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**New Study Once Again Dispels Municipal Broadband Viability:
And Affirms the Wisdom of State Bans**

by

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I. Introduction and Summary

On Tuesday, August 10, 2021, the Senate [voted 69-30 to approve legislation](#) implementing the \$1 trillion bipartisan infrastructure deal. \$65 billion of that total is to be spent on high-speed Internet access and affordability. Fortunately, congressional negotiations ultimately produced [language](#) that improves upon President Biden's [initial proposal](#) and related bills, particularly with respect to municipal broadband. A just-published study demonstrating the extent to which such projects fail to achieve financial viability, in both the short- and long-term, provides compelling hard evidence to support that sound course correction.

First and foremost, the Infrastructure Investment and Jobs Act (IIJA) [wisely rejects](#) the Biden Broadband Plan's [constitutionally problematic](#) intention to "prioritize[] support for broadband networks owned, operated by, or affiliated with local governments, non-profits, and co-operatives."

Similarly, and in stark contrast to the recently introduced – and [highly misguided](#) – "[Broadband Reform and Investment to Drive Growth in the Economy Act of 2021](#)" (BRIDGE Act), the IJA does not facilitate local-government discrimination against competing, privately funded high-speed Internet access providers. Nor does it define "broadband" speed minimums in an unreasonable fashion – whether symmetrical 100 megabits per second (Mbps) downstream/100 Mbps upstream or higher – that is inconsistent with the procompetitive policy of technological neutrality and that favors municipal fiber builds over other proven distribution technologies (cable, 5G, satellite, and so on).

However, the IJA does include language explicitly proclaiming that local governments are eligible to apply for funding: "An eligible entity, in awarding subgrants for the deployment of a broadband network ... *may not exclude* cooperatives, nonprofit organizations, public-private partnerships, private companies, public or private utilities, public utility districts, or local governments from eligibility for such grant funds" (emphasis added).

As many as 20 state governments have passed laws that restrict municipal broadband boondoggles. As the papers by Free State Foundation scholars linked to in the Further Readings section below effectively document, there are numerous legitimate reasons for doing so. At or near the top of that list is an intent to protect taxpayers from the financial consequences that result when such efforts fail, as is so often the case.

A just-published [paper](#) by Christopher Yoo, Jesse Lambert, and Timothy Pfenninger underscores once again the frequency with which municipal broadband projects impose financial liability on unwitting consumers. At a minimum, such undertakings are touted to residents as self-sustaining, but the authors of "Municipal Fiber in the United States: A Financial Assessment" point out that, of the fifteen projects they reviewed, thirteen have required additional infusions of capital, whether from general tax dollars, loans/cross-subsidizations from other municipal units, or some other source. Moreover, according to their analysis, none of the projects have achieved financial viability in the short-term and only two are projected to generate sufficient revenues to be able to pay off their debts in a timely manner.

President Biden has pointed approvingly to the fact that municipal broadband projects experience "less pressure to turn profits," a lack of economic motivation that Free State Foundation President Randolph May [recently argued](#) renders government subsidization thereof not actual "investment" properly understood. The paper by Professor Yoo and his coauthors goes a step further, making the case that most municipal broadband projects can't even cover their costs. States, therefore, are wise to restrict misguided local government attempts to enter the competitive broadband marketplace. And Congress correctly rejected provisions that either (1) preempt those state laws or (2) prioritize and/or discriminate in favor of municipal broadband misadventures.

II. The Infrastructure Bill Significantly Improves on Previous Proposals

As an initial matter, there are numerous reasons to be leery of municipal entry into the broadband marketplace. The papers by Free State Foundation scholars listed in the Further Readings section below provide in-depth discussions thereof, but a brief overview here is appropriate. First,

successful operation of a broadband network requires competencies that city officials have no reason to possess. Technical expertise and marketing acumen are just two.

Second, local governments perform administrative roles – including granting permits and authorizing access to rights of way – that impact heavily the prospects of privately funded broadband providers. When municipalities compete with others dependent upon the timely and nondiscriminatory execution of their governmental duties, conflicts of interest inevitably arise. Allowing localities to serve as both regulators and competitors discourages private entities from competing. Less competition equals higher prices and lower levels of innovation.

Third, the construction of broadband infrastructure requires a substantial initial financial commitment, with no guarantee that consumer uptake, driven by the successful execution of marketing efforts alluded to above, will be sufficient in subsequent years to cover the repayment of debt. In other words, municipal entry entails a high degree of risk. When local governments give broadband a go, unwitting taxpayers are forced to assume that potential downside. Cross-subsidization could lead to higher prices for other public utilities, say electricity. Outright default could lead to larger economic woes.

