

Alaska Needs Both the University of Alaska Fairbanks and the University of Alaska Anchorage

A Response to the Recommendations of the Committee on Governance and Funding Reform of the Faculty Senate of the University of Alaska Anchorage from Susan Henrichs, Provost Emerita, University of Alaska Fairbanks. This response was not prepared at University expense and was not solicited or approved by the UAF administration.

Summary

The University of Alaska Anchorage (UAA) Faculty Senate Committee on Governance and Funding Reform recommendations to the University of Alaska Board of Regents (dated July 11, 2019) included a proposal to take almost the entire \$135 million State General Fund reduction from UAF Fairbanks Campus and UA Statewide by distributing General Fund to campuses based on enrollment. That approach would leave UAF with approximately \$39 million in State General Fund, a reduction of about 74% over FY 2019 levels. A \$39 million General Fund allocation would barely cover UAF's debt service obligations and utilities costs. With projected FY 2020 tuition & fee revenue of about \$30 million and indirect cost recovery (ICR) of less than \$20 million, UAF would not be able to continue to operate.

While requiring UAF Fairbanks to absorb most of the \$135 million reduction appears to benefit UAA, UAS, and community campus students, it would severely impact UAF's thousands of students. However, the benefits to campuses other than UAF are not as great as they seem. They would need to pay for services formerly provided by Statewide. Further, as a single legal entity, UA would still be responsible for teaching out UAF students, paying UAF debt service, and maintaining UAF facilities, unless the decision was made to abandon that \$1 billion investment to the elements. It is in everyone's best interests to allocate enough General Fund to UAF so that it can continue to operate, generate revenue, and cover its costs.

Further, the UAA Faculty Senate Committee recommendation is based on a faulty analysis of UA financial information and echoes flawed national cost comparisons published by State of Alaska Office of Management and Budget.¹ Instructional costs per student at all UA campuses, including community campuses and the University of Alaska Anchorage as well as the University of Alaska Fairbanks, exceed national averages for similar institutions of higher education. However, given a reasonable adjustment for higher operating costs in Alaska, UAF's costs at the Fairbanks campus are well within the range of its peers. Research universities like UAF have higher instructional costs than comprehensive universities like UAA, but not inordinately higher. The extremely high cost per student calculated by the State of Alaska OMB included many expenditures that are unrelated to student numbers, such as costs for research, public service, and administrative support and facilities for those activities. UAF has more external research funding than almost any other university offering a broad range of programs in the U.S., compared with its enrollment.² Because of that, normal levels of institutional funding of research and public service, when divided by the small student enrollment, yield high cost/student ratios.

¹ "FY2020 Enacted Budget, University", a white paper dated July 19, 2019.

² Even including its community campus enrollments, UAF research expenditures/FTE student ranked #19 of 1702 public institutions of higher education that reported to the National Center for Education Statistics, Integrated Postsecondary Data System (IPEDS) for FY17. Most of the institutions with a higher ratio were medical schools.

The UAA Faculty Senate Committee and State of Alaska OMB are correct that higher education in Alaska would be cheaper if it were only offered at a comprehensive university in Anchorage, a few of the largest community campuses, and online. However, that would limit access to higher education for many Alaskans and would mean that the extensive externally sponsored research and the statewide public service carried out by UAF would end. UAF's research and public service provide economic, educational, and cultural benefits throughout Alaska, and their loss would be keenly felt in many communities.

Data and Discussion

UAA Faculty Senate Committee Recommendations

The UAA Faculty Senate Committee on Governance and Funding Reform sent a series of recommendations to the University of Alaska Board of Regents dated July 11, 2019. Among these recommendations, the Committee proposed that most of the \$135 million reduction in State General Fund support be taken from UAF and UA Statewide services, leaving UAA, UAS, and the community campuses largely intact financially. To implement the reduction, the committee recommended distributing the remaining General Fund appropriation based on SFTE (student full-time equivalent) enrollment. That approach would leave UAF with approximately \$39 million in State General Fund, a reduction of about 74% over FY 2019 levels, while UAA General Fund would decrease 8.3%, the community campuses and UAS would gain 0.5%, and UA Statewide would be zeroed out. A \$39 million General Fund allocation would barely cover UAF's debt service obligations and utilities costs. With projected FY 2020 tuition & fee revenue of about \$30 million and indirect cost recovery³ of less than \$20 million, UAF would not be able to continue to operate. UAF facilities and debt service costs, \$82 million in FY 2018, could not be reduced below about \$60 million if the campus remained open, leaving only around \$28 million at most to cover all other unrestricted funding needs, which were about \$119 million in FY 2018.

The UAA Faculty Senate Committee also suggested that UAF might survive this massive funding reduction, based on Table 1. However, their interpretation of this information ignored the fact that much of the funding shown in Table 1 is generated revenue, primarily tuition and fees and indirect cost recovery. The underlying assumption of the Committee was that UAF could continue to generate revenue at the same level after having a 74% reduction in General Fund support, which would result in layoff of a similar percentage of its employees. That is impossible, and so the idea that UAF can continue to operate successfully after a funding reduction of the magnitude proposed is simply false.

Also, it is not true that there has been "a tendency to level cuts at UAA instead of UAF", as the UAA Faculty Senate Committee stated. Historically, cuts have been distributed in a pro-rata fashion; UAF received between 47-49% of the total share of the reductions in State General Fund appropriation (based on UAF's total proportion of the General Fund budget), with UAA receiving a similarly proportionate share. The difference in recent General Fund decreases between the UAA and UAF has

³ Indirect cost recovery or ICR is a proportion of grant or contract funding that is designated to cover facilities and administration costs related to the external funding. The amount is negotiated with a federal agency based on the university's documented costs (<https://www.alaska.edu/cost-analysis/negotiation-agreements/>). Rates vary with the type of sponsored activity, but the commonest rate for UAF research is 50.5% of modified total direct costs (essentially the cost of the research itself, minus a few exclusions like equipment costs and student tuition).

stemmed from reorganizations that moved certain units (and their costs as well as their revenues) from Statewide to UAF and some funding received from the State Legislature to partially address the new UAF heat & power plant debt service, \$7 million toward a \$10.5 million FY 2020 obligation. The units UAF received from Statewide include the MAPTS (Mining and Petroleum Training Service), which delivers training leading to non-credit certifications required for industry employment, and K-12 Outreach. Some Statewide IT staff positions were also returned to UAF, undoing a merger that occurred before the time period that the UAA Faculty Senate Committee considered.

Table 1. The table is from a presentation that President Johnsen made to the UA Board of Regents on June 28, 2019.

