Vermont Community Broadband Board
Vermont's Digital Equity Plan

Part of Vermont's Internet for All Plans

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VERMONT

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Executive Summary

Access to reliable, high-speed Internet has become a prerequisite to complete daily and essential activities. To attend school and complete assignments, to make appointments and sign up for services, to manage a business, to connect with family and friends, one must be able to get online and use the information technology productively and safely. Regrettably, this ability is still a privilege for far too many Vermonters today. It needs to become a given.

The Infrastructure Investment and Jobs Act (IIJA), passed into law in 2021, established a historic investment of $65 billion for a whole-of-nation approach to ensure all Americans have access to affordable high-speed broadband and have the tools they need to stay connected. Two programs—the Broadband Equity, Access, and Deployment (BEAD) Program and the Digital Equity Program—provide the National Telecommunications and Information Administration (NTIA) $48 billion to equip states with the resources to develop and implement strategies that invest in the infrastructure, training, and technologies necessary for all residents to access and meaningfully use high-speed Internet connectivity. Vermont has an opportunity to design and act on its vision for digital equity.

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> An objective of the IIJA is to increase broadband access and adoption for "covered populations", which include: low-income households, aging individuals, incarcerated individuals, veterans, individuals with disabilities, individuals with a language barrier, individuals who are members of a racial or ethnic minority, and individuals who reside in rural areas.

An intentional focus on equity is essential: most Vermonters (95 percent) can identify with one or more of the demographics prioritized under the IIJA for targeted digital equity initiatives. These groups, or "Covered Populations," have faced significant barriers to meaningfully using the Internet due to their location, income, ability, or other reasons. Without broadband access and adoption, the inequities these communities face will become exacerbated.

Equitable access, now and in the future

Vermont seeks to ensure every individual in Vermont—regardless of identity, community, or economic challenges—has high-quality, accessible, affordable technology resources. This aligns to how Vermont has designed its Five-Year Action Plan for BEAD, in which Vermont seeks to ensure Vermonters—now and in the future—have universal access to reliable, high-quality, affordable, fixed broadband at speeds of at least 100/100 Megabits per second (Mbps), and that all Vermonters and Vermont institutions have the tools and skills to maximize the value of Internet connectivity.

The Vermont Community Broadband Board (VCBB) developed Vermont's BEAD and Digital Equity Plans through extensive consultation with diverse stakeholders as well as

individual Vermonters. Vermont has set six strategic goals it seeks to accomplish to achieve its vision for digital equity:

Vermont's Digital Equity Plan describes the current state of digital equity in Vermont, specifically assessing broadband access and affordability, access to devices, digital literacy, accessibility and inclusivity of public resources, and cyber security and privacy issues and how they impact Vermonters. This plan also includes catalogues of resources currently available to Vermonters to reduce digital equity barriers. It then outlines Vermont's strategy for implementation—the measurable objectives, proposed activities, and indicators of success as well as strategies for monitoring, evaluation, partnerships, and stakeholder engagement.

To realize Vermont's vision for digital equity, the VCBB will adopt and implement a strategy and an approach that is collaborative, transparent, evidence-based, and adaptive. The VCBB will keep an intentional focus on equity, particularly for Covered Populations—the Digital Equity Act's term for demographics particularly disenfranchised from accessing and benefitting from information technology.

It will honor, build on, and complement the efforts already underway in Vermont to tackle inequities in broadband access and digital inclusion. It will foster continuous stakeholder and public engagement to establish partnerships, keep others informed of process and progress, and listen to and learn from feedback. The VCBB intends to take an iterative approach to Vermont's digital equity strategy so it can evolve to meet the needs of Vermonters with the most appropriate solutions.

If Vermont is successful in accomplishing its goals and objectives, Vermonters will have universal broadband access, be poised to purchase or borrow the broadband technologies they need, and support to develop the skills to use the Internet safely and meaningfully. Digital accessibility and equity will be institutionalized within Vermont's public services. All Vermonters will be able to use the Internet to help them access healthcare, study, and work.

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NTIA Requirements Crosswalk Table

The following table outlines NTIA's requirements that Eligible Entities must meet within their Digital Equity plans and the relevant section within Vermont's Digital Equity Plan where each requirement is addressed.

Table 1. NTIA Requirements Crosswalk Table

Requirement from NTIA Notice of Funding Opportunity	Relevant Section(s)
Statutory Requirement 1. Identification of barriers to digital equity faced by Covered Populations in the State.	Current State of Digital Equity in Vermont Needs Assessment by Covered Population
Statutory Requirement 2. Measurable objectives for documenting and promoting, among each Covered Population located in that State— The availability of, and affordability of access to, fixed and wireless broadband technology; The online accessibility and inclusivity of public resources and services; Digital literacy; Awareness of, and the use of, measures to secure the online privacy of, and cybersecurity with respect to, an individual; and The availability and affordability of consumer devices and technical support for those devices.	Measurable Objectives Strategy and Core Activities
Statutory Requirement 3. An assessment of how the measurable objectives identified in item 2 of this Section IV.C.1.b.i will impact and interact with the State's— Economic and workforce development goals, plans, and outcomes; Educational outcomes; Health outcomes; Civic and social engagement; and Delivery of other essential services.	Alignment with Existing Policies and Priorities
Statutory Requirement 4. In order to achieve the measurable objectives identified in item 2 of this Section IV.C.1.b.i, a description of how the State plans to collaborate with key stakeholders in the State.	Implementation Strategy Collaboration and Partnerships
Statutory Requirement 5. A list of organizations with which the Administering Entity for the State collaborated in developing the Plan.	List of Organizations Engaged During the Development of this Plan
Additional Requirement 1. A stated vision for digital equity;	Vision
Additional Requirement 2. A digital equity needs assessment, including a comprehensive assessment of the baseline from which the State is working and the State's identification of the barriers to digital equity faced generally and by each of the covered populations in the State;	Needs Assessment by Covered Population

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Requirement from NTIA Notice of Funding Opportunity	Relevant Section(s)
Additional Requirement 3. An asset inventory, including current resources, programs, and strategies that promote digital equity for each of the covered populations, whether publicly or privately funded, as well as existing digital equity plans and programs already in place among municipal, regional, and Tribal governments;	Asset Inventory
Additional Requirement 4. To the extent not addressed in connection with item 4 of Section IV.C.1.b.i, a coordination and outreach strategy, including opportunities for public comment by, collaboration with, and ongoing engagement with representatives of each category of covered populations within the State and with the full range of stakeholders within the State;	Collaboration and Partnerships Stakeholder Engagement Plan
Additional Requirement 5. A description of how municipal, regional, and/or Tribal digital equity plans will be incorporated into the State Digital Equity Plan;	Alignment with Existing Policies and Priorities
Additional Requirement 6. An implementation strategy that is holistic and addresses the barriers to participation in the digital world, including affordability, devices, digital skills, technical support, and digital navigation. The strategy should (a) establish measurable goals, objectives, and proposed core activities to address the needs of covered populations, (b) set out measures ensuring the plan's sustainability and effectiveness across State communities, and (c) adopt mechanisms to ensure that the plan is regularly evaluated and updated;	Implementation Strategy
Additional Requirement 7. An explanation of how the implementation strategy addresses gaps in existing state, local, and private efforts to address the barriers identified pursuant to Section IV.C.1.b.i, item 1, of this NOFO;	Implementation Strategy
Additional Requirement 8. A description of how the State intends to accomplish the implementation strategy described above by engaging or partnering with: Workforce agencies such as state workforce agencies and state/local workforce boards and workforce organizations; Labor organizations and community-based organizations; and Institutions of higher learning, including but not limited to four-year colleges and universities, community colleges, education and training providers, and educational service agencies;	Collaboration and Partnerships Stakeholder Engagement Plan
Additional Requirement 9. A timeline for implementation of the plan;	Timeline
Additional Requirement 10. A description of how the State will coordinate its use of State Digital Equity Capacity Grant funding and its use of any funds it receives in connection with the Broadband Equity, Access, and Deployment Program, other federal or private digital equity funding.	Funding and Sustainability

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Acknowledgments

This strategy was developed through a consultative approach and the content has been enhanced thanks to the valuable feedback and suggestions from a myriad of individuals and organizations across the State of Vermont and beyond, including the following:

AALV

Adult Education and Literacy Network

Agency of Education

Association of Area Agencies on Aging

Association of Planning and Development Commissions

Central Vermont Adult Basic Education

Chittenden County Communications Union District

Comcast

Community Action Partnership

Community Roots

Consolidated Communications

Converge Accessibility

CVFiber

Department of Corrections

Department of Disabilities, Aging, and Independent Living

Department of Labor

Department of Libraries

DVFiber

ECFiber

Environmental Justice Network

Green Mountain Self Advocates

Hack Club

Lamoille FiberNet

Mac Mountain

Maple Broadband

Migrant Justice/Justicia Migrante

National Telecommunications and Information Administration

NEK Community Broadband

Northwest FiberworX

Northeast Kingdom Community Action

Otter Creek Communications Union District

Office of Racial Equity

Public Service Department

Rutland Area NAACP

Rural Innovation Strategies, Inc.

Southern VT Communications Union District

Stone Environmental

Topsham Telephone/Topsham Communications

U.S. Committee on Refugees and Immigrants

U.S. Department of Housing and Urban Development

Vermont Center for Independent Living

Vermont Commission of Native American Affairs

Vermont Communications Union District Association

Vermont Community Foundation

Vermont Council on Rural Development

Vermont Department of Health

Vermont Racial Justice Alliance

Vernonburg Group

Vermont Futures Project

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VT RID

Vermont Veterans and Family Outreach

Waitsfield and Champlain Valley Telecom

Working Fields

Vancro Interpretation Service

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Introduction

The purpose of this document is to outline the State of Vermont's vision and strategic plan for advancing digital equity across the state. Developed by the Vermont Community Broadband Board (VCBB), this plan is the deliverable for Vermont's State Planning Grant under the Digital Equity Act of 2021 administered by the National Telecommunications and Information Administration (NTIA). The Digital Equity Act provides $2.75 billion to establish three grant programs that promote digital equity and inclusion: the State Digital Equity Planning Grant, the Digital Equity Capacity Grant, and the Digital Equity Competitive Grant Program. The three Digital Equity Act programs aim to ensure that all people and communities have the skills, technology, and capacity needed to reap the full benefits of our digital economy. This program is a complimentary effort with the Broadband Equity, Access, and Deployment (BEAD) Program to design, fund, and implement a comprehensive and intentional approach to close the digital divide.

What does "digital equity" mean? NTIA, which is responsible for overseeing both the Digital Equity and BEAD Programs, defines it as: "All individuals and communities have the information technology capacity that is needed for full participation in the society and economy of the United States." In practical terms, this means ensuring that all Vermonters can reach the Internet on reliable and affordable high-speed connections and also have the skills they need to take full advantage of their connectivity.

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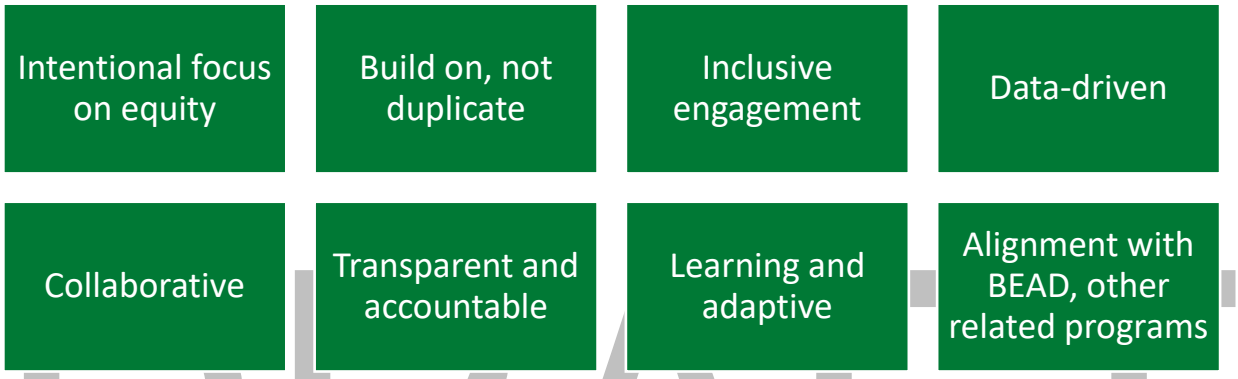
Digital equity has become critical in today's world, since the ability to use the Internet has become a necessity to do basic activities—stay connected with friends, study, work, access health care, etc. Yet, for many Vermonters, this is still a privilege, not a given. This plan seeks to explain the current state of digital equity in Vermont, the non-access barriers faced by particular demographics that face additional hurdles in accessing and benefitting from connected technology, and Vermont's strategic plan for resolving those challenges. This plan, in conjunction with Vermont's BEAD deliverables (which are focused on eliminating access-focused digital equity barriers) to create a comprehensive plan to address all aspects of the digital divide.

