

Notice of Meeting
UNIVERSITY OF HAWAI'I
BOARD OF REGENTS COMMITTEE ON RESEARCH AND INNOVATION

Members: Regents Bal (Chair), Sullivan (Vice-Chair), Moore, Tagorda, and Wilson

Date: Thursday, August 6, 2020

Time: 9:30 a.m.

Place: **Virtual Meeting**

In light of the evolving COVID-19 situation, protecting the health and welfare of the community is of utmost concern. As such, this will be a virtual meeting and written testimony and oral testimony will be accepted in lieu of in-person testimony. Meetings may be monitored remotely via the livestream pilot project. See the Board of Regents website for information on accessing the livestream: www.hawaii.edu/bor. Mahalo for your consideration.

AGENDA

- I. Call Meeting to Order**
- II. Approval of Minutes of the March 5, 2020, Meeting**
- 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 the board's website through the testimony link provided on the [Meeting Agendas, Minutes and Materials](#) page. Testimony may also be submitted via email at bor.testimony@hawaii.edu, U.S. mail, or facsimile at (808) 956-5156. All written testimony submitted are public documents. Therefore, any testimony that is submitted for use in the public meeting process is public information and will be posted on the board's website.

Those wishing to provide oral testimony for the virtual meeting may register [here](#). Given constraints with the online format of our meetings, individuals wishing to orally testify must register no later than 8:00 a.m. on the day of the meeting in order to be accommodated. It is highly recommended that written testimony be submitted in addition to registering to provide oral testimony. Oral testimony will be limited to three (3) minutes per testifier.

- IV. Agenda Items**
 - A. Committee Work Plan
 - B. Recommend Board Approval of New Regents Policy 12.211, Ethical Guidelines in the Conduct of Technology Transfer Activities

C. Fiscal Year (FY) 2020 Year-in-Review and FY 2021 Extramural Awards Outlook

D. Strategic Directions: Update on Metrics, Extramural Awards Targets vs. Actuals

V. Adjournment

DISCLAIMER - THE FOLLOWING ARE DRAFT MINUTES AND ARE SUBJECT TO FURTHER REVIEW AND CHANGE UPON APPROVAL BY THE COMMITTEE

MINUTES

BOARD OF REGENTS COMMITTEE ON RESEARCH AND INNOVATION MEETING

MARCH 5, 2020

I. CALL TO ORDER

Chair Jan Sullivan called the meeting to order at 11:52 a.m. on Thursday, March 5, 2020, at the University of Hawai'i at Mānoa, Information Technology Building, 1st Floor Conference Room 105A/B, 2520 Correa Road, Honolulu, Hawai'i 96822.

Committee members in attendance: Chair Jan Sullivan; Regent Kelli Acopan; Regent Eugene Bal; and Regent Randy Moore.

Committee members excused: Vice-Chair Michelle Tagorda

Others in attendance: Board Chair Ben Kudo; Regent Simeon Acoba; Regent Wayne Higaki; Regent Alapaki Nahale-a; Regent Robert Westerman; Regent Ernest Wilson (ex officio committee members); President David Lassner; Vice President (VP) for Administration Jan Gouveia; VP for Community Colleges Erika Lacro; VP for Legal Affairs/University General Counsel Carrie Okinaga; VP for Academic Planning and Policy Donald Straney; VP for Research and Innovation Vassilis Syrmos; VP for Information Technology/Chief Information Officer Garret Yoshimi; VP for Budget and Finance/Chief Financial Officer Kalbert Young; UH Mānoa (UHM) Provost Michael Bruno; UH Hilo (UHH) Chancellor Bonnie Irwin; UH West O'ahu (UHWO) Chancellor Maenette Benham; Executive Administrator and Secretary of the Board of Regents (Board Secretary) Kendra Oishi; and others as noted.

II. APPROVAL OF MINUTES OF THE DECEMBER 5, 2019 MEETING

Regent Moore moved to approve the minutes of the December 5, 2019, meeting, seconded by Regent Acopan, and noting the excused absence of Vice-Chair Tagorda, the motion carried with all members present voting in the affirmative.

III. PUBLIC COMMENT PERIOD

Board Secretary Oishi announced that the Board Office did not receive any written testimony, and no individuals signed up to provide oral testimony.

IV. AGENDA ITEMS

A. Recommend Board Approval of New Regents Policies (RP)

VP Syrmos provided background on the development of the proposed new RPs noting that numerous discussions and consultations have occurred regarding the Research and Training Revolving Fund (RTRF) established under section 304A-2253,

Hawai'i Revised Statutes. He remarked that it is intended that proposed RPs 12.209 and 12.210 work together harmoniously. Chair Sullivan added that the committee discussed these proposed policies in detail at its last meeting but that nonsubstantive revisions have been made to the proposed RPs since that time.

1. RP 12.209, Strategic Research Plan

Proposed RP 12.209 establishes a requirement that the board periodically review and approve a long-range Strategic Research Plan (Plan) that will articulate university priorities for pursuing research growth during a five-year period; set forth common system goals and planning principles; and identify specific strategies for implementing and achieving those goals. Proposed RP 12.209 also requires that annual progress reports on the approved Plan be provided to the board. This proposed policy will help formalize what is already occurring with regard to strategic research planning and ensure that this planning is conducted in an organized and consistent manner.

2. RP 12.210, Research and Training Revolving Fund (RTRF)

Proposed RP 12.210 would require a minimum of 10% of total RTRF recovered by each campus be set aside for strategic hiring in priority research areas; would require a minimum of 10% of total RTRF funds for each campus to be utilized for the rehabilitation or construction of strategic research facilities and laboratories for research areas that are consistent with the research priority areas; would exempt campuses which receive less than \$10,000,000 in RTRF from these requirements; and establishes a Strategic Research Facilities Improvement Fund that would be funded by RTRF funds to facilitate the issuance of revenue bonds to finance the construction or rehabilitation of priority research facilities.

Proposed RP 12.210 also requires that annual progress reports on the use of funds by each campus, including information on related revenues, commitments, and carryover funds, be made to the board.

VP Syrmos stated that, while consensus was reached on proposed RP 12.209, some concerns with regard to RP 12.210 were raised during discussions. These concerns included the necessity of using a specific accounting process; the use of RTRF funding for strategic hiring purposes as RTRF money is not intended to provide permanent salary support; and the practicality of using RTRF money for debt service support for revenue bonds on a large scale. He reviewed the current process for the allocation of RTRF funds noting that current executive policy (EP 12.216) utilizes a formulaic method for the distribution of funds whereby the campus that procured the research funding is allotted 75 percent of the funds and is authorized to determine how those funds are used. The Office of the Vice President of Research and Innovation (OVPRI) receives 25 percent of the awarded funds. VP Syrmos remarked that many of the concerns raised could be more appropriately and efficiently addressed in greater detail through amending EP 12.216 which has not been updated in nearly 17 years. Revisions to EP 12.216 are currently being drafted and the administration is planning on presenting the draft of proposed revisions to EP 12.216 to the committee prior to July 1, 2020.

Regent Moore moved to recommend board approval to establish RPs 12.209 and 12.210, seconded by Regent Bal.

Regent Acoba noted that RP 12.210 established an improvement fund to facilitate research infrastructure and facility improvements through the use of revenue bonds and asked how this correlated with capital improvement project (CIP) requests submitted to the State Legislature. VP Syrmos replied that currently, debt service on research facilities are funded completely through CIP monies and that RTRF funds are not used for this purpose. He stated, however, that a mixed-use funding mechanism that used RTRF funds to finance infrastructure and facility improvements could be a strategy used by the university when requesting project revenues from the legislature. For example, he explained that the administration could request \$30 million in general obligation bond funds for a \$50 million facility project and inform the legislature that the administration would issue \$20 million in revenue bonds through the RTRF. RTRF funds would then be used to pay the debt service on the revenue bonds. This may make the provision of \$30 million in CIP funds more palatable to the legislature. Regent Acoba asked if comingling of these funds has occurred in the past. Projects have been built with general obligation and revenue bonds funding, and VP Syrmos noted that while the university has issued revenue bonds and used RTRF funds to pay debt service on these bonds, a mixed use of general obligation bonds issued through the CIP process and revenue bonds issued through the RTRF has never been attempted.

There having been a motion that was moved and seconded, the committee voted to recommend board approval to establish RPs 12.209 and 12.210, and noting the excused absence of Vice-Chair Tagorda, the motion carried with all members present voting in the affirmative.

B. Enterprise Risk Management: Research Infrastructure Update

VP Syrmos presented a brief overview of the university's research infrastructure including infrastructure for the research areas of life sciences, ocean sciences, and astronomy. Although hundreds of millions of dollars have been invested in this research infrastructure, primarily through State funding, and have contributed greatly to the university's ability to obtain large amounts of extramural funding, he stated that maintenance of this infrastructure is the key to sustaining a competitive edge in acquiring research dollars. It was emphasized that while the university has been the recipient of numerous philanthropic awards for research programs, funding for research infrastructure has been difficult to obtain and the university continues to rely heavily on federal, State, and RTRF funds for this purpose.

The administration continues to work on increasing funding for the construction and maintenance of research infrastructure. The use of financing methods contained in the proposed RP 12.210 for facility construction or rehabilitation is a part of this endeavor. Additionally, the administration is increasing its efforts to recover indirect costs for research facilities. VP Syrmos noted that indirect costs consist of both administrative and facilities costs. The university has been able to cap administrative costs at 26 percent. On the other hand, facilities costs are uncapped and offer the most potential for growth in relation to recovering indirect costs, since these costs are relatively low at

the university. He explained that facilities cost recoverability is heavily dependent on the percentage of building space used for extramurally funded research and, as such, if the university were to invest larger amounts of money on research facility space, it would allow for greater recoupment of costs from the federal government.

VP Symos provided a brief overview of a ten-year trend comparison between RTRF expenditures, indirect cost recovery, and RTRF cash balances. The administration is projecting slight increases in indirect cost recovery in the next 4 to 5 years.

Board Chair Kudo inquired about the distribution process for RTRF funds, questioned whether each campus that had at least \$10 million of research was given a lump sum of money, and asked whether the campus or OVPRI ultimately determined how these funds were allocated and expended. VP Symos stated that, under current policy, OVPRI receives all of the RTRF revenues generated, of which OVPRI keeps 25 percent. OVPRI allocates 75 percent of RTRF revenues generated to the campus that procured the research funding, regardless of whether the campus generated \$10 million in research funding. He explained that OVPRI does not dictate how the allocated funds are used but rather each campus that receives funds is allowed to make this determination.

Noting that some areas of research are more prominent than others, Board Chair Kudo asked about fairness within each campus in determining how the RTRF funds received are allocated among the disciplines. VP Symos replied that responsibility for the distribution of RTRF funds is held by various offices in the university system. At UHM, which is the most transparent of the campuses where the distribution of RTRF funds are concerned, the Office of the Vice Chancellor for Research (OVCR) is responsible for the distribution of RTRF funds. The Office of the VP for Community Colleges is responsible for allocating RTRF funds to community college campuses. The distribution of funds at UHH and UHWO is managed by the Office of the Chancellor for each respective campus. While OVCR uses a formulaic method that distributes funds to programs based upon percentages of research funding generated, VP Symos was unaware of how RTRF funds were distributed at the other campuses.

Board Chair Kudo opined that there are numerous factors that can affect the way money is distributed and that it was his belief that each campus should have a transparent process for the allocation of RTRF funds that can be monitored by OVPRI to ensure parity and fairness. VP Symos agreed and responded that the administration will consider incorporating this suggestion when developing revisions to executive policy regarding the distribution of RTRF funds.

C. Research Development (RD) Update

Dr. Velma Kameoka, Interim Vice Chancellor for Research, noted that the RD Program is responsible for proactive, capacity-building activities to promote extramurally funded research and reviewed some of the major functions of OVCR. She highlighted that the RD Program has been targeting strategic hires including junior faculty in particular fields of research.

Dr. Kameoka introduced Dr. Chad Walton, Interim Assistant Vice Chancellor for Research, who provided an update on the RD Program. Dr. Walton stated that the RD Program is designed to facilitate individual faculty and faculty research teams competitiveness for extramural research funding; create collaborative relationships; and develop and implement strategies focused on advancing UHM's ability to leverage faculty research strengths and obtain increased amounts of research funding. He reviewed various activities undertaken and key investments made to achieve the goals of the RD program, including the use of search tools such as Research Insight, engagement of The Implementation Group (TIG) to enhance UHM's competitiveness for federal funding with regard to research and development, and use of the InfoReady Review web portal that automates competition, review, and approval processes for research awards.

Regent Bal asked about the cost of engaging TIG. Dr. Kameoka replied that the investment in engaging TIG is shared systemwide but that UHM's portion is approximately \$69,500 per year. VP Syrmos added that systemwide, the cost to use TIG's services is approximately \$175,000 per year. Dr. Kameoka remarked that the use of TIG's services has been a worthwhile investment for the university as nine funded research proposals had already been received and more were pending for this year. Last year, the use of TIG assisted the university in obtaining over \$24 million in research funding investments.

Chair Sullivan commented that perhaps the university could look at other affordable ways of tracking and notifying faculty about extramural funding opportunities. She noted that the University of Southern California uses a searchable database tool called Grant Forward that contains a listing of extramural research funding awards available from over nine thousand participating agencies and institutions. The Grant Forward database is licensed for approximately \$4,000 and may be a lower-cost alternative for the university to search for extramural funding. Dr. Kameoka replied that the university had investigated a number of platforms for the tracking of, and notification about, nationwide research funding before deciding on the platform currently being used.

Chair Sullivan noted that Vice-Chair Tagorda conveyed that there were gaps in support from the research community and that these gaps needed to be closed. She concurred with Vice-Chair Tagorda and suggested that an informal roundtable discussion group consisting of board members, administrators, and researchers be established to review and discuss research issues, including funding issues, and how to address them. The group could then report back to the board. Dr. Kameoka responded that the administration would be happy to participate in these discussions.

Regent Moore noted his concern that the informal roundtable may run afoul of Hawai'i's sunshine law if more than two members of the informal roundtable were board members. Chair Sullivan agreed and proposed that Vice-Chair Tagorda and herself represent the board on the informal roundtable, so as to stay within the confines of the sunshine law, and report back to the committee and board. There were no objections from committee members to Chair Sullivan's proposal.

D. Fiscal Year 2019-2020 2nd Quarter Extramural Awards Update

Prior to deferring this agenda item due to time constraints, Chair Sullivan inquired if committee members had any questions on the report provided in their materials. Seeing none, this report was deferred.

E. Future Status of the Research and Innovation Committee

Chair Sullivan expressed her belief that, rather than each committee determining the status of its own future, the most impartial method of addressing this issue would be to charge the Committee on Personnel Affairs and Board Governance with reviewing and making recommendations on the future status of the various committees of the board. Board Chair Kudo and the committee members concurred.

V. ADJOURNMENT

There being no further business, Regent Moore moved to adjourn, Regent Bal seconded the motion, and noting the excused absence of Vice-Chair Tagorda, and with all members present voting in the affirmative, the meeting was adjourned at 12:37 p.m.

Respectfully Submitted,

Kendra Oishi
Executive Administrator and Secretary
of the Board of Regents

Committee on Research and Innovation
Work Plan for the 2020-2021 Academic Year

	Committee duties per bylaws	2020-2021 Committee Goals and Objectives	Projected Timeline			
			1 st Q	2 nd Q	3 rd Q	4 th Q
1	Evaluate and approve long range plans that establish the strategic goals and objectives for research, innovation, and technology transfer at the University.	Recommend adoption of new policy RP 12.211, Ethical Guidelines in the Conduct of Technology Transfer Activities	X			
2	Review and make recommendations regarding investments, policies, and practices relating to University research, innovation and technology transfer programs.	FY20 Year in Review and FY21 Extramural Award Outlook	X			
		Extramural Awards Quarterly Report		X	X	X
		Review RCUH management relationship		X		
		Extramural project briefing to Committee				
3	Review and make recommendations on proposals to establish or to terminate Organized Research Units (ORU) and research centers.					
4	Work in concert with Administration to establish performance goals and metrics to evaluate progress against the strategic goals and objectives.	Strategic Directions: Update on Metrics (Extramural Awards Targets vs. Actuals)	X			
5	<i>Committee Governance</i>	Review and adopt committee work plan	X			
		Review committee's work for the year				X



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Office of the Vice President for Research and Innovation

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BOARD OF REGENTS

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UNIVERSITY OF HAWAII
PRESIDENT'S OFFICE

July 30, 2020

MEMORANDUM

TO: Eugene Bal III, Chairperson
BOR Committee on Research and Innovation

VIA: David Lassner 
President

FROM: Vassilis L. Syrmos 
Vice President for Research and Innovation

SUBJECT: BOR COMMITTEE ON RESEARCH AND INNOVATION AGENDA MATERIALS
FOR AUGUST 2020 MEETING

Please find attached the following materials that will be discussed at the August 6, 2020 BOR Committee on Research and Innovation meeting:

IV. Agenda Items:

- B. Recommend Board Approval of New Regents Policy 12.211, Ethical Guidelines in the Conduct of Technology Transfer Activities (**VPRI presentation*)
- C. R&I FY20 Year-in-Review and FY21 Outlook (**VPRI presentation*)
 - 1. FY20 Q4 Extramural Awards Analysis Report
 - 2. FY20 Q4 Research and Innovation Metrics Summary
 - 3. FY20 Monthly Report of Extramural Awards (as of June 30, 2020)
 - 4. FY20 Annual Report on Extramural Awards & Expenditures
- D. Strategic Directions: Update on Metrics – Extramural Awards Targets vs. Actuals FY14 – FY20 (**VPRI presentation*)

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Regents Policy Chapter 12, Research
Regents Policy RP 12.211, Ethical Guidelines in the Conduct of Technology Transfer
Activities

Effective Date: August _____, 2020

Prior Dates Amended: N/A

Review Date: August 2023

I. Purpose

The University of Hawai'i encourages the commercialization of appropriate discoveries and new technologies developed at the University and their transfer to the larger society. Technology transfers promote the economic health of the State, diversify workforce opportunities for University graduates, and support the core missions of the University for instruction, research, and community service.

The purpose of this policy is to ensure that ethical conflicts of interest that may arise during the life cycle of University-sponsored technology transfers are identified, properly disclosed, mitigated, and properly managed.

In 2017, with the support of the University and others in the innovation community, the Hawai'i Legislature passed, and the Governor approved, two laws commonly referred to as Act 38 and Act 39, Session Laws of Hawai'i 2017. Act 39 establishes an innovation and commercialization initiative program at the University, and affirms that public resources made available to the University may be used to participate in the private sector commercialization of new technology developed at the University.

Act 38, codified in part as Section 84-10, Hawai'i Revised Statutes, exempts technology transfer activities conducted by University employees from certain requirements of the State Ethics Code, so long as the University establishes a regulatory framework and procedures adapted specifically for University technology transfer activities.

This policy, any implementing executive policies, administrative procedures, and internal operating guidelines, are intended to fulfill the requirements of Act 38.

II. Definitions

The following terms have their generally understood meanings, as expressly supplemented by this policy.

“Technology transfer” for purposes of this Regents Policy encompasses the process by which new inventions, discoveries, materials, or technology:

- a) Are developed or discovered by University employees or its students during the course of employment, or academic instruction, or research;
- b) Use University resources to transform the new technology into potentially commercially viable products;
- c) Are subsequently introduced into commerce through partnerships or other arrangements with commercial enterprises or with private individuals; and
- d) Generate economic returns that are shared and distributed among those participating in the commercialization in accordance with applicable contractual arrangements, including collective bargaining agreements with public employees, patent licenses, or lending or equity participation agreements.

“University-sponsored technology transfer activities” encompass, as illustration, activities where University resources are expended to protect University intellectual property through patents, trade and service marks; to transfer the rights to exploit the intellectual property to commercial entities through negotiated sales, assignments, or licenses; to participate in entities commercializing University discoveries or inventions by lending University funds or investing equity into private companies; to provide accelerator or incubator programs of University instruction to university entrepreneurs; to sponsor events, conferences, or workshops to showcase University discoveries; to provide administrative support services for these activities; to make available in-kind assistance to newly-formed companies affiliated with the University, including facility use agreements; and to undertake sponsored research from private companies for purposes of enhancing the commercial potential, viability, and longevity of University products.

“University resources” include all tangible and intangible property under the control of the University, including by way of illustration, University funds; University human resources; and University facilities, equipment, supplies, and real property.

“Conflict of Interest” includes conflicting or competing duties of loyalty; conflicting demands on time and attention commitments for University employees or researchers; and conflict of purposes between public and institutional use and benefit and private use and gain.

III. Policy

The University is the State’s sole institution of public higher education. Its core missions include providing instruction to students, expanding the corpus of

knowledge through research, and providing service to its supporting community. The University is uniquely positioned to encourage research that may result in inventions and discoveries, and to support the transformation of the new technology into viable commercial products that contribute to the overall quality of life and advancement of society.

Through the development of new commercial enterprises built around University intellectual property, the University can contribute to economic development of the State, can expand and diversify the employment opportunities for its graduates, and can enhance its stature as a comprehensive research university.

To achieve these recognized public benefits, it is University policy that its resources may be used to support, promote, and actively participate in the commercialization of University intellectual property, even where the commercialization generates, in part, economic benefits for individual University employees, for private organizations, and for private investors. Using the public resources available to the University to support technology transfer is appropriate so long as, on considered balance, the commercialization is consistent with the missions of the University, the public interests are adequately protected, and any potential conflicts of interests arising during the course of University-sponsored technology transfer activities are identified, mitigated, and managed.

Specific technology transfer activities undertaken by the University must comport with all other applicable federal regulations or third party research sponsorship requirements specific to the transaction, including federal regulations on conflicts of financial interests, and with other State Ethics Code requirements not affected by Act 38. Nothing in this Regents Policy or any implementing Executive Policy shall be interpreted to supersede any inconsistent federal regulation or collectively bargained for provision with any public employee union at the University.

IV. Delegation of Authority

The University President is delegated the authority to establish the regulatory framework and executive policies implementing this Regents Policy. The President may further delegate administrative responsibilities to the vice presidents or campus chancellors, as appropriate.

In particular, the President, or the President's designee, shall develop specific ethical guidelines and executive policies to apply to technology transfer activities in the areas of: (1) use and protection of confidential information; (2) fair use of public resources for private purposes; (3) managing conflicts of interest, including conflicts of purpose, and resource commitments; (4) contracts or other business arrangements with employee-controlled commercial organizations; (5) reviewing and possibly voiding unacceptable contracts; and (6) permissible and restricted

post-employment opportunities for University employees engaged in technology transfer.

V. Contact Information

Office of the Vice President for Research and Innovation, (808) 956-5006, uhovpri@hawaii.edu

VI. References

- Act 38, Session Laws of Hawai'i 2017
- Act 39, Session Laws of Hawai'i 2017
- RP 4.201, Purpose and Mission of University
- EP 12.205, Administration of Patent and Copyright
- EP 12.211, Policy for Responding to Allegations of Research and Scholarly Misconduct
- EP 12.214, Conflicts of Interest and Commitment.

VII. Approved as to Form

Kendra Oishi
Executive Administrator and
Secretary of the Board of Regents

Date

RP 12.211, Ethical Guidelines in the Conduct of Technology Transfer Activities

BOR Committee on Research & Innovation Meeting
August 6, 2020



Overview

- The University is uniquely-positioned to support basic and applied research on its campuses, identify and select those discoveries that have potential commercial value, and transform these inventions into commercially viable services or products. This process of taking research products with commercial potential and developing, refining, and introducing these inventions to the private markets is known generally as “technology transfer.”
- State legislative proposals to authorize the University to more actively and directly engage in the commercialization of its research products were introduced in 2015 and 2016. In 2017, Act 38 and Act 39 were passed on a pilot basis, with sunset dates.
- Act 38: Exempts technology activities sponsored by the University from certain sections of the State Ethics Code administered by the State Ethics Commission so long as the technology transfer activities comply with a regulatory framework and research compliance programs and policies approved by the University Board of Regents.
- Act 39: Establishes the innovation and commercialization initiative program under the direction of the Vice President for Research and Innovation, expressly authorizes the University to engage in a range of technology transfer activities, and creates a special fund to implement the program.



RP 12.211

- Proposed RP 12.211, *Ethical Guidelines in the Conduct of Technology Transfer Activities*, along with the implementing executive policy and administrative procedures, create the regulatory framework and compliance programs contemplated by Act 38.
- Act 38 may be viewed as transferring oversight responsibility from the State to the University to identify, manage, and mitigate ethical conflicts of interest arising during the course of University-sponsored technology transfer activities.
- Act 38 gives the University the authority to adapt and apply general, state-wide ethical principles found in the State Ethics Code in a manner that more closely fits the unique characteristics of extramural sponsored research, the necessary participation with private entities in technology transfer, and the balancing of public and private interests.



Next Steps

- Submit RP 12.211 for full BOR approval at the August BOR meeting.
- Following BOR approval of Regents Policy, obtain President's approval of implementing EP 12.206.
- Develop internal administrative procedures, operating guidelines, and forms to identify and resolve ethical issues that arise during the technology transfer process.
- 2020 Legislative Session – submit bills to repeal sunsets for Acts 38 and 39.
 - Act 38 effective as of June 19, 2017, and repealed on June 30, 2022. UH submits an annual report to the Legislature on its regulatory framework and technology transfer activities.
 - Act 39 effective as of July 1, 2017, and repealed on June 30, 2021. UH submits biennial report to Legislature on use of special fund and its coordinated efforts with other state agencies.



Research & Innovation FY20 Year in Review and FY21 Outlook

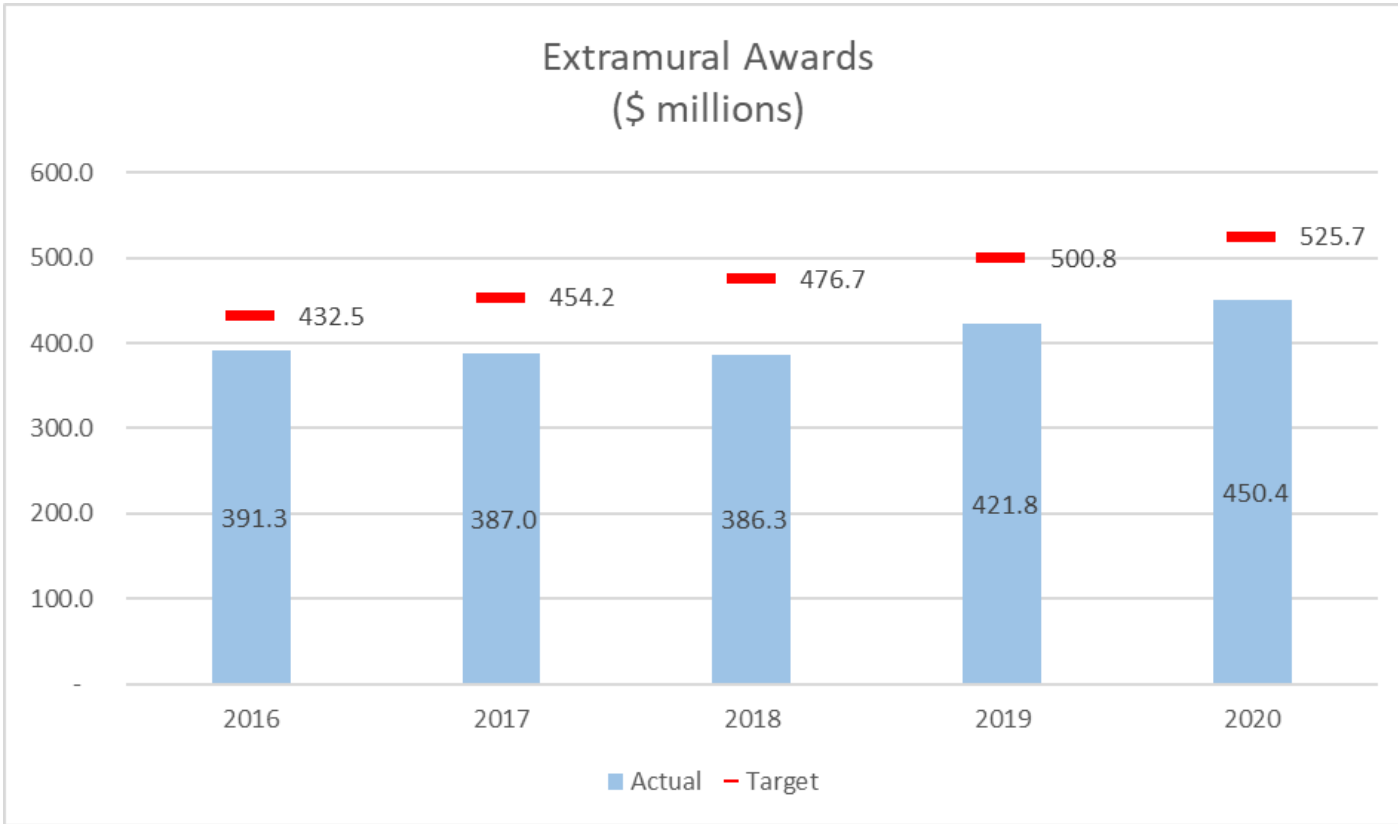
BOR Committee on Research & Innovation Meeting
August 6, 2020



Overview

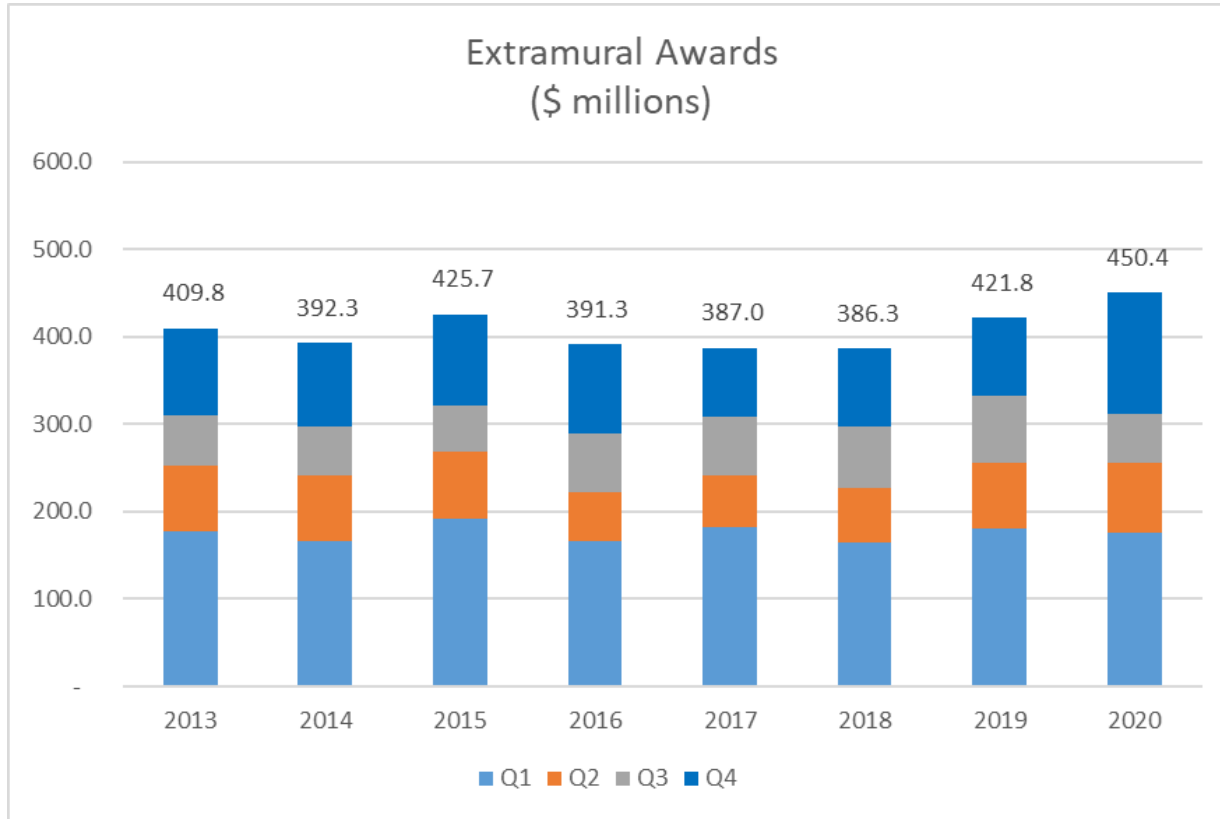
- FY 20 Performance Metrics
 - Extramural awards
 - Disclosures; patents; licenses
- FY 21 Projection
- Appendix (other metrics)





	FY 2018		FY 2019		FY 2020	
	Target	Actual	Target	Actual	Target	Actual
Extramural Awards (\$ millions)	476.7	386.3	500.8	421.8	525.7	450.4





	2013	2014	2015	2016	2017	2018	2019	2020
Q1	178.1	166.5	191.1	165.8	181.8	164.5	180.5	176.1
Q2	74.8	74.7	77.0	56.9	59.5	62.0	75.3	79.1
Q3	56.7	55.4	52.8	66.2	67.1	71.0	76.7	55.7
Q4	100.1	95.7	104.8	102.4	78.6	88.8	89.3	139.5
FY	409.8	392.3	425.7	391.3	387.0	386.3	421.8	450.4



UH Mānoa '16 – '20

Campus Details	2016 Amount	2017 Amount	2018 Amount	2019 Amount	2020 Amount	'16 vs. '20
College of Arts and Humanities	502,487	614,377	386,335	631,332	525,375	4.55%
College of Education	19,943,721	16,177,466	13,415,976	27,932,378	15,024,424	-24.67%
College of Engineering	7,142,117	4,680,411	3,942,763	7,240,729	16,981,442	137.76%
College of Language, Linguistics and Literature	3,378,932	2,243,734	2,640,397	2,817,523	2,504,231	-25.89%
College of Natural Sciences	33,558,922	32,794,485	32,165,964	36,609,301	39,984,754	19.15%
College of Social Sciences	14,075,445	11,544,031	13,811,775	15,766,251	17,321,277	23.06%
College of Tropical Agriculture and Human Resources	16,142,548	13,619,801	17,648,266	14,032,537	20,787,503	28.77%
Hawai'inuiakea School of Hawaiian Knowledge	3,679,757	1,996,314	2,555,214	3,238,552	1,813,078	-50.73%
Institute for Astronomy	20,520,303	18,339,284	15,670,948	18,772,579	25,504,897	24.29%
John A. Burns School of Medicine	54,629,071	61,527,128	59,950,931	53,062,041	46,456,743	-14.96%
Lyon Arboretum	1,276,866	752,957	478,823	255,585	1,106,044	-13.38%
Outreach College	55,761	165,214	149,263	167,295	121,258	117.46%
School of Architecture	139,696	163,646	150,175	230,565	188,831	35.17%
School of Nursing and Dental Hygiene	1,746,083	1,223,898	2,407,654	839,543	642,016	-63.23%
School of Ocean and Earth Science and Technology	87,128,306	79,154,444	93,144,266	91,118,186	99,057,713	13.69%
School of Pacific and Asian Studies	3,598,934	934,209	2,011,240	1,371,262	1,985,685	-44.83%
School of Social Work	4,907,971	5,923,941	7,024,273	6,368,791	6,729,137	37.11%
Shidler College of Business	(208,957)	269,596	-	325,617	114,880	-54.98%
University of Hawaii Cancer Center	25,874,191	29,999,976	20,857,092	23,137,759	30,111,661	16.38%
Vice Chancellor, Academic Affairs	1,612,550	1,463,442	1,426,738	1,318,498	1,645,862	2.07%
Vice Chancellor, Research	-	-	74,853	105,000	75,000	100.00%
Water Resources Research Center	735,955	1,458,277	3,989,558	638,833	677,921	-7.89%
William S. Richardson School of Law	2,737,026	2,176,471	2,540,068	3,016,620	3,430,231	25.33%
Non-academic & non-research units	5,624,687	6,783,457	4,652,694	5,533,030	5,220,493	-7.19%
Grand Total	308,802,372	294,006,559	301,095,266	314,529,807	338,010,456	9.46%



UH Hilo & UH West O'ahu '16 – '20

	2016	2017	2018	2019	2020	'16 vs. '20
UH Hilo Campus Details	Amount	Amount	Amount	Amount	Amount	
Athletics (UH Hilo)	-	-	-	-	-	0.00%
Chancellor, UH Hilo	1,144,232	1,436,257	1,958,215	1,148,825	1,260,827	10.19%
College of Agriculture, Forestry and Natural Resource Mg	1,674,869	1,409,810	1,077,332	1,527,095	914,014	-45.43%
College of Arts and Sciences	3,864,553	4,215,798	2,928,225	5,492,465	3,717,703	-3.80%
College of Business and Economics	-	-	120,000	-	163,400	0.00%
College of Continuing Education and Community Svc	35,039	99,931	31,750	-	40,000	14.16%
College of Pharmacy	629,526	667,726	196,873	672,673	300,271	-52.30%
Hawaii Small Business Development Center	775,150	909,979	1,142,235	818,278	2,460,982	217.48%
Imiloa Astronomy Center Of Hawaii	378,393	505,336	832,854	195,978	541,000	42.97%
Ka Haka'Ula O Ke'Elkolani-UHH	557,887	860,980	1,774,041	1,324,631	2,078,461	272.56%
Vice Chancellor for Academic Affairs (UH Hilo)	-	-	57,000	-	-	0.00%
Vice Chancellor for Administrative Affairs	3,925		2,250	2,250	4,375	11.46%
Vice Chancellor for Research	1,606,691	874,009	1,482,154	2,079,445	1,236,819	-23.02%
Vice Chancellor for Student Affairs	1,999,490	1,901,860	1,347,664	3,925,512	1,607,354	-19.61%
Grand Total	12,669,755	12,881,686	12,950,593	17,187,152	14,325,206	13.07%
Campus	2016	2017	2018	2019	2020	'16 vs. '20
Amount	Amount	Amount	Amount	Amount	Amount	
UH West Oahu	5,326,027	5,631,172	6,035,273	8,210,429	2,893,179	-45.68%



