



House Communications & Technology Committee

Informational Meeting Agenda

Tuesday, August 18, 2026
1:00pm

Indiana County Welcome Center
600 Philadelphia Street, Indiana, PA 15701

Call to Order

Roll Call

Opening Remarks

- Welcoming Remarks from Representative Jim Struzzi
- Majority Communications & Technology Committee Chair Joe Ciresi
- Minority Communications & Technology Committee Chair Jason Ortity

Panel 1: The Need for Broadband Affordability

- Indiana County Commissioner Sherene Hess
- Jody Rainey, Principal, Homer-Center Jr/Sr High School

Panel 2: Policy Experts

- John B. Horrigan, PhD, Senior Fellow, Benton Institute for Broadband & Society
- Dr. Christopher Ali, Professor of Communications, Pennsylvania State University (PSU)

Panel 3: Broadband Providers

- Dustin Bishop, Project Manager, Alleghenies Broadband, Inc.
- Steven Schwerbel, State Advocacy Director, Wireless Internet Service Providers Association (WISPA)

Closing Remarks

Adjournment

Written Testimony Only:

- Arc Human Services (AHS)
- Center for Rural Pennsylvania
- Chester County Digital Alliance
- Computer Reach
- Crown Castle
- Keystone Internet Coalition
- NeverTechLate
- United Way of Southwestern Pennsylvania
- United Way of Pennsylvania

**Testimony prepared for the Pennsylvania House Communications & Technology
Committee
August 18, 2026**

Testimony of Sherene Hess, Indiana County Commissioner

Chairman Ciresi, Ranking Member Ortitay, and members of the Committee, thank you for bringing this hearing to Indiana County. My name is Sherene Hess, and I am serving in my third term as a Commissioner in Indiana County. I also served as president of the County Commissioners Association of Pennsylvania in 2025, and am currently the chair of the CCAP Board of Directors.

Indiana County is one of the least-connected counties in Pennsylvania. As recently as 2024, 22% of locations in the county lacked access to broadband service—the highest unserved rate in the commonwealth.¹

Every single person in this room has had an experience related to the lack of accessible and affordable broadband—or knows someone who has. Since my first term, I pledged to work towards broadband expansion, initially, to assist agricultural producers in the more remote parts of the county, as broadband connectivity is a requirement for farmers to reap the full benefits of the technological advances that have been made in recent years by the agricultural industry. Promotion of affordable broadband service helps more than just farmers: seniors and veterans need broadband for telehealth, children in low-income households require it to complete educational studies, small businesses—who run on such a thin margin—need it for commerce, and the list goes on.

¹ <https://ready.net/broadband-audits/pennsylvania>

As commissioner, I chair the Indiana County Sustainable Economic Development Task Force. Task Force's foundational [study and report](#) of recommendations, completed in 2018, identified as one of its executive recommendations to the County Commissioners "to support ongoing efforts to improve broadband across Indiana County to allow Indiana County to be economically competitive and to allow for quality of life for our citizens."

With the price tag of deployment astronomical and increasing every year, inaccurate maps from the Federal Communications Commission, low customer density, and other technical obstacles, we were never able to complete the last mile. Our efforts stopped short of truly reaching our rural communities. We sought grants to extend service, looked into fiber technologies, and tried to identify other sources of infrastructure funding. There were many meetings with state and federal partners (PA Office of Broadband Initiatives, USDA, Appalachian Regional Commission) to identify how barriers could be overcome; there were many meetings and panels from local leaders (utilities, Penn State Extension, civic group leaders, ARIN IU 28.) There were smaller breakthroughs, but between the cost and other obstacles, and despite best efforts, we were not able to realize success until the pandemic of 2020.

As a result of the COVID-19 pandemic and the resulting funds from the [Coronavirus Aid, Relief, and Economic Security \(CARES\) Act](#), the cost obstacle was overcome in 2020. But the reason we could actually deploy nearly immediately was due to two things: we were ready after preparing for nearly 20 years; and we had solid, long standing, trusting partnerships.

Indiana County decided to make major investments in our broadband networks. In 2022, we assembled a \$7 million investment from a mixture of federal, state, and local funds and designed an RFP that would bring internet service to some of our most remote and disconnected areas. This investment, along with the upcoming Broadband, Equity, Access, and Deployment (BEAD) program, will soon extend broadband networks to thousands of Indiana

County residents who currently lack them. I am pleased that these long-needed investments are finally reaching Indiana County and all unconnected communities across the state.

However, infrastructure alone will not close our digital divide. For too many of our residents, the cost of reliable, high-quality internet service, even when it is available, is simply unaffordable.

In 2024, the median household income in Indiana County was just over \$60,000, and 16% of households were living below the poverty line. Also, according to the United Way's [ALICE report](#), the ALICE (Asset Limited Income Constrained, Employed) population represents the 30% of Indiana County residents who work but struggle to make ends meet. This means 46% of Indiana County households face financial hardship every day, in every community in Indiana County. For our many rural and working-class families, a monthly broadband bill of \$80, \$100, or even \$200 is not a minor expense. For these households, subscribing to broadband service can create a choice between internet service and other basic needs.

For many, affordable internet service may not represent the most pressing topic in human services needs. However, so often it is the prerequisite to accessing all the things that help people improve their employment, housing, food security, healthcare, transportation, and education situations. Broadband absolutely needs to be affordable. When it is too expensive for so many of our residents, the ecosystem of human services and support program delivery is severely limited and vulnerable to breakdown.

To help address this affordability barrier, we designed our RFP to ensure that any provider who won funding was committed to making service affordable to our residents. We found a partner in REA Energy Cooperative, Inc., a member-owned electric cooperative serving over 22,000 consumer-members across seven counties. Founded in 1937, REA Energy has deep roots in rural Indiana County and a mission oriented around serving its members. Its subsidiary, In The Stix Broadband, brings established broadband infrastructure and local operating experience to

the partnership. That combination—cooperative ownership, community accountability, and a long-term commitment to the region—is the kind of model that will make affordable, high-quality broadband possible in rural Indiana County. And, critically, this model will help ensure that networks supported with public funds are accessible to the members of the public that fund them.

We are proud of the service this partnership will bring to our residents, many for the first time, but there is still much work to be done. This is especially true as various forms of federal support come to an end. For example, in 2024 the federal Affordable Connectivity Program ended and left nearly four thousand of our most vulnerable families without financial support to afford internet service. This was a severe blow to our ability to keep residents online, and it limits our community's ability to make full use of our infrastructure investments.

The challenges Indiana County faces are not unique to us. They are playing out in rural and low-income communities across Pennsylvania. Residents are going without broadband not only because the infrastructure isn't there, but also because they cannot afford the monthly bill. The end of the Affordable Connectivity Program made that harder, and nothing has stepped in to fill the gap.

I applaud this Committee for turning its attention to broadband affordability and for coming to Indiana County to hear directly from our community. I encourage the Committee to continue this work, to listen to what residents and local leaders across the commonwealth are experiencing, and to pursue solutions that ensure all Pennsylvanians—regardless of income or zip code—can afford to meaningfully participate in the digital world.

Thank you.

*Commissioner Sherene Hess
Indiana County Board of Commissioners*

Testimony of Jody Rainey
Principal, Homer-Center Junior/Senior High School
Fire Chief, Cherryhill Township Volunteer Fire Company

Pennsylvania House Communications & Technology Committee
Broadband Affordability and Adoption

Chairman Ciresi and distinguished members of the House Communications & Technology Committee, thank you for the opportunity to appear before you today.

My name is Jody Rainey, and I serve as Principal of Homer-Center Junior/Senior High School in Indiana County. I also have the privilege of serving as Fire Chief of the Cherryhill Township Volunteer Fire Company. Throughout my career in education and public safety, one truth has become increasingly clear: reliable, affordable broadband is no longer a convenience for rural Pennsylvania, it is essential infrastructure.

It influences whether a student can complete an assignment, whether a family can access healthcare, whether a volunteer firefighter can complete required training, whether first responders can communicate effectively during an emergency, and whether a rural community can fully participate in today's economy.

I appreciate the opportunity to share my perspective from both education and public safety.

For more than thirty years as an educator and more than forty years as a volunteer firefighter, I have watched technology fundamentally change how we teach, how we learn, how we communicate, and how we respond to emergencies. Broadband has become the thread that connects all of those things.

When I began my career in education in 1992 through the Jobs for Pennsylvania Graduates program, technology looked very different. My responsibility was helping economically disadvantaged students develop employability skills and build connections with local employers. Success depended upon helping students gain access to opportunities that otherwise might not have existed.

Today, broadband has become one of those opportunities.

Technology has fundamentally changed education. Learning no longer ends when the dismissal bell rings. At Homer-Center, our teachers post daily lessons, assignments, instructional materials, and resources online so students can continue learning whether they are absent because of illness, surgery, family obligations, college visits, athletic competitions, or other school-sponsored activities. That simple expectation has transformed the continuity of learning for our students.

As a principal, I have seen a direct relationship between absenteeism and academic performance. Every day a student misses school increases the likelihood that he or she will fall behind. Providing online access to classroom instruction allows students to stay connected to their learning, reduces the burden of make-up work, and gives them a much better opportunity to remain successful.

Unfortunately, that opportunity is not available equally to every student.

One of the most difficult memories I have from the COVID-19 pandemic was seeing families sitting in vehicles outside our school after hours so their children could connect to our Wi-Fi and complete assignments. While the pandemic exposed the problem, it did not create it. The reality is that many rural families continue to face those same challenges today.

At Homer-Center, more than half of our students qualify for free or reduced-price meals. Many of those families make difficult financial decisions every month. For them, broadband is not competing with cable television or entertainment—it is competing with groceries, utilities, gasoline, prescription medications, and other household necessities.

Even families who have internet service often struggle with affordability. The question isn't simply whether they have internet access; it's whether they can afford service that is reliable enough and fast enough to support multiple children completing homework while parents work remotely or access online services at the same time.

In other areas of our district, the challenge isn't affordability—it is availability. Families simply do not have access to dependable broadband regardless of what they are willing to pay.

As educators, we ask every student to achieve at high levels. We should also ensure that every student has the same opportunity to access the tools necessary for success. A student's ZIP code or family income should never determine whether they can fully participate in their education.

Broadband is equally important to public safety.

As Fire Chief of the Cherryhill Township Volunteer Fire Company, recruiting and retaining volunteers remains one of our greatest challenges. The men and women who serve our communities are balancing careers, families, and countless other responsibilities before they ever respond to an emergency call.

For many years, firefighter certification required volunteers to attend weeks of evening classroom sessions in person. For working adults, that often became a barrier to entering or remaining in the fire service.

Pennsylvania's move toward hybrid firefighter education has been one of the most encouraging changes I have seen. Volunteers can now complete appropriate portions of their classroom instruction online while still receiving the essential hands-on practical training that our profession demands.

Speaking personally, that flexibility has made a tremendous difference. As someone balancing responsibilities as both a school principal and a volunteer fire chief, there have been training opportunities that I simply could not attend because of work obligations. Hybrid learning has allowed me—and many of the volunteers I serve alongside—to continue our professional development without sacrificing our commitment to our employers or our families.

Since these hybrid opportunities have become available, I have already seen more members of our department register for training.

However, that progress depends upon affordable and reliable broadband. When firefighters cannot access online coursework from home, the opportunity is diminished. We have invested in providing internet access at our fire station so members can complete training at our station, if necessary, but every volunteer should have the ability to continue learning from home.

Broadband also strengthens emergency response itself. Increasingly, emergency communications, mapping systems, incident information, weather resources, and coordination among responders depend upon reliable internet connectivity. The stronger our communications infrastructure, the better equipped we are to protect the citizens we serve.

Our region also stands on the threshold of tremendous opportunity.

The Homer City Redevelopment Project has the potential to transform our area into a hub for energy production, data centers, advanced technology, and economic growth. These developments offer exciting possibilities for rural Pennsylvania.

But those opportunities will increasingly depend upon digital connectivity.

If we want our students to remain in our communities after graduation...if we want businesses to invest in rural Pennsylvania...if we want families to build their futures here...then affordable, reliable broadband must be part of that future.

Innovation should not stop at the edge of a town or at the end of a rural road.

Throughout my career—as an educator, school board member, volunteer firefighter, fire chief, and community leader—I have learned that every important investment we make is ultimately an investment in people.

Broadband is no different.

It is not simply about technology. It is about opportunity. It is about whether a child has the same educational opportunities regardless of where they live, whether a volunteer firefighter has access to life-saving training, whether a family can connect to healthcare, and whether a rural community can participate fully in Pennsylvania's future.

Reliable, affordable broadband has become as essential to rural communities today as electricity, safe roads, and dependable public infrastructure were to previous generations.

Every Pennsylvanian deserves that opportunity.

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**Broadband affordability is a persistent problem that is only
going to become more challenging for Pennsylvania residents**

John B. Horrigan, PhD
Senior Fellow, Benton Institute for Broadband & Society

Overview

The affordability of key services such as home broadband is front and center for citizens and policymakers alike. For broadband, a number of points are important to keep in mind when thinking about service affordability:

- Affordability of service is a persistent problem for low-income households who subscribe to broadband.
- Broadband affordability is about to become a bigger problem because of the One Big Beautiful Bill. The problem will be more acute in Pennsylvania than in other states.
- There are solutions that move the dial, such as developing low-cost or subsidized internet plans for qualifying households and investing in digital skills programs.
- Doing this is worthwhile. Research shows that programs that lower the cost of internet service for low-income households return \$2 in benefits for every \$1 invested.

Affordability is a persistent challenge for low-income households

What we mean by affordability depends a great deal on context. The loss of a job means last week's prices are effectively higher this week for the person no longer working. Someone else's affordability challenge may unfold more slowly, with rising rent payments, insurance costs, or gas prices eating into their income. In either case, people have good reason to feel goods and services are less affordable than they used to be, even if prices have not changed.

For low-income households, this dynamic means weighing what to cut back or cut out. They have to negotiate trade-offs that are foreign to most Americans. Will they pay the health care premium this month or the broadband bill? This makes paying for the basics a balancing act and some people may trip and fall from time to time. Giving up the home broadband connection – at least for a while – may be a painful but unavoidable outcome.

I use the term “**subscription vulnerability**” to describe the precariousness of connectivity for low-income households. These are households who say their broadband bill is a challenge to pay or who have at some point lost service due to household budget constraints. This term first came to light in [a 2021 study of Philadelphia households](#) and the challenges they faced maintaining home broadband connections during the pandemic. That study showed that 31% of low-income Philadelphia households lost service due to the pandemic’s economic shock.

The number of households in the United States who are “subscription vulnerable” is sizable. A 2024 national study of low-income households found that [43% of lower-income households](#) (defined as those making \$50,000 or less annually) were subscription vulnerable. These were households worried about paying their monthly broadband bill and who had lost internet service in the past year when they could not pay their bills.

Managing connectivity is about to get harder

Many of the problems of subscription vulnerability were exposed during the pandemic, as the swift onset of the crisis showed serious gaps in home connectivity. Today we have a very different problem – a slow drip of financial constraints facing low-income households due to the One Big Beautiful Bill (OBBB). The Congressional Budget Office estimates that OBBB would result in a reduction in household resources of \$1,200 per year for the poorest fifth of U.S. households. These declines are due to less government spending on Medicaid and the Supplemental Nutritional Assistance Program (SNAP). A decline in subsidies for Affordable Care Act (ACA) health insurance premiums is an additional strain on household finances.

By my reckoning, the impacts of OBBB could result in the [loss of 5.6 million broadband](#) connections among households in the lowest income quintile – with an estimate of approximately 233,000 lost connections in Pennsylvania alone. This estimate, in light of subsequent economic events (i.e., rising gas prices), may be an [understatement](#).

We are beginning to see evidence of OBBB’s deleterious consequences. For example:

- **SNAP cuts:** The Center on Budget Policy and Priorities estimates that [SNAP participation fell](#) by more than 4.5 million people (11 percent) between July 2025 and April 2026. Nearly half of those losing benefits are children.
 - **In Pennsylvania,** SNAP enrollment [has fallen by 220,000](#) recipients, which comes to an 11% decline.
- **Fewer people with health insurance:** A recent U.S. Department of Health and Human Services report found that [ACA enrollment declined](#) by 3 million – from 22.1 million to 19.2 million people between February 2025 and February 2026. The [Kaiser Family Foundation \(KFF\)](#) projects that enrollment could fall to as low as 16.3 million people in 2026.
 - **In Pennsylvania,** enrollment in ACA health insurance plans have [fallen by 431,000](#) as of July 1 of this year.
- **Higher Affordable Care Act premiums:** KFF estimates that [ACA premiums have risen by 58%](#) for enrollees (from \$113 per month and to \$178) as enhanced premium tax credits expired.
 - **Pennsylvanians** have experienced higher ACA premium hikes, with those earning \$40,000 a year or less seeing their premiums increase by between \$85 and \$100 per month. That increase is roughly equivalent to the cost of monthly broadband bills.

These impacts are likely to force many low-income households to choose between broadband, feeding the kids, having health insurance, or paying for medical care out-of-pocket. A broadband connection – that helps with homework, finding cheaper options for consumer goods, and managing the household – will be on the chopping block.

OBBB's impact on Pennsylvania is likely to be more severe than elsewhere

The situation in Pennsylvania will be more dire because of recent trends in broadband adoption in the commonwealth. Nationally, [progress in home broadband adoption](#) – focusing on the key metric of home wireline service – has stalled. From 2022 to 2024, there was only a modest growth in this measure – a 0.6 percentage point increase from 75.9% to 76.5% of households having wireline service from 2022-2024.

In Pennsylvania, broadband adoption has *declined*. In 2022, 76.2% of Pennsylvania households subscribed to a wireline broadband plan at home, a figure that fell 75.5% in 2024. The broadband adoption figure for the commonwealth went from being slightly ahead of the national figure in 2022 to trailing it in 2024 by a full percentage point. For example, from 2022 to 2024:

- Philadelphia saw a 3.5 percentage point decline in broadband adoption.
- Lackawanna County fell by 9.6 percentage points.
- Lycoming County fell 5.4 points.
- Indiana County had a decline of 0.6 points.

The headwinds of OBBB are starting to hit Pennsylvania just as the home broadband adoption environment is already significantly challenged. [An appendix provides detailed data for all Pennsylvania counties listed in the American Community Survey 2024 1-year estimates.]

There are solutions

Two types of interventions can help promote connectivity for low-income households:

- 1) Direct cost relief
- 2) Investment in local programs to guide people through the process of getting online and that provide digital skills resources.

Implementing direct cost relief would entail either legislating the creation of low-cost plans or developing Affordable Connectivity Program (ACP)-like subsidy plans on the state level. For direct cost relief, New York State passed the [Affordable Broadband Act](#), which requires ISPs serving more than 20,000 customers to offer \$15 per month home broadband plans for households meeting specific income criteria (e.g., being eligible for SNAP benefits). [Connecticut](#) took a similar approach, requiring companies that have contracts with the state to offer a low-cost plan of \$40 per month or less to eligible households receiving government assistance.

New Mexico has taken a different approach, setting aside [setting aside funds from the state's universal service fund for the creation of a broadband subsidy](#) of up to \$30 per month for qualifying low-income households. New Mexico has budgeted no more than \$10 million for the first year, with a \$45 million funding cap for subsequent years.

Pennsylvania has the advantage of having extensive statewide Xfinity coverage. This means Xfinity's Internet Essentials program – \$14.95 per month for 75 Megabits per second (download) service – is widely available. But even with Internet Essentials, the state's broadband adoption figures have not been encouraging, as the data cited above show.

This leads to the second point – investing in digital skills training programs at the local level. These programs typically offer courses on how to use the internet and computers, access to free or low-cost devices, and help in finding and enrolling clients in low-cost internet service plans. The [returns to such initiatives are positive](#). These initiatives also represent investments in local capacity for problem-solving, which have [long term community benefits](#).

Low-cost service plan solutions and digital skills capacity investments should go hand-in-hand. Subsidies without skills training is akin to launching a new product with no marketing. For reaching cost-conscious low-income consumers, this means that internet service providers must partner with governments and local non-profits to foster trust among target populations that are often wary of the reliability of low-cost offers.

Digital inclusion as liberty

Solving broadband affordability is a pathway to helping low-income households deal with wider affordability problems. Reliable connectivity means low-income households can find deals online that save them money. Reliable connectivity also offers a pathway to employment, the means to do homework, and a way to manage household healthcare. [Analysis of the ACP](#) found that every dollar spent on the subsidy returned nearly \$2 in benefits.

The monetary benefits are important, but so are other benefits. As one interviewee in our research said [about the ACP](#) and the consequences of its termination: “When we were on it [the ACP], we felt almost normal.”

This quote captures what we mean by “digital inclusion.” Reliable and affordable connectivity grants low-income households the same autonomy as others and the liberty to use online resources to negotiate modern life.

Appendix: Adoption of internet services by Pennsylvania county in 2024

American Community Survey 2024 1-year results						Percentage point change 2022 to 2024		
	Number of households	Broadband of any type	Cellular data plan	Wireline broadband		Broadband of any type	Cellular data plan	Wireline broadband
United States	132,737,146	93.2%	88.7%	76.5%		2.2	3.3	0.6
Pennsylvania	5,361,724	92.1%	86.3%	75.5%		2.2	2.8	-0.7
Adams	42,119	93.0%	86.6%	70.6%		5.2	5.7	2.4
Allegheny	550,169	93.1%	87.7%	80.3%		2.9	4.7	0.7
Armstrong	29,289	90.4%	79.4%	74.0%		2.6	1.4	-2.4
Beaver	71,386	91.7%	84.3%	77.7%		1.3	3.6	1.6
Berks	165,017	93.2%	87.9%	78.2%		3.9	4.2	4.4
Blair	50,837	89.5%	81.1%	77.2%		3.2	4.5	3.8
Bucks	250,952	95.8%	91.2%	83.3%		1.1	0.8	-1.1
Butler	81,158	92.0%	85.4%	79.9%		1.1	1.7	0.0
Cambria	58,011	88.7%	81.7%	73.5%		3.5	5.0	5.1
Carbon	26,494	88.0%	82.0%	75.1%		-0.6	0.8	-1.4
Centre	57,295	85.5%	81.3%	72.9%		-2.4	-1.1	-3.2
Chester	209,767	95.6%	91.8%	85.8%		0.2	1.1	0.4
Clearfield	33,906	88.6%	82.1%	66.3%		4.7	5.0	-1.6
Columbia *	28,024	90.4%	82.5%	65.3%		2.9	0.6	1.5
Crawford	34,999	85.9%	77.5%	65.8%		0.7	1.8	0.8
Cumberland	108,868	94.8%	89.2%	81.3%		2.6	2.9	0.4
Dauphin	124,020	92.0%	85.1%	76.0%		0.7	0.0	-3.1
Delaware	216,615	95.5%	91.7%	81.0%		2.7	4.4	-0.2
Erie	111,874	91.0%	83.9%	75.8%		1.5	1.8	2.9
Fayette	55,091	84.9%	75.3%	69.7%		-0.3	1.4	0.0
Franklin	63,638	91.6%	83.5%	74.4%		3.2	3.3	0.2
Indiana	31,921	85.3%	78.2%	55.0%		6.1	9.9	-0.6
Lackawanna	87,108	86.3%	77.1%	66.5%		-2.8	-6.1	-9.6
Lancaster	217,820	90.3%	83.9%	75.9%		1.9	1.5	0.6
Lawrence	36,366	87.9%	79.2%	70.4%		1.4	-0.1	-3.4
Lebanon	58,914	90.2%	82.8%	70.3%		2.1	1.3	-0.1
Lehigh	145,402	92.8%	87.5%	75.9%		2.1	2.6	-1.6
Luzerne	140,231	91.5%	84.3%	72.2%		2.5	-0.3	-1.2
Lycoming	47,922	90.2%	82.6%	64.1%		1.5	4.2	-5.4
Mercer	47,728	89.3%	79.7%	69.5%		1.2	0.7	-2.7
Monroe	60,853	94.2%	87.6%	80.1%		1.2	2.0	-1.2
Montgomery	339,775	95.5%	90.9%	82.4%		1.1	1.3	-2.5
Northampton	123,535	93.3%	88.3%	77.6%		3.1	3.2	0.2
Northumberland	38,032	89.2%	81.7%	68.1%		4.6	4.3	2.3
Philadelphia	702,646	93.0%	89.7%	70.6%		3.4	4.8	-3.5
Schuylkill	59,469	90.0%	84.3%	74.2%		3.6	2.7	5.0
Somerset	29,893	84.3%	76.0%	61.5%		3.7	5.5	4.1
Washington	91,096	91.1%	85.7%	75.2%		2.2	5.0	0.5
Westmoreland	157,063	91.4%	84.8%	78.9%		2.8	3.5	2.3
York	185,039	92.3%	85.9%	70.9%		2.2	1.7	-2.9
All other PA counties	391,382	88.4%	80.2%	67.8%		2.3	2.8	-1.0

The table above relies on the American Community Survey (ACS), a national survey conducted by the U.S. Census Bureau whose large sample size permits analysis to various levels of geography. With more than 3 million respondents, the [1-year estimates](#), which this table uses with 2024 data, allows examination of data for places with more than 65,000 people. For Pennsylvania, that means 40 of its 67 counties. These 40 counties are listed in the table above. The entry for “all other PA counties” represents the other 27 counties whose populations were not large enough to have 1-year ACS data. Thus, figures for “all other counties” are the difference between statewide totals and the 40 counties in the ACS 1-year data for 2024. The asterisk (*) for Columbia County indicates that data showing differences between 2022 and 2024 compares 2023 and 2024 data. That is because Columbia County did not have enough respondents in the 2022 ACS to list results for the 1-year estimate.