This document is not intended to serve as a detailed work plan. Rather, it serves to define Vermont's vision and high-level strategy. It is important to note this plan is intended to be both actionable and adaptable. This is a starting point from which the VCBB and its stakeholders and partners will continue to evolve.

Background and Methodology

Advancing digital equity requires a deep understanding of the needs and barriers faced by diverse geographies and demographics, and that success relies on a targeted, evidence-based, and adaptive approach established on a foundation of collaboration and community involvement. In developing this plan, Vermont's approach adhered to key principles, including:

Figure 1: Key Principles Guiding Vermont's Approach to Digital Equity



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- Keeping an intentional focus on equity when targeting resources and ensuring Vermonters have high-quality choices they can afford.
- Honoring the strategy and efforts already underway in Vermont to tackle inequities in broadband access and digital inclusion.
- Intentional, proactive, and direct engagement of Covered Populations. NTIA-defined Covered Populations are:
    - Individuals who live in covered households (meaning households, the income of which for the most recently completed year is not more than 150 percent of an amount equal to the poverty level)
    - Aging individuals
    - Incarcerated individuals, other than individuals who are incarcerated in a Federal correctional facility
    - Veterans
    - Individuals with disabilities
    - Individuals with a language barrier (English as a new language, literacy challenges)
    - Individuals who are members of a racial or ethnic minority group
    - Individuals who primarily reside in a rural area

- Other underrepresented communities of interest in Vermont are defined in the State's BEAD Five-Year Action Plan, including Vermonters who identify as LGBTQIA+ and people experiencing homelessness.

- Be data-driven while grounded in the lived experiences of Vermonters.
- Fostering continuous stakeholder engagement and adaptability.
- Ensuring a transparent, fair, and open process with accountability to Vermonters.
- Be iterative and adaptive through continuous listening and learning from stakeholders.
- Reflect, align with, and ensure continued coordination with other municipal, regional, and sector-focused digital equity plans and priorities (particularly the BEAD Program).

The VCBB used several methods and sources to inform the information and conclusions included in this plan. These included both primary and secondary sources:

- Primary sources:
  - Survey: The VCBB developed and administered a survey to Vermonters about their individual experience of digital equity barriers. The survey has received over 2,100 responses as of November 17, 2023.
  - Public comments: Public requests for input and a public comment period on the draft digital equity plan.
  - Stakeholder meetings and working groups: One-on-one or group discussions with other state agencies, nonprofits, community organizations, and businesses.
  - Public listening sessions: The VCBB organized and held public listening sessions in diverse regions of the state, particularly areas with low broadband availability or adoption.
  - Grassroots outreach: The VCBB partnered with Community Action Partnership (CAP) agencies to incorporate digital equity topics into their ongoing community engagement efforts. The Digital Equity Officer has also canvassed low-income neighborhoods and areas with little to no broadband connectivity to hear directly from residents about their experiences.
  - Interviews: The Digital Equity Officer conducted interviews with digital equity core team members, community leaders and community members to learn about experiences serving Vermonters and lived experiences with Internet accessibility, affordability, and digital skills.
  - Events specific to Covered Populations: The VCBB attended and sought input at events specific to Covered Populations, such as a summit for veterans and a barbecue for members of the Culturally Deaf community,

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to meet people at existing community gatherings and hear their perspective.

- Secondary sources: Literature reviews and analysis of publicly available data from state-level and national sources (e.g., Department of Public Service, US Census).'
- Technical assistance: The VCBB also took advantage of opportunities facilitated by the NTIA for technical assistance and peer-learning with other states, including Digital Equity Cohort meetings.

In developing this plan, the VCBB encountered some limitations in the quantitative data available to understand the baseline of digital inequities at the state level, particularly for certain Covered Populations. To mitigate this challenge, they sought direct input from Vermonters who identify as and/or work directly with members of Covered Populations to gather qualitative feedback. The VCBB has also defined as one of its first priorities during the implementation phase of this plan to improve its capabilities for collecting, analyzing, and learning from improved data around digital equity indicators for Vermont.

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Current State of Digital Equity in Vermont

Approximately 80 percent of Vermonters have access to broadband at speeds of at least 100/20 Mbps,[1] leaving 20 percent without access to high-speed broadband.[2] In addition to this gap in broadband availability, Vermont also has a significant broadband adoption gap. Across the state, the number of households subscribing to fixed broadband, such as cable or fiber, is 190,887 out of 262,514 households (or approximately 72.71 percent).[3] Approximately 12 percent of Vermont households have neither a computer nor a broadband subscription.[4] For Vermonters who are using the Internet, most access it primarily at home or at work, while some rely on public spaces or someone else's home to get connected (Table 2).

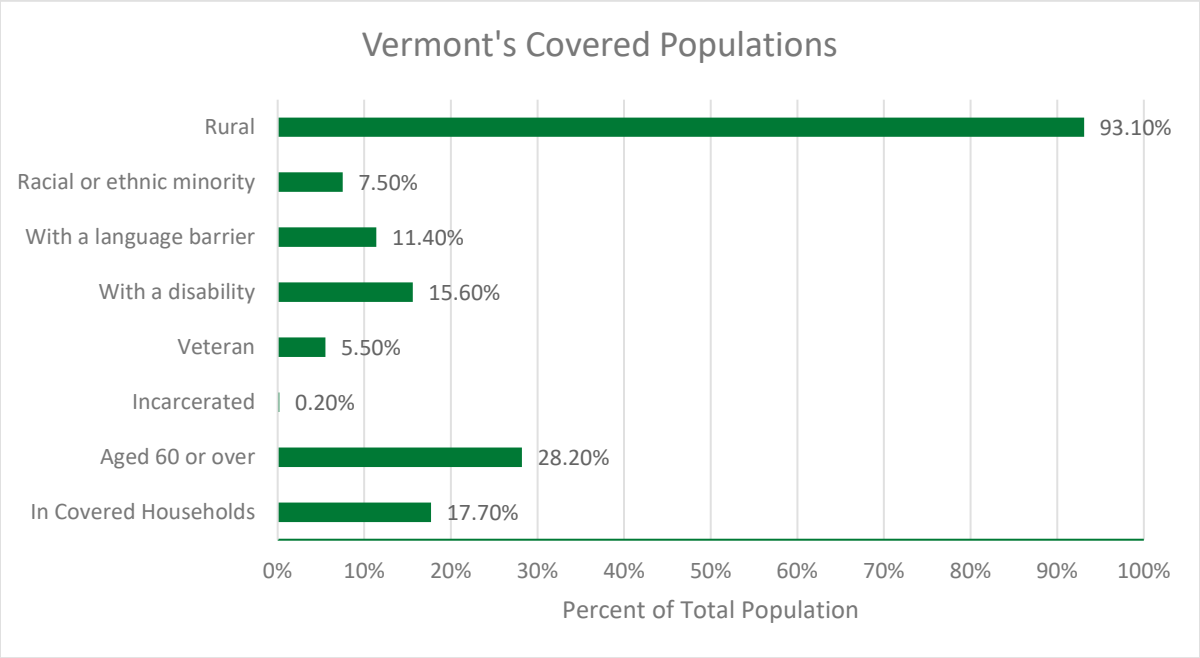
Table 2. Baseline Data on Broadband Adoption in Vermont (Source: NTIA)

Indicator of Adoption	Baseline (2021)
Internet use at home	85.6 percent
Internet use at school	12.6 percent
Internet use at work	49.7 percent
Internet use at a public place (e.g., library)	15.3 percent
Internet use at coffee shop or other business	11.1 percent
Internet use at someone else's home	22.7 percent

Broadband affordability also is a significant challenge, as seen in quantitative data as well as in responses to the VCBB's public survey issued to inform its BEAD and Digital Equity Plans. According to an analysis by BroadbandNow, only 40 percent of Vermonters have access to plans with a monthly broadband service price of less than $60 (broadband being defined as delivering at least 25/3 Mbps).[5]

The vast majority of Vermonters—95 percent—fall into at least one of the NTIA's defined Covered Populations.[6] This underscores the significance, scale, and urgency of advancing digital equity in the state. Figure 2 illustrates the prevalence of different Covered Populations in relation to Vermont's total population. Notably, over 93 percent of the state lives in rural areas.

Figure 2. Vermont's Covered Populations as Percentage of Total Population[7]



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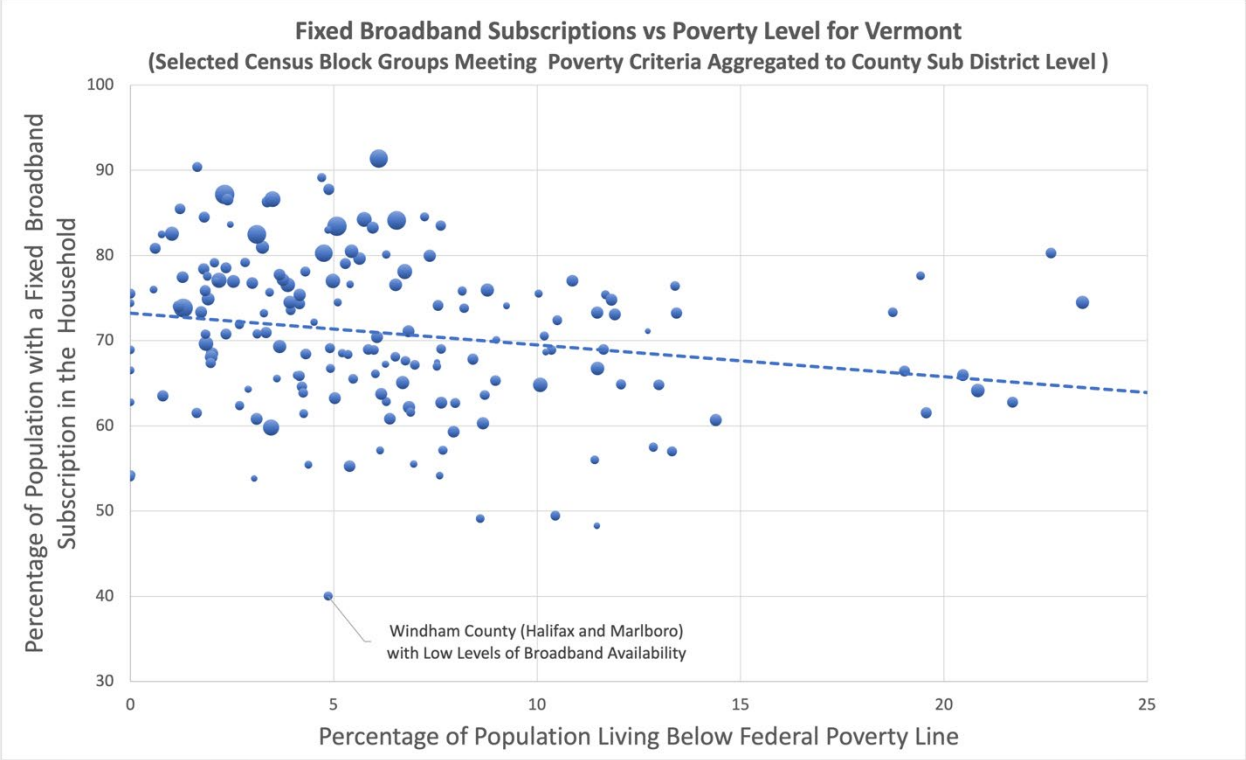
Vermont's Covered Populations experience various levels of digital inequity and are participating online at varying rates. However, analysis indicates that household income has a demonstrable impact on experiences of digital equity barriers that cuts across all of Vermont's Covered Populations. Table 3 and Figure 3 show that low levels of broadband subscriptions significantly correlate to lower income levels.

