



April 7th, 2021

“Connectivity, Cybersecurity and COVID-19 in K-12 Education”

Featuring:

Washington State Representative Cindy Ryu, Chair, WIG Board of Directors

Acting FCC Chairwoman Jessica Rosenworcel

Rhode Island State Representative Barbara Ann Fenton-Fung

Christine Fox, Senior External Affairs Officer, Consortium for School Networking

Lucy Gettman: Welcome to [Women In Government](#)'s *Connectivity, Cybersecurity, and COVID-19 in K-12 Education*. I'm Lucy Gettman, Executive Director of [Women In Government](#), a nonprofit, nonpartisan organization by and for women state legislators.

We're excited to bring you this virtual policy Roundtable today in order to hear the insights and perspectives of a national and state leadership team.

It is now my honor to introduce our moderator for today's program, Washington State Representative Cindy Ryu, who is also Chair of the [Women In Government Board](#). Thank you and welcome Chair Rep. Ryu.

Representative Cindy Ryu: Welcome everyone on behalf of the WIG Board of Directors. [Women In Government](#) has provided leadership opportunities, networking and policy resources for women state legislators for more than 30 years. We are delighted to see so many women state legislators and other policy leaders here today.

Please take a moment to introduce yourselves in the chat box on the zoom toolbar. Let us know who you are and where you're from by selecting “to everyone” from the drop down menu. In addition, if you have questions or comments during the session, please write them in the chat box at any time during the program. You may also want to select “speaker view” from your view options to see us better.

Stay connected with [Women In Government](#) through social media ([Facebook](#), [Instagram](#), [Twitter](#), [LinkedIn](#), and [SoundCloud](#)) and be sure to use the hashtag #ConnectingLegislativeLeaders. We can't thank our Business Council members and Associate members enough for their support of [Women In Government](#). Thank you so very much.

Educational systems have undergone a convulsive reinvention during the last year due to the pandemic. Every stakeholder has felt the impacts: students, families, teachers, administrators, regulators, service providers, and even the delivery systems themselves. Gaps and disparities for the virtual instruction became even more apparent as states and school districts consider whether and how to return to the classroom. Local, State and Federal policymakers have an opportunity to address compelling issues related to access: Cyber Security and effectiveness in K-12 education.

Now we are excited to introduce our featured speakers today. Federal Communications Commission Acting Chair Jessica Rosenworcel, Rhode Island State Representative Barbara Ann Fenton-Fung, and Christine Fox, Senior Director of External Affairs for CoSN, [the Consortium for School Networking](#). Check out the chat box to read their full biographies.



April 7th, 2021

“Connectivity, Cybersecurity and COVID-19 in K-12 Education”

Acting Chair Rosenworcel, thank you for being with us today. K-12 education is very much a State responsibility, however, there are issues such as broadband access that are national. Can you set the stage for us and describe some of the issues from the commission's perspective for students and schools in America, such as the homework gap and E-Rate?

Acting Chairwoman Jessica Rosenworcel: Thank you so much for having me here today, I really appreciate it. For starters, this pandemic has demonstrated that broadband is no longer “nice to have” it's “need to have” for everyone everywhere, and that's especially true for our nation students.

But now, let me roll back a little bit and let you in on a secret. The nation's largest education technology program is not run by the States. It's not run by the Department of Education in Washington. It's actually run by my agency, the [Federal Communications Commission](#).

Since 1996 the FCC has been in charge of a program called [E-Rate](#) and that is the program that we use in States all across this country to help make sure our schools and libraries and our class rooms are all connected to high speed internet service. And it's been a quiet powerhouse, making sure schools and rural America, urban America, everywhere, has the connectivity they need for modern education. But we've noticed over time this problem, which is we have students who go to schools that are connected, but they go home to homes that are disconnected.

The way that I used to put it, was 7 in 10 teachers assign homework that requires Internet access, but 1 in 3 households does not have broadband at home. Where those numbers overlap is the homework gap and it's been a cruel fact of our digital divide, but during this pandemic it's just been a crisis. We have 17 million kids who have been locked out of the virtual classroom.

What we need to do now is take that E-Rate program, update it to meet this moment, so that every school can do things like loan out wireless hotspots from the school library. So every child can stay connected for remote learning, for nightly schoolwork, and when they are connected they have a fair shot at education in the digital age. The E-Rate program and updating it for this moment is one of my priorities at the Agency.

Representative Cindy Ryu: Excellent, thank you so very much. America's reliance on virtual education has increased exponentially during the pandemic as we all know. What do you envision for the future? Will virtual learning remain an integral component of K-12 education and, if so, what are the pros and cons?

