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FOIA-6

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Subject: VP Kennedy Speech and Last Political Speech
[Final Kennedy Speech as prepared.doc](#)
[Final Political NH Dem 100 Club speech as prepared.doc](#)
[VPOTUS KENNEDY speech transcript.doc](#)
[VPOTUS Political NH Dem 100 club speech transcript.doc](#)

Ron and Ted,

Attached are 4 documents, both the transcript and the final as prepared version of the VP's Kennedy Innovation Speech and the last political speech he gave which was at the NH Dems 100 Club Dinner. Both Speeches were given on May 25, 2011.

Fran

**Vice President Joe Biden
Remarks Marking the 50th Anniversary
of President Kennedy’s “Moon Shot” Speech
President John F. Kennedy Library & Museum
May 25, 2011**

[Acknowledgments]

I want you to imagine—I want you to imagine the benefits to the first country that develops smart anti-cancer therapies that kill cancer cells and leave ordinary cells untouched.

Imagine the first country that develops regenerative medicines that can re-grow damaged organs, eliminating the agonizing wait for an organ transplant... allowing patients to recover from spinal cord injuries, and curing diseases like diabetes.

Imagine the first country that makes solar power as cheap as fossil fuels, and builds the first buildings that are able to produce all the energy they consume.

Imagine the first country to build a supercomputer capable of performing a million-trillion calculations a second – a computer fast enough to not only sequence every gene in the human body, but to test every combination of genes – giving us a new ability to fundamentally decode the complex interactions between genetics and disease.

Imagine the first country that creates a car battery that's even lighter and cheaper than the new lithium ion batteries of today – able to store enough energy from one charge to take a car 1,000 miles.

[PAUSE]

Of one thing I am convinced:

If President Kennedy were standing here today, this is what he would imagine... this is what he would envision... and then he would challenge America to accomplish all of these goals and more.

He would challenge us to push the boundaries of our own knowledge and our present capacity. To bridge the gap between the possible... and the unimaginable.

For it would have been beyond his comprehension that the United States would fail to invest in visionary new ideas. Ideas needed to make the 21st century livable.

I don't believe he could have imagined the United States continuing to rely on fossil fuels.

I don't believe he could have imagined the United States failing to cultivate new brilliant young scientists, and to challenge them to end the diseases that have plagued humanity for generations.

In an ever-more complicated and interconnected world, Ladies and gentlemen, I believe if he were standing here today, he would tell us, as he did 50 years ago, that we have a choice about what kind of country we are going to be.

[PAUSE]

That vision should not be a hard sell today, in 2011. For because of President Kennedy’s vision, leadership, and confidence, we’ve already met such a challenge – by relying on all the resources and talents America possesses today.

50 years ago, President Kennedy said,

“I believe we possess all the resources and talents necessary. But the facts of the matter are that we have never made the national decisions or marshaled the national resources required for such leadership. We have never specified long-range goals on an urgent time schedule, or managed our resources and our time so as to insure their fulfillment...”

He said that we needed, *“a degree of dedication, organization, and discipline which have not always characterized our research and development efforts.”*

But because of him, we don't have to say that.

We have made national decisions on this scale and of this magnitude. We have marshaled the national resources required for such leadership. We have specified long range goals on an urgent time schedule.

Because of the visionary leadership of a young president, we know it can be done.

We know we can mobilize to meet the challenges of the moment.

I was 18 years old when President Kennedy gave his moon shot speech. An 18 year old kid from Scranton, who never dreamed that he would one day be standing here to pay tribute to the power and vision and achievement that grew out of President Kennedy's words that day...and to urge a new generation to honor his actions with our own. What a great honor.

I remember President Kennedy saying it was up to us—up to the nation—to decide whether to commit ourselves to the challenge of sending a man to the moon and bringing him safely back to earth... That if we weren't going to go for it full tilt, we might as well not go for it at all.

In 1961, President Kennedy's character and makeup was a reflection not only of his generation, but of America's character.

Well, I am confident my generation and yours is not only up to the task – but even better positioned to meet the daunting challenges of this young century.

Ralph Waldo Emerson once said, "Society is like a wave...."

America has not changed, it's gotten better.

Nothing incremental.

He had, as I do, an unlimited faith in the character and the aspirations of the American people.

He knew that the American people had never failed to rise to a challenge... never failed to overcome adversity... and never let their country down.

From a revolution for independence...

...to a war to keep us united...

...the throes of a Great Depression...