UA Expenditures by NCHEMS FY18

(unrestricted funds in thousands of \$)

	SW	UAA	UAF	UAS	Total
Academic Support		16,517.0	22,023.7	2,976.3	41,517.0
Instruction		100,806.8	64,973.9	16,014.4	181,795.1
Intercollegiate Athletics		8,355.8	4,279.2		12,635.0
Library Services		6,994.5	6,250.6	1,075.0	14,320.1
Scholarships	-304.3	-2,248.6	-1,179.8	-738.7	-4,471.5
Student Services		17,188.2	13,145.7	3,998.1	34,332.0
Institutional Support	48,769.1	30,951.8	42,490.2	7,361.9	129,573.0
Physical Plant	4,167.1	33,458.4	72,877.7	10,051.7	120,554.9
Public Service	5.7	4,962.1	11,643.0	105.8	16,716.6
Research		4,325.9	52,012.8	0.5	56,339.2
Auxiliary Services		2.1	3.7		5.8
Other	0.8				0.8
Total	52,638.5	221,313.9	288,520.7	40,844.9	603,318.0

Table A1 in the Appendix of this document shows what the General Fund distribution would be if based on Fall 2018 student FTE by campus, if done for UAS and community campuses as well as Anchorage and Fairbanks campuses. A STFE-based distribution would result in large reductions to the funding of all rural campuses and the Juneau campus, if applied within their separate appropriation, while substantially increasing funding to the Kenai, MatSu, and UAF CTC campuses. However, this strict formulaic distribution neglects the cost of services that Statewide, UAA Anchorage, UAA Fairbanks, and UAS Juneau provide for the community campuses, recently estimated by UA Statewide to be about \$12 million, as well as ignoring higher operating costs in some of the locations. The SFTE based distribution also ignores the fact that if there is a substantial tuition and fee increase, the highest enrollment campuses will benefit most. Finally, it completely disregards differences in mission among the campuses.

The UAA Faculty Senate Committee recommendations included the statement, “The state funded UAF [Fairbanks Campus] at a rate of \$34,845 per student” [in FY 2018], which is similar to assertions made by the State of Alaska OMB. The Committee calculated that UAA was funded at \$11,540 per student. They further stated, “These disparate allocations have encouraged inefficiency in the one institution and

efficiency in the other.” That statement is completely unwarranted. First, the calculation for UAA included the embedded Community and Technical College, while the UAF Community and Technical College was excluded, making this an apples to oranges comparison. Further, UAF is the UA System’s research university and the university that delivers the Land Grant mission of education, research, and public service. As a consequence of these responsibilities, UAF spends much of its resources on research, public service, and the facilities and administration necessary to carry out this work. The extent and cost of these efforts has nothing to do with how many students UAF serves and so the costs should not be included in a per student cost ratio. These points are explained further in the next section of this paper. Making appropriate corrections to UAF’s General Fund allocation yields \$16,800 per student.⁴ While this ratio is greater than UAA’s, as a research and Land Grant University, it is expected that UAF would have moderately higher costs/student than a comprehensive university like UAA.

There were two important omissions from the discussion of General Fund allocation submitted by the UAA Faculty Senate Committee on Governance and Funding Reform. First, some of the UAF and UAA fixed costs categories, such as physical plant operations and maintenance, debt service, and utilities, currently are partly covered by tuition, fee, or ICR revenue. However, if enrollment or federal grants and contracts decrease sharply, as would inevitably happen if nearly all of the UAF faculty and staff were laid off, more of those costs would need to be drawn from General Fund. In FY 2018 the fixed cost category totaled about \$24 million for UAA and \$78 million for UAF (excluding a debt service pre-payment, see Table A3 in the Appendix). Clearly, the fixed costs could consume more than the General Fund allocation to UAF in FY 2020, if there was no other revenue generation. About \$40 to \$50 million of UAF’s fixed costs—consisting of debt service, minimal utilities to keep buildings heated and ventilated, and monitoring for and correcting emergency maintenance problems such as leaks—would exist even if the campus was unused. Over time some less valued buildings could be converted to “cold storage”, i.e., no heat or ventilation, but that risks damage and cannot be done for many buildings without expenditures to isolate them from the steam heat and water systems. Because UA is a single legal entity, it would still be responsible for the debt service and UAF’s buildings and infrastructure, even if UAF ceased to operate.

The other major issue is teach out of UAF programs should UAF be closed. Some students could be taught online from UAA, although UAA does not currently offer many of its programs completely online, so there would be some cost to develop online or hybrid course offerings very quickly. This would also increase UAA teaching loads and could require hiring more faculty. Also, UAA does not offer some UAF programs in any format, for example, baccalaureate degrees in Communication; Education (the Elementary but not the Secondary program is available through UAS); Film; Fisheries; Geography; Homeland Security & Emergency Management; Iñupiaq and Yup’ik Languages; Mining, Petroleum, and Geological Engineering; Natural Resources & Environment; Physics; Wildlife Biology & Conservation, and many of the master’s and all of the doctoral programs. UAA would need to get approval from NWCCU⁵ to teach out any program it does not currently offer. Alternatively, students could be advised to pursue

⁴ In addition to combining UAF CTC with UAF Fairbanks campus to enable a fairer comparison, the following were subtracted from UAF’s General Fund allocation: debt service (since for the most part UAA has not been required to fund their new buildings as UAF has been), General Fund expenditures for public service, General Fund expenditures for research in addition to the \$21.3 million organized research allocation already subtracted by UAA, and certain community campus costs that have been included under UAF’s state appropriation. Note that both the UAA and UAF cost ratios in this paragraph include only General Fund and include facilities and student related costs as well as instruction. These ratios are not the same as those in Table 3.

⁵ Northwest Commission on Colleges and Universities.

online programs at other universities, but UAF (or another UA unit if UAF ceased to operate) would need to identify universities elsewhere willing to accept the students' transfer courses to meet their own requirements, not necessarily an easy task. Another major problem is that some programs are not available fully online, such as music, studio art, laboratory sciences, and engineering, due to the hands-on component. This is an especially big challenge for the master's and doctoral students who are working on theses and dissertations. If their research advisor is laid off (as they all would be if UAF is closed) and they lose access to laboratory facilities and equipment and field research sites, it would be very difficult for them to complete their programs.

Why couldn't UAF students simply be required to move to Anchorage or even to another state if UAA does not offer the program that they need to complete? The NWCCU policy⁶ states that a teach out plan should provide "for the equitable treatment of students by ensuring that the teach-out is offered by an institution that has the necessary experience, resources, and support services to:

- provide, insofar as possible without additional charge to the students, an educational program that is of acceptable quality and reasonably similar in content, structure, and scheduling to that provided by the institution ceasing operation entirely or of one of its programs or at one of its locations;
- remain stable, carry out its mission, and meet all its obligations to students;
- provide students access to program(s) and services without requiring them to move or travel great distances."

As stated in the last bullet, forcing students to move to complete their education is not compliant with the policy.

The news media have reported on bankrupt private non-profit and for-profit colleges and universities that ceased operations entirely and left their students without options. Clearly that course of action would be grossly unfair to UAF students, but even aside from that, it is not possible. UA is a single legal entity, responsible for these students whether UAF is operating or not.

Therefore, any other considerations aside, it is in UA's best interests to allocate enough General Funds to UAF so that it can continue to operate, generate revenue, and cover its fixed costs while enabling students to complete their programs, both those that will continue and those that must be eliminated. That would be difficult with a proportional distribution of \$192 million in General Fund, similar to that in FY 2019. It would be impossible if that General Fund were allocated based on FTE student numbers, as the UAA Faculty Senate Committee recommended.

UAA and UAF Missions and Effects on State Appropriation Needs

Of course, there are other considerations above and beyond UA's legal and accreditation-based obligations. As UA's research university and the university designated to deliver the Land Grant mission, as well as being Alaska's Sea Grant and Space Grant university and a cultural center for Interior Alaska, UAF has had many responsibilities in research and public service in addition to instruction.

