Originally Processed With FOIA(s):
S

FOIA Number:
S

FOIA MARKER

This is not a textual record. This is used as an administrative marker by the George Bush Presidential Library Staff.

Record Group/Collection: George H.W. Bush Presidential Records
Collection/Office of Origin: Speechwriting, White House Office of
Series: Speech File Backup Files
Subseries: Chron File, 1989-1993

OA/ID Number: 13659
Folder ID Number: 13659-003

Folder Title:
Westinghouse Science Winners 3/3/89 [OA 6343]

Stack:	Row:	Section:	Shelf:	Position:
G	26	18	6	7

THE WHITE HOUSE

Office of the Press Secretary

For Immediate Release March 3, 1989

REMARKS BY THE PRESIDENT
TO WINNERS OF
WESTINGHOUSE SCIENCE TALENT SEARCH

The National Academy of Sciences Building
Washington, D.C.

2:20 P.M. EST

THE PRESIDENT: Thank you very much. Thank you, Mr. Marous, and all of what you at Westinghouse do for this outstanding concept. Doctor Press -- last time I saw Frank Press -- maybe it wasn't the last time, but he'd just received an honorary degree at a graduation ceremony where there were 50,000 people present at Ohio State University -- well-deserved honor, that he well-deserved, as a matter of fact, for prestige he's given to science in this country. And when he salutes a group like this, why, it makes a big impression on me as well.

I want to thank you all -- Dr. Seaborg, whose reputation is well-known to everybody here; and John as well, for explaining some of the exhibits to me. (Laughter.) I had done a lot in the field of the viability of MVM Parvo Virus. (Laughter.) And then at night I like to curl up with a book on mapping mutants. (Laughter.) And every once in a while, when I have some spare time, Barbara and I read aloud about the behavior of the inhibitions of sialidases. (Laughter.)

So we have a lot in common with these researchers here. (Laughter.) But I'll tell you, I'm glad there's no quiz. (Laughter.) And I am so impressed and I expect everybody here has had a chance to look at these studies. And I'll tell you, it just reaffirms your basic faith in the young people of this country and in the -- I'd say also, in the academic process. Yesterday we saluted some teachers over at the White House and, boy, I wish I'd seen this before I'd had -- before I'd been over there to pay my respects to the teachers who help these young minds.

But really, what all of you have accomplished is really something to be proud of. Not only is it a great achievement, but you really earned these honors. Thomas Edison said that genius is one percent inspiration and 99 percent perspiration. Well, each of you, with your academic diligence and your intellect and a lot of hard work, have won the oldest and largest national high school competition in the entire country.

And past winners of the Westinghouse Talent Search have distinguished themselves in every field of science and mathematics. And your predecessors have received every major honor and award in their fields, including the Nobel Prize and the National Medal of Science.

And what you've done is important for America. Scientific and technological advancement have always been at the very heart of our nation's pioneer spirit, pushing the boundaries of our knowledge, creating economic opportunity, and certainly increasing our standard of living and making this a healthier and safer world in which to live. It is scientific advancements that made us aware of the damage to our Earth's protective ozone layer and the need to reduce CFCs that deplete our precious upper atmospheric resources.

As a result of these advances, the United States and other nations have led the way through the Montreal Protocol, through -- towards reductions of CFCs. And that Protocol will reduce CFCs to 50 percent of 1986 levels by the year 1998. But recent studies indicate that this 50-percent reduction may not be enough. And that's -- I thought some of you interested in that field might like to know that I today asked Bill Reilly, our new EPA Administrator, to join with other nations this weekend as he goes abroad in supporting the call for the elimination of CFCs by the year 2000, provided the safe substitutes are available. And, of course, such a phaseout must be guided by the scientific, economic, and technological assessments under the Protocol.

As a nation, we have no natural resource more precious than our intellectual resources. In fact, it's only thanks to human knowledge and ingenuity that crude oil became a valuable fuel and that fields of grain become methanol, or that grains of sand become silicon chips.

Scientific knowledge must be renewed and expanded in each generation. Many of the miracles that we take for granted in everyday life originated in defense and space research. This investment in new technologies and new plant and equipment helps expand our competitive edge as a nation, and thereby assuring future opportunities for America's next generation in science, engineering, and manufacturing. But for our country to maintain its technological and scientific excellence, no investment in machines or laboratories, as vital as that may be, will, by itself, be sufficient. There have to be the people who have the knowledge and the commitment. And that will be men and women like yourselves who will lead America into the next century.

You know, by one estimate, it takes 10,000 high school students expressing an interest in a science or engineering major to assure us of 20 men and women who will go on to receive doctorate degrees. And I hope that each student in this room gets a doctorate, or pursues a career of one kind or another in science and technology, and that some of you consider returning to the classroom as teachers to inspire a new generation of scientists for the future.

The fruits of investing in science and scientists are evident. Human intelligence has explored the vastness of outer space and the inner frontiers of the particles of the atom; diseases have been cured, knowledge has been harnessed and energy -- I was going to say that energy has been created, but then I remembered the laws of thermodynamics. So let's just call it a wash -- (laughter) -- and say that energy has neither been created nor destroyed. (Laughter.) And please don't debate me on that, Glenn. (Laughter.)

But we truly have seen the scientific knowledge developed in the United States vastly improve the lives of our citizens and of people around the world. And today, international scientists and science students are coming here to America, to do research, to study, to teach; and this is something that our country greatly benefits from.

Yet, still, as a nation, let's face it, we've got to do better. We're not producing enough scientists and mathematicians, and engineers. American universities confer only about 77,000 engineering degrees a year at the undergraduate level. And that's about the same number that Japan produces with a total population of only half our size.

