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6 STRENGTHENING OUR COMMUNICATIONS NETWORKS:

7 LEGISLATION TO CONNECT AND PROTECT

8 TUESDAY, MAY 24, 2022

9 House of Representatives,

10 Subcommittee on Communications and Technology,

11 Committee on Energy and Commerce,

12 Washington, D.C.

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16 The subcommittee met, pursuant to call, at 10:00 a.m.,
17 via Webex, Hon. Doris O. Matsui, [member of the subcommittee]
18 presiding.

19 Present: Representatives McNerney, Clarke, Veasey,
20 McEachin, Soto, O'Halleran, Rice, Matsui, Welch, Schrader,
21 Cardenas, Kelly, Craig, Fletcher, Pallone (ex officio);
22 Latta, Guthrie, Bilirakis, Long, Walberg, Carter, and Rodgers
23 (ex officio).

24 Also present: Representatives Joyce and Kuster.

25

26 Staff Present: Parul Desai, FCC Detailee; Jennifer
27 Epperson, Senior Counsel; Waverly Gordon, Deputy Staff

28 Director and General Counsel; Jessica Grandberry, Staff
29 Assistant; Tiffany Guarascio, Staff Director; Perry Hamilton,
30 Clerk; Mackenzie Kuhl, Digital Assistant; Jerry Leverich,
31 Chief Counsel, Communications and Technology; Dan Miller,
32 Professional Staff Member; Joe Orlando, Policy Analyst; Chloe
33 Rodriguez, Clerk; Johanna Thomas, Counsel; Kate Arey,
34 Minority Content Manager and Digital Assistant; Sarah Burke,
35 Minority Deputy Staff Director; Michael Cameron, Minority
36 Policy Analyst, CPC, Energy, Environment; William
37 Clutterbuck, Minority Staff Assistant/Policy Analyst; Theresa
38 Gambo, Minority Financial and Office Administrator; Jack
39 Heretik, Minority Press Secretary; Nate Hodson, Minority
40 Staff Director; Sean Kelly, Minority Press Secretary; Peter
41 Kielty, Minority General Counsel; Emily King, Minority Member
42 Services Director; Bijan Koochmaraie, Minority Chief Counsel,
43 O&I Chief Counsel; Tim Kurth, Minority Chief Counsel, CPC;
44 Clare Paoletta, Minority Policy Analyst, Health; Olivia
45 Shields, Minority Communications Director; Michael Taggart,
46 Minority Policy Director; Everett Winnick, Minority Director
47 of Information Technology; Evan Viau, Minority Professional
48 Staff Member, Communications and Technology; and Kate
49 O'Connor, Minority Chief Counsel, Communications and
50 Technology.

51

52 *Ms. Matsui. The Subcommittee on Communications and
53 Technology will now come to order.

54 Today the Subcommittee on Communications and Technology
55 is holding a hearing entitled, "Strengthening Our
56 Communications Networks: Legislation to Connect and
57 Protect.'`

58 Due to the COVID-19 public health emergency, today's
59 hearing is being held remotely. All members and witnesses
60 will be participating via video conferencing.

61 As part of our hearing, microphones will be set on mute
62 for the purpose of eliminating inadvertent background noise.
63 Members and witnesses, you will need to unmute your
64 microphone each time you wish to speak.

65 Documents for the record can be sent to Joe Orlando at
66 the email address we have provided to staff. All documents
67 will be entered into the record at the conclusion of the
68 hearing.

69 The chair now recognizes herself for five minutes for an
70 opening statement.

71 Back in March this committee met to execute one of the
72 most important functions: holding an FCC oversight hearing.
73 At that hearing one thing was abundantly clear: There is
74 bipartisan agreement that we cannot let the FCC's auction
75 authority lapse under any circumstances.

76 Congress has extended the FCC's spectrum auction

77 authority on a bipartisan basis several times over the last
78 three decades and has never let it lapse. I am committed to
79 keeping that unbroken record intact.

80 It is no exaggeration to say that the FCC truly sets the
81 global benchmark for spectrum auctions. To date the
82 Commission has held 98 auctions, awarding more than 94,000
83 licenses and permits, raised more than \$233 billion in
84 revenues, and provided more than \$1 trillion in benefits for
85 the American people.

86 But the stakes are even higher right now. In July the
87 FCC will be kicking off the 2.5 gigahertz auction, bringing
88 more needed mid-band spectrum to market. Even a brief lapse
89 in FCC auction authority could jeopardize licenses from being
90 awarded and delay the carriers' ability to supercharge their
91 networks with this 5G-ready spectrum. That cannot happen.

92 The inclusion of Congresswoman Davids' Extending
93 America's Spectrum Auction Leadership Act on today's agenda
94 can prevent that. It would extend the FCC's general auction
95 authority for an additional 18 months to March 31st, 2024,
96 providing the needed time to complete the 2.5 gigahertz
97 auction. I look forward to working in a bipartisan,
98 bicameral way to give the FCC the authority it needs to
99 maintain America's position as a pace setter in wireless
100 communications.

101 I am also excited to see Congressman Guthrie's SMART Act

102 on the agenda today. As my fellow co-chair of the
103 Congressional Spectrum Caucus, we have worked together on
104 more legislation than I can count, and the SMART Act is no
105 different. This important bill would improve spectrum
106 management in the United States by establishing a
107 standardized framework to facilitate spectrum sharing between
108 Federal and non-Federal users.

109 While I am interested in pursuing some clarifying edits
110 with Congressman Guthrie, I am confident that it can be done
111 on a bipartisan basis and set the path for a smooth markup
112 and quick consideration on the floor. This bill is smart
113 public policy, and tackles an emerging but crucial issue in
114 spectrum -- America's spectrum leadership.

115 Congressman Carter's ITS Codification Act would also
116 reinforce America's leadership in innovation by providing
117 statutory authority for NTIA's Institute of
118 Telecommunications Sciences. As a research and engineering
119 arm of NTIA, ITS advances innovation in communications
120 technologies through cutting-edge research.

121 The ITS Codification Act also established an initiative
122 at NTIA to develop emergency communication technologies for
123 use in locating individuals trapped in areas where mobile
124 connectivity may not be available.

125 We also have two bills on the agenda that will increase
126 broadband access and provide new protections to help

127 survivors of domestic violence and human trafficking.
128 Representatives Luria and Katko's Ensuring Phone and Internet
129 Access for SNAP Recipients Act establishes new reporting
130 requirements to help track and improve Lifeline enrollment
131 among SNAP participants, ensuring critical assistance
132 programs are working together to ensure participants will
133 help deliver better services to those who need them most,
134 especially as we continue to recover from the pandemic. I
135 believe this bill will help provide information to improve
136 the Lifeline program.

137 Additionally, Representatives Kuster and Eshoo's Safe
138 Connections Act establishes new protections that will help
139 survivors of domestic violence and human trafficking gain
140 independence. Too often survivors of crimes like domestic
141 violence, dating violence, stalking, sexual assault, and
142 human trafficking remain stuck on a family or shared wireless
143 phone plan. This allows their abusers to limit their access
144 to family, social safety networks, employers, and support
145 services.

146 The Safe Connections Act empowers survivors by allowing
147 them to separate a mobile phone line from any shared plan
148 involving an abuser without penalty, including the lines of
149 any dependents in their care. And it requires the FCC to
150 initiate two rulemakings to connect survivors to the Lifeline
151 program, and ensure calls or texts to hotlines do not appear

152 on call logs. Is smart policy, and I hope our committee will
153 consider it as a markup as soon as possible.

154 I want to thank the authors of these bills and the
155 witnesses for appearing today. I look forward to hearing
156 your testimony.

157 [The prepared statement of Ms. Matsui follows:]

158

159 *****COMMITTEE INSERT*****

160

161 *Ms. Matsui. I now want to recognize my friend, Ranking
162 Member Latta, for his opening statement.

163 *Mr. Latta. Well, thank you very much and, Madam Chair,
164 thanks very much for calling for today's hearing.

165 And also, thank you to our witnesses that are appearing
166 before us. I really appreciate it.

167 As our nation's spectrum resources become more scarce,
168 good public policy plays an increasingly important role in
169 ensuring efficient use. I am encouraged that today this
170 subcommittee is considering legislation that will allow the
171 United States to better utilize these valuable airwaves for
172 economic growth and innovation.

173 Recently, Chairman Doyle and I introduced the Spectrum
174 Innovation Act to accelerate commercial access to the lower 3
175 gigahertz band. Access to this mid-band spectrum is needed
176 to bring 5G to farms and households across rural America, and
177 I am proud to have worked with my colleague to come to an
178 agreement on this legislation, which should move through
179 Congress, and should be sent to the President's desk.

180 I am also pleased that we are considering the Extending
181 America's Spectrum Auction Leadership Act of 2022. This
182 legislation extends the FCC's authority to conduct spectrum
183 auctions and issue licenses for 18 months, which will allow
184 the FCC to continue its ongoing work to make more spectrum
185 available for commercial use. Without congressional action,

186 the FCC's authority will expire on September 30 of this year.
187 And I urge swift passage of this bipartisan legislation to
188 avoid any disruption to the FCC's planned auction activities,
189 like auctioning the 2.5 gigahertz band.

190 While these are great steps forward, our work is far
191 from over. The FCC, NTIA, and industry must continue to
192 identify opportunities to use spectrum more efficiently,
193 which remains difficult as the demand for wireless technology
194 grows and spectrum resources have become more congested.

195 Fortunately, we have engineers at NTIA's Institute for
196 Telecommunications Sciences, or ITS, who play a critical role
197 in advancing technologies that help NTIA better manage
198 Federal spectrum resources. ITS played a key role in
199 developing the solutions to spectrum sharing between Federal
200 and commercial users in the Citizens Broadband Radio Service
201 Band. Spectrum has been -- previously been under-utilized by
202 the Federal Government. It is now able to be used
203 commercially to promote 5G, while protecting Federal
204 incumbents.

205 ITS's role will only continue to grow in its importance
206 as spectrum re-purposing decisions become more difficult,
207 which is why Mr. Carter's legislation, H.R. 4990, the ITS
208 Codification Act, is so important. This legislation takes an
209 important step forward by strengthening ITS authorities and
210 recognizing the contributions the lab makes to our wireless

211 economy.

212 In order to identify areas where Federal spectrum use
213 can be more efficient, Congress must provide NTIA with
214 necessary tools to advance the spectrum management mission.
215 To further this effort, Mr. Guthrie's SMART Act requires NTIA
216 to establish an incumbent informing capability to take a
217 holistic view of how Federal users are using their spectrum
218 resources across the government to identify opportunities for
219 new commercial uses, while preserving Federal missions to
220 keep our country safe.

221 As these spectrum management decisions become more
222 difficult, we must utilize every tool in the toolbox to
223 efficiently use these airwaves and provide certainty for
224 commercial investment and wireless developments. I am
225 pleased to see the legislation on today's hearing, and look
226 forward to discussing these important topics.

227 [The prepared statement of Mr. Latta follows:]

228

229 *****COMMITTEE INSERT*****

230

231 *Mr. Latta. Thank you, Madam Chair, and I yield back
232 the balance of my time.

233 *Ms. Matsui. The gentleman yields back. The chair
234 recognizes Mr. Pallone, chairman of the full committee, for
235 five minutes for his opening statement.

236 *The Chairman. Thank you, Chairwoman Matsui, and it is
237 good to see you chairing the subcommittee today.

238 And let me point out to our members that this is what we
239 call a virtual committee week, as set by the Speaker. And
240 there are three committee days: today, tomorrow, and
241 Thursday. And we are having a subcommittee hearing each of
242 those days, two of which are legislative hearings. So we are
243 always busy, even when we are virtual.

244 We are continuing this committee's long-time work in
245 this subcommittee of ensuring that our nation's
246 communications networks are stable, secure, and reliable.
247 Communication networks are essential infrastructure to help
248 connect friends and families, relay emergency communications
249 to the public, allow business operations to run more
250 efficiently and effectively, and deliver education and health
251 services.

252 At today's legislative hearing we will discuss five
253 bills, most of which are bipartisan, on a broad range of
254 proposals aimed at ensuring that these invaluable networks
255 continue to deliver this critical service to consumers. I

256 would like to comment and give my own view on these bills.

257 First, I am pleased that we are considering H.R. 7783,
258 the Extending America's Spectrum Auction Leadership Act,
259 introduced by Representatives Davids, Joyce, Welch, and
260 Johnson. This committee has a long tradition of working
261 together in a bipartisan fashion to lay the groundwork for
262 technological innovation in this country. We are called the
263 innovation committee, and this legislation is no exception.
264 It will extend spectrum auction authority for the Federal
265 Communications Commission by 18 months from its expiration
266 date later this fall. And as a result, the FCC will be able
267 to hold its planned auction of the 2.5 gigahertz band in July
268 without disruption, and also fully close out auctions that
269 have already occurred.

270 Congress has never let the FCC's spectrum authority
271 lapse since authorizing it in the early 1990s, so I am
272 pleased we are taking this important step forward today.

273 I also want to thank the FCC Chairwoman Rosenworcel for
274 her leadership on this issue and emphasizing its importance.
275 I agree with the chairwoman. I am hopeful that Congress can
276 come together to use the funding from the upcoming auctions
277 to fund important priorities like next generation 911 and the
278 replacement of suspect communications equipment, among other
279 good ideas.

280 Next we are considering H.R. 7132, the Safe Connections

281 Act, introduced by Representatives Kuster and Eshoo, and
282 cosponsored by Representatives Welch and Walberg. While
283 there is no question that wireless phone service can be an
284 important lifeline for survivors of domestic violence, human
285 trafficking, and other related crimes, it is also the case
286 that shared mobile service plans can subject these
287 individuals to hidden risks, such as digital abuse. So this
288 bill addresses this abuse by requiring mobile service
289 providers to separate the survivor's phone line from an
290 account shared with their abuser without financial penalties
291 or other potential challenges after they receive a request
292 from a survivor.

293 The FCC would also be required to establish emergency
294 communications support for these survivors. This is
295 lifesaving legislation that has already passed the Senate,
296 and I welcome the opportunity to discuss it here today.

297 We are also considering H.R. 4275, the Ensuring Phone
298 and Internet Access for SNAP Recipients Act, introduced by
299 Representatives Luria and Katko. Since 1985 the FCC's
300 Lifeline program has provided a discount on phone service to
301 qualifying Americans. But the data demonstrates that only a
302 fraction of Lifeline-eligible individuals enroll in the
303 program. So this bill would require the FCC to annually
304 submit a report to Congress on the Lifeline program's
305 enrollment of individuals participating in SNAP.

306 It would also require the FCC to report to Congress on
307 the enrollment of new broadband consumers in the Lifeline
308 program, and the effectiveness of advertising on these
309 numbers.

310 Now, finally, we will consider two bills directed at the
311 work of the National Telecommunications and Information
312 Administration: specifically, H.R. 4990, the ITS
313 Codification Act, introduced by Representative Carter and
314 cosponsored by Representative O'Halleran; and then,
315 separately, H.R. 5486, the SMART Act, introduced by
316 Representative Guthrie.

317 And collectively, these bills provide NTIA with access
318 to innovative spectrum management solutions, led in part by
319 NTIA's Institute for Telecommunications Scientists [sic],
320 ITS. As the engineering laboratory for NTIA, ITS helps drive
321 innovation, enables the robust development of
322 telecommunications infrastructure, and helps protect an open,
323 global internet.

324 So finally, I did want to also recognize, if I could
325 today, a departing member of the Energy and Commerce
326 Committee team. Parul Desai is a native New Jerseyan, and
327 has done terrific work for the committee over the past five
328 years since she joined us as a detail from the FCC. She is
329 now headed to a new role at the NTIA. We all know the
330 incredible amount of work that agency has before it, and I

331 just want to wish her nothing for the best in her future
332 pursuits.

333 So thank you, Parul.

334 [The prepared statement of The Chairman follows:]

335

336 *****COMMITTEE INSERT*****

337

338 *The Chairman. And with that, I yield back the balance
339 of my time, Madam Chair.

340 *Ms. Matsui. The gentleman yields back. The chair now
341 recognizes Mrs. Rodgers, ranking member of the full
342 committee, for five minutes for her opening statement.

343 *Mrs. Rodgers. Thank you, Madam Chair. Good morning,
344 everyone.

345 The success of our nation's wireless future depends on
346 smart management of our spectrum resources. Earlier this
347 year we had a hearing on spectrum issues, where we heard
348 overwhelming support from witnesses to extend the Federal
349 Communications Commission's spectrum auction authority to
350 ensure the successful competition of the FCC's upcoming
351 spectrum auction of the 2.5 gigahertz band. This will allow
352 carriers to expand 5G across the United States.

353 I am pleased to announce that this committee responded.
354 Today we are considering bipartisan legislation to extend the
355 FCC's auction authority for 18 months through March 2024.
356 This bill will ensure the agency completes their ongoing
357 spectrum activities, and it provides certainty to bidders in
358 the upcoming 2.5 gigahertz auction that the FCC will be able
359 to use their licenses if they bid.

360 I want to thank Chairman Pallone and Chairman Doyle for
361 working with us to reach this bipartisan agreement. And I
362 look forward to advancing this legislation.

363 As demand for wireless technology grows, we need to
364 adapt to make sure our spectrum resources are used
365 efficiently. While it is critical to re-purpose spectrum
366 from Federal to commercial use, it is becoming increasingly
367 difficult to find prime spectrum bands that are unencumbered.
368 I am pleased that we are considering my colleague
369 Representative Guthrie's SMART Act today, which requires NTIA
370 to establish an incumbent informing capability. This will
371 allow NTIA to see spectrum usage by agency across the Federal
372 Government, and help them improve spectrum use efficiently,
373 while also protecting national security.