...to building and deploying an arsenal of democracy...

... and expanding democracy at home through Civil Rights and civil justice...

American has always been at its best when challenged. That's when you see our national grit. Determination. Ingenuity.

That's why President Kennedy said, speaking of the challenge to go to the moon, that if we came together and took up the challenge, then "in a very real sense, it [would] not be one man going to the moon...for all of us must work to put him there."

I knew, as a young man, how bold it was. How exciting it was.

It appealed to America's essential exceptionalism, the idea that we were a special nation, meant to do extraordinary things.

Even then, my friends, I sensed that this challenge was about more than landing on the moon.

It was bigger than that.

It was about a truly new frontier.

You just knew in your gut that the process of getting there, the pursuit of the moon, would open whole new vistas to humanity. It would be a new measure of possibility—a new mark of human achievement.

President Kennedy knew that going to the moon would change the way we lived on earth.

That it wasn't about going to a distant world, but bringing the United States into the modern world...and making sure we didn't lose our place in it.

And he was right.

The pursuit of the moon inspired thousands in my generation to pursue careers in engineering, science and technology. It unleashed one of the most significant expansions of scientific capacity the world had ever known. —

And my impression was that he never had a doubt that it would. Because he knew our history. He knew the equation of America: challenge plus investment equals progress.

A half century later, President Obama and I share that same conviction, that same faith, and that same certitude.

For the new frontiers here on earth are equally as challenging... and equally capable of being conquered.

A new energy policy that will save the planet from global warming, increase our independence, and renew our economy.

Advances in science and health that will increase the quality of life for millions of Americans and tens of millions of people the world over.

This is an incredible time in which we live, a time of extraordinary possibilities.

We are a nation of people who are always about – possibilities.

What is truly unique about America is that we have the political system, the economic system, the education system, and, most importantly, the WILL to turn those possibilities into realities.

But like President Kennedy we understand that it takes a national vision... it takes a leader to set the goal... and if he does, investment and innovation, and ultimately, commercialization will follow.

Over and over again, that's been the American model of innovation, allowing us to lead the world in technological advancement the past 250 years. It's part of our nation's DNA; it's embedded in our nation's history.

But the goals are not America's alone.

Other nations are seeking to win the future as well.

You see it in China and India and Brazil, countries that are making massive investments in research, development, infrastructure, education.

If we shrink from President Kennedy's bold approach, we run the risk of being left behind.

We and the world are at a critical juncture, and the United States needs to reassert its commitment to competitiveness – competitiveness that puts us in a position to be the global economic leader of the 21st century.

That is why President Obama has set such bold goals to meet the challenges of this generation.

Think about it: We know we can be generating 80% of America's electricity from clean sources by 2035. We launched what we call a "SunShot" to make solar energy as affordable as traditional forms of energy. And I assure you, just as in the moonshot – in pursuit of that goal -- we will develop new technologies that will leapfrog anything we're thinking about right now.

We know that with the seed money we've already provided through the Recovery Act, that private industry can put a million advanced technology vehicles – electrics and plug-in hybrids – on the road by 2015.

But we also know, along the way, they will develop a whole new generation of batteries that will ultimately be able to carry a car farther than 1,000 miles on a single charge – and batteries that can store the energy we harvest from the sun, not only from automobiles but for industrial use as well.

We know that we must and will lead the world in the percentage of college graduates by the end of the decade, because we know our people. We know America.

There is no reason why, in the 21st century, America can not have the best educated, best trained population mankind has ever known. We have the talent, resources, and know-how.

[PAUSE]

In the process of doing all this, your generation will be responsible for fundamental breakthroughs not only in the far reaches of space, or the depths of the sea, in the confines of our own bodies, and in the mysteries of the human brain.

A great deal has been written about the advances we've made in the last quarter century in understanding the brain functions...and the potential that will come from further study.

There's been a great of research in the last half decade, research that has attracted the interest not only of neuroscientists and surgeons, but gifted persons from other disciplines – psychologists, sociologists, and journalists.

One example that I recommend to you all is David Brooks' new book, "The Social Animal" -- that points out with greater understanding of the potential we have to affect social interaction in ways we haven't ever thought of before.

The promise in this area is unlimited, and the need for further research is immediate. Thousands of our wounded warriors are retuning with Post Traumatic Stress and Traumatic Brain Injuries.

For these and other reasons, our administration has made an unprecedented commitment to advancing understanding of the brain – through the NIH, through the National Science Foundation, through the Department of Defense, and through the VA.

