

Remarks for Deputy Administrator Lori B. Garver  
Women's Empowerment-Women's Education

March 14, 2012

Thank you very much, Malia, and thank you, and all your members of your Johns Hopkins University Women's Network. It is a pleasure to be here. I'm sorry it's taken me so long to come since I'm just up the road.

When I started at NASA, I really made it a point not to be seen as just the woman deputy of NASA; that, in fact, I wanted to be taken seriously. I am not an expert in women's issues. I am a space policy person. It's right in my background, and it is only recently that I have felt more empowered on our topic of empowerment today to speak about these issues and to have a little more confidence that, in fact, while I do not have a STEM degree, that I have an important role in empowering women who work at NASA and having our agency be a lot more empowering of women.

I know a lot of people have issues with these things, and I'm pleased that you have this organization. The first talk I gave like this was actually to a JPL women's group, and they had specifically asked for a work-life balance talk. Because it's a little farther away, I was able to spend a lot of time on the plane focusing on my work-life balance talk, and so toward the end, I brought out my cards. I did a top 10 list of my guidance on the work-life balance. But in general, I guess, this Women's History Month is about women's empowerment, and to me, that is a lot about gaining that confidence to be able to make your contribution equally.

I looked up "empowerment," and it tends to be equated with granting more equity to those less fortunate, often women and minorities, or it is associated with self-empowerment through gaining skills or assertiveness training or similar efforts. So I found that very interesting, because I think most people would consider me at NASA a confident person.

When Malia asked if she were to use a word to describe me, what it would be, she said "fabulous" comes to mind.

But I immediately go to "determined," and I have been introduced as determined before. The first time, I wasn't so pleased with it. I was in sixth grade going through church confirmation, and the way we did it, each individual left the confirmation group while the group came up with a word to describe you, and on Confirmation Sunday, you got told this word by the minister along with the rest of congregation. Of course, I had been in for the group discussion of everybody else's word, and I knew they were all words like "good listener" or "beautiful." And on Confirmation Sunday, sitting there as a sixth grade girl the word that my peers chose to identify me with was "determined." I almost cried on stage. That is not what a sixth grade girl really wants to be known as, but I'm good with it now. I'm good with it now: "determined."

The other day, a colleague of mine from my time at NASA in the '90s used it and said, "Oh well, he's very much like you, just determined, like you set about doing this and you're going to do it."

And Rebecca Spyke Keiser, my deputy, introduced me the other day to a women's event at George Washington, she quoted someone else in an article who said, "Lori's laser-like focus on things she cares about." I don't think that's a bad thing, and I think it's something that as women, we are not generally brought up as much to do.

You can argue this, whether it's a nature or nurture issue. As a mother of two boys, I tend to think they are both in play, because although I have two boys, they are vastly different. I do feel I have treated them the same, and one as more of your typical boy type of personality, and so people say, "Oh, that's just a boy." Not really true, because the other one does not have all of those characteristics. So we all know this is a blend.

But as we look to Women's History Month and trying to make certain young women feel they have an equal opportunity in our world especially in the STEM fields and for me in particular, NASA and the space world, I do think we have some work to do.

Women are not typically the first to speak. I was on this panel, as I mentioned, last week at George Washington University, and even Kathy -- I am sitting next to Dr. Kathy Sullivan, the first American woman to walk in space. You'd think she would -- and I have known her for years -- she has no lack of self-confidence, and she spoke of her early days at NASA, being one of those first six women chosen to be in the Astronaut Corps at NASA and how they held back. Assertiveness is something that we all need to work on.

Now, you wouldn't hear at NASA that I have an assertiveness problem. I think, though, when I express my views strongly, I am not always considered assertive but maybe a little bit of that other word that Barbara Bush called Hillary Clinton that rhymes with "witch."

I have been told, "Oh, I don't follow the NASA culture close enough." You know, we like to all be very collegial with each other and not as direct. Again, I find other people being just as direct, maybe not as much, many of the women. So I feel like in this position, there really isn't a reason that I shouldn't be expressing my views fully. I feel that a role can certainly be to help give other, especially young women, permission to be this way as well.

So while we have made a lot of progress, we at NASA really, really like to celebrate our progress, and when I was first working on things and messages that I would say for Women's History Month, the staff came up with things like, overall, 6,000 women hold jobs at NASA. So of out 18,000, we are very proud that 6,000 are women.

