

University of Alaska Fairbanks

Program Review

Research Units & Research Support Units

Submitted by the Office of the VCR

September 8, 2014

Final Report



Fall 2014

Executive Summary

General discussion points centered around the impact of ARRA on funding increases and then decreases, the lack of consistency between PAIR data and unit data, and the way the University counts people, publications, and research. We also discussed the role of all units that have a tripartite mission in research. None of these issues reached consensus. However, the task force feels these issues need to be addressed by each unit in future reviews.

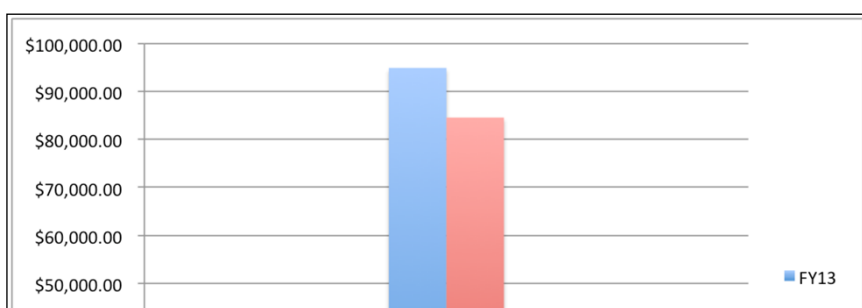
The review for each unit is summarized according to financial position, unit productivity, general strengths, and general weaknesses and offers recommendations to the Chancellor. We emphasize that this was a summary overview of the programs. Different levels of detail were provided by the institutes and as such, different levels of review are provided.

UAF Research Overview

According to the UAF Financial Review, in FY13, UAF submitted 786 proposals for a total of \$302 million in requested research funding and partnerships. The majority were new competitive proposals (520, with a total value of \$228 million). Approximately \$52 million was proposed as new non-competitive funding. 226 FY13 proposals were funded as of July 2013, for a total of \$59 million. While the volume of proposals submitted decreased in FY13 (down by 14% compared to FY12) the award values increased by 10% on average indicating success in an increasingly competitive climate. Sponsored research is a major driver for UAF’s revenue picture, and much of the UAF research revenue comes in the form of Federal receipts with a correspondingly proportional indirect cost recovery (ICR) revenue stream.

UAF’s largest component of federal funds is in research grants and contracts. In this budget climate, most agencies are delaying research awards, reducing award amounts, and reducing the number of proposals funded. UAF remains competitive for key agencies such as NSF, NOAA, NASA and DOD, but may still be negatively impacted. Fortunately, UAF is well positioned in a few areas that may provide growth to partially offset reductions; these include Arctic related research, climate change, Sikuliaq operations, unmanned aircraft systems, bio-medical and energy applications. Across the UA system, UAF is the major research institution with the largest revenue generating capacity in this area (see Table 1).

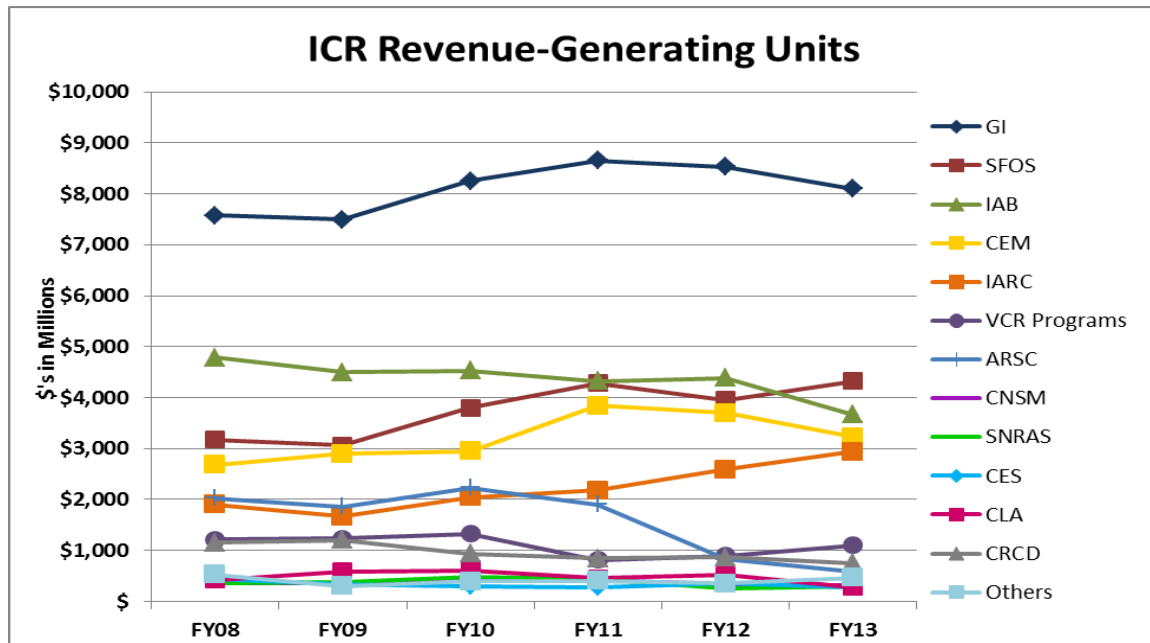
Table 1. UAF proportion of revenues from federal receipts in FY13 vs. UA System