UH Community Colleges '16 – '20

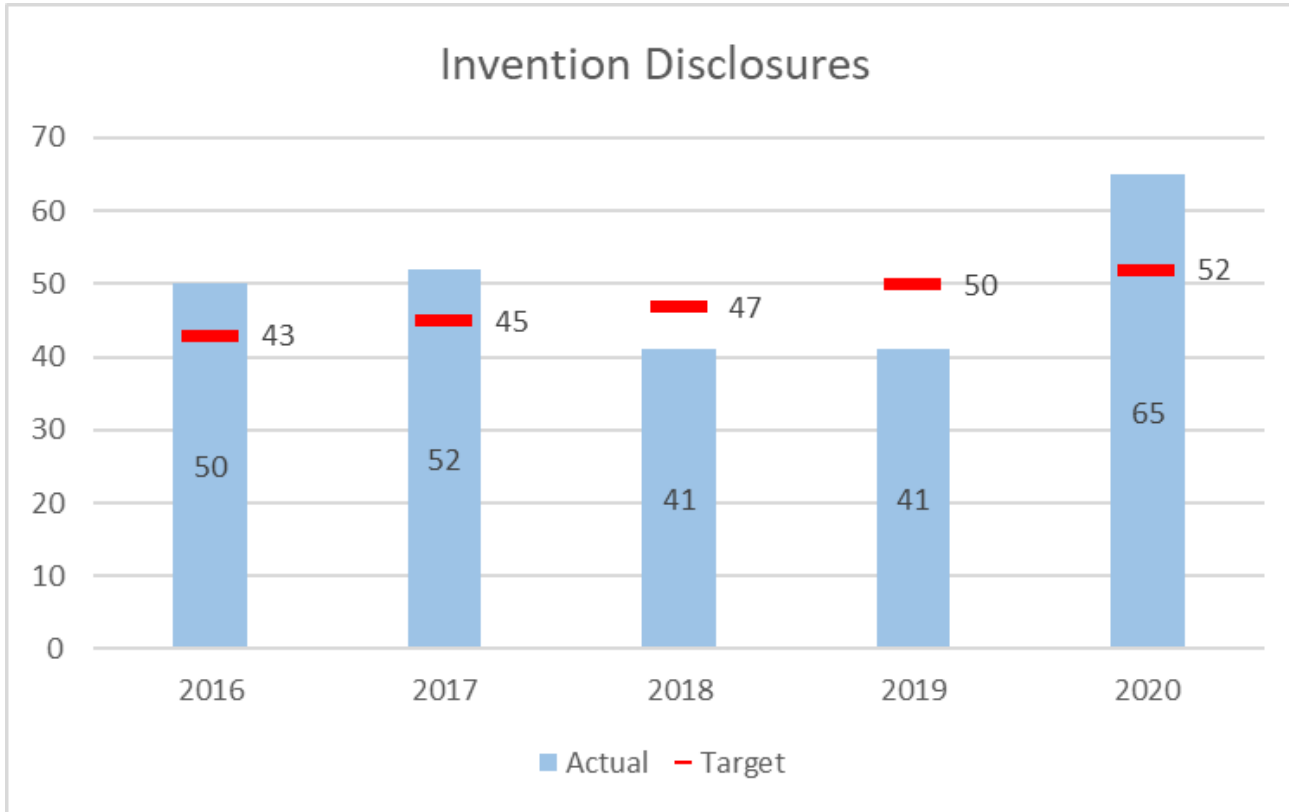
Campus	2016 Amount	2017 Amount	2018 Amount	2019 Amount	2020 Amount	'16 vs. '20
Hawai'i Community College	68,000	179,897	557,101	766,655	1,775,648	2511.25%
Honolulu Community College	2,639,133	2,864,032	1,679,521	1,594,061	1,851,636	-29.84%
Kapi'olani Community College	4,100,121	6,736,316	5,211,039	5,950,760	2,991,758	-27.03%
Kaua'i Community College	1,004,692	2,007,725	876,089	971,368	1,240,530	23.47%
Leeward Community College	3,455,755	4,260,373	3,064,574	3,303,870	1,564,863	-54.72%
University of Hawai'i Maui College	10,510,676	7,440,725	11,925,050	13,347,013	14,981,750	42.54%
Windward Community College	5,313,299	7,406,077	7,324,832	7,669,161	4,611,575	-13.21%
Grand Total	27,091,676	30,895,145	30,638,206	33,602,888	29,017,760	7.11%




UH System '16 – '20

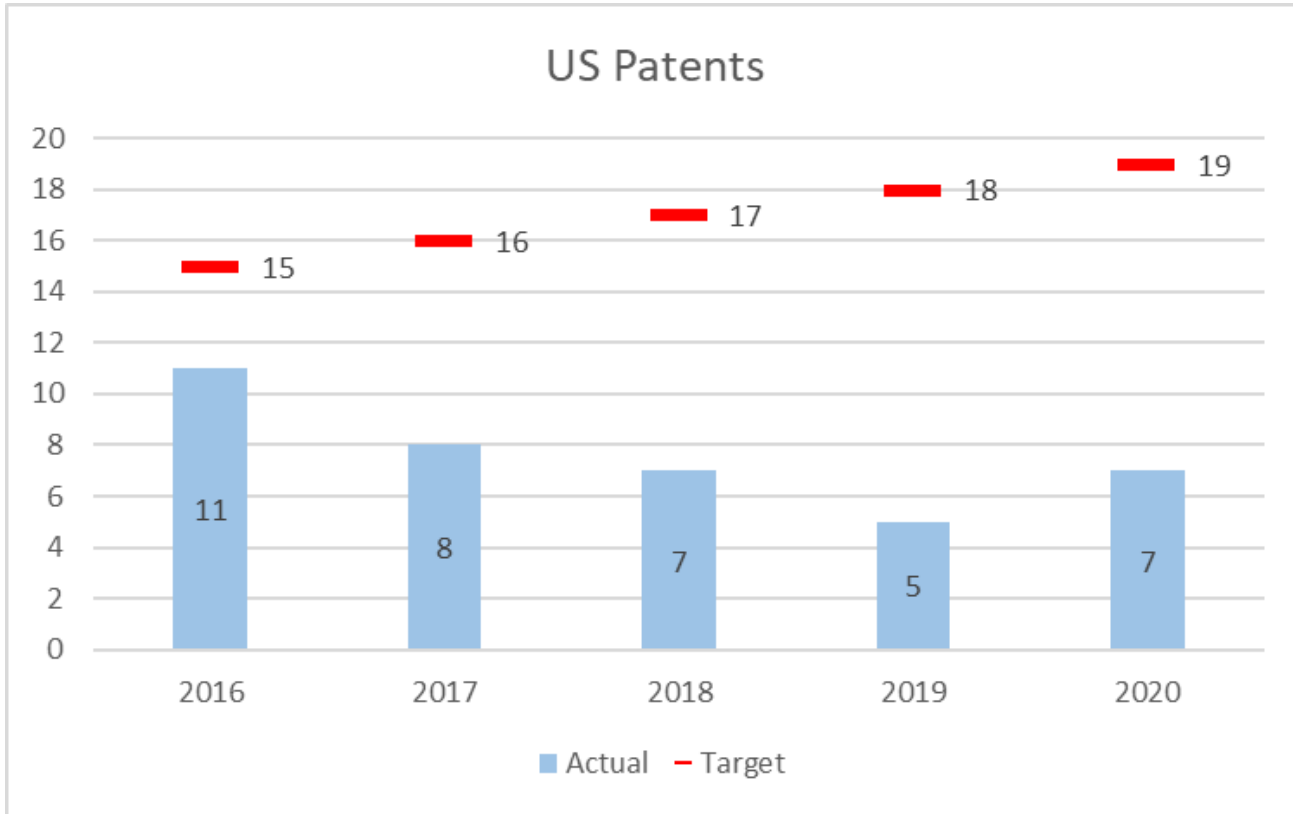
Campus Details	2016 Amount	2017 Amount	2018 Amount	2019 Amount	2020 Amount	'16 vs. '20
Office of the Vice President for Community Colleges	1,021,329	1,329,109	1,409,610	504,702	13,324,533	1204.63%
Office of the Vice President for Research and Innovation	417,387	8,817,197	8,149,281	18,093,132	22,266,107	5234.64%
Office of the VP for Academic Planning and Policy	10,345,760	10,151,665	4,609,372	6,911,960	13,701,436	32.44%
Office of the VP for Information Tech/Chief Info Officer	25,660,222	23,252,872	21,414,102	22,668,032	16,687,933	-34.97%
President, University of Hawaii System	-	-	-	-	142,739	100.00%
Office of the VP For Administration	-	36,300	10,000	144,058	69,900	100.00%
Grand Total	37,444,698	43,587,143	35,592,365	48,321,884	66,192,648	76.77%





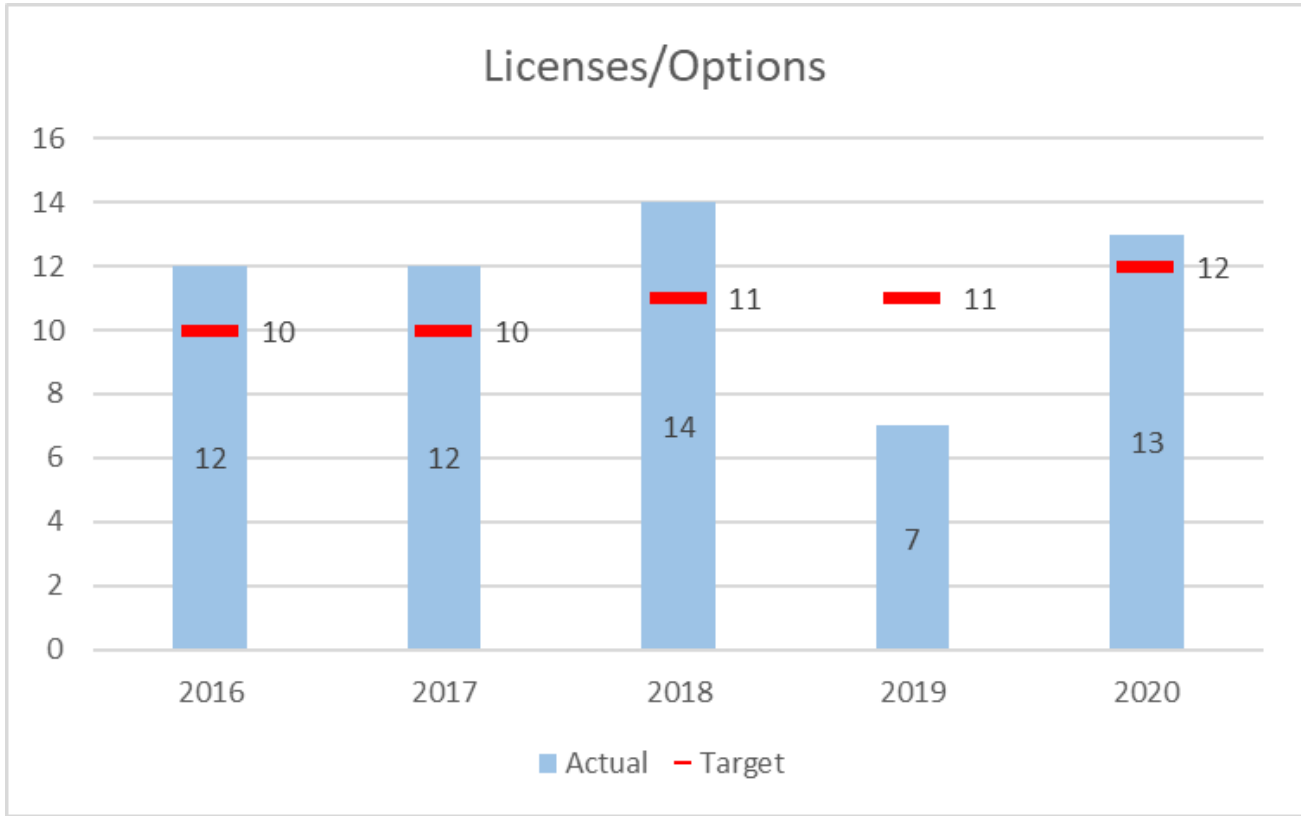
	FY 2018		FY 2019		FY 2020	
	Target	Actual	Target	Actual	Target	Actual
Invention Disclosures	47	 41	50	 41	52	 65








	FY 2018		FY 2019		FY 2020	
	Target	Actual	Target	Actual	Target	Actual
US Patents	17	7	18	5	19	7





	FY 2018		FY 2019		FY 2020	
	Target	Actual	Target	Actual	Target	Actual
Licenses/Options	11	 14	11	 7	12	 13

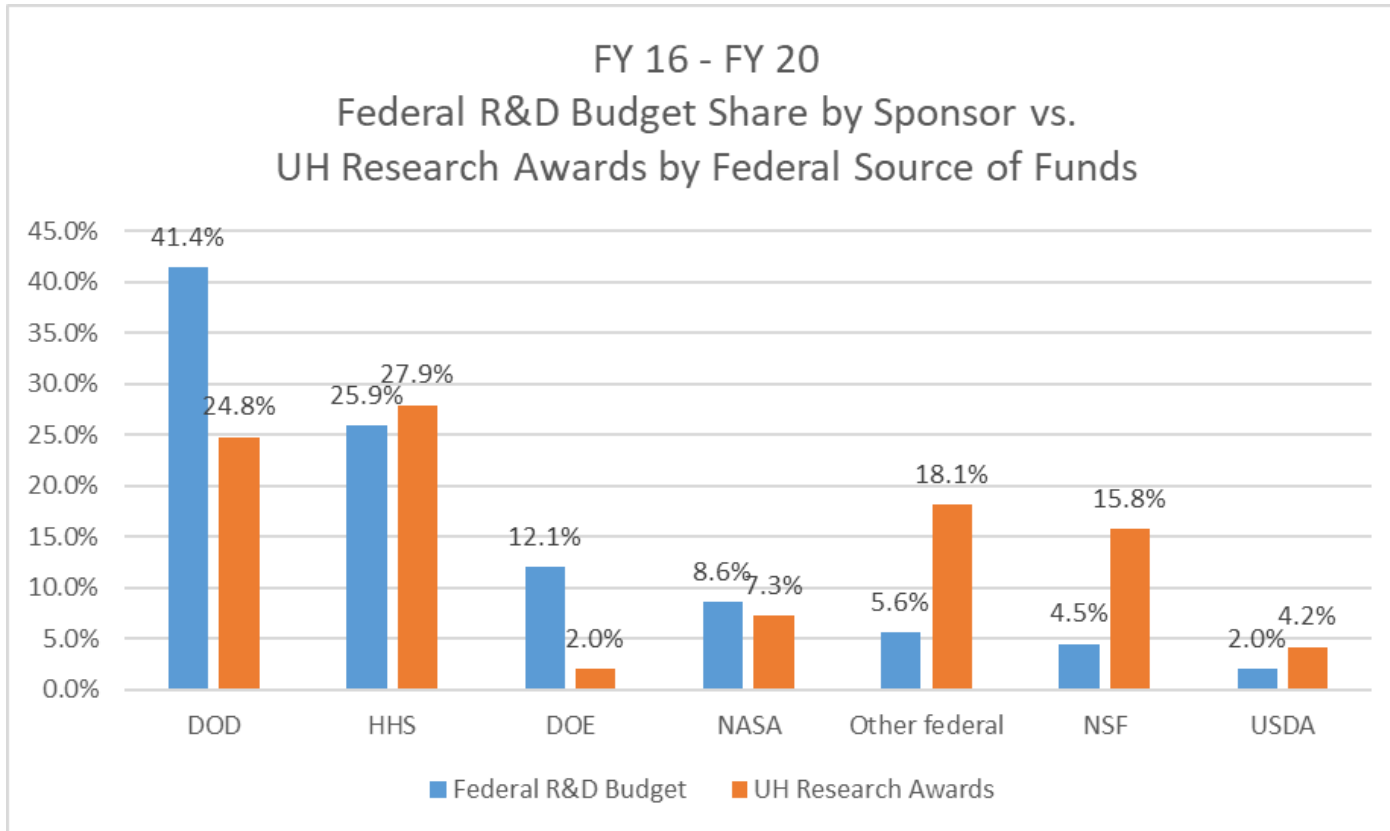


Federal R&D Budget '16 - '21

Total R&D by Agency, FY 2016-2021							
(budget authority in millions of dollars; actuals except where noted)							
Fiscal Year	2016	2017	2018	2019	Requested 2020	Enacted 2020	Requested 2021
DOD	71,421	49,197	52,386	54,691	59,463	64,544	59,831
NASA	13,253	10,704	11,755	10,698	11,280	14,057	13,334
DOE	15,217	14,896	17,482	18,271	14,718	19,219	16,051
HHS	32,243	34,222	36,942	38,511	33,693	40,818	37,875
NSF	6,010	5,938	6,327	6,586	5,760	6,752	6,328
USDA	2,657	2,585	2,618	3,026	2,464	2,941	2,769
Interior	973	953	885	958	753	973	725
DOT	927	904	1,043	1,071	1,076	1,134	594
EPA	516	497	492	489	285	492	318
DOC	1,681	1,794	2,029	1,959	1,694	1,948	1,506
DHS	582	724	725	668	507	532	450
VA	1,222	1,346	1,286	1,370	1,325	1,313	1,351
Other	1,600	1,529	1,795	1,836	540	1,250	1,053
Total R&D	148,302	125,289	135,765	140,134	133,558	155,973	142,185
Source: Congressional Research Service (LAST UPDATE: April 2020).							
Requested is the President's budget request.							



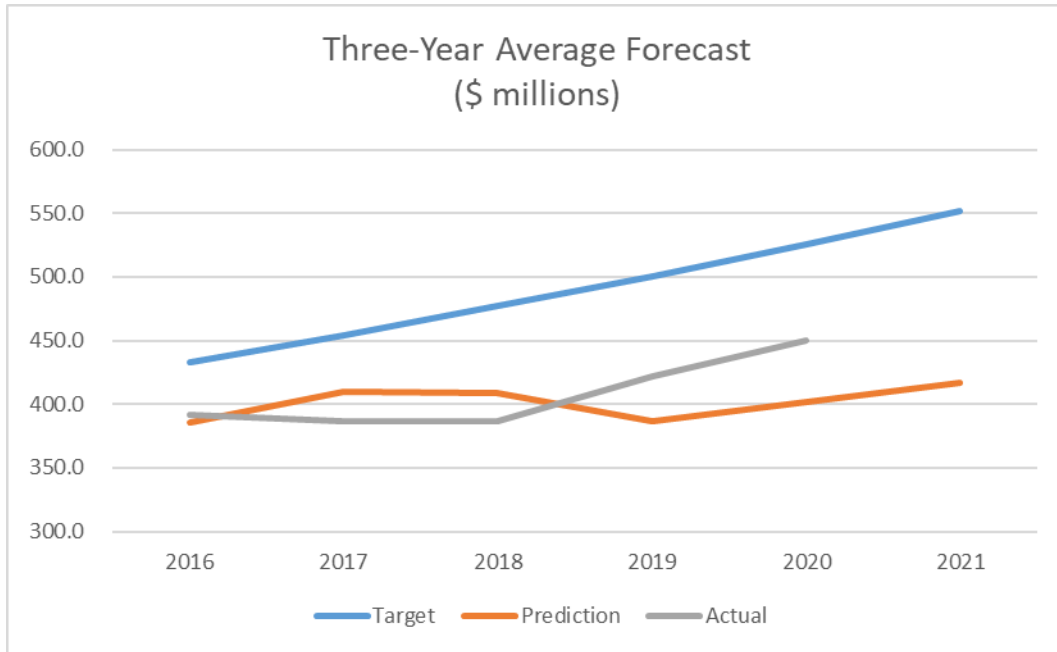
R&D Budget vs. UH Federal Research



NOTE: Large portion of Other federal funding is from Dept of Commerce – NOAA.



FY 21 Projection



FY	Target	Prediction	Actual
2016	432.5	385.9	391.3
2017	454.2	410.2	387.0
2018	476.7	408.5	386.3
2019	500.8	386.7	421.8
2020	525.7	401.5	450.4
2021	552.0	416.3	TBD

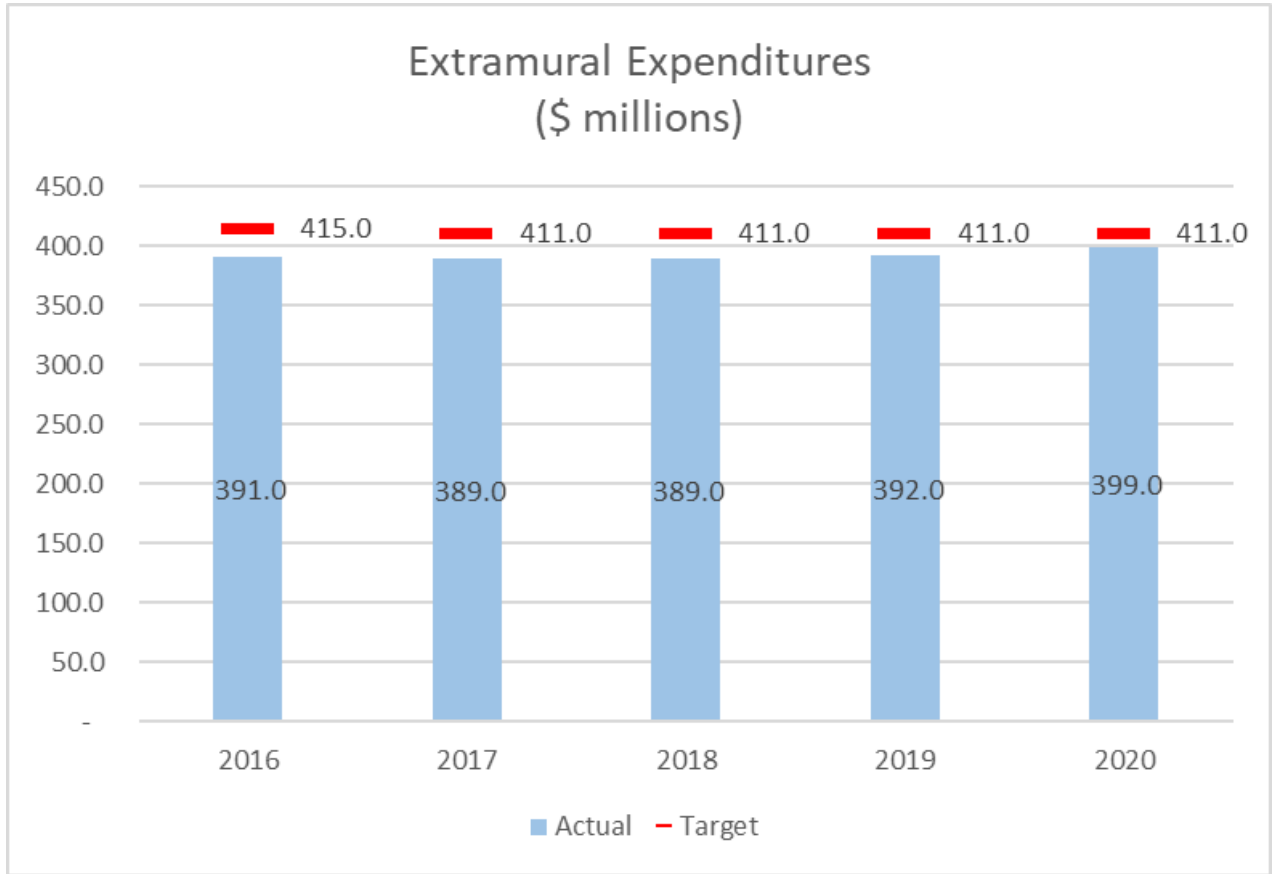
FY 20 extramural awards predicted to be \$416.3 million.
UH Strategic Directions target is \$552.0 million (stretch goal).



Appendix

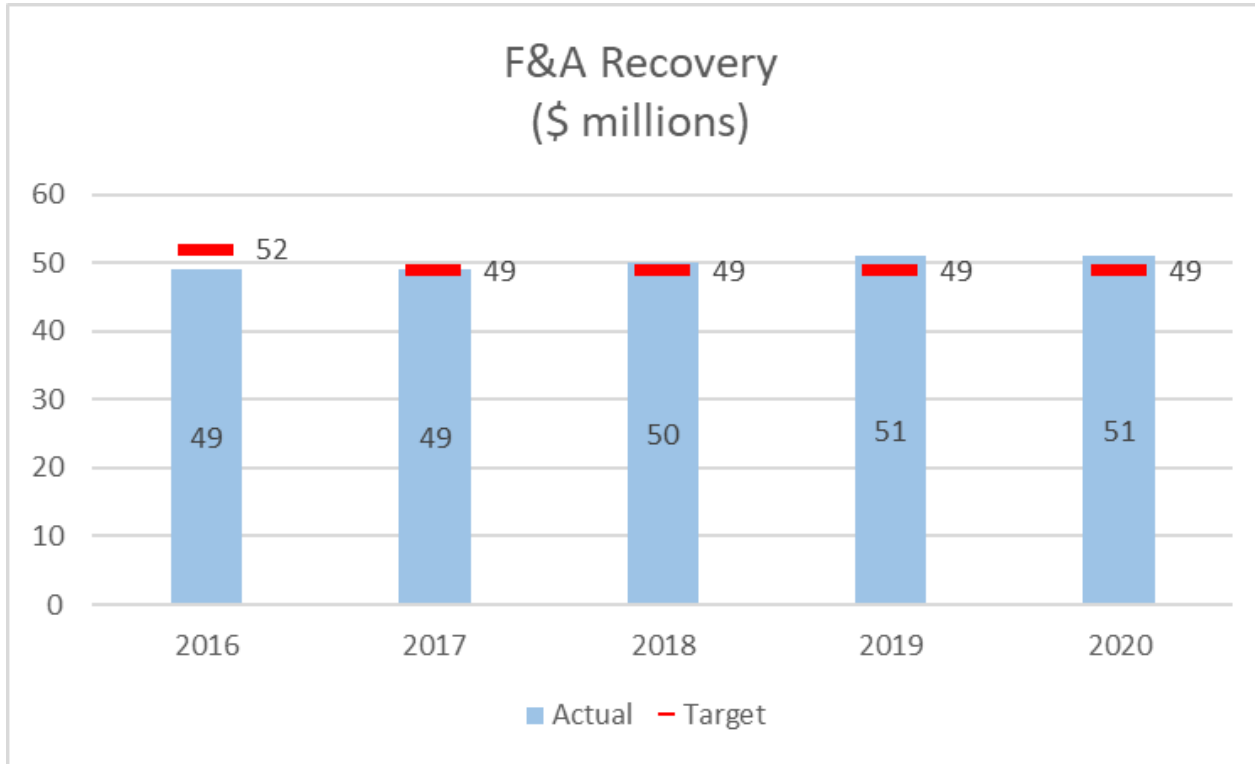
- Other R&I metrics
 - Extramural Expenditures
 - F&A Recovery
 - Active Licenses/Options
 - Royalties
 - Start-Ups/New Companies





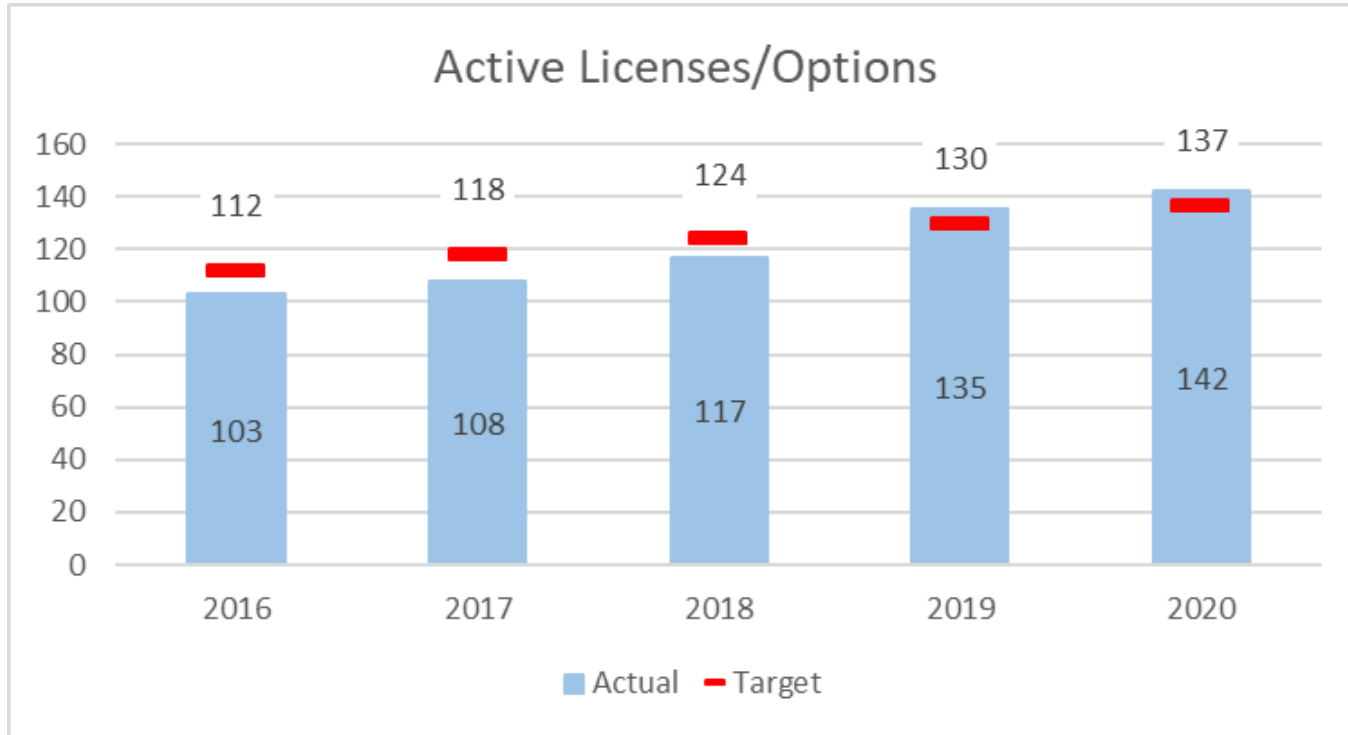
	FY 2018		FY 2019		FY 2020	
	Target	Actual	Target	Actual	Target	Actual
Extramural Expenditures (\$ m)	411	389	411	392	411	399





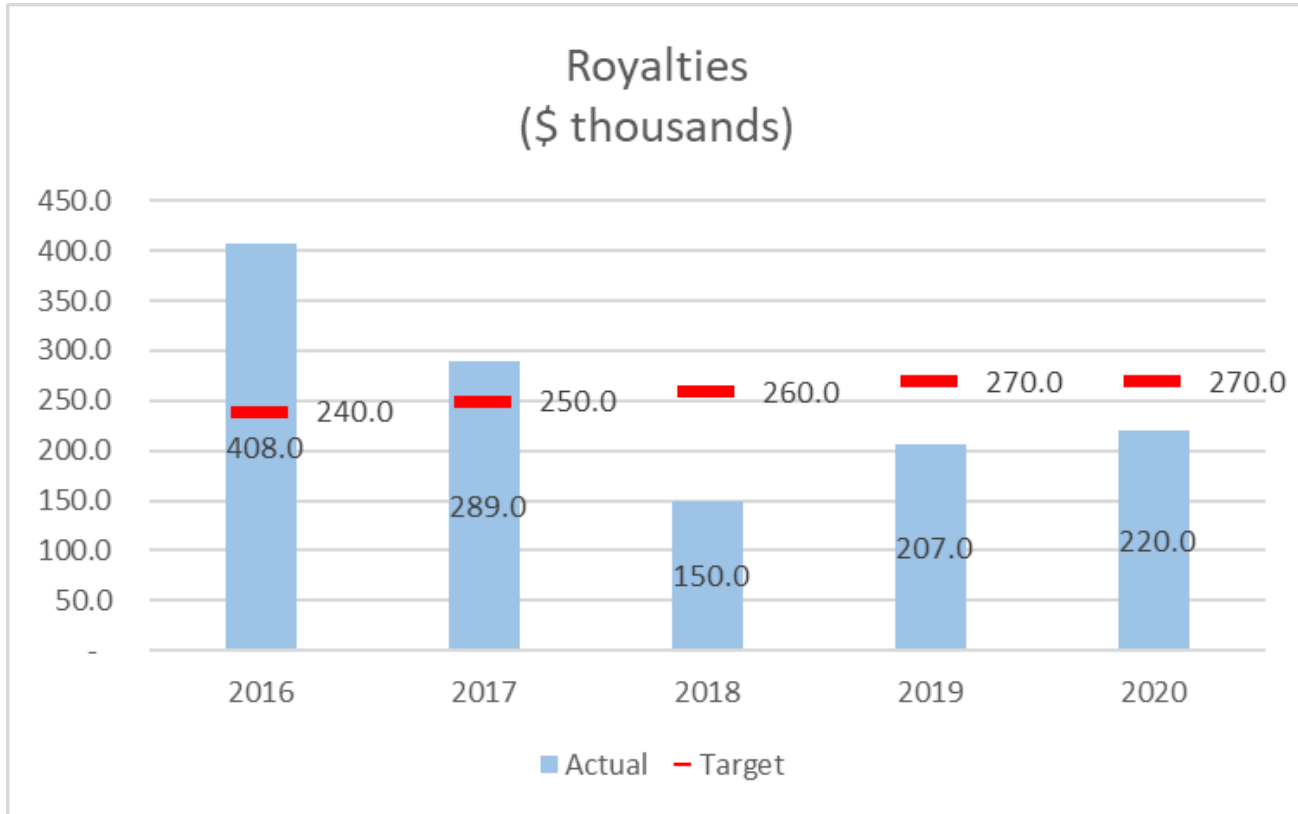
	FY 2018		FY 2019		FY 2020	
	Target	Actual	Target	Actual	Target	Actual
F&A Recovery (\$ millions)	49	50	49	51	49	51





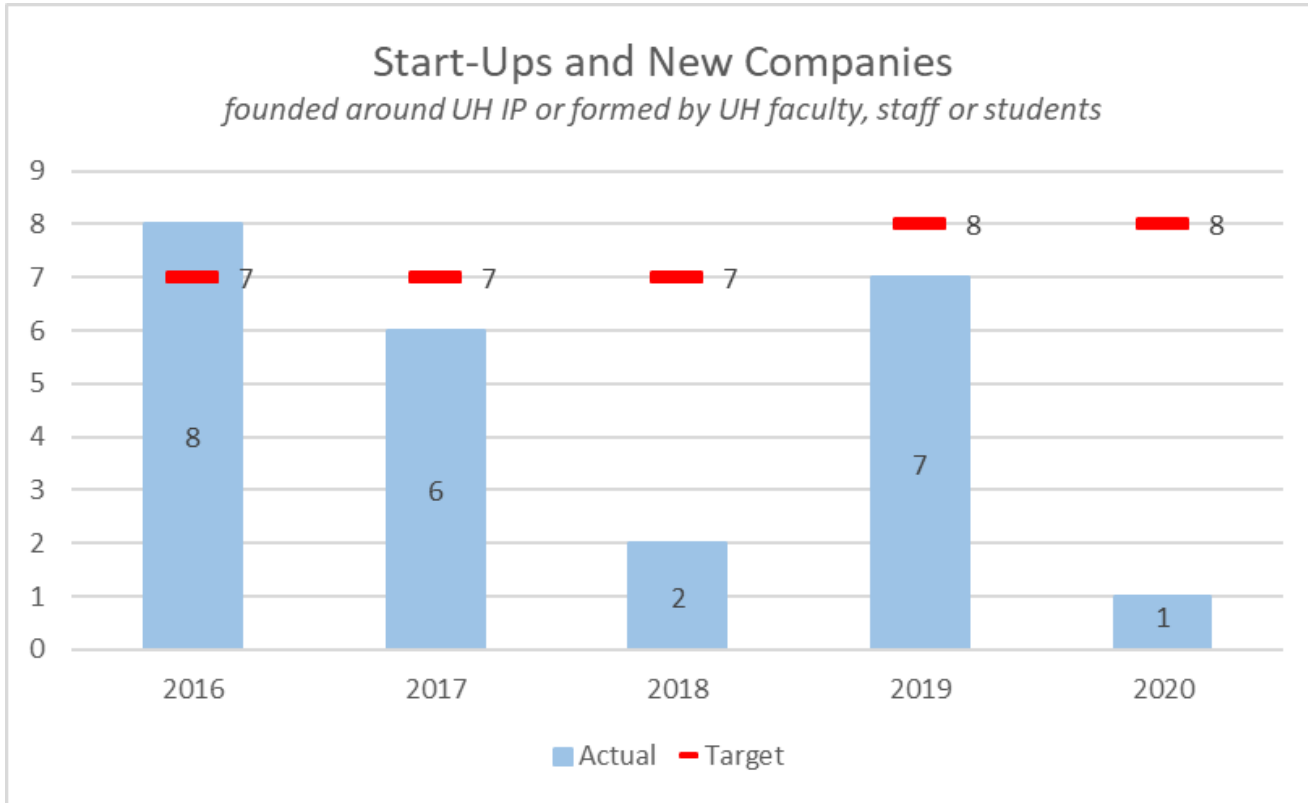
	FY 2018		FY 2019		FY 2020	
	Target	Actual	Target	Actual	Target	Actual
Active Licenses/Options	124	117	130	135	130	142





	FY 2018		FY 2019		FY 2020	
	Target	Actual	Target	Actual	Target	Actual
Royalties (\$ thousands)	260	150	270	207	270	220





	FY 2018		FY 2019		FY 2020	
	Target	Actual	Target	Actual	Target	Actual
Start-Ups/New Companies	7	2	8	7	8	1



FY20 Q4 Extramural Awards Analysis Report

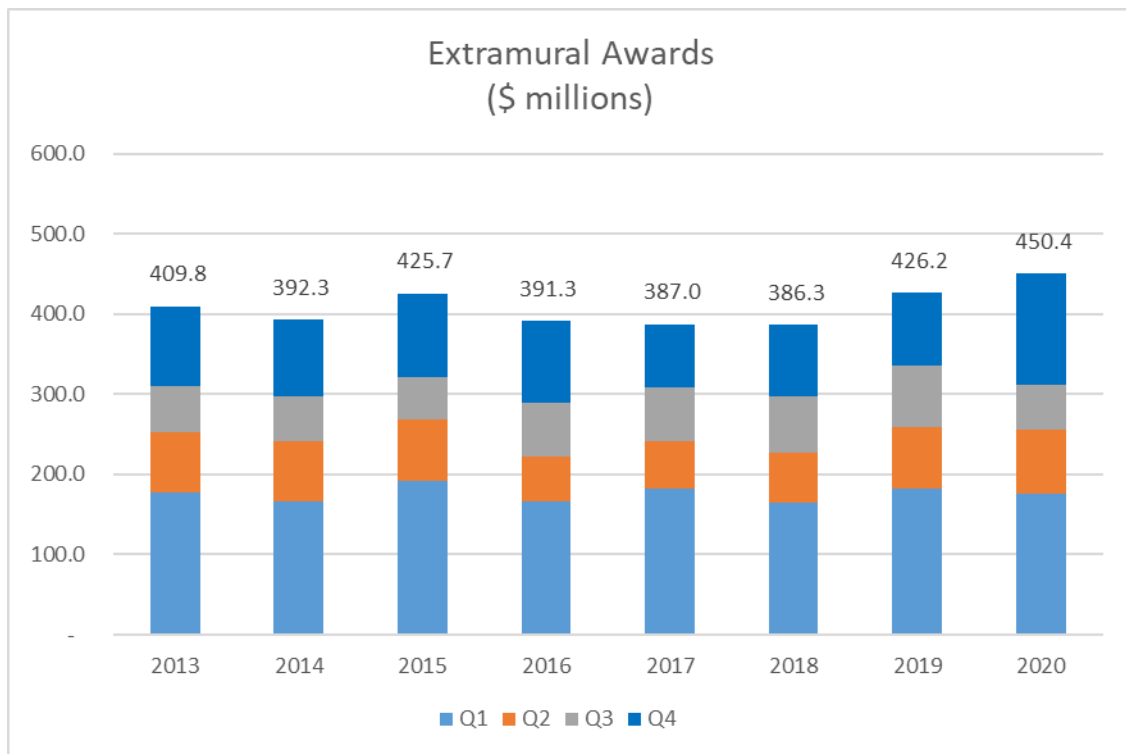
I. Summary

The University of Hawai'i's (UH) extramural awards for Fiscal Year (FY) 20 Quarter (Q) 4 totaled \$139.5 million, which is 54.2% more than FY19 Q4. For the second year in a row, total awards were over \$400 million. We are hopeful that momentum will be maintained in FY21, but the uncertainty caused by the coronavirus pandemic and its effect on the economy pose a challenge.