We're supporting the Human Connectome Project – dedicated to discovering the “wiring diagram” for the human brain. The Human Connectome Project will lead to major advances in our understanding of how our brain circuitry changes as we age and how it differs in people with neurological or psychiatric illnesses.

We're supporting a consortium of researchers to create stem cells from patients with Parkinson's, Huntington's, Lou Gehrig's disease, and Alzheimer's. This allows researchers to better understand the progression of these diseases, and to screen potential drug candidates.

We're supporting the development of "neural prosthesis," which is in the nascent stages of allowing individuals with prosthesis to control them by their thought process.

We're also supporting Congressman Patrick Kennedy's bold new campaign, called One Mind for Research.

Many of you are here today as part of that effort. Your work truly is a modern moonshot.

There's no question that President Kennedy's spirit is alive today in this nation, in this audience, and in the DNA of Patrick Kennedy.

[PAUSE]

The truth is, just as JFK couldn't have known that shooting for the moon would create the semiconductor industry, which would give birth to the personal computer industry ... which would give us IBM and Microsoft and Apple ... who gave us the iPhone ... and who knows where this goes next?

We cannot know with certainty what our fundamental recommitment to science, and research and development will yield. But we do know, from experience that the results will be greater than the sum of the parts, and the rewards will be far greater than the original investment.

And we also know that the march into the future will continue whether we lead it or not.

President Kennedy understood this 50 years ago. Here's what he said, "The exploration of space will go ahead whether we join in it or not...and no nation which expects to be the leader of other nations can expect to stay behind in this race for space."

No nation that expects to be the leader of others can afford to be a follower on confronting the critical challenges of today.

But just as there were naysayers in 1961, there are naysayers in 2011.

They say our economy is too fragile for us to be so bold. I say, our economy will stay fragile, unless we are bold.

They say we cannot afford to invest in these endeavors. I say, we cannot fail to invest.

This argument is not new to America. There are those in the political leadership who hold the view that government has no role, and should not be setting out a vision for America's future.

I would argue that at every juncture, they've been proven wrong.

If we had listened to those voices in 1774, private enterprise and government would not have collaborated to build the rifles with interchangeable parts needed to win the Revolutionary War...

If we had listened to these voices in 1843, Congress never would have collaborated with Samuel Morse build a demonstration telegraph line, from Washington to Baltimore and unleashing a telecommunications revolution.

If President Lincoln had listened to those voices in the middle of the Civil War, he wouldn't have paid private railroad companies \$16,000 dollars for every 40 miles of track on a transcontinental railroad they laid down.

If President Eisenhower had listened to those voices in 1957, he never would have invested millions of government dollars in a new research endeavor called ARPA, which invented the Arpanet, which became the Internet.

And if President Kennedy has listened to those voices, we never would have reached for the moon, and reaped the incredible benefits that flowed from that effort.

And I assure you that neither President Obama and I are going to listen to those voices, and mortgage the future of your generation.

In his inaugural address, President Kennedy said, “In your hands, my fellow citizens, more than in mine, will rest the final success or failure of our course. Since this country was founded, each generation of Americans has been summoned to give testimony to its national loyalty.”

Today, we are summoned again.

Let us have the strength, courage, and vision to answer that call.

For in the words of President Obama, “We are the ones we’ve been waiting for.”

Thank you. May God bless America. And may God protect our troops.

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THE WHITE HOUSE

Office of the Vice President

For Immediate Release

May 25, 2011

REMARKS BY THE VICE PRESIDENT

AT A LUNCHEON IN HONOR OF THE 50TH ANNIVERSARY OF PRESIDENT
KENNEDY'S MOON SHOT SPEECH

John F. Kennedy Library and Museum
Boston, Massachusetts

12:15 P.M. EDT

THE VICE PRESIDENT: Thank you all very much. (Applause.) Please, please sit down. Please. I'm honored to be here. And I was saying to members of the family and others in the hold room as I arrived that there were only a few things that were held very -- I won't quite say sacredly -- but held very fervently in my family. And one of them was the reverence -- and it was a reverence -- and the pride that my family in Scranton had in President John Kennedy.

And I was telling Patrick, my grandfather Ambrose Finnegan is looking down right now saying, I can't believe the kid is doing this. (Laughter.) I can't believe the kid is actually being able to stand at the Kennedy Center to commemorate and celebrate the 50th anniversary of President Kennedy's moon shot speech. And I must tell you, I feel a little bit the same way. I've been around Washington and a United States senator for seven terms and Vice President, but this is a great honor. And thank you, family, for allowing me to do it.

