DIGITAL ACCESS

Infrastructure, Tools, and Skills

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Comprehensive Economic Development Strategy (2024)

Digitalization is a transformative economic trend with varying impacts on the workforce across occupations and industries.

- Telework Capacity
- Automation Risk

Digital Divide Report Series (2020-2021)

ENGAGE | stakeholders and members of the public who currently fall on the wrong side of the digital divide, as well as those who have the capacity to advance future efforts to bridge it.

EMPOWER | people to fully utilize and leverage the technology so that they are fully able to capitalize upon its benefits.

ENACT | lasting policies and programs that ensure real and tangible progress is made.

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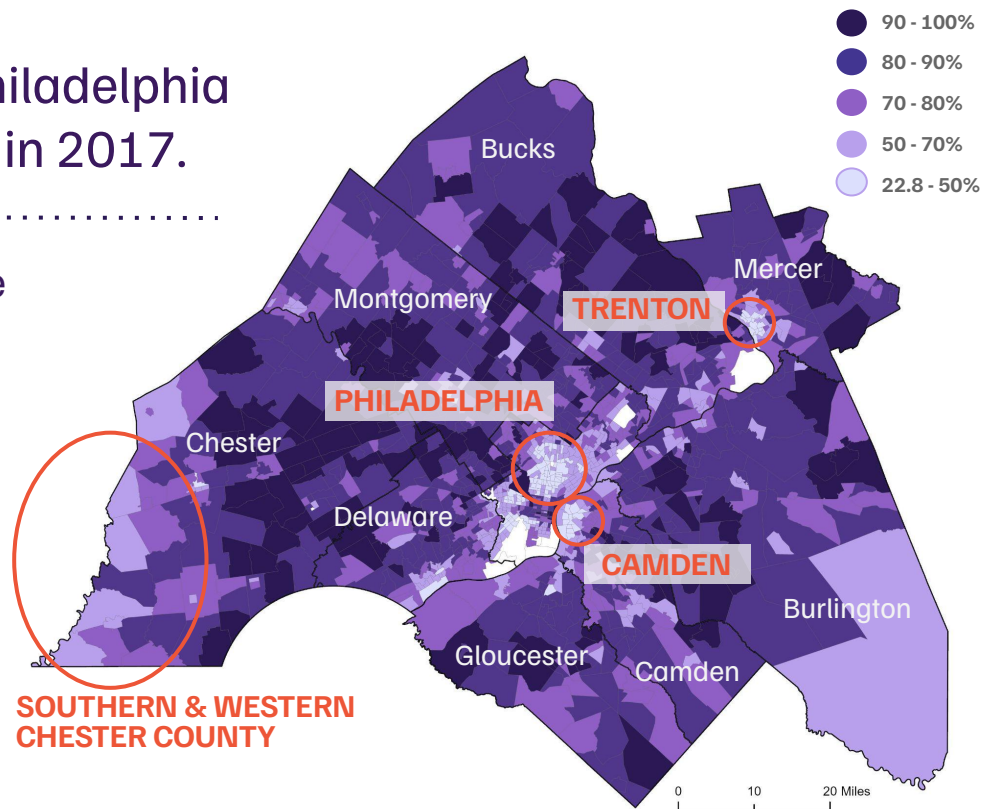## Digital Divide Report Series (2020-2021)

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76% of households in Greater Philadelphia **had broadband subscriptions*** in 2017.

The lowest subscription rates were in the most densely populated areas—the cities of Philadelphia, Camden, and Trenton—as well as more rural areas, including southern and western Chester County.

*Fiber Optic, Cable, DSL, or Satellite

Legend:
- 90 - 100%
- 80 - 90%
- 70 - 80%
- 50 - 70%
- 22.8 - 50%

Map labels: Bucks, Montgomery, Mercer, TRENTON, PHILADELPHIA, Chester, Delaware, CAMDEN, Burlington, Gloucester, Camden, SOUTHERN & WESTERN CHESTER COUNTY

0   10   20 Miles

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80% of households in Greater Philadelphia **had broadband subscriptions*** in 2020.