About John B. Horrigan

John B. Horrigan is Senior Fellow at the Benton Institute on Broadband & Society, with a focus on technology adoption and digital inclusion. Horrigan has served as an Associate Director for Research at the Pew Research Center and Senior Fellow at the Technology Policy Institute. During the Obama Administration, Horrigan was part the leadership team at the Federal Communications Commission for the development of the National Broadband Plan (NBP). For the NBP, Horrigan was responsible for the plan’s recommendations on broadband adoption. He has done extensive research on the digital divide, including evaluating the impact of the Affordable Connectivity Program, assessing the impact of digital skills training on individuals, and the role of libraries in communities. Horrigan has a Ph.D. in public policy from the University of Texas at Austin and his undergraduate degree in economics from the University of Virginia.

About the Benton Institute

The Benton Institute for Broadband & Society is a 45-year-old, private operating foundation that conducts research and engages in advocacy to bring open, affordable, high-performance broadband to all people in the United States to ensure a thriving democracy. To advance its mission, Benton supports research on broadband affordability. These comments reflect the institutional view of the Benton Institute for Broadband & Society, and, unless obvious from the text, is not intended to reflect the views of its individual officers, directors, or advisors. Find out more [here](#).

Christopher Ali, PhD

Written Testimony

PA House of Representatives: Communications and Technology Committee

Broadband Affordability Hearing

18 August 2026

Chair Ciresi, Chair Ortity, and Members of the Committee,

Thank you for the opportunity to offer research and recommendations to improve broadband availability and affordability in the Commonwealth of Pennsylvania.

My name is Dr. Christopher Ali. I am the Pioneers Chair in Telecommunications in the Donald P. Bellisario College of Communications at Penn State University, where I also hold the rank of full professor with tenure.¹ I am an acknowledged national expert on broadband policy and the digital divide, having published extensively on the topics in both academic and public-facing outlets.² Based on my expertise, I was also called to testify before the US Senate Commerce Committee on broadband funding programs leading up to the passage of the 2021 Infrastructure Act.³ In 2025, I was awarded the Broadband Hero Award from the Bonfire Infrastructure Group for my work and research. I offer this written testimony as an individual expert in the field of broadband policy and the digital divide and not on behalf of my employer, Penn State University.

The recommendations I propose in this document stem primarily from a 2026 white paper authored by myself and colleagues at the Pennsylvania Broadband Research Institute titled *The*

¹ <https://bellisario.psu.edu/people/christopher-ali>

² See, for example: Christopher Ali, *Farm Fresh Broadband: The Politics of Rural Connectivity* (MIT Press, 2021); Christopher Ali, *Where the Wires End: Stories from the Digital Divide* (University of Chicago Press, 2027); Christopher Ali, “We Need a National Rural Broadband Plan,” *New York Times*, February 11, 2019, <https://www.nytimes.com/2019/02/06/opinion/rural-broadband-fcc.html>; Christopher Ali et al., “Towards a Connected Commonwealth: The Roles of Counties in Broadband Deployment in Virginia,” *The Journal of Community Informatics* 18, no. 2 (2022): 48–83, <https://doi.org/10.15353/joci.v18i2.4806>; Christopher Ali, “When You Wish Upon a Star(Link),” *Tech Policy Press*, April 25, 2025, <https://techpolicy.press/when-you-wish-upon-a-starlink>; Christopher Ali et al., “The Bad Business of BEAD,” *Digital Beat*, May 16, 2024, <https://www.benton.org/blog/bad-business-bead>; Christopher Ali, “Telecommunications Localism: The Fight for Control over Local Communication Networks in the United States,” *Media International Australia*, August 30, 2023, 1329878X231198318, <https://doi.org/10.1177/1329878X231198318>.

³ Christopher Ali, *Written Testimony of Christopher Ali, PhD Associate Professor Department of Media Studies University of Virginia Knight News Innovation Fellow Tow Center for Digital Journalism Columbia University Before the United States Senate Committee on Commerce, Science and Transportation “Hearings to Examine Recent Federal Actions to Expand Broadband”* (United States Senate Committee on Commerce, Science and Transportation, 2021), <https://www.commerce.senate.gov/services/files/2D4D3E3F-EE82-41BA-808D-794AC01C99CF>.

Cost of Inaction: Pennsylvania's Broken Broadband Governance and the Path Forward, a copy of the entire report is found in the Appendix.⁴

I first want to set the scene by providing a quote from a first responder in a rural Pennsylvania county who participated in a focus group I held for a project sponsored by the Center for Rural Pennsylvania about how the lack of internet impacts first responders and public safety in rural communities: “If you lose signal, you can’t communicate, you better have God sitting on your shoulders because that’s the only person that’s gonna be able to help you.”⁵ This quote encapsulates the dire need for meaningful, affordable, connectivity throughout the Commonwealth, and especially in rural, remote, and low-income areas, where broadband is either expensive or completely unavailable. The lack of broadband meaningfully impacts public safety, risking the lives of the public and our first responders alike.⁶ In another example of the need for affordable broadband in Pennsylvania, one community member who participated in another focus group called the lack of broadband in his community a “cancer.”⁷

In this written submission, I offer six recommendations based on research I have conducted, that if adopted, will improve broadband access and affordability, along with computer ownership and digital skills training—what is collectively known as “digital equity and inclusion”⁸— in Pennsylvania.

1. State Broadband Office

Presently, the Pennsylvania Broadband Development Authority (PBDA), is responsible for creating the NTIA-mandated state broadband plan, the BEAD proposal, and the Digital Equity Plan, and to distribute federal and state funds.⁹ It is also scheduled to close in 2031 or after its funding has been meted out.¹⁰

⁴ Christopher Ali et al., *The Cost of Inaction: Pennsylvania's Broken Broadband Governance and the Path Forward* (Pennsylvania Broadband Research Institute, 2026), https://www.asc.upenn.edu/sites/default/files/2026-06/Cost%20of%20Inaction_final.pdf.

⁵ Christopher Ali et al., *Connectivity among First Responders in Rural Pennsylvania: A Qualitative Analysis*, Rural policy: The research bulletin of the Center for Rural Pennsylvania (Center for Rural Pennsylvania, 2026).

⁶ Ali, *Farm Fresh Broadband: The Politics of Rural Connectivity*; Ali, *Where the Wires End: Stories from the Digital Divide*.

⁷ Ali, *Where the Wires End: Stories from the Digital Divide*.

⁸ NDIA, “Definitions,” *National Digital Inclusion Alliance*, 2024, <https://www.digitalinclusion.org/definitions/>.

⁹ PBDA, *Connecting the Commonwealth of Pennsylvania: A 5-Year Strategy toward Internet for All* (Pennsylvania Broadband Development Authority, 2023), https://broadband.pa.gov/wp-content/uploads/2025/02/BEAD-5-YearStrategyReport_2025.pdf.

¹⁰ PBDA, *Connecting the Commonwealth of Pennsylvania: A 5-Year Strategy toward Internet for All*.

Research from the non-partisan Pew Research Center has documented the importance of state broadband offices to successful state digital equity and inclusion goals.¹¹ The most successful offices are more than simply pass throughs for federal dollars, but instead act as information exchanges, best practice developers, policymakers, and funders.¹²

With respect to the PBDA, I offer two recommendations. First, the Pennsylvania Broadband Development Authority (PBDA) should be made permanent, and the General Assembly abolish the 2031 sunset.¹³ Second, PBDA's mandate should grow to incorporate broadband policy planning, information gathering and research, best practice sharing, networking, and distributing state funds, modeling the best of broadband offices in states like Minnesota, Vermont, and Virginia.¹⁴

Lastly, Pennsylvania should allocate state funding towards broadband infrastructure and digital inclusion programs, rather than rely almost entirely on federal funds. The best state broadband programs offer a mixture of federal and state funding.¹⁵ Funding could go towards supporting fiber build outs in communities where only fixed wireless and/or satellite exist or who only received BEAD funding for wireless connectivity, creating a commonwealth-wide low-income subsidy, and continuing programs for device access that began with the Digital Connectivity Technology Program that used funds from the federal government's Capital Project Fund (CPF) to distribute laptops to community anchor organizations.¹⁶

All state programs, including those using federal funds should have meaningful impact assessments with definitive ideas around "success" and "failure."

2. Be a leader

In my forthcoming book, *Where the wires end: Stories from the digital divide* (University of Chicago Press, 2027), I write about how time and again I heard about the fear and shame that

¹¹ Pew Charitable Trusts, *How States Are Expanding Broadband Access* (Pew Charitable Trusts, 2020), <https://pew.org/2HIJGAb>; Jake Varn, "The Role of State Broadband Policy in 2026," *Pew*, March 10, 2026, <https://pewtrsts.org/4ufTEih>.

¹² Pew Charitable Trusts, *What Policymakers Can Learn From the "Minnesota Model" of Broadband Expansion*, 2021, <https://pew.org/300SXg7>; Pew Charitable Trusts, *How States Are Expanding Broadband Access*.

¹³ Act 96 of 2021 requires the PBDA to sunset in ten years (2031) or when the funding ends. See PBDA, *Connecting the Commonwealth of Pennsylvania: A 5-Year Strategy toward Internet for All*.

¹⁴ Pew Charitable Trusts, *How States Are Expanding Broadband Access*; Varn, "The Role of State Broadband Policy in 2026"; Pew Charitable Trusts, *What Policymakers Can Learn From the "Minnesota Model" of Broadband Expansion*; Ali, *Farm Fresh Broadband: The Politics of Rural Connectivity*.

¹⁵ Pew Charitable Trusts, *How States Are Expanding Broadband Access*.

¹⁶ PBDA, *COVID-19 ARPA Pennsylvania Digital Connectivity Technology Program* (Pennsylvania Broadband Development Authority, 2025), <https://dced.pa.gov/programs/covid-19-arpa-digital-connectivity-technology-program/>.

comes with the inability to use the internet or a computer.¹⁷ We need to meet these people where they are with dignity and support. Funding can help create sustainable programs to do so.¹⁸ To this end, the National Telecommunications and Information Administration (NTIA) promised Pennsylvania over \$1 billion in funding from the Broadband Equity Access and Deployment (BEAD) Program. Pennsylvania pledged to spend \$700 million of this allotment, with the remaining balance—approximately \$400 million—hanging in the balance. For Pennsylvania, and the dozens of other states that will spend less than their BEAD awards, these are known as “non-deployment funds” and the NTIA has yet to determine if or how they can be spent.¹⁹ Additionally, the National Digital Inclusion Alliance (NDIA) has estimated that Pennsylvania was in line to receive at least \$65.2 million from two programs of the Digital Equity Act.²⁰ That’s over \$450 million in federal funds that Pennsylvania should have access to but is not fighting for. The Commonwealth should take a bolder approach to securing its rightful funds to support digital equity and inclusion.

3. Make it affordable

The median cost of broadband in the country is presently \$78 a month, leaving the United States with the unfortunate reputation as being the country with the highest monthly broadband fees in the entire Organization for Economic Cooperation and Development (OECD).²¹ While the tremendously popular but now-defunct, Affordable Connectivity Program (ACP), the FCC’s Lifeline Program, and state iterations, such as California’s LifeLine Program, are successful and crucial, they do not address the fundamental issue: Broadband is too expensive in this country; Pennsylvania is no exception. This is unforgivable for a utility that is the basis of modern life. We need a Commonwealth plan for affordability, especially given the lack of leadership on the issue at the federal level. More to the point, Pennsylvania should follow the lead of New York

¹⁷ Ali, *Where the Wires End: Stories from the Digital Divide*.

¹⁸ PBDA’s own digital equity plan notes the importance of “digital dignity” for all Pennsylvanians. PBDA, *Connected and Empowered: A Digital Equity Plan for the Commonwealth of Pennsylvania* (Pennsylvania Broadband Development Authority, 2024), https://dced.pa.gov/download/pbda-digital-equity-plan/?wpdmdl=122633&refresh=65dcf88fb81a41708980367&ind=1708541216400&filename=1708541216wpdm_DigitalEquityPlan_2024Finalpdf.pdf.

¹⁹ Linda Hardesty, “A \$20B Fight Looms over BEAD Non-Deployment Funds,” *Fierce Network* Homepage, *Fierce Network*, December 1, 2025, <https://www.fierce-network.com/broadband/20b-fight-looms-over-bead-non-deployment-funds>.

²⁰ NDIA, “Protecting Digital Equity Funds: Pennsylvania,” National Digital Inclusion Alliance, April 2025, https://www.digitalinclusion.org/wp-content/uploads/2025/04/Protecting-Digital-Equity-Act-Funds_PA-1.pdf.

²¹ Joe Supan, “The Average US Internet Bill Is \$78 Monthly. Here’s How You Can Lower It,” *CNET*, March 12, 2025, <https://www.cnet.com/home/internet/average-us-internet-bill-is-78-monthly-heres-how-you-can-lower-it/>; Becky Chao and Claire Park, *The Cost of Connectivity 2020* (Open Technology Institute, 2020), <http://newamerica.org/oti/reports/cost-connectivity-2020/>.

state and legislatively mandate a low-cost broadband tier for all major ISPs operating in the Commonwealth. In New York, the Affordable Broadband Act requires that all ISPs with over 20,000 customers offer a \$15 a month plan with 25 Megabit per second (Mbps) download and a \$20 a month plan that offers at least 200 Mbps download for eligible households.²² Research suggests that low-income families can afford maybe \$10 a month for broadband without having to make other sacrifices.²³ New York's plan makes broadband access for millions of households. The same can be said about Pennsylvania, where 760,000 had enrolled in the federal government's Affordable Connectivity Program before it expired.²⁴ In 2024 the Pennsylvania House Committee on Consumer Protection, Technology and Utilities debated HB 2195 that would have created a Pennsylvania Affordable Broadband Internet Access Service Program.²⁵ They should do so again with due haste.

4. Remove barriers

One of the major reasons why the cost of broadband subscriptions is so high in the United States is the lack of competition. Over a third of Americans have access to only one (or no) broadband provider, with many confined to local monopolies or duopolies at best.²⁶ One untapped way Pennsylvania can improve competition is by approving and championing municipal broadband provision. Pennsylvania has the unfortunate status of being one of only 16 states that presently prohibit, or in our case, inhibit the ability of municipalities from funding and creating their own broadband networks.²⁷ Municipal broadband refers to the public ownership and operation of a broadband network and comes in a variety of iterations. This is not free broadband to the consumer but rather follows utility-style models of municipal provision where the municipality owns the physical plant. Study after study has demonstrated that municipal broadband providers, such as notable outfits in Chattanooga Tennessee and Ammon, Idaho offer faster speeds and

²² Bernie Arnason, "New York Mandates \$15 Low-Income Broadband Service," *Telecompetitor*, April 14, 2021, <https://www.telecompetitor.com/new-york-mandates-15-low-income-broadband-service/>; Access NYC, "Affordable Broadband Act – ACCESS NYC," Low-Cost Plans for Home Internet, 2025, <https://access.nyc.gov/programs/affordable-broadband-act/>.

²³ Jonathan Sallet, *Broadband for America's Future: A Vision for the 2020s* (Benton Institute for Broadband & Society, 2019), <https://www.benton.org/publications/broadband-policy2020s>.

²⁴ Taske Force and Advisory Committee on High-Speed Broadband, *Delivery of High-Speed Broadband Services in Unserved and Underserved Areas of the Commonwealth* (Joint State Government Commission, 2024), [https://jsg.legis.state.pa.us/resources/documents/ftp/publications/2024-08-01%20\(SR47\)%202024%20Broadband%20Report%20web.pdf](https://jsg.legis.state.pa.us/resources/documents/ftp/publications/2024-08-01%20(SR47)%202024%20Broadband%20Report%20web.pdf).

²⁵ Taske Force and Advisory Committee on High-Speed Broadband, *Delivery of High-Speed Broadband Services in Unserved and Underserved Areas of the Commonwealth*.

²⁶ Kevin Taglang, "More Than a Third of Americans Have Access to One or No Broadband Provider," *Digital Beat*, January 7, 2025, <https://www.benton.org/blog/more-third-americans-have-access-one-or-no-broadband-provider>.

²⁷ Tyler Cooper, "Municipal Broadband Remains Roadblocked In 16 States," *Technology, BroadbandNow*, 2024, <https://broadbandnow.com/report/municipal-broadband-roadblocks>.

lower rates and have more commitment to their local communities than national competitors.²⁸ Nevertheless, Section 3104(h) of Title 66 of the Pennsylvania Statutes inhibits municipalities from developing a municipal broadband program by forcing the municipality to first request service from the incumbent providers. This effectively gives incumbents a veto on municipal broadband conversations in the Commonwealth.²⁹

While the PBDA has suggested that municipalities are free to explore broadband options, the fact that no such enterprise has begun since the law was established in 2004 suggests the level of inhibition—the chilling effect—this Act created.³⁰

Critics of municipal broadband, notably incumbent providers and certain free market economists, argue that municipal provision “distorts” the so-called free market.³¹ In contrast, the entry of a municipal competitor tends to drive down prices and increase speeds – the very definition of competition.³² I strongly recommend the General Assembly eliminate Section 3014(h) of Title 66

²⁸ Lennard Kruger and Angele Gilroy, *Municipal Broadband: Background and Policy Debate*, no. R44080 (Congressional Research Service, 2016); Matthew Dunne, “Let My People Go (Online): The Power of the FCC To Preempt State Laws That Prohibit Municipal Broadband,” *Columbia Law Review*, 2007, 1126–63; Ileana Hunter, “Ammon Has the 7th Cheapest Internet in the World,” *Post Register*, August 2, 2022, https://www.postregister.com/news/local/city-ammon-has-the-7th-cheapest-internet-in-the-world/article_c6182c02-46bc-511f-86e2-426575a412f4.html; Chao and Park, *The Cost of Connectivity 2020*; Ali, *Farm Fresh Broadband: The Politics of Rural Connectivity*; Ry Marcattilio and Revati Prasad, *Neighborly Networks: Vermont’s Approach to Community Broadband* (Benton Institute for Broadband & Society, 2024), <https://www.benton.org/blog/neighbors-providing-service-neighbors-vermont-approach-community-broadband>.

²⁹ Ali et al., *The Cost of Inaction: Pennsylvania’s Broken Broadband Governance and the Path Forward*, 9; Public Utilities Code, 66 PA C.S. (2004), <https://www.legis.state.pa.us/cfdocs/legis/li/uconsCheck.cfm?yr=2004&sessInd=0&act=183>. As we wrote in our Pennsylvania Broadband Research Institute whitepaper:

Section 3014(h) of Title 66 of the Pennsylvania Statutes, titled “Prohibition against political subdivision advanced and broadband services deployment,” bars municipalities from offering retail broadband for a fee, unless there is no service offered and the municipality has contacted the local provider and requested service. The provider has two months to reply, and if it chooses to provide service, it has 14 months to do so... Effectively, this statute gives incumbent providers a veto over all municipal broadband proposals. Ali et al., *The Cost of Inaction: Pennsylvania’s Broken Broadband Governance and the Path Forward*, 9;

³⁰ PBDA, *Broadband Equity, Access, and Deployment: INITIAL PROPOSAL Volume 2* (Pennsylvania Broadband Development Authority, 2023), https://broadband.pa.gov/wp-content/uploads/2024/05/BEAD-Volume-II_2024.pdf; Ali et al., “The Bad Business of BEAD.”

³¹ Jon Brodtkin, “AT&T CEO Seems Confident Industry Can Kill Biden’s Municipal Broadband Plan,” *Ars Technica*, June 11, 2021, <https://arstechnica.com/tech-policy/2021/06/att-ceo-seems-confident-industry-can-kill-bidens-municipal-broadband-plan/>.

³² Ookla, “Small Towns, Big Speeds: How Some Municipal Broadband Providers Outperform Their ISP Peers | Ookla®,” *Providing Network Intelligence to Enable Modern Connectivity*, March 16, 2026, <https://www.ookla.com/articles/comparing-municipal-broadband-network-performance>; Chao and Park, *The Cost of Connectivity 2020*.

of the Pennsylvania Statutes to empower Pennsylvania communities to be the authors of their own digital destinies.

5. Prioritize future-proof infrastructure

It is without a doubt that fiber optics is the best broadband infrastructure available.³³ Fiber optics can handle a near unlimited amount of data and are essential for modern business, education, and healthcare practices.³⁴ As technology scholar Susan Crawford wrote in her outstanding book *Fiber*, “money spent on wires other than fiber is wasted.”³⁵ She further concludes that “Ultimately, last-mile fiber is a public good. It will not pay for itself quickly – we never expected that of the highway system – and should not be expected to. It should be an industrial policy priority for America and the rest of the world.”³⁶ Other studies agree with Crawford’s assessment, noting that fiber is the best technology for broadband delivery.³⁷

Agreeing with these positions, the original BEAD program was to be a fiber-first program. This only changed when politics entered the broadband space and the fiber-first agenda changed to one prioritizing the cheapest technology.³⁸ As a result of this change, tens thousands of Pennsylvania locations (54,478 to be exact, representing 42% of locations) will receive a broadband technology that cannot measure up to fiber and will therefore find themselves behind their better-connected neighbors.