Initiatives from Washington are important. But they're not enough. Students and parents and teachers will determine the direction our young people take and, ultimately, what direction, therefore, that our country takes. And there's only one goal that is worthy of us as Americans. And that is to be the very best in the world; to be number one. That's our history, but it is also, I believe, our destiny. Our national qualities of intellectual

curiosity and innovation, our frontier spirit and our habit of problem-solving all uniquely equip America for the great technological age that is dawning.

To help us move in that direction, the federal budget I propose would, as Frank said, increase funding for -- maybe he didn't cover this point -- but for NASA by 22 percent, would also advance us toward our goal of doubling the budget for the National Science Foundation by 1993. I also proposed full funding for the Superconducting Super Collider, and even though I'm from Texas, people seem to understand. (Laughter.) And as an incentive for private industry, a permanent research and experimentation tax credit.

But one of the most important investments that I want us to make is in science education. So I have proposed a National Science Scholars Program that would provide 570 scholarships a year. And these would be for up to $10,000 a year, for four years. And this program would be based on merit and it would draw at least one young scientist from every district, every congressional district -- 435 across the entire United States -- providing local inspiration and national leadership for the study of science. And I think no one proves better than all of you just how much our students are capable of and how important it is to provide the encouragement and resources that you need. And when you couple this modest federal effort with what Westinghouse and others are doing in this area across the country, we do have something significant and I'd say unique in our country.

So I came over here to congratulate the sponsors, to congratulate the scientists who have given their blessing to this innovative program and especially, to congratulate all of you achievers. I think all of you are destined for great things. And if you've got any skeptics out in the audience, go next door and take a look and you'll see exactly what I mean.

Thank you and God bless all of you. (Applause.)

END 2:31 P.M. EST

WESTINGHOUSE SCIENCE WINNERS
NATIONAL ACADEMY OF SCIENCES BUILDING
FRIDAY, MARCH 3, 1989

THANK YOU VERY MUCH. IT'S A PLEASURE TO BE HERE AND TO HAVE THIS CHANCE TO SEE SO MANY OF YOUR REMARKABLE SCIENCE PROJECTS. THANK YOU FOR YOUR PATIENCE IN EXPLAINING SOME OF THESE EXHIBITS TO ME. I'M NOT SAYING THAT I DIDN'T UNDERSTAND EVERYTHING, BUT I JUST WANT TO SAY: I HOPE THERE'S NO TEST AFTERWARDS.

REALLY, WHAT ALL OF YOU HAVE ACCOMPLISHED IS SOMETHING TO BE VERY PROUD OF. NOT ONLY IS IT A GREAT ACHIEVEMENT, BUT YOU REALLY EARNED IT. THOMAS EDISON SAID THAT GENIUS IS ONE PERCENT INSPIRATION AND NINETY-NINE PERCENT PERSPIRATION. AND EACH OF YOU, WITH YOUR ACADEMIC DILIGENCE, YOUR INTELLECT, AND A LOT OF HARD WORK, HAVE WON THE OLDEST AND LARGEST NATIONAL HIGH SCHOOL COMPETITION IN THE COUNTRY.

3

PAST WINNERS OF THE WESTINGHOUSE SCIENCE TALENT SEARCH HAVE DISTINGUISHED THEMSELVES IN EVERY FIELD OF SCIENCE AND MATHEMATICS. YOUR PREDECESSORS HAVE RECEIVED EVERY MAJOR HONOR AND AWARD IN THEIR FIELDS, INCLUDING THE NOBEL PRIZE AND THE NATIONAL MEDAL OF SCIENCE.

3.1

AND WHAT YOU HAVE DONE IS IMPORTANT FOR AMERICA. SCIENTIFIC AND TECHNOLOGICAL ADVANCEMENT HAVE ALWAYS BEEN AT THE VERY HEART OF OUR NATION'S PIONEER SPIRIT, PUSHING THE BOUNDARIES OF OUR KNOWLEDGE, CREATING ECONOMIC OPPORTUNITY, AND INCREASING OUR STANDARD OF LIVING, AND MAKING THIS A HEALTHIER AND SAFER WORLD IN WHICH TO LIVE. IT IS SCIENTIFIC ADVANCEMENTS THAT MADE US AWARE OF THE DAMAGE TO OUR EARTH'S PROTECTIVE OZONE LAYER, AND THE NEED TO REDUCE CFC'S THAT DEPLETE OUR PRECIOUS UPPER ATMOSPHERIC RESOURCES.

3.2

AS A RESULT OF THESE ADVANCEMENTS, THE UNITED STATES AND OTHER NATIONS HAVE LED THE WAY THROUGH THE MONTREAL PROTOCOL TOWARDS REDUCTIONS OF CFC'S. THAT PROTOCOL WILL REDUCE CFC'S TO 50 PERCENT OF 1986 LEVELS BY THE YEAR 1998. HOWEVER, RECENT STUDIES INDICATE THAT THIS 50 PERCENT REDUCTION MAY NOT BE ENOUGH.

3.3

THAT'S WHY I HAVE TODAY DIRECTED BILL REILLY, OUR EPA ADMINISTRATOR, TO JOIN WITH OTHER NATIONS THIS WEEKEND IN SUPPORTING THE CALL FOR ELIMINATING CFC'S BY THE YEAR 2000, PROVIDED THAT SAFE SUBSTITUTES ARE AVAILABLE. OF COURSE, SUCH A PHASE-OUT MUST BE GUIDED BY THE SCIENTIFIC, ECONOMIC AND TECHNOLOGICAL ASSESSMENTS UNDER THE PROTOCOL.

