

## **Articles Written about “Implementing the Broadband Stimulus: Maximizing Benefits and Monitoring Performance”**

### **Surprise: America is No. 1 in Broadband**

By [Saul Hansell](#)

There is a constant refrain that the United States is falling behind in broadband, as if the speed of Internet service in Seoul represents a new Sputnik that is a challenge to national security.

It’s certainly true that in some countries, like South Korea , far more homes have broadband connections than in the United States . And the speeds in some countries are far higher than is typical here.

But there are many ways to measure the bandwidth wealth of nations. At the Columbia/Georgetown [seminar](#) on the broadband stimulus yesterday, I heard Leonard Waverman, the dean of the Haskayne School of Business at the University of Calgary, describe a measure he developed called the “[Connectivity Scorecard](#).” It’s meant to compare countries on the extent that consumers, businesses and government put communication technology to economically productive use.

Even after deducting the untold unproductive hours spent on Facebook and YouTube, the United States comes out on top in Mr. Waverman’s ranking of 25 developed countries. The biggest reason is that business in the United States has made extensive use of computers and the Internet and it has a technically skilled workforce.

“ Korea has great broadband to the house, but businesses in Korea don’t use the best networks and don’t have the skills and computing assets they need to take advantage of them,” Mr. Waverman said.

Also, as dusty as your local motor vehicle office may seem, government use of communications technology is as good in the United States as anywhere in the world, according to Mr. Waverman’s rankings.

After the United States , the ranking found that Sweden , Denmark , the Netherlands , and Norway rounded out the five most productive users of connectivity. Japan ranked 10, and Korea , 18.

And while wired and wireless broadband networks used by consumers lagged other countries, the United States ranked No. 1 in the world for technology use and skills by consumers. (This was measured by comparing countries on five measures: The

penetration of Internet use, penetration of Internet banking, wired and wireless voice minutes per capita, SMS messages per capita, and consumer software spending.)

To see the full methodology, look at page 38 in [this report](#).

A separate paper based on the survey research of the Pew Internet and American Life project also undercut the idea that Americans are starving for broadband.

First of all, Pew found that 57 percent of people in the country now have access to broadband, compared to only 9 percent who have dial-up Internet access. Another 9 percent of people use the Internet at work or at a library but not at home.

That leaves 25 percent of the population that doesn't use the Internet at all. When Pew looked at the reasons why people didn't use broadband (combining dial-up users with those that don't have Internet access at all), it found that by far the most common reason was that people said that going online was not relevant to their lives. Some 51 percent of people surveyed in these groups said things like they weren't interested in the Internet or they were too busy.

The second-most common reason was money: 18 percent of the people said that the cost of broadband was too high or that they don't have a computer. Next came usability, with 17 percent citing reasons like the Internet was too difficult to use or wasted too much time.

Rather significantly, for the debate about broadband in rural areas, only 14 percent of the people who don't have broadband now say the reason is that they can't get it. That represents 4.5 percent of the population. Those figures match up with statistics from the cable industry, which says it now offers broadband service to 95 percent of the homes in America .

Cycle all this back to the findings by Mr. Waverman. Since his research found that, on average, Americans have more technology skills and involvement than people in any other country, maybe the biggest reason that 39 percent of the population doesn't have broadband is that they know what they'd get — and they don't want it.

Full article available at: <http://bits.blogs.nytimes.com/2009/02/23/surprise-america-is-no-1-in-broadband/>

## Rural Broadband: No Job Creation Machine

By Saul Hansell

New York Times Bits [blog] – 2/20/09

In a bracing refresher course on why they call economics the dismal science, a gathering of academics Thursday poured **cold water on the idea that the new stimulus plan will create lots of jobs and improve the lives of many by wiring rural areas for broadband Internet service.**

The gathering was a seminar in Washington sponsored by the business schools of Columbia and Georgetown to assess the impact of the broadband stimulus.

**The upshot was that most of the economists said the ability of broadband to spur economic development in rural areas is difficult to quantify.**

“Everyone talks about the jobs that are going to be created by this,” said Scott Wallsten, a senior fellow at the Technology Policy Institute. “There is no way to measure that.” One problem, he said, is **there’s no way to tell which of these jobs would have been created even without the stimulus bill.**

Raul Katz, a Columbia Business School professor, admitted the difficulty in counting jobs, but he nonetheless presented a paper that tried to quantify the effect of the broadband stimulus program on employment.

