

RCUH

Research Corporation
of the University of Hawai'i

DEPT. COMM. NO. 357

2021 ANNUAL REPORT



WELCOME

The University of Hawai'i (UH) celebrated 2021 as another near-record funding year with many notable achievements across the research community. The State of Hawai'i, and UH in particular, was very fortunate to continue to receive funding for extramural research from the federal government, despite difficulties associated with the COVID-19 pandemic.

Similar to years past, this report provides interested persons with information about RCUH, the work that we do, the accomplishments of our work, and the people we support. It also serves to provide the opportunity to celebrate the people who contribute to advancing our mission to support and enhance research, development, and training in Hawai'i, with a focus on UH. As always, this includes RCUH's core staff, whose daily work makes it possible to deliver timely and efficient support and resources to our research community. This has been especially true during the pandemic. Aloha and mahalo to everyone for their hard work and commitment during these trying times!

RCUH continues to invest in technology and professional staff to improve its client services as efficiently and cost-effectively as possible. We are committed to making the necessary changes to keep up with the changing landscape of research and recently finalized RCUH's strategic plan for the next five years. As we begin the process of building on our foundation, we will continue



Leonard Gouveia, Jr.
Executive Director



Eugene Bal III
Board Chair

to focus on improving our services and increasing our value to UH and the State of Hawai'i.

Like past reports, information relating to RCUH's financial and personnel status is for the fiscal year (July 2020–June 2021), while program reports are for the calendar year. Once again, it is worthy to note that the reviews of external auditors indicate RCUH is operating without any major weaknesses. Despite this accomplishment, RCUH and UH are under scrutiny by the Legislature relating to some of the practices that have been implemented and used for many years. We are working closely with UH to address the Legislature's concerns and make the appropriate changes necessary to ensure that we are operating as intended.

Finally, we acknowledge and thank our RCUH Board of Directors for their support and guidance throughout this past year. We look forward to working closely with them during the upcoming year as we implement the [2022–2026 RCUH strategic plan](#). We hope you find this report interesting and helpful and encourage anyone to reach out to us if there are any questions or concerns. This report is also posted at www.rcuh.com for your convenience.

Cover photo courtesy Keoki Stender

ABOUT US

The Research Corporation of the University of Hawai'i (RCUH) was established by the Hawai'i State Legislature in 1965 as a public instrumentality and is attached to the University of Hawai'i (UH) for administrative purposes.

To fulfill its mission, RCUH is exempt from certain State procurement and personnel laws. This allows RCUH to provide rapid and efficient services that enable its clients to be more productive and to meet their research, development, and training objectives in a timely manner.

OUR VISION

A Hawai'i where research, development, and training flourish and energize a prosperous state economy.

OUR MISSION

To support and enhance research, development, and training in Hawai'i with a focus on the University of Hawai'i.

RCUH BOARD OF DIRECTORS

The affairs of the Research Corporation of the University of Hawai'i are under the general management and control of its eight-member Board of Directors.



Eugene Bal III
Board Chair



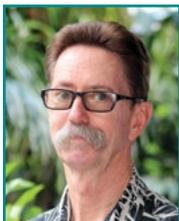
Kelli Goodin
Vice Chair



Ken Hayashida



David Karl



Michael Maberry



Diane Paloma



Joseph Pickard



Vassilis Syrmos

ALOHA 'OE!

Mahalo to our two outgoing board members who completed their term at the end of the 2021 fiscal year. You'll be missed!



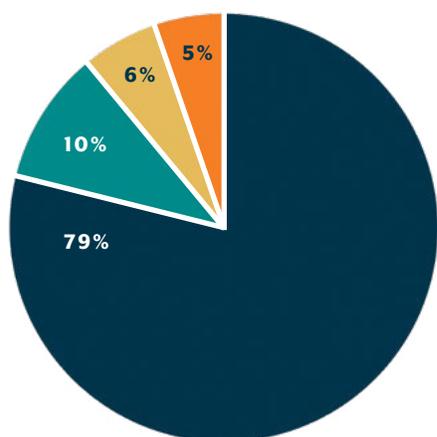
Donna Ikeda



Jan Sullivan

FINANCIAL & HR REPORT

VOLUME OF BUSINESS BY PROJECT TYPE



Total Volume of Business:
\$261,295,061

- **UH EXTRAMURAL PROJECTS (\$206,162,197)**
 Externally sponsored federal and non-federal contracts, grants, and other agreements

- **UH REVOLVING PROJECTS (\$26,381,785)**
 Self-sustaining, income-generating projects established to support a specialized service activity, a recharge center, or other sales and service activities