Acting Chairwoman Jessica Rosenworcel: You know I wish I did have a crystal ball, but I don't. I don't think we're going back, I think that this pandemic has accelerated changes that already were in the works in civic and commercial life, and that's true in education too.

I don't know if you saw it earlier in this pandemic, there was that picture that went viral of those girls sitting outside of a Taco Bell with laptops perched on their knees. They were using the free signal to go



April 7th, 2021

“Connectivity, Cybersecurity and COVID-19 in K-12 Education”

to class and it was heartbreaking. For an image to go viral, it usually has to punch you in the gut and this one definitely did that.

And it just feels to me, whether class is virtual or homework is virtual or school work is virtual in the future, something is going to stay online. The kids who are disconnected just aren't going to have a fair shot so we've got to figure out how to use this crisis to do something good, which is to close this homework gap because it's such a cruel part of our digital divide. When we get to the other side of this pandemic, and I'm getting to the point where I can see it, let's say that we fixed this so no child is left offline.

Representative Cindy Ryu: Definitely. One more question before we move on. How can state policymakers, the FCC, and other federal policy makers and stakeholders collaborate with each other to help make a world class education accessible to all?

Acting Chairwoman Jessica Rosenworcel: Well I'm glad you asked, here's how we should do it. I have some ideas. I've been talking about this homework gap and what it takes to get every child connected. In the American Rescue Plan, the Federal Communications Commission was given \$7.1 billion, that's billion with a B, to help connect students nationwide so that they have the Internet access at home they need to do their homework, to participate in class, to attend remote class if necessary.

So we have what really feels like a once in a decade chance to help solve this problem, but I'm pretty convinced we're only going to do a good job if we hear from State and Local authorities about what they need to make this work.

Right now, the FCC has an open proceeding. What that means is we are taking in comment from state and local authorities about how to address this homework gap and use this \$7.1 billion to get kids connected for schools nationwide.

I just encourage everyone who has a story to tell, facts to share, to let us know what works and doesn't work in your States and in your communities, because we want to take your stories, take what you know is happening in your backyard, and use it to model our national response. We have a lot of funding for the first time in a long time to do something about this. And I want to be able to look back and say, we made a meaningful dent in the homework gap and we were able to get every child in this country connected for school.

Representative Cindy Ryu: Thank you so very much. Representative Fenton-Fung, you are a member of the Education Committee for the Rhode Island House of Representatives and you also have an advanced degree in Digital Media Management. What issues and opportunities do you see for K-12 education in the current circumstances?

Representative Barbara Ann Fenton-Fung: Well, thanks Rep. Ryu from the other coast here in Rhode Island. You know, out of every crisis comes opportunity, and this was a big shot in the arm at expanding broadband access into these underserved communities.



April 7th, 2021

“Connectivity, Cybersecurity and COVID-19 in K-12 Education”

States like Missouri and Vermont were using Cares Act funds to literally lay high speed cable and get some of these families connected to the existing broadband infrastructure. When we have better high speed Internet access in the home, just like the Acting Chairwoman said, we can really incorporate those tools of the fourth industrial revolution, like virtual reality, augmented reality, robotics, into education, not only in the classroom but expand that into the home environment as well.

We are using these funding programs that are out there, like [CARES](#) or [ESSER](#), the Elementary and Secondary School Emergency Relief Fund, which has a lot more flexibility in terms of use. We can utilize this opportunity to springboard us over the next four to five years.

Another interesting niche that's come out of this has been trying to reach children who may have to be away from the classroom for a long period of time. We were talking just last week about kids who may have to step outside for a few months because they were treated for chemotherapy or whatnot. We've really up skilled teachers and the surrounding educational environment to say hey look, we can incorporate their learning a little bit better with more dynamic Google classrooms and whatnot. They don't have to just be away anymore, they can interact with their fellow classmates and that's important for social and emotional learning as well. So there's been a few opportunities that have come out of this pandemic.

Representative Cindy Ryu: Thank you. Ms. Fox, the Consortium for School Networking has critical new state-based information regarding cybersecurity for educational data. Tell us about that.

Christine Fox: Sure. Thank you, I am so honored to be here with the esteemed guests. CoSN, the Consortium for School Networking released a report in December of 2020 highlighting the cyber security risks for schools. It is available on our website and I will [share the link](#).

As we all know, cyber security is a critical issue across the country, and across the world. Particularly in K-12 we've seen a great influx of issues with ransomware and phishing. Even in 2020 the number of attacks in July and August we're double those from January to June. Schools are almost an easy target. I was on a call yesterday with some Florida leaders talking about the fact that educators are inherently people that are willing to help others and probably a little bit more trusting.

