Inclusive Innovation: Building Opportunities for all Americans

Keynote Address by Senator Mazie Hirono (D-HI)

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FEATURING
Senator Mazie Hirono (D-HI)
Member, Senate Judiciary Subcommittee on Intellectual Property

CSIS EXPERTS
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I will discuss specific proposals live with a great panel of experts in about 20 minutes or so. But first we will hear a keynote from Senator Hirono, after which the senator and I will engage in a short conversation, after which I will return live to introduce our panel.

So with that, let me ask the folks at CSIS to play the keynote from Senator Hirono.

I would like to thank CSIS for hosting this event and inviting me to speak on the importance of increasing diversity in our innovation economy.

Women and racial minorities have made some of the most significant inventions in history. Can you imagine driving a car without windshield wipers, invented by Mary Anderson in 1903? What would we do without the home-security system, invented by Marie Van Brown in 1966?

The genetic revolution would still be science fiction if not for the CRISPR gene-editing tool discovered by Jennifer Doudna, raised on Hawaii Island.

We should celebrate these diverse inventors and the many others who have contributed to innovation in this country. But we must also recognize the hard truth that women and minorities are greatly underrepresented in the U.S. patent system. The Patent and Trademark Office’s 2020 report on women inventors found that only 22 percent of U.S. patents list a woman as an inventor and that women make up only 13 percent of all inventors. For comparison, women held 48 percent of all full-time jobs in 2019.

Even if we focus on the STEM careers most likely to generate patents, we still see a gap. Women made up approximately 27 percent of the STEM workforce in 2019, a number that greatly exceeds the 13 percent of inventors that are women.

Racial patent gaps also exist. For example, a report by the Institute for Women’s Policy Research found that the percentage of African-American and Hispanic college graduates who hold patents is approximately half that of their white counterparts.

Closing these gaps would turbocharge our economy. According to a study by the Michigan State University Professor Lisa Cook, including more women and black Americans in the initial stages of innovation could increase GDP by as much as 640 billion (dollars). Another study by the National Bureau of Economic Research found that eliminating the patent gap for women with science and engineering degrees alone would increase GDP by over 500 billion (dollars).

It’s simply good policy and good business to make our innovation economy accessible to all. Thankfully, both Congress and the PTO have taken steps to start addressing these patent gaps. In 2018, Congress passed the SUCCESS Act,
a bill I co-sponsored, that directed the PTO to study the number of patents applied for and obtained by women, minorities, and veterans. The PTO’s subsequent report contained a number of suggestions we can take to address the underrepresentation of these groups.

The PTO also launched its National Council for Expanding American Innovation, an initiative tasked with guiding the PTO and developing a comprehensive national strategy to build a more diverse and inclusive innovation ecosystem.

I look forward to seeing the results of the council’s work. But even with these efforts, there is much more we can and should do. This is why I introduced the Inventor Diversity for Economic Advancement, or IDEA, Act earlier this year. This bipartisan legislation comes from a recommendation in the SUCCESS Act report and would direct the PTO to collect demographic data from patent applicants on a voluntary basis. This would give us greater insight into whatever gaps exist and how to best address them.

The bill received bipartisan support in the Senate Judiciary Committee and was incorporated into the U.S. Innovation and Competition Act earlier this year. I look forward to the House passing the bill so the PTO can start collecting this critical data.

Last year, Senators Tillis and Coons joined me in a letter to PTO Director Iancu, who I look forward to speaking with shortly, asking the PTO to look into the underrepresentation of women in the patent bar. I’m glad to say the PTO responded by taking steps to expand automatic qualification to the patent bar. This will make the patent bar more accessible, including to diverse candidates, without impacting patent quality. I fully expect the increased diversity in the patent bar to drive increased diversity in the inventors we see apply for patents.

We should encourage more women to pursue STEM careers. Earlier this year, I introduced two bills, the STEM Opportunities Act and the Women and Minorities in STEM Booster Act, aimed at improving the recruitment, retention, and success of women and minorities in the STEM pipeline. I will work to make sure these bills become law.

These are just a few steps we can take to increase diversity in our innovation economy, not just because it’s the right thing but because America needs the skills and talents of all its people who want to maintain our place as the world’s leading innovator.

Mahalo and aloha to all of you.

Mr. Iancu

Well, thank you very much, Senator Hirono, for the excellent keynote. And before we go to the Q&A, let me take just a minute to properly introduce the senator.
Senator Hirono was elected to the U.S. Senate in 2012 from Hawaii. She is the first Asian American, Asian immigrant to serve in the Senate, and she’s the first woman to represent the state of Hawaii in the Senate. Senator Hirono previously served in the U.S. House of Representatives before coming to the Senate. The senator was born in a village near Fukushima, Japan, and then immigrated with her family to Honolulu in 1955. She has a bachelor’s degree in psychology from the University of Hawaii, has a law degree from Georgetown University. She has worked for the state government, by the way, in antitrust litigation – very often that is related, at times, to intellectual property. But then after that, she ran and then served in the Hawaii House of Representatives. She also ran and won the post of Lieutenant Governor. The senator is a member of the Senate Judiciary Subcommittee on Intellectual Property, obviously a member of the Senate Judiciary Committee overall, and is a great contributor to intellectual property policy issues in the United States.