AS A NATION WE HAVE NO NATURAL RESOURCE MORE PRECIOUS THAN OUR INTELLECTUAL RESOURCES. IN FACT, IT IS ONLY THANKS TO HUMAN KNOWLEDGE AND INGENUITY THAT CRUDE OIL BECOMES A VALUABLE FUEL, THAT FIELDS OF GRAIN BECOME METHANOL, OR THAT GRAINS OF SAND BECOME SILICON CHIPS.

SCIENTIFIC KNOWLEDGE MUST BE RENEWED AND EXPANDED IN EACH GENERATION. MANY OF THE MIRACLES WE TAKE FOR GRANTED IN EVERYDAY LIFE ORIGINATED IN DEFENSE AND SPACE RESEARCH.

5

THIS INVESTMENT IN NEW TECHNOLOGIES AND NEW PLANT AND EQUIPMENT HELPS EXPAND OUR COMPETITIVE EDGE, THEREBY ASSURING FUTURE OPPORTUNITIES FOR AMERICA'S NEXT GENERATION IN SCIENCE, ENGINEERING, AND MANUFACTURING. BUT FOR AMERICA TO MAINTAIN ITS TECHNOLOGICAL AND SCIENTIFIC EXCELLENCE, NO INVESTMENT IN MACHINES OR LABORATORIES, AS VITAL AS THAT IS, WILL BY ITSELF BE SUFFICIENT; THERE HAVE TO BE THE PEOPLE WHO HAVE THE KNOWLEDGE AND THE COMMITMENT.

6

AND THAT WILL BE MEN AND WOMEN LIKE YOURSELVES WHO WILL LEAD AMERICA INTO THE NEXT CENTURY.

YOU KNOW, BY ONE ESTIMATE, IT TAKES 10,000 HIGH SCHOOL STUDENTS EXPRESSING AN INTEREST IN A SCIENCE OR ENGINEERING MAJOR TO ASSURE US OF 20 MEN AND WOMEN WHO WILL GO ON TO RECEIVE DOCTORATES. I HOPE THAT EACH STUDENT IN THIS ROOM GETS A DOCTORATE, OR PURSUES A CAREER IN SCIENCE AND TECHNOLOGY, AND THAT SOME OF YOU CONSIDER RETURNING TO THE CLASSROOM AS TEACHERS TO INSPIRE A NEW GENERATION OF SCIENTISTS FOR THE FUTURE.

7

THE FRUITS OF INVESTING IN SCIENCE AND SCIENTISTS ARE EVIDENT: HUMAN INTELLIGENCE HAS EXPLORED THE VASTNESS OF OUTER SPACE AND THE INNER FRONTIERS OF THE PARTICLES OF THE ATOM; DISEASES HAVE BEEN CURED, KNOWLEDGE HAS BEEN HARNESSED -- ((AND ENERGY... I WAS GOING TO SAY THAT ENERGY HAS BEEN CREATED, BUT THEN I REMEMBERED THE LAWS OF THERMODYNAMICS. SO LET'S JUST CALL IT A WASH AND SAY THAT ENERGY HAS NEITHER BEEN CREATED NOR DESTROYED.))

8

BUT WE TRULY HAVE SEEN THE SCIENTIFIC KNOWLEDGE DEVELOPED IN THE UNITED STATES VASTLY IMPROVE THE LIVES OF OUR CITIZENS AND OF PEOPLE AROUND THE WORLD. AND TODAY, INTERNATIONAL SCIENTISTS AND SCIENCE STUDENTS ARE COMING HERE TO AMERICA, TO DO RESEARCH, TO STUDY, AND TO TEACH; AND THIS IS SOMETHING THAT OUR COUNTRY GREATLY BENEFITS FROM.

YET, STILL, AS A NATION, WE NEED TO DO BETTER. WE'RE NOT PRODUCING ENOUGH SCIENTISTS, MATHEMATICIANS, AND ENGINEERS.

AMERICAN UNIVERSITIES CONFER ONLY ABOUT 77,000 ENGINEERING DEGREES A YEAR AT THE UNDERGRADUATE LEVEL. THAT'S ABOUT THE SAME NUMBER THAT JAPAN PRODUCES WITH A TOTAL POPULATION ONLY HALF THE SIZE OF OURS.

INITIATIVES FROM WASHINGTON ARE IMPORTANT HERE. BUT THEY'RE NOT ENOUGH. STUDENTS AND PARENTS AND TEACHERS WILL DETERMINE THE DIRECTION OUR YOUNG PEOPLE TAKE AND, ULTIMATELY, WHAT DIRECTION OUR COUNTRY TAKES. AND THERE IS ONLY ONE GOAL THAT IS WORTHY OF US AS AMERICANS.

AND THAT IS TO BE THE VERY BEST IN THE WORLD; TO BE NUMBER ONE. THAT IS OUR HISTORY, BUT IT IS ALSO, I BELIEVE, OUR DESTINY. OUR NATIONAL QUALITIES OF INTELLECTUAL CURIOSITY AND INNOVATION, OUR FRONTIER SPIRIT AND OUR HABIT OF PROBLEM-SOLVING, ALL UNIQUELY EQUIP AMERICA FOR THE GREAT TECHNOLOGICAL AGE THAT IS DAWNING.

TO HELP US MOVE IN THAT DIRECTION, THE FEDERAL BUDGET I PROPOSED WOULD INCREASE FUNDING FOR NASA BY 22 PERCENT, AND WOULD ALSO ADVANCE US TOWARD OUR GOAL OF DOUBLING THE BUDGET FOR THE NATIONAL SCIENCE FOUNDATION BY 1993.

