

PROVIDING FOR CONSIDERATION OF H.R. 363, SOWING THE SEEDS THROUGH SCIENCE AND ENGINEERING RESEARCH ACT

Mr. CARDOZA. Madam Speaker, by direction of the Committee on Rules, I call up House Resolution 318 and ask for its immediate consideration.

The Clerk read the resolution, as follows:

H. RES. 318

Resolved, That at any time after the adoption of this resolution the Speaker may, pursuant to clause 2(b) of rule XVIII, declare the House resolved into the Committee of the Whole House on the state of the Union for consideration of the bill (H.R. 363) to authorize appropriations for basic research and research infrastructure in science and engineering, and for support of graduate fellowships, and for other purposes. The first reading of the bill shall be dispensed with. All points of order against consideration of the bill are waived except those arising under clause 9 or 10 of rule XXI. General debate shall be confined to the bill and shall not exceed one hour equally divided and controlled by the chairman and ranking minority member of the Committee on Science and Technology. After general debate the bill shall be considered for amendment under the five-minute rule. It shall be in order to consider as an original bill for the purpose of amendment under the five-minute rule the amendment in the nature of a substitute recommended by the Committee on Science and Technology now printed in the bill. The committee amendment in the nature of a substitute shall be considered as read. All points of order against the committee amendment in the nature of a substitute are waived except those arising under clause 9 or 10 of rule XXI. Notwithstanding clause 11 of rule XVIII, no amendment to the committee amendment in the nature of a substitute shall be in order except those printed in the report of the Committee on Rules accompanying this resolution. Each such amendment may be offered only in the order printed in the report, may be offered only by a Member designated in the report, shall be considered as read, shall be debatable for the time specified in the report equally divided and controlled by the proponent and an opponent, shall not be subject to amendment, and shall not be subject to a demand for division of the question in the House or in the Committee of the Whole. All points of order against such amendments are waived except those arising under clause 9 or 10 of rule XXI. At the conclusion of consideration of the bill for amendment the Committee shall rise and report the bill to the House with such amendments as may have been adopted. Any Member may demand a separate vote in the House on any amendment adopted in the Committee of the Whole to the bill or to the committee amendment in the nature of a substitute. The previous question shall be considered as ordered on the bill and amendments thereto to final passage without intervening motion except one motion to recommend with or without instructions.

SEC. 2. During consideration in the House of H.R. 363 pursuant to this resolution, notwithstanding the operation of the previous question, the Chair may postpone further consideration of the bill to such time as may be designated by the Speaker.

The SPEAKER pro tempore. The gentleman from California (Mr. CARDOZA) is recognized for 1 hour.

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Mr. CARDOZA. Madam Speaker, for the purpose of debate only, I yield the

customary 30 minutes to the gentleman from Washington (Mr. HASTINGS). All time yielded during consideration of the rule is for debate only. I yield myself such time as I may consume.

GENERAL LEAVE

Mr. CARDOZA. Madam Speaker, I ask unanimous consent that all Members have 5 legislative days within which to revise and extend their remarks and to insert extraneous material into the RECORD.

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

There was no objection.

Mr. CARDOZA. Madam Speaker, House Resolution 318 provides for consideration of H.R. 363, the Sowing the Seeds through Science and Engineering Research Act, under a structured rule.

The rule provides for 1 hour of general debate, equally divided and controlled by the chairman and ranking member of the Committee on Science and Technology.

The rule waives all points of order against consideration of the bill except for clauses 9 and 10 of rule XXI. The bill shall be considered as read.

The rule makes in order and provides appropriate waivers for all three amendments that were submitted for consideration. The first amendment to be debated on the floor will be that of the gentleman from Texas (Mr. HALL), the ranking member of the Science and Technology Committee.

Finally, the rule provides for one motion to recommit, with or without instructions.

Madam Speaker, the talent, intellect and entrepreneurial spirit of the American people have made this Nation the leader in economic and technological advancements. In fact, high-tech industries drive economic growth around the world.