So with that, I had the opportunity to speak with the senator about these very important issues a few days ago.

Hello, Senator. It’s so great to be with you again. Thank you so much for agreeing to be part of our program here at CSIS on diversity of innovation.

I was so pleased to hear you talk about women inventors and specific examples of women inventors because all inventors, especially would-be inventors, need role models. So being able to identify specific individuals that up-and-coming inventors can look up to and see themselves in them, I find that to be so important. Do you find that you often talk about individuals? And what do you think that does for the innovation economy?

Sen. Hirono Any endeavor where there are very few women or minorities would benefit from having women and minorities be out front and be role models; I think it makes a huge difference. And of course, in my life, way back when, there weren’t that many women lawyers. I didn’t know anybody my own age from my group that had gone to law school, so it really helped when I met some people who were my age who had – who had done that. So it’s not as though we need to bow down to these people, to these people, but it’s good to see the – that there are, you know, people who look like us, who have the backgrounds like us, who are doing – who are in the STEM fields. It’s really important.

Mr. Iancu So what more can we do as leaders in this field to highlight these individuals? You know, there’s so much in the debates about patents and IP in general. There seems to be so much negativity about, you know, whether we’re talking about patent trolls or patent thickets or a whole host of issues, some of which need to be addressed.
But in this sea of seemingly never-ending pejoratives, what do you think we can do more to highlight the successes of these great, great inventors that have come before us?

Sen. Hirono

Oh, certainly, to talk about them, to make sure that they are – when we read books about them. For example, I am about in the middle of “The Code Breakers” book about Jennifer Doudna, the – one of the co-inventors, I think – I guess it’s co-inventors – of the CRISPR gene modification. And what’s really great is I know that she graduated from Hilo High School in Hawaii. So for all of the Hawaii students, and especially women and minorities, to see somebody like Jennifer doing what she’s doing is important.

So we should talk about it. We should read the books about them. That’s one of the ways. But in addition, as you know, I have introduced some legislation that will provide grants and other kinds of support for women and minorities in STEM because they – women and minorities drop out of the STEM environment at all levels from elementary, secondary, clearly, in the profession, because of, you know, they need, I would say, a lot more support and attention being paid to their talents and skills.

Mr. Iancu

And you also introduced fairly recently the IDEA Act. Can you talk a bit about that and what the – what’s the purpose behind that legislation?

Sen. Hirono

This is a bipartisan bill with Senator Tillis, and all it did was to enable the Patent and Trademark Office to collect in a volunteer basis demographic data of the people who are applying for patents so that we have a much clearer picture of who’s applying for patents and some of the other kinds of information that will enable us to see where the gaps may be in terms of who’s applying for patents, who’s getting patents. And, you know, there’s nothing like data to inform where we need to – where we need to go.

You would think that this would be a very simple bill, but it generated quite a lot of debate in the Judiciary Committee. But it did pass out of the Judiciary Committee in a bipartisan vote and it has passed the Senate. It was incorporated into the – I keep forgetting the competition bill. Anyway, it’s the big competition bill which passed the Senate on a bipartisan vote and it is awaiting action in the House. So I hope that will happen.

But, really, it’s just a voluntary collection of data that will enable us to see how we can support particularly women and minorities in this field.

Mr. Iancu

And I can’t emphasize enough how important the data is in industry. So for companies to be able to understand what the issue is and then direct resources to solving that issue, and then have a baseline against which to measure their record and success, and then make changes if changes need to be made in their program. Without the data, it is very difficult to even get going to address these problems.
Sen. Hirono: Exactly. And when you headed up the Patent and Trademark Office, you took some initiatives to gather data and so we know that women and minorities do not – are not, generally, patent holders. So we are losing, I would say, a tremendous amount of talent in our country and if we intend to continue to be leaders in innovation and creativity, then if we lose the brain power and skills and talents of practically half of our population, we are really shooting ourselves in the foot.

So having recognized that, though, it doesn’t change if we just hope that it will change. We can actually take specific actions to, one, gather more data, to provide grant and other kinds of support to enable women and minorities in particular to get into the patent fields and the STEM fields.

Mr. Iancu: Now, as part of now being part of the U.S. – I guess it’s called U.S. Innovation and Competition Act, USICA, a much bigger package waiting action in the House – which, as we all know, legislation can get bogged down, especially in big packages – what do you think the prospects of that passing are? Or maybe should it be separating again into its own bill, or find a different vehicle for something like this?

Sen. Hirono: That bill has bipartisan support. It did in the Senate. So it has bipartisan support. I think it’s a matter of scheduling for the House, because we’re very focused on the bills that we need to be focused on – the American Family Plan and Build Back Better Plan, as well as the infrastructure plan. So those are massive bills that will help our communities. It’s really transformational. So those are in the immediate horizon, but my hope and expectation is that the innovation and competition bill will be dealt with in the House early next year, if not this year.