· ·

While progress was made throughout the region, lower subscription rates persist in the same areas.

In 2021, the City of Philadelphia estimated that one third of the city's households are *subscription vulnerable*—meaning they experience service interruptions, are low income, or struggle to afford internet service without assistance—which is not captured in Census data.
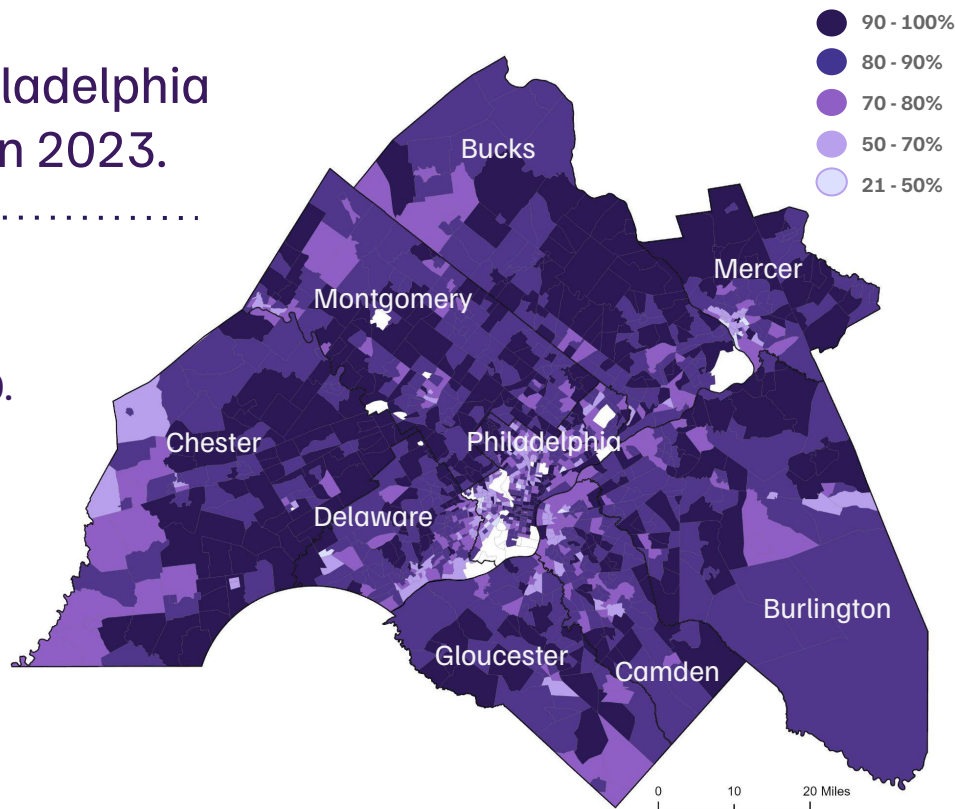
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Legend:
- 90 - 100%
- 80 - 90%
- 70 - 80%
- 50 - 70%
- 23 - 50%

Map labels: Bucks, Mercer, Montgomery, Chester, Philadelphia, Delaware, Burlington, Gloucester, Camden