Table 3. Broadband Subscriptions versus Household Income in Vermont[8]

Household Income	Households	Broadband Subscriptions	Broadband Subscriptions (%)
Less than $20,000	32,851	20,205	61.50 percent
$20,000 to $74,999	109,850	89,569	81.54 percent
$75,000 or more	119,813	112,338	93.76 percent

Figure 3. Percentage of Population with a Fixed Broadband Subscription in the Household [American Community Survey (ACS) 2021 Five-Year Average] vs Percentage of Lower-Income Population (ACS 2021 Five-Year Average)[9]



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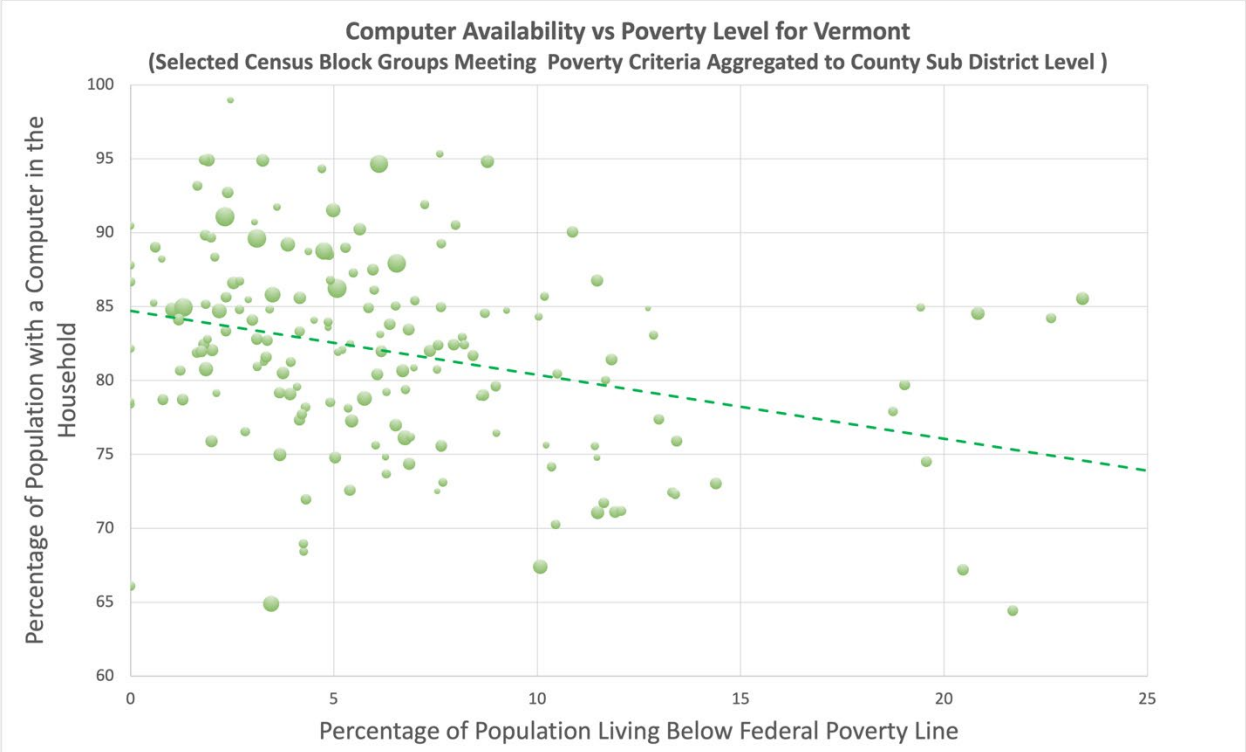
Similarly, Figure 4 shows that low levels of computer availability in the household also correlate to lower income levels. And because members of Covered Populations are statistically more likely to also have lower household incomes, this means that Covered Populations are disproportionately affected by the digital divide.

Figure 4. Percentage of Population with a Computer in the Household (ACS 2021 Five-Year Average) vs Percentage of Lower-Income Population (ACS 2021 Five-Year Average)[10]



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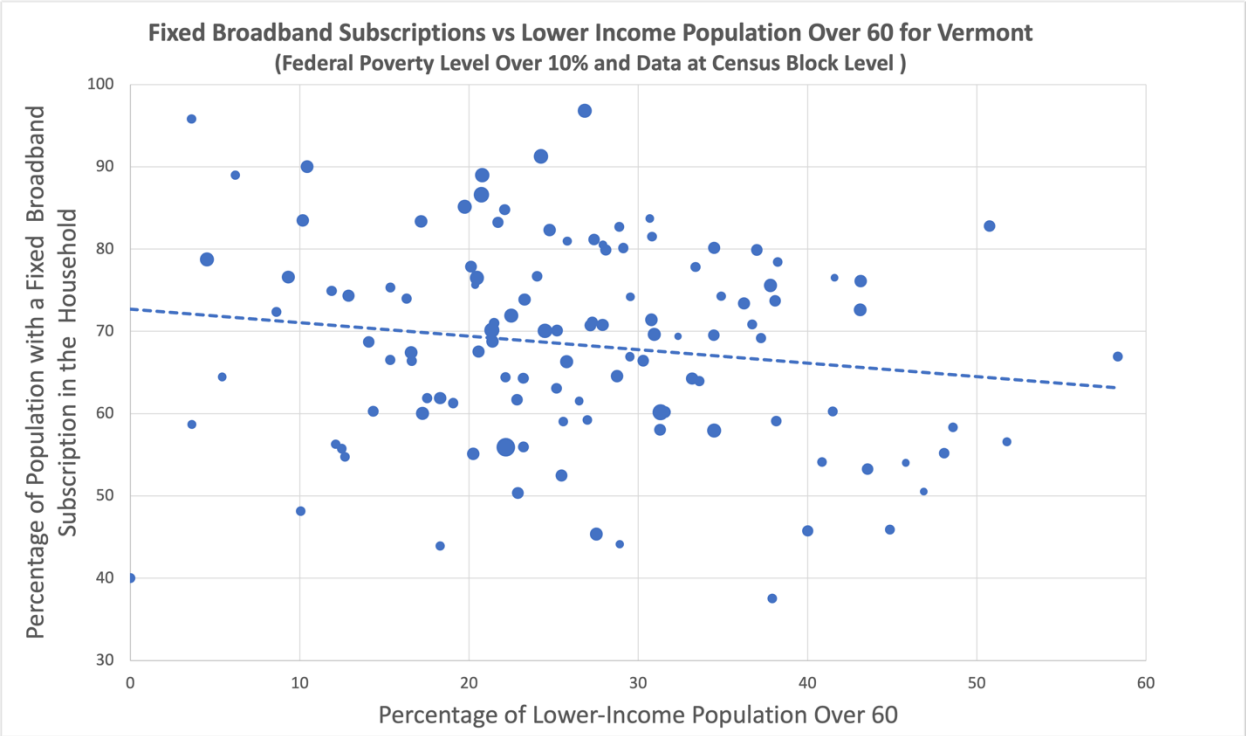
This context is important for understanding the extent to which Vermonters are facing barriers because they are members of Covered Populations, or because being a member of a Covered Population has an effect on other determining factors, like income. For example, age alone was not strongly correlated with different levels of broadband adoption in Vermont, but Figure 5 shows that the combination of increasing age and lower income correlates with lower broadband adoption levels.

Figure 5. Percentage of Population with a Fixed Broadband Subscription in the Household (ACS 2021 Five-Year Average) vs Percentage of Population that is Both Lower-Income and Over 60 (ACS 2021 Five-Year Average)[11]



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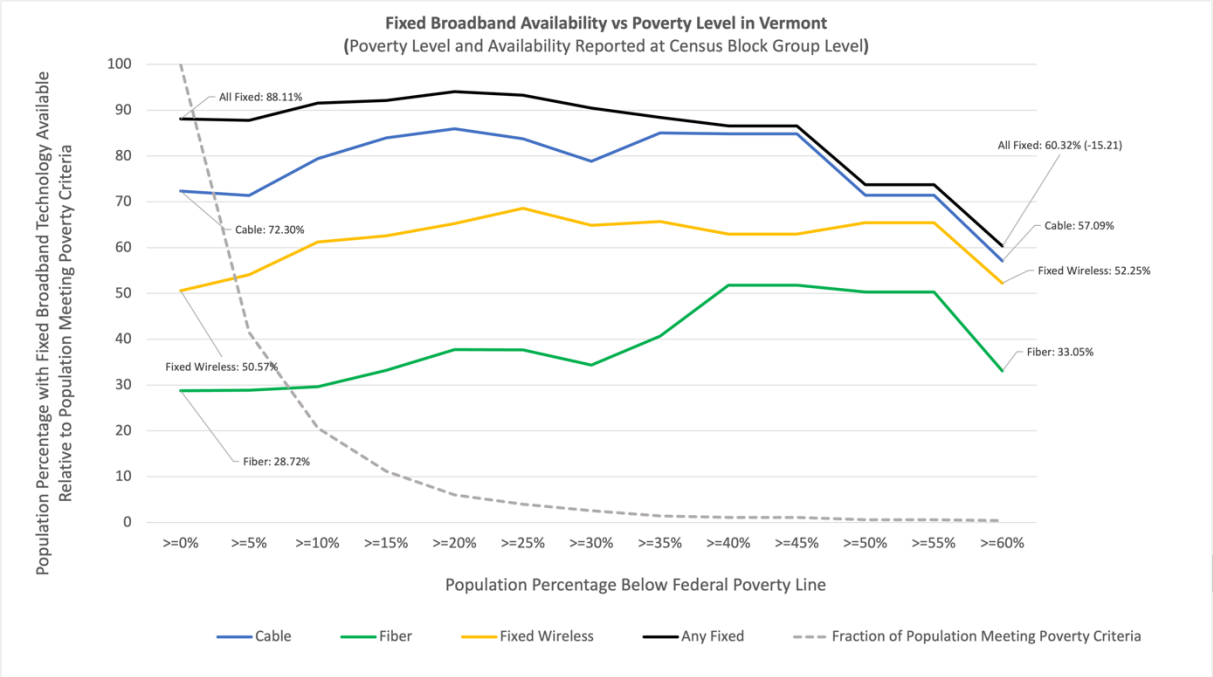
While it is possible that some of these lower adoption indicators may be related to a lack of broadband availability in lower-income areas, it is unlikely that this fully explains the trend. Figure 6 demonstrates that there is little relationship between availability of broadband and income in Vermont, except in the most impoverished areas (where over 60 percent of the population is below the poverty line), of which there are very few. Therefore, this implies that the correlation between income and lower rates of adoption exists independent of broadband availability.

Figure 6: Fixed Broadband Availability vs. Poverty Level in Vermont (Source: Vernonburg Group Digital Equity Map)



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Needs Assessment by Covered Population

The VCBB has compiled a baseline needs assessment of digital equity indicators by Covered Population. The goal of this assessment is to establish an evidence-based understanding of the current state and key barriers to digital inclusion for each Covered Population to help inform how Vermont targets its resources to advance digital equity. However, the VCBB recognizes important limitations in this analysis: at the time of publication, Vermont lacks data of sufficient granularity and statistical significance for many indicators and demographics. The following assessment was developed leveraging US Census state-level data, state broadband data, the VCBB's public survey results, and other data sources (Table 4). It is also important to note that responses to the VCBB's public survey were voluntary, limited in total quantity, and skewed towards respondents that already have broadband access, so it is possible that participants and responses to the survey are not representative of all Vermonters. In some cases, such as broadband subscription by Covered Population, the VCBB has listed national statistics with the assumption that the case in Vermont is similar and anticipates a change in the statistics after the VCBB gathers more representative data.

The VCBB recognizes that analyzing data to understand inequity requires granular and localized data to uncover specific areas of need, so this is a high priority for the VCBB. The State of Vermont does not yet have a centralized function to collect and analyze data on digital inclusion for different subsets of Vermont's demographics. The VCBB is a relatively new office, created in fall 2021, and is still establishing the partnerships and

capacity necessary for data collection, tracking, and analysis. The VCBB is actively developing a plan to collect granular data on the experience of each Covered Population. Vermont plans to significantly augment its data collection and analysis practices during the first year of implementation of the Digital Equity Plan. In situations where a baseline is unavailable, the VCBB will use as a placeholder the baselines for "Covered Households" (those with incomes below 150% of the federal poverty line); this is a population that cuts across the other Covered Populations identified, and, given the findings discussed above that income plays a major role in the experience of digital equity barriers irrespective of Covered Population, the VCBB believes those baselines will provide the best possible proxy for their experience as Vermont continues to evolve its data collection and analysis.