UAF is the world's leading Arctic research university⁷ and has played a prominent role in documenting climate change and its effects on Alaska and the Arctic. UAF brings in more than \$100 million per year in

⁶ <https://www.nwccu.org/accreditation/standards-policies/policies/>

⁷ UAF publishes more peer-reviewed research articles on the Arctic than any other university or single research institution in the world, and those articles are cited more frequently by other researchers than those of any other

research grants and contracts—much of which is spent in Alaska, contributing to the Alaska economy. Further, UAF conducts a great deal of research that has immediate and tangible benefits to Alaskans. Some examples include efforts of the Alaska Earthquake Center, the Alaska Volcano Observatory, the Center for Alaska Native Health Research, the College of Fisheries and Ocean Sciences, the Scenarios Network for Alaska and Arctic Planning, and the Alaska Native Language Center, among many others. While UA must fulfill obligations to students, it should not abandon research if that can possibly be avoided. Should UAF be closed or repurposed to be a comprehensive university like UAA, Alaska will be the only state in the nation without a research university.

UAF's public service activities are wide-ranging, both in the nature of the service delivered and their statewide reach (Table 2). UAF public service units often serve the entire State, not just Fairbanks and Interior Alaska. All have substantial external revenue, in addition to some General Fund support (Table 2), which in some cases is required match for federal dollars. A particular challenge with the USDA funding that supports Cooperative Extension and the Agricultural and Forestry Experiment Station is that it provides zero indirect cost recovery, and the required non-federal matching funds cannot be used for facilities, so all related facilities and institutional support must be paid from General Fund. In fact, most of the revenue sources for public service do not provide full reimbursement for facilities or administrative costs, so the General Fund expenditure of the units reflects only part of their total cost to UAF, which is about \$17 million in General Fund.⁸ Alaska State OMB has indicated that public service should be self-supporting based on fees charged to participants, but that is not possible for some of the CES and MAP services, many of which are free to the public as part of the requirements for federal funding. For others (e.g., broadcast Public Radio), there is simply no way to charge users. Finally, if required to self-support, other units could be forced to raise fees beyond what the market would bear and would lose rather than gain revenue.

UAF's additional responsibilities in research and public service are a very large part of why its costs are higher than those of UAA. The additional funds are not being mostly spent on instruction, students, and related costs, even though flawed analyses done by Alaska State OMB have included these costs in dollars/student ratios. State of Alaska OMB has argued that since all Land Grants have research and public service responsibilities, it is correct to compare UAF's total cost/student (after subtracting the specific Organized Research appropriation) to that of other Land Grants. However, that approach is wrong, as illustrated in Table A2 in the Appendix, which includes research expenditure information along with enrollment data for the twelve other Land Grant institutions that are most similar to UAF Fairbanks Campus. The Higher Education Research and Development (HERD) survey includes information on institutional funding and state & local funding of research. All of the institutions like UAF derive a substantial part of their R&D funding from these sources, an average of 36% compared with UAF's 32%. Indeed, such support is essential because federal research grants cannot be used for several key

university or single research institution. These data were obtained from the Scopus database of peer-reviewed research literature, www.scopus.com.

⁸ According to the Negotiation Agreement on facilities and administration costs of sponsored programs (https://www.alaska.edu/files/cost-analysis/FY19-FY22_Pred_F_and_A_Rate_Agrmt.pdf), F&A for sponsored activity other than research is 37.2% of direct costs. Applying this to the General Funds and USDA formula funds expended for public service, \$14.4 million, indicates that General Fund supported facilities and administration costs for public service are at least \$5.3 million.

Table 2. Major University of Alaska Fairbanks Public Service Units¹

Unit	Primary External Funding Sources	FY 2018 General Fund Allocation	Locations Outside Fairbanks
Agricultural and Forestry Experiment Station (research and outreach mission)	U.S. Department of Agriculture (USDA), some additional grants & contracts	\$2,033,000 (includes \$1,800,000 required federal match)	MatSu, Delta Junction
Cooperative Extension	USDA	\$3,507,000 (includes \$1,280,000 required federal match)	Bethel, Delta Junction, Juneau, Soldotna, Palmer, Nome, Anchorage, Sitka, Tanana Chiefs Conference (in Fairbanks but serving the Interior), Tok, Dillingham, Kodiak, Eielson Air Force Base
K-12 Outreach²	\$2.1 million in federal funds in FY2018	\$881,256	Includes Alaska Statewide Mentor Project, Educators Rising, Alaska Teacher Placement and serves mainly rural schools.
KUAC Public Radio and Television	Corporation for Public Broadcasting, gifts	\$792,000	KUAC public radio reaches Anderson, Clear, Eielson AFB, Denali National Park, Fort Greely, Minto, Nome, Tok, Eagle, Healy, Nenana, Delta Junction, Bettles
Mining and Petroleum Training Service (MAPTS)	Trainee fees, industry support	\$820,000	Headquartered in Soldotna, and provides non-credit training in several additional locations including Anchorage, Juneau, and the Delta Mine Training Center
Sea Grant/Marine Advisory Program	National Oceanic and Atmospheric Administration (NOAA), additional grants & contracts.	\$1,501,000 (includes 750,000 required federal match)	Juneau, Anchorage, Cordova, Dillingham, Kodiak, Ketchikan, Nome, Petersburg, Unalaska
University of Alaska Museum of the North	Museum visitor revenue, federal and other research grants, gifts	\$1,046,000	None. However, the Museum preserves and enables research using a vast collection of items from throughout the State.
University of Alaska Press	Book and other publication sales	\$143,000	None. However, UA Press books are sold worldwide, and likewise its authors come from throughout Alaska, other states, and even other countries.
University Fire Department , which serves a large area near the university as well as the campus itself. ³	Service area assessment, fees; generated revenue was \$3,129,237 in FY2018	\$578,000	Mutual aid agreements with other borough fire departments.

¹Note that both UAA and UAF carry out substantial public service throughout the institutions. This table focuses on larger UAF units that are focused on public service, outreach, and engagement and that are unique to UAF.

²K-12 Outreach has been part of UAF for four years, which encompasses the time period that State OMB has used for their budget analysis.

³UAF needs its own fire department and emergency medical services because Fairbanks North Star Borough does not provide these services. Areas of the borough outside of the City of Fairbanks and the University Fire Service District have volunteer fire departments.

purposes, particularly the required non-federal match for certain kinds of grants and the effort needed to prepare the grant proposals that are needed to secure the funding. Further, although many federal agencies pay most of the costs of facilities and administration for research (termed indirect cost recovery), others do not pay such costs or pay a reduced rate. Also, administrative cost reimbursement is capped at a rate that is less than the costs at UAF and most other institutions. The limited federal facilities and administration cost reimbursement affects universities like UAF, located in a high-cost area, more than those in areas where wages and facilities costs are lower. Note that nearly all of UAF's peer Land Grants are located in areas where costs are relatively low.

While UAF's expenditures of institutional funds on R&D are very similar to those of its peers, its enrollment is much smaller, less than 20% of the average of its peers. Therefore, when cost per student is calculated, the costs of research add a large amount to the ratio for UAF, but much less for the peer institutions (Table A2). This same effect happens relative to the public service costs detailed above. They would add only about \$1000 to the cost/student at peer institutions, but they add over \$5000 to the cost/student for UAF Fairbanks Campus. To reiterate, the amount of state support for research and public service at UAF is normal for the size of its research enterprise and the number of people throughout Alaska served by the public service units. What is different is that UAF's enrollment is much smaller than that of other Land Grants,⁹ which causes the cost/student to be much larger.

An additional factor in UAF's cost/student is that mission differences cause substantial differences in instructional costs among institutions nationwide. Research universities like UAF have higher average instructional costs than comprehensive universities like UAA (Table 3), largely because research-based master's and doctoral programs offered by research universities are more expensive to deliver. Further, both UAA and UAF, as well as most community campuses, have somewhat higher instructional costs than their respective peers, due to the higher operating costs in Alaska. UAF's instructional cost to peer cost ratio (1.70) is not much greater than that for UAA (1.65).