Any new broadband policies developed by the Commonwealth must have a fiber-first priority and the Commonwealth should seriously consider a permanent program using state funds to upgrade the 42% of locations that received BEAD funding for something other than fiber.

³³ Susan Crawford, *Fiber: The Coming Tech Revolution—and Why America Might Miss It* (Yale University Press, 2019).

³⁴ Richard Cole Campbell, “Need for Speed: Fiber and Student Achievement,” *Telecommunications Policy* 48, no. 6 (2024): 102767, <https://doi.org/10.1016/j.telpol.2024.102767>; Fiber Broadband Association, *The Infrastructure behind Telehealth: Why Fiber Networks Matter for Modern Healthcare* (Fiber Broadband Association, 2026), https://fiberbroadband.org/wp-content/uploads/2026/03/FBA-Whitepaper_The-Infrastructure-Behind-Telehealth.pdf; Crawford, *Fiber*.

³⁵ Crawford, *Fiber*, 207.

³⁶ Crawford, *Fiber*, 212.

³⁷ Andrew Afflerbach, *Fixed Wireless Technologies and Their Suitability for Broadband Delivery* (Benton Institute for Broadband & Society, 2022), <https://www.benton.org/sites/default/files/FixedWireless.pdf>.

³⁸ Department of Commerce, *Broadband Equity, Access, and Deployment (BEAD) Program: BEAD Restructuring Policy Notice* (2025), <https://www.ntia.gov/sites/default/files/2025-06/bead-restructuring-policy-notice.pdf>.

6. The digital divide is more than just technology

In my soon-to-be released book, I join others who argue that the digital divide cannot and should not be reduced only to technological availability.³⁹ So much more goes into digital equity and inclusion than broadband availability, as previously stated. I therefore applaud the PBDA for centering the idea of “digital dignity” in Pennsylvania’s digital equity plan.⁴⁰ This is what these programs are meant to do: support people, not technologies, or companies. To build on this momentum, my final recommendation is that any and all new policy developments regarding the digital divide come from a holistic perspective, where it is not only infrastructure that is considered, but that infrastructure is joined by affordability, device access, skills, education, and support to ensure that every Pennsylvanian can thrive in the digital age.

Thank you once again for the opportunity to comment on broadband affordability in my home state of Pennsylvania. I am at your disposal should you wish to follow up on any of my recommendations.

Sincerely yours,



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³⁹ Ali, *Where the Wires End: Stories from the Digital Divide*.

⁴⁰ “Digital dignity” is a term coined by University of Texas at Austin Professor, Sharon Strover, who likened it to a feeling of being “like everyone else.” Released in 2024, The PBDA’s *Digital Equity Plan For The Commonwealth of Pennsylvania*, fully adopted Strover’s idea of digital dignity: “The vision for digital equity in the Commonwealth is to foster and create equitable, affordable, and robust high-speed broadband infrastructure and services that support digital dignity for all residents and connect Pennsylvania for the 21st century and beyond.” Sharon Strover, “Public Libraries and 21st Century Digital Equity Goals,” *Communication Research and Practice* 5, no. 2 (2019): 200, <https://doi.org/10.1080/22041451.2019.1601487>; PBDA, *Connected and Empowered: A Digital Equity Plan for the Commonwealth of Pennsylvania*, 5.

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Appendix

The Cost of Inaction: Pennsylvania's Broken Broadband Governance and the Path Forward.

Pennsylvania Broadband Research Institute, 2026

https://www.asc.upenn.edu/sites/default/files/2026-06/Cost%20of%20Inaction_final.pdf

The Cost of Inaction

Pennsylvania's Broken Broadband Governance and the Path Forward

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PBRI
Pennsylvania Broadband Research
INSTITUTE



PennState
Donald P. Bellisario
College of Communications

MIC
Media Inequality & Change



Annenberg
SCHOOL FOR COMMUNICATION
UNIVERSITY of PENNSYLVANIA



The Media, Inequality and Change Center (MIC) explores the intersections between media, democracy, technology, policy and social justice.

The Center was founded in collaboration between the University of Pennsylvania's Annenberg School and Rutgers University's School of Communication and Information. Now hosted primarily at Annenberg, MIC produces engaged research and analysis while collaborating with community leaders to help support activist initiatives and policy interventions. The Center's objective is to develop a local-to-national strategy that focuses on communication issues important to local communities and social movements in the region, while also addressing how these local issues intersect with national and international policy challenges.

The Center's core principles are to research, educate, connect and engage. MIC accomplishes this by assessing social movement strategies and democratic deployments of technology; contributing to policy interventions that encourage structural reform; committing to long-term field building in political economy, media, policy and technology studies and other cognate areas; assisting social justice campaigns, and making material interventions around media and democracy. Bringing together scholars, journalists, policy makers, activists, philanthropists and diverse constituencies, MIC strives to create more democratic media systems that serve community needs.

The Center is a forum for faculty, students, activists, policy makers and journalists to grapple with questions related to media, democracy, and social change. With an emphasis on community engagement in Philadelphia and New Jersey, MIC focuses on research, teaching and learning, community engagement and field-building.

**The Pennsylvania Broadband Research (PBR) Institute
focuses on campaigns and research to expand
broadband access to underserved communities
throughout the Commonwealth.**

As part of its Broadband for All initiative, in January 2023 the Media, Inequality & Change (MIC) Center, housed at the Annenberg School for Communication at the University of Pennsylvania, teamed up with scholars at the Donald P. Bellisario College of Communications at The Pennsylvania State University to launch the Pennsylvania Broadband Research (PBR) Institute. The PBR Institute is a hub for developing critical research on broadband policy in Pennsylvania, focusing on state-wide campaigns to expand broadband access to underserved communities throughout the Commonwealth.

The Institute produces policy briefs, research reports, op-eds, and academic articles detailing how a more equitable and just internet can be realized in Pennsylvania, including alternative means of internet provision such as public broadband and community wireless networks.

Specifically, the PBR Institute is:

- Convening academics to analyze the political and economic structures and decision-making processes regarding broadband and telecommunications policy.
- Generating critical policy research pertaining to broadband and telecommunications.
- Working with local communities to diagnose their connectivity needs.
- Facilitating impactful change in broadband and telecommunications policy at the state and federal policy levels that will better serve the general public.

Executive Summary

Why Broadband Matters

Broadband is critical to Pennsylvania's economy, public services, and quality of life, enabling access to work, education, healthcare, and government services. Its importance is especially pronounced in rural and post-industrial communities, where connectivity supports economic opportunity and access to essential resources. Yet major gaps remain: over 130,000 locations lack broadband access, and roughly 2 million households struggle to afford service. These disparities reinforce existing inequalities, making universal, affordable broadband a central requirement for equitable growth across the Commonwealth.

The Problems

This report finds that Pennsylvania's failure to achieve digital equity is primarily the result of governance shortcomings perpetuating technological limitations. Despite receiving \$1.16 billion in federal BEAD funding, the state has chosen to only allocate \$711 million—leaving hundreds of millions of dollars unspent and limiting the scope of broadband expansion. Several interrelated policy failures underpin this outcome. First, Pennsylvania continues to restrict municipal broadband through state law, effectively limiting competition and local innovation while privileging incumbent providers. Second, the state has relied heavily on lower-cost, less reliable technologies such as satellite broadband, rather than prioritizing long-term infrastructure investments like fiber. Third, the Pennsylvania Broadband Development Authority (PBDA) has failed to pursue legal remedies to recover tens of millions of dollars in lost Digital Equity Act funding and has not developed a clear strategy for deploying substantial non-deployment funds that could support affordability, workforce development, and digital inclusion. In addition, deficiencies in broadband mapping and data collection have likely resulted in the undercounting of unserved areas, potentially costing the state significant federal resources. Compared to neighboring states that have implemented more robust and coordinated approaches, Pennsylvania's efforts remain fragmented, reactive, and insufficient.

What to do in Pennsylvania

To close the digital divide, Pennsylvania must adopt a coordinated, long-term strategy grounded in transparency, accountability, and sustained investment. Key actions include:

- 1 Make PBDA permanent by eliminating its 2031 sunset provision to ensure continuity and long-term planning capacity.**
- 2 Increase transparency and accountability in broadband decision-making to rebuild public trust and improve allocation of resources.**
- 3 Aggressively pursue federal funding, including challenging the rescission of Digital Equity Act funds and securing access to non-deployment funds.**
- 4 Develop a clear plan for non-deployment funds to support affordability programs, workforce development, digital literacy, and device access.**
- 5 Invest state-level resources to complement federal funding and create sustained broadband initiatives, following models from neighboring states.**
- 6 Remove barriers to municipal and community broadband to foster competition, innovation, and locally responsive solutions.**
- 7 Prioritize long-term infrastructure (e.g., fiber) over short-term, lower-cost technologies to ensure reliability and scalability.**
- 8 Align infrastructure with adoption strategies, integrating affordability, digital literacy, and workforce programs into broadband policy.**

Taken together, these reforms would reposition Pennsylvania to fully leverage existing resources, strengthen institutional capacity, and deliver broadband as a public good accessible to all residents.

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Pennsylvania's persistent struggle to achieve digital parity with other states and digital equity for its residents, despite this surge of federal investment, has become emblematic of a bureaucratic leadership that has privileged powerful interests over community needs and resulted in missed opportunities and strategic missteps.

Introduction

Internet connectivity is a cornerstone of everyday life in the 21st century. Americans rely on the internet for work, school, healthcare, commerce and so much more, and at a continuously increasing rate. The Internet of Things of connected devices, from watches to cars, requires robust, affordable, always-on capability, along with the skills and support necessary to take advantage of digital connectivity. Our reliance on the digital was exacerbated during the stay-at-home orders of the global pandemic in 2020, when it was revealed that tens of millions of Americans lacked access to the internet, lacked the ability to afford internet subscriptions, lacked devices to connect to the internet, or lacked the skills necessary to effectively use the internet. Studies have found that internet connectivity is linked to better economic stability, health outcomes, education performance, and public safety for Americans.¹

Despite the necessity of affordable internet connectivity, the number of under- and unconnected Americans remains high across the nation.² The Commonwealth of Pennsylvania is no exception. Upwards of 130,000 homes and businesses lack broadband throughout the state, while upwards of 2 million households struggle with broadband affordability.³ In the midst of the COVID-19 pandemic, a glimmer

¹Victor Pickard and David Elliot Berman, *After Net Neutrality: A New Deal for the Digital Age* (Yale University Press, 2019); Christopher Ali, *Farm Fresh Broadband: The Politics of Rural Connectivity* (MIT Press, 2021); Karen Mossberger et al., *Choosing the Future: Technology and Opportunity in Communities*, Book edition (Oxford University Press, 2021); Robert LaRose et al., "The Impact of Rural Broadband Development: Lessons from a Natural Field Experiment," *Government Information Quarterly* 28, no. 1 (2011): 91–100, bth:55632466, <https://doi.org/10.1016/j.giq.2009.12.013>.

²Kevin Taglang, "More Than a Third of Americans Have Access to One or No Broadband Provider," *Digital Beat*, January 7, 2025, <https://www.benton.org/blog/more-third-americans-have-access-one-or-no-broadband-provider>.

³Charlotte Keith, "Satellite Gets Bigger Share of PA Broadband in Latest Change," *Spotlight PA*, March 25, 2026, <https://www.spotlightpa.org/news/2026/03/pennsylvania-federal-broadband-cost-cutting-satellite-rural-affairs/>; PBDA, *Connected and Empowered: A Digital Equity Plan for the Commonwealth of Pennsylvania* (Pennsylvania Broadband Development Authority, 2024), https://dced.pa.gov/download/pbda-digital-equity-plan/?wpdmdl=122633&refresh=65dcf88fb81a41708980367&ind=1708541216400&filename=1708541216wpdm_DigitalEquityPlan_2024Finalpdf.pdf; "ACP Enrollment and Claims Tracker," Universal Service Administrative Company, 2024, <https://www.usac.org/about/affordable-connectivity-program/acp-enrollment-and-claims-tracker/>.

of hope for the un- and under-connected came in the form of the \$42.5 billion Broadband Equity Access and Deployment (BEAD) Program, part of then-President Biden's 2021 Infrastructure Investment and Jobs Act (IIJA).⁴ Pennsylvania was slated to receive \$1.16 billion in BEAD funding for the Commonwealth. Presently, the Trump Administration has pressured states to reduce their spending and "return" unused BEAD funding to the federal government.⁵ To that end, Pennsylvania is preparing to spend over \$700 million. Even with this decrease in funding, however, many within the state have expressed optimism for "closing" the digital divide. For example, in the summer of 2025, Pennsylvania Governor Shapiro explained: "We're committed to closing the digital divide in the Commonwealth, and this is another significant step forward in creating real opportunity for all Pennsylvanians."⁶ Despite this optimism, a large portion of Pennsylvania remains and will remain un- and under-connected.

Pennsylvania's persistent struggle to achieve digital parity with other states and digital equity for its residents, despite this surge of federal investment, has become emblematic of a bureaucratic leadership that has privileged powerful interests over community needs and resulted in missed opportunities and strategic missteps. The Pennsylvania Broadband Development Authority (PBDA), as the state's lead entity for broadband planning and execution, has faced sharp criticism for some of its decisions.⁷

⁴Infrastructure Investment and Jobs Act, HR 3684, Congress 117th (2021), <https://www.congress.gov/bill/117th-congress/house-bill/3684/text>.

⁵Linda Hardesty, "A \$20B Fight Looms over BEAD Non-Deployment Funds," Fierce Network Homepage, Fierce Network, December 1, 2025, <https://www.fierce-network.com/broadband/20b-fight-looms-over-bead-non-deployment-funds>; Keely Quinlan, "With Most BEAD Proposals in, States Leave Nearly \$21 Billion Unclaimed," StateScoop, October 24, 2025, <https://statescoop.com/with-most-bead-proposals-in-states-leave-nearly-21-billion-unclaimed/>.

⁶PA Department of Community & Economic Development, "Pennsylvania Broadband Development Authority Announces Provisional Approval of Nearly \$800 Million in BEAD Grants That Will Connect All Pennsylvanians with High-Speed Internet," PA Department of Community & Economic Development, August 22, 2025, <https://dced.pa.gov/newsroom/pennsylvania-broadband-development-authority-announces-provisional-approval-of-nearly-800-million-in-bead-grants-that-will-connect-all-pennsylvanians-with-high-speed-internet/>.

⁷See Charlotte Keith, "Pa.'s Broadband Authority Reverses Position on Key State Law before New Federal Funding Arrives," SpotlightPA, January 22, 2024, <https://www.spotlightpa.org/news/2024/01/pennsylvania-rural-broadband-reverse/>; Christopher Ali et al., "The Bad Business of BEAD," Digital Beat, May 16, 2024, <https://www.benton.org/blog/bad-business-bead>.

In the following pages, we break down the state of the infrastructural digital divide in Pennsylvania and describe the ways in which the state government, including the PBDA, has squandered opportunities to ameliorate connectivity for tens of thousands of Pennsylvanians. Next, we turn to how surrounding states have approached major issues pertaining to digital access, including affordability, adoption, state capacity and infrastructure, municipal broadband, and non-deployment. Finally, we provide high-level recommendations as to how leaders and policymakers in Pennsylvania should proceed to approach the issue of digital inequity holistically and with the goal of longevity, rather than the current focus on short-term gains.

Background

According to the Federal Communications Commission's (FCC) 2024 Broadband Deployment Report, 95.1% of Pennsylvania's population has access to a broadband network at speeds of 100 Mbps download/20 Mbps upload (94% when factoring out fixed wireless).⁸ 100/20 is the minimum speed necessary to be considered "broadband" according to the Commission.⁹ The 95% breaks down to 99.4% of urban residents and 81.4% in rural Pennsylvanians. Leading industry website BroadbandNow ranks the Commonwealth 17th in terms of broadband access, speed, and affordability, with 95.3% of residents able to access a network at the speeds of 100/20 Mbps, 92.3% able to purchase a plan under \$60, and only 47.4% able to purchase a fiber to the home plan.¹⁰ 90.5% of the population of the Commonwealth has access to 1 gigabit broadband plans, ranking Pennsylvania 6th in the nation.¹¹ Comcast is the dominant internet service provider in the Commonwealth, available to 65.9% of the population. T-Mobile ranks second at 37.6%, and Verizon Fios and Verizon 5G round out the top four at 36.3% and 10.5%.¹²

⁸FCC, In the Matter of: Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion (GN Docket No. 22-270): 2024 Section 706 Report, FCC-CIRC-2403-02 (Federal Communications Commission, 2024), <https://docs.fcc.gov/public/attachments/DOC-400675A1.pdf>.

⁹FCC, In the Matter of: Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion (GN Docket No. 22-270): 2024 Section 706 Report.

¹⁰BroadbandNow, "Pennsylvania Internet Coverage & Availability," Broadbandnow, 2025, <https://broadbandnow.com/Pennsylvania>.

¹¹BroadbandNow, "Pennsylvania Internet Coverage & Availability."

¹²BroadbandNow, "Pennsylvania Internet Coverage & Availability."

The FCC's figures generally map on to the official numbers offered by the Pennsylvania Broadband Development Authority (PBDA). The PBDA found that 95% of the population is served at 100/20 Mbps speeds, with an Ookla-reported median download speed of 265.79 Mbps and an upload speed of 38.27 Mbps. 254,665 locations across the Commonwealth are without 100/20 service.¹³ These numbers should all be treated with skepticism, however, given the methodological errors present within the FCC's original data gathering efforts.¹⁴

Mandated to report levels of connectivity across the country, the FCC's National Broadband Map has, throughout numerous iterations, exaggerated broadband availability—in turn playing down the extent of the digital divide throughout the country.¹⁵ Specific to Pennsylvania, a 2019 study by Meinrath et al. found that while FCC broadband maps showed 100% availability of broadband access in 2017, metrics from 2018 at the county level demonstrated that there were zero counties in the state where at least 50% of the populace had a broadband connection, as defined by the FCC.¹⁶ The official numbers of connectivity presented by the FCC and the PBDA, therefore, may be exaggerated. This could be for a number of reasons, including self-reported provider data, the ability to report hypothetical rather than actual speeds, a lack of audits and oversight, and the inability for communities to meaningfully challenge provider reports.¹⁷ Put differently, we really don't know the extent of digital infrastructure inequality in Pennsylvania or anywhere in the United States that relies on FCC data.¹⁸ This, in turn, jeopardizes the success of funding programs and continues the legacy of the digital divide.

¹³PBDA, "Expanding Connectivity Through Data Driven Strategies," Maps & Data, 2025, <https://broadband.pa.gov/maps-data/>.

¹⁴Christopher Ali, "Putting Rural Communities on the (Broadband) Map," Law & Political Economy Project, 2023, <https://broadbandnow.com/research/fcc-underestimates-unserved-by-50-percent>.

¹⁵Ali, "Putting Rural Communities on the (Broadband) Map."

¹⁶Sascha D. Meinrath, Broadband Demand: The Cost and Price Elasticity of Broadband Internet Service in Rural Pennsylvania (Center for Rural Pennsylvania, 2020), <https://www.rural.pa.gov/getfile.cfm?file=Resources/reports/assets/4/Broadband-price-elasticity-exec-sum-2020.pdf&view=true>.

¹⁷Ali, Farm Fresh Broadband: The Politics of Rural Connectivity.

¹⁸Tyler Cooper, "Mind the Map: The Hidden Impact of Inaccurate Broadband Availability Claims," Technology, BroadbandNow, June 4, 2025, <https://broadbandnow.com/research/fcc-broadband-overreporting-by-state>.

Broadband limitations in Pennsylvania

Throughout the country, including Pennsylvania, broadband provision is primarily the responsibility of private telecommunications and cable companies. Indeed, just two companies—Comcast and Charter—control almost 50% of the broadband subscriptions in the United States.¹⁹ Incumbent providers act as government endorsed local monopolies, making it difficult for competitors to enter the market. This has led to astronomically high broadband prices and poor customer service.²⁰ Alternatives to the large national, incumbent providers, like municipal broadband providers, cooperatives, and locally owned-and-operated providers, exist throughout the country and rank highly in terms of customer satisfaction.²¹ These alternative networks, owned either by municipalities or by community members through cooperatives, offer faster service and lower prices, along with the added benefit of local control or oversight.²² Incumbent providers have spent millions lobbying against these providers, especially municipal broadband providers, arguing that they “distort” the free market.²³ In Philadelphia, for instance, the turn of the millennium saw the city attempt to create the largest Wi-Fi network in the country. Called “Wireless Philadelphia,” the project hoped to connect over 100,000 people. Comcast, the city’s incumbent broadband provider, was highly critical of the project, which eventually dissolved.²⁴

¹⁹Luke Bouma, “Comcast and Spectrum Lost Over 606,000 TV Customers & 259,000 Internet Customers In The 1st Quarter of 2025,” Cord Cutters News, April 26, 2025, <https://cordcuttersnews.com/comcast-and-spectrum-lost-over-606000-tv-customers-259000-internet-customers-in-the-1st-quarter-of-2025/>.

²⁰Skip Descant, “A Lack of Competition Among ISPs Can Cause Ripple Effects,” Broadband and Network, GovTech, September 26, 2024, <https://www.govtech.com/network/a-lack-of-competition-among-isps-can-cause-ripple-effects>; Becky Chao and Claire Park, The Cost of Connectivity 2020 (Open Technology Institute, 2020), <http://newamerica.org/oti/reports/cost-connectivity-2020/>; Tejas Narechania, “Convergence and a Case for Broadband Rate Regulation,” Berkeley Technology Law Journal 37 (2022): 339–412, <https://doi.org/10.15779/Z383B5W893>.

²¹Karl Bode, “Small ISPs And Munis Top Consumer Reports Ranking While Altice, Comcast Fare Poorly,” Community Networks, August 1, 2024, <https://communitynets.org/content/small-isps-and-munis-top-consumer-reports-ranking-while-altice-comcast-fare-poorly>.

²²Chao and Park, The Cost of Connectivity 2020; Ali, Farm Fresh Broadband: The Politics of Rural Connectivity; Jon Brodtkin, “Municipal Broadband Advocates Fight off Attacks from ‘Dark Money’ Groups,” Ars Technica, 2024, <https://arstechnica.com/tech-policy/2024/05/how-dark-money-groups-help-private-isps-lobby-against-municipal-broadband/>.

²³Jon Brodtkin, “AT&T CEO Seems Confident Industry Can Kill Biden’s Municipal Broadband Plan,” Ars Technica, June 11, 2021, <https://arstechnica.com/tech-policy/2021/06/att-ceo-seems-confident-industry-can-kill-bidens-municipal-broadband-plan/>; Brodtkin, “Municipal Broadband Advocates Fight off Attacks from ‘Dark Money’ Groups.”

²⁴Richard Siklos, “What We Have Here Is a Failure to Communicate,” Business, The New York Times, October 30, 2005, <https://www.nytimes.com/2005/10/30/business/yourmoney/what-we-have-here-is-a-failure-to-communicate.html>; Tyler Cooper, “Municipal Broadband Remains Roadblocked In 16 States,” Technology, BroadbandNow, 2024, <https://broadbandnow.com/report/municipal-broadband-roadblocks>.