II. Quarterly Performance Metrics

Extramural awards for FY20 Q4 were 54.2% more than FY19 Q4. See *IV. Award Trends by Campus* for an explanation of major increases or decreases that contributed to the FY20 Q4 results.

Quarterly Extramural Awards (\$ millions)								
	2013	2014	2015	2016	2017	2018	2019 ¹	2020
Q1	178.1	166.5	191.1	165.8	181.8	164.5	182.2	176.1
Q2	74.8	74.7	77.0	56.9	59.5	62.0	76.2	79.1
Q3	56.7	55.4	52.8	66.2	67.1	71.0	77.3	55.7
Q4	100.1	95.7	104.8	102.4	78.6	88.8	90.5	139.5
FY	409.8	392.3	425.7	391.3	387.0	386.3	426.2	450.4



¹ Unlike prior fiscal years, FY 2019 does not include deobligations or corrections to previously reported amounts. If included, FY 2019 would be \$421.8 million.

III. Significant Awards by Campus

During FY20 Q4, UH received 497 awards from 193 different sponsors. The following table reports the largest awards received this quarter by campus.

Campus	Sponsor Type	Sponsor	Project Title	Amount
Mānoa	Federal	Department of Defense	Asia Pacific Research Initiative for Sustainable Energy Systems 2019 (APRISES19)	6,267,366
Hilo	Federal	Small Business Administration	Small Business Development Centers CARES Act	1,280,000
West O'ahu	State and Local	Department of Education	The Certification of Special Education Teachers	100,000
Hawai'i CC	Non-profit	UH Foundation	HCF HawCC 13th Year Program Support	18,250
Honolulu CC	Federal	Department of Defense	2020 GenCyber Honolulu Community College	78,824
Kapi'olani CC	State and Local	Department of Health	Trauma System Development	200,000
Kaua'i CC	Non-profit	UH Foundation	Waialeale Project Program Coordinator	22,448
Leeward CC	Non-profit	UH Foundation	General Support of LCC	100,000
Maui College	Federal	Department of Agriculture	Developing Sustainable Aquaponics Systems for Food Security and Community Resiliency in Hawaii	498,759
Windward CC	Non-profit	UH Foundation	KS 13th Year Windward CC	12,000
UH System ²	Non-profit	UH Foundation	Culinary Institute of the Pacific-Phase II	10,000,000

IV. Award Trends by Campus

The following table summarizes the awards received in in fourth quarter by campus.

Q4 Award Amounts by Location
\$ millions

Campus	2017	2018	2019	2020	2020-19 Change ³
Mānoa	64.8	74.5	71.0	103.1	45.2%
Hilo	4.1	2.9	4.3	5.1	16.7%
West O'ahu	0.1	0.3	2.5	0.3	-89.9%
Hawai'i CC	0.0	0.0	0.0	0.0	92.1%
Honolulu CC	0.3	0.3	0.1	0.1	-35.0%
Kapi'olani CC	0.7	1.0	0.7	0.3	-48.6%
Kaua'i CC	0.0	0.0	0.0	0.0	0.0%
Leeward CC	0.1	0.2	0.5	0.1	-78.2%
Maui College	0.9	0.2	1.9	0.8	-53.9%
Windward CC	0.0	0.1	0.9	0.0	-98.6%
UH System	7.6	9.3	8.6	29.7	241.7%
TOTAL	78.6	88.8	90.5	139.5	54.2%

² 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.

³ The percent change over the prior fiscal year is calculated using the actual figures not the rounded figures.

Major dollar increases and decreases are attributed as follows:

UH Mānoa increase: There were 39 more awards in FY20 Q4 compared to FY19 Q4.

Award size	Change from FY19 Q4 count	Share of Increase	% Share of Increase
0 – 99,000	(8)	(1,938,505)	-6%
100,000 – 499,999	39	10,050,853	31%
500,000 – 999,999	(2)	(1,907,066)	-6%
1,000,000 +	10	25,879,507	81%
Total	39	32,084,789	100%

Of the \$25.9 million increase in awards of \$1 million or more, five (5) awards totaling \$9.9 million from three (3) state agencies and four (4) awards totaling \$9.6 million from the Simons Foundation accounted for 75% of the increase.

UH West O’ahu decrease: In FY19 Q4, there was a \$2 million National Science Foundation award. There were no comparable large awards in FY20 Q4.

Maui College decrease: In FY19 Q4, there were three (3) U.S. Department of Education awards totaling \$1.2 million. There were no comparable large awards from the U.S. Department of Education in FY20 Q4. Two (2) of the awards reported in FY19 Q4 had incremental funding in FY20 (\$298K), but 58.7% less than the amounts reported in FY19 (\$723K).

UH System increase: The increase is attributed to four (4) awards:

Sponsor	Amount
UH Foundation	\$10,000,000
Hawai’i Department of Education	\$8,000,000
Hawai’i Department of Health	\$2,515,498
US Department of Defense	\$1,902,009
Total	\$22,417,507

V. Analysis

Annual: In FY20, federal awards declined by \$26.9 million. Gains in FY20 were fueled by unexpected increases in awards from Hawai’i – Government Agencies, Hawai’i Non-Profit Organizations, and Mainland-Non-Profit Organizations.

Sponsor Type	FY19	FY20	Change
DA-Dept of Agriculture	8,222,884	10,787,963	2,565,079
Dept of State	2,775,000	-	(2,775,000)
DHHS-Dept of Health and Human Services	56,714,095	48,876,217	(7,837,878)
DOC-Dept of Commerce	28,181,538	22,488,575	(5,692,963)
DOD-Department of Defense	49,966,996	44,780,906	(5,186,090)
DOE-Dept of Energy	1,658,015	4,535,358	2,877,343
DOI-Dept of Interior	5,952,633	5,777,494	(175,139)
DOT-Dept of Transportation	-	200,000	200,000
ED-Dept of Education	49,540,646	37,408,690	(12,131,956)
Federal Agencies	7,236,476	7,900,103	663,627
National Aeronautics and Space Administration	25,529,759	25,444,136	(85,623)
National Science Foundation	44,634,050	45,356,073	722,023
Federal total	280,412,092	253,555,515	(26,856,577)
Foreign	9,075,877	6,604,921	(2,470,956)
Hawaii- Business and Other	6,734,322	5,601,377	(1,132,945)
Hawaii- Dept of Education	11,796,600	13,971,439	2,174,839
Hawaii- Government Agencies	54,354,585	88,827,235	34,472,650
Hawaii- Health Organizations	14,101,752	13,238,347	(863,405)
Hawaii- Non-Profit Organizations	21,301,837	30,652,147	9,350,310
Mainland- Business and Other	5,129,155	5,952,383	823,228
Mainland- Health Organizations	262,863	442,816	179,953
Mainland- Non-Profit Organizations	7,064,790	18,899,232	11,834,442
US Colleges and Universities	11,618,287	12,693,837	1,075,550
Non-federal total	141,440,068	196,883,734	55,443,666
Total	421,852,160	450,439,249	28,587,089

Of the \$34.4 million increase in Hawai'i-Government Agencies awards, nine (9) awards account for \$25.9 million. Another 34 awards, between \$100K and \$499K, account for about \$7.1 million of the increase. Of the 34 awards, 33 were to UH Mānoa units and one (1) to UH Hilo. The nine (9) awards totaling \$25.9 million are summarized in the table below.

State Agency	Campus	Count	Amount
Dept of Health	UH Mānoa	3	\$5.3 million
Dept of Health	UH System	1	\$2.5 million
Dept of Human Services	UH Mānoa	2	\$3.9 million
Dept of Human Services	Maui College	1	\$6.9 million
Dept of Transportation	UH Mānoa	1	\$6.0 million
Dept of Transportation	UH Hilo	1	\$1.3 million
TOTAL		9	\$25.9 million

The Hawai'i-Non-Profit Organizations increase is attributable to the \$10 million UH Foundation award. The Mainland-Non-Profit Organizations increase is attributable to \$9.6 million in Simons Foundation awards.

Federal R&D Budget and FY21 Outlook: For the FY21 Outlook, we simplified the Federal R&D Budget table for easier reading.

Total R&D by Agency, FY 2016-2021							
(budget authority in millions of dollars; actuals except where noted)							
Fiscal Year	2016	2017	2018	2019	Requested 2020	Enacted 2020	Requested 2021
DOD	71,421	49,197	52,386	54,691	59,463	64,544	59,831
NASA	13,253	10,704	11,755	10,698	11,280	14,057	13,334
DOE	15,217	14,896	17,482	18,271	14,718	19,219	16,051
HHS	32,243	34,222	36,942	38,511	33,693	40,818	37,875
NSF	6,010	5,938	6,327	6,586	5,760	6,752	6,328
USDA	2,657	2,585	2,618	3,026	2,464	2,941	2,769
Interior	973	953	885	958	753	973	725
DOT	927	904	1,043	1,071	1,076	1,134	594
EPA	516	497	492	489	285	492	318
DOC	1,681	1,794	2,029	1,959	1,694	1,948	1,506
DHS	582	724	725	668	507	532	450
VA	1,222	1,346	1,286	1,370	1,325	1,313	1,351
Other	1,600	1,529	1,795	1,836	540	1,250	1,053
Total R&D	148,302	125,289	135,765	140,134	133,558	155,973	142,185
Source: Congressional Research Service (LAST UPDATE: April 2020).							
Requested is the President's budget request.							

As we mentioned in prior Q4 reports, the Federal R&D Budget appears to be stable and UH results may be dependent more on its funding cycle rather than the perceived availability of federal funding.

We hope UH will be able to maintain its momentum in FY21. However, the uncertainty caused by the coronavirus pandemic and its effect on the economy pose a challenge.

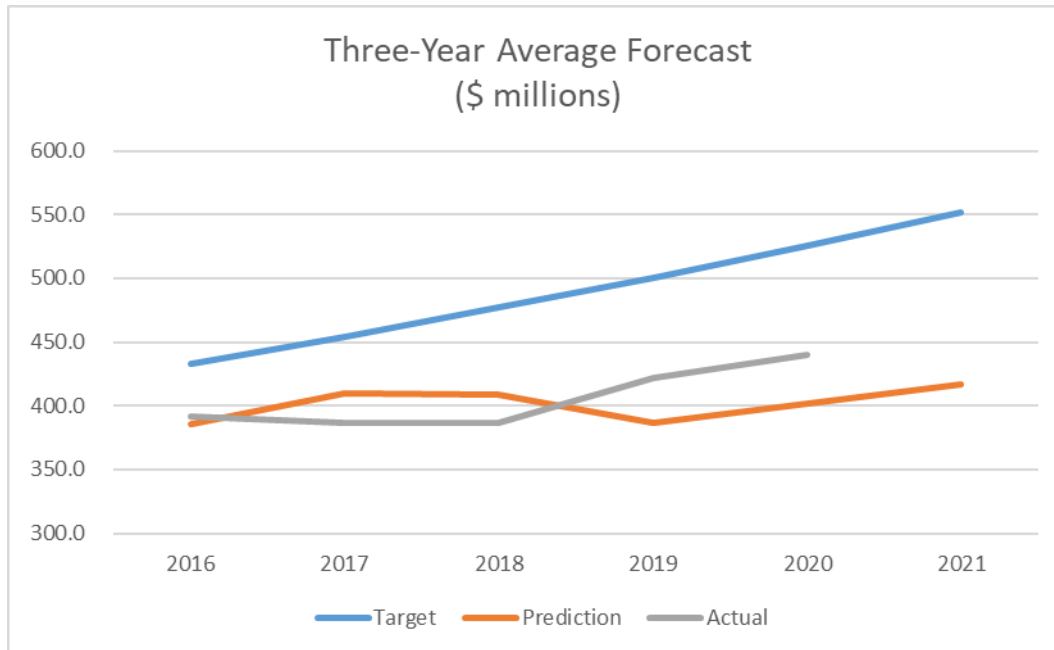
VI. Forecast vs. Actuals

The results for FY20 Q4 were about \$46.5 million or 50% more than forecast. However, overall results were 12.2% more than forecast.

FY20	Forecast	Actual	Variance
Q1	176.6	176.1	-0.2%
Q2	61.5	79.1	28.6%
Q3	70.4	55.7	-20.9%
Q4	93.0	139.5	50.0%
Total	401.5	450.4	12.2%

FY21 Forecast: FY20 proposals were around \$1.22 billion, which is 18.4% higher than FY19. Based on our model, the FY21 forecast is \$416.3 million. The FY15 – FY21 Strategic Directions target for FY21 is \$552 million.

FY	Target	Prediction	Actual
2016	432.5	385.9	391.3
2017	454.2	410.2	387.0
2018	476.7	408.5	386.3
2019	500.8	386.7	426.2
2020	525.7	401.5	450.4
2021	552.0	416.3	TBD



Extramural Sponsor Awards Quarterly Summary

<u>Program Type</u>	Apr 1 - Jun 30 2020		Apr 1 – Jun 30 2019	
	<u>Count</u>	<u>Amount</u>	<u>Count</u>	<u>Amount</u>
Research	305	\$ 73,652,052	256	\$ 51,065,988
Non-Research	192	\$ 67,682,493	212	\$ 39,425,502
<u>Total</u>	<u>497</u>	<u>\$141,334,545</u>	<u>468</u>	<u>\$ 90,491,040</u>

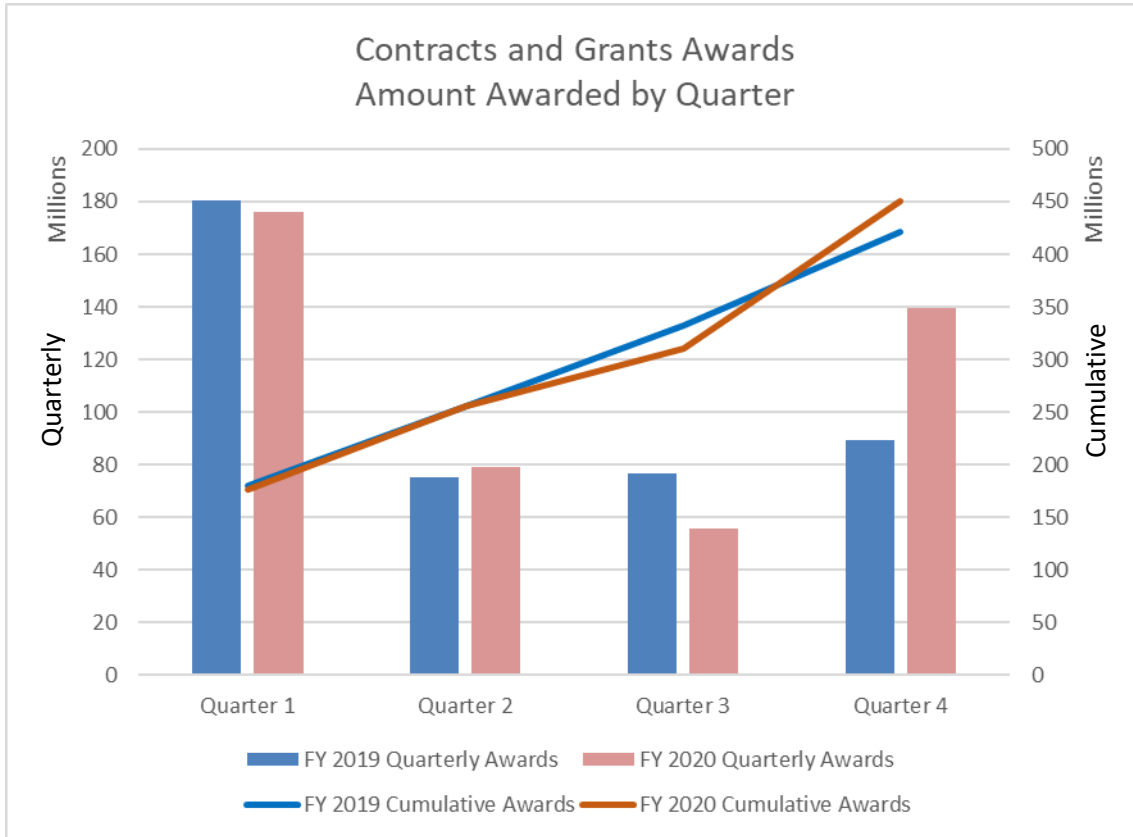
Note: The detailed award listing is available at:

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

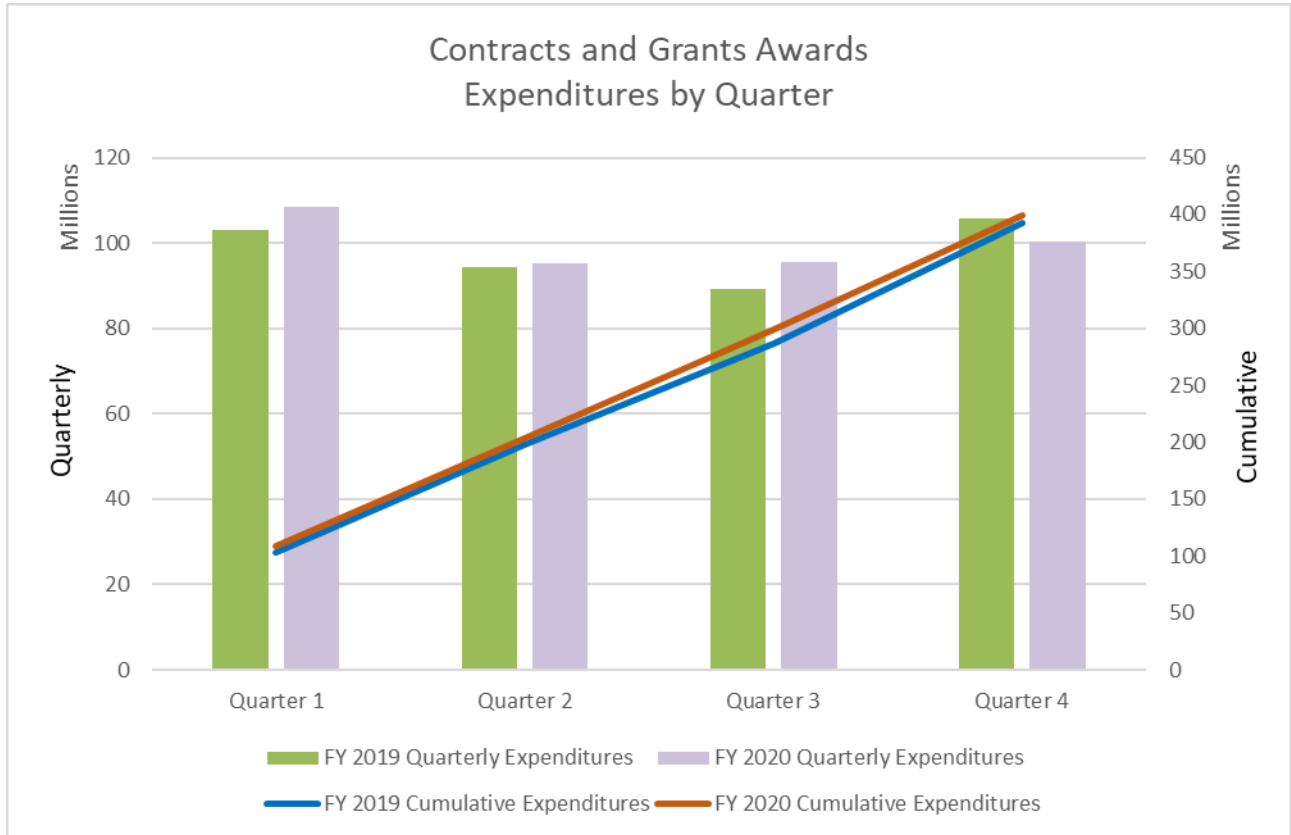
The FY 2019 year-to-date total was: \$421,852,160

The unofficial FY 2020 year-to-date total is: 1,879 awards totaling \$450,439,249

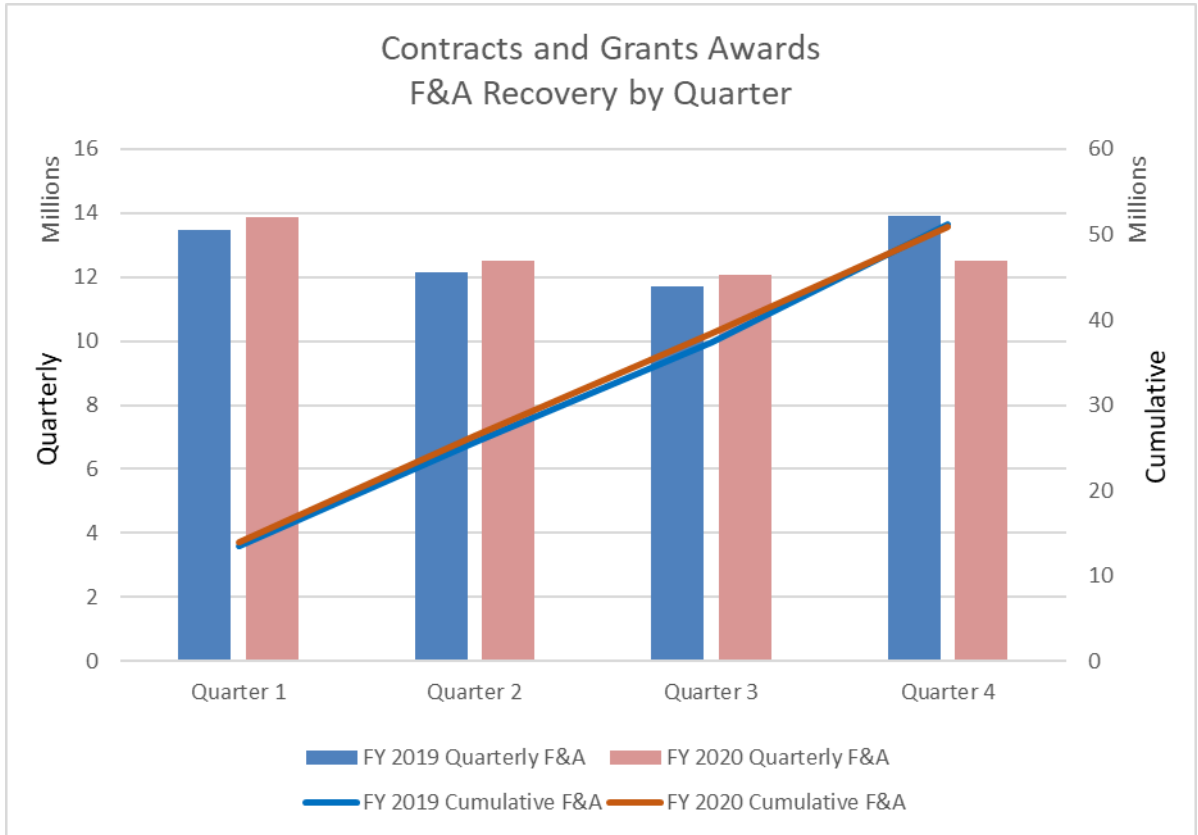
Contracts and Grants Awards
As of Quarter Four – FY 2020



Contracts and Grants Expenditures
As of Quarter Four – FY 2020



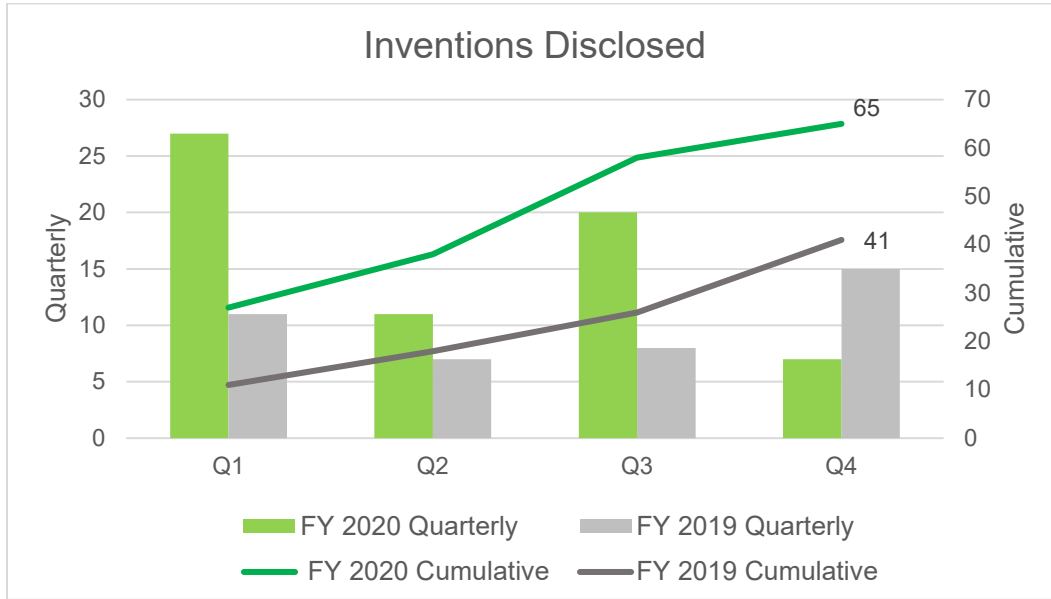
Contracts and Grants F&A Recovery
As of Quarter Four – FY 2020



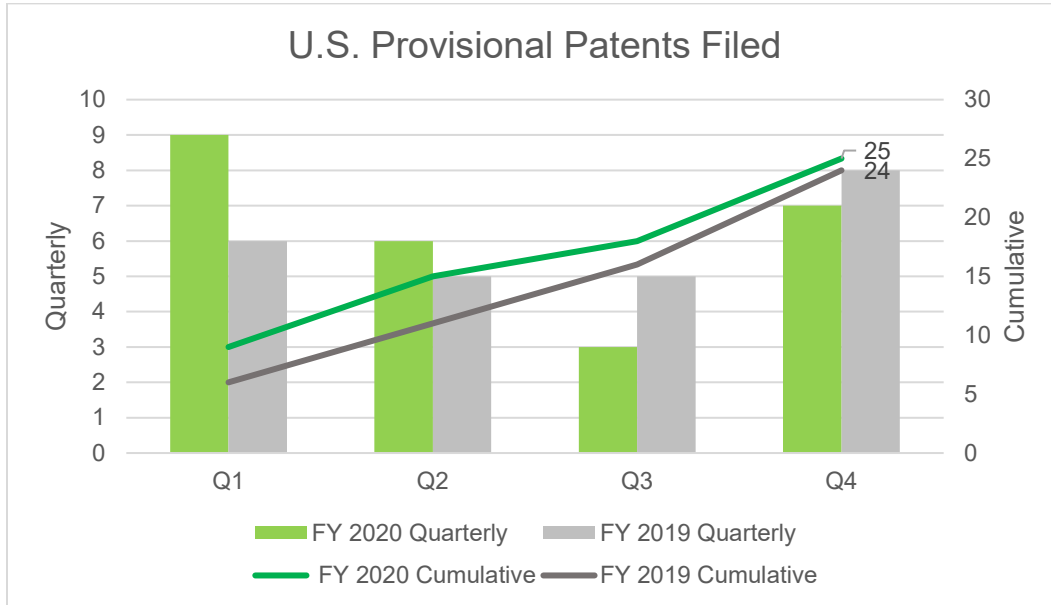
**OIC Research & Innovation Metrics
FY 2020 – Fourth Quarter Summary**

<u>Metric</u>	FY 2020 <u>4/1/20 – 6/30/20</u>	FY 2019 <u>4/1/19 – 6/30/19</u>
Invention Disclosures	7	15
U.S. Provisional Patents Filed	7	8
U.S. Non-Provisional Patents Filed	4	7
U.S. Non-Provisional Patents Issued	3	1
License & Option Agreements Executed	8	1
Active License & Option Agreements	142	135
Royalty Revenue	\$51,062.97	\$34,688.18
Start-Ups	0	3

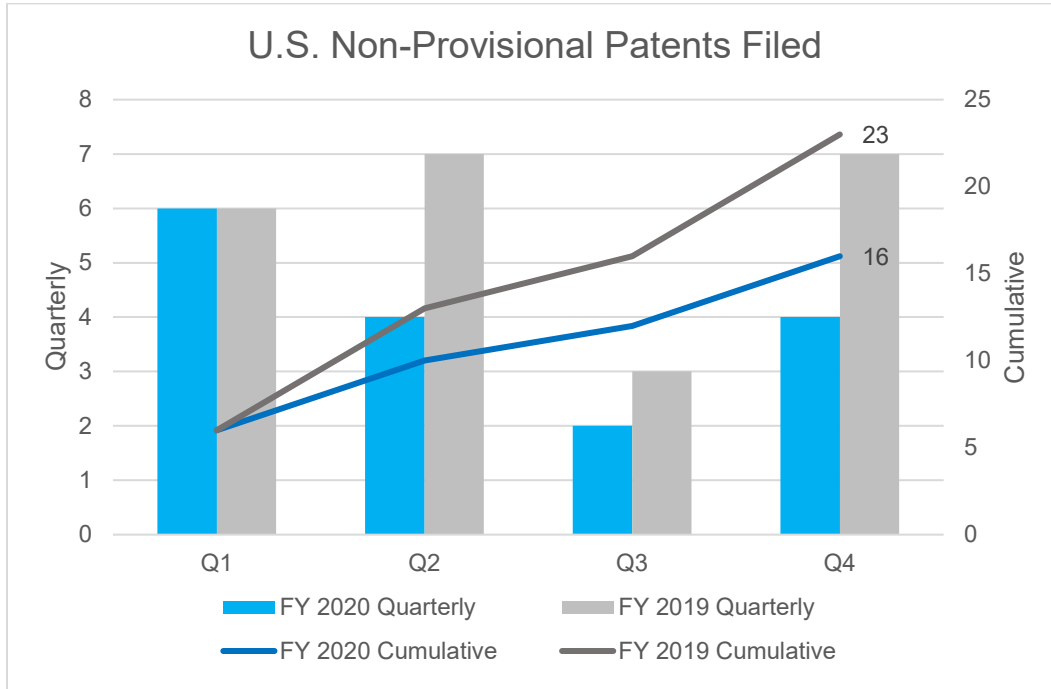
Invention Disclosures
As of Quarter Four – FY 2020



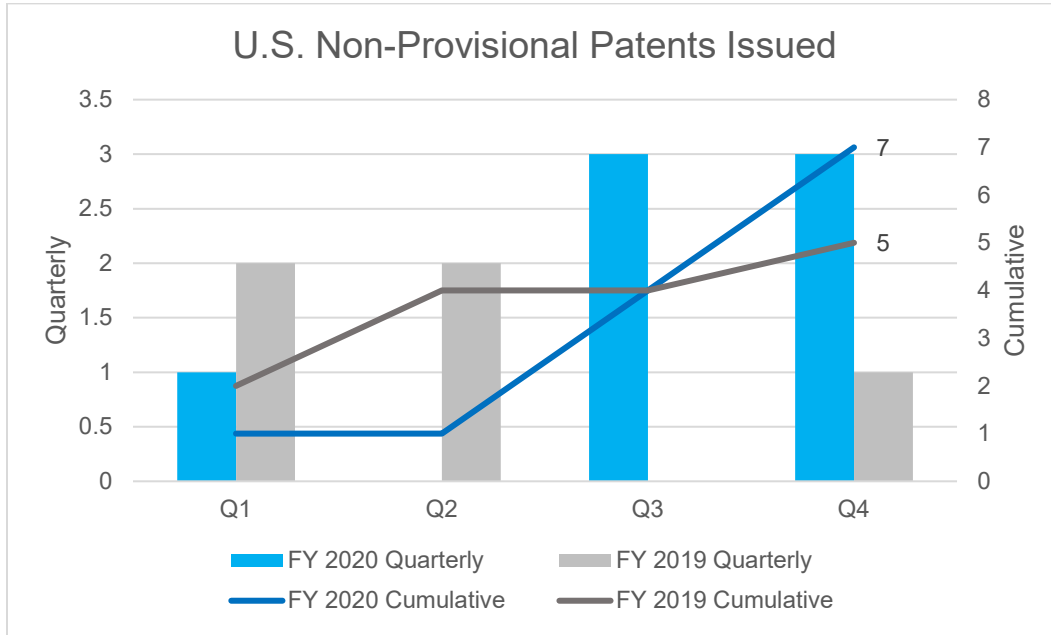
U.S. Provisional Patents Filed
As of Quarter Four – FY 2020



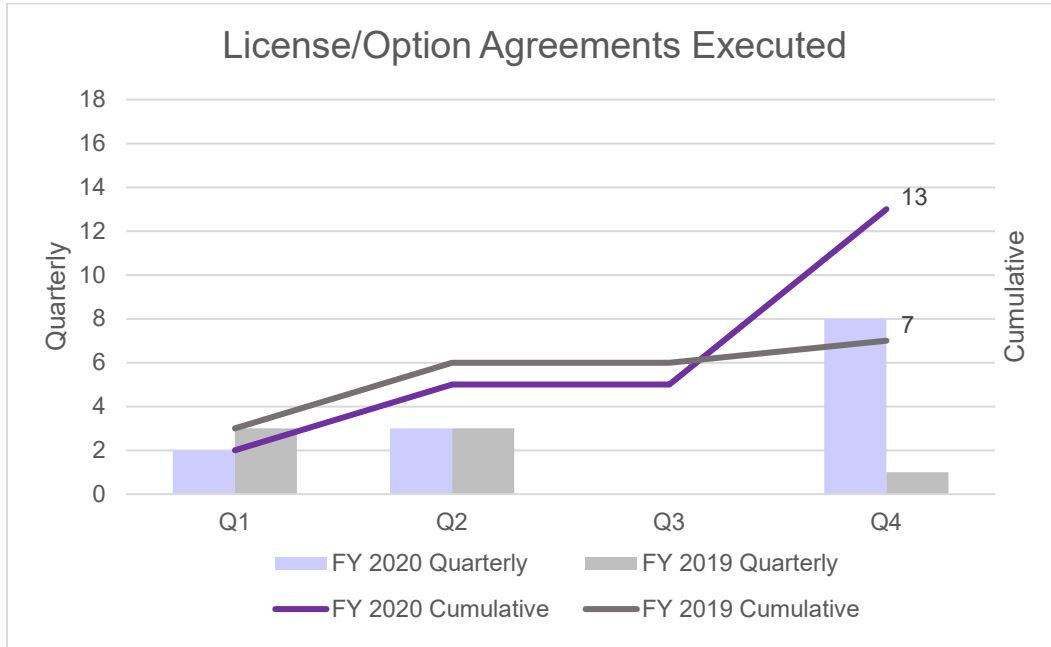
U.S. Non-Provisional Patents Filed
As of Quarter Four – FY 2020



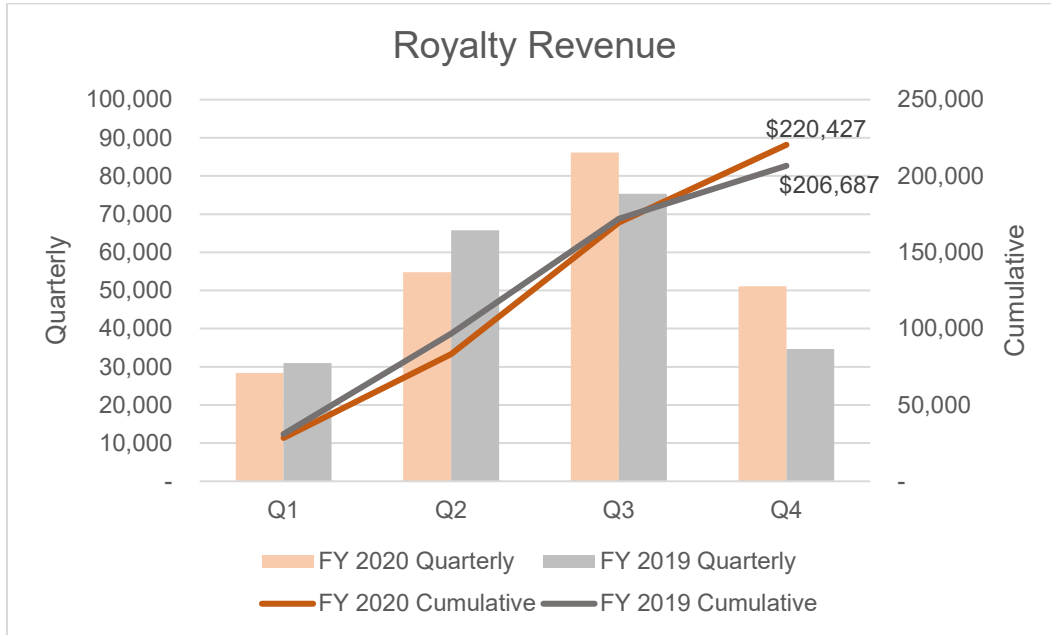
U.S. Non-Provisional Patents Issued
As of Quarter Four – FY 2020