If the Anchorage and Fairbanks instructional costs were divided by an Alaska Cost-of-Living factor of 1.3X, they both would still be about 30% above the averages of peer institutions, albeit well within the range of those institutions. (See the graphs in the Appendix, Figures A1, A2, A3, and A4.) Two additional factors affect instructional costs. First is the mix of programs offered. UAA has a focus on nursing and health career programs, while UAF has a focus on the sciences and engineering. Due to higher faculty salaries and the requirements for hands-on laboratory or practical training in small groups of students, these types of programs are more costly to offer than humanities and social sciences. The other factor is institution size, because a smaller total enrollment generally means that class sizes are smaller. UAA Anchorage is near the average enrollment of its peer group, while UAF Fairbanks and UAS Juneau are much smaller than most institutions in their peer groups. Nearly all UA community campuses are very small relative to peers, which average 4,350 SFTE. Another factor in community campus cost/SFTE is the proportion of credits generated in sponsored courses or dual credit courses taught in high schools, which cost the campus less than courses taught by their own faculty.

Summing up, UAF has moderately greater instructional costs/student than UAA, with the difference being explained by UAF's mission. However, higher instructional costs are not the primary reason for

⁹ This statement references the research universities that are similar to UAF, designated based on legislation enacted in 1862. There are two other groups of Land Grants, minority serving institutions designated as Land Grants in 1890 and Tribal Colleges designated in 1994. Some of those latter institutions have very small enrollments.

UAF's larger State General Fund allocation and higher total operating costs. Instructional costs are only a modest proportion of the total costs of operating either UAA or UAF, as illustrated in Table A3 in the Appendix. In FY 2018 UAA spent 35.5% of its total revenue on instruction, while at UAF the percentage was only 9.4%, owing mainly to its large expenditures on research, public service, and related administrative and facilities costs, which were mainly supported by external funds.

The information provided in this section shows that UAF's costs are not due to inefficiency, as stated by the UAA Faculty Senate Committee, but rather to having a very different mission and responsibilities from UAA. Meeting UAF's obligations to students is essential. However, research and public service mission of UAF should also continue to the maximum extent possible, both because of its importance to Alaska and because federal research funding is a key part of UAF's revenue generation.

Table 3. University of Alaska Instructional costs compared with those of peer institutions.¹

Institution or Group	Instructional Cost/SFTE	Enrollment	Cost Ratio to Peers
University of Alaska Anchorage, Anchorage Campus (which includes Associate-level programs)	\$12,100	7,960	1.65
Carnegie Larger Master's Average	\$7,290	9,690	
University of Alaska Fairbanks, Fairbanks Campus	\$16,800	3,120	1.70
Carnegie Higher Research Average	\$9,850	16,000	
University of Alaska Southeast, Juneau Campus (which includes Associate-level programs)	\$13,800	790	1.93
Carnegie Medium Master's Average	\$7,130	4,940	
MatSu Campus ³	\$6,000	744	1.16
Kenai Campus	\$8,230	850	1.59
Kuskokwim Campus	\$16,600	150	3.20
UAF Community and Technical College (CTC)	\$10,200	820	1.97
Sitka Campus	\$13,500	260	2.61
Carnegie Associate's Colleges ² Average	\$5,180	4,350	

¹SFTE is Student Full-Time Equivalent enrollment. Data for UA Campuses were provided by UA Statewide. Data for peers are from the National Center for Education Statistics, Integrated Postsecondary Education Data System, for the year 2017. Colleges and universities are classified according to their mission, size, and other characteristics (<http://carnegieclassifications.iu.edu/>). The Carnegie groups listed include the peer groups for UAA, UAF, and UAS. Instructional cost is according to the IPEDS category definition, except that facilities costs have been subtracted to make the values comparable to those calculated from UA data. Note that national averages used by the State OMB include student services, facilities, and some other costs, and so are higher.

²Data are from colleges offering a mixture of transfer and career and technical programs to a student population including both traditional age and non-traditional students.

³Not all community campuses are shown, but these represent the range of campus types. Remote rural campuses, as with K-12 education, are the most costly, while campuses in urban and suburban areas with larger populations have lower costs per student.

Revenue Generation by UAA and UAF Faculty

Cost is only part of the finances of a university. Revenue is important as well.

Tuition Revenue

UAF Fairbanks Campus plus CTC SCH (student credit hours) per instructional faculty member: 193 per semester.

UAA Anchorage Campus plus their CTC SCH per instructional faculty member: 247 per semester.

SCH were used as a proxy for tuition revenue because tuition revenues summarized in Table A3 were split among units differently depending on the campus. Instructional faculty exclude—for UAA as well as UAF—institute and library faculty. For UAF, 1/2 of College of Fisheries and Ocean Sciences (due to high research workloads), 1/2 of Museum (due to high curation workloads) and all of Marine Advisory Program and CES faculty (due to predominantly service workloads) are also excluded. Only regular (benefitted) faculty positions were counted. UAF Fairbanks and UAF CTC were combined to allow for a fairer comparison to UAA Anchorage.

Unsurprisingly, Fairbanks campus instructional faculty generate fewer SCH per individual—30% less. The difference is not particularly large, considering that Anchorage has three times the Fairbanks population, UAA has roughly twice the total enrollment, and UAF has research master's and doctoral programs, which tend to lower SCH/faculty because students are mentored individually by faculty members.

Average tuition and fee generation per faculty member can be estimated from SCH. Roughly (at \$300/credit for tuition and fees, remembering that some of these are more expensive graduate credits), \$114,000 is generated per instructional faculty member per year at UAF Fairbanks Campus plus CTC and \$148,000 for UAA Anchorage. Note that some of this revenue is generated by adjuncts and graduate teaching assistants at both universities.

Federal Revenue

UAF Fairbanks plus CTC federal revenue per total full-time faculty per year: \$225,000

UAA Anchorage federal revenue per total full-time faculty per year: \$69,000

This is not all research revenue; there are outreach, public service, and education grants in this mix, and Pell Grants to students as well. If 25% of the amount is unrestricted ICR, that is \$56,000 per UAF Fairbanks plus CTC faculty member and \$17,000 per UAA Anchorage faculty member.

These calculations show that UAF faculty members, in terms of revenue, make up for slightly lower tuition and fee revenue with higher federal revenue.

Conclusion

The current \$135 million reduction to the University of Alaska General Fund appropriation is unprecedented in terms of the proportion of total revenue for higher education in a state in modern times. The University of Alaska and each of its component universities will need to make dramatic changes. UAF must meet its obligations to students, but in addition, it has important research and public service responsibilities that should be continued to the extent that is possible. Recovery from the

large reduction in General Fund support will require concerted efforts to generate more revenue as well as cut costs. Research is one of the two ways that universities nationwide generate most of their revenue, and so obliterating it is not in UA's best interests. In addition, research on Alaska's natural hazards, climate change, fisheries and other natural resources, revitalization of Alaska Native languages, and other topics is crucial to Alaska's future.

APPENDIX

Table A1. Campus Revenues under Student Enrollment Based and Historical Distribution Formulas. All funding amounts are in thousands of dollars.