374 Representative Carter's bill, the ITS Codification Act,
375 will codify the important duties of NTIA's Institute for
376 Telecommunications Sciences, the government's premier radio-
377 frequency laboratory; clarify the agency's responsibilities;
378 and direct them to advance spectrum re-purposing
379 opportunities; and certify new technologies as we continue to
380 advance American wireless leadership.

381 U.S. leadership and next generation technology depends
382 on our ability to develop innovative solutions to re-purpose
383 spectrum for commercial use. This will ensure spectrum
384 resources are available for future uses not yet known, and
385 maintain the United States' reputation as the number-one
386 place for businesses to invest in innovation and grow the
387 economy.

388 This committee is leading on solutions to make spectrum
389 resources available. But to unleash the full potential of
390 today's spectrum legislation, we also need to address
391 barriers to deploying wireless infrastructure. Energy and
392 Commerce Republicans are leading on a package of bills, the
393 Boosting Broadband Connectivity Agenda, which roll back
394 duplicative, burdensome regulations and permitting
395 requirements to speed up deployment of broadband
396 infrastructure. Without permitting reform, it will be
397 difficult for the United States to compete and beat China.
398 If we fail to address these reforms, this committee will miss
399 an opportunity to strengthen American leadership in next-gen
400 communication technology.

401 We are also considering legislation that would allow
402 survivors of domestic violence and human trafficking to
403 separate from any shared mobile contracts with their abuser.
404 Republicans have several changes we would like to see made to
405 this bill, if it advances. But we stand ready to work with
406 our colleagues to find a solution. Survivors of domestic
407 violence must have the freedom to have a new start, to be
408 safe and secure, and able to separate from their abuser
409 quickly.

410 This hearing is a great first step to discuss these
411 bills and hear from witnesses about how they will impact the
412 marketplace. I look forward to hearing from all of you.

413 [The prepared statement of Mrs. Rodgers follows:]

414

415 *****COMMITTEE INSERT*****

416

417 *Mrs. Rodgers. And I yield back the remainder of my
418 time.

419 *Ms. Matsui. The gentlelady yields back.

420 The chair would like to remind members that, pursuant to
421 committee rules, all members' written opening statements
422 shall be made part of the record.

423 I now would like to introduce our witnesses for today's
424 hearing: Ms. Anna M. Gomez, partner, Wiley Rein LLP; Dr.
425 Thomas E. Kadri, assistant professor, University of Georgia
426 School of Law; Mr. Mark Gibson, director, business
427 development and spectrum policy, CommScope, and regulatory
428 officer of the OnGo Alliance; and Dr. Alisa Valentin, senior
429 director of technology and telecommunications policy,
430 National Urban League.

431 At this time the chair would recognize each witness for
432 five minutes to provide their opening statement.

433 Ms. Gomez, you are recognized for five minutes.

434

435 STATEMENT OF ANNA M. GOMEZ, PARTNER, WILEY REIN LLP; THOMAS
436 E. KADRI, PH.D., ASSISTANT PROFESSOR, UNIVERSITY OF GEORGIA
437 SCHOOL OF LAW; MARK GIBSON, DIRECTOR, BUSINESS DEVELOPMENT &
438 SPECTRUM POLICY, COMMSCOPE AND REGULATORY OFFICER OF THE ONGO
439 ALLIANCE; AND ALISA VALENTIN, PH.D., SENIOR DIRECTOR OF
440 TECHNOLOGY AND TELECOMMUNICATIONS POLICY, NATIONAL URBAN
441 LEAGUE

442

443 STATEMENT OF ANNA M. GOMEZ

444

445 *Ms. Gomez. Thank you, Chairwoman Matsui, Ranking
446 Member Latta, Chairman Pallone, Ranking Member McMorris
447 Rodgers, and the distinguished members of the subcommittee,
448 for the opportunity to appear before you today.

449 My background, from working at the FCC and NTIA, as well
450 as my experience in the private sector, give you a unique
451 view of spectrum challenges. However, my testimony today
452 reflects my own views, and are not necessarily those of my
453 clients.

454 The task that NTIA and the FCC share in managing our
455 nation's airwaves can be daunting, given the diverse array of
456 stakeholders and interests, as well as our continuing need to
457 identify additional spectrum for new and innovative uses. It
458 is important to bolster and respect the agency's shared
459 responsibilities.

460 I, therefore, want to first commend and thank the
461 Committee for its bipartisan attention and commitment to
462 exploring ways to strengthen U.S. spectrum management. The
463 Simplifying Management Reallocation and Transfer of Spectrum
464 Act would authorize NTIA's proposed incumbent informing
465 capability, which would provide a common platform for
466 sharing. [Inaudible] Congressman Guthrie for introducing
467 this thoughtful legislation.

468 NTIA's missions are critical and complex. The tools
469 Congress has provided ultimately allow NTIA to draw on its
470 experience to ensure continued U.S. leadership in
471 facilitating the development and deployment of new and
472 innovative services which spur economic growth, investment,
473 and job creation, while ensuring that the Federal agencies
474 have the spectrum, they need to meet their missions.

475 The Institute of Telecommunications Sciences, or ITS,
476 Codification Act is another important step in ensuring that
477 NTIA has the tools necessary to effectively manage the
478 country's spectrum. ITS is an integral arm of spectrum
479 management efforts by providing research, testing, and
480 analysis both to NTIA, as well as to entities with which it
481 has contracted, like commercial providers and other
482 government agencies. By providing the statutory authority
483 for ITS, the Act will further support spectrum management
484 initiatives. And I want to commend Congressman Carter for

485 introducing this legislation.

486 In recent years, the NTIA and FCC coordination process
487 has been increasingly challenging. However, the two agencies
488 recently announced their new Joint Spectrum Coordination
489 Initiative. Of the commitments they announced, developing a
490 national spectrum strategy is particularly essential, and any
491 strategy should include identifying additional spectrum for
492 new uses, while continuing to ensure that Federal agencies
493 can meet their missions.

494 Of course, identifying additional spectrum would be of
495 little use if the FCC does not have the authority to conduct
496 auctions to license that spectrum. In addition to
497 encouraging the best and highest use of spectrum, spectrum
498 auctions have raised over \$200 billion in Federal revenue.
499 Congress has, in turn, used that revenue to significantly
500 reduce our national debt and to pay for key national
501 priorities, such as the first responder network authority and
502 911 grants.

503 Revenue from spectrum auctions also helps facilitate the
504 re-purposing of Federal to non-Federal spectrum through the
505 Spectrum Relocation Fund. Accordingly, Congress's extension
506 of the FCC's spectrum auction authority is of paramount
507 importance.

508 I want to thank the bipartisan leadership of this
509 subcommittee for reaching a compromise to extend the FCC's

510 auction authority. Once extended, this subcommittee has an
511 important role to play in overseeing the work and producing a
512 national spectrum strategy that identifies additional
513 spectrum bands for re-purposing.

514 I want to conclude by urging the subcommittee to
515 continue to look for ways to improve the existing spectrum
516 management framework. In that regard I refer to FCC
517 Chairwoman Rosenworcel's recent letter to the House and
518 Senate Commerce Committee leaders regarding improvements
519 Congress can make to existing spectrum processes, which
520 includes recommendations for updating the Commercial Spectrum
521 Enhancement Act, or CSEA, to make it even more effective for
522 re-purposing spectrum.

523 While the CSEA is an effective tool, there is room for
524 improvement. For example, Congress can further incentivize
525 Federal agencies by removing the comparable capability
526 limitation, which then would allow Federal spectrum users to
527 modernize their outdated equipment as part of the spectrum
528 reallocation process, generating greater incentives to
529 relinquish under-utilized or duplicative spectrum bands.

530 In addition, reforming CSEA to cover costs to evaluate
531 impacts to non-Federal bands where there are strong Federal
532 equities would allow NTIA to examine thorny issues affecting
533 commercial providers.

534 Thank you again for allowing me to share my thoughts

535 with you on my perspective on pending legislation to improve
536 our nation's spectrum management activities. I look forward
537 to answering any questions you may have.

538 [The prepared statement of Ms. Gomez follows:]

539

540 *****COMMITTEE INSERT*****

541

542 *Ms. Matsui. Thank you.

543 Dr. Kadri, you are recognized for five minutes.

544

545 STATEMENT OF THOMAS E. KADRI

546

547 *Dr. Kadri. Thank you, Chair Matsui, Ranking Member
548 Latta, and distinguished members of the subcommittee. I
549 greatly appreciate the opportunity to testify before you
550 today.

551 By way of background, I am a law professor at the
552 University of Georgia, where I am also affiliated with the
553 Institute for Women's Studies and the Institute for
554 Cybersecurity and Privacy. I obtained my Ph.D. from Yale Law
555 School, and my research focuses on the legal and
556 technological regulation of privacy, speech, and abuse. And
557 as an affiliated researcher with Cornell's Clinic to End Tech
558 Abuse, CETA, I work directly with victims of digital abuse,
559 and advise lawmakers on how to address it.

560 Now, I use the term "digital abuse" to refer broadly to
561 how people exploit technology to harm others. More
562 specifically, digital abuse involves using technology to
563 control, harass, stalk, surveil, or threaten someone in a way
564 that invades their privacy or autonomy, or harms them
565 emotionally, physically, reputationally, or financially.

566 Now, digital abuse is on the rise. Domestic Violence
567 Charity Refuge estimates that 95 percent of its cases involve
568 technology, while the National Domestic Violence Hotline has
569 seen a 155 percent increase in reports of digital abuse

570 between 2015 and 2018, and those numbers have surely grown
571 during the pandemic. These statistics might initially seem
572 shocking, but one in three women and one in six men have
573 experienced abusive relationships. And so, given how central
574 digital technologies have become in our lives, their growing
575 role in interpersonal abuse is predictable.

576 Why is digital abuse so harmful? Well, this is,
577 obviously, a complex question. But one common theme is that
578 abusers use technology to become ever-present in a victim's
579 life, or at least to create that impression.

580 Now, though it might be tempting to focus on more
581 sensational topics like stalkerware apps, the work of Dr.
582 Karen Levy and others has shown that digital abuse is often
583 mundane in that it requires little to no sophistication, and
584 relies on everyday devices and services. And a classic
585 example of this is family phone plans.

586 Information that an abuser can gather from these plans
587 might exacerbate abuse, and even thwart a victim's attempts
588 to escape. And these serious yet under-appreciated risks
589 make family phone plans the snake in the grass of domestic
590 violence. These plans let an abuser monitor a victim's
591 calls, texts, and even their precise location of their
592 device. An abuser may, for example, discover where a victim
593 is currently hiding, or planning to go, as well as any
594 contact they have had with family members, domestic violence

595 hotlines, or crisis response centers.

596 As Diana Freed, a lead researcher at CETA, has observed,
597 "People would come into our clinic and report that the abuser
598 knows where they are. They have left the abuser. They have
599 moved on to a new relationship, new friends, and suddenly all
600 of their contacts have been contacted by the abuser. And
601 there was no idea how this person got the numbers.'`

602 So though a victim could always abandon their device
603 entirely, this might actually worsen matters if their phone
604 and its number connect them to friends, family, work, and
605 crucial services that can help keep them safe.

606 And if a victim does try to leave a family plan, phone
607 companies often charge high fees of up to \$350 per line, in
608 addition to demanding upfront payment for any devices being
609 financed in installments. Now, for many victims, paying
610 these sums all at once will exceed their financial means,
611 especially when their abuser controls their economic
612 resources, as is common with domestic violence.

613 And currently, no Federal law allows victims to leave
614 family plans. Existing state laws, meanwhile, provide
615 inadequate protections. And people in states without any
616 legal right to get out of a family plan, especially people
617 with low incomes, could effectively be trapped in a contract
618 that allows their abuser to control them.

619 A strong Federal law empowering victims to leave family

620 plans would help vulnerable people in all states to cut this
621 dangerous tie with their abusers.

622 The legislation before your subcommittee, the Safe
623 Connections Act, represents significant progress by making it
624 easier to leave family plans quickly, remotely, and for free.
625 Victims rely on phones as a lifeline, but that same
626 technology can simultaneously expose them to abuse. And the
627 Act represents a careful effort to respond to how phones play
628 this essential but complicated role in victims' lives.

629 It is encouraging to see the bipartisan consensus that
630 has emerged as the Act has passed through Congress, or
631 progressed through Congress. And even the telecommunications
632 industry has now signaled its support.

633 Federal law should allow victims to make a clean break
634 from their abusers with minimal barriers and risks. And the
635 Safe Connections Act would be a step in the right direction.

636 Thank you, and I look forward to your questions.

637 [The prepared statement of Dr. Kadri follows:]

638

639 *****COMMITTEE INSERT*****

640

641 *Ms. Matsui. Thank you.

642 Mr. Gibson, you are now recognized for five minutes.

643

644 STATEMENT OF MARK GIBSON

645

646 *Mr. Gibson. Thank you, Chairwoman Matsui and Chairman
647 Doyle, Ranking Member Latta, and members of the subcommittee.
648 Thank you for the opportunity to testify today. It is truly
649 an honor and a pleasure to be here today, if only virtually.

650 I am here today in my capacity as regulatory officer and
651 board member of the OnGo Alliance. The mission of the OnGo
652 Alliance is to support the common interests of members,
653 implementers, and operators for the development,
654 commercialization, and adoption of LTE and 5G solutions for
655 the U.S. 3.5 gigahertz Citizens Broadband Radio Service.
656 This is a very important band for the 5G deployment in our
657 country, as it is one of the first 5G bands available. And I
658 would like to discuss how the legislation that is the focus
659 of today's hearing will enhance the importance of the band,
660 and allow for greater deployment of broadband.

661 Deployment in the Citizens Broadband Radio Service, or
662 CBRS, launched in January 2020. In the nearly two-and-a-half
663 years since CBRS service launched, there have been well over
664 200,000 base stations deployed across the country. These
665 deployments support all regions of telecommunications,
666 including support for distance learning during COVID,
667 enabling hospital COVID triage centers, helping otherwise
668 poorly-connected farmers achieve 5G connectivity, support for

669 critical manufacturing automation, and helping to connect
670 disparate corners of our supply chain.

671 CBRS literally saves lives.

672 The CBRS band is shared with several types of incumbent
673 operations, including fixed satellite service, legacy
674 broadband, and the DoD. Sharing happens through a Spectrum
675 Access System, or SAS. The role of the SAS is to tell CBRS
676 base stations what frequencies they can operate on at their
677 locations without causing interference to incumbent
678 operations.

679 For fixed satellite and broadband incumbents, SASes know
680 where these operations are, and can easily perform frequency
681 availability analyses. However, for DoD operations, which
682 are generally a specific type of naval radar onboard aircraft
683 carriers, it is not possible for the SAS to know exactly
684 where they are located for national security reasons.

685 Therefore, these operations are identified through
686 coastal sensor networks called Environmental Sensing
687 Capability, or ESC. Each ESC network is comprised of scores
688 of coastal sensors that sense radar operation and alert
689 SASes, which then tell CBRS base stations to avoid the radar
690 frequencies in use.

691 ESC Sensors must quickly sense radar operations that
692 occur over 150 miles off the coast, which means that ESC
693 sensors are extremely sensitive to very weak signals, and

694 this also means that ESC sensors can be susceptible to
695 interference from CBRS base stations.

696 To avoid interfering with ESC sensors, CBRS devices as
697 far as 25 to 50 miles from an ESC sensor must operate at
698 reduced power, or avoid operating altogether. This creates a
699 de facto protection area around each sensor where a CBRS
700 device operation is either curtailed or extremely limited.
701 ESC operators have tried to minimize these protection zones
702 through sensor design and location by placing sensors as
703 close to the coast as possible.

704 But sometimes avoiding populated areas is inescapable.
705 Because of reduced availability of CBRS, ESC sensor
706 protection affects millions of Americans in coastal regions,
707 as well as CBRS licensees who paid over \$4.5 billion for
708 their spectrum in an FCC auction.

709 However, there is a remedy to this problem in the form
710 of a portal-based incumbent informing capability. The NTIA
711 has proposed creating a portal they are calling the incumbent
712 informing capability, or IIC. The IIC would allow for any
713 Federal spectrum user to notify about their operation with at
714 least a few minutes notice. This would then be communicated
715 to SASes. Federal spectrum users could specify a time,
716 duration, location -- which could be an area -- and operating
717 frequencies, and this information could be provided to SASes,
718 which would then perfect -- protect the areas if -- as if an

719 ESC sensor had sensed the radar.

720 The only drawback to the IIC is authorization and
721 funding. There is currently no firm timeline for the
722 construction of the IIC, and no authorization or specified
723 funding source. The IIC would greatly enhance 5G operations
724 in CBRS, including allowing our operators to increase power
725 levels and fully realize the value of the band, allowing,
726 potentially, millions of Americans along the coast to
727 benefit.

728 This is why the OnGo Alliance fully supports H.R. 5486,
729 or Simplifying Management Relocation and Transfer of Spectrum
730 Act, the SMART Act, and we are -- we honor Congressman
731 Guthrie's work on this. The SMART Act will provide the NTIA
732 with a timeline and funding authorization to build a
733 capability that will allow for sharing in all bands, not just
734 CBRS.

735 Thank you again, and I look forward to your questions.

736 [The prepared statement of Mr. Gibson follows:]

737

738 *****COMMITTEE INSERT*****

739

740 *Ms. Matsui. Thank you.

741 Dr. Valentin, you are now recognized for five minutes.

742

743 STATEMENT OF ALISA VALENTIN

744

745 *Dr. Valentin. Thank you so much, Chairwoman Matsui,
746 Ranking Member Latta, Chairman Pallone, Ranking Member
747 McMorris Rodgers, and distinguished members of the
748 Subcommittee. Thank you for the opportunity to appear before
749 you today. My name is Alisa Valentin, and I am the senior
750 director of technology and telecommunications policy at the
751 National Urban League. I bring you greetings on behalf of
752 our president and CEO, Marc Morial.