In this report we highlight the various bills across the country. In 27 states in 2020 there were 89 bills introduced around cyber security overall. Of those, many of them impacted, either directly or indirectly, K-12 schools. We know that the need is there and available for increased cyber security in education. Part of that is the professional development side of things, where educators and administrators, everyone on a campus needs to understand the risks and what to look for, in addition to the folks in the IT department looking at infrastructure and best practices to try to avoid those attacks, as well as a parent. Parents and students really need to know what they're looking for to keep themselves safe and to keep their whole system safe.



April 7th, 2021

“Connectivity, Cybersecurity and COVID-19 in K-12 Education”

There are multiple bills that were passed into law. There were 10 of those in 5 states that became laws specific to cyber security and some of those did directly impact education. One of them, probably the largest one was in Alabama where \$2.5 million dollars was dedicated to cyber security and a million of that to professional development.

Representative Cindy Ryu: Great, thank you so much and I’m looking forward to the resources you will be posting.

Representative Fenton-Fung, do you have further observations about cybersecurity? In addition, you have recommended statewide 5G deployment for the state of Rhode Island, how will 5G help communities as well as schools?

Representative Barbara Ann Fenton-Fung: We're focusing here today on education, but we really need to succeed in rapidly expanding 5g capability here in our state, because we need to fulfill the demands, not only for the education, but for remote work environments and then of course for telehealth and telemedicine.

You know when you have two or more computers using video technology at once in a home, it can really be a strain on broadband performance. Maybe mom has to counter schedule her zoom meetings for work with her children's morning history lesson. That's become a reality here and something we need to look at. Our grid here, especially in the northeast, is a bit out of date and so we're looking at ways to really use the incoming federal funds to give us a rocket boost here.

Then you have to look at it from a public health infrastructure standpoint. Imagine how we can reduce the cost of chronic disease management when we can real more effectively use digital health tools and using telemedicine visit. It's not just for education, and I think we can really grab a big consensus in state legislatures for expanding broadband infrastructure here.

Representative Cindy Ryu: Yes, we are facing those challenges even online as we conducted business as state legislators. Fox, what other resources and expertise can CoSN offer to educational systems and policymakers?

Christine Fox: Sure, CoSN, since its inception, has been talking about equitable digital learning opportunities for students. I've had the pleasure to work with Acting Commissioner Rosenworcel on some of those issues around digital access that's seamless for students. CoSN has a [digital equity toolkit](#), and again I will post that in the chat, which talks about the need for that access, which I don't think anyone on this call would dispute.

In addition to that, we also are coming out in May with a new report on the type of access or the amount of access students need at home. That was in our initial comments and details to the FCC that were submitted on Monday. But specific to that, we worked with 13 large districts across the country to see what type of students have access, what are their difficulties. Video is one of the most bandwidth intensive activities and students really need that interaction online.



April 7th, 2021

“Connectivity, Cybersecurity and COVID-19 in K-12 Education”

We've found working with the students, the school networks, as well as some of the providers of the tools to see what level of bandwidth is needed. Some of the initial findings, before we publicly share the full report, are that issue of the video being bandwidth intensive and the requirement for multiple students in one home to have that bandwidth capability is a major consideration.

Also, the quality of the devices is critical. Both the home wi-fi routers, which many were probably outdated or not as powerful as people needed when you have four or more people accessing at home, as well as the fact that students are not always in their primary home when they are learning. We will provide some dedicated recommendations to the amount of bandwidth both for upload and download for students via their home access. So stay tuned and I'll put [the link](#) in the chat of where you can learn more or sign up to hear about that full report in May.

Representative Cindy Ryu: Excellent, thank you. Here's a question for all three of you. In the world of Science, Technology, Engineering, the Arts and Math, women are often under-represented. What is your advice to everyone listening about the importance of engaging girls and young women in STEAM fields? Acting Chair Rosenworcel?

Acting Chairwoman Jessica Rosenworcel: To this I want to say don't I know it! I am the only woman serving at the Federal Communications Commission so this is something I am familiar with. My favorite quote I always like to give people is from Shirley Chisholm who said *“If they don't give you a seat at the table bring a folding chair”* because I think that's often how women have to get invited to decisions.

When they don't get invited to the tables where decisions are being made, they got to invite themselves. Then I think it's incumbent on all of us who are working in technology in any way, shape, or form to figure out how we can bring up a chair for somebody else to be a mentor, to be a sponsor, just bring someone else along and give them a seat at the table.