11

I ALSO PROPOSED FULL FUNDING FOR THE SUPERCONDUCTING SUPER COLLIDER, AND, AS AN INCENTIVE FOR PRIVATE INDUSTRY, A PERMANENT RESEARCH AND EXPERIMENTATION TAX CREDIT.

BUT ONE OF THE MOST IMPORTANT INVESTMENTS THAT I WANT US TO MAKE IS IN SCIENCE EDUCATION. SO I HAVE PROPOSED A NATIONAL SCIENCE SCHOLARS PROGRAM THAT WOULD PROVIDE 570 SCHOLARSHIPS EACH YEAR. THESE WOULD BE FOR UP TO $10,000 A YEAR, FOR FOUR YEARS.

12

THIS PROGRAM WOULD BE BASED ON MERIT AND IT WOULD DRAW AT LEAST ONE YOUNG SCIENTIST FROM EVERY CONGRESSIONAL DISTRICT IN THE NATION, PROVIDING LOCAL INSPIRATION AND NATIONAL LEADERSHIP FOR THE STUDY OF SCIENCE. I THINK NO ONE PROVES BETTER THAN ALL OF YOU JUST HOW MUCH OUR STUDENTS ARE CAPABLE OF AND HOW IMPORTANT IT IS TO PROVIDE THE ENCOURAGEMENT AND RESOURCES THAT YOU NEED.

SO LET ME CONGRATULATE ALL OF YOU AGAIN. I THINK YOU ARE ALL DESTINED FOR GREAT THINGS.

THANK YOU VERY MUCH AND GOD BLESS YOU ALL.

(Klugmann)
March 2, 1989
9:00 a.m.

PRESIDENTIAL REMARKS: WESTINGHOUSE SCIENCE WINNERS
NATIONAL ACADEMY OF SCIENCES BUILDING
FRIDAY, MARCH 3, 1989

Judd drafted + Patty cleared advance

Thank you very much. It's a pleasure to be here and to have this chance to see so many of your remarkable science projects. Thank you for your patience in explaining some of these exhibits to me. I'm not saying that I didn't understand everything, but I just want to say: I hope there's no test afterwards.

Really, what all of you have accomplished is something to be very proud of. Not only is it a great achievement, but you really earned it. Thomas Edison said that genius is one percent inspiration and ninety-nine percent perspiration. And each of you, with your academic diligence, your intellect, and a lot of hard work, have won the oldest and largest national high school competition in the country.

Bartlett's P. 661

Westinghouse News Release (in file) (NEXIS)

Past winners of the Westinghouse Science Talent Search have distinguished themselves in every field of science and mathematics. Your predecessors have received every major honor and award in their fields, including the Nobel prize and the National Medal of Science.

pres. doc. + Clerk's office

And what you have done is important for America. Scientific and technological advancement have always been at the very heart of our Nation's pioneer spirit, pushing the boundaries of our knowledge, creating economic opportunity, and increasing our standard of living.

As a Nation we have no natural resource more precious than our intellectual resources. In fact, it is only thanks to human knowledge and ingenuity that crude oil becomes a valuable fuel, that fields of grain become methanol, or that grains of sand become silicon chips.

Scientific knowledge must be renewed and expanded in each generation. Many of the miracles we take for granted in everyday life originated in defense and space research. This investment in new technologies and new plant and equipment helps expand our competitive edge, thereby assuring future opportunities for America's next generation in science, engineering, and manufacturing. But for America to maintain its technological and scientific excellence, no investment in machines or laboratories, as vital as that is, will by itself be sufficient; there have to be the people who have the knowledge and the commitment. And that will be men and women like yourselves who will lead America into the next century.

Steven's Institute of Technology Pres. Harold Raveche AP 1-4-89

You know, by one estimate, it takes 10,000 high school students expressing an interest in a science or engineering major to assure us of 20 men and women who will go on to receive doctorates. I hope that each student in this room gets a doctorate, or pursues a career in science and technology, and that some of you consider returning to the classroom as teachers to inspire a new generation of scientists for the future.

The fruits of investing in science and scientists are evident: Human intelligence has explored the vastness of outer space and the inner frontiers of the particles of the atom; diseases have been cured, knowledge has been harnessed -- ((and energy... I was going to say that energy has been created, but

then I remembered the laws of thermodynamics. So let's just call it a wash and say that energy has neither been created nor destroyed.))

But we truly have seen the scientific knowledge developed in the United States vastly improve the lives of our citizens and of people around the world. And today, international scientists and science students are coming here to America, to do research, to study, and to teach; and this is something that our country greatly benefits from.

Yet, still, as a Nation, we need to do better. We're not producing enough scientists, mathematicians, and engineers. American universities confer only about 77,000 engineering degrees a year at the undergraduate level. That's about the same number that Japan produces with a total population only half the size of ours.

National Science Found. 1986 data (in file)

World Almanac 1989 p. 532 & 689

Initiatives from Washington are important here. But they're not enough. Students and parents and teachers will determine the direction our young people take and, ultimately, what direction our country takes. And there is only one goal that is worthy of us as Americans. And that is to be the very best in the world; to be number one. That is our history, but it is also, I believe, our destiny. Our national qualities of intellectual curiosity and innovation, our frontier spirit and our habit of problem-solving, all uniquely equip America for the great technological age that is dawning.

To help us move in that direction, the Federal budget I proposed would increase funding for NASA by 22 percent, and would also advance us toward our goal of doubling the budget for the National Science Foundation by 1993. I also proposed full

Building a Better America p. 35

BBA p. 37

funding for the Superconducting Super Collider, and, as an incentive for private industry, a permanent Research and Experimentation tax credit.