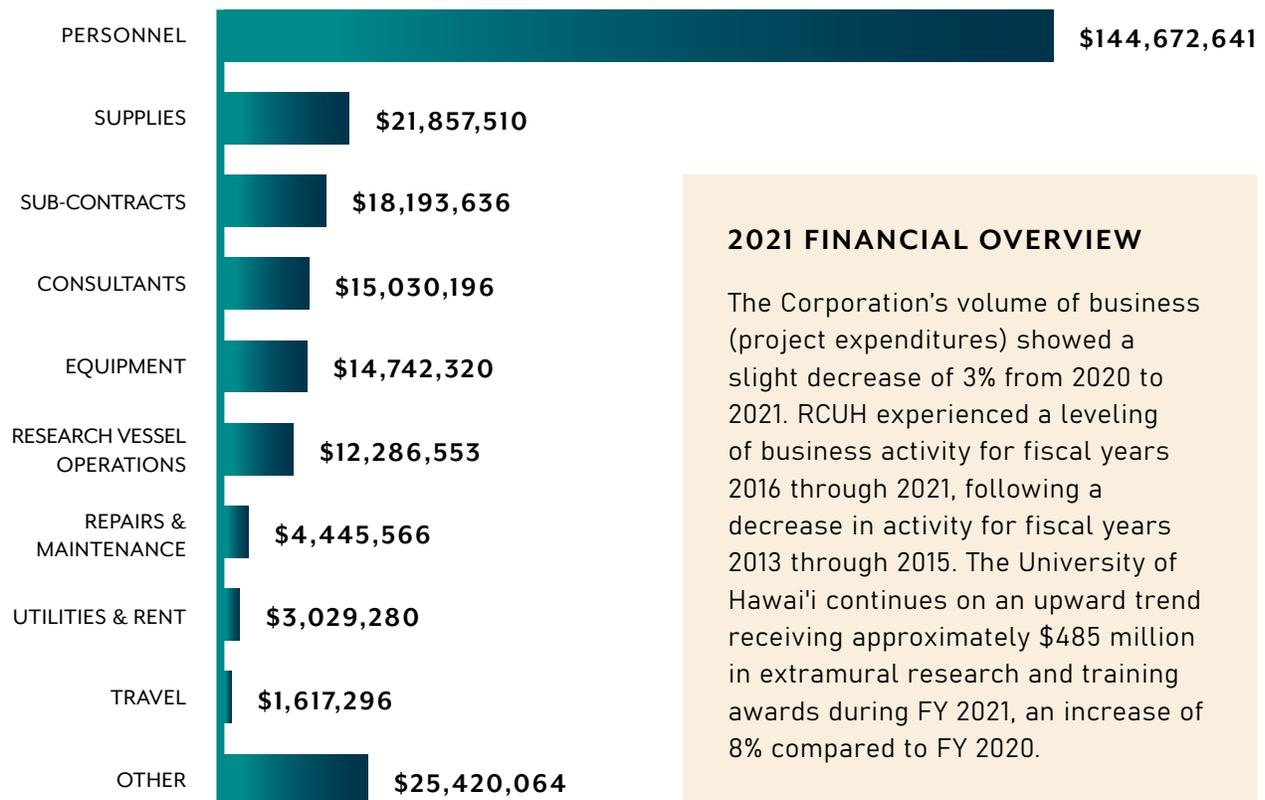
- **UH INTRAMURAL PROJECTS (\$15,026,236)**
 Internally sponsored programs or activities funded with UH Research and Training Revolving Funds (RTRF) or Tuition and Fee Special Funds (TFSF)

- **DIRECT PROJECTS (\$13,724,843)**
 Projects assigned to and accepted by RCUH from non-UH organizations, including federal and State agencies, international organizations, and other not-for-profit organizations

PROJECTS BY COUNTY

COUNTY	NO. OF PROJECTS	NO. OF EMPLOYEES	VOL. OF BUSINESS
HONOLULU	3,183	1,582	\$213,285,627
HAWAI'I	404	555	\$28,041,529
MAUI	129	297	\$18,814,254
KAUA'I	20	58	\$1,153,651
STATEWIDE	3,736	2,492	\$261,295,061
OTHER (Continental U.S. + International)		160	

FY 2021 FINANCIAL EXPENDITURES



2021 FINANCIAL OVERVIEW

The Corporation's volume of business (project expenditures) showed a slight decrease of 3% from 2020 to 2021. RCUH experienced a leveling of business activity for fiscal years 2016 through 2021, following a decrease in activity for fiscal years 2013 through 2015. The University of Hawai'i continues on an upward trend receiving approximately \$485 million in extramural research and training awards during FY 2021, an increase of 8% compared to FY 2020.

TRANSACTIONS BY FISCAL YEAR

TRANSACTIONS	FY 2021	FY 2020	FY 2019
TIMESHEETS/eTIMESHEETS	57,379	56,089	55,612
VENDOR PAYMENTS	29,981	42,381	48,743
NON-PO PAYMENTS	16,983	25,381	29,326
PURCHASE ORDERS	9,997	12,711	14,919
TRAVEL REQUESTS/COMPLETIONS	3,256	14,178	17,900
CASH RECEIPTS	6,316	9,176	10,313
W-2'S ISSUED	3,574	3,385	3,429
TERMINATIONS	1,445	1,388	1,398
NEW HIRES	1,633	1,375	1,439

2021 YEAR IN REVIEW

COVID-19 UPDATE

The University of Hawai'i (UH) and RCUH worked together to have employees prioritized for the COVID-19 vaccination during the initial rollout in February 2021. Both UH and RCUH employees received an early invitation to get vaccinated and most individuals took advantage of the offer. Employees were granted up to two hours of paid administrative leave if they were scheduled to receive the vaccine on a work day.

RCUH continued to distribute updates to employees, PIs, and FAs throughout the pandemic. It released six additional advisories, which discussed the anticipated return to the workplace and the implementation of Governor David Ige's August 5, 2021 emergency proclamation. Governor Ige mandated COVID-19 vaccinations or weekly testing for all state and county employees effective August 16, 2021, which included the University of Hawai'i and RCUH. RCUH responded by developing a data app in Employee Self-Service, in which employees could securely upload their vaccination cards and/or weekly test results. Principal Investigators and supervisors could also use the My COVID-19 Data App to pull reports on their employee's compliance.

On December 3, 2021, RCUH released its formal COVID-19 policy, which required mandatory COVID-19 vaccinations for all current employees and new hires working in the United States, excluding individuals who applied for and were granted a religious or medical accommodation. The policy was scheduled to go into effect January 4, 2022, however, due to fluid conditions and evolving guidelines at the county, state, and federal level, RCUH later announced that its COVID-19 policy was under further review.



NEW DIRECT PROJECT

RCUH secured a new \$4.3 million Direct Project with the State of Hawai'i's Office of the Governor, effective March 1, 2021. The project operates under the Governor's Emergency Education Relief (GEER) Fund and the U.S. Department of Education. The award provides local educational agencies, institutions of higher education, and other education-related entities with emergency assistance resulting from COVID-19.

GEER projects funded through RCUH include Innovation Grants for educational entities to provide immediate relief, to significant impacts from COVID-19 with special emphasis on (1) digital equity for access and connectivity, (2) effective ways to deliver parent education, parent training, and family support, and (3) innovative practices to achieve the Global Learner Outcomes.

LEGISLATIVE ACTIVITY

The 2021 legislative session kicked off with the introduction of Senate Bill 1393, which aimed to place an unspecified cap on the management fees RCUH charges UH to support research and training. Both UH and RCUH testified in opposition of the bill, which resulted in the adoption of Senate Resolution 148 and Senate Concurrent Resolution 183. These resolutions requested that the University of Hawai'i convene a task force to examine and assess its arrangement for services with RCUH, including the terms and conditions of the Internal Agreement and whether amendments are warranted. Both resolutions were adopted and the task force was formed. It was comprised of the UH Vice President for Research and Innovation, RCUH Executive Director, RCUH Director of Finance, UH Board of Regents Chair (or designee), and three members appointed by the UH President to represent the UH System.