I want you to imagine -- I want you to imagine the benefits of the first country that develops the smart anti-cancer therapies that kill cancer cells and leave healthy cells untouched. Imagine.

Imagine the first country that develops regenerative medicines that can literally re-grow damaged organs, eliminating the agonizing wait for organ transplants and allowing patients to recover patients to recover from spinal cord injuries or curing diseases like diabetes. Imagine.

Imagine the first country that makes solar power as cheap as fossil fuels and builds the first building that literally can be able to reproduce all the energy it consumes.

Imagine what it would mean for America and the world, the first country that builds a super computer capable of performing a million trillion calculations per second, which is on the horizon; a computer that is fast enough not only to sequence every gene in the human body, but to test the combination of genes, giving us a new ability to fundamentally decode the complex interaction between genetics and disease. Imagine.

Imagine the first country that creates that car battery that is even lighter and cheaper than the new lithium batteries we are now producing, able to store enough energy in one charge to have an automobile go 1,000 miles.

Folks, the one thing I'm absolutely convinced of, and maybe because I was such a devotee of President Kennedy -- I am absolutely convinced that if President Kennedy were standing here today, if your uncle were standing here today, that's what he'd imagine. That's what he'd envision. And that's what he would challenge all of America to repair to, to accomplish all of those goals I mentioned and more, for they're literally within our grasp.

I believe he would challenge us to push the boundaries of our knowledge and think we could go well beyond what we think our present capacity is -- the bridge -- to bridge the gap between the possible and unimaginable, just as he did 50 years ago. For it would have been beyond his comprehension that the United States of America would fail to invest in these visionary notions. It was just -- I don't think it would be thinkable to him that we wouldn't, at this moment in our history, make massive investments in all of these ideas, ideas that are literally going to make the 21st century, the entire -- livable, livable.

I don't believe President Kennedy could have imagined the United States continuing to rely on our present energy policy. I don't believe he could have imagined the United States failing to cultivate new brilliant, young scientists and challenge them to

deal with the diseases that have plagued humanity for generations. In an ever more complicated and inter-connected world, ladies and gentlemen, we have even a greater need to pursue these and other things I have not even mentioned. I believe if he were standing here today he would tell us, as he did 50 years ago, that we have a simple choice as a country and that's what kind of country are we going to be -- literally that simple. What kind of country are we going to be?

The vision that I imagine -- and I think probably all of you in this library imagine -- that shouldn't be as hard to sell today in 2011 as it was for Kennedy -- for President Kennedy to sell it 50 years ago. But because of President Kennedy's vision, his leadership, and his confidence, we've already met a challenge that we're all conscious that we met, that we all know was thought to be unthinkable before we met it. And we did it by relying on the native talents, the resources, and the grit of the American people.

Fifty years ago, President Kennedy said, and I quote, "I believe we possess all the resources and talents necessary." But the fact of the matter -- "the facts of the matter are we have never made a national decision or marshaled national resources required for such leadership. We had never done anything quite like that before." "We have never -- he went on to say -- specified long-range goals on an urgent time schedule, or managed our resources and our time so as to ensure their fulfillment." He was right then, and we should understand now. We did it.

He said what we needed was a degree of dedication, organization and discipline, which have not always characterized our research and our development efforts. It hadn't. We did it. But, because of him, I'm confused as to why we have so many naysayers today who doubt our capacity to do some of the things I've outlined today.

We've made national decisions on this scale and of this magnitude and have succeeded. We have marshaled national resources required for such leadership. We have specified long-range goals and urgent time schedules, and met them. And because of the visionary leadership of a young President, we all know not just from the history books, from many of our own experiences they can and was done. We know. We know as Americans. If only all our leadership knew that we have the capacity to mobilize and meet challenges of the moment.

The American people aren't afraid of these things. The American people are not timid about it. When I was 18 years old

and President Kennedy gave that speech, the moon shot speech as it's referred to these days -- I was an 18-year-old kid from Scranton, Pennsylvania who never, as I said, dreamed I'd ever be standing here and talking about that speech. But I can tell you what, it was a powerful vision and an achievement that grew out of President Kennedy's words. He urged a whole new generation. I was part of that generation. He urged a whole new generation to honor his actions with our own. What a great honor to be here today.