Every day, however, my constituents tell me the United States has fallen further and further behind our competitors in Europe and Asia. The United States continues to lead the world in many statistical categories such as R&D spending and the number of scientists and engineers; however, the rest of the world is increasing its capacity, its R&D investments, and its will to catch up with us.

Other countries such as China and India are pouring resources into their scientific and technological infrastructure at staggering rates, which is increasing their ability to compete with us in the global economy.

For example, in South Korea, 38 percent of undergraduates received their degrees in science or engineering. In France, the figure is 47 percent. In China, it is 50 percent, and in Singapore, it is 67 percent. In the United States, only 15 percent of undergraduates receive a degree in science or engineering. More telling is the fact that approximately one-third of U.S. students intending to major in engineering switch majors to something else before graduating.

Madam Speaker, the warning signs could not be any clearer. Our leadership in the race to discovery is being challenged at unparalleled levels around the world. We cannot ignore this challenge, and we cannot afford to ignore this challenge.

Our society has always depended on innovation and discovery. It has depended on pioneers who push themselves to their intellectual and physical limits to find the hidden paths that lead to that discovery. Over 125 years ago, Thomas Edison who famously quipped that he had not failed but instead had found 10,000 different ways that would not work invented the light bulb, and it was Albert Einstein who once said, "I never came upon any of my discoveries through the process of rational thinking."

My point, Madam Speaker, is that our advancement as a society depends on leading the search for the unknown. Americans must continue to research, we must continue to develop, and we must continue to innovate in order to create new and thriving industries that will produce millions of good jobs and a better future for our children. To do that, however, we must continue to reinvigorate America's commitment to this discovery process.

The National Academy of Sciences recently released a report, "Rising Above the Gathering Storm." The report outlines specific recommendations to enhance the scientific building blocks in the United States. The bill we have today before us, H.R. 363, the Sowing the Seeds through Science and Engineering Research Act, draws directly from several of those recommendations.

To paraphrase the report, the report recommends that we strengthen our Nation's commitment to research to maintain the flow of new ideas that fuel the economy, provide security and enhance our quality of life. In that regard, H.R. 363 seeks to improve Federal support for scientific research and education in order to maintain our position as the unequivocal global leader in innovation.

H.R. 363 creates a program at the National Science Foundation to award grants to scientists and engineers at the early stage of their careers at colleges, universities and research institutions across the country. Young researchers are eligible to receive up to \$80,000 per year for 5 years.

The awards are granted on a competitive basis and are based on intellectual merit of their work, the innovative or transformative nature of the proposed research, and the researcher's potential for leadership at the frontiers of knowledge.

The bill requires that the National Science Foundation director allocate at least 3.5 percent of its research funding for this grant program. The bill also creates a similar program in the Department of Energy for which \$25 million is authorized.

H.R. 363 directs NSF to allocate at least 1.5 percent of its research funds

to an integrated graduate education and research training program. This program provides support to those scientists and engineers who will pursue careers in research and education.

Just this week, Madam Speaker, the president of my alma mater from the University of Maryland, Dr. Mote, came by to describe some of the challenges for young researchers in just this area. It is so appropriate that Congress is taking this action at this time.

This bill establishes the Presidential Innovation Award, an award which will recognize scientists and engineers who develop unique innovations in the national interests. The bill creates a national coordination office within the Office of Science and Technology Policy to better coordinate research efforts, and, finally, H.R. 363 directs the National Institute of Standards and Technology to provide a report to Congress on the efforts to attract and retain young researchers.

But this bill goes far beyond the long-lasting impacts of development and innovation. It goes far beyond our ability to create jobs and compete in a global economy. It will plant the seeds of hope for a better tomorrow in communities across this country.