Representative Cindy Ryu: To hook arms and bring a folding chair! Representative Fenton-Fung?

Representative Barbara Ann Fenton-Fung: No, I love it! And Acting Chair Rosenworcel, that's one of my favorite quotes too. I use it quite often here too, because you do, you have to create your own opportunity sometimes and you have to stand up for yourself too.

My parents actually run the robotics team at my hometown high school and when they first took it over there wasn't a single girl on the team. But you know, with a lot of good effort and using female mentors, female engineers, female computer programmers, and bringing them in, that mentorship is just the most important thing. When you see yourself from a high school perspective, and say hey look she was able to do this here, she succeeded at engineering, you know she's doing all these really cool projects and robotics and what we can do over the next 10 years, they see themselves in those fields.

That's so important for them to get the confidence and to break through some of those stereotypes that they might have it in their school system itself. It's mentorship, mentorship, mentorship.



April 7th, 2021

“Connectivity, Cybersecurity and COVID-19 in K-12 Education”

Representative Cindy Ryu: Excellent. Christine?

Christine Fox: Sure, piggybacking on that, I think that we need to educate each other and the other women that are mothers. I’m the mother of two teenage daughters and I can't tell you how many times they've heard aunts and grandma say oh I wasn't very good at math or I'm not that good at science.

As a former third grade teacher, I will tell you it starts very young. As we all know, when children are young their interests in sciences and technology often is blooming and then something happens closer to middle school, probably. I think the middle school teachers really embracing that concept way before we get to middle school, so that the elementary school is highlighting and supporting those young girls and similar to why the other set of other role models is so critical.

Representative Cindy Ryu: Excellent, thank you so very much. Now we have a few minutes for questions so if you have not posted your questions in the chat box, please do so and select “to everyone” from the drop down menu.

The first question I have is from New Mexico State Representative Joy Garratt. Her question is “Where can we find out more information on the updating the E-rate program? We tried to pass an anti-donation amendment this session so we could extend certain benefits beyond libraries and schools so our students could have hot spots, etc. Running into problems and the bill did not pass.” Anyone?

Acting Chairwoman Jessica Rosenworcel: We have an open proceeding at the Federal Communications Commission right now and I'd be perfectly happy if you contact my office, we will give you all the details. It's first name period last name@fcc.gov.

It is a proceeding where we're asking stakeholders from around the country how should we update this program so that it can meet this moment and we can do the kinds of things that help gets kids connected in your community? And some places may be different than other places. The challenges in New Mexico are probably different than the challenges in Rhode Island. But let's identify how we can use these funds to get as many students connected as possible.

Our reply comments are due on April 23 so there's more than enough time to hear from stakeholders across the country. There's nothing better than hearing from local officials and State Legislators about this issue because you're telling us what's going on in your backyard and I have confidence when you do that, but these are issues that really matter.

Representative Cindy Ryu: Great, thank you. Both questions about E-Rate and any stories that could be helpful would be welcome. Thank you so very much.

The next question is, how is ADA access being included in new opportunities to build secure and relevant learning experiences?



April 7th, 2021

“Connectivity, Cybersecurity and COVID-19 in K-12 Education”

Christine Fox: Here at CoSN we work very closely with CAST, and the Accessible Educational Materials Center, [the AEM Center](#). I think that this pandemic has also brought to light the need for equitable opportunities for students that need assistive technologies, as well as accessible materials. Those students maybe suffered more so because they may have had technologies already, because it helped them whether it was a screen reader or other tool, but then they may not sync with the other tools that were available in the schools.

I think this pandemic has brought together the IT department, and the accessibility, and the special needs in a new way that hopefully will remain and so that all purchases inside of districts will support all students and their needs for accessible materials.

Representative Cindy Ryu: Thank you, the next question is from Oklahoma State Senator Carri Hicks.

We are working hard on rural broadband in Oklahoma. Currently we don't have enough bandwidth to support schools in rural areas. What models have you all seen successfully implemented in cost effective expansion?

Representative Barbara Ann Fenton-Fung: I'll take that. So in Rhode Island here, we started those first few weeks with making sure that the libraries were a good source of being able to hook into the Internet, whether or not that was broadcasting out into the parking lot. I know the Acting Chair was talking about the one at Taco Bell. Making sure that initially our public buildings were going to be a source of wi-fi. There were some states that went so far is to get wi-fi access on school buses and then would bring them out into the Community.