I remember President Kennedy saying it was up to us. I mean -- I don't mean reading about it. I remember consciously as a kid at Archmere Academy, a Catholic boys school, I remember it being talked about. It wasn't something that was distant. It wasn't something that you didn't understand. It was something that you tasted and you felt, you smelled.

He talked about us. He said it was up to us. What the hell could I have done as an 18-year-old kid? But I believed I was part of that. I believed it was up to us. It was up to us as a nation to decide whether to commit ourselves to the challenge of sending a man to the moon and bringing him home safely back to earth, and that if we weren't going to go at it full-tilt, we might as not -- well not go at it at all.

The thing I loved about President Kennedy and all the Kennedy's, including Patrick, it's always about possibilities. It's all about possibilities. It's never incremental.

In 1961, President Kennedy's character makeup was a reflection not only of his generation to state the obvious, but I think it was a historical reflection of America's character. And I'm absolutely confident that my generation and yours is not only up to the task, but quite frankly, we're better positioned to meet those daunting challenges in this young century.

Ralph Waldo Emerson -- I used to stutter a lot. And the way I overcame stuttering, I'd stand in front of a mirror and I'd repeat it over and over again, because my uncle had two volumes of Yeats and Emerson. They didn't like each other, but Yeats and Emerson. (Laughter.) And I'd stand in front of a mirror and repeat passages so I could stop my face from contorting. When you stutter, your face contorts.

And I remember one of favorite quotes from Emerson was he said, "Society is like a wave. The wave moves on, but the particles remain the same." America's character has not changed. It has not changed from what it was in 1961. What has

occasionally changed is the lack of vision, the lack of leadership, the lack of boldness, the lack of resolve.

We've become too incremental, in my view, in everything we do. If you notice, the national press always refers to me as the White House optimist as if I'm the new kid on the block. (Laughter.) I've been there for eight Presidents. As my grandfather would say, I didn't fall off the turnip wagon yesterday. (Laughter.) I'm optimistic, because I know the history of the journey of this country -- nothing incremental.

President Kennedy has, as I do, an unlimited faith in the character and the aspirations of the American people. He knew that the American people had never, ever failed to rise to a challenge, never failed to overcome adversity, never let their country down when it had been challenged. From a revolution for independence to a war to keep us united to the throes of the Great Depression, to building and deploying an arsenal of democracy to expanding democracy at home and civil rights and civil justice, America has always been at its best when it has been challenged the most, literally. Think about that, from a historical perspective.

Every major breakthrough that we have ever made as a nation has come at a moment of crisis. That's when we've seen our national grit, for lack of a better word, determination and ingenuity. And that's why President Kennedy said, speaking to the challenge to go to the moon, that if we came together and took up the challenge then, and I quote, "In a very real sense, it would be one man going to the moon, but all of us having put him there."

And Buzz knows we all put him there -- (laughter) -- although I can remember riding on Pennsylvania -- well, I shouldn't digress. (Laughter.) But I can remember looking up and showing my three-year-old son, saying, right now we just heard on the radio there's a guy standing on the moon, and you could see it brightly off the northeast extension of the Pennsylvania turnpike as I was heading to my deceased wife's home in Syracuse.

I knew as a young man -- and we all did, my generation -- we really do -- we sensed how bold, how bold this challenge was and how exciting it was. It appealed to America as a -- and I know people don't like this, but America's exceptionalism, the idea that we were a special nation meant to do special and extraordinary things.

Even then, my friends and I sensed that this challenge is about a hell of a lot of more than landing on the moon. It was bigger than that. It was about a truly new frontier not in a political sense, a truly new frontier. You just knew in your gut that in the process of getting to the moon, the pursuit of the moon, it would open up whole new vistas for humanity. It would be a new measure of possibilities, a new mark of human achievement.

President Kennedy knew that going to the moon would change the way we lived on earth. If you really read the speech, which you all have done, that's what it was more about, quite frankly. It wasn't about going to a distant world, but about bringing the United States into the modern world, about making sure that we didn't lose our place in the last half of the 20th century. And he was right then.

The pursuit of the moon inspired thousands of my generation to pursue careers in engineering, science, technology and at least one of the most significant, expansive scientific capacity the world has ever known, just as his political ascendancy unleashed in others of us an unlimited belief in the capacity of us to do good things. And my impression was that he never had a doubt that it would be this way, because he knew the history of the journey of the country. He knew the equation of America is that challenge plus investment equals progress.