The task force met regularly and in late 2021, the group submitted its [report to the legislature](#) with four recommendations:

- 1) Tie the management fee to UH's Facilities & Administrative cost (F&A Recovery)
- 2) Reduce service orders to RCUH
- 3) Improve compliance by integrating systems
- 4) If RCUH must maintain a separate financial system, consider phasing to another funding model for major infrastructure investments

In addition to the bill and resolutions, wide-ranging inquiries from legislators continued post-session. Legislators held multiple briefings and requested information concerning the UH Cancer Center Early Phase Clinical Trials Facility; RCUH's acceptance of service orders from UH; RCUH revolving accounts and balances; RCUH's procurement processes; and construction procurement processed through RCUH. RCUH collaborated with the University to respond to each request as expeditiously as possible.



WORDS OF SUPPORT

"The success of the NDPTC has a lot to do with the administrative support and the flexibility of the RCUH, and for that, we continue to be thankful and appreciative of the support received from RCUH."

Karl Kim, UH Mānoa Social Science Research Institute, National Disaster Preparedness Training Center

"RCUH staff are very timely and prompt in their communication and they politely and resourcefully help us resolve any issues. Our HHDW team is very grateful for the administrative, fiscal, and HR support we have received over the years from RCUH as this is an integral part of running a successful research team and has allowed us to sustain our project goals to benefit the Hawai'i community."

Rebekah Rodericks, UH Mānoa Office of Public Health Studies, Hawai'i Health Data Warehouse

"RCUH has been critical in grants management and employee hiring and management for our program. Staff have uniformly been helpful when any questions arise."

J.B. Friday, UH Mānoa College of Tropical Agriculture and Human Resources, Natural Resources & Environmental Management

RCUH VIRTUAL FORUM

The fourth annual forum, "Foreign Intrusion into Academic Research & Training," was held on April 29, 2021, and live-streamed to an audience of approximately 120 attendees. While most foreign students, researchers, and professors are studying or working in the U.S. for legitimate reasons, foreign governments have been seeking to influence, interfere, and, in some cases, steal research from American universities for many years. As federal research funding increases, it's important for university researchers to be aware of the potential threats and understand how to protect their research and intellectual property.

The panelists—Shawn Case, Counterintelligence Special Agent, Defense Counterintelligence and Security Agency (DCSA); Nina Epton, Special Agent, Naval Criminal Investigative Service (NCIS); and Jodi Ito, Chief Information Security Officer, University of Hawai'i System—enlightened attendees by explaining why and how foreign adversaries are targeting universities, including the University of Hawai'i, and provided best practices for safeguarding research. A report was also published online for those unable to attend.

HR PORTAL ENHANCEMENTS

The RCUH Human Resources Department needed to quickly develop several PeopleSoft enhancements as a result of two new federal laws affecting employee benefits. Changes in the laws now permit a COBRA subsidy for terminated employees, who previously declined COBRA, but would have qualified; unlimited rollovers for medical flexible spending accounts (there will be no forfeitures through 2022); and doubling dependent care coverage for the period of July 1 – December 31, 2021. The IT enhancements ensure that PeopleSoft can track these new offerings so that RCUH can produce the required data to the Internal Revenue Service.



RCUH BY THE NUMBERS

199

Number of SuperQUOTE™ Awards. This represents a 25% increase over the previous year.

439

Number of online courses available in the RCUH Training Portal. This represents a 23% increase compared to 2020.

513

Number of new users enrolled in the RCUH Training Portal. This represents a 19% increase in users from the previous year.

61,471

Number of electronically signed documents in 2021 via Adobe eSign. Documents were completed in a median time of 96 minutes.

NEW STRATEGIC PLAN

It was a year of transition as RCUH closed out the 2017–2021 strategic plan and began to conceptualize the path for the next five years. Throughout 2021, RCUH leadership has communicated with various stakeholders, including UH administrators, researchers, project staff, core staff, and others, to gather input on RCUH's services and performance, and to identify pertinent issues and goals.

To assist with this process, RCUH acquired the services of Dr. Peter Adler, who helped develop RCUH's 2017–2021 strategic plan. He held one-on-one discussions with each board member and led a "crystal ball session" with UHERO Executive Director Carl Bonham, UH President David Lassner, and Public Policy Center Director Colin Moore to predict trends, opportunities, and challenges up ahead.

RCUH also received in-depth feedback from a March 2021 questionnaire that was distributed to approximately 4,500 Principal Investigators (PIs), Fiscal Administrators (FAs), and project staff. A majority of participants rated that they were very satisfied/satisfied with RCUH's Financial and HR services and 73% were very satisfied or satisfied with RCUH as a whole.

When asked to rank RCUH's priorities for the next five years, these were the top three priorities participants identified:

- Increasing administrative efficiency
- Improving IT systems (i.e., HR, Finance, Training portals)
- Helping researchers generate funds (i.e., grant writing, finding funds)

Using this feedback, RCUH carefully crafted the new strategic plan, while anticipating a variety of obstacles over the next five years.



2022-2026 RCUH STRATEGIC PLAN

RCUH's 2022–2026 strategic plan was adopted by the RCUH Board of Directors on December 14, 2021. It serves as the basis of a living document to be reviewed annually. Although the four primary goals will remain relatively consistent, additions and revisions may be made to the objectives and benchmarks as conditions change.

Here are RCUH's key goals over the next five years:

GOAL #1

Evaluate and implement recommendations from the RCUH Task Force.

GOAL #2

Clarify RCUH's identity with UH and the State.

GOAL #3

Reform RCUH's internal operations.

GOAL #4

Increase engagement and outreach to clients.

2017-2021 STRATEGIC PLAN RECAP

Goal #1: Enhance operations and services to improve quality services.

Implement recommendations of the 2015 Hawai'i State Auditor's report.

In a 2018 follow-up report, the Hawai'i State Auditor determined that RCUH had implemented all 11 recommendations from the 2015 Hawai'i State Audit report.