Pennsylvania is presently one of 16 states that functionally prohibit municipalities from building or operating a retail broadband network.²⁵ Section 3014(h) of Title 66 of the Pennsylvania Statutes, titled “Prohibition against political subdivision advanced and broadband services deployment,” bars municipalities from offering retail broadband for a fee, unless there is no service offered and the municipality has contacted the local provider and requested service.²⁶ The provider has two months to reply, and if it chooses to provide service, it has 14 months to do so:

(1) Except as otherwise provided for under paragraph (2), a political subdivision or any entity established by a political subdivision may not provide to the public for compensation any telecommunications services, including advanced and broadband services, within the service territory of a local exchange telecommunications company operating under a network modernization plan.²⁷

Effectively, this statute gives incumbent providers a veto over all municipal broadband proposals. Municipal broadband was highly opposed by Verizon, which lobbied Harrisburg “to largely bar local governments from providing broadband.”²⁸ To date, there is but one municipal broadband provider in Pennsylvania—Home.net in Kutztown—which began service in 2002 and was grandfathered in after the passage of Title 66 in 2004. In addition to Kutztown, two electric cooperatives, Sullivan County Rural Electric Cooperative and Tri-County Rural Electric Cooperative, have fiber to the home networks according to Community Networks.²⁹

During the development of the BEAD program, Pennsylvania’s anti-muni statute came under heavy scrutiny as it stood in direct opposition to Division F, Title 1, Section (h)(1)(iii) of the *2021 Infrastructure Act*, which specifically forbids states from discriminating against local governments from eligibility for BEAD funding.³⁰ For its part, the PBDA saw no inherent conflict between Title 66 and

²⁵Cooper, “Municipal Broadband Remains Roadblocked In 16 States.”

²⁶Public Utilities Code, 66 PA C.S. (2004), <https://www.legis.state.pa.us/cfdocs/legis/li/uconsCheck.cfm?yr=2004&sessInd=0&act=183>.

²⁷Public Utilities Code.

²⁸Christian Hetrick, “Can Municipal Networks Solve America’s Connectivity Problem?,” *Broadband & Network*, GovTech, April 26, 2021, <https://www.govtech.com/network/can-municipal-networks-solve-americas-connectivity-problem>.

²⁹CommunityNetworks, “Cooperatives Build Community Networks,” Community Networks, 2019.

³⁰Charlotte Keith, “Pa. Says No Conflict with Broadband Law, Fed Grant Rules,” *Spotlight PA*, January 22, 2024, <https://www.spotlightpa.org/news/2024/01/pennsylvania-rural-broadband-reverse/>; Ali et al., “The Bad Business of BEAD.”

the non-discrimination clause of the Infrastructure Act.³¹ PBDA certified in its BEAD Final Proposal “that during its subgrantee selection process, it did not exclude cooperatives, nonprofit organizations, public-private partnerships, private companies, public or private utilities, public utility districts, or local governments from eligibility for a BEAD subgrant.”³² To its credit, looking at the BEAD subgrantee list, one public entity, the County of McKean, made the list, having been provisionally awarded \$5.9 million for a fixed wireless network to serve 683 locations.³³

Prior to the BEAD program, Pennsylvania “created the Unserved High-Speed Broadband Funding program through Act 132 of 2020” with a \$10 million state commitment. Funding was approved in 2022 for “nineteen projects for nongovernment entities to deploy middle-mile and last-mile high-speed broadband infrastructure to unserved areas” (note the emphasis in this quote on nongovernment entities).³⁴

In 2024, the PBDA announced the distribution of \$204 million from the Broadband Infrastructure Program (BIP), funded through the Capital Projects Fund (CPF), to support 53 broadband projects in 42 counties. The objective was to connect 40,000 homes and businesses and 100,000 Pennsylvanians. Funded through the American Rescue Plan Act (ARPA), the PBDA also created a device distribution program, where entities could apply for between 20 and 200 devices paid for by the Commonwealth.³⁵

³¹PBDA, Broadband Equity, Access, and Deployment: INITIAL PROPOSAL Volume 2 (Pennsylvania Broadband Development Authority, 2023), https://broadband.pa.gov/wp-content/uploads/2024/05/BEAD-Volume-II_2024.pdf.

³²PBDA, Broadband Equity, Access, and Deployment: FINAL PROPOSAL (Pennsylvania Broadband Development Authority, 2025), 31, <https://dced.pa.gov/download/bead-final-proposal-for-public-comment-draft/?wpdmdl=127493>.

³³PBDA, “Pennsylvania Broadband Equity, Access, and Deployment (BEAD) Program: Provision Approvals,” Pennsylvania Broadband Development Authority, August 22, 2025, <https://dced.pa.gov/download/bead-provisional-approvals-8-22-25/?wpdmdl=127494>.

³⁴PBDA, “Shapiro Administration Invests \$204 Million in Federal Funding to Provide 40,000 Homes and Businesses Affordable and Reliable High-Speed Internet Access,” Pennsylvania Broadband Development Authority, 2024, <https://broadband.pa.gov/shapiro-administration-invests-204-million-in-federal-funding-to-provide-40000-homes-and-businesses-affordable-and-reliable-high-speed-internet-across/>.

³⁵PBDA, COVID-19 ARPA Pennsylvania Digital Connectivity Technology Program (Pennsylvania Broadband Development Authority, 2025), <https://dced.pa.gov/programs/covid-19-arpa-digital-connectivity-technology-program/>.

PBDA and BEAD

The Pennsylvania Broadband Development Authority (PBDA) was created in 2021 in anticipation of the Infrastructure Act's broadband funding programs. To this end, it was charged with creating a statewide broadband plan and digital equity plan for the Commonwealth. It is housed within the Department of Community and Economic Development (DCED). The PBDA published Pennsylvania's 5-year broadband plan in August 2023, with a mission "to bring a robust, affordable, and equitable broadband ecosystem to all."³⁶ The broadband plan noted three key priorities:

- 1 Expand infrastructure across the Commonwealth, which comes from identifying areas with the most need and by defining the technical aspects of implementation for services to accurately and equitably build out.
- 2 Collaborate with and support Community Anchor Institutions (CAIs) to provide digital literacy training and community access to high-speed broadband.
- 3 Fortify existing programs throughout communities, where residents are informed of affordability programs and available funding is sought, acquired, and administered by government and community organizations.³⁷

In 2023, the National Telecommunications and Information Administration—the federal government entity charged with administering the BEAD program—announced that Pennsylvania would receive \$1.16 billion from the BEAD program to connect 236,000 unserved locations and 52,000 underserved locations. As part of its award, Pennsylvania, like all states, had to develop a low-cost subscription tier, which all BEAD awardees in the state would have to follow. In its Initial Proposal Volume 2, Pennsylvania settled on a low-cost threshold tier of \$48.60/month which "represents 2% of the maximum eligible annual income for an ACP-eligible household of one, divided by 12."³⁸

³⁶PBDA, Connecting the Commonwealth of Pennsylvania: A 5-Year Strategy toward Internet for All (Pennsylvania Broadband Development Authority, 2023), 1, https://broadband.pa.gov/wp-content/uploads/2025/02/BEAD-5-YearStrategyReport_2025.pdf.

³⁷PBDA, Connecting the Commonwealth of Pennsylvania: A 5-Year Strategy toward Internet for All, 1.

³⁸PBDA, *Broadband Equity, Access, and Deployment: INITIAL PROPOSAL Volume 2*, 2.

When it comes to the municipal broadband prohibition, the original text of the Initial Proposal Volume 2 waived “Act 183 of 2002 for project selection purposes,” thereby allowing local municipalities to participate as eligible BEAD applicants. The final published (and approved) volume, however, saw the language change dramatically:

“There are no Commonwealth of Pennsylvania laws that either (a) preclude certain public sector providers from participation in the sub-grant competition or (b) impose specific requirements on public sector entities.”³⁹

The NTIA also failed to provide guidance on the matter, leaving Pennsylvania and several other states in legal limbo.⁴⁰

In June 2025, after the change in presidential administration, the NTIA dramatically altered the BEAD program in a process known as the Benefit of the Bargain.⁴¹ The NTIA argued that such a restructuring was necessary to eliminate regulatory burdens, increase the speed of award allocation, and ultimately save taxpayer dollars.⁴² In doing so, states were forced to reconsider their BEAD award and allocation process. The NTIA shifted BEAD from a program that prioritized fiber optic networks to one that prioritized the cheapest deployment option. In August of 2025, Pennsylvania announced its Benefit of the Bargain award selections.⁴³ Accordingly, 64% of 128,156 eligible broadband serviceable locations (BSL) would receive fiber, 18% would receive LEO satellite, 14% would receive fixed wireless, and 4% would receive hybrid-fiber coaxial.⁴⁴ Pennsylvania planned to spend \$790

³⁹Ali et al., “The Bad Business of BEAD”; Keith, “Pa. Says No Conflict with Broadband Law, Fed Grant Rules”; PBDA, *Broadband Equity, Access, and Deployment: INITIAL PROPOSAL Volume 2*.

⁴⁰Diana Goovaerts, “States, NTIA Say Municipal Broadband Laws Won’t Delay BEAD Funding,” *Fierce Telecom* Homepage, Broadband, *Fierce Telecom*, April 17, 2023, <https://www.fiercetelecom.com/telecom/municipal-broadband-laws-probably-wont-delay-bead-funding>.

⁴¹Department of Commerce, *Broadband Equity, Access, and Deployment (BEAD) Program: BEAD Restructuring Policy Notice* (2025), <https://www.ntia.gov/sites/default/files/2025-06/bead-restructuring-policy-notice.pdf>.

⁴²NTIA, “‘Benefit of the Bargain’ Reforms Turbocharge Speed and Savings,” *National Telecommunications and Information Administration*, September 5, 2025, <https://www.ntia.gov/press-release/2025/benefit-bargain-reforms-turbocharge-speed-and-savings>; Department of Commerce, *Broadband Equity, Access, and Deployment (BEAD) Program: BEAD Restructuring Policy Notice*.

⁴³PBDA, “Pennsylvania Broadband Equity, Access, and Deployment (BEAD) Program: Provision Approvals.”

⁴⁴PBDA, *Broadband Equity, Access, and Deployment: FINAL PROPOSAL*.

million of its allocated \$1.16 billion, thus “saving” \$350 million. According to the PBDA, only 6 Broadband Serviceable Locations (BSLs) failed to receive any bids and therefore were assigned to the next lowest bidder. “This resulted in no location going unserved,” the PBDA claimed.⁴⁵ In March 2026, the final amount that Pennsylvania will spend was reduced to \$711 million.

The changes were due to the Commonwealth proposing to spend more than the NTIA was comfortable with for service. Originally, Pennsylvania was comfortable with spending upwards of \$12,500 per location to ensure universal connectivity.⁴⁶ The NTIA requested the amount be lowered to \$6,500 per location.⁴⁷ This resulted in a redeployment of funds that benefited LEO service with an increase in award dollars. At least one company awarded funds to deploy fiber—Talkie Communications—has turned down their grant. Presently, 23% of Pennsylvania’s BEAD award will go to satellite, up from 18% in the original round.⁴⁸

Like many states, Pennsylvania has not announced plans for how it will use its so-called “non-deployment funds” (the unspent \$350+ million from its original \$1.16 billion). Instead, the PBDA wrote in its final BEAD proposal that:

PBDA recognizes that NTIA may provide future opportunities for states to respond to non-deployment guidance with complementary initiatives. PBDA looks forward to the possibility of pursuing such opportunities to support projects and programs that are innovative and beneficial to all Pennsylvanians by extending the long-term impact of broadband infrastructure investments in the Commonwealth.⁴⁹

Non-deployment funds—those BEAD funds left over once every unconnected area was guaranteed BEAD funding – could, under the Biden administration, originally be used for non-infrastructure projects such as device access, affordability, training and workforce development.⁵⁰ But, with the changes to the BEAD program under the Trump administration, the NTIA has failed to provide guidance about these

⁴⁵PBDA, *Broadband Equity, Access, and Deployment: FINAL PROPOSAL*.

⁴⁶Keith, “Satellite Gets Bigger Share of PA Broadband in Latest Change.”

⁴⁷Keith, “Satellite Gets Bigger Share of PA Broadband in Latest Change.”

⁴⁸Keith, “Satellite Gets Bigger Share of PA Broadband in Latest Change.”

⁴⁹PBDA, *Broadband Equity, Access, and Deployment: FINAL PROPOSAL*, 1.

⁵⁰National Telecommunications and Information Administration, *Notice of Funding Opportunity: Broadband Equity, Access, and Deployment Program* (National Telecommunications & Information Administration, 2022), <https://broadbandusa.ntia.doc.gov/sites/default/files/2022-05/BEAD%20NOFO.pdf>.

funds, which legally belong to the state and not the federal government. The NTIA has just wrapped up information gathering efforts about non-deployment funds but has not yet reached a decision. States have taken different approaches to discussions of handling their non-deployment funds, with Pennsylvania offering only cautious language.*

Opportunities Squandered

Pennsylvania has consistently failed to translate federal resources into digital equity results. The PBDA, tasked with planning and overseeing broadband expansion, has repeatedly privileged corporate interests over community needs, resulting in missed opportunities and public criticism. The following section examines these missed opportunities in detail.

Pennsylvania has consistently failed to translate federal resources into digital equity results.

Suppressing Municipal Innovation: Pennsylvania's Anti-Muni Law

One of the most contentious aspects of Pennsylvania broadband policy is the state's anti-municipal broadband law (Chapter 30, Title 66, Section 3014(h)), an explicit stricture aimed at preventing municipalities from delivering broadband service to residents. The PBDA's strategy has been to declare, in federal filings, that this law simply does not exist or does not pose a barrier to compliance with federal statute.⁵¹ Thus far, the PBDA has refused to publicly clarify this crucial issue.

*In May 2026, as this white paper was going to print, the NTIA published a document entitled *BEAD Subgrantees: Protect Your Rights* that effectively hamstrung the ability of states to regulate broadband provision for BEAD award winners. The full effect of this language on pre-existing state regulation is yet to be seen.

⁵¹PBDA, *Broadband Equity, Access, and Deployment: INITIAL PROPOSAL Volume 2*.

Neglecting Legal Remedies for Federal Funding Losses: *Digital equity funding*

In addition to the BEAD program, the Infrastructure Act also created three digital equity programs through the Digital Equity Act. Upon taking office, the Trump administration canceled these programs under the erroneous accusation of racism.⁵² The National Digital Inclusion Alliance (NDIA) estimates that Pennsylvania was in line for at least \$65.2 million from two DEA programs.⁵³ Furthermore, the NDIA estimates that 79.4% of the population of Pennsylvania or 10,300,000 people are eligible for some form of Digital Equity Act assistance.⁵⁴ One glaring omission in the PBDA's response to the rescission of Digital Equity Act funding has been its failure to take legal action to reclaim its rightful funds. After the executive branch unilaterally withdrew tens of millions of dollars in federal funding, the PBDA and the governor's office offered no legal challenge.

Because these funds were specifically aimed at bolstering digital equity among the least-connected constituencies of the state (including low-income and minority communities), this ongoing inaction has left many of the least connected demographics without relief and set a dangerous precedent for the mishandling of future federal funding. This failure is all-the-more glaring due to Title 96 of state law mandating that "The members of the [PBDA] board and the professional personnel of the board shall stand in a fiduciary relationship with the Commonwealth"—a duty that they are directly violating when they decide not to act in the best interest of the Commonwealth in securing already-obligated funding.⁵⁵ As the U.S. Consumer Financial Protection Bureau underscores, "When you're named a fiduciary and accept the role, you must – by law – manage the person's money and property for their benefit, not yours."⁵⁶

⁵²Barbara Ortutay and Claire Rush, "The Digital Equity Act Tried to Close the Digital Divide. Trump Targets It in His War on 'Woke,'" Politics, *PBS News*, May 25, 2025, <https://www.pbs.org/newshour/politics/the-digital-equity-act-tried-to-close-the-digital-divide-trump-targets-it-in-his-war-on-woke>.

⁵³NDIA, "Protecting Digital Equity Funds: Pennsylvania," National Digital Inclusion Alliance, April 2025, https://www.digitalinclusion.org/wp-content/uploads/2025/04/Protecting-Digital-Equity-Act-Funds_PA-1.pdf.

⁵⁴NDIA, "Protecting Digital Equity Funds: Pennsylvania."

⁵⁵Act No. 96 of 2021: Public Authorities and Quasi-Public Corporations (64 PA.C.S. - Pennsylvania Broadband Development Authority, Pub. L. No. 459 No. 96 (2021), § 6112(g), <https://www.palegis.us/statutes/unconsolidated/law-information>.

⁵⁶"What Is a Fiduciary?," Consumer Financial Protection Bureau, June 27, 2023, <https://www.consumerfinance.gov/ask-cfpb/what-is-a-fiduciary-en-1769/>.

Non-deployment funds

Pennsylvania was awarded \$1.16 billion in BEAD funding, yet “volunteered” to only award \$711 million, thus, in PBDA’s own words, “resulting in a savings of \$350 million.”⁵⁷ With the new BEAD adjustments, Pennsylvania’s unspent BEAD funds now approach \$450 million. These non-deployment funds can be used for workforce development, affordability programs, device access, and education.⁵⁸ As noted below, other states have stated that they will actively pursue these funds, while PBDA has merely said that it will work with NTIA.⁵⁹ The fact that these savings accrue to the federal government, while the Commonwealth loses out on \$450 million, would appear to be a violation of the PBDA’s fiduciary mandate. Coupled with the lack of digital equity dollars, those losing out are communities and Pennsylvanians themselves.

Overreliance on Satellite Services

The PBDA is relying heavily on satellite broadband as their connectivity solution across many areas of the state.⁶⁰ Indeed, 23% of unserved locations will get BEAD-awarded satellite service, either through SpaceX’s Starlink program, or Amazon’s not-yet-commercially-available Amazon LEO.⁶¹ Satellite connectivity has substantial and well-documented technical and economic disadvantages (with most recent national reports showing that less than 20% of SpaceX Starlink users actually receive broadband speeds).⁶² Meanwhile, Amazon Leo, another major recipient of millions of dollars of PBDA funding, does not yet provide any large-scale service offering. Kuiper is a company with zero track record and little infrastructure.

⁵⁷PBDA, *Broadband Equity, Access, and Deployment: FINAL PROPOSAL*.

⁵⁸National Telecommunications and Information Administration, *Notice of Funding Opportunity: Broadband Equity, Access, and Deployment Program*; Infrastructure Investment and Jobs Act.

⁵⁹PBDA, *Broadband Equity, Access, and Deployment: FINAL PROPOSAL*.

⁶⁰PBDA, *Broadband Equity, Access, and Deployment: FINAL PROPOSAL*.

⁶¹PA Department of Community & Economic Development, “Pennsylvania Broadband Development Authority Announces Provisional Approval of Nearly \$800 Million in BEAD Grants That Will Connect All Pennsylvanians with High-Speed Internet”; Keith, “Satellite Gets Bigger Share of PA Broadband in Latest Change.”

⁶²Sascha D. Meinrath et al., *Starlink Capacity Analysis v0.2* (The X Lab, 2025), https://thexlab.org/wp-content/uploads/2025/07/Starlink_Analysis_Working_Paper_v0.2-1.pdf.

The Authority's inclusion of satellite as a key component in their cost-cutting efforts stands in marked contrast to many states that proposed far higher utilization of fiber infrastructure. In Virginia, for instance, 81% of its BEAD allocation is being directed towards fiber optic network builds.⁶³ The fact that the PBDA actively chose to both invest in less-reliable technology, while also returning federal funding, rather than build out more robust, affordable, and well-established technologies, is confounding.

Incomplete mapping and challenges

A highly technical but consequential failure of the PBDA was their inability to identify and verify eligible unserved Broadband Service Locations (BSLs). This shortfall was particularly egregious in Pennsylvania as more accurate state maps had previously been developed, and then not used, resulting in hundreds of thousands of addresses—and hundreds of millions in federal funding—unclaimed. Estimates placed the loss to the state at upwards of \$400 million.⁶⁴

Failure to Secure or Allocate Adequate State Funds

One key structural failure has been the PBDA's unwillingness to publicly advocate for state funding for digital equity and broadband planning. Instead of creating state-based initiatives that have long proven successful across the U.S. (e.g., dedicated state block grant program to support counties, or providing "gap" funds to connect places unserved by federal initiatives), the state has largely limited its broadband interventions to passing through federal appropriations, including American Rescue Plan Act (ARPA) allocations. This approach meant that the burden of filling gaps in federal efforts has been thrown to rural counties and municipalities who are having to raise funds independently, often duplicating or paralleling federal efforts in exceedingly inefficient ways while simultaneously leaving an archipelago of unserved locales that will be even more expensive to connect down the road.

⁶³Jake Neenan, "Virginia Looking to Get Fiber to 81 Percent of BEAD Locations," *Broadband Breakfast*, August 7, 2025, <https://broadbandbreakfast.com/virginia-looking-to-get-fiber-to-81-percent-of-bead-locations/>.

⁶⁴Mike Conlow, "New National Broadband Map Update v4, Data as of December 2023," Substack newsletter, *Mike's Newsletter*, May 28, 2024, <https://mikeconlow.substack.com/p/new-national-broadband-map-update>; Harrison Cann, "Experts: Pennsylvania Missed Identifying Thousands of Unserved Internet Areas," *City & State PA*, May 31, 2023, <https://www.cityandstatepa.com/policy/2023/05/experts-pennsylvania-missed-identifying-thousands-unserved-internet-areas/386945/>.

This state's negligence is contrary to more robust planning efforts and funding mechanisms instituted by almost every neighboring state. Likewise, the PBDA's passive approach and concomitant reluctance to harmonize policies with neighboring states stand in sharp contrast to more ambitious and coordinated broadband expansions nearby. States like Maryland, New York, and West Virginia coordinated their federal, state, and local investments and proactively sought to identify and bridge service gaps as part of a comprehensive strategic plan. Pennsylvania, by contrast, failed to implement a unified plan that would deliver comparable results, leaving many communities at a disadvantage.

The evidence is clear: until ongoing negligence is addressed and meaningful reforms occur, the digital divide in Pennsylvania will remain endemic...

Lack of Consequences for Executive and Structural Failures

While all these failures are rooted in the PBDA's governance and structure, their placement within the Pennsylvania Department of Commerce categorizes them under the Governor's explicit purview. Ultimately, the Shapiro administration bears full responsibility for the PBDA's actions. The current lack of urgency, vision, and public engagement has allowed preventable mistakes to persist, small shortcomings to metastasize into mission-critical failures, and greatly undermined digital equity for Pennsylvanians across the Commonwealth. The evidence is clear: until ongoing negligence is addressed and meaningful reforms occur, the digital divide in Pennsylvania will remain endemic, with concomitant harms to the lives and livelihoods of families across the Commonwealth. This is the current broadband legacy of Governor Shapiro.