“We know construction will generate jobs,” Mr. Katz said. By his count, the stimulus bill will create 128,000 jobs designing, building and administering the broadband networks. That figure also includes a multiplier effect that assumes that every 10 people directly hired by these projects will spend enough money to create 8 more jobs in other sectors.

Beyond the construction, things get more than a little fuzzy. There is some research that shows that spending on networks will create new applications — be it “telemedicine” or e-commerce — that will spur more employment. Over the next four years, Mr. Katz allocates 378,000 jobs to these sources.

But he also has his doubts. It’s not at all clear that the people who are going to be wired by the program are going to be as quick to exploit the full potential of broadband networks as the early adopters who were the subjects the earlier studies of innovation and job growth.

Then there is the John Henry Effect (my term referring to the railroad-building legend who raced against a steam hammer). Technology that helps fewer people get more work done may be good for the economy in the long run, but it makes extra workers redundant. Mr. Katz says bringing broadband to rural areas will eliminate 266,000 jobs.

**The biggest question mark, in Mr. Katz’s analysis, is how zippy Internet lines connect the farmers and their families into the global economy where jobs are increasingly outsourced to wherever they can be performed cheapest.** Some people may benefit by working for companies like Jet Blue, that hire people to work answering the telephone in their homes. On the other hand, when the general store has broadband, it can send its tax returns to India rather than

hiring the corner C.P.A. Mr. Katz published several scenarios that range from a loss of 110,000 jobs to the creation of 164,000 jobs.

**So what does this all mean? Mr. Katz adds all these factors up and says that the stimulus bill might lead to 273,000 jobs created in the rural economy (separate from the construction impact). Then again it might well reduce employment by 1,000 jobs. Trying to be safe, he says the most likely scenario lies in between, at creating 136,000 jobs.**

Even Mr.Katz's wide range of assumptions was challenged by other speakers. Robert D. Atkinson, the president of the Information Technology & Innovation Foundation, said the study undercounted the number of jobs created because the job losses from increased productivity take years to occur.

Dave Burstein, the editor of DSL Prime, a newsletter on the business of broadband, argued that broadband, especially the high speed sort, is still spreading rapidly in the country and there is little evidence that the couple of million extra homes that might be wired up by the program will change the structure of the economy.

"Most of the network effects are a crock," Mr. Burstein said.

Despite the many numbers he published, Mr. Katz emphasized that the government should spend in job training and economic development programs that will encourage people in the areas being wired to take advantage of the new connectivity.

<http://bits.blogs.nytimes.com/2009/02/20/rural-broadband-no-job-creation-machine/>

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## Look beyond jobs for U.S. broadband payoff: experts

Reuters – 2/23/09

WASHINGTON (Reuters) - The \$7.2 billion slice of the \$787 billion economic stimulus package set aside to spur investment in high-speed Internet may not live up to its full promise of job creation.

**Instead, the program's success is better calibrated by how it improves productivity and spreads more opportunity to people in rural areas often overlooked by big corporations, according to industry experts at a Thursday conference on the impact of the stimulus.**

Smaller carriers with inroads in rural areas are the most likely to seek the funds, Wall Street analysts said. These carriers include CenturyTel Inc, Windstream Corp and Frontier Communications Corp.

Initial estimates were that hundreds of thousands of jobs could be created with investments, but those forecasts have been tempered recently. Jobs will be created, but intangibles like productivity will be harder to measure, participants at the conference said.

"Broadband in itself is not going to save the world," said Len Waverman, dean of the business school at the University of Calgary . "Have we done something important for society, that is the question."

**Waverman presented research finding the United States is actually ahead of its industrialized peers in terms of the quality and usefulness of Internet connectivity.**

His survey takes into account such aspects as how many homes have super-fast fiber connections, in addition to raw infrastructure investment.

That is in stark contrast to some studies that have suggested that the United States ranks 15th in the world in broadband adoption -- often cited by proponents of bigger government broadband investments.

Columbia University business school professor Raul Katz estimates 128,000 jobs could be created over a four-year period from network construction from the stimulus.

Jobs created by what economists called externalities -- secondary or unexpected impacts -- could range anywhere from zero to 270,000, his research shows.

That is due to a variety of factors, including the impact of outsourcing and substitution of labor for technology.

"Everyone talks about all jobs that are going to be created," said Scott Wallsten, a technology policy expert at Georgetown University. "There is no way to measure that."

Instead, he said the payoff should be based on the number of new subscribers and percentage of the population covered.

"The important goal may not be just increased jobs but improved productivity and innovation," said Lynne Holt, an expert at the University of Florida public utility research center.