Table 4. Baseline Data on Digital Inclusion by Covered Population

Covered Populations	Broadband Subscription	Broadband Affordability	Device Access	Confident in Digital Skills[12]
Individuals who live in Covered Households (HH's <150% of poverty)	57 percent of households making less than $30,000 per year nationwide (2021) 74 percent of households earning between $30,000 and $50,000 per year nationwide (2021) [13]	54.2 percent of survey respondents indicated that broadband service is too expensive	59 percent of households making less than $30,000 per year nationwide (2021) own a desktop/laptop 41 percent of households making less than $30,000 per year nationwide (2021) own a tablet [14] 45.2 percent of survey respondents indicated the cost of a device is too high	17.9 percent of survey respondents
Aging individuals	77 percent of adults aged 60-65 64 percent of adults aged 65 and over[15]	56 percent of survey respondents indicated that broadband service is too expensive	Desktop – 62.5 percent (2017) Laptop - 59.5 percent (2017) Tablet - 44.5 percent nationwide (2019)[16] 8.3 percent of survey respondents indicated the cost of a device is too high	23.9 percent of survey respondents

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Covered Populations	Broadband Subscription	Broadband Affordability	Device Access	Confident in Digital Skills[12]
Incarcerated individuals, other than individuals who are incarcerated in a Federal correctional facility	Not applicable	Not available	Not applicable	Not available
Veterans	69.7 percent nationwide (2022)[17]	28.2 percent of survey respondents indicated that broadband service is too expensive	Desktop use – 35.8 percent Laptop use – 44.8 percent Tablet use – 29.1 percent nationwide (2022)[18] 23.4 percent of survey respondents indicated the cost of a device is too high	18 percent of survey respondents
Individuals with disabilities	66.7 percent nationwide (2022)[19]	57 percent of survey respondents indicated that broadband service is too expensive	62 percent nationwide (2021)[20] 24.6 percent of survey respondents indicated the cost of a device is too high	23 percent of survey respondents
Individuals with a language barrier	57 percent of households making less than $30,000 per year nationwide (2021) 74 percent of households earning between $30,000 and $50,000 per year nationwide (2021)[21]	43.2 percent of survey respondents indicated that broadband service is too expensive	21.6 percent of survey respondents indicated the cost of a device is too high	78.4 percent of survey respondents expressed an interest in resources to help them improve their digital skills
Individuals who are members of a racial or ethnic minority group	71 percent of Black and 65 percent of Hispanic households nationwide (2021)[22]	35.7 percent of survey respondents indicated that broadband service is too	Percent of households owning a laptop, tablet, or personal computer: Desktop/Laptop: Black: 69 percent	16.4 percent of survey respondents

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Covered Populations	Broadband Subscription	Broadband Affordability	Device Access	Confident in Digital Skills[12]
	AAPI – 90.1 percent nationwide (2016)[23]	expensive	nationwide (2021) Hispanic: 67 percent nationwide (2021) AAPI: 95.2 percent nationwide (2016) [24] Tablet: Black: 54 percent nationwide (2021) Hispanic: 53 percent nationwide (2021) [25] AAPI: Not currently available 23.7 percent of survey respondents indicated the cost of a device is too high	
Individuals who primarily reside in a rural area	72.71 percent of Vermont households overall (of whom 93 percent are rural) (2021) [26]	60 percent of survey respondents indicated that broadband service is too expensive	72 percent desktop/laptop, 44 percent tablet nationwide (2021)[27] 15.2 percent of survey respondents indicated the cost of a device is too high	33.5 percent of survey respondents

Below is additional analysis related to the barriers experienced by each Covered Population to digital equity in Vermont.

Individuals living in Covered Households

Individuals living in Covered Households encompass households in Vermont with incomes below 150 percent of the federal poverty line, meaning that these Vermonters have the lowest household incomes and experience the associated digital equity barriers at the highest rates. While specific statistics for adoption are unavailable at the state level, national statistics reflect the qualitative feedback the VCBB received from these Vermonters, which is that the primary barrier experienced by this Covered Population relates to affordability. According to Pew Research:

About four-in-ten adults with lower incomes do not have home broadband services (43 percent) or a desktop or laptop computer (41 percent). A majority of U.S. households with lower incomes are not tablet owners. By comparison, each of these technologies is nearly ubiquitous among adults in households earning $100,000 or more a year.[28]

As discussed above, Vermont faces several structural challenges to making broadband affordable. The rurality and topography of the state means that expanding broadband infrastructure is costly, resulting in high prices for services to support it. For Vermonters living in Covered Households, 40.6 percent reported being able to pay less than $20 for broadband service.[29] Given that only 40% of the state has access to service plans that cost less than $60, let alone $20, affordability will be a challenge to which the VCBB will devote significant attention and resources.

A 35-year-old Black man with disabilities living in a rural area attended one of the VCBB's listening sessions and described the challenges he has affording his $80/month Internet service. The burdensome application process, coupled with customer service issues with his provider in getting the Affordable Connectivity Program benefit applied, have meant that he continues to pay $80/month for inadequate service. He expressed the importance of not just making the Affordable Connectivity Program sign up process easier, but of also taking further measures to ensure affordability.

The VCBB has conducted preliminary research under the assumption that households can generally afford to spend up to one percent of their monthly income on fixed broadband connectivity.[30] That means a one-person household living at 100 percent of the poverty line could spend up to $12.15 per month on fixed broadband. At 150 percent of the poverty line, a one-person household could spend up to $18.22 per month on a fixed broadband connection. According to the 2021 Census data, approximately 10.4 percent of Vermonters have incomes below 100 percent of the poverty level and 14.1 percent have incomes between 101-200 percent. These families would be eligible for ACP support of $30 per month and some would be eligible for Lifeline support of up to $9.25 per month, which would bring service plans within reach for some Vermonters. ACP enrollment can also help with access to devices, as 45 percent of survey respondents from Covered Households indicated that the cost of devices is too high.

Despite these high costs and the availability of programs to reduce them, Vermonters are not maximizing the use of broadband affordability programs currently available, which is further contributing to lack of adoption. Compared to a nationwide participation rate of close to 40 percent, only 17 percent of eligible Vermont households have enrolled in the ACP.[31]

The VCBB's public survey included questions about awareness of the ACP and reasons for signing up or not. Only 45.4% of respondents had heard of the program. Out of the respondents who had heard about the ACP, 444 or 51 percent of report signing up. A smaller number also responded that they did not know how to sign up (54) or that the process to sign up was too difficult (28). Encouragingly, 66 percent of respondents who self-identified as members of Covered Households had heard of the ACP. However, over 25 percent of Vermonters in Covered Households who had heard of the ACP had not enrolled, which speaks to the existence of barriers to ACP adoption beyond lack of awareness (e.g., the difficulty of the enrollment process, lack of awareness of how to

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sign up, social stigma, government mistrust) which the VCBB intends to work with its partners to address.

The VCBB is actively working with partners to promote awareness of the ACP program and how to sign up. It intends to work with partners and stakeholders such as NEKCA and the Community Action Partnership to better understand the barriers to adoption of the ACP program. The VCBB will also closely monitor adoption rates among Covered Populations, in addition to conducting additional information-gathering efforts around monthly service costs, in order to better understand whether additional programs may be necessary to further lower the monthly costs of service to certain Vermont households.

One possible reason for this relatively low uptake is the rurality of Vermont's demographics. Compared to urban, densely populated areas, outreach to rural households can take more time and resources. Several other largely rural states, including Maine, Montana, and Wyoming, have ACP enrollment rates of between 16-20 percent, similar to Vermont's and well below the national average.[32] However, rurality does not totally explain this low level of ACP enrollment. Maine, a neighbor to Vermont with similar rurality, has an ACP enrollment rate of 39.4 percent.[33] The State of Vermont also lacks an extensive ACP promotion initiative. Aside from the CAP initiative on ACP outreach, there is no statewide effort to promote ACP, and there are no public sector or non-profit organizations currently assisting with actual enrollment (filling out necessary paperwork, applying the benefit to a Vermonters Internet service account, etc.). This will be a priority in implementing Vermont's Digital Equity Plan.

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One other important dimension that is currently affecting ACP enrollment rates is mistrust. In rural, more disconnected areas, there are high levels of mistrust, particularly of government and government "handouts." In a national survey focused on reasons that qualifying households do not enroll in available broadband affordability and adoption programs, researchers at Boston Consulting Group (BCG) Global found that 30 percent of respondents did not take up free programs or service offerings because of negative associations with free services.[34] This perspective not only stops individuals with that perspective from signing up, but also creates a social stigma against engaging with government programs or enrolling in government services/benefits, even if an individual meets qualification requirements. It is therefore crucial that trusted organizations, already active in the community, are partners in conducting ACP-focused outreach and help usher Vermonters through the ACP-enrollment process. This will help remove social stigma and will also make skeptical Vermonters more inclined to hear the information (since it's coming from a trusted, non-government source), while also facilitating a smoother enrollment experience.

In the absence of the ACP program, which will run out of funding in 2024 unless Congress authorizes additional funding, Vermont is exploring other ways of lowering the cost of services to consumers. The VCBB will also work directly with Vermont's Congressional delegation to underscore the importance of the ACP to enrolled Vermont families in the hopes that federal policymakers will continue to fund the program.

Beyond affordability concerns, Vermonters in Covered Households face additional barriers related to digital skills and literacy. The lower levels of broadband adoption and device access in this population means that they have fewer chances to practice and develop their digital skills. Providing this population with the foundational resources that will allow them to use the Internet safely, securely, and with confidence, while simultaneously removing the barriers to broadband adoption and device access will, for beginner Internet users, help to avoid members of this population building poor digital literacy and Internet hygiene habits as they come online. Through the Digital Equity Capacity Grant program, the VCBB plans to expand its data collection and analysis of digital skills comfort from various Covered Populations, including Vermonters living in Covered Households, and use that to craft population specific programs and resources in coordination with various government agencies and organizations.

Aging Individuals

Aging individuals are a population frequently referenced as struggling with digital equity barriers. Nationally, there are significant differences in the adoption rate of home broadband among Americans 65 and older, which is 64 percent, and younger populations.[35] Americans aged 50-64 have a home broadband subscription rate of 79 percent, and 86 percent of those 30-49 reported adopting broadband.[36] As a largely retired population living on a fixed income, affordability is also a major concern for aging Americans; in 2023, over half of all Americans over 65 had an annual income of less than $29,700 from all sources.[37]

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This is particularly relevant in Vermont because it is a state with an aging population: as of October 2022, 27.1 percent of Vermont's population is over the age of 65.[38] This is significantly higher than the national average of 16.6 percent, and is an age group that is continuing to grow as a percentage of the overall population in the state.[39] Like veterans, aging Vermonters tend to have favorable socio-economic outcomes as compared to some other Covered Populations. The population of Vermont seniors living below the federal poverty line is 7.8 percent, below the statewide average of 10.4 percent. The per capita income for Vermonters over the age of 65 is $59,180; this is only slightly below the statewide average of $63,000.[40]

An attendee at the Newport listening session, a woman in her 70s recovering from cancer, who has an extremely slow connection and significant reliability issues, lives alone and was ill during her cancer treatment. She was unable to reach out to any of her friends or her care team for multiple days due to an extended outage of her connection and was forced to wait until a friend who lives internationally contacted law enforcement for a welfare check before she was able to seek help.

While this indicates that, on average, aging individuals face fewer affordability barriers, there is still a significant population of aging Vermonters for whom affordability presents a barrier to broadband adoption. Additionally, aging Vermonters' ability and willingness to pay may be lower than that of younger Vermonters with the same income. Aging

Vermonters are often living on a fixed income and face greater healthcare expenses than younger demographics, limiting disposable income. Aging Vermonters are also generally less “tech native” and reliant on connected technologies than younger individuals. Better understanding how much aging Vermonters can (and are willing to) pay for service and devices will be crucial in assessing whether additional, Covered Population-specific policy interventions are warranted given the unique socio-economic considerations facing this Covered Population.

While aging Vermonters expressed interest in digital skills resources at a lower rate than many other Covered Populations, qualitative evidence from extensive engagement with organizations and individuals from this Covered Population suggest that there is a significant need. Expanded data collection efforts focused on this Covered Population will also include developing a more standardized and accurate assessment of aging Vermonters’ digital skills, to better understand the need for programming targeted at this specific Covered Population.

One particular concern for aging Vermonters is those who have never historically been members of a disabled or differently-abled group, but transition into one in older age (people who lose their sight or hearing, people who develop a physical disability, etc.). Approximately 29.2 percent of Vermonters over the age of 65 have a disability, and as this age group is continuing to expand in Vermont, it is likely that the number of aging Vermonters with disabilities will only continue to grow.[41] These individuals may be difficult to reach with services and assistive technologies tailored for people with disabilities, because they may not consider themselves to be part of that community, may be uninformed about disability-focused services, and may be uncomfortable advocating for their own accessibility needs. One idea that the VCBB plans to explore as it continues to gather information and coordinate with relevant agencies and organizations is to develop a program that helps “newly-disabled” Vermonters, many of whom will likely be members of this Covered Population, navigate services and assistive technologies. It will also be important that, as the VCBB designs awareness and promotion strategies for services focused on people with disabilities, a specific strategy is developed to engage a population who may be uncomfortable with the term “disabled” or who may not automatically identify as a member of the community, but who may still benefit from these programs and services.

Incarcerated Individuals

At the time of publication, the VCBB did not have access to data to inform quantitative baselines related to the experience of digital equity barriers among incarcerated individuals. Through its stakeholder engagement process, the VCBB gained qualitative information that key barriers for incarcerated individuals are affordability and digital skills. Vermont’s Department of Corrections has been implementing an initiative to ensure all facilities with educational programs have strong Internet and device access. An important opportunity is to ensure appropriate virtual skilling resources are available. The VCBB is continuing to work with the Department of Corrections (a member of the

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VCBB's Digital Equity Core Team) to survey incarcerated individuals for further feedback to inform digital equity solutions.

Formerly-incarcerated individuals often face substantial barriers to digital equity, such as access to affordable broadband service and devices, digital skills, and legal restrictions on content they can access. The VCBB has been collaborating with organizations that assist formerly-incarcerated individuals to understand their needs, identify solutions, and ensure awareness of digital equity resources is increased.