And yet President Biden, and other avid advocates of local-government entry into the competitive broadband marketplace, refuse to acknowledge any possible downside to a public-utility approach to achieving universal access. Municipal broadband project proponents cling to this conviction despite the incredible progress that privately funded providers already have made – massive [capital investment](#), in the amount of \$80 billion annually and rapidly approaching \$2 trillion overall, as of year-end 2019 had extended broadband infrastructure to the doorsteps of upwards of [96 percent of American consumers](#), a percentage that surely is even higher today – and the many instances where municipal broadband projects have failed and/or required taxpayer bailouts.

Consistent with this myopic perspective, the American Jobs Plan [Fact Sheet](#), released by the White House in March, announced that the Biden Broadband Plan would "prioritize[] support for broadband networks owned, operated by, or affiliated with local governments, non-profits, and co-operatives – [providers with less pressure to turn profits](#) and with a commitment to serving entire communities." It also would "lift[] barriers that prevent municipally-owned or affiliated providers and rural electric co-ops from competing."

The BRIDGE Act, introduced in June by Senators Michael Bennet (D-CO), Rob Portman (R-OH), and Angus King (I-ME), similarly would have favored municipal broadband projects in a number of ways, as I described in "[The BRIDGE Act: The Wrong Way Forward on Broadband Policy](#)," a July *Perspectives from FSF Scholars*. For example, it would have preempted state laws restricting local-government attempts to build and operate broadband facilities. It also would have enabled local-government discrimination against privately funded providers vying for subsidies to serve a given area through a "letter of endorsement" mechanism: the applications of those in possession of such a letter would have been prioritized, and competitor/regulator municipalities, facing a clear conflict of interest, inappropriately would have had the power to determine who receives them. And it would have defined "broadband" in a manner not only

inconsistent with the principle of technological neutrality, but one that specifically is designed to favor fiber, which just so happens to be municipalities' preferred distribution technology.

Fortunately, the IJA largely rejects efforts to discriminate in favor of municipal broadband projects. However, as noted above, it does declare that local governments may not be excluded from participating in the process by which states distribute billions of dollars in subsidies.

III. A Recent Study Underscores the Financial Risk Imposed by Municipal Broadband

A just-published paper highlights the frequency with which municipal broadband projects expose taxpayers to unreasonable and unforeseen financial liability. As a direct consequence, it affirms the decisions by lawmakers (1) at the state level to constrain the ability of local governments to undertake such high-risk endeavors, and (2) at the federal level to reject calls to (a) preempt state laws that ban or restrict municipal entry into the competitive broadband marketplace, and (b) prioritize, and/or discriminate in favor of, municipalities over privately funded providers.

Through a comprehensive analysis of the financial performance, both short- and long-term, of in-progress attempts by local governments to operate high-speed Internet access networks, Christopher Yoo, Jesse Lambert, and Timothy Pfenninger, the authors of "[Municipal Fiber in the United States: A Financial Assessment](#)," found that such projects are extremely unlikely to survive as standalone, self-sustaining endeavors. Specifically, they concluded that none of the 15 projects they reviewed produced sufficient actual revenue – that is, "nominal cash flow" – to cover operating expenses in the short-run. In addition, they determined that only two are on a path to long-run viability, while eleven of the projects have fallen even further behind over the last three years.

The paper, published on July 27, 2021, follows up on a similar [study](#) conducted in 2017 by Professor Yoo and Mr. Pfenninger. And it is as comprehensive as publicly available data permits: though the authors identified a total of 88 municipal broadband projects, only a handful produce annual reports focusing specifically on their fiber-based efforts. Professor Yoo and his colleagues evaluated all 15 such undertakings that were operating in 2011. To control for the impact of COVID-19, they did not consider data beyond 2019.

The study specifically focuses on "whether municipal fiber projects are likely to be self-sustaining or whether they are likely to generate deficits that cities will have to cover with funds from general tax revenue." Proponents of municipal broadband in virtually all cases contend that these projects will be self-sustaining, if not profit-generating. That is, they will generate enough revenue through subscription fees, after an initial ramp-up period, to cover both (1) ongoing expenses in the short-run, and (2) principal and interest payments on the tax-free municipal bonds that fund construction by their maturity date (typically 20 to 25 years out). Per the authors' methodology, where a shortfall occurs, even if it is made up through cross-subsidization, debt refinancing, or some other means, the project is not viable financially.