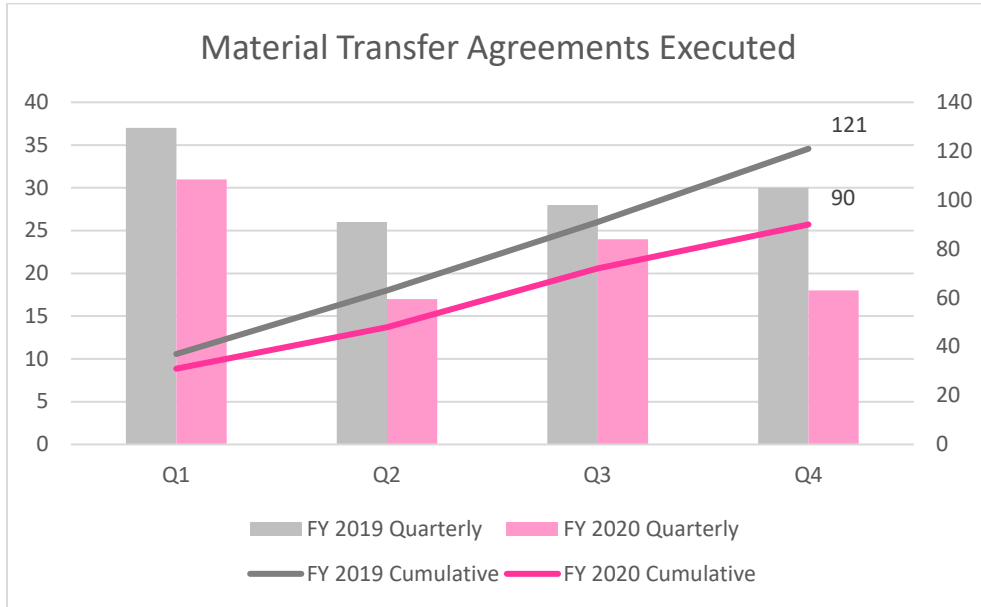
License/Option Agreements
As of Quarter Four – FY 2020



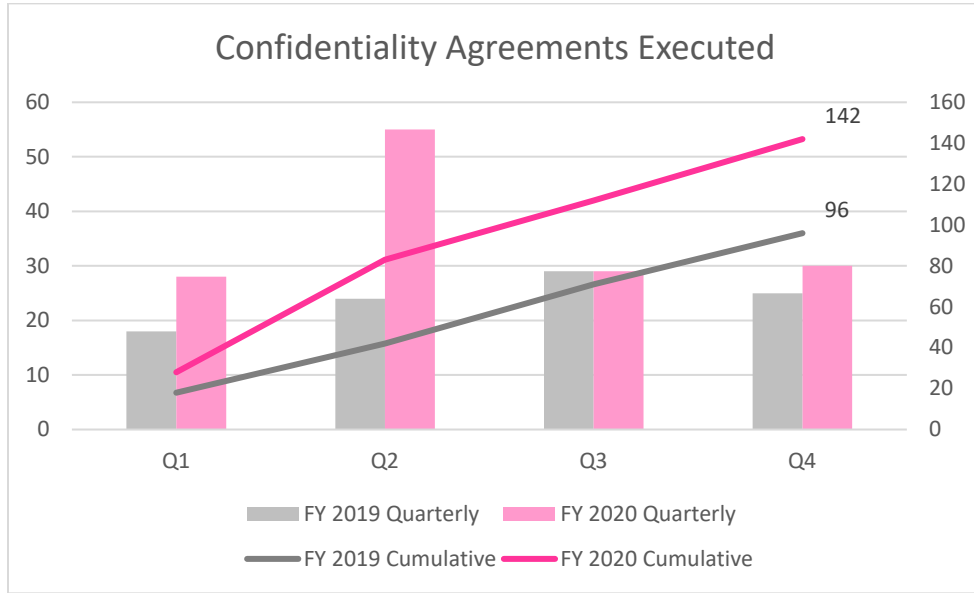
Royalty Revenue As of Quarter Four – FY 2020



Material Transfer Agreements Executed As of Quarter Four – FY 2020



Confidentiality Agreements Executed As of Quarter Four – FY 2020



FY 2020 Monthly Report of Awards to Date as of June 30, 2020						
Summary By Campus						
Campus	FY 2019		FY 2020		\$ Change	% Change
	Award Count	Award Amount	Award Count	Award Amount		
Hawai'i Community College	10	766,655	14	1,775,648	1,008,993	131.6%
Honolulu Community College	10	1,611,636	10	1,855,996	244,360	15.2%
Kapi'olani Community College	24	5,950,760	15	2,991,758	(2,959,002)	-49.7%
Kaua'i Community College	5	971,368	11	1,265,530	294,162	30.3%
Leeward Community College	8	3,315,870	6	1,564,863	(1,751,007)	-52.8%
University of Hawai'i Maui College	41	13,379,120	32	14,989,592	1,610,472	12.0%
Windward Community College	23	7,669,161	15	4,611,585	(3,057,576)	-39.9%
Subtotal Community Colleges and UH Maui College	121	33,664,570	103	29,054,972	(4,609,598)	-13.7%
University of Hawai'i at Hilo	136	17,333,458	107	14,330,883	(3,002,575)	-17.3%
University of Hawai'i at Manoa	1,575	317,723,656	1,567	343,126,099	25,402,443	8.0%
University of Hawai'i at West O'ahu	20	8,216,107	16	2,896,311	(5,319,796)	-64.7%
University of Hawai'i System	73	49,276,294	86	67,190,094	17,913,800	36.4%
Grand Total	1,925	426,214,085	1,879	456,598,359	30,384,274	7.1%
FY 2020 Monthly Report of Awards to Date as of June 30, 2020						
Campus Details						
Campus	FY 2019		FY 2020		\$ Change	% Change
	Award Count	Award Amount	Award Count	Award Amount		
Hawai'i Community College	10	766,655	14	1,775,648	1,008,993	131.6%
Chancellor, Hawaii Community College	10	766,655	14	1,775,648	1,008,993	131.6%
Academic Affairs (Hawaii CC)	2	250,000	1	75,000	(175,000)	-70.0%
Chancellor, Hawaii Community College	3	407,280	5	1,280,596	873,316	214.4%
Early Childhood Education (Hawaii CC)	1	19,800	-	-	(19,800)	-100.0%
Liberal Arts and Public Services	-	-	1	23,205	23,205	100.0%
Office of Continuing Education & Training	3	79,575	3	182,985	103,410	130.0%
UH Center at West Hawai'i	1	10,000	4	213,862	203,862	2038.6%
Honolulu Community College	10	1,611,636	10	1,855,996	244,360	15.2%
Chancellor, Honolulu Community College	10	1,611,636	10	1,855,996	244,360	15.2%
Academic Affairs (Honolulu CC)	2	792,641	2	577,252	(215,389)	-27.2%
Chancellor, Honolulu Community College	2	283,461	1	264,867	(18,594)	-6.6%
Early Childhood (Honolulu CC)	1	40,000	1	40,000	-	0.0%
Pacific Center for Advanced Technology Training	3	141,413	3	168,824	27,411	19.4%
University College	2	354,121	3	805,053	450,932	127.3%
Kapi'olani Community College	24	5,950,760	15	2,991,758	(2,959,002)	-49.7%
Chancellor, Kapiolani Community College	24	5,950,760	15	2,991,758	(2,959,002)	-49.7%
Academic Affairs (KCC)	3	252,324	1	123,330	(128,994)	-51.1%
Arts and Sciences Academic Program	2	92,247	-	-	(92,247)	-100.0%
Chancellor, Kapiolani Community College	6	4,577,822	3	1,508,155	(3,069,667)	-67.1%
Continuing Education / Non-Credit Program	6	226,640	1	30,000	(196,640)	-86.8%
Culinary Arts (KCC)	1	42,000	2	108,968	66,968	159.4%
Emergency Medical Services	2	298,960	2	440,000	141,040	47.2%
Health Sciences	1	24,400	4	136,870	112,470	460.9%
Office for Institutional Effectiveness	1	10,000	-	-	(10,000)	-100.0%
Student Support Services	2	426,367	2	644,435	218,068	51.1%
Kaua'i Community College	5	971,368	11	1,265,530	294,162	30.3%
Chancellor, Kauai Community College	5	971,368	11	1,265,530	294,162	30.3%
Chancellor, Kauai Community College	5	971,368	10	1,225,530	254,162	26.2%
Continuing Education and Training (Kauai CC)	-	-	1	40,000	40,000	100.0%
Leeward Community College	8	3,315,870	6	1,564,863	(1,751,007)	-52.8%
Chancellor, Leeward Community College	8	3,315,870	6	1,564,863	(1,751,007)	-52.8%
Academic Affairs (Leeward CC)	-	-	1	351,359	351,359	100.0%
Arts and Sciences	-	-	1	434,664	434,664	100.0%
Chancellor, Leeward Community College	3	2,583,775	2	180,000	(2,403,775)	-93.0%
Continuing Education and Workforce Dev	1	212,488	1	250,000	37,512	17.7%
Education (Leeward CC)	1	225,000	-	-	(225,000)	-100.0%
Hawaiian Studies (Leeward CC)	1	74,214	-	-	(74,214)	-100.0%
Social Science (Leeward CC)	1	200,000	1	348,840	148,840	74.4%
Theatre (Leeward CC)	1	20,393	-	-	(20,393)	-100.0%
University of Hawai'i at Hilo	136	17,333,458	107	14,330,883	(3,002,575)	-17.3%
Chancellor, UH Hilo	2	1,148,825	2	1,260,827	112,002	9.7%
Chancellor, UH Hilo	2	1,148,825	2	1,260,827	112,002	9.7%
College of Agriculture, Forestry and Natural Resource Mgt	13	1,623,442	9	914,014	(709,428)	-43.7%
College of Agriculture, Forestry and Natural Resource Mgt	9	842,167	4	338,601	(503,566)	-59.8%
Pacific Aquaculture and Coastal Resources Ctr	4	781,275	5	575,413	(205,862)	-26.3%
College of Arts and Sciences	38	5,492,465	42	3,717,712	(1,774,753)	-32.3%
Anthropology (UH Hilo)	2	715,269	2	1,201,601	486,332	68.0%
Biology (UH Hilo)	3	197,971	2	89,041	(108,930)	-55.0%
Chemistry (UH Hilo)	1	393,775	2	20,386	(373,389)	-94.8%
College of Arts and Sciences	2	335,994	3	462,431	126,437	37.6%
College of Arts and Sciences	-	-	8	494,018	494,018	100.0%
College of Natural and Health Sciences	-	-	1	104,876	104,876	100.0%
Geography (UH Hilo)	5	556,079	8	574,153	18,074	3.3%
Humanities Division	-	-	1	11,209	11,209	100.0%
Kinesiology and Exercise Sciences	-	-	3	95,097	95,097	100.0%
Marine Science	3	583,805	1	20,000	(563,805)	-96.6%
Mathematics (UH Hilo)	1	8,400	1	118,807	110,407	1314.4%
Natural Sciences Division	10	1,570,359	-	-	(1,570,359)	-100.0%
Physics and Astronomy	3	333,851	-	-	(333,851)	-100.0%

Campus	FY 2019		FY 2020		\$ Change	% Change
	Award Count	Award Amount	Award Count	Award Amount		
Political Science (UH Hilo)	-	-	1	28,000	28,000	100.0%
School of Nursing	-	-	1	1,000	1,000	100.0%
Social Sciences Division	5	399,934	4	242,101	(157,833)	-39.5%
Tropical Conservation Biology and Environmental Science	3	397,028	4	254,992	(142,036)	-35.8%
College of Business and Economics	-	-	3	163,900	163,900	100.0%
College of Business and Economics	-	-	3	163,900	163,900	100.0%
College of Continuing Education and Community Svc	-	-	1	40,000	40,000	100.0%
College of Continuing Education and Community Svc	-	-	1	40,000	40,000	100.0%
College of Pharmacy	13	722,632	9	300,289	(422,343)	-58.4%
College of Pharmacy	4	117,547	5	217,772	100,225	85.3%
Pharmaceutical Sciences	4	449,703	3	54,322	(395,381)	-87.9%
Pharmacy Practice	5	155,382	1	28,195	(127,187)	-81.9%
Hawaii Small Business Development Center	5	818,278	4	2,460,982	1,642,704	200.8%
Hawaii Small Business Development Center	5	818,278	4	2,460,982	1,642,704	200.8%
Imiloa Astronomy Center Of Hawaii	4	195,978	4	541,000	345,022	176.1%
Imiloa Astronomy Center Of Hawaii	4	195,978	4	541,000	345,022	176.1%
Ka Haka'Ula O Ke'Elkolani-UHH	10	1,324,631	4	2,078,461	753,830	56.9%
Hale Kuamo'o Center	4	853,706	3	828,461	(25,245)	-3.0%
Ka Haka'Ula O Ke'Elkolani-UHH	6	470,925	1	1,250,000	779,075	165.4%
Vice Chancellor for Administrative Affairs	1	2,250	2	4,375	2,125	94.4%
Vice Chancellor for Administrative Affairs	1	2,250	2	4,375	2,125	94.4%
Vice Chancellor for Research	26	2,079,445	18	1,236,819	(842,626)	-40.5%
Vice Chancellor for Research	26	2,079,445	18	1,236,819	(842,626)	-40.5%
Vice Chancellor for Student Affairs	24	3,925,512	9	1,612,504	(2,313,008)	-58.9%
Center For Gifted And Talented Native Hawaiian Children	4	717,054	1	630,588	(86,466)	-12.1%
Vice Chancellor for Student Affairs	21	3,208,458	8	981,916	(2,226,542)	-69.4%
University of Hawai'i at Manoa	1,575	317,723,656	1,567	343,126,099	25,402,443	8.0%
Chancellor, UH Manoa	1	18,500	1	2,500	(16,000)	-86.5%
Chancellor, UH Manoa	1	18,500	1	2,500	6,500	35.1%
College of Arts and Humanities	26	631,332	19	535,375	(95,957)	-15.2%
Academy for Creative Media (Manoa)	-	-	1	19,800	19,800	100.0%
Art and Art History	4	87,446	2	17,000	(70,446)	-80.6%
College of Arts and Humanities	3	184,000	-	-	(184,000)	-100.0%
History (UH Manoa)	2	36,755	3	101,693	64,938	176.7%
Music (UH Manoa)	8	74,218	3	22,600	(51,618)	-69.5%
Philosophy (UH Manoa)	1	1,000	3	25,000	24,000	2400.0%
Religion (UH Manoa)	1	14,101	2	15,369	1,268	9.0%
Theatre and Dance	3	30,120	2	44,343	14,223	47.2%
UHM Uehiro Academy for Philosophy and Ethics in Education	4	203,692	3	289,570	85,878	42.2%
College of Education	77	28,012,510	58	15,287,772	(12,724,738)	-45.4%
Center on Disability Studies/University Affiliated Pgms	40	11,859,528	26	7,528,452	(4,331,076)	-36.5%
College of Education	9	7,301,949	6	2,678,117	(4,623,832)	-63.3%
Curriculum Research and Development Group	16	3,108,196	7	1,712,827	(1,395,369)	-44.9%
Department of Curriculum Studies	1	578,985	4	1,300,044	721,059	124.5%
Department of Educational Foundations	1	70,000	-	-	(70,000)	-100.0%
Department of Educational Psychology	1	1,026	-	-	(1,026)	-100.0%
Department of Kinesiology and Rehabilitation Science	3	532,823	4	925,900	393,077	73.8%
Department of Special Education	4	3,807,276	5	336,768	(3,470,508)	-91.2%
Institute for Teacher Education	2	752,727	6	805,664	52,937	7.0%
College of Engineering	49	7,286,581	56	17,014,542	9,727,961	133.5%
Civil and Environmental Engineering	9	1,841,246	19	9,805,273	7,964,027	432.5%
College of Engineering	3	625,710	4	1,883,633	1,257,923	201.0%
Electrical Engineering	18	2,883,783	15	2,906,857	23,074	0.8%
Hawaii Center for Advanced Communications	1	100,032	1	100,032	-	0.0%
Hawaii Space Flight Laboratory	1	324,774	-	-	(324,774)	-100.0%
Mechanical Engineering	17	1,511,036	17	2,318,747	807,711	53.5%
College of Language, Linguistics and Literature	28	2,817,523	21	2,530,712	(286,811)	-10.2%
Center for Language and Technology	3	825,521	2	1,005,907	180,386	21.9%
College of Language, Linguistics and Literature	1	98,413	-	-	(98,413)	-100.0%
Department of East Asian Languages and Literature	4	1,191,763	5	1,144,982	(46,781)	-3.9%
Department of English	1	3,263	1	10,000	6,737	206.5%
Department of Indo-Pacific Languages	1	104,370	-	-	(104,370)	-100.0%
Department of Linguistics	11	507,698	9	357,823	(149,875)	-29.5%
Department of Second Language Studies	5	77,932	3	6,000	(71,932)	-92.3%
Dept of Languages and Literatures of Europe and the Americas	2	8,563	1	6,000	(2,563)	-29.9%
College of Natural Sciences	236	36,982,975	255	40,521,255	3,538,280	9.6%
College of Natural Sciences	1	526,991	-	-	(526,991)	-100.0%
Department of Biology (Biology Program)	11	2,661,252	9	1,088,950	(1,572,302)	-59.1%
Department of Botany	168	26,243,190	179	27,605,471	1,362,281	5.2%
Department of Chemistry	12	2,434,147	9	1,625,421	(808,726)	-33.2%
Department of Mathematics	7	591,378	6	775,826	184,448	31.2%
Department of Microbiology	3	659,114	1	176,875	(482,239)	-73.2%
Department of Physics and Astronomy	21	2,291,155	36	5,605,875	3,314,720	144.7%
Information and Computer Sciences	13	1,575,748	15	3,642,837	2,067,089	131.2%
College of Social Sciences	99	15,839,415	87	17,811,908	1,972,493	12.5%
College of Social Sciences	6	276,665	6	284,721	8,056	2.9%
Department of Anthropology	3	150,193	4	259,565	109,372	72.8%
Economics (UH Manoa)	3	179,603	3	190,559	10,956	6.1%
Ethnic Studies	-	-	1	40,000	40,000	100.0%
Geography (UH Manoa)	10	921,647	7	641,409	(280,238)	-30.4%

Campus	FY 2019		FY 2020		\$ Change	% Change
	Award Count	Award Amount	Award Count	Award Amount		
Political Science (UH Manoa)	-	-	1	79,354	79,354	100.0%
Psychology (UH Manoa)	11	1,699,236	19	2,278,547	579,311	34.1%
School of Communications	4	262,990	3	52,105	(210,885)	-80.2%
Social Science Research Institute	52	5,047,106	36	6,918,689	1,871,583	37.1%
Sociology (UH Manoa)	2	55,000	-	-	(55,000)	-100.0%
Urban and Regional Planning	8	7,246,975	7	7,066,959	(180,016)	-2.5%
College of Tropical Agriculture and Human Resources	158	14,032,587	167	21,159,046	7,126,459	50.8%
Agricultural Diagnostic Service Center	1	151,073	1	155,197	4,124	2.7%
Center on the Family	7	224,041	13	3,768,175	3,544,134	1581.9%
College of Tropical Agriculture and Human Resources	6	1,613,147	4	615,863	(997,284)	-61.8%
Cooperative Extension	2	284,092	1	300,000	15,908	5.6%
Family and Consumer Sciences	3	241,698	2	230,000	(11,698)	-4.8%
Hawaii County	14	814,319	10	1,121,603	307,284	37.7%
Human Nutrition, Food and Animal Sciences	17	1,841,979	15	1,542,497	(299,482)	-16.3%
Kauai County	2	19,300	1	7,800	(11,500)	-59.6%
Maui County	5	198,649	4	346,767	148,118	74.6%
Molecular Biosciences and Bioengineering	8	1,611,103	2	495,000	(1,116,103)	-69.3%
Natural Resources and Environmental Mgt (NREM)	28	997,095	24	1,643,449	646,354	64.8%
Oahu County	6	895,705	5	1,367,404	471,699	52.7%
Office of The Assoc Dean for Academic and Student Affairs	5	495,840	15	2,442,258	1,946,418	392.5%
Plant and Environmental Protection Sciences	40	4,095,347	49	5,191,636	1,096,289	26.8%
Tropical Plant and Soil Science	14	549,199	21	1,931,397	1,382,198	251.7%
Hawai'iiniuakea School of Hawaiian Knowledge	6	3,238,552	5	1,813,078	(1,425,474)	-44.0%
Hawai'iiniuakea School of Hawaiian Knowledge	4	2,182,177	3	1,041,157	(1,141,020)	-52.3%
Kamakakuokalani Center for Hawaiian Studies	1	15,000	1	70,000	55,000	366.7%
Kawaihuelani Center for Hawaiian Language	1	1,041,375	1	701,921	(339,454)	-32.6%
Institute for Astronomy	82	19,377,844	99	26,620,487	7,242,643	37.4%
Institute for Astronomy	82	19,377,844	99	26,620,487	7,242,643	37.4%
John A. Burns School of Medicine	190	53,479,360	189	46,908,497	(6,570,863)	-12.3%
Associate Dean for Academic Affairs	9	3,148,847	13	2,247,494	(901,353)	-28.6%
Department of Anatomy, Biochemistry, and Physiology	16	2,518,104	8	2,783,472	265,368	10.5%
Department of Cell and Molecular Biology	15	4,326,205	15	4,114,724	(211,481)	-4.9%
Department of Complementary and Alternative Medicine	4	634,122	-	-	(634,122)	-100.0%
Department of Family Medicine and Community Health	11	1,753,667	11	1,091,843	(661,824)	-37.7%
Department of Geriatric Medicine	6	2,745,856	7	928,257	(1,817,599)	-66.2%
Department of Medicine	23	2,194,714	16	2,895,838	701,124	31.9%
Department of Native Hawaiian Health	16	2,367,725	14	2,708,150	340,425	14.4%
Department of Obstetrics, Gynecology and Women's Health	9	4,543,912	13	4,058,088	(485,824)	-10.7%
Department of Pediatrics	16	5,231,460	16	3,615,838	(1,615,622)	-30.9%
Department of Psychiatry	10	5,031,083	16	10,840,455	5,809,372	115.5%
Department of Quantitative Health Sciences	-	-	8	2,844,732	2,844,732	100.0%
Department of Surgery	11	1,941,306	10	1,912,479	(28,827)	-1.5%
Department of Tropical Medicine, Medical Micro and Pharm	30	4,314,591	32	4,834,575	519,984	12.1%
Institute for Biogenesis Research	2	2,387,607	-	-	(2,387,607)	-100.0%
John A. Burns School of Medicine	11	9,640,161	9	1,332,552	(8,307,609)	-86.2%
Native Hawaiian Center of Excellence	1	700,000	1	700,000	-	0.0%
Lyon Arboretum	6	255,585	8	1,100,497	844,912	330.6%
Lyon Arboretum	6	255,585	8	1,100,497	844,912	330.6%
Outreach College	7	216,581	5	121,258	(95,323)	-44.0%
Community Programs	5	98,679	3	97,000	(1,679)	-1.7%
Outreach College	2	117,902	2	24,258	(93,644)	-79.4%
School of Architecture	2	230,565	1	188,831	(41,734)	-18.1%
School of Architecture	2	230,565	1	188,831	(41,734)	-18.1%
School of Nursing and Dental Hygiene	9	839,543	6	650,012	(189,531)	-22.6%
Department of Nursing	7	803,733	6	650,012	(153,721)	-19.1%
School of Nursing and Dental Hygiene	2	35,810	-	-	(35,810)	-100.0%
School of Ocean and Earth Science and Technology	364	91,935,627	382	100,241,352	8,305,725	9.0%
Center for Microbial Oceanography, Research and Edu (C-MORE)	10	4,294,338	11	13,148,085	8,853,747	206.2%
Department of Atmospheric Sciences	8	711,449	9	1,473,042	761,593	107.0%
Department of Ocean and Resources Engineering	8	1,312,825	9	1,144,798	(168,027)	-12.8%
Department of Oceanography	36	5,324,580	38	9,438,314	4,113,734	77.3%
Earth Sciences	24	2,375,100	26	2,508,217	133,117	5.6%
Hawaii Institute of Geophysics and Planetology (HIGP)	66	10,437,438	70	9,377,792	(1,059,646)	-10.2%
Hawaii Institute of Marine Biology (HIMB)	49	6,146,060	46	6,481,738	335,678	5.5%
Hawaii Natural Energy Institute (HNEI)	12	9,174,760	20	8,496,080	(678,680)	-7.4%
International Pacific Research Center (IPRC)	22	3,555,815	14	2,886,544	(669,271)	-18.8%
Joint Institute for Marine and Atmospheric Research (JIMAR)	53	19,255,606	51	16,489,449	(2,766,157)	-14.4%
Pacific Biosciences Research Center	38	7,081,651	44	7,777,146	695,495	9.8%
School of Ocean and Earth Science and Technology	13	13,558,093	10	12,654,335	(903,758)	-6.7%
Sea Grant College Program	22	6,931,662	30	7,411,697	480,035	6.9%
University Marine Center/Ship Operations	3	1,776,250	4	954,115	(822,135)	-46.3%
School of Pacific and Asian Studies	14	1,371,262	17	2,005,647	634,385	46.3%
Center for Japanese Studies	5	412,082	5	413,000	918	0.2%
Center for Korean Studies	5	213,853	4	200,146	(13,707)	-6.4%
Center for Philippine Studies	-	-	2	98,674	98,674	100.0%
Center for Southeast Asian Studies	1	280,500	2	627,000	346,500	123.5%
School of Pacific and Asian Studies	3	464,827	4	666,827	202,000	43.5%
School of Social Work	46	6,423,943	37	6,977,003	553,060	8.6%
Center on Aging	6	918,252	3	121,930	(796,322)	-86.7%
Office of Public Health Studies	29	4,952,309	22	4,818,384	(133,925)	-2.7%

Campus	FY 2019		FY 2020		\$ Change	% Change
	Award Count	Award Amount	Award Count	Award Amount		
School of Social Work	11	553,382	12	2,036,689	1,483,307	268.0%
Shidler College of Business	3	325,617	1	114,880	(210,737)	-64.7%
Department of Information Technology Management	3	325,617	1	114,880	(210,737)	-64.7%
University of Hawaii Cancer Center	89	23,806,473	81	30,472,290	6,665,817	28.0%
Cancer Biology	19	3,462,004	21	2,481,586	(980,418)	-28.3%
Cancer Epidemiology	43	12,402,960	39	11,931,304	(471,656)	-3.8%
Cancer Prevention in the Pacific	5	976,348	4	973,772	(2,576)	-0.3%
Translational and Clinical Research	5	1,318,036	2	1,880,866	562,830	42.7%
University of Hawaii Cancer Center	17	5,647,125	15	13,204,762	7,557,637	133.8%
Vice Chancellor, Academic Affairs	11	1,318,498	13	1,645,862	327,364	24.8%
Graduate Education	2	660,858	1	779,000	118,142	17.9%
International & Exch Prog	1	58,516	1	63,775	5,259	9.0%
Library (UH Manoa)	5	171,105	6	276,475	105,370	61.6%
Service Learning	-	-	1	25,717	25,717	100.0%
Undergraduate Education	3	428,019	3	467,645	39,626	9.3%
Vice Chancellor, Academic Affairs	-	-	1	33,250	33,250	100.0%
Vice Chancellor, Research	3	105,000	1	75,000	(30,000)	-28.6%
Vice Chancellor, Research	3	105,000	1	75,000	(30,000)	-28.6%
Vice Chancellor, Students	18	5,514,530	17	5,219,593	(294,937)	-5.3%
Health & Wellness	2	39,305	1	20,000	(19,305)	-49.1%
Student Equity Excel & Diversity	11	4,539,907	15	5,174,593	634,686	14.0%
Vice Chancellor, Students	1	20,000	-	-	(20,000)	-100.0%
Women's Center	4	915,318	1	25,000	(890,318)	-97.3%
Water Resources Research Center	12	639,633	11	677,921	38,288	6.0%
Water Resources Research Center	12	639,633	11	677,921	38,288	6.0%
William S. Richardson School of Law	39	3,023,620	30	3,430,781	407,161	13.5%
William S. Richardson School of Law	39	3,023,620	30	3,430,781	407,161	13.5%
University of Hawaii'i at West O'ahu	20	8,216,107	16	2,896,311	(5,319,796)	-64.7%
Chancellor, UH West Oahu	20	8,216,107	16	2,896,311	(5,319,796)	-64.7%
Anthropology (UH WO)	1	600	-	-	(600)	-100.0%
Chancellor, UH West Oahu	7	4,812,412	6	1,413,322	(3,399,090)	-70.6%
Division of Education	-	-	3	203,020	203,020	100.0%
Division of Humanities	-	-	1	35,000	35,000	100.0%
Division of Public Administration	-	-	1	99,969	99,969	100.0%
Division of Social Sciences	1	151,576	1	100,000	(51,576)	-34.0%
Elementary Education	2	638,108	-	-	(638,108)	-100.0%
Vice Chancellor for Academic Affairs (UH WO)	2	61,815	-	-	(61,815)	-100.0%
Vice Chancellor for Student Affairs	7	2,551,596	4	1,045,000	(1,506,596)	-59.0%
University of Hawaii'i Maui College	41	13,379,120	32	14,989,592	1,610,472	12.0%
Chancellor, UH Maui College	41	13,379,120	32	14,989,592	1,610,472	12.0%
Academic Affairs (UH Maui College)	2	4,013,888	1	2,000,000	(2,013,888)	-50.2%
Allied Health Department	1	100,000	1	35,000	(65,000)	-65.0%
Chancellor, UH Maui College	34	7,470,011	27	5,477,825	(1,992,186)	-26.7%
Continuing Education and Training (UH Maui College)	-	-	2	558,759	558,759	100.0%
General Education	2	1,075,398	-	-	(1,075,398)	-100.0%
Human Services (UH Maui College)	-	-	1	6,918,008	6,918,008	100.0%
Music (UH Maui College)	1	448,536	-	-	(448,536)	-100.0%
Student Affairs (UH Maui College)	1	271,287	-	-	(271,287)	-100.0%
University of Hawaii'i System	73	49,276,294	86	67,190,094	17,913,800	36.4%
Office of the Vice President for Community Colleges	4	519,775	9	13,324,533	12,804,758	2463.5%
Office of the Vice President for Community Colleges	4	519,775	9	13,324,533	12,804,758	2463.5%
Office of the Vice President for Research and Innovation	32	18,970,831	40	23,128,353	4,157,522	21.9%
Applied Research Laboratory	30	18,938,007	33	13,221,387	(5,716,620)	-30.2%
Office of Strategic Health Initiatives	-	-	1	2,515,498	2,515,498	100.0%
Office of the Vice President for Research and Innovation	2	32,824	5	7,387,396	7,354,572	22406.1%
STEM Pre-Academy	-	-	1	4,072	4,072	100.0%
Office of the VP for Academic Planning and Policy	16	6,913,088	14	13,701,436	6,788,348	98.2%
Hawai'i P-20 Partnerships for Education Office	12	5,279,325	11	13,604,341	8,325,016	157.7%
Office of the VP for Academic Planning and Policy	4	1,633,763	3	97,095	(1,536,668)	-94.1%
Office of the VP for Information Tech/Chief Info Officer	19	22,728,542	19	16,823,133	(5,905,409)	-26.0%
Office of the VP for Information Tech/Chief Info Officer	11	7,403,215	9	6,910,828	(492,387)	-6.7%
Pacific Disaster Center	8	15,325,327	10	9,912,305	(5,413,022)	-35.3%
President, University of Hawaii System	-	-	2	142,739	142,739	100.0%
President, University of Hawaii System	-	-	2	142,739	142,739	100.0%
VP For Administration	2	144,058	2	69,900	(74,158)	-51.5%
VP For Administration	2	144,058	2	69,900	(74,158)	-51.5%
Windward Community College	23	7,669,161	15	4,611,585	(3,057,576)	-39.9%
Chancellor, Windward Community College	23	7,669,161	15	4,611,585	(3,057,576)	-39.9%
Academic Affairs (Windward CC)	-	-	1	835,205	835,205	100.0%
Chancellor, Windward Community College	23	7,669,161	13	3,616,380	(4,052,781)	-52.8%
Continuing and Community Education	-	-	1	160,000	160,000	100.0%
Grand Total	1,925	426,214,085	1,879	456,598,359	30,384,274	7.1%



2020
ANNUAL REPORT
EXTRAMURAL AWARDS & EXPENDITURES
JULY 1 2019 THROUGH JUNE 30, 2020



UNIVERSITY OF HAWAII SYSTEM
OFFICE OF RESEARCH SERVICES

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Dear Colleagues:

In addition to competing with other research institutions around the country in a very tight extramural funding arena, our people were also challenged with the disruptions of the COVID-19 pandemic at work and in their personal lives. In spite of difficulty faced in these unprecedented times, our faculty, support staff and graduate students held their resolve to keep the University of Hawai'i (UH) research enterprise on a steady and upward course.

I am extremely pleased to report that UH received a total of \$450.4 million in extramural funding to close FY2020, which reflects a 6.8 percent increase over last year's \$421.8 million total and represents the second consecutive year that UH has exceeded \$400 million mark. This year's numbers reflect the highest total over the last nine years and represents the second highest total for UH extramural funding since 2011's \$488.6 million, buoyed by the 2010 stimulus package. Had the UH System included the \$44 million it received from the CARES Higher Education Emergency Relief Fund in this year's tally, the total award amount would have been nearly half a billion dollars.

Topping the award amounts this year was our flagship University of Hawai'i at Mānoa campus with \$338 million and the University of Hawai'i System with \$66.2 million – which reflects increases in extramural funding of 7.5 percent and 37 percent over last year, respectively. Here are some of the other UH programs that attracted the attention of funders:

- The UH System's Hawai'i P-20 Office was awarded \$8 million from the U.S. Department of Education to fund a sub-grant program that will allow community-level early childhood programs to apply for up to \$300,000 per year to implement an early literacy program.
- The University of Hawai'i Cancer Center received \$6.5 million from the National Institutes of Health for its Ho'ōla project that involves in the creation of the state's only Early Phase Clinical Research Center – that will provide access to clinical research for patients across multiple disciplines and expand the research capabilities of UH Mānoa.
- The UH Mānoa College of Engineering received \$5.9 million from the Hawai'i State Department of Transportation for the deployment and evaluation of an innovative traffic control system to improve safety and traffic flow on Nimitz Highway and Ala Moana Boulevard.
- The Simons Foundation funded three separate awards totaling \$5.7 million for UH Mānoa's School of Ocean and Earth Sciences and Technology for on-going research at its open ocean time-series station, known as Station ALOHA, that has produced essential ocean scientific data – including ocean acidification.
- The UHealthy Initiative under the UH System received \$2.5 million from the Hawai'i State Department of Health (DOH) to fund the DOH-UH Contact Tracing Training Program in response to the COVID-19 pandemic affecting the state.
- The Office of Naval Research awarded \$1.9 million to the UH System to research various methods to improve inspections, repair protocols and early warning systems of the U.S. Navy's Red Hill Underground Fuel Storage Facility.
- The Center for Disease Control awarded \$1.4 million to the UH Mānoa School of Public Health via the Hawai'i State Department of Health on a joint project to address preventive measures in the state's drug overdose epidemic.

Congratulations on a job well done and take pride in your contribution to our extramural funding increase, especially in these challenging and uncertain times. I am truly grateful for your continued and dedicated efforts to the UH research enterprise and for making it a large part of your DNA.

