Notice of Meeting UNIVERSITY OF HAWAI'I

BOARD OF REGENTS COMMITTEE ON RESEARCH AND INNOVATION

Members: Regents Sullivan (Chair), Bal (Vice-Chair), Acopan,

Westerman, Wilson, and Yuen

Date: Thursday, June 6, 2019

Time: 10:30 a.m.

Place: University of Hawai'i at Mānoa

Information Technology Building 1st Floor Conference Room 105A/B

2520 Correa Road

Honolulu, Hawai'i 96822

AGENDA

- I. Call Meeting to Order
- II. Approval of Minutes of the November 27, 2018, and February 19, 2019, Meetings
- III. Public Comment Period for Agenda Items: All written testimony on agenda items received after posting of this agenda and up to 24 hours in advance of the meeting will be distributed to the board. Late testimony on agenda items will be distributed to the board within 24 hours of receipt. Written testimony may be submitted via US mail, email at bor@hawaii.edu, or facsimile at 956-5156. Individuals submitting written testimony are not automatically signed up for oral testimony. Registration for oral testimony on agenda items will be provided at the meeting location 15 minutes prior to the meeting and closed once the meeting begins. Oral testimony is limited to three (3) minutes. All written testimony submitted are public documents. Therefore, any testimony that is submitted verbally or in writing, electronically or in person, for use in the public meeting process is public information and will be posted on the board's website.

IV. Agenda Items

- A. Fiscal Year 2019 3rd Quarter Extramural Awards Update
- B. Indirect Cost Update and Explanation
- C. Research and Training Revolving Fund
 - 1. Office of the Vice President for Research and Innovation Expenditures
 - 2. Vice Chancellor for Research and University of Hawai'i at Mānoa Units Expenditures
 - 3. Alternatives and Best Practices
- D. Committee Annual Review and Goals
- V. Adjournment

DISCLAIMER – THE FOLLOWING ARE DRAFT MINUTES AND ARE SUBJECT TO CHANGE UPON APPROVAL BY THE COMMITTEE ON RESEARCH AND INNOVATION

MINUTES

BOARD OF REGENTS COMMITTEE ON RESEARCH AND INNOVATION MEETING NOVEMBER 27, 2018

I. CALL TO ORDER

Committee Chair Jan Sullivan called the meeting to order at 11:00 a.m. on Tuesday, November 27, 2018, at the University of Hawai'i Mānoa Innovation Center, Presentation Room, Suite #173, 2800 Woodlawn Drive, Honolulu, Hawai'i 96822.

<u>Committee members in attendance</u>: Committee Chair Jan Sullivan; Committee Vice Chair Eugene Bal; Regent Brandon Marc Higa; Regent Ernest Wilson Jr.

Committee members excused: Regent Stanford Yuen.

Others in attendance: Board Chair Lee Putnam; Regent Simeon Acoba; Regent Douglas Shinsato; (ex officio committee members); Vice President for Community Colleges John Morton; Vice President for Legal Affairs/University General Counsel Carrie Okinaga; Vice President for Academic Planning and Policy Donald Straney; Vice President for Research and Innovation Vassilis Syrmos; Vice President for Information Technology/Chief Information Officer Garret Yoshimi; Vice President for Budget and Finance/Chief Financial Officer Kalbert Young; UHM Vice Chancellor (VC) for Research/Interim VC for Academic Affairs Michael Bruno; Executive Administrator and Secretary of the Board of Regents (Board Secretary) Kendra Oishi; and others as noted.

II. APPROVAL OF MINUTES OF THE OCTOBER 3, 2018 MEETING

Regent Wilson moved to approve the minutes of the October 3, 2018 meeting, seconded by Regent Higa, and the motion carried unanimously.

III. PUBLIC COMMENT PERIOD

Board Secretary Oishi announced that the Board Office received no written testimony, and no individuals had signed up to provide oral testimony.

IV. AGENDA ITEMS

A. For Information and Discussion

- 1. University of Hawai'i at Mānoa Update
 - a. Faculty Hiring: Strategy, Policy, and Comparative Data
 - b. Research and Innovation Metrics Targets and Goals

VC Michael Bruno and Associate Vice Chancellor (AVC) for Research Velma Kameoka provided an overview of research at UHM that included strategic faculty recruitments, support for faculty research and scholarships, Research and Training Revolving Fund (RTRF) commitments for UHM, the creation of virtual institutes, and an evaluation of strategies and investments. Research awards increased by \$7 million or 2.4% from Fiscal Year (FY) 2017 to FY 2018, RTRF increased by \$2 million in FY 2019, first quarter FY 2019 research awards increased by 14% from FY 2018.

Board Chair Putnam arrived at 11:04 a.m.

Regent Bal raised a question regarding the broad terms of the investment in the data analytics platform. AVC Kameoka explained that UHM has a three-year license for \$60,000.

Questions were raised regarding collaboration with the UH Foundation (UHF) and how grants from private foundations are processed. AVC Kameoka responded she and VC Bruno meet regularly with UHF, and there has been discussion with UHF on a data analytics platform to increase the portfolio of foundation awards, but there has been no commitment since UHF is currently undergoing a leadership transition. UHM is moving forward with this initiative and will work with stakeholders, including UHF. VC Bruno explained that further consideration will be given to the present handling and accounting for these kinds of grants. He elaborated that a grant with deliverables should go through the Office of Research Services because it has research and compliance expertise and direct donations are better suited for UHF.

Board Chair Putnam asked whether faculty recruitments were replacing faculty that had left or augmenting current faculty and whether faculty demographics were being reviewed to determine anticipated attrition and reallocation. VC Bruno explained that most recruitments were due to faculty attrition, but there are also positions being moved into strategic areas. Colleges are also reviewing the number of lecturers to determine if they would be better served by having a dedicated full-time faculty member instead of multiple lecturers. There are some areas where junior faculty could be brought in and mentored, and other areas where senior leadership is needed.

A question was raised regarding when the board would be informed about potential termination of long-standing degree offerings. VC Bruno explained that the chancellor makes the final decisions on budget allocations and while informing those decisions in a public and transparent manner would be healthy, there has not always been a forum to share that information.

Regent Shinsato left at 11:35 a.m.

Committee Chair Sullivan noted that the committee will be focusing on the concept of an operating budget for research activities for the board to review and agree on strategic investments, and finding a meaningful way for the board to review research revenues and investments. She expressed a desire to clarify the roles of the UH System and UHM to determine the best way to organizationally structure research and grant support and clarify their respective functions.

A question was raised regarding the handling of unused start-up funds. VC Bruno explained that start-up funds should be utilized within a year and unless valid rationale is provided for an extension, then those funds are utilized for other needs. All appointment and offer letters contain specific expiration dates for start-up funds.

The idea of setting institutional aspirational targets for purposes of measuring longitudinal success was raised, rather than only comparing with peers and benchmark institutions. VC Bruno responded that UHM is unique in its mission and size for an Research 1 (R1) university. Over 70% of UHM's students are residents whereas other R1 universities have more non-resident students, which results in more tuition funding as a result of reduced public support. He noted that UHM is fortunate to receive the level of state support that is provided, particularly compared to other universities. He added that it is difficult to measure the impact of UHM's research on the community, especially in disciplines that do not draw in research funds.

Concerns were raised regarding the need to develop mutual principles regarding selection of benchmarks and peer institutions and ensuring UHM's performance measures are serving a desired purpose. Suggestions were made to review the number of graduate students directly supported by research, encourage professors to be innovative, and review the tenure and promotion criteria.

2. Overview of the Institute for Sustainability and Resilience

Dr. Makena Coffman, Director of the Institute for Sustainability and Resilience (ISR), provided an overview that included ISR's mission, impacts of climate change issues facing Hawai'i and solutions to address these issues, how ISR is building on multidisciplinary research strengths at UHM and bringing the expertise of its faculty members into decision making with community partners, sustainability-focused curriculum offerings, and how ISR is leveraging national and global networks.

A suggestion was made regarding the need to develop an external branding communication strategy to build the reputation of ISR and to help build interest in the broader community. Dr. Coffman explained that UH System Communications helped ISR launch a website, but further work needs to be done to bring everything together in a cohesive manner.

Discussion ensued regarding the importance of ISR collaborating with other organizations involved in climate change policy. Dr. Coffman explained that there are a number of non-governmental organizations working on climate change and policymaking that she has engaged with. ISR has an external advisory board comprised of members from organizations such as the Nature Conservancy and Conservation International, and she would like to grow that area to ensure there is representation and interface with what is happening in the community and curriculum building, particularly with getting students involved in these organizations as degree programs are developed.

Questions were raised regarding whether staffing for ISR was sufficient. Dr. Coffman responded that staffing consists of 3/4 of her position and a graduate student, which is sufficient for the current start-up year. An additional faculty instructional or specialist

position would be needed to develop educational programs and eventually assist with outreach.

A question was raised regarding whether there was outreach to campuses besides UHM. Dr. Coffman indicated that ISR is located at UHM but she coordinates with the System Sustainability Office. Regarding curriculum development and articulation, Dr. Coffman explained that there is a System Sustainability Curriculum Council. Each campus is responsible for ensuring that its programs are appropriate for its individual campus, and it is important for UHM to ensure there is articulation from the community colleges to the sustainability programs at UHM.

3. Evaluation of Student Innovation and Entrepreneurship Programs

David Ai, Office of Innovation and Commercialization Director/Chief Innovation Officer (CIO), Peter Rowan, Executive Director of the Shidler College of Business Pacific Asian Center for Entrepreneurship (PACE), and Chad Walton, iLab Program Officer, provided an overview on efforts to foster a community vision to elevate Hawai'i innovation and Entrepreneurship (iE) platform and maximize the university's assets in iE. Updates were provided on UH inventions, PACE program impact, iLab programs and project development, XLR8UH, and new systemwide initiatives.

Committee Chair Sullivan asked about the top two matters Director/CIO Ai is working on. Director/CIO Ai responded that he is connecting with stakeholders and inventorying activities occurring at all the campuses, and working toward understanding how innovation and entrepreneurship programs can form a coherent organization to move the agenda forward. He is also working on enhancing execution of technology transfer through strategic hiring.

Questions were raised regarding the amount of external interface PACE has with organizations outside UH and whether PACE is developing relationships with universities that focus on entrepreneurship in other states. Director Rowan responded that PACE provides support to students as they leave the university and enter into the workforce by working closely with organizations that are important to the entrepreneurial ecosystem such as XLR8UH, Elemental Excelerator, Blue Startups, and Hawai'i Angels. Other universities such as University of Illinois Urbana-Champaign and University of Washington have programs where the difference between the programs and activities of the university and the start-up community is indiscernible. He explained that many of the programs PACE has initiated were conceived by learning from peers in the university entrepreneurship community. He added that he has not seen anything from other universities that was more innovative than UH, but he did observe more involvement from the local private sector in the university activities such as limited partnerships in venture capital funds directed toward university spin-offs, or as mentors or advisors to university start-ups, which are achievable for UH.

Committee Chair Sullivan raised a question regarding whether the iLab had made progress on developing a makerspace with hands-on equipment. Dr. Walton explained that iLab has 3D printers and hands-on capabilities. The new FabLab, which is housed in the engineering school, has over 14 new 3D printers, and it is inundated with student

requests. There is discussion on putting makerspace in Hamilton Library as other schools have done, to have drop-in makerspace and workshops supported by iLab.

A question was raised regarding how to evaluate the success of these programs. Director/CIO Ai explained that UH currently has individuals, entities, and initiatives on various campuses that not everyone is aware of. There needs to be better coordination and understanding of the programs so everyone can learn from one another and leverage resources to tackle higher goals. The ultimate goal is to make these programs available to all students, not just technology students. Innovation is not just about physical inventions involving engineering, it also involves process innovation, so students need to be encouraged to have the capacity and ability to participate. In the future, UH will measure the number of students participating in these programs.

4. Fiscal Year 2019 1st Quarter Extramural Awards Update

Due to time constraints, the verbal review was waived. There were no questions.

V. <u>ADJOURNMENT</u>

There being no further business, Regent Wilson moved to adjourn, and Regent Higa seconded, and with unanimous approval, the meeting was adjourned at 1:15 p.m.