[http://tech.yahoo.com/news/nm/20090219/tc\\_nm/us\\_usa\\_stimulus\\_broadband](http://tech.yahoo.com/news/nm/20090219/tc_nm/us_usa_stimulus_broadband)

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## **Tough Decisions Ahead on Rules for New Broadband Program**

By Anne Veigle

Communications Daily – 2/21/09

The law creating a \$7.2 billion broadband program delegates many important decisions to the government agencies charged with spending the money, panelists said Thursday at a Georgetown University seminar. The law, written in haste in response to the economic crisis, leaves it to agencies to decide who has priority for grants and to set Internet speed benchmarks for grant recipients. "We have a lot more work to do," said FCC Chief Technologist Jon Peha. But the law gives agencies flexibility, "which is a great advantage when you are trying to do something hard," he said.

With that flexibility comes the challenge of tackling tough problems, such as spelling out network nondiscrimination rules. "Brutal battles" could be ahead on that subject, he said. **"We have to figure what is broadband, and we need to evaluate our existing infrastructure."** The NTIA will need to define what constitutes an underserved versus unserved area. All of this must be finished while policymakers are still working on a national broadband policy. "Defining that policy will not be an easy task," Peha said.

The Obama administration's new Web site, [www.recovery.org](http://www.recovery.org), could help coordinate interagency activities, while providing the public a chance to see how dollars are spent, said Stifel Nicolaus analyst Blair Levin. He was an adviser to the Obama transition team. The centralized data-collection site will allow policymakers to catch program missteps and correct them early in the process, he said. "Some of these funds are not going to flow as you hope," he said. "It's inevitable on any project." But providing a way to track spending can hold down problems before it's too late to make changes.

Starting March 3, agencies will be required to submit weekly update reports on what they're doing to get spending done, said an Office of Management and Budget memo posted on the site. Beginning April 6, agencies must post specific spending data, "on a cumulative, year-to-date basis." The posts must link to contract and financial assistance solicitations through the Federal Opportunities Web site, [www.fbo.gov](http://www.fbo.gov), and [www.grants.gov](http://www.grants.gov).

Recovery.gov is meant as a portal allowing users to search for spending information by agency. It promises to show which states and congressional districts get money and to identify contractors that win business. Individual government agencies are encouraged to link to the site and dedicate a section of their primary Web sites to the Recovery Act "within a week."

**Agencies should focus efforts on channeling loans to unserved areas,** NCTA Vice President Rick Cimerman told the Georgetown panel. **It shouldn't be too difficult to decide what an**

**unserved area is, he said. Defining "underserved" will be more challenging. Setting speed benchmarks also will be tricky. He recommended setting speeds that encourage providers to go into new areas or to upgrade service, but not to set speeds so high that they would curtail grant eligibility to only one or two companies.** He also urged the government to make use of a \$250 million in grants to encourage people to use broadband services. Finally, he urged that there be no "burdensome regulations" imposed on would-be grant recipients.

The wireless industry hopes policymakers won't set speed requirements that bar its ability to qualify for grants, said Carolyn Brandon, CTIA vice president of policy. "We think the money can go out in a way that involved many different providers." As for defining network non-discrimination, Brandon said she thinks the Obama administration has a plan, and that there could be "quick resolution." But "that doesn't mean all stakeholders will agree with what is put on the table."

Grants should be allocated to encourage projects that would not happen otherwise, said Scott Wallsten, senior policy fellow at Georgetown 's Center for Business & Public Policy. Others agreed. **But the law's overall intent to create jobs muddies the waters a bit, because there is a difference between funding a construction or infrastructure project, and upgrading existing facilities to faster speeds by buying new equipment. The latter effort could lead to better broadband and higher productivity, but might not immediately create jobs.** "There is a tension between the objectives," Wallsten said. "You can be sure to get jobs if you fund a 'ditch to nowhere,' but that doesn't do anything for broadband," he said, a reference to an infamous appropriation for an Alaskan bridge project.

[subscription only]

## Skepticism arises over rural broadband stimulus

By PETER SVENSSON

The Associated Press

Thursday, February 19, 2009; 5:13 PM

WASHINGTON -- With the first concerted federal program to subsidize high-speed Internet services in rural areas, the new economic stimulus package will create some jobs and could get hundreds of thousands of households online.

Yet there's some question whether the economy would be more energized by spending that money on other things.

Because Internet access is already widespread and still being expanded even in a shrinking economy, injecting more money for broadband could simply equate to giving more coffee to someone who's already downed three cups.

