

THE FEDERAL LANDSCAPE:

WHAT'S AHEAD FOR RESEARCH & TRAINING?

OCTOBER 6, 2017

UH MĀNOA IT CENTER

FORUM REPORT

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The information presented was appropriate for a high-level briefing to stakeholders within the University. This will spark an important conversation among PIs and future PIs to get involved and support the University's research enterprise.



- UH Mānoa attendee

The 2017 RCUH forum was held at the UH-Mānoa IT Center Conference Room and broadcast to all other UH campuses as well as the UH Cancer Center and the UH Institute for Astronomy's Hilo, Maui, and Mānoa sites. A total of 283 people registered for the forum.

RCUH Executive Director Sylvia Yuen welcomed attendees and thanked forum co-sponsors, the University of Hawai'i, and the University of Hawai'i Association of Research Investigators. David Duffy introduced the panel moderator, UH President and Interim Mānoa Chancellor David Lassner, and the three panelists:

- **Jennifer Poulakidas**, vice president for congressional and governmental affairs, Association of Public and Land-grant Universities (APLU)
- **Anthony DeCrappeo**, president of the Council on Governmental Relations (COGR)
- **Jennifer Sabas**, president of Kaimana Hila and consultant to the UH

JENNIFER POULAKIDAS

APLU was established in 1887 and is the oldest higher education association. Its 230-plus members include all land-grant institutions as well as other major public research universities, so APLU has a presence in every state and outreach to a broad group of legislators.

There is presently a great deal of unpredictability in the federal landscape and Executive Branch; what is consistent is Congress. We're in month 10 of this administration, but there is still no

science advisor to the president, and across federal agencies many key positions have not been filled. FY 18 has begun, but there is no FY 18 budget. Congress has to act on an appropriations bill by the beginning of December. If this does not happen, another continuing resolution (CR) is needed, which means operating at the same funding level as in the past year. There was a slight reduction for all agencies in FY 18 funding compared to FY 17. Until the FY 18 budget is finalized, there is much up in the air, and agencies are being conservative and holding back funding because they don't know what their final numbers will be.

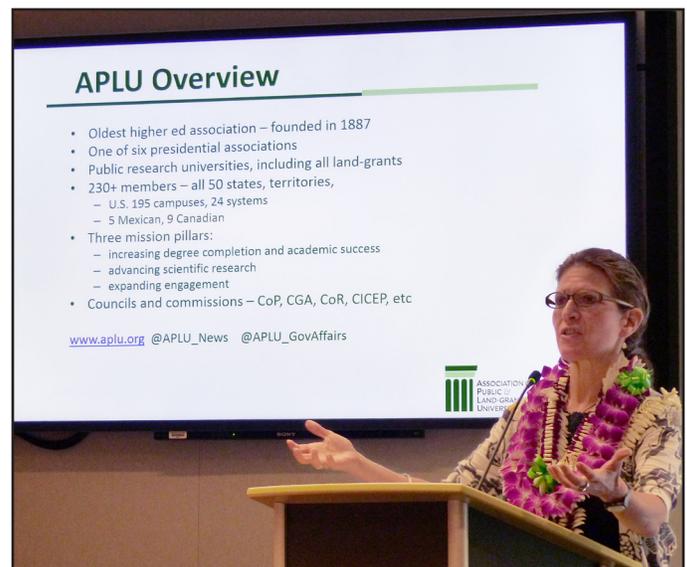
Funding for university research comes overwhelmingly from federal support, and these funds are at a stagnant place right now. Some state and local funding is available, but this, too, has diminished significantly for public institutions over the past decades. However, the support that our own universities, as well as industry, have put into research has increased. There was also a temporary increase in 2009–11 because of stimulus funds provided to get the economy moving, but those have ended.

The FY 17 federal budget chart indicates that a huge part of the pie, about 70%, consists of non-discretionary, mandatory programs like Medicare and Medicaid. Research funds come from the remaining 30%, which is comprised of defense discretionary and non-defense discretionary programs. The discretionary part of the budget, which continues to shrink as the mandatory part grows, is where Congress tends to focus on cuts and deals to move a new budget forward.