The authors evaluated short-run viability by focusing on cumulative adjusted nominal cash flow (ANCF). A project with a negative annual cumulative ANCF for even a single year was unable

to cover its expenses on its own during that time period, and therefore was deemed to be not viable. All 15 projects experienced at least one year during which revenues fell short.

To assess long-run viability, the authors calculated whether recent performance, defined by the average ANCF over the years 2017-2019, established a sufficient trendline to indicate that the project would generate the revenues required to repay, by their date of maturity, the principal and interest on the tax-free municipal bonds sold to finance the project – assuming consistent performance going forward, that is. By that measure, only two projects were deemed to be financially viable in the long run. Of the remaining thirteen, ten are not expected to *ever* break even. Three might turn the corner eventually, but after their debts are due – in the case of one project, a full 95 years too late.

The authors also looked at the net present value of discounted cash flow from operations, an "approach [that] sets aside any shortcomings in the actual approach employed to finance the project and focuses exclusively on the strength or weakness of a project's operating performance." They considered this to be a "best-case scenario," and, consequently, the number of projects projected to break even on or before the maturity date of the tax-free municipal bonds based upon this measure ticks up to seven, which is still less than half.

Thus, in the handful of best-case scenarios, taxpayers could end up cross-subsidizing fiber follies through, say, [higher electricity bills](#). At the other end of the spectrum, projects could go under after imposing unnecessary costs on residents. In fact, three already have.

IV. Conclusion

Commercial high-speed Internet access service providers, enabled by massive amounts of private capital provided by investors shouldering substantial risk, to date have accomplished the unimaginable: the number of Americans who cannot connect to broadband, already small, continues to shrink at an incredibly rapid and timely rate. Moving forward, sound policy efforts must harness the powerful forward momentum plainly evident in the competitive broadband marketplace through subsidies that target those locations truly unserved. Government action to promote a public-utility model not only would constitute a step backwards, it also would subject taxpayers to unjustified financial liability, as the timely analysis by Professor Yoo and his coauthors starkly reveals. On that front, at least, the \$1 trillion infrastructure bill recently approved by the Senate on a bipartisan basis represents an improvement on the Biden Broadband Plan and the BRIDGE Act.

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Further Readings

Seth L. Cooper, "[Say No to the Biden Broadband Plan for Government Subsidies and Price Controls](#)," *Perspectives from FSF Scholars*, Vol. 16, No. 38 (July 27, 2021).

Randolph J. May, "[Not All Government Spending on Infrastructure Is Investment](#)," *Perspectives from FSF Scholars*, Vol. 16, No. 37 (July 22, 2021).

Randolph J. May and Andrew Long, "[Biden Broadband Plan: 'Future Proofing' Is Likely Fool's Proofing](#)," *Perspectives from FSF Scholars*, Vol. 16, No. 32 (June 24, 2021).

Seth L. Cooper, "[Federalist Society Webinar Panel Weighs in on the Biden Broadband Infrastructure Plan](#)," *FSF Blog* (June 10, 2021).

Randolph J. May and Seth L. Cooper, "[Why Biden's Broadband Plan Is Constitutionally Suspect](#)," *Perspectives from FSF Scholars*, Vol. 16, No. 26 (May 20, 2021)

Randolph J. May and Seth L. Cooper, "[Biden Broadband Plan Favoring Government-Owned Networks Lacks a Constitutional Foundation](#)," *Perspectives from FSF Scholars*, Vol. 16, No. 24 (May 11, 2021).

Theodore R. Bolema, "[Hiding the Subsidy: The Financial Transparency Problem With Municipal Broadband Systems](#)," *Perspectives from FSF Scholars*, Vol. 16, No. 8 (February 12, 2021).

Theodore R. Bolema, "[Municipal Broadband Proponents Falsely Claim No Harm to Taxpayers](#)," *Perspectives from FSF Scholars*, Vol. 15, No. 41 (July 27, 2020).

Theodore R. Bolema, "[Local Governments Find New Ways to Evade State-Level Municipal Broadband Restrictions](#)," *Perspectives from FSF Scholars*, Vol. 15, No. 33 (June 18, 2020).

Randolph J. May, "[Self-Evident Self-Dealing: A Municipal Broadband Bill Speaks](#)," *Perspectives from FSF Scholars*, Vol. 15, No. 5 (January 27, 2020).

Theodore R. Bolema, "[Panelist at FSF Conference Highlights Demand-Side Problem with Municipal Broadband](#)," *FSF Blog* (May 24, 2018).

"[New Paper Shows Economic Consequences of Municipal Fiber Projects](#)," *FSF Blog* (May 25, 2017).