I have been told that women supervisors, our percentage has increased by 59 percent in the last 10 years. That is great progress; told that our percentage of engineers at NASA has increased 76 percent in that last 10 years, great statistics. But I had to ask: What percentage of NASA's supervisors are women? It's 19 percent. What percentage of NASA engineers are women? 20 percent. AST employees at NASA overall are 22 percent female. So we have got some work to do.

It compares, however, with the Department of Defense we looked into in the STEM fields. They are more like 16 percent, and so comparatively, we think we are doing very well.

I don't know where Johns Hopkins is. You're the Women's Network. Do you have any of that data? We should look. I would like to believe that as certainly the graduates from your institution and others like yours is increasing. Also on this panel last week was a woman who worked for the Academy of Engineering, and she had statistics about graduates and engineering climbing toward 40 percent female, heavily weighted toward those in biological engineering and sort of, as she said, the softer engineering side. For me, with a background in political science and economics, there isn't a softer side of engineering, but I guess there is.

And you have to look at this in comparison to things like law school and medical school where women are over 50 percent, even in undergraduate school. So what is it that we could do better as a community again to offer equal opportunity for women, so we can tap into their skills and innovation as well?

Another thing that the speech writers outlined for me is all the progress we've made and identified these key visible women that are at NASA, so, absolutely, we celebrate. Our principal investigator on New Star is a woman, on GRAIL is a woman. I was briefed today by a number of clearly very senior women on programs that APL is doing with NASA. We have a woman leading our CIO, our CFO, myself, my deputy. So the deputy's deputy is a woman, Rebecca, but my story there is to talk about empowerment.

One of the stats they gave me was how many women we've launched in space, our astronauts. They said we've launched 43 women in space. So all of this is progress, but, again, I ask how many of our NASA officials in charge are women. There are 6 of nearly 40 on our team, and Rebecca, our CFO, our CIO, all people I've hired. We have one center director. There was one female on this board when I came in. Got a ways to go. So we launched 43 women, but how many people have we launched in space? 330. So we are not quite at that 50 percent, but we are making progress.

Another thing we like to do to make us feel like we are making progress is talk about how bad it was in the past. Did a little research on that, wasn't hard. In the 1970s, we had beauty pageants at the NASA centers, and you could become the Queen of Outer Space.

And I'm sure that was fabulous, but my favorite was a memo that was written by a woman, the secretary, to the head of Goddard in September of 1970. It takes you back. The subject line on the memo is "Pant Suits," and it's written to "Goddard Gals." Our head of HR found this and sent it to the couple of women in the senior leadership team with the subject line, "Just to remind you how far we've come."

The memo states, "There are many pros and cons on this subject; in fact, it's as loaded as wearing midis versus minis. On the one side of the coin, I have to face you girls and your desire to be mod; on the other, the male population who would only vote for minis."

It continues to say, "If you feel that a pant suit would not be offensive to your boss and would not embarrass him, you might be able to wear it." This is 1970.

There's parts in there, I'm not going to read, because it's so offensive about how to make this decision yourself, including like what you look like from behind. Just remember all the stuff. It concluded by saying to you gals to, "Please bear in mind that if someone forgets to treat you like a lady, it was you who elected to wear the pants."

Now, I remember 1970, and certainly, in elementary school, I was not allowed to wear pants to school in the beginning in my little Michigan. I loved gym day, because you could wear shorts under your skirt, but 1970, there were also tens of thousands of people striking for women's equality, and we had the Equal Rights Act in the 1960s; not too many years later, Title 9. It wasn't okay to be like this at NASA then. So my point is to try and have us recognize what we're doing now, that 40 years from now, we're going to look back on and laugh, like the pants suit memo. So, clearly, there are still cultural things that we need to overcome, and I feel that one of the things that we could do better is make sure that we aren't perpetuating the kinds of things that will seem crazy to us in the future.

Now, what those things will be, we probably can't know for a few years, but certainly, we are hard-wired to leave and to usher in better opportunities for the next generation. When I was in high school, I had taken all the math by the time of my junior year, and there were only six of us who had. When I came back my senior year, the five boys were enlisted, enrolled to take calculus up the street at the local college, and no one had contacted my parents about me enlisting in that. And my mom called the school, and they said in fact, "Well, we just figured she wouldn't be interested. She's not going to go into math." This was in 1979 or this is maybe 1978.