I know firsthand what research funding will be able to do. The University of California in Merced, my hometown in my district, is on the cutting edge of several research projects where additional funding could spur the next big breakthrough. UC Merced is a leader in solar concentration technologies, just one of the many of our ongoing projects. To date, this research has largely been supported through public and private partnerships. However, increased research funding could potentially improve the efficiencies of solar power and solar thermal technologies; and if efficiency and affordability are within our grasp, we can decrease the carbon emissions and reduce our dependence on foreign oil, certainly worthy goals for this Congress. This is but one example of many research efforts across our country that has the potential to define and shape tomorrow.

It is this type of project that would benefit from the funding of this bill, but how many more ideas could become reality if our researchers only had the tools that they sorely need? How many more concepts, how many more ideas are out there on the horizon waiting to be discovered?

Madam Speaker, it is our duty and our responsibility as legislators to help make those dreams and ideas become a reality.

Madam Speaker, I reserve the balance of my time.

Mr. HASTINGS of Washington. Madam Speaker, I yield myself such time as I may consume.

(Mr. HASTINGS of Washington asked and was given permission to revise and extend his remarks.)

Mr. HASTINGS of Washington. Madam Speaker, I want to thank the gentleman from California (Mr.

CARDOZA) for yielding me the customary 30 minutes.

Madam Speaker, it is vital that the United States continue to grow more globally competitive in the areas of scientific research and technology. Federal and private investment in supporting research and development is essential to the health of our economy and our competitiveness as a Nation. We must plan for the future by investing in areas of basic research and science today.

The underlying bill, H.R. 363, reaffirms our Federal commitment to increase America's global competitiveness in the areas of science, technology, research and innovation by supporting America's future scientific leaders.

The central Washington area that I represent is home to the Pacific Northwest National Lab in Richland, a state-of-the-art research facility. The PNNL hosts a diverse staff of outstanding scientists, engineers and support professionals. Many of these individuals in the past have received the highest levels of recognition for outstanding achievements and discoveries in their field.

At this lab, researchers use their expertise in the fields of environmental, radiological, biological and computational sciences to make important contributions to the scientific advancement of our Nation. The development of fuel cell technologies, biomass systems and radiation portal monitors are just a few of the areas where lab researchers are leading efforts to solve our national security and energy security challenges.

I am pleased that this legislation includes efforts to help encourage collaborations between scientists and national labs. Specifically, this legislation allows the National Science Foundation grants to be used in collaboration with our national labs, which means more researchers at our labs will be eligible for Federal support.

Madam Speaker, the underlying legislation enjoys strong bipartisan support, and this rule makes in order all amendments that were submitted to the Committee on Rules. However, Madam Speaker, I question the need once again for a structured rule when an open rule could have been granted for consideration of this bill.

Accordingly, I urge my colleagues to oppose the rule.

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

Mr. CARDOZA. Mr. Speaker, before I turn it over and yield to my colleague from Texas, I just want to respond to the gentleman and say, on an ongoing basis, we have heard the same drumbeat that we are somehow trampling on the rights of the minority. It is true that this is a structured rule, but it is also true, as it was with the last bill, that every amendment that has been offered has been granted. Certainly that is in the spirit of collegiality and cooperation that this House deserves.

We have gone far beyond what is required. This is not an open rule, but certainly we have done more open rules in this committee than was done in the past Congress already in the first few months. We are doing everything we can to accommodate the minority in both spirit and practice.

So I say to my colleague, my good friend from the State of Washington, that he has had the opportunity, every Member, I have heard no one who is clamoring for an amendment to this bill. In fact, all three amendments that were offered to the committee were, in fact, granted, and it seems to me that we are offering cooperation on a silver platter. We just need our colleagues to say "yes" and agree that we have done that.

Mr. HASTINGS of Washington. Mr. Speaker, will the gentleman yield?

Mr. CARDOZA. I yield to the gentleman from Washington.

Mr. HASTINGS of Washington. Mr. Speaker, I appreciate the gentleman yielding, and I appreciate his acknowledgment that this is a structured rule and, therefore, Members cannot come down to the floor and ask for amendments to be made in order.

