

This is a 5-minute vote.

The vote was taken by electronic device, and there were—yeas 416, nays 2, not voting 15, as follows:

[Roll No. 67]

YEAS—416

Abraham	DeFazio	Jeffries
Adams	DeGette	Jenkins (KS)
Aderholt	Delaney	Jenkins (WV)
Aguilar	DeLauro	Johnson (GA)
Allen	DelBene	Johnson (OH)
Amash	Denham	Johnson, E. B.
Amodei	Dent	Johnson, Sam
Ashford	DeSantis	Jolly
Babin	DeSaulnier	Jones
Barletta	DesJarlais	Jordan
Barr	Deutch	Joyce
Barton	Diaz-Balart	Kaptur
Bass	Dingell	Katko
Beatty	Doggett	Keating
Becerra	Dold	Kelly (MS)
Benishkek	Donovan	Kelly (PA)
Bera	Doyle, Michael	Kennedy
Beyer	F.	Kildee
Bilirakis	Duffy	Kilmer
Bishop (GA)	Duncan (SC)	Kind
Bishop (MI)	Duncan (TN)	King (IA)
Bishop (UT)	Edwards	King (NY)
Black	Ellison	Kinzinger (IL)
Blackburn	Ellmers (NC)	Kirkpatrick
Blum	Emmer (MN)	Kline
Blumenauer	Engel	Knight
Bonamici	Eshoo	Kuster
Bost	Esty	Labrador
Boustany	Farenthold	LaHood
Boyle, Brendan	Farr	LaMalfa
F.	Fattah	Lamborn
Brady (PA)	Fitzpatrick	Lance
Brady (TX)	Fleischmann	Langevin
Brat	Fleming	Larsen (WA)
Bridenstine	Flores	Larson (CT)
Brooks (AL)	Forbes	Latta
Brooks (IN)	Fortenberry	Lawrence
Brown (FL)	Foster	Lee
Brownley (CA)	Fox	Levin
Buchanan	Frankel (FL)	Lewis
Buck	Franks (AZ)	Lieu, Ted
Bucshon	Frelinghuysen	Lipinski
Burgess	Fudge	LoBiondo
Bustos	Gabbard	Loeb
Butterfield	Gallego	Lofgren
Byrne	Garamendi	Long
Calvert	Garrett	Loudermilk
Capps	Gibbs	Love
Capuano	Gibson	Lowenthal
Cardenas	Gohmert	Lowey
Carney	Goodlatte	Lucas
Carson (IN)	Gosar	Luetkemeyer
Carter (GA)	Graham	Lujan Grisham
Carter (TX)	Granger	(NM)
Cartwright	Graves (LA)	Lujan, Ben Ray
Castor (FL)	Graves (MO)	(NM)
Chabot	Grayson	Lummis
Chaffetz	Green, Al	Lynch
Chu, Judy	Green, Gene	MacArthur
Ciilline	Griffith	Maloney,
Clark (MA)	Grijalva	Carolyn
Clarke (NY)	Grothman	Maloney, Sean
Clawson (FL)	Guinta	Marchant
Clay	Guthrie	Marino
Cleaver	Gutiérrez	Matsui
Clyburn	Hahn	McCarthy
Coffman	Hardy	McCaul
Cohen	Harper	McClintock
Cole	Harris	McCollum
Collins (GA)	Hartzler	McDermott
Collins (NY)	Hastings	McGovern
Comstock	Heck (NV)	McHenry
Conaway	Heck (WA)	McKinley
Connolly	Hensarling	McMorris
Conyers	Hice, Jody B.	Rodgers
Cook	Higgins	McNerney
Cooper	Hill	McSally
Costa	Himes	Meadows
Costello (PA)	Hinojosa	Meehan
Courtney	Holding	Meeks
Cramer	Honda	Meng
Crawford	Hoyer	Messer
Crenshaw	Huelskamp	Mica
Crowley	Huffman	Miller (FL)
Cuellar	Hultgren	Miller (MI)
Culberson	Hunter	Moolenaar
Cummings	Hurd (TX)	Mooney (WV)
Curbelo (FL)	Hurt (VA)	Moore
Davis (CA)	Israel	Moulton
Davis, Danny	Issa	Mulvaney
Davis, Rodney	Jackson Lee	Murphy (FL)

Murphy (PA)	Rooney (FL)	Thompson (PA)
Nadler	Ros-Lehtinen	Thornberry
Napolitano	Roskam	Tiberi
Neal	Ross	Tipton
Neugebauer	Rothfus	Titus
Newhouse	Rouzer	Tonko
Noem	Roybal-Allard	Torres
Nolan	Royce	Trott
Norcross	Ruiz	Tsongas
Nugent	Ruppersberger	Turner
Nunes	Rush	Upton
O'Rourke	Russell	Valadao
Olson	Ryan (OH)	Van Hollen
Palazzo	Salmon	Vargas
Pallone	Sánchez, Linda	Veasey
Palmer	T.	Vela
Pascarell	Sanford	Velázquez
Paulsen	Sarbanes	Visclosky
Payne	Scalise	Wagner
Pearce	Schakowsky	Walberg
Pelosi	Schiff	Walden
Perlmutter	Schrader	Walker
Perry	Schweikert	Walorski
Peters	Scott (VA)	Walters, Mimi
Peterson	Scott, Austin	Walz
Pingree	Scott, David	Wasserman
Pittenger	Sensenbrenner	Schultz
Pitts	Serrano	Waters, Maxine
Pocan	Sessions	Watson Coleman
Poe (TX)	Sewell (AL)	Weber (TX)
Poliquin	Sherman	Webster (FL)
Polis	Shimkus	Welch
Pompeo	Shuster	Wenstrup
Posey	Simpson	Westerman
Price (NC)	Sinema	Whitfield
Price, Tom	Sires	Williams
Rangel	Slaughter	Wilson (FL)
Ratcliffe	Smith (MO)	Wilson (SC)
Reed	Smith (NE)	Wittman
Reichert	Smith (NJ)	Womack
Renacci	Smith (TX)	Woodall
Ribble	Speier	Yarmuth
Rice (NY)	Stefanik	Yoder
Rice (SC)	Stewart	Yoho
Richmond	Stivers	Young (AK)
Rigell	Stutzman	Young (IA)
Roby	Swalwell (CA)	Young (IN)
Roe (TN)	Takai	Zeldin
Rogers (AL)	Takano	Zinke
Rogers (KY)	Thompson (CA)	
Rohrabacher	Thompson (MS)	

NAYS—2

Massie	Rokita
Castro (TX)	Hanna
Duckworth	Herrera Beutler
Fincher	Hudson
Gowdy	Huizenga (MI)
Graves (GA)	Kelly (IL)
Mullin	Quigley
Sanchez, Loretta	Smith (WA)
Westmoreland	

NOT VOTING—15

ANNOUNCEMENT BY THE SPEAKER PRO TEMPORE
The SPEAKER pro tempore (during the vote). There are 2 minutes remaining.

□ 1447

So (two-thirds being in the affirmative) the rules were suspended and the bill, as amended, was passed.

The result of the vote was announced as above recorded.

A motion to reconsider was laid on the table.

Stated for:

Mr. HANNA. Mr. Speaker, on rollcall No. 67 on H.R. 4470, I am not recorded because I was absent for personal reasons. Had I been present, I would have voted "aye."

PERSONAL EXPLANATION

Mr. GRAVES of Georgia. Mr. Speaker, I was absent today to attend the funeral of a family member.

Had I been present, on rollcall No. 65, I would have voted "yes," on rollcall No. 66, I would have voted "yes," and on rollcall No. 67, I would have voted "yes."

PERSONAL EXPLANATION

Mr. CASTRO of Texas. Mr. Speaker, my vote was not recorded on rollcall No. 65 on the Motion on Ordering the Previous Question

on the Rule providing for consideration of both H.R. 3293 and H.R. 3442. I am not recorded because I was absent due to the birth of my son in San Antonio, Texas. Had I been present, I would have voted "nay."

Mr. Speaker, my vote was not recorded on rollcall No. 66 on H. Res. 609—Rule Providing for consideration of both H.R. 3293—Scientific Research in the National Interest Act and H.R. 3442—Debt Management and Fiscal Responsibility Act. I am not recorded because I was absent due to the birth of my son in San Antonio, Texas. Had I been present, I would have voted "nay."

Mr. Speaker, my vote was not recorded on rollcall No. 67 on H.R. 4470—Safe Drinking Water Act Improved Compliance Awareness Act. I am not recorded because I was absent due to the birth of my son in San Antonio, Texas. Had I been present, I would have voted "aye."

SCIENTIFIC RESEARCH IN THE NATIONAL INTEREST ACT

GENERAL LEAVE

Mr. SMITH of Texas. Mr. Speaker, I ask unanimous consent that all Members may have 5 legislative days in which to revise and extend their remarks and to include extraneous material on the bill, H.R. 3293.

The SPEAKER pro tempore. Is there objection to the request of the gentleman from Texas?

There was no objection.

The SPEAKER pro tempore. Pursuant to House Resolution 609 and rule XVIII, the Chair declares the House on the state of the Union for the consideration of the bill, H.R. 3293.

The Chair appoints the gentleman from Illinois (Mr. RODNEY DAVIS) to preside over the Committee of the Whole.

□ 1448

IN THE COMMITTEE OF THE WHOLE

Accordingly, the House resolved itself into the Committee of the Whole House on the state of the Union for the consideration of the bill (H.R. 3293) to provide for greater accountability in Federal funding for scientific research, to promote the progress of science in the United States that serves that national interest, with Mr. RODNEY DAVIS of Illinois in the chair.

The Clerk read the title of the bill.

The CHAIR. Pursuant to the rule, the bill is considered read the first time.

General debate shall not exceed 1 hour equally divided and controlled by the chair and ranking minority member of the Committee on Science, Space, and Technology.

The gentleman from Texas (Mr. SMITH) and the gentlewoman from Texas (Ms. EDDIE BERNICE JOHNSON) each will control 30 minutes.

The Chair recognizes the gentleman from Texas.

Mr. SMITH of Texas. Mr. Chairman, I yield myself such time as I may consume.

H.R. 3293, the Scientific Research in the National Interest Act, is a bipartisan bill that ensures the grant process at the National Science Foundation is transparent and accountable to the American people.

America's future economic growth and national security depend on innovation. Public and private investments in research and development fuel the economy, create jobs, and lead to new technologies that benefit Americans' daily lives.

Unfortunately, in recent years, the Federal Government has awarded too many grants that few Americans would consider to be in the national interest.

For example, the National Science Foundation awarded \$700,000 of taxpayer money to support a climate change-themed musical that quickly closed and almost \$1 million for a social media project that targeted Americans' online political speech.

A few other examples of questionable grants include: \$487,000 to study the Icelandic textile industry during the Viking era; \$340,000 to study early human-set fires in New Zealand; \$233,000 to study ancient Mayan architecture and their salt industry; and \$220,000 to study animal photos in National Geographic magazine.

When the NSF funds such projects as these, there is less money to support worthwhile scientific research that keeps our country on the forefront of innovation. Such areas include: computer science, advanced materials, lasers, telecommunications, information technology, development of new medicines, nanotechnology, cybersecurity, and dozens of others that hold the greatest promise of revolutionary scientific breakthroughs. These sectors can create millions of new jobs and transform society in positive ways.

NSF invests about \$6 billion a year of taxpayer funds on research projects and related activities.

The 1950 enabling legislation that created the NSF set forth the Foundation's mission and cited the "national interest" as the foundation for public support and dissemination of basic scientific research.

The Science in the National Interest Act reaffirms and restores this crucial mission. This will add transparency, accountability, and credibility to the NSF and its grant process.

H.R. 3293 requires NSF grants to meet at least one of seven criteria that demonstrates it is in the national interest. These seven criteria are: increased economic competitiveness in the United States; advancement of the health and welfare of the American public; development of an American STEM workforce that is globally competitive; increased public scientific literacy and public engagement with science and technology in the United States; increased partnerships between academia and industry in the United States; support for the national defense of the United States; and promotion of the progress of science in the United States.

Both the National Science Foundation director and the National Science Board have endorsed the principle that NSF should be more accountable in its grant funding decisions.

To NSF Director France Cordova's credit, the NSF began to implement new internal policies last year that acknowledge the need for NSF to communicate clearly and in nontechnical terms the research projects it funds and how they are in the national interest.