My mom is a home economics major, stay-at-home mom, but it made her mad, and I am my mother's daughter. It makes me mad as well. You are hard-wired to want that best for the next generation.

So women have contributed in so many fields since those days in equal numbers, but why not in engineering and math? Why do we think it's okay that men still earn about 80 percent of the bachelor's degrees awarded in engineering and computer science and physics, and how do we change that and encourage women to enter these fields.

I do feel that part of this is in our own reluctance or inability to characterize these fields as being socially beneficial, meaningful. Women have tended to go into those fields where they really see a strong connection to making the world a better place, having an impact. We know our fields. Do we know that without engineers -- they are who help make this world a better place, but we haven't really taken that tact with explaining it, and, of course, we have the larger challenge of not enough engineers, period, and not being able to explain it well to the younger generations.

The number-one indicator of whether you are going to become an engineer is whether your parents were engineers, and, of course, that is typically the dad, but it really does work for either one.

But a big difference beyond just the STEM issues are workforce flexibility and how it is that we can better accommodate women who make the choice to have a family. So I know men make these choices as well, and we have had a robust discussion at NASA lately of whether or not

workforce flexibility is even a women's issue. A lot of people think it's not, and I would love to live in a world where it's not, but we still have the fact that 85 percent of single parents are mothers. While we love to talk about how more and more dads are staying home, what do you think the percentage is of stay-at-home dads?

I'm just a political science major, but, you know, that's not 50. Doing a little research into the number of hours women versus men spend with their families -- working parents. Women spend an average of 21 hours a week with their children; men, an average of 9. And this was in an article that was all about how great it is that men are spending more time with their kids. The article didn't even acknowledge it's less than half. It's gotten better. It used to be 4.

So, again, we love to maybe take credit a little early for all the advancements we have made. We do need to tap the potential of everyone in the workforce, and because I have kids, I know that not everyone does and makes that choice. I guess my issue is really I want to work toward a time when there isn't any more reason for a woman to have to make a choice differently than a man would for whether they go back to work, how much time they take off, et cetera. In all the mentoring I have done over certainly 20 years, since my oldest is 20, I have been asked consistently: How did you decide to go back to work? How do you balance this? All of those, 100 percent of those questions have been by young women. Men have never asked it, and I don't know many men in my position who have ever been asked it, so there is a difference.

So I'll quickly give -- and then we have time for questions -- my top 10 suggestions for healthy work-life balance, and I'll start out by saying don't tell my kids this, because they would just laugh if they ever told you I was giving a talk on a healthy work-life balance.

So number 10 is work out of the house before they're 5. Guess what? They don't remember. I felt so guilty going back at 6 weeks both times, but your kids don't remember that baby-sitter Mimi came to the house every day at 8 a.m., and I remember just crying and crying, being so concerned they're going to know Mimi better than me. She even called herself "Mimi," even though her name was Mildred. I knew, so they would say it before they said "mom." This was devastating to me. Luckily, I have friends that are mom, say don't worry, they'll know who their mom is. And sure enough, right now if Mimi calls they say, "Mom, do I have to talk to her? I don't even remember her."

Number nine, incorporate work with family. So I know now everyone feels a need to do this. I had this little trick of taking them everywhere. I remember I was president of Women in Aerospace when Wes, my oldest, was 8 days old, and he was named Wesley after Gene Wesley Roddenberry, long story, but the Women in Aerospace event was at the Air and Space museum, and it was in fact for the exhibits of "Star Trek." And, of course, I had to bring Wesley in there, his birth announcement; therefore, is him in the Captain Kirk chair with his little bassinet thing.

He went to Russia with me on one of my NASA trips. The other one went on a trip to Israel. They really have, I think, felt like there is this seamless involvement in my work life. So it isn't some separate mysterious thing.

For me growing up, my dad was a stockbroker. I could have never told you what that was. I didn't know what he did. We didn't talk about it.

So then number eight, incorporate family with work. When I'm home, we'll talk about what was the highlight of your day. My kids still do it. My 17-year-old at home still wants to know every day the highlight of my day. Now, granted, I get some pretty good highlights. He's like, "The President? Did we see Barack today I'll tell him about my highlight today, and then he has to tell me his, and so I think it has helped to not have them separate.