Develop and implement an IT roadmap that aligns with the RCUH Strategic Plan.

An IT Council, composed of the RCUH Leadership Team and IT vendors, was established and helped to develop the IT roadmap. Major initiatives included the upgrade to PeopleSoft 9.2, the migration of the financial system platform to the cloud, and the establishment of an interface between the Finance and HR systems.

Migrate to a paperless environment.

RCUH has implemented many new services and enhancements to migrate to a paperless environment, such as electronic timesheets. One of the most critical enhancements is the utilization of Adobe eSign, which allows users to route documents for electronic signature via email, and proved to be vital as projects shifted to remote work during the pandemic.

Continue to recruit, hire, & retain quality staff.

In a confidential 2017 survey of RCUH's core staff, 85% recommended RCUH as a good place to work and 82% said they were satisfied with their job. Four years later, morale has decreased as core staff has taken on more work with no pay increases in

recent years. In a 2021 survey of RCUH's core staff, 77% maintained that they were overall satisfied with their job.

Goal #2: Enhance the ability of core and project staff to provide effective services to research, development, and training projects.

Develop and implement a professional development program for RCUH core and project staff.

In February 2018, RCUH launched the Training Portal, which has grown increasingly popular during the pandemic. There are currently more than 2,600 active users, 400+ general interest courses, and 22 custom courses/user guides to support both project and core staff.

Develop an educational outreach program for new projects.

RCUH developed an informational packet to new Principal Investigators to acquaint them with RCUH services. RCUH also developed and produced an online new hire orientation video, which freed up staff time and ensured that everyone was receiving the same message, no matter the location.

Goal #3: Improve and expand communications at all levels.

Present a professional and uniform image across all platforms.

With a new logo developed in 2015, RCUH updated its collateral to ensure that branding has been consistent in all marketing material, whether printed or digital.

Improve electronic communications.

In 2017, RCUH launched a facebook page and monthly e-Newsletter. The e-Newsletter continues to receive a high open rate, averaging 49.6% in 2020 and 2021, while the click rate fluctuates between 3.5% to 4.8%.

Strengthen partnerships with UH and non-UH administrators to support research, development, and training.

RCUH collaborated with UH to address mutual issues, such as the backlog of requests to establish positions at RCUH. RCUH worked with UH to revamp the Attachment B Authorization process and also worked with OVPRI to develop training modules.

Goal #4: Expand services to non-UH research, development, and training projects.**Increase awareness of RCUH services among key non-UH officials.**

The former executive director frequently met with representatives from state agencies, county offices, and legislators to inform them of RCUH services. ED Gouveia continues outreach efforts to increase RCUH's visibility.

Increase number of non-UH research, development, and training projects.

RCUH continues to add new direct projects every year, but the overall number has decreased as projects close. The number of direct projects saw a slight increase in 2021 with 33 projects compared to 32 the prior year.

Goal #5: Serve as convener to highlight issues of importance to research, development, and training in Hawai'i and the Pacific region.**Conduct forums in which issues are addressed.**

The inaugural forum "Federal Landscape: What's Ahead for Research & Training?" was co-sponsored by UH and UHARI. Other

forum topics included cybersecurity, foreign intrusion into academia, and federal funding opportunities, which was presented by U.S. Senator Brian Schatz.

Develop forum reports that include a summary of the proceedings

RCUH produced a detailed report after each forum and posted it online for those who were unable to attend the in-person or virtual event.

Goal #6: Secure revenues to ensure financial security and quality services.**Identify new initiatives to generate revenues.**

Several new sources of revenue were identified, such as converting additional cash into Time Certificates of Deposit, implementing ePayments (which provided credit card rebate revenue), and working with First Hawaiian Bank to broaden RCUH's investments nationwide, allowing it to search for higher yields.

Practice responsible stewardship and use of resources.

The initial benchmark was to maintain the reserves at \$3 million or higher, but it was changed in 2018 to "Rebuild working capital reserves to \$7.5 million," which was never achieved. The use of RCUH reserves has been discussed recently by the RCUH Board of Directors and will be evaluated as RCUH faces a 10% cap on the UH management fee.

Review project revenue streams and develop schedule of rate increases, if warranted.

Between 2000 and 2017, the RCUH indirect cost rate for direct projects had ranged from 3% to 6%. The then-current rate of 3.5% had not changed since 2014 despite increases in expenses and inflation. In order to continue providing the services required by RCUH's clients and in light of the organization's budgetary situation, the indirect cost rate for non-governmental direct projects was increased to 5% of total direct cost (TDC) effective January 1, 2018.

PROJECT SPOTLIGHT

SIMTIKI SIMULATION CENTER OFFERS A SAFE LEARNING SPACE FOR MEDICAL FACULTY AND STUDENTS

The COVID-19 pandemic pushed healthcare workers to the breaking point with many leaving the industry altogether. This strain on the healthcare community has made the demand for medical professionals even greater. The John A. Burns School of Medicine (JABSOM) at the University of Hawai'i at Mānoa graduates dozens of medical students every year, but COVID-19 restrictions created complications in 2020.

A group of students faced a predicament when they needed an in-person clerkship to graduate, despite students not being allowed in clinical environments. This is when the SimTiki Simulation Center stepped in. The staff at SimTiki created custom scenarios and scripts to develop an emergency medicine simulation to fulfill that requirement, which allowed the students to graduate on time.



Dr. Jannet Lee-Jayaram monitors a paramedic student practicing on an infant medical manikin at the SimTiki Simulation Center, which facilitates over 3,000 simulation-based training encounters annually.

“It’s an example of how we not only adjusted and adapted, but allowed the usual educational processes to continue in a really critical way,” said SimTiki Director Benjamin Berg, who has led the program since 2005. JABSOM was an early adopter of simulation-based education and since its inception SimTiki has grown to become one of the leaders in the field. It was one of the first centers in the nation to be accredited in the fields of Fellowship Programs, Teaching/Education and Research, and Assessment by the Society for Simulation in Healthcare (SSH). The center focuses on supporting simulation-based education for JABSOM faculty and students, in addition to pursuing local, national, and international alliances in the Asia-Pacific region.