Opponents of this bill must think they know better than the NSF director. Director Cordova testified before the House Science, Space, and Technology Committee that the policy in H.R. 3293 is compatible with the NSF's internal guidelines. This legislation makes that commitment clear, explicit, and permanent.

Today, the NSF funds only one out of five proposals submitted by our scientists and research institutions.

How do we assure hardworking American families that their tax dollars are spent only on high priority research when we spend \$700,000 of their money on a short-lived climate change-themed musical? It is not Congress' money, it is the taxpayers'.

How could elected representatives not agree that we owe it to American taxpayers and the scientific community to ensure that every grant funded is worthy and in the national interest?

With a national debt that now exceeds \$19 trillion and continues to climb by hundreds of billions of dollars each year, we cannot fund every worthy proposal, much less frivolous ones like a climate change musical.

The legislation before us reaffirms in law that every NSF grant must support research that is demonstrably in the national interest.

Scientists still make the decisions. They just do not get a blank check signed by the taxpayer. They need to be accountable to the American people by showing their proposals are, in fact, in the national interest.

H.R. 3293 passed the House Science, Space, and Technology Committee in October by a voice vote.

Congress has a responsibility to ensure that taxpayer dollars are spent wisely and are focused on national priorities. This bill is an essential step to restore and maintain taxpayer support for basic scientific research.

I encourage my colleagues to support this bill.

I reserve the balance of my time.

Ms. EDDIE BERNICE JOHNSON of Texas. Mr. Chairman, I yield myself such time as I may consume.

I rise in strong opposition to H.R. 3293, the Scientific Research in the National Interest Act.

I oppose this bill because I believe that this bill will hurt the Nation's premier basic research agency, lead to less high reward research, and, ultimately, leave America less competitive.

My Republican colleagues have a simple argument for their legislation:

Shouldn't NSF research be in the national interest? That is a very good question, but one that can be easily answered.

My answer is that NSF research is already in the national interest. It has been for more than 60 years.

The Federal investment in basic research over the past 60 years has been the primary driver of our Nation's economic growth and innovation. In innumerable ways, our investments in basic research have paid back a wealth of dividends.

This fact is widely recognized across academia and industry. The National Academies' "Rising Above the Gathering Storm" report made this point a decade ago. That panel, chaired by the former head of Lockheed-Martin, understood that investment in basic research was fundamentally in the national interest.

When we passed the America COMPETES Reauthorization Act of 2010 as part of the Democrats' innovation agenda, that bill was endorsed by hundreds of business and research organizations, including the U.S. Chamber of Commerce and the National Association of Manufacturers. They all understood that investment in basic research is in the national interest.

What is this bill really about? Is it really about enhancing our Nation's ability to innovate? No. Sadly, this bill continues the Republican majority's preoccupation with second-guessing America's best and brightest research scientists.

For the past 3 years, the Committee on Science, Space, and Technology majority has been engaged in a relentless and pernicious campaign against research grants with silly or odd sounding titles.

Republicans have used that time to carry out an unprecedented rifling through the 70 NSF grants reviews. After all this effort, did they find any evidence of wrongdoing? No. The only thing they found was what they already knew: each of the research grants had passed NSF's merit review process with flying colors.

The majority may not like it and wish the results were different, but those are the facts. Let me be clear. Some of the greatest scientific achievements of the past 60 years were the result of funny sounding research, including research that was ridiculed in Congress as frivolous.

There are scores of examples. One of my favorites is "The Sex Life of the Screwworm," surely one of the silliest sounding titles for research there could possibly be. So silly, in fact, that in the 1970s, the grant was ridiculed as an example of government waste on the Senate floor. Sounds a lot like what the majority is doing here today.

It turned out that the screwworm was costing the U.S. cattle industry a small fortune. As a direct result of this silly sounding research, the cattle industry saved approximately \$20 billion in the U.S. and significantly reduced the cost of beef to U.S. consumers.

□ 1500

At its core, this bill is about second-guessing our Nation's best and brightest scientists and the grant-making decisions they make.

Perhaps this is not surprising when so many of my Republican colleagues openly question the validity of whole fields of established science, from the social sciences to climate science to evolutionary biology.

Far from adding anything useful to the NSF's review process, H.R. 3293 would add more bureaucracy and paperwork. Yet, my biggest concern about these requirements is that they will push NSF reviewers to fund less high-risk research, which, by its very nature, entails the pursuit of scientific understanding without it necessarily having any particular or known benefit. We know that high-risk research tends to have the highest reward, something that we have seen throughout the history of the NSF.

I am not alone in my concerns. The President's science adviser, Dr. John Holdren, noted:

H.R. 3293 would create doubt at NSF and in the research community about Congress' real intent in calling into question the adequacy of NSF's gold standard merit-review process for applied as well as for basic research.

This could easily have a chilling effect on the amount of basic research that scientists propose and that NSF chooses to fund, with detrimental consequences for this Nation's leadership in science, technology, and innovation alike.

Mr. Chair, I choose to stand with the scientists when it comes to science. For that reason, I strongly oppose this legislation.

I reserve the balance of my time.

Mr. SMITH of Texas. Mr. Chairman, I yield myself 30 seconds.

I say to the gentlewoman from Texas that her objections are simply too late. They are too late because the Director of the National Science Foundation has already incorporated the national interest standard into the current guidelines that are being used at the National Science Foundation. We are already using that, and the bill makes them permanent.

I do like the gentlewoman's example of a screwworm because that is a reason to vote for the bill and not to oppose the bill. One of the requirements in the bill is that these grants be explained in plain English so that we know their connection to the national interest. Clearly, there would be no problem in explaining why the example she gave is connected to the national interest.

In a few minutes, I will give just a few more examples of how taxpayers' money is currently being used and should not be used.

Mr. Chairman, I yield 2 minutes to the gentleman from Oklahoma (Mr. LUCAS), who is the vice chairman of the Science, Space, and Technology Committee.

Mr. LUCAS. I thank Chairman SMITH for the time.

Mr. Chairman, I rise today in support of H.R. 3293, Scientific Research in the National Interest Act.

The NSF invests about \$6 billion of public funds each year on research projects and related activities. It is the only Federal agency that is dedicated to the support of fundamental research and education in all scientific and engineering disciplines.

Since its creation in 1950, the NSF has served a mission that helps make the United States a world leader in science and innovation. In recent years, however, the NSF has seemed to stray away from its created purpose and has funded a number of grants that few Americans would consider in the national interest.

H.R. 3293 seeks to restore the NSF's critical mission by requiring the NSF to explain in writing and in non-technical language how each research grant awarded supports the national interest and is worthy of Federal funding.

Now, think about that for a moment: not just explaining it in scientific terms that the fellow scientific community can understand, but also in terms that taxpayers can understand.

In a time of distrust and suspicion of the Federal Government and of all institutions, that is a very important key point, being able to explain to the folks back home why it matters.

The bill also sets forth that NSF grants should meet one of seven criteria that demonstrates the grant is in the national interest.

Today, as was noted by the chairman, the NSF is able to fund only one out of every five proposals. This is a critical bill to restore faith in the process. We need to pass this.

Ms. EDDIE BERNICE JOHNSON of Texas. Mr. Chair, I yield 3 minutes to the gentleman from California (Mr. TED LIEU).

Mr. TED LIEU of California. Mr. Chair, I rise to oppose this bill.

America is an exceptional nation. One of the reasons we are the best country in the world is that we believe in science and we believe in innovation. Our country has always believed in physics and in chemistry, and we trust scientists.

The National Science Foundation has helped this country grow in terms of innovation and in terms of amazing scientific discoveries. It is not broken. So why are we trying to meddle with what the scientists have done?

The chairman mentioned some examples of grants that sounded sort of funny. I understand that most of the Republican legislators do not believe in climate change, but the overwhelming majority of scientists do, as does the U.S. military, as does ExxonMobil today.

One of the grants had to do with how people learn about climate change. That is vitally important because climate change is going to affect our children and our grandchildren.

It is true that some of these grants sound funny. That is because scientists

do all sorts of things that, to a layperson, may not be very obvious.

Because I am not a scientist and because most people are not scientists, I think that is perfectly fine, that we don't have all sorts of redundant writings that explain what an experiment does. Let me give you one example that is on the NSF's Web site.

One of the grants is to study funny-looking colored clay in France, blue-green clay in another country. It sounds like a really silly grant, doesn't it?

It turns out that, when they looked at it, there were properties in this blue-green clay in France that kill bacteria, anti-bacterial properties that can help deal with MRSA, that can help deal with superbugs. This can be a groundbreaking grant, a groundbreaking discovery, but under this bill, it might have problems being funded.

Ultimately, what this is really about and what I have learned now in Congress is that often we are very arrogant. We do not trust scientists. We do not trust the people in America.

This is an arrogant bill that sort of says we know best, not the scientists who are doing peer reviews of what grants to fund, and that we know which experiment might do exactly what.

It turns out, in science, lots of times scientists study one area and get a completely different, amazing discovery in a totally unrelated area. We need to fund basic science. We need to take our hands off this. We need to trust scientists and trust the people in America.

Do not pass this bill. We are not that arrogant. We should not determine what scientists are to be doing and that we know better than they do, because we do not. I ask for opposition to this bill.

Mr. SMITH of Texas. Mr. Chairman, I yield myself 30 seconds.

I really wish the people who say they oppose this bill would actually read the bill. It is only three pages long. They can probably read it in 3 minutes. Let me read the last sentence of the bill itself.

"Nothing in this section shall be construed as altering the Foundation's intellectual merit or broader impacts criteria for evaluating grant applications."

Despite what just might have been told, we don't interfere with the merit-review process whatsoever.

The other thing is, when you come up with an example, as the gentleman just gave, it is clearly in the national interest. All we are asking is that the explanation show why it is in the national interest.

Mr. Chairman, I yield 2 minutes to the gentleman from Georgia (Mr. LOUDERMILK), who is the chairman of the Oversight Subcommittee of the Science, Space, and Technology Committee.

Mr. LOUDERMILK. I thank the gentleman from Texas, the chairman, for

yielding this time and for his leadership on this issue.

Mr. Chairman, last month the Congressional Budget Office released an updated deficit projection for fiscal year 2016. The CBO now expects that our deficit will be \$544 billion this year, which is an increase from the original projection of \$414 billion.

Now, more than ever, Congress needs to work diligently to reduce spending and balance the Federal budget. However, it is equally important for us to make sure that every taxpayer dollar that is spent is used responsibly.

That is why I am an original cosponsor of the Scientific Research in the National Interest Act. It will help ensure that the National Science Foundation, one of our Nation's most critical research agencies, is using its funding in the most beneficial way possible.

This bill requires the NSF to explain how each of its grants further America's best interests. This could be done through advancing STEM education, national defense, economic competitiveness, public health, or other key priorities.

By requiring the NSF to justify its research, this bill will help crack down on frivolous government programs. And, yes, Mr. Chairman, there are frivolous government programs.

For example, the NSF is currently spending \$374,000 of taxpayer money on a study of the ups and downs of senior citizens' dating experiences. While we all want, I am sure, Americans to enjoy their romantic lives throughout the year, we cannot afford this type of wasteful taxpayer spending when we have a \$19 trillion debt.

This commonsense legislation will ensure that NSF research is well directed and that it will help prevent valuable taxpayer dollars from being wasted.

I urge my colleagues to support this bill.

Ms. EDDIE BERNICE JOHNSON of Texas. Mr. Chair, I yield 4 minutes to the gentleman from New York (Mr. TONKO).

Mr. TONKO. I thank the gentleman from Texas for yielding.

Mr. Chair, I oppose this bill, which represents an effort by politicians to overrule expert scientists in deciding which scientific grants the NSF should fund.

In defense of their misguided effort, some of my colleagues like to pick a grant and poke fun at it or trivialize it or simply state that, in their opinion, it is not worth funding.

One of the grants that has been singled out is entitled Participant Support for the Zero Emissions Category of the Clean Snowmobile Challenge.

Snowmobiles are ideal modes of transportation in extreme polar locations. This grant funded the Clean Snowmobile Challenge in which students formed teams to engineer a lower emissions snowmobile.

Engineering competitions are both an important proving ground for new

technologies and an incredible opportunity for students to engage in real-world engineering challenges.

