INTRODUCTION
In the digital age, educational outcomes and economic mobility are tied directly to the ability to get online. Without broadband access, applying for jobs, completing homework assignments, and getting transportation can pose insurmountable challenges.

Finding ways to connect currently disconnected communities is one of the most critically important priorities for our nation because it is a threshold question for many broader and more complex challenges. Restoring economic mobility, breaking cycles of poverty, retraining our workforce to cope with automation — all of these aspirational goals will remain far more difficult to tackle if large numbers of low-income families lack access to the digital lifeline of home broadband.

Research shows that reducing the cost of broadband is only one part of the answer for boosting low-income adoption. Awareness of low-cost options, the cost of devices and obstacles related to digital literacy are also barriers to broadband adoption.1

If becoming a smart region involves residents using broadband to connect to services and opportunities, then local government leaders need to have a strategy for digital inclusion and equity to avoid hardening the separations caused by the digital divide.

DEFINITIONS
Broadband: High-speed Internet access that is always on and faster than traditional dial-up access. Broadband includes several high-speed transmission technologies, such as fiber, wireless, satellite, digital subscriber line and cable. For the Federal Communications Commission (FCC), broadband capability requires consumers to have access to actual download speeds of at least 25 Mbps and actual upload speeds of at least 3 Mbps.2

Digital Equity is a condition in which all individuals and communities have the information technology capacity needed for full participation in our society, democracy, and economy. Digital Equity is necessary for civic and cultural participation, employment, lifelong learning, and access to essential services.3

Digital Inclusion refers to the activities necessary to ensure that all individuals and communities, including the most disadvantaged, have access to and use of Information and Communication Technologies (ICTs). This includes 5 elements: 1) affordable, robust broadband internet service; 2) internet-enabled devices that meet the needs of the user; 3) access to digital literacy training; 4) quality technical support; and 5) applications and online
content designed to enable and encourage self-sufficiency, participation and collaboration. Digital Inclusion must evolve as technology advances. Digital Inclusion requires intentional strategies and investments to reduce and eliminate historical, institutional and structural barriers to access and use technology.\textsuperscript{4}

**Digital Literacy** is the ability to use information and communication technologies to find, evaluate, create, and communicate information, requiring both cognitive and technical skills.\textsuperscript{5}

**CONSIDERATIONS FOR LOCAL GOVERNMENTS**
Cities should be aware that their wireless broadband needs will grow exponentially in the future and should plan with the understanding that their infrastructure will need to be constantly updated. While 5G is an important goalpost today, it will surely be surpassed in the near future. Cities should be proactive in reaching out to the dominant provider in their region to plan the growth of infrastructure in a constructive manner so that future needs can be planned for and met, including spectrum needs around public safety, transportation, and connected devices becoming more integrated into cities.

Cities should make informing themselves about federal broadband regulation a municipal priority because it will affect them significantly for the foreseeable future, and there are important timing considerations around new provider applications. The preservation of local control over the right-of-way with regard to wireless and broadband deployment is an important issue that cities need to continue to proactively monitor and be involved with.\textsuperscript{6}

**CURRENT STATE & FUTURE DIRECTIONS**
The 2019 American Community Survey One Year Estimates (ACS), includes household Internet access data for the Columbus metropolitan area:

Over 206,000 households (25\%) lack a cable, fiber, or DSL internet account
- Of those, 84,000 have internet access only through a cellular data plan
- Another 79,000 have no home internet subscription of any kind

**Digital equity disparities**

**Low-income households** (annual income < $35,000): comprise 24\% of all households but account for 64\% of households without broadband.

**Older adults** (65+): More than one-third (51,000) lack a computer or home broadband.

**Race & Ethnicity**: Black/African American & Hispanic/Latino residents make up 20\% of the population but account for 30\% of residents without a computer or home broadband

*The Ohio Broadband Strategy, with input from business and community leaders, explores ways to provide service to all communities by leveraging our state assets and resources, encouraging public-private partnerships, and coordinating broadband expansion with economic development initiatives.*

*The Connected Nation Ohio mapping initiative is working closely with broadband providers from across the state to develop a variety of broadband inventory maps for public use.*
RECOMMENDED READING

*Why Smart Cities Need Digital Inclusion* reviews what some cities have done to bridge the digital divide in their region and provides some practical steps for other cities to follow.