But I just want to make this point, and we talk about it a lot in the Rules Committee. A lot of these bills have strong bipartisan support, and, yes, there may or may not be Members that are clamoring for amendments. But it would just seem to me to keep the process in a way where all Members, if they desire, should have an opportunity to come down because maybe something was said in debate, maybe a point that was made that was overlooked, to at least have the opportunity to change. When bills have strong bipartisan support, that is probably the best time to have an open rule.

I respectfully tell my friend that there has been a change in definition of what open rules are. We could probably discuss that further because you have not had the open rules that we have had based on everybody having an opportunity.

I would just simply say that bills like this, if you are going to have them on the floor under the regular order of a rule, then it should be an open rule. Otherwise, it seems to me that it should be on a Suspension Calendar, like we pass so many pieces of our legislation.

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That is just simply the point I am making. I appreciate the gentleman yielding.

Mr. CARDOZA. Reclaiming my time, I acknowledge this is not an open rule, this is a structured rule. That is what we put forward. In the 12 or 14 years that the current minority was in power, we saw a declining, ever-declining number of what he considers an open rule.

As I said before, we granted every amendment that came forward in the

last two bills. Certainly that is in the spirit of cooperation that we bring this legislation to the House floor.

Mr. Speaker, I yield 1½ minutes to the gentlewoman from Texas (Ms. EDDIE BERNICE JOHNSON), a member of the Science Committee.

Ms. EDDIE BERNICE JOHNSON of Texas. Let me proceed to thank my colleagues for bringing this rule to the House so that we can rise above the gathering storm.

Mr. Speaker, this is not to insult anyone. I know what it feels like not to be given the opportunity to offer an amendment, I truly do.

But this is a well-substantiated reason because we are in a crisis in this Nation, and we must rise to the occasion. We are moving backwards right now, or standing still. The measure is an investment in America's future, and we must move it.

We must support our American scholars so that we can get the leadership and the thoughts we need to convey to other young people. Our young scholars are not getting the support they need now. They really need more, because they are the future.

The alternative to this bill is to become a Third World nation with all the low-paying jobs, because all of the other ones will leave this country to go where the talent is. We must move fast.

We are in a crisis, and I would hope that we would accept this rule as it is.

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

Mr. CARDOZA. Mr. Speaker, I yield 3 minutes to the gentleman from New York (Mr. ISRAEL), a member of the Appropriations Committee.

Mr. ISRAEL. I thank the gentleman for his leadership.

Mr. Speaker, not to quibble over a rule, but to get to the heart of this very important legislation, in 1957 the American people were terrorized when Sputnik orbited the Earth, and it looked like the Soviet Union had beat us into outer space. What we did then, in the face of that very grave threat to our national security, was to launch a new generation of engineers and scientists.

What we did then was went into our classrooms and nurtured a new generation of people who could engineer, research, develop, manufacture and mobilize. That generation of engineers landed us on the Moon.

People say that NASA landed man on the Moon. I have a very high regard for NASA, but NASA didn't land us on the Moon. The Grumman Corporation landed us on the Moon. NASA provided the incentives and the support and acted as a catalyst to help mobilize that generation of engineers that figured out how to get us to the Moon. We won the Cold War with that generation.

I believe that today our dependence on foreign oil is just as grave a threat as Sputnik was; just as grave a threat to our security, and my children's se-

curity, as the Cold War was. We need to engineer again, to research and develop, to mobilize and motivate and inspire a new generation of engineers who can develop plug-in hybrids and fuel cells, hydrogen fuel cells and batteries and cellulosic ethanol.

I was in China just 2 months ago on an energy security congressional delegation. The seventh wealthiest person in China is manufacturing solar panels in China and selling them to Germany; not here, but selling them to Germany.

In Brazil, seven out of every 10 cars is running on flex fuel. We beat Germany and Japan in World War II. They are now ahead of us in solar energy.