My colleagues frequently talk up the importance of STEM competitions. The Science, Space, and Technology Committee has held entire full committee hearings on that very topic. Now some of my same colleagues would ridicule an engineering competition just because it might have a climate change benefit.

I hope all of my colleagues here today agree with me that encouraging and, certainly, promoting our next generation of engineers is definitely in the national interest, even when it results in less pollution.

This grant, singled out for ridicule by some in the majority, is just another example of why we should be concerned about the intent of this legislation.

I would also like to point out that I strongly believe that the current gold standard merit-review process works and that we should not be politicizing science.

The sheer number of amendments to this legislation demonstrates the flawed methodology of trying to define which research is in the national interest.

I think all of the Members who offered amendments to this section would agree that important priorities have been left out. Personally, I believe we have unacceptably overlooked clean drinking water and climate change.

I offered an amendment with Congressman KILDEE that would expand the priority of advancement of health and welfare to include clean drinking water explicitly. Unfortunately, this amendment was not made in order.

As we have seen in the news recently out of Flint, Michigan, we have taken our drinking water infrastructure for granted for decades. This neglect and lack of investment has caused serious public health issues.

We need to invest more, but we should not invest in a 20th or, in some cases, in a 19th century drinking water system.

A 21st century economy requires a 21st century infrastructure, but that cannot happen unless it is coupled with the critical research that will help us improve the construction, the operation, and the maintenance of our water systems. Our Nation's future public health and economic development are counting on it.

Clean drinking water is one of many important priorities not listed in this legislation. However, beyond missing important priorities, I am concerned that this legislation will limit critical research.

The exciting part of research is that, at the start, we do not know what we will find; so, we cannot accurately predict ahead of time all of the implications the research will have on specific national priorities. Instead, we should invest and encourage high-risk, high-reward research.

I urge my colleagues to oppose this legislation.

□ 1515

Mr. SMITH of Texas. Mr. Chairman, I yield myself 30 seconds.

Here are some more reasons why we need this bill, and these are some more examples of how taxpayers' dollars have been spent: \$200,000 to tour Europe for an overview of the Turkish fashion veil industry; \$1.5 million to study pasture management in Mongolia; \$735,000 for the American Bar Association to follow young lawyers' careers; \$920,000 to study textile making in Iceland during the Viking era; \$164,000 to study Chinese immigration to Italy in 1900.

There are dozens and dozens of more examples.

Mr. Chairman, I yield 4 minutes to the gentleman from Texas (Mr. WEBER) who is the chairman of the Energy Subcommittee of the Science, Space, and Technology Committee.

Mr. WEBER of Texas. Mr. Chairman, I rise in support of Chairman SMITH's bill, H.R. 3293. At a time when budget constraints and the deficit loom large and ominous, why in the world would anyone object to more transparency and accountability? Can anyone explain that to me? I didn't think so.

Here is how some of our hardworking taxpayer money is being spent.

Mr. Chairman, I have a list of 41 studies and programs that, if taxpayers knew, they would rise up and revolt.

Some of the more notable are:

\$227,000 to review animal photos in National Geographic magazine. (what baboon thought that up?)

\$350,000 to study human-set fires in New Zealand in the 1800s. (the main "human set fire" here is our taxpayer dollars being burned)

\$200,000 to tour Europe for an overview of the Turkish fashion-veil industry. (I am reminded that fashion is a form of ugliness so bad, it has to be changed about every 6 months!)

\$735,000 for the American Bar Association to follow young lawyers' careers (3 awards).

\$920,000 to study textile-making in Iceland during the Viking era (2 awards).

\$50,000 to support STEM education in Sri Lanka.

\$164,000 to study Chinese immigration to Italy (1900 to present).

\$20,000 to study stress among people from lowland Bolivia (one of 12 awards).

\$147,000 to analyze fishing practices at Lake Victoria, Africa. (Heck: all you gotta do is come down to my district in Galveston TX and we'll show you how to analyze fishing practices for a lot less and you can spend that money in our country!)

\$147,000 to study international marriages between citizens of France and Madagascar.

\$50,000 to study civil lawsuits in colonial Peru (1600–1700 AD).

\$250,000 to survey public attitudes about the Senate filibuster rule.

\$300,000 to study law firms in Silicon Valley.

\$170,000 to study basket weaving among Alaskan native peoples (2 awards). Perhaps that's what folks think Congress is majoring in.

\$276,000 to study the pre-history of Chiapas, Mexico.

\$246,000 to study migration and adoption between Peru and Spain.

\$134,000 to study Late Bronze Age metalurgy in the Southern Urals, Russia.

\$195,000 to contrast the histories of Patagonian and Amazonian national parks.

\$281,000 to analyze the history of Izapa, Mexico.

\$136,000 to study life/history transitions among indigenous people of northern Argentina.

\$27,000 to study Mayan wooden architecture and salt industry (600–900 AD).

\$92,000 to study Mexico's public vehicle registration system.

\$373,000 to study Chinese kinship, women's labor and economy (1600–2000 AD).

\$152,000 to analyze accountability and transparency in China's dairy industry.

\$300,000 to study Cyprus during the Bronze Age (2 awards).

\$226,000 to study cultural dynamics in western Turkey.

\$119,000 to coordinate an international archaeological project in the S. American Andes.

\$300,000 to produce an experimental dance program about nature and physics.

\$516,000 to help amateurs create a video game—"Relive Prom Night."

\$200,000 to devise social media algorithms for "Truthy.com," a website aimed at censoring political speech by Tea Party members, conservatives, etc.

\$605,000 to travel and study why people around the world cheat on their taxes.

\$193,000 to study human fish consumption in Tanzania (300–1500 AD).

\$221,000 to study use of ochre pigment for painting in Stone Age Kenya.

\$101,000 to pay for American psychologists to international conferences.

\$250,000 to educate local TV meteorologists about climate change (2 awards).

\$38,000 to consider whether livestock herding families in rural, undeveloped areas have more children in response to herd growth, or if increased family size drives herd growth.

\$193,000 to study human fish consumption in Tanzania (1300–1500 AD).

\$38,000 to study prehistoric rabbit hunting on the Iberian Peninsula.

\$1.8 million to study the potential of commercial fish farming at Lake Victoria, Africa.

\$330,000 to study the careers of 2,500 new lawyers in Russia.

\$1.5 million to study pasture management in Mongolia.

Mr. Chairman, some of the more notable are:

\$227,000 to review animal photos in National Geographic magazine. What baboon thought that up?

\$350,000 to study human-set fires in New Zealand in the 1800s. The only thing being set on fire here is taxpayers' dollars.

\$200,000 to tour Europe for an overview of the Turkish fashion veil industry. I am reminded what a friend of mine says. He says fashion is a form of ugliness so bad that we have to change it every 6 months, and yet we want to study it over in another country.

\$147,000 to analyze fishing practices at Lake Victoria, Africa. Heck, folks, if y'all come on down to Galveston, Texas, we will show y'all how to fish

and analyze that, and you can spend money in our country.

\$170,000 to study basket weaving among Alaskan Native peoples. Is it any wonder that most of Americans think Congress must major in basket weaving?

These are just some of the more notable ones, Mr. Chairman. I could go on through the 41 on the list. For example, \$330,000 to study the careers of 2,500 new lawyers in Russia. It is not that we don't have enough lawyers over here in America; now we are concerned about the ones in Russia.

I could go on and on, Mr. Chairman. I just want to simply say, I urge my colleagues to support transparency and accountability on behalf of our constituents and taxpayers. After all, they are paying the freight for this stuff. Shouldn't we be open and accountable to them?

I commend Chairman SMITH for his bill and for putting hardworking tax-paying Americans first.

Ms. EDDIE BERNICE JOHNSON of Texas. Mr. Chairman, I yield 3 minutes to the gentleman from Virginia (Mr. BEYER).

Mr. BEYER. Mr. Chair, I rise to voice my strong opposition to H.R. 3293, the legislation of my friend, Chairman LAMAR SMITH, the so-called Scientific Research in the National Interest Act.

I understand the genesis of this bill: Mr. SMITH's dismay at some of the titles of the National Science Foundation's funded research.

This bill is the wrong approach to addressing the very occasional misuse of NSF grants, and it represents classic short-term thinking.

I am a businessman, and I know of no one in the business community who wants politicians or government to decide business winners or losers.

Of course, none of us, Democrat or Republican, believe that politicians should be making science decisions either. I believe Representative BILL FOSTER is the only Ph.D. scientist in the House, and the rest of us don't qualify.

By proclaiming the seven definitions of what science is in the national interest, we politicians are, in fact, deciding what is worthy of scientific research. By the way, no one on this side yet has raised any objections to the transparency or the accountability of the National Science Foundation. That completely mischaracterizes our objections.

These standards sound constructive and benign—increased economic activity, advancement of health and welfare, support for the national defense, et cetera—but only one of the seven definitions even mentions science. The last one says for the "promotion of the progress of science for the United States," whatever that means.

Where, oh, where is the commitment to basic research, the kind of fundamental research that I know all of us value?

Listen to all the funny names that would have sounded especially funny at

the time: Would Einstein's 1905 papers on special relativity, on the photoelectric effect, and on Brownian motion even qualify under the seven definitions? How about Niels Bohr's research on quantum mechanics? How about Murray Gell-Mans' work on particle physics in quarks? How about Rosalind Franklin's work on the crystallography of DNA?

My college roommate spent 4 years at Berkeley, 1972 to 1976, studying something called Roman spectroscopy. He had no idea what it would do. Today we call them MRIs.

That is the whole point of basic research. We don't know where it will lead. We don't know that it is in the national interest. It just adds to our knowledge.

On the Science, Space, and Technology Committee, we reveled in the NASA presentation of the Pluto photographs. How does our New Horizons mission to Pluto possibly qualify under the seven definitions of the national interest?

I respect that the chair of the Science, Space, and Technology Committee wants the NSF funds expended into legitimate scientific research. I agree. Mr. SMITH used the phrase "demonstrably in the national interest." How could we definitely know, when all of basic research is, by definition, long term rather than short term?

Let's let the scientists decide and oppose this well-meaning but ill-conceived legislation.

Mr. SMITH of Texas. Mr. Chairman, I yield myself 30 seconds.

To those who are on the other side, I really again encourage them to read the bill. It is three pages long. There is nothing in the bill that says we are going to tell the scientists what to do or think. It is very clear, in the examples that the gentleman just gave, that all of those are connected to the national interest. If a scientist can't explain that, then there are greater problems than we might expect.

The other point is, to repeat what I said a while ago, if you oppose the national interest standard, you are too late. The National Science Foundation Director has incorporated the national interest standard in the current guidelines. If you want to oppose the bill because you don't want to make the standard permanent, that is your prerogative, but don't oppose the national interest standard that is in the current guidelines.

Mr. Chairman, I yield 5 minutes to the gentleman from Illinois (Mr. LIPINSKI), who is an original cosponsor of this legislation.

Mr. LIPINSKI. Mr. Chairman, I want to start where we all have agreement. I think everyone would acknowledge that they want research funded by the NSF to be in the Nation's interest. We agree the Nation's interest is furthered by promoting scientific progress. That is certainly one of the principal reasons that I have served on the Science, Space, and Technology Committee for 12 years.

We also have some disagreements. I have respectfully disagreed with the chairman over his criticisms of some NSF grants. At a hearing in November of 2013, I spoke out strongly against a very different NSF bill, and I believe some people are confusing that bill with this bill that we have here today.

If you read this bill's text, I don't believe you can find anything that could undermine the merit review process at the NSF. In fact, I think this bill will help protect the NSF from future attacks and make the Foundation stronger.

H.R. 3293 says research funded by the NSF must be worthy of Federal funding and in the national interest. The national interest is defined by a series of broad criteria, one of which is that a grant have the potential to promote "the progress of science for the United States." It is difficult to conceive of research that would be recommended by an NSF peer review panel that would not meet that standard. Thus, it is difficult for me to see how this standard could harm the work that the Foundation does.

The bill clearly states that it is the job of the Foundation to determine what is worthy of funding, not politicians, and that nothing in the bill would alter NSF's blunted peer review process, which we agree is the gold standard for funding scientific research. As a scientist myself, I believe this is as it should be.