But one of the most important investments that I want us to make is in science education. So I have proposed a National Science Scholars Program that would provide 570 scholarships each year. These would be for up to $10,000 a year, for four years. This program would be based on merit and it would draw at least one young scientist from every Congressional district in the Nation, providing local inspiration and national leadership for the study of science. I think no one proves better than all of you just how much our students are capable of and how important it is to provide the encouragement and resources that you need.

So let me congratulate all of you again. I think you are all destined for great things.

Thank you very much and God bless you all.

# # #

Services of Mead Data Central

12TH STORY of Level 2 printed in FULL format.

PR Newswire

March 1, 1988, Tuesday

LENGTH: 883 words

HEADLINE: TO BUSINESS AND NATIONAL DESKS, EDUCATION AND SCIENCE EDITORS:

DATELINE: WASHINGTON, Feb. 29

KEYWORD: [redacted]

BODY:

WASHINGTON, Feb. 29 /PRN/ -- A 16-year-old New York boy who submitted a project in physics tonight was named winner of the first-place $20,000 college scholarship in the Westinghouse Science Talent Search.

Chetan Nayak was the top award winner from 1,339 entrants in the 47th annual search, which is the nation's oldest high school [redacted] and offers the largest unrestricted science scholarship.

Second- and third-place awards of $15,000 each were awarded to Janet Tseng, 17, of Forest Hills, N.Y., who completed a study of AIDS, and Benjamin S. Abella, 17, of Chicago, who entered a molecular genetics project.

The fourth- through 10th-place winners and scholarships amounts were, in order:

-- Vijay Satyanand Pande, 17, of McLean, Va., $10,000;
-- Brian David Conrad, 17, of Selden, N.Y, $10,000;
-- Weiva Yu Sieh, 17, of Bronx, N.Y, $10,000;
-- Stacey Ellen Beaulieu, 16, of Palm Beach Gardens, Fla., $7,500;
-- Kurt Marshall Cuffey, 18, of State College, Pa., $7,500;
-- Brian Casey Hooker, 17, of Atlanta, $7,500; and
-- Meredith Ann Albrecht, 17, of Evanston, Ill., $7,500.

Each of the other 30 national finalists was awarded $1,000 in cash, making the total value of the awards $140,000.

Selected as the first and second alternates were Meivile Chen, 17, of Jackson Heights, N.Y., and Scott David Zucker, 17, of Plantation, Fla.

The winners were announced at an awards banquet in the Mayflower Hotel here by Dr. J. Richard Gott, chairman of the board of judges for Science Service, the non-profit organization that administers the competition. Gott is professor of astrophysical sciences at Princeton University.

The Science Talent Search is sponsored by Westinghouse Electric Corp. (NYSE: WX).

The winners were selected by a panel of eight scientists following interviews designed to evaluate the students' scientific creativity.

Of the 1,880 winners in the Science Talent Search since its inception in 1942, five have gone on to win Nobel Prizes; two have won Fields Medals for distinguished work in mathematics; and eight have been awarded MacArthur Foundation Fellowships for research in the physical and life sciences. In addition, 27 former winners have been elected as members of the National Academy of Sciences.

For his winning project, Nayak submitted a complex project in

LEXIS® NEXIS®

(Klugmann)
March 1, 1989
8:00 p.m.

PRESIDENTIAL REMARKS: WESTINGHOUSE SCIENCE WINNERS
NATIONAL ACADEMY OF SCIENCES BUILDING
FRIDAY, MARCH 3, 1989

Thank you very much. It's a pleasure to be here and to have this chance to see so many of your remarkable science projects. Thank you for your patience in explaining some of these exhibits to me. I'm not saying that I didn't understand everything, but I just want to say: I hope there's no test afterwards.

Really, what all of you have accomplished is something to be very proud of. Not only is it a great achievement, but you really earned it. Thomas Edison said that genius is one percent inspiration and ninety-nine percent perspiration. And each of you, with your academic diligence, your intellect, and a lot of hard work, have won the oldest and largest national high school competition in the country.

Past winners of the Westinghouse Science Talent Search have distinguished themselves in every field of science and mathematics. Your predecessors have received every major honor and award in their fields, including the Nobel prize and the National Science Medal of.

And what you have done is important for America. Scientific and technological advancement have always been at the very heart of our Nation's pioneer spirit, pushing the boundaries of our knowledge, creating economic opportunity, and increasing our standard of living.

As a Nation we have no natural resource more precious than our intellectual resources. In fact, it is only thanks to human knowledge and ingenuity that crude oil becomes a valuable fuel, that fields of grain become methanol, or that grains of sand become silicon chips.

Scientific knowledge must be renewed and expanded in each generation. Many of the miracles we take for granted in everyday life originated in defense and space research. This investment in new technologies and new plant and equipment helps expand our competitive edge, thereby assuring future opportunities for America's next generation in science, engineering, and manufacturing. But for America to maintain its technological and scientific excellence, no investment in machines or laboratories, as vital as that is, will by itself be sufficient; there have to be the people who have the knowledge and the commitment. And that will be men and women like yourselves who will lead America into the next century.

You know, by one estimate, it takes 10,000 high school students expressing an interest in a science or engineering major to assure us of 20 men and women who will go on to receive doctorates. I hope that each student in this room gets a doctorate, and that some of you consider returning to the classroom as teachers to inspire a new generation of scientists for the future.

The fruits of investing in science and scientists are evident: Human intelligence has explored the vastness of outer space and the inner frontiers of the particles of the atom; diseases have been cured, knowledge has been harnessed -- ((and energy... I was going to say that energy has been created, but

then I remembered the laws of thermodynamics. So let's just call it a wash and say that energy has neither been created nor destroyed.))