753 In my prior role I was a special advisor to FCC
754 Commissioner Geoffrey Starks, where I advised the
755 commissioner on broadband policies that impacts communities
756 of color and low-income communities. And in this capacity I
757 made policy recommendations regarding the FCC's Lifeline
758 program.

759 I was also the person watching the livestream, or
760 sitting behind my former boss as he answered from the
761 committee. But my virtual seating arrangement has changed a
762 bit today.

763 The National Urban League and our 92 local affiliates
764 have long recognized that access to high-speed internet is a
765 civil right. The COVID-19 pandemic demonstrated that
766 everyone needs broadband to learn, work, receive health care,
767 and access critical government services, no matter their

768 income, no matter their race, and no matter their geographic
769 location.

770 Last year the National Urban League published the Lewis
771 Latimer Plan for Digital Equity and Inclusion, where we
772 presented four goals, which included deploying networks
773 everywhere; getting everyone connected; creating new economic
774 opportunities to participate in the growth of the digital
775 economy; and using networks to improve how we deliver
776 essential services. We recognize that, in order to achieve
777 these goals, we must erase pertinent connectivity gaps,
778 including availability, adoption, and affordability.

779 Today, I will focus on affordability. Nearly 47 million
780 people in the United States are left offline because they are
781 unable to afford broadband, and this disproportionately
782 impacts Black and Latinx households. In fact, 29 percent of
783 Black adults and 35 percent of Latinx adults do not have a
784 home broadband connection.

785 Prior to the pandemic, low-income families were
786 dependent on the FCC's Lifeline program, which was the only
787 Federal program focused on providing affordable
788 communications services to low-income households. This
789 program must be modernized to reach households who need it
790 most because it is very under-utilized, with a participation
791 rate that hovers at around 19 percent.

792 We need a whole-of-government approach to get households

793 enrolled in what is already a literal lifeline for millions
794 of families. That is why the National Urban League supports
795 the goals of the Ensuring Phone and Internet Access for SNAP
796 Recipients Act of 2021, which requires the FCC and USDA to
797 submit an annual report to Congress on enrollment in Lifeline
798 by SNAP recipients. It also requires the Commission to
799 report on projected Lifeline consumers through Federal
800 assistance programs and the efficacy of various efforts to
801 advertise the program.

802 The requirements of this bill should be extended beyond
803 Lifeline to include the Affordable Connectivity Program,
804 which was established with the passage of the Bipartisan
805 Infrastructure Law. Almost 12 million households have
806 enrolled in ACP, and estimates show that approximately 48
807 million households are eligible.

808 Congress, the FCC, and NTIA have recognized that
809 outreach efforts must include the funding of trusted
810 organizations working on the ground. The National Urban
811 League could not agree more. We believe the burden of
812 advertising these programs should not fall solely on the
813 shoulders of advocates seeking to serve the under-served.
814 There needs to be more resources provided.

815 We also think about solutions for the future that can
816 extend the life of the program. Although the National Urban
817 League has not taken a formal position on the spectrum bills

818 being discussed today, we do believe that Congress should
819 consider a number of ways to provide permanent, sustainable
820 funding for ACP, such as using proceeds from spectrum
821 auctions to fund digital equity and affordability efforts.

822 In an era of rising income inequality and increasing
823 dependency on the digital ecosystem, we must recognize that
824 there is a moral imperative and an economic benefit to
825 connecting everyone to high-speed internet, including both
826 workers and small business owners. The National Urban League
827 believes that spectrum auction winners should also be
828 encouraged or incentivized to hire from under-represented
829 communities beyond entry level positions; establish diversity
830 hiring goals; and increase supplier diversity. Our
831 organization has taken up efforts to increase equity in
832 companies because we know that Black and Latinx workers and
833 entrepreneurs deserve to experience the economic benefits of
834 this sector.

835 We have reached a critical juncture in history, and it
836 is time to move forward in creating an inclusive technology
837 ecosystem that centers the needs of communities of color and
838 low-income communities. Thank you for the opportunity to
839 provide testimony today, and I look forward to answering your
840 questions.

841

842

843 [The prepared statement of Dr. Valentin follows:]

844

845 *****COMMITTEE INSERT*****

846

847 *Ms. Matsui. Thank you.

848 We have concluded openings. We will now move to member
849 questions. Each member will have five minutes to ask
850 questions of our witnesses. I will start by recognizing
851 myself for five minutes.

852 The FCC's 2023 budget estimate to Congress earlier this
853 week expressed confidence that the 2.5 gigahertz auction will
854 likely conclude before the end of fiscal year 2022, when
855 current auction authority is set to expire. But it also
856 notes that certain post-auction activities requiring FCC
857 staff resources may continue into fiscal year 2023.

858 Ms. Gomez, yes or no, do you believe extending the FCC's
859 auction authority will help ensure that 2.5 gigahertz
860 spectrum gets to winning bidders without issue?

861 *Ms. Gomez. Yes, Chairwoman.

862 *Ms. Matsui. Okay. I have long been interested in
863 supporting agencies to find innovative ways to share under-
864 utilized spectrum for commercial use. The SMART Act,
865 introduced by Congressman Guthrie, would provide new
866 resources to NTIA to support the development of a new
867 spectrum sharing system to enable more Federal and non-
868 Federal coordination.

869 Mr. Gibson, why is it important to have a standardized
870 framework for sharing spectrum across Federal agencies?

871 And could you describe the potential for the system to

872 support commercial applications?

873 *Mr. Gibson. Yes, Congresswoman and Chairwoman Matsui,
874 thank you very much. That is an excellent question.

875 The IIC is a project that the NTIA has conceived to
876 facilitate a job that they are already doing sort of in the
877 background, which is supporting the sharing of spectrum.

878 What the IIC would do, as I noted in my testimony, is
879 allow a more robust capability, thereby doing away with these
880 sensing networks that have been deployed, which [inaudible] a
881 Federal operation in situations where there may be issues of
882 classification.

883 So the concept of the IIC is to move that responsibility
884 over to the NTIA by allowing them to build an informing
885 portal that Federal spectrum users would then put that
886 information into the portal, and then that information would
887 be made available to commercial users with the appropriate
888 protections for classification domains.

889 And so we believe that this is probably one of the best
890 ways to effectuate commercial Federal sharing. And, as the
891 NTIA have noted, that can operate across all spectrum domains
892 where there is Federal commercial sharing.

893 *Ms. Matsui. Okay, thank you.

894 While we have made strong progress over the years
895 freeing up spectrum for commercial use, we need to keep
896 looking for new opportunities to replace the spectrum

897 pipeline to support 6G, WiFi 6, and satellite broadband.

898 Ms. Gomez, what role does Federal equipment like
899 receivers and other technology play in supporting or limiting
900 our ability to free up spectrum?

901 *Ms. Gomez. Thank you for that question. Federal
902 agencies have equipment that at times is aging. And
903 unfortunately, the Spectrum Relocation Fund does not permit
904 the agencies to use those funds to do anything but replace
905 their equipment with that that has a comparable capability.

906 The comparable capability thus serves as a disincentive
907 to the extent the agency's equipment is close to the end of
908 life, or is decades old. So permitting agencies to expand
909 their systems' capabilities would serve as powerful
910 incentives to agencies to plan for re-purposing their
911 spectrum.

912 *Ms. Matsui. Okay, thank you.

913 The FCC's Lifeline program has helped ensure Americans
914 experiencing economic hardship can maintain broadband and
915 voice services.

916 At the onset of the pandemic I wrote to then-Chairman
917 Pai, urging him to take immediate steps to grant provisional
918 approvals for Lifeline subscribers as they become eligible
919 directly or via qualifying support programs. It is important
920 that we continue to reduce barriers to and expand the
921 awareness of the Lifeline program.

922 Dr. Valentin, do you see additional opportunities to
923 streamline the Lifeline enrollment process and increase
924 coordination between the FCC and other Federal agencies to
925 increase awareness of the program?

926 *Dr. Valentin. Yes, definitely. You know, the bill
927 before us today at its core is about understanding where we
928 are, understanding where we are hoping to go, and identifying
929 any gaps that may persist in the road to get there.

930 I think that it will also help us to understand, you
931 know, who is eligible for the Lifeline program. Is it folks
932 who are struggling with housing insecurity? Is it folks who
933 are struggling with food insecurity? And that can then help
934 organizations like the National Urban League figure out where
935 we need to focus our efforts to raise awareness about the
936 Lifeline program and the Affordable Connectivity Program.

937 *Ms. Matsui. Okay, thank you. My time is expiring, so
938 I yield back, and I recognize Mr. Latta, subcommittee ranking
939 member, for five minutes to ask questions.

940 *Mr. Latta. Well, thank you very much, Madam Chair.
941 And again, thanks to our witnesses for being with us today.
942 I greatly appreciate it.

943 Mr. Gibson, if I could start my questions with you, and
944 again, the new wireless use cases demand Federal agencies to
945 identify new and innovative tools to make more efficient use
946 of spectrum use. And incumbent informing capability systems

947 seem to show great promise for enhancing NTIA's ability to
948 manage Federal spectrum and increase opportunities for
949 commercial use. This tool would give NTIA a greater
950 understanding of how and when Federal spectrum users are
951 occupying the airwaves.

952 How would this tool help promote better interagency
953 coordination of spectrum resources?

954 *Mr. Gibson. Well, thank you, Chairman Latta. That is
955 an excellent question.

956 The -- as you -- as we all know, the NTIA is sort -- is
957 the spectrum manager for the Federal Government. And in that
958 role the NTIA is ultimately responsible for interfacing with
959 commercial users in that regard.

960 The informant incumbent capability will allow other
961 Federal spectrum users, the agencies, to interface with the
962 portal that the NTIA can then use to make that information
963 aware to commercial spectrum users. This could be made aware
964 through this thing I talked about called a spectrum access
965 system, or otherwise. NTIA has constructed a very broad
966 concept for this.

967 So this, the concept of the IIC, should facilitate
968 sharing across all Federal spectrum domains just by being
969 there and allowing the Federal spectrum users to put their
970 spectrum usage capabilities or spectrum usage information
971 into this that would thereby be made available to commercial

972 users.

973 *Mr. Latta. Well, thank you.

974 Ms. Valentin, H.R. 4275, the Ensuring Phone and Internet
975 Access for SNAP Recipients Act would require the FCC to
976 report on the enrollment of the Lifeline program that also
977 participates in the SNAP program. What benefit, if any,
978 would this provide?

979 *Dr. Valentin. I believe that it will help the FCC
980 better coordinate with USDA. I think it can be extended,
981 obviously, to other Federal agencies. As I just stated, it
982 is important for us to know where we are, where the gaps in
983 participation are.

984 And I think it is also really important to help us
985 understand what effective kind of advertising efforts there
986 are out there, so we can better focus those efforts, as well.

987 *Mr. Latta. Let me follow up. Does the FCC currently
988 have the SNAP enrollment data, or would this be new data
989 collection?

990 *Dr. Valentin. There is some data that -- with USAC. I
991 know that there is data about kind of like the SNAP
992 databases, and the folks are kind of like directly enrolled
993 through the states, which -- I believe that enrollment rate
994 is at about 13 percent.

995 But then there is also folks who get into the program
996 on, like, kind of a multitude of databases. And I don't have

997 clarity -- I don't -- I am not sure the FCC has clarity on
998 how folks are entering when they are eligible through kind of
999 like multiple programs. So this would just better help us
1000 kind of pinpoint that information.

1001 *Mr. Latta. Okay, thank you.

1002 You know, I am also going to note that there is
1003 currently an ongoing discussion required by the
1004 infrastructure law as to what the future of the Universal
1005 Service Fund should look like in light of all the funding
1006 appropriated for the purpose of keeping Americans connected.
1007 So I am not really sure right now if this legislation is
1008 necessary at this time.

1009 Mr. Gibson, if I could go back to you -- a question.
1010 The ITS Codification Act would provide additional tools and
1011 authority for NTIA's Institute of Telecommunications
1012 Sciences. As a significant user of the CBRS spectrum, which
1013 ITS helped make available for commercial users, you have
1014 benefited from their work. What role did ITS play in the
1015 CBRS framework, and how can its expertise be utilized to
1016 address our future spectrum management challenges?

1017 *Mr. Gibson. What an excellent question. ITS started
1018 off initially by doing a series of interference measurements,
1019 bench-type, lab-type interference measurements, radar systems
1020 into commercial systems. That report was huge, and was made
1021 available initially so that the commercial world could better

1022 understand what role the radars play in causing or mitigating
1023 interference. So that was the first work they did.

1024 As we moved through, ITS actually were the agency that
1025 did testing for the ESCs and the SASes. On behalf of the FCC
1026 they did all of the testing for all of the ESCs to test us
1027 against commercial availability.

1028 And then, as we have been working through this, they
1029 have conceived -- I am not sure if they have actually been
1030 able to do it -- propagation modeling efforts to help better
1031 inform the propagation models that we have been using.

1032 *Mr. Latta. Well, thank you very much.

1033 And Madam Chair, before I yield back, I am going to have
1034 to turn my spot over to my good friend from Florida, Mr.
1035 Bilirakis, because I am going to have to be at a fentanyl
1036 roundtable. But I really appreciate today's hearing, and
1037 thank the witnesses. And thank you very -- Madam Chair. And
1038 I yield back.

1039 *Ms. Matsui. Thank you. The gentleman yields back.
1040 The chair now recognizes Mr. Pallone, full committee
1041 chairman, for five minutes to ask questions.

1042 *The Chairman. Thank you, Chairwoman Matsui. I am
1043 going to try to get three questions. And so I would ask each
1044 of you to only take a minute or so.

1045 Ms. Gomez, can you talk to us about how access to
1046 spectrum enhances our mobile broadband networks, and what

1047 consumers and the public will lose if auction authority isn't
1048 extended? In one minute.

1049 *Ms. Gomez. Yes, that is a very good question, thank
1050 you.

1051 So access to spectrum allows mobile networks to meet
1052 broader capacity, speed, and low latency needs of our next
1053 generation technologies. And it would be bad for consumers
1054 if we lost the ability to auction the licenses, because it
1055 would delay disproportionately the rollout of services to
1056 consumers.

1057 *The Chairman. Well, thank you so much.

1058 I wanted to ask a little bit about survivors of domestic
1059 violence. We know that domestic violence, human trafficking,
1060 and other related crimes are a serious concern. And studies
1061 indicated that at least 1 in 4 women and 1 in 10 men have
1062 experienced sexual violence, physical violence, and/or
1063 stalking by an intimate partner during their lifetime. So --
1064 and too often, these abusers use technology and the internet
1065 to bully, intimidate, or control a partner.

1066 So the question for Dr. Kadri is how could family mobile
1067 service plans place survivors of domestic violence and other
1068 related crimes in harm's way?

1069 And would providing survivors with the ability to
1070 separate their phone service from their abusers help?

1071 *Dr. Kadri. Thank you, Chair Pallone. I -- absolutely.

1072 The family plans allow abusers to monitor a victim's calls,
1073 texts, and even their locations sometimes. And so all of
1074 this information from family plans can enable further
1075 escalation by the abuser.

1076 And safety planning is so essential when a victim is
1077 trying to leave an abusive relationship, but that same
1078 planning can also create immense danger if an abuser
1079 discovers an imminent departure. And so, as things stand,
1080 there are just too many obstacles and risks involved.

1081 And we hear these stories all the time in our work at
1082 CETA. I will just mention one briefly. It was a client who
1083 was on a family phone plan, and then the abuser left the
1084 country permanently. And so this client couldn't, you know,
1085 get released from the family phone plan because the abuser
1086 couldn't even be contacted. And we have all sorts of other
1087 stories where people have struggled to get out of these
1088 family phone plans.

1089 And the Safe Connections Act could really change these
1090 conditions by giving victims a right to leave their phone
1091 plans quickly, remotely, and for free.

1092 *The Chairman. Well, thank you. And then lastly I
1093 wanted to ask about the Lifeline program, which you know
1094 provides eligible families with phone service, so no one
1095 would be without a phone line in case of an emergency, or
1096 keep in touch with friends or loved ones.

1097 It has been proven to be an essential program for many
1098 people, though we know that just a fraction of the eligible
1099 population -- just about 19 percent, believe it or not -- is
1100 enrolled. So my question is, Ms. Valentin, in your opinion,
1101 could the data reporting requirements in H.R. 4275 help
1102 policymakers and community organizations raise awareness of
1103 the Lifeline program, and ultimately help those who need this
1104 help?

1105 I mean, obviously, we want more people to sign up, if
1106 you would.

1107 *Dr. Valentin. Yes. Thank you for the question. Yes,
1108 the data reporting requirements in this bill can absolutely
1109 help community organizations raise awareness about the
1110 Lifeline program, and figure out where we need to target our
1111 efforts.

1112 And it is also about accountability as it relates to
1113 government agencies fulfilling their obligations to help
1114 people most in need. You know, at the National Urban League
1115 we understand that access to critical communication services
1116 such as the Lifeline program directly correlates to economic
1117 opportunity for both workers and entrepreneurs. And we want
1118 to be able to close those opportunity gaps.

1119 *The Chairman. Well, thank you so much.

1120 Thank you, Chairwoman Matsui.

1121 *Ms. Matsui. Thank you. The chair now recognizes Mrs.

1122 Rodgers, full committee ranking member, for five minutes to
1123 ask questions.

1124 *Mrs. Rodgers. Thank you, Madam Chair. Good morning
1125 again. I am really pleased that we have come together with
1126 bipartisan legislation to extend the FCC's auction authority
1127 for 18 months.