Indirect cost recovery revenues are generated primarily from federal research (restricted) grants and are used to offset administrative and support costs that cannot be efficiently tracked directly to grant programs. The top programmatic ICR revenue generators at UAF in FY13 were: the Geophysical Institute, School of Fisheries and Ocean Sciences, Institute of Arctic Biology, College of Engineering & Mines and the International Arctic Research Center (see Table 2.). Collectively, these units generated 84% of UAF's ICR in FY13. Additional ICR revenue was distributed to central support, Facilities Services and the UA System Office.

Indirect Cost Recovery declined from \$27,538.0 in FY12 to \$26,337.4 in FY13 or -4.4%. The six-year trend since 2008 has been flat, increasing by only 1.0%. UAF must prepare for this trend to continue as the federal government continues to be pressured by taxpayers to slow the growth of government and in some cases cut expenditures. Unlike some federal programs, investments in research will likely continue. It will simply be a matter of at what level and in what areas of academic endeavour. Competition for federal research dollars will become fiercer between other research universities as the federal budget realities set in and the political dynamics unfold. UAF's challenge will be to focus on the strategic research investments that play to our strengths as an institution and are in alignment with our mission statement.

Table 2. UAF indirect cost recovery revenue-generating units FY08-FY13



In FY13, federal research expenditures at UAF were down 5%, but that was impacted by American Reinvestment and Recovery Act (ARRA) closeouts. ARRA funds were one time investments with an anticipated end date. In FY14 and FY15 it is projected that UAF will see additional decreases, but due to new awards in EPSCoR, NASA, and NSF for ship management, UAF’s decrease will likely be in the 1-3% range. UAF is striving to stay competitive in an ultra-competitive environment.

In addition to sponsored research funding, publications and citations make UAF the “America’s Arctic University.” Publications are a measure of research productivity and citations are a measure of research quality. Tables 3 and 4 show UAF is a research leader among similar research peers. This builds on past investment, arctic research expertise, leverages facilities for research use and contributes to UAF’s global recognition.