CASE STUDIES

**Seattle, Washington**

*Internet for All Seattle*

*The Internet for All Seattle Resolution lays out a mission of “enabling all Seattle residents to access and adopt broadband internet service that is reliable and affordable.” … The Seattle Information Technology Department (Seattle IT) reported to Council on its progress in meeting this objective by way of a gap analysis on broadband internet access, lessons learned from similar municipal efforts, and an Action Plan.*

**Long Beach, California**

*City of Long Beach Digital Inclusion Initiative*

*It is important to the City of Long Beach to promote and implement an equity lens in all decisions, policies and practices. To eliminate the challenges and barriers, the City and local stakeholders will continue to connect low-income communities and communities of color to digital literacy training, the Internet, technology devices and other digital resources.*

**Portland, Oregon**

*City of Portland Priorities Framework*

*The Priorities Framework has two sections plus the Smart City PDX goal.*

*Section 1 outlines a process to guide decision making by City staff about data collection and Smart City PDX investments. Integrating community engagement of underserved populations into data collection efforts is vital.*

*Section 2 outlines criteria to vet and evaluate Smart City PDX projects, plans, and policies. The criteria help us integrate our values into decision-making processes. Improved allocation of public resources is also a benefit of the criteria.*

*Read the full text of Resolution 37371 and the Priorities Framework as Exhibit A with this link to the City’s Auditor’s Office records: [https://efiles.portlandoregon.gov/Record/12067443](https://efiles.portlandoregon.gov/Record/12067443)*

**Chattanooga, Tennessee**

*The Enterprise Center*

*The Enterprise Center is a non-profit, technology-driven, economic development partner to the City and County, tasked with establishing Chattanooga as a hub of innovation and improving lives by leveraging digital technology to create, demonstrate, test and apply solutions for the 21st century. It has been tasked with developing programs to meet the digital divide challenge head-on by building programs to ensure that the city’s digital assets are available to everyone in Chattanooga.*
Charlotte, North Carolina
North End Smart District

Staff from the City of Charlotte are coordinating this new initiative to develop a collaborative environment where residents are co-creating projects that achieve shared goals and bring new partners to the table. This effort focuses on the social capital component of sustainability through a strategy of people- and action-oriented, kick-start projects.

**EXAMPLE POLICIES**

*Digital Inclusion Trailblazers* is a public inventory of local government initiatives promoting digital literacy and broadband access for underserved residents. There are six indicators for a Digital Inclusion Trailblazer:

1. The local government has, or directly funds, at least one full-time staff dedicated to digital inclusion initiatives, policies and/or programs.
2. The local government has a digital inclusion plan or is in the process of developing a plan.
3. Representatives of the local government participate in a digital inclusion coalition.
4. The local government has conducted or plans to conduct and publish survey research on Internet access and use by your residents.
5. The local government directly funds community digital inclusion programming.
6. The local government is taking steps to increase affordability of home broadband service.

The *Digital Inclusion Resource Library* is a community-driven materials hub, where practitioners, policy-makers, librarians and educators can submit their best documents and slides, distribute community broadband plans, localize curricula, and share out their best practices. The Resource Library is a work in progress.

**SCOPING & COST ESTIMATING**

*Costs at-a-Glance: Fiber and Wireless Networks* (PDF)

BroadbandUSA collected information about network construction expenses to increase awareness of the costs associated with deploying a broadband network. This information can help project leaders engage with providers and network operators in their area.

*Broadband Funding Guide* (BroadbandUSA)

**ORGANIZATIONS**

Based in Central Ohio, the *National Digital Inclusion Alliance* is a unified voice for home broadband access, public broadband access, personal devices and local technology training and support programs.

An initiative of the United States Department of Commerce, *BroadbandUSA* serves as a strategic advisor to communities that want to expand their broadband capacity and promote digital inclusion. We bring stakeholders together to solve problems, contribute to emerging policies, link communities to other federal agencies and funding sources, and address barriers
to collaboration across agencies. We know that each community is unique and no “one-size-fits-all” approach will work.

*Connected Nation Ohio* is a subsidiary of Connected Nation and operates as a nonprofit. We work to blanket Ohio with broadband Internet access and dramatically improve the use of related technology. This comprehensive initiative works across all sectors of the state economy to accelerate the availability and use of broadband.


3 National Digital Inclusion Alliance. [https://www.digitalinclusion.org/definitions/](https://www.digitalinclusion.org/definitions/)

4 Ibid.

5 Ibid.