1128 Ms. Gomez, this 18-month extension will allow the FCC to
1129 complete the auction of the 2.5 gigahertz band and avoid
1130 disruption to the FCC's spectrum operations. However, some
1131 people think that the FCC's authority should be extended for
1132 a longer term, such as 10 years. What are the benefits of
1133 extending the FCC's auction authority for 18 months versus a
1134 longer-term extension?

1135 *Ms. Gomez. Yes, thank you, Congresswoman, for your
1136 question.

1137 I do think a lengthy extension can be very beneficial,
1138 but at this point the 18-month extension is the most
1139 practical path at this point in time. We only have a short
1140 time left before September 30. We don't have any current
1141 spectrum identified, so there wouldn't be any spectrum in the
1142 extension of the authority. We don't have a national
1143 spectrum strategy, either.

1144 So it is probably best at this point to extend, but
1145 [inaudible] Congress provide the oversight as the FCC and
1146 NTIA develop their national spectrum strategy.

1147 *Mrs. Rodgers. Ms. Gomez, as the former deputy
1148 assistant secretary of NTIA, you have firsthand experience
1149 about the role that NTIA plays in spectrum management.
1150 NTIA's Federal lab, the Institute for Telecommunications
1151 Sciences, ITS, does important work to understand radio
1152 frequency propagation and develop technologies to improve
1153 spectrum efficiency.

1154 What role does ITS play in the Federal Government?

1155 *Ms. Gomez. Apologies for the delay in unmuting.

1156 ITS plays a very important role in spectrum management
1157 supporting NTIA as it makes its decisions, as well as -- with
1158 regard to Federal spectrum use, as well as it coordinates
1159 with the FCC on spectrum decisions that might affect Federal
1160 agencies. It conducts research and development. It conducts
1161 testing. It also enters into agreements with other Federal
1162 agencies to conduct tests for them, as well as with
1163 commercial providers.

1164 So there is a variety of ways that ITS is important in
1165 the spectrum management ecosystem.

1166 *Mrs. Rodgers. And as we look to the future of wireless
1167 technologies, we know that effective spectrum management is
1168 critical to our success. How can we better leverage ITS to
1169 promote innovation, and continue to compete with China in
1170 deploying wireless technology?

1171 *Ms. Gomez. I am so glad you raised this question,

1172 because ITS is a very important component of spectrum
1173 management, as I mentioned. It is also largely funded
1174 through these agreements. And so being able to pass the Act
1175 that is being proposed, being able to draw attention to the
1176 importance of its resources, and being able to bolster the
1177 ITS functionality all will help support our efforts, both
1178 domestically and internationally.

1179 *Mrs. Rodgers. Thank you. I appreciate that.

1180 Mr. Kadri, earlier this year the Senate passed the Safe
1181 Connections Act to ensure survivors of domestic abuse can
1182 separate from a shared phone plan with an abuser. This is
1183 important legislation to bring survivors one step closer to a
1184 more hopeful, safe, and secure future. However, it is also
1185 important that we get the details right in this legislation,
1186 so that both survivors and wireless carriers have a smooth
1187 process for providing relief.

1188 Would you speak to the challenges survivors of domestic
1189 violence face when they are trying to separate from the
1190 shared aspects such as a shared phone contract?

1191 *Dr. Kadri. Absolutely. Thank you, Congresswoman. So
1192 the obstacles are many and varied, but I will just focus on a
1193 couple, since I know time is short.

1194 For one thing, it can be quite difficult to even detect
1195 this level of surveillance that goes on through family phone
1196 plans. And so some victims are just, frankly, unaware of it.

1197 But then, when they do become aware, trying to actually
1198 protect themselves can be a real challenge. Often times,
1199 phone companies won't allow for changes to the accounts
1200 unless they have the primary account holder's permission,
1201 which, in many cases, will be the abuser themselves. At
1202 other times there are considerable fees and upfront costs
1203 that really make this kind of barrier to separating the line
1204 too daunting for survivors to go through.

1205 I would be happy to mention other obstacles, but those
1206 are a couple that I think are of particular concern to
1207 survivors when they are trying to protect themselves and get
1208 out of these plans.

1209 *Mrs. Rodgers. Well, thank you. And do you think
1210 including a remote option to request a line separation might
1211 be part of the answer?

1212 *Dr. Kadri. Absolutely. And I am pleased that the Act,
1213 at least as I read it, does include such a protection,
1214 particularly given the fact that so many survivors may have
1215 real concerns about going into a physical store, particularly
1216 in smaller communities, where the people working in the
1217 stores may know them, they may know the person of concern.
1218 So I think providing that remote option is crucial.

1219 *Mrs. Rodgers. Super. I appreciate your insights and
1220 your work.

1221 I yield back.

1222 *Ms. Matsui. Thank you. The gentle lady yields back.
1223 The chair recognizes Mr. McNerney for five minutes to ask
1224 questions.

1225 *Mr. McNerney. Well, I thank the chair for holding this
1226 hearing, and I thank the committee staff for putting it
1227 together, and the witnesses for bringing your expertise here
1228 this morning for us.

1229 Ms. Gomez, how would greater spectrum sharing between
1230 the Federal and non-Federal entities impact the current
1231 deployment of our 5G networks?

1232 *Ms. Gomez. Thank you, Congressman, for that question.
1233 Sharing is certainly a tool in the toolbox for 5G deployment.
1234 As it becomes more and more challenging to identify
1235 additional spectrum, sharing enables us to find new ways to
1236 obtain spectrum.

1237 But of course, it continues to be preferable to provide
1238 cleared spectrum for auction, to enable infrastructure
1239 providers and manufacturers the certainty they need to make
1240 the necessary investments to establish U.S. leadership in 5G
1241 and beyond.

1242 *Mr. McNerney. Well, I mean, do you think moving toward
1243 a more agile spectrum sharing environment will blur the lines
1244 between licensed and unlicensed spectrum, Ms. Gomez?

1245 *Ms. Gomez. Thank you, Congressman. I don't think we
1246 have the technology or the systems in place today to get to

1247 an environment that would blur the lines between licensed and
1248 unlicensed spectrum. But I can imagine some time in the
1249 pretty far future when that could happen. It would require,
1250 of course, investments in technology, changes in our
1251 allocation processes, and how our regulatory agencies
1252 approach spectrum management.

1253 But in the meantime, unlicensed spectrum has been hugely
1254 successful, with a tremendous impact on the economy. But
1255 there is also an important place for licensed spectrum. So,
1256 as I mentioned, for [inaudible] to succeed, the participants
1257 must have the certainty necessary that makes them willing to
1258 invest in the auction, as well as to invest in deploying the
1259 network.

1260 *Mr. McNerney. Well, thank you again.

1261 The spectrum sharing framework outlined in the SMART Act
1262 includes a system to enable time-based spectrum sharing. So,
1263 Ms. Gomez, what degree of automation would be required to
1264 ensure successful implementation?

1265 And do you see a role for artificial intelligence and
1266 machine learning in time sharing and distribution of the
1267 spectrum?

1268 *Ms. Gomez. Yes. So I have to admit I am not an expert
1269 in this exact area. But I will point out that NTIA wrote a
1270 report on the IIC a while ago, in which it mentioned that
1271 eventually the system should lead to a point where AI and

1272 machine-based learning is utilized as a method of
1273 implementing these sharing mechanisms.

1274 *Mr. McNerney. Good. Thank you for that response.

1275 Mr. Gibson, in your written testimony you explain the
1276 concept of incumbent informing capability as a mechanism to
1277 manage interference more effectively between Federal and non-
1278 Federal users, specifically in the Citizens Band Radio
1279 Service.

1280 Could the IIC be expanded to other parts of the
1281 spectrum?

1282 *Mr. Gibson. Thank you, Congressman, for that question,
1283 and that is a very good question. And to clarify, I don't
1284 know that I think the IIC manages interference. It manages
1285 spectrum availability, thereby reducing the capability for
1286 interference.

1287 But absolutely, it could be applied to other parts of
1288 spectrum. In fact, the NTIA's vision for the IIC is to be
1289 used across all spectrum domains where there will be Federal
1290 commercial sharing, and it could also be extensible to
1291 Federal-Federal sharing, to the extent that that is a thing.

1292 *Mr. McNerney. Yes.

1293 *Mr. Gibson. But it -- their vision on it is very
1294 broad, and it could really easily very -- effectuate Federal
1295 commercial sharing in any spectrum band.

1296 *Mr. McNerney. Is artificial intelligence used in that

1297 process, or planned to be used in that process?

1298 *Mr. Gibson. It is not planned to be used in that
1299 process, but artificial intelligence, machine learning
1300 absolutely lend themselves to spectrum management, and that
1301 is my area of expertise. And full disclosure, we were a SAS
1302 provider, we are an ESC provider, and we have been using bits
1303 and pieces of artificial intelligence to improve the fidelity
1304 of responses to spectrum queries, thereby mitigating or
1305 eliminating interference using those types. It is a little
1306 nascent, but it is beginning.

1307 *Mr. McNerney. Excellent. Well, what implications
1308 would an IIC have for unlicensed 5G and deployment of
1309 broadband?

1310 *Mr. Gibson. Well, they could -- the -- to the extent
1311 that any sort of deployment will be in shared spectrum, the
1312 IIC would -- it wouldn't matter what spectrum is being
1313 managed. So it could handle licensed, it could handle the
1314 auction spectrum, it could handle unlicensed.

1315 For example, in the 6 gigahertz band in the United
1316 States there is this concept being called an automatic
1317 frequency coordinating system that is coordinating much like
1318 a SAS for commercial 6 gigahertz licensed and -- around
1319 microwave systems. The same thing could be applied in, say,
1320 the 7 and 8 gigahertz band, sharing with Federal and --
1321 Federal systems up there. So it would absolutely lend itself

1322 to that.

1323 *Mr. McNerney. Very good. Thank you. It looks like my
1324 time is about expired, so I am going to yield back. Thank
1325 you for your responses.

1326 *Ms. Matsui. Thank you. The chair now recognizes Mr.
1327 Guthrie for five minutes to ask questions.

1328 *Mr. Guthrie. Thank you, Madam Chair. You said in your
1329 opening statement that we worked on more spectrum bills than
1330 we can count. And I agree. And each time it has been a
1331 pleasure to work with you. And our staff [inaudible] been a
1332 pleasure to work with your staff. So I appreciate that very
1333 much.

1334 My first question today is for Ms. Gomez, and I want to
1335 thank you for your support of my legislation. Spectrum is,
1336 obviously, a valuable and increasingly scarce resource, and I
1337 believe we need to do all we can do to ensure that every
1338 spectrum user is as efficient as possible, including the
1339 Federal Government. So my question is, how would an
1340 incumbent informing capability help NTIA work with Federal
1341 agencies to resolve technical barriers to make more Federal
1342 spectrum available for commercial users?

1343 *Ms. Gomez. Thank you, Congressman Guthrie.

1344 So while there is a preference for clearing bands for
1345 exclusive use, it is getting harder to fully clear bands.
1346 And sharing has some benefits that I see will provide needed

1347 transparency and certainty during sharing scenarios.

1348 It would also replace some of the current dynamic
1349 sharing methods that are proving to be technically
1350 challenging.

1351 I would note that the capability will not enable the use
1352 of fully cleared spectrum, but to the extent there are
1353 geographic sharing opportunities, it would permit broader
1354 uses of spectrum in areas where the Federal agencies may not
1355 be operating.

1356 *Mr. Guthrie. Thank you. I keep muting in between so
1357 it doesn't have feedback, so sorry.

1358 The SMART Act -- Ms. Gomez again -- the SMART Act
1359 directs NTIA to establish a standardized framework for
1360 Federal spectrum users to share more real-time usage
1361 information. As NTIA seeks to identify new bands to clear
1362 for commercial use, how would this tool help preserve and
1363 enhance Federal missions that are key to protecting our
1364 national defense, such as those carried out by the Department
1365 of Defense?

1366 We all want access and better spectrum, but we also want
1367 to make sure our agencies, our -- particularly the Department
1368 of Defense and others, can accomplish their core mission. So
1369 how does this balance that?

1370 *Ms. Gomez. Thank you, Congressman. That is right.
1371 And, I mean, NTIA's mission is to support the other agencies'

1372 ability to fulfill their missions through the use of
1373 spectrum, while balancing, of course, the need to support
1374 innovation for the economy.

1375 The IIC would enable Federal missions to continue using
1376 their spectrum, but on a shared basis. So it gives a
1377 broadening opportunity to access more spectrum, while
1378 permitting the agencies to continue to utilize them.

1379 *Mr. Guthrie. Okay, thank you.

1380 And one of the bills we are discussing is focused on
1381 sharing. I want to reiterate my continued support for making
1382 additional spectrum available through auctions or licensed
1383 commercial use. So Ms. Gomez, again, can you talk about the
1384 role of NTIA in finding ways to incentivize Federal agencies
1385 to be more efficient with their spectrum, so that we can make
1386 more spectrum available for non-Federal use?

1387 And does this bill strike the right balance between
1388 prioritizing auctions where possible, and sharing where
1389 auctions are infeasible?

1390 *Ms. Gomez. Thank you, Congressman Guthrie. I am
1391 really glad you asked me that question, because it is
1392 something I feel very passionate about.

1393 In NTIA's role as spectrum manager, NTIA must work with
1394 all agencies to make sure they are making efficient use of
1395 their spectrum. It is challenging, however, for NTIA to
1396 motivate other agencies to work on either identifying

1397 spectrum or to make more efficient spectrum use if the sole
1398 purpose is to re-purpose their spectrum for other uses. They
1399 are understandably focused on fulfilling their missions,
1400 while NTIA's is the efficient use of spectrum while
1401 supporting the innovation economy. So the [inaudible] has
1402 provided tools for NTIA in its efforts to re-purpose
1403 spectrum. But I noted in my testimony it could be broadened
1404 to provide additional incentives.

1405 In addition, it is helpful when Congress or the White
1406 House includes spectrum bands to be studied or auctioned in
1407 its legislation, or in executive orders or memoranda. Such
1408 actions bolster the work that NTIA is doing, and gets the
1409 Federal agencies' attention, and helps provide that
1410 motivation.

1411 *Mr. Guthrie. Okay, thank you. I appreciate that.
1412 That completes the questions that I have.

1413 So I will yield back, Madam Chair.

1414 *Ms. Matsui. Thank you. The gentleman yields back.
1415 The chair now recognizes Mr. O'Halleran for five minutes to
1416 ask questions.

1417 *Mr. O'Halleran. Thank you, Madam Chair and Ranking
1418 Member, for holding this meeting today. We need more
1419 hearings like this, where we are working together to solve a
1420 problem, where we are more focused on finding a solution than
1421 partisan bickering. And I appreciate the bipartisan emphasis

1422 on this meeting.

1423 I want to voice my support for the Safe Connections Act,
1424 introduced by my friend, Congresswoman Kuster, which would
1425 take necessary steps to protect victims of domestic abuse and
1426 other crimes.

1427 I thank you for your leadership on this, and I am glad
1428 to see this committee consider the bill, and hope to make it
1429 move through the House quickly.

1430 Another bill we are considering today addresses a
1431 problem I see far too often in my district and in
1432 under-resourced communities in general. Congress passes
1433 legislation often times aimed at helping struggling
1434 communities, working families, or seniors. But the people it
1435 is supposed to help don't know the program exists or that
1436 they are eligible at all. Far too often, people don't know
1437 how to navigate bureaucratic systems. We should be doing
1438 everything we can to make it easier for them to get the help
1439 they need.

1440 Ms. Valentin, what does a whole-of-government approach
1441 look like when reaching under-served and under-resourced
1442 communities?

1443 *Dr. Valentin. Thank you so much for the question. You
1444 know, I would say a whole-of-government approach means that
1445 Federal agencies across the board are using their existing
1446 authorities, using their existing resources to reach

1447 under-served communities in a coordinated fashion.
1448 Eligibility for programs like Lifeline and the Affordable
1449 Connectivity Program, you know, are based on eligibility for
1450 other Federal assistance programs. But far too often,
1451 Federal agencies are working independently to administer
1452 their respective assistance programs.

1453 So agencies can, you know, work on creating coordinated,
1454 you know, educational materials. They can share information
1455 across agencies, and just work on effective outreach efforts.

1456 *Mr. O'Halleran. I was just out in the field yesterday
1457 in my district. It is three different communities. And each
1458 one of those communities brought up a lack of knowledge on
1459 what was going on with the different programs within our
1460 whole-of-government approach. So somewhere along the line we
1461 are missing the opportunity to get the information out there.
1462 I know that my staff does a consistent job on that, but we
1463 have to find a way to -- I don't care where it is at and what
1464 agency it is, we have to find a way to get -- to allow our
1465 citizens to know what is going on out there.

1466 Another question, Ms. Valentin. Beyond this bill, are
1467 there other approaches Congress should consider to ensure
1468 eligible households access programs like Lifeline and the
1469 Affordable Connectivity Program?

1470 For example, certain tribal programs administered by the
1471 Bureau of Indian Affairs qualifies households for the ACP.

1472 Should Congress consider requiring BIA to provide information
1473 to eligible households about the ACP, or should other
1474 agencies be working together in that whole-of-government
1475 approach to get this information out to people?

1476 *Dr. Valentin. Yes, thank you for the question. Well,
1477 as you know, tribal communities are disproportionately
1478 disconnected, and they are dealing with both access issues,
1479 as well as affordability issues. And with the Lifeline
1480 program, as well as the ACP program, you know, that is
1481 recognized. And that is why tribal communities receive those
1482 enhanced benefits for broadband services.