Nevertheless, there have been suggestions that this bill is politicians creating a political filter on what research should be funded, but it is striking how similar this language is to the broader impacts criterion that we advanced in a bipartisan fashion in the 2010 COMPETES Reauthorization Act. There was no concern at the time about that language being a political filter, nor was there any concern that broader impacts be applied to a portfolio of grants, rather than individual awards.

Furthermore, at the time, the Foundation already had broader impact criterion as part of their review process, yet this committee still acted to put the criteria in statute. And the ease with which NSF has implemented the broader impacts criteria suggests to me that they could implement this language without changing the nature of the research they fund.

There is some concern that this bill would cause the Foundation to become more risk averse or applied, not funding breakthrough grants like the one that started Google. So let's take a look at that grant.

The NSF funded the Stanford Integrated Digital Library Project in 1994, and the research conducted through that grant, as well as other private and public support, including a graduate research fellowship for Sergey Brin, led to the algorithms that were the intellectual basis of Google.

The purpose of that grant, as stated in the abstract, was "to develop the enabling technologies for a single, inte-

grated and 'universal' library, proving uniform access to the large number of emerging networked information sources and collections." Even putting aside the emerging collections on the Web that could be impacted, that grant clearly seemed to have the potential to promote the progress of computer science and be worthy of Federal funding and, thus, would have been funded under the provisions of this bill.

Indeed, the debate around this bill has focused less on the language in the bill and more on the concern of intentions behind the bill. As I have said, I have disagreed with recent criticisms of the NSF. Time has shown us that some of William Proxmire's Golden Fleece Awardees have proven to be golden geese, as Ranking Member JOHNSON mentioned in her opening statement.

I think much of the criticism of grants comes from misunderstandings. This bill can help prevent misunderstandings or at least give NSF a better ability to defend its work. This will come from the requirement that abstracts be rewritten to more plainly explain the purpose of a grant.

I applaud the NSF for steps they have already taken to better explain why scientific research is valuable and to better explain why promoting the progress of science is in the Nation's interest and worthy of Federal funds. This policy and this bill will further help the NSF defend worthwhile grants.

All of us may never see eye to eye on what types of research should be supported by the Federal Government. For example, I see more value in social science and geoscience than many of my colleagues on the other side of the aisle, and I never miss an opportunity to point that out.

But far from acting as a political filter, I believe this bill will help the NSF continue to be the world's preeminent foundation in funding scientific research, and that is why I ask my colleagues to join me in supporting this bill.

Ms. EDDIE BERNICE JOHNSON of Texas. Mr. Chairman, I yield myself such time as I may consume.

I want to point out that this grant was mentioned earlier in remarks. In defense of their misguided efforts, some of our colleagues like to pick certain grants and make fun of them—just as has just been said—and then say they are not worth funding.

One of the grants that my colleagues like to pick on is a grant entitled, "Ecosystems Resilience to Human Impacts: Ecological Consequences of Early Human-Set Fires in New Zealand." It may be easy for some of my colleagues to question why the Federal Government should spend money on studying fires that were set in a foreign country hundreds of years ago. Apparently, it is harder for them to spend 5 minutes reading the abstract.

It turns out that those early settlers in New Zealand caused the loss of more

than 40 percent of the forests in just decades. By studying the long-term effect on the ecosystem impacts of those long-ago fires, we can gain knowledge to help natural resource managers make smarter decisions about how to mitigate, prepare for, and respond to massive wildfires in our own country. It is right in the public interest.

Just to put an economic figure to this, in 2012, the United States spent \$2 billion to suppress over 65,000 wildland fires that burned over 9 million acres.

□ 1530

It sounds like this is of national interest to study the long term impact of fires that were set so many years ago. I choose to stand with the scientists when it comes to science. For that reason, I really uphold this misguided bill.

Mr. Chair, I reserve the balance of my time.

Mr. SMITH of Texas. Mr. Chairman, I have one more Member on the way to the floor to speak, and then I am prepared to close.

I reserve the balance of my time.

Ms. EDDIE BERNICE JOHNSON of Texas. Mr. Chair, I have no further requests for time.

I reserve the balance of my time.

Mr. SMITH of Texas. Mr. Chairman, I yield 2 minutes to the gentleman from Texas (Mr. BABIN), who is on his way to the podium right now.

Mr. BABIN. Mr. Chair, I rise today in strong support of H.R. 3293, the Scientific Research in the National Interest Act.

The National Science Foundation spends \$7 billion in taxpayer funds, most of which goes to important research that helps advance America's competitive edge. However, the NSF has funded far too many wasteful projects that are not in the national interest.

Here are several examples: \$1.5 million to study pasture management in Mongolia; \$147,000 to study international marriages between the citizens of France and Madagascar; \$20,000 to study stress among the people of Bolivia.

While the NSF has begun to implement some new internal policies that are intended to increase transparency and accountability, this bill will help strengthen those reforms and make them permanent.

The Director of the NSF even testified before the House Science, Space, and Technology Committee that the policy of H.R. 3293 is "compatible with the NSF's internal guidelines."

I highly commend Chairman LAMAR SMITH for his leadership on this important bill, and I encourage my colleagues to very much support it.

Ms. EDDIE BERNICE JOHNSON of Texas. Mr. Chairman, once again, I stand with the scientists. I also stand with the President's potential statement. If this bill is presented to the President, scientists have recommended that he veto it.

I stand with the scientists again and ask the people to vote against this bill.

I yield back the balance of my time.

Mr. SMITH of Texas. Mr. Chairman, I yield myself the remainder of my time.

I am glad that the gentlewoman brought up the administration's position on this bill because it is absolutely no surprise.

When President Obama was elected, he promised that this would be the most transparent administration in history. It has turned out to be the exact opposite.

Opposing a bill to bring more transparency to government, more accountability to the National Science Foundation is a perfect natural for this administration.

Let me give you some more examples. According to an analysis of Federal data by the Associated Press, the Obama administration set new records 2 years in a row for denying the media access to government files.

More than that, in an unprecedented letter to several congressional committees, 47 inspectors general, who are the official watchdogs of Federal agencies, complained that the Justice Department, EPA, and others consistently obstruct their work by blocking or delaying access to critical information.

This is the record, this is the history of an administration who opposes this bill. Again, a bill that is going to bring transparency and accountability to the Federal Government.

Mr. Chairman, it seems obvious to most of us and to most Americans that taxpayer-funded grants should be in the national interest, but let me address some of the false arguments that have been presented by Members on the other side.

Opponents claim that the bill interferes with the merit-review process for approving grants. This is false. The three-page bill clearly states "nothing in this section shall be construed as altering the Foundation's intellectual merit or broader impacts criteria for evaluating grant applications."

Scientists still make the decisions. They just do not get a blank check written by the taxpayer. They need to be accountable to the American people by showing that their proposals are in the national interest.

What the bill does do is ensure that the results of the peer-review process are transparent and that the broader societal impact of the research is better communicated to the public. This makes it clear how the grant is in the national interest.

Another common falsehood spread by opponents of the bill is that it means research projects will be judged by the title as to whether or not they are worthy of Federal funding. Again, this is false. The bill actually corrects a past problem with some NSF-funded grants.

Often, the title and an incomprehensible summary were all that was publicly available about a research grant. The bill ensures that a project's benefits are clearly communicated to earn the public support and trust. Researchers should embrace the opportunity to

better explain to the American people the potential value of their work.

Finally, opponents have claimed that the bill discourages high-risk, high-reward research. Once again, this is false. Research with the potential to be groundbreaking is almost always worthy of Federal funding and in the national interest.

Basic research, by its very nature, is uncertain regarding outcomes and results, but payoffs to society, quality of life, and standards of living can be transformative.

Research that has the potential to address some of society's greatest challenges is what the NSF should be funding.

Improving computing and cybersecurity, advancing new energy sources, discovering new medicines and cures, and creating advanced materials are just some of the ways that NSF-funded research can help create millions of new jobs and transform society in a positive way.

On the other hand, how does spending \$700,000 on a climate change musical encourage breakthrough research? There may well be good answers to those questions, but we weren't able to come up with them, and neither was the National Science Foundation.

When the NSF funds projects that don't meet such standards, there is less money to support worthwhile research that keeps our country at the forefront of innovation.

Both the National Science Foundation Director and the National Science Board have endorsed the principle that NSF should be more accountable in its grant-funding decisions.

Why would Congress oppose such a commonsense requirement? Why do opponents of this bill think they know better than the NSF Director, who has approved the national interest standard in the current guidelines?

It is just inconceivable to me that an elected U.S. Representative would oppose requiring government grants funded by the U.S. taxpayer to be spent in the national interest. Whose money do they think the NSF spends on these frivolous research grants? The taxpayers should know how their hard-earned dollars are, in fact, being spent.

I ask my colleagues to bolster transparency and accountability, protect American taxpayers, and promote good, fundamental science and basic research.

Mr. Chairman, I want to thank the gentleman from Illinois who spoke just a minute ago. He made a really, really good point that I want to repeat, and that is that this bill is actually going to help strengthen the National Science Foundation because it is going to give it more credibility and taxpayers are going to have more assurance that their hard-earned money is being spent on worthwhile projects that are, in fact, in the national interest.

Mr. Chairman, taxpayers spend \$6 billion; \$6 billion is being spent by the Na-

tional Science Foundation. They only approve one out of five grant requests.

Shouldn't those grant proposals be in the national interest? Shouldn't they be about breakthrough technology, technological inventions? Shouldn't they increase productivity in America? I think that is exactly how the taxpayers' dollars should be spent.

Mr. Chairman, how much time do I have remaining?

The Acting CHAIR (Mr. MOONEY of West Virginia). The gentleman from Texas has 3½ minutes remaining.

Mr. SMITH of Texas. Mr. Chairman, what I would like to do is to give more examples of how the taxpayers' dollars actually should not be spent. These are grants that have been approved by the National Science Foundation in the past.

Again, I want to give the current Director full credit. She has changed the standards. She has implemented the national interest as a part of their guidelines. But if we don't make these guidelines permanent, this is what could happen.

This is how the taxpayers' dollars have been spent:

\$250,000 to survey public attitudes about the Senate filibuster rule;

\$276,000 to study the prehistory of Chiapas, Mexico;

\$246,000 to study migration and adoption between Peru and Spain;

\$136,000 to study life/history transitions among indigenous people of northern Argentina;

\$27,000 to study Mayan wooden architecture and the salt industry;

\$152,000 to analyze accountability and transparency in China's dairy industry;

\$300,000 to study Cyprus during the Bronze Age;

\$226,000 to study cultural dynamics in western Turkey;

\$119,000 to coordinate an international archaeological project in the South American Andes;

\$60,000 to study the Gamo caste system in southwestern Ethiopia;

\$300,000 to produce an experimental dance program about nature and physics.

Speaking of that, I think there was another \$516,000 to help amateurs create a video game, \$516,000 to help amateurs create a video game called "Relieve Prom Night."

There is no national interest that I am aware of. If there is, they sure ought to point it out before we ask the taxpayers to spend half a million dollars on reliving prom night.

Let's see.

\$605,000 to travel and study why people around the world cheat on their taxes;

\$38,000 to consider whether livestock herding families expand in response to herd growth;

\$193,000 to study human fish consumption in Tanzania from 1300 to 1500 AD;

\$250,000 to educate local TV meteorologists;

\$275,000 to study tourism in northern Norway;

\$450,000 to create the Climate Change Narrative Game;

\$131,000 for a 1-day program about climate change education using giant-screen TVs;

\$430,000 to study Irish climate, environment, and political change in the past 2,000 years;

\$2.5 million to create dioramas for the Oakland Museum of California;

\$590,000 to support private groups advocating drastic climate change;

\$289,000 to study how colonialism and climate change threaten the survival of Arctic peoples in Russia;

\$549,000 to—I am sorry. My time is about expired, and I appreciate that.

I could go on and give dozens and dozens of examples, but I think it is clear that this is not how the American taxpayers' dollars should be spent.

Mr. Chair, I yield back the balance of my time.

Mr. VAN HOLLEN. Mr. Chair, I rise today in opposition to H.R. 3293, the so-called Scientific Research in the National Interest Act, a bill that would actually hinder the National Science Foundation's (NSF) ability to meet the dynamic demands of science and provide resources across all scientific disciplines without political manipulations. This bill is simply another in a line of Republican efforts to politicize science and jeopardize discovery and innovation.