One of SimTiki’s biggest challenges is increasing faculty interest in utilizing simulation technologies as teaching tools. As a pediatrics faculty member in 2013, Dr. Jannet Lee-Jayaram recalls that a light went on after completing the iSIM development course. The hands-on learning experience generated a spark that prompted her to learn more about the simulation center, where she now serves as the associate director.

“We should be learning and practicing before we do it on actual human beings in a safe place for the patients,” Lee-Jayaram said. “It’s a safe place to learn for the learners. They are in a space that is supportive and designed to activate them in a way that no other teaching method can.”



SimTiki = Simulation + Tiki. The Tiki represents the center's regional responsibilities to serve the Pacific region; it is also a Polynesian figure which is visually similar to that of a human, correlating to the medical manikins used in simulation, as shown above. Photos courtesy SimTiki.

Kris Hara runs the daily operations and technology at SimTiki, in addition to handling the teaching interfaces with instructors. She maintains eight medical manikins, which can mimic vital signs and symptoms, and range in price from \$25,000 to \$70,000. Hara noted that SimTiki also serves as a community resource, and allows a variety of healthcare partners to use the facility or attend training, including the City & County Paramedic Program, Queen's Hospital, Tripler Army Medical Center, and Hawai'i Pacific Health. SimTiki also hosted student groups from middle and high school to promote healthcare as a possible career choice.

The COVID-19 pandemic suspended those student visits, and also forced SimTiki to cancel its international overseas programs, and design a web-based faculty development version of the suspended courses. However, the on-site international fellowship program at SimTiki was able to continue, and in fact recruited record numbers of applicants from Korea, Japan, and Thailand, who experienced some delays in starting. While the paperwork

for visas can be taxing and take months to process, recruiting participants across Asia has provided a positive intellectual shared experience with people from different cultural backgrounds.

To adjust to the delay of international fellow arrivals, SimTiki developed a pre-fellowship online course called SPOT, and transitioned most international faculty development programs to both synchronous and asynchronous online learning. Fortuitously, SimTiki had already implemented a video capture system to record lessons, but it recently added video conferencing hardware that provided the ability to broadcast classes and training around the world. This increased accessibility resulted in doubling or sometimes tripling the number of participants compared to in-person sessions.

While the world awaits the end of the pandemic and telehealth gains traction, SimTiki continues its mission of providing local and global healthcare leadership for turning technology into teaching.

ALOHA CABLED OBSERVATORY CELEBRATES 10-YEAR ANNIVERSARY UNDER THE SEA

Combining water and electricity may not seem like a bright idea, but the ALOHA Cabled Observatory (ACO) proves to be an exception. As the world's deepest cabled observatory, ACO provides researchers with electrical outlets and an internet connection nearly 5,000 meters under the sea. With the ability to plug in cameras, lights, and other instruments, ACO has continuously recorded temperature, salinity, currents, and sounds at the bottom of the Pacific Ocean for the past 10 years. Co-Principal Investigator Dr. James Potemra noted that what's unique about ACO is its location under Station ALOHA, the site of another long-term oceanographic study.

"Scientifically it is really special because the ACO is on the sea floor, Station ALOHA has a mooring from the bottom to the surface, and we also have the Hawaii Ocean Time-series program that goes out there once a month, so because of all three of those, the full water column is measured pretty intensely," Potemra said.

The desire to study the deep sea floor interested researchers at the UH School of Ocean and Earth Science and Technology (SOEST), and an opportunity arose nearly 20 years ago when AT&T donated a retired fiber-optic cable that passed near Station ALOHA to the University of Hawai'i. The National Science Foundation supported the proposal, however, the logistics to implement those plans required outside help. "Retrieving and cutting and relaying that cable would've been hugely expensive and impossible for us to do, but



A memorial plaque was deployed on ACO's 10-year anniversary to honor ACO Founder Fred Duennebie. Bottom right: The ALOHA Cabled Observatory can be seen from a camera on the ROV Lu'ukai. It uses titanium housings in order to withstand the pressure of being three miles underwater and eliminates corrosion.

the Navy donated their time and got it done," Potemra said. The collaboration resulted in one of the first cabled observatories on the sea floor.

Over the past decade, ACO has faced a variety of challenges, including water seeping into electrical cables and connectors, flooded lights, and limited opportunities to repair malfunctioning equipment. With the rising costs of operating research cruises, ACO staff are only able to make one trip a year, (which amounts to five days) and can cost around half a million dollars or more,

Did you know that ACO's electric cables are made on campus at UH Mānoa? Cables are filled with oil so that all parts are at equal pressure.

