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MEMORANDUM

To: Sara Ratliff (submitted to sara.ratliff@mail.house.gov)

From: James D. Luther

Date: June 30, 2017

Subject: Transcript edits and responses to additional questions for the May 24, 2017 hearing titled, "Examining the Overhead Cost of Research" – James Luther

Reference: YORK STENOGRAPHIC SERVICES, INC., RPTS BROWN, HSY144.150

In response to the memo from Representatives Comstock and LaHood dated June 9, 2017, attached are adjustments to the verbatim transcripts and my responses to the additional questions.

Please contact me with any questions.

Copy: Michael Schoenfeld, Vice President, Public Affairs and Government Relations, Duke University
Chris Simmons, Associate Vice President, Office of Government Relations, Duke University
Melissa Vetterkind, Director, Office of Government Relations, Duke University
Tim Walsh, Vice President of Finance and Treasurer, Duke University
Tony DeCrappeo, President of the Council on Governmental Relations (COGR)

**Transcript edits For the May 24, 2017 hearing titled,
"Examining the Overhead Cost of Research" – James Luther**

Changes to

1 YORK STENOGRAPHIC SERVICES, INC.
2 RPTS BROWN
3 HSY144.150

<u>Line</u>	<u>Change</u>
769	Change "\$17.6" to "16.7 billion"
909	change "endorsements" to "endowments"
914	change "endorsements" to "endowments"
937	change "endorsements" to "endowments"
938	change "endorsements" to "endowments"
939	change "endorsements" to "endowments"
940	change "endorsements" to "endowments"
961	delete ", we see—again"
962	change "slow" to "low"
968	add quotes to the word "cost"; line should be: "Foundation. But the way we "cost" is vastly different from a"
976	change "on" to "to"
995	change "endorsements" to "endowments"
1002	change "endorsements" to "endowments"
1084	change line to "Mr. LUTHER. That's a great question. At Duke, we contribute"
1101	change "So" to "But"
1110	delete "is in the"
1116	change "that to do that" to "that to support that"
1121	line should be: "it's not the marble when you walk in the lobby. It is"
1285	change "endorsements" to "endowments"
1410	change "20 years" to "27 years"
1421	line should be: "to purchase equipment, to do things differently--to build buildings, to"
1426	add a comma after the word "supports"
1442	delete "it's"

HOUSE COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY

"Examining the Overhead Cost of Research"

Mr. James Luther, Associate Vice President of Finance & Compliance Officer, Duke University,
Chairman of the Board, Council on Government Relations

Questions submitted by Chairman Lamar Smith, House Committee on Science, Space, and Technology

- 1. The official position of the research university community is that current indirect cost allowances fall far short of reimbursing universities for the full costs of hosting federally-funded research. Nevertheless, the total number of university-based grant applications to the National Science Foundation and other science agencies continues to increase. Furthermore, many universities are prepared to spend even more money in order to recruit high-profile research scientists and build research facilities for the express purpose of attracting more federal research funding. Surely the underlying rationale for these seemingly contradictory circumstances isn't that research universities hope to make up their losses on federal research projects by increasing the volume of such research. Can you please explain?**

You are correct that universities cannot make up losses on individual grants by receiving more grants. Universities are very clear that we are subsidizing research, according to federal data, 24% of academic R&D - about a third of which is attributable to unreimbursed indirect costs. But as discussed, the universities' objective with sponsored funding is to advance scholarship, national security, health and prosperity – it is not designed to be a net revenue generator. This occurs through the execution of individual grants but also through the synergy between academic instruction and the research mission. Universities are uniquely successful at simultaneously accomplishing grants aims while training the world's future scientific workforce. Just two weeks ago, an article was published about the discovery of a biochemical signaling process that causes the spread of cancer cells. The genesis for this occurred seven years earlier when a university sophomore student raised an idea while spending time in her mentor's lab. As 90% of cancer deaths are related to cancer that metastasizes, this could lead to profoundly positive health outcomes.

An increase in the total number of university-based grant applications relates to the size of the scientific workforce and the ability of academic scientists to conduct the research they were trained to do. There is a healthy pipeline of scientists, and as the grant environment becomes more competitive, with at times flat or reduced funding, more and more faculty compete for a fixed number of awards in order to continue to support their research and the students and fellows they support; outsized efforts to recruit high-profile researchers is the exception, not the rule.