Veterans

Over 5.3 percent of the Vermont population identifies as a veteran.[42] Vermont's veterans often have better socio-economic outcomes than the non-veteran population. Only 6.5 percent of Vermont veterans live below the poverty line, compared with 10.4 percent of Vermont's total population living in poverty. Vermont's veterans have a similar rate of unemployment to the state average, which in Vermont is extremely low (1.8 percent as of August 2023).[43] Vermont's veterans have a per capita income of $59,559,[44] slightly below the statewide average of $63,000.[45]

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In comparison with other Covered Populations, affordability-related barriers may be less prevalent but still a barrier for some. The VCBB will ensure that it works directly with veterans' groups to spread awareness about affordability programs, and particularly to make information available in locations where low-income veterans are already accessing services.

Survey respondents who are veterans also expressed high levels of interest in digital skills programming (which was a generally popular idea among Vermonters). Something the VCBB heard consistently from veterans and associated advocacy organizations is that veterans have an extremely strong preference for engaging with other veterans when attempting to access programs and services. Therefore, it will be particularly important for VCBB to design any programs, and particularly a program that requires longer-term engagement between program organizers and Vermont veterans (like digital skills courses), with that preference in mind. It will also be absolutely essential for the VCBB to partner with trusted veterans' groups and advocacy organizations as messengers and potential hosts for any VCBB-funded programs from which Vermont's veterans could benefit. The VCBB plans to continue its work with Vermont veterans' organizations to augment its existing data and ensure that more digital skills programming will bridge all equity gaps faced by this Covered Population. It will be important to ensure that any awareness campaign related to digital skills resources specifically targets the Vermont veteran population for outreach.

One additional dimension of consideration for this Covered Population is that there is a significant number of Vermont veterans with service-related disabilities. Approximately 21 percent of Vermont veterans have a service-connected disability, which creates additional barriers for this population to adopting broadband.[46] Activities to improve the accessibility of public resources and services will also benefit this population, and it is

important that any digital equity programs developed specifically for Vermonters with disabilities also include a specific outreach component to this veteran population.

Individuals with Disabilities

People with disabilities often face a high number of barriers related to digital equity. At a national level, Americans with disabilities are three times as likely as those without a disability to say they never go online (15 percent versus 5 percent).[47] Additionally, the same population also reports a significantly lower rate of laptop and computer ownership than people without disabilities do (62 percent versus 81 percent).[48] The gap between broadband adoption rates among people with and without disabilities is slightly less stark, but still notable— 77% of the population without disabilities subscribe to fixed broadband nationally, compared to 72% of people with disabilities. [49] However, national data indicates that a tablet ownership among people with disabilities are relatively consistent with non-disabled households.

At the VCBB's listening session in Burke, VT, one of the attendees, who works in Outpatient Services for the region's main mental healthcare facility, described an inability to connect with patients in crisis during COVID due to the unavailability of service that could support something as basic as a Zoom call at his home. For people in crisis, the inability to connect to services can be a life-or-death hurdle.

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In Vermont, individuals with disabilities may face the barriers related to service affordability, device affordability, and digital skills. As is noted in the baselines provided above, this population was the most interested in digital skills training out of all populations surveyed. Vermonters with disabilities also reported that device affordability was a barrier at a relatively high rate and almost half of respondents with disabilities reported broadband service costs as being too high.

In addition, this population faces additional barriers related to accessibility; in particular, accessing and using any assistive technologies and the accessibility of online resources, websites, and services.

The State of Vermont has an extensive accessibility policy for its own websites and online resources.[50] The State provides specific guidance for the creation of text documents, presentations, webpages, and PDFs that ensure that all Vermont work products are accessible to people with disabilities. This policy is enforced through the State of Vermont's Office of the Chief Marketing Officer, which works to ensure that all state websites and publications meet Vermont's brand standards. The VCBB has worked directly with Vermont's Chief Marketing Officer during the development of these plans and will continue to do so to ensure that all activities related to web accessibility are coordinated and maximize resources. However, the accessibility of materials and services at the county and local level is more variable, as is the accessibility of video or audio content, which certain Vermonters may be unable to access. The VCBB plans to contract with a firm specializing in accessibility to perform an audit of several websites that are representative of the broader experience across the state. The firm will then

produce a list of recommendations and best practices that are tailored to the most common issues that these experts see on these websites and in public materials, which local governments and organizations can implement.

Vermont will also encourage any organization receiving funding through the VCBB's Internet for All allocation to have websites and produce collateral that follow accessibility best practices, to produce all public-facing materials in an accessible format, and to have accessibility accommodations available at all events by request. Organizations will also be provided with guidance on producing documents related to digital equity in plain language, which the VCBB will work to develop directly with some of the state's accessibility organizations.

An additional barrier faced by this population is access to and affordability of assistive technologies. In response to a question about assistive technology, 20 percent of respondents with a disability that affects how they use the Internet reported that they don't know about tools that can help them. An additional 33 percent indicated that the assistive device they need to help them use the Internet does not work well. Without access to functioning, affordable assistive technologies, these individuals are precluded from participating online the same way they would be without broadband service or a standard personal computer. Given these statistics, it may be beneficial for Vermont to develop digital skills programming that is specifically related to assistive technologies (what technologies to acquire, what's already built into desktops, laptops, and tablets, how to use them, how to do some basic troubleshooting if something isn't working well, etc.). The VCBB will continue to engage with Vermonters with disabilities and organizations that serve them, including through the Digital Equity Core Planning Team and through targeted outreach, to develop a more granular understanding of what digital skills training content and resources would be most beneficial for this Covered Population.

This data also points to a knowledge gap where many Vermonters with disabilities are unaware of resources they could use to access the Internet. It is imperative that people with disabilities are made aware of these assistive technologies, and where/how to access them, in their interactions with medical professionals, non-profits, or social services. The VCBB will work directly with organizations that support and advocate for people with disabilities, including those on the Digital Equity Core Planning Team, to better identify locations where information and resources should be made available for maximum visibility to this Covered Population.

On affordability of these assistive technologies, 28 percent of respondents with disabilities said that these tools are too expensive. Without the ability to afford these tools, these Vermonters are unable to participate fully online, the same way a person without a disability would be without access to a computer. A comprehensive affordability solution for Vermont will need to include programs to help support individuals with disabilities. These may take the form of a subsidy program, or a loan program whereby an individual is able to borrow an assistive technology at low-to-no cost (with an associated assistive technology training program to ensure Vermonters

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who need them can use their assistive technologies). Given that some Vermonters with disabilities also struggle with device affordability, it may make sense for the VCBB to bundle no-cost assistive technology access programs with no-cost device access programs for people with disabilities. This will ensure that these Vermonters are equipped with all necessary technology for them to participate fully online.

This is a population that also faces significant socio-economic challenges. For example, a 2017 study found that only 53 percent of Deaf and Hard-of-Hearing Vermonters were employed, while 43 percent were not participating in the labor force.[51] Hearing Vermonters in the same survey had an employment rate of 79 percent, with only 17 percent not participating in the labor force.[52] Ensuring the availability of broadband access for these individuals, and of the accessibility accommodations they need to fully participate online, will be crucial in closing that gap. These socio-economic conditions will also affect the ability of members of this population to afford broadband service, and it will be crucial to ensure that any affordability resources are targeted to these individuals and are designed with accessibility in mind.

The VCBB plans to continue its work directly with Vermonters with disabilities to design device and assistive technology access programs, to develop a strategy for publicizing the availability, and to design digital skilling resources, programs, and courses that are universally accessible (and that are available in plain language), and to collect additional data to better understand how else barriers to adoption can be reduced for this Covered Population.

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Individuals with a Language Barrier

Vermont is not able to provide comprehensive quantitative baselines related to digital equity barriers experienced by English language learners. The VCBB produced its survey in Spanish, and conducted significant outreach to the migrant farmworker community, in addition to attending several multicultural events with translators in order to secure participation from non-native English speakers. However, the number of responses received is still too few to develop a robust statistical baseline. As a component of its Digital Equity Capacity Grant, the VCBB plans to work to augment the data available for this Covered Population and to establish these baselines. To achieve this goal, the VCBB anticipates working directly with the US Committee on Refugees and Immigrants (USCRI), which is a member of Vermont's Digital Equity Core Planning Team, as well as Migrant Justice (an advocacy organization focused on Migrant Farmworkers), and the University of Vermont's Migrant Education program, both of which the VCBB engaged during its Digital Equity planning process. The VCBB will continue to identify additional organizations to collaborate with on quantitative and qualitative data collection.

In the VCBB's engagements with these organizations to date, the two major barriers expressed were affordability of service and devices, and lack of information and resources available in multiple languages. The migrant population, and in particular migrant farmworkers, often leave many members of their family elsewhere when

relocating for employment opportunities. Outside of employment, connecting with families is the top priority for these Vermonters, and these individuals most often spend available money (including any ACP benefits) on mobile service rather than on fixed broadband. Some migrant farmworkers who are undocumented face additional barriers to broadband adoption related to their undocumented status, and the VCBB will work directly with that subset of this Covered Population to better understand and help to reduce those barriers. In addition, it will be important that any solutions that the VCBB designs specifically for this Covered Population provides enough support to allow these Vermonters to access home broadband without sacrificing the subsidies they need to access mobile broadband as well.

Additionally, the creation of materials in multiple languages is crucial. This includes program resources and information, websites, and the data collection materials produced by the VCBB to gather more granular information from this Covered Population. Vermont's population of English Language Learners is relatively small but extremely diverse due to Vermont's willingness to accept refugees and displaced individuals into its communities. The VCBB plans to continue its work with USCRI to identify languages for translation and to develop a plan to ensure all digital equity programs have resources available in those languages as needed.

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Organizations like USCRI have developed models of services designed to set someone up with all the resources (e.g., broadband service subscription) upon arrival at a new location. For example, individuals who get support from USCRI when they re-settle have broadband service set-up before they move in. USCRI also helps support these individuals in paying for the service. While it is unlikely that this level of support can be provided at scale to all Vermonters, this type of heavy-support programming may be appropriate for certain Covered Populations facing extremely high barriers to digital equity. A program like this could be particularly beneficial for individuals who are incarcerated but are preparing for release.

Individuals Who are Racial or Ethnic Minorities

Vermonters who are members of racial and ethnic minority groups often also face significant broadband adoption barriers, many driven by income. In Vermont, the median household income for any racial or ethnic minority group is below that of the median income for white households.[53] Poverty levels for racial and ethnic minority Vermonters are also significantly higher than for their white counterparts; for example, the poverty rate for Black Vermonters is more than twice the poverty rate for white Vermonters (23.8 percent vs. 10.7 percent), and the poverty rates for Asian Vermonters (15.4 percent), Native American Vermonters including members of state-recognized Abenaki tribes (17.6 percent) and Hispanic Vermonters (16.2 percent) are all at least 44 percent higher than the rates for white Vermonters.[54]

Therefore, the affordability barriers are particularly impactful on this Covered Population. Any affordability programs that will be designed through the implementation of this plan should be designed to maximize participation and outreach to Vermonters

who are racial and ethnic minorities. The VCBB will further assess the need for additional affordability programs targeted specifically at this Covered Population as it continues to develop its data collection and analysis capabilities through the Digital Equity Capacity Grant.

Beyond affordability and digital skills, individuals who identify as racial or ethnic minorities may face significant barriers related to lack of information and government mistrust. Racial minority populations experience significantly higher rates of discrimination, including in institutional settings, creating a much higher predisposition towards mistrust of government intervention and programs than white counterparts.[55] Many programs targeted at these populations have also historically been staffed by white individuals; not seeing members of their own racial or ethnic group involved in program development or administration may heighten concerns and mistrust. The VCBB must keep awareness of this mistrust central when designing programs for this Covered Population and will work directly with organizations representing racial and ethnic minority Vermonters to limit ways that new programs and services could trigger suspicions among this population. It will also be particularly important not only that the VCBB partner with trusted, local community organizations across the state to develop digital equity programs for this Covered Population and spread awareness of them, but that those who are spreading the word and engaging with the public include members of racial and ethnic minority groups. Given the relatively small number of Vermonters who are racial and ethnic minorities (92.5 percent of Vermont's already small population is white), this can be a challenge. The VCBB will work directly with community organizations on strategies to recruit employees and volunteers who are members of racial and ethnic minority groups.

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Individuals Who Primarily Reside in a Rural Area

Vermont is fairly unique among states in that 93.1 percent of the state's population resides in a rural area. Therefore, it is important to keep in mind that this Covered Population is highly intersectional, and that the vast majority of feedback received by the VCBB throughout this process can apply, to varying degrees, to subsets of this Covered Population.

One data challenge associated with this Covered Population is that the VCBB's survey asked respondents to self-identify as Covered Populations. While almost 50 percent of all respondents did indicate that they live in rural areas, it is likely that the percentage of respondents living in NTIA-identified rural areas is much higher. Therefore, it is possible that these results do not fully encapsulate the barriers experienced by Vermonters living in rural areas.