Table 3. Arctic publications, UAF vs. research peers

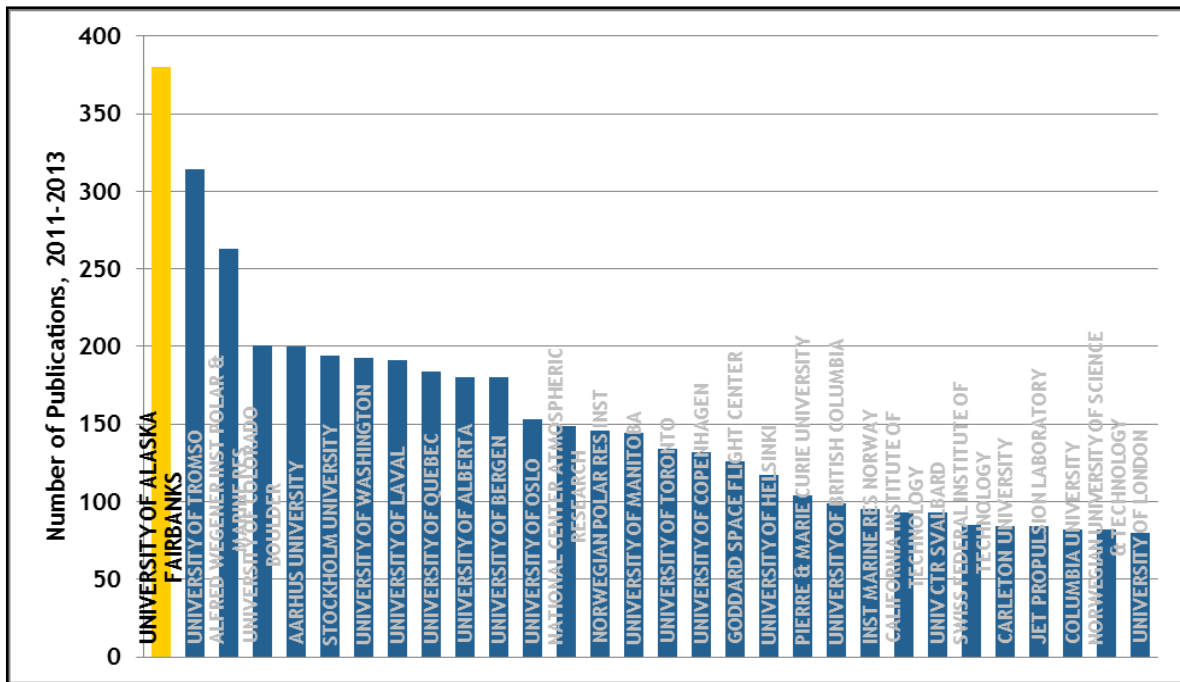
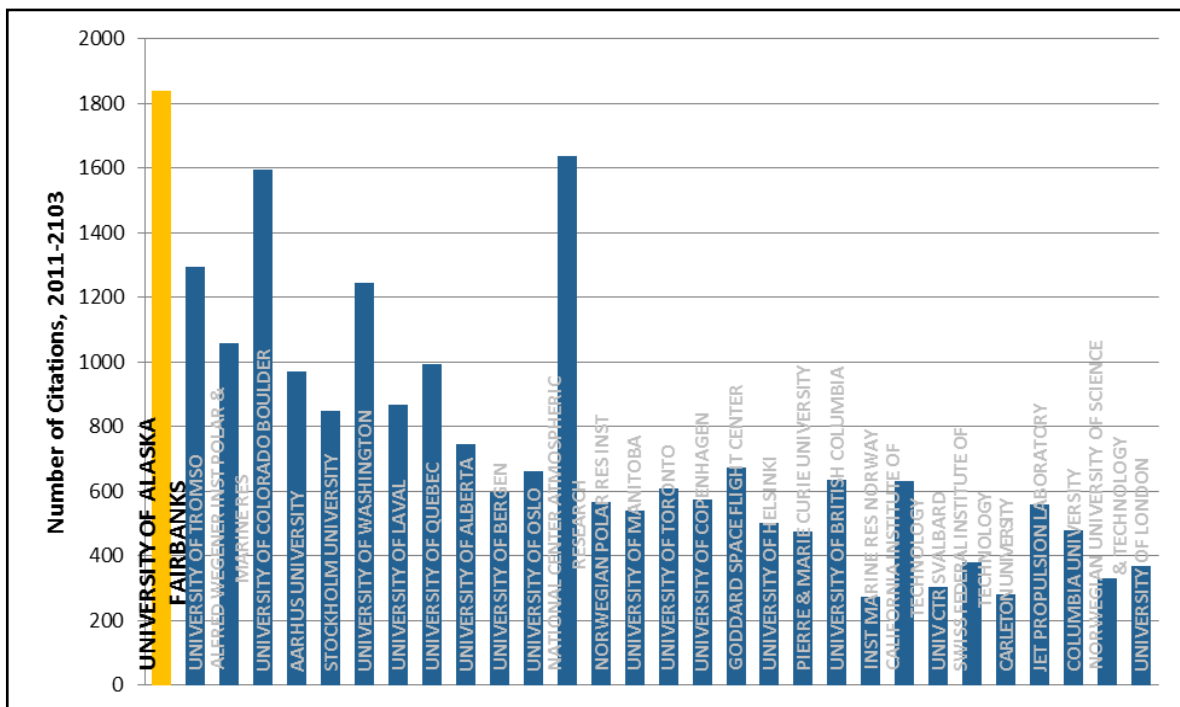


Table 4. Citations of arctic publications, UAF vs. research peers



Background

In the fall of 2013, the Office of the Vice Chancellor for Research (VCR) undertook developing a process for research program review. While research units were included in such past reviews as “Missions and Measures” and “Annual Unit Planning”, a formal research program review had not been previously conducted. In the months leading to November, a set of guidance documents were developed based generally on academic program review for consideration by a task force. In November 2013, a research review task force chaired by Dr. Larry Hinzman was convened and produced revised versions of instructions for program review for research units (e.g., institutes) and research support units (e.g., Office of Research Integrity). Both of these documents, along with guidelines for reviewers, were posted on the VCR’s website and advertised for public comment for the month of February 2014. Comments and suggestions were incorporated into the documents and were then reviewed by Chancellor’s Cabinet members in March. Following revisions, the Planning, Analysis, and Institutional Research (PAIR) office began assembling data for the units.

In May 2014, a new research program review task force was appointed by nomination and was designed to include representatives of staff council, faculty senate, financial services, the Chancellor’s office, research institutes and programs, facilities services and the PAIR office.