Scale: 0 — 10 — 20 Miles

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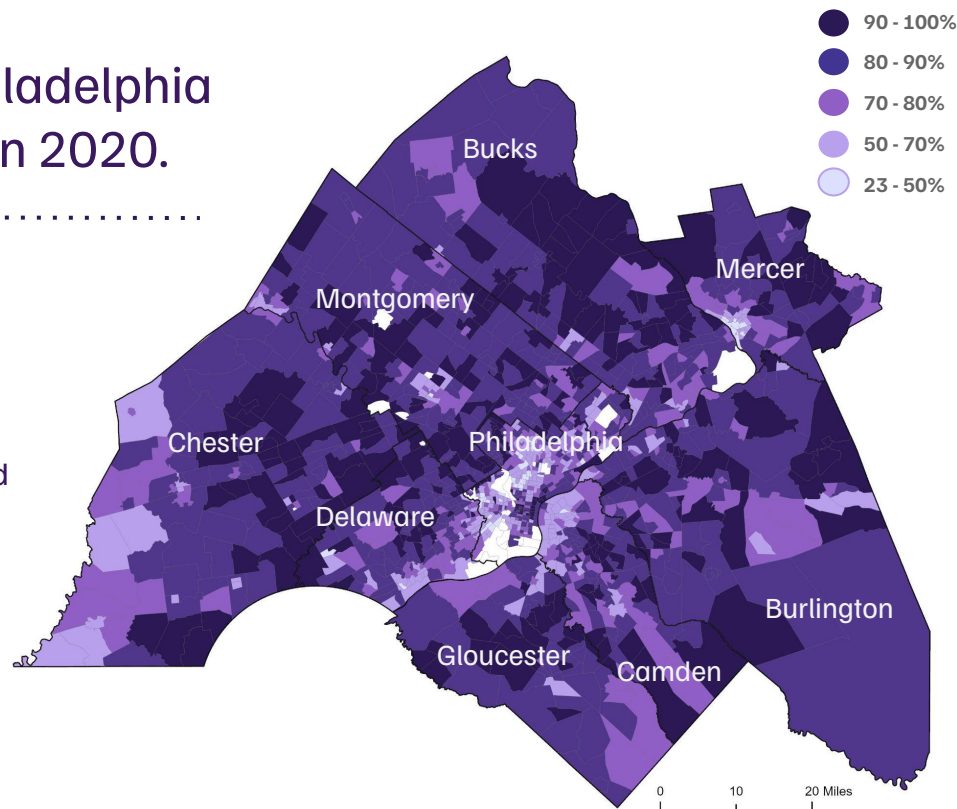
84% of households in Greater Philadelphia **had broadband subscriptions*** in 2023.

In most counties, particularly in the more rural, subscription rates improved more from 2020 to 2023 than from 2017 to 2020.

In 2023, the Affordable Connectivity Program (ACP), a federal subsidy offsetting monthly internet costs, had roughly 350k households enrolled in Greater Philadelphia. ACP ended in June 2024, which could negatively impact current subscription rates.
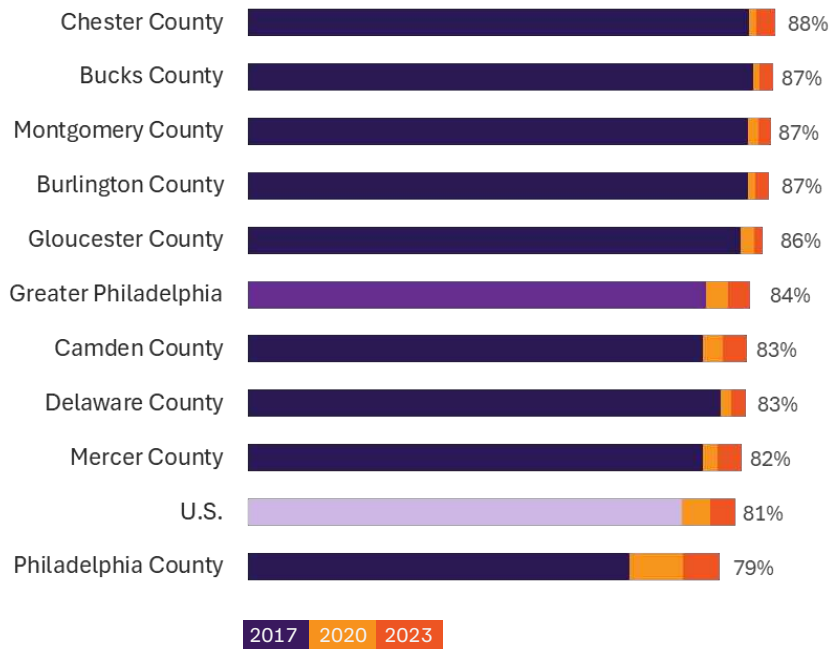
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Legend:
- 90 - 100%
- 80 - 90%
- 70 - 80%
- 50 - 70%
- 21 - 50%

Map labels: Bucks, Mercer, Montgomery, Chester, Philadelphia, Delaware, Burlington, Gloucester, Camden