A half a century later, President Obama and I -- and I mean this literally, not figuratively -- we share the same deep conviction about this country, have the same faith and the same certitude about our capacity. For the new frontiers here on earth are equally as challenging and equally as capable of being conquered as the frontiers in space -- the new energy policy that will save a planet from global warming, increase our independence, and renew our economy; and advance science and health that will increase the quality of life for tens of millions of Americans and hundreds of millions of people around the world.

This is an incredible time in which we live, a time of extraordinary possibilities. We're a nation of people who are always about possibilities. Go back and look at just the history.

What's truly unique, in my view, about America is that we have a political system, an economic system, an education system, and most importantly, the will to turn those possibilities into reality. The confluence of all of those together is what makes

us unique. We're no better people, as individuals, than anyone else in the world. But it's the confluence of all of those things that's positioned us, and has for over 200 years, to do great things.

But like President Kennedy, we understand -- the President understands that it takes a national vision. It takes a leader to set a goal. And if he does, investment and innovation and ultimately commercialization of the things we need to do will follow. Over and over again, that's been the American model of innovation, allowing us to lead the world in technological advancement for the better part of 250 years. It's part of our nation's DNA. It's embedded in our nation's history.

But the goals are not America's alone. These same goals I outlined are the goals of all emerging and all nations -- or most nations. Other nations are seeking to win the future as well. And you see it in China, India, and Brazil, other countries making massive investments, significant portions of their GDP in development, infrastructure, research, innovation, education.

If we shrink from the bold approach that was laid out here 50 years ago, we run the risk of being left behind. We're either going to lead or follow. There isn't anything in between. And we in the world are at a critical juncture. And the United States needs to pursue and renew and re-assert our commitment to competitiveness, a competitiveness that will put us in a position to be a global economic leader for the 21st century.

And that's why President Obama has set what we don't think are so bold goals, but others are characterizing these great, bold goals of meeting the challenges of our generation. Think about it. We know. We don't think, we know we can generate 80 percent of our electricity from clean energy sources by 2035 and sooner if we commit. We launched what's called the Sun Shot, to make solar energy as affordable as traditional forms of energy.

I assure you just as the moon shot succeeded, the pursuit of this goal is going to develop whole new technologies that will leapfrog even what we're talking about now. Why do we doubt our capacity -- just with the technologies used today to generate 85 percent of our energy from clean, renewable energy?

We know that with a little bit of seed money that we've already provided in the Recovery Act, the private industry is going to put advanced technology vehicles, electric and plug-in hybrids on the road, over a million of them, by 2015. But we also know that on the way of developing those batteries, they're going to develop whole new generations of batteries that are on

the drawing board now that is able to carry a car a thousand miles on a single charge, batteries that will be able to store energy harvested from the sun not only for automobiles, but for industrial use.

I was recently out in Colorado at one of our laboratories. And they were talking to me about this new solar film they have. And I'm talking to these three young scientists -- two women PhDs and a man. And I said, well, what do you think? And this very attractive person, this young scientist woman leaned over and she said -- because there was a lot of cameras around at the time and she was a little intimidated. She said, Mr. Vice President, oh, this is only the beginning. You know what we're working on? We think -- and she starts to describe to me what this new leapfrog technology that is going to make silicon something a thing of the past.

Folks, we know that we must and will lead the world in the percentage of college graduates by the end of this decade, because we know the American people. We know the talent that exists. And we know that any country that out-educates us will out-compete us. There's no reason why, in the 21st century, America cannot have the best-educated, best-trained population that mankind has ever known. Give me a reason why that can't happen. We have the talent. We have the resources. We have the know-how. We have a system that can accommodate it.

Again, not because this is not American exceptionalism and we're better. It's the nature of the combination that can -- confluence of forces that vibrate across this country that make it different. And in the process of doing all of this, a young -- your generation -- the young generation of kids graduating from this university tomorrow, like my niece and many others all across America -- their generation will be responsible for the fundamental breakthroughs not only for -- in the far reaches of space, but in the depths of the sea and the confines of our own body and in the mysteries of the human brain.

Now, my daughter who is a full-grown woman at 29 years old, has a master's in sociology and social work, and works full time to save the world. I remember, when she was little, I had two cranial aneurisms. And I remember after the first one, her calling me in the hospital and saying, Daddy, I just saw your brain on television. (Laughter.) It had some really smart guy explaining why I'd never recover. But at any rate -- (laughter) -- and I'll tell you, I was going down -- as I was going down the -- being wheeled down, counting the ceiling tiles coming out of the ICU -- I mean, out of the emergency ward, about to have this

craniotomy. And, I said, doctor, what are my chances -- and a great neurosurgeon. And he said, for mortality or morbidity? And I'm thinking, what the hell is he talking about? (Laughter.)