Campus	Fall 2018 SFTE (Table 1.22 UA in Review)	SFTE % of total	FY2020 General Fund distribution based on SCH	General Fund distribution proportional to FY2019, with separate community campus appropriation*	Actual FY2019 General Fund distribution**	SCH based General Fund distribution minus actual FY2019 distribution	Proportional General Fund distribution* minus actual FY2019 distribution	Estimated additional revenue (relative to FY2019) from a 20% tuition & fee increase***
Anchorage (with CTC)	7,651.3	49.5%	94,946	51,679	103,590	(8,588)	(51,911)	5,757
Kenai	846.2	5.5%	10,501	6,455	6,455	4,230	-	647
Kodiak	202.9	1.3%	2,518	2,359	2,359	210	-	156
MatSu	743.7	4.8%	9,229	4,708	4,708	4,706	-	570
PWSC	182.8	1.2%	2,268	2,760	2,760	(450)	-	140
Fairbanks	3,134.8	20.3%	38,900	73,502	147,334	(109,086)	(73,832)	2,318
UAF CTC	817.7	5.3%	10,147	4,836	4,836	5,514	-	627
Bristol Bay	58.7	0.4%	728	1,100	1,100	(365)	-	45
Chukchi	51.8	0.3%	643	758	758	(187)	-	35
Interior Alaska	81.4	0.5%	1,010	1,295	1,295	(270)	-	62
Kuskokwim	146.4	0.9%	1,817	2,425	2,425	(572)	-	112
Northwest	51.8	0.3%	643	1,212	1,212	(560)	-	40
Rural College	232.2	1.5%	2,881	4,286	4,286	(1,393)	-	175
Juneau	792.3	5.1%	9,832	20,661	20,661	(11,015)	-	584
Ketchikan	204.1	1.3%	2,533	2,167	2,167	417	-	157
Sitka	256.6	1.7%	3,184	2,606	2,606	638	-	197
UA Anchorage with community campuses	9,627.0	62.3%	119,463	67,961	119,872	107	(51,911)	7,270
UA Fairbanks with community campuses	4,574.9	29.6%	56,771	89,414	163,246	(106,919)	(73,832)	3,413
UA Southeast with community campuses	1,253.0	8.1%	15,549	25,434	25,434	(9,960)	-	938

APPENDIX

Table A1 (continued). Campus Revenues under Student Enrollment and Historical Distribution Formulas. All funding amounts are in thousands of dollars.

Campus	Fall 2018 STFE	STFE % of total	FY2020 General Fund distribution based on STFE	General fund distribution proportional to FY2019, with separate community campus appropriation*	Actual FY2019 General Fund distribution**	SCH based General Fund distribution minus actual FY2019 distribution	Proportional General Fund distribution** minus actual FY2019 distribution	Estimated additional revenue (relative to FY2019) from a 20% tuition & fee increase***
Community campuses and UAS	4,668.6	30.2%	57,933	57,628	57,628	902	-	3,547
UA System Office			0	8,971	17,982	(17,982)	(9,011)	-
TOTAL	15,454.7	100.0%	191,782	191,780	326,534	(134,754)	(134,754)	11,621

*This allocation is simply based on the proportions of General Fund distributed to each unit in FY2019, after subtracting the separate community campus and UAS allocation.

**From the FY 2019 Yellowbook, https://www.alaska.edu/swbudget/files/Distribution_Plan/FY19-Operating-Budget-BOR-June-2018---Web.pdf

***Assumes that FY20 enrollment is down 10%, that the average (tuition+fees)/SCH in FY 2018 was \$296/credit, and that the FY 2019 tuition increase was 7.6%. After the 20% increase, the tuition and fees per student taking 30 credits per year would be \$10,354. The 2018-19 WICHE (Western Interstate Commission on Higher Education) average tuition & mandatory general fees for such a full-time student are \$10,607 for students at research universities, \$7,494 for students at master's and baccalaureate institutions, and \$3,870 for community colleges. Tuition could remain lower at UA community campuses, since their State appropriation is relatively protected, and a somewhat higher than the WICHE average UA tuition could be considered appropriate, given higher operating costs of UA relative to universities in other western states.

APPENDIX

Table A2. Research and Development (R&D) Expenditures of University of Alaska Fairbanks and Peer Institutions¹

UAF Fairbanks peer universities	All R&D expenditures (thousands)	R&D Funding Sources (percent)						SFTE ³	Institutional support/SFTE
		Federal government	State and local government ²	Institution funds ²	Business	Nonprofit organizations	All other sources		
Oregon State University	\$ 267,068	61%	20%	11%	3%	1%	4%	26,785	\$ 1,056
Mississippi State University	\$ 240,972	36%	33%	25%	2%	3%	1%	20,758	\$ 2,875
Kansas State University	\$ 196,478	38%	19%	34%	3%	4%	1%	20,662	\$ 3,280
Clemson University	\$ 193,268	36%	10%	40%	11%	2%	0%	21,774	\$ 3,588
Utah State University	\$ 187,314	74%	10%	9%	3%	0%	4%	22,695	\$ 745
University of Delaware	\$ 183,428	64%	7%	22%	3%	2%	2%	22,184	\$ 1,798
University of Alaska Fairbanks	\$ 152,694	64%	2%	30%	2%	0%	1%	3,114	\$14,866 (\$8,030) ⁴
University of New Hampshire	\$ 145,375	64%	3%	22%	6%	4%	1%	15,479	\$ 2,104
Montana State University, Bozeman	\$ 129,622	58%	8%	27%	2%	3%	2%	14,853	\$ 2,377
University of Vermont	\$ 118,298	66%	0%	24%	2%	6%	2%	12,587	\$ 2,241
Univeristy of Idaho	\$ 109,537	47%	31%	16%	2%	1%	4%	9,843	\$ 1,752
New Mexico State University	\$ 106,020	56%	18%	15%	2%	4%	5%	12,492	\$ 1,253
University of Rhode Island	\$ 101,871	62%	7%	24%	3%	2%	2%	16,140	\$ 1,505
Average (excluding UAF)	\$ 164,938	55%	14%	22%	3%	3%	2%	18,021	\$ 2,048

¹UAF peers were chosen because they are Land Grant institutions located in states with small to medium populations, they have research expenditures within about 150% of UAF’s, and they have a fairly similar research portfolio, i.e., do not have a medical school with large amounts of NIH funding for clinical research.

Data are from the Higher Education Research and Development (HERD) survey, 2017: <https://www.nsf.gov/statistics/srvyherd/#tabs-2>

²State funding of universities is reported in both the “State and local government” and the “Institution funds” categories. If State funds are unrestricted (as those provided by the State of Alaska for “Organized Research”, they are reported in the “Institution funds” category. If the State funds are restricted, for example, for a particular research unit or type of research, or if there are grants & contracts from State sources, then they are reported in the “State and local government” category. Inspection of the table suggests that there is some trade-off in these two categories, i.e., states like Alaska that have low percentages of “State and local government” support tend to have a greater percentage of “Institution funds” expended on Research.

³Student Full-time Equivalent Enrollment.

⁴The ratio in parentheses is for the Institution Funds in excess of the “Organized Research” state appropriation, which was subtracted in the State OMB calculation of UAF’s cost/student.

APPENDIX

Table A3. General Fund Allocation and Total Expenditures by NCHEMS Category and Campus. Note that UAA Anchorage Campus expenditures include its embedded Community and Technical College. UAF CTC is not included in the UAF Fairbanks Campus totals because it is administratively separate. It also is not included in the funding reduction established by the Governor’s vetoes.