The NSF engages in remarkable, groundbreaking work. We must continue to support this organization and ensure that America remains a world-wide leader in scientific advances. To that end, I cosponsored a number of amendments with my colleague from Virginia, Mr. BEYER, that would allow NSF scientists to further our understanding of climate and environmental science. Unfortunately my colleagues on the other side of the aisle have displayed such open hostility towards climate science and research that they won't allow a vote on these amendments.

While I believe it's important that the NSF hold itself accountable regarding the research it funds, politicizing scientific research is shortsighted and can damage our ability to compete in the world economy. H.R. 3293 would interfere with ongoing efforts at NSF to better quantify and communicate the value of the research it funds.

Mr. Chair, I am also concerned that this legislation will have a chilling effect on many of the scientists at NSF and throughout our scientific community. This bill would force scientists to second-guess their research based on political whims and require them to justify all their actions according to short-term returns, stifling high-risk, high-reward research and innovation across all fields. We must not squelch creativity, critical thinking, and the open exchange of ideas.

Federal agencies like NIH and NOAA are headquartered in my district and I represent countless federally funded scientists who are advancing knowledge, discovering cures, and developing innovative technologies. I am committed to ensuring that the NSF and all of our research agencies have the resources they need without being subject to superfluous political tests. The valuable work done by our scientists and researchers at NSF and other institutions not only leads to the development of new innovations, but also enables our Na-

tion to attract and retain the top research talent in the world. In order to continue to compete, we need sustained investments free from political interference.

I strongly oppose this bill and any other efforts to needlessly politicize scientific research.

The Acting CHAIR. All time for general debate has expired.

Pursuant to the rule, the bill shall be considered for amendment under the 5-minute rule and shall be considered as read.

The text of the bill is as follows:

H.R. 3293

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the "Scientific Research in the National Interest Act".

SEC. 2. GREATER ACCOUNTABILITY IN FEDERAL FUNDING FOR RESEARCH.

(a) STANDARD FOR AWARD OF GRANTS.—The National Science Foundation shall award Federal funding for basic research and education in the sciences through a new research grant or cooperative agreement only if an affirmative determination is made by the Foundation under subsection (b) and written justification relating thereto is published under subsection (c).

(b) DETERMINATION.—A determination referred to in subsection (a) is a justification by the responsible Foundation official as to how the research grant or cooperative agreement promotes the progress of science in the United States, consistent with the Foundation mission as established in the National Science Foundation Act of 1950 (42 U.S.C. 1861 et seq.), and further—

(1) is worthy of Federal funding; and

(2) is in the national interest, as indicated by having the potential to achieve—

(A) increased economic competitiveness in the United States;

(B) advancement of the health and welfare of the American public;

(C) development of an American STEM workforce that is globally competitive;

(D) increased public scientific literacy and public engagement with science and technology in the United States;

(E) increased partnerships between academia and industry in the United States;

(F) support for the national defense of the United States; or

(G) promotion of the progress of science for the United States.

(c) WRITTEN JUSTIFICATION.—Public announcement of each award of Federal funding described in subsection (a) shall include a written justification from the responsible Foundation official as to how a grant or cooperative agreement meets the requirements of subsection (b).

(d) IMPLEMENTATION.—A determination under subsection (b) shall be made after a research grant or cooperative agreement proposal has satisfied the Foundation's reviews for Merit and Broader Impacts. Nothing in this section shall be construed as altering the Foundation's intellectual merit or broader impacts criteria for evaluating grant applications.

The Acting CHAIR. No amendment to the bill shall be in order except those printed in part B of House Report 114-420. Each such amendment may be offered only in the order printed in the report, by a Member designated in the report, shall be considered read, shall be debatable for the time specified in the report, equally divided and controlled by the proponent and an oppo-

nent, shall not be subject to amendment, and shall not be subject to a demand for division of the question.

The Chair understands amendment No. 1 will not be offered.

AMENDMENT NO. 2 OFFERED BY MS. EDDIE BERNICE JOHNSON OF TEXAS

The Acting CHAIR. It is now in order to consider amendment No. 2 printed in part B of House Report 114-420.

Ms. EDDIE BERNICE JOHNSON of Texas. Mr. Chairman, I have an amendment at the desk.

The Acting CHAIR. The Clerk will designate the amendment.

The text of the amendment is as follows:

Page 3, line 15, through page 4, line 15, amend subsection (b) to read as follows:

(b) DETERMINATION.—A determination referred to in subsection (a) is a justification by the responsible Foundation official as to how the research grant or cooperative agreement—

(1) by itself, or by contributing to a portfolio of research in that field or across fields, is in the national interest as reflected in the National Science Foundation Act of 1950 (42 U.S.C. 1861 et seq), namely to promote the progress of science, to advance the national health, prosperity and welfare, and to secure the national defense; and

(2) is worthy of Federal funding, as demonstrated by having met the merit review criteria of the Foundation.

The Acting CHAIR. Pursuant to House Resolution 609, the gentlewoman from Texas (Ms. EDDIE BERNICE JOHNSON) and a Member opposed each will control 5 minutes.

The Chair recognizes the gentlewoman from Texas.

Ms. EDDIE BERNICE JOHNSON of Texas. Mr. Chairman, my colleague from Texas, the chairman of the Committee on Science, Space, and Technology, has stated many times that H.R. 3293 is consistent with the policy announced by NSF in January 2015.

He also frequently cites a year old comment by NSF Director Dr. Cordova about this bill. However, it is one thing to use such vague statements in defense of this bill; it is quite another thing to look directly at the NSF policy issued by Dr. Cordova to see what it actually says.

□ 1545

I will quote directly from NSF's January 2015 policy:

The nontechnical component of the NSF award abstract must serve as a public justification for NSF funding by articulating how the project serves the national interest, as stated by NSF's mission, to promote the progress of science; to advance the national health, prosperity, and welfare; and to secure national defense.

As Dr. Holdren, the President's Science Adviser, said:

According to the clear wording and intent of the 1950 act that created the National Science Foundation, promoting the progress of science through basic research is in the national interest.

Likewise, Dr. Cordova, in describing what she means by "national interest,"

points directly to the 1950 NSF mission statement. In her policy, there is no separate list defining national interest with criteria that, in fact, promotes more applied research, not basic research.

While the words “promoting the progress of science” appear in the bill before us, they do so only as an afterthought, in dead last place and added only after many versions of this bill.

Now that we all understand the National Science Foundation’s actual policy, I can briefly explain my amendment.

By tying the term “national interest” to the 1950 national statement, my amendment brings the bill truly in line with the National Science Foundation’s own policy for transparency and accountability.

My amendment also provides clarity to what we mean by the words “worthy of Federal funding,” by stating that anything that has passed the rigor of the National Science Foundation’s peer-review process is “worthy of Federal funding.”

In short, my amendment fixes the underlying bill by removing restrictions that may stifle high-risk basic research, and by taking decisions about grant funding out of the hands of politicians and putting it back in the hands of scientists, where it belongs.

The National Science Foundation’s 1950 mission statement, implemented through its gold standard merit-review process, has served science and this Nation so well. Let’s leave it intact by passing my amendment.

I reserve the balance of my time.

Mr. SMITH of Texas. Mr. Chairman, I rise in opposition to the amendment.

The Acting CHAIR. The gentleman is recognized for 5 minutes.

Mr. SMITH of Texas. Mr. Chairman, I oppose the gentlewoman’s amendment, which undermines the bill and weakens accountability and transparency.

First, the amendment seeks to dilute the bill’s requirement that the grant must be worthy of Federal funding. It is difficult to understand why anyone would have objections to requiring that a research grant be worthy of taxpayer support. Worthy means: having adequate or great merit, character, or value; and commendable excellence or merit; deserving.

The opposite of worthy of Federal funding are awards of taxpayer money to frivolous, low-priority projects, like producing a climate change musical, creating a voicemail game, or studying tourism in Norway.

One would think that fundamental standards like “worthy of Federal funding” and “in the national interest” would already be embedded in the standards the National Science Foundation uses to evaluate thousands of grant applications and decide which ones should receive \$6 billion in basic research grants each year. From the Science, Space, and Technology Committee’s review of past NSF grants, we have learned that this is not always the case.

This amendment eliminates the requirement that each grant be worthy of Federal funding. It asserts that any grant approved by NSF through its merit selection system will be considered worthy of Federal funding. With this change, every NSF-funded project would be considered worthy of Federal funding, no matter how absurd.

With this amendment, Congress would effectively abnegate its responsibility to ensure that NSF spends taxpayer dollars only on projects worthy of Federal funding.

The underlying bill does not interfere with the National Science Foundation’s merit selection process. I have already quoted from the bill twice tonight. It only requires that NSF be transparent and explain in writing and in nontechnical terms why each research project that receives public funds is in the national interest. Taxpayers deserve this information. It is their money.

Moreover, in order to maintain an increased public support for vital investment in basic research, NSF must be transparent and accountable and explain why every scientific investment deserves to receive hard-earned tax dollars.

NSF Director France Cordova and her team at NSF understand this. That is why the NSF is implementing new policies to make NSF grant-making more transparent and understandable for the American people.

These policies acknowledge the primary importance of national interest in awarding tax dollars. In fact, during her testimony before the Science, Space, and Technology Committee last year, Dr. Cordova described this national interest act and NSF’s new transparency policies as consistent and fully compatible with each other.

I would like to remind everyone that it is not Congress’ or the NSF’s money. It is the American people’s money.

The amendment offered by the ranking member seeks to change the section of the bill that requires NSF to accompany public announcement of every grant award with a nontechnical explanation of the award’s scientific merit and national interest.

My concern is that the proposed amendment would create a loophole through which blocks of hundreds of grants in a particular area of science would be justified by just one general statement. This is the opposite of accountability and transparency.

I strongly oppose the amendment for these reasons.

Mr. Speaker, I reserve the balance of my time.

Ms. EDDIE BERNICE JOHNSON of Texas. Mr. Chairman, this does not do any more than what was intended under the law. It leaves it in the hands of the peer review board and not the politicians.

It does nothing to make this bill worse. In fact, it improves it so that it can meet the charter of this Congress in doing its work.

Every grant that goes out of the National Science Foundation is peer-reviewed in a system that was set up 60 years ago. It has worked well. We have gained great research. I don’t think that making sure that the politicians have something to say about it makes it any better. It makes it worse.

I ask for the adoption of my amendment.

Mr. Chairman, I yield back the balance of my time.

Mr. SMITH of Texas. Mr. Chairman, the National Science Foundation Director and the National Science Board have both expressed and endorsed a principle that NSF should be more transparent and accountable in its grant funding decisions. In fact, the NSF has already incorporated the national interest standard in their guidelines.

This amendment creates loopholes and dilutes the intent of the bill—a bill that NSF Director France Cordova has testified: is very compatible with the new internal NSF guidelines and with the mission statement of the National Science Foundation.

I ask my colleagues to say “yes” to accountability and transparency and “no” to the amendment.

I yield back the balance of my time.

The Acting CHAIR. The question is on the amendment offered by the gentlewoman from Texas (Ms. EDDIE BERNICE JOHNSON).

The question was taken; and the Acting Chair announced that the noes appeared to have it.

Ms. EDDIE BERNICE JOHNSON of Texas. Mr. Chairman, I demand a recorded vote.

The Acting CHAIR. Pursuant to clause 6 of rule XVIII, further proceedings on the amendment offered by the gentlewoman from Texas will be postponed.

AMENDMENT NO. 3 OFFERED BY MS. JACKSON LEE

The Acting CHAIR. It is now in order to consider amendment No. 3 printed in part B of House Report 114-420.

Ms. JACKSON LEE. Mr. Chairman, I have an amendment at the desk.

The Acting CHAIR. The Clerk will designate the amendment.

The text of the amendment is as follows:

Page 3, line 22, strike “and”.

Page 3, line 23, redesignate paragraph (2) as paragraph (3).

Page 3, after line 22, insert the following:

(2) is consistent with established and widely accepted scientific methods applicable to the field of study of exploration; and

The Acting CHAIR. Pursuant to House Resolution 609, the gentlewoman from Texas (Ms. JACKSON LEE) and a Member opposed each will control 5 minutes.

The Chair recognizes the gentlewoman from Texas.