"From the rural Vermont that we see, broadband is happening, happening fast," said Michel Guite, president of Vermont Telephone Co., which is based in Springfield.

The company, which serves 21,000 lines, is able to borrow from commercial lenders when it needs to invest in expanding Internet services, Guite said Thursday at a conference organized by the Columbia Institute for Tele-Information.

Although he wouldn't decline cheaper loans from the government, Guite said Congress could help his company better by cutting red tape, particularly when it comes to freeing up spectrum for wireless services.

The stimulus bill provides \$7.2 billion for grants, loans and loan guarantees, primarily for areas that lack broadband or are "underserved," though the term is not defined. Some of that money is set aside to expand Internet access at public centers like community colleges and public libraries.

One reason the money won't likely have much impact is its small size: less than 1 percent of the overall stimulus package, and substantially less per citizen than some countries, like Ireland and Sweden, have spent on improving their networks.

The Obama administration is looking at creating a more comprehensive plan to get the whole country covered by broadband, technology adviser Alec Ross told The Washington Post this week, but it's not yet clear if that would mean more subsidies.

A possible point of comparison is phone service for rural areas, which has long been subsidized through a program that has critics, too. A study by Robert Crandall of the Brookings Institution said that the program produces customer savings of about \$2 per month for \$20 in monthly subsidies. But he conceded that when phone service was being built out, subsidies may have helped.

Larry Sarjeant, vice president of legislative affairs at [Qwest Communications International Inc.](#), said the Denver-based phone company could use \$3 billion to expand Internet access to 2 million households and small businesses in 14 Western states, many of them thinly populated.

Because Qwest is unlikely to get that large a share of the funds, and the number of households that sign up for service will be smaller still, the net effect would be at most a few hundred thousand new Internet subscribers. Qwest added 236,000 broadband subscribers on its own last year.

In 2007 and 2008, the Pew Internet and American Life Project asked households that lacked broadband why they haven't signed up. Lack of availability was ranked fourth, given by 14 percent. Most answered that they didn't need the Internet, that it was too expensive or too hard to use. Many people who don't use the Internet simply don't have computers.

About 95 percent of households can already get broadband, according to the National Cable & Telecommunications Association. But the industry hasn't been very forthcoming in saying exactly where it's available, and that's part of what the stimulus package wants to address \_ it has allocated \$350 million to mapping U.S. broadband access.

There are signs that the money will do at least some good to rural areas.

A study of 3,000 people in Michigan, Texas and Kentucky found those in areas that received broadband Internet grants from the federal Rural Utilities Service quickly signed up for service, matching the penetration rates in cities. That happened where network investment was coupled with community programs aimed at convincing people about the benefits of Internet access.

Home broadband users were more likely to start businesses or take classes online, and less likely to move away, the researchers at Michigan State University found.

Those positive effects are hard to value.

Raul Katz, a Columbia Business School professor, estimates that the broadband plan will create 128,000 jobs over four years, because it will put installers and equipment makers to work, and those people will then spend the money they make. He's much less certain how many jobs the Internet access itself will create. It could be as many as 273,000 or closer to zero.

Spending the money on traditional infrastructure projects would create slightly more direct jobs: 152,000, according to Katz. That's because more of the money would stay in the United States, as most telecom equipment is assembled in Asia.

Robert Atkinson, president of Information Technology and Innovation Foundation, a nonpartisan think tank, believes it's unfair to hold broadband part of the stimulus plan to a higher standard than other investments.

"We know for sure that it will create jobs," he said. Everyone is going to have Internet access at some point, and the stimulus is "an amazing opportunity" to get five or 10 years ahead on that, he added.

So who benefits on the company side? Qwest chief executive Ed Mueller told investors and analysts last week that there would be "some upside" for the company in the stimulus, but that \$7 billion would be spread pretty thin over the country.

Blair Levin, managing director and analyst at brokerage Stifel Nicolaus, believes smaller phone companies will benefit more than larger, but the money won't make a major difference.

"I don't think it will affect the competitive dynamic much," he said.

[http://www.washingtonpost.com/wp-dyn/content/article/2009/02/19/AR2009021902473\\_pf.html](http://www.washingtonpost.com/wp-dyn/content/article/2009/02/19/AR2009021902473_pf.html)

## U.S. broadband stimulus likely to aid smaller firms: experts

Fri Feb 20, 2009 9:25am EST

By Kim Dixon

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(Editing by Matthew Lewis)

<http://www.reuters.com/article/smallBusinessNews/idUSTRE51J3IG20090220?feedType=RSS&feedName=smallBusinessNews>