Sincerely,



Vassilis L. Syrmos

Vice President for Research and Innovation

Chart 1: Awards by Sponsor
(in millions)

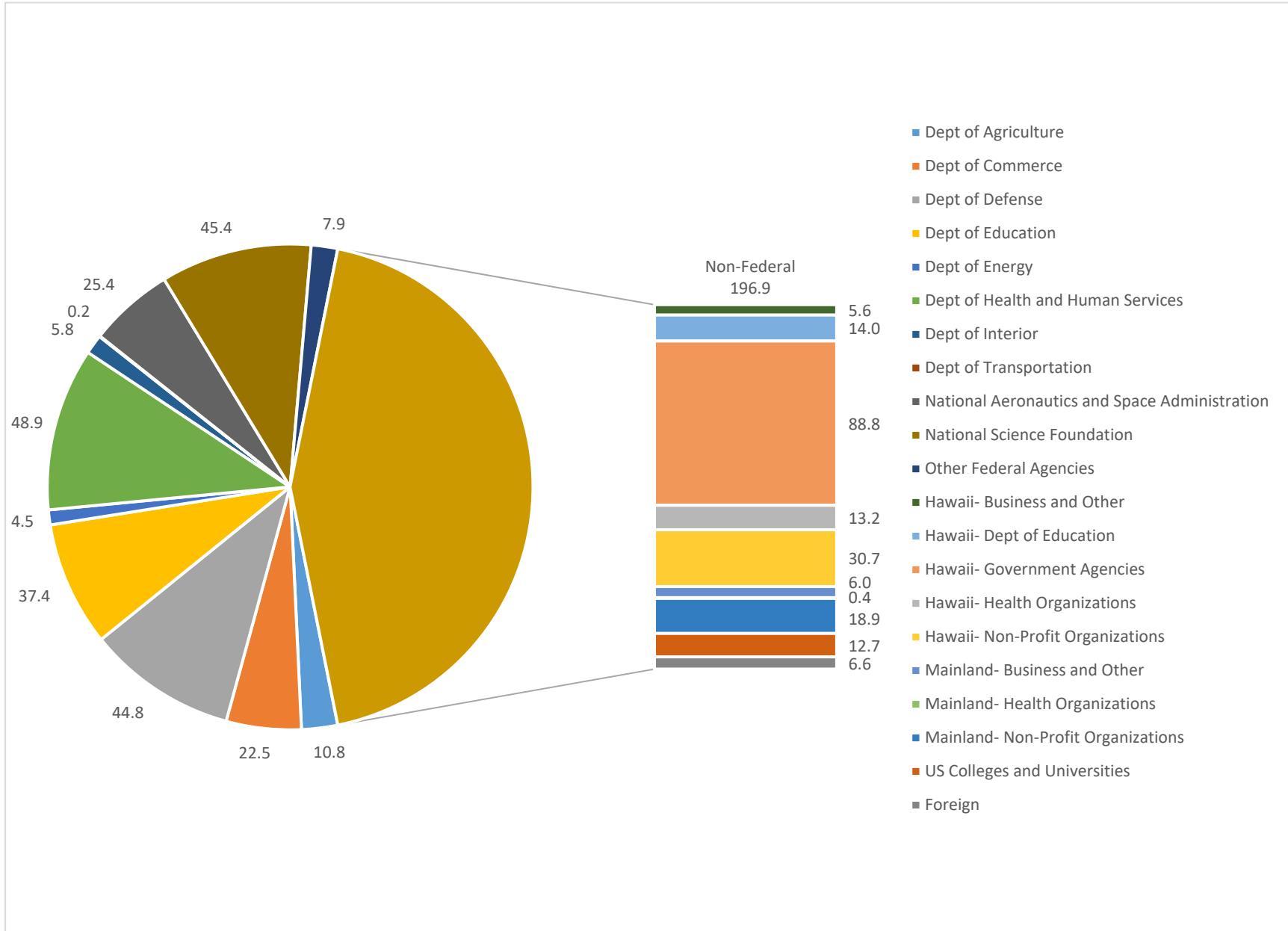


Figure 1: Contract and Grant Awards Summary by Sponsor Type

Sponsor Type	Award Count	Amount Awarded
Dept of Agriculture	62	10,787,963
Dept of Commerce	76	22,488,575
Dept of Defense	81	44,780,906
Dept of Education	77	37,408,690
Dept of Energy	9	4,535,358
Dept of Health and Human Services	106	48,876,217
Dept of Interior	57	5,777,494
Dept of Transportation	1	200,000
National Aeronautics and Space Administration	91	25,444,136
National Science Foundation	115	45,356,073
Other Federal Agencies	14	7,900,103
Hawaii- Business and Other	69	5,601,377
Hawaii- Dept of Education	28	13,971,439
Hawaii- Government Agencies	375	88,827,235
Hawaii- Health Organizations	34	13,238,347
Hawaii- Non-Profit Organizations	313	30,652,147
Mainland- Business and Other	76	5,952,383
Mainland- Health Organizations	8	442,816
Mainland- Non-Profit Organizations	88	18,899,232
US Colleges and Universities	158	12,693,837
Foreign	41	6,604,921
Grand Total	1,879	450,439,249

**Chart 2: Breakdown of Federal and Non-Federal Awards
Five Year Comparison**

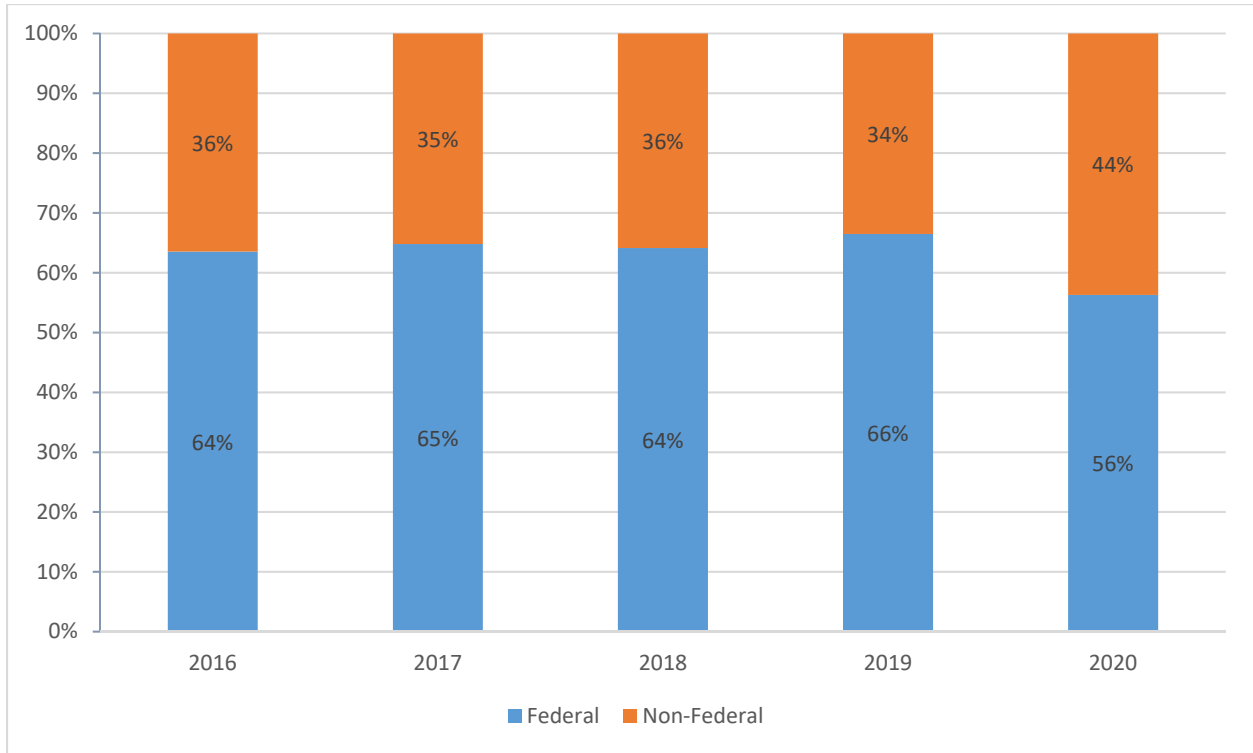


Figure 2: Summary of Federal and Non-Federal Awards

Source of Funding	FY 2016 Amount Awarded	FY 2017 Amount Awarded	FY 2018 Amount Awarded	FY 2019 Amount Awarded	FY 2020 Amount Awarded
Federal	248,575,207	250,727,105	247,741,514	280,412,092	253,555,515
Non-Federal	142,759,321	136,274,600	138,570,189	141,440,068	196,883,734
Total	391,334,528	387,001,705	386,311,703	421,852,160	450,439,249

Chart 3a: Non-Federal Awards by Fiscal Year Five Year Comparison

(in millions)

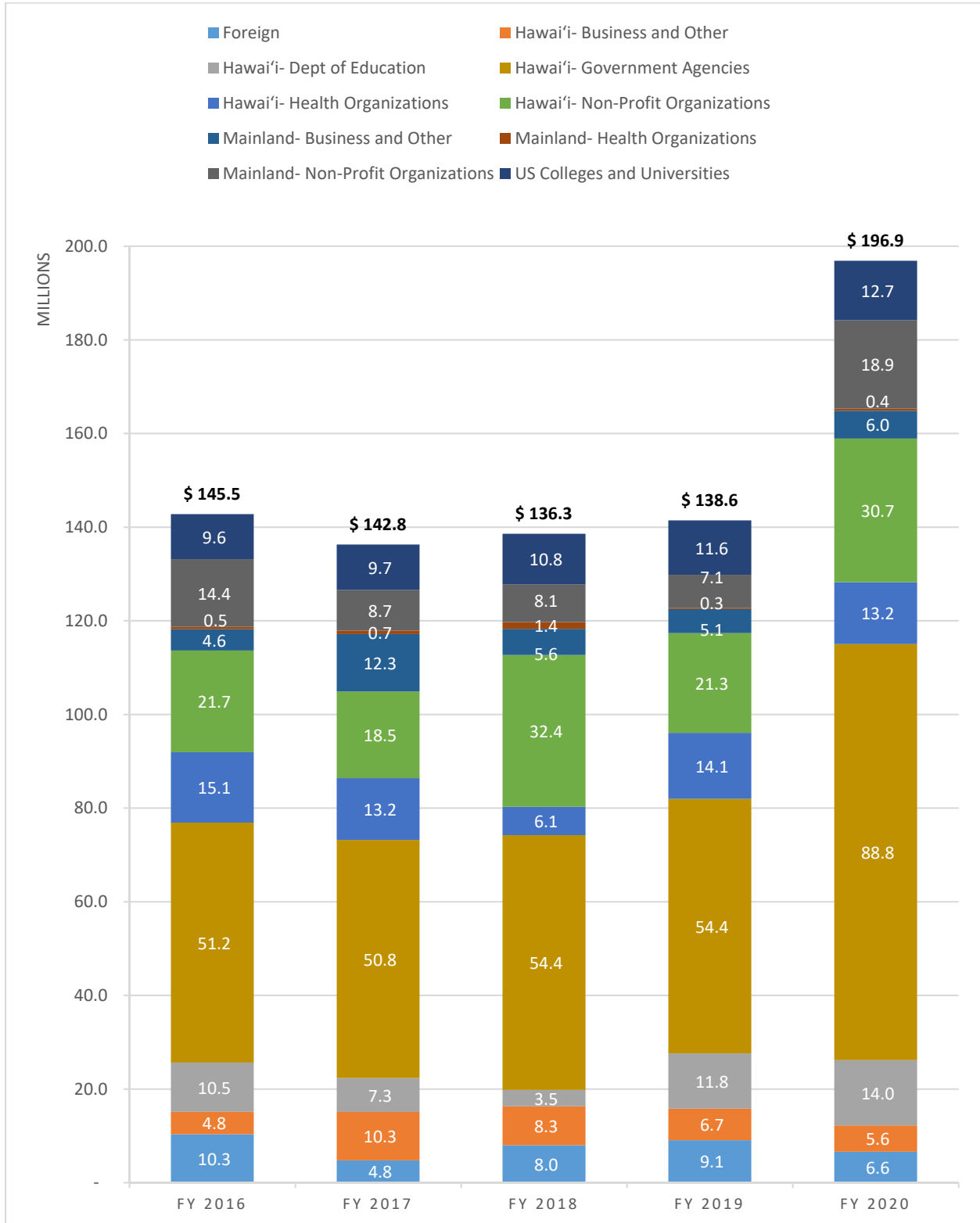
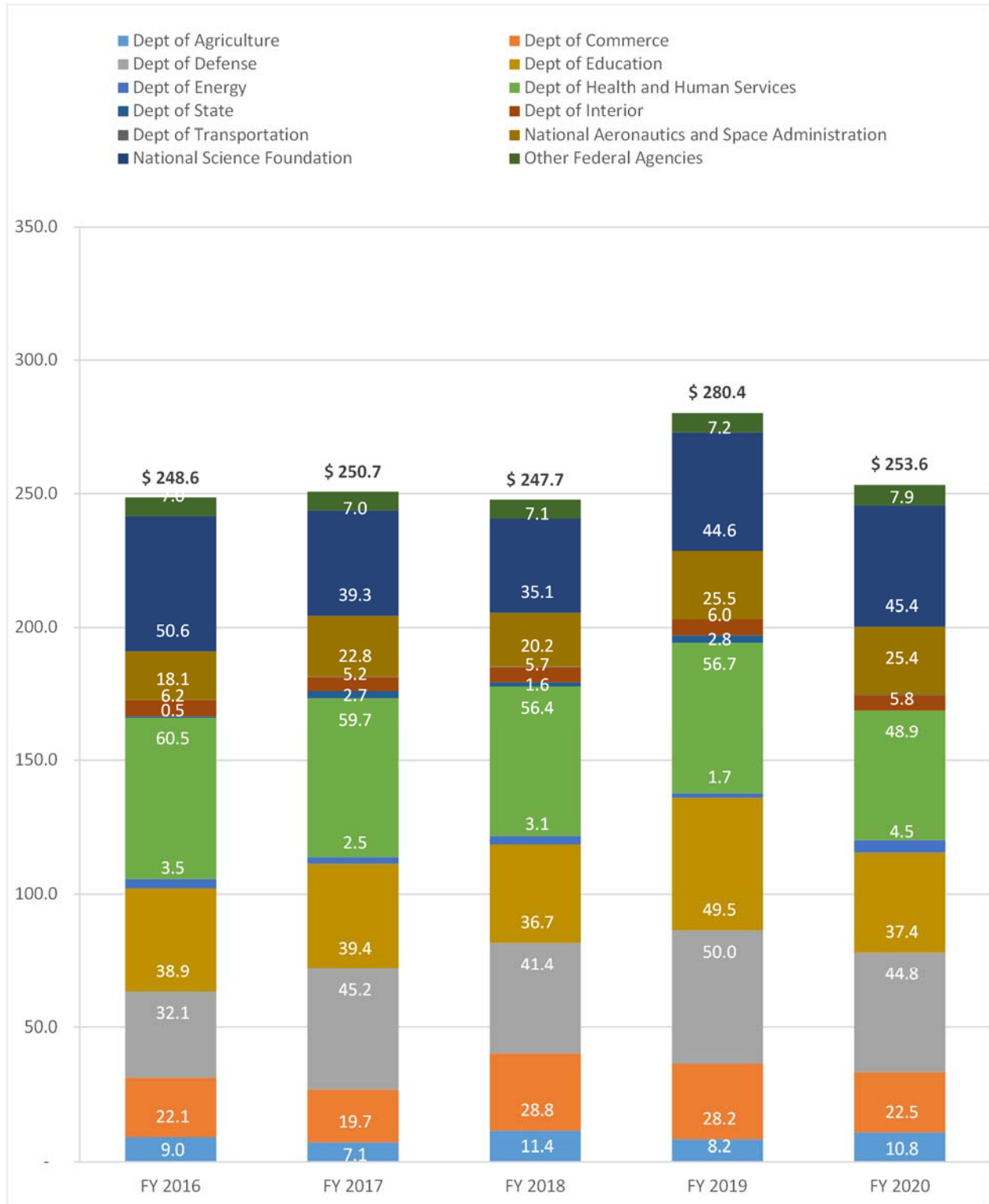


Chart 3b: Federal Awards by Fiscal Year
Five Year Comparison
(in millions)



**Figure 3: Total Contract and Grant Awards Received
Five Year Comparison**

Source of Funding	FY 2016		FY 2017		FY 2018		FY 2019		FY 2020	
	Amount Awarded	% of Total	Amount Awarded	% of Total	Amount Awarded	% of Total	Amount Awarded	% of Total	Amount Awarded	% of Total
Federal										
Dept of Agriculture	9,025,934	2%	7,104,681	2%	11,433,935	3%	8,222,884	2%	10,787,963	2%
Dept of Commerce	22,140,488	6%	19,746,151	5%	28,794,795	7%	28,181,538	7%	22,488,575	5%
Dept of Defense	32,051,837	8%	45,153,420	12%	41,426,235	11%	49,966,996	12%	44,780,906	10%
Dept of Education	38,931,435	10%	39,355,136	10%	36,737,371	10%	49,540,646	12%	37,408,690	8%
Dept of Energy	3,452,402	1%	2,454,683	1%	3,145,417	1%	1,658,015	0%	4,535,358	1%
Dept of Health and Human Services	60,546,030	15%	59,662,559	15%	56,358,106	15%	56,714,095	13%	48,876,217	11%
Dept of State	499,247	0%	2,741,488	1%	1,550,000	0%	2,775,000	1%		0%
Dept of Interior	6,188,553	2%	5,240,402	1%	5,737,236	1%	5,952,633	1%	5,777,494	1%
Dept of Transportation	75,000	0%	138,907	0%	164,625	0%	-	0%	200,000	0%
National Aeronautics and Space Administration	18,106,716	5%	22,811,204	6%	20,167,908	5%	25,529,759	6%	25,444,136	6%
National Science Foundation	50,584,187	13%	39,285,739	10%	35,078,731	9%	44,634,050	11%	45,356,073	10%
Other Federal Agencies	6,973,378	2%	7,032,735	2%	7,147,155	2%	7,236,476	2%	7,900,103	2%
Federal Total	248,575,207	64%	250,727,105	65%	247,741,514	64%	280,412,092	66%	253,555,515	56%
Non-Federal										
Foreign	10,348,765	3%	4,755,142	1%	7,984,175	2%	9,075,877	2%	6,604,921	1%
Hawaii- Business and Other	4,785,442	1%	10,338,044	3%	8,321,278	2%	6,734,322	2%	5,601,377	1%
Hawaii- Dept of Education	10,492,291	3%	7,260,253	2%	3,513,321	1%	11,796,600	3%	13,971,439	3%
Hawaii- Government Agencies	51,241,567	13%	50,826,152	13%	54,395,732	14%	54,354,585	13%	88,827,235	20%
Hawaii- Health Organizations	15,056,100	4%	13,215,267	3%	6,067,920	2%	14,101,752	3%	13,238,347	3%
Hawaii- Non-Profit Organizations	21,714,557	6%	18,483,113	5%	32,407,127	8%	21,301,837	5%	30,652,147	7%
Mainland- Business and Other	4,553,990	1%	12,276,122	3%	5,572,124	1%	5,129,155	1%	5,952,383	1%
Mainland- Health Organizations	531,480	0%	737,744	0%	1,443,529	0%	262,863	0%	442,816	0%
Mainland- Non-Profit Organizations	14,414,632	4%	8,685,769	2%	8,065,294	2%	7,064,790	2%	18,899,232	4%
US Colleges and Universities	9,620,497	2%	9,696,994	3%	10,799,689	3%	11,618,287	3%	12,693,837	3%
Non-Federal Total	142,759,321	36%	136,274,600	35%	138,570,189	36%	141,440,068	34%	196,883,734	44%
Grand Total	391,334,528	100%	387,001,705	100%	386,311,703	100%	421,852,160	100%	450,439,249	100%

Chart 4: Total Federal CARES Act Awards by Campus
(in millions)

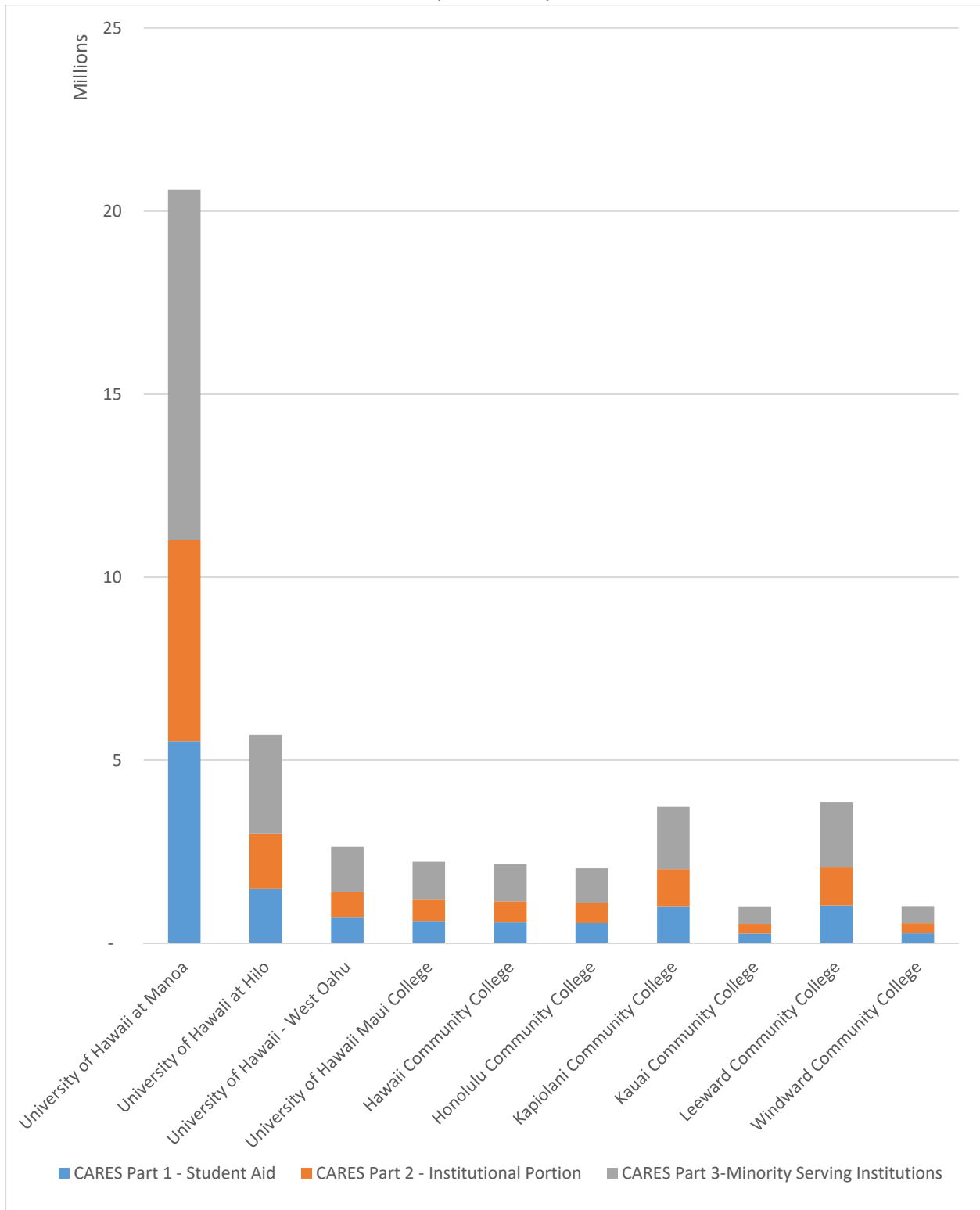
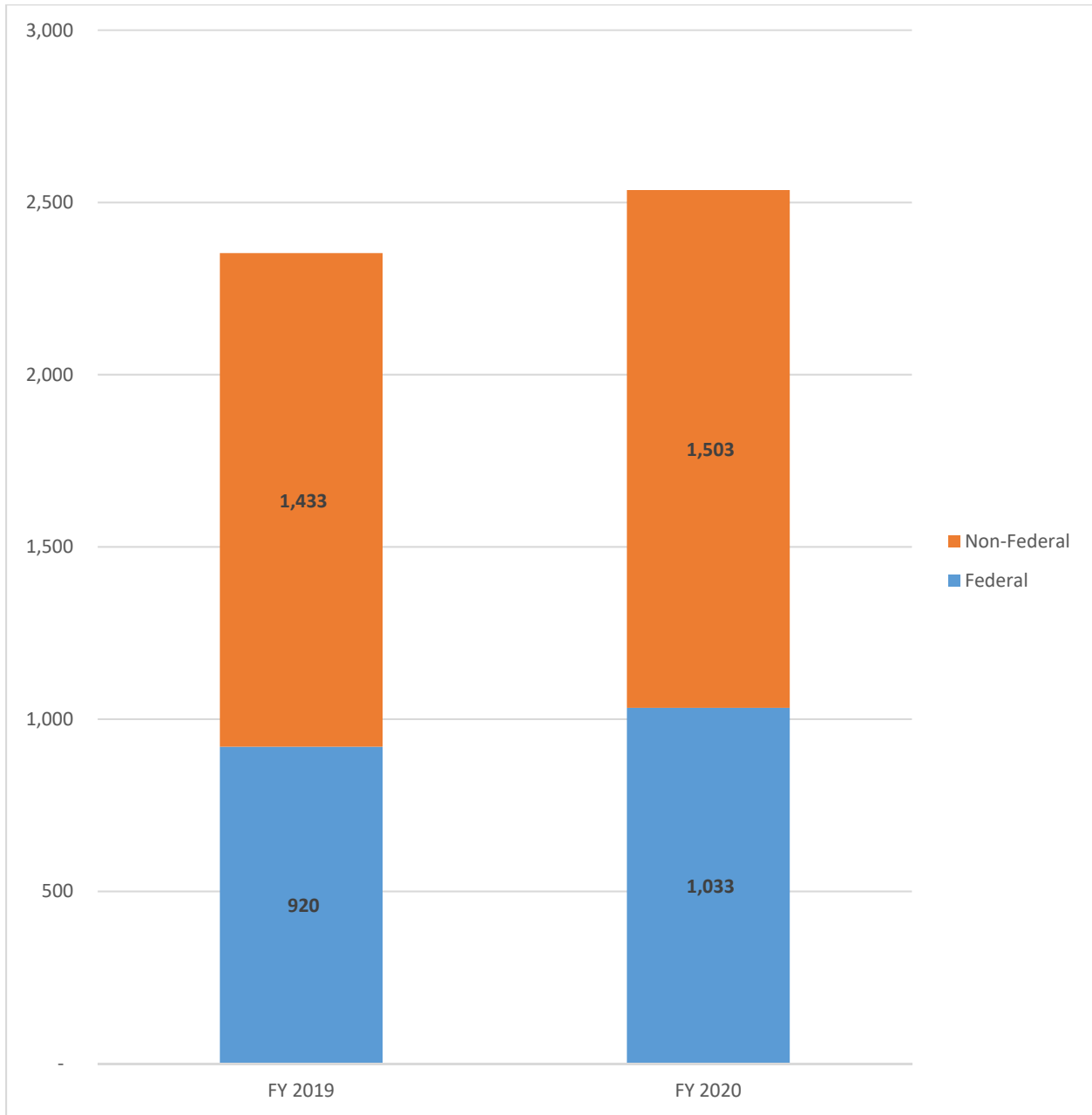


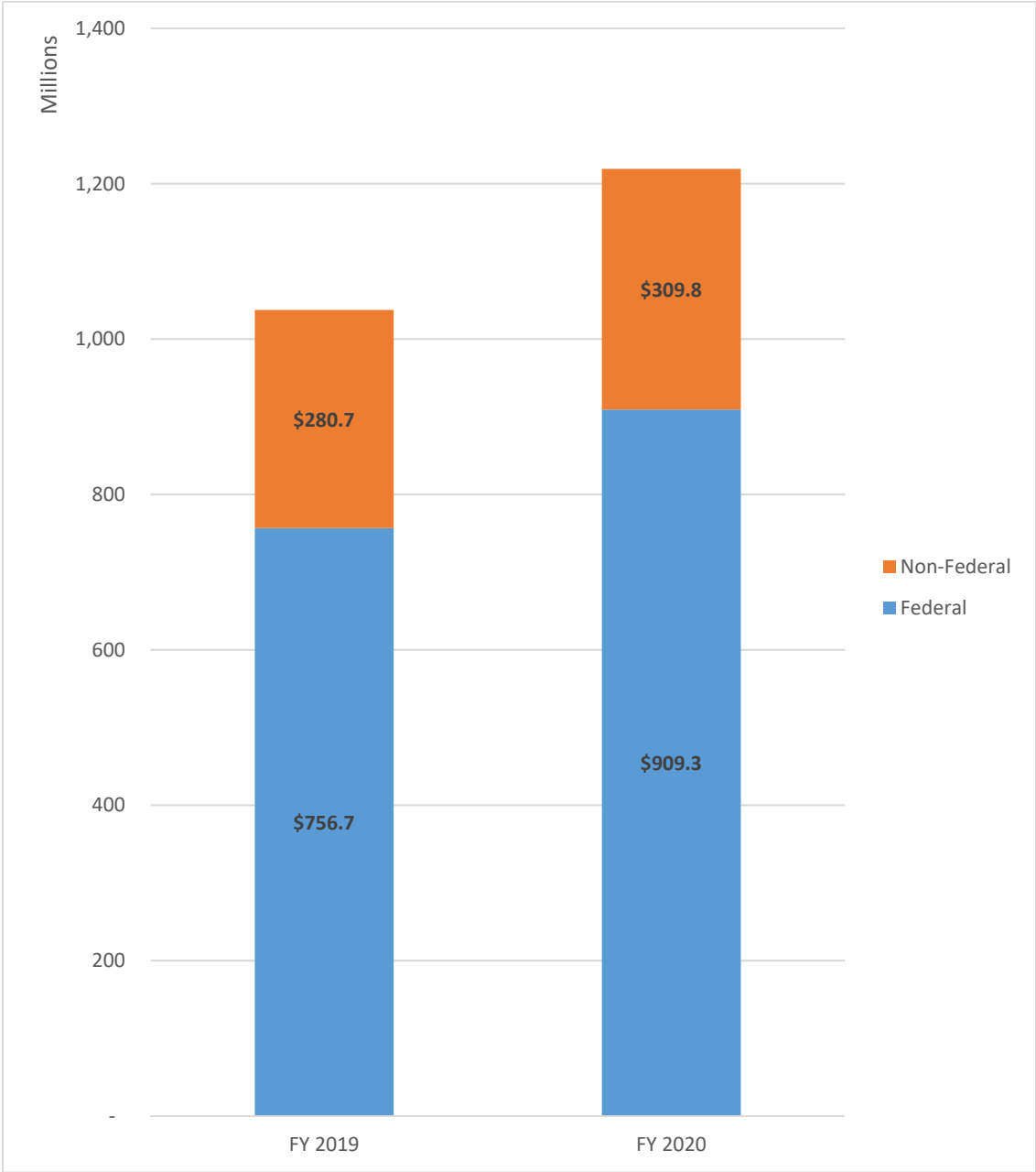
Figure 4: Summary of Federal CARES Act Awards

Campus	CARES Part 1 Student Aid	CARES Part 2 Institutional Portion	CARES Part 3 Minority Serving Institutions	Total CARES Awards
University of Hawaii at Manoa	5,504,934	5,504,933	9,566,804	20,576,671
University of Hawaii at Hilo	1,497,363	1,497,362	2,691,303	5,686,028
University of Hawaii - West Oahu	697,500	697,500	1,238,257	2,633,257
University of Hawaii Maui College	593,954	593,953	1,041,410	2,229,317
Hawaii Community College	573,613	573,613	1,017,101	2,164,327
Honolulu Community College	553,694	553,693	940,828	2,048,215
Kapiolani Community College	1,011,471	1,011,470	1,700,403	3,723,344
Kauai Community College	267,842	267,842	472,524	1,008,208
Leeward Community College	1,033,945	1,033,944	1,775,424	3,843,313
Windward Community College	275,549	275,549	466,753	1,017,851
Grand Total	12,009,865	12,009,859	20,910,807	44,930,531

**Chart 5: Number of Proposals Submitted
Prior Year Comparison**



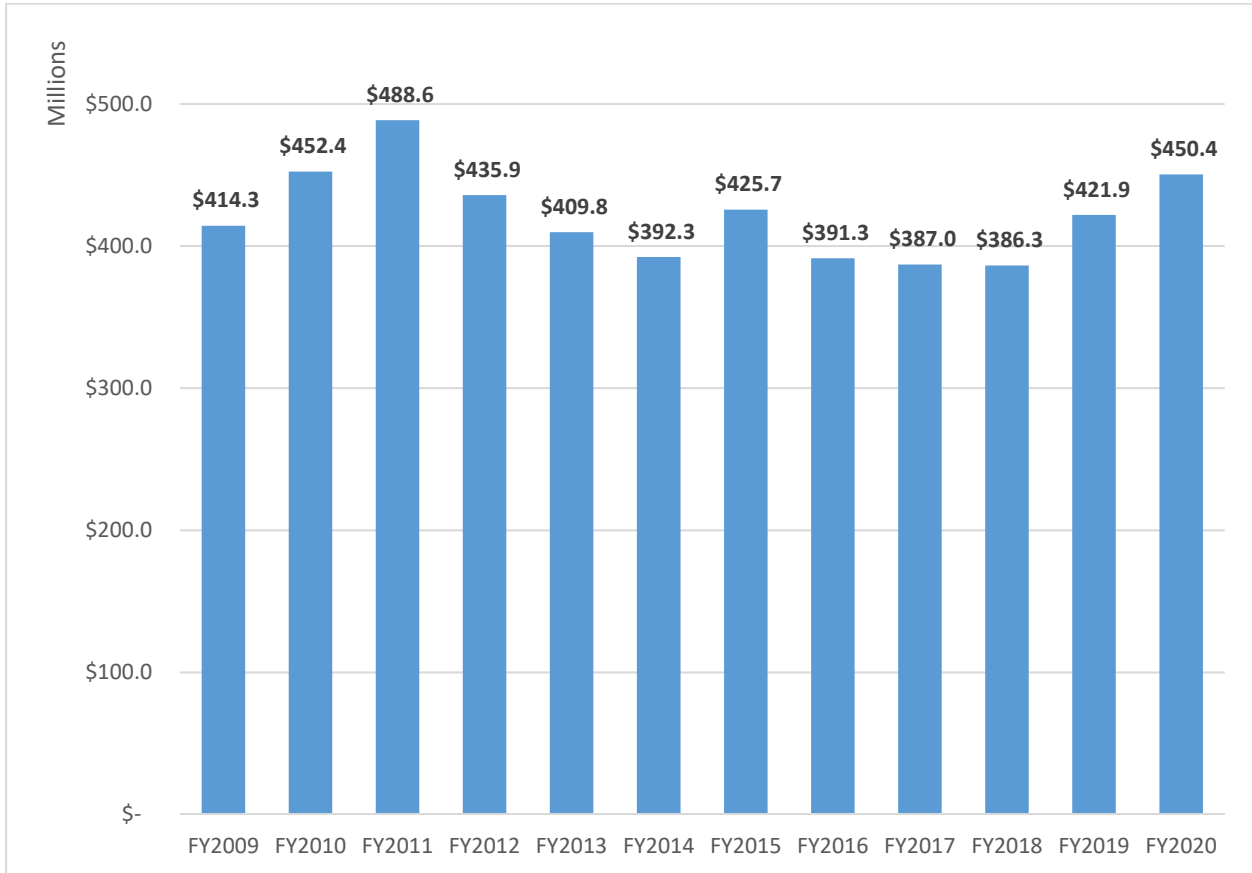
**Chart 6: Total Dollar Amount of Proposals Submitted
Prior Year Comparison**
(in millions)



**Figure 5: Proposal Summary by Source of Funding
Prior Year Comparison**

Source of Funding		FY 2019		FY 2020	
		Proposals Submitted	Requested Amount	Proposals Submitted	Requested Amount
Federal	Dept of Agriculture	89	34,105,880	108	33,974,063
	Dept of State	85	29,886,994	71	71,788,659
	Dept of Health and Human Services	82	75,600,653	85	126,261,589
	Dept of Commerce	31	52,814,202	92	106,312,563
	Dept of Defense	24	31,196,668	24	15,523,805
	Dept of Energy	163	265,668,044	167	275,435,801
	Dept of the Interior	54	14,534,247	48	6,571,917
	Dept of Transportation	2	4,368,532	3	4,007,645
	Dept of Education			1	200,000
	National Aeronautics and Space Administration	117	88,746,798	150	87,924,044
	National Science Foundation	237	144,145,203	237	164,167,996
	Other Federal Agencies	36	15,643,093	47	17,111,100
Federal Total		920	756,710,314	1,033	909,279,182
Non-Federal	Hawaii- Business and Other	80	7,518,918	76	6,256,298
	Hawaii- Dept of Education	24	12,327,869	31	15,037,755
	Hawaii- Government Agencies	396	80,044,959	428	106,208,435
	Hawaii- Health Organizations	47	23,283,258	37	13,127,890
	Hawaii- Non-Profit Organizations	379	25,009,051	398	35,555,666
	Mainland- Business and Other	97	12,669,580	92	26,172,215
	Mainland- Health Organizations	20	6,070,180	29	6,648,980
	Mainland- Non-Profit Organizations	134	19,488,997	147	35,873,066
	US Colleges and Universities	193	77,713,239	219	52,855,549
	Foreign	63	16,579,396	46	12,020,146
Non-Federal Total		1,433	280,705,447	1,503	309,756,000
Grand Total		2,353	1,037,415,761	2,536	1,219,035,182

Chart 7: Total Contract and Grant Awards – 10 Year Comparison
(in millions)



**Figure 6: Total Contract and Grant Awards Summary
10 Year Comparison**

Year	Total Awarded	% Change	Year	Total Awarded	% Change
FY2009	414,260,208	14%	FY 2015	425,650,338	8%
FY2010	452,408,669	9%	FY 2016	391,334,528	-8%
FY2011	488,597,908	8%	FY 2017	387,001,705	-1%
FY2012	435,874,967	-11%	FY2018	386,311,703	0%
FY2013	409,783,318	-6%	FY2019	421,852,160	9%
FY2014	392,314,955	-4%	FY2020	450,439,249	6.8%

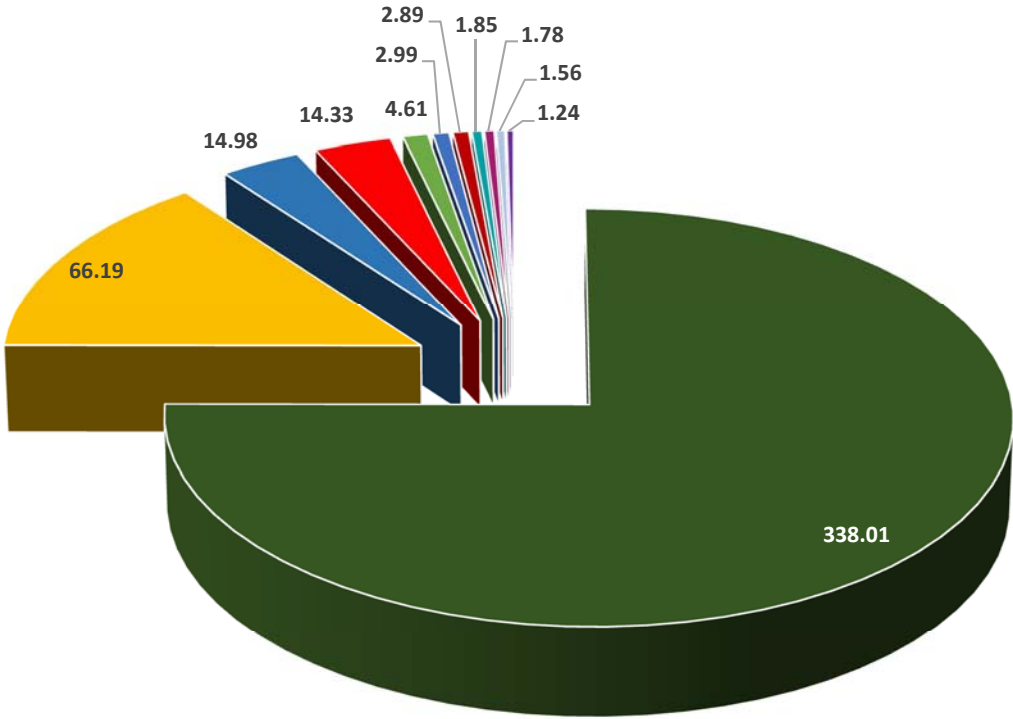
Figure 7: Top Individual Awards

Award Amount	PI Name	Department	Award Sponsor	Title
10,000,000	Michael Unebasami	Office of the Vice President for Community Colleges	University Hawaii Foundation	Culinary Institute of the Pacific - Phase II
9,861,700	David Lassner	Pacific Disaster Center	Defense, Dept-Washington Headquarters Svcs	University of Hawaii Pacific Disaster Center (UoH PDC) Cooperative Agreement
8,000,000	Stephen A Schatz	Hawai'i P-20 Partnerships for Education Office	Education, Dept-Hi	Support and Implement the Comprehensive Literacy State Development (CLSD) Program - Birth to Kindergarten Entry Component
6,918,008	Jonathon McKee	Human Services (UH Maui College)	Human Services, Dept-Hi	Research, Technical Assistance, Training, and Resource Development for CWS
6,550,000	Anita L Lopez	School of Ocean and Earth Science and Technology	National Science Foundation	R/V Kilo Moana Ship Operations CY18-23
6,478,224	Randall F Holcombe	University of Hawaii Cancer Center	Health & Human Svc, Dept-NIH-Fed Office Of Director	Ho'ola: Early Phase Clinical Research Center
6,300,000	Kenneth Chambers	Institute for Astronomy	National Aeronaut & Space Adm	A Wide Area Survey for Near Earth Objects with the Pan-STARRS PS1 and PS2 System
6,267,366	Richard Rocheleau	Hawaii Natural Energy Institute (HNEI)	Defense, Dept-Navy Ofc Of Naval Rsch	Asia Pacific Research Initiative for Sustainable Energy Systems 2019 (APRIS19)
6,176,257	John Rayner	Institute for Astronomy	National Aeronaut & Space Adm	Operation of the Infrared Telescope Facility (IRTF) for NASA Headquarters
5,999,710	Tianwei Ma	Civil and Environmental Engineering	Transportation, Dept-Hi	V2X-Enabled Interconnected Traffic Control System Innovations on the Nimitz Highway and Ala Moana Boulevard Arterial
5,350,000	Vassilis Syrmos	Office of the Vice President for Research and Innovation	Defense, Dept- Us Army Corps Of Engineers	Oahu and Makua Implementation of Endangered Species Management, US Army Garrison, Hawaii
5,000,000	Karl Eujung Kim	Urban and Regional Planning	Homeland Security, Dept-Fema	National Disaster Preparedness Training Center