0   10   20 Miles

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Households with Broadband Subscriptions*, from Highest to Lowest Share by County
*Cable, Fiber, DSL, or Satellite

County	Share
Chester County	88%
Bucks County	87%
Montgomery County	87%
Burlington County	87%
Gloucester County	86%
Greater Philadelphia	84%
Camden County	83%
Delaware County	83%
Mercer County	82%
U.S.	81%
Philadelphia County	79%

Legend: 2017 2020 2023

From 2017 to 2023, the difference between the counties with the lowest and highest subscription rates shrank from 20 to 9 percentage points.

While subscription rates increased throughout the region, **the greatest change occurred in the counties with the greatest need–Philadelphia, Camden, and Mercer**–and which contain the region's primary cities.

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375,200 households,

or 16% of Greater Philadelphia homes, did not have broadband subscriptions* in 2023.

*Fiber Optic, Cable, DSL, or Satellite
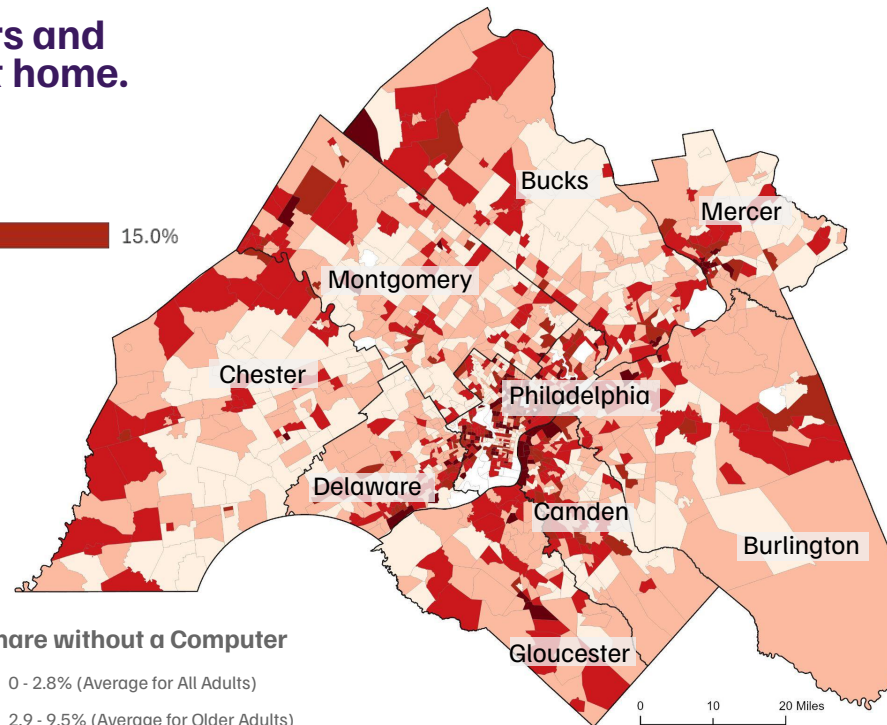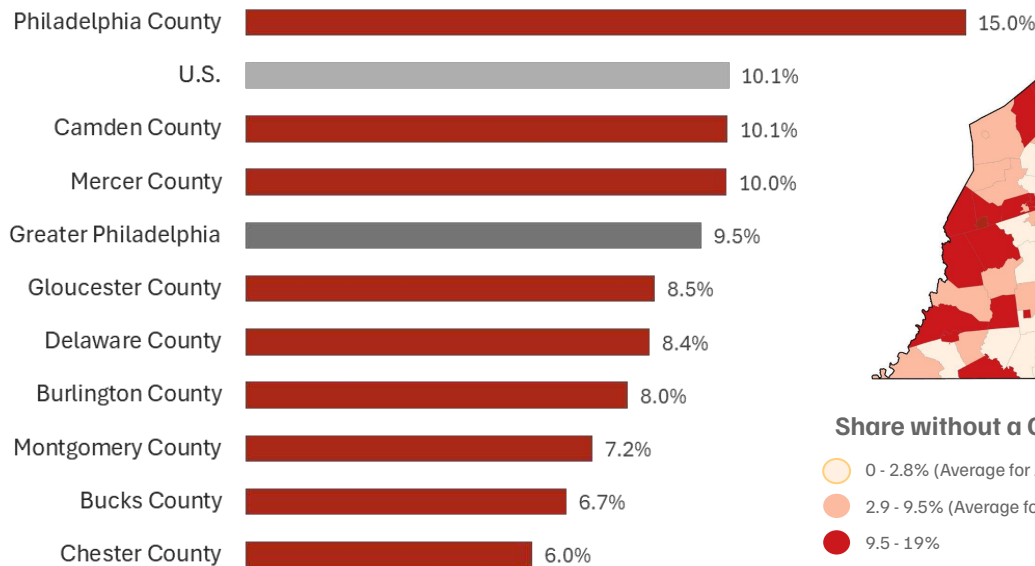
Infrastructure is unavailable to a household.