Of the VCBB's public survey responders, 60 percent of those who self-identified as living in a rural area said their broadband service is too expensive. Qualitative feedback from those Vermonters further emphasizes that many rural households face significant challenges in accessing affordable Internet service and are often choosing between paying the bill for Internet and other essential services. Additionally, in both quantitative

and qualitative feedback collected through the survey, public request for input, and events across the state, the number one message that the VCBB heard related to adoption barriers is that affordability is the number one concern for Vermonters. Out of 2,048 total responses to the VCBB public survey, 1,022 responded that the cost of broadband service is too high to a question about their experiences with Internet services (the second and third most popular responses were that the Internet was too slow—949 responses—and that the Internet was unreliable—814 responses—factors Vermont plans to address through its BEAD program).[56] Among respondents who identified themselves as members of one or more of the designated Covered Populations, 'the cost of Internet is too high' was also the most popular response.

Of the 74 respondents who do not have a home Internet subscription, 21 (28 percent) stated that their primary reason for not signing up for service is because the cost of broadband service is too high. Aside from a lack of available, reliable service, the high cost of broadband was the next largest reason that Vermonters who did not have Internet service had not adopted. Of those who reported that they have a home Internet connection, 60 percent still agreed the cost of service is too high.

Vermont faces a few specific affordability challenges due to its geography, low population density, and existing infrastructure pattern. The remaining unserved and underserved addresses are in areas where infrastructure has not been built by market forces alone and are predominantly very rural. This drives up average capital expenditure and operating costs of an Internet service provider, which can result in higher monthly customer prices for rural consumers. Given the amount of Vermont that is classified as rural, this phenomenon affects an enormous number of Vermonters.

Additionally, the customer expense of the drop that brings fiber from the pole to the house can be prohibitively high, especially for the many Vermonters who live at the end of long driveways, far from the nearest pole infrastructure, and those who live in areas where utilities (and therefore future fiber builds) are buried underground. Of note, utilities are nearly always buried underground in manufactured home communities, which house some of the lowest-income individuals and households in the state. These property-specific expenses must also be considered in the greater landscape of broadband affordability.

The framing of the survey question around whether costs of service are too high means that there are two possible motivations for responses: 1) that the cost of service is so high that a household cannot make the number work in its monthly budget, and truly struggle to afford service, and 2) that the costs of service are high, and Vermonters do not see the value from Internet service they would expect, given the high monthly bill (e.g., the service is too slow or unreliable). The experience of the barrier of truly not being able to afford Internet service is largely driven by household income and is therefore discussed in the "Covered Households" section below. But the other barrier that the VCBB must work to address is improving the value proposition that Vermonters see when deciding to sign up for service.

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The VCBB is optimistic its BEAD Program will resolve the barrier of access to reliable, high-speed broadband service. The VCBB will continue to work with stakeholders serving and representing rural communities—along with individual Vermonters themselves—to understand and address other barriers to their ability to meaningfully use the Internet and benefit from that connection (e.g., affordable services and devices, awareness, and access to digital services such as telehealth or virtual job skilling). Through these efforts, rural Vermonters can remain and thrive in their communities no matter how rural they may be.

Other Historically Marginalized Communities

Throughout its stakeholder and public engagement efforts, Vermont has also engaged with and collected data from other historically marginalized communities in the state to better understand their experience with digital equity. These have specifically included Vermonters who are members of the LGBTQIA+ community, Vermonters experiencing homelessness, and children/youth. Though these groups are not the focus of NTIA's Digital Equity Program, Vermont will continue to collect and analyze data from these groups and consider their specific needs and barriers, in the context of the needs of the Covered Populations specified here, in implementing Vermont's Digital Equity Plan.

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Asset Inventory

As part of the process for developing this plan, the VCBB has begun developing an inventory of digital equity assets available to Vermonters (especially Covered Populations). This section is followed by an analysis of remaining gaps—a Needs Assessment—which guides Vermont's Implementation Strategy.

Many state agencies, nonprofits, community organizations, local government entities, and individual Vermonters have been advocating for and implementing initiatives to advance broadband access and digital equity across the state. This section provides a description of resources (assets) related to different digital equity topics: broadband availability and affordability, digital skilling, and device access. The sub-sections include catalogues of related resources, including links, brief descriptions, and listing which Covered Populations for whom they are particularly relevant.

Broadband Availability and Affordability

Affordability of Internet in Vermont is a key issue as around 18 percent of Vermont households live on incomes below 200 percent of the federal poverty line, the primary threshold for ACP eligibility.[57] In addition to the ACP program, there are multiple organizations and programs available to Vermonters helping to make broadband connectivity more affordable statewide. Table 5 provides a catalogue of resources.

Table 5. Catalogue of Broadband Access and Affordability Resources

Organization Name	Program/Resource Description	Digital Equity Category	Covered Population
Affordable Connectivity Program[58]	Program to provide a $30 subsidy for home broadband service and a $100 device subsidy for qualified households.	Broadband access & affordability	Individuals who live in covered households
Lifeline[59]	Lifeline is a federal program that offers a monthly benefit of up to $9.25 for phone or Internet plans for eligible consumers.	Broadband access & affordability	Individuals who live in covered households
Vermont Public Libraries[60]	Local, community-based libraries across Vermont offer devices and broadband service for temporary public use. At a limited number of public libraries in the state, devices are also available to borrow.	Public device & Internet access	All
Comcast Internet Essentials[61]	Low-cost service and device option available to those living in the Comcast service area.	Broadband access & affordability	Individuals who live in covered households
Spectrum Internet Assist[62]	Low-cost service and device option available to those living within the Spectrum service area.	Broadband access & affordability	Individuals who live in covered households
Department of Housing and Urban Development (HUD)[63]	Free wireless support for multi-dwelling units	Broadband access & affordability	Individuals who live in covered households
US Committee for Refugees and Immigrants	Offers Internet subscription and other support to new immigrants to Vermont.	Broadband access & affordability	Individuals with a language barrier, Individuals who are from a racial or ethnic minority
Numerous mobile operators[64]	Mobile device access eligible for ACP subsidy	Broadband access & affordability	Individuals who live in covered households

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Organization Name	Program/Resource Description	Digital Equity Category	Covered Population
Veterans Affairs	The VA offers a Digital Divide Consult in which a VA social worker can determine if an individual is eligible for a discount on their home Internet or phone service (e.g., ACP, Lifeline).	Broadband access & affordability	Veterans

Additional descriptions of some important broadband affordability programs are provided below.

Affordable Connectivity Program

This federal program provides a discount of up to $30 per month toward Internet service and up to $100 for a "connected device" purchase, provided that the "charge to such eligible household is more than $10 but less than $50 for such connected device." Qualified households on Tribal lands and in FCC-defined High Cost Areas receive an increased subsidy of $75/month for Internet service. A connected device is defined by statute as a laptop, desktop computer, or a tablet.[65] There are currently 75 providers registered in Vermont that participate in the ACP, including both fixed and mobile service providers.[66] Details are shown by provider type in the table below.

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Table 6. ACP Participating Providers in Vermont (July 2023)[67]

ACP Participants	Number
Fixed Broadband Service Providers	22
Mobile Broadband Service Providers	41
Providers Offering both Fixed and Mobile Broadband	12
Providers Offering a Connected Device Program	38

The ACP program came up frequently in stakeholder conversations during public listening sessions throughout Vermont, and the VCBB directed interested stakeholders to information and resources to assist them in applying. One frequent piece of stakeholder feedback came from Vermonters who are above the threshold to qualify for ACP but who have trouble affording a home Internet subscription. As noted above, only 40 percent of Vermonters have access to broadband plans with a monthly service price of less than $60 (broadband being defined as delivering at least 25/3 Mbps).[68]

HUD executed ACP enrollment events at public housing authorities in targeted areas across the State for the summer of 2023. Northeast Kingdom Community Action (NEKCA) was recently awarded a $500,000 ACP outreach grant from the FCC[69] and is coordinating a statewide campaign through the Community Action Partnership to increase ACP enrollments.

ACP enrollment remains low in Vermont compared to the number of Vermonters who are eligible for the program. Vermont's rate of participation in the ACP is less than half of the national average; this is discussed in greater detail in the Affordability Section of the Needs Assessment below. The VCBB is working on more ACP awareness-building efforts in partnership with the Digital Equity Core Team they've assembled.

Lifeline

Lifeline is a federal program that offers a monthly benefit of up to $9.25 for phone or Internet plans for eligible consumers.[70] Similar to the ACP, many more Vermonters are eligible for this program than are currently enrolled.

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Table 7. Lifeline Subscriber Data for Vermont (July 2023)[71]

Lifeline Eligibility	Vermont Totals
Subscriber Count (April 2023)	8,010
Eligible Households	78,796
Estimated 2023 Lifeline Participation Rate	10 percent

Universal Service Program for Schools and Libraries (E-Rate)

The Universal Service Program for Schools and Libraries (E-rate) is a federally funded program providing discounts to schools and public libraries for their broadband services, Internet access, and related equipment. E-rate enrolled schools and libraries receive discounts averaging 60-80 percent on these services. In 2023, Vermont received just over $3 million to subsidize schools and public libraries in purchasing services and equipment.[72]

Rural Health Care Program

The Rural Health Care Program is a federal program that provides funding to eligible public or non-profit health care providers from two different programs: the Healthcare Connect Fund and the Telecommunications Program. The Healthcare Connect Fund provides support for high-capacity broadband connectivity to eligible health care providers and encourages the formation of state and regional broadband health care provider networks. The Telecommunications Program subsidizes the difference between urban and rural rates for telecommunications services for rural health care providers.[73] In 2022, rural health care providers in Vermont received $208,782 from these two programs.[74] For more information on this program and how to apply, visit: https://www.usac.org/rural-health-care/.

Funding for Broadband Deployment

Vermont's BEAD, ARPA, and other deployment programs will extend high-speed broadband access to all unserved and underserved Vermont households and CAIs. In addition to BEAD, several programs currently supporting broadband deployments across Vermont include ARPA, the United States Department of Agriculture's ReConnect program, the FCC's Rural Digital Opportunity Fund (RDOF), the FCC's E-Rate program, and state funds made available through multiple programs.[75] The BEAD program also requires subgrantees to include a low-cost service option and middle-class affordability plans. This will expand the range of service options available to Vermonters, particularly those experiencing income insecurity.

All BEAD deployment subgrantees will be required to comply with speed, latency and quality of service requirements that exceed the requirements set forth in the NTIA BEAD NOFO to help to ensure Vermont can meet the needs of users and can support efforts Vermont is undertaking to promote greater resiliency in its broadband and electric infrastructure.

As part of the subgrantee selection process, prospective subgrantees will be required to commit to providing the most affordable total price to the customer for 1 Gbps/1 Gbps service in the project area. In considering subgrantee applications, Vermont intends to award points for Community Input and Engagement, which will provide prospective subgrantees points awarded for setting forth a plan for regular input from the residents, local municipalities, and regional planning commissions for the proposed project area.

The VCBB is working to augment its existing list with additional provider-specific, Covered Population-specific, and localized affordability resources. The VCBB will add an additional subsection here to describe those offerings in its final draft of the Digital Equity Plan.

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Public Device and Internet Access Support

Public Wi-Fi Access Points: In response to the urgent Internet connectivity needs created by the COVID-19 pandemic, Vermont state agencies, including the Department of Libraries, Agency of Digital Services, Public Service Department, and others partnered with the Information Technology Disaster Resource Center, Microsoft, and RTO Wireless to install Wi-Fi hotspots around the state. As part of this project, the PSD prepared an interactive map of locations in Vermont where Wi-Fi access is publicly available (Figure 7). These sites are accessible at all hours from a parked vehicle on the road or parking lot. The map includes 1,327 public Wi-Fi access points across the state, including 295 state buildings, 301 schools, 244 town/city halls, 183 libraries, and 56 crowd-sourced sites.[76] Part of Vermont's strategy in specifying additional Community Anchor Institution categories in its BEAD deliverables (in addition to those specified by NTIA) is to complement this program and ensure that Wi-Fi network at these sites are able to support significant usage by the Vermont public.

