

Answers Sought for U.S. Broadband Decline

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The committee convened the hearing for a discussion on how the U.S. measures up against other countries in broadband competitiveness.

The hearing was held a day after the Organization for Economic Cooperation and Development (OECD) issued new global broadband per-capita penetration data that saw the U.S. fall from 12th to 15th place out of 30 countries. Some viewed the results as a sign that the U.S. is falling behind its global counterparts, while others said it was unfair to compare the U.S. against the smaller and more densely populated countries that beat the U.S. in the OECD rankings.

The questions that panelists tangled with mainly dealt with issues of geography. In Europe, where per-capita broadband penetration is growing, world powers like the United Kingdom are smaller geographically than California. The person-to-person proximity also allows infrastructure buildouts to serve more people. While this isn't a problem in major cities, serving rural customers with broadband access

is still a thorny issue.

One of the issues left undefined was the definition of "broadband". Add to that the lack of reliable government data, and the problem becomes even more complicated, witnesses said.

Sen. Daniel Inouye, D-Hawaii, who chairs the Commerce Committee, said that he would soon introduce a bill to promote innovation and improve the federal commitment to basic research on communications. He is also penning broadband data development legislation that would call for the collection of broadband data collection at the federal and state levels, a complaint that was voiced by several speakers.

The numbers problem

"We need better data" from the Federal Communications Commission (FCC), said Ben Scott, policy director of Free Press, an organization dedicated to media reform. The FCC currently collects data based on ZIP codes, which could be misleading, Scott said. "We need information on a block-by-block basis."

Jeffrey Eisenach, chairman of Criterion Economics, a Washington-based consulting firm, agreed. "Current FCC data is not useful. It doesn't tell us how many households or businesses in that ZIP code have broadband availability. Nor does it tell us anything about quality."

Meanwhile, the last time the national census gathered broadband data was 2003, Eisenach said. "It might as well have been collected in 1903," he said.

Throwing government funds at an issue, however, does not always solve the problem. Sen. Claire McCaskill, D-Mo., questioned why millions that were allocated by the Rural Utilities Service for rural areas were

actually being used in urban areas like Houston and Los Angeles. Panelists also tangled over the benefits of the Universal Service Fund (USF), money intended to provide telecommunications service to all Americans.

Brian Mefford, whose public-private ConnectKentucky partnership initiative managed to increase the state's broadband availability by 32 percent in three years, did not rely on USF monies for the project. "It needs some retooling," he says of the fund.

One retooling suggestion is to require broadband ISPs to contribute to the USF. Currently, only interstate telecom providers like phone, long distance and cell phone providers have to put money into the fund.

"The insertion of broadband into universal service is essential," said Scott. "Bringing broadband to rural areas will require the same kind of progressive idea that - brought - the telephone to rural areas."

Sen. Ted Stevens of Alaska, ranking Republican on the committee, has introduced legislation to insert broadband into the USF. "The problem is basically we can't use the legacy system of cable and wire" for broadband and have to build out across rural areas, Stevens said.

"Wireless technology has brought new communication, but it is slower and not adaptable."

DSL, meanwhile, "only works within about 18,000 feet of a central office," said Eisenach. "The copper line lengths in the U.S. are longer than those in Europe. We have much higher cost of copper than in the EU."

The National Cable & Telecommunications Association on Monday penned a letter to Senate and House Commerce leaders that said the OECD's results could be misleading. "Compared to most of the nations

that rank 'ahead' of the U.S. in broadband penetration, the U.S. is geographically vast and significantly less dense," NCTA President Kyle McSlarrow wrote. "It is clear that factors like geography, distance, and population concentration and urbanization are critical to the pace and success or investment in any network, not just broadband."

Technology is the answer – but what?

Even if the problem is as great as the OECD maintains, however, basic research into technologies to solve the national broadband problem is being ignored, Inouye said. "Today we see less of the visionary, long-term research that took place at Bell Labs and resulted in breakthrough technologies that made - the U.S. - the envy of the world," he said.

Bell Labs was driven by telecommunications research, a driver that forced researchers to "think along a certain path," said Adam Drobot of the Telecommunications Industry Association (TIA). It also received ample funding for long-term projects.

Today, the two fields that are fundamental to telecom – electrical engineering and computer science – are seeing fewer and fewer American doctoral graduates, Drobot said. "There have to be some economic incentives – money for education, money for research – that drive people to these disciplines and that funds them well in the future," he said.

"TIA believes that public policies should foster a climate conducive to innovation and investment, avoiding overly prescriptive regulatory regimes," Drobot added.

"The only research that's being done in telecom now outside of universities has a very, very short time frame for work research and it's being done mainly by equipment managers," said Jack Wolf, vice

president of technology for Qualcomm.

Universities that do receive federal research funds for telecom get perhaps 10 percent of funds allocated to the National Science Foundation and the Defense Advanced Research Projects Agency (DARPA), Wolf said.

Wolf called for a new research program that would stimulate interest in telecom research across academia and government and recognize the challenges the industry faces in coming up with new research funds.

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