Respectfully Submitted,

Kendra Oishi Executive Administrator and Secretary of the Board of Regents

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MINUTES

BOARD OF REGENTS COMMITTEE ON RESEARCH AND INNOVATION MEETING

FEBRUARY 19, 2019

I. CALL TO ORDER

Committee Chair Jan Sullivan, called the meeting to order at 9:00 a.m. on Tuesday, February 19, 2019, at the University of Hawai'i at Mānoa, Campus Center, Executive Dining Room, 2465 Campus Road, Honolulu, Hawai'i 96822.

<u>Committee members in attendance</u>: Committee Chair Jan Sullivan; Committee Vice Chair Eugene Bal; Regent Kelli Acopan; Regent Robert Westerman; Regent Ernest Wilson, Jr.; Regent Stanford Yuen.

Others in attendance: Board Chair Lee Putnam; Board Vice Chair Jeffrey Portnoy; Board Vice Chair Wayne Higaki; Regent Michael McEnerney; Regent Randy Moore; Regent Michelle Tagorda; (ex officio committee members); President/UH-Mānoa (UHM) Chancellor David Lassner; Vice President for Community Colleges John Morton; Vice President for Legal Affairs/University General Counsel Carrie Okinaga; Vice President for Academic Planning and Policy Donald Straney; Vice President for Research and Innovation Vassilis Syrmos; UHM Vice Chancellor for Research/Interim Vice Chancellor for Academic Affairs Michael Bruno; UH-West Oʻahu (UHWO) Chancellor Maenette Benham; Executive Administrator and Secretary of the Board of Regents (Board Secretary) Kendra Oishi; and others as noted.

II. PUBLIC COMMENT PERIOD

Board Secretary Oishi announced that the Board Office received no written testimony, and no individuals had signed up to provide oral testimony.

Regent McEnerney arrived at 9:01 a.m.

III. AGENDA ITEMS

A. For Information and Discussion

1. Fiscal Year 2019 2nd Quarter Extramural Awards Update

VP Syrmos proposed changing the frequency of reports to a semi-annual basis. Committee Vice Chair Bal expressed concerns that semi-annual reports would result in less frequent tracking and could be troublesome if goals are not being met. The committee agreed to maintain quarterly reports that provide highlights. No questions were asked regarding the materials.

4. Strategic Research and Training Revolving Fund Investments

VP Syrmos provided an overview of Research and Training Revolving Fund (RTRF) investments in innovation hubs and other significant investments made by the System Office of the Vice President for Research and Innovation, UHM Office of the Vice Chancellor for Research, and UH West Oʻahu for the last fiscal year. Portfolio investments were scaled back last year as RTRF went down due to decreased extramural funding. VC Bruno explained that the numbers in the report do not include the 50% of RTRF that is allocated to the units.

The committee requested additional information on how units are utilizing RTRF investments and prioritization of the expenditure of funds. VC Bruno explained that he is currently working with the deans to gather that information. The UHM Faculty Senate (UHMFS) had passed a resolution requesting a unit-by-unit policy for RTRF distribution and the outcomes. The policies will be posted on the VC for Research website that describe unit-by-unit the amounts retained by the dean's offices and amounts received by individual principal investigators and departments. Individual investments for fiscal year (FY) 2017 will also be posted on the website.

Regent Westerman arrived at 9:11 a.m.

Committee Chair Sullivan suggested there should be some prioritization or direction at a policy level of how RTRF funds are spent. VC Bruno explained that he and his predecessors have tried not to be too prescriptive with the deans and only intervene when there is a question of appropriate use in terms of supporting research and training. Both he and VP Syrmos have discussed providing matching funds and other incentives for utilizing RTRF.

Regent Yuen asked whether there is criteria for defining success and whether there is an average of all distributions to the dean's offices. VC Bruno explained that distributions vary by unit because some units such as the Cancer Center, Institute for Astronomy, and School of Ocean and Earth Science and Technology have mature research support offices with centrally kept funds and competitive funds for research support. Other units need more assistance, resulting in less central funding and more funds going directly to the departments. His office is taking into consideration whether they have a role to play in providing supplemental support or provide more prescriptive guidelines to the deans on keeping a certain percentage of funds to grow a research support office within the unit.

Committee Chair Sullivan explained that she was not implying there should be prescriptive rules for units, but she had been told UH has an abnormally high allocation of funds that is passed through to units and wants to understand what other universities are doing. She requested that board staff work with VC Bruno on putting together information on best practices for how other Tier 1 research universities are utilizing RTRF. VP Syrmos added that there was a national study conducted several years ago on how universities distribute their RTRF and UH participated in that study.

Regent Westerman asked if there is an office within the university that seeks grants or conducts program management. VP Syrmos explained that the community colleges,

UHWO, UHH, and UHM all have grant development offices and the System OVPRI office coordinates with Hawai'i's congressional delegation regarding federal funding.

2. University of Hawai'i at Hilo Research and Innovation Long-Range Plan Update

UHH Interim Vice Chancellor for Academic Affairs Ken Hon provided an overview of the high-impact research being done in collaboration with county, state, and federal agencies that has an economic impact on communities and advances UHH's teaching mission. He also provided a history of research grant awards from 2014 to 2018 by academic unit, and provided examples of research and community partnerships. He noted that UHH research is different from UHM in that UHH pursues more applied research.

Regent Acopan arrived at 9:26 a.m.

Board Chair Putnam arrived at 9:30 a.m.

Board Vice Chair Portnoy arrived at 9:32 a.m.

Regent Westerman noted the four new data science positions and expressed concern about filling these positions given the decrease and uncertainty in grant funding. VC Hon explained that the positions are instructional and not research positions. He noted that the Experimental Program to Stimulate Competitive Research (EPSCor) provides four-year funding that is being leveraged to hire needed interdisciplinary instructional faculty with data science skills to start a new data science degree program at UHH.

3. UHealthy Hawai'i Initiative: Strategic Growth Area

VP Syrmos explained that the UHealthy Hawai'i Initiative is a System initiative that impacts healthcare and wellness within the State of Hawai'i, which is one of the most important challenges facing the state. Hawai'i has an excellent healthcare system that needs to be maintained. VP Syrmos introduced Dr. Aimee Grace, UH System Director of Health Science Policy, who completed her medical degree at the John A. Burns School of Medicine and recently served as the health policy advisor to U.S. Senator Brian Schatz.

Dr. Grace summarized the purpose of the UHealthy Hawai'i Initiative to improve health and health care in Hawai'i and the Pacific by leveraging the UH System's health sciences programs and forging meaningful collaborative partnerships. She identified and described four key priority areas: (1) ensure a robust statewide health workforce; (2) discover and innovate to improve and extend lives; (3) promote healthier families and communities; and (4) advance health in all policies. She discussed the next steps and opportunities to engage with legislators and community members, increase partners, work collaboratively to set priorities to improve health and health care in Hawai'i, establish a preliminary budget and funding goals, and seek funding.

Board Vice Chair Higaki arrived at 9:45 a.m.

Regent Moore arrived at 9:52 a.m.

Committee Vice Chair Bal asked how long the initiative has been active. Dr. Grace responded that she started last May and will be working on putting together a core office team.

Board Chair Putnam noted the importance of working with the State Department of Education on pipeline issues and the State Board for Career and Technical Education. Dr. Grace explained that she has been in contact with Hawai'i P-20 and is looking at aligning high school coursework with pathways to the community colleges and undergraduate/graduate programs. The committee discussed the importance of funding this initiative.

Board Chair Putnam indicated that increasing residency opportunities would be a way to help address the physician shortage in Hawai'i. Dr. Grace indicated that although addressing physician shortage was not in today's presentation, it was in the UHealthy Hawai'i Initiative white paper.

Board Chair Putnam asked how statewide health improvements are being developed and implemented. President Lassner explained that this is a high priority area where the university can make a difference in the state. This initiative is about everyone working together to make Hawai'i healthier. Sustainability, climate, resilience, and the teacher shortage are other areas that need to be addressed but are not as developed systemwide, although there are components such as the new Institute for Sustainability and Resilience at UHM and the System Office of Sustainability.

Regent Acopan requested that UHealthy Hawai'i work with counselors and academic advisors at high schools to ensure that opportunities are communicated to students. Students have goals and career aspirations but are not always aware of available resources and pathways. Dr. Grace responded that she has spent time learning about the student advising program. She indicated that the Pre-Health/Pre-Law Advising Center is an excellent resource that she would like to see expanded to help get more students interested and provide them with the necessary resources.

Regent Westerman noted the importance of thinking outside the box when it comes to finding a solution to expand clinicals and cautioned about working around the existing fiefdoms. Dr. Grace indicated that she hopes the healthcare sector partnership can work together to figure out what can be done for industry and to ensure strong educational programming.

Regent Tagorda expressed appreciation to the president for addressing this issue and the role the university can play in supporting the state and across the Pacific. She was glad that the topic of workforce is being discussed among different administrators in terms of being intentional and the types of academic programs that need to be expanded or created to serve the state's and the community needs. Dr. Grace responded that there have been a number of discussions about working together in areas such as certified nursing assistants, surgical technicians, physical therapists, and occupational therapists, and the role of the university.

Committee Chair Sullivan noted that this is an exciting initiative and that the key is to obtain funding. With the next federal budget starting to take shape, she suggested that

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an appropriations request be submitted to Hawai'i's congressional delegation. Dr. Grace responded that the UH System's appropriations request was submitted to Senator Schatz's office, and she is utilizing her expertise in helping the university craft and strategically target funding requests. After listening sessions with legislators this year, a state budget plan will be considered next year.

IV. <u>ADJOURNMENT</u>

There being no further business, Regent Wilson moved to adjourn, and Regent Yuen seconded, and with unanimous approval, the meeting was adjourned at 10:17 a.m.

Respectfully Submitted,

Kendra Oishi
Executive Administrator and Secretary
of the Board of Regents

Office of the Vice President for Research and Innovation



RECEIVED

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MEMORANDUM

TO:

Jan Sullivan, Chairperson

BOR Committee on Research and Emporation OFFICE

VIA:

David Lassner

President

FROM:

Vassilis L. Syrmos

Vice President for Research and Innovation

SUBJECT:

BOR COMMITTEE ON RESEARCH AND INNOVATION AGENDA MATERIALS

FOR JUNE 2019 MEETING

Please find attached the following materials that will be discussed at the June 6, 2019 BOR Committee on Research and Innovation meeting:

- A. For Information and Discussion:
 - 1. Fiscal Year 2019 3rd Quarter Extramural Awards Update (*VPRI presentation)
 - a. FY19 Q3 Extramural Awards Analysis Report
 - b. FY19 Q3 Research and Innovation Metrics Summary
 - c. FY19 Monthly Report of Extramural Awards (as of March 31, 2019)
 - 2. Indirect Cost Update (*VPRI Presentation)
 - 3. Research and Training Revolving Fund (RTRF)
 - a. Office of the Vice President for Research and Innovation RTRF Allocation (*UH System VPRI presentation)
 - b. Office of the Vice Chancellor for Research and UH Manoa Units RTRF Expenditures (*UH Mānoa VCR presentation)
 - c. Alternatives and Best Practices (*UH System VPRI presentation)

Attachments

FY19 Q3 Extramural Awards

BOR Committee on Research and Innovation

June 6, 2019



Overview

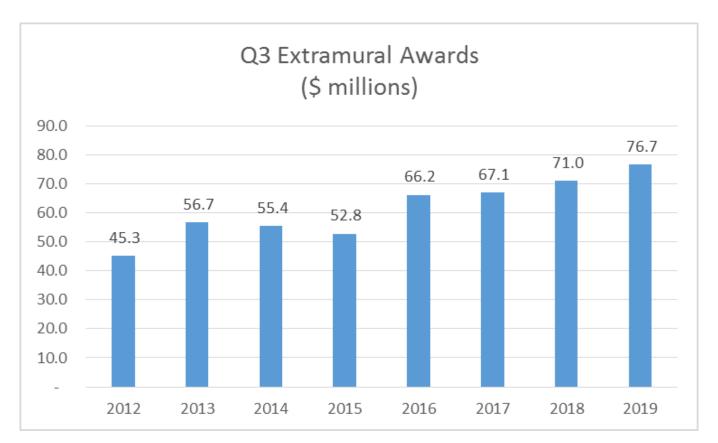
- FY19 Q3 Recap
- Significant Awards by Campus
- Award Amounts by Location
- Actuals vs. Forecasts



FY19 Q3 Recap

- Awards for FY19 Q3 were \$5.7 million (or 8%) more than FY18 Q3.
- Three (3) relatively strong quarters in FY19 have setup expectations for FY19 to come in over \$400 million for the first time since FY15.





