

Strategic Plan, University of Alaska Fairbanks

Goal 3: Achieve Tier 1 research status

Who do we want to be? Achieving Tier 1 status will elevate UAF to a prestigious class of doctoral-granting U.S. universities with “very high research activity” as defined by the Carnegie Classification system. Attaining Tier 1 research status can provide global recognition for our high research productivity; enhance our competitiveness for funding; attract globally competitive faculty, staff, and students to improve the quality and caliber of UAF research and education; increase student enrollment; and provide economic benefits to the broader Fairbanks community and beyond. For these reasons, achieving Tier 1 research status captures an important aspect of UAF’s long-term strategic research vision. UAF’s research strategic vision extends beyond the metrics highlighted by the Carnegie Classification to prioritize educating our students, preparing a skilled Alaska workforce, connecting with Alaska Natives and engaging with fellow Alaskans.

Who are we now? UAF ranks as a Tier 2 “high research activity” university, according to the Carnegie Classification system, with about one-third of UAF’s total revenue and expenditures associated with externally supported research. UAF excels in science, technology, engineering and math fields, and research expenditures in this category are on par with Tier 1 universities. In comparison to small to medium-sized Tier 1 universities, UAF is challenged by a combination of relatively low tuition revenue and low proportions of other core revenue sources. UAF research is largely STEM focused, with 70% of Ph.D. programs and 57% of the doctoral degrees awarded falling under the STEM umbrella. Our unique location and natural laboratory environment make us a research destination for scientists around the globe and have helped position us as the top Arctic-research university in the world. We also have excellent support for undergraduate research through programs such as the Biomedical Learning and Student Training and Undergraduate Research and Scholarly Activity programs. Additionally, we are one of only 41 (out of 260) Tier 1 and 2 universities to be a minority-serving institution, and one of only 57 to be a land-grant university.

How do we get there? The Carnegie Classification considers seven metrics to determine which universities attain Tier 1 status, including: the number of doctoral degrees awarded in four categories — STEM, Humanities, Social Sciences and Other/Professional Fields; research expenditures in STEM and non-STEM fields; and research staff (non-faculty with Ph.D.s) employed. Based on our analysis of 2015 data, we find that two plausible and relatively direct pathways to achieve Tier 1 status include:

- Quadrupling Ph.D.s in STEM, Humanities, Social Sciences and Other/Professional Fields.
- Doubling non-STEM research expenditures.
- Doubling research staff.

-or-

- Increasing Ph.D.s in STEM, Humanities, Social Sciences and Other/Professional Fields by a factor of five.

Proposed mechanisms to achieve Tier 1 goals: Our committee has identified the following mechanisms to elevate these metrics in ways aligned with UAF's core mission:

- Prioritize tracking and utilizing Tier 1-relevant metrics to guide strategic decisions and evaluation of research and academic unit performance.
- Incentivize the development of multidisciplinary research themes and networks to foster cross-campus multidisciplinary research, increase funding opportunities, promote integration of teaching and research, and increase non-STEM Ph.D. research opportunities.
- Strengthen and grow new Ph.D. programs in the Humanities, Social Sciences and Other/Professional categories, and expand existing Ph.D. programs across all fields to provide broader accessibility through distance-only programs.
- Provide competitive Ph.D. fellowship opportunities for UAF students to enhance the number of high-quality Ph.D. students accepted across all fields, reduce the financial burden of graduate students on UAF faculty mentors, improve graduate student productivity and increase doctoral degree completion rates.
- Provide incentives and opportunities for all faculty to mentor graduate students and conduct research to increase student research opportunities, doctoral degree completions and integration of undergraduate students in research across all disciplines.
- Recruit and retain excellent faculty to compete for research grants and mentor graduate students through initiatives that facilitate equity, job flexibility and work-life balance.
- Incentivize the recruitment and cultivation of postdoctoral fellows and research staff to help advance us to Tier 1 while providing a pool of high-quality prospective faculty.
- Increase diversity and equity across campus to foster research innovation and achieve a welcoming campus environment.

Concluding remarks: Attaining Tier 1 research status is an ambitious goal that will require a long-term and dedicated commitment across campus to fully realize. UAF excels relative to our peers in successfully competing for external research funding and generating highly cited products from this work, suggesting that we are doing exceptionally well for our size. At the same time, UAF is challenged by low tuition revenue and limited revenue sources. We recommend that UAF procure new sources of revenue to provide long-term financial stability to help pursue Tier 1 research status. We expect that striving toward this goal will result in numerous advances in UAF's research capabilities and productivity, including increased cross-campus collaboration, improvements in student and employee morale, and better integration of research with teaching to improve the overall quality of UAF education. We recommend that in conjunction with and complementary to pursuing Tier 1 research status, UAF also strive to maintain the high quality and applicability of our research; to better integrate research and

education; and to create a research environment that fosters employee and student satisfaction, collegiality, and collaboration, in alignment with UAF's core themes and mission.