But we truly have seen the scientific knowledge developed in the United States vastly improve the lives of our citizens and of people around the world. And today, international scientists and science students are coming here to America, to do research, to study, and to teach; and this is something that our country greatly benefits from.

Yet, still, as a Nation, we need to do better. We're not producing enough scientists, mathematicians, and engineers. American universities confer only about 77,000 engineering degrees a year at the undergraduate level. That's about the same number that Japan produces with a total population only half the size of ours.

Initiatives from Washington are important here. But they're not enough. Students and parents and teachers will determine the direction our young people take and, ultimately, what direction our country takes. And there is only one goal that is worthy of us as Americans. And that is to be the very best in the world; to be number one. That is our history, but it is also, I believe, our destiny. Our national qualities of intellectual curiosity and innovation, our frontier spirit and our habit of problem-solving, all uniquely equip America for the great technological age that is dawning.

To help us move in that direction, the Federal budget I proposed would increase funding for NASA by 22 percent, and would also advance us toward our goal of doubling the budget for the National Science Foundation by 1993. I also proposed full

funding for the Superconducting Super Collider, and, as an incentive for private industry, a permanent Research and Experimentation tax credit.

But one of the most important investments that I want us to make is in science education. So I have proposed a National Science Scholars Program that would provide 570 scholarships each year. These would be for up to $10,000 a year, for four years. This program would be based on merit and it would draw at least one young scientist from every Congressional district in the Nation, providing local inspiration and national leadership for the study of science. I think no one proves better than all of you just how much our students are capable of and how important it is to provide the encouragement and resources that you need.

So let me congratulate all of you again. I think you are all destined for great things.

Thank you very much and God bless you all.

# # #

(Klugmann)
February 24, 1989
draft

PRESIDENTIAL REMARKS: WESTINGHOUSE SCIENCE WINNERS
FRIDAY, MARCH 3, 1989

Thank you very much, ~~and welcome to the White House~~. It's a pleasure to ~~have you here.~~ be here. You know, I'm reminded of something President Kennedy once said: With all you remarkable young scientists here, there hasn't been such an assemblage of talent in the White House since Thomas Jefferson dined alone.

What all of you have accomplished is something to be very proud of. Not only is it a great achievement, but you really earned it. Thomas Edison said that "genius is one-~~tenth~~ percent inspiration and ~~nine-tenths~~ ninety-nine percent perspiration." And each of you, with your academic diligence, your intellect, and a lot of hard work, have won the oldest and largest national high school competition in the country.

Bartletts p. 661

Past winners of the Westinghouse Science Talent Search have distinguished themselves in every field of science and mathematics. Your predecessors have received every major award in their fields, including five Nobel prizes. And twenty-seven former Westinghouse winners have been elected as members of the National Academy of Sciences.

And what you have done is important for America. As a Nation we have no natural resource more precious than our intellectual resources. In fact, it is only through human knowledge that petroleum or copper or methanol is a resource, something that we have a use for and know how to produce. And

scientific knowledge must be renewed and expanded in each generation. For America to maintain it's technological and scientific excellence no investment in machines or laboratories, as vital as that is, will by itself be sufficient; there have to be the people who have the knowledge and the commitment. And that will be men and women like yourselves who will lead America into the next century.

You know, by one estimate, it takes 10,000 high school students expressing an interest in a science or engineering major to assure us of 20 men and women who will go on to receive doctorates. I hope that each student in this room gets a doctorate, and that some of you consider returning to the classroom as teachers to inspire a new generation of scientists for the future.

Stevens Institute of Technology President Harold Raveche AP 1/4/89

The fruits of investing in science and scientists are evident: Diseases have been cured, knowledge has been harnessed -- ((energy ... I was going to say that energy has been created, but let's just call it a wash and say that energy has neither been created nor destroyed.))

But we truly have seen the scientific knowledge developed in the United States vastly improve the lives of our citizens and of people around the world. And today, scientists and science students from around the world are coming here to America, to do research, to study, and to teach; and this is something that our country greatly benefits from.

Yet, still, as a Nation, we need to do better. We're not producing enough scientists, mathematicians, and engineers. ~~only~~ This nation's universities confer ~~only~~ about ~~70~~,000 a year at the undergraduate level. That's about the engineering degrees

Dr. Larry Suiter 357-6740
Leestma 357-6050

same number that Japan produces with a total population only half the size of ours.

Initiatives from Washington are important here. But they're not enough. It is up to students and parents and teachers what direction our young people take and, ultimately, what direction our country takes. And there is only one goal that is worthy of us as Americans. And that is to be the very best in the world; to be number one. That is our history, but it is also, I believe, our destiny. Our national qualities of intellectual curiosity and innovation, our frontiersman spirit and our habit of problem-solving, all uniquely equip America for the great technological age that is dawning.

To help us move in that direction, the Federal budget I proposed would increase funding for NASA by 22 percent, and would also advance us toward our goal of doubling the budget for the National Science Foundation by 1993. I also propose full funding for the Superconducting Super Collider, and, as an incentive for private industry, a permanent Research and ~~Engineering~~ Experimentation tax credit.

But one of the most important investments that I want us to make is in science education. So I have proposed a National Science Scholars Program that would provide 570 scholarships each year. These would be for up to $10,000 a year, ~~renewable~~ for four years. This program would be based on merit and it would draw a young scientist from every Congressional district in the Nation, providing local inspiration and national direction for the study of science. I think no one proves better than all of you just how much our students are capable of and how important it is to provide the encouragement and resources that you need.