	2012	2013	2014	2015	2016	2017	2018	2019
Q1	203.2	178.1	166.5	191.1	165.8	181.8	164.5	180.5
Q2	47.5	74.8	74.7	77.0	56.9	59.5	62.0	75.3
Q3	45.3	56.7	55.4	52.8	66.2	67.1	71.0	76.7
Q4	139.9	100.1	95.7	104.8	102.4	78.6	88.8	TBD
FY	435.9	409.8	392.3	425.7	391.3	387.0	386.3	332.5



FY19 Q3 Significant Awards by Campus

Campus	Sponsor Type	Sponsor	Project Title	Amount
		National Science		
Mānoa	Federal	Foundation	R/V Kilo Moana Ship Operations CY18-23	6,594,061
		Department of		
Hilo	Federal	Education	Hoolei - Casting the Educational Net	630,588
			Securing and Developing a Veteran STEM Center	
			Within The University of Hawaii West Oahu STEM	
West Oʻahu	Federal	Department of Defense	Center's Pueo Prototyping Lab	495,794
		Department of		
Hawai'i CC	Federal	Agriculture	Distance Learning and Telemedicine	388,280
			Honolulu Community College, Kukala'ula Extension	
Honolulu CC	Business and Other	Alu Like, Inc.	Project	51,068
		Department of Labor &	Apprenticeship State Expansion Grant Culinary and	
Kapi'olani CC	State and Local	Industrial Relations	Healthcare Apprenticeship Programs	1,443,853
			To Provide Title X Family Planning Services including	
			Clinical Family Planning and Related Preventive	
Kaua'i CC	State and Local	Department of Health	Health Services	100,000
		Department of	Advanced Professional Certificate in Special	
Leeward CC	State and Local	Education	Education Program	200,000
			Project Kaihuwaa: Advancing Low-Income Students	
		National Science	in STEM Through a Culturally-Appropriate Academic	
Maui College	Federal	Foundation	Journey	1,000,000
			UH Windward Community College's Ke Kula Kamalii	
Windward CC	Business and Other	Kamehameha Schools	o Hanaiaulu Preschool	120,000
			University of Hawaii Pacific Disaster Center (UoH	
UH System	Federal	Department of Defense	PDC) Cooperative Agreement	3,926,209



FY19 Q3 Amounts by Location (\$ millions)

Campus	2016	2017	2018	2019	2019-18 Change
Mānoa	55.2	57.3	60.1	57.5	-4.3%
Hilo	1.6	1.5	1.7	2.2	26.5%
West Oʻahu	0.0	0.2	0.0	0.5	1001.8%
Hawaiʻi CC	0.0	0.0	0.1	0.4	285.8%
Honolulu CC	0.1	0.0	0.1	0.1	-45.5%
Kapiʻolani CC	0.2	1.2	0.0	2.1	100.0%
Kaua'i CC	0.0	0.0	0.0	0.1	100.0%
Leeward CC	0.0	0.3	(0.2)	0.2	100.0%
Maui College	0.2	0.1	2.0	1.4	-27.2%
Windward CC	0.6	0.1	0.8	0.1	-82.8%
UH System	8.3	6.4	6.4	12.1	89.7%
TOTAL	66.2	67.1	71.0	76.7	8.0%



Major Changes by Location

UH Mānoa decrease:

- For awards less than \$100,000, there were 24 less awards in FY19 Q3 compared to FY18 Q3. This resulted in about \$1.7 million less in awards.
- For awards of \$1,000,000 or more, there was one (1) more award in FY19 Q3 compared to FY18 Q3. However, the average size of the award went down and resulted in about \$600,000 less in awards.



Major Changes by Location (Cont.)

Kapi'olani Community College increase:

- Unlike FY18 Q3 where no awards were received, there were seven (7) awards totaling \$2.1 million in FY19 Q3.
- Two (2) awards totaling \$546,601 are attributed to timing differences (increments reported in FY19 Q3 this year as opposed to FY18 Q4 last year).



Major Changes by Location

UH System increase:

- Part of the increase is attributed to a new \$2.7 million Department of State award.
- Around \$4 million is attributed to timing differences for incremental funding on two (2) large Department of Defense awards (reported in different quarters in FY18 as opposed to FY19).



Actuals vs. Forecasts (\$ millions)

Results for FY19 Q3 were about \$8.9 million (or 13.1%) more than forecasted.
 Assuming Q4 results are in the \$75 million range, FY19 is expected to exceed the forecast.

FY 2019	Forecast	Actual	Variance
Q1	170.1	180.5	6.1%
Q2	59.2	75.3	27.2%
Q3	67.8	76.7	13.1%
Subtotal	297.1	332.5	11.9%
Q4	89.6	TBD	TBD
Total	386.7	332.5	



FY19 Q3 Extramural Awards Report

I. Summary

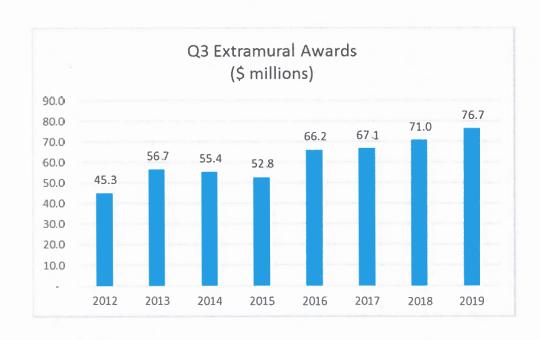
Awards for FY19 Q3 totaled \$76.7 million, which is \$5.7 million (or 8%) more than FY18 Q3. Assuming that Q4 results will be in the \$75 million range, FY19 is expected to exceed the forecast and come in over \$400 million for the first time since FY15.

II. Quarterly Performance Metrics

Since awards for FY19 Q3 were \$5.7 million (or 8%) more than FY18 Q3, we have seen three (3) relatively strong quarters in FY19. Barring any unforeseen circumstances, Q4 should come in at least the \$75 million range, and these conditions have setup expectations for FY19 to come in over \$400 million for the first time since FY15.

Quarterly Extramural Awards \$ millions

	2012	2013	2014	2015	2016	2017	2018	2019
Q1	203.2	178.1	166.5	191.1	165.8	181.8	164.5	180.5
Q2	47.5	74.8	74.7	77.0	56.9	59.5	62.0	75.3
Q3	45.3	56.7	55.4	52.8	66.2	67.1	71.0	76.7
Q4	139.9	100.1	95.7	104.8	102.4	78.6	88.8	TBD
FY	435.9	409.8	392.3	425.7	391.3	387.0	386.3	332.5



III. Significant Awards by Campus

During FY19 Q3, the University of Hawai'i (UH) received 359 awards from 154 different sponsors. The following table reports by campus the largest awards received this quarter. Unlike FY18 Q3 in which three (3) campuses had no awards, in FY19 Q3 every campus had reported awards. This helped to improve FY19 Q3 results.

Campus	Sponsor Type	Sponsor	Project Title	Amount
		National Science	R/V Kilo Moana Ship Operations CY18-	
Mānoa	Federal	Foundation	23	6,594,061
		Department of		
Hilo	Federal	Education	Hoolei - Casting the Educational Net	630,588
			Securing and Developing a Veteran	
			STEM Center Within The University of	
		Department of	Hawaii West Oahu STEM Center's Pueo	
West O'ahu	Federal	Defense	Prototyping Lab	495,794
		Department of		
Hawai'i CC	Federal	Agriculture	Distance Learning and Telemedicine	388,280
	Business and		Honolulu Community College,	
Honolulu CC	Other	Alu Like, Inc.	Kukala'ula Extension Project	51,068
		Department of	Apprenticeship State Expansion Grant	
		Labor & Industrial	Culinary and Healthcare Apprenticeship	
Kapi'olani CC	State and Local	Relations	Programs	1,443,853
			To Provide Title X Family Planning	
			Services including Clinical Family	
		Department of	Planning and Related Preventive Health	
Kaua'i CC	State and Local	Health	Services	100,000
		Department of	Advanced Professional Certificate in	
Leeward CC	State and Local	Education	Special Education Program	200,000
			Project Kaihuwaa: Advancing Low-	
			Income Students in STEM Through a	
		National Science	Culturally-Appropriate Academic	
Maui College	Federal	Foundation	Journey	1,000,000
	Business and	Kamehameha	UH Windward Community College's Ke	
Windward CC	Other	Schools	Kula Kamalii o Hanaiaulu Preschool	120,000
			University of Hawaii Pacific Disaster	
		Department of	Center (UoH PDC) Cooperative	
UH System ¹	Federal	Defense	Agreement	3,926,209

IV. Award Trends by Campus

As mentioned under Section III, Significant Awards by Campus, every campus had reported awards in FY19 Q3, which helped improve results.

¹ UH System represents units under Vice Presidents that receive extramural funding. Examples include the P20 and Gear Up grants under the VP for Academic Affairs; Maui High Performance Computing Center and Pacific Disaster Center contracts under the VP for Information Technology; Applied Research Laboratory task orders under the VP for Research and Innovation; and the Pacific Business Center Program under the VP for Community Colleges.

Q3 Award Amounts by Location S millions

Campus	2016	2017	2018	2019	2019-18 Change ²
Mānoa	55.2	57.3	60.1	57.5	-4.3%
Hilo	1.6	1.5	1.7	2.2	26.5%
West O'ahu	0.0	0.2	0.0	0.5	1001.8%
Hawai'i CC	0.0	0.0	0.1	0.4	285.8%
Honolulu CC	0.1	0.0	0.1	0.1	-45.5%
Kapi'olani CC	0.2	1.2	0.0	2.1	100.0%
Kaua'i CC	0.0	0.0	0.0	0.1	100.0%
Leeward CC	0.0	0.3	(0.2)	0.2	100.0%
Maui College	0.2	0.1	2.0	1.4	-27.2%
Windward CC	0.6	0.1	0.8	0.1	-82.8%
UH System	8.3	6.4	6.4	12.1	89.7%
TOTAL	66.2	67.1	71.0	76.7	8.0%

Major dollar increases and decreases are attributed as follows:

UH Mānoa decrease:

- For awards less than \$100,000, there were 24 less awards in FY19 Q3 compared to FY18
 Q3. This resulted in about \$1.7 million less in awards.
- For awards of \$1 million or more, there was one (1) more award in FY19 Q3 compared to FY18 Q3. However, the average size of the award went down and resulted in about \$600K less in awards.
- Kapi'olani Community College increase: Unlike FY18 Q3 where no awards were received, there were seven (7) awards totaling \$2.1 million in FY18 Q3. Two (2) awards totaling \$546,601 are attributed to timing differences (increments reported in FY19 Q3 this year as opposed to FY18 Q4 last year).
- UH System increase: Part of the increase is attributed to a new \$2.7 million Department of State award. Around \$4 million is attributed to timing differences for incremental funding on two (2) large Department of Defense awards (reported in different quarters in FY18 as opposed to FY19).

V. Forecast vs. Actuals

Results for FY19 Q3 were about \$8.9 million (or 13.1%) more than forecasted. Assuming Q4 results are in the \$75 million range, FY19 is expected to exceed the forecast.

FY 2019	Forecast	Actual	Variance
Q1	170.1	180.5	6.1%
Q2	59.2	75.3	27.2%
Q3	67.8	76.7	13.1%
Subtotal	297.1	332.5	11.9%
Q4	89.6	TBD	TBD
Total	386.7	332.5	

² The percent change over the prior year is calculated using the actual figures not the rounded figures.