State Best Practices

Affordability

Affordability is a major barrier to broadband access. At its peak, approximately 763,000 households in Pennsylvania enrolled in the federal government's Affordable Connectivity Program (ACP), with another 1.4 million households eligible.⁶⁵ Several states have taken concrete measures towards ensuring affordable broadband plans, which Pennsylvania has not done. New York passed the Affordable Broadband Act, which requires ISPs operating in the state to offer low-cost plans to households which meet certain income qualifications.⁶⁶ This went into effect in January 2025 and makes monthly plans available for \$15-\$20, significantly lower than the national median price (\$78 per month⁶⁷). Connecticut passed a similar bill enforcing low-cost tiers. Similar bills are being considered in Maryland and Massachusetts.⁶⁸

Low-cost bill tiers are not the only affordability measures other states have adopted. Oregon has introduced its own lifeline program which adds (up to) \$15.25 per month on top of the federal \$9.25/month Lifeline benefit and gives grants of up to \$100 for a device.⁶⁹ Other states, like Maryland and South Carolina, offered one-time financial subsidies.

⁶⁵PBDA, *Connected and Empowered: A Digital Equity Plan for the Commonwealth of Pennsylvania*.

⁶⁶Access NYC, "Affordable Broadband Act – ACCESS NYC," Low-Cost Plans for Home Internet, 2025, <https://access.nyc.gov/programs/affordable-broadband-act/>; Jon Brodtkin, "ISPs Fear Wave of State Laws after New York's \$15 Broadband Mandate," *Ars Technica*, February 24, 2025, <https://arstechnica.com/tech-policy/2025/02/isps-fear-wave-of-state-laws-after-new-yorks-15-broadband-mandate/>.

⁶⁷Joe Supan, "The Average US Internet Bill Is \$78 Monthly. Here's How You Can Lower It," *CNET*, March 12, 2025, <https://www.cnet.com/home/internet/average-us-internet-bill-is-78-monthly-heres-how-you-can-lower-it/>.

⁶⁸An Act Preserving Broadband Service for Low-Income Consumers, S.2318, Massachusetts (2025), <https://malegislature.gov/Bills/194/SD1200>; Broadband Access, No. HB1553 (2025), <https://mgaleg.maryland.gov/mgaweb/Legislation/Details/hb1553?ys=2025RS>.

⁶⁹Oregon Public Utility Commission, "Oregon Lifeline," Oregon Lifeline, 2025, <https://www.oregon.gov/puc/pages/oregon-lifeline.aspx>.

Adoption

New York is a standout in state-level broadband adoption policy. New York State has a ConnectAll office, an agency of the governor's office, dedicated specifically to "closing the remaining digital divide" in the state.⁷⁰ The ConnectAll Office released its Digital Equity Program RFA with \$5.4 million in funding in response to the Trump Administration's cancellation of the federal Digital Equity Act grant programs. Applicants can request between \$250,000 and \$750,000 to fund activities that:

- Increase access to affordable subscriptions
- Provide access to devices
- Expand digital literacy programs
- Protect privacy and safety of residents
- Ensure the accessibility of government services.⁷¹

In addition, ConnectAll is investing \$3 million to publicize the state's Affordable Broadband Act benefit to eligible households.

State Capacity & Infrastructure

Infrastructure is a key component of digital equity where Pennsylvania fails to follow the best practices of other states. As Pennsylvania contemplates closing the sunset provision on its state broadband office, other states have worked to assure these authorities remain strong. This year, for instance Virginia, allocated \$50 million to its long-standing Telecommunications Initiative (VATI). Minnesota allocated the same amount to its state broadband funding program.⁷² New York has appropriated \$800 million in the last decade to fund the state broadband office's staffing, deployment grant programs, technical assistance, stakeholder engagement, and other functions.⁷³ An additional \$16 million has been allocated for broadband

⁷⁰"About ConnectALL," ConnectALL Office, 2025, <https://broadband.ny.gov/about-connectall-0>.

⁷¹ConnectALL, *ConnectALL Digital Equity Program Capacity Grant Request for Applications* (Empire State Development, 2025), https://broadband.ny.gov/system/files/documents/2025/07/final_de-capacity-grant-rfa.pdf?utm_source=chatgpt.com.

⁷²Jake Varn, "The Role of State Broadband Policy in 2026," *Pew*, March 10, 2026, <https://pewtrsts.org/4ufTEih>.

⁷³ConnectALL, *Initial Proposal, Volume I: Broadband Equity, Access and Deployment (BEAD) Program* (Empire State Development, 2023), sec. Appendix 1: Broadband Funding, <https://broadband.ny.gov/broadband-deployment-initial-proposal>.

deployment since 2019 as a result of settlements with Charter Communications, Frontier Communications, Rochester Gas and Electric Corporation, and Greenlight Networks, LLC.⁷⁴

In addition to infrastructure programs to serve New York's unserved and underserved locations, these funds established the Affordable Housing Connectivity Program, which offers ISPs \$100 million on a rolling basis to connect low-income affordable housing units to high-speed broadband.⁷⁵ The program is in consultation with New York's Homes and Community Renewal, the state's affordable housing agency. Grant sizes range from \$500-\$1,000 per unit. To date, the program has awarded \$32.7 million to connect 2,600 locations.

Municipal Broadband

While Pennsylvania remains one of only 16 states to prohibit or inhibit municipal broadband, other states not only endorse municipal broadband but support it with state funds. New York has allocated \$295 million from its Capital Projects Fund (CPF) award to fund its Municipal Infrastructure Program.⁷⁶ The program will lay an estimated 2,700 miles of fiber to reach over 100,000 locations. All the networks created will be publicly owned and open access. Still, NYLS' ACLP has criticized the program for being potentially wasteful as it does not strictly prohibit overbuilding.⁷⁷ New Jersey used \$40 million of its CPF award for a similar program called the New Jersey Broadband Infrastructure Deployment Equity (NJBIDE) Pilot Program.⁷⁸ A majority of the funds available were awarded to local governments to create publicly owned networks. This use of public funds to support municipal broadband programs is an innovative solution to building out infrastructure, and since it is not owned by ISPs, prices can be set by the state, therefore supporting affordability.

⁷⁴ConnectALL, Initial Proposal, Volume I: Broadband Equity, Access and Deployment (BEAD) Program, sec. Appendix 1: Broadband Funding.

⁷⁵"Affordable Housing Connectivity Program," Homes and Community Renewal, 2025, <https://hcr.ny.gov/affordable-housing-connectivity-program>.

⁷⁶"Municipal Infrastructure Program," ConnectALL Office, 2025, <https://broadband.ny.gov/municipal-infrastructure-program>.

⁷⁷Michael Santorelli and Alex Karras, "Monitoring New York's Municipal Infrastructure Program: Evaluating Round 1 Awards – Broadband Expanded," *Broadband Expanded*, December 13, 2024, <https://broadbandexpanded.com/posts/nymip>.

⁷⁸ConnectNJ, "Capital Projects Fund (CPF)," NJ Office of Broadband Connectivity, 2025, <https://www.nj.gov/connect/grants/cpf/>.

Non-Deployment

Earlier this year, NTIA cancelled all pre-approved non-deployment activities. As states now await NTIA's announcement as to the future of these funds, some states have been vocal in how they will put them to good use. New York, for instance, indicated that any remaining funds would be directed to New York's Digital Equity plan and workforce development activities that support BEAD deployment.⁷⁹ New Jersey outlined six specific initiatives: \$20 million Public Housing Authority Broadband Program funding a mix of wiring and equipment upgrades, Wi-Fi in common areas, affordable broadband offers, digital skills training, and technical assistance; \$2 million Broadband City Planning Challenge to support urban broadband planning through competitive grants; \$1 million to expand digital skills training programs through the Department of Labor; \$1-2 million allocated to the Computer Science for All program to help educators implement New Jersey's K–12 computer science standards; \$2 million for AI training tied to a planned AI Hub developed with higher-education partners; and a \$500,000 initiative to improve access in correctional institutions to support broadband-enabled education and re-entry.⁸⁰ Maryland plans to invest in training related to cybersecurity, privacy, workforce development, digital literacy, and upskilling.⁸¹ Likewise, broadband sign-up assistance, technical support, and multilingual outreach to support adoption. Maryland also proposed prisoner education programs to promote pre-release digital literacy, job skills, and online job search capabilities. Delaware and Michigan identified similar priorities: user training on cybersecurity and privacy, remote learning, virtual health services, digital literacy and upskilling, multilingual outreach, and job-skills education within correctional systems.⁸² Delaware further proposed investments in digital navigators, direct broadband affordability subsidies, smart farming technologies, tools to monitor climate impacts, and activities to prepare the state for emerging AI technologies.

⁷⁹ConnectALL, *Final Proposal* (ConnectALL office, Empire State Development, 2025).

⁸⁰New Jersey Office of Broadband Connectivity, *NJ BEAD Final Proposal* (2025), https://broadbandexpanded.com/files/ijja_plans/NJ%20-%20BEAD%20Final%20Proposal%20-%20Draft.pdf.

⁸¹Office of Statewide Broadband, *State of Maryland Draft Final Proposal Broadband Equity, Access, and Deployment (BEAD) Program* (2025), <https://dhcd.maryland.gov/Broadband/Documents/State-Plans/BEAD/Draft-Final-Proposal.pdf>.

⁸²Delaware Department of Technology and Information, *Delaware Broadband, Equity, Access, and Deployment (BEAD) Program Final Proposal* (2025), <https://broadband.delaware.gov/pages/contentFolder/pdfs/bead/DE%20BEAD%20Final%20Proposal.pdf>; Michigan High Speed Internet Office, *BEAD Final Proposal* (2025), <https://www.michigan.gov/leo/bureaus-agencies/mihi/funding-opportunities/bead/bead-grant-application-website/bead-final-proposal>.

... Pennsylvania remains one of only 16 states to prohibit or inhibit municipal broadband...

West Virginia's plan focused heavily on digital inclusion and workforce development. The state's Digital Literacy and Digital Navigator Program would provide funding to nonprofit and community-based organizations, public libraries, and local governments to deliver hands-on assistance. A Device Distribution Program, modeled on other state device initiatives, supplies free devices to eligible beneficiaries through regional planning councils, the state library association, university extension offices, school districts, and organizations serving covered populations. In addition, a Workforce Development Grant Program would support K–12 districts, higher-education, career-technical institutions, and workforce organizations—all oriented toward broadband-related jobs.⁸³

Ohio received approval to use non-deployment funds even before infrastructure was fully deployed. The state projected a need for over 2,500 workers to expand broadband and more than 26,000 workers to deploy 5G technology through 2030. Ohio planned a \$50 million request for proposals to select industry intermediaries to coordinate implementation over five years. Funding would sustain existing workforce initiatives; fund education and training programs including career awareness and internships for K–12 and postsecondary students, support the creation of broadband-related majors and minors at universities and colleges, provide tuition assistance and other supports.⁸⁴

Taken together, these plans illustrate the breadth and depth of states' ambition for non-deployment BEAD funds. For Pennsylvania, which will likely hold over \$400 million in non-deployment resources, the opportunity to bolster the Commonwealth's digital equity goals should not be ignored.

⁸³West Virginia Department of Commerce, *Final Proposal: State of West Virginia* (2025), <https://broadband.wv.gov/wp-content/uploads/2025/08/West-Virginia-BEAD-Final-Proposal-Public-Comment-8.19.25.pdf>.

⁸⁴BroadbandOhio, *State of Ohio Final Proposal Broadband Equity, Access and Deployment (BEAD) Program* (2025), https://dam.assets.ohio.gov/image/upload/broadband.ohio.gov/BBOH_BEAD_Final_Proposal_Draft_vF.pdf.

Best Practices and Recommendations

The recurring missteps within Pennsylvania's broadband policy architecture—ranging from the suppression of municipal innovation to incomplete mapping and failing to fight for federal fundings—reflect a fundamental lack of organizational coordination. Rather than operating as an agency meant to work for the people of Pennsylvania, the PBDA has and continues to function as a reactive body without internal alignment or long-term vision.

Yet, according to a Pew Research report on state broadband governance, having a dedicated, permanent coordinating office or agency for broadband is a marker of more strategic, sustained efforts to close connectivity gaps.⁸⁵

While the PBDA has much work to do in terms of how it can best serve the Commonwealth, it is scheduled to sunset in 2031. While troubled in many ways, Pennsylvania needs PBDA in order to maintain a dedicated broadband office and enable a more consistent strategy towards addressing digital inequity across the state.

A major way to improve the impact of the Pennsylvania broadband authority can be seen in looking to other states, many of which have demonstrated that organized, well-coordinated broadband governance directly translates into more equitable and effective outcomes. These offices coordinate with local governments and community anchor institutions to align infrastructure deployment with affordability, adoption, and digital literacy programs—creating sustained capacity and avoiding the fragmented decision-making pertinent throughout Pennsylvania. By adopting similar models, Pennsylvania could transform the PBDA from a passive funding administrator into an active planning and coordinating authority, capable of long-term strategic alignment across state, municipal, and community levels. Such a reorganization would not only enhance efficiency but also ensure that federal and state resources are deployed transparently and equitably. Overall, the authority's inability to adopt accurate mapping, present decision-making transparently, hold anyone accountable for prolonged inequity failures, or uphold fiduciary obligations to the Commonwealth of Pennsylvania over federal bodies demonstrates that much change is needed. The following breaks down a list of recommendations based on the above overview.

⁸⁵Anna Read and Lily Gong, "Which States Have Dedicated Broadband Offices, Task Forces, Agencies, or Funds?," *Pew*, September 12, 2022, <https://pew.org/3xN7ECc>.

End the Sunset

First and foremost, for any of our recommendations to actualize, PBDA must be made a permanent body, with the legislature eliminating the 2031 sunset.

Adopt Transparency

A Pew Research report on improving and accelerating broadband expansion nationwide from early 2025 proposed that improving transparency and consistency in decision-making would allow for faster deployment.⁸⁶ Applying these nationally-focused recommendations to the Pennsylvania context, it is clear that greater transparency and consistency in decision-making are essential to restoring public trust and achieving equitable broadband outcomes. The PBDA's history of lack of oversight and failure to exercise its fiduciary duties has created an accountability vacuum that undermines both public confidence and the state's digital equity goals. Establishing more transparent decision-making would ensure that broadband investments are guided by data, expertise, and democratic accountability rather than opaque, consultant-driven processes.

Fight for Digital Equity Funds

The Pennsylvania Broadband Development Authority's (PBDA) refusal to pursue legal remedies following the rescission of federal Digital Equity Act funding represents a profound abdication of its fiduciary duty to the Commonwealth. When the executive branch unilaterally withdrew tens of millions of dollars intended to expand digital equity for Pennsylvania's most underserved populations, the PBDA and the Governor's office failed to challenge the decision—despite clear statutory and ethical obligations to act in the best interests of the state. The urgency of this issue is underscored by a letter from more than 30 top broadband advocates addressed to Josh Shapiro, urging him to challenge the termination of approximately \$65 million in federal Digital Equity grants on behalf of Pennsylvania.⁸⁷ To fulfill its legal and moral responsibilities, the PBDA must actively contest such funding withdrawals—whether through litigation, formal appeals, or coalition-building with

⁸⁶Kathryn de Wit, "4 Ways to Improve and Accelerate Broadband Expansion Nationwide," *Pew*, February 13, 2025, <https://pew.org/4hX0BOl>.

⁸⁷Keystone Internet Coalition, "Pennsylvania's Leading Broadband Advocates Urge Gov. Shapiro to Defend \$65M Digital Equity Funds – Keystone Internet Coalition," *KIC*, July 7, 2025, <https://keystoneinternetcoalition.org/pennsylvanias-leading-broadband-advocates-urge-gov-shapiro-to-fight-for-65-million-in-terminated-funding/>.

other affected states—and advocate for the restoration of Pennsylvania's fair share of digital equity resources. Doing so would signal a shift from complacency to holding federal actors accountable and would demonstrate a clear desire within Pennsylvania to defend their residents' rights to broadband access.

Fight for non-deployment funds

By volunteering to return \$350 million in BEAD funding to the federal government rather than deploying it for broadband expansion, the PBDA not only weakened Pennsylvania's broadband infrastructure but also set a dangerous precedent for passivity in the face of federal overreach.

Failing to address the issue of non-deployment funds, Pennsylvania sits in contrast to neighboring states like Maryland, New York, Ohio, and West Virginia, who have worked to assure BEAD funding will go towards digital equity.

Fight for labor

The NTIA under the Trump Administration has done everything and anything it can to ensure that BEAD funding flows to incumbent and favorite providers, notably Starlink, without any considerations for communities and community members. This includes labor. Recently, NTIA Administrator Arielle Roth has stated that Pennsylvania has run afoul of NTIA's rules by classifying fiber-optic technicians as electrical workers, thus guaranteeing them higher wages “under the state's prevailing wage law.”⁸⁸ According to one news article, “as a condition of receiving [BEAD] money, Pennsylvania will have to change the way it classifies those workers, she said.”⁸⁹ Among many other impudent decisions, the NTIA's BEAD Restructuring Notice eliminated privileges for strong labor practices and wages, calling them “centrally planning and diversity, equity, and inclusion (DEI) edicts. “A separate document requires states with prevailing wage laws “to accurately classify workers” so as to “stay within federal grant guidelines on reasonable costs.”⁹⁰ Pennsylvania has successfully fended off such accusations in the past and should continue to fight for labor and prevailing wages in the Commonwealth.

⁸⁸Charlotte Keith, “PA Labor Law Could Be New Sticking Point on Broadband Funds,” *Spotlight PA*, March 16, 2026, <https://www.spotlightpa.org/news/2026/03/pennsylvania-federal-broadband-prevailing-wage-rural-issues/>.

⁸⁹Keith, “PA Labor Law Could Be New Sticking Point on Broadband Funds.”

⁹⁰NTIA, “Frequently Asked Questions and Answers Version 14,” *BroadbandUSA*, 2025, https://broadbandusa.ntia.gov/sites/default/files/2025-08/BEAD_FAQs_v14.pdf.

Look to Neighboring States

Pennsylvania should model its broadband reforms after neighboring states that have implemented more comprehensive and coordinated approaches. On availability and access, for instance, Virginia's Telecommunications Initiative (VATI) program offers tens of millions of dollars in grants to providers looking to connect rural and remote areas. This program has been essential to Virginia's universal service goal of 2028, offering over \$800 million in deployment grants since 2017.⁹¹ Pennsylvania should consider creating a permanent funding program, managed by PBDA, to support high-capacity broadband deployment and middle mile connectivity in un- and under-connected areas. Such a program will be particularly crucial in the coming years, as BEAD funding will not connect all households equally, if at all, and, as noted above, at least 23% of funded locations will receive satellite services which offer tenuous broadband speeds.⁹² These households may require support to shift to fiber optics when their household demand increases.

On affordability and adoption, New York's Affordable Broadband Act mandates that ISPs offer low-cost broadband plans for \$15 - \$20 per month, while Connecticut has passed similar legislation and Maryland provides one-time financial subsidies to households. In terms of state capacity and infrastructure, New York has established a permanent ConnectAll Office and has invested \$800 million in broadband programs over the past decade, while New Jersey and New York both support municipal broadband through state funding for publicly owned, open-access networks. Ultimately, Pennsylvania needs to start committing state funds to digital equity and inclusion practices and programs to support its residents and to ensure it is competitive with neighboring states who have been doing so for years.

Finally, in terms of non-deployment funds, states such as Maryland, New Jersey, Delaware, West Virginia, and Ohio have outlined specific, forward-looking uses for remaining BEAD funds—including workforce development, digital literacy, prison education, public housing broadband, and cybersecurity training—whereas Pennsylvania has yet to articulate any plan for its roughly \$400 million in potential non-deployment resources. Modeling these states' strategies would allow Pennsylvania to align broadband deployment with long-term digital equity goals.

⁹¹Virginia DHCD, Commonwealth Connect: Broadband Equity, Access and Deployment Program: Five-Year Plan (Department of Housing and Community Development, 2023), <https://www.dhcd.virginia.gov/sites/default/files/Docx/vati/virginia-bead-5-year-plan.pdf>.

⁹²Keith, "Satellite Gets Bigger Share of PA Broadband in Latest Change."

Pennsylvania stands at a crossroads in its effort to achieve digital equity.

Conclusion

Pennsylvania stands at a crossroads in its effort to achieve digital equity. Despite unprecedented federal investment and a clear mandate to strive towards maximal broadband access, the Pennsylvania Broadband Development Authority (PBDA) has failed to deliver an effective broadband strategy. The Authority's repeated missteps—its perpetuation of suppressing municipal broadband, acceptance of inaccurate maps and refusal to pursue legal remedies for lost federal funding—have left the Commonwealth lagging its neighbors. Where states like New York, Maryland, Virginia, and New Jersey have built permanent broadband offices, coordinated local and state investments, and directed remaining BEAD funds toward workforce development, digital literacy, and affordability programs, Pennsylvania has chosen passivity over progress.

To reverse this trajectory, Pennsylvania must fundamentally reorganize its broadband governance structure. Eliminating the sunset provision on the PBDA and transforming it into a permanent, fully empowered broadband office would establish the institutional continuity necessary for long-term digital equity planning. Equally essential is for the PBDA and the Governor's Office to fight aggressively for the restoration of rescinded Digital Equity Act funds and to deploy non-deployment resources toward initiatives such as supporting local innovation, affordability, and adoption initiatives across the Commonwealth. Finally, transparency, public oversight, and meaningful engagement with municipalities, cooperatives, and community organizations must become the hallmarks of Pennsylvania broadband policy.

If Pennsylvania is to fulfill its fiduciary and moral obligation to its citizens, it must act decisively—embracing organization, transparency, and accountability as the foundation for equitable connectivity. The digital divide is not inevitable; it is the result of political, economic, and administrative choices. Correcting those choices now will determine whether broadband in Pennsylvania becomes a public good that uplifts all communities—or remains another squandered opportunity.

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Opening Statement — PA House Committee on Broadband Technology Adoption and Affordability

Members of the Committee, thank you for the opportunity to testify today.

My name is Dustin Bishop, and I serve as the Project Manager for Alleghenies Broadband, Inc. (ABI), — a non-profit corporation formed in 2020 to improve internet connectivity across the Southern Alleghenies region: Bedford, Blair, Cambria, Fulton, Huntingdon, and Somerset Counties. ABI works closely with local governments and Internet Service Providers (ISPs) to expand broadband infrastructure to unserved and underserved rural communities across our six-County region.

Most of ABI's work to date has focused on improving infrastructure. We have partnered with several ISPs to secure approximately \$100 million in funding through various programs such as the NTIA Broadband Infrastructure Program (BIP), the Capital Projects Fund (CPF), the American Rescue Plan Act (ARPA), and the Broadband Equity Access and Deployment (BEAD) Program to oversee the deployment of fixed wireless and fiber-optic technologies. Under this model, ABI manages federal grant compliance and reporting while our ISP partners handle the on-the-ground construction and installation— allowing providers to own and operate their networks while ABI represents the long-term interests of our residents and local governments.

I mention our experience in infrastructure work because it is inseparable from the issue of affordability that we discuss today. Broadband, particularly fiber, is a long-term investment spanning decades — much like our roads, bridges, and recreational assets. The ability to access affordable internet service will largely determine whether the investments that the federal and state governments have made will be successful or not. The Coronavirus pandemic made the need for such internet service more evident, as Work From Home, telemedicine, and online education became common aspects of our life and work.

Rural areas face unique challenges in obtaining reliable internet service — a lack of existing vertical assets, difficult terrain, and low population density has historically prevented rural communities from enjoying comparable internet access as their urban counterparts. The lack of rural investment leads to less competition among providers, and less competition means higher prices for the very customers who can least afford them.