The members of the task force included Daniel White (chair), Nettie LaBelle-Hamer, Kari Burrell, Brian Barnes, Rich Collins, Jon Dehn, Orion Lawlor, Richard Machida, Jenny Campbell, Julie Queen, Marie Thoms, Ian Olson, and Adam Watson.

The research units identified for review were School of Natural Resources and Extension (SNRE), College of Natural Science and Mathematics (CNSM), College of Liberal Arts (CLA), College of Engineering and Mines Institute of Northern Engineering (INE), School of Fisheries and Ocean Sciences (SFOS), School of Management (SOM), School of Education (SOE), Geophysical Institute (GI), International Arctic Research Center (IARC), and Institute of Arctic Biology (IAB), University of Alaska Museum of the North (UAMN), and Rasmuson Library. The research support units identified for review were the Animal Resource Center (ARC), the Office of Intellectual Property and Commercialization (OIPC), and the Office of Research Integrity (ORI).

On June 2, the research unit leaders were notified at the Research Planning Group that program review documents would be distributed shortly (awaiting PAIR data). On June 11, all forms and instructions were distributed to units by email and then on June 17, the PAIR data were distributed to units with a report due date set for July 2.

Each of the research units and research support units listed were provided with copies of the program review guidelines as appropriate for their function for both the unit and the reviewer. All of the units were reviewed over the FY 09-13 period.

The task force met for a one hour initial all hands meeting on June 19 to go over the expectations and goals of the review which was then followed by six one hour meetings to

review the reports submitted. The research program review concluded with a 1.5 hour wrap up meeting where the final committee report was discussed and ideas for future reviews were considered.

The Review Process

The task force was divided into two groups and given the following assignments:

1. Kari Burrell, Brian Barnes, Orion Lawlor, Richard Machida, Julie Queen, and Adam Watson. Task force 1 was assigned to review reports from the Office of Intellectual Property and Commercialization (OIPC), the Office of Research Integrity (ORI), the Animal Resources Center (ARC), UA Museum of the North (UAMN), Rasmuson Library, School of Management (SOM), School of Education (SOE) and the College of Liberal Arts (CLA).
2. Nettie LaBelle-Hamer, Rich Collins, Jon Dehn, Jenny Campbell, Marie Thoms, and Ian Olson. Task force 2 was assigned the International Arctic Research Center (IARC), the Institute of Northern Engineering (INE), the Geophysical Institute (GI), the Institute for Arctic Biology (IAB), the School of Fisheries and Ocean Sciences (SFOS), the College of Natural Sciences and Mathematics (CNSM), and the School of Natural Resources and Extension (SNRE).

The task forces met according to the following schedule:

- June 19, 2014-Initial all hands meeting, 1 hour
- July 7, 2014-Separate task force meetings, 1 hour each
- July 14, 2014-Separate task force meetings, 1 hour each
- August 8, 2014-Separate task force meetings, 1 hour each
- August 19, 2014-All hands wrap up meeting, 1.5 hours

Each unit was assigned to a lead reviewer along with a second reviewer. The lead reviewer submitted a report of the unit review along with a score sheet. At the July 14 and Aug. 8 meetings, the reports were presented and discussed among the group.

Overall Evaluation of Research Units

School of Natural Resources and Extension (SNRE)

Financial Position: Research dollars are in decline compared to fund 1. Perhaps this is normal, but we should better understand the trend. The financial position is complicated by the new organization of SNRAS and extension. A significant work plan was submitted that indicates that a good deal of thought has been put into growing the program.

Unit Productivity: Numbers jump around quite a bit. We need better consistency between HR and PAIR data. Significant differences were noted.

General Strengths: SNRE is the only one of its kind in the state. It has a diverse mission meeting needs of the state that no one else does/can.

General Weaknesses: There appears to be a general lack of research funding, particularly with the closing of the Agricultural Research Station. SNRE has a large overhead with farms and related facilities.

Recommendations:

1. The unit's research is low overall. Consider a shared services model if not in place already.
2. An assessment should be made of what exactly is needed to qualify for the USDA grants and what is required to maintain that qualification. It should also be evaluated if that qualification is desirable overall.

College of Natural Science and Mathematics (CNSM)

Financial Position: The mean contract award values have been sporadic and the unit states that it is due to low numbers of awards and low numbers of supported faculty (i.e., faculty without a joint appointment in an institute). The unit states it is looking at shared services for pre-award management. The unit does not indicate if they are also looking at shared services for post-award management.

Unit Productivity: This was difficult to assess given the low productivity and lack of explanation of trends. The majority of the unit report focused on one of the three research subunits, the CNSM Division of Research (CDR).