Ms. JACKSON LEE. Mr. Chairman, I want to thank the ranking member, Ms. EDDIE BERNICE JOHNSON of Texas, for her leadership. I also want to thank Mr. SMITH for his chairmanship of the committee.

I have known the commitment to science that so many Members have. I hope that my amendment reinforces the emphasis that we have had with respect to science.

Scientists should control the direction and guidance of our research. The National Science Foundation does simply that. I hope that both of my amendments contribute to that premise, and I would like to acknowledge the Rules Committee for making these amendments in order.

The Jackson Lee amendment seeks to improve H.R. 3293 by ensuring that NSF-funded research, as it has been, remains consistent with established and widely accepted scientific methods applicable to the study of exploration.

In conducting experiments or research in new areas of inquiry, grant recipients would now follow protocols that ensure that the outcomes of research are able to be reproduced by other scientists or researchers.

I have always believed that science is the work that creates the ultimate work in decades and centuries to come. Having served on the Science, Space, and Technology Committee some years back, I used to always say: science is the work of the 21st century. If you create in science, innovation, products, and research, you create opportunities for jobs and products to be sold. This is what good science is all about and why basic research relies on the scientific method in the routine practice of scientists and researchers around the world.

I fully believe that the National Science Foundation gets it. That is what their underlying work is about.

The Jackson Lee amendment will support the promise that basic research is conducted with the expectation that good science should be the underlying goal. History has shown that basic research often leads to results with the utmost beneficial consequences for society.

I would ask my colleagues to support this amendment.

I thank Chairman SESSIONS and Ranking Member SLAUGHTER for making the Jackson Lee Amendment in order for consideration under H.R. 3293, the "Scientific Research in the National Interest Act."

My thanks and appreciation to Chairman SMITH and Ranking Member JOHNSON for their support of this amendment and their staffs for working with my staff to ensure the amendment reflects a goal we all share.

The Jackson Lee amendment improves H.R. 3293, by ensuring that NSF funded research, as it has been, remains consistent with established and widely accepted scientific methods applicable to the study of exploration.

In conducting experiments or research in new areas of inquiry, grant recipients would now follow protocols that ensure that the outcomes of research are able to be reproduced by other scientists or researchers.

This is what good science is all about and this is why basic research relies on the scientific method in the routine practice of scientists and researchers around the world.

In 1950, Congress passed the National Science Foundation Act to "promote the

progress of science; to advance the national health, prosperity, and welfare; and to secure the national defense; in addition to other purposes" by creating the National Science Foundation.

The Act authorized and directed the Foundation to "initiate and support basic scientific research and programs to strengthen the potential of scientific research and education programs at all levels in the mathematical, physical, medical, biological, social, and other sciences."

The 1950 Act also authorized and directed NSF to fund applied scientific and engineering research.

One hundred years of basic scientific research has revealed its value, exemplified in the advances that helped our nation win World War II and allowed Congress to appreciate science as the gateway to the pre-eminent economic global success the nation could achieve.

This Jackson Lee Amendment would support the promise that basic research is conducted with the expectation that good science should be the underlying goal.

History has shown that basic research often leads to results with the utmost beneficial consequences for society; although, at the time that basic research is conducted, it may be impossible to predict how it will benefit the nation or the world.

One such example is the Genomic studies of nematode worms that led to the discovery of genes that ultimately control cell death; this study in turn opened the avenues of discovery for new treatment possibilities for cancer and Alzheimer's Disease.

Additionally, basic research on atomic physics led to the development of the atomic clocks that now enable the highly precise Global Positioning System (GPS) used to guide commercial aircraft to their destinations.

In 2014, due to a global embrace of scientific research the world saw:

The first landing of a space craft on the surface of a comet;

The discovery of a new fundamental particle, which provided information on the origin of the universe;

Development of the world's fastest super-computer; and

A surge in research on plant biology that is uncovering new and better ways to meet global food needs.

Unfortunately none of these achievements were led by our nation's researchers or scientists.

I ask my colleagues to support this Jackson Lee Amendment so that we may make strides toward joining and surpassing our global competitors in the emerging scientific community.

Mr. Chairman, I reserve the balance of my time.

Mr. SMITH of Texas. Mr. Chairman, I claim the time in opposition to this amendment, but I do not oppose the amendment.

The Acting CHAIR. Without objection, the gentleman is recognized for 5 minutes.

There was no objection.

Mr. SMITH of Texas. Mr. Chairman, I support this amendment offered by the gentlewoman from Texas (Ms. JACKSON LEE).

The amendment requires that, in addition to the National Science Founda-

tion making a determination that a grant is worthy of Federal funding and in the national interest, the NSF must also determine that the grant is: consistent with established and widely accepted scientific methods applicable to the field of study or exploration.

I agree that this is an important determination. Basic research funded by taxpayers must have a sound scientific foundation.

Reproducibility—the ability of an entire experiment or study to be duplicated—especially by someone else working independently, is the gold standard in the scientific method.

NSF should ensure that the research it funds meets this gold standard so taxpayer dollars do not go to waste.

I thank the gentlewoman for her amendment, and I do support it.

Mr. Chairman, I yield back the balance of my time.

Ms. JACKSON LEE. Mr. Chairman, let me thank the gentleman from Texas and the ranking member for their support.

With that, I ask my colleagues to support the Jackson Lee amendment.

I yield back the balance of my time.

The Acting CHAIR. The question is on the amendment offered by the gentlewoman from Texas (Ms. JACKSON LEE).

The amendment was agreed to.

AMENDMENT NO. 4 OFFERED BY MS. JACKSON LEE

The Acting CHAIR. It is now in order to consider amendment No. 4 printed in part B of House Report 114-420.

Ms. JACKSON LEE. Mr. Chairman, I have an amendment at the desk.

The Acting CHAIR. The Clerk will designate the amendment.

The text of the amendment is as follows:

Page 3, line 22, strike "and".

Page 3, line 23, redesignate paragraph (2) as paragraph (3).

Page 3, after line 22, insert the following:

(2) is consistent with the definition of basic research as it applies to the purpose and field of study; and

The Acting CHAIR. Pursuant to House Resolution 609, the gentlewoman from Texas (Ms. JACKSON LEE) and a Member opposed each will control 5 minutes.

The Chair recognizes the gentlewoman from Texas.

Ms. JACKSON LEE. Mr. Chairman, I restate my earlier premise that science is the work of the 21st century. Maybe we will be saying the 22nd century. Because when you are innovative and do research, you create jobs and opportunities. This amendment establishes that basic research is in the national interest of the United States.

Let me suggest to you that we have a lot of universities in this country. When I travel, I always hear individuals seeking to come to be taught in American institutions of higher education. It is because of the creative thought and, in many instances, the research that is done, whether in medicine or all the forms of science and

technology, because we have a free-flowing basis upon which people can think and invent. I want that to continue. I want the National Science Foundation to be at the cornerstone of that.

I will include in the RECORD an article titled, “The Future Postponed.” Why Declining Investment in Basic Research Threatens a U.S. Innovation Deficit.

[From the Massachusetts Institute of Technology]

THE FUTURE POSTPONED

WHY DECLINING INVESTMENT IN BASIC RESEARCH THREATENS A U.S. INNOVATION DEFICIT

(A Report by the MIT Committee to Evaluate the Innovation Deficit)

2014 was a year of notable scientific highlights, including:

- the first landing on a comet, which has already shed important light on the formation of the Earth;

- the discovery of a new fundamental particle, which provides critical information on the origin of the universe;

- development of the world’s fastest supercomputer;

- a surge in research on plant biology that is uncovering new and better ways to meet global food requirements.

None of these, however, were U.S.-led achievements. The first two reflected 10-year, European-led efforts; the second two are Chinese accomplishments, reflecting that nation’s emergence as a science and technology power. Hence the wide-spread concern over a growing U.S. innovation deficit, attributable in part to declining public investment in research (see figure).

This report provides a number of tangible examples of under-exploited areas of science and likely consequences in the form of an innovation deficit, including:

- opportunities with high potential for big payoffs in health, energy, and high-tech industries;

- fields where we risk falling behind in critical strategic capabilities such as supercomputing, secure information systems, and national defense technologies;

- areas where national prestige is at stake, such as space exploration, or where a lack of specialized U.S. research facilities is driving key scientific talent to work overseas.

This introduction also cites examples of the benefits from basic research that have helped to shape and maintain U.S. economic power, as well as highlighting industry trends that have made university basic research even more critical to future national economic competitiveness.

Basic research is often misunderstood, because it often seems to have no immediate payoff. Yet it was just such federally-funded research into the fundamental working of cells, intensified beginning with the “War on Cancer” in 1971, that led over time to a growing arsenal of sophisticated new anti-cancer therapies—19 new drugs approved by the U.S. FDA in the past 2 years. Do we want similar progress on Alzheimer’s, which already affects 5 million Americans, more than any single form of cancer? Then we should expand research in neurobiology, brain chemistry, and the science of aging (see Alzheimer’s Disease). The Ebola epidemic in West Africa is a reminder of how vulnerable we are to a wider pandemic of emergent viral diseases, because of a lack of research on their biology; an even greater public health threat looms from the rise of antibiotic resistant bacteria right here at home, which, because commercial incentives are lacking,

only expanded university-based research into new types of antibiotics can address (see Infectious Disease).

America’s emergence last year as the world’s largest oil producer has been justly celebrated as a milestone for energy independence. But the roots of the fracking revolution stem from federally-funded research—begun in the wake of the first OPEC oil embargo 40 years ago—that led to directional drilling technology, diamond drill bits tough enough to cut shale, and the first major hydraulic fracturing experiments. Do we also want the U.S. to be a leader in clean energy technologies a few decades hence, when these will be needed for large scale replacement of fossil energy sources, a huge global market? Then now is when more investment in advanced thin film solar cells, new battery concepts, and novel approaches to fusion energy should begin (see Materials Discovery and Processing, Batteries, Fusion Energy).

Some areas of research create opportunities of obvious economic importance. Catalysis, for example, is already a \$500 billion industry in the United States alone and plays a critical role in the manufacture of virtually every fuel, all types of plastics, and many pharmaceuticals. Yet today’s catalysts are relatively inefficient and require high temperatures compared to those (such as enzymes) that operate in living things. So the potential payoff in both reduced environmental impact and a powerful economic edge for countries that invest in efforts to understand and replicate these biological catalysts—as Germany and China already are—could be huge (see Catalysis). The U.S. also lags in two other key areas: developing advances in plant sciences that can help meet growing world needs for food while supporting U.S. agricultural exports, and the growing field of robotics that is important not only for automated factories but for a whole new era of automated services such as driverless vehicles (see Plant Sciences and Robotics).

In an increasingly global and competitive world, where knowledge is created and first applied has huge economic consequences: some 50 years after the rise of Silicon Valley, the U.S. still leads in the commercial application of integrated circuits, advanced electronic devices, and internet businesses. But foreseeable advances in optical integrated circuits, where both Europe and Japan are investing heavily, is likely to completely reshape the \$300 billion semiconductor industry that today is largely dominated by U.S. companies (see Photonics). In this area and other fields of science that will underlie the innovation centers of the future, U.S. leadership or even competitiveness is at risk. Synthetic biology—the ability to redesign life in the lab—is another area that has huge potential to transform bio-manufacturing and food production and to create breakthroughs in healthcare—markets that might easily exceed the size of the technology market. But it is EU scientists that benefit from superior facilities and dedicated funding and are leading the way (see Synthetic Biology). Research progress in many such fields increasingly depends on sophisticated modern laboratories and research instruments, the growing lack of which in the U.S. is contributing to a migration of top talent and research leadership overseas.

Some areas of research are so strategically important that for the U.S. to fall behind ought to be alarming. Yet Chinese leadership in supercomputing—its Tianhe-2 machine at the Chinese National University of Defense in Guangzhou has won top ranking for the third year in a row and can now do quadrillions of calculations per second—is just such a straw in the wind. Another is our apparent and growing vulnerability to cyberattacks of

the type that have damaged Sony, major banks, large retailers, and other major companies. Ultimately, it will be basic research in areas such as photonics, cybersecurity, and quantum computing (where China is investing heavily) that determine leadership in secure information systems, in secure long distance communications, and in super-computing (see Cybersecurity and Quantum Information Systems). Recent budget cuts have impacted U.S. efforts in all these areas. Also, technologies are now in view that could markedly improve the way we protect our soldiers and other war fighters while improving their effectiveness in combat (see Defense Technology).