Given the significant influx of federal funding into our region, ABI is now expanding our focus beyond infrastructure deployment to engage local stakeholders on the issue of digital equity. We look forward to guidelines for the BEAD Non-Deployment Program to be released by the Department of Commerce in the coming months and are currently talking with our local partners about how these funds can best serve our residents.

We view broadband not as a benefit to a single industry or employer, but as a long-term investment that benefits every sector of our regional economy. For that to take place, access must translate into adoption, which depends heavily upon affordability.

I appreciate the opportunity to speak with the committee today and hopefully come to a common agreement of how all parties involved can better understand and address this pressing issue. I am happy to answer any questions you may have for me.



BROADBAND
WITHOUT
BOUNDARIES

August 18, 2026
House Communications and Technology Committee
Re: Affordable Broadband Policy Priorities

Chair Ciresi and Honorable Members of the Committee:

Thank you for holding this hearing to discuss the issue of affordable broadband in Pennsylvania.

WISPA – *The Association for Broadband Without Boundaries* represents hundreds of Internet Service Providers (“ISPs”) and broadband technology developers nationwide, including 13 members headquartered in Pennsylvania. These companies range from hometown ISPs serving just one community to networks serving thousands of customers across the commonwealth, and technology companies that power data storage, drive energy solutions, finance private networks, and more. The ISPs we represent have found innovative solutions to closing the digital divide using cutting-edge, reliable Fixed Wireless Access (“FWA”) technology in addition to fiber-optic cable to reach communities that have been left behind by larger broadband providers.

With \$1.16 billion in federal Broadband Equity, Access, and Deployment (“BEAD”) program funds in place, we hope that in the next four years, every Pennsylvanian will have access to broadband infrastructure. Now, states are beginning to address what comes next: if a family cannot afford their monthly internet bill, the infrastructure being constructed will be insufficient. Affordability, not availability, will drive the next digital divide.

Two trends have emerged as states and the federal government attempt to increase access to affordable broadband for low-income households. One model is found in New York state, where after a lengthy court battle, the state implemented a low-cost plan mandate for all ISPs serving more than 20,000 customers, with no subsidy or support mechanism from the state. It is far from clear that this program

has been effective: of the 7 ISPs that have made data publicly available, only two had more than 100 new, low-income customers. Two ISPs had no new low-income customers, and a third, SpaceX, which covers the entire state, only had 11 new subscribers.

Far more effective than this blanket mandate has been the federal Affordable Connectivity Program (“ACP”), a voluntary program that offered qualifying low-income households a \$30 per month service discount that could be used for broadband service. One study indicated that the ACP “helped 44% of the 52 million eligible households gain access to online internet services and devices,” and included participation by “roughly 1,700 internet service providers”¹ – a significantly more robust outcome. Indeed, many WISPA members not only participated in the ACP, but many have continued to offer some form of discount to targeted vulnerable groups in the wake of the program’s closure. These discounts often target elderly customers, veterans, or low-income households, often in rural areas. These WISPA members offer these programs because they are embedded in the communities they serve and see value in keeping their neighbors online in difficult times.

Two states have now adopted programs that mirror the ACP at the state level: California’s Public Utilities Commission launched a pilot program in August of 2025, and New Mexico passed SB 152, which funds an ACP-replacement program through state Lifeline funds, earlier this year. While results are not yet available, we hope that these programs will demonstrate results that mirror the federal ACP’s success.

WISPA recommends finding creative policy approaches that addresses two factors: lowering the cost of infrastructure construction and finding alternative funding sources to support an ACP-style program in Pennsylvania.

¹ “Examining the Affordable Connectivity Program and Telehealth Use: A Pilot Survey of the Affordable Connectivity Program, Telehealth, Video and Audio Visits in a Racially Diverse, Lower-Income Population” –available at <https://pmc.ncbi.nlm.nih.gov/articles/PMC11747251/>

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Costs can be reduced in two ways: firstly, BEAD and state broadband grant funds should not be treated as taxable income for the ISPs that receive these dollars. Instead, every dollar of these grant programs should be directed into infrastructure, ensuring the commonwealth maximizes every dollar of these investments. Secondly, the legislature should consider exempting broadband infrastructure like fiber-optic cable and FWA radio equipment from sales tax requirements to deepen private investment in infrastructure expansion projects. Together, these steps would represent a significant investment in making broadband more affordable by reducing the cost of infrastructure costs.

Pennsylvania also has an opportunity to dedicate BEAD funds to affordability by designating non-deployment dollars – the \$371 million that will not be spent on infrastructure expansion projects – to fund an ACP-style program for the commonwealth. NTIA has not yet released its guidelines for use of these funds, and WISPA encourages you to work with the Pennsylvania Broadband Development Authority to advocate for and plan a low-cost broadband plan funded by BEAD dollars. By implementing these investments appropriately, Pennsylvania will position itself to not only meet the needs of the present moment, but to build a foundation that will serve every resident of the commonwealth into the future.

I welcome the opportunity to work with you on expanding affordable broadband access, and I am happy to answer any questions you may have.

Thank you,

Steven Schwerbel

Director of State Advocacy

WISPA – The Association for Broadband Without Boundaries

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Written Testimony of Arc Human Services
Before the Pennsylvania House Communications & Technology Committee
Informational Hearing on Broadband Affordability and Adoption

July 14, 2026

Chairman and Members of the House Communications & Technology Committee,

Thank you for the opportunity to provide written testimony regarding broadband affordability and adoption in Pennsylvania. We appreciate the Committee's interest in this important issue and the opportunity to share the perspective of individuals with disabilities, their families, and the providers who support them every day.

My name is Craig Douglass, and I serve as Chief Administrative Officer of [Arc Human Services \(AHS\)](http://archumanservices.org). For more than seventy years, AHS has supported individuals with intellectual disabilities and autism in building meaningful, independent lives in their communities. Today, AHS supports nearly 300 individuals throughout Western Pennsylvania through residential, employment, community, and in-home services. Through our affiliated organization, [The Arc of Washington County](http://thearc.org), we also work closely with children with disabilities, their families, and self-advocates by providing advocacy, education, family support, information and referral, and community-based resources. This combination of direct services and family advocacy gives us a broad perspective on how affordable broadband impacts individuals with disabilities, not only through service delivery, but also in education, healthcare, employment, family engagement, and everyday life.

When most people think about broadband, they think about streaming television, working from home, or completing school assignments. While those are certainly important uses, our experience has shown us that for many people with disabilities, broadband has become something much more fundamental. It has become essential infrastructure that supports independence, safety, healthcare, and community living.

At the same time, the system of community-based supports is facing unprecedented challenges. Across Pennsylvania, providers and families are experiencing a growing shortage of Direct Support Professionals and caregivers. Many individuals are living longer, have increasingly complex support needs, and rightly want to remain in their homes and communities rather than institutional settings. Families are often providing more support than ever before while navigating limited resources and workforce shortages. Meeting these growing needs requires us to modernize how we deliver services and thoughtfully incorporate enabling technologies that support both caregivers and the people they serve.

The future of community-based disability services is not choosing between people and technology; it is thoughtfully combining both so that people with disabilities can live more independent lives while making the best use of an increasingly limited caregiving workforce. Technology allows us to extend the reach of caregivers, not replace them, by providing medication reminders, environmental monitoring, remote supports, emergency notifications, and communication tools that enable staff and family members to focus their time where it is needed most. This creates opportunities for individuals to exercise greater

independence while ensuring caregivers remain available to provide the human connection, judgment, and support that technology can never replace.

Reliable broadband is especially important in the rural communities we serve throughout Western Pennsylvania. Many of our residential homes and the families we support are located in areas where recruiting and retaining caregivers is already difficult. Limited transportation options and inconsistent internet connectivity can reduce access to services and create safety risks. Affordable, reliable broadband helps bridge those gaps by making remote supports, telehealth, connected safety technologies, and family communication practical options where they otherwise might not exist.

Over the past several years, AHS has invested in what we call our Smart Living Initiative. The purpose has never been to introduce technology simply because it is new or innovative. Instead, we start with a simple question: “What does this person want to accomplish, and can technology help remove a barrier?” Sometimes the answer is yes, and sometimes it is no. Technology is never the goal. Helping people live the lives they choose is.

As we have implemented these technologies, one lesson has become increasingly clear: nearly every solution that improves independence ultimately depends on reliable, affordable broadband.

We have worked with individuals who wanted to manage their own medications rather than relying on staff to remind them throughout the day. A connected medication dispenser provided reminders, confirmed when medications were taken, and notified caregivers only when assistance was actually needed. Rather than creating more dependence, the technology allowed the individual to assume greater responsibility while giving family members confidence that someone would be alerted if a dose was missed. Without broadband, however, those alerts simply do not occur.

In another home, we installed a simple video doorbell after learning that an individual was anxious whenever someone knocked at the door. Instead of opening the door to unknown visitors, the individual can now see who is outside, communicate safely through the device, and decide whether to answer. What may seem like an everyday convenience for many people became an important tool for building confidence and promoting both independence and personal safety.

We have also seen broadband strengthen connections between individuals and the people who care about them. Voice assistants make it easier for individuals with limited mobility to control lights, play music, make phone calls, or receive reminders throughout the day. Video calling allows family members who live hours away to stay connected in meaningful ways. Telehealth appointments reduce unnecessary travel while ensuring individuals continue receiving needed healthcare services exactly when they need them. These technologies help people remain connected to their families and communities, but they all depend on reliable internet service.

Broadband also plays an important role in supporting Pennsylvania’s direct support workforce. Like many providers across the Commonwealth, we continue to face workforce shortages, with 48 direct support positions vacant at the time this testimony was prepared. We do not view technology as a replacement for Direct Support Professionals, nor should it ever be. The relationships between individuals and the professionals who support them remain at the heart of quality services.

What technology can do is allow staff to spend more time doing the work that matters most. Environmental sensors can notify staff when assistance is actually needed instead of requiring routine physical checks

throughout the night. Remote support technologies can help staff respond more efficiently while allowing individuals greater privacy and independence in their own homes. Medication reminders, safety alerts, and connected devices reduce routine tasks so that Direct Support Professionals can focus on teaching skills, building relationships, supporting community participation, and responding when their expertise is truly needed.

Unfortunately, affordability and availability remain significant barriers. Many individuals receiving disability services rely on fixed incomes or public benefits. Even when broadband infrastructure exists, the monthly cost of internet service may prevent individuals from using technologies that could improve their independence, increase their safety, or reduce caregiver stress. We have also worked with families in rural communities where reliable broadband service simply is not available, limiting the technologies that could otherwise support greater independence and peace of mind.

Our organization recently opened a Smart Living Home where individuals with disabilities, families, caregivers, providers, students, policymakers, and community members can experience these technologies in a real residential setting. Rather than simply displaying products on a shelf or watching a demonstration, the Smart Living Home allows people to experience how everyday technologies can be integrated into the routines of daily life and adapted to support an individual's unique goals.

One of the greatest barriers to adopting technology is not the technology itself, it is uncertainty. Families often wonder, "Will this really work for my son or daughter?" Caregivers question whether technology will be reliable or simply create more work. Individuals may be hesitant to try something unfamiliar.

The Smart Living Home was designed to remove those barriers. Working alongside our Assistive Technology Professionals and Enabling Technology Integration Specialists, individuals can experience technology firsthand in a safe, supportive environment. Together, we can adapt the space to reflect a person's daily routines, allowing them to try medication supports, remote supports, environmental controls, safety technologies, or other solutions over several days, not just for a few minutes during a demonstration. Something as simple as mounting a sensor or emergency button with removable adhesive instead of permanent installation can help families realize that many perceived barriers are easier to overcome than they imagined.

Perhaps most importantly, the Smart Living Home gives people the opportunity to build confidence. Individuals begin to trust the technology because they have experienced it themselves. Families gain reassurance by seeing how it supports, rather than replaces, the people they love. Providers, educators, healthcare professionals, and policymakers begin to see what is possible when technology is thoughtfully integrated into person-centered supports. The conversation shifts from asking whether technology will work to exploring how it can help someone achieve greater independence, safety, and choice.

One of the most common reactions we hear after a visit is that people expected to see impressive technology, but instead they leave talking about people. They see someone preparing a meal more independently, remembering medications with less prompting, communicating more easily with family, answering the front door more safely, or feeling more confident living in their own home. They begin to realize that technology, often products tools that are right off the shelf, can be a powerful enabler of independence, safety, and connection. More importantly, they begin to see what is possible. Those outcomes, not the devices themselves, are what matter.

Perhaps even more importantly, families and caregivers begin to see new possibilities. They recognize that technology is not simply a means of supporting the person they love; it is strengthening the entire circle of support. A medication reminder can reduce the number of daily check-in calls. A connected wearable can provide reassurance without requiring someone to be physically present. A video call can help a family member remain engaged from miles away. Technology becomes another layer of support that complements, rather than replaces, the relationships that matter most.

These experiences often change the conversation from “What technology should we buy?” to “How can technology help this person achieve their goals?” That shift in perspective is powerful because it keeps the focus where it belongs: increasing independence, supporting caregivers, and improving quality of life. None of these opportunities, however, can be fully realized without reliable and affordable broadband connecting people to the tools and supports that make them possible.

Broadband is no longer simply a convenience; it is becoming a critical component of the support network that allows people with disabilities to live safely, independently, and with greater choice in the communities they call home.

As Pennsylvania continues investing in broadband infrastructure and affordability, we respectfully encourage the Committee to recognize that reliable internet service has become an essential component of modern disability services. Broadband is no longer simply telecommunications infrastructure. It supports healthcare, employment, education, family caregiving, emergency response, and independent living. For many Pennsylvanians with disabilities, affordable broadband creates opportunities that simply did not exist a generation ago.

Technology may be the tool, but broadband is the foundation that allows those tools to work. As Pennsylvania continues investing in broadband infrastructure and affordability, it is also investing in greater independence, stronger families, and more sustainable community-based supports for people with disabilities.

At Arc Human Services and The Arc of Washington County, we often say that technology is not about replacing people. It is about helping people live with greater independence, dignity, and choice. We appreciate the Committee’s leadership on this important issue and would welcome the opportunity to share our experiences or serve as a resource as Pennsylvania continues advancing broadband access and digital equity for all Pennsylvanians.

Thank you again for the opportunity to provide this testimony.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "C. Douglass", with a stylized flourish at the end.

Craig D. Douglass
Chief Administrative Officer

Testimony to the Pennsylvania House Communications and Technology Committee

Subject: Internet Affordability and Digital Equity in Pennsylvania

Chairperson and Members of the Committee:

Thank you for the opportunity to provide testimony regarding internet affordability in Pennsylvania. While broadband availability has expanded significantly over the past decade, affordability remains one of the most serious barriers preventing many Pennsylvanians from fully participating in modern society.

For low-income households, seniors living on fixed incomes, veterans, individuals with disabilities, and many minority communities, the cost of a standard monthly home internet subscription has become increasingly difficult to afford. In many areas, broadband plans cost between \$60 and \$100 per month or more before taxes, fees, equipment rentals, and other charges. For households already struggling to pay for housing, food, utilities, transportation, healthcare, and prescription medications, internet service is often viewed as a luxury rather than a necessity—not because it lacks importance, but because limited income forces difficult choices.

The digital divide in Pennsylvania is increasingly an affordability divide, not an availability divide

Many Pennsylvanians forego home broadband service entirely and rely exclusively on smartphones for internet access. While smartphones provide valuable connectivity, they are not an adequate substitute for a reliable home broadband connection and meaningful computing devices such as tablets, laptops, or desktop computers.

A smartphone's small screen, limited functionality, data caps, and dependence on cellular networks create significant obstacles when attempting to perform essential online activities. Tasks that are relatively straightforward on a computer can become cumbersome or impossible on a mobile phone. This digital disadvantage affects countless aspects of modern life.

Internet affordability is particularly important for Pennsylvania's growing population of ALICE households. ALICE—Asset Limited, Income Constrained, Employed—refers to working households whose incomes exceed the federal poverty level but remain insufficient to meet the actual cost of basic necessities. According to the 2025 United For ALICE Pennsylvania report, 40 percent of Pennsylvania households were living below the ALICE Threshold in 2023, including 12 percent in poverty and an additional 28 percent classified as ALICE. These households are routinely forced to choose between essential expenses such as housing, food, transportation, healthcare, utilities, and communications services.

This reality is especially relevant in Chester County, often regarded as one of the most affluent counties in Pennsylvania. Despite its overall prosperity, Chester County United Way reports that approximately 30 percent of county households—more than 61,000 households—are either living in poverty or struggling as ALICE households. In other words, nearly one out of every three households in Chester County faces difficulty affording basic necessities.

The challenges are particularly visible in Southern Chester County communities, where many working families, seniors, veterans, and individuals with disabilities face rising housing costs, transportation expenses, healthcare costs, and utility bills. For these households, a broadband

subscription costing \$60 to \$100 per month can represent the difference between meeting essential needs and falling behind on other obligations.

Healthcare is an area that households without home broadband subscriptions face particular challenges. Patients are increasingly expected to access electronic medical records, schedule appointments, complete intake forms, communicate with providers, and participate in telehealth visits online. Navigating healthcare portals and conducting video appointments on a smartphone can be difficult, especially for seniors and individuals with disabilities. Lack of affordable broadband can therefore become a barrier to healthcare access and health outcomes.

Navigating financial services present similar challenges. Banks, credit unions, government agencies, and benefit providers increasingly conduct business online. Applying for assistance programs, managing accounts, reviewing statements, submitting documentation, or disputing charges often requires substantial online interaction. These tasks are far easier and more secure when performed on a computer connected to reliable home internet service.

Educational opportunities are also limited by inadequate internet access. Students of all ages increasingly rely on digital learning platforms, online research, virtual classrooms, and electronic assignments. Adults seeking workforce training, certifications, continuing education, or job-search assistance encounter similar obstacles. Completing coursework, participating in virtual instruction, or preparing professional resumes and applications can be extremely difficult using only a smartphone.

Workforce development is another area where the digital divide has serious consequences. Many employers require online applications, digital assessments, virtual interviews, and electronic onboarding processes. Individuals without affordable home broadband and suitable devices are placed at a competitive disadvantage in the labor market. The inability to access these opportunities contributes to lower employment rates and reduced economic mobility.

The issue extends beyond connectivity itself. Even when low-income households can occasionally afford internet service, many cannot afford the devices necessary to use it effectively. Tablets, laptops, and desktop computers remain out of reach for many families. Consequently, these residents face a double burden: they lack both affordable broadband service and the tools required to benefit from digital connectivity.

In effect, many vulnerable Pennsylvanians are being forced to spend their limited incomes on the most basic necessities of life while foregoing home internet subscriptions and meaningful computing devices. This is not a matter of personal preference. It is a consequence of economic reality. Families should not have to choose between paying for groceries, prescription medications, rent, or internet service when broadband access has become essential for participation in modern society.

The Commonwealth has made important investments in broadband infrastructure and digital inclusion initiatives. However, expanding broadband availability alone will not solve the problem if service remains unaffordable for those who need it most. Policymakers should continue exploring strategies that promote affordable broadband pricing, support low-income connectivity programs, encourage competition, provide assistance for device acquisition, and ensure that vulnerable populations can fully participate in the digital economy.

Internet access is no longer merely a communications service. It is a gateway to healthcare, education, employment, financial security, civic engagement, and social connection. When affordability barriers prevent residents from obtaining reliable home broadband service, they are effectively excluded from opportunities that many others take for granted.

As policymakers consider the future of broadband in Pennsylvania, it is important to recognize that availability does not equal accessibility. A broadband network passing a household provides little benefit if the household cannot afford to subscribe. Likewise, internet service alone is insufficient when residents cannot afford the devices needed to utilize that service effectively.

Pennsylvania's broadband strategy must therefore address three interconnected challenges: network availability, service affordability, and device accessibility. Without addressing all three, hundreds of thousands of Pennsylvanians—including many ALICE households in Southern Chester County and throughout the Commonwealth—will remain excluded from the healthcare, educational, workforce, financial, and civic opportunities that increasingly require robust internet access.

Pennsylvania's commitment to digital equity must include access to affordable service and appropriate devices. Only then can all Pennsylvanians—regardless of income, age, disability status, veteran status, race, or geographic location—fully participate in the opportunities of the twenty-first century.

Thank you for your consideration of this testimony and for your attention to the issue of internet affordability in the Commonwealth.

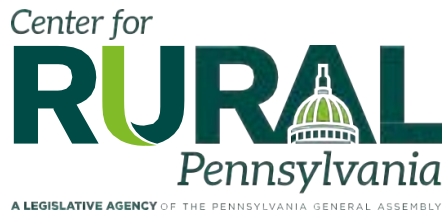
Respectfully,

Joan Holliday and Jim Mercante

Co-Founders and Co-Leaders of the Chester County Digital Alliance

Supporting statistics:

- Approximately 40% of Pennsylvania households were below the ALICE Threshold in 2023 (12% poverty plus 28% ALICE). [unitedwayalice. Org]
- Chester County United Way reports roughly 61,800 Chester County households (about 30%) are either ALICE or in poverty. [Chester County United Way]
- The federal Affordable Connectivity Program provided eligible households with up to a \$30 monthly broadband subsidy and up to a \$100 device discount before the program ended. [<https://www.porh.psu.edu/fcc-affordable-connectivity-program-lowers-cost-of-broadband-services-for-eligible-households>]



**Testimony of Zachary L. Adams, Ph.D., Executive Director, Center
for Rural Pennsylvania
Broadband Affordability
Pennsylvania House Committee on Communications and
Technology
Indiana University of Pennsylvania - July 14, 2026**

Thank you for the opportunity to provide written testimony on behalf of the Center for Rural Pennsylvania regarding broadband access and affordability.

The Center is a bipartisan, bicameral legislative research agency of the General Assembly. The Center's legislative mandates include two broad charges: 1) conducting and sponsoring applied policy research to benefit our rural communities; and 2) maintaining a comprehensive collection of data to assist policymakers in meeting the needs of rural Pennsylvania. Our role is to provide the research and information needed to support informed legislative decision-making.

Since 2003, the Center for Rural Pennsylvania has documented disparities in broadband availability, access, and affordability between rural and urban Pennsylvania. Over the past two decades, the Center has also supported research, convened public hearings, and provided policymakers with data to inform broadband policy. The following testimony summarizes key findings from the Center's research and public hearings on broadband.

Broadband Research

Broadband Demand: The Cost and Price Elasticity of Broadband Internet Service in Rural Pennsylvania (November 2020)

This year-long research project surveyed rural and urban Pennsylvanians about their broadband pricing, internet speed, and willingness to pay for high-speed broadband service. It provides a unique first look into factors that continue to create substantial barriers to closing the digital divide. The researchers surveyed 1,446 Pennsylvania residents in May and June 2020.

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Key findings:

- There are differences in the types of internet service used by urban and rural respondents, with urban respondents reporting higher use of cable and fiber connectivity and rural respondents reporting higher use of dial-up, DSL, and satellite;
- An evaluation of pricing data alone masks important differences in speed tiers between urban and rural respondents;
- Within pricing tiers, rural respondents are more likely to have slower internet speeds and urban respondents are more likely to have faster speeds;
- Urban and rural respondents are receiving systematically inequitable service—not only in terms of broadband speed, but also in price for service;
- The demand for broadband service shows a “sweet spot” in terms of willingness to pay in the under \$60/month range; and,
- When speed and price are held stable, rural respondents have a higher willingness to pay for broadband than urban residents.

