



Fiber: Powerful Implications for Economic Development

By Steven S. Ross ■ *Editor-in-Chief*

Each December, we dwell at greater length than usual on the economic benefits of fiber-to-the-home. What we look for especially are studies that you can literally take to the bank. When we find these, we publish them at length.

In Decembers past, we've published solid research confirming that broadband's benefits are real (Sharon Gillett of MIT *et al*, December 2005) and that FTTH networks are easy to justify economically (articles by Sunan Han *et al*, of Fujitsu Network Communications, Francois D. Menard of Xittel Telecommunications, and Guy Swindell of OFS, December 2006).

This year, we feature the work of Prof. Mark Gaynor of Boston University and Scott Bradner of Harvard. They find that in order to maximize the economic benefits of the super-fast fiber networks now being built, the builders should open them to third-party providers of content and services.

Their reasoning: Customers will pay more, and be more likely to sign up, for services they crave. That raises take rate and average revenue per customer, justifying more and better networks. And the more services, the more the American economy as a whole will benefit.

Gaynor and Bradner's piece sheds light on a subject – net neutrality – that has generated heated policy debates here and abroad, and about which we've pre-

sented a variety of viewpoints over the past year or two. However, it isn't itself a policy argument. The authors don't propose or oppose any regulatory scheme. In fact, if they're correct, and everyone *including* network builders can benefit from neutral networks, then the entire policy debate may turn out in the end to have been unnecessary.

Also in this issue, Bryan Kennedy of ADC discusses the economics of FTTN vs. FTTP, Kimberly Gibby Fifita of At-Task describes business opportunities in software-as-a-service and Masha Zager of Broadband Properties details how high-end videoconferencing, operating over high-end networks, may help to level the playing field for smaller cities. We also include an excerpt from a report enumerating the benefits of a proposed fiber network in Portland, Oregon – benefits still to be realized, but specific and detailed enough to give other communities something to mull over.

Our comprehensive coverage of the Fiber to the Home Council's annual meeting, held this fall in Orlando, highlights the changing nature of consumer broadband use from the points of view of consumer electronics (James Sanduski of HP), peer-to-peer providers (Eric Klinker of BitTorrent) and of the overall Internet (Bret Swanson of Discovery Institute in Seattle).

In all cases, increased network use adds value and value adds jobs, either at providers of content, services, and equipment, or among consumers using those tools to add local value themselves. Economically, we're used to thinking of networks as infrastructure, like roads. But it goes further; broadband networks are no different than machine tools or blast furnaces were, in an earlier age.

Again, for examples of that, you need look no further than this issue. Our First Mile section alone quotes a Sacramento Regional Research Institute study estimating that broadband use generated approximately 198,000 jobs and approximately \$11.6 billion of payroll in California between 2002 and 2005, and could produce another 1.8 million jobs and \$132 billion in payroll over the next few years.

First Mile this month also quotes a Center for Creative Voices in Media study claiming that failure to achieve President Bush's 2004 goal of universal broadband access to the Internet "in every corner of America by the year 2007" has cost the United States hundreds of billions of dollars in added economic development and more than a million high-paying jobs.

As have many others, we've also be-moaned the fact that the Federal Communications Commission does not collect data in a way that makes such analyses easy. To paraphrase a popular animated movie from a few years back, "when broadband is defined as only 200 Kbps, almost everyone has broadband." That's well, incredible, and incredibly silly.

It's time to change that.

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