Figure 8: Top Fifty Principal Investigators in Award Dollars

Rank	Investigator	Total Awarded	Unit
1	David Lassner	17,562,748	President, University of Hawaii System
2	David Duffy	13,603,863	College of Natural Sciences
3	Stephen A Schatz	12,726,436	Office of the VP for Academic Planning and Policy
4	Anita L Lopez	12,619,335	School of Ocean and Earth Science and Technology
5	Douglas Scott Luther	10,971,531	School of Ocean and Earth Science and Technology
6	David Karl	10,626,274	School of Ocean and Earth Science and Technology
7	Michael Unebasami	10,000,000	Office of the Vice President for Community Colleges
8	Randall F Holcombe	9,002,271	University of Hawaii Cancer Center
9	Clifford Morden	7,619,948	College of Natural Sciences
10	Lui Hokoana	7,364,567	Chancellor, UH Maui College
11	Vassilis Syrmos	7,327,396	Office of the Vice President for Research and Innovation
12	Karl Eujung Kim	7,030,932	College of Social Sciences
13	Jonathon McKee	6,918,008	Chancellor, UH Maui College
14	Kenneth Chambers	6,633,314	Institute for Astronomy
15	Richard Rocheleau	6,267,366	School of Ocean and Earth Science and Technology
16	Tianwei Ma	6,224,710	College of Engineering
17	Shaya Honarvar	5,511,059	College of Natural Sciences
18	Loic Le Marchand	5,297,412	University of Hawaii Cancer Center
19	John Rayner	5,279,500	Institute for Astronomy
20	Gwen Jacobs	4,697,212	Office of the VP for Information Tech/Chief Info Officer
21	Anthony Guerrero	4,689,316	John A. Burns School of Medicine
22	Darren Lerner	4,542,760	School of Ocean and Earth Science and Technology
23	Norman Hisao Okamura	4,062,374	College of Social Sciences
24	Ivica Zalud	3,883,696	John A. Burns School of Medicine
25	Kelley Withy	3,849,802	John A. Burns School of Medicine
26	Patrick Stephen Cross	3,490,908	School of Ocean and Earth Science and Technology
27	Susana Helm	3,406,184	John A. Burns School of Medicine
28	Melissa Iwamoto	3,249,398	School of Ocean and Earth Science and Technology
29	Nathan Murata	3,129,382	College of Education
30	Jeffrey Channing Drazen	3,057,998	School of Ocean and Earth Science and Technology
31	John A Shepherd	2,956,574	University of Hawaii Cancer Center
32	Angelique E White	2,946,651	School of Ocean and Earth Science and Technology
33	Thomas Browder	2,729,000	College of Natural Sciences
34	Mariana Gerschenson	2,709,361	John A. Burns School of Medicine
35	Jason Leigh	2,689,234	College of Natural Sciences
36	Ardis Eschenberg	2,594,841	Chancellor, Windward Community College
37	Aimee Malia Grace	2,515,498	Office of the Vice President for Research and Innovation
38	Margaret McFall-Ngai	2,470,157	School of Ocean and Earth Science and Technology
39	Cathy Ann Wiltse	2,460,982	Hawaii Small Business Development Center
40	Robert Wright	2,452,550	School of Ocean and Earth Science and Technology
41	Kenneth Kaneshiro	2,408,842	School of Ocean and Earth Science and Technology
42	Michael Melzer	2,373,341	College of Tropical Agriculture and Human Resources
43	John Tonry	2,329,595	Institute for Astronomy
44	Edward F DeLong	2,258,932	School of Ocean and Earth Science and Technology
45	Victoria Y Fan	2,211,762	School of Social Work
46	Michele Carbone	2,108,444	University of Hawaii Cancer Center
47	Keiki Kawaiaaea	2,078,461	Ka Haka'Ula O Ke'Elikolani-UHH
48	Faye Kimura	2,044,020	William S. Richardson School of Law
49	Kay Fukuda	1,998,755	Vice Chancellor, Students
50	Marianne Berry	1,925,175	College of Tropical Agriculture and Human Resources

Chart 8: Contract and Grant Awards by Campus
(in millions)



■ University of Hawai'i at Manoa	■ University of Hawai'i System
■ University of Hawai'i Maui College	■ University of Hawai'i at Hilo
■ Windward Community College	■ Kapi'olani Community College
■ University of Hawai'i at West O'ahu	■ Honolulu Community College
■ Hawai'i Community College	■ Leeward Community College
■ Kaua'i Community College	

Chart 9: UH Manoa - Contract and Grant Awards by College/Department
(in millions)

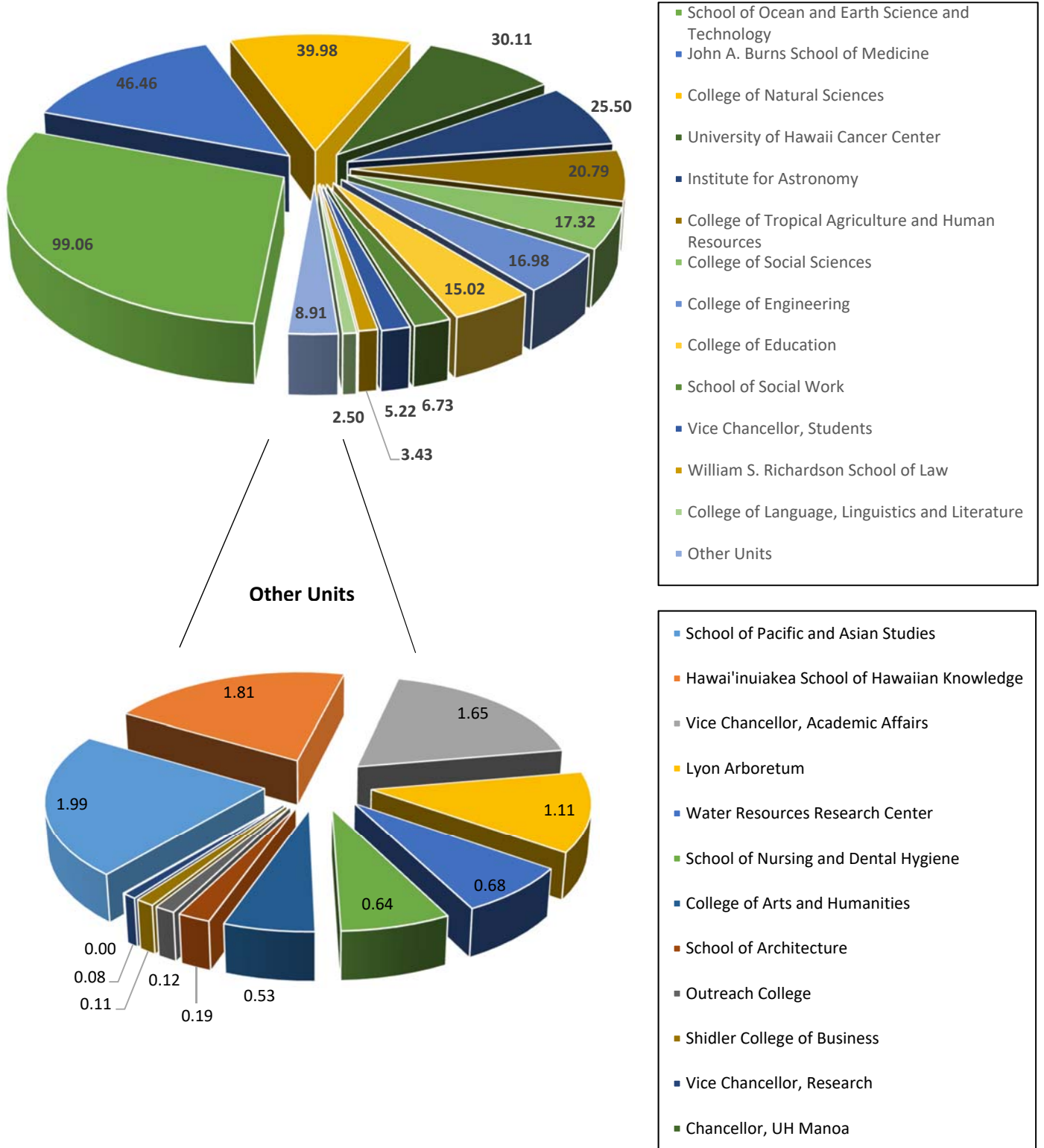


Chart 10: UH Hilo - Contract and Grant Awards by College/Department
(in millions)

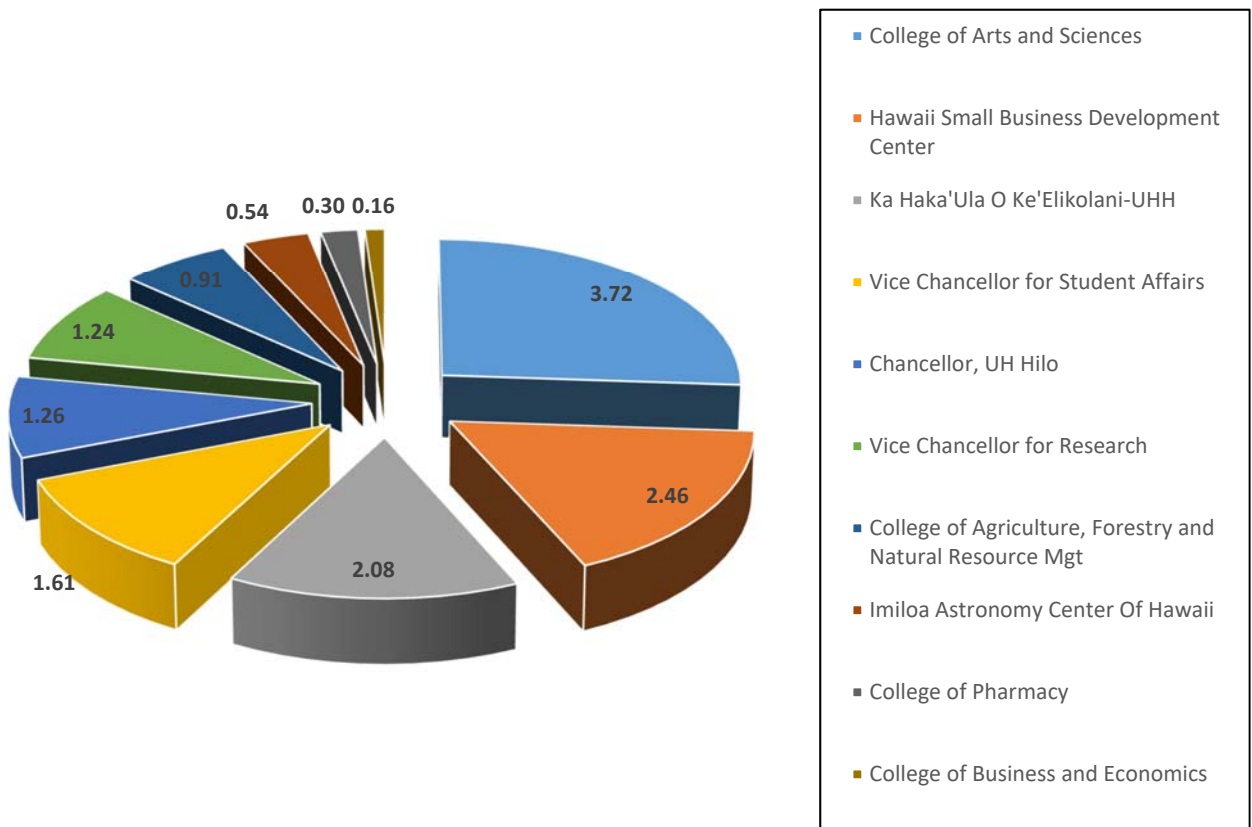


Figure 9: Contract and Grant Awards Summary by Campus

Campus	Award Amount	Award Count	% of Total
Hawai'i Community College	1,775,648	14	0.5%
Honolulu Community College	1,851,636	10	0.5%
Kapi'olani Community College	2,991,758	15	1.2%
Kaua'i Community College	1,240,530	11	0.3%
Leeward Community College	1,564,863	6	0.4%
University of Hawai'i at Hilo	14,325,206	107	7.1%
University of Hawai'i at Manoa	338,010,456	1,567	81.8%
University of Hawai'i at West O'ahu	2,893,179	16	1.0%
University of Hawai'i Maui College	14,981,750	32	2.1%
University of Hawai'i System	66,192,648	86	3.8%
Windward Community College	4,611,575	15	1.2%
Grand Total	450,439,249	1,879	100.0%

**Figure 10a: UH Manoa - Contract and Grant Awards Summary
by College/Department**

UH Manoa College/Department	Award Amount	Award Count	% of Total
Chancellor, UH Manoa	2,500	1	0.06%
Chancellor, UH Manoa	2,500	1	0.06%
College of Arts and Humanities	525,375	19	1.21%
Art and Art History	17,000	2	0.13%
History (UH Manoa)	101,693	3	0.19%
Music (UH Manoa)	22,600	3	0.19%
Philosophy (UH Manoa)	25,000	3	0.19%
Theatre and Dance	34,343	2	0.13%
UHM Uehiro Academy for Philosophy and Ethics in Education	289,570	3	0.19%
Religion (UH Manoa)	15,369	2	0.13%
Academy for Creative Media (Manoa)	19,800	1	0.06%
College of Education	15,024,424	58	3.70%
Center on Disability Studies/University Affiliated Pgms	7,519,004	26	1.66%
College of Education	2,478,117	6	0.38%
Curriculum Research and Development Group	1,712,827	7	0.45%
Department of Curriculum Studies	1,300,044	4	0.26%
Department of Kinesiology and Rehabilitation Science	872,000	4	0.26%
Department of Special Education	336,768	5	0.32%
Institute for Teacher Education	805,664	6	0.38%
College of Engineering	16,981,442	56	3.57%
Civil and Environmental Engineering	9,805,273	19	1.21%
College of Engineering	1,883,633	4	0.26%
Electrical Engineering	2,891,437	15	0.96%
Mechanical Engineering	2,301,067	17	1.08%
Hawaii Center for Advanced Communications	100,032	1	0.06%
College of Language, Linguistics and Literature	2,504,231	21	1.34%
Center for Language and Technology	1,000,907	2	0.13%
Department of East Asian Languages and Literature	1,144,982	5	0.32%
Department of English	10,000	1	0.06%
Department of Linguistics	357,823	9	0.57%
Department of Second Language Studies	(15,481)	3	0.19%
Dept of Languages and Literatures of Europe and the Americas	6,000	1	0.06%
College of Natural Sciences	39,984,754	255	16.27%
Department of Biology (Biology Program)	713,234	9	0.57%
Department of Botany	27,533,242	179	11.42%
Department of Chemistry	1,625,421	9	0.57%
Department of Mathematics	775,826	6	0.38%
Department of Microbiology	176,875	1	0.06%

Department of Physics and Astronomy	5,604,319	36	2.30%
Information and Computer Sciences	3,555,837	15	0.96%
College of Social Sciences	17,321,277	87	5.55%
College of Social Sciences	284,721	6	0.38%
Department of Anthropology	259,565	4	0.26%
Economics (UH Manoa)	190,559	3	0.19%
Geography (UH Manoa)	641,409	7	0.45%
Psychology (UH Manoa)	1,917,050	19	1.21%
School of Communications	52,105	3	0.19%
Social Science Research Institute	6,918,689	36	2.30%
Sociology (UH Manoa)	(434)	0	0.00%
Urban and Regional Planning	6,938,259	7	0.45%
Ethnic Studies	40,000	1	0.06%
Political Science (UH Manoa)	79,354	1	0.06%
College of Tropical Agriculture and Human Resources	20,787,503	167	10.66%
Agricultural Diagnostic Service Center	155,197	1	0.06%
Center on the Family	3,731,175	13	0.83%
College of Tropical Agriculture and Human Resources	312,839	4	0.26%
Cooperative Extension	300,000	1	0.06%
Family and Consumer Sciences	230,000	2	0.13%
Hawaii County	1,121,603	10	0.64%
Human Nutrition, Food and Animal Sciences	1,540,606	15	0.96%
Kauai County	7,800	1	0.06%
Maui County	346,767	4	0.26%
Molecular Biosciences and Bioengineering	495,000	2	0.13%
Natural Resources and Environmental Mgt (NREM)	1,641,900	24	1.53%
Oahu County	1,367,404	5	0.32%
Office of The Assoc Dean for Academic and Student Affairs	2,442,258	15	0.96%
Plant and Environmental Protection Sciences	5,163,640	49	3.13%
Tropical Plant and Soil Science	1,931,314	21	1.34%
Hawai'iinuiakea School of Hawaiian Knowledge	1,813,078	5	0.32%
Hawai'iinuiakea School of Hawaiian Knowledge	1,041,157	3	0.19%
Kamakakuokalani Center for Hawaiian Studies	70,000	1	0.06%
Kawaihuelani Center for Hawaiian Language	701,921	1	0.06%
Institute for Astronomy	25,504,897	99	6.32%
Institute for Astronomy	25,504,897	99	6.32%
John A. Burns School of Medicine	46,456,743	189	12.06%
Associate Dean for Academic Affairs	2,247,494	13	0.83%
Department of Anatomy, Biochemistry, and Physiology	2,783,472	8	0.51%
Department of Cell and Molecular Biology	4,104,019	15	0.96%
Department of Family Medicine and Community Health	1,091,843	11	0.70%
Department of Geriatric Medicine	928,257	7	0.45%
Department of Medicine	2,883,566	16	1.02%

Department of Native Hawaiian Health	2,708,150	14	0.89%
Department of Obstetrics, Gynecology and Women's Health	4,058,088	13	0.83%
Department of Pediatrics	3,615,838	16	1.02%
Department of Psychiatry	10,835,183	16	1.02%
Department of Surgery	1,912,479	10	0.64%
Department of Tropical Medicine, Medical Micro and Pharm	4,411,070	32	2.04%
John A. Burns School of Medicine	1,332,552	9	0.57%
Native Hawaiian Center of Excellence	700,000	1	0.06%
Department of Quantitative Health Sciences	2,844,732	8	0.51%
Lyon Arboretum	1,106,044	8	0.51%
Lyon Arboretum	1,106,044	8	0.51%
Outreach College	121,258	5	0.32%
Community Programs	97,000	3	0.19%
Outreach College	24,258	2	0.13%
School of Architecture	188,831	1	0.06%
School of Architecture	188,831	1	0.06%
School of Nursing and Dental Hygiene	642,016	6	0.38%
Department of Nursing	642,016	6	0.38%
School of Ocean and Earth Science and Technology	99,057,713	382	24.38%
Center for Microbial Oceanography, Research and Edu (C-MORE)	13,119,530	11	0.70%
Department of Atmospheric Sciences	1,473,036	9	0.57%
Department of Ocean and Resources Engineering	1,144,661	9	0.57%
Department of Oceanography	9,438,310	38	2.43%
Hawaii Institute of Geophysics and Planetology (HIGP)	9,352,266	70	4.47%
Hawaii Institute of Marine Biology (HIMB)	6,481,732	46	2.94%
Hawaii Natural Energy Institute (HNEI)	8,495,846	20	1.28%
International Pacific Research Center (IPRC)	2,886,544	14	0.89%
Joint Institute for Marine and Atmospheric Research (JIMAR)	16,489,449	51	3.25%
Pacific Biosciences Research Center	7,677,145	44	2.81%
School of Ocean and Earth Science and Technology	11,656,960	10	0.64%
Sea Grant College Program	7,411,697	30	1.91%
University Marine Center/Ship Operations	954,115	4	0.26%
Earth Sciences	2,476,422	26	1.66%
School of Pacific and Asian Studies	1,985,685	17	1.08%
Center for Japanese Studies	413,000	5	0.32%
Center for Korean Studies	200,146	4	0.26%
Center for Southeast Asian Studies	627,000	2	0.13%
School of Pacific and Asian Studies	666,827	4	0.26%
Center for Philippine Studies	98,674	2	0.13%
Center for Chinese Studies	(19,962)	0	0.00%
School of Social Work	6,729,137	37	2.36%
Center on Aging	117,057	3	0.19%

Dept of Public Health Sciences and Epidemiology	2,227,999	7	0.45%
Office of Public Health Studies	2,347,946	15	0.96%
School of Social Work	2,036,135	12	0.77%
University of Hawaii Cancer Center	30,111,661	81	5.17%
Cancer Biology	2,129,773	21	1.34%
Cancer Epidemiology	11,931,304	39	2.49%
Cancer Prevention in the Pacific	970,269	4	0.26%
Translational and Clinical Research	1,877,553	2	0.13%
University of Hawaii Cancer Center	13,202,762	15	0.96%
Vice Chancellor, Academic Affairs	1,645,862	13	0.83%
Graduate Education	779,000	1	0.06%
International & Exch Prog	63,775	1	0.06%
Library (UH Manoa)	276,475	6	0.38%
Undergraduate Education	467,645	3	0.19%
Vice Chancellor, Academic Affairs	33,250	1	0.06%
Service Learning	25,717	1	0.06%
Vice Chancellor, Research	75,000	1	0.06%
Vice Chancellor, Research	75,000	1	0.06%
Vice Chancellor, Students	5,217,993	17	1.08%
Health & Wellness	20,000	1	0.06%
Student Equity Excel & Diversity	5,174,593	15	0.96%
Women's Center	23,400	1	0.06%
Water Resources Research Center	677,921	11	0.70%
Water Resources Research Center	677,921	11	0.70%
William S. Richardson School of Law	3,430,231	30	1.91%
William S. Richardson School of Law	3,430,231	30	1.91%
Shidler College of Business	114,880	1	0.06%
Department of Information Technology Management	114,880	1	0.06%
Grand Total	338,010,456	1567	100.00%

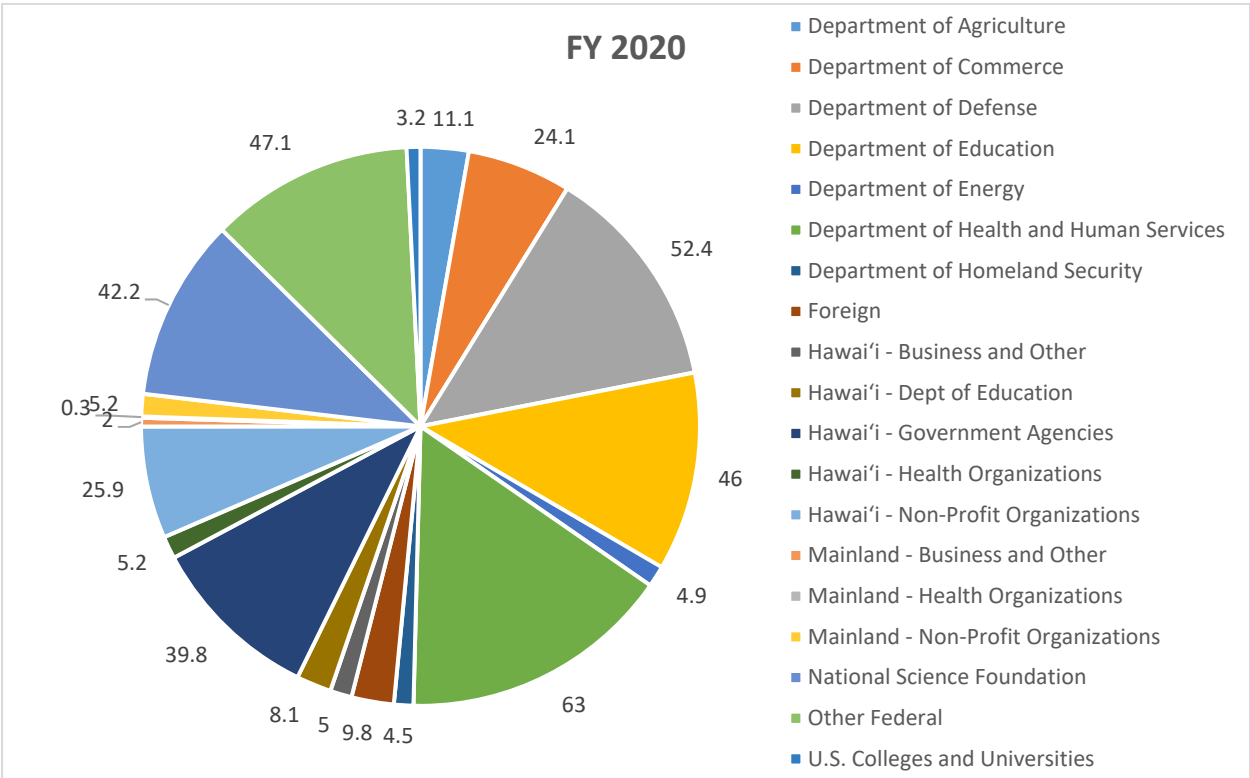
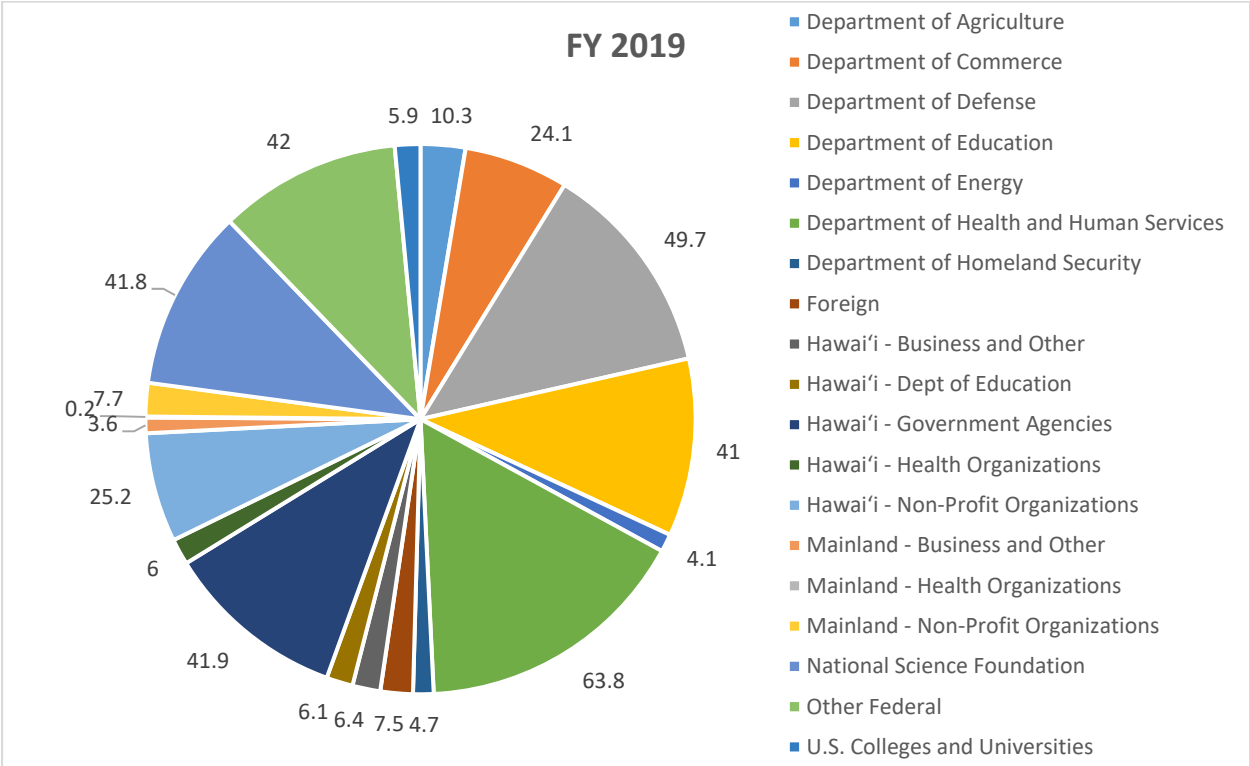
**Figure 10b: UH Hilo - Contract and Grant Awards Summary
by College/Department**

UH Hilo College/Department	Award Amount	Award Count	% of Total
Chancellor, UH Hilo	1,260,827	2	1.87%
Chancellor, UH Hilo	1,260,827	2	1.87%
College of Agriculture, Forestry and Natural Resource Mgt	914,014	9	8.41%
College of Agriculture, Forestry and Natural Resource Mgt	338,601	4	3.74%
Pacific Aquaculture and Coastal Resources Ctr	575,413	5	4.67%
College of Arts and Sciences	3,717,703	42	39.25%
Anthropology (UH Hilo)	1,201,601	2	1.87%
Biology (UH Hilo)	89,041	2	1.87%
Chemistry (UH Hilo)	20,386	2	1.87%
College of Arts and Sciences	462,431	3	2.80%
Geography (UH Hilo)	574,153	8	7.48%
Marine Science	20,000	1	0.93%
Mathematics (UH Hilo)	118,807	1	0.93%
Social Sciences Division	242,101	4	3.74%
Tropical Conservation Biology and Environmental Science	254,992	4	3.74%
College of Natural and Health Sciences	494,009	8	7.48%
School of Nursing	1,000	1	0.93%
Kinesiology and Exercise Sciences	95,097	3	2.80%
Political Science (UH Hilo)	28,000	1	0.93%
Humanities Division	11,209	1	0.93%
Computer Science (UH Hilo)	104,876	1	0.93%
College of Pharmacy	300,271	9	8.41%
College of Pharmacy	217,772	5	4.67%
Pharmaceutical Sciences	54,304	3	2.80%
Pharmacy Practice	28,195	1	0.93%
Hawaii Small Business Development Center	2,460,982	4	3.74%
Hawaii Small Business Development Center	2,460,982	4	3.74%
Imiloa Astronomy Center Of Hawaii	541,000	4	3.74%
Imiloa Astronomy Center Of Hawaii	541,000	4	3.74%
Ka Haka'Ula O Ke'Elidikolani-UHH	2,078,461	4	3.74%
Hale Kuamo'o Center	828,461	3	2.80%
Ka Haka'Ula O Ke'Elidikolani-UHH	1,250,000	1	0.93%
Vice Chancellor for Administrative Affairs	4,375	2	1.87%
Vice Chancellor for Administrative Affairs	4,375	2	1.87%
Vice Chancellor for Research	1,236,819	18	16.82%
Vice Chancellor for Research	1,236,819	18	16.82%
Vice Chancellor for Student Affairs	1,607,354	9	8.41%
Center For Gifted And Talented Native Hawaiian Children	630,588	1	0.93%

Vice Chancellor for Student Affairs	976,766	8	7.48%
College of Continuing Education and Community Svc	40,000	1	0.93%
College of Continuing Education and Community Svc	40,000	1	0.93%
College of Business and Economics	163,400	3	2.80%
College of Business and Economics	163,400	3	2.80%
Grand Total	14,325,206	107	100.00%

Chart 11: Total Contract and Grant Expenditures by Source of Funds Prior Year Comparison

(in millions)



**Figure 11: Total Contract and Grant Expenditures by Source of Funds
Prior Year Comparison**

Source of Funds	FY 2019	% of Total	FY 2020	% of Total
Department of Agriculture	\$ 10,341,843.10	3%	\$ 11,052,370.54	3%
Department of Commerce	\$ 24,118,609.13	6%	\$ 24,064,658.42	6%
Department of Defense	\$ 49,737,966.96	13%	\$ 52,386,718.28	13%
Department of Education	\$ 40,977,845.61	10%	\$ 45,989,728.25	12%
Department of Energy	\$ 4,078,333.16	1%	\$ 4,878,196.45	1%
Department of Health and Human Services	\$ 63,808,343.75	16%	\$ 62,962,342.89	16%
Department of Homeland Security	\$ 4,739,877.91	1%	\$ 4,510,017.41	1%
National Science Foundation	\$ 41,817,238.27	11%	\$ 42,195,135.98	11%
Other Federal	\$ 42,027,814.74	11%	\$ 47,137,696.26	12%
Foreign	\$ 7,470,833.04	2%	\$ 9,766,378.16	2%
Hawai'i - Business and Other	\$ 6,421,826.97	2%	\$ 4,969,128.41	1%
Hawai'i - Dept of Education	\$ 6,072,764.00	2%	\$ 8,147,629.90	2%
Hawai'i - Government Agencies	\$ 41,914,145.57	11%	\$ 39,774,195.80	10%
Hawai'i - Health Organizations	\$ 5,980,183.75	2%	\$ 5,154,163.65	1%
Hawai'i - Non-Profit Organizations	\$ 25,166,319.91	6%	\$ 25,906,474.87	6%
Mainland - Business and Other	\$ 3,619,300.61	1%	\$ 2,009,083.18	1%
Mainland - Health Organizations	\$ 214,519.33	0%	\$ 260,431.53	0%
Mainland - Non-Profit Organizations	\$ 7,705,884.68	2%	\$ 5,198,581.17	1%
U.S. Colleges and Universities	\$ 5,941,680.46	2%	\$ 3,214,724.42	1%
GRAND TOTAL	\$ 392,155,330.95	100%	\$ 399,577,655.57	100%

Summary:

- The largest source is the Department of Health and Human Services (16% of the total), followed by the Department of Defense (13% of the total).