Policy considerations:

- Change Pennsylvania’s current definition of broadband which is currently defined as 1.544 Mbps download and 128 kilobits per second upload speed to meet or exceed federal definitions for broadband.
- Establish government support mechanisms for broadband buildout that provide greater transparency and standardized public disclosure of broadband service characteristics, including speed, regular pricing, and service limitations.
- Commission a statewide study to assess and derive a broadband affordability formula and a model for how much low-income households can afford to spend on broadband without having to sacrifice other necessities such as rent, food, medical care, etc.
- Maximize the options for broadband service provision by allowing other viable entities, such as community-based networks, municipalities, and cooperatives, to deploy broadband across rural Pennsylvania.

Broadband Availability and Access in Rural Pennsylvania (June 2019)

This year-long research effort focused on precisely measuring median broadband speeds within specific geographic areas, and on identifying the extent of variances between official estimates of broadband availability and broadband speed measurements gathered from the field. This research collected more than 11 million broadband speed tests from across Pennsylvania in 2018. These tests measured broadband speeds in every Pennsylvania county and found that median speeds across most areas of the state do not meet the FCC’s criteria to qualify as broadband.

Key findings:

- The FCC’s official broadband maps from December 2017 (updated May 2019) show 100 percent availability across the commonwealth of broadband speeds that exceed 25 megabits per second (Mbps);

- The research team collected more than 11 million broadband speed tests from across Pennsylvania in 2018 and found that median speeds across most areas of the state did not meet the FCC's criteria to qualify as a broadband connection;
- At the county level, the 2018 data showed that there were 0 (zero) counties in Pennsylvania where at least 50 percent of the populace received broadband connectivity, as defined by the FCC;
- Connectivity speeds were substantially slower in rural counties than in urban counties; and
- By combining 2018 data with a historical archive of an additional 15 million tests from Pennsylvania residents, the research team identified that, since 2014, the discrepancy between ISPs' self-reported broadband availability in the FCC's broadband maps and this research's speed test results collected via the M-Lab platform has grown substantially in rural areas, but not in urban areas; this may indicate a growing overstatement of broadband service availability in rural communities.

Policy considerations:

- Support private providers, electric cooperatives, local governments, nonprofit organizations, and public-private partnerships to expand broadband access, recognizing that different communities may require different solutions.
- Consider policies and incentives that encourage electric cooperatives and independent local providers to expand high-speed fiber networks in underserved rural areas.
- Ensure Pennsylvania policies position communities to remain eligible for federal broadband funding opportunities and avoid unintended barriers that limit future investments.
- Evaluate whether existing state laws unnecessarily restrict local governments from pursuing broadband projects or partnerships that could improve connectivity.
- Allow communities to choose the broadband investment and ownership models that best fit their unique needs and circumstances.
- Continue supporting reliable mapping, data collection, and ongoing monitoring to help policymakers identify service gaps and make informed investment decisions.
- Continue investing in competitive grant programs that prioritize unserved and underserved areas while encouraging scalable, future-proof broadband infrastructure.

Public Hearings on Rural Broadband

Rural Broadband Development and Policy (May 20, 2022)

The Center's Board of Directors hosted a public hearing in Wellsboro, PA to examine progress since its first broadband hearing in 2018 and discuss the opportunities created by the federal Infrastructure Investment and Jobs Act (IIJA), which allocated billions of dollars nationwide for broadband expansion.

Key Findings:

- The federal Infrastructure Investment and Jobs Act could provide up to \$1.2 billion dollars to expand broadband access in Pennsylvania.
- To maximize Pennsylvania's share of federal broadband funds, it is imperative to quickly and accurately document unserved and underserved households and be prepared to potentially challenge FCC maps.
- Increased broadband funding will likely lead to greater demand for workforce development and support as states compete for qualified technicians to implement projects.

Expanding Broadband Access in Rural Pennsylvania (February 18, 2021)

The Center's Board of Directors conducted the hearing to learn more about the efforts to expand broadband access in rural Pennsylvania, with a focus on the role of electric cooperatives, economic development entities, and educational organizations.

Key Findings:

- Funding is essential to help deploy broadband in rural areas. Funding through multiple channels helps more providers overcome high start-up capital requirements.
- Support from the state and federal government through both financial and regulatory means is essential to overcome start-up barriers in low-population-density areas.
- Community buy-in, collaboration and sustained support are key to broadband expansion in rural areas.
- Affordable, high-speed broadband internet access is needed to attract, retain, and expand businesses in rural areas, and to maintain the quality of life for rural residents.
- There is no one-size-fits-all approach to the type of infrastructure required to deploy broadband. However, fiber is a superior service as it allows for equal download and upload speeds.
- Rural areas, which tend to have higher populations of senior citizens, can benefit substantially from community-led technology training and support. Seniors often have the technology but may not know how to access all its benefits.
- The COVID-19 pandemic put the spotlight on how important quality connectivity is to every community in Pennsylvania.

Conclusion

Over the past two decades, the Center for Rural Pennsylvania has documented the challenges rural communities face in accessing reliable and affordable high-speed broadband. While substantial investments and technological advancements have expanded broadband access across the Commonwealth, the Center's research and public hearings provide valuable context for understanding how these challenges have evolved over time. Together, these findings establish a historical baseline for evaluating

progress and identifying the remaining gaps in broadband availability, affordability, and access throughout rural Pennsylvania.

Additional Broadband Research Reports:

- [Pennsylvania Broadband Access: A Speed Test Analysis \(February 2022\)](#)
- [Rural Broadband Availability, Accessibility and Affordability Public Hearing \(April 5, 2018\)](#)
- [Broadband Internet Use in Rural Pennsylvania \(May 2008\)](#)
- [How Are You Connected? \(2008\)](#)
- [Broadband Internet Service in Rural and Urban Pennsylvania: A Common Wealth or Digital Divide? \(January 2003\)](#)

Before the
Pennsylvania House Communications and Technology Committee

In the Matter of)
)
Broadband Affordability)
)
)

**COMMENTS OF
CROWN CASTLE INC.**

Kyle Stewart
Public Policy Manager

CROWN CASTLE INC.
2000 Corporate Drive
Canonsburg, Pennsylvania 15317
Telephone: 724-416-2120

Date: August 11, 2026

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I. INTRODUCTION AND SUMMARY

Crown Castle Inc. (“Crown Castle”) is pleased to submit these comments to the Pennsylvania House Communications and Technology Committee to inform the Committee on the role that Crown Castle plays to help keep broadband affordable for consumers.

Crown Castle has more than twenty-five years of experience building and operating wireless infrastructure that serves as the backbone for the broadband networks of the future. With more than 40,000 towers nationwide, Crown Castle is the country’s largest independent owner and operator of shared infrastructure. In Pennsylvania alone Crown Castle employs over 400 employees and has over 1,600 tower assets across the Commonwealth. Crown Castle partners with wireless carriers, technology companies, broadband providers and municipalities to design and deliver infrastructure solutions that bring 5G innovations, opportunities, and possibilities to people and businesses around the country.

As owner, operator, or manager of wireless infrastructure assets, Crown Castle interacts daily with state and local jurisdictions and utilities regarding a variety of issues, including siting approvals and other permitting and regulatory issues related to towers. We welcome the opportunity to share our perspective as an infrastructure provider and offer how broadband can remain affordable.

II. HOW TO ENSURE BROADBAND AFFORDABILITY

Preparing for broadband deployment projects requires extensive capital costs, design of the network, and working with a variety of stakeholders from customers to municipalities. Broadband accessibility is essential to local economic growth, the public safety of our communities and acts as a lifeline to education, doctor appointments, and our neighbor's connection to the world. For broadband to be accessible it must be affordable. How we ensure that affordability can be best achieved through a shared infrastructure model. This model ultimately lowers capital costs, brings faster connectivity, and enables providers market entry while not having to build new towers. Focusing on the role that shared infrastructure plays in the broadband affordability ecosystem shifts the conversation from who pays the bill, to how we reduce the bill in the first place.

III. THE ROLE OF SHARED INFRASTRUCTURE

Crown Castle's shared infrastructure model allows multiple customers to collocate on the same infrastructure, allowing resources to be used more efficiently, using pre-existing infrastructure to accelerate deployment, and spreading the cost across multiple users which allows capital spending to be used more efficiently and effectively. When multiple carriers want to provide service to a particular community, infrastructure providers provide their real estate and infrastructure assets to allow for that service to occur with customers not bearing the full cost of constructing new vertical assets. When pre-existing infrastructure exists, having policies that promote use of current infrastructure allow for quicker connectivity and reduces the cost of deploying that broadband network. Furthermore, reducing the cost to serve communities occurs when multiple users of shared infrastructure contribute to the cost of delivering broadband. Infrastructure economics and the role state policy plays is critical to shaping affordability outcomes. By supporting the use of existing infrastructure, avoiding policies that promote

overbuilding, and recognizing infrastructure access as a cost driver we can begin at the root of the affordability question by identifying the cost savings a shared infrastructure model can support while building broadband networks.

IV. CONCLUSION

Crown Castle appreciates the opportunity to submit these comments to inform the House Communications and Technology Committee of what principles are needed to consider when thinking about broadband affordability. Broadband affordability is a shared priority and one that requires a comprehensive view of the ecosystem. While consumer focused policies are important, they must be complemented by policies that address the underlying cost structure of broadband delivery. Shared infrastructure provides a proven scalable solution which lowers deployment costs, accelerates connectivity, maximizes investment efficiently and ultimately supports more affordable service for consumers. Crown Castle stands ready to work with policymakers, ISPs, and other stakeholders to advance solutions that expand connectivity while ensuring affordability. Thank you for the opportunity to provide this perspective and taking the issues of broadband affordability seriously.

Respectfully submitted,

Kyle Stewart

Kyle Stewart
Public Policy Manager
Crown Castle Inc.
2000 Corporate Drive
Canonsburg, Pennsylvania 15317



Thank you for the opportunity to speak with you today at this August 6, 2026 hearing about the core issue of affordability for internet plans, computer devices, and workforce training. At Computer Reach we have witnessed the life changing advantages of a computer literate public who can communicate, shop, pray, research, work, play and study online. A great example of success is [Ronald Garrett](#).

Ronald Garrett, known as "G," is a Washington, PA resident who is turning his lifelong passion for painting into a business. Originally from Oklahoma City, Oklahoma, G has been an artist for as long as he can remember, with a deep love for painting. Now, he's channeling that creativity into a new venture: Eugene's Palette LLC, a company that will offer residential and commercial painting services, along with home improvement solutions such as roofing, insulation, electrical work, and plumbing.

G's story is a testament to the positive impact that affordable internet offered by Computer Reach can have on individuals and communities. By providing access to affordable internet, digital literacy training and business development resources turning dreams into reality. It is essential for organizations like Computer Reach to exist in order to help individuals in underserved communities succeed in the modern world.

In closing, let's be realistic that if the internet is not affordable it will not scale in low income communities where the gap between the HAVES and HAVE NOTS gets wider every day.

Thank you for listening to my testimony.

Dave Sevick, Executive Director, Computer Reach, Pittsburgh PA

August 14, 2026

Hon. Joe Ciresi
Chair, House Communications & Technology Committee
325 Main Capitol Building
P.O. Box 202146
Harrisburg, PA 17120-2146

Re: Broadband Affordability and Adoption

Dear Chair Ciresi:

Thank you for the opportunity to submit testimony on the importance of broadband affordability and adoption. We are the Keystone Internet Coalition (KIC), a group of non-profits, local governments, educational institutions, and concerned citizens dedicated to closing the digital divide in Pennsylvania. Our mission is to ensure that all Pennsylvanians, regardless of their income or zip code, have access to high-quality networks, reliable and affordable internet service, and devices and digital skills that are necessary to participate in our modern world.

Connectivity is a fundamental tool for securing employment, accessing education and healthcare, and engaging in civic life. It strengthens self-determination and autonomy and enables individuals and families to improve their circumstances and contribute to a more inclusive, resilient, and thriving community. Those without connectivity are effectively excluded from the systems that enable advancement.

We applaud Pennsylvania's historic efforts to close the digital divide, which are bringing connectivity to hundreds of thousands of Pennsylvanians that have been offline for decades. This is critical work that supports the economic opportunity and advancement of some of our most vulnerable communities.

However, there is still much to do. Pennsylvania's existing programs rely on federal funds and focus primarily on the issue of infrastructure deployment in rural areas. While this is an essential and laudable goal, it unfortunately does little to address the barriers that keep most Pennsylvanians offline—namely, the cost of high-quality, reliable internet service and devices, and challenges with broadband adoption.

We urge the Commonwealth to expand its efforts to comprehensively address the digital divide, including the issues of broadband affordability and adoption. Specifically, we recommend that Pennsylvania:

- Establish a permanent broadband office with a mandate and funding to research and advance universal service goals related to broadband access, affordability, and adoption.
- Allocate state funds to support broadband adoption and device distribution programs, including support for digital navigators, device lending, telehealth, and workforce development.
- Create a statewide broadband affordability program that requires low-cost broadband plans and/or provides a consumer subsidy for low-income residents
- Incentivize broadband competition by reducing costs to deployment and eliminating state-imposed roadblocks that prevent municipalities from providing broadband service.
- Expand support for community anchor institutions that provide services for digital navigation, broadband adoption, hotspot and device lending, and public internet access.
- Implement affordability and adoption strategies from Pennsylvania's Statewide Broadband Plan and Digital Equity Plan.

The State of Broadband Affordability and Adoption in Pennsylvania

Relative to other countries, the United States has high monthly broadband bills at an average of \$84 a month, or nearly \$30 a month higher than the OECD international average.¹ This falls in line with Pennsylvania's state survey showing that a majority of residents pay between \$75 to over \$100 a month for service.² And, in rural areas, many residents report even higher prices, ranging from \$100 to \$200.

Compounding these high costs, over 2 million low-income Pennsylvanians recently lost access to the Affordable Connectivity Program (ACP), a federal benefit designed to help those struggling with their monthly broadband bills. Between the high price of service and loss of cost support, millions of Pennsylvanians are now facing an economic situation that can make internet service difficult if not impossible to afford. Indeed, the Federal Communications Commission found that over three quarters of ACP participants will likely experience service disruption or disconnection in the absence of program support.³

¹ Open Technology Institute, *The Cost of Connectivity 2020*, <http://newamerica.org/oti/reports/cost-connectivity-2020/>

² Pennsylvania Broadband Development Authority, *Connected and Empowered: A Digital Equity Plan for the Commonwealth of Pennsylvania* https://broadband.pa.gov/wp-content/uploads/2024/03/DigitalEquityPlan_02-26-2024_NTIA_Approved_optimized.pdf#page=84

³ Federal Communications Commission, ACP Consumer Survey, <https://www.fcc.gov/acp-survey>

Unfortunately, Pennsylvania's current plans do little to address the issue of affordability.

Previously, the Commonwealth had determined that \$48.60/month would be considered an affordable low-cost plan on BEAD funded networks, which, when combined with the ACP, would result in a monthly service cost under \$20 for qualifying low-income households. This amount would have brought prices closer to the \$10-\$20 range, which research shows is a threshold above which low-income households will struggle to afford service (although for those in deep poverty, any amount is too much).⁴

While these prices were arrived at within the context of BEAD, they demonstrate the tools through which the Pennsylvania Broadband Development Authority (PBDA) intended to promote broadband affordability—a requirement that internet service providers offer low-cost service to low-income households combined with a benefit to increase low-income households' purchasing power. This was a strong approach to make broadband affordable on BEAD networks, and it would be a strong approach to make broadband affordable statewide.

Unfortunately, both of these tools no longer exist. The federal government reversed course and now prohibits states from requiring specifically priced low-cost BEAD plans. And, as described before, the federal ACP program has expired, leaving millions of low-income Pennsylvanians without access to its cost support.

Given this lack of leadership at the federal level, we urge the Commonwealth to step into the vacuum and take on the issue of broadband affordability itself. Other states have done it—New York and Connecticut have passed laws to require affordable service plans for low-income residents; New Mexico and Wisconsin have expanded state universal service fund programs to provide a consumer subsidy—and there are other mechanisms to promote affordability as well. For example, Pennsylvania could aggregate and publish information on existing low-cost offerings, fund initiatives to promote broadband adoption and device access, extend consumer protections to broadband services, improve the availability and quality of public wi-fi, promote competition by reducing barriers to deployment, and foster municipal, co-operative, and non-profit internet service providers, which have been shown to offer more affordable service.

Fortunately, many of these ideas fit within the plans Pennsylvania has already developed. According to Pennsylvania's Five-Year Strategy Toward Internet For All, *“addressing the needs and gaps impacting broadband affordability requires a combination of long-term policy solutions, including increasing competition, subsidizing broadband costs for low-income*

⁴ Pennsylvania Broadband Development Authority, Connected and Empowered: A Digital Equity Plan for the Commonwealth of Pennsylvania
https://broadband.pa.gov/wp-content/uploads/2024/03/DigitalEquityPlan_02-26-2024_NTIA_Approved_optimized.pdf#page=85

households, and supporting small broadband providers. By addressing these gaps, more households can access affordable high-speed internet services.”

The Keystone Internet Coalition agrees. Affordability is now an even bigger barrier to access than infrastructure availability. Despite this, Pennsylvania is currently taking few steps to make broadband more affordable for our citizens, 12% of whom live below the federal poverty line. As a coalition of digital equity advocates across the state, we at KIC represent the voices of people across PA who are calling for changes to make broadband more affordable. We are grateful for the opportunity to be heard and implore the state to begin meaningful work towards making broadband more affordable for all.

Respectfully,

Jennifer Blatz

State Coordinator, Keystone Internet Coalition

Kate Rivera

Executive Director, Technology Learning Collaborative
Co-Coordinator, Keystone Internet Coalition

Toby Greenwalt

Principal, Flywheel Strategies
Co-Coordinator, Keystone Internet Coalition

Drew Garner

Director of Policy Engagement, Benton Institute for Broadband & Society

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July 6, 2026

Hon. Joe Ciresi
Chair, House Committee on Communications & Technology
325 Main Capitol Building
P.O. Box 202146
Harrisburg, PA 17120-2146

RE: Broadband Affordability and Adoption

Dear Chair Ciresi:

On behalf of the 211 Digital Navigator Network, I appreciate the opportunity to provide insight into the challenges facing our neighbors in southwestern Pennsylvania and help inform policy discussions on the current state of broadband affordability.

About the 211 Digital Navigator Network

The 211 Digital Navigator Network is a collaboration among United Way of Southwestern Pennsylvania, PA 211 Southwest and five partner organizations dedicated to connecting community members to affordable broadband options, low- or no-cost devices and digital skills training. Since the Network's launch in October 2023, digital navigator staff have assisted more than 2,800 people in southwestern Pennsylvania.

- United Way of Southwestern Pennsylvania improves lives by mobilizing the caring power of community in Allegheny, Butler, Westmoreland, Fayette and Armstrong counties. United Way provides direct oversight of the Digital Navigator Network by managing incoming partner referrals, establishing best practices, identifying resources and training new digital navigators. To increase awareness of this important resource, United Way also sustains the Network through advocacy, fundraising and outreach efforts.
- PA 211 Southwest is a vital human services helpline, available 24 hours a day, seven days a week, every day of the year, through phone, text and chat. Highly trained and empathetic staff, known as resource navigators, assess the needs of each individual and offer connections to more than 7,000 agencies providing free and confidential services including crisis counseling, disaster assistance, employment services, housing and utilities assistance and more. Resource navigators ask everyone who contacts 211 if they are in need of affordable broadband, low- or no-cost devices or digital skills training and then refer them to partners in the Digital Navigator Network. As of July 1, 2026, the PA 211 Southwest contact center in Pittsburgh serves 21 counties across Pennsylvania. These counties represent 53% of the state's population (including the Pittsburgh, Philadelphia and Erie metro areas) and an estimated 55% of calls to 211 each year.

United Way of Southwestern Pennsylvania serves Allegheny, Armstrong, Butler, Fayette and Westmoreland counties.

www.unitedwayswpa.org

The official registration and financial information for United Way of Southwestern Pennsylvania may be obtained from the Pennsylvania Department of State by calling toll free, within Pennsylvania, 1-800-732-0999. REGISTRATION DOES NOT IMPLY ENDORSEMENT. UNITED WAY DOES NOT PROVIDE GOODS OR SERVICES AS WHOLE OR PARTIAL CONSIDERATION FOR CONTRIBUTIONS MADE.

- Each partner organization hosts a digital navigator staff member, who provides the assistance needed. Digital navigators assess each person's digital navigation needs and provide referrals to appropriate resources for internet access, internet-enabled devices, digital skills training and on-the-spot basic technical support. Literacy Pittsburgh, Goodwill of Southwestern Pennsylvania, YWCA of Westmoreland County, Reimagine Reentry and Fayette County Community Action Agency each employ a digital navigator.

Digital navigators work closely with every person to identify affordable internet plans in their area and provide guidance in applying for new plans, identifying household internet needs, and escalating account issues with Internet Service Providers (ISPs). In some cases, the digital navigator may participate in conversations with the individual and their ISP to reestablish service, especially in situations where there is a past due balance. This individualized support allows our most vulnerable community members to receive essential internet services and is essential for clients who may feel uncomfortable, lack time due to work or child care schedules, or do not have the language to advocate for their needs with ISPs. When broadband is not available, digital navigators assist with enrollment into regional and national hotspot programs to fill the gap.

Broadband affordability for southwestern Pennsylvania residents

While we must ensure that every household in Pennsylvania has access to reliable broadband at home, we must also consider affordability, which is the most frequently cited barrier to in-home internet access. This is demonstrated in the Pennsylvania Broadband Development Authority's Digital Equity Plan (January 2024), which states:

"Many residents in PA pay over \$100 (monthly) and even above \$200 for reliable broadband. When adding car or transportation costs, groceries for a family, health and medical costs, and other living expenses, it can be difficult for residents with limited income to manage an additional bill for broadband. This is one reason why many PA residents opt for only a mobile cellular plan instead of a fixed, wired broadband connection. While fixed and cellular services are valuable for connecting Pennsylvanians to the internet, households with only cellular services are limited in their connection speed and the amount of data they can use."

This is further demonstrated by United Way's comprehensive ALICE (Asset Limited, Income Constrained, Employed) report. Whereas the Federal Poverty Guideline measures the cost of feeding a family irrespective of the actual cost of living in their communities, ALICE measures the actual cost in the county where they live of a household's essential needs, including child care, transportation and technology. ALICE households earning above the Federal Poverty Level often do not earn enough while working at least one job to afford their basic expenses. A family of four must make \$86,184 annually to meet their essential needs in southwestern Pennsylvania. In United Way's five-county service region, 38% of residents earn below the ALICE threshold.

ALICE includes a monthly technology line item in its basic survival budget, which accounts for basic broadband internet at home and a smartphone plan with unlimited data for each adult in a

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household using the average costs of six providers (three higher-cost, three lower-cost). A two-adult household pays \$152 per month, whereas a single adult pays \$118. Internet access is often one of the first things eliminated in order to afford the rapidly rising costs of housing, food and utilities.