Congress passed the Budget Control Act (BCA) in 2011, which has impacted appropriations going forward. It was enacted because when Congress needed to increase the debt ceiling, it had to borrow more money to keep the government functioning. Some members of Congress didn't want to borrow more money and insisted on concomitant cuts in spending. In order to borrow more funds and keep the government running, Congress agreed to institute funding caps and to cut the budget by about a trillion dollars over ten years. Congress also committed to cut another trillion dollars or find ways to increase revenues. A "super committee" was formed, composed of House and Senate members, Democrats and Republicans, working together to identify where the trillion dollars would come from. However, the committee was not "super" enough to come up with an acceptable plan, which, under the BCA, triggered a new round of cuts, commonly referred to as "sequestration."

In Year 1 (FY 12), the discretionary budget for federal spending went down by approximately two billion dollars. With slow growth, the cuts were brutal and not palatable. To lessen the pain in subsequent years, Congress and the White House agreed to discrete budget deals to moderately increase the discretionary caps from the BCA sequestration levels, on both the defense and non-defense side. Without another budget deal for FY 18, the caps would drop to sequestration levels again for FY 18.

How do the president's budget request and Congress's actions relate to the above? The president's budget completely ignores what the actual law says. It *increases* defense discretionary spending a great deal and *decreases* non-defense discretionary spending by a commensurate amount. What is hopeful is that many influential members of Congress are not adhering to the president's budget. There is a saying in DC: *The president proposes and Congress disposes*. The president may set his vision, but Congress has



Jennifer Poulakidas works to promote public higher education's positions to Congress and the Executive Branch on science and research, student affordability and access, innovation and competitiveness, among other issues important to major public universities. She previously served as legislative director for science at the University of California's Washington, D.C. office.

the ultimate say as to what will be spent in the discretionary budget in the next fiscal year.

The president has proposed significant cuts in FY 18 to USDA (US Department of Agriculture), NIH (National Institutes of Health), NSF (National Science Foundation), NOAA (National Oceanographic and Atmospheric Administration), DOD (Department of Defense), as well as elimination of the Advanced Research Projects Agency-Energy (ARPA-E) and the National Endowment for Humanities (NEH). In most cases, Congress has acted differently. For example, the House gave USDA an increase (the Senate gave a bit of a cut); both House and Senate cut NSF, but not as much as the president; and the House increased NIH by over a billion dollars and the Senate by two billion dollars compared to the president's budget. However, there are places where the House majority and president would like to see cuts: alternative energy and climate science. The House and Senate budgets do not comply with the BCA, and both chambers need

a budget deal to have their priorities expressed and for funding to go beyond the baseline.



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- Jennifer Poulakidas

Not only does Congress have to work through the funding levels of the FY 18 budget, but it also has a number of other issues to deal with in the appropriations bills and in other proposals:

- F&A (Facilities and Administrative) cap: some would like to cap the indirect costs on research grants.
- NIH (National Institutes of Health) salary cap: there is interest in decreasing the cap by \$30,000, but it appears the cap may remain.
- Fetal tissue research: House would ban new fetal tissue research; Senate is requesting a study to determine if this research is necessary.
- ARPA-E: will the agency be eliminated, or will its budget increase or remain stable?
- Climate science: funds will likely be cut.
- NEH and NEA (National Endowment for the Arts): the House has a small increase for these agencies.
- DACA (Deferred Action for Childhood Arrivals): the president has stated that if Congress does not resolve this issue by March 3, the program will end completely. Congress has been dealing with this issue for 16 years with no resolution.
- HEA (Higher Education Act): the reauthorization deadline has been met; it is not likely to move in the near future.

Congress must also deal with other issues not uniquely related to the university community, such as the debt ceiling, disaster aid, healthcare reform, tax reform, regulatory reform, infrastructure, and reauthorizations with significant impacts:

children's health insurance, flood insurance, and FAA (all deadlines have passed, but Congress gave themselves extensions).