General Strengths: The CDR subunit, which supports the few CNSM faculty without joint appointments in UAF research units, appears to have supported a number of successful and UAF mission-centric awards: Colors of Nature (STEAM), Girls on Ice (glacier science), Alaska Summer Research Academy, GK-12 (graduate STEM fellows) and the Alaska High School Science Symposium.

General Weaknesses: The unit states that the CDR is vulnerable due to the low number of awards and low number of supported faculty. There was not enough information to access general weaknesses of the Advanced Instrumentation Laboratory (AIL) and Alaska Quaternary Center (AQC) subunits.

Recommendation: Advance with notation. Clarification of review questions and expectations for analysis in answers is needed.

College of Liberal Arts (CLA)

Financial Position: CLA's financial position with respect to research is improving, with total award amount markedly higher in FY13, which should lead to an increase in Fund 3 research expenditures and associated ICR in FY14 and beyond. In addition, CLA has a strategy in place to rebuild lost research productivity due to departing faculty.

Unit Productivity: Award amount is up for FY13, but it is unclear from the body of this report how much of CLA productivity is research-related. However, the list of funded projects - including work in the Alaska Native Language Center, Anthropology, Alaska Rural Behavioral Health, and Cross Cultural Studies, among others - suggests more research activity at CLA than is emphasized elsewhere in the report.

General Strengths: Research award amount is trending upward. CLA has outlined a strategy for replacing lost research capacity and sustaining the FY13 increase. This includes hiring faculty with productive research backgrounds, encouraging new faculty members to meet with the CLA grant manager, CLA department chairs and the CLA dean in developing research agendas, and mentoring new faculty through the sponsored projects proposal process. The potential exists, given sufficient resources, to develop the Center for Social Science Research (C-SSR), which would facilitate UAF research in social systems, social policy, mental health and governance, among others.

General Weaknesses: There is no articulated strategic plan that includes a research mission statement or any strategy for dealing with budget contraction. The small number of research faculty in CLA naturally results in variable award amount from year to year and leaves the unit vulnerable to the loss of a large part of its research productivity when one or more core research faculty depart, as has happened recently. Though award amount is up in FY13, the number of proposals and awards has decreased sharply. In addition, research faculty, post-docs and graduate and undergraduate RA's are all trending downward.

Recommendation: None specified beyond advancing to the next review.

Institute of Northern Engineering (INE)/College of Engineering and Mines

Financial Position: Good here, but a gradual decline is noted in many areas. A strategic plan for financial sustainability would be helpful.

Unit Productivity: The productivity is very high; a further reduction in funds would cripple it. I suspect a small amount of additional dollars could open new areas.

General Strengths: The strengths are good; the Institute is uniquely positioned and seems to have no immediate threats to its niche research areas. A SWOT and detailed look at competition might be helpful though.

General Weaknesses: No clear weaknesses, other than funding. Again, looking at new funding and forging tighter links to direct state needs might help.

Recommendation: None specified beyond advancing to the next review.

School of Fisheries and Ocean Sciences (SFOS)

Financial Position: Solid future through support for the Sikuliaq.

Unit Productivity: Good productivity, higher grant funding and proposals for the boat needed.

General Strengths: Very strong, serving the needs of the state.

General Weaknesses: Weak in that many programs are new, but growing. Nothing appears to be slipping.

Recommendation: None specified beyond advancing to the next review.

School of Management (SOM)

Financial Position: Too early to tell for the Center for the Study of Security, Hazards, Response, and Preparedness (C-SSHRP). Other than C-SSHRP, the school does not state a research mission beyond publication.

Unit Productivity: N/A - see above.

General Strengths: The unit claims the strength is the student education, not research. Outside of C-SSHRP one would need to dig deeper into the tripartite mission of the school to better understand potential research strengths.

General Weaknesses: No emphasis on research outside of C-SSHRP. C-SSHRP is not exclusively research.

Recommendation: Consider shared research services for C-SSHRP if not already in place.

School of Education (SOE)

Financial Position: SOE's financial position via F1 appears strong. Research F1 is trending downward, while grant-funded research expenditures have risen markedly.

Unit Productivity: Overall unit productivity in research is low and carried by just a few faculty.

General Strengths: Strengths include SOE's specialization in providing training to future teachers that is culturally appropriate for rural Alaska. Current unit administration has increased administrative support of research activity, which may be reflected in improvements in some research measures.

General Weaknesses: SOE is weak in supporting a broad and comprehensive research mission.

Recommendation: None specified beyond advancing to the next review.