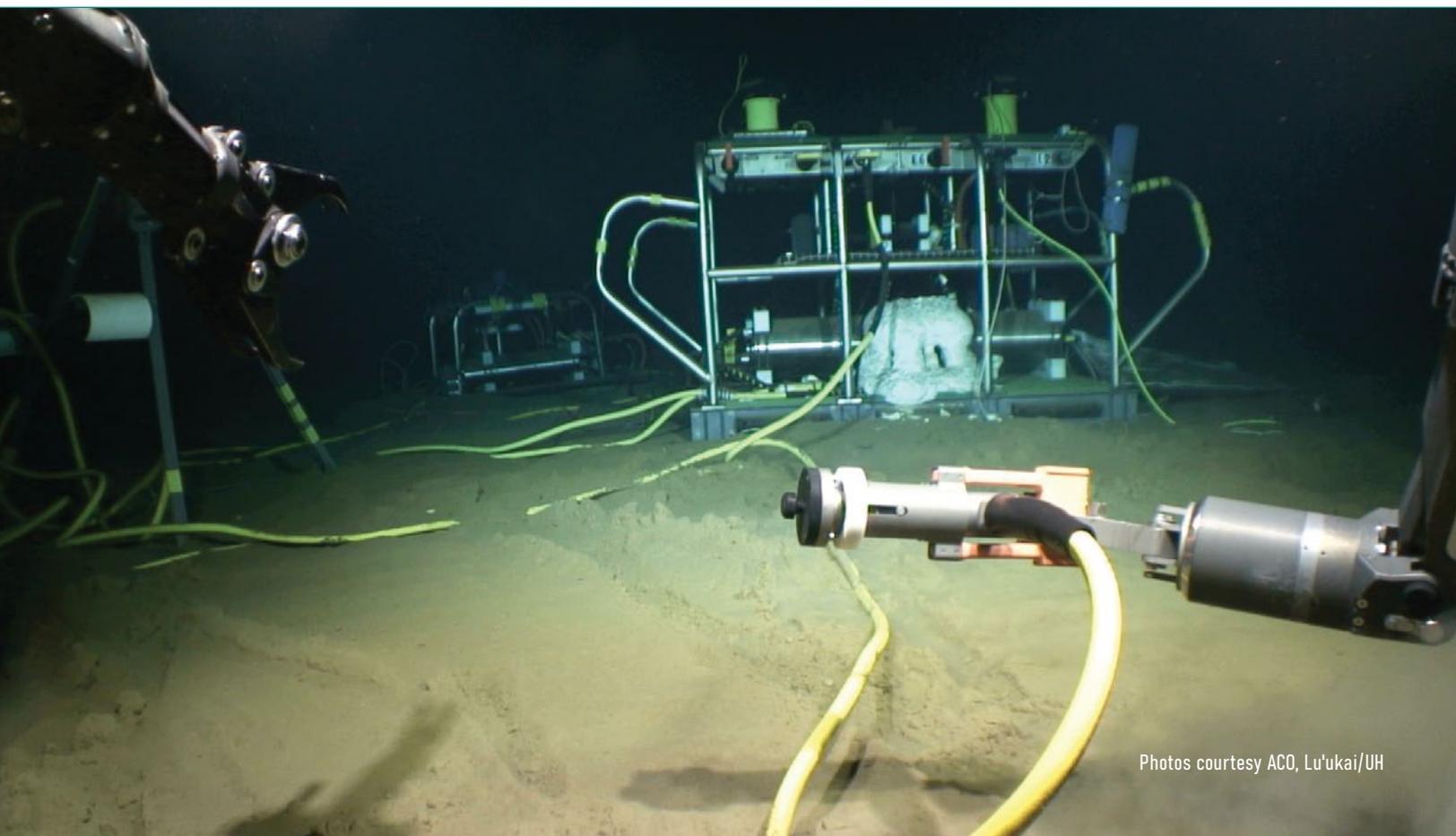
according to Potemra. The past two years have been especially challenging due to the COVID-19 pandemic. There are only a limited number of vendors that manufacture deep sea oceanographic equipment and the supply chain crisis has delayed equipment and supplies for months. The pandemic also limited the number of staff on research cruises due to social distancing protocols.

Despite these obstacles, the ACO has steamed ahead and continues to provide real-time video feeds and measurements from the sea floor. In June 2021, ACO celebrated its milestone anniversary of deep-sea observations with a special cruise that deployed a memorial plaque honoring ACO Founder Fred Duennebier. The project hopes to continue to honor his legacy in the field of cabled observatories by expanding its services and looking into innovative technologies. With a staggering amount of data collected over the past 10 years, ACO

is also looking to collaborate with computer scientists and biologists to analyze the data.

“None of this would be possible without RCUH,” Potemra said. “We absolutely rely on RCUH hires to get this work done and we have such a great team—we have electrical engineers and mechanical engineers who will design the hardware, build it in-house, then they’ll work with the ship’s crew to make sure it fits in the space we have. With seagoing operations, you have to see it to really appreciate it.”

“We’ve got people on shore who are maintaining the data streams and putting the data into a format that scientists can use and the final part is the scientists who are actually using the data and writing it up. It’s this really nice, complete end-to-end system from concept, engineering, design, building, deployment, and science on the other side. I think it’s pretty cool.”



Photos courtesy ACO, Lu'ukai/UH



(From left to right) SBDC Associate State Director and O'ahu Center Director Joseph Burns, State SBDC Director Cathy Wiltse, Governor David Ige, and SBA District Director Jane Sawyer celebrated March 20, 2019 as "Small Business Development Center Day." The Hawai'i SBDC has provided support and training to thousands of small businesses across the state, such as Bamboo Pro LLC (top) and Hawaiian Kine Trading Company (bottom). Photos courtesy Hawai'i SBDC.

HAWAI'I SMALL BUSINESS DEVELOPMENT CENTER COMES TO THE RESCUE OF LOCAL ENTREPRENEURS

"It is not the strongest of the species that survives, nor the most intelligent that survives. It is the one that is most adaptable to change."

While this quote may be referring to Charles Darwin's theory of evolution, it can also be applied to small businesses. Local business owners had to pivot or plunge during the pandemic, as they've had to overcome a state shutdown, labor squeeze, COVID-19 restrictions, and supply chain shortages. Despite these obstacles, the Hawai'i Small Business Development Center (SBDC) has seen an increase in the number of people who have started or are interested in starting their own business in the past year.

"Originally we had thought that business starts would be down during this time, but a lot of people had to pivot because maybe they lost their job or because of COVID," said Hawai'i SBDC Director Cathy Wiltse. "It's given them the opportunity to take a look and

figure out what they would really like to do as opposed to just having a job."

The Hawai'i SBDC has five locations throughout the state to serve small business owners in their own communities. It's part of a national program with 62 networks and is partially funded by the U.S. Congress (through the Small Business Administration) and the State of Hawai'i. The center was established with the support of the late Sen. Daniel K. Inouye in 1990, and recently celebrated its 30th year of operating in Hawai'i. It was intentionally based at the University of Hawai'i at Hilo to ensure that its focus was statewide, not O'ahu-centric.

The Hawai'i SBDC serves as a connection to federal, state, and local resources for early stage entrepreneurs and entrepreneurs with established businesses. Aspiring business owners can register for confidential, one-on-one advisory sessions to develop a business



**\$36
MILLION**

Amount of new capital
Hawai'i SBDC helped its
clients acquire in 2021



98%

Percentage of
businesses that are
classified as small
businesses in Hawai'i



1,447

Number of unique
clients Hawai'i SBDC
served in 2021

plan, learn about financing options, or evaluate their market position; while those already in business can receive assistance on growth strategies or transitioning to new ownership. The real curveball is that these advisory services are all free.

“Over the last several years we’ve been working on outreach to make sure more people know who we are and what we can do to help,” Wiltse said. “Especially since it’s a no-cost service, people often say ‘Why didn’t I know about this before?’”