Cost of Internet subscription is too high.

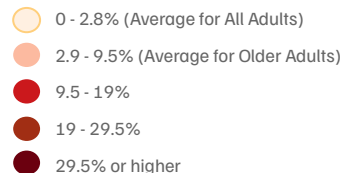**Devices** are expensive or unsuitable for the user's needs.

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9.5% of Older Adults (residents 65 years and older) did not have a computer at home.

Share without a Computer, from Highest to Lowest by County

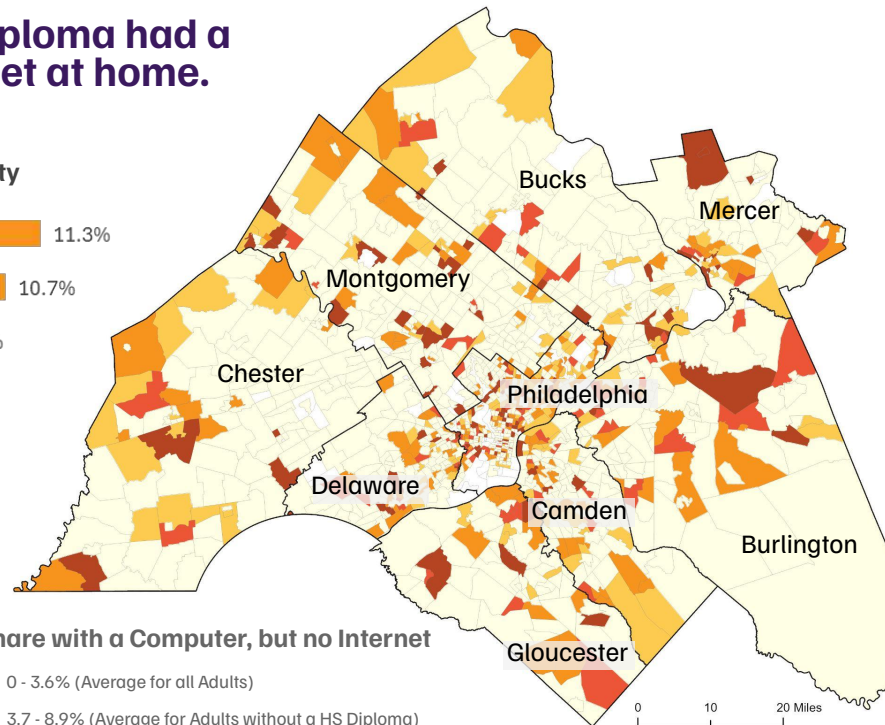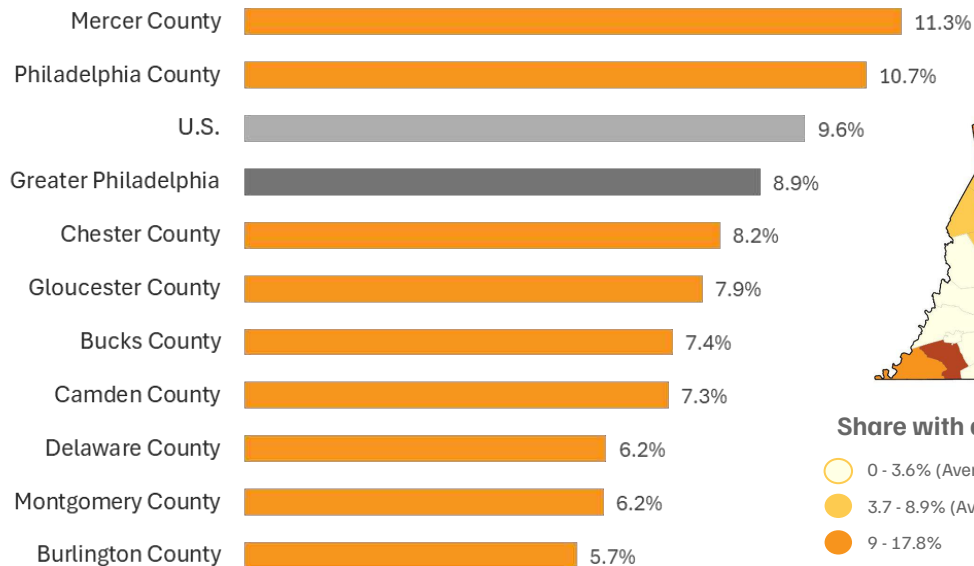| County	Share
Philadelphia County	15.0%
U.S.	10.1%
Camden County	10.1%
Mercer County	10.0%
Greater Philadelphia	9.5%
Gloucester County	8.5%
Delaware County	8.4%
Burlington County	8.0%
Montgomery County	7.2%
Bucks County	6.7%
Chester County	6.0%