And, I said, what are my chances of getting off the table and being in good shape? He said, well, Senator, your chances of living are a lot better. I said, what are they? He said, about 30 percent. And I actually thought -- it was the Irish in me -- I thought, well hell, that's 310 -- I'm going to be one of them. (Laughter.) You think I'm joking, I'm not.

But I remember after it happened -- a number of things happen when you go into the brain that way, around the brain. And I called my doc one day and I said, doc, such and such just happened. Why? He said, Joe, we don't know why, but we do know from experience it will stop. Here's what's going to happen, but we don't know why. Then I had a second aneurism, which was planned -- they had found it in the angiogram the first time -- three months later. And I got the same anesthesiologist rolling me down. He came back, and he's looking -- I'm looking up at him and -- Max, you've been there. And he said -- tried it in a joke -- he said, you know why neurosurgeons have such incredible egos? And my doc, he was a great guy. And, I said, no. I said, I'm sure you're going to tell me. And, he said, who the hell else would go into the brain with such confidence knowing as little as they know about how it functions? (Laughter.) Well, it's true. It's true. (Applause.)

So, folks, a great deal has been written about the advances we've made in the past quarter century in understanding the brain's function and the potential that will come from further study. That's what Patrick's outfit is all about. You know, there's been a great deal of research just in the last -- it's one of my avocations. I am no scientist. But because of what I personally went through, I find it fascinating. I read every part of the popular literature I can, to try to understand what's going on.

There's been a decade of research -- peaking in the last half decade, research that has attracted the interest of not only neuroscientists, surgeons, and gifted persons from other disciplines -- psychology, sociologists -- but also journalists. One example is, that I recommend to you -- it's not the be-all end-all, but it's interesting. David Brooks, who is a friend -- I don't want to get him in trouble, he is a good acquaintance. (Laughter). He was brighter than I am and has the same fascination. He's just written a book called, "The Social Animal," that points out the greater understanding of the

potential we have for social interaction in ways we've never thought of before by just understanding how the brain functions. The promise, the potential, the possibilities are unlimited, and the need for further research is immediate.

Thousands, as was pointed out -- thousands of our wounded warriors -- and I visited hundreds and hundreds of them in hospitals. My wife has spent time, and she is spending most of her time dealing with the whole problem related to wounded warriors and making sure people understand the sacrifices our warriors -- by the way, these are the finest warriors the world has ever created. That is not hyperbole. That is not an exaggeration. That is real. (Applause.)

But thousands have returned with post-traumatic stress and traumatic brain injuries. So on the political side, guys like me, as senator and Vice President, can change the law to say that you don't have to challenge, like my generation did, if your immune malady was a consequence of Agent Orange or not. You may have had it dropped on you, but unless you could prove directly -- direct correlation between what happened and Agent Orange, you couldn't get compensation. You couldn't get help. We've changed all that. We've changed that now. If you're in a place where things went boom, and you come back with a traumatic brain injury, it's assumed that's the reason. But that deals with the symptom. That deals with the symptom. There's a need for this research -- people's lives, one family at a time.

For these, and many other reasons, our administration had made an unprecedented commitment to advancing the understanding of the brain through the NIH, through the National Science Foundation, and through the Department of Defense and through the VA. We're supporting the human cornerstone project, dedicated to discovering a wiring diagram for the human brain; and the Human Connectome Project, which will lead to major advances in understanding of how our brain circuitry changes as we age and how it differs from people with neurological and other illnesses.

We're supporting a consortium of researchers that creates stem-cells for patients with Parkinson's, Huntington's, Lou Gehrig's disease, Alzheimer's. This allows researchers to do better in understanding the progression of these diseases and screening potential drug candidates. And we're supporting the development of the -- of a neural prosthesis.

I just saw an amazing thing, Patrick. I was down in Fort Bliss, and I was down -- we have a center down there -- this was privately funded, that for prosthesis, for these young soldiers

coming back. They're amazing. They're amazing. And they showed me one, and they wouldn't -- the White House photographer was with me and they wouldn't allow it to be photographed -- a young man who has an entire new arm from the bicep down. And it is working in terms of him thinking how to turn the hand; a new foot, where the ankle is turned just by the young man thinking about how to turn an ankle. The possibilities are mindboggling, mindboggling. So an individual's prosthesis -- can control their movements just by their thoughts like we do unconsciously.