TONY DECRAPPEO

COGR, the Council on Governmental Relations, is half the age of APLU. It was established in 1948 when Congress and



the Administration decided they wanted to fund science, primarily defense-related science, because of the success of World War II. COGR focuses on research, so its portfolio includes the rules, regulations, and policies that impact the conduct of research, including research compliance, patents and intellectual property, and other issues. COGR has started to engage more with foundations that give gifts for research to scientists at universities. Larger foundations are funding specific projects in terms of how federal funds are provided. COGR has a small staff of six and convenes four committees. VPs of Research, associate VPs, directors of sponsored research, chief finance officers, and others are members of our committees, and we draw on their expertise when new rules are proposed or revised to learn how they will impact institutions. COGR also maintains relationships with federal offices, like OMB (Office of Management and Budget) and OSTP (Office of Science and Technology Policy), and with our higher education association partners, of which there are at least 44. Because COGR has the expertise, we respond when Congress proposes technical changes to rules and regulations.

The president's budget proposed a \$6–7 billion cut to NIH, which was to come from reducing the payment of facilities and administrative (F&A)

costs to 10%. In Hawai'i, that rate is 45–50%, but the national average is 54%. The impact would have been disastrous because that type of reduction would mean shutting down certain laboratories and programs. Independent research organizations like Fred Hutchinson and others would have to close because their source of funds is all federal. COGR worked to convince Congress that F&A are real costs and that cutting-edge scientific research is not possible without full reimbursement of those costs. The current established rates were retained, and COGR also managed to have language inserted in the continuing resolution to state the same thing. We have been closely monitoring the situation and will work on similar language if another CR is proposed.

As Jennifer mentioned, there are many positions in federal agencies that are still unfilled. There have been attempts to meet with administration officials, but meetings were cancelled at the last minute as the officials did not want to talk about the budget. We're not sure who developed the administration's budget. It wasn't the OMB Controller, as that is one of the unfilled positions.

There are two laws that govern how an agency can spend money: (a) the Anti-deficiency Act, which stipulates that an agency can't spend money it doesn't have; it has to have appropriated and obligated funds before it can spend; and (b) the Impoundment Act, which directs agencies to spend funds along the lines Congress has appropriated. Agencies are thus caught between these two laws: they can't spend too much, but they have to spend what's appropriated. New programs and initiatives make it very challenging. NIH will fund projects 90% so when the appropriation is received, it can release the rest of the money. Generally, this has a bad effect on the research enterprise. NSF and others struggle to initiate new programs that everyone wants, but the agency has to walk a fine line between the two Acts.



Tony DeCrappeo has been with COGR since 1995, serving as Director for Research Compliance and Administration, Costing Policies; Vice President; and since 2005, as President. He works closely with senior federal agency officials that fund research on all matters related to policy, regulations, guidance, and audit findings that impact research, including the Directors and Deputy Directors of the NIH and NSF, and staff of the White House Offices of Management and Budget and Science and Technology Policy.

The administration justified the cut in F&A payment cost to grants from foundations that pay 10% F&A or do not pay at all, saying, "If you do it for the Gates or other foundations, you can do it for NIH." However, the two use different models. Foundations will directly pay for things (e.g., rent for facilities) that are charged indirectly by universities. In the past, foundations operated independently, but they are now connecting with COGR to discuss cost, intellectual property, regulations regarding human subjects, and other issues to simplify policies and regulations.

The newest COGR committee focuses on research regulatory reform. Although every administration has an initiative to reduce regulations, and there have been some successes, over time the successes have slipped away. The Department of Defense has 38 components that can provide research funds, each with its own set of rules and regulations. If you are receiving funds from 26–30 different agencies, they will all have

different payment systems, rules regarding animal welfare, and so on, so it becomes an infrastructure nightmare. That's why I advise institutions that want to grow their research enterprise that this is not a moneymaking opportunity. Universities typically have



Universities typically have to provide 30 cents of their own money for every dollar of research funding. The federal government's share has shrunk to about 55% of total spending by universities; it used to be closer to 70%.

- Tony DeCrappeo



receiving feedback too soon—then publishes it in the Federal Register for comments, then makes changes or not before the rule becomes final. OMB ostensibly has jurisdiction over the process, but it is a White House office which changes with the

administration and follows each administration's agenda. Agencies are bureaucracies that have their own agendas and the authority to manage funds that Congress appropriates to them. So while OMB may attempt to dictate what they do, agencies have the authority to provide the stewardship over the funds appropriated to them and can essentially ignore the OMB. That is what happens unless there is overwhelming feedback on an issue.