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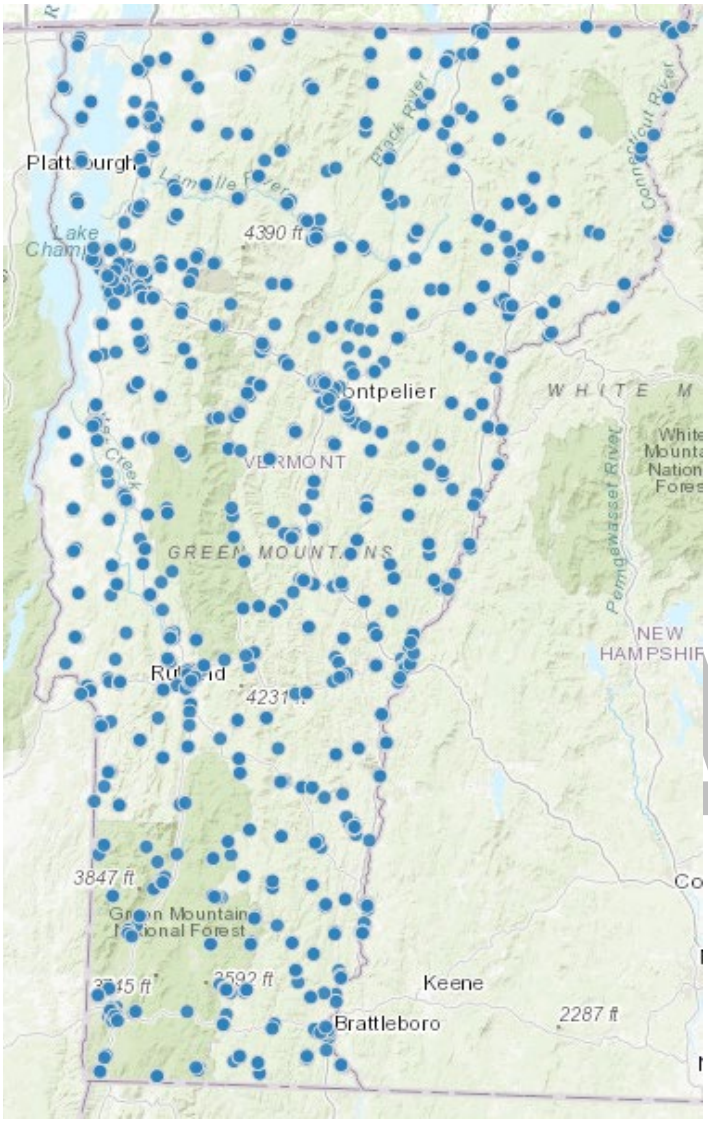
Figure 7. Vermont Public Wi-Fi Access Points



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Digital Skills and Technical Support

Digital literacy and skills refer to an individual's ability to use information and communication technology to find, evaluate, create, and communicate information safely and securely.[77] Table 8 provides examples of resources for digital skills and other technical support available to Vermonters.

Table 8. Examples of Digital Skills and Technical Support Resources

Organization Name	Program/Resource Description	Digital Equity Category	Covered Population
Vermont Association for the Blind and Visually Impaired[78]	Vermont Association for the Blind and Visually Impaired offers training on devices and accessibility features.	Digital skills & technical support	Individuals with disabilities
Northeast Telehealth Resource Center[79]	The Northeast Telehealth Resource Center hosts Telehealth Virtual Office Hours for Vermont clinicians on the first Wednesday of each month. Providers can have their questions answered about how best to implement telehealth services or sustain their existing programs.	Digital skills & technical support	All except incarcerated individuals
Google[80]	Web-based digital literacy modules for adult learners.	Digital skills & technical support	All
Microsoft[81]	Web-based digital literacy and more advanced digital skilling courses.	Digital skills & technical support	All
State of Vermont Department of Disabilities, Aging, and Independent Living[82]	The State of Vermont Department of Disabilities, Aging, and Independent Living sponsors an Assistive Technology Program which offers services for both individuals and organizations statewide. These services include: 1-1 meetings with Assistive Technology (AT) specialists, Assistive Technology Training and Presentations, a funding guide, a free equipment loan program, an exchange to buy and sell used AT equipment, and more.	Digital skills & technical support	Individuals with disabilities

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Organization Name	Program/Resource Description	Digital Equity Category	Covered Population
The US Committee for Refugees and Immigrants[83]	The US Committee for Refugees and Immigrants offers integrated computer skills training and English language education classes. As part of their resettlement and placement programs, they help set up Internet service at individuals' residences. They also assist with ACP enrollment.	Digital skills & technical support	Individuals with a language barrier, including individuals who are English learners and have low levels of literacy, individuals who are members of a racial or ethnic minority group
The VT Association of Area Agencies on Aging (V4A)[84],	The VT Association of Area Agencies on Aging (V4A), which operates statewide, offers various programs on device usage and digital skilling to older Vermonters. One of these programs is a partnership with GetSetUp, an online community for adults 55 and older to learn and connect with others. V4A has an eLearning channel for Vermonters to take free classes on various topics, including technology and digital skills, which has engaged over 7,000 Vermonters and is struggling with funding for the coming year.	Digital skills & technical support	Aging individuals, Individuals with disabilities
T-Mobile[85]	Directory assistance exemption program for customers with a qualifying disability, along with other resources	Digital skills & technical support	Individuals with disabilities
Tech 4 Tomorrow[86]	Tech 4 Tomorrow, a 501(c)(3) based in Williston, VT, empowers individuals and organizations by providing affordable technology, supporting skills training, and enabling virtual opportunities through various local, state, and national collaboration efforts to help individuals and organizations reach their goals.	Digital skills & technical support	Individuals living in Covered Households

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Organization Name	Program/Resource Description	Digital Equity Category	Covered Population
Tech Grows in VT[87]	The Vermont Technology Alliance (VTTA) is a business association with a mission to support, promote, and grow technology jobs and technology-driven businesses and organizations in Vermont.	Digital skills & technical support	All, except incarcerated individuals
Champlain Valley Office of Economic Opportunity Online Safety Course[88]	The Champlain Valley Office of Economic Opportunity hosts "Staying Safe Online" webinars taught in Spanish and in English. Participants learn about common scams, creating complex passwords, secure site, and safety tips and tricks.	Digital skills & technical support	All, except incarcerated individuals
Department of Corrections Education[89]	Education and job training for incarcerated individuals	Digital skills & technical support	Incarcerated individuals
Department of Libraries	The Department offers Gale Presents Udemy, an online database which includes over 20,000 video courses for all topics and skill levels, including internet and computer basics. It's available to all Vermonters through their local public library.	Digital skills & technical support	All

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Device Access

Devices capable of connecting to the Internet comprise of a broad range of capabilities and price points, from a mobile phone or tablet to a laptop or desktop as well as some assistive technologies for people with disabilities. A device capable of facilitating school or work can be costly. Table 9 provides examples of resources available to Vermonters for affordable devices.

Table 9. Catalogue of Resources for Affordable Device Access

Organization Name	Program/Resource Description	Digital Equity Category	Covered Population
Tech 4 Tomorrow	Tech 4 Tomorrow, a 501(c)(3) based in Williston, VT, empowers individuals and organizations by providing affordable technology, supporting skills training, and enabling virtual opportunities through various local, state, and national collaboration efforts to help individuals and organizations reach their goals.	Device access	Individuals living in Covered Households
ReSOURCE Vermont[90]	ReSOURCE Vermont is a registered Microsoft refurbisher. They offer full-service computer repair and sales of refurbished devices. They receive donations of used computers from schools and businesses and operate an apprenticeship program to train computer refurbishers. These devices are then given to low-income Vermonters through their Essential Goods program or sold in stores at a discount.	Device access	Individuals living in Covered Households
Computers for Change[91]	Computers for Change is an organization in Burlington that works to provide affordable laptops to the community. They refurbish laptops and sell them at a discount or donate them to schools, nonprofits, and charities. They also offer trade-in credit for used, old, and broken laptops to put towards a refurbished one from their store and offer free transfer of data from the old machine to the new one.	Device access	Individuals who live in covered households

Organization Name	Program/Resource Description	Digital Equity Category	Covered Population
human-I-T[92]	Low-cost refurbished computers and hot spots.	Device access	Individuals who live in covered households
PCs for People[93]	Low-cost refurbished computers and hot spots.	Device access	Individuals who live in covered households
PlanIT ROI[94]	Low-cost refurbished computers.	Device access	Individuals who live in covered households
EveryoneOn[95]	Provides an online offer locator tool for low-cost computers, Internet services, and digital skilling.	Other community assets	Individuals who live in covered households
Vermont Center for Independent Living[96]	Vermont Center for Independent Living coordinates a statewide equipment distribution program that loans telecommunications equipment to enable low-income Deaf, Deaf-Blind, Hard of Hearing, and individuals with physical disabilities to communicate by telephone.	Device access	Individuals with disabilities
VT Veterans Outreach[97]	VT Veterans Outreach supports Veterans in accessing a VA sponsored Telehealth program that helps Veterans who don't have Internet service, or an Internet-connected device get the access they need for telehealth care.	Device access	Veterans
Comcast Lift Zones[98]	Creates free, Wi-Fi-connected "Lift Zones" in community centers for public use of the Internet and additional digital inclusion resources.	Device access	Individuals who live in covered households

Existing Digital Equity Plans

Vermont has not identified any formal digital equity plans put forth by other units of government in the state. However, Vermont has identified numerous “Equity Plans” developed by fellow government agencies, which include topics related to digital equity. Equity work is highly intersectional, and the coordination among these efforts is crucial for maximizing resources and effectiveness. Examples of those programs can be found in the “Alignment with Other State Plans” section above.

Existing Digital Equity Programs

The Asset Inventory section above details numerous programs that the VCBB has identified that support aspects of digital equity in Vermont. The VCBB will continue to expand that list as it identifies and reaches out to additional organizations in the state and continues to collect stakeholder feedback. This list will be further augmented by programs initiated with Digital Equity Act funding.

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Vision and Objectives

Vision

The State of Vermont seeks to ensure every individual in Vermont—regardless of identity, community, or economic challenges—has high-quality, accessible, affordable technology resources. This aligns to how Vermont has designed its Five-Year Action Plan for BEAD, in which Vermont seeks to ensure Vermonters—now and in the future—have universal access to reliable, high-quality, affordable, fixed broadband at speeds of at least 100/100 Mbps, and that all Vermonters and Vermont institutions have the tools and skills to maximize the value Internet connectivity can offer.

The social and economic benefits of high-quality Internet connectivity and information technology are now widely understood and accepted. Connectivity has become integral to everyday activities from regular social interactions and access to media to participating in school or pursuing a career, responding to emergencies, improving farming efficiency and agricultural output, and combatting climate change.

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Vermont's BEAD and Digital Equity programs will be a success if, by 2034:

- *Vermonters have universal broadband access*: All Vermont households have access to reliable, high-quality, affordable fixed broadband services.
- *Vermonters are connected*: At least 90 percent of Vermonters have subscribed to broadband service. At least 70 percent of eligible households have enrolled in a broadband service subsidy program (i.e., the Affordable Connectivity Program). Those who are unhoused, incarcerated, or otherwise lack a home broadband connection can access the Internet and technology through community anchor institutions and correctional facilities.
- *Vermonters have connected devices*: 95 percent of households own a laptop, tablet, or personal computer.
- Vermonters have the skills and confidence to use information technology productively and safely: 80 percent of the population surveyed reports confidence in their digital literacy.
- *Vermonters are empowered to study and work:* At least 200 jobs are created, and Vermonters are employed within the state in broadband deployment. Vermonters are able to work remotely with reliable connectivity, even when they live in rural or remote areas. Vermonters can take advantage of remote learning opportunities to either continue or enhance their education and career pursuits.
- *Vermonters can and do connect to essential services:* All Vermonters, especially those in need of health and social services, are able to learn about and benefit from those services available to them in the State.
- Digital Equity is institutionalized as a priority across all state agencies and embedded in public services.

Measurable Objectives

Vermont has defined five strategic and actionable goals with measurable objectives to guide its strategy for digital equity (Table 10). The goals, objectives, and many of the key performance indicators described later, are drawn directly from Vermont's BEAD Five-Year Action Plan, which was developed with holistic digital equity as the overarching intention and was published in September 2023. The details of how the VCBB envisions realizing these objectives and goals are described in the following section, titled Implementation Strategy, including proposed core activities, key performance indicators to monitor progress for all Vermonters, and particularly for Covered Populations.

Table 10. Strategic Goals and Measurable Objectives for BEAD and Digital Equity

Strategic Goal	Measurable Objectives
Goal 1: Mobilize resources for end-to-end broadband infrastructure deployments to all unserved and underserved locations and CAIs in Vermont.	▸ Leverage BEAD and other available funding resources to remove barriers and foster a competitive and sustainable market for broadband service across Vermont. ▸ Design and implement the BEAD grant program for reliable and resilient broadband infrastructure deployments that use scalable technologies appropriate to the local geography to expand high-speed broadband to (1) unserved locations lacking access to 25/3 Mbps broadband; (2) underserved locations lacking access to 100/20 Mbps broadband; and (3) connecting eligible CAIs. ▸ Assist subgrantees in securing funding from additional sources for broadband infrastructure deployments. ▸ Ensure every town in Vermont has at least one CAI with access to symmetrical gigabit broadband service.
Goal 2: Ensure sustainable, community-driven solutions across the entire state.	▸ Design and implement BEAD and Digital Equity grant programs that invest in infrastructure and digital equity initiatives with community support. ▸ Develop and strengthen partnerships with community stakeholders to identify opportunities for the VCBB to support and coordinate initiatives. ▸ Ensure initiatives funded through BEAD and Digital Equity programs include commitments for future equipment upgrades and continued universal service coverage. ▸ Assist communities with developing strategies and resources to ensure broadband affordability and accessibility and connect communities with digital skilling and other related resources. ▸ Support local champions and community organizations to help their community members find and use the affordability and skilling resources they need.
Goal 3: Ensure high-speed broadband services and devices are affordable.	▸ Ensure all households with an income level at or below 150 percent of the federal poverty line have access to a low-cost broadband service option. ▸ Promote the ACP and other related resources for broadband affordability and adoption.