It is not just areas of science with obvious applications that are important. Some observers have asked, “What good is it?” of the discovery of the Higgs boson (the particle referred to above, which fills a major gap in our understanding of the fundamental nature of matter). But it is useful to remember that similar comments might have been made when the double helix structure of DNA was first understood (many decades before the first biotech drug), when the first transistor emerged from research in solid state physics (many decades before the IT revolution), when radio waves were first discovered (long before radios or broadcast networks were even conceived of). We are a remarkably inventive species, and seem always to find ways to put new knowledge to work.

Other potential discoveries could have global impacts of a different kind. Astronomers have now identified hundreds of planets around other stars, and some of them are clearly Earth-like. Imagine what it would mean to our human perspective if we were to discover evidence of life on these planets—a signal that we are not alone in the universe—from observations of their planetary atmospheres, something that is potentially within the technical capability of space-based research within the next decade? Or if the next generation of space telescopes can discover the true nature of the mysterious “dark matter” and “dark energy” that appear to be the dominant constituents of the universe (see Space Exploration).

Do we want more efficient government, more market-friendly regulatory structures? Social and economic research is increasingly able to provide policymakers with useful guidance. Witness the way government has helped to create mobile and broadband markets by auctioning the wireless spectrum—complex, carefully-designed auctions based on insights from game theory and related research that have netted the federal government more than \$60 billion while catalyzing huge new industries and transformed the way we live and do business. Empowered by access to more government data and Big Data tools, such research could point the way to still more efficient government (see Enabling Better Policy Decisions).

In the past, U.S. industry took a long term view of R&D and did fundamental research, activities associated with such entities as the now-diminished Bell Labs and Xerox Park. That’s still the case in some other countries such as South Korea. Samsung, for example, spent decades of effort to develop the underlying science and manufacturing behind organic light-emitting diodes (OLEDs) before commercializing these into the now familiar, dramatic displays in TVs and many other digital devices. But today, as competitive pressures have increased, basic research has essentially disappeared from U.S. companies, leaving them dependent on federally-funded, university-based basic research to fuel innovation. This shift means that federal support of basic research is even more tightly coupled to national economic competitiveness. Moreover, there will

always be circumstances when private investment lags—when the innovation creates a public good, such as clean air, for which an investor can't capture the value, or when the risk is too high, such as novel approaches to new antibiotic drugs, or when the technical complexity is so high that there is fundamental uncertainty as to the outcome, such as with quantum computing or fusion energy. For these cases, government funding is the only possible source to spur innovation.

This central role of federal research support means that sudden changes in funding levels such as the recent sequester can disrupt research efforts and cause long term damage, especially to the pipeline of scientific talent on which U.S. research leadership ultimately depends. In a survey of the effects of reduced research funding conducted by the Chronicle of Higher Education last year among 11,000 recipients of NIH and NSF research grants, nearly half have abandoned an area of investigation they considered critical to their lab's mission, and more than three quarters have fired or failed to hire graduate students and research fellows. Other evidence suggests that many of those affected switch careers, leaving basic research behind forever.

Despite these challenges, the potential benefits from expanding basic research summarized in these pages—an innovation dividend that could boost our economy, improve human lives, and strengthen the U.S. strategically—are truly inspiring. We hope you will find the information useful.

□ 1600

What this paper cites, in 2014, notable scientific advancements included landing of a manmade Earth object on a comet, discovery of a new fundamental particle which provided vital information on the origin of the universe, development of the world's fastest supercomputer, and a tremendous increase in plant biology that is discovering new and better ways to make global food requirements.

None of these, however, Mr. Chairman, were U.S.-led. So my amendment turns our attention, again, maybe to the obvious. Maybe if I say Alexander Bell, as we learned as children in school, everybody knew that he created the telephone.

George Washington Carver was associated with the many scientific discoveries out of a single peanut, someone that those of us, in this month of African American History, when they would teach us African American History, we would all know George Washington Carver, that we had a real role model that was a scientist and that generated probably thousands of scientists, people of African American heritage and beyond.

So I want my amendment to emphasize that we want the long list of innovation to be on our side and to continue the tradition and trajectory that we have had of basic research that then applies to all levels to create opportunities of work and genius that is here in this country.

I ask my colleagues to support my amendment.

I thank Chairman SESSIONS and Ranking Member SLAUGHTER for making three Jackson Lee Amendments in order for consideration under H.R. 3293, the "Scientific Research in the National Interest Act."

My thanks and appreciation to Chairman SMITH and Ranking Member JOHNSON's staff for working with my staff on drafting this amendment.

Jackson Lee Amendment No. 4—adds to the list of goals in the national interest—the conduct of basic research that follow well established protocols and scientific methods.

The scientific method—it is what happens every day and can lead to basic research experiments conducted by scientists.

Basic research is the foundation of tomorrow's innovations.

The Jackson Lee Amendment will help ensure that the nature of basic research is preserved because without basic research the United States will be dependent on others to make and reap the tremendous economic rewards from new discoveries.

Applied science depends on a well-grounded understanding of the basic research that leads to discovery.

I call my colleagues attention to a groundbreaking report by the Massachusetts Institute of Technology entitled "The Future Postponed: Why Declining Investment in Basic Research Threatens a U.S. Innovation Deficit."

For much of our history, the United States' industries took a long term view of research and development and did fundamental research, activities associated with basic research at Bell Labs and Xerox Park.

Today, as competitive pressures have increased, basic research has essentially disappeared from U.S. companies, leaving them dependent upon federally-funded, university-based basic research to fuel innovation.

In 2014, notable scientific advancements included:

1. landing of a man made earth object on a comet;
2. discovery of a new fundamental particle, which provided vital information on the origin of the universe; development of the world's fastest supercomputer; and
3. a tremendous increase in plant biology that is discovering new and better ways to meet global food requirements.

These are wonderful accomplishments, but none of them were U.S. led.

The first two were European in origin and the second two were accomplished by China.

China landed the Jade Rabbit, its first lunar probe on the moon, and on Sunday North Korea launched a long range rocket that put a satellite into space that flew over the location of the Super Bowl.

The Jackson Lee Amendment is intended to strengthen the nation's commitment to basic research so that the United States remains preeminent in the field of discovery.

I reserve the balance of my time.

Mr. SMITH of Texas. Mr. Chairman, I claim the time in opposition to the amendment, though I do not oppose the amendment.

The Acting CHAIR. Without objection, the gentleman is recognized for 5 minutes.

There was no objection.

Mr. SMITH of Texas. Mr. Chairman, I support this amendment by the gentlewoman from Texas (Ms. JACKSON LEE), her second amendment that we are accepting on this side of the aisle.

I believe this amendment, in combination with the previous amendment,

aims to ensure that the National Science Foundation grants fund research that meets the highest standards so taxpayer dollars are not wasted on frivolous grants or poorly designed research proposals.

This amendment recognizes the National Science Foundation's basic research mission and endorses applying the bill's national interest standards and criteria to National Science Foundation's basic research grants.

I thank the gentlewoman for her amendment, and I support it.

I yield back the balance of my time.

Ms. JACKSON LEE. I thank the gentleman for supporting this amendment, and I thank the ranking member for supporting it.

In closing, Mr. Chairman, let me say that, in addition to following protocol, we must invest funds, money, in basic research.

But I also want to take note of something that I have watched over the years, and I have added amendments, and I have seen the growth.

One of my first acts on the Science, Space, and Technology Committee was to utilize laboratory tools or equipment that were no longer needed by the Federal Government in its national science lab to give them to middle schools and high schools so that they would have access to this kind of equipment. Many of us know that there are schools all throughout America who are deficient in science labs. I see them in my district. I hear about them.

I think the other important point is that, over the years, we have expanded the research collaboration to Historically Black Colleges, Hispanic-Serving Institutions, Native American-Serving, rural, and colleges that serve the economically disadvantaged.

Those are good things because we don't know where the genius is America and how many people may come up with outstanding research. So I hope that we do focus on how important basic research is.

I ask my colleagues to support the Jackson Lee amendment.

I yield back the balance of my time.

The Acting CHAIR. The question is on the amendment offered by the gentlewoman from Texas (Ms. JACKSON LEE).

The amendment was agreed to.

AMENDMENT NO. 5 OFFERED BY MS. DELBENE

The Acting CHAIR. It is now in order to consider amendment No. 5 printed in part B of House Report 114-420.

Ms. DELBENE. Mr. Chairman, I have an amendment at the desk.

The Acting CHAIR. The Clerk will designate the amendment.

The text of the amendment is as follows:

Page 4, line 6, insert ", including computer science and information technology sectors," after "workforce".

The Acting CHAIR. Pursuant to House Resolution 609, the gentlewoman from Washington (Ms. DELBENE) and a Member opposed each will control 5 minutes.

The Chair recognizes the gentlewoman from Washington.

Ms. DELBENE. Mr. Chair, I rise to offer this amendment to ensure the National Science Foundation can continue investing in the development of an American workforce that is globally competitive in computer science and information technology. This has been a bipartisan goal in the past, and I am hopeful everyone in this Chamber will be able to support it.

Computing technology has become an integral part of our lives, transforming our society and our Nation's economy. Nowhere is this clearer than in the Puget Sound region. I have the honor of representing Washington's First District, which has some of the world's leading software companies and technology innovators.

But the same can be seen across the country. According to the Bureau of Labor Statistics, there will be roughly 10 million STEM jobs by 2020 and, of those jobs, half are expected to be in computing and information technology. That is nearly 5 million good-paying jobs. But unless we step up our game, our country won't have enough computer science graduates to fill those positions.

Today, there continues to be a substantial shortage of Americans with the skills needed to fill computing jobs, and too few of our students are being given the opportunity to learn computer science, both at the K-12 level and in college. What is worse, dramatic disparities remain for girls and students of color.

Last year, less than 25 percent of students taking the AP Computer Science exam were girls, while less than 15 percent were African American or Latino.

To remain economically competitive, we need to make smart investments now to address these disparities and ensure we have a strong 21st century workforce in the decades to come. Thankfully, NSF supports vital research and development projects to help prepare the next generation to compete in STEM jobs, something we all agree is an important goal.

My amendment simply clarifies that, under the legislation, NSF can also invest in projects aimed at developing an American workforce that is globally competitive in computing and information technology, sectors that are seeing enormous growth here at home and around the globe.

If we want our students to be prepared for the digital economy, NSF must be able to fund projects that support the teaching and learning of essential computer science skills like coding, programming, designing, and debugging. My amendment will do just that. It will ensure we are looking forward and preparing students for the college degrees and careers of the future.

I urge my colleagues on both sides of the aisle to support it.

I reserve the balance of my time.

Mr. SMITH of Texas. Mr. Chairman, I claim time in opposition to the amendment, but I do not oppose it.

The Acting CHAIR. Without objection, the gentleman is recognized for 5 minutes.

There was no objection.

Mr. SMITH of Texas. Mr. Chairman, I accept the gentlewoman's amendment. It clarifies that it is in the national interest to fund grants that support the development of an American STEM workforce that is globally competitive and that includes computer science and the information technology sectors.

In October, the President signed into law the STEM Education Act, a bill that I introduced with my colleague Ms. ESTY, which expands the definition of STEM to include computer science. This amendment reinforces that new Federal definition of STEM. It is a perfecting amendment to the bill, and I welcome it.

I agree with my colleague that it is in the national interest to support creating training a STEM workforce which includes computer science, and I support her amendment.

I yield back the balance of my time.

Ms. DELBENE. I want to thank the chairman for his support.

I yield back the balance of my time.

The Acting CHAIR. The question is on the amendment offered by the gentlewoman from Washington (Ms. DELBENE).

The amendment was agreed to.

AMENDMENT NO. 6 OFFERED BY MS. DELBENE

The Acting CHAIR. It is now in order to consider amendment No. 6 printed in part B of House Report 114-420.

Ms. DELBENE. Mr. Chairman, I have an amendment at the desk.

The Acting CHAIR. The Clerk will designate the amendment.

The text of the amendment is as follows:

Page 5, after line 3, add the following:

(e) CLARIFICATION.—Nothing in this Act shall be construed to impact Federal funding for research grants or cooperative agreements awarded by the National Science Foundation prior to the date of enactment of this Act.