Throughout the pandemic, SBDC staff worked with business owners to adapt their business model in order to survive or to divert their target market to one that wasn’t so visitor dependent. They also transitioned their free and low-cost workshops and seminars to an online platform in order to provide safe and broader access across the state. One of the main changes for the Hawai’i SBDC was its shift to helping business owners take

advantage of pandemic relief programs and apply for CARES Act funding. This was an especially difficult process with changing rules and technical issues on lender portals, but it led to greater insight into the local business community.

“I think one thing we found out during the pandemic was that there were a lot of companies that were not part of the mainstream. In other words, they existed outside of the so-called system,” said Joseph Burns, Associate State Director and O’ahu Center Director at the Hawai’i SBDC. “When an opportunity came up to apply for aid they were not able to because they didn’t have tax returns or maybe they weren’t paying GET, so that sparked a whole conversation about how to try to bring more of these companies into the mainstream— not so much because somebody is on their case to pay taxes, but so they can take advantage of the programs that are offered to them.”

AWARDS & HONORS

OUTSTANDING EMPLOYEE OF THE YEAR AWARDS

For the second consecutive year, RCUH's annual luncheon to recognize Outstanding Employee of the Year nominees was canceled due to the pandemic. In lieu of an in-person ceremony, RCUH's Executive Director surprised the three first-place awardees by "Zoom-bombing" planned virtual meetings.

RESEARCHER/PROJECT MANAGER CATEGORY



1st Place: Cassie Stelow, Pacific Disaster Center

Cassie was instrumental in bringing Event Brief to mission-capable status. Event Brief is a real-time situational awareness product that is fully automated and provides emergency managers with immediate lifesaving data on what happened, where it happened, how bad it is, and what to do about it. It was recently used to brief the U.S. Secretary of Defense and Whitehouse Situation Room following the 7.2 Haiti earthquake and Hurricane Ida in the U.S.



2nd Place: Amber Imai-Hong, UH Mānoa School of Ocean and Earth Science and Technology

The Governor's Emergency Education Relief (GEER) innovation grant panel awarded \$500,000 to Amber and her team to expand a NASA-funded Artemis CubeSat Kit (low-cost small satellite kit) project to middle and high school students in Hawai'i. Amber's vision is to train and foster more technically proficient homegrown talent for higher-paying engineering jobs.

Honorable Mentions:

- **Serge Chastel**, UH Institute for Astronomy
- **Robin Hayes**, UH Institute for Astronomy
- **Mark Huber**, UH Institute for Astronomy
- **Melanie Hutchinson**, UH Mānoa School of Ocean and Earth Science and Technology
- **Howard Morrow**, Applied Research Laboratory at the University of Hawai'i
- **Amy Weintraub**, Hawai'i Academy of Science

PROJECT SUPPORT STAFF CATEGORY



1st Place: Yoshiyuki Doi, National Astronomical Observatory of Japan

Subaru Telescope's new Laser Guide Star Facility (LGSF) uses multiple high-reflectivity mirrors in the relay system and required large-scale modification of the Subaru Telescope. Yoshiyuki was put in charge of the mechanical design of this relay system. He was also charged with manufacturing and assembly of the parts, sometimes machining parts on his own.



2nd Place: Alycia Fujii, UH Mānoa College of Education

Alycia took the initiative to transform an in-person summer program for grades 1-12 into an online program almost single-handedly. From the creation of digital student and employee handbooks, to hiring teachers and handling registrations, Alycia gives everything she has and then some. She is also the brainchild behind the program's parent portal, which keeps parents up to date on their child's progress and gives them the opportunity to communicate with staff.

Honorable Mentions:

- **Andrea Alexander**, UH Mānoa College of Education
- **Eva Brill**, UH Mānoa College of Tropical Agriculture and Human Resources
- **Claudine Chan-Naruse**, UH Mānoa John A. Burns School of Medicine
- **Dylan Davis**, UH Mānoa College of Natural Sciences
- **Elizabeth Dingeldein**, UH Mānoa School of Ocean and Earth Science and Technology
- **Martin Holzgang**, Kapi'olani Community College
- **Rosalind Kia**, UH Mānoa College of Education
- **Yumi Nagayoshi**, UH Institute for Astronomy
- **Peter Oshiro**, Academia Sinica Institute of Astronomy and Astrophysics
- **Vannida Phommachanh**, UH Mānoa College of Natural Sciences

MAHALO TO THE SELECTION COMMITTEE

RCUH wants to give a special mahalo to the Selection Committee members who volunteered their time to review and score all 25 nominations:

- **Micah Kāne**, CEO & President, Hawai'i Community Foundation
- **Colleen McAluney**, Director, Patsy T. Mink Center for Business & Leadership
- **Todd Nacapuy**, Chief Information Officer, HEMIC

TEAM CATEGORY

1st Place: National Disaster Preparedness Training Center



**Lydia
Morikawa**



**Melissa
Peneyra**



**Amanda
Bates**

In March 2020, the NDPTC Course Delivery team reorganized itself to meet the operational needs of online delivery and developed a new training schedule in coordination with state and local offices across the U.S. and its territories. After one month of training instructors on Zoom, it began delivering courses via video conferencing. This required the delivery team to substantially revise its daily work and processes and spend 4-8 hours a day managing the sessions across multiple time zones, from Puerto Rico to Guam.

2nd Place: Maui Forest Bird Recovery Project



**Hanna
Mounce**



**Laura
Berthold**



**Zachary
Pezzillo**

Translocation of the critically endangered kiwikiu is a huge undertaking. Hanna, Laura, and Zachary are racing to save a bird that may only have 100 of its kind left in the world. Despite experiencing numerous obstacles over the years, the team continues to persevere and has enthusiastically taken on the challenge of new skills and new field work under strict COVID-19 protocols to save a species.