Geophysical Institute (GI)

Financial Position: The unit needs to present analysis of its financial position. While some descriptive analysis of financial trends was provided, the unit did not provide enough inferential analysis to gain a clear sense of the unit's financial position. For example, the unit report re-stated PAIR data on non-Fund 1 research expenditures calculated a five-year average and then claimed non-Fund 1 research expenditures for FY14 would exceed \$33M. No insights into the five-year trend or statements in support of the FY14 claim were presented. The claimed FY14 expenditure would result in a roughly 10 percent increase over the \$29.9M expended in FY13. What and/or who was accountable for this episodic change in activity? Furthermore, what were the key

drivers for past performance? Was the institute especially impacted by ARRA? Was the increase in FY14 expenditures due to a specific grant or program, or was the growth born out of a composite of success? Analysis of this sort would have been helpful. Additionally, more discussion was needed about risks to the unit's business environment and anticipated plan of action for likely fiscal scenarios. What if Fund 1 revenue were to drop by some amount that would create impact, say by \$2 million or \$4 million? What if the Federal budget climate worsens for Congressional support of R&D? A unit SWOT analysis, though not requested in the PRRU request document, would have been helpful and is recommended for future PRRU reports.

Unit Productivity: In general, unit productivity appeared steady, though marked by a labor decline in recent years perhaps due to the expiration of ARRA funds. Faculty in terms of FTE peaked in FY11 and has declined slightly since. Research staff numbers have fallen significantly over the five year period. Nevertheless, the number of proposals submitted and grants awarded have increased. Research expenditures expanded and contracted with ARRA funding but have otherwise remained steady.

The institute's connection to UAF Core Themes was strong.

- EDUCATE: The institute's diverse disciplines of geophysics and related sciences strengthens UAF. The unit supports around 70 RAs per year.
- RESEARCH: The institute's core research program has remained steady and several noteworthy research achievements were cited in the unit's report. Research presented seemed appropriate and relevant to the unit's mission as currently defined and as initially defined by Congress. The unit was found to be well-connected with UAF, UA, and national and international peers in multiple fields.
- PREPARE: Students and faculty appeared to work together on many endeavors.
- CONNECT: The institute engaged in research and outreach that involved and impacted Alaska and Alaskans at the community-level, both rural and urban.
- ENGAGE: Dissemination of research findings through the unit's public outreach mechanism was well-documented and impressive.

As requested, publications per faculty FTE should be calculated and analyzed for the past five years.

In terms of space analysis, facilities managed by the unit were indicated and a square footage figure was cited (70,000 square feet), but no analysis was given in context of Fund 3 expenditures or how the square footage is distributed over managed facilities. Not enough analysis of space utilization was presented though discussion of shared use of space highlighted several cases suggesting the unit actively and strategically manages its space. In relation to its current facilities, is the unit operating at capacity, can it facilitate growth, or does it anticipate new space needs in the near future? Are research labs and facilities adequate in quality? Does the institute's current space support the unit's ability to achieve its mission and objectives?

Under *Outcomes Assessment*, the institute presented three fundamental metrics used to assess productivity, but no data were presented nor analysis written. While metrics

are a constituent part of a program of assessment, the request as stated in the *PRRU Instructions for Research Units* sought a self-assessment plan, if the unit had one. In support of this request, other units cited such documents as the former *Annual Unit Plan* or published annual reports. Disclosure of a formal assessment plan is not required.

General Strengths and Weaknesses: Unit strengths were documented well. The institute was found to be well connected to its mission, capable of high capacity output, highly collaborative with partners and peers, and oriented on public outreach and knowledge dissemination. Further, the unit benefited from a distinguished reputation and maintained a sharp focus on research relevant to the needs of Alaska and science more broadly. Unfortunately, unit weaknesses were far less clear. The institute's review would be strengthened with disclosure and analysis of its internal challenges and external threats. The following SWOT analysis was generated by the author following review of the institute's PRRU document.

SWOT Analysis: Geophysical Institute			
		TYPE OF FACTOR	
		Favorable	Unfavorable
LOCATION OF FACTOR	Internal	Strengths <ul style="list-style-type: none"> • high output capacity • function-based organizational structure • strong public service component • mission-focused 	Weaknesses <ul style="list-style-type: none"> • budget constraints? • Precautionary grant environment? • Uncertain Congressional support for R&D?
	External	Opportunities <ul style="list-style-type: none"> • relevancy of research • unit reputation • relationships with peers and partners • geographic location 	Threats <ul style="list-style-type: none"> • Federal budget climate? • Alaska economy? • Encroachment of niche by competitive research institutes?

Recommendation: None specified beyond advancing to the next review.

International Arctic Research Center (IARC)

Financial Position: The mean contract award value has jumped significantly over the reporting period. However, this increase is associated with a large award in FY13 (~\$25M) from NOAA. It is not clear from the report how this critical NOAA support will continue. Given non-fund 1 expenditures of \$10M in FY13, how much of the NOAA award is represented in FY13 expenditures?