Questions submitted by Ranking Member Daniel Lipinski, House Committee on Science, Space, and Technology

- 1. Critics of U.S. universities' indirect cost rates for federally funded research point to lower indirect costs rates in some countries as well as lower indirect cost rates for philanthropic funding to universities, as you started to address in your testimony. How useful do you believe these comparisons to be? What level of detail would you need to know about each country and each philanthropist's funding models to make meaningful comparisons?**

Similar to how foundation budgets are developed and rates are applied, international funding for indirect costs are often not an apples-to-apples comparison. At Duke University, we have various relationships with research conducted around the world and many of these entities have completely different “costing” models -- they often apply F&A to all costs expended on the grant (as opposed to select costs in the U.S.), fund many items directly that the federal government would not fund, and often times the buildings are owned or directly funded by the foreign government. We certainly could learn from these other models and a GAO or NAS study in this area could be fruitful. But it should be noted that although not always fully transparent due to its inherent complexity, our current process ensures proper incentives are aligned with the institution’s mission and federal objectives while ensuring that federal sponsors only pay for the costs, both direct and F&A, that directly relate to the specific sponsored research being funded.

- 2. It is helpful to us as policy makers to understand the total costs of research, and the respective shares paid by the Federal government, institutions, and other partners. Right now we have a situation in which the negotiated indirect cost rate reflects - or at least should reflect - the true facilities and administrative costs to institutions. But the way the rate is applied to different cost bases is complicated and rarely explained well to policy makers, leading to confusion about who is or should be paying for what.**

- a. What role should universities play in helping policymakers better understand the amount they are contributing to the nation's research enterprise? How important is it for universities to be forthcoming about the level of institutional support for research and the potential impact of further restrictions on overhead cost reimbursement?**

As full and committed partners, I think it is critical that we improve transparency both in institutional costing practices and levels of university contributed & cost-shared funding. There have been a number of studies that have demonstrated that university funding for research is the stream that is growing at the fastest rate and that universities are covering an expanding portion of the regulatory and compliance burden; this is demonstrated by the number of universities that are farther and farther over the 26% administrative cap implemented in 1991. The number of regulations and policies for which universities must comply in order to receive federal funds has dramatically increased since that time. But this trend in increased university support, including unreimbursed indirect costs, is not sustainable in the current financial environment for any institution, but particularly for public universities and private research institutes such as cancer centers with few other funding streams. Improving transparency will clarify the university’s commitment to the partnership and also shed light on the unsustainability of a model that continues to push more and more cost and burden to universities.

b. Do you have any recommendations for how to make the system more transparent?

We have been greatly encouraged by recent federal opportunities for open dialog. The Research Policy Board might take on this initiative as one of their first agenda items. Certainly an open forum that is jointly sponsored by Congress and the research community focused not on the basic F&A question, but more on the essence of the uniquely American research engine that has proven so successful might be in order. The GAO could be called upon to release an analysis that includes both the current models and potentially cost effective models that would be of benefit to both parties in support of this open forum.

I believe it is critical that we not lose sight of the common goal in this debate. The past several decades have seen the growth and huge success to be realized in this unique partnership. I am not convinced that the community has done an adequate job in making sure that Congress, the American public, and our related allies – foundations, international partners, etc. – are aware of how effective this partnership has been and should continue to be. In light of recent discussions, this is critical.

One other option that has been suggested would be to direct charge everything. While direct charging many of the costs, as many foundations and other entities do, might be more transparent, it would also be a much more labor intensive process for both universities and federal agencies given the volume of federal grants versus that for other entities.

3. The Council on Governmental Relations tracks the increase in regulations since 1991, when the 26 percent cap on the administrative portion of indirect costs was imposed. With the increasing regulatory burden, do you think universities can get their costs back down to within the 26 percent cap through greater efficiency alone?

One could argue that instituting a cap 26 years ago that was not indexed to inflation or any other metric, in an environment that, by its nature, will increase in complexity and cost is not realistic. There are new areas of compliance and oversight that were not fully comprehended decades ago.

To this end, it should be noted that federal reimbursement of administrative costs have not increased anywhere near the rate of the increases in federal compliance costs. The rates of reimbursement have been relatively steady. An evaluation of opportunities to reduce both administrative and compliance burden would be helpful, and in fact there are a number of recent reports and recommendations for reducing federal compliance burden but it is not likely, at this point, with many major universities 5-6 percentage points over that cap, that they can be reduced to such a degree that F&A rates could materially be reduced. It is nonetheless still critical that regulatory burden reduction occur as the current level and growth in federal compliance burden is unsustainable. Reforming federal compliance requirements would allow more institutional funds to be redirected to other programmatic missions. Further, burden reduction will allow individual faculty to focus more on their research and less on administrative responsibilities leading to true efficiencies in the use of federal funds.

4. What are the funding options available to universities to recoup unrecovered facilities and administrative costs? Given the decline in support from state appropriations, do private or public universities have more capacity to absorb under-recovery of indirect costs and what are the potential long term implications of this?