For example, the federal government revised the common rule regarding human subjects, which involved 18 agencies. One aspect of the rule that was proposed would have required the treatment of bio-specimens as human subjects. This caused tremendous outcry because of the burden and costs involved and the significant impact on research. In the end, changes were made so bio-specimens would not be treated as human subjects.

A few reform bills were passed under the previous administration, including the formation of a Research Policy Board (RPB)—an overarching government-wide board to be comprised of association stakeholders and the scientific community that would have early access to regulations and policies proposed by an agency so what eventually gets proposed has some relation to the real world and won't take a lot of tinkering to reach the final rule stage. The law required the Research Policy Board to be established in a year. We heard from OMB in October that it was close to being formed. We'll see what happens and who the members of the board will be.

There are other regulatory reform provisions in the works, but they will be challenging to implement since there are still over 500 presidential appointments that need to be made, all still to be nominated and then confirmed by the Senate. Finding people for these positions is also a challenge.

Currently, an agency works on the revision—generally by itself, and it is cautious about

JENNIFER SABAS

What does the federal landscape mean for us, particularly the UH? I had the good fortune of working for Senator Inouye for over 25 years, both in Washington and Honolulu. The mid-1980s—when President Reagan was in the White House and the Republicans were in control—was an era of block grants, a way to take large amounts of federal dollars, reduce them, and put them in block grants to states, giving states more discretion in spending the funds. Block grants and trickle-down economics were the buzzwords of the time. Senator Inouye had two favorite sayings, especially when there was a lot of despair: “This too shall pass, because it always does” and “There is more than one way to skin a cat.” The translation: things are cyclical, and at times like this, we need to be creative and we need to be efficient.

Let’s start with some facts and figures that were pulled from the UH 2017 Annual Report, Data on Extramural Awards from 2006–17. The year 2017 ended with \$387 million in extramural grants—pretty flat. But things fluctuate over time, with low points, such as the recession years, and high points, such as 2009–11 when there were funds from the Obama stimulus package.

Federal awards to UH in 2017 were more than \$250 million, higher than the previous year, while non-federal awards were lower. A significant portion of the federal awards are funds that go to the State in the areas of social services, education, health, and human services that are contracted to the University for research and training.

Over the three-year period 2015–2017, most of the federal awards to UH were from HHS (Health and Human Services), DOD (Department of Defense), DOE (Department of Energy), NSF (National Science Foundation), NASA (National Aeronautical and Space Administration), and NOAA (National Oceanic and Atmospheric Administration), with the remaining 25% from all other federal agencies combined. I



Jennifer Sabas works to enhance UH's federal research portfolio in oceanography, astronomy, and renewable energy, and to seek new research opportunities. She consults with executive branch departments and agencies, congressional members, and committee staff to advance the University's research, development and training. Sabas previously served as Chief of Staff for the late U.S. Senator Daniel K. Inouye for 20 years.

suggest you keep your eye on the aforementioned six federal agencies as sources for future funding.

Although there have been ups and downs in funding, NOAA, NSF, and NASA have been pretty steady funders. Congress is not necessarily accepting what the White House proposes. Note that the White House budget was down about a billion dollars each for NOAA and NSF. House appropriators have never liked NOAA, so back in the days when I was on the Hill, the Senate always carried NOAA's water (no pun intended). NSF has also held steady, notwithstanding the fact that a lot of the climate research comes out of NSF. NASA is a priority with this White House. Its budget was not reduced as much as it could have been reduced. In fact, a mission to Mars is on the vice president's plate, so we may see a steady or slight increase for NASA.

Note the “b” for billions of dollars in the Department of Defense and note that this is only for research, development, testing, and evaluation

(RDT&E). It does not include medical research for DARPA (Defense Advanced Research Projects Agency) or anything regarding the intelligence community, or DOD labs. There will continue to be increases in defense spending.