Share without a Computer

- 0 - 2.8% (Average for All Adults)
- 2.9 - 9.5% (Average for Older Adults)
- 9.5 - 19%
- 19 - 29.5%
- 29.5% or higher

Sources: US Census Bureau, American Community Survey, 5y-estimates 2023. Table S2802; and DVRPC.

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8.9% of adults without a high school diploma had a computer, but did not have internet at home.

Share with a Computer, but no Internet, from Highest to Lowest by County

County	Percentage
Mercer County	11.3%
Philadelphia County	10.7%
U.S.	9.6%
Greater Philadelphia	8.9%
Chester County	8.2%
Gloucester County	7.9%
Bucks County	7.4%
Camden County	7.3%
Delaware County	6.2%
Montgomery County	6.2%
Burlington County	5.7%

Share with a Computer, but no Internet

- 0 - 3.6% (Average for all Adults)
- 3.7 - 8.9% (Average for Adults without a HS Diploma)
- 9 - 17.8%
- 17.9 - 26.7%
- 26.8% or higher

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Government Coordination
among a large number of
jurisdictions, including two
states, each with their own
systems, regulations, and
funding apparatuses
requires detailed planning.

Entrenched Poverty
in our urban centers, while
improving, remains higher
than peer cities, indicating
that cost continues to be a
systemic barrier to access.

Rural Connectivity
is more limited, leading to
unavoidable high
subscription costs, which
calls for innovative
technology and policy
solutions.

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Digital Access | Expansion Priorities

Provide a complete network to all areas.

⬇

Infrastructure investments to create a broadband network that brings modern technologies and diverse choices to all areas is the foundation of digital access.

Focus Populations
- Rural communities
- Single provider regions
- Areas with aging infrastructure

Design for all user needs and abilities.

⬇

Assistive Technology offers tools and web design standards to make digital content physically and cognitively approachable.

Focus Populations
- People with disabilities
- Older adults
- People with lower reading proficiency
- Workforce

Equip the population with the necessary skills.

⬇

Digital Skills programs, whether introductory or teaching specialized software, enable residents and workers to leverage digital tools to pursue opportunities.

Focus Populations
- Adults with limited educational attainment
- Displaced, transitioning, and new workers
- Older adults
- Low income individuals
- Future workforce

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Event Summary

During a virtual conversation, co-hosted by DVRPC and the Technology Learning Collaborative, thirty-five attendees from across the region engaged in a discussion of key challenges and strategies for advancing digital access. The event welcomed people and organizations already embedded in digital access efforts, as well as, important stakeholders who are newer to the field. Attendees represented an array of disciplines, including government, workforce development, education, communications, consulting, and more.

