2023-2024	Completed	
Support Student Leadership	AY 2023-2024	Completed	