The short answer is no. As state appropriations to public institutions have been significantly reduced, tuition increases and other revenue sources have been limited, and most universities

don't have endowments (and for those that do the funds are restricted by the donors), additional available funds for research are limited. For many private research institutes that agencies rely on for the conduct of critical research, none of these revenue sources are available. As most universities continue to accept a growing portion of the research costs, it is becoming an unsustainable model.

If the definition of the government-university research funding partnership changes materially or continues to erode, it is likely that there will be fewer research universities in the future and they will be less diverse. Universities will have to specialize in one specific area of research to develop economies of scale; in some ways this is sensible but in other ways it is in direct conflict with the growing desire to make research more interdisciplinary – this interdisciplinary approach supports the collaborative environment where a basic scientist, an engineer, an oncologist, and a chemist all work together to solve different aspects of the same research objective. It also means that undergraduates, graduate students and post-docs work in a much more collaborative environment. Materially changing this or allowing the current erosion to continue unabated will lead to short and long-term repercussions. The short-term implications will include hiring freezes, lay-offs of faculty and staff, shuttering programs and buildings, and an overall inability to support federal research at the current capacity. The potential long-term implications are less research, slower scientific progress, fewer medical treatments, fewer jobs, and likely fewer universities conducting research and undergraduates and graduate students educated in a research setting.

Again I would like to emphasize how effective and highly productive the current model has been and will continue to be. We have created a global model, realized immense gains, and built a thriving partnership with proven value. While it is realistic to review the process on a regular basis, taking simplistic action to cut or change F&A recovery of already incurred costs will have a serious, long-term and extremely detrimental effect on a partnership that has proven so very successful and beneficial to America.

5. Some have suggested that replacing the system of variable indirect cost reimbursement rates with a flat reimbursement rate might help manage growing costs, redirect more funds to direct costs, and level the playing field. You discussed in your testimony how rates currently vary by region and institution. Can you discuss the potential impact of a flat reimbursement rate on U.S. universities?

It is difficult to imagine how a flat reimbursement rate would help manage growing costs as it would simply move more of the responsibility for these costs to institutions. The costs charged on research awards, whether direct or indirect, are the true costs of research and universities cannot continue to absorb an increasing share of these costs. Flat reimbursement would simply compel universities to only select that research that they can afford. Universities would compete aggressively for research that is not as F&A intensive and fewer and fewer universities would conduct research that required more expensive infrastructure; such as vaccine development, advanced robotics, and technologies that require costly biohazardous management practices. Universities wouldn't be able to readily afford research that requires special air-handling, scientific equipment, animal modeling, etc.

It should also be noted that with fewer universities and research labs, any increase in direct funding would not be beneficial. Universities couldn't afford to accept these funds as they would further compound the financial loss (unless it was in non-F&A intensive types of research).

HOUSE COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY

"Examining the Overhead Cost of Research"

Mr. James Luther, Associate Vice President of Finance & Compliance Officer, Duke University,
Chairman of the Board, Council on Government Relations

Questions submitted by Rep. Jacky Rosen, House Committee on Science, Space, and Technology

1. **As someone who spent my career as a computer scientist and systems analyst, I can attest to the fact that overhead costs are real and critical costs of conducting research, and cuts to indirect costs of research are, in fact, cuts to research. You can't do computer science research without high-speed data processing and storage, and that just isn't part of the direct cost of an individual research project. The big mainframe computers I worked with in college weren't purchased for one researcher or one project. That equipment and the maintenance of it cost money, and that money was needed to support multiple students, researchers, and projects. Like back then, overhead costs today can add up to a lot. The University of Nevada, Reno, in my home state, recently told me that increasing overhead costs are in fact hampering the school's ability to conduct research.**
 - a. **If the trend toward higher university contributions to research continues, along with potentially diminished federal support, will universities be able to cover the cost of conducting research? How will research output be affected? How will public institutions fare compared to private institutions?**

Universities have been funding a growing part of both the research mission as well as the portion of F&A costs. As discussed, NSF estimates it at \$16.7 billion and \$4.8 billion respectfully.

As state appropriations to public institutions have been significantly reduced, tuition increases and other revenue sources have been limited, and most universities don't have endowments (and for those that do the funds are restricted by the donors) available funds for research are limited. For many private research institutes that agencies rely on for the conduct of critical research, none of these revenue sources are available. As most universities continue to accept a growing portion of the research costs, it is becoming an unsustainable model.

The short-term implications will include hiring freezes, lay-offs of faculty and staff, shuttering programs and buildings, and an overall inability to support federal research at the current capacity. The potential long-term implications are less research, slower scientific progress, fewer medical treatments, fewer jobs, and likely fewer universities conducting research and undergraduates and graduate students educated in a research setting.