1483 But those benefits can only be effective, as you said,
1484 if the households actually know that these programs exist.
1485 So I think that Congress should definitely explore all
1486 options that encourage and incentivize Federal agencies to
1487 work together in reaching these households. And I think
1488 cross-collaboration between the FCC and the BIA can certainly
1489 help increase enrollment, and we would certainly welcome
1490 legislation that supports those goals.

1491 *Mr. O'Halleran. Thank you very much.

1492 I am also glad to see this committee consider bills
1493 giving the NTIA and the FCC the necessary tools to manage
1494 spectrum in an efficient and innovative way. Spectrum is a
1495 public resource. It belongs to all of us. But it is also a
1496 finite public resource. Our approach to spectrum policy must

1497 reflect that reality.

1498 Ms. Gomez, what actions can and should the FCC and the
1499 NTIA take to ensure that spectrum bands are used as
1500 efficiently as possible?

1501 *Ms. Gomez. Thank you, Congressman, for your question.
1502 The FCC and NTIA are constantly trying to evolve what they do
1503 to ensure spectrum bands are used as efficiently as possible.
1504 But from a high level, I would say, number one, increasing
1505 transparency as much as possible. Sometimes this can be
1506 difficult with sensitive or classified systems, but the more
1507 knowledge that we have about how spectrum is being used, the
1508 more creative ways we can come up with using spectrum more
1509 efficiently.

1510 I see we are out of time. Planning as far ahead as
1511 possible and participating in research and development.

1512 *Mr. O'Halleran. Thank you very much, Madam Chair. I
1513 yield.

1514 *Ms. Matsui. Thank you. The gentleman yields. The
1515 chair now recognizes Mr. Bilirakis for five minutes to ask
1516 questions.

1517 *Mr. Bilirakis. Thank you, Madam Chair. I appreciate
1518 it very much.

1519 Like many of my colleagues, I am pleased to see a
1520 bipartisan bill to extend the spectrum auction authority for
1521 an additional 18 months. The benefits that auctions have

1522 brought through increased revenue, technological innovation,
1523 and consumer choice have been immeasurable.

1524 Ms. Gomez, if this legislation is not signed into law,
1525 and the FCC's auction authority is severely restricted, what
1526 implications does that have on the international stage?

1527 And would we be allowing our international competitors
1528 -- unfortunately, like China -- to have a leg up on leading
1529 the future of technology?

1530 *Ms. Gomez. Yes, Congressman, that is a very important
1531 point. I do think it would have a significant effect on our
1532 international standing, largely because it would make -- it
1533 would put us back to the old-fashioned way of licensing
1534 spectrum, which is very lengthy and inefficient. And so we
1535 would be significantly delayed vis a vis other countries, who
1536 are actually quite advanced in providing spectrum for new and
1537 advanced services.

1538 *Mr. Bilirakis. Thank you. Next question -- it has
1539 been some time since I have brought up natural disasters in
1540 this subcommittee. And with June 1st being the beginning of
1541 Florida's hurricane season, the time is right to remind
1542 people of the dangers, but also the promise that technology
1543 brings to -- again, we need to save lives.

1544 Congressman Carter's ITS Codification Act includes the
1545 creation of an emergency communications and tracking
1546 technologies initiative that would help locate trapped

1547 individuals during events when communication lines are down,
1548 helping save lives when seconds count.

1549 Again, Ms. Gomez, what can Congress do to continue
1550 advancing ITS leadership in technological innovation?

1551 *Ms. Gomez. Thank you for that question. ITS does core
1552 research for public safety to better understand the
1553 components of a communication signal need to prioritize -- to
1554 see through smoke in a video, to have resolution, the
1555 necessary resolution for public safety responses.

1556 So the work that they are doing is very important.
1557 Adequately funding ITS to conduct this research is critically
1558 important for us to be prepared as a nation to meet the
1559 challenging of -- the changing environment, and what that
1560 poses to communications systems.

1561 So, you know, Congress supporting the Act is terrific,
1562 and continuing to find ways to utilize ITS and to bolster its
1563 funding would be terrific.

1564 *Mr. Bilirakis. Thank you.

1565 As a follow-up, Mr. Gibson, what role can ITS play in
1566 developing technologies to more efficiently use spectrum
1567 resources?

1568 *Mr. Gibson. Well, thank you for the question. That is
1569 very insightful. And I would say that, you know, I wanted to
1570 make sure that I did say this, that I think, in my opinion,
1571 ITS is probably the best at what they do.

1572 And so I think that some of the collaboration that ITS
1573 has done with industry and also with the Federal Government
1574 in terms of innovation, what we can do in industry -- and
1575 also Federal Government has come up with ideas, and then NTIA
1576 ITS can then instantiate those ideas in whatever -- they can
1577 build models, they can build tools, and -- which is some of
1578 what they are doing now. In fact, they had built a tool to
1579 support spectrum sharing in other spectrum bands in the AWS
1580 band.

1581 So I think allowing -- as Ms. Gomez said, allowing them
1582 the funding they need to get going, allowing a collaboration
1583 with other experts in the industry, I think that will help
1584 bring about what we are looking for.

1585 *Mr. Bilirakis. It sounds good. Thank you, Mr. Gibson.
1586 And I yield back the balance of my time, Madam Chair.

1587 *Ms. Matsui. Thank you. The gentleman yields back.
1588 The chair now recognizes Mr. Soto for five minutes to ask
1589 questions.

1590 *Mr. Soto. Thank you, Madam Chair.

1591 The internet is integral to our daily lives. From
1592 online education to e-commerce, telehealth to smart
1593 agriculture, access to high-speed internet is essential for
1594 all central Floridians.

1595 We made a big promise and put our money where our mouth
1596 was with the infrastructure law, \$65 billion for high-speed

1597 internet, for rural broadband. It is going to be key for
1598 rural areas of Florida, as well as low-income areas of
1599 Florida that right now don't have equal access to internet.

1600 [Inaudible] Federal auction for an additional 18 months
1601 makes sense. We must carefully make spectrum available to
1602 the private sector, balanced against defense and aviation
1603 concerns. And this is going to help us with that right
1604 balance. And I applaud the SMART Act, which is going to
1605 standardize a spectrum sharing framework.

1606 We also see more specific legislation on the agenda
1607 today to help victims of domestic violence and human
1608 trafficking by requiring providers to [inaudible] separate
1609 lines. Can you imagine? And I have heard horror stories in
1610 our district of victims being --

1611 [Audio malfunction.]

1612 *Mr. Soto. -- and how that can put folks into danger.

1613 There are many isolated areas of the Sunshine State
1614 also. So this is going to be key in emergency response.

1615 Ms. Gomez, it would be great to hear a little more about
1616 some examples of how there is interagency hang-ups, barriers,
1617 and conflicts as we are trying to deploy new spectrum. What
1618 actually happens on the day-to-day to slow this stuff down,
1619 and how does the SMART Act address that?

1620 *Ms. Gomez. Thank you, Congressman, for that question.

1621 So, you know, on a day-to-day basis, I actually think

1622 the coordination between the agencies is quite good. There
1623 is a good relationship at the staff level between the
1624 agencies. What becomes difficult is when we are asking
1625 agencies to put away their attention from their day-to-day
1626 missions and to focus on finding ways to free up spectrum for
1627 other uses.

1628 So, as I mentioned before, what we need is incentives to
1629 -- for the Federal agencies to focus and to provide the
1630 engineering that is necessary in order to determine how we
1631 can utilize spectrum, either more efficiently or re-purpose
1632 it for other uses.

1633 *Mr. Soto. Can you -- oh, please continue.

1634 *Ms. Gomez. Sorry, go ahead.

1635 *Mr. Soto. And you believe the SMART Act would help
1636 address those incentives?

1637 *Ms. Gomez. I think, to a certain extent, it helps
1638 address those incentives. It is important that NTIA have
1639 that capability, and that NTIA's authority be bolstered and
1640 recognized as the manager of Federal spectrum.

1641 So to -- for purposes of sharing, it would definitely
1642 help NTIA fulfill its mission and work with the FCC to find
1643 more ways to share spectrum.

1644 *Mr. Soto. Okay. So it helps, but we have more work to
1645 do.

1646 Dr. Kadri, my constituents would be shocked to know that

1647 domestic violence and human trafficking victims can't even
1648 separate a shared line from their attackers. And I was
1649 looking in your testimony about roughly only a dozen states
1650 provide protections. So 38 states across the United States
1651 have nothing to help victims of domestic violence get away
1652 from something as essential as having their own cell phone.

1653 And you also mention in your testimony requiring a court
1654 order.

1655 So does this legislation -- will it help those other 38
1656 states, and will it need a court order, or will we be able to
1657 really fast track this going forward?

1658 *Dr. Kadri. Thank you, Congressman, for the question.
1659 It certainly would help all of those people in states where
1660 there are just no existing protections.

1661 And no, thankfully, the bill, as currently drafted,
1662 would not require the burden of trying to seek a court order
1663 to force a phone company to do this. The survivor would have
1664 to provide certain documentation from a third party in order
1665 to get the line separation, but they wouldn't have to go to
1666 court in order to be able to do it. And that would be a big
1667 change, even for those folks in many of the other states,
1668 where there are some limited protections for them.

1669 But as you point out, for those folks in other states
1670 who currently lack any legal recourse to do this, it would
1671 make a big difference.

1672 *Mr. Soto. Thanks, Dr. Kadri, and I am proud of this
1673 legislation to make sure we are empowering victims, and I
1674 yield back.

1675 *Ms. Matsui. Thank you. The gentleman yields back.
1676 The chair now recognizes Mr. Long for five minutes to ask
1677 questions.

1678 *Mr. Long. Thank you, Madam Chairwoman.

1679 And Ms. Gomez, you can probably see on the wall behind
1680 me my 42-year-old auctioneer license plate from here in
1681 Missouri. And so I have got a long, long history
1682 auctioneering before I went to Congress 12 years ago. And
1683 the FCC spectrum auctions have helped create the wireless
1684 services that we all enjoy today. Congress can take a little
1685 bit of credit for this success story also.

1686 With one exception, every time Congress extended the FCC
1687 auction authority, we told the FCC to auction spectrum. It
1688 seems to me that this short-term extension will give Congress
1689 the time we need to find the right bands in which to auction.

1690 Ms. Gomez, isn't that why short-term extension of FCC's
1691 auction authority, as included in H.R. 7783, makes the most
1692 sense?

1693 *Ms. Gomez. Yes, Congressman, I agree. It makes the
1694 most sense for the reasons you articulate.

1695 *Mr. Long. Thank you. And also sticking with you, Ms.
1696 Gomez, the National Telecommunications and Information

1697 Administration, NTIA, of course, is statutorily -- easy for
1698 me to say -- statutorily responsible for representing Federal
1699 views on spectrum matters before the FCC, and FCC actions may
1700 affect a Federal user spectrum use.

1701 In recent years, this process has gained public
1702 attention. How would standardized framework contemplated in
1703 the SMART Act improve NTIA's ability to represent Federal
1704 views?

1705 *Ms. Gomez. Thank you, Congressman, for that question.
1706 So the SMART Act will both provide NTIA with a more
1707 transparent and efficient tool to permit it to enable the
1708 sharing of Federal spectrum. It also recognizes that NTIA is
1709 the manager of Federal spectrum, and bolsters its status by
1710 that recognition.

1711 *Mr. Long. Okay. And why is it important that NTIA
1712 retains its role as the spectrum manager across all Federal
1713 agencies, rather than have each agency manage their own
1714 spectrum use?

1715 *Ms. Gomez. Thank you, Congressman. This is a very
1716 important issue.

1717 NTIA must retain its role as the spectrum manager across
1718 all Federal agencies. There is an important distinction
1719 between the agencies, which are spectrum users, and NTIA,
1720 which manages spectrum used by Federal agencies. Placing the
1721 responsibility for managing spectrum within the spectrum

1722 user, whether it is a Federal agency or a commercial user,
1723 would present an inherent conflict of interest.

1724 Even the FCC doesn't manage its own spectrum. Rather,
1725 because the FCC is a Federal user, NTIA manages its spectrum.
1726 So the Federal agencies each have their own missions to
1727 accomplish, and managing spectrum efficiently is not among
1728 those missions. NTIA has to balance its duty to ensure that
1729 Federal agencies can perform their missions with its duty of
1730 working with the FCC to enable new and innovative uses to
1731 enhance the U.S. economy. To perform this mission well, NTIA
1732 must remain the regulator, and be charged and bolstered as
1733 the agency that makes these difficult decisions.

1734 *Mr. Long. Okay, thank you.

1735 And I told you I was a fast talker, so Madam Chairwoman,
1736 I yield back 1 minute and 45 seconds.

1737 *Ms. Matsui. Thank you, Mr. Long. The chair now
1738 recognizes Miss Rice for five minutes to ask questions.

1739 *Miss Rice. Thank you so much, Madam Chair.

1740 And Ms. Gomez, I would like to continue along with Billy
1741 -- I am sorry, Representative Long's -- questions.

1742 I hear you on NTIA remaining the manager of all the
1743 spectrum. And what I have heard a lot about is ways that we
1744 can make that management more efficient. I would just like
1745 to go back a step. Can you tell us the ways that spectrum is
1746 being inefficiently used?

1747 You know, in order for us to make sure that we come up
1748 with ways to make sure that the management is as efficient as
1749 possible. And maybe give examples of either specific bands
1750 that have historically been under-used or that are ripest for
1751 re-purposing.

1752 *Ms. Gomez. Thank you for that question, Congresswoman.

1753 So NTIA actually has an interestingly efficient way of
1754 managing spectrum, in that it actually facilitates more
1755 sharing between Federal agencies than what you see in the
1756 FCC's licensing process, which tends to be more exclusive
1757 licensing. That can also create certain inefficiencies.

1758 For example, when NTIA approves systems that have
1759 similar product but they are utilizing different bands for
1760 those products for different reasons. This happens in, for
1761 example, the 1.0 gigahertz band, where you have FAA sensors,
1762 you have DoD, you have -- I believe it is NOAA that has --
1763 have similar uses, similar products that they utilize, but
1764 they are utilizing them in ways that really could be
1765 consolidated and, therefore, there could be more spectrum
1766 freed up. So that is one example of inefficiencies that
1767 could be addressed.

1768 *Miss Rice. And are we addressing them? Or how do we
1769 address them so that we make sure that these -- that this
1770 limited, finite universe that we have is managed most
1771 efficiently?

1772 *Ms. Gomez. Well, honestly, I think one of -- yes, of
1773 course, NTIA is constantly studying ways to make the uses
1774 more efficient. Giving them the tools to be able to upgrade
1775 their spectrum management systems, which are quite antiquated
1776 at this point, would be really helpful, increasing the
1777 transparency of Federal uses and, as I mentioned, increasing
1778 the incentives for Federal agencies to study their own
1779 systems and to find ways to move or re-purpose the ones that
1780 they have, so that we can free up additional spectrum for new
1781 uses.

1782 *Miss Rice. Well, that is -- thank you so much, Ms.
1783 Gomez, that is very helpful. I would like to turn to Dr.
1784 Valentin, if I can, for a second.

1785 Legislation like H.R. 4275 is important because it is
1786 going to help Congress understand why eligible -- and we have
1787 talked about this all morning -- but why eligible individuals
1788 end up enrolling, and more often why they don't enroll in
1789 Lifeline. While this bill is focused on Lifeline enrollment
1790 in SNAP-eligible individuals, it should offer important
1791 lessons for every agency and program that qualify a consumer
1792 for Lifeline.

1793 So, for instance, more than 10 percent of Lifeline
1794 beneficiaries are veterans, even though just 0.08 percent of
1795 participants -- that is 1 out of every 1,000 -- qualify for
1796 the program through their veteran's pension or survivor

1797 pension.

1798 So, Dr. Valentin, are there ways for the Department of
1799 Veterans Affairs and other relevant agencies to improve
1800 coordination and outreach around the Lifeline and ACP program
1801 so that more qualifying veterans are able to take full
1802 advantage of the program?

1803 *Dr. Valentin. Thank you so much for the question. You
1804 know, as the daughter of two veterans, the sibling of a
1805 veteran, I am really glad that you raised this because I
1806 think that veterans are often a group that is left out of
1807 these conversations when we are talking about the digital
1808 divide. And they make so many sacrifices for our country.

1809 And there is also folks who deal with kind of multiple
1810 levels of marginalization -- for example, you know, Black
1811 veterans. One-third of all veterans experiencing
1812 homelessness are Black veterans. And I do think that we need
1813 a whole-of-government approach to getting households enrolled
1814 in the Lifeline program, in the Affordability -- Affordable
1815 Connectivity Program, as well.

1816 And we need to make sure that, if someone signs up for a
1817 program, you know, at the VA, they sign up for a program at
1818 USDA, they are immediately notified about all the other
1819 programs that they are eligible for, including the Lifeline
1820 program, including the Affordable Connectivity Program.

1821 *Miss Rice. All right, that is good to know. Thank

1822 you.

1823 I just want to thank the witnesses so much, and thank
1824 Madam Chairwoman and the ranking member for bringing this
1825 hearing today. Thank you, and I yield back.

1826 *Ms. Matsui. Thank you. The gentlelady yields back.
1827 The chair now recognizes Mr. Walberg for five minutes to ask
1828 questions.

1829 [Pause.]

1830 *Ms. Matsui. Mr. Walberg? Can you -- Mr. Walberg, are
1831 you hearing us? We can't hear you.

1832 [Pause.]

1833 *Ms. Matsui. Okay, let's go on to somebody else.
1834 Schrader?

1835 *Voice. Long. Long, sorry, Long.

1836 *Ms. Matsui. No, Long is already done. Okay, the -- is
1837 Mr. Carter --

1838 *Mr. Walberg. Can you hear me now, Madam Chairwoman?

1839 *Ms. Matsui. Yes, I can.

1840 *Mr. Walberg. Sorry about that.