Institution and expenditure category	FY 2018 GF total allocation by budget unit's largest NCHEMS category ¹	FY 2018 all funds total by budget unit's largest NCHEMS category ¹	% of Total UAA Anchorage or UAF Fairbanks or UA Statewide Expenditure
UAA Anchorage Auxiliary & Other Total	436,771	23,326,651	8.9%
UAF Fairbanks Auxiliary & Other Total	143,000	16,234,649	4.2%
UAF Fairbanks Debt Service Total²	14,477,800	26,042,490	6.7%
UAA Anchorage Institutional Support Total	19,583,876	28,963,176	11.0%
UAF Fairbanks Institutional Support Total	30,651,047	39,167,889	10.1%
UA SW Institutional Support Total	18,117,284	51,507,735	97.4%
UAA Anchorage Instruction Total	20,356,807	93,440,986	35.5%
UAF Fairbanks Instruction Total	23,423,989	36,339,341	9.4%
UAA Anchorage Physical Plant Total	19,402,171	16,760,494³	6.4%
UAF Fairbanks Physical Plant Total	8,005,100	35,496,817	9.1%
UA SW Physical Plant Total	-	1,358,629	2.6%
UAA Anchorage Public Service Total	2,350,281	12,775,310	4.9%
UAF Fairbanks Public Service Total	8,124,402	26,444,907	6.8%
UAA Anchorage Research Total	2,936,730	14,262,983	5.4%
UAF Fairbanks Research Total	7,141,602	130,985,456	33.7%
UAA Anchorage Student Related Total	34,338,281	66,310,814	25.2%
UAF Fairbanks Student Related Total	25,550,690	57,043,812	14.7%
UAA Anchorage Utilities Total	-	7,092,203	8.9%
UAF Fairbanks Utilities Total⁴	15,600,000	20,724,555	4.2%

¹Data on which this table is based were provided by UA Statewide, albeit for another purpose. Most budget units had nearly all expenditures in a single category that reflected the primary purpose of the unit. On average, the largest NCHEMS category was 94% of the expenditure of units. The “all funds” column includes both restricted and unrestricted funds and includes considerable university generated revenue.

²Part of the debt service at UAF is covered by a split of tuition, fees, and ICR. The total debt service *obligation* in FY 2018 was \$18,619,000 (UAF’s *FY18 Financial Review*), suggesting that there was some prepayment in that year. Debt total obligations for UAF in FY 2020 (peak) will be \$22 million, after which they gradually decrease to \$16,871,000 in FY2028. UAA has some debt service (approximately \$3.7 million per year), but it was not identified as such in the expenditure data available to the author and is probably included in the institutional support category.

³The fact that total expenditures are less than the GF allocation is an accurate reflection of the data provided by UA Statewide.

⁴UAF energy costs in FY 2019, inclusive of utilities (\$16.125 million), were \$17.8 million (for electricity, heat, and fuel). Source: UAF Financial Services.

APPENDIX

Red font indicates expenditures that are relatively fixed (that is, they will not decrease proportionally to losses in enrollment or research activity or overall employee headcount), including debt service and operations & maintenance of buildings. Of course, the costs are not absolutely fixed—maintenance is often deferred when funding is limited—but buildings will deteriorate if these expenditures are not made. Facilities services administrative costs (and UAF janitorial costs) were not included in these figures, because presumably they are subject to reduction. Those costs are included in the institutional support totals. “Institutional Support” represents administration and administrative services that cannot be attributed to instruction, research, or public service specifically; examples would include financial services, environmental health & safety & risk management, and the chancellor’s office, among many other units. “Student Related” costs are non-instructional costs such as Intercollegiate Athletics, other campus recreation, advising, and administrative services (such as departmental administrative assistants and dean’s offices) that primarily serve students.

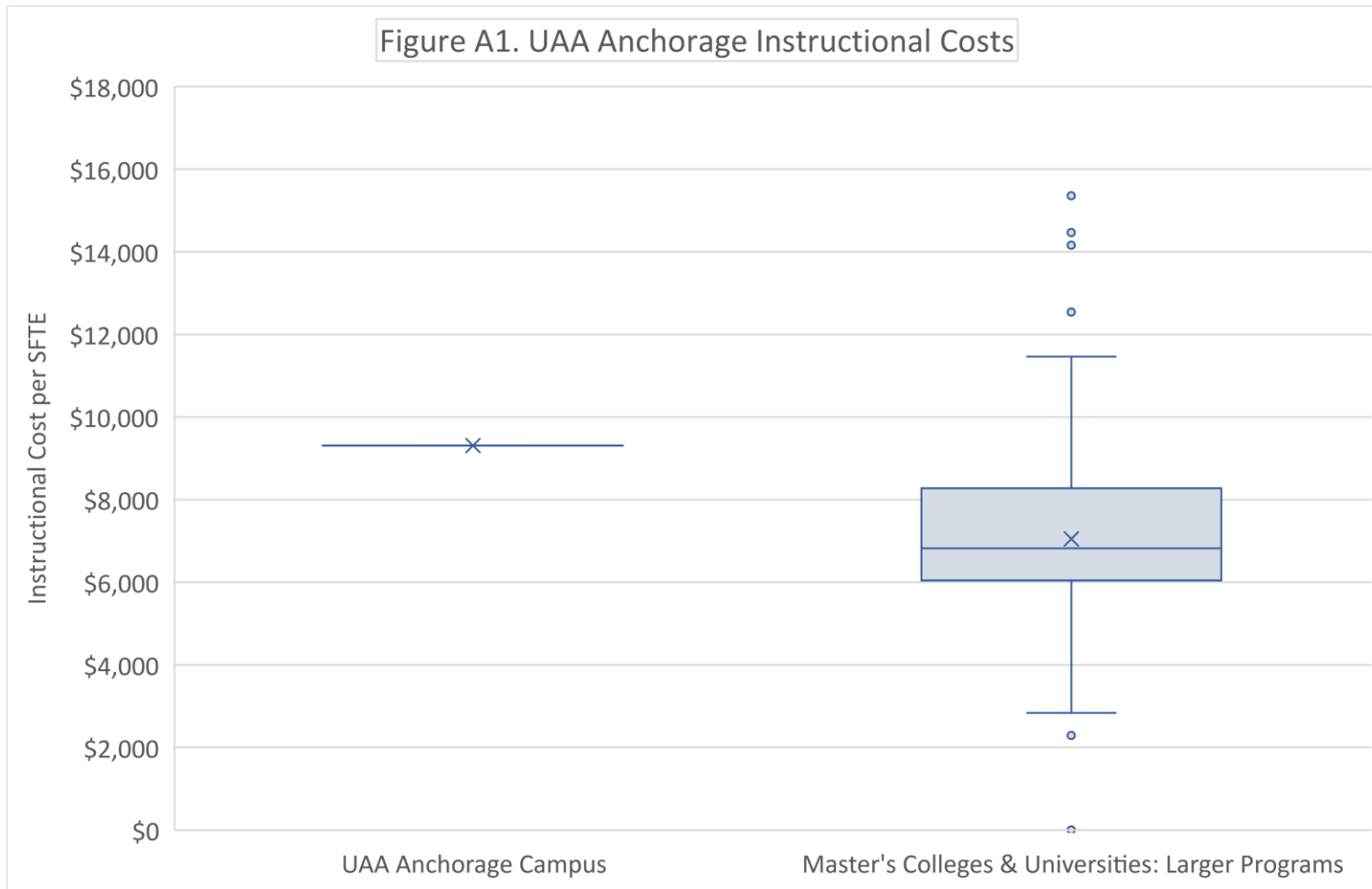
The “student related” category is inflated for UAF because it includes some expenditure categories, such as much of IT, that are not included for UAA, where those expenses were allocated to institutional support. The UAF “student related” category also includes the UAF Museum (which does not primarily serve students, but rather is a research and public service unit) and Library, which at UAF incurs considerable costs in support of research, including purchasing expensive publication databases. The “student related” category includes substantial federal revenue, about \$27 million for UAF and UAA together, which is mainly Pell Grants.