Unit Productivity: The unit reports an increase in grantsmanship over the period with an increase in proposal award rate. However, there is a decline in publications per faculty member. It is unclear what the impact of the increase in staffing has been. There is no discussion of space use by the unit.

General Strengths: The unit reports leadership in Arctic research by fostering international collaboration through active research partnerships. The unit reports strengths in both system science (synthesis studies and data sets) and individual investigator science (process studies).

General Weaknesses: The discussion of impact of budget decreases and increases did not address any new opportunities or evolution in the unit.

Recommendation: None specified beyond advancing to the next review.

Institute of Arctic Biology (IAB)

Financial Position: Financial position appears adequate. ICR and ratio of non-general fund to general fund revenue has fallen slightly since the ARRA funds boosted productivity in 2010. The trend analysis states that a loss in productive staff has affected the unit's productivity but no other analysis was done to explain the shift. No discussion on unit's plan to remain productive and steady in the current fiscal environment.

Unit Productivity: Unit productivity appears steady despite the decrease in staff. IAB has continued its steady production of grant applications and awards, publications and impact across the state. IAB has a number of invention disclosures which may turn into patents in the medical field, showing that the researchers are highly productive.

General Strengths: Overall the strengths were listed in the number of publications, etc., but there is really no analysis on what makes the unit strong or how the unit can stay strong in this changing environment.

General Weaknesses: No unit analysis of weaknesses and how they can be strengthened to increase the effectiveness of the unit.

Recommendation: None specified beyond advancing to the next review.

University of Alaska Museum of the North (UA Museum)

Financial Position: Financial position appears stable. Fund 1 research is declining since FY10; but Fund 3 expenditures have consistently increased over the same time period. This is a promising trend, as ICR generated also matches this trajectory. Revenues from other sources are not provided - other revenues may represent a funding stream unique to the UAMN that could potentially be increased (community outreach, internal/external partnerships, and visitor services).

Unit Productivity: Unit productivity is high considering the 100% award rate on proposals submitted in FY13. The reviewers recommend the museum submit more proposals in these key areas. The average publication level of UAMN

researcher/faculty is 5.8 per FTE (FY09-FY13). How often these publications are cited may be a key metric to explore.

General Strengths: The UAMN has tremendous outreach capacity to (continue to) put UAF on the map as a world-class research institution with high-quality research, teaching and programs. Creatively finding ways to increase community and state engagement or even international partnerships to bolster the reputation of the Alaska and Arctic-specific research will be critical in the future. Preservation of Alaska native languages/heritage/culture is also a viable research opportunity. This type of work also has revenue generation capability.

Increasing partnerships that engage the capacity/reputation of the Museum and integrate it with UAF research may be an area to explore further. As 100% of their recent proposal submissions were awarded, the work they are currently doing has the interest of the sponsors/awarding agencies. Graduate Research Assistant (RAs) numbers are steadily increasing. Leveraging this momentum and interest in the Arctic may improve UAF's reputation and research capacity.

General Weaknesses: Lack of information with respect to the numbers is a general weakness. Evaluation of UAMN research impact and capacity could be more thorough if additional narrative/analysis with respect to the data set were provided. Discussion on several key components of the UAMN tripartite mission is missing which makes review of one component more difficult (without context).

Staff and faculty FTE remain steady over time, for the most part, although UAMN notes the inability to hire some vacant positions (ethnology). Discussion on the impact of this vacancy may be necessary to determine strategy for future investment.

Undergraduate study was not discussed, although Graduate (MS/PhD) students studying collections are up significantly from FY09 and steady in FY12-13.

Lack of space (or sub-optimal use of space) for collections may be an issue that needs attention if collections-based research is a primary driver for the research activity.

Additionally, the UAMN could improve its engagement and communication with Fairbanks and Alaska's communities and has tremendous potential to increase outreach or become more closely integrated with local and global research partners.

Recommendation: None specified beyond advancing to the next review.

Rasmuson Library

Financial Position: Changes in F1 including state appropriation and ICR return and their consequences are not discussed, but it is noted that costs of electronic journals are increasing yearly which provides a fiscal challenge.

Unit Productivity: Faculty FTE have totaled 9-12, but only 4-5 book or journal publications are listed over five years. What is the expectation for research products from library faculty?

Staff FTE has been flat with some discussion of a rising need for assistance. The "Trends" statement is confusing.

Consequences of the closing of the Biosciences branch are not discussed.

Potential synergies with Mather Library are not discussed.

General Strengths: Strengths include the on-site and electronic archives including unique collections and an increase in electronic access to journals.

General Weaknesses: May include loss of local support to West Ridge researchers and low research productivity of faculty.

