

## Research

An economic and educational force, our world-renowned reputation attracts students and top faculty to Alaska.



Most federal research funds require state matching funds; reducing funding would cost millions in lost revenue.

# University Research Activity

*Vital to teaching, industry and the future of Alaska*

## RESEARCH ACTIVITY IS CRITICAL TO ALASKA

UA research helps Alaska. Research that is focused on the opportunities and challenges unique to our state helps identify new economic opportunities and create options for the future.

- Research efforts address major issues including: energy efficiency, improved building techniques to reduce Alaskans' heating bills, petroleum engineering to improve access to resources, marine biology to understand and maintain the health of our fisheries, sea ice dynamics that inform our understanding of opportunities in the Arctic, economic research to inform fiscal policy, and crime and justice studies focused on addressing Alaskan issues.
- In FY15, 81 percent of research grant and contract expenditures were directly related to Alaska's needs.
- Research helps Alaska industries and businesses plan and prosper in Alaska's challenging environment.

## EXPANDING THE CLASSROOM EXPERIENCE

Research and service activities compliment UA's instructional activity. Research projects offer students the ability to apply classroom learning and become directly involved in generating new knowledge. Research grants often fund graduate students, and sometimes undergraduates, assisting them financially, and gaining them valuable work experiences. Research faculty are engaged in identifying new discoveries and understanding that advances the education of the future. Research activity directly leads to innovation in the classroom.

## RESEARCH LEVERAGES STATE FUNDING

Without unrestricted general fund support the vast majority of UA's research as well as public service outreach activities could not be sustained. This year, UA supported approximately \$62 million in personnel services, \$27 million in contracted services and \$12 million in equipment and commodity purchases through its external grants. Most of the money that funds university research and service in Alaska comes from sources outside the state, or in-state sources such as private industry that could spend their dollars elsewhere.

A 2012 study by McDowell Group indicated that, between FY02 and FY11, competitive grants awarded to University of Alaska's campuses have accounted for approximately \$1 billion in revenue that might not otherwise have come to Alaska. Most federal funds require state matching funds. Even privately funded research requires the infrastructure, labs and top-quality faculty and research students that state investment helps support.

## **INCORPORATING ALASKA CULTURE AND HISTORY**

Alaskans and their communities need research-based information, enriched by traditional knowledge, to successfully adapt to change. Health and biomedical research explores the interface between health, disease and the environment with people and animals in collaboration with Alaska Native communities. Language and anthropological research preserves traditional knowledge and enhances cultural understanding.

## **INSIGHT ON ALASKA'S ECONOMY, SOCIAL ISSUES AND WELL-BEING**

The Institute of Social and Economic Research (ISER) at the University of Alaska Anchorage studies virtually all the major public policy issues Alaska faces. That work helps Alaskans better understand the state's economy and population— and the challenges and opportunities that come with change. From social policy and education research, to fisheries industry analysis and fiscal policy advising, ISER research benefits Alaskans and guides government agencies, private businesses, libraries, the press and individual Alaskans in decision making and weighing options in Alaska's ever-changing social and economic climate.

## **WORLD LEADER IN ARCTIC RESEARCH**

The University of Alaska Fairbanks is a recognized world leader and international collaborator in arctic research. UAF recruits and retains top research faculty and students and maintains modern, world-class research facilities, equipment and infrastructure.

UAF is home to the Arctic Fullbright Program a research effort of the federal government and the eight nations of the Arctic Council.

The University of Alaska Fairbanks is published and cited more than any other university in the world on Arctic research.

## **CHANGING ICE FIELDS AND OCEANS**

The University of Alaska Southeast is a leader in glacial, temperate rainforest, and fisheries research and a hub for multi-agency research programs. Located on the ocean and along one of the largest icefields in North America, UAS is a center for marine biology and environmental science. From researching possibilities for new industries, studying the effects of climate change, and finding ways to reduce the bycatch for commercial fishermen, UAS research is critical to the economy of Alaska. A long term Icefield to Estuary project in collaboration with UAF and state and federal agencies is a prime example of UA campuses working together on research that brings in federal money, talented faculty and students.

## **UA leverages grants and research to benefit Alaskan:**

- Economic development,
- Alaska based industry,
- Public service,
- Training and instruction,
- Research on state related priorities and areas of concern,
- International reputation