1841 *Ms. Matsui. Okay.

1842 *Mr. Walberg. Sometimes technology doesn't work in a
1843 tech committee, I guess.

1844 *Ms. Matsui. I understand.

1845 *Mr. Walberg. I thank the witnesses for being here
1846 today, and today's hearing touches on a number of extremely

1847 important bills for both consumers and businesses.

1848 But first I want to highlight the importance of H.R.
1849 7132, the Safe Connections Act. I join my colleagues,
1850 Representatives Eshoo and Kuster, as the lead Republican on
1851 this legislation because no one should ever have to make the
1852 choice between staying connected and staying safe.

1853 This partisan -- bipartisan bill allows survivors of
1854 domestic violence, stalking, and other harms to separate
1855 their phone line from any cell phone plan shared with their
1856 abuser without having to worry about financial penalties or
1857 other requirements. It also directs the FCC to examine
1858 further ways to support and protect survivors after they
1859 disconnect.

1860 Shared plans can be used by abusers to continue stalking
1861 or controlling their victims, and fees and arduous paperwork
1862 should not be another impediment to survivors getting to
1863 safety.

1864 I am extremely heartened by the broad support this
1865 legislation has had. The wire industry worked closely with
1866 domestic violence groups to come to an agreement that passed
1867 the Senate by unanimous consent. And I know that we, here in
1868 the House, can do the same.

1869 Dr. Kadri, your testimony outlines the patchwork of
1870 state laws that currently exist to address digital abuse and
1871 shared mobile service contracts. In what ways does the Safe

1872 Connections Act strengthen current laws to make gaining
1873 digital freedom easier for survivors?

1874 And also, what gaps still remain?

1875 *Dr. Kadri. Thank you, Congressman, for the question.
1876 The Safe Connections Act, I think, really sets a really solid
1877 foundation from which we can kind of expand protections for
1878 survivors. So it sets a really good base in making it
1879 easier, cheaper, and more accessible for survivors to be able
1880 to get out of family phone plans that do pose them the risks
1881 that I have discussed this morning.

1882 And then it also empowers the FCC, I think, to engage in
1883 some really wise and innovative rulemaking to try and provide
1884 further protection. So I think, for example, the provision
1885 in the bill that is before you that would have the FCC look
1886 into removing or concealing communications with domestic
1887 violence hotlines from phone bills would be of crucial
1888 importance to survivors as they try and safety plan, and get
1889 out of an abusive relationship.

1890 And similarly, the efforts to expand access to the
1891 Lifeline plan, as my fellow expert today, Dr. Valentin, has,
1892 I think, so compellingly told us, is just so essential in
1893 trying to close that digital divide.

1894 So I really commend those aspects of the bill.

1895 *Mr. Walberg. Thank you. Also, Dr. Kadri, the
1896 legislation tasks the Federal Communications Commission with

1897 determining which program, the Lifeline program or the
1898 Affordable Connectivity Program, is best suited to provide
1899 emergency communications support to survivors.

1900 Which of these programs, if I could ask, do you
1901 recommend for this purpose?

1902 *Dr. Kadri. Congressman, I can't say that I have a firm
1903 view either way on that one. I would sort of defer to the
1904 expertise somewhat of those, you know, within the FCC who
1905 really engage with those programs and, I think actually, some
1906 of the other legislation that is before your subcommittee
1907 today to try and gain a better understanding of how these
1908 programs are used or, unfortunately, more often not used by
1909 people, could be really important in trying to figure out
1910 which of the plans make the most sense.

1911 But I do think that providing that kind of support
1912 through one plan or the other would be of great importance to
1913 survivors.

1914 *Mr. Walberg. Thank you.

1915 While all of my questions have been asked about H.R.
1916 7783, I do want to applaud that legislation, the Extending
1917 America's Spectrum Auction Leadership Act. This short-term
1918 extension will ensure that we have an uninterrupted and well-
1919 coordinated spectrum pipeline. And it is key to the United
1920 States remaining leader in 5G deployment and beyond. And for
1921 that reason the continued efforts in this legislation need to

1922 be done, need to be carried out, and I certainly stand in
1923 strong support.

1924 With that, I yield back my remaining 38 seconds.

1925 *Ms. Matsui. Thank you. The gentleman yields back.
1926 The chair now recognizes Mr. Schrader for five minutes to ask
1927 questions.

1928 *Mr. Schrader. Thank you very much, Madam Chair. I
1929 appreciate the hearing we are having here today.

1930 Mr. Gibson, interference is a potentially huge hazard to
1931 the aviation industry, both military and civilian. I want to
1932 know what -- if you could speak to the issues about wireless
1933 interference, and what is the state of testing going on to
1934 make sure, with the spectrum availability auctions that are
1935 going on, that that would be minimized or, if at all
1936 possible, potentially eliminated.

1937 We have had discussions in this committee about
1938 interference for quite some time. And what are the
1939 standards, and how are they being allocated at this point in
1940 time?

1941 *Mr. Gibson. Well, that is an excellent question. And
1942 there is a lot of areas where that is pertinent.

1943 One of -- you may be thinking about is the interference
1944 situations with radar altimeters. I am not in the middle of
1945 that, and probably am not qualified to comment on that, other
1946 than knowing the issues as a pilot. And what I do know is

1947 there is a lot of work being done with key leadership and key
1948 engineers from the FAA, from the FCC, and with wireless
1949 carriers. And they are doing their level best to mitigate
1950 that.

1951 The new band that is being considered where there may be
1952 some aviation interests is the 3100 to 3450 megahertz band.
1953 In that band is AWACS operations.

1954 *Mr. Schrader. Yes.

1955 *Mr. Gibson. And so there is no -- at least from what
1956 we know about it -- and this information is -- some of this
1957 information is classified, and some of it is coming to us
1958 piecemeal -- the interference issues there are with respect
1959 to the onboard radars. So there is no safety of flight
1960 interference issues there in that band.

1961 And then there is just generally potentially
1962 interference issues with aviation in general. For example,
1963 like, potential for interference with navigation conditions.
1964 Like, for example, we are familiar with the issue that
1965 occurred years ago with potential interference with GPS. A
1966 lot of that stuff is being dealt with now in the context of
1967 studies that are being taken care of, both in the NTIA and
1968 the FCC.

1969 And for the most part, the only major issue that we are
1970 still facing right now with that is the one that is going on
1971 in the C-Band. And as far as I can tell, that is on the path

1972 to being resolved in time.

1973 *Mr. Schrader. A related question is, is there a
1974 timeframe within which -- it seems like, if we are doing all
1975 the spectrum auctions, it would be extremely important to
1976 have this issue resolved, at least for the near term, until
1977 we learn differently, based on the best knowledge at hand
1978 about, well, what interference potential there is.

1979 You know, Federal and non-Federal agencies, as well as
1980 military and civilian aviation, it seems like we ought to
1981 have this figured out before we go too far down the line
1982 going forward and, you know, realizing that our best efforts
1983 and knowledge at this point might change, but at least have a
1984 standard protocol that everyone should count on.

1985 *Mr. Gibson. That is an excellent point, Congressman,
1986 and with respect to the C-Band, that effort is ongoing. The
1987 auction happened.

1988 What I can tell you that is going on in the 3100 to 3450
1989 meg band, as you well know by the Acts and the legislation,
1990 that band won't be auctioned before, I think, early -- no
1991 earlier than November of 2024. And there is study going on
1992 as we speak. In fact, I was in a daylong meeting yesterday
1993 trying to better understand how the equities that are owned
1994 by the DoD in that band can better share with commercial
1995 operations.

1996 And our goal in that work is to establish better

1997 understanding of use cases, both from Federal, mostly DoD,
1998 and commercial use, and then try to effectuate solutions for
1999 sharing. And we all understand that the primary goal is to
2000 not have interference, especially with some of the DoD
2001 systems that are being dealt with, but also with commercial
2002 systems.

2003 *Mr. Schrader. Yes, obviously, important for our
2004 committee to have a hearing on this, bringing the FCC and
2005 NTIA in, and have a discussion about timeframes and working
2006 with civilian and other Federal agencies, and come up with a
2007 game plan. Otherwise, we may be ending up still studying
2008 things as these auctions transpire.

2009 I guess the last question regarding the -- and it was
2010 hinted at before, which is, you know, why extend the
2011 authority for only a short period of time. I understood the
2012 answer to be, well, we don't have any auctions coming up at
2013 this point in time.

2014 But I mean, it seems to me -- why are we not just
2015 extending the authority for the FCC to do these auctions
2016 indefinitely?

2017 They will take time, they are -- a great deal of work
2018 goes into studying the effects, and who is interested, who is
2019 not, what the potential problems might be. So why are we not
2020 at this point in time just giving this authority to the FCC
2021 so we don't have to revisit it every so many months and put

2022 it at danger?

2023 *Mr. Gibson. Well, I think Ms. Gomez made a very good
2024 point about that early on, but mostly it is related to, among
2025 other things, the fact that we don't have any spectrum
2026 auctions teed up in the near future -- certainly beyond the
2027 horizon for the 18 months.

2028 And also, I would note that the Commission is down a
2029 commissioner, and that some of the folks at some of the key
2030 bureaus there are acting. And so 18 months seems to be an
2031 appropriate timeframe, all those things considered.

2032 *Mr. Schrader. Very good, very good, and I yield back.
2033 Thank you, Madam Chair.

2034 *Ms. Matsui. Thank you. The gentleman has yielded
2035 back. The chair now recognizes Mr. Carter for five minutes
2036 to ask his questions.

2037 *Mr. Carter. Thank you, Madam Chair, and thank all of
2038 the witnesses for being here, a very important hearing.
2039 Very, very important, as you know.

2040 And I will start with you, Ms. Gomez. But as you know,
2041 I have introduced House Resolution 4990, which is simply to
2042 codify the Institute for Telecommunication Services. It also
2043 directs the Assistant Secretary of Commerce for
2044 Communications and Information to establish an initiative
2045 that will support the development of emergency communications
2046 and tracking technologies.

2047 But the main impetus of it is really for the Institute
2048 for Telecommunication Sciences, or ITS. As you know, it is
2049 NTIA's lab, and it is important for tests and research to
2050 solve the challenges that we have, the -- of the technical
2051 issues.

2052 Can you just -- Ms. Gomez, can you just please speak to
2053 the importance of ITS, and how this bill will strengthen it
2054 and the lab's important work?

2055 *Ms. Gomez. Yes, Congressman, thank you for that very
2056 good question.

2057 So NTIA has a very technical mission between spectrum
2058 management, supporting technical decision-making, and
2059 supporting spectrum being transitioned for commercial uses.

2060 ITS conducts the studies to enable sharing, for example.
2061 What they are doing day to day is supporting NTIA's efforts
2062 to make decisions about how to manage spectrum more
2063 efficiently, and how to avoid interference while supporting
2064 agency missions. This includes conducting interference
2065 studies for FCC actions that affects Federal users.

2066 So their work is very important in both supporting
2067 existing spectrum uses and ensuring that they are in an
2068 interference -- or a harmful interference-free environment,
2069 but also for finding new and innovative ways to use spectrum
2070 and enabling decision-making that allows that.

2071 *Mr. Carter. Great, great. Well, I had asked Secretary

2072 Davidson earlier this year, and I will ask you the same
2073 thing: What role do you think ITS will play in improving
2074 NTIA's interagency spectrum coordination mission?

2075 *Ms. Gomez. Thank you for that question. ITS plays
2076 such an important role, because what ITS gives us is the
2077 engineering basis for these discussions and their decisions.
2078 They are the ones that provide the proof of how things are
2079 going to work.

2080 So it is very important for these discussions so we
2081 don't just rely on, you know, generalized discussions or
2082 hyperbole; we actually have what we would call a science-
2083 based conversation about how to utilize spectrum.

2084 *Mr. Carter. Well, let me ask you this. It is
2085 obviously critical to ensure that the FCC continues to have
2086 the ability to auction spectrum. We all agree on that.

2087 But you note in your testimony that there is a need for
2088 better spectrum coordination. What -- based on your
2089 experience at NTIA, I am curious, what do we need to be doing
2090 to ensure the longstanding interagency spectrum process
2091 works?

2092 *Ms. Gomez. Thank you for that question. I think the
2093 most important thing that we need to be doing is recognizing
2094 NTIA's statutory role as the manager of Federal spectrum.

2095 What we have seen is, if Federal agencies or also
2096 private parties are unhappy with a decision that has been

2097 made, then utilize outside of the NTIA and the FCC
2098 coordination process in order to continue to litigate some of
2099 the issues. And that is just not healthy to have a strong
2100 spectrum management process. So bolstering NTIA's position
2101 is important. The White House needs to strongly support
2102 NTIA, and to reinforce its role as the Federal spectrum
2103 manager.

2104 If I can also put in a plug, if Congress would see fit
2105 to elevating the assistant secretary to an under secretary at
2106 the Department of Commerce, it would greatly help with his
2107 position -- his or her in the future -- in its negotiations
2108 with high-level representatives from other agencies.

2109 *Mr. Carter. How do you think it -- why would it help
2110 if he -- to be elevated?

2111 *Ms. Gomez. You know, it is amazing how protocol
2112 sometimes falls into play with these types of negotiations.
2113 If you have an assistant secretary sitting in a room with the
2114 deputy secretary of DoD, there are times when perhaps the
2115 staff may be unwilling to allow that kind of negotiation to
2116 happen. And yet it has happened in the past. Past NTIA
2117 heads have sat down with the deputy secretary of defense in
2118 order to talk about re-purposing spectrum and management of
2119 spectrum, generally.

2120 So it is just a protocol issue, but it definitely helps.
2121 Much like having an ambassador status helps in the

2122 international negotiation process, having an under secretary
2123 status helps in the domestic negotiation process.

2124 *Mr. Carter. Okay, okay. Well, thank you.

2125 And I yield back, Madam Chair.

2126 *Ms. Matsui. Thank you very much. Now the chair
2127 recognizes -- let's see -- Mr. Cardenas for five minutes to
2128 ask questions.

2129 *Mr. Cardenas. Thank you very much, Madam Chairwoman
2130 and Ranking Member, for holding this hearing, and to all the
2131 witnesses for your testimony and your expertise and your
2132 opinions on the matters today.

2133 We know more than ever that broadband must be more
2134 accessible for all Americans to succeed. About 38 million
2135 people in the United States benefited from the Supplemental
2136 Nutrition Assistance Program, also known as SNAP, in 2019.
2137 This is about 12 percent of our total U.S. population.

2138 We also know that too many eligible people don't know
2139 that the FCC's Lifeline program exists. SNAP recipients, for
2140 example, automatically qualify for the Lifeline program,
2141 which offers discounted phone and internet service. More
2142 than 33 million households are eligible to receive Lifeline
2143 support, yet only 1 in 4 of those households in the United
2144 States actually takes advantage of it.

2145 This question is to Dr. Valentin. How does the FCC's
2146 Lifeline program, among other Federal programs, help close

2147 the digital divide?

2148 And what can the Federal Government do to improve
2149 outreach efforts for programs like this one that promote
2150 access to low-cost broadband service, and to help increase
2151 participation rates and public awareness in all communities,
2152 including under-served communities and rural America?

2153 *Dr. Valentin. Thank you so much for the question. You
2154 know, affordability is often cited as the biggest barrier
2155 that is preventing communities from adopting broadband. And
2156 both the Lifeline program, as well as the Affordable
2157 Connectivity Program, are the strongest tools that we have to
2158 help bridge that affordability gap by lowering the cost of
2159 monthly broadband services for millions of households.

2160 As you stated, both of these programs are very, very
2161 under-subscribed. I think that public-private partnerships
2162 are really important. As we saw a few weeks ago at the White
2163 House, their recent event where they announced industry
2164 commitments to ACP, it helped increase dramatically the
2165 awareness around that program.

2166 And also, we have to make sure that we are prioritizing
2167 the funding of trusted organizations that are working on the
2168 ground to reach communities where they are.

2169 *Mr. Cardenas. Thank you. And also thank you for
2170 earlier reminding us how important it is that we try to reach
2171 out and support our veterans because of the

2172 disproportionality of veterans who aren't connected to the
2173 internet, and also the disproportionality of veterans who
2174 actually are homeless.

2175 The Lifeline program has helped millions of people
2176 connect to vital tools and stay digitally connected. The
2177 bill introduced by my colleagues, Representatives Luria and
2178 Katko, H.R. 4275, Ensuring Phone and Internet Access for SNAP
2179 Recipients Act of 2021, would help lower the cost of phone
2180 and internet access for families that benefit from the SNAP
2181 program. I commend my colleagues who are working on this
2182 issue, and I look forward to working with them and the
2183 chairman to ensure that all American families have the vital
2184 resources that they deserve to be at -- to have access, and
2185 afford phone and internet services, and stay digitally
2186 connected.

2187 When it comes to WiFi and extending spectrum auction
2188 authority, I am glad that today's legislative hearing also
2189 includes the discussion of H.R. 7783, the Extending America's
2190 Spectrum Auction Leadership of 2022, introduced by my fellow
2191 colleagues, Representatives Davids, Welch, Joyce, and
2192 Johnson. Congress must act now to ensure wireless operators
2193 have a continuing supply of the spectrum they need to keep
2194 the United States at the forefront of global 5G investment
2195 and innovation.

2196 Ms. Gomez, never has the value of WiFi been more

2197 apparent than during the COVID-19 pandemic. And even though
2198 spectrum auctions raised funds directly for the U.S.
2199 Treasury, how can Congress better account for the vast
2200 economic and societal benefits offered by unlicensed spectrum
2201 when identifying spectrum bands for commercial use?

2202 *Ms. Gomez. Hi, Congressman, thank you so much for that
2203 question. It is a very good question.