The previous slides were presented by DVRPC during the event. The following slides summarize the key takeaways from the discussion and provide examples and resources to support those working to advance digital access more holistically.

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Implementation Challenges

- **Infrastructure ownership** and coordination with ISPs introduces legal and financial risk.

- **Public data** on digital access is often insufficient. Outreach is needed to understand community needs.

- **Funding uncertainties** create difficulty for sustaining momentum.

Resources

➔ York County Economic Alliance's **YoCo Fiber** initiative is working to connect Middle Mile and Last Mile networks.

➔ The City of Philadelphia completed a **Household Internet Assessment Survey** in 2021 to capture a nuanced picture of digital access in the city.

➔ **Philly Community Wireless** is building community-owned networks.

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Collaboration and Partnerships

- **Demonstrate impact through small wins,** which lead to greater buy-in and bigger wins.

- **Share stories** and identify specific needs to connect with decision makers and potential partners.

- **Highlight the economic value** of digital investments.

Resources

→ A national advocacy and organizing alliance developed a **Coalition Guidebook** to support organizations in building and sustaining partnerships.

→ **Chester Education Foundation** works with county and workforce officials to provide digital skills programs.

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Implementation Strategies

- **Take a holistic approach** to address individual communities' gaps in access.

- **Leverage community strengths** and anchor institutions to build partnerships and programs.

- **Connect digital infrastructure needs to other infrastructure projects** and networks.

Resources

→ A Benton Institute report supports local governments and ISPs in **streamlining broadband permitting**.

→ The **Jefferson Center for Connected Care** invests in patient digital readiness, working with nonprofits and other institutions to address specific needs.

→ The World Economic Forum developed a **Dig Once model policy** to facilitate efficient and impactful infrastructure projects.

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DIGITAL ACCESS
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Getting Started

UNDERSTANDING THE LANDSCAPE

➔ New Jersey State Plan, Approved March 2024

➔ Pennsylvania State Plan, Approved January 2024

➔ Pew's Broadband Basics Email Course

➔ DVRPC Digital Divide Series: Parts One, Two, and Three

ACCESSIBLE TOOLS AND WEB CONTENT

➔ International Web Content Guidelines

➔ Assistive Technology Advocacy Center (NJ)

➔ Technology for Our Whole Lives (PA)

LAUNCHING DIGITAL SKILLS PROGRAMS

➔ Start-Up Manual

➔ Digital Skills Curriculum Guide

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Staying Connected

NATIONAL

→ Digital Alliance

→ Digital Opportunity Network

NEW JERSEY

→ NJ Office of Broadband Connectivity

→ Practitioners Alliance

PENNSYLVANIA

→ Pennsylvania Broadband Development Authority

→ Keystone Internet Alliance

LOCAL

→ Technology Learning Collaborative (Greater Philadelphia)

→ United Way Digital Navigator Network (Southeast PA)

→ Chester County Digital Alliance

→ Digital Literacy Alliance (Philadelphia)

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Digital Access
Infrastructure, Tools, and Skills

Publication Number: 25155

Date Published: June 2025

Geographic Area Covered:
nine-county Greater Philadelphia region

Key Words:
digital, access, internet, broadband, infrastructure, computer, technology, workforce, skills, assistive, devices, subscription, seniors, older adults, connectivity, ISP, reskill, upskill, telework

Abstract:
Access to digital tools and technologies, and the capacity to leverage them, is increasingly vital in today's world, as they continue to transform our everyday lives and shape our economies. Among its capacities, broadband connectivity allows individuals to pursue remote work and education opportunities, underscoring broadband's critical role in workforce and economic development. Although the nine-county Greater Philadelphia region has made significant strides related to digital access in recent years, keeping up with its dynamic challenges and technological advancements requires ongoing commitment. This publication provides a regional analysis, discusses barriers, and suggests several strategies for addressing digital access issues.

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