Recommendation: None specified beyond advancing to the next review.

Overall Evaluation of Research Support Units

Animal Resource Center (ARC)

Financial Position: Funding levels seem relatively stable for three years since unit formed. The self-assessment did note that research funding is cyclical, but presumably the cost of maintaining animals in UAF's care is not. It is unclear whether UAF has financial model for this unit that incentivizes institutional efficiency in number of animals maintained.

Unit Productivity: The ARC was formed to ensure that UAF was meeting federal guidelines and provide consistent care within UAF facilities. The staffing level and organization to meet that goal was determined at that time. Unit indicates it does have three metrics it tracks, but unclear whether these are adequate to assess compliance with federal rules and adequate care levels.

General Strengths: Thoughtful first self-assessment. Community outreach and partnerships are being developed to provide the program with some financial stability; could maybe partner with SNRE on these sorts of activities.

General Weaknesses: Additional information regarding revenue streams and spending breakouts would be helpful.

Recommendation: None specified beyond advancing to the next review.

Office of Intellectual Property and Commercialization (OIPC)

Financial Position: OIPC so far has brought in little revenue, under 10% of the office's gross budget. A recent Brookings paper indicates over 80% of university tech transfer offices bring in less revenue than their operating costs. It is interesting that 100% of external revenue has come from digital intellectual property sales (such as Swathviewer, SNAP data, VADAPT), while none has come from patent licensing so far. If OIPC needs to move toward self-funding, this suggests a way to get there.

Unit Productivity: Since the office's reorganization in 2011, productivity has improved dramatically, as measured by the number of licenses, invention disclosures, conflict of interest plans, non-disclosure agreements signed, and patent applications filed.

General Strengths: Despite its recent inception and very small size, OIPC has been quite productive in engaging with the UAF research community, which will be key to its ongoing success.

General Weaknesses: Low revenue numbers mean OIPC currently operates not as a profit center, but as a commercially focused outreach service similar in spirit to cooperative extension. An ongoing management challenge will be to balance the often intangible benefits of wide dissemination of research results through use of scarce state general fund dollars against focusing on only those opportunities that seem to provide significant near-term revenue streams.

Recommendation: In budget-constrained times, OIPC may need to focus more on founding startups and licensing software.

Office of Research Integrity (ORI)

Financial Position: Funding for ORI fluctuates from year to year, but the general funding trend has been downward. It is unclear whether declining resources for ORI has resulted in research compliance issues at UAF.

Unit Productivity: PAIR does not collect information relevant to this unit. The unit does not appear to collect information related to productivity, but does appear to recognize that establishing metrics might be helpful going forward. Some consideration could be given to options for shared service models (e.g. for training) or process-mapping/streamlining with other related units (e.g. OGC).

General Strengths: ORI does appear oriented to assisting researchers.

General Weaknesses: There was generally insufficient information on which to base an assessment of strengths and weaknesses. For review purposes, it would be helpful to know which of ORI's activities are needed from a compliance perspective (not optional) and which activities are designed to improve university internal operations (more optional).

Recommendation: None specified beyond advancing to the next review.

Conclusions

The task force would like to stress that this was the first year of this process. The task force recommends that the program review process be improved based on lessons learned from this year. Among the lessons learned that will improve the process for next year include providing additional time for unit leaders to prepare materials and to gain consistency between unit data and PAIR data.

While a five-year review cycle has been suggested, the task force recommends that research units and research support units are reviewed each year, at least until the process has solidified. Once the process is refined, units could be reviewed on a five-year schedule with data collection to occur every year. Members felt that they are still in the middle of this process and thus would like to serve on the committee again this academic year. It was suggested that service on the committee be a two year commitment with a portion of the members rotating off each year so there is always continuity. This will require several additional members be added for this year so there will be consistency for the FY15-16 year.

There was mostly consensus that the review process needs more substance to it; the task force wanted more numbers and details to be included in future submissions from the units. Members have ideas to refine the data collection instrument to better elicit the level of detail needed. While the task force was unwilling to make any recommendations beyond a second round review based on this year's submissions and discussion, members feel that the improved process will afford them enough information to make useful recommendations in subsequent years.

Several members expressed a desire to clarify the definitions for data sets or metrics to be used for comparison across units (e.g. ensuring that all units are in agreement about what it means to have 1 FTE of research). Likewise, there were concerns about perceived discrepancies between PAIR data and what the unit submitted numbers are. Better understanding of what is included in PAIR data as well as exploring the concerns of the units and knowing where their data come from will allow for the production of a report that is more useful and trusted by everyone involved.

The importance of reporting data the same way UA does was also stressed since there will be comparisons between universities (UAA and UAS).