Chart 12: Total Federal CARES Act Expenditures by Campus
(in millions)

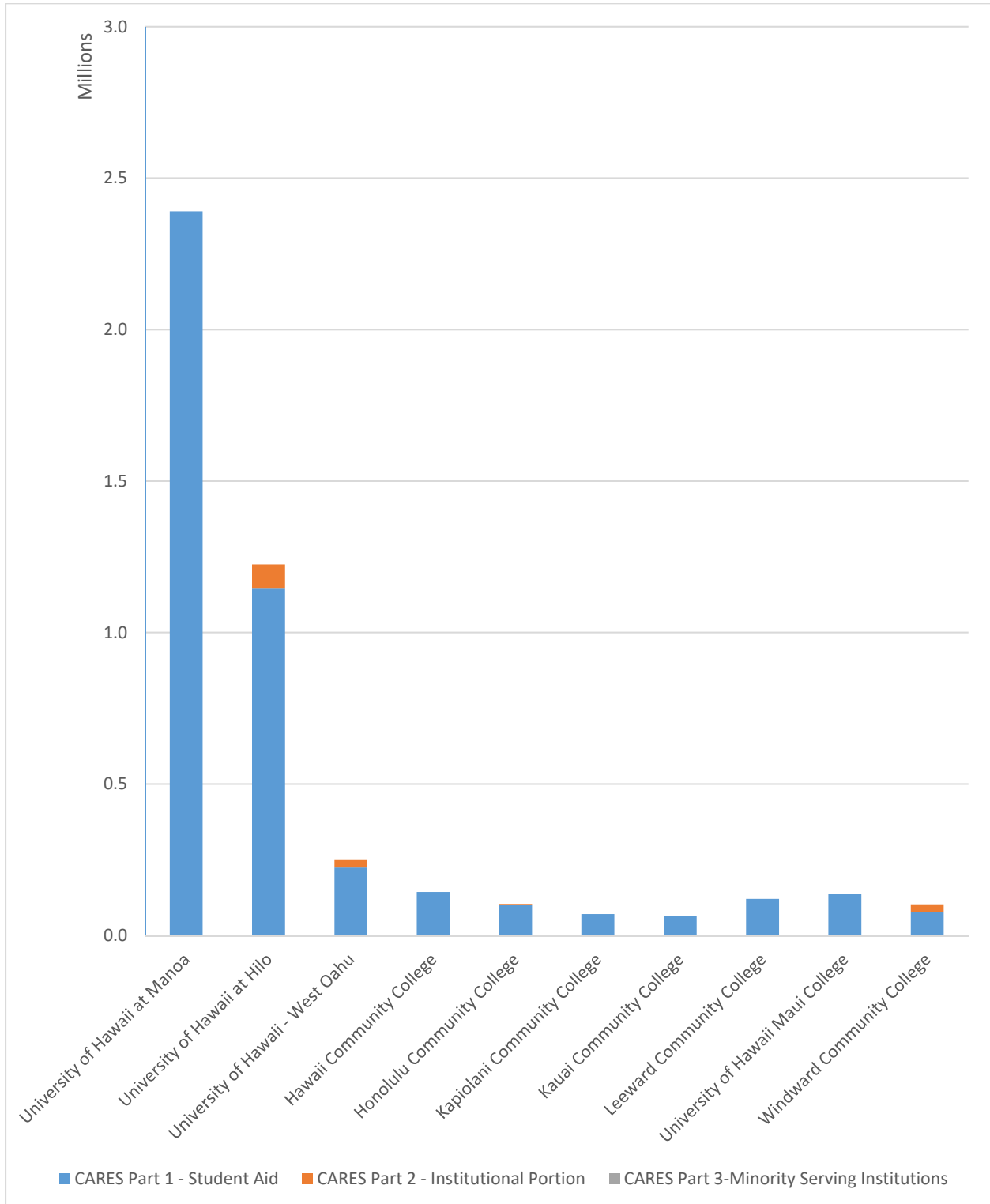


Figure 12: Summary of Federal CARES Act Expenditures

Campus	CARES Part 1 Student Aid	CARES Part 2 Institutional Portion	CARES Part 3 Minority Serving Institutions	Total Expenditures
University of Hawaii at Manoa	2,390,631	0	0	2,390,631
University of Hawaii at Hilo	1,147,050	77,478	0	1,224,528
University of Hawaii - West Oahu	224,000	27,426	0	251,426
University of Hawaii Maui College	143,600	0	0	143,600
Hawaii Community College	99,800	4,119	0	103,919
Honolulu Community College	70,400	0	0	70,400
Kapiolani Community College	63,400	0	0	63,400
Kauai Community College	120,800	0	0	120,800
Leeward Community College	137,200	724	0	137,924
Windward Community College	78,000	24,737	0	102,737
Grand Total	4,474,881	134,484	-	4,609,365

Chart 13: Total Contract and Grant Expenditures by Program Type and Source of Funds
(in millions)

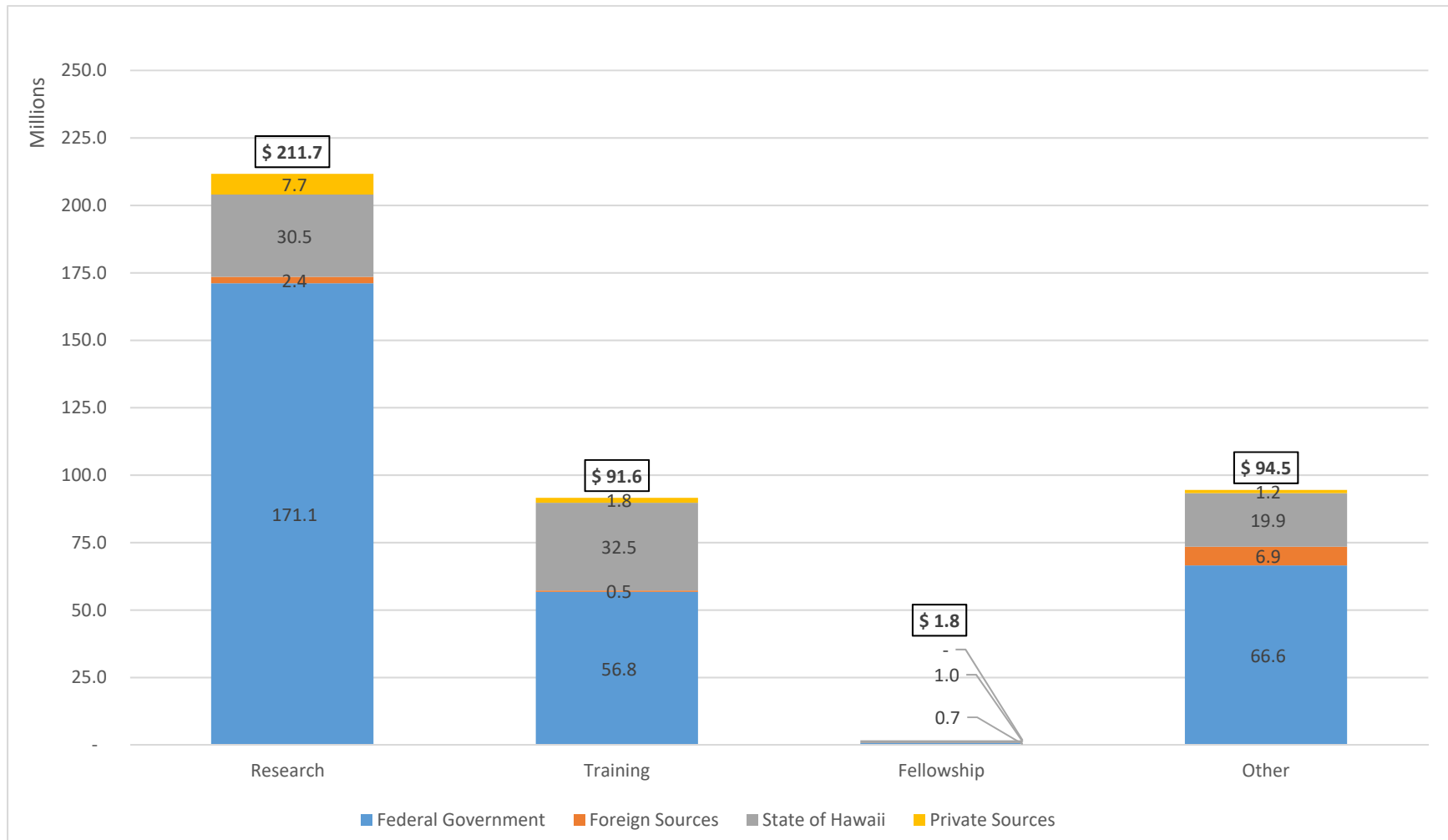
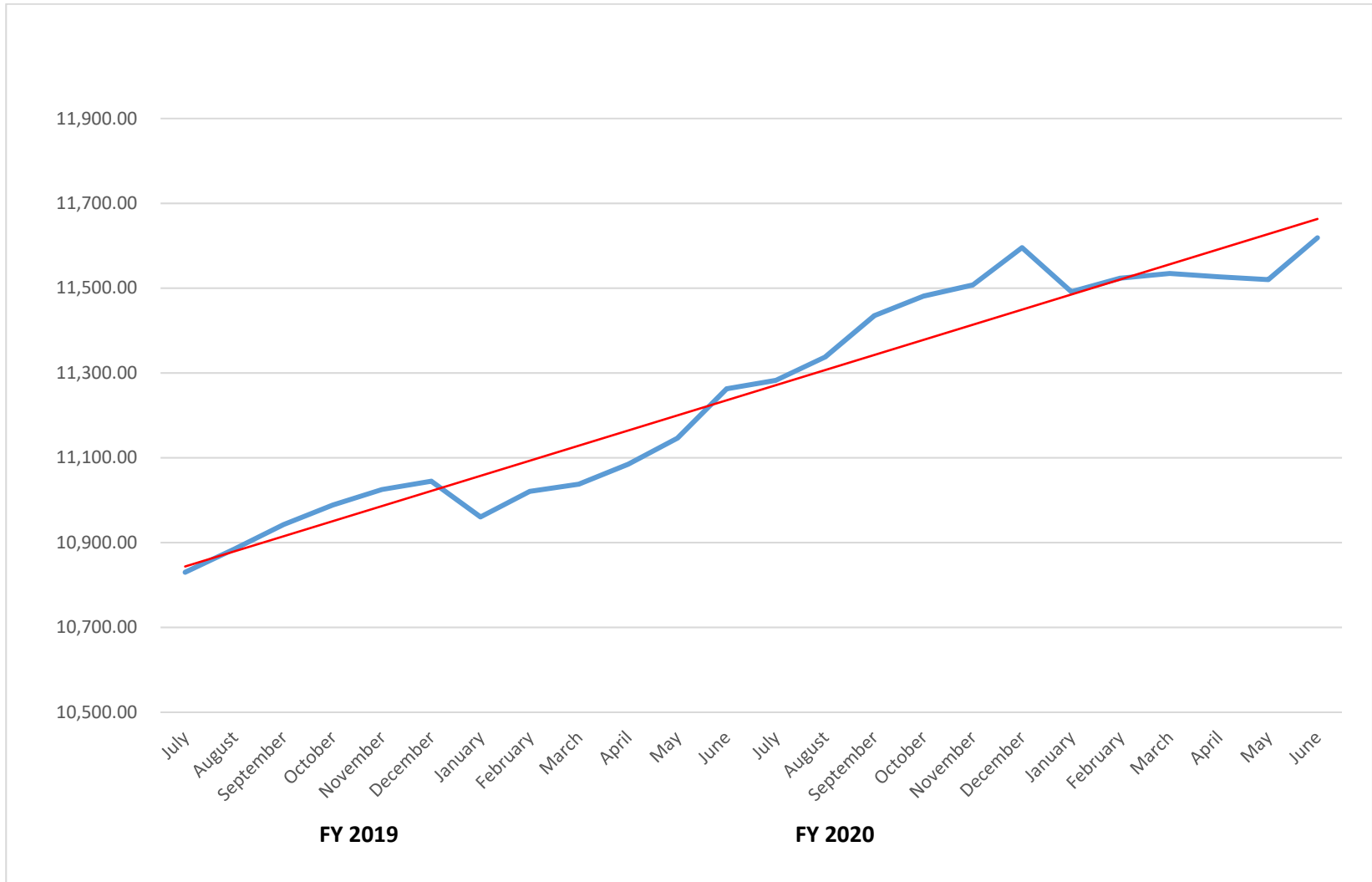


Figure 13: Total Contract and Grant Expenditures by Program Type and Source of Funds

Source of Funding		Research	Training	Fellowship	Other	Total	% of total
Federal Government	Department of Agriculture	7,769,003	2,546,745		736,622	11,052,371	3%
	Department of Commerce	17,944,923	242,243	34,505	5,842,987	24,064,658	6%
	Department of Defense - Air Force	9,045,633				9,045,633	2%
	Department of Defense - Army	1,475,293	866,205		5,073,468	7,414,965	2%
	Department of Defense - Navy	18,174,938	110,380		5,054,453	23,339,771	6%
	Department of Education	923,097	30,637,452		14,429,180	45,989,728	12%
	Department of Energy	4,667,029	175,876		35,292	4,878,196	1%
	Department of Health and Human Services	48,096,260	9,318,739	(1,012)	5,548,356	62,962,343	16%
	Department of Homeland Security		4,510,017			4,510,017	1%
	Department of Interior	6,472,339	166,682		1,850,483	8,489,504	2%
	Department of State	1,693,411	397,173		41,464	2,132,048	1%
	Department of Transportation	3,706,708	44,273		428,520	4,179,502	1%
	Department of Veterans Affairs	4,020	79,671			83,692	0%
	Environmental Protection Agency	367,265	5,251		132,663	505,180	0%
	National Aeronautics and Space Administration	13,942,392	1,037,380		10,795,603	25,775,376	6%
	National Science Foundation	24,071,825	6,224,873	687,797	11,210,641	42,195,136	11%
	Other Department of Defense	12,444,172	134,789		7,388	12,586,350	3%
Other Federal	321,953	278,681	-	5,371,761	5,972,395	1%	
Federal Government Total		171,120,261	56,776,432	721,290	66,558,882	295,176,864	74%
Foreign Sources	Foreign Sources	2,380,866	477,108		6,908,405	9,766,378	2%
Foreign Sources Total		2,380,866	477,108	-	6,908,405	9,766,378	2%
State of Hawaii	Hawai'i - Business and Other	1,305,935	2,038,650	1,033,725	590,818	4,969,128	1%
	Hawai'i - Department of Education		7,549,833		597,797	8,147,630	2%
	Hawai'i - Government Agencies	19,306,153	7,927,317		12,540,725	39,774,196	10%
	Hawai'i - Health Organizations	639,391	4,282,041		232,731	5,154,164	1%
	Hawai'i - Non- Profit Organizations	9,229,160	10,735,434	14,151	5,927,730	25,906,475	6%
State of Hawaii Total		30,480,640	32,533,275	1,047,877	19,889,801	83,951,593	21%
Private Sources	Mainland - Business and Other	1,628,971	87,807		292,305	2,009,083	1%
	Mainland - Health Organizations	149,232	13,542		97,657	260,432	0%
	Mainland - Non-Profit Organizations	3,197,494	1,564,058		437,029	5,198,581	1%
	U.S. Colleges and Universities	2,693,869	170,367		350,488	3,214,724	1%
Private Sources Total		7,669,567	1,835,774	-	1,177,480	10,682,820	3%
Grand Total		211,651,333	91,622,588	1,769,167	94,534,568	399,577,656	100%

**Chart 14: Total FTE Paid from Contract and Grant Funds
Prior Year Comparison**

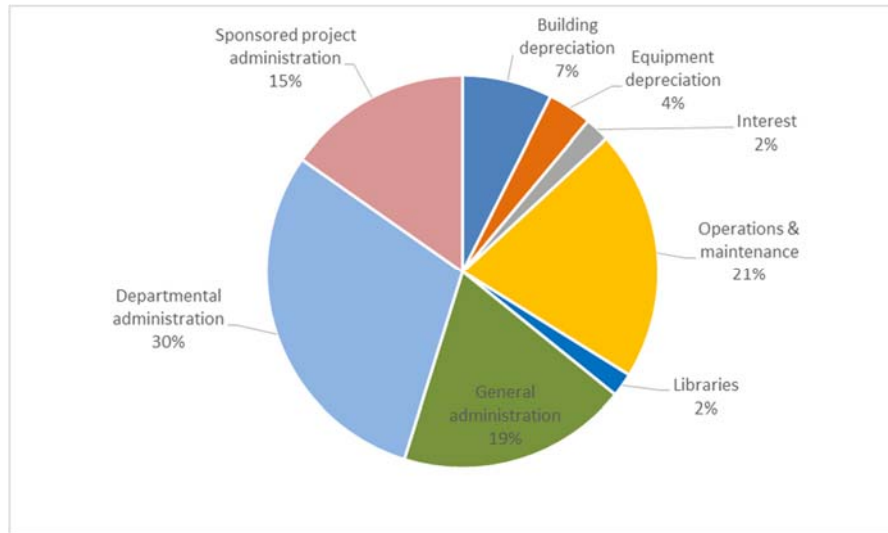


**Figure 14: Total FTE Paid from Contract and Grant Funds
Prior Year Comparison**

Month	Year to Date FY19	Year to Date FY 20
July	10,830.16	11,282.66
August	10,885.06	11,337.40
September	10,942.67	11,435.31
Monthly Average Q1	10,885.96	11,351.79
October	10,988.80	11,481.19
November	11,025.19	11,507.42
December	11,044.89	11,595.62
Monthly Average Q2	11,019.63	11,528.08
January	10,960.72	11,491.55
February	11,020.73	11,523.52
March	11,037.83	11,534.63
Monthly Average Q3	11,006.43	11,516.57
April	11,084.84	11,526.88
May	11,146.54	11,520.29
June	11,262.71	11,618.74
Monthly Average Q4	11,164.70	11,555.30
Monthly Average FY	11,019.18	11,487.93
Change (Number)		468.76
Change (Percent)		4.25%

Note: FTE includes University of Hawai'i and Research Corporation of the University of Hawai'i

Chart 15: Breakdown of Facilities and Administrative Costs by Major Category FY 2016 Base Year



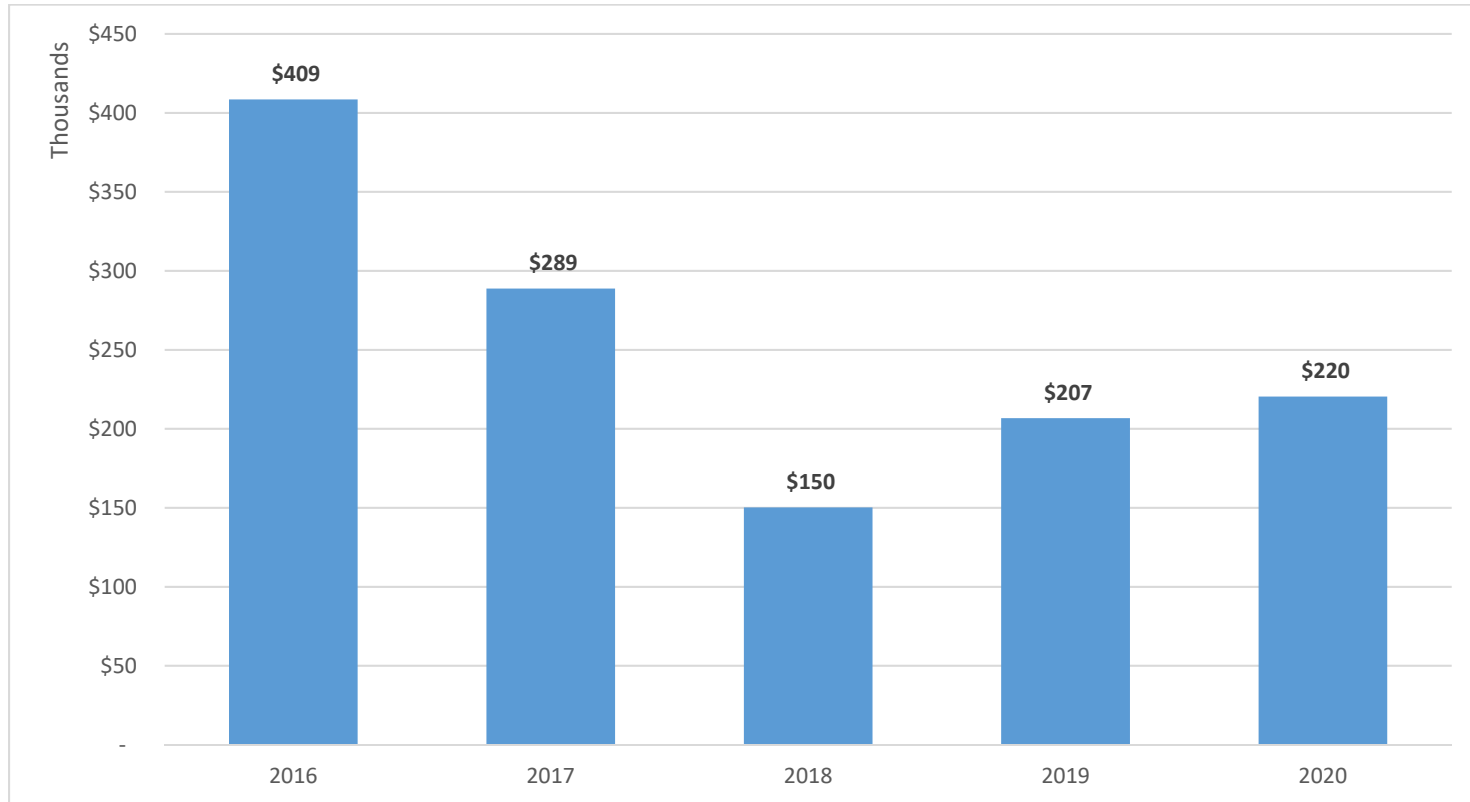
In a typical year, roughly a third of the University of Hawai'i's overhead for sponsored projects maintains its facilities for supporting sponsored activity and roughly two-thirds supports central and departmental sponsored activity administration. About 30% of the total F&A represents administration of sponsored activity with schools, colleges, and research units. These funds are used by deans and directors to support fiscal administrators and other staff who assist faculty with sponsored activity – including grant proposal preparation and budget management.

The pie chart represents the proportion of actual overhead costs during the UH's last F&A base year (FY 2016). Thirty-four percent of the F&A funds represented costs of providing centralized research administration and compliance services, such as research accounting and analysis, human resources, payroll, purchasing, Office of Research Services, Human Studies, Institutional Animal Care, and Research Corporation of the University of Hawai'i. Of the 36% spent on facilities, about 58% was spent on operations and maintenance of existing sponsored activity space, including paying for such costs as utilities, hazardous materials disposal, and janitorial services. The remainder paid for repairs and renovations of buildings, 'debt service' (interest), major equipment replacement, and support for the libraries.

The University of Hawai'i received approximately \$51.0 million in F&A cost reimbursements in FY 2020. Each campus received 75% of the recovered F&A generated by its faculty through the Research and Training Revolving Fund (RTRF) allocation. The PI's college or research unit at the University of Hawai'i at Mānoa generally receives 50% of the recovered F&A costs. These funds are used at the discretion of the chancellors, deans and directors to support research and training in their units.

F&A cost reimbursements are related to UH expenditures. When the UH develops its biennial budget, it starts with an estimate of the total revenues available for that biennium, including state funding, tuition, F&A cost reimbursement, and interest and investment income. All these funding sources are combined to pay for the UH's operating expenses, including F&A costs related to research and other sponsored agreements.

Chart 16: Total Royalties Received from University Patents
Five Year Comparison
(in thousands)



**Figure 15: Total Royalties Received from University Patents
Five Year Comparison**

Fiscal Year	Royalties
2016	\$ 408,513
2017	\$ 288,752
2018	\$ 150,172
2019	\$ 206,687
2020	\$ 220,427
Total Royalties	\$1,274,551

Appendix 1: Extramural Award Sponsors

FEDERAL

DA-DEPT OF AGRICULTURE

AGRICULTURE, DEPT - ANIMAL AND PLANT HEALTH INSPECTION SERVICE

AGRICULTURE, DEPT, FOREST SVC-FED

AGRICULTURE, DEPT-AGRI RSCH SVC-FED

AGRICULTURE, DEPT-FED

AGRICULTURE, DEPT-FOREIGN AGRICULTURAL SERVICE

AGRICULTURE, DEPT-NATL INS FOOD AND AGRICULTURE

AGRICULTURE, DEPT-NATRL RES SVC-FED

DHHS-DEPT OF HEALTH AND HUMAN SERVICES

HEALTH & HUMAN SVC, DEPT-ADMIN FOR COMM LIVING

HEALTH & HUMAN SVC, DEPT-CDC-NATL INST FOR

OCCUPATIONAL SAFETY & HEALTH

HEALTH & HUMAN SVC, DEPT-CTR DIS CTRL-FED

HEALTH & HUMAN SVC, DEPT-FED

HEALTH & HUMAN SVC, DEPT-HRSA-FED

HEALTH & HUMAN SVC, DEPT-HRSA-FED ADV NURSE ED PGM

HEALTH & HUMAN SVC, DEPT-HRSA-FED BUR OF HLTH PROF

HEALTH & HUMAN SVC, DEPT-HRSA-FED MATERNAL & CHILD HLTH

HEALTH & HUMAN SVC, DEPT-HRSA-FED OFC RURAL HEALTH POL

HEALTH & HUMAN SVC, DEPT-NIH-FED

HEALTH & HUMAN SVC, DEPT-NIH-FED NATL CANCER INST

HEALTH & HUMAN SVC, DEPT-NIH-FED NATL HEART LUNG & BLD INST

HEALTH & HUMAN SVC, DEPT-NIH-FED NATL INST MIN HLTH & DISP

HEALTH & HUMAN SVC, DEPT-NIH-FED NTL INST ALLERGY/INF DIS

HEALTH & HUMAN SVC, DEPT-NIH-FED NTL INST DIAB DIG KIDN DIS

HEALTH & HUMAN SVC, DEPT-NIH-FED NTL INST DRUG ABUSE

HEALTH & HUMAN SVC, DEPT-NIH-FED NTL INST ENV HLTH SCI

HEALTH & HUMAN SVC, DEPT-NIH-FED NTL INST GEN MED SCI

HEALTH & HUMAN SVC, DEPT-NIH-FED NTL INST MENTAL HLTH

HEALTH & HUMAN SVC, DEPT-NIH-FED OFFICE OF DIRECTOR

HEALTH & HUMAN SVC, DEPT-SUB ABUSE/MNTL HLTH SVC-FED

HEALTH & HUMAN SVC, DEPT-NIH-FED NTL INST CHLD HLTH&HUM DEV

DOC-DEPT OF COMMERCE

COMMERCE, DEPT-ECONOMIC DEV ADM-FED

COMMERCE, DEPT-MINORITY BUSN DEV AGENCY-FED

COMMERCE, DEPT-NATL NOAA-FED

COMMERCE, DEPT-NATL NOAA-FED NATL OCEAN SVC

COMMERCE, DEPT-NATL NOAA-FED NATL WEATHER SVC

COMMERCE, DEPT-NATL NOAA-FED SEA GRANT COLL PGM

COMMERCE, DEPT-NOAA/NATL MARINE FISHERIES SVC

WESTERN PACIFIC REGIONAL FISHERY MGT COUNCIL

DOD-DEPARTMENT OF DEFENSE

DEFENSE, DEPT-ENVIRONMENTAL SECURITY TECHNOLOGY CERTIFICATION PROGRAM

DEFENSE, DEPT- US ARMY CORPS OF ENGINEERS

DEFENSE, DEPT. - U.S. ARMY RESEARCH OFFICE

DEFENSE, DEPT-AIR FORCE OFC OF SCI RSCH

DEFENSE, DEPT-AIR FORCE RESEARCH LABORATORY

DEFENSE, DEPT-ARMY RESEARCH LABORATORY

DEFENSE, DEPT-CONGRESSIONALLY DIR MED RSCH PROG

DEFENSE, DEPT-DEFENSE LOGISTICS AGENCY

DEFENSE, DEPT-DEPUTY UNDR SECRETARY OF DEF

DEFENSE, DEPT-NATIONAL SECURITY AGY

DEFENSE, DEPT-NAVY

DEFENSE, DEPT-NAVY NAVAL FAC ENGRG COMMAND

DEFENSE, DEPT-NAVY NAVAL SUPPLY SYSTEMS COMMAND

DEFENSE, DEPT-NAVY NAVAL SURFACE WARFARE CTR

DEFENSE, DEPT-NAVY OFC OF NAVAL RSCH

DEFENSE, DEPT-NAVY SPACE & NAVAL WARFARE SYS CTR PACIFIC

DEFENSE, DEPT-NAVY US NAVAL OBSERVATORY

DEFENSE, DEPT-STRATEGIC ENV RSCH & DEV PROG

DEFENSE, DEPT-WASHINGTON HEADQUARTERS SVCS

NAVAL MEDICAL RESEARCH CENTER

DOE-DEPT OF ENERGY

ENERGY, DEPT

ENERGY, DEPT. OF - BASIC ENERGY SCIENCES

DOI-DEPT OF INTERIOR

INTERIOR, DEPT-BUREAU OF RECLAMATION

INTERIOR, DEPT-FISH & WILDLIFE SVC
 INTERIOR, DEPT-NATIONAL PARK SVC
 INTERIOR, DEPT-UNITED STATES GEO SURVEY
DOT-DEPT OF TRANSPORTATION
 TRANSPORTATION, DEPT-FED-FED AVIATION ADMIN
ED-DEPT OF EDUCATION
 EDUCATION, DEPT-FED
 EDUCATION, DEPT-FED FULBRIGHT HAYS PGM
 EDUCATION, DEPT-FED INTL & FOREIGN LANG ED
 EDUCATION, DEPT-FED OFC OF POSTSEC ED
 EDUCATION, DEPT-FED OFC OF SPECIAL ED & REHAB SVCS
 EDUCATION, DEPT-FED REHAB SVCS ADMIN
 EDUCATION, DEPT-FED STUDENT SUPP SVCS PGM
 EDUCATION, DEPT-FED TALENT SEARCH PGM
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
 NATIONAL AERONAUT & SPACE ADM
 NATL AERONAUTICS & SPACE ADM-GODDARD SPACE FLIGHT
 CTR
NATIONAL SCIENCE FOUNDATION
 NATIONAL SCIENCE FOUNDATION
OTHER FEDERAL AGENCIES
 CORPORATION FOR NATIONAL AND COMMUNITY SERVICE
 HOMELAND SECURITY, DEPT-FEMA
 JUSTICE, DEPT-OFFICE JUSTICE PROG
 NATL ENDOWMENT FOR THE ARTS
 OFFICE OF THE CIRCUIT EXECUTIVE
 PEACE CORPS
 SMALL BUSINESS ADMINISTRATION
 SOCIAL SECURITY ADMINISTRATION
 VETERANS AFFAIRS, DEPT-FED
 VETERANS AFFAIRS, DEPT-VA PACIFIC ISLAND HEALTH CARE
 SYSTEM

NON-FEDERAL
FOREIGN
 GUAM, GOVERNMENT - GUAM HOMELAND SECURITY
 PACIFIC YOUTH AND COMMUNITY DEVELOPMENT
 ACADEMY KOREAN STUDIES
 AICHI UNIVERSITY
 AMERICAN SAMOA, GOVERNMENT
 AOYAMA GAKUIN UNIVERSITY
 CHIANG CHING-KUO FOUNDATION
 CHUO UNIVERSITY

COMMONWEALTH OF NO MARIANA ISLANDS
 FEDERATED STATES MICRONESIA
 GUAM, GOVERNMENT - PUBLIC HEALTH AND SOCIAL
 SERVICES
 GUAM, UNIVERSITY OF
 HORIBA MIRA
 INTERNATIONAL UNION CONSERVATION OF NATURE (IUCN)
 JAPAN AGENCY MARINE-EARTH SCIENCE AND TECHNOLOGY
 KOREA ELECTROTECHNOLOGY RESEARCH INSTITUTE
 KOREA FOUNDATION
 MARSHALL ISLANDS, COLLEGE OF
 MEIJI UNIVERSITY
 MELBOURNE, THE UNIVERSITY OF
 NAURU OCEAN RESOURCES INC.
 NEW YORK UNIVERSITY ABU DHABI
 OKINAWA PREFECTURE GOVERNMENT
 REPUBLIC MARSHALL ISLANDS
 REPUBLIC PALAU
 RESEARCH CORPORATION OF THE UNIVERSITY OF GUAM
 RYUKYUS, UNIVERSITY OF
 SAFT BATTERIES
 SINTEF
 SOCIETE DES PRODUITS NESTLE S.A. (FORMERLY NESTEC LTD
 RESEARCH CENTRE)
 THE GOVENORS OF THE UNIVERSITY OF ALBERTA
 TOKYO, UNIVERSITY OF
 UNIVERSITY OF VICTORIA
HAWAII- BUSINESS AND OTHER
 ADVANCED SILICON CARBIDE MATERIALS, LLC
 AHA PUNANA LEO INC
 ALU LIKE INC
 BISHOP MUSEUM
 CHAMBER OF COMMERCE HAWAII
 DAMIEN MEMORIAL SCHOOL
 EAST WEST CENTER DBA OF CCTI B/W EAST AND WEST, INC.
 GARDEN ISLE RESRCE CONSERV & DEVELOPMENT, INC.
 HANAHAUOLI SCHOOL
 HAWAII COUNCIL FOR THE HUMANITIES
 HAWAIIAN ELECTRIC COMPANY
 HITACHI ADVANCED CLEAN ENERGY CORPORATION
 HUI NO KE OLA PONO, INC.
 IOLANI SCHOOL
 KAMEHAMEHA SCHOOLS

KAMPACHI FARMS, LLC
 LE JARDIN ACADEMY
 MAKAI OCEAN ENGINEERING INC
 MALAMA KAHALAWAI INC
 MAUI COUNTY COMMUNITY TELEVISION
 NALU SCIENTIFIC, LLC
 OCEANIT LABORATORIES INC
 'OHU'OHU KO'OLAUI INC
 PACIFIC RADIATION ONCOLOGY INC
 SEA ENGINEERING, INC.
 SPECTRUM PHOTONICS, INC
 SSFM INTERNATIONAL INC.
 TOWILL, R.M. CORPORATION
HAWAII- DEPT OF EDUCATION
 EDUCATION, DEPT-HI
HAWAII- GOVERNMENT AGENCIES
 LAND & NATURAL RES, DPT (DLNR)-COMMISSION ON
 WATER RESOURCE MANAGEMENT
 ACCOUNTING & GEN SVC, DEPT (DAGS) - HI
 AGRICULTURE, DEPT-HI
 BUSINESS, ECON DEV & TOUR, DPT
 BUSINESS, ECONOMIC DEV & TOUR-HAWAII TECHNOLOGY
 DEVELOPMENT CORP
 BUSINESS, ECONOMIC DEV&TOUR-HI STATE ENERGY OFFICE
 CITY & COUNTY HONOLULU
 CITY & COUNTY HONOLULU DEPT OF PARKS & REC
 COUNTY KAUAI
 COUNTY MAUI DEPARTMENT OF ENVIRONMENTAL
 MANAGEMENT
 COUNTY MAUI DEPT OF WATER SUPPLY
 COUNTY MAUI OFC OF ECON DEVEL
 COUNTY MAUI PLANNING DEPT
 COUNTY OF HAWAII DEPT OF RESEARCH AND DEVELOPMENT
 COUNTY OF KAUAI DEPARTMENT OF WATER
 COUNTY OF KAUAI, OFFICE OF ECONOMIC DEVELOPMENT
 DEFENSE, DEPT-HI - HI ARMY NATL GUARD
 DEFENSE, DEPT-HI-HAWAII EMERGENCY MGMT AGENCY
 GOVERNOR, OFFICE OF - STATE OF HAWAII
 HAWAII COUNTY PLANNING DEPARTMENT
 HAWAII HOUSING FINANCE AND DEVELOPMENT
 CORPORATION
 HAWAI'I STATE FOUNDATION ON CULTURE AND THE ARTS
 HAWAII TOURISM AUTHORITY
 HAWAIIAN AFFAIRS, OFFICE OF
 HAWAIIAN HOME LANDS, DEPT-HI
 HEALTH DEPT-HI MATERNAL AND CHILD HEALTH BRANCH
 HEALTH, DEPT-ADULT MENTAL HTH DV-HI
 HEALTH, DEPT-ALCOHOL & DRUG ABUSE DIV-HI
 HEALTH, DEPT-DEVELOPMENTAL DC-HI
 HEALTH, DEPT-EXEC OFF AGING-HI
 HEALTH, DEPT-FAMILY HLTH SVC DIV-HI
 HEALTH, DEPT-HAZARD EVAL & EMERGENCY RESPONSE
 HEALTH, DEPT-HI
 HEALTH, DEPT-HI - DISEASE OUTBREAK CONTROL DIVISION
 HEALTH, DEPT-HI - SOLID AND HAZARDOUS WASTE BRANCH
 HEALTH, DEPT-HI CLEAN WATER BRANCH
 HEALTH, DEPT-HI COMM HEALTH DIV
 HEALTH, DEPT-HI HARM REDUCTION SERVICES BRANCH
 HEALTH, DEPT-HI SAFE DRINKING WATER BRANCH
 HEALTH, DEPT-HI-BEHAVIORAL HEALTH ADMIN
 HEALTH, DEPT-HI-CHILD/ADOLESC MENTAL HLTH DIV
 HEALTH, DEPT-HI-CHRONIC DISEASE PREVENTION & HEALTH
 PROMOTION DIV
 HEALTH, DEPT-HI-OFFICE OF ENVIRONMENTAL QUALITY
 CONTROL
 HEALTH, DEPT-HI-OFFICE OF LANGUAGE ACCESS
 HEALTH, DEPT-OFFICE OF PLANNING, POLICY, AND
 PROGRAM DEV-HI
 HUMAN SERVICES, DEPT-DIVISION OF VOCATIONAL
 REHABILITATION
 HUMAN SERVICES, DEPT-HI
 HUMAN SERVICES, DEPT-HI BENEFITS, EMPLOYMENT &
 SUPPORT SERVICES
 HUMAN SERVICES, DEPT-HI PUBLIC HOUSING AUTH
 HUMAN SERVICES, DEPT-HI-MED-QUEST DIV
 HUMAN SERVICES, DEPT-OYS-HI
 JUDICIARY-HI
 LABOR & INDUSTRIAL RELATION, DPT-HI (DLIR)
 LAND & NATURAL RES, DPT-AQUAT (DLNR)
 LAND & NATURAL RES, DPT-BOATING & OCEAN REC (DLNR)
 LAND & NATURAL RES, DPT-FORST (DLNR)
 LAND & NATURAL RES, DPT-STATE HISTORIC PRESERVATION
 DIV
 LAND & NATURAL RESOURCES, DEPT (DLNR)
 LAND & NATURAL RESOURCES, DEPT (DLNR) ENGINEERING
 DIV
 LAND & NATURAL RESOURCES, DEPT (DLNR) OFC CONS
 COAST LDS
 NATURAL ENERGY LABORATORY OF HAWAII AUTHORITY

TRANSPORTATION, DEPT-HI
WATER SUPPLY, BOARD OF

HAWAII- HEALTH ORGANIZATIONS

KALIHI-PALAMA HEALTH CENTER
KAPIOLANI MED CTR FOR WOMEN & CHILDREN
KAPIOLANI MEDICAL SPECIALIST
KUAKINI MEDICAL CENTER
PACIFIC IN VITRO FERTILIZATION INSTITUTE
QUEENS HEALTH SYSTEMS
QUEEN'S MEDICAL CENTER
STRAUB CLINIC & HOSPITAL
UNIVERSITY CLINICAL EDUCATIONAL & RSCH ASSOC (UCERA)
WAIANAEO COAST COMPREHENSIVE HEALTH CTR

HAWAII- NON-PROFIT ORGANIZATIONS

ADVENTIST HEALTH CASTLE
ALOHA UNITED WAY
AMERICAN ASSOCIATION OF UNIVERSITY WOMEN -
HONOLULU
BIG ISLAND RESOURCE CONSERVATION & DEV COUNCIL INC.
CHUN FOUNDATION
COALITION DRUG-FREE HAWAII
FRIENDS OF HAWAII'S URBAN FOREST
GENERAL CONTRACTORS ASSOC HI EDUCATIONAL
FOUNDATION
HANALANI SCHOOLS
HAWAII ALLIANCE FOR COMMUNITY BASED ECONOMIC
DEVELOPMENT (HACBED)
HAWAII CANCER CONSORTIUM
HAWAII COMMUNITY FOUNDATION (HCF)
HAWAII COMMUNITY FOUNDATION CHILDRENS TRUST FUND
HAWAII COMMUNITY FOUNDATION GEIST FDTN
HAWAII HEALTH AND HARM REDUCTION CENTER
(FORMERLY KNOWN AS THE CHOW PROJECT)
HAWAII JUSTICE FOUNDATION
HO'OLA FARM
INSTITUTE FOR HUMAN SERVICES
INSTITUTE NATIVE PACIFIC EDUC & CULTURE
KA OHANA O KAHIKINUI, INC.
KAALA FARM, INC
KEAUKAHA ONE YOUTH DEVELOPMENT-REVEALING
INDIVIDUAL STRENGTHS FOR EXCELLENCE (KOYD-RISE)
KOKUA KALIHI VALLEY
LANAKILA PACIFIC
LEAHI FOUNDATION (HCF)

LILIUOKALANI TRUST
MALAMA MAUNALUA
MALAMA O MANOA
MAUI NUI MARINE RESOURCE COUNCIL
OLELO
PAC5
PACIFIC AMERICAN FOUNDATION
RESIDENTIAL YOUTH SERVICES & EMPOWERMENT
SACRED HEARTS ACADEMY
THE OUTDOOR CIRCLE
THREE MOUNTAIN ALLIANCE FOUNDATION
UNIVERSITY HAWAII FOUNDATION
UNIVERSITY HEALTH PARTNERS
WAIKIKI BEACH SPECIAL IMPROVEMENT DISTRICT ASSN
WORLD INDIGENOUS NATIONS UNIVERSITY HAWAII PASIFIKA
WORLD TURTLE TRUST

MAINLAND- BUSINESS AND OTHER

ABT ASSOCIATES INC
AECOM INC
AMERICA VIEW
ASSOCIATION OF AMERICAN COLLEGES AND UNIVERSITIES
BROOKHAVEN NATIONAL LABORATORY
CAROLLO ENGINEERS
ELI LILLY & COMPANY
EXTENSION FOUNDATION
FERMI NATIONAL ACCELERATOR LAB
GENERAL ELECTRIC INTERNATIONAL, INC.
GHP SOLUTIONS, LLC
GOODMAN TECHNOLOGIES, LLC
GYNUITY HEALTH PROJECTS, INC.
ICF INCORPORATED, LLC
INTELINAIR INC.
JET PROPULSION LAB-JPL
KAWAILOA WIND, LLC
LAWRENCE LIVERMORE NATL LAB
LEIDOS
LEIDOS BIOMEDICAL RESEARCH, INC.
MALIN SPACE SCIENCE SYSTEMS
MERCK SHARP & DOHME CORP
NATIONAL GEOGRAPHIC SOCIETY
NORTHROP GRUMMAN CORPORATION
PREDICTIVE SCIENCE INC.
SANDIA NATIONAL LABORATORIES

SIERRA NEVADA CORPORATION
SIGMA DELTA EPSILON-GRADUATE WOMEN IN SCIENCE, INC.
SMITHSONIAN ASTROPHYSICAL OBSERVATORY
SPACE TELESCOPE SCIENCE INSTITUTE
TERRAFORM POWER, INC.
TETRA TECH, INC.
THERADEX
TRANS ASTRONAUTICA CORP. DBA TRANSASTRA
UCHICAGO ARGONNE, LLC
US ACUTE CARE SOLUTIONS
VITALANT RESEARCH INSTITUTE (FORMERLY BLOOD SYSTEMS
RESEARCH INSTITUTE)
WOODS HOLE OCEANOGRAPHIC INSTITUTION
WYLE LABORATORIES, INC.