As stated above, a significant portion of the federal government's funds goes to the states. The UH plays a very important role in assisting the State of Hawai'i via contracts and grants with data analyses, collection, and research. Here's some sobering data regarding social services: Hawai'i

currently receives about \$400 million in federal funds for SNAP, the Supplemental Nutrition Assistance Program, also known as food stamps. There is

a proposal to require a 25% match, which means the State would have to come up with \$100 million for the program. Some statistics that are pretty scary for our community: 1 in 8 residents relied on food stamps in 2016; 3,100 of the recipients are educators and 5,300 are health care workers; many military personnel also receive SNAP. Moreover, Hawai'i receives \$4 billion for Medicaid, children's health insurance and financial assistance for health insurance coverage. About 300,000 of our residents rely on Medicaid.

With the Senate's failure to replace and repeal the ACA (Affordable Care Act), the big savings Senators hoped to garner and put into tax reform did not materialize. This clearly affects the Senate's ability to deliver on tax reform. The House passed a resolution today which contained some pretty draconian tax reform measures, which they knew the Senate would not accept. As a community, we need to watch this closely, not only because of the research dollars, but because of the seriousness of the impact to Hawai'i.

Where do we go from here? How do we thrive and how do we survive? A good place for the University research community to start is to look at the five areas of excellence that are identified in the 10-year long-term plan on research and innovation: ocean and climate science, astronomy, health and wellness, digital economy and civil infrastructure security, sustainable ecosystems and energy. And, of course, all these are wrapping up with innovation ecosystem training to prepare our workforce for the jobs ahead. I would like to suggest that we focus on the areas of excellence,

overlay them, and work away. For better or worse, we are going to have to be mindful and track those areas of priority for the sitting administration as well as for

our congressional leaders. As we mentioned, one area that's likely to increase is defense. Defense funding includes a significant amount for medical research, energy, cyber, data analytics, visualization, unmanned systems, and even sea-level rise, which the Office of Naval Research funds. Why? Because the Navy needs to know where their submarines are going.

So this goes back to the senator's advice that there are different ways to skin the cat. We need to be creative; we need to open some of those budget minds; we need to look for opportunities. It's going to be a little harder; it's going to take a little longer, but resource opportunities are there. We just need to be focused and creative. We definitely should continue our work and focus with NASA. This administration is interested, as I think they would like to claim the Mission to Mars as their legacy. We have expertise in so many areas. Consider the NSF. While there will not be funds in the environmental areas, there are definitely more funds in other areas, like cyber—cyber education,



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- Jennifer Sabas





Pictured from left to right: RCUH Executive Director Dr. Sylvia Yuen, APLU Vice President for Congressional & Governmental Affairs Jennifer Poulakidas, COGR President Anthony DeCrappeo, Kaimana Hila President & UH Consultant Jennifer Sabas, RCUH Board Member & UHARI President David Duffy.

cyber internships, and so on. We are already on it; we just need to stay focused on whatever other initiatives where there are funds. NSF also funds astronomy, and if we are fortunate to get our telescope going up there, NSF is a good place for some of the TMT operating dollars. In addition, at the end of the Obama administration, VP Biden pushed and helped to secure the enactment of Moonshot. The commitment that Congress made to VP Biden because of his son continues to be one of the emotional reasons that the budget for cancer has seen not a decrease but an increase. We have many areas of excellence with regard to cancer research in Hawai'i.

We also have significant excellence in the area of infectious disease research. Our expertise is needed every time there is an outbreak in our nation or within our region, especially for diseases in the tropics. Look to the NIH, CDC (Centers for Disease Control), and the DOD. Why the DOD? Because when it sends soldiers to Vietnam or many other areas,

the DOD is responsible for them. Vaccines and a whole host of areas where our medical school has expertise are what we need to be focused on.

One final recommendation: we should also boldly focus on interdisciplinary teams. Let's bring different experts within UH and other universities together and go after those grants. Reach out to external partners of like mind with additional academic chops, as well as those with political chops. Mississippi comes to mind—the home of the sitting chairman of the Senate Appropriations Committee. There's also Alabama—the home of the sitting Commerce Appropriations Director. The vice president is taking on more responsibilities, so we should definitely be talking to Alabama.

We have so much to be proud of: we have some awesome researchers and areas of excellence. We need to be creative, we need to be bold, and we need to fall back on the other thing the Senator said, the truism that this, too, shall pass.



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