In interpreting Table A3 it is important to note that the amount of a given cost covered by State Unrestricted General Funds and other unrestricted funds, such as tuition and fees and indirect cost recovery from grants & contracts, is at the institution’s option. UAF directs more of its tuition revenue to partly cover instructional facilities costs, for example, while UAA allocates more to instructional costs. Hence, tuition and fee revenue is not equal to the difference between total instructional expenditures (third column from the left) and General Fund instructional expenditures (second column). The “all funds total” column of Table A3 includes restricted, auxiliary or recharge, and designated funds as well as unrestricted funds. Those are particularly large in the case of UAF research but are significant in most of the expenditure categories at both UAA and UAF. Further, generated revenue is not necessarily expended by the unit(s) or universities that generated it. For example, some UA Statewide non-General Fund revenue is generated by charges to UAA, UAF, and UAS.

APPENDIX

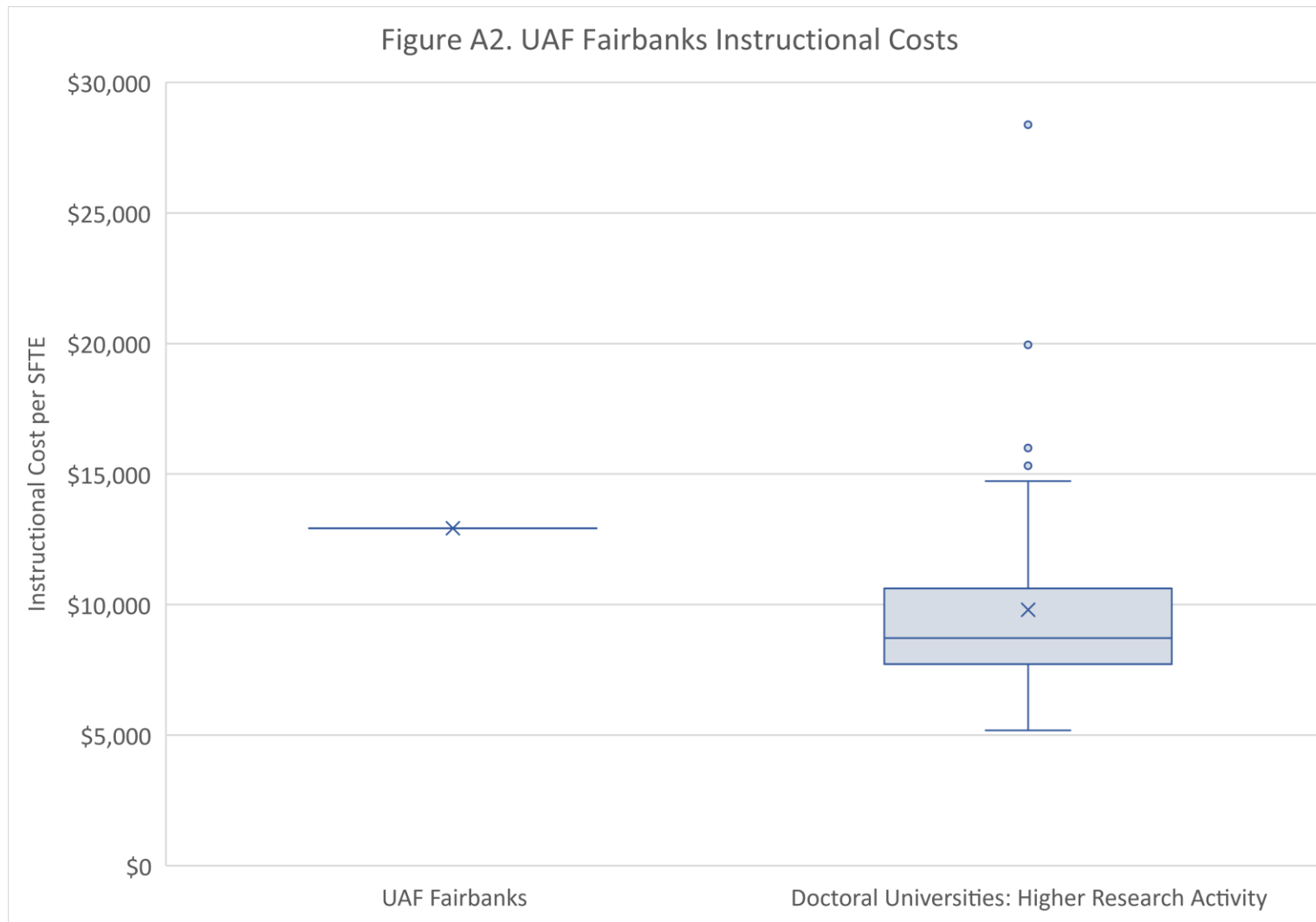
Figures A1, A2, A3, and A4. The comparison data are from the National Center for Education Statistics, IPEDS (Integrated Postsecondary Education Data System), FY 2017. Data for all public institutions in a given Basic Carnegie Classification (<http://carnegieclassifications.iu.edu/>) are plotted. The Carnegie Classification is based on the level(s) of programs offered and other institutional characteristics that vary with the particular category. Associate's Colleges are further subdivided by whether they offer mainly transfer degrees or career & technical degrees and whether they serve traditional or non-traditional students. Master's Universities are subdivided by the number of master's degrees awarded each year. Doctoral Universities are classified by research expenditures, the number and fields of doctoral degrees awarded annually, and postdoctoral staff numbers. For each of the box plots, X is the average; the top, mid, and bottom lines of the box represent the 3rd quartile, median, and 2nd quartile boundaries; and the lines extending upward and downward represent the range. Separate points above and below the range are outliers. The University of Alaska data are for FY 2018. For all UA data points, the cost per SFTE (student full-time equivalent) were divided by 1.3 to account for the higher Alaska Cost of Living (The Cost of Living. July, 2018. Neal Fried, *Alaska Economic Trends*, Alaska Department of Labor & Workforce Development, Volume 38, Number 7, <http://labor.alaska.gov/trends/jul18.pdf>). Note that the Cost of Living in remote rural communities is substantially greater, but the *Alaska Economic Trends* article did not provide useable data except for Anchorage, Fairbanks, and Juneau.