Extramural Sponsor Awards Quarterly Summary

	Jan 1 - Mar 31 2019		Jan 1 -	Mar 31 2018
Program Type	Count	<u>Amount</u>	Count	Amount
Research	213	\$ 44,390,096	233	\$ 34,541,833
Non-Research	146	\$ 32,918,349	183	\$ 41,649,816
<u>Total</u>	<u>359</u>	\$ 77,308,445	<u>416</u>	\$ 76,191,649

Note: The detailed award listing is available at:

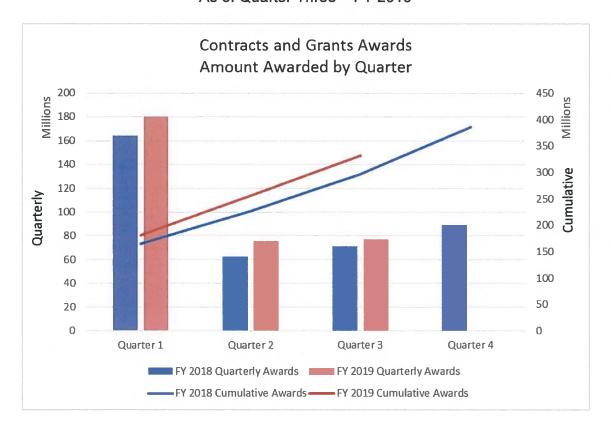
http://www.ors.hawaii.edu/index.php/bor-reports

The FY 2018 year-to-date total was: \$297,551,479

The unofficial FY 2019 year-to-date total is: 1,457 awards totaling

\$332,598,104

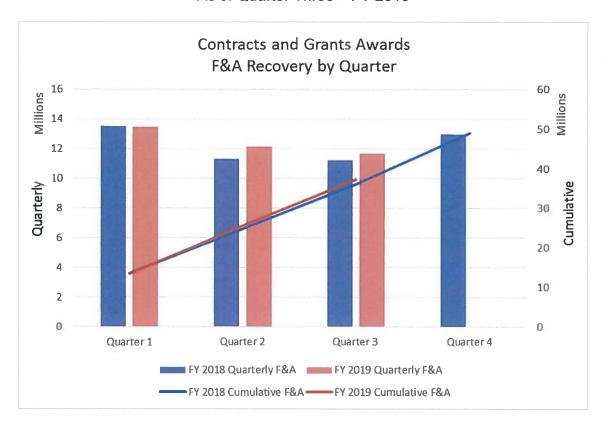
Contracts and Grants Awards As of Quarter Three – FY 2019



Contracts and Grants Expenditures As of Quarter Three – FY 2019



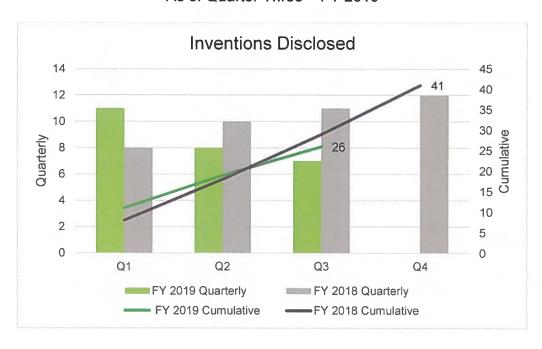
Contracts and Grants F&A Recovery As of Quarter Three – FY 2019



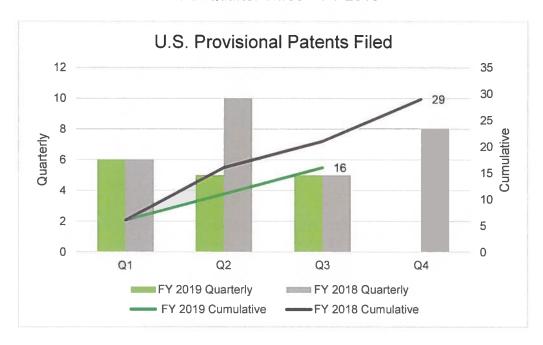
OTT Research & Innovation Metrics FY 2019 – Third Quarter Summary

	FY 2019	FY 2018
Metric	<u>1/1/19 – 3/31/19</u>	<u>1/1/18 – 3/31/18</u>
Invention Disclosures	7	11
U.S. Provisional Patents Filed	5	5
U.S. Non-Provisional Patents Filed	3	2
U.S. Non-Provisional Patents Issued	0	2
License & Option Agreements Executed	0	5
Active License & Option Agreements	120	113
Royalty Revenue	\$80,860.14	\$61,346.95
Start-Ups	0	0

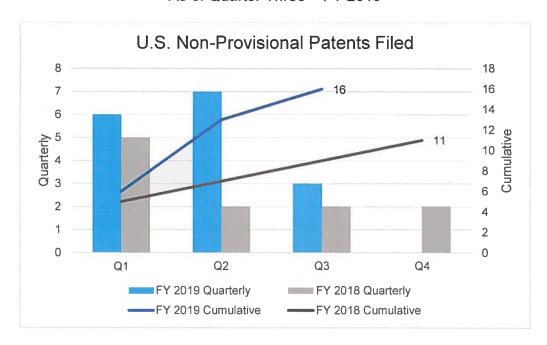
Invention Disclosures As of Quarter Three – FY 2019



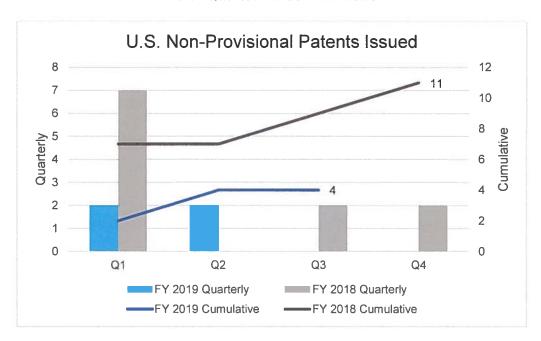
U.S. Provisional Patents Filed As of Quarter Three – FY 2019



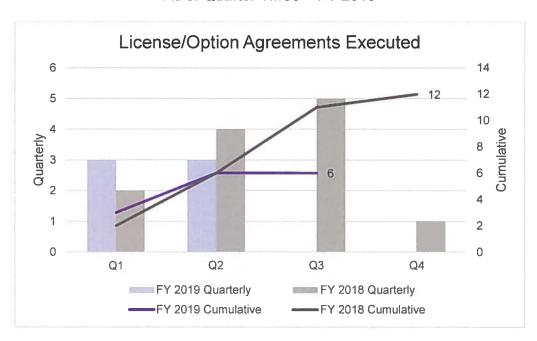
U.S. Non-Provisional Patents Filed As of Quarter Three – FY 2019



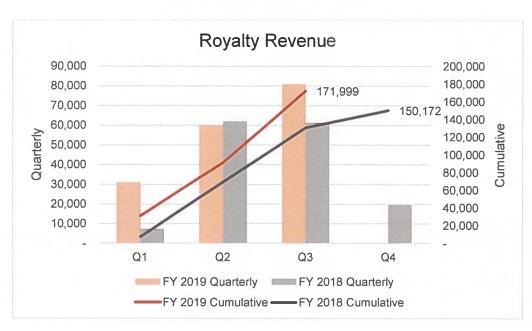
U.S. Non-Provisional Patents Issued As of Quarter Three – FY 2019



License/Option Agreements As of Quarter Three – FY 2019



Royalty Revenue As of Quarter Three – FY 2019



FY 2019 Monthly Report of Awards to Date as of March 31, 2019	9					
Summary By Campus						
	FY	2018	FY	2019		
Campus	Award Count	Award Amount	Award Count	Award Amount	\$ Change	% Change
Hawai'i Community College	7	557,101	9	757,155	200,054	35.9%
Honolulu Community College	9	1,387,924	8	1,490,375	102,451	7.4%
Kapi'olani Community College	11	4,229,453	15	5,288,336	1,058,883	25.0% 10.7%
Kaua'i Community College	3 5	877,867 3,251,986	5	971,368 2,857,989	93,501 (393,997)	-12.1%
Leeward Community College University of Hawai'i Maui College	28	11,810,616	31	11,523,275	(287,341)	-2.4%
Windward Community College	17	7,207,338	18	6,789,040	(418,298)	-5.8%
Subtotal Community Colleges and UH Maui College	80	29,322,285	91	29,677,538	355,253	1.2%
University of Hawai'i at Hilo	97	10,118,850	98	13,005,415	2,886,565	28.5%
University of Hawai'i at Manoa	1,167	228,968,456	1,194	246,742,490	17,774,034	7.8%
University of Hawai'i at West O'ahu	18	5,819,403	18	5,717,767	(101,636)	-1.7%
University of Hawai'i System	48	28,382,341	56	40,579,385	12,197,044	43.0%
Grand Total	1,410	302,611,335	1,457	335,722,595	33,111,260	10.9%
FY 2019 Monthly Report of Awards to Date as of March 31, 2019	9					
Campus Details			_			
	The second second second	2018		2019	¢ Chause	ev Channa
Campus	Award Count	Award Amount	Award Count	Award Amount	\$ Change 200,054	% Change 35.9%
Hawai'i Community College	7	557,101	9	757,155		
Chancellor, Hawaii Community College	7	557,101	9	757,155 250,000	200,054 (134,919)	35.9% -35.1%
Academic Affairs (Hawaii CC)	2	384,919	2	397,780	397,780	100.0%
Chancellor, Hawaii Community College	<u> </u>	-	1	19,800	19,800	100.0%
Early Childhood Education (Hawaii CC) Liberal Arts and Public Services	1	13,750	- 1	19,800	(13,750)	-100.0%
Office of Continuing Education & Training	2	92,407	3	79,575	(12,832)	-13.9%
UH Center at West Hawai'i	2	66,025	1	10,000	(56,025)	-84.9%
Honolulu Community College	9	1,387,924	8	1,490,375	102,451	7.4%
Chancellor, Honolulu Community College	9	1,387,924	8	1,490,375	102,451	7.4%
Academic Affairs (Honolulu CC)	1	576,039	2	792,641	216,602	37.6%
Chancellor, Honolulu Community College	5	418,832	2	283,461	(135,371)	-32.3%
Early Childhood (Honolulu CC)	1	40,000	1	40,000	-	0.0%
Pacific Center for Advanced Technology Training	-	-	1	20,152	20,152	100.0%
University College	2	353,053	2	354,121	1,068	0.3%
Kapi'olani Community College	11	4,229,453	15	5,288,336	1,058,883	25.0%
Chancellor, Kapiolani Community College	11	4,229,453	15	5,288,336	1,058,883	25.0%
Arts and Sciences Academic Program	-	-	2	92,247	92,247	100.0%
Chancellor, Kapiolani Community College	3	2,841,211	6	4,577,822	1,736,611	61.1%
Continuing Education / Non-Credit Program	-	-	4	72,000	72,000	100.0%
Culinary Arts (KCC)	2	132,756	1	42,000	(90,756)	-68.4%
Emergency Medical Services	3		1	149,480	(490,000)	-76.6%
Office for Institutional Effectiveness	1	2,000	•	-	(2,000)	-100.0%
Student Support Services	2		1	354,787	(259,219)	-42.2%
Kaua'i Community College	3		5	971,368	93,501	10.7%
Chancellor, Kauai Community College	3	877,867	5	971,368	93,501	10.7%
Chancellor, Kauai Community College	3		5		93,501	10.7%
Leeward Community College	5		5		(393,997)	-12.1%
Chancellor, Leeward Community College	5	3,251,986 3,251,986	3		(668,211)	-20.5%
Chancellor, Leeward Community College		3,231,980	1		74,214	100.0%
Hawaiian Studies (Leeward CC) Social Science (Leeward CC)	-		1		200,000	100.0%
University of Hawai'i at Hilo	97	10,118,850	98	13,005,415	2,886,565	28.5%
Chancellor, UH Hilo	4		1	848,825	(834,390)	
Chancellor, UH Hilo	4	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1		(834,390	
College of Agriculture, Forestry and Natural Resource Mgt	12		11		567,873	57.8%
College of Agriculture, Forestry and Natural Resource Mgt	6		7		301,026	64.3%
Pacific Aquaculture and Coastal Resources Ctr	6				266,847	51.9%
College of Arts and Sciences	20			4,262,403	2,600,208	
Anthropology (UH Hilo)	-		1	600,000	600,000	100.0%
Art (UH Hilo)	1		-	-	(10,000	
Biology (UH Hilo)	5		2		(239,222	
College of Arts and Sciences	1		1		29,995	
Geography (UH Hilo)	2			556,079	347,284	166.3%
Geology-Geophysics	1				(6,768	
Marine Science	1				559,432	
Mathematics (UH Hilo)	1					20.0%
Natural Sciences Division	6					
Physics and Astronomy	1					45.3%
Social Sciences Division	1	100,000	2		149,934 393,028	
Tropical Conservation Biology and Environmental Science		67,750		1	(67,750	
College of Continuing Education and Community Svc	2			-	(67,750	
College of Continuing Education and Community Svc	6				339,098	
College of Pharmacy	2					
College of Pharmacy Pharmaceutical Sciences	2					
Pharmaceutical Sciences Pharmacy Practice	2					
	4					
Hawaii Small Rusiness Development Center		340,013		50,500	1	1
Hawaii Small Business Development Center		545 013	2	90 500	(455.513	-83.4%
Hawaii Small Business Development Center Hawaii Small Business Development Center Imiloa Astronomy Center Of Hawaii	4					