We're also supporting Congressman Patrick Kennedy's bold, new campaign called, One Mind for Research. Many of you here today are part of that. (Applause.) Patrick, you and your colleagues' work you're doing is truly, truly a modern moon shot. We know as much about outer space as we do about the brain. That's not literally true. I'm not a scientist, so that's my impression.

But there's no question -- there's no question that President Kennedy's spirit is alive and well in this nation, in this audience, and in the DNA of Patrick Kennedy. Ladies and gentlemen, the truth is, just as JFK could not have known that shooting the moon would create a semiconductor industry, which would give birth to the personal computer industry, which would give us IBM and Microsoft and Apple, which gave us the iPhone and God knows what next. (Laughter).

We cannot know, with any degree of certainty, what our fundamental recommitment to science and research and development will yield. But we do know, we do know from experience that the results will be greater than the sum of the parts, that the rewards will be greater than the original investment. And we also know that the march into the future is going to continue whether we lead it or not.

And President Kennedy understood this 50 years ago when he said, "The exploration of space will go ahead, whether we join it or not. And no nation, which expects to be a leader of others, can expect to stay behind in this race for space." I would argue no nation that expects to lead others can stay behind in the research projects in the areas that I've just outlined. No nation that expects to be a leader can afford to be a follower in these areas.

But just as there were naysayers in 1961 -- this is my closing point. Just as there were naysayers in 1961, there were naysayers -- are naysayers in 2011, not only in the public-at-large, but within our political system. Today, they say our

economy is too fragile for the President and I to insist on these investments. I'm doing these budget negotiation talks. Time and again, I hear inside, with our deficit, with this problem, how can we move and continue your insistence on more investment in education and innovation and infrastructure? They say our economy is too fragile. I say our economy will stay fragile for the better part of this century unless we are bold. (Applause.)

And, by the way, many Democratic representatives, they say we can't afford to invest in these endeavors. I say we can't fail to invest. Their argument is simple. We can't afford it. This argument is not new to America. There were those in the political leadership since this country has been founded who view that the government has absolutely no role, should not set goals, and should be out of the picture. They shouldn't be laying out the vision. We should lay out the vision for America as President Kennedy did 50 years ago. I'd argue that at every juncture, at every juncture, that point of view has been wrong, whether held by a Democrat or a Republican.

If we had listened to those voices in 1774, private enterprise and government would not have collaborated to build the rifles with interchangeable parts needed to win the Revolutionary War. Had we listened to those voices in 1843, Congress would have never had collaborated when Samuel DeMorrison* provided the money for a demonstration line that he could not afford from Washington to Baltimore, unleashing a telecommunications revolution we're still in the midst of.

If President Lincoln, in the midst of the Civil War, had listened to those voices, he would not have paid private railroads \$16,000 for every 40 mile of intercontinental railroad track they laid across the nation and it would have been decades before it occurred.

If President Eisenhower has listened to those voices in 1957 after Sputnik, he would have never invested the tens of millions of dollars in a new thing called ARPA, which developed a thing called ARPANET, which is the Internet with 1.7 billion people generating trillions of dollars of commerce all across the world with a click of a mouse.

And if President Kennedy had listened to those voices, we would have never reached for the moon and reaped the incredible benefits that flowed from that effort for this nation. And I assure you that neither President Obama or I are going to listen to those voices and mortgage the future of my niece's graduating class that's graduating tomorrow. (Applause.)

Ladies and gentlemen, in his inaugural address President Kennedy said -- and I honest to God remember talking about this in my class with a Dr. Carol (ph) who was our history teacher. When he talked about the moon shot, the first thing that came to my mind was a sentence in his inaugural speech -- and we all knew the speech and we know it now. He said, "In your hands, my fellow citizens, more than in mine, rest the final success or failure of our course. Since this country was founded, each generation of Americans have been summoned to give testimony to its nation's loyalty," he went on to say.

Today, we're summoned again. It sounds trite, because so many speeches are made by somebody -- or everybody trying to evoke those stirring words of John Kennedy, but it's literally true. We're being summoned again. We're being summoned again.

And pray God, we have the strength and the courage and the vision to answer that call. For in the words of President Obama, he said, "We are the ones we have been waiting for."

God bless you all. (Applause.) Thank you. And may God protect our troops. Thanks. I appreciate it. Thank you, Patrick. See you all later. Thank you.

END

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