Honorable Mentions:

- **DLNR DAR Sport Fish Restoration (Monitoring)**, McKenna Allen, Mia Melamed
- **Hawai'i Health Data Warehouse**, Katherine Benson, Jill Yamashita, Kristine Hironaka
- **UH Cancer Center Pathology Core**, Hugh Luk, Keiko Garvin, Kyle Nishiyama, Xue Mei Zhu

FINANCIAL STATEMENTS

**RESEARCH CORPORATION OF THE UNIVERSITY OF HAWAII
STATE OF HAWAII
Fiscal Years Ended June 30, 2021 and 2020 and 2019**

Condensed Statements of Net Position (Unaudited)

The Corporation's assets and deferred outflows of resources, liabilities, deferred inflows of resources, and net position at June 30, 2021, 2020 and 2019 are summarized below:

	<u>2021</u>	<u>2020</u>	<u>2019</u>
Current assets	\$ 43,570,646	\$ 40,880,000	\$ 42,071,471
Noncurrent assets	--	1,750,000	--
Capital assets	<u>2,830,822</u>	<u>3,260,152</u>	<u>3,216,587</u>
Total assets	46,401,468	45,890,152	45,288,058
Deferred outflows of resources	<u>138,003</u>	<u>189,550</u>	<u>54,722</u>
Total assets and deferred outflows of resources	\$ <u>46,539,471</u>	\$ <u>46,079,702</u>	\$ <u>45,342,780</u>
Current liabilities	\$ 31,596,937	\$ 31,291,424	\$ 30,718,857
Noncurrent liabilities	<u>4,826,947</u>	<u>4,919,604</u>	<u>4,568,448</u>
Total liabilities	36,423,884	36,211,028	35,287,305
Deferred inflows of resources	<u>634,864</u>	<u>453,086</u>	<u>501,065</u>
Total liabilities and deferred inflows of resources	37,058,748	36,664,114	35,788,370
Net position			
Invested in capital assets	2,830,822	3,260,152	3,216,587
Unrestricted	<u>6,649,901</u>	<u>6,155,436</u>	<u>6,337,823</u>
Total net position	<u>9,480,723</u>	<u>9,415,588</u>	<u>9,554,410</u>
Total liabilities, deferred inflows of resources and net position	\$ <u>46,539,471</u>	\$ <u>46,079,702</u>	\$ <u>45,342,780</u>



To view RCUH's complete audited financial statements for FY 2021, please visit <https://www.rcuh.com/rcuh-fy2021-audit/> or scan the QR code with your smartphone.

**RESEARCH CORPORATION OF THE UNIVERSITY OF HAWAI'I
STATE OF HAWAI'I
Fiscal Years Ended June 30, 2021 and 2020 and 2019**

Condensed Statements of Revenues, Expenses and Changes in Net Position (Unaudited)

The Corporation's statements of revenues, expenses and changes in net position for the fiscal years ended June 30, 2021, 2020 and 2019 are summarized as follows:

	2021	2020	2019
Operating revenues			
University of Hawai'i	\$ 6,665,561	\$ 7,760,462	\$ 7,398,495
Other sponsor agencies	<u>552,855</u>	<u>593,243</u>	<u>794,121</u>
Total operating revenues	7,218,416	8,353,705	8,192,616
Operating expenses			
Personnel costs	4,098,339	4,673,096	4,382,802
Data processing services	1,139,123	1,609,753	1,548,963
Depreciation	873,309	764,318	682,072
Insurance	477,322	436,680	421,271
Office and equipment rental	291,077	288,606	232,579
Professional and technical support	151,610	196,445	226,183
Project development	--	500,000	502,616
Other expenses	<u>297,194</u>	<u>578,995</u>	<u>565,067</u>
Total operating expenses	<u>7,327,974</u>	<u>9,047,893</u>	<u>8,561,553</u>
Operating loss	(109,558)	(694,188)	(368,937)
Nonoperating revenues			
Intergovernmental (Federal awards)			
Revenue	307,889	191,730	18,488
Expense	(307,889)	(191,730)	(18,488)
Interest Income	199,670	555,366	653,545
Unrealized loss	<u>(24,977)</u>	<u>--</u>	<u>--</u>
Increase (decrease) in net position	65,135	(138,822)	284,608
Net position			
Beginning of year	<u>9,415,588</u>	<u>9,554,410</u>	<u>9,269,802</u>
End of year	<u>\$ 9,480,723</u>	<u>\$ 9,415,588</u>	<u>\$ 9,554,410</u>



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**RESEARCH CORPORATION OF THE UNIVERSITY OF HAWAI'I
STATE OF HAWAI'I
Fiscal Years Ended June 30, 2021 and 2020 and 2019**

Condensed Statements of Cash Flows (Unaudited)

The Corporation's statements of cash flows for the fiscal years ended June 30, 2021, 2020 and 2019 are summarized as follows:

	<u>2021</u>	<u>2020</u>	<u>2019</u>
Operating activities			
Cash received from operations	\$ 8,235,545	\$ 7,605,984	\$ 8,895,337
Cash payments for operations	(6,558,201)	(8,192,458)	(7,852,458)
Project expenditures and reimbursements, net	<u>9,781,624</u>	<u>(7,919,874)</u>	<u>5,145,869</u>
Net cash provided by (used in) operating activities	11,458,968	(8,506,348)	6,188,748
Financing activities			
Capital	<u>(443,979)</u>	<u>(807,883)</u>	<u>(753,955)</u>
Net cash used in financing activities	<u>(443,979)</u>	<u>(807,883)</u>	<u>(753,955)</u>
Investing activities	<u>(4,565,164)</u>	<u>(3,367,382)</u>	<u>8,533,247</u>
Increase (decrease) in cash	6,449,825	(12,681,613)	13,968,040
Cash			
Beginning of year	<u>15,299,580</u>	<u>27,981,193</u>	<u>14,013,153</u>
End of year	\$ <u>21,749,405</u>	\$ <u>15,299,580</u>	\$ <u>27,981,193</u>



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GENERAL INQUIRIES

 rcuh@rcuh.com

 www.rcuh.com

CORPORATE SERVICES

 rcuh@rcuh.com

 (808) 988-8314/8311

 2800 Woodlawn Drive
Suite 200
Honolulu, HI 96822

FINANCE

 rcuh@rcuh.com

 (808) 988-8300

 2800 Woodlawn Drive
Suite 200
Honolulu, HI 96822

HUMAN RESOURCES

 rcuhhr@rcuh.com

 (808) 956-3100

 1601 East-West Road
Burns Hall 4th Floor, Makai Wing
Honolulu, HI 96848