Ka Haka'Ula O Ke'Elikolani-UHH	5	1,741,041	6	1,105,307	(635,734)	-36.5%
Hale Kuamo'o Center	1	634,437	3	848,318	213,881	33.7%
Ka Haka'Ula O Ke'Elikolani-UHH	4	1,106,604	3	256,989	(849,615)	-76.8%
Vice Chancellor for Academic Affairs (UH Hilo)	1	57,000	-	-	(57,000)	-100.0%
Vice Chancellor for Academic Affairs (UH Hilo)	1	57,000	*	-	(57,000)	-100.0%
Vice Chancellor for Administrative Affairs	1	2,250	1	2,250	-	0.0%
Vice Chancellor for Administrative Affairs	1	2,250	1	2,250	-	0.0%
Vice Chancellor for Research	24	1,310,016	17	1,725,141	415,125	31.7%
Vice Chancellor for Research	24	1,310,016	17	1,725,141	415,125	31.7%
Vice Chancellor for Student Affairs	10	1,091,740	19	2,731,364	1,639,624	150.2%
Center For Gifted And Talented Native Hawaiian Children	1	44,800	3	717,054	672,254	1500.6%
Vice Chancellor for Student Affairs	9	1,046,940	16	2,014,310	967,370	92.49
University of Hawai'i at Manoa	1,167	228,968,456	1,194	246,742,490	17,774,034	7.89
Chancellor, UH Manoa	1	30,000	-		(30,000)	-100.0%
Chancellor, UH Manoa	1	30,000	-	-	(30,000)	-100.09
College of Arts and Humanities	13	377,625	18	462,457	84,832	22.5%
American Studies	2	104,618	-	-	(104,618)	-100.09
Art and Art History	1	2,766	4	87,446	84,680	3061.59
College of Arts and Humanities		-	2	102,000	102,000	100.09
History (UH Manoa)	2	73,349	1	5,000	(68,349)	-93.29
Music (UH Manoa)	1	5,930	4	29,218	23,288	392.79
Philosophy (UH Manoa)	2	160,000	1	1,000	(159,000)	-99.49
Religion (UH Manoa)			1	14,101	14,101	100.09
Theatre and Dance	2	13,962	1	20,000	6,038	43.29
UHM Uehiro Academy for Philosophy and Ethics in Education	3	17,000	4	203,692	186,692	1098.29
College of Education	51	10,482,912	62	20,575,159	10,092,247	96.37
Center on Disability Studies/University Affiliated Pgms	24	5,705,484	33	9,784,173	4,078,689	71.59
College of Education	5	940,975	6	3,074,963	2,133,988	226.89
Curriculum Research and Development Group	9	1,476,302	13	2,270,499	794,197	53.89
Department of Curriculum Studies	1	66,534	13	578,985	512,451	770.29
Department of Educational Psychology	1	66,534	1			
Department of Educational Psychology Department of Kinesiology and Rehabilitation Science	8	730,981	2	1,026 305,510	1,026 (425,471)	100.09
Department of Special Education	2	498,074	4	3,807,276	3,309,202	664.49
Institute for Teacher Education	2	1,064,562	2	752,727	(311,835)	-29.39
College of Engineering	29	3,404,006	39	5,752,984	2,348,978	69.07
Civil and Environmental Engineering	11	1,469,040	6	914,529	(554,511)	-37.79
College of Engineering	5	780,160	3	625,710	(154,450)	-19.89
Electrical Engineering	7	554,529	15	2,745,188	2,190,659	395.0%
Hawaii Center for Advanced Communications		-	1	100,032	100,032	100.0%
Mechanical Engineering	6	600,277	14	1,367,525	767,248	127.89
College of Language, Linguistics and Literature	21	1,432,572	21	1,452,248	19,676	1.49
Center for Language and Technology	2	16,339	1	156,000	139,661	854.8%
College of Language, Linguistics and Literature	1	174,700	1	98,413	(76,287)	-43.7%
Department of East Asian Languages and Literature	4	922,073	3	902,606	(19,467)	-2.1%
Department of English	4	8,581	1	3,263	(5,318)	-62.09
Department of Indo-Pacific Languages	-		1	104,370	104,370	100.09
Department of Linguistics	7	287,830	8	107,101	(180,729)	-62.8%
Department of Second Language Studies	1	16,902	5	77,932	61,030	361.19
Dept of Languages and Literatures of Europe and the Americas	2	6,147	1	2,563	(3,584)	-58.3%
College of Natural Sciences	182	23,170,404	165	27,878,648	4,708,244	20.3%
College of Natural Sciences	-	-	1	526,991	526,991	100.0%
Department of Biology (Biology Program)	8	1,011,285	9	2,556,252	1,544,967	152.8%
Department of Botany	132	18,677,729	115	19,064,007	386,278	2.19
Department of Chemistry	8	496,532	8	1,672,563	1,176,031	236.89
Department of Mathematics	4	382,371	4	345.092	(37,279)	-9.7%
Department of Microbiology	1	540	1	399,850	399,310	73946.39
Department of Physics and Astronomy	22	2,052,624	17	1,927,645	(124,979)	-6.19
Information and Computer Sciences	7	549,323	10	1,386,248	836,925	152.49
College of Social Sciences	60	12,758,630	76	14,126,323	1,367,693	10.79
College of Social Sciences	2	116,805	5	252,218		
Department of Anthropology	2	545,767	3	150,193	135,413 (395,574)	115.99
Economics (UH Manoa)	6		3		(157,512)	-72.5%
Geography (UH Manoa)	6	337,115	7	179,603		-46.79
		392,668		711,098	318,430	81.19
Political Science (UH Manga)	1	20,742		1 440 7/2	(20,742)	-100.09
Psychology (UH Manoa)	3	1,082,845	9	1,410,743	327,898	30.39
School of Communications	2	36,746	3	242,990	206,244	561.39
Social Science Research Institute	31	4,788,342	39	4,297,503	(490,839)	-10.39
Sociology (UH Manoa)	1	20,000	1	5,000	(15,000)	-75.09
Urban and Regional Planning	6	5,417,600	6	6,876,975	1,459,375	26.99
College of Tropical Agriculture and Human Resources	112	13,858,977	127	12,564,826	(1,294,151)	-9.39
Center on the Family	5	628,160	4	99,000	(529,160)	-84.29
College of Tropical Agriculture and Human Resources	6	703,867	6	1,613,147	909,280	129.29
Cooperative Extension	3	716,464	1	279,092	(437,372)	-61.09
Family and Consumer Sciences	2	130,647	2	180,000	49,353	37.89
Hawaii County	10	660,522	10	603,439	(57,083)	-8.65
Human Nutrition, Food and Animal Sciences	10	2,665,103	16	1,687,929	(977,174)	-36.75
Kauai County	1	13,800	2	19,300	5,500	39.95
Maui County	4	319,714	2	128,940	(190,774)	-59.79
Molecular Biosciences and Bioengineering	1	75,000	7	1,561,108	1,486,108	1981.59
Natural Resources and Environmental Mgt	14	876,542	23	876,167	(375)	0.09
Oahu County	4	670,083	4	805,705	135,622	20.29
····						
Office of The Assoc Dean for Academic and Student Affairs	4	2,162,953	3	338,500	(1,824,453)	-84.49