If we could win the Cold War and World War II, if we could defeat Germany and Japan in World War II, we should be able to get ahead of them in solar energy. If Brazil can do it, we can do it. It starts in the classroom. It starts with our schools. It starts with that generation.

We can no longer afford to turn our backs on the future. It is time to harness that energy so that generation can provide us with the energy and security we need. It is time to stop borrowing money from China in order to fund our military, to buy oil from the Persian Gulf to fuel our weapons to protect us from China and the Persian Gulf.

This is a national security issue, and it's time for us to treat it as that and invest in that next generation of engineers and scientists. That is what this bill does, and that is why I am so proud to support it.

Mr. HASTINGS of Washington. Mr. Speaker, I ask my friend from California if he has any more requests for time.

Mr. CARDOZA. We have no more requests for time and are prepared to close.

Mr. HASTINGS of Washington. Mr. Speaker, I simply want to say this is a very good bill. It's a bill that has been worked on in the past Congress, and, obviously, in this Congress. It has strong bipartisan support, and all of the points that my friend from New York made in his previous remarks, I would like to associate myself with them. We need that.

It just seems to me that during their whole process, when you have strong bipartisan support, under the rules of the House, all Members ought to have an opportunity to have some say in legislation as important as this that comes to the floor of the House, and not just those members within the committee of jurisdiction.

I am simply pointing that out. It is a promise that was made by the new majority in the last election. I will withhold judgment, obviously, until after this first session is over to see if, in fact, those promises were kept. But as we go along here, seeing structured rules on bills that could very well be on a Suspension Calendar, I just think it's another opportunity missed.

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

Mr. CARDOZA. Mr. Speaker, I first want to acknowledge the fantastic remarks of my colleague, Mr. ISRAEL, from the great State of New York.

I also want to respond to my colleague in closing, that while we hear continued complaints about the rule process this session, we have granted the vast majority of amendments that have been offered on these last two bills. In fact, I think every amendment that was offered was granted to the minority. There is certainly no shortage of allowing the minority to have input, both in the committee and here on the floor.

I just get to the heart of the topic at hand today, and that is, quite simply, we must, we must reinvigorate America's commitment to discovery. Where there is research to be done, we must undertake it. There is opportunity to be pursued. This country has always pursued the opportunities presented. We have been an innovator in the last 225 years that we have been in existence, and we must continue to pursue it.

When a technological breakthrough lies far away on the horizon, we must seek it and discover it. I urge a 'yes' vote on the rule and on the previous question.

Mr. Speaker, I yield back the balance of my time, and I move the previous question on the resolution.

The previous question was ordered.

The SPEAKER pro tempore (Mr. SALAZAR). The question is on the resolution.

The question was taken; and the Speaker pro tempore announced that the yeas appeared to have it.

Mr. CARDOZA. Mr. Speaker, on that I demand the yeas and nays.

The yeas and nays were ordered.

The SPEAKER pro tempore. Pursuant to clause 8 of rule XX, further proceedings on this question will be postponed.

ANNOUNCEMENT BY THE SPEAKER PRO TEMPORE

The SPEAKER pro tempore. Pursuant to clause 8 of rule XX, proceedings will resume on questions previously postponed. Votes will be taken in the following order: H. Res. 327, H. Res. 318, H. Res. 299, H. Res. 289, H. Res. 119, each by the yeas and nays.

The first electronic vote will be conducted as a 15-minute vote. Remaining electronic votes will be conducted as 5-minute votes.

PROVIDING FOR CONSIDERATION OF H.R. 362, 10,000 TEACHERS, 10 MILLION MINDS SCIENCE AND MATH SCHOLARSHIP ACT

The SPEAKER pro tempore. The unfinished business is the vote on adoption of House Resolution 327, on which the yeas and nays were ordered.

The Clerk read the title of the resolution.

The SPEAKER pro tempore. The question is on the resolution.