APPENDIX



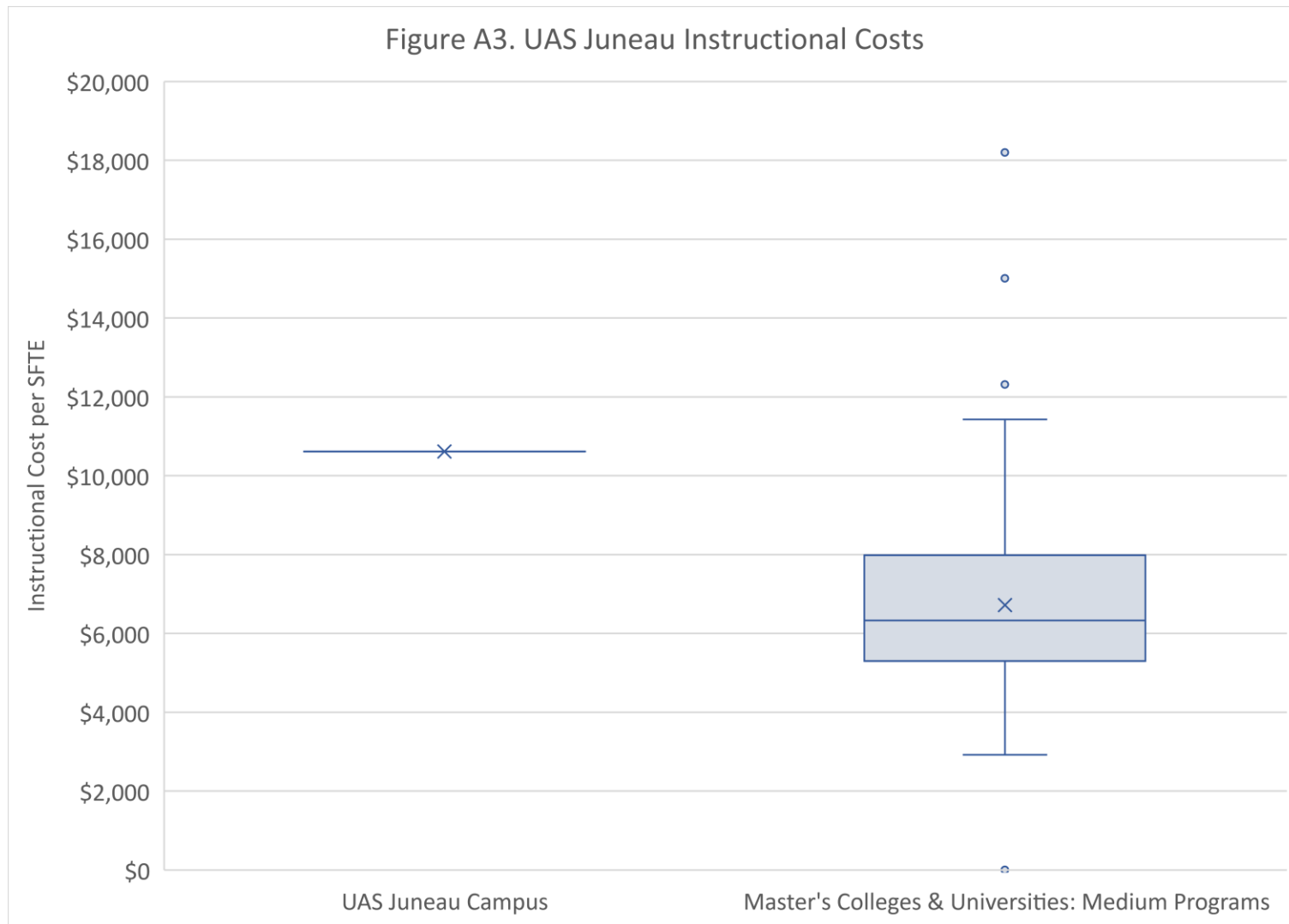
Note: UAA Anchorage costs include the embedded Community and Technical College and associate level programs offered by other units, such as the College of Business and Public Policy.

APPENDIX



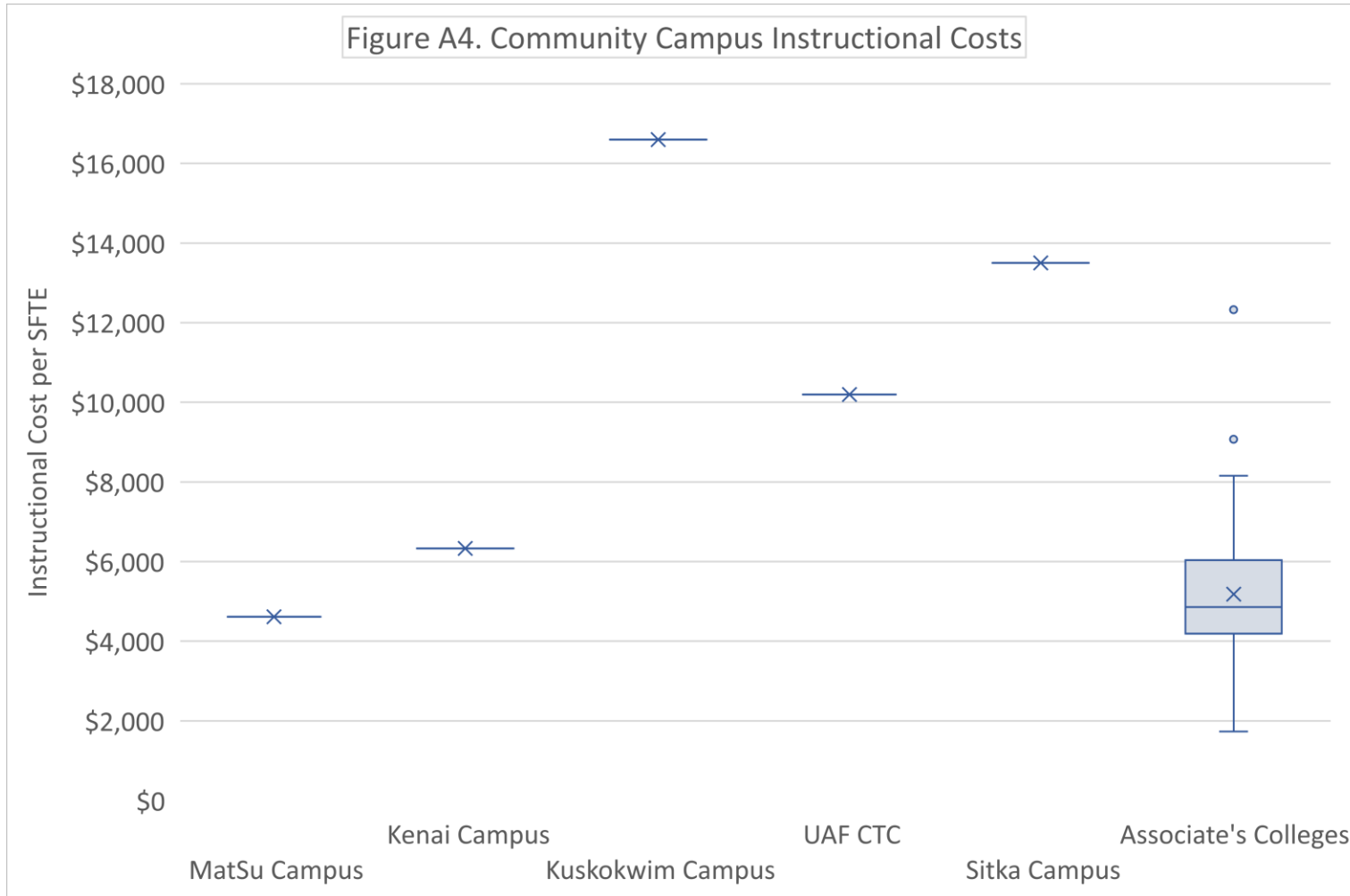
Note: UAF Fairbanks Campus does not offer Associate-level programs, except for the very small Alaska Native Language Education program.

APPENDIX



Note: UAS Juneau costs include the embedded College of Career Education, which offers associate level programs.

APPENDIX



Notes: Institutional data from the Carnegie Classification Associate's Colleges: Mixed Transfer/Career & Technical [Academic Programs]-Mixed Traditional/Nontraditional [Students] were used. A constant Cost-of-Living factor of 1.3 was used for the UA campuses, which is lower than the actual Cost of Living for Bethel (Kuskokwim Campus) and Sitka.