		2000000				
Tropical Plant and Soil Science	11	512,221	11	478,599	(33,622)	-6.6%
Colleges of Arts and Sciences	1	18,000	-		(18,000)	-100.0%
Colleges of Arts and Sciences	1	18,000		3,238,552	(18,000)	-100.0%
Hawai'Inuiakea School of Hawaiian Knowledge	4	2,534,574	6		703,978	27.8%
Hawai'inuiakea School of Hawaiian Knowledge Kamakakuokalani Center for Hawaiian Studies	4	2,534,574	1	2,182,177	(352,397)	-13.9%
Kamakakuokalani Center for Hawaiian Studies Kawaihuelani Center for Hawaiian Language	-	14	1	15,000 1,041,375	15,000	100.0%
Institute for Astronomy	44	11,095,989	63		1,041,375	100.0% 25.1%
Institute for Astronomy	44	11,095,989	63	13,875,643 13,875,643	2,779,654	
John A. Burns School of Medicine	159	42,086,320	144		2,779,654	25.1% -11.1%
Associate Dean for Academic Affairs		2,590,419	7	37,426,339	(4,659,981)	
	7 9		9	2,932,847	342,428 692,361	13.2%
Department of Anatomy, Biochemistry, and Physiology	6	920,183		1,612,544		75.2%
Department of Cell and Molecular Biology		2,969,029	11	3,431,892	462,863	15.6%
Department of Complementary and Alternative Medicine Department of Family Medicine and Community Health	6	100,943	9	634,122 1,272,317	533,179	528.2%
Department of Family Medicine and Community Health Department of Geriatric Medicine	4	2,129,147	4		(856,830) 954,771	-40.2%
Department of Geriatric Medicine Department of Medicine	21	916,763		1,871,534	(339,510)	104.1%
1		2,362,966	19	2,023,456		-14.4%
Department of Native Hawaiian Health	13	2,487,674	9 8	1,867,607	(620,067)	-24.9%
Department of Obstetrics, Gynecology and Women's Health	9	5,202,856		4,528,212	(674,644)	-13.0%
Department of Pediatrics	15	3,096,019	13	4,424,714	1,328,695	42.9%
Department of Psychiatry	7	5,495,095	8	4,934,900	(560,195)	-10.2%
Department of Surgery	14	1,973,907	11	1,941,306	(32,601)	-1.7%
Department of Tropical Medicine, Medical Micro and Pharm	29	3,932,868	23	2,635,594	(1,297,274)	-33.0%
Institute for Biogenesis Research	1	195,492	2	2,387,607	2,192,115	1121.3%
John A. Burns School of Medicine	13	7,033,959	7	927,687	(6,106,272)	-86.8%
Native Hawaiian Center of Excellence	1	679,000			(679,000)	-100.0%
Lyon Arboretum	6	266,256	4	108,423	(157,833)	-59.3%
Lyon Arboretum	6	266,256	4	108,423	(157,833)	-59.3%
Office of Research Compliance	1	49,900	-	-	(49,900)	-100.0%
Animal and Veterinary Services Program	1	49,900	-	•	(49,900)	-100.0%
Outreach College	7	129,263	6	214,081	84,818	65.6%
Community Programs	5	67,126	4	96,179	29,053	43.3%
Outreach College	2	62,137	2	117,902	55,765	89.7%
School of Architecture	1	150,175	2	230,565	80,390	53.5%
School of Architecture	1	150,175	2	230,565	80,390	53.5%
School of Nursing and Dental Hygiene	11	2,107,577	5	463,493	(1,644,084)	-78.0%
Department of Nursing	8	1,998,638	4	441,005	(1,557,633)	-77.9%
School of Nursing and Dental Hygiene	3	108,939	1	22,488	(86,451)	-79.4%
School of Ocean and Earth Science and Technology	296	72,905,297	275	74,392,852	1,487,555	2.0%
Center for Microbial Oceanography, Research and Edu (C-MORE)	8	3,918,028	8	4,009,005	90,977	2.3%
Department of Atmospheric Sciences	3	264,402	4	293,967	29,565	11.2%
Department of Ocean and Resources Engineering	7	1,158,918	7	779,170	(379,748)	-32.8%
Department of Oceanography	47	10,532,450	24	4,013,045	(6,519,405)	-61.9%
Earth Sciences	15	1,120,687	21	2,202,284	1,081,597	96.5%
Hawaii Institute of Geophysics and Planetology (HIGP)	58	6,743,866	50	7,551,191	807,325	12.0%
Hawaii Institute of Marine Biology (HIMB)	26	2,715,350	34	3,130,231	414,881	15.3%
Hawaii Natural Energy Institute (HNEI)	11	9,218,851	10	8,897,467	(321,384)	-3.5%
International Pacific Research Center (IPRC)	13	2,119,385	18	2,927,967	808,582	38.2%
Joint Institute for Marine and Atmospheric Research (JIMAR)	57	21,226,541	45	17,689,773	(3,536,768)	-16.7%
Pacific Biosciences Research Center	22	3,823,949	24	5,505,760	1,681,811	44.0%
School of Ocean and Earth Science and Technology	10	6,262,349	10	12,009,243	5,746,894	91.8%
Sea Grant College Program	19	3,800,521	19	5,367,201	1,566,680	41.2%
University Marine Center/Ship Operations	•	-	1	16,548	16,548	100.0%
School of Pacific and Asian Studies	13	1,912,598	11	1,344,262	(568,336)	-29.7%
Center for Chinese Studies	1	122,560	-	•	(122,560)	-100.0%
Center for Japanese Studies	2	571,350	4	400,082	(171,268)	-30.0%
Center for Korean Studies	5	233,273	3	198,853	(34,420)	-14.8%
Center for Pacific Islands Studies	2	405,000	-	-	(405,000)	-100.0%
Center for Southeast Asian Studies	2	579,900	1	280,500	(299,400)	-51.6%
School of Pacific and Asian Studies	1	515	3	464,827	464,312	90157.7%
School of Social Work	34	5,144,394	32	3,494,503	(1,649,891)	-32.1%
Center on Aging	2	116,231	3	411,072	294,841	253.7%
Office of Public Health Studies	22	3,884,187	20	2,551,853	(1,332,334)	-34.3%
School of Social Work	10	1,143,976	9	531,578	(612,398)	-53.5%
Shidler College of Business		-	3	325,617	325,617	100.0%
Department of Information Technology Management		-	3	325,617	325,617	100.0%
University of Hawaii Cancer Center	58	15,178,860	75	20,334,062	5,155,202	34.0%
Cancer Biology	7	949,378	15	2,327,283	1,377,905	145.1%
Cancer Epidemiology	25	6,966,528	36	10,148,227	3,181,699	45.7%
Cancer Prevention in the Pacific	2	582,304	4	950,254	367,950	63.2%
Translational and Clinical Research	16	2,366,340		1,318,036	(1,048,304)	-44.3%
University of Hawaii Cancer Center	8	4,314,310	15	5,590,262	1,275,952	29.6%
Vice Chancellor, Academic Affairs		1,227,822	8	1,248,424	20,602	1.7%
	8			657,000	(38,000)	-5.5%
Graduate Education	1	695,000	1			
Graduate Education Library (UH Manoa)	1 5	695,000 106,081	1 4	163,405	57,324	54.0%
Graduate Education Library (UH Manoa) Service Learning	1 5 1	695,000 106,081 22,886	4	163,405 -	57,324 (22,886)	-100.0%
Graduate Education Library (UH Manoa) Service Learning Undergraduate Education	1 5 1	695,000 106,081 22,886 403,855	3	163,405 - 428,019	57,324 (22,886) 24,164	-100.0% 6.0%
Graduate Education Library (UH Manoa) Service Learning Undergraduate Education Vice Chancellor, Research	1 5 1 1	695,000 106,081 22,886 403,855 15,734	3	163,405 428,019 105,000	57,324 (22,886) 24,164 89,2 66	-100.0% 6.0% 567.3%
Graduate Education Library (UH Manoa) Service Learning Undergraduate Education Vice Chancellor, Research Vice Chancellor, Research	1 5 1 1 1	695,000 106,081 22,886 403,855 15,734 15,734	3 3 3	163,405 - 428,019 105,000	57,324 (22,886) 24,164 89,266 89,266	-100.0% 6.0% 567.3% 567.3%
Graduate Education Library (UH Manoa) Service Learning Undergraduate Education Vice Chancellor, Research Vice Chancellor, Students	1 5 1 1 1 1 1 12	695,000 106,081 22,886 403,855 15,734 15,734 2,799,843	3 3 3 14	163,405 - 428,019 105,000 105,000 4,610,712	57,324 (22,886) 24,164 89,266 89,266 1,810,869	-100.0% 6.0% 567.3% 567.3% 64.7%
Graduate Education Library (UH Manoa) Service Learning Undergraduate Education Vice Chancellor, Research Vice Chancellor, Students Health & Wellness	1 5 1 1 1 1 1 12	695,000 106,081 22,886 403,855 15,734 15,734 2,799,843 25,000	3 3 3 14	163,405 - 428,019 105,000 105,000 4,610,712 19,305	57,324 (22,886) 24,164 89,266 89,266 1,810,869 (5,695)	-100.0% 6.0% 567.3% 567.3% 64.7% -22.8%
Graduate Education Library (UH Manoa) Service Learning Undergraduate Education Vice Chancellor, Research Vice Chancellor, Students	1 5 1 1 1 1 1 12	695,000 106,081 22,886 403,855 15,734 15,734 2,799,843	3 3 3 14	163,405 428,019 105,000 105,000 4,610,712 19,305 4,479,907	57,324 (22,886) 24,164 89,266 89,266 1,810,869	-100.0% 6.0% 567.3% 567.3% 64.7%

Women's Center	1	22,000	2	91,500	69,500	315.9%
Water Resources Research Center	11	3,804,888	9	341,882	(3,463,006)	-91.0%
Water Resources Research Center	11	3,804,888	9	341,882	(3,463,006)	-91.0%
William S. Richardson School of Law	31	2,025,840	26	2,175,435	149,595	7.4%
William S. Richardson School of Law	31	2,025,840	26	2,175,435	149,595	7.4%
University of Hawai'i at West O'ahu	18	5,819,403	18	5,717,767	(101,636)	-1.7%
Chancellor, UH West Oahu	18	5,819,403	18	5,717,767	(101,636)	-1.7%
Anthropology (UH WO)	2	1,200	1	600	(600)	-50.0%
Chancellor, UH West Oahu	3	2,059,769	5	2,314,072	254,303	12.3%
Division of Social Sciences	5	718,166	1	151,576	(566,590)	-78.9%
Elementary Education	-	-	2	638,108	638,108	100.0%
Vice Chancellor for Academic Affairs (UH WO)	1	45,000	2	61,815	16,815	37.4%
Vice Chancellor for Student Affairs	7	2,995,268	7	2,551,596	(443,672)	-14.8%
University of Hawai'i Maui College	28	11,810,616	31	11,523,275	(287,341)	-2.4%
Chancellor, UH Maui College	28	11,810,616	31	11,523,275	(287,341)	-2.4%
Academic Affairs (UH Maui College)	1	2,000,000	2	4,013,888	2,013,888	100.7%
Allied Health Department	1	1,100	1	100,000	98,900	8990.9%
Chancellor, UH Maui College	19	6,286,721	24	5,614,166	(672,555)	-10.7%
Continuing Education and Training (UH Maui College)	1	20,000	-	-	(20,000)	-100.0%
Cooperative Education (UH Maui College)	2	58,680	-	-	(58,680)	-100.0%
General Education	1	800,000	2	1,075,398	275,398	34.4%
Human Services (UH Maui College)	1	1,883,888	-	-	(1,883,888)	-100.0%
Music (UH Maui College)	1	500,000	1	448,536	(51,464)	-10.3%
Student Affairs (UH Maui College)	1	260,227	1	271,287	11,060	4.3%
University of Hawai'i System	48	28.382.341	56	40,579,385	12,197,044	43.0%
Office of the Vice President for Community Colleges	4	1,380,851	3	228,500	(1,152,351)	-83,5%
Office of the Vice President for Community Colleges	4	1,380,851	3	228,500	(1,152,351)	-83.5%
Office of the Vice President for Research and Innovation	16	6,716,252	25	15,344,708	8,628,456	128,5%
Applied Research Laboratory	15	6,709,249	23	15,311,884	8,602,635	128.2%
Office of the Vice President for Research and Innovation	1	7,003	2	32,824	25,821	368.7%
Office of the VP for Academic Planning and Policy	13	3,815,276	12	6,503,088	2,687,812	70.4%
Hawai'i P-20 Partnerships for Education Office	10	3,596,250	8	4,869,325	1,273,075	35.4%
Office of the VP for Academic Planning and Policy	3	219,026	4	1,633,763	1,414,737	645.9%
Office of the VP for Information Tech/Chief Info Officer	15	16,469,962	15	18,429,027	1,959,065	11.9%
Maul High Performance Computing Center (MHPCC)	-	-	-		-	100.0%
Office of the VP for Information Tech/Chief Info Officer	6	5,728,560	8	6,541,418	812,858	14.2%
Pacific Disaster Center	9	10,741,402	7	11,887,609	1,146,207	10.7%
VP For Administration	-	-	1	74,062	74,062	100.0%
VP For Administration		-	1	74,062	74,062	100.0%
Windward Community College	17	7,207,338	18	6,789,040	(418,298)	-5.8%
Chancellor, Windward Community College	17	7,207,338	18	6,789,040	(418,298)	-5.8%
Chancellor, Windward Community College	17	7,207,338	18	6,789,040	(418,298)	-5.8%
Grand Total	1,410	302,611,335	1,457	335,722,595	33,111,260	10.9%

Indirect Cost Update

BOR Committee on Research and Innovation

June 6, 2019



Timeline

Rate Proposal submitted negotiation Rate agreement began 2/14/19 3/31/17 issued May '19 Implementation **HHS** review Rates began 11/17/17 negotiated May '19 – June 4/10/19 **'**19



F&A Rate Refresher

- An F&A rate is a method for the federal government to reimburse UH for Facilities and Administrative costs that were incurred to support extramurally funded research and training grants, contracts and other sponsored agreements.
 - NOTE: Federal government caps the administrative costs at 26%



F&A Cost Examples

Facilities

- Depreciation of facility construction
- Depreciation of equipment
- Interest on facility construction
- Utilities
- Custodial and janitorial services
- Maintenance and repairs
- Security and campus protection
- Property insurance
- Environmental health and safety
- Hazardous waste disposal
- Disaster preparedness
- Library books, periodicals, other materials

Administrative support

- Financial management
- Budgeting and planning
- Personnel management
- Safety and risk management
- Human subject protection
- Procurement
- Data and technology management
- Legal counsel
- Dean and school management
- Academic department management
- Proposal preparation
- Award billing and financial reporting

F&A reimbursement is....

Allowed on

- Direct salaries and wages
- Applicable fringe benefits
- Materials and supplies
- Services
- Travel
- First \$25,000 of each subaward
- Other direct costs

Not allowed on

- Portion of each subaward > \$25,000
- Equipment and other capital expenses
- Rental costs of facilities
- Charges for patient care
- Participant support costs
- Tuition remission, scholarships & fellowships

F&A rate formula

Investments in research facilities and related O&M + Grants and contracts administrative support



Research F&A rate

Research grants and contracts expenditures + Cost sharing



Negotiated F&A Rates

	FY 18 & FY 19	FY 20	FY 21	FY 22	FY 23
Research	41.5	43.0	44.5	45.0	45.5
Kaka'ako research	54.0	55.0	55.5	56.0	56.5
ARL research	6.6	8.0	8.0	8.0	8.0
Instruction	40.0	45.0	45.0	45.0	45.0
Other sponsored activities	32.0	36.5	36.5	36.5	36.5
Intergovernmental personnel agreements	4.3	1.8	1.8	1.8	1.8
SOEST ship operations	9.0	9.0	9.0	9.0	9.0



Takeaways

- Research and Kaka'ako research rates came out as expected (at 45% and 57% respectively)
 - Unable to increase rates rapidly



F&A Rate Components

Research	FY 18 & FY 19	FY 20	FY 21	FY 22	FY 23
Facilities	17.5	17.0	18.5	19.0	19.5
Administrative support	24.0	26.0	26.0	26.0	26.0
Total	41.5	43.0	44.5	45.0	45.5

Kaka'ako research	FY 18 & FY 19	FY 20	FY 21	FY 22	FY 23
Facilities	28.0	29.0	29.5	30.0	30.5
Administrative support	26.0	26.0	26.0	26.0	26.0
Total	54.0	55.0	55.5	56.0	56.5



F&A Rate Components

Instruction	FY 18 & FY 19	FY 20	FY 21	FY 22	FY 23
Facilities	14.0	19.0	19.0	19.0	19.0
Administrative support	26.0	26.0	26.0	26.0	26.0
Total	40.0	45.0	45.0	45.0	45.0

Other sponsored activities	FY 18 & FY 19	FY 20	FY 21	FY 22	FY 23
Facilities	6.0	10.5	10.5	10.5	10.5
Administrative support	26.0	26.0	26.0	26.0	26.0
Total	32.0	36.5	36.5	36.5	36.5



Implementation

- Proposals submitted from July 1, 2019 will use the new rates.
- Awards from proposals submitted prior to July 1, 2019:
 - Accept old rates with a blanket waiver period that ends June 30, 2020.
 - Discourage waiver requests to reduce awarded rates



Next F&A Proposal

- Base year = FY 2022
- Key factors
 - Rate denominator trends (i.e., research expenditures)
 - Research facility investments
 - Space survey



RTRF Allocation: Office of the VP for Research and Innovation

BOR Committee on Research and Innovation

June 6, 2019



Overview

- Overview of Hawai'i Revised Statute (HRS)
- Overview of University of Hawai'i (UH) Policy
- OVPRI Allocation



HRS § 304A-2253

- Appropriates 100% of the F&A cost recovered by UH to itself, and directs that the revenue be deposited into UH's Research and Training Revolving Fund (RTRF)
- UH is authorized to expend 100% of the revenue deposited in RTRF for:
 - (1) Research and training purposes that may result in additional research and training grants and contracts;
 - (2) Facilitating research and training at the university; and
 - (3) Further deposit into the discoveries and inventions special fund



EP 12.216

- Controls: Allocations made annually. Should request extension for unexpended, unencumbered, or uncommitted funds.
- Investment Philosophy: Should balance the need to support indirect costs (i.e., the facilities and administrative support infrastructure) and the evolution of the research enterprise vis a vis support for current research commitments, initiatives and incentives.
- Collaboration: Should be made in accordance with procedures developed in consultation and in a collaborative manner with an Advisory Group to the Vice President for Research and Innovation; Allocations by campus heads and heads of research units should be done in a similarly consultative and collaborative fashion.