2204 You know, I would refer you to the letter that
2205 Chairwoman Rosenworcel wrote to the leaders of the Commerce
2206 Committees, both in the Senate and the House, where she talks
2207 about how to value unlicensed spectrum, which is used for
2208 WiFi, in order to demonstrate or to take into account the
2209 tremendous economic value that unlicensed has given to our
2210 economy as it conducts its analyses of spectrum bills. It
2211 only does so for auction spectrum. But the fact is the
2212 downstream effects of unlicensed spectrum are tremendous for
2213 our economy. So looking at ways to do that would be very
2214 helpful.

2215 *Mr. Cardenas. Yes, thank you very much.

2216 And once again, we have some incredibly talented
2217 commissioners. And Chairwoman Rosenworcel I have known for
2218 many years, and has been working really hard on this issue,
2219 and trying to be as innovative as possible, and is incredibly
2220 accessible to constituents like mine across the country.

2221 So with that, Madam Chairwoman, I want to -- I will

2222 yield back. Thank you so much.

2223 *Ms. Matsui. The gentleman yields back. The chair now
2224 recognizes Ms. Kelly for five minutes to ask questions.

2225 *Ms. Kelly. Thank you, Madam Chair.

2226 Dr. Kadri, you mentioned in your testimony how corporate
2227 programs meant to help abuse victims are often so poorly
2228 advertised that victims are highly unlikely to even know they
2229 exist. Other times, the process of leaving a family plan can
2230 be complex, burdensome, and risky.

2231 Beyond what is required in the Safe Connection Act, are
2232 there are other things wireless service providers can do to
2233 help make it easier for victims to leave a family plan?

2234 *Dr. Kadri. Thank you, Congressman, for the question.
2235 Certainly, there are.

2236 One thing that springs to mind is that the phone
2237 providers could allow survivors to leave family plans based
2238 solely on a survivor's own sworn attestation of abuse. Now,
2239 although, right, the Safe Communications -- sorry, Safe
2240 Connections Act requires third-party documentation, there is
2241 no reason why companies couldn't allow people to leave family
2242 plans based on their own affidavit. And so I think that is
2243 one thing that they could do.

2244 They could also certainly do more to warn account
2245 holders about the potential risks from family phone plans.
2246 And indeed, I think an earlier version of this bill had a

2247 provision in there that required adults of 18 years or older
2248 to sort of opt in to any of these monitoring features on a
2249 family plan, such as the location information that could be
2250 shared. And although that is no longer in the bill, I see no
2251 reason why phone companies couldn't do that, and why they
2252 shouldn't do that. I firmly believe that they should.

2253 So those are just a couple of ideas of what they could
2254 do on their own sort of volition.

2255 *Ms. Kelly. Thank you so much.

2256 As many of my colleagues are aware, representation of
2257 Big Tech for women and minorities is abysmal. There is only
2258 1 woman to every 3.76 men employed at the Big Five tech
2259 companies: Amazon, Facebook, Apple, Google, and Microsoft.
2260 Racial diversity is also a major concern, with an estimated
2261 77.1 percent of venture-backed startup founders being White,
2262 and only 1.8 percent [inaudible] Black. Those numbers do not
2263 bode well for creating teams equipped to empathize with
2264 victims of digital abuse who are overwhelmingly women, racial
2265 minorities, and sexual minorities.

2266 Dr. Kadri, can you discuss how lack of representation in
2267 the tech industry can further harm survivors, and what steps
2268 companies can take to do more to protect women, racial
2269 minorities, and sexual minorities?

2270 *Dr. Kadri. Certainly, Congresswoman. It is an
2271 excellent question and a really important issue.

2272 I think, you know, not only must these companies engage
2273 actively with questions of diversity in hiring, as one of the
2274 other experts earlier mentioned --

2275 [Audio malfunction.]

2276 *Dr. Kadri. -- actually kind of listening to survivors'
2277 stories and experiences, and stopping treating them as kind
2278 of aberrant or rare or unusual is crucial. Even the language
2279 that gets used in the tech industry of kind of these
2280 situations being treated as "edge cases" is really
2281 problematic, I think. They aren't edge cases. They should
2282 be seen as stress cases. And here I am drawing on work by
2283 Sara Wachter-Boettcher, who has talked about this in her
2284 work.

2285 And so I think even that kind of terminology is
2286 important.

2287 *Ms. Kelly. Thank you.

2288 The Lifeline program is very under-utilized, with a
2289 participation rate that hovers at about 19 percent, or 6.5
2290 million households, despite estimates that more than 34
2291 million households are eligible. Dr. Valentin, can you
2292 discuss the disproportional effects this has on low-income
2293 individuals, women, and people of color, and how we can work
2294 to reach those who will benefit most from the program?

2295 *Dr. Valentin. Yes. Thank you so much for the
2296 question.

2297 So, yes, when we are talking about folks who aren't
2298 connected, we are talking about our most vulnerable
2299 populations, which includes domestic violence survivors, it
2300 includes people who are experiencing homelessness, people of
2301 color who are disproportionately in lower-wage jobs. And so
2302 the lack of connectivity impacts one's ability to have access
2303 to health care, impacts one's ability to have access to
2304 government services that are online, and even impacts one's
2305 ability to stay connected to family and friends.

2306 But it can't be underscored enough that this is also
2307 about an economic opportunity gap. We are leaving these
2308 groups behind and -- within the tech ecosystem and -- when we
2309 are not connecting them to broadband and all the
2310 opportunities that are associated with broadband.

2311 So we have to be able to lean on groups that have
2312 connections in the communities, fund these groups so that
2313 they can fund their outreach efforts, and there also needs to
2314 be more outreach efforts going on on the Federal level, as
2315 well.

2316 *Ms. Kelly. Thank you so very much.

2317 I am out of time, so I yield back. Thank you.

2318 *Ms. Matsui. The gentlelady's time has expired. Thank
2319 you, yield back.

2320 The chair now recognizes Mr. Veasey for five minutes to
2321 ask questions.

2322 *Mr. Veasey. Thank you, Madam Chair. I think it is
2323 great that we are holding this hearing, and for the witnesses
2324 being here today. I think today's hearing reflects the
2325 deliberate and bipartisan work that the committee has been
2326 able to accomplish to help connect millions in urban and
2327 rural America, and ensure we maintain a robust
2328 telecommunications infrastructure, and especially in areas
2329 like that I represent here in the Dallas-Fort Worth area, and
2330 every part of the country. It is just -- it is good that we
2331 are having this discussion.

2332 Dr. Valentin, first of all, I want to say
2333 congratulations on your recent transition to the National
2334 Urban League. And my first question deals with the FCC's
2335 Lifeline program and H.R. 4275, the Ensuring Phone and
2336 Internet Access for SNAP Recipients that was introduced by my
2337 colleagues Luria and Katko.

2338 As you know, the legislation will require the FCC to
2339 submit reports on enrollment in the Lifeline program by those
2340 participating in SNAP. According to the USAC in Texas, there
2341 are approximately 2.7 million Lifeline-eligible households,
2342 yet only about 280,000 are subscribed, which is a 10 percent
2343 participation rate in the program. That is also much lower
2344 than the national average participation rate, which is around
2345 that 20 percent, 19 percent or so.

2346 In your written questions you suggested that the

2347 requirements of H.R. 4275 should also be extended beyond
2348 Lifeline to include the ACP, which is the long-term version
2349 of the emergency broadband benefit program that I helped
2350 introduce at the beginning of the pandemic.

2351 Can you explain the benefits of extending the
2352 requirements of this bill to go beyond the Lifeline program
2353 to also include a report on enrollment in the Affordable
2354 Connectivity Program by SNAP recipients?

2355 *Dr. Valentin. Yes, thank you so much for the question,
2356 and thank you for your leadership on the Affordable
2357 Connectivity Program, as well.

2358 So I would kind of answer this question by saying that,
2359 you know, we need both the Lifeline program, as well as the
2360 Affordable Connectivity Program. As you know, when you are
2361 applying these benefits, you can only apply it to either
2362 mobile services or your wireline services. And there are
2363 households across the country that need both.

2364 Therefore, we need to understand the data from both of
2365 those programs. And hopefully, it will also help us
2366 understand if, for example, the Lifeline subsidy needs to
2367 increase, and how we can better coordinate the programs, as
2368 well.

2369 *Mr. Veasey. Dr. Valentin, you also talked in your
2370 opening statement about the National Urban League's support
2371 for spectrum auction winners to hire from under-represented

2372 communities beyond entry level positions, and to increase
2373 supplier diversity.

2374 And as you know, many of these auction winners have also
2375 made commitments to incorporate racial equity initiatives
2376 into their businesses. Do you think these winners are
2377 delivering on their promises?

2378 *Dr. Valentin. I think that we can always do better,
2379 honestly. And I think that it is -- this is something that
2380 National Urban League has been working on for years. But the
2381 more that we can integrate equity and inclusion into
2382 companies, the better. And it goes across the board, from
2383 the workers who are entering the field, to the C-suite, to
2384 what -- the community investments are of these companies.

2385 *Mr. Veasey. And I know that sometimes, you know,
2386 people will say, well, it is better for Congress to stay on
2387 the sidelines and let the private sector work all this out,
2388 or, "We need some help from Congress.'" Do you think that
2389 there is anything that Congress can do to incentivize auction
2390 winners to hire, retain, and promote under-represented
2391 groups?

2392 *Dr. Valentin. Yes. You know, I think, you know, any
2393 legislation that you all introduce in this space would
2394 definitely be welcomed because, again, we need to make sure
2395 that all communities are benefiting from this booming
2396 ecosystem.

2397 *Mr. Veasey. Yes, yes. No, absolutely.

2398 And with that, Madam Chairman, I will yield back. But
2399 thank you to the panelists. I thought that this was a very
2400 useful topic today. Thank you, Madam Chair, I yield back.

2401 *Ms. Matsui. The gentleman yields back. The chair now
2402 recognizes Ms. Clarke for five minutes to ask questions.

2403 *Ms. Clarke. And thank you very much, Madam Chair, for
2404 convening this very important hearing. And thank you to our
2405 panelist [sic] of witnesses for your expert testimony.

2406 Increased and targeted outreach efforts are necessary
2407 for all eligible families to take advantage of programs like
2408 the Lifeline program. H.R. 4275, the Ensuring Phone and
2409 Internet Access for SNAP Recipients Act of 2021, requires the
2410 FCC to submit reports on the effectiveness of various
2411 Lifeline program advertising efforts.

2412 Dr. Valentin, could you elaborate on how these reports
2413 could assist in increasing the utilization of the Lifeline
2414 program among SNAP recipients?

2415 *Dr. Valentin. Yes. You know, we really just need to
2416 know, like, where the gaps persist.

2417 And I would say that something -- as it relates to, you
2418 know, outreach efforts that we can sort of lean on, and
2419 something National Urban League talked about in recent
2420 comments to the FCC, you know, the CDC had a program, the
2421 Partnering for Vaccine Equity Grant Program, and that is a

2422 model that the FCC could use.

2423 As a CDC grantee, National Urban League, in conjunction
2424 with our amazing affiliates, about 35 of our affiliates, we
2425 were able to train 76,000 trusted messengers. We were able
2426 to establish 400 partnerships, open 270 non-traditional
2427 vaccination sites, and do about 1,000 events. And we were
2428 able to then reach about 32 million people with our efforts.
2429 If we are able to kind of, like, copy those efforts for the
2430 Affordable Connectivity Program, that would be amazing.

2431 But again, in order to do these things, we have to have
2432 funding to do so.

2433 *Ms. Clarke. Got it, got it.

2434 Ms. Gomez, the FCC's spectrum auction authority is set
2435 to expire in September of this year. Proceeds from the
2436 spectrum auctions have been used to fund key initiatives like
2437 the first responder network authority. By extending the
2438 FCC's spectrum auction authority to March 31st, 2024, as
2439 stipulated in H.R. 7783, the Extending America's Spectrum
2440 Auction Leadership Act of 2022, would you opine a bit on
2441 other essential programs that could be funded through auction
2442 proceeds?

2443 *Ms. Gomez. Thank you, Congresswoman. So I don't
2444 advocate for any particular programs, but I will list the
2445 ones that I have heard advocated that I -- that all sound
2446 terrific.

2447 So in no order of priority, you know, Chairwoman
2448 Rosenworcel has supported utilizing spectrum auction proceeds
2449 to fund next generation 911, which is largely overdue, and I
2450 think would be a great use of the program.

2451 I have also heard that support for funding digital
2452 equity programs, such as what Dr. Valentin was talking about,
2453 to continue our desire to get as much uptake as possible of
2454 broadband so everyone can benefit from the information
2455 economy.

2456 I have also heard that perhaps it could be utilized to
2457 continue the rip and replace efforts to replace Chinese-
2458 manufactured equipment with non-Chinese, something more
2459 secure.

2460 Those are the three that I have heard. And so let's
2461 just call those illustrative.

2462 *Ms. Clarke. Thank you, I appreciate it. H.R. 7132,
2463 the Safe Connections Act of 2022, requires service providers
2464 to provide information for survivors seeking to separate from
2465 a shared mobile service contract on their website, in
2466 physical locations, and other forms of consumer
2467 communication.

2468 Dr. Kadri, in your testimony you indicated that some
2469 providers are voluntarily offering similar programs to help
2470 survivors of digital abuse, but the programs are not well
2471 advertised, so the survivors are not aware of these

2472 resources. Would it -- wouldn't it be unlikely for a
2473 survivor to find this information via a provider's website or
2474 physical store, if they are not the primary account holder,
2475 especially if the information is not prominently displayed?

2476 And if so, in that case, what would additional outreach
2477 efforts look like to reach as many survivors as possible
2478 through this legislation?

2479 *Dr. Kadri. Thank you, Congresswoman. It is an
2480 excellent point, and that is certainly part of the concern,
2481 although I will note it is usually possible even for
2482 secondary account holders to engage with phone companies,
2483 whether that is in person or online.

2484 And so I think the main concern driving the legislation
2485 is the sort of type of monitoring that these plans enable.
2486 But that said, having conspicuous information available is --
2487 you know, it is only going to be one part of it. It is not a
2488 panacea. And so I agree that many people will be in
2489 conditions where they, frankly, won't be able to even make
2490 use of some of the protections in this bill unless it is
2491 supplemented with other efforts.

2492 And so, in terms of additional outreach, I think it is
2493 important to educate folks on the front lines, kind of, of
2494 intimate partner violence about the dangers posed by
2495 technology. That is an important start. And we do some of
2496 that work at CETA, and there are other great groups doing

2497 this. But I think, if people don't know about the legal
2498 protections that exist that are designed to help them, then
2499 they simply won't use them.

2500 *Ms. Clarke. I thank you.

2501 And Madam Chair, I yield back. Thank you.

2502 [Pause.]

2503 *Ms. Clarke. Madam Chair, unmute yourself.

2504 *Ms. Matsui. Thank you. The gentlelady yields back.

2505 The chair now recognizes Mr. McEachin for five minutes to ask
2506 questions.

2507 *Mr. McEachin. Thank you, Madam Chair.

2508 Dr. Valentin, you know, one of the accomplishments that
2509 we have made during this Congress -- and I was proud to be
2510 part of it -- was to establish the Affordable Connectivity
2511 Program as part of the Bipartisan Infrastructure Plan. And
2512 as you know, that helps qualifying households pay for
2513 internet service and buy devices that can access the
2514 internet.

2515 How can we, as Members of Congress, help our
2516 constituents know more about programs like this one?

2517 *Dr. Valentin. Thank you so much for the question. You
2518 know, the first piece of advice I guess I would give Members
2519 of Congress is to partner with the National Urban League and
2520 our local affiliates to get the word out about ACP, also
2521 partnering with small businesses, particularly those that are

2522 owned by people of color, because they are trusted in local
2523 communities.

2524 And also, we can't underestimate the power of paid
2525 media, particularly through media organizations that are
2526 owned by people of color.

2527 And what I would also add, again, to Members of
2528 Congress, an ask is to make sure that you are allocating
2529 funds for outreach organizations that are known and trusted
2530 in the communities.

2531 And also, you know, lean on the resources at the Federal
2532 Communications Commission. They are doing a great job with
2533 outreach, and they have had hundreds of events at this point
2534 in time, and know that they are always accepting speaker
2535 requests.

2536 *Mr. McEachin. And I thank you for that answer. You
2537 mentioned in your testimony that proceeds from spectrum
2538 auctions could be used to fund digital equity efforts. What
2539 kind of digital equity efforts could be funded, in your
2540 judgment?

2541 *Dr. Valentin. Yes. So I think that, when we are
2542 thinking about digital equity, it must be thought of broadly,
2543 and it must include affordability. We have to find a way to
2544 sustain a meaningful affordability program for low-income
2545 consumers.

2546 And one idea that has been out there is the use of

2547 spectrum funds.

2548 But we are also going to need funds for devices. You
2549 know, through the Affordable Connectivity Program you get a
2550 one-time discount on a device. But what happens when your
2551 device breaks, or what happens when it is outdated and it can
2552 no longer run, you know, new software?

2553 And also, I would say we can use these funds to help
2554 upskill and reskill workers, particularly workers of color,
2555 for the jobs of tomorrow, so that they can reap the benefits
2556 of the digital economy.

2557 *Mr. McEachin. Thank you very much.

2558 Dr. Kadri, I would like to turn to you. And, of course,
2559 in your testimony, sir, you left us with some very
2560 interesting thoughts about -- that family phone plans can
2561 pose, actually, challenges to victims of abuse.

2562 We don't have a lot of time left, so let me just ask you
2563 this question. Once a victim is able to leave a family phone
2564 plan, and that victim doesn't really have control of their
2565 own financial resources, how will affordability programs like
2566 Lifeline help victims who do not have, again, control of
2567 their own finances?