Here in Rhode island, we were pretty successful with getting jetpacks to the kids. But it's not just the device, and I think we've hit on this before. It's making sure the parents or the guardians really understand how to use all of this technology. There were gaps, especially when we're in the multi-language learner families and whatnot. There was a lot that we identified as problems that slowly solve themselves over the course of the year, but I think we're talking about not just laying high speed fiber everywhere, like some states did. But saying hey look, we can get the jetpacks out there, we can go in there. Some states were paying for families internet bills for a few months to get us through.

But big picture, we need to not only look at how to handle just private homes and communities, but also public housing too. And should we really consider broadband just another utility that has to be in every single public housing unit. So it's a great question, I think it's an evolving field.

Representative Cindy Ryu: Exactly and we're also working on that as well in Washington State, and especially with both the private and public working together and coordinating that.

The last question that we have time for is, How will cybersecurity polities & concerns impact Opt In/Out choices for students to provide personally identifiable information and access to course materials and activities? Any one of you may answer.



April 7th, 2021

“Connectivity, Cybersecurity and COVID-19 in K-12 Education”

Christine Fox: I think that the cyber security policies and, most importantly, student data privacy is essential. I believe all schools and districts that have these opt in or opt out options, those will remain.

Working with the families, and within the district, and the Community and the vendors. It's really critical that the district is working with the companies, ensuring that those companies specifically have the policies that apply and meet at minimum the federal standards of [CIPA](#) and [FERPA](#). Also those state standards, especially as the states are looking to be more proactive in their policies and practices.

Representative Cindy Ryu: Excellent. Thank you. We are nearly at the end of that 30 minutes, so I would like to invite each of our guests for a 30 second closing remark. Acting Chair Rosenworcel?

Acting Chairwoman Jessica Rosenworcel: Thank you for having me and I can see the end of this crisis, it feels like there's the light at the end of the tunnel. But I hope when we get there, we don't go back to the way we were before. We've got to come up with policies that connect 100% of our households to broadband. It's now an essential service to participate fully in modern life, and we need to have specific programs, to make sure we connect all of our students. I think these things need to be national priorities, and I am hopeful that we are going to be able to do this in the near and medium term.

Representative Cindy Ryu: And women will lead the way! Representative Fenton-Fung?

Representative Barbara Ann Fenton-Fung: I have to laugh because the Acting Chairwoman took the words right out of my mouth. There's been struggles no doubt. There's been things we've gotten wrong but, those are all learning experiences. So that when we look at the next four to five years of education, what are we doing to take what we're teaching these kids in the classroom and make sure they can replicate it back home.

Where are we preparing them for career pathways in high tech fields? They can't just do it for six hours a day in a classroom, it has to be at home. So the broadband access in every community, every home, whether it's public housing, whether it's a mini mansion at home, is so important. And I agree, it's got to be a federal priority. This is truly a utility that we will need. It's essential in our lives, so thank you so much for having me.

Representative Cindy Ryu: Agreed. Mrs. Fox?

Christine Fox: I reiterate what the others said. As someone that has been in the field of advocating for equitable digital learning for 16 years, I will say that I also don't want things to go back to the way they were. We've invested so much, not only in the broadband, but the devices, and digital curriculum so that teachers have a lot of opportunities to leverage.

As students go back to buildings, we have the opportunity to personalize instruction, to look at the things that they really need and leverage the technology, because no one is going to have a career that doesn't have technology as part of that.



April 7th, 2021

“Connectivity, Cybersecurity and COVID-19 in K-12 Education”

And talking about career pathway, cyber security is a place where we need a lot more investment so that we have the folks out there to help protect us and the school's themselves.

Representative Cindy Ryu: Thank you so very much. We do have a comment that there are several pilots in New Mexico, for instance Tesla putting up satellites. And then the request from Maria Horn that in Connecticut, in the rural part, they need help.

I want to sincerely thank everyone of you for attending and our special guests for this highly engaging discussion. I'd also like to thank our audience and to remind everyone that this presentation will be available on the [Women In Government.org](https://www.womeningovernment.org) website, a few days post event.

Please don't miss our next Roundtable on April 28 on the [*Obesity Epidemic: Lack of Access to Care and Treatment*](#) with Angela Fitch, Associate Director, Massachusetts General Hospital Weight Center and Faculty, Harvard Medical School and Melinda J. Watman, Chair, Massachusetts Coalition for Action on Obesity and Board Member, Obesity Action Coalition.

[Women In Government](https://www.womeningovernment.org) will be back on June 22 with our summer summit series. The summit will take place June 22 through the 24th, June 29, and July 1. Check out www.womeningovernment.org for event details and registration. Please stay well and be well. Thank you everyone.

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