UH Allocation

- Basic formula negotiated in 2003:
 - 25% to UH System OVPRI, 25% to UH Mānoa OVCR, 50% to school/college or organized research unit (ORU).
 - Other Campuses: Chancellors and Vice Presidents make these decisions.



OVPRI Allocations

	FY 201	<u>16</u>	FY 201	<u>17</u>	<u>FY 2018</u>			
Category	<u>Amount</u>	<u>Ratio</u>	<u>Amount</u>	<u>Ratio</u>	<u>Amount</u>	<u>Ratio</u>		
Facilities	\$ 1,200,000	9.21%	\$ 1,200,000	10.32%	\$ 1,200,000	9.68%		
Innovation	\$ 850,000	6.53%	\$ 1,272,000	10.94%	\$ 33,000	0.27%		
Internet Connection	\$ 1,170,000	8.98%	\$ -	0.00%	\$ 810,000	6.53%		
TMT Expenses	\$ 2,004,544	15.39%	\$ 2,405,817	20.70%	\$ 2,104,475	16.98%		
RCUH	\$ 3,979,596	30.56%	\$ 4,624,613	39.78%	\$ 5,091,378	41.07%		
Research Support	\$ 3,818,831	29.32%	\$ 2,122,296	18.26%	\$ 3,157,867	25.47%		
Total	\$13,022,970	100.00%	\$11,624,726	100.00%	\$12,396,720	100.00%		



RTRF Expenditures: VCR and Mānoa Units FY 2018

Michael Bruno Provost



Introduction

During FY-17 our faculty generated \$40,508,980 in indirect costs, which was largely expended this past fiscal year ending June 30, 2018. 25% of this total was kept at the level of the UH System (\$9,261,422) and 75% returned to Mānoa (\$28,047,279). Of the amount returned to Mānoa, 2/3 was directly returned to the units generating the funds. The remainder was distributed by the Office of the Vice Chancellor for Research for research/scholarship support (e.g. start-up, infrastructure, cost sharing, etc.).

The University of Hawai'i at Mānoa continues to maintain vibrant and active research programs with over \$300 million in new extramural funds in FY18. The focus of the Office of the Vice Chancellor for Research will be to continue to use Research and Training Revolving Fund (RTRF) toward increasing the quality and quantity of the research/scholarship across the institution.

The following slides summarizes VCR and Mānoa units expenditures for FY2018.

Michael Bruno Provost



How much RTRF was returned to Mānoa in FY 2018?

		FY 2010		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015		FY 2016		FY 2017		FY 2018	3
		%	Amount	: %	Amount	%	Amount	%	Amount	%	6 Amount								
Mānoa'	s Overhead Generated		37,146,710		37,679,669		42,233,298		42,185,211		40,756,731		38,825,342		39,126,519		39,296,270		40,508,980
System		0.25	9,286,678	0.25	9,419,917	0.29	12,142,073	0.24	10,254,848	0.25	10,189,183	0.25	9,706,336	0.28	11,113,812	0.28	9,727,020	0.25	5 9,261,553
Mānoa		0.75	27,860,032	0.75	28,259,752	0.71	30,091,225	0.76	31,930,363	0.75	30,567,548	0.75	29,119,006	0.72	28,012,708	0.72	29,569,251	0.75	5 28,047,148
TOTAL		1	37,146,710	1	37,679,669	1	42,233,298	1	42,185,211	1	40,756,731	. 1	38,825,342	1	39,126,520	1	39,296,271	1	1 37,308,701
Manoa'	s Allocation		27,860,032		28,259,752		30,091,225		31,930,363		30,567,548		29,119,006		28,012,708		29,569,251		28,047,148
Directly	Returned to Units	0.666667	18,573,355	0.666667	18,839,833	0.701754	21,116,650	0.660581	21,092,606	0.666667	20,378,367	0.666667	19,412,670	0.674111	18,883,687	0.697213	20,616,075	0.688002	2 19,296,484
Retaine Mānoa	d or Distribution by the Chancellor's Office		9,286,677		9,419,919		8,974,575		10,837,757		10,189,181		9,706,336		9,129,021		8,650,087		8,889,425



RTRF Revenue/Allocation by Unit

UNIT	RTRF Revenue by Unit FY17	FY 18 UNIT ALLOC		Final FY18 UNIT ALLOCATION
School of Architecture	17,601.34			
College of Arts & Humanities	41,626.33	· ·		
College of Arts & Sciences/Undergrad	36,908.20			
Shidler College of Business	56,030.42	· ·	431.43	
Cancer Research Center	4,027,622.55	·		
Outreach College	893.66			
College of Education, CRDG	1,218,517.71			
College of Engineering	557,730.37	·	·	· · ·
Graduate Division			,,,	
School of Pacific Asian Studies	69,574.38	34,787.19	535.72	34,251
Institute for Astronomy	3,475,669.05	·		·
Laboratory Animal Service		, ,		, .
Languages, Ling. & Literature	336,963.70	168,481.85	2,594.62	165,887
School of Law	203,935.11	101,967.55	1,570.30	100,397
Library Services				
Lyon Arboretum	37,258.02	18,629.01	286.89	18,342
School of Medicine	8,153,750.24	4,076,875.12	62,783.88	4,014,091
College of Natural Sciences	3,571,836.57	1,785,918.29	27,503.14	1,758,415
School of Nursing	145,432.99	72,716.49	1,119.83	71,597
SOEST	10,802,480.45	5,551,383.66	85,491.31	5,465,892
PBRC				
Department of Public Health Sciences				
SSRI, College of SocialSciences	1,360,023.98	680,011.99	10,472.18	669,540



RTRF Revenue/Allocation (cont.)

UNIT	RTRF Revenue by Unit FY17	FY 18 UNIT ALLOC	Less: Adjustment for 1.54% Restriction	Final FY18 UNIT
School of Social Work	421,110.31	210,555.16	3,242.55	207,313
Office of Student Affairs	289,402.34	144,701.17	2,228.40	142,473
School of Travel Industry Management				
CTAHR	2,007,287.73	1,003,643.86	15,456.12	988,188
Waikiki Aquarium	1,070.47	535.23	8.24	527
Water Resources Res. Cntr.	116,434.39	58,217.19	896.54	57,321
Center for Disabilities Studies				
School of Hawaiian Knowledge	20,320.06	10,160.03	156.46	10,004
VCR	189,077.20	94,538.60	1,455.89	93,083
Auxiliary Services				
Center on Aging				
MCO				
OVCAA				
OVCAFO				
TOTAL Mānoa	37,158,557.57	18,729,422.20	288,433.07	18,440,991



VCR-RTRF Commitments at Mānoa for FY 2018

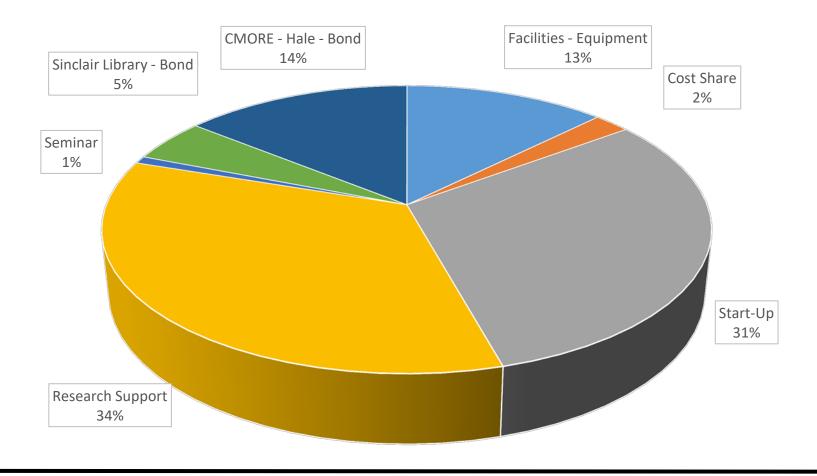
RTRF Commitments by Category

As of June 30, 2018

PURPOSE	TOTAL
Facilities - Equipment	1,108,215.00
Cost Share	200,000.00
Start-Up	2,716,000.00
Research Support	3,030,741.04
Seminar	72,043.00
Sinclair Library - Bond	426,655.81
CMORE - Hale - Bond	1,251,506.14
GRAND TOTAL	8,805,160.99



How were the VCR-RTRF funds committed in FY 2018?





Summary of VCR – RTRF Commitments to the Units

Department	Amount
HSHK	5,000.00
A&H	7,311.50
LAW	8,000.00
Soc Sci	40,000.00
COE	60,000.00
GSO	108,000.00
Lyon	232,000.00
CTAHR	238,166.00
UHCC	300,000.00
IFA	320,300.41
JABSOM	378,705.00
ITS	500,100.00
Engineering	673,897.91
VCR - Infrastructure	709,000.00
Facilities	1,000,000.00
Nat Sci	1,194,129.61
SOEST	1,352,388.61
VCR - Bond	1,678,161.95
GRAND TOTAL	8,805,160.99

- VCR Bond CMORE \$1,251.506.14 is the repayment of revenue bond interest for CMORE-Hale (this is year 7 of a 30 year commitment).
- VCR Bond Sinclair \$426,644.81 is the repayment –of revenue bond interest for Sinclair Library (this is year 6 of a 30 year commitment).
- VCR Infrastructure \$709,000 is the amount for renovations, repairs and maintenance etc. for various research buildings and campus wide support.



What policies are currently in place for how funds are allocated by the Offices of Mānoa Deans and Units?



RTRF Distribution Practices in UHM Colleges/Schools

SCHOOL/COLLEGE	DEAN'S LEVEL	DEPARTMENT LEVEL	PI	NOTES/COMMENTS
Architecture	50%		50%	
Arts & Humanities	65-75%	25-35%		
Business	50%	25%	25%	Dean's office keeps all of Research RTRF but training RTRF is split
CTAHR	50%	50%		Every department handles RTRF differently
Education	50%	50%		Dean's Office keeps most RTRF for faculty start up, travel, and research and training costs that cannot be charged to extramural projects; its ORUs keep their generated amounts
Engineering	50%	25%	25%	
IFA	100%			Kept for operational costs across IFA, special agreements (start up) and special requests for PI
JABSOM	50% Research Facilities, GDO & ADR; 25% Start up Pkgs & Research Support	Up to 15% - Grant Release program	10%	Depts & PIs have 18 months to spend and sweep balances at end of period, need to pay for research support
LAW	100%			
LLL	25-50%	50-75% (to Pgm)		Dean's Travel Fund, start-ups, program improvements, etc.
Nat Sci	50%	50%	varies	Every department handles RTRF differently
Nursing	25%		25%	50% goes to Grants Development Office at JABSOM
Public Health		100%		Used for start up for tenure track faculty and to pay for support staff
Soc Sci	44% to SSRI, 28% to CSS Research Council	28% to Dept/PI	varies	The Dean's level funding covers SSRI administrative salaries and operations. CSS Research Council funds research travel grants, see money awards, and other research initiatives. Departments vary in their practices of sharing with the PIs.
Social Work	100%			Used for the School's and Department's operational costs and travel
SOEST	50%	50%	varies	Every dept handles differently but HNEI it goes to PI level
SPAS	ca. 20%	ca. 80%		Varies based on other sources of funds available to the units (centers) and amount their projects brought in
Student Affairs	50%	50%		
ТІМ	100%			
UHCC	100%			To cover utilities/facility costs
Undergrad Ed			100%	
WRRC	100%			

How are the funds used to support and build the research infrastructure by units that brought the funds into the University?