Of those who have utilized the Digital Navigator Network since October 2023, approximately:

- 94% of households fall at or below the ALICE threshold (68% FPL, 26% ALICE).
- 31% are older adults (aged 65+).
- 5% are veterans or live with a veteran.
- 10% live in a rural community.
- 44% identify as a racial or ethnic minority.

The Digital Navigator Network at work

Internet access is a critical component of civic society, allowing our neighbors to access healthcare, secure employment, achieve their educational goals, communicate with loved ones and so much more. As stated within the Keystone Internet Coalition's founding premises, this is not about simply connecting people to the internet; it is also about connecting our neighbors to opportunity, dignity and full participation in society.

Our digital navigators understand the importance of affordability when assisting clients with navigating internet plans, as demonstrated below:

- Christopher was seeking assistance with utilities after receiving a few shut-off notices. His internet bill was a significant concern at \$200 per month. After receiving several options from a digital navigator, Christopher switched to an affordable \$9.95 per month plan and was last considering an upgrade to the higher-speed \$29.95 per month plan to support his wife's work from home and son's educational needs once the school year starts. By working with a digital navigator to identify affordable internet plans, Christopher was able to save \$190 every month.
- Megan, a single mother of two young kids, did not have internet at home due to affordability concerns after the Affordable Connectivity Program ended in April 2024. She was taking her children to the library or a friend's house to finish their school assignments, an imperfect solution that created challenges for the family. With the help of a digital navigator, Megan signed up for a \$9.95 per month internet plan, which allowed her children to successfully complete their schoolwork at home.
- After an accident and a subsequent job loss, Isaac called 211 for assistance with utility bills including internet service. Isaac was looking for a new job using his local library but was struggling to stay on top of his job search from a public computer. He was able to sign up for a \$9.95 per month internet plan and received a free laptop from the digital navigator. On a follow up call, Isaac expressed gratitude for the support and shared that he had several job interviews scheduled.

United Way of Southwestern Pennsylvania serves Allegheny, Armstrong, Butler, Fayette and Westmoreland counties.

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Conclusion

Broadband affordability for Pennsylvania residents should be considered during discussions on increasing broadband adoption in the Commonwealth. United Way of Southwestern Pennsylvania looks forward to working with you and other stakeholders on this critical issue.

Thank you again for the opportunity to share this testimony.

Respectfully,



Sally Ellwein

Chief Program and Policy Officer

Written Testimony of United Way of Pennsylvania to the House Communications and Technology Committee Hearing on Internet Affordability

Indiana University of Pennsylvania | July 14, 2026

Introduction

Thank you, Chairman Ciresi, Chairman Ortitay, and members of the Committee, for holding this hearing on internet affordability. United Way of Pennsylvania represents local United Ways across the Commonwealth and works to advance digital equity through partnerships with community-based organizations serving rural residents, low-income households, seniors, people with disabilities, veterans, formerly incarcerated individuals, working households living paycheck to paycheck, non-English speakers, and individuals experiencing homelessness.

We come before you today through the lens of ALICE® — Asset Limited, Income Constrained, Employed. ALICE households earn above the Federal Poverty Level but do not earn enough to afford basic necessities in the county where they live. In 2024, 39% of Pennsylvania's 5.3 million households (which amounts to more than 2 million families) fell below the ALICE Threshold.¹ These are the households that internet affordability policy is fundamentally about. And they are not being reached.

The ALICE Reality: Broadband Is a Basic Need Pennsylvania's Working Families Cannot Afford

The ALICE Household Survival Budget calculates the true minimum cost of living and working in today's Pennsylvania economy. It includes housing, child care, food, transportation, health care, and technology. The ALICE framework has long recognized digital connectivity as a household essential on par with food and shelter, first introducing technology as a dedicated budget line item in 2014. Originally, this baseline included only the cost of a basic smartphone plan, which was upgraded from 5GB to 10GB of monthly data in 2021 to reflect growing data needs.² Around that same time, the national research committee officially expanded the definition to

Monthly Costs	Single Adult	One Adult, One Child	One Adult, One in Child Care	Two Adults	Two Adults Two Children	Two Adults, Two in Child Care	Single Adult 65+	Two Adults 65+
Housing	\$883	\$970	\$970	\$970	\$1,199	\$1,199	\$883	\$970
Child Care	\$0	\$279	\$745	\$0	\$559	\$1,557	\$0	\$0
Food	\$490	\$829	\$744	\$899	\$1,507	\$1,329	\$451	\$828
Transportation	\$357	\$451	\$447	\$531	\$802	\$793	\$297	\$412
Health Care	\$205	\$471	\$471	\$471	\$717	\$717	\$504	\$1,009
Technology	\$118	\$118	\$118	\$152	\$152	\$152	\$118	\$152
Miscellaneous	\$205	\$312	\$350	\$302	\$494	\$575	\$225	\$337
Taxes	\$349	\$269	\$360	\$446	\$375	\$573	\$398	\$677
Monthly Total	\$2,607	\$3,499	\$4,205	\$3,771	\$5,805	\$6,895	\$2,876	\$4,385
ANNUAL TOTAL	\$31,284	\$44,388	\$50,460	\$45,252	\$69,660	\$82,740	\$34,512	\$52,620
Hourly Wage	\$15.64	\$22.19	\$25.23	\$22.63	\$34.83	\$41.37	\$17.26	\$26.31

Notes: The budget for One Adult, One Child includes costs for one adult and a school-age child. The budget for One Adult, One in Child Care includes costs for an adult and preschool-age child. The budget for Two Adults, Two in Child Care includes costs for two adults, one infant, and a preschool-age child. "Hourly Wage" shows the full-time wage needed to support each budget.

Sources: For ALICE Survival Budget sources, see the Methodology Overview on the Methodology page.



¹ United For ALICE, "The State of ALICE in Pennsylvania: 2026 Update on Financial Hardship" (United Way of Pennsylvania, 2026), 1, <https://www.UnitedForALICE.org/Pennsylvania>.

² United For ALICE, "ALICE in the Crosscurrents: COVID and Financial Hardship—Frequently Asked Questions for the 2023 ALICE Reports" (United Way of Northern New Jersey, 2023), 4, <https://www.auw.org/wp-content/uploads/migrated-files/2023%20ALICE%20Reports%20FAQs%20final-opt1.pdf>.

include a basic home internet connection, acknowledging that home broadband is a modern necessity for work, education, and healthcare. Today, these essential expenses require \$118 per month for a single adult and rise to \$152 per month for a family of four.³

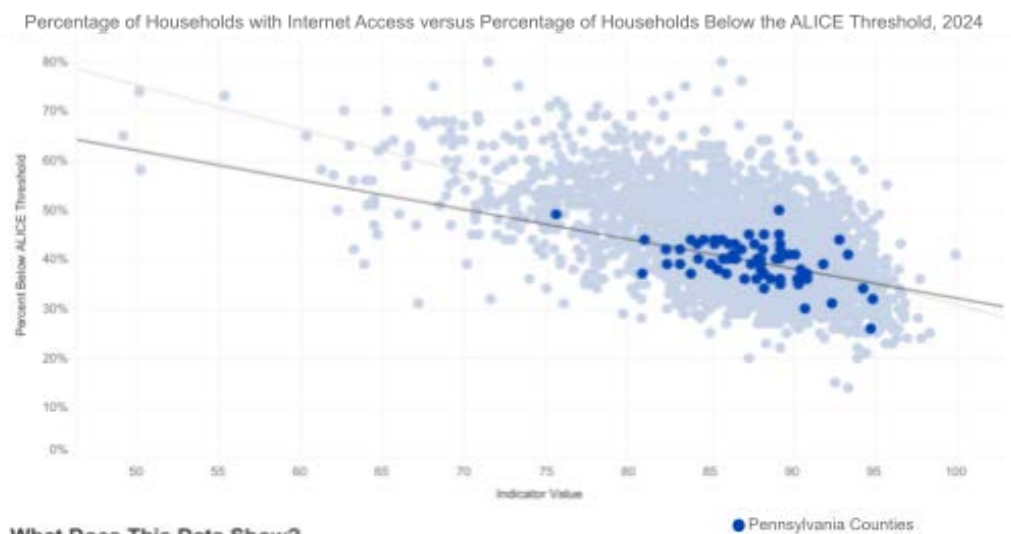
Yet for the more than 2 million Pennsylvania households below the ALICE Threshold, this cost competes directly with rent, groceries, and prescription medications. A single adult working as a cook, one of the most common occupations in Pennsylvania, earns a median wage of \$15.23 per hour, and half of all cooks in Pennsylvania live in households below the ALICE Threshold. A cashier earning \$14.64 per hour faces the same reality, with 46% of cashiers falling below the Threshold.⁴ For these workers, the national median internet bill of \$78 per month is not a minor inconvenience; it is a budget-breaking expense in a household with no margin.

The Federal Poverty Level, which remains the basis for most assistance program eligibility, is wholly inadequate to capture this reality. In 2024, the FPL for a single adult was \$15,060 annually. The ALICE Household Survival Budget for that same adult in Pennsylvania was \$31,284 (i.e. more than double).⁵ Many ALICE households earn too much to qualify for assistance programs but far too little to afford reliable broadband. This is the affordability gap this Committee must address.

The Scale of the Problem in Pennsylvania

Roughly 2 million Pennsylvania households struggle to afford broadband service.⁶ Statewide, 89.7% of Pennsylvania households have an internet subscription. This ranks Pennsylvania 18th among states, and below the national average of 91.0%.⁷ But these averages conceal dramatic county-level disparities that map closely onto financial hardship.

The dashboard produced by United For ALICE illustrates this relationship clearly: as the percentage of households with internet access rises, the percentage of households below the ALICE Threshold tends to fall. Pennsylvania's own counties follow this national pattern — counties with the lowest internet access rates are concentrated in the rural center and northwest of the state, precisely where financial hardship is most acute.⁸



³ United For ALICE, "The State of ALICE in Pennsylvania", 5.

⁴ Ibid., 12.

⁵ Ibid., 2–3.

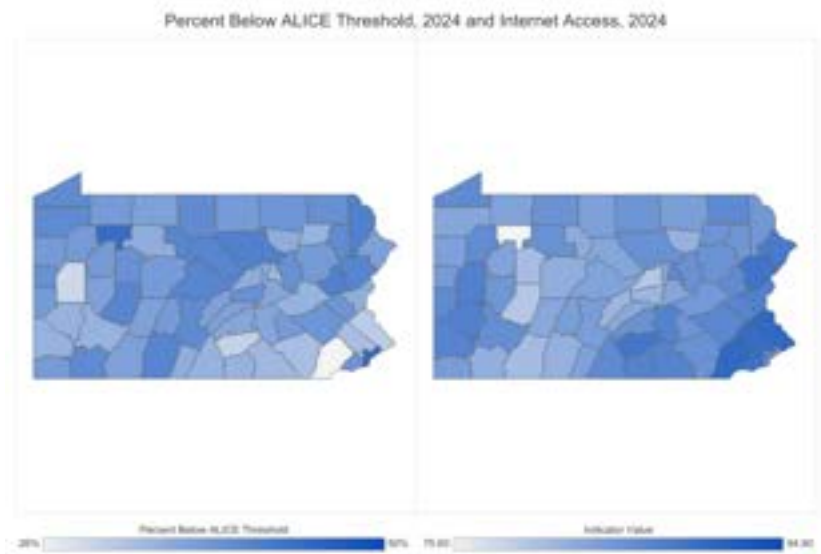
⁶ Christopher Ali et al., *The Cost of Inaction: Pennsylvania's Broken Broadband Governance and the Path Forward* (Pennsylvania Broadband Research Institute and Media, Inequality & Change Center, 2026), 1.

⁷ HDPulse: An Ecosystem of Minority Health and Health Disparities Resources, "Broadband Access for Pennsylvania by County," National Institute on Minority Health and Health Disparities, accessed June 23, 2026, <https://hdpulse.nimhd.nih.gov>.

⁸ United For ALICE, "Percent Below ALICE Threshold, 2024 and Internet Access, 2024," ALICE Economic Viability Dashboard (United For ALICE, 2024), <https://www.UnitedForALICE.org>.

The county-level data is striking. Forest County has the lowest internet subscription rate in Pennsylvania at 74.8%. Indiana County, at 80.7%, and Jefferson County, at 81.9%, are among the lowest in the state.⁹ These are not outliers. They are communities where ALICE households are concentrated and where broadband unaffordability compounds every other economic challenge.

By contrast, the counties with the highest internet access rates—Chester (94.7%), Bucks (94.8%), and Montgomery (94.3%)—are also among the wealthiest in the Commonwealth, with the lowest rates of households below the ALICE Threshold.¹⁰ Broadband access in Pennsylvania is, in measurable terms, a function of wealth.



The populations most harmed by broadband unaffordability are precisely those for whom connectivity carries the greatest stakes:

- **Single-female-headed households with children:** 72% fall below the ALICE Threshold. For these families, reliable home internet is the difference between a child completing homework at home versus a parking lot.
- **Households headed by someone under age 25:** 65% fall below the Threshold — the generation most expected to compete in a digital economy is the most financially precarious.
- **Households headed by someone 65 and over:** 50% fall below the Threshold, and this is the fastest-growing age group in Pennsylvania, up 35% between 2010 and 2024. For these residents, broadband is a lifeline to telehealth, to family, and to government services.
- **Black households:** 59% fall below the Threshold. **Hispanic households:** 52%. Broadband unaffordability compounds longstanding structural inequities.¹¹

The Loss of the Affordable Connectivity Program Has Left a Critical Gap

Before the Affordable Connectivity Program stopped accepting new enrollments on February 8, 2024, roughly 763,000 Pennsylvania households had enrolled. When Congress allowed the program's funding to fully lapse in mid-2024, every one of those households lost their monthly internet subsidy of up to \$30.¹² With another 1.4 million Pennsylvania households eligible but not yet enrolled when the program ended, the true scope of unmet need is far larger.¹³

While some ISPs have created voluntary, low-income budget plans, they represent a patchwork solution that leaves massive gaps in coverage and eligibility. No state-level program has filled this void. Pennsylvania has taken no action comparable to New York's Affordable Broadband Act, which mandates that internet service providers offer plans at \$15–\$20 per month to income-eligible households, or to Connecticut's similar legislation, or to Oregon's supplemental lifeline program that adds up to \$15.25 per month on top of the federal Lifeline benefit.¹⁴ Pennsylvania's working families are paying the price for that inaction every month.

⁹ HDPulse, "Broadband Access for Pennsylvania by County."

¹⁰ Ibid.

¹¹ United For ALICE, "The State of ALICE in Pennsylvania," 8–10.

¹² Universal Service Administrative Company, "ACP Enrollment and Claims Tracker," 2024, <https://www.usac.org/about/affordable-connectivity-program/acp-enrollment-and-claims-tracker/>.

¹³ Pennsylvania Broadband Development Authority, *Connected and Empowered: A Digital Equity Plan for the Commonwealth of Pennsylvania* (Harrisburg, PA: Pennsylvania Broadband Development Authority, 2024).

¹⁴ Ali et al., *The Cost of Inaction*, 16.

Access Without Adoption Does Not Close the Digital Divide

Even where broadband infrastructure exists, affordability concerns, lack of appropriate devices, and limited digital literacy prevent households from connecting and staying connected. The United Way of Pennsylvania sees this daily across our network.

While expanding access is vital, we must remain vigilant about quality and cost. Under Pennsylvania's recently approved \$711 million BEAD deployment plan, many rural locations are slated for lower-cost alternative technologies like fixed-wireless and satellite rather than long-term fiber. We worry this over-reliance may leave vulnerable communities with less reliable coverage.¹⁵ Furthermore, the provisional monthly low-cost tier under the BEAD framework is \$48.60 — still out of reach for many ALICE households whose monthly budgets leave no margin for discretionary expenses.¹⁶

However, because the federal program now emphasizes highly cost-effective deployment models, Pennsylvania stands to see significant cost savings—potentially leaving an estimated \$400 million in remaining BEAD funds.¹⁷ United Way of Pennsylvania urged NTIA in February 2026 to fully disperse these non-deployment funds to states and preserve state authority to direct them toward adoption programs. However, we cannot wait passively for final guidance while the National Telecommunications and Information Administration (NTIA) finalizes its updated rules on "non-deployment" spending. This Committee has a distinct moment to act now, before rules are finalized, by pushing our congressional delegation to protect these funds from diversion from their intended uses of access and adoption, recognizing a fundamental truth: access without adoption does not close the digital divide. We urge this Committee to work alongside state leadership to ensure the U.S. Department of Commerce honors congressional intent, allowing Pennsylvania to immediately deploy the remaining \$400 from its BEAD allocation into robust digital literacy, device access, and targeted affordability outreach.

What Is at Stake

The ALICE framework makes clear that meeting basic technology needs creates cascading benefits for the broader community.¹⁸ When ALICE households gain reliable, affordable internet, workers access better job opportunities and can compete in a digital labor market; students complete schoolwork at home; seniors access telehealth and remain connected to care; and parents navigate government services, benefits enrollment, and civic participation.

When broadband remains unaffordable, those outcomes are foreclosed — and the cost is borne not just by individual families but by the communities, employers, healthcare systems, and government programs that depend on a connected, productive population. The ALICE Essentials Index shows that the cost of household basics in Pennsylvania has increased at a 5.3% annual rate since 2021, outpacing overall inflation.¹⁹ Broadband costs are rising faster than wages for the workers who need connectivity most. This Committee has an opportunity and an obligation to act.

Recommendations

United Way of Pennsylvania respectfully urges this Committee to:

1. **Ensure that any future broadband affordability or digital inclusion programs use the ALICE Threshold alongside the Federal Poverty Level when determining eligibility.** Many working Pennsylvanians earn too much to qualify for traditional assistance programs but still cannot afford reliable internet service or the technology needed to participate fully in today's economy. While the Federal Poverty Level identifies only about 12% of Pennsylvania households experiencing financial hardship, the ALICE Threshold captures nearly 39%.²⁰ As the Commonwealth considers future broadband affordability initiatives, eligibility criteria should explicitly include ALICE households

¹⁵ Ali et al., *The Cost of Inaction*, 1.

¹⁶ Pennsylvania Broadband Development Authority, *Broadband Equity, Access, and Deployment (BEAD) Initial Proposal, Volume 2* (Harrisburg, PA: Pennsylvania Broadband Development Authority, 2023), 2. ; Ali et al., *The Cost of Inaction*, 8.

¹⁷ Ali et al., *The Cost of Inaction*, 13

¹⁸ United For ALICE, "The State of ALICE in Pennsylvania," 14.

¹⁹ *Ibid.*, 6.

²⁰ United For ALICE, "The State of ALICE in Pennsylvania," 1.

so that assistance reaches those with genuine financial need. The Pennsylvania Broadband Development Authority has already recognized the value of this framework by incorporating ALICE data into its digital equity planning, and it was used to shape PBDA's original BEAD application scoring criteria for low and middle income affordability, one of the strongest approaches in state plans across the country. Future state investments should build on that precedent and ensure this often-overlooked population is not left behind.

2. **Study and advance evidence-based state solutions to broadband affordability.** Pennsylvania should examine successful approaches implemented in other states—including New York's Affordable Broadband Act, Connecticut's broadband affordability policies, and Oregon's supplemental Lifeline program—to determine which strategies can most effectively reduce broadband costs for Pennsylvania households while reflecting the Commonwealth's unique needs.²¹
3. **Advocate with federal partners to preserve Pennsylvania's flexibility to invest remaining BEAD funds in broadband adoption.** We urge this Committee to work with Pennsylvania's congressional delegation, the Governor's Administration, and the National Telecommunications and Information Administration (NTIA) to ensure forthcoming federal guidance allows states to use remaining BEAD non-deployment funds for broadband adoption activities—including digital literacy training, device access, broadband affordability initiatives, digital navigation, and outreach. Once that guidance is released, the Pennsylvania Broadband Development Authority should immediately develop a transparent public plan for deploying Pennsylvania's estimated \$400 million where they will have the greatest impact.²²
4. **Invest in community-based digital equity infrastructure through trusted local organizations.** Pennsylvania should strengthen the capacity of community-based partners, including United Ways, libraries, nonprofits, workforce development boards, aging networks, and other local organizations. These partners can deliver digital inclusion services where people already seek help. The Commonwealth should also intentionally leverage the expertise of organizations that have been leading this work for years, including members of the Keystone Internet Coalition, recipients of the Pennsylvania Broadband Development Authority's Digital Connectivity Technology Program and Multi-Purpose Community Facilities grants, and other community-based digital equity practitioners. These organizations understand what works, what barriers remain, and how to effectively reach ALICE households because they have been implementing these programs on the ground.

Conclusion

Nearly four in ten Pennsylvania households cannot afford their basic needs. For these families, an unaffordable internet bill is not an inconvenience. Rather, it is a barrier to employment, education, healthcare, and public life. The data is clear, the need is urgent, and the tools to act are available. United Way of Pennsylvania stands ready to be a partner in building the community-level capacity to turn broadband infrastructure into meaningful connectivity for every Pennsylvanian. We urge this Committee to act with the urgency this moment demands.

Thank you.

Submitted by Inemesit Melody Zimmerman, Director of Public Policy, United Way of Pennsylvania

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²¹ New York State Affordable Broadband Act, N.Y. Pub. Serv. Law §§ 224-c (Effective January 15, 2025), New York State Public Service Commission.

²² Ali et al., *The Cost of Inaction*, 13



August 12, 2026

Submitted to: Pennsylvania House Communications & Technology Committee

Re: Written Testimony - Informational Meeting on Broadband Affordability, August 18, 2026

Affordability Should Include the Skills to Use Broadband Safely

Chairman Ciresi, Chairman Ortity, and members of the Committee: thank you for the opportunity to submit testimony. My name is Florence Mauchant, Founder & CEO of NeverTechLate, which delivers digital literacy and cybersecurity training to older adults across Pennsylvania and beyond. As a scholarship recipient at Indiana University of Pennsylvania, I saw firsthand what access to education makes possible, a conviction that still drives this work. I want to bring the Committee's attention to a cost of digital exclusion that rarely enters affordability debates: *a connection an older adult cannot use safely is not actually affordable, no matter how low the monthly bill*. Congress recognized this when it named aging individuals a covered population under the Digital Equity Act. Pennsylvania's affordability conversation should recognize it too.

What This Is Already Costing Pennsylvania

In 2025, 7,088 Pennsylvania seniors 60+ reported \$215.9 million in losses to the FBI's Internet Crime Complaint Center, an average of roughly \$30,500 per victim. That figure understates the true toll: the IC3 itself estimates only about 15 percent of fraud victims ever report crimes to law enforcement. For an older adult, that loss is rarely just a number, it's a life's savings, a paid-off car, or the cushion that keeps someone in their home rather than on state support.

A Proven, Inexpensive Complement to Affordability Programs

Digital skill training models such as NeverTechLate's delivered through libraries (such as the Indiana Free Library), senior communities, community colleges (such as Pennsylvania Highlands Community College), and Area Agencies on Aging indicate that pairing subsidized broadband with a few hours of guided instruction measurably reduces this exposure, at a fraction of the cost of a cyber fraud loss.

Our Ask

As Pennsylvania designs or funds broadband affordability programs, we ask the Committee to define "affordable" to include the training that makes a connection safe to use. We welcome the chance to serve as a resource as this work continues.

Respectfully submitted,

Florence J. Mauchant

Founder & CEO, NeverTechLate LLC

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