Mr. Iancu: Right. Another component – important component of diversity relates to geography. And what are your thoughts about policies that support inventors and bright minds in diverse geography the United States, including your home state Hawaii, whether – or Idaho, or even Puerto Rico? Just across the landscape. I know the Innovation and Competition Act has some provisions for regional hubs, but can you talk a bit about the importance of diversity in geography in innovation?

Sen. Hirono: I think when you talk about the need for diversity, yes, of course, geographic diversity. In a place like Hawaii, we don’t necessarily get venture capital interest and all of that, except that I know for a fact that there are many, many talented people all across the country, in rural areas, et cetera. So we need to pay attention to the kind of support we can provide to minority-granting institutions of higher learning. And, you know, those kinds of approaches I think will bear fruit. So that’s where, again, data is important. If it’s shown that there are geographic disparities, and that the kind of opportunities that will enable someone to get into the STEM fields, stay in the STEM fields, and become inventors, then that will inform where the resources should go.
Mr. Iancu: Let me just ask one more question. I know time is very short. The U.S. Patent and Trademark Office started a national council for expanding American innovation specifically to look at all of these issues of diversity of innovation and create a national plan, a proposal for expanding innovation. You being such a great leader on all of these issues, what do you think Congress can do to help accelerate a national plan like this, or to help accelerate this—such a program?

Sen. Hirono: Oh, as I said, I have several bills to support mentors, to support grants, particularly for institutions. To provide grants to the National Institute of Science, for example. To provide grants to those institutions that can focus on encouraging more women and minorities to get into the STEM fields. So those are very specific things we can do. I think the Patent and Trademark Office also has an important role to play. I remember going to one of the Smithsonian Museums where the PTO was doing a hands-on kind of a—like a science fair type of experience for the kids, the young people who were going to the— to experience that. I thought that was such a great idea for the Patent Office to do that kind of outreach.

So once you decide that these are activities that can really interest and awaken that kind of interest in young people, then we all can do a lot more very specific things like that. And one thing that I want to mention for the Patent and Trademark Office is their willingness to look at who gets into the patent bar. Because there aren’t that many women who get into the patent bar. And so we’re—I know the PTO is expanding the qualifications and the criteria.

And I tell the story of the woman who invented Spandex. And she couldn’t get a male patent lawyer—I mean, all the lawyers she went to see to help her get a patent were males, and they just didn’t, you know, give her much encouragement. They thought that the idea was, whatever, not worthy. But she persevered, and she’s now a billionaire. And that is why expanding the patent bar is also an important part of the encouragement that people can receive to pursue patents.

So that’s something that—another part, as I say, of we can widen and provide the kind of diversity that we should be going for.

Mr. Iancu: Can’t emphasize enough also how important that part is, because without diversity of attorneys that work with all these inventors it makes it that much more difficult for the diverse inventors themselves, as in the example you have given, to be able to bring their ideas to market and to—and to obtain IP protection for it.

Now, of course, the Patent Office has a long history of working with women. Clara Barton, in fact, was a patent clerk at the Patent Office before the Civil War, you know, and was a meaningful influence on the Patent Office at that time and in the federal government. But so much more needs to be done.
Yes.

And I do want to let folks know that your letter that was addressed to me – really, to the Patent Office – maybe a year ago or less, or so, was an important catalyst. It’s this kind of leadership from Capitol Hill, I think, that really can help spur discussions and new ideas and bring about change. And in this example, change was effected as a result, but I still think a bit more can be done.

No, of course. There’s always more to be done – (laughs) – because today there are really such a small percentage of women and minorities who are patent holders. So we can only improve. (Laughs.) I think only one out of four are women, patent holders, so you know, we’ve got 75 percent to go, I’d say. (Laughs.)

Yeah, and actually quite a bit less – I think only about 13 percent – of inventors’ names on U.S. patents are women.

Oh! Yes.

And there are plenty of studies that show that innovation can quadruple in the United States – quadruple – if women and minorities would increase their participation. So it’s good for –

Exactly. And we’re going to talk about the economic impact, yes. When you talk about women, when we unleash their talents, it can have a huge, multibillion-dollar impact on GDP.

You know, I want to conclude, but I can’t resist asking you one more, last question: What was it about you personally and your background that got you interested in innovation and IP?

I’ve been very focused on the need to support women in all decision-making levels, and this is an area that I could focus on to make a difference, if I could. And so I think creativity is really important at a time when change happens so fast. And creativity and art, we should call it STEAM because it’s science, technology, engineering, art. I find art is very important to me, and that’s a very creative endeavor. And that’s an area that I have been – I pursue that myself just to keep myself on an even keel, but that’s where creativity comes in. To me, creativity is a huge part of us remaining competitive. And so it was very clear to me that the patent area was one area where – yet another area where we were missing women and minorities in the field.

Well, thank you for your leadership on innovation and IP. And thank you so much for being with us on this program.

Thank you. Aloha, everyone. Stay safe. Be kind. (laughs.) Be creative. (laughs.)
Mr. Iancu Thank you.

(END)