MAINLAND- HEALTH ORGANIZATIONS

AMERICAN HEART ASSOCIATION
BRIGHAM AND WOMEN'S HOSPITAL, INC.
CHILDRENS HOSPITAL LOS ANGELES
EDUCATIONAL TESTING SERVICE
HUTCHINSON (FRED) CANCER RESRCH CTR
KAISER FOUNDATION RESEARCH INSTITUTE
RIVERSIDE RESEARCH INSTITUTE

MAINLAND- NON-PROFIT ORGANIZATIONS

ALEX'S LEMONADE STAND FOUNDATION
AMERICAN ASSOCIATION OF COLLEGES OF PHARMACY
AMERICAN CHEMICAL SOCIETY-PETROLEUM RSCH FUND
AMERICAN PUBLIC HEALTH ASSOCIATION
AMERICAN SOCIETY OF PHARMACOGNOSY
ANHEUSER-BUSCH COMPANIES- AH BUSCH FDTN
ANN & ROBERT H. LURIE CHILDREN'S HOSPITAL OF CHICAGO
ASSN OF PUBLIC & LAND-GRANT UNIVERSITIES
ASSOCIATION OF UNIVERSITIES FOR RESEARCH IN
ASTRONOMY, INC.
ASSOCIATION UNIVERSITIES RESEARCH IN ASTRONOMY, INC.
BATTELLE MEMORIAL INSTITUTE
BAY AREA ENVIRONMENTAL RESEARCH INSTITUTE
BRITTON FUND INC
BURROUGHS WELLCOME FUND
CASEY, ANNIE E., FOUNDATION
CEDARS-SINAI MEDICAL CENTER
CLEAN REEFS
COMMONWEALTH OF NORTHERN MARIANAS ISLANDS-
COMMONWEALTH HEALTHCARE CORPORATION

CSU FULLERTON AUXILIARY SERVICE CORPORATION
DONALD DANFORTH PLANT SCIENCE CENTER
DUKE UNIVERSITY
FACE FOUNDATION
GOLD (ARNOLD P) FOUNDATION
HEISING-SIMONS FOUNDATION
HENRY M. JACKSON FOUNDATION FOR THE ADVANCEMENT
OF MILITARY MEDICINE
INSTITUTE INTERNATIONAL EDUCATION
INTERNATIONAL ALLIANCE FOR PHYTOBIOMES RESEARCH
INC
JOHNSON (ROBERT WOOD) FOUNDATION
KRELL INSTITUTE
MAINEHEALTH DBA MAINE MEDICAL CENTER RESEARCH
INSTITUTE
MD ANDERSON CANCER CENTER
MERCY CORPS
MOORE (GORDON & BETTY) FOUNDATION
MOTT (CHARLES STEWART) FOUNDATION
NATIONAL ACADEMIES
NATIONAL FISH & WILDLIFE FOUNDATION
NATIONAL FOUR-H COUNCIL (4-H)
NATIONAL MARINE SANCTUARY FOUNDATION
NATIONAL NETWORK OF LIBRARIES OF MEDICINE PACIFIC
SOUTHWEST REGION
NATURE CONSERVANCY, THE
OCEAN FOUNDATION
RESEARCH CORP FOR SCIENCE ADVANCEMENT
RESEARCH FOUNDATION STATE UNIV NY
SCHMIDT FAMILY FOUNDATION / SCHMIDT MARINE
TECHNOLOGY PARTNERS
SEATTLE INSTITUTE FOR BIOMEDICAL & CLINICAL RESEARCH
SETI INSTITUTE
SILICON VALLEY COMMUNITY FOUNDATION
SIMONS FOUNDATION
SLOAN, ALFRED P FOUNDATION
SOCIETY OF FAMILY PLANNING
ST. BALDRICK'S FOUNDATION
SUTTER BAY HOSPITALS
TMT INTERNATIONAL OBSERVATORY LLC
UNITED STATES VETERANS INITIATIVE
UNIVERSITIES SPACE RESEARCH ASSN
UNIVERSITY CORP ATMOSPHERIC RSCH
WESTERN STATES ART FEDERATION (WESTAF)

US COLLEGES AND UNIVERSITIES

ALASKA FAIRBANKS, UNIVERSITY OF
AMERICAN UNIVERSITY
APPALACHIAN STATE UNIVERSITY
ARIZONA STATE UNIVERSITY
ARIZONA, UNIVERSITY OF
ARKANSAS, UNIVERSITY OF
BAYLOR COLLEGE OF MEDICINE
BD OF REGENTS OF UNIVERSITY SYS OF GA-GEORGIA
INSTITUTE OF TECHNOLOGY
BROWN UNIVERSITY
CALIFORNIA BERKELEY, UNIVERSITY OF
CALIFORNIA DAVIS, UNIVERSITY OF
CALIFORNIA INST OF TECHNOLOGY
CALIFORNIA LOS ANGELES, UNIV
CALIFORNIA MERCED, UNIVERSITY OF
CALIFORNIA RIVERSIDE, UNIVERSITY OF
CALIFORNIA SAN DIEGO, UNIV
CALIFORNIA SAN DIEGO, UNIV-SCRIPPS INST OF OCEAN
CALIFORNIA SAN FRANCISCO, UNIV
CALIFORNIA SANTA CRUZ, UNIV
CALIFORNIA, UNIVERSITY OF-DIV OF AGRICULTURE &
NATURAL RESOURCES
COLORADO DENVER, UNIVERSITY OF
COLORADO STATE UNIVERSITY
CONNECTICUT, UNIVERSITY OF
CORNELL UNIVERSITY
EMORY UNIVERSITY
FLORIDA STATE UNIVERSITY
FLORIDA, UNIVERSITY OF CENTRAL
GEORGE MASON UNIVERSITY
GEORGE WASHINGTON UNIVERSITY
GEORGETOWN UNIVERSITY
HAWAII PACIFIC UNIVERSITY
ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI
INDIANA UNIVERSITY
JOHNS HOPKINS UNIVERSITY
KANSAS STATE UNIVERSITY
LANGUAGE LEARNING PGM-UNIV MICHIGAN
MARYLAND, UNIVERSITY OF
MASSACHUSETTS INSTITUTE OF TECHNOLOGY
MASSACHUSETTS, UNIVERSITY OF
MICHIGAN STATE UNIVERSITY
MICHIGAN, UNIVERSITY OF
MINNESOTA, UNIVERSITY OF
MISSOURI-ST. LOUIS, UNIVERSITY OF
MONTANA STATE UNIVERSITY
NEVADA LAS VEGAS, UNIVERSITY OF
NEW MEXICO, UNIVERSITY OF
NEW MEXICO, UNIVERSITY OF - HEALTH SCIENCES CENTER
NEW YORK UNIVERSITY
NORTHERN ARIZONA UNIVERSITY
NORTHWESTERN UNIVERSITY
NOTRE DAME, UNIVERSITY OF
OHIO STATE UNIVERSITY
OKLAHOMA, UNIVERSITY OF
OREGON STATE UNIVERSITY
PITTSBURGH, UNIVERSITY OF
PORTLAND STATE UNIVERSITY
PRINCETON UNIVERSITY
PURDUE UNIVERSITY
REGENTS OF THE UNIVERSITY OF MICHIGAN
RENSELAER POLYTECHNIC INSTITUTE
ROCHESTER, UNIVERSITY OF
RUTGERS, STATE UNIVERSITY OF NEW JERSEY
SOUTH CAROLINA, UNIVERSITY OF
SOUTHERN CALIFORNIA, UNIVERSITY OF
STANFORD UNIVERSITY
TEXAS, UNIVERSITY OF
THE ADMINISTRATORS OF THE TULANE EDUCATIONAL FUND
THE TRUSTEES OF COLUMBIA UNIVERSITY IN THE CITY OF
NEW YORK
UNIVERSITY AT BUFFALO
UNIVERSITY KANSAS CENTER RESEARCH, INC.
UNIVERSITY OF ARKANSAS FOR MEDICAL SCIENCES
UNIVERSITY OF CHICAGO
UNIVERSITY OF DELAWARE
UNIVERSITY OF IOWA
UNIVERSITY OF MASSACHUSETTS LOWELL
UNIVERSITY OF TEXAS ARLINGTON
UTAH, UNIVERSITY OF
WASHINGTON STATE UNIVERSITY
WASHINGTON UNIVERSITY (ST LOUIS, MO)
WASHINGTON, UNIVERSITY OF
WAYNE STATE UNIVERSITY
WISCONSIN-MADISON, UNIVERSITY OF

Strategic Directions: Update on Metrics

(Extramural Awards Targets vs. Actuals FY 14 – FY 20)

BOR Committee on Research & Innovation Meeting
August 6, 2020

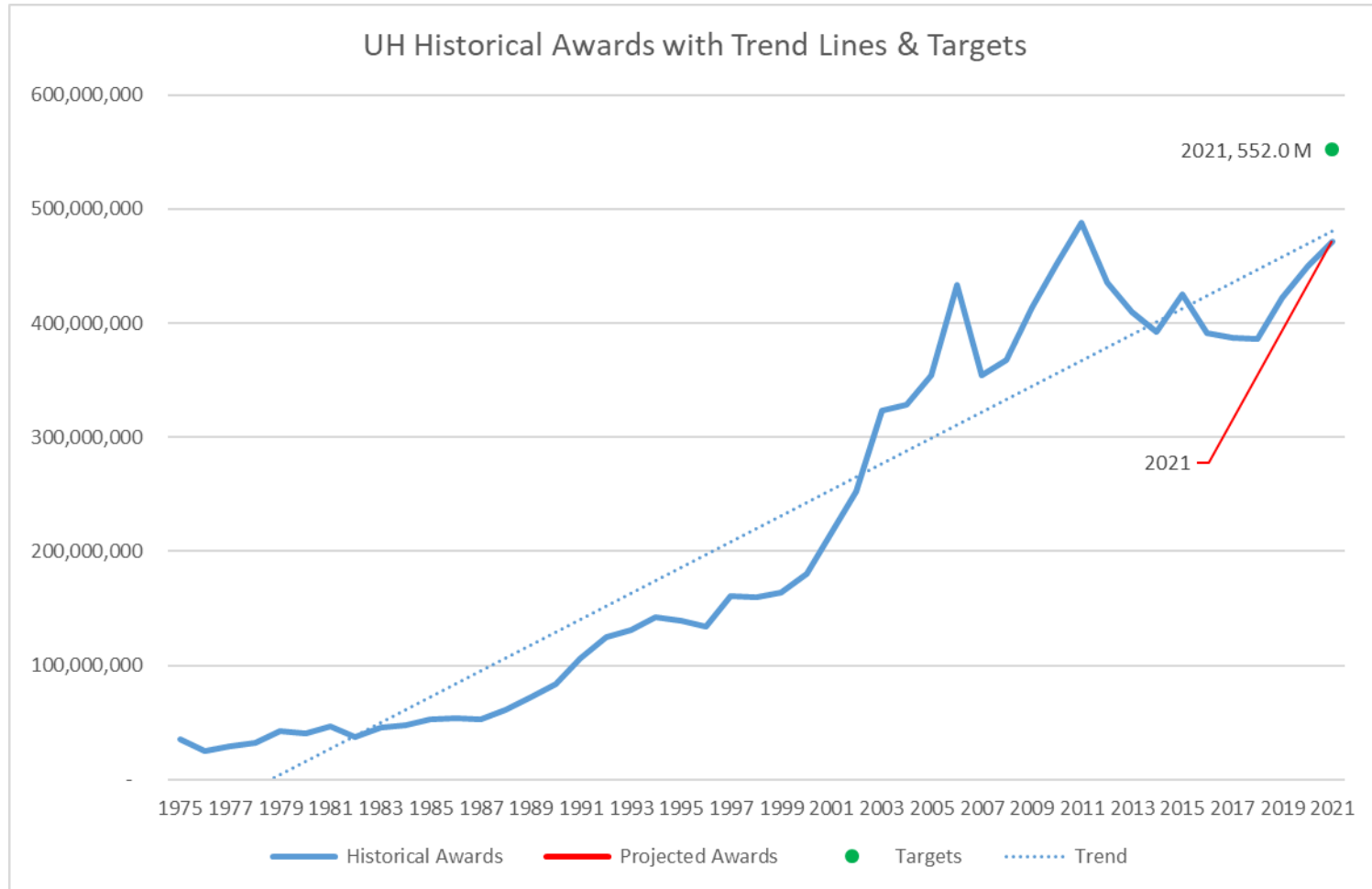


Strategic Directions Targets

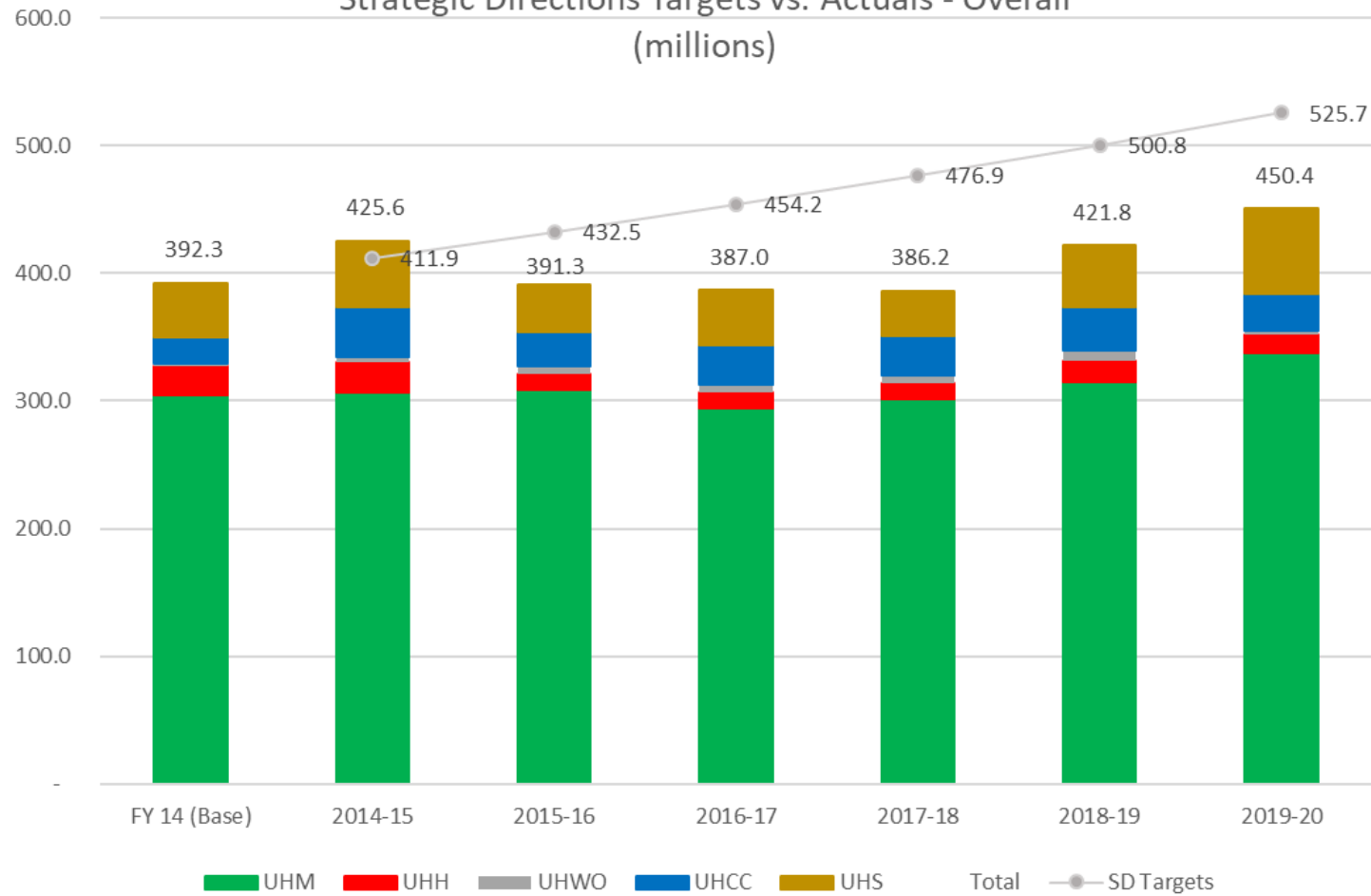
- FY 2014 base year
 - Most current data at time FY 15 – FY 21 projections were made
 - Projections are not influenced by temporary stimulus funding (ARRA awards ended prior to FY 14)
- Based on historical trends, a 5% growth rate per year was used to generate targets



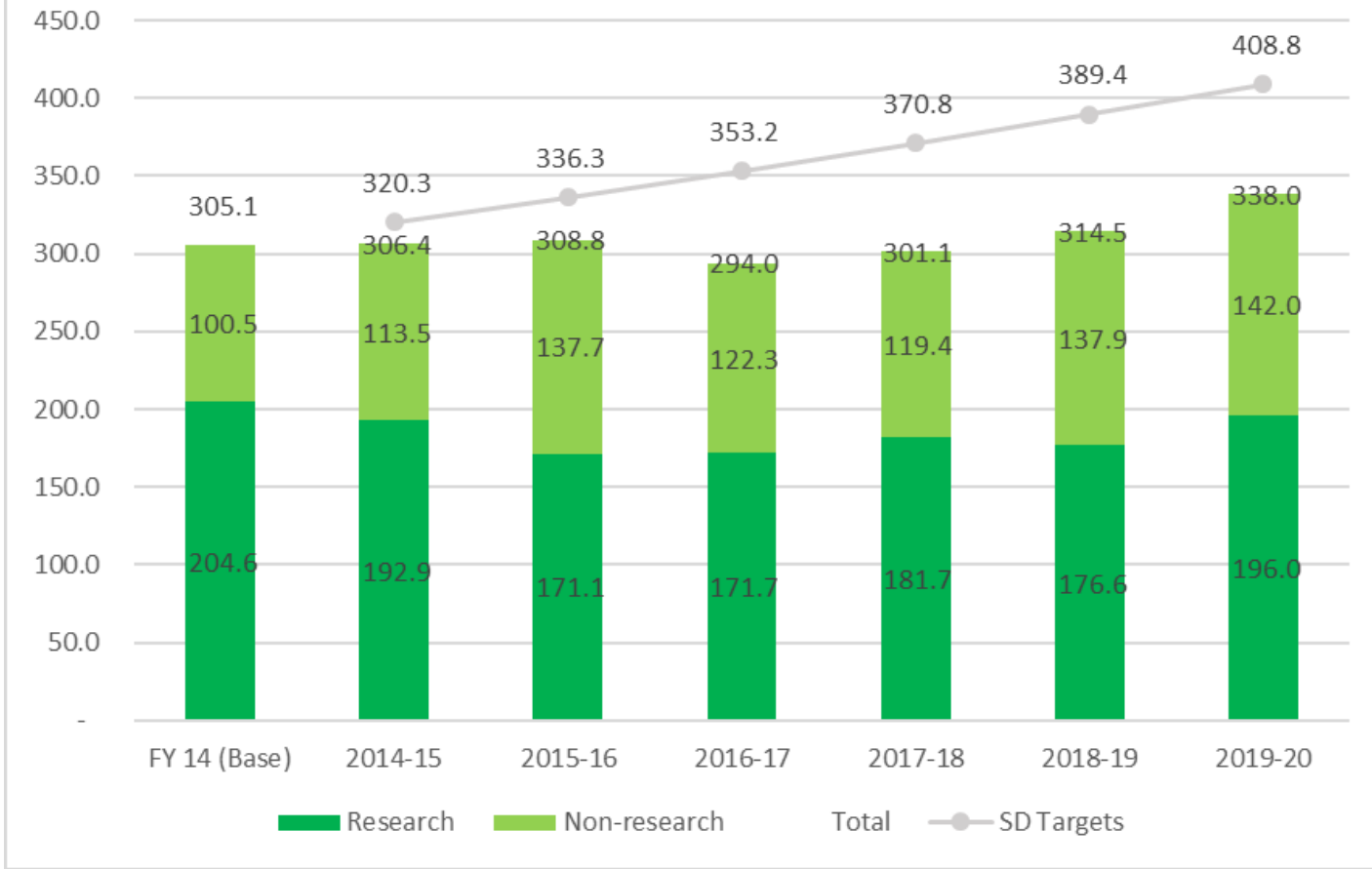
UH Historical Awards



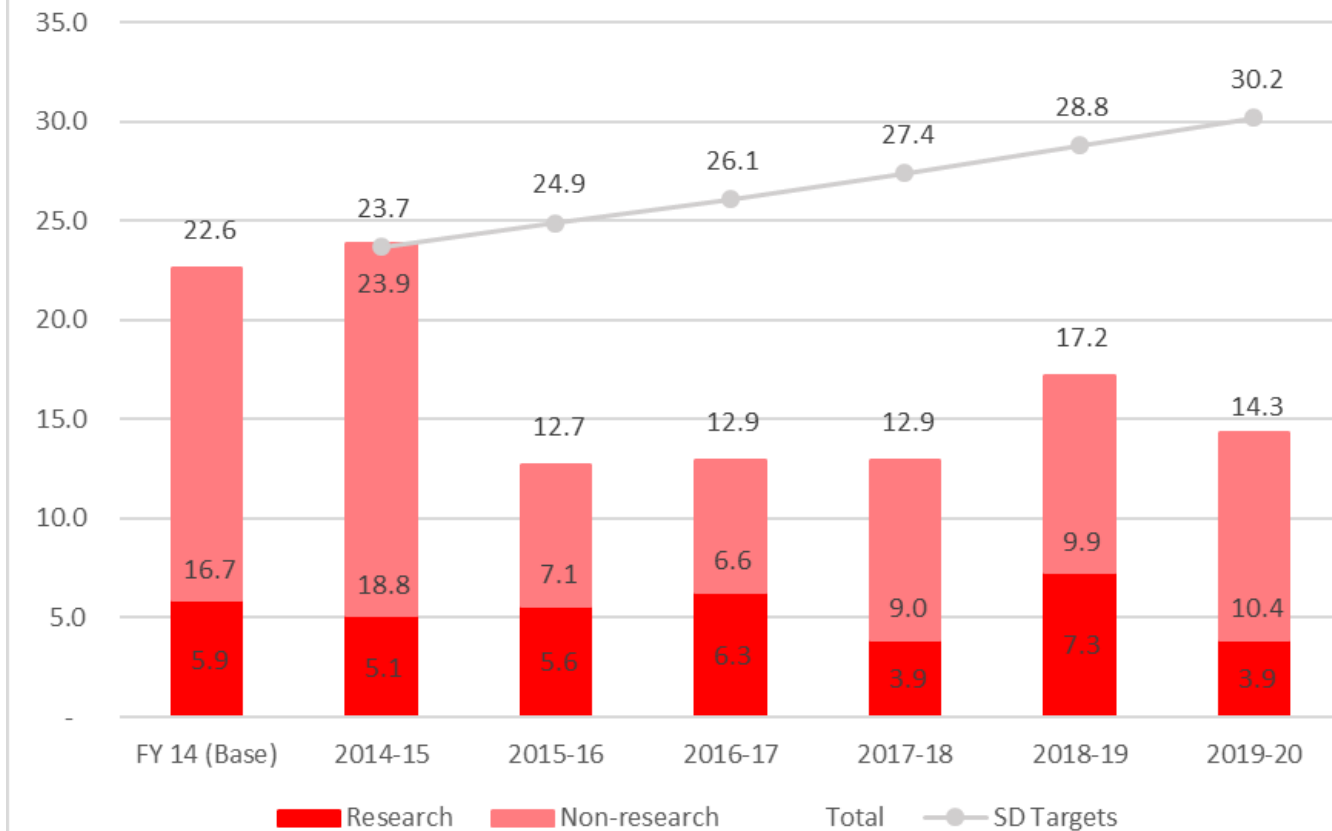
Extramural Awards Strategic Directions Targets vs. Actuals - Overall (millions)



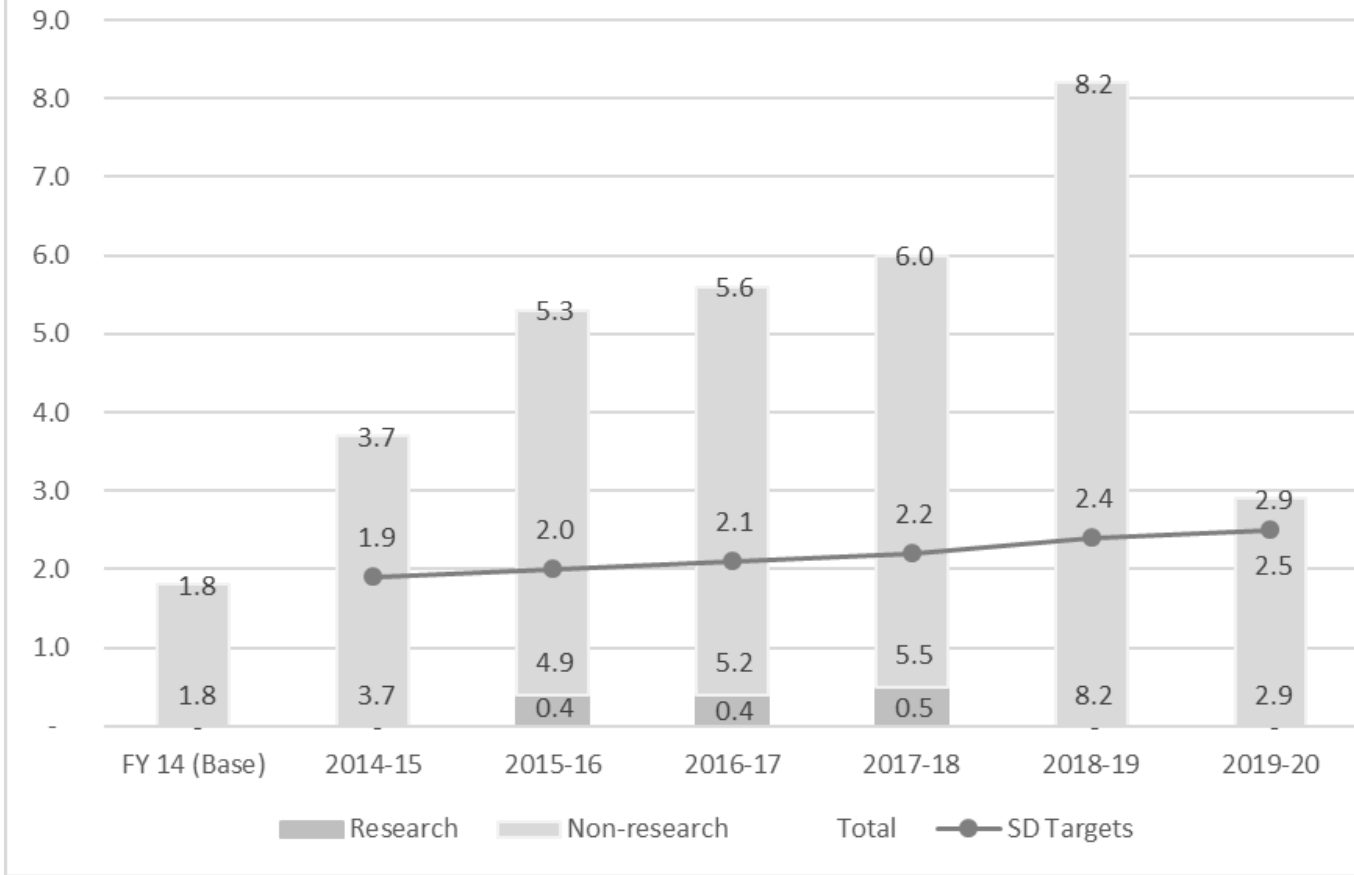
Extramural Awards Strategic Directions Targets vs. Actuals - UH Manoa (millions)



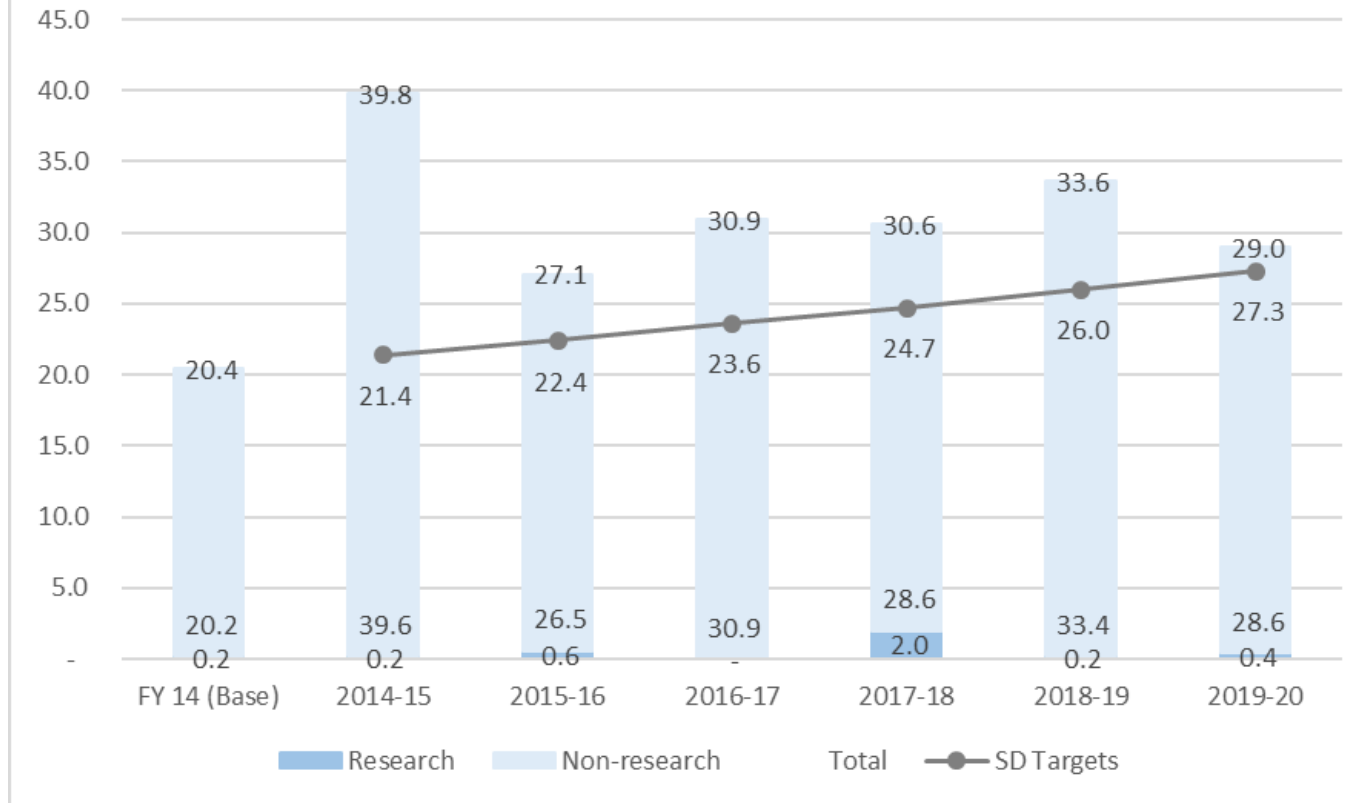
Extramural Awards Strategic Directions Targets vs. Actuals - UH Hilo (millions)



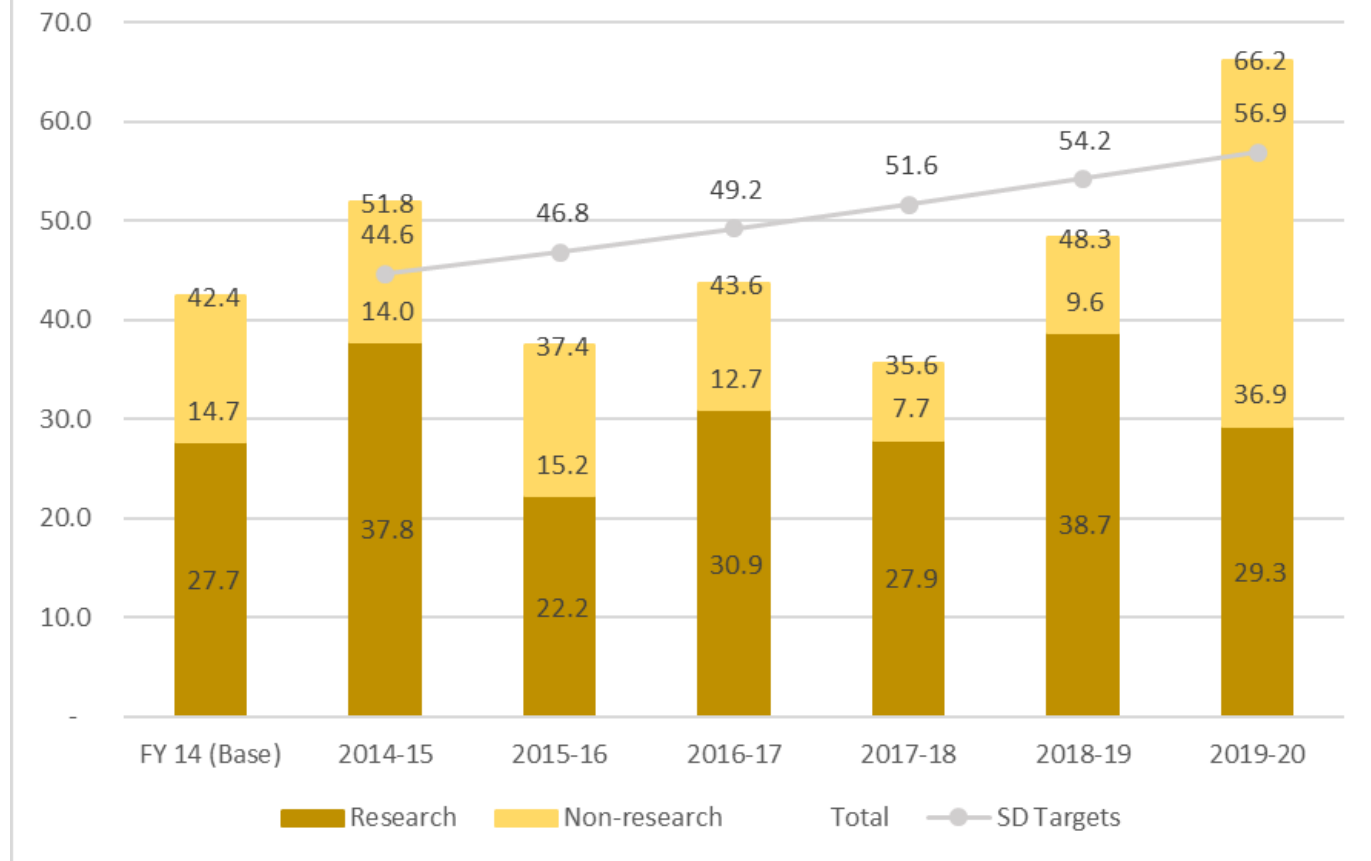
Extramural Awards Strategic Directions Targets vs. Actuals - UH West Oahu (millions)



Extramural Awards Strategic Directions Targets vs. Actuals - UH Community Colleges & UH Maui College (millions)



Extramural Awards Strategic Directions Targets vs. Actuals - UH System (millions)



Proposed FY 21 Target Changes

Target	Current	Proposed
Extramural awards	\$552.0 million	\$462.8 million
Invention disclosures	55	48
US patents	20	5
Licenses/options	13	10
Extramural expenditures	\$411.0 million	\$403.0 million
F&A recovery	\$49.0 million	\$52.0 million
Active licenses/options	144	144
Royalties	\$270,000	\$230,000
Start-ups/new companies	8	8



FY 21 Target Methodology

Target	Method
Extramural awards	Linear forecast based on actual awards from 2001-2020
Invention disclosures	Based on historical numbers from 2018-2020 and takes into account current situation (closed labs or not operating at full capacity)
US patents	Based on current status of applications
Licenses/options	Based on actual licenses/options from 2018-2020 and current status of negotiations
Extramural expenditures	Linear forecast based on actual expenditures from 2018-2020
F&A recovery	Linear forecast based on actual F&A recovery from 2018-2020
Active licenses/options	Based on current licenses and termination dates as well as current status of negotiations of new licenses/options
Royalties	Based on current active license terms and actual royalties received in last five fiscal years
Start-ups/new companies	Based on actual efforts in last two fiscal years