Number seven, never forget your BlackBerry or lose it. So it has allowed me, I know we like to complain about these things, but it really did allow me to go to soccer games, to football games. I might have missed a few plays. Don't have to admit it. "Oh, of course, I saw that goal. That was fabulous." It works out just fine. If we could not have these portable, flexible workplaces, we could not exist.

Number six, live near work. I physically moved. I physically moved toward my office when the kids were those ages, so I could walk to work and so I could come home for lunch. My office was on Capitol Hill. I bought a house a block away, and it made all the difference for those first 10 years. I know not everyone can do it, but it's just a little tidbit I had. It cut down on your commute time, and my family, who lived on a farm in Michigan, they said, "Oh, my goodness, you worked closer than the barn was to our house."

Number five, make time for good friends. Lots of studies about your friends being those important parts to longevity, I couldn't agree more, and as my women friends in McLean now where I live can attest, I stalked them in the early days. I would look who's near my house to befriend them, so they could be in my car pool. I mean, seriously, I was shameless, and it worked out.

So now we have this group of friends, and our kids are all going off to college, and I'm so, so glad I have them. I counted on them for knowing who the best teachers were. You know, a lot of them are stay-at-home moms. I even ended up getting certified to teach aerobics, because the one class we had on Saturday mornings, our teacher was quitting, and it was on Saturday morning after aerobics that we'd go to coffee and I would get all the good scoop from the home mom, when is soccer sign-up, the things you can't keep track of when you're at work. So the friend network cannot be overestimated, whether you have kids or not.

Number four, take your vacations. So we have vacation time for a reason, people. It's called vacation, and while it's great when kids and spouses can come on a work trip, but you're working. So take your vacations. In government, we can be pretty good about vacations; hopefully, Johns Hopkins as well. You will always, always have those memories. Your kids will remember it more than even the times that you maybe stayed at work a little late.

Number three, make the most of your time at both. So I uniquely have certainly now the ability to not just waste a ton of time at work. So I have all kinds of resources, and I don't have to spend time in boring meetings. I'd be like, "Okay, I've had enough of this. Thanks. Thanks for that. Got to go." And as well at home. I've been asked about quality time at home a lot. , I think can

be overrated. Now with a 17-year-old, let's face it, quality time is watching TV together, so you know actually they're not doing whatever in the basement. So it does change over time, but I find that being engaged at home and at work and getting it done instead of wasting time really helps you have time in both and feel less cut off from either

Number two -- and hopefully, you've all done this too -- is choose a meaningful career. I feel like the work-life balancing helps, because my kids now realize, "Oh, my gosh, you do such important work." They like what I do so much, and I feel like they would never -- and we've talked about it -- have wanted me to not work because of them, because that would have not allowed me to have this meaningful career. Lots of people I know do not have the opportunities. Certainly you guys do, hopefully more than me with your backgrounds. But it really helps a lot to be able to know when you're going to work. "Wow! I'm doing something that's important," to be able to think about that, because you are going to miss your kids, your family, whoever it is you're leaving, no matter what. It's really nice to take on things that you know are going to leave the world a better place. I feel that way about coming into work at NASA every day.

And number one, a suggestion for having a successful work-life balance is that you can have it all, just not at the same time. I definitely could not do this job with small kids. One of mine is in college, and the last one is at home in high school. At the time that they were little, I really had a more flexible job. Even though my mom didn't work, I will never forget a college friend's mother, who was a lawyer, telling me this guidance. So I'm in college. I didn't really have any female role models that were working, and she had gone to law school after her kids had grown. Some people can have them younger, have them older, but it is very, very hard to have it all at the same time.

So, in conclusion, I feel like this issue of women and empowerment is many fold. It's addressing those cultural issues that maybe are unintended, keeping us from being as inclusive as we should of women, having workforce policies that allow us to be more flexible, and really tapping into that spirit of women that maybe has not been as developed at a younger age to feel confident and empowered to be able to go and do anything you want to do.

We at NASA, we in these fields, need everybody. The talk I gave last week was on innovation, women in innovation, and it's a very natural thing like empowerment. If you are doing the same thing over and over with the same people, you're not going to be as innovative. Innovation comes from thinking about things differently, bringing something else to the situation, and that's what we do when we have a diverse workforce and different backgrounds and different ways of looking at things.

So we need everyone, and I so hope that I can just be a part of helping us address each of those areas, so that we can fully tap into women's potential in these fields.

So I did want to leave some time for questions. This should be a dialog, and thank you for having me.