So let me congratulate all of you again. And now, I'm going to have a chance here to look at some of your award-winning exhibits. If I don't understand everything the first time, just stay with me and I'll get it.

Thank you very much and God bless you all.

To: dmcneal@note.nsf.gov, STIA/INT/IA
Subject: request
Date: Tue, 28 Feb 89 11:55:44 -0500
From: Maria Papadakis <mpapadak@note.nsf.gov>, STIA/SRS

Doug--here's the data you need. Let me know if there are specific questions. Maria.

First university degrees by field: 1986

Field	France 1/	West Germany	Japan	United States
	Number of degrees			
All fields	52,728	63,866	376,260	1,074,785
Natural science and engineering	25,043	21,584	99,668	213,971
Natural science	11,321	10,766	12,814	122,170
Engineering	13,722	8,477	73,316	77,061
Agriculture	2/	2,341	13,538	14,740
All others	27,685	42,282	276,592	860,814
	Percent distribution among fields			
All fields	100.0	100.0	100.0	100.0
Natural science and engineering	47.5	33.8	26.5	19.9
Natural science	21.5	16.9	3.4	11.4
Engineering	26.0	13.3	19.5	7.2
Agriculture	2/	3.7	3.6	1.4
All others	52.5	66.2	73.5	80.1
	As a proportion of the 22-year-old population			
All fields	6.1	5.9	22.6	25.9
Natural science and engineering	2.9	2.0	6.0	5.2
Natural science	1.3	1.0	0.8	2.9
Engineering	1.6	0.8	4.4	1.9
Agriculture	2/	0.2	0.8	0.4
All others	3.2	3.9	16.6	20.7
22-year-old population	871,000	1,088,000	1,668,000	4,152,000

1/ Data for France are based on maitrise degrees and engineering degrees. French engineering degrees are equivalent to U.S. master's degrees.
2/ Included in natural sciences.

1986 data

university
1st degrees

	US	Japan
Natural sci. + Engineering	213,000	99,668
Natural sci.	122,000	12,800
Eng.	77,061	73,316
Ag	14,700	13,300

1985
4.3% of 1st degree

1.8%

NSF ~~Foundation~~
Science Resources Studies

357-7045 Douglas McNeal

1985 data - percent of engineering bachlors degrees granted out of all 1st degrees

US	Japan
1.8%	4.3%

1986 data - number of engineering bachlor degrees

US	Japan
77,061	73,316

(Klugmann)
February 24, 1989
draft

PRESIDENTIAL REMARKS: WESTINGHOUSE SCIENCE WINNERS
FRIDAY, MARCH 3, 1989

Thank you very much, and welcome to the White House. It's a pleasure to have you here. You know, I'm reminded of something President Kennedy once said: With all you remarkable young scientists here, there hasn't been such an assemblage of talent in the White House since Thomas Jefferson dined alone.

What all of you have accomplished is something to be very proud of. Not only is it a great achievement, but you really earned it. Thomas Edison said that genius is one-tenth inspiration and nine-tenths perspiration. And each of you, with your academic diligence, your intellect, and a lot of hard work, have won the oldest and largest national high school competition in the country.

Past winners of the Westinghouse Science Talent Search have distinguished themselves in every field of science and mathematics. Your predecessors have received every major award in their fields, including five Nobel prizes. And twenty-seven former Westinghouse winners have been elected as members of the National Academy of Sciences.

And what you have done is important for America. As a Nation we have no natural resource more precious than our intellectual resources. In fact, it is only through human knowledge that petroleum or copper or methanol is a resource, something that we have a use for and know how to produce. And

scientific knowledge must be renewed and expanded in each generation. For America to maintain it's technological and scientific excellence no investment in machines or laboratories, as vital as that is, will by itself be sufficient; there have to be the people who have the knowledge and the commitment. And that will be men and women like yourselves who will lead America into the next century.

You know, by one estimate, it takes 10,000 high school students expressing an interest in a science or engineering major to assure us of 20 men and women who will go on to receive doctorates. I hope that each student in this room gets a doctorate, and that some of you consider returning to the classroom as teachers to inspire a new generation of scientists for the future.

The fruits of investing in science and scientists are evident: Diseases have been cured, knowledge has been harnessed -- I was going to say that energy has been created, but let's just call it a wash and say that energy has neither been created nor destroyed.

But we truly have seen the scientific knowledge developed in the United States vastly improve the lives of our citizens and of people around the world. And today, scientists and science students from around the world are coming here to America, to do research, to study, and to teach; and this is something that our country greatly benefits from.

Yet, still, as a Nation, we need to do better. We're not producing enough scientists, mathematicians, and engineers, only about 70,000 a year at the undergraduate level. That's about the

same number that Japan produces with a total population only half the size of ours.

Initiatives from Washington are important here. But they're not enough. It is up to students and parents and teachers what direction our young people take and, ultimately, what direction our country takes. And there is only one goal that is worthy of us as Americans. And that is to be the very best in the world; to be number one. That is our history, but it is also, I believe, our destiny. Our national qualities of intellectual curiosity and innovation, our frontiersman spirit and our habit of problem-solving, all uniquely equip America for the great technological age that is dawning.

To help us move in that direction, the Federal budget I proposed would increase funding for NASA by 22 percent, and would also advance us toward our goal of doubling the budget for the National Science Foundation by 1993. I also propose full funding for the Superconducting Super Collider, and, as an incentive for private industry, a permanent Research and Engineering tax credit.

But one of the most important investments that I want us to make is in science education. So I have proposed a National Science Scholars Program that would provide 570 scholarships each year. These would be for $10,000 a year, renewable for four years. This program would be based on merit and it would draw a young scientist from every Congressional district in the Nation, providing local inspiration and national direction for the study of science. I think no one proves better than all of you just how much our students are capable of and how important it is to provide the encouragement and resources that you need.