2568 *Dr. Kadri. Thank you, Congressman. It is a very
2569 important issue, as well.

2570 You know, as I said in my testimony, victims really rely
2571 on communications technologies as a lifeline. Right? I

2572 think that is why the Lifeline program is called what it is.
2573 And so, you know, interpersonal abuse doesn't have this fixed
2574 expiration date. There is no neat line in the sand after a
2575 victim leaves and the violence, you know, just suddenly ends.

2576 And so I think kind of thinking about ways that these
2577 programs can help support in a more enduring way is just
2578 crucially important. You know, especially now, given our
2579 increasing reliance on technology in the wake of the
2580 pandemic, this is something that is only going to become more
2581 important, I think.

2582 *Mr. McEachin. Thank you for that. In the very long
2583 minute and six seconds that we have left, can you sort of
2584 summarize some of the ways that family plans are challenging
2585 and can pose dangers to victims of abuse?

2586 *Dr. Kadri. Absolutely. If I may, maybe I will just
2587 use that time to share a very quick story from our work at
2588 CETA, which I think is illustrative, and brings the point
2589 home.

2590 You know, we had one client who became concerned that
2591 their partner was able to kind of routinely find out where
2592 they were, and know who they were communicating with. And
2593 they were on a family phone plan together. And she
2594 eventually tried to leave the phone -- you know, the phone
2595 plan by calling the phone company. And the company told her
2596 that there was another account holder who they needed to

2597 contact, and then suddenly, without informing the client,
2598 dialed the abuser in to a three-way conference line. And not
2599 only did the abuser refuse permission to allow her to leave
2600 the plan, this was obviously a deeply traumatic incident.

2601 And so, even later, when the client was informed about a
2602 state law that could have allowed them to leave the family
2603 plan even without his permission, she just declined to move
2604 forward because she was so scarred by that experience. And
2605 so experiences like that are -- you know, are what I think we
2606 should be trying to avoid through this law.

2607 *Mr. McEachin. I thank you. I thank the witnesses.
2608 And Madam Chair, I yield back.

2609 *Ms. Matsui. The gentleman yields back. And let me
2610 see. The chair now recognizes Mrs. Fletcher for five minutes
2611 to ask questions.

2612 *Mrs. Fletcher. Thank you so much, Chairwoman Matsui
2613 and Ranking Member Latta, for having this hearing today on
2614 strengthening our communications networks. It has been a
2615 very important and interesting hearing, and I want to thank
2616 all of our witnesses for testifying before us today.

2617 As many of our colleagues and our witnesses have noted
2618 today, broadband networks and digital technologies are
2619 essential parts of our daily lives. At the same time,
2620 because these technologies are so connected to our lives,
2621 they can also be used as methods of surveillance and control

2622 for those in unsafe situations. And like many of my
2623 colleagues, I am deeply concerned about what we have seen,
2624 especially recently, about the use of technology to track
2625 individuals, and even the ability for others to buy that
2626 data.

2627 That issue, some of the app tracking issues that we are
2628 talking about so much lately, are not really before us in
2629 this hearing. But I do think that they are connected to the
2630 larger issues of privacy and safety in the legislation that
2631 we are discussing today, especially in the Safe Connections
2632 Act.

2633 And I see Representative Kuster has joined us, who is,
2634 of course, the sponsor of that bill, as well as Chairwoman
2635 Eshoo. This is a really important bill for supporting
2636 survivors of domestic abuse and assisting them in cutting
2637 these digital and physical ties with their abusers, as so
2638 many of my colleagues have mentioned, as our witnesses have
2639 mentioned, and Dr. Kadri, as the story that you just shared
2640 really illustrates.

2641 And I know in my home state of Texas, 40 percent of
2642 women and 35 percent of men experience intimate partner
2643 violence, rape, or stalking in their lifetimes. And as we
2644 have heard, this bill will help them disentangle their lives
2645 from abusers by allowing them to separate their phone lines
2646 without penalties or burdensome requirements as they try to

2647 get off of these family plans.

2648 So I want to follow up on some of these questions. In
2649 particular, Dr. Kadri, you mentioned in your testimony that
2650 the National Domestic Violence Hotline saw a 155 percent
2651 increase in digital abuse in a 3-year period, even as rates
2652 of other forms of abuse remained fairly constant. So I want
2653 to ask a couple of things. Based on your research, are there
2654 any explanations or theories that are available as to why
2655 that may be the case?

2656 And connected to that, do you anticipate that the rise
2657 in digital abuse will continue as digital technologies become
2658 even more interwoven in our daily lives?

2659 *Dr. Kadri. Thank you, Congressman. Absolutely.

2660 I mean, I think, you know, part of it is a story about
2661 how we are relying on technology more. But it really does go
2662 beyond that. And I think this really gets to your point
2663 earlier, that it is the type of technology that we are using
2664 that matters.

2665 And so many of the digital technologies that are so
2666 prevalent these days fundamentally prioritize extracting as
2667 much data as possible from us. And this alone can create all
2668 sorts of risks, as we see with family phone plans and many
2669 other forms of technology that are used to perpetrate abuse
2670 nowadays. And so I think that, you know, that is certainly
2671 one part of the story.

2672 Another is that this technology often allows people to
2673 perpetrate harm from afar, often with relative anonymity and
2674 secrecy. And so proving who is behind it can be really
2675 difficult.

2676 And the other thing I would say is I think the
2677 trivialization of digital abuse is really an important part
2678 of this story. It is less likely to be taken seriously. It
2679 is less likely to -- people will identify it as abuse, less
2680 likely they may speak up. And of course, that can cut both
2681 ways. It might mean that the statistics are misleadingly low
2682 because people are actually under-reporting. But maybe also
2683 part of the rise is being fueled by people feeling like they
2684 can get away with this, and that it is not so serious.

2685 And so, I mean, I don't want to paint too pessimistic a
2686 picture, but you asked whether I think it is sort of
2687 inevitable that it will keep rising because of how interwoven
2688 tech is with our lives, and in some ways I do, but, you know,
2689 with the important caveat that that doesn't mean that I think
2690 that kind of pragmatism or realism means that we should just
2691 give up. And to the contrary, I think we need to be thinking
2692 creatively and empathetically to try and come up with ways to
2693 mitigate and address this kind of abuse.

2694 *Mrs. Fletcher. Well, thank you so much. That is
2695 incredibly helpful. And I have a limited amount of time
2696 left. So what I would love to ask you as a follow-up -- and

2697 maybe all of our witnesses to weigh in in writing following
2698 the hearing -- is what kind of other issues of privacy and
2699 safety that you have identified in your work that our
2700 committee and the Congress should be looking at to ensure the
2701 safety and protection for users.

2702 Obviously, we have got some great bills in front of us
2703 today, but this is one of many steps. And as you mentioned,
2704 there are a lot of things that we can and should be looking
2705 at. I would love it if you and any of our other witnesses
2706 who have joined us today want to share those thoughts for the
2707 record, and submit that testimony in writing.

2708 [The information follows:]

2709

2710 *****COMMITTEE INSERT*****

2711

2712 *Mrs. Fletcher. I only have a few seconds left, so I
2713 just want to thank you all for your time and your work.

2714 And thank you, Chairwoman Matsui, again, for convening
2715 the hearing, and I will yield back.

2716 *Ms. Matsui. Thank you. The gentlelady yields back.
2717 The chair now recognizes Mr. Joyce for five minutes to ask
2718 questions.

2719 *Mr. Joyce. Thank you, Chair Matsui and Ranking Member
2720 Latta, for allowing me to waive on to today's Communications
2721 and Technology Subcommittee hearing, and thank you to all the
2722 witnesses for testifying.

2723 Spectrum is vital for bridging the digital divide in my
2724 district, as well as across the entirety of the United
2725 States. Last week I helped introduce with my colleagues H.R.
2726 7783, Extending America's Spectrum Auction Leadership Act of
2727 2022, to extend the FCC's general spectrum auction authority
2728 by 18 months. By extending the FCC's authority, it allows
2729 for more opportunity to help rural Americans seek the
2730 connectivity that right now they so desperately need.

2731 As we have seen during this pandemic, more and more
2732 people are working, learning, and healing from home. And
2733 that requires additional broadband support. Congress must
2734 continue to show leadership on spectrum policy, and I implore
2735 my colleagues for the swift passage of H.R. 7783.

2736 My first question is for you, Ms. Gomez. Assuming

2737 auction authority is extended, what additional policy reforms
2738 can be made to spectrum auction rules to promote
2739 international competitiveness, maximize spectrum use
2740 efficiency, and foster the rapid deployment of next
2741 generation technologies?

2742 *Ms. Gomez. Thank you very much for that question. And
2743 I certainly agree with you that the spectrum auctions are
2744 important to ensure the rapid deployment of services to all
2745 areas, including rural areas.

2746 In terms of other changes, statutory changes that could
2747 be made to advance spectrum management, there are a few
2748 things that I would recommend. One is kind of practical.

2749 Right now the FCC and NTIA have fantastic engineering --
2750 engineers, but it is a very difficult field to hire in
2751 because, honestly, the private sector keeps stealing all
2752 their good engineers, and can lure them away with much better
2753 benefits and -- not benefits, but much better salaries. So
2754 one thing that could be done is to give authority to NTIA and
2755 to the FCC to actually hire at higher market rates, similar
2756 to what the SEC was able to do back in the 2000s. It is just
2757 practical, like I said, but it would help a lot to be able to
2758 have those engineering resources on staff, to be able to
2759 quickly act to conduct the engineering studies.

2760 Continuing to support ITS is important, as well, and
2761 continuing to support research and development to continue

2762 both the FCC -- sorry, the U.S. Government participation and
2763 policy standards bodies, as well as to support industry
2764 representation in the engineering standards bodies would also
2765 be important.

2766 *Mr. Joyce. Thank you for that insight.

2767 Mr. Gibson, again, assuming that the auction authority
2768 is extended, what specific policy reforms would you recommend
2769 to promote the competitiveness, the maximizing spectrum use
2770 efficiency, and to foster rapid employment?

2771 *Mr. Gibson. Well, thank you for the question. That is
2772 excellent.

2773 And in addition to what Ms. Gomez has said, I -- one
2774 thing I would suggest is promote stronger collaboration
2775 between Federal and commercial users. Right now what happens
2776 -- and actually, we have begun down that path a little bit
2777 even now. I mentioned -- you may have missed this, but I
2778 mentioned meetings I have been in to deal with sharing issues
2779 and the 3100 to 3450 megahertz band.

2780 What seems to be happening is we have moved more toward
2781 allowing some collaboration. But I think officializing it,
2782 and taking advantage -- what Ms. Gomez said is absolutely
2783 true, and we have seen that across the Federal space.
2784 Obviously, you know, better compensation for Federal experts,
2785 but also taking advantage of experts in commercial, and
2786 collaborating more, and trying to provide a collaboration

2787 framework that allows collaboration without possible
2788 conflicts of interest. That might be threading the needle a
2789 little bit complexly. But we think that that can be done.
2790 It is being done now. It just needs to maybe be more
2791 officialized.

2792 *Mr. Joyce. And in my brief time left, Ms. Gomez, do
2793 you agree that we in Congress should make it a priority to
2794 work on a long-term spectrum pipeline bill?

2795 *Ms. Gomez. Thank you so much for that question. And
2796 if I may just add to my prior answer, of course, reforming
2797 the CSEA to use the Spectrum Relocation Fund for additional
2798 incentives for both Federal and commercial users.

2799 Second, yes, I do think it is important for Congress to
2800 work on the Federal spectrum, the pipeline bill.

2801 *Mr. Joyce. Thank you, Madam Chair. I see my time is
2802 expiring, and I yield back.

2803 *Ms. Matsui. The gentleman yields back. The chair now
2804 recognizes Ms. Kuster for her five minutes to ask questions.

2805 *Ms. Kuster. Thank you, Madam Chair, and thank you for
2806 allowing me to waive on to your subcommittee. I am grateful
2807 for the opportunity.

2808 Many Americans have benefited from technological
2809 advances, including high-speed broadband, the internet,
2810 mobile phones, which many of us take advantage daily [sic].
2811 However, we also know, by some accounts, 95 percent of

2812 domestic abuse cases involve technology, and countless others
2813 have suffered or perpetrated abuse online.

2814 Dr. Kadri, I am so grateful for your expertise and your
2815 experience. In your testimony you define digital abuse as
2816 people exploiting technology to harm others, specifically
2817 involving the use of technology to control, harass, stalk,
2818 survey, or threaten someone in a way that invades their
2819 privacy or autonomy, or harms them emotionally, physically,
2820 reputationally, or financially. Can you describe for us how
2821 family plans, which you refer to as a snake in the grass, can
2822 be a tool of such abuse?

2823 *Dr. Kadri. Absolutely. Thank you, Congresswoman, and
2824 thank you for your leadership on this bill.

2825 You know, one source of common information is just the
2826 phone bill, or other account records, right, which reveal,
2827 you know, details about a victim's communications, and can
2828 also provide clues about their location, you know, such as
2829 the area codes that they are calling, or call patterns that
2830 they are making.

2831 Some family plans also allow an abuser to kind of listen
2832 to a victim's voicemails, and sometimes even see their text
2833 messages. And so, you know, these kinds of surveillance,
2834 this level of surveillance and the type of surveillance, just
2835 creates this justified, I think, anxiety, as much as anything
2836 else. And I think that is what is at stake here.

2837 *Ms. Kuster. Well, thank you for your good work.

2838 And I am proud to have introduced the Safe Connection
2839 Act. It is a bipartisan bill with the Health Subcommittee
2840 chair, Representative Anna Eshoo, and Republican
2841 Representative Mr. Walberg, which provides a clear template
2842 for survivors to work with their phone carriers to exit from
2843 a family or shared account that they share with their
2844 abusers.

2845 Again, Dr. Kadri, can you explain how the Safe
2846 Connection Act will help these survivors?

2847 *Dr. Kadri. Certainly. So I think, you know, although
2848 a victim could simply abandon their phone, you know,
2849 theoretically, and maybe avoid some of the risks that I have
2850 talked about during my testimony today, of course, there are
2851 many reasons why that might actually do them more harm than
2852 good, because phones are so often a lifeline amid abuse.

2853 And so, even if -- you know, then there are the high
2854 fees that come associated currently with kind of leaving a
2855 family phone plan. And so, even if they have the funds to be
2856 able to leave, they can still encounter resistance from a
2857 phone company that has no legal obligation to honor line
2858 separation requests. And so a bill like the Safe Connections
2859 Act that would, you know, give them the right to leave safely
2860 and quickly would be hugely important.

2861 *Ms. Kuster. Thank you for that. And I think you may

2862 have addressed this question, but I will just add it -- ask
2863 it quickly.

2864 Survivors of digital abuse with limited resources and
2865 income are often unaware that they may qualify for
2866 participation in Federal programs that provide a discount on
2867 phone and broadband services, such as the Lifeline and
2868 Affordable Connectivity Programs. But the Safe Connection
2869 Act requires the FCC to adopt rules to allow survivors facing
2870 financial hardship to enroll in one of these programs as
2871 quickly as possible, whether or not they otherwise meet the
2872 qualifications of the programs, so they can receive a
2873 discount off of service for short period of time while they
2874 are getting back up on their feet.

2875 Why -- again, Dr. Kadri -- is it important to ensure
2876 that these abuse survivors are able to maintain consistent
2877 communications services after they are allowed to separate
2878 from the shared account with their abuser?

2879 *Dr. Kadri. Absolutely. I am happy to reiterate on
2880 this point, because it is so important, I think, and it is
2881 just that people remain in deeply precarious positions long
2882 after they attempt to leave a relationship in one form or
2883 another. And so, being connected through their phones is
2884 just crucial in regaining their independence and in guarding
2885 against future abuse.

2886 And this, again, was always true, but it feels important

2887 to stress that these last two years, of course, our reliance
2888 on technology increasingly, and the way that our -- you know,
2889 many of our interactions have been filtered through
2890 technology more and more, has increased this risk of digital
2891 abuse. But it also means it is more important than ever for
2892 us to be able to use our devices safely, whether that is for
2893 social connections, work, ordering food, testifying before
2894 Congress, you know, all of these different ways. It just
2895 shows how important it is. And so a survivor should be
2896 entitled to do that safely.

2897 *Ms. Kuster. Well, thank you.

2898 And thank you, Dr. Valentin, as well, for your work.

2899 And on behalf of the many members of the bipartisan task
2900 force to end sexual violence, I am pleased to see the Safe
2901 Connections Act come forward today at this hearing.

2902 Thank you, Madam Chair, and I yield back.

2903 *Ms. Matsui. The gentlelady yields back.

2904 At this time I request unanimous consent to enter the
2905 following documents into the record: a letter from the
2906 Competitive Carriers Association in support of congressional
2907 efforts to extend the Federal Communication Commissions
2908 general spectrum authority; and a letter from Public
2909 Knowledge and Open Technology Institute.

2910 Without objection, so ordered.

2911

2912 [The information follows:]

2913

2914 *****COMMITTEE INSERT*****

2915

2916 *Ms. Matsui. I would like to thank today's witnesses
2917 and the committee members for participating in this hearing
2918 today. It has been informative and educational in the sense
2919 that everyone here were -- was agreed upon the importance of
2920 these bills in a very bipartisan manner. So I want to thank
2921 you all very much for participating.

2922 Now I remind members that, pursuant to committee rules,
2923 they have 10 business days to submit additional questions for
2924 the record to be answered by the witnesses who have appeared.
2925 I ask the witnesses to respond promptly to any such questions
2926 that you may receive.

2927 So at this time the committee is adjourned, and thank
2928 you so much for your participation.

2929 [Whereupon, at 1:35 p.m., the subcommittee was
2930 adjourned.]