The Acting CHAIR. Pursuant to House Resolution 609, the gentlewoman from Washington (Ms. DELBENE) and a Member opposed each will control 5 minutes.

The Chair recognizes the gentlewoman from Washington.

Ms. DELBENE. Mr. Chair, I rise to offer an important amendment for scientists across the country who are engaged in ongoing research funded by the National Science Foundation.

As everyone in this Chamber knows, research and innovation are central to American competitiveness and driving our national economy. Each year, investments in research through NSF help us push the boundaries of scientific knowledge, support new industries, and address the challenges facing our society.

I don't think anyone would deny that funding for NSF has overwhelmingly benefited our country. It is also key to our country's economic growth. Funding new explorations in science and

technology is how we stay on the cutting edge of research; it is how we continue to compete globally in the 21st century economy.

That is why I have serious concerns about the implications of the underlying legislation, which needlessly inserts a layer of political review into the scientific research process. To remain a world leader, we need to ensure scientists are exploring transformative new ideas and frontiers based on the merits of their research, not the subjective opinions of politicians in Congress.

Unfortunately, those subjective opinions are exactly what is being injected into the process under this legislation; and what is worse, it has the potential to put ongoing research at risk. By changing the rules about how NSF funding is awarded, scientists across the country may rightfully be concerned about how this legislation affects the important work that they are doing today.

As someone who started her career in research, I can tell you firsthand it is incredibly important that you have the certainty to see a project through to the end. Starting and stopping research is highly detrimental.

We should provide scientists the long-term visibility to know their ongoing research can be completed without interference from politicians, and that is precisely what my amendment does. My amendment simply clarifies that the underlying legislation does not impact any grant funding that has already been awarded by the NSF. It is critical that we pass it to ensure ongoing research is not disrupted by this unfortunate bill.

Mr. Chairman, research isn't a spigot you can turn on and off. I urge my colleagues on both sides of the aisle to support this commonsense amendment.

I reserve the balance of my time.

Mr. SMITH of Texas. Mr. Chairman, I claim the time in opposition to the amendment, though I do not oppose the amendment.

The Acting CHAIR. Without objection, the gentleman is recognized for 5 minutes.

There was no objection.

Mr. SMITH of Texas. Mr. Chairman, I accept the gentlewoman's amendment. It clarifies that the new requirements in the bill do not apply to grants that have already been awarded by the National Science Foundation. I agree that the bill is not intended to be retroactive.

In January 2015, NSF began to implement new internal guidelines that promote accountability and transparency. These guidelines are compatible with this bill, but the implementation of them is a work in progress. I will continue to communicate with NSF about how they implement their internal guidelines, but agree that this bill will only apply to future grants, once enacted.

So, Mr. Chairman, I support the amendment.

I yield back the balance of my time.
Ms. DELBENE. I thank the chairman for his support of the amendment.

I yield back the balance of my time.
The Acting CHAIR. The question is on the amendment offered by the gentlewoman from Washington (Ms. DELBENE).

The amendment was agreed to.

Mr. SMITH of Texas. Mr. Chairman, I move that the Committee do now rise. The motion was agreed to.

Accordingly, the Committee rose; and the Speaker pro tempore (Mr. CARTER of Texas) having assumed the chair, Mr. MOONEY of West Virginia, Acting Chair of the Committee of the Whole House on the state of the Union, reported that that Committee, having had under consideration the bill (H.R. 3293) to provide for greater accountability in Federal funding for scientific research, to promote the progress of science in the United States that serves that national interest, had come to no resolution thereon.

RECESS

The SPEAKER pro tempore. Pursuant to clause 12(a) of rule I, the Chair declares the House in recess subject to the call of the Chair.

Accordingly (at 4 o'clock and 13 minutes p.m.), the House stood in recess.

□ 1645

AFTER RECESS

The recess having expired, the House was called to order by the Speaker pro tempore (Mr. MOONEY of West Virginia) at 4 o'clock and 45 minutes p.m.

REPORT ON RESOLUTION PROVIDING FOR CONSIDERATION OF H.R. 2017, COMMON SENSE NUTRITION DISCLOSURE ACT OF 2015, AND PROVIDING FOR PROCEEDINGS DURING THE PERIOD FROM FEBRUARY 15, 2016, THROUGH FEBRUARY 22, 2016

Mr. BURGESS, from the Committee on Rules, submitted a privileged report (Rept. No. 114-421) on the resolution (H. Res. 611) providing for consideration of the bill (H.R. 2017) to amend the Federal Food, Drug, and Cosmetic Act to improve and clarify certain disclosure requirements for restaurants and similar retail food establishments, and to amend the authority to bring proceedings under section 403A, and providing for proceedings during the period from February 15, 2016, through February 22, 2016, which was referred to the House Calendar and ordered to be printed.

SCIENTIFIC RESEARCH IN THE NATIONAL INTEREST ACT

The SPEAKER pro tempore. Pursuant to House Resolution 609 and rule XVIII, the Chair declares the House on

the state of the Union for the further consideration of the bill, H.R. 3293.

Will the gentleman from Iowa (Mr. BLUM) kindly take the chair.

□ 1647

IN THE COMMITTEE OF THE WHOLE

Accordingly, the House resolved itself into the Committee of the Whole House on the state of the Union for the further consideration of the bill (H.R. 3293) to provide for greater accountability in Federal funding for scientific research, to promote the progress of science in the United States that serves that national interest, with Mr. BLUM (Acting Chair) in the chair.

The Clerk read the title of the bill.

The Acting CHAIR. When the Committee of the Whole rose earlier today, amendment No. 6 printed in part B of House Report 114-420, offered by the gentlewoman from Washington (Ms. DELBENE), had been disposed of.

AMENDMENT NO. 2 OFFERED BY MS. EDDIE BERNICE JOHNSON OF TEXAS

The Acting CHAIR. Pursuant to clause 6 of rule XVIII, the unfinished business is the demand for a recorded vote on the amendment offered by the gentlewoman from Texas (Ms. EDDIE BERNICE JOHNSON) on which further proceedings were postponed and on which the noes prevailed by voice vote.

The Clerk will redesignate the amendment.

The Clerk redesignated the amendment.

RECORDED VOTE

The Acting CHAIR. A recorded vote has been demanded.

A recorded vote was ordered.

The vote was taken by electronic device, and there were—ayes 181, noes 235, not voting 17, as follows:

[Roll No. 68]

AYES—181

Adams	Cuellar	Hastings
Aguilar	Cummings	Heck (WA)
Ashford	Curbelo (FL)	Higgins
Bass	Davis (CA)	Himes
Beatty	Davis, Danny	Hinojosa
Becerra	DeFazio	Honda
Bera	DeGette	Hoyer
Beyer	Delaney	Huffman
Bishop (GA)	DeLauro	Israel
Blumenauer	DelBene	Jackson Lee
Bonamici	DeSaunier	Jeffries
Boyle, Brendan	Deutch	Johnson (GA)
F	Dingell	Johnson, E. B.
Brady (PA)	Doggett	Kaptur
Brown (FL)	Dold	Keating
Brownley (CA)	Doyle, Michael	Kennedy
Bustos	F	Kildee
Butterfield	Edwards	Kilmer
Capps	Ellison	Kind
Capuano	Engel	Kirkpatrick
Cárdenas	Eshoo	Kuster
Carney	Esty	Langevin
Carson (IN)	Farr	Larsen (WA)
Cartwright	Fattah	Larson (CT)
Castor (FL)	Foster	Lawrence
Chu, Judy	Frankel (FL)	Lee
Cicilline	Fudge	Levin
Clark (MA)	Gabbard	Lewis
Clarke (NY)	Gallego	Lieu, Ted
Clay	Garamendi	Loebsock
Cleaver	Graham	Lofgren
Clyburn	Grayson	Lowenthal
Cohen	Green, Al	Lowe
Connolly	Green, Gene	Lujan Grisham
Conyers	Grijalva	(NM)
Cooper	Gutiérrez	Luján, Ben Ray
Courtney	Hahn	(NM)
Crowley	Hanna	Lynch

Maloney, Carolyn	Pingree	Speier
Maloney, Sean	Pocan	Swalwell (CA)
Matsui	Polis	Takai
McCollum	Price (NC)	Takano
McDermott	Rangel	Thompson (CA)
McGovern	Rice (NY)	Thompson (MS)
McNerney	Ros-Lehtinen	Titus
Meeks	Roybal-Allard	Tonko
Meng	Ruiz	Torres
Moore	Ruppersberger	Tsongas
Moulton	Rush	Van Hollen
Murphy (FL)	Ryan (OH)	Vargas
Nadler	Sánchez, Linda	Veasey
Napolitano	T	Vela
Neal	Sarbanes	Velázquez
Nolan	Schakowsky	Visclosky
Norcross	Schiff	Walz
O'Rourke	Schrader	Wasserman
Pallone	Scott (VA)	Schultz
Pascarell	Scott, David	Waters, Maxine
Payne	Serrano	Watson Coleman
Pelosi	Sewell (AL)	Welch
Perlmutter	Sherman	Wilson (FL)
Peters	Sires	Yarmuth
	Slaughter	

NOES—235

Abraham	Gohmert	Moolenaar
Aderholt	Goodlatte	Mooney (WV)
Allen	Gosar	Mulvaney
Amash	Granger	Murphy (PA)
Amodei	Graves (LA)	Neugebauer
Babin	Graves (MO)	Newhouse
Barletta	Griffith	Noem
Barr	Grothman	Nugent
Barton	Guinta	Nunes
Benishek	Guthrie	Olson
Bilirakis	Hardy	Palazzo
Bishop (MI)	Harper	Palmer
Bishop (UT)	Harris	Paulsen
Black	Hartzler	Pearce
Blackburn	Heck (NV)	Perry
Blum	Hensarling	Peterson
Bost	Hice, Jody B.	Pittenger
Boustany	Hill	Pitts
Brady (TX)	Holding	Poe (TX)
Brat	Huelskamp	Poliquin
Bridenstine	Hultgren	Pompeo
Brooks (AL)	Hunter	Posey
Brooks (IN)	Hurd (TX)	Price, Tom
Buchanan	Hurt (VA)	Ratcliffe
Buck	Issa	Reed
Bucshon	Jenkins (KS)	Reichert
Burgess	Jenkins (WV)	Renacci
Byrne	Johnson (OH)	Ribble
Calvert	Johnson, Sam	Rice (SC)
Carter (GA)	Jolly	Rigell
Carter (TX)	Jones	Roby
Chabot	Jordan	Roe (TN)
Chaffetz	Joyce	Rogers (AL)
Clawson (FL)	Katko	Rogers (KY)
Coffman	Kelly (MS)	Rohrabacher
Cole	Kelly (PA)	Rokita
Collins (GA)	King (IA)	Rooney (FL)
Collins (NY)	King (NY)	Roskam
Comstock	Kinzinger (IL)	Ross
Conaway	Kline	Rothfus
Cook	Knight	Rouzer
Costa	Labrador	Royce
Costello (PA)	LaHood	Russell
Cramer	LaMalfa	Salmon
Crawford	Lamborn	Sanford
Crenshaw	Lance	Scalise
Culberson	Latta	Schweikert
Davis, Rodney	LoBiondo	Scott, Austin
Denham	Long	Sensenbrenner
Dent	Loudermilk	Sessions
DeSantis	Love	Shuster
DesJarlais	Lucas	Simpson
Diaz-Balart	Luetkemeyer	Sinema
Donovan	Lummis	Smith (MO)
Duffy	MacArthur	Smith (NE)
Duncan (SC)	Marchant	Smith (NJ)
Duncan (TN)	Marino	Smith (TX)
Ellmers (NC)	Massie	Stefanik
Emmer (MN)	McCarthy	Stewart
Farenthold	McCaul	Stivers
Fitzpatrick	McClintock	Stutzman
Fleischmann	McHenry	Thompson (PA)
Fleming	McKinley	Thornberry
Flores	McMorris	Tiberi
Forbes	Rodgers	Tipton
Fortenberry	McSally	Trott
Fox	Meadows	Turner
Franks (AZ)	Meehan	Upton
Frelinghuysen	Messer	Valadao
Garrett	Mica	Wagner
Gibbs	Miller (FL)	Walberg
Gibson	Miller (MI)	Walden