FY18 RTRF Expenditure Breakdown by UHM Colleges/Schools*

School	Payroll	Fringe	Student Payroll	Student Fringe	Services	Supplies	Travel	Printing	Rentals	Repairs	Utilities	Equipment	Tuition	Scholarships	Recharge Center	CIP	Others	Total
Architecture						4,221.70												4,221.70
A&H			730.10	6.28		6,568.85	1,270.56			260.73							3,000.00	11,836.52
Cancer Center	1,076,589.11	387,562.71			96,385.48	118,209.86	81,660.78		216,441.78	720,909.38		209,884.58					141,819.83	3,049,463.51
CTAHR	628,665.95	277,636.14	27,049.32	243.22	24,114.37	194,040.93	115,989.90	15,232.40	1,034.39	-3,624.73	13,257.41	163,528.23		2,214.76			85,278.31	1,544,660.60
Education	287,682.56	152,158.52	25,860.16	293.22	25,412.29	26,250.59	85,658.78	2,283.57	3,130.14	1,036.65	19,716.43			3,500.09			42,532.47	675,515.47
Engineering	44,370.69	6,576.19	737.40	6.34	-7,888.90	29,360.53	17,739.85	4,049.20	343.18	401.20		11,580.07		5,345.09			8,276.94	120,897.78
sнк	2,271.00	1,531.63				784.28	1,750.08											6,336.99
IFA	314,803.98	50,304.59			79,500.90	74,151.80	82,786.18	5,711.65	10,434.47	1,805.39	29,803.33	11,900.00			854,066.79		764,032.95	2,279,302.03
JABSOM	923,671.97	342,345.78	1,360.48	13.58	-30,149.59	436,757.96	105,952.78	15,986.44	72,026.29	269,666.96	2,625,471.61	108,304.01		6,910.00			304,657.81	5,182,956.08
Law					1,288.38	19,474.13	21,353.57	10,657.42	938.68	140.59	101.69			34,187.38			17,789.51	105,931.35
Library Services						1,291.60				5,978.01		32,404.17		4,000.00				43,673.78
LLL			2,330.09	45.49	1,015.00	6,048.21	23,330.37	323.10	3,583.01		1,668.00			69,260.00			2,936.43	110,539.70
Lyon						1,244.13				1,423.97								2,668.10
Nat Sci	402,634.05	71,081.33	14,953.46	128.61	3,195.76	264,345.86	148,035.78	6,647.23	2,211.43	11,361.40	5,424.87	118,377.29		140,116.69			155,390.73	1,343,904.49
OSA	1,011.19	9.47			225.65	9,471.49	41,011.28			2,813.25	2,678.59						16,804.91	74,025.83
Outreach							440.00											440.00
PBRC	63,241.37	25,325.84			2,033.49	33,765.92	-1,181.63		1,104.01	21,748.20	140,205.21	40,262.79					35,149.43	361,654.63
Public Health	2,224.96	446.35	6,702.39	57.64	7,150.00	745.88	27,085.12			-250.05	1,092.00			2,577.58			4,905.90	52,737.77
Shidler	18,540.20	459.80					9,417.96											28,417.98
Social Science	236,104.38	90,942.16	25,583.00	232.16	5,015.00	37,665.01	83,888.66	1,330.97	8,450.40	456.74				30,710.07			226,055.57	748,434.12
Social Work	118.23	2,520.03				2,542.84	16,705.09	30.00			2,743.20						668.00	25,327.39
SOEST	1,379,383.83	441,859.77	68,571.19	751.92	208,384.16	429,910.78	245,809.67	12,651.63	34,121.02	72,675.18	82,227.47	186,403.01	1,493.00	36,918.23	370,889.12	205,745.76	137,439.19	3,915,234.93
SONDH	24,121.32	5,530.00			2,500.00		13,153.43										11,184.00	56,488.75
SPAS	7,360.00	182.55			500.00	619.70	9,181.43	100.00	276.85								1,800.00	20,020.53
VCAA	4,285.17 5,417,079.98	365.09 1,856,837.95	173,877.59	1,778.46	418,681.99	1,697,472.05	3,312.35 1,134,351.99	74,983.61	354,095.65	1,106,802.87	2,924,389.81	882,644.15	1,493.00	335,739.89	1,224,955.91	205,745.76	499.00 1,960,220.98	8,461.61 19,771,151.62
	5, 111,515.50	.,00,000,000	,	1,770.10	710,001.00	.,007,172.00	., 101,001.00	11,000.01	501,000.00	., 100,002.01		002,011.10	1,100.00	000,700.00	1,221,000.01	200,7 10.70	7,000,220.00	.5,777,701.02

^{*} Based on data extracted from "ethority".

Alternatives and Best Practices (Strategic Investment of F&A Recovery)

BOR Committee on Research and Innovation

June 6, 2019



"Best Practice"

 "[No] tried-and-true allocation.... limited number of alternatives which an institution can combine in limitless ways." (A Review of Indirect Cost Recovery Distribution Practices, Maddox 2004, 16)

 No "best practice," but approaches that work for an particular institution's goals and culture



Basic investments to support research (Maddox, 2004, 11)

EXAMPLES

- Pre- and post-award sponsored research administration
- Research facilities costs
- Institutional review boards
- Project administrative support
- Start-up funding
- Proposal preparation
- Early pre-grant feasibility studies
- Carryover funding for research teams to provide continuity between grants ["bridge funding"]
- Matching fund requirements
- Equipment purchases and maintenance
- Graduate student support
- Summer salary
- Conference attendance and research-related travel



Initiatives (Maddox, 2004, 12)

 Common approach is to set aside funds for use on new or targeted initiatives

EXAMPLES:

- Start-up costs
- Internal competitive grants
- Infrastructure to support priority areas
- Research in areas which receive less external funding



Common problems (Advisory Board Company, 2008, 11)

Problem	Examples
Research needs not being met	 Strategic plan never fully implemented due to lack of central funding to support it Unable to afford large start-up packages
Funds underutilized or diverted to other uses	 Departments hoard money while continuing to request central support for matching and other needs
Disincentives for collaboration	 Deans refuse to contribute "their" money to interdisciplinary projects



"Fixes"

 "[S]uccessful universities have developed "fixes" for many of the most common problems that often require relatively minor adjustments rather than radical change in approach." (Optimizing the Distribution of F&A Recovery Funds, The Advisory Board Company 2008, 12)



Addressing common problems (Advisory Board Company, 2008, 2)

Problem	Solution
Research needs not being met	 Distribute funds through internal competitions rather than by a formula Require units to contribute to start-ups
Funds underutilized or diverted to other uses	 Require units and PIs to contribute to matching on grants and other needs
Disincentives for collaboration	 Agree up front on how F&A funds will be split on interdisciplinary grants



Funding research facilities (examples) (Maddox, 2004, 16)

College/University	Approach
University of Washington	Amount going to campus facilities is based on the percentage of the negotiated cost pool that is associated with facilities operations.
Colorado State University	Set dollar amount of F&A recovery goes into a research facilities renewal account.
Montana State University	Specific debt service streams or lease payments are assigned to F&A recovery funds.



Internal competitions (shoulds)

- Develop funding criteria with input from deans and directors and faculty
 - Creates sense of ownership and fairness in the process

 If plan to use metrics to measure outcomes, have affected units and faculty choose discipline appropriate metrics to supplement usual metrics



Some of Duke University's 47 Proposed Metrics

EXAMPLES (Competing in the Era of Big Bets, The Advisory Board Company 2009, 82)

- Active affiliate memorandums of understanding (MOU)
- Proposals submitted
- Proposal awarded
- [Proposal] success rates
- Students taught/trained
- Students enrolled in [....] degree/certificate program
- Student receiving [....] degrees/certificates
- Students participating in sponsored activities



Best Practice of Seed Funding Investment Models



Traditional Model

- Single investigator
- Proposal sent to central review committee that selects recipients
 - Maximum award varies (e.g., up to \$15,000)
- Final technical report is deliverable



Cons of Traditional Model

- Funding review mechanisms are biased against novel, interdisciplinary research
 - Result in "safe" investments in more of the same research
- Awards are too small
 - Not enough funds to engage students and barely cover costs of research



Cons of Traditional Model (cont.)

- Committee membership is usually voluntary; members may lack expertise to critique proposals or reports in other disciplines
- Preparation of a formal written report is time consuming
 - If did novel research and findings were inconclusive, the situation may add difficulty in completing report



New approach (Mcubed)

- University of Michigan Mcubed program requirements
 - Three (3) faculty from at least two (2) different units
 - Must be new research/scholarship and new team;
 members cannot be on same externally funded grant
 - No formal peer review; campus or unit leadership only gets to decide maximum financial commitment and eligibility for token holders



Other Mcubed requirements

- Funding cannot be used to pay for faculty salaries
 - BUT must use 50% to hire undergraduate students, graduate assistants and postdocs
 - Other 50% is flexible: research related travel,
 equipment, etc.
- Symposium participation is only deliverable



Simplified Proposal/Award Process

- Selected faculty members receive a \$20,000 token
- Faculty create or search for projects on Mcubed web site
- To enter, three faculty must join together to form a cube (3 x \$20,000 = \$60,000)
- Faculty member who posted project ("project owner") then requests cube
- Semi-random lottery made to award cubes



Improvements over traditional model

- Retains nature of self-directed research by eliminating central review
- Requires novel research and new collaborators
- Involves students as a requirement
- Symposium may be better way to communicate findings/experiences than written report



REVISED VERSION

University of Hawai'i- Committee on Research and Innovation

June 5, 2019

RESEARCH & INNOVATION COMMITTEE, BOR BY-LAWS (Sections 2.g.(1) to 2.g.(4))

<u>2.g.(1)</u> Evaluate and approve long range plans that establish the strategic goals and objectives for research, innovation and technology transfer at the University

2018-2019 Accomplishments

- UHM Updates on high level research strategy, hiring, comparative data
- UHH long range plan update
- Overview of strategic growth areas:
 - o Institute for Sustainability and Resilience
 - o UHealthy Hawaii Initiative
 - Applied Research Lab

Unfinished Goals

- Strategic plan for Engineering and Computer Science as targeted areas of growth;
- Strategic plan to incorporate innovation and entrepreneurship into the University through programs and facilities;
- Based on strategic growth areas, establish annual or multi-year grant submission targets at department level.

<u>2.g.(2)</u> Review and make recommendations regarding investments, policies and practices relating to University research, innovation and technology transfer programs

2018-2019 Accomplishments

- Research and Training Revolving Fund updates
- Indirect Cost updates

Unfinished Goals:

- Review and evaluate effectiveness of hiring policies, funding mechanisms for research faculty and research support staff;
- Review graduate student metrics as an indicator for graduate programs and research;
- Review of faculty grant support services and needs;
- Review and evaluate programs and funding mechanisms to incentivize high risk, early stage (pregrant) research and collaborative research.

2.g.(3) Review and make recommendations on	proposals to establish or to terminate Organize
Research Units (ORU) and research center	

No activity to report

<u>2.g.(4) Work in concert with Administration to establish performance goals and metrics to evaluate</u> progress against the strategic goals and objectives

2018-2019 Accomplishments

 Quarterly and annual year in review reports on extramural funding, licensing, royalty performance metrics

Unfinished Goals:

Update existing metrics to reflect current strategic goals, priorities and objectives

For additional consideration:

Review and update BOR policies to reflect current strategic priorities

Clarify roles and responsibilities between VPR and VCR Manoa

Provide transparency into research activities by incorporating financial information into operating budgets, financial reports, unspent balances