So let me congratulate all of you again. And now, I'm going to have a chance here to look at some of your award-winning exhibits. If I don't understand everything the first time, just stay with me and I'll get it.

Thank you very much and God bless you all.

Services of Mead Data Central

3RD STORY of Level 2 printed in FULL format.

The Associated Press

The materials in the AP file were compiled by The Associated Press. These materials may not be republished without the express written consent of The Associated Press.

January 4, 1989, Wednesday, BC cycle

ADVANCED-DATE: January 8, 1989, Sunday, BC cycle

SECTION: Domestic News

LENGTH: 984 words

HEADLINE: Foreign Students Who Stay On: U.S. Gain or World's Loss?

BYLINE: By DAVID SMYTH, Associated Press Writer

DATELINE: NEW YORK

KEYWORD: Foreign Students

BODY:

From their clifftop campus in Hoboken, N.J., the 593 foreign students at Stevens Institute of Technology have a grandstand view of the New York City skyline and the battery of skyscrapers around Wall Street.

To some, it's like a vision of the Promised Land - and many are tempted to stay in this country to start careers.

Currently, 356,200 students from other countries attend more than 2,000 colleges and universities across America, and as many as one-fifth of them do in fact stay on.

"Our best estimate is that in recent years only 80 to 85 percent of foreign students in the United States returned home," says Jack Reichard, vice president of the Washington-based National Association for Foreign Student Affairs.

Moreover, 50-60 percent of foreign students studying science and engineering - a vital area for their countries as well as the United States - decide to stay, according to a study by the National Science Foundation.

About 40 percent of non-American Ph.D. recipients in science and engineering seek jobs in this country, and about 40 percent of American university science and engineering faculty members under the age of 35 are now foreign nationals, according to the National Academy of Sciences.

Whether these young intellectuals of the world should stay on to make their careers in America or return home is a question in growing contention. Their individual decisions to stay or to go home could have a considerable impact on world affairs.

Leon Febres Cordero, who earned a Bachelor of Engineering degree at Stevens in 1953, completed a four-year term as president of Ecuador last August.

LEXIS® NEXIS® LEXIS® NEXIS®

Mead Data Central

Niklos Nemeth, an economist with postgraduate training at Harvard University, was named in November to be prime minister of Hungary.

Benazir Bhutto, who has a BA from Radcliffe College, became prime minister of Pakistan, elected in December as the first woman ever to head a Moslem government.

In dozens of other nations of every political persuasion, graduates of American universities have occupied positions of influence and power in politics, industry and other fields.

Foreign students who decided to stay on in the United States have been no less successful.

Shanghai-born An Wang, who was sent to study physics at Harvard by President Chiang Kai-shek of Nationalist China, stayed on in the United States to found Wang Laboratories, a major scientific company, and make a fortune estimated by Forbes magazine at $$365 million.

The average foreign university student attends courses for about 3.5 years, Reichard said in a telephone interview. So it may be estimated, with about 350,000 foreign students in the country, that approximately 100,000 new university-level students enter the country each year.

According to U.S immigration figures, about 20,000 of these foreign youths, among the world's best and brightest, trade in their student visas for immigration cards.

The foreign students come from 186 countries and territories. Two thirds of them are from developing nations, where in many cases a depressing paradox awaits them on their return home: there is a desperate need for their knowledge, but jobs are scarce and poorly paid even at the advanced level they have achieved.

So the temptation to remain in the United States is strong.

Making it even stronger is the encouragement of some American business and academic leaders, acutely aware of a shortage of American-born science students in particular.

According to the Council on Competitiveness, the United States could face a shortfall of 500,000 American-born scientists and engineers by the year 2010 due to retirements and the declining number of American students choosing careers in these fields.

The Council, composed of 151 chief executives of industry, labor and higher education, also noted in a report last July that 1,300 to 1,800 engineering positions are vacant even now at American universities.

"How can we replenish these faculty positions?" asks Stevens President Harold J. Raveche. "It takes 10,000 high school students expressing an interest in a science or engineering major to assure us of 20 doctorates."

"We should talk about our education deficit rather than about our budget deficit," says Kenneth Wilson, 1982 winner of the Nobel physics prize. "We

LEXIS® NEXIS® LEXIS® NEXIS®

Mead Data Central

need math and science teachers," he said during a forum on U.S. competitiveness at Stevens.

The academic gap is being filled by an increasing number of professors from other countries, particularly India, Japan and other Asian nations.

Sixty percent of all foreign students in the United States are in engineering, mathematics, computer sciences, physical and life sciences or management-related fields, according to the New York-based Institute of International Education, which administers international scholarship programs and places thousands of foreign students in U.S. schools.

"An important policy need is to encourage developing-country nationals to return home. Their U.S. education should represent a brain gain, not a drain," says Institute chairman Charles H. Percy, a former Illinois senator.

Dissenting, Peter Sprague, chairman of the board of National Semiconductor Corp., notes that "the American university system is unmatched in the world, and the United States is a mecca for foreign students.

"About half our science and engineering graduate students are foreigners. We should give them green cards," admitting them as immigrants, said Sprague at the Stevens forum. He said he spoke for the high technology industries of California's Silicon Valley.

While U.S. universities may set a high standard, American primary and secondary education is often inadequate, said Pulitzer Prize-winning author David Halberstam at the Stevens forum.

"Technical universities like Stevens are at the cutting edge of economic development," he said, "but the Japanese are killing us in ninth grade mathematics."

LEXIS® NEXIS® LEXIS® NEXIS®