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Strategic Goal	Measurable Objectives
	▸ Ensure every Vermont household with a high school student living in it has a connected device and assistive technology (if needed). ▸ Assist communities with strategies and resources to ensure affordability.
Goal 4: Advance digital literacy and accessibility for all Vermonters now and in the future.	▸ Assist communities with strategies and resources to ensure accessibility, in addition to connecting communities with digital skilling and other related resources. ▸ Establish a coordinated effort with other state agencies to promote digital inclusion across Vermont. ▸ Promote the accessibility of digital public services. ▸ Ensure all Vermonters have access to accessible, multi-lingual, community-based technical support. ▸ Establish a digital navigators program that trains Vermonters who are already playing visible roles in their communities to connect in-need Vermonters with available digital equity resources and help empower them to use information and communication technology productively and safely.
Goal 5: Enhance workforce development for broadband and the digital economy.	▸ Increase capacity of education and training programs to develop the talent pipeline. ▸ Increase industry awareness and involvement in the opportunity created by these programs. ▸ Promote, target, and recruit participants in Vermont. ▸ Support for the private sector to create sustainable employment opportunities. ▸ Establish a roadmap of career possibilities for participants in the Workforce Development Programs. ▸ Encourage the recruitment of Vermonters for jobs in the broadband deployment ecosystem, including in the digital economy.
Goal 6: Improve socio-economic conditions across Vermont.	▸ Ensure fair labor standards among subgrantees. ▸ Support workforce development opportunities in broadband related industries. ▸ Empower Vermont residents, agencies, organizations, and businesses with the ability to use technology to study, work, communicate, and access health and other social services.

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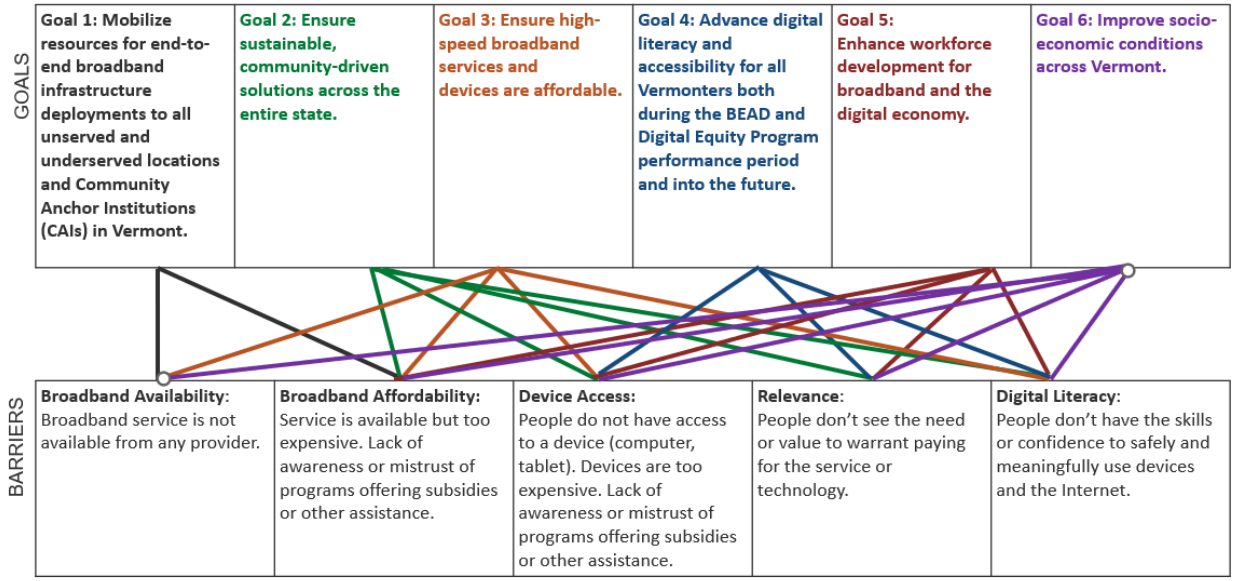
Vermont's digital equity goals and objectives are designed to address prominent needs and barriers experienced by Covered Populations in Vermont, such as broadband availability and affordability, device access, relevance, and skills (Figure 8).

Figure 8. How Vermont's Digital Equity Goals Link to Key Barriers



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Implementation Strategy

Strategy and Core Activities

This section describes Vermont's proposed core activities designed to achieve the objectives of each of Vermont's digital equity goals. These activities are intended to address the barriers faced by Vermont's Covered Populations as outlined above. For example, there are activities that involve specific outreach to members of each Covered Population across the state; the development of materials and resources designed to be accessed by people with literacy or language barriers or a disability; or an effort to ensure access to skilling and vocational rehabilitation accessible to incarcerated individuals, among other Covered Populations.

For each goal, the VCBB has defined key performance indicators with baselines and targets between 2024 and 2034 The VCBB will use these indicators to determine progress made towards advancing digital equity across the state and specifically for Covered Populations. KPI tables identify baselines and targets for the general population of Vermonters as well as for each Covered Population category. Some KPIs are not relevant for all covered populations. Some do not have data available specific to Covered Populations. These KPIs will be the focus of Vermont's monitoring evaluation and learning plan, described later.

Goal 1: Mobilize resources for end-to-end broadband infrastructure deployments to all unserved and underserved locations and CAIs in Vermont.

Objectives and Core Activities

1.1 Leverage BEAD and other available funding resources to remove barriers and foster a competitive and sustainable market for broadband service across Vermont.

- 1.1.1 Partner with other state agencies and Digital Equity Core Planning Team to publish and maintain a centralized digital equity asset inventory.
- 1.1.2 Establish the grant administration platform.
- 1.1.3 Review, award, and administer subgrants and oversee subgrant program.

1.2 Design and implement the BEAD grant program (and other funding sources) for reliable and resilient broadband infrastructure deployments to extend 100/100 Mbps or better connectivity to all on-grid unserved and underserved locations, 100/20 Mbps or better connectivity to all unserved and underserved off-grid locations, and 1/1 Gbps or better connectivity to all CAIs.

- 1.2.1 Implement Vermont's BEAD Program in line with Vermont's BEAD Five-Year Action Plan and Final Proposal.
- 1.2.2 Pursue additional funding sources to supplement BEAD and Digital Equity Act programs.

1.3 Assist subgrantees in securing funding from additional sources for broadband infrastructure deployments.

- 1.3.1 Support CUDs, Internet service providers (ISPs), and other entities to pursue funding opportunities for expanded broadband deployment and other digital equity initiatives.

1.4 Ensure every town in Vermont has at least one CAI with access to symmetrical gigabit Mbps broadband service.

- 1.4.1 Ensure the list of CAIs used for BEAD funding includes at least one CAI per Vermont town.
- 1.4.2 Ensure accountability for delivering one Gbps symmetrical broadband to all BEAD-eligible CAIs.
- 1.4.3 Work with community partners and ISPs to install equipment to enable Wi-Fi signals outside buildings where people experiencing housing insecurity frequent for services (e.g., shelters, food shelves).

Covered Populations: This goal is designed to serve all Covered Populations, among others.

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Key Performance Indicators

Table 11. Goal 1 KPIs

Targeted Population	Baseline	12/31/2026	12/31/2028	12/31/2034
General Population	Percent of currently unserved and underserved on-grid locations with 100/100 Mbps broadband or better available: 0 percent Percent of currently unserved and underserved off-grid locations with access to 100/20 Mbps broadband or better available: 0 percent Percent of CAIs with one Gbps symmetrical broadband available: 71.6 percent Percent of Vermont towns with at least one CAI with one Gbps symmetrical broadband available: 89 percent	Percent of currently unserved and underserved on-grid locations with 100/100 Mbps broadband or better available: 30 percent Percent of currently unserved and underserved off-grid locations with access to 100/20 Mbps broadband or better available: 20 percent Percent of CAIs with one Gbps symmetrical broadband available: 85 percent Percent of Vermont towns with at least one CAI with one Gbps symmetrical broadband available: 93 percent	Percent of currently unserved and underserved on-grid locations with 100/100 Mbps broadband or better available: 100 percent Percent of currently unserved and underserved off-grid locations with access to 100/20 Mbps broadband or better available: 100 percent Percent of CAIs with one Gbps symmetrical broadband available: 100 percent Percent of Vermont towns with at least one CAI with one Gbps symmetrical broadband available: 100 percent	Percent of currently unserved and underserved on-grid locations with 100/100 Mbps broadband or better available: 100 percent Percent of currently unserved and underserved off-grid locations with access to 100/20 Mbps broadband or better available: 100 percent Percent of CAIs with one Gbps symmetrical broadband available: 100 percent Percent of Vermont towns with at least one CAI with one Gbps symmetrical broadband available: 100 percent
Individuals in Covered Households	Same as General Population	Same as General Population	Same as General Population	Same as General Population
Aging individuals (60 and above)	Same as General Population	Same as General Population	Same as General Population	Same as General Population

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Targeted Population	Baseline	12/31/2026	12/31/2028	12/31/2034
Incarcerated individuals	Percent of CAIs *that are correctional facilities* with one Gbps symmetrical broadband available: ##	Percent of CAIs *that are correctional facilities* with one Gbps symmetrical broadband available: ##	Percent of CAIs *that are correctional facilities* with one Gbps symmetrical broadband available: ##	Percent of CAIs *that are correctional facilities* with one Gbps symmetrical broadband available: ##
Veterans	Same as General Population	Same as General Population	Same as General Population	Same as General Population
Individuals with disabilities	Same as General Population	Same as General Population	Same as General Population	Same as General Population
Individuals with a language barrier	Same as General Population	Same as General Population	Same as General Population	Same as General Population
Individuals who are members of a racial or ethnic minority group	Same as General Population	Same as General Population	Same as General Population	Same as General Population
Individuals who primarily reside in a rural area.	Same as General Population	Same as General Population	Same as General Population	Same as General Population

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Goal 2: Ensure sustainable, community-driven solutions across the entire state.

Objectives and Core Activities

2.1 Design and implement BEAD and Digital Equity grant programs that invest in infrastructure and digital equity initiatives with community support.

2.1.1 Conduct ongoing stakeholder engagement to ensure subgrantees are successful and accountable, Covered Populations and other Underrepresented Communities are heard and supported, and that the

public is aware of Vermont's progress toward implementing the BEAD and Digital Equity Plans.

2.1.2 Establish a mechanism that enables the public to provide feedback on BEAD and Digital Equity Program activities to help ensure there is accountability to Vermonters.

2.2 Develop and strengthen partnerships with community stakeholders to identify opportunities for the VCBB to support and coordinate initiatives.

2.2.1 Continue to implement a stakeholder engagement and outreach strategy to foster awareness, collaboration, and alignment of activities.

2.2.2 Seek information to update the digital equity asset inventory and help promote resources offered by community stakeholders.

2.3 Ensure BEAD- and Digital Equity-funded initiatives include commitments to future equipment upgrades and continued universal service coverage.

2.3.1 Support the CUDs and other local community organizations to ensure residents and CAIs can access high-quality, high-speed broadband and hold providers accountable for the quality and reliability of that service.

2.3.2 Engage stakeholders to understand how effective the design of low-cost service options and affordability programs are for meeting the needs of covered households and other income-insecure Vermonters.

2.4 Assist communities in all regions of the state with strategies and resources to ensure broadband affordability and accessibility, along with connecting communities with digital skilling and other related resources.

2.4.1 Publish and disseminate to each CAI materials describing digital equity resources developed in plain language, large font, and accessible design, translated into multiple languages.

2.4.2 Promote the awareness and use of Vermont's digital equity asset inventory.

2.4.3 Host office hours to offer opportunities for guidance and collaboration with the VCBB's staff focused on digital equity.

2.4.4 Establish a device loaning program to allow Vermonters to check out/in a computer, tablet, or assistive technology.

2.5 Support local champions and community organizations to help their community members find and use the affordability and skilling resources they need.

2.5.1 Establish a digital navigators program modeled after Vermont's Health Ambassadors, where navigators are ideally recruited from communities they will serve and are trained to assist people in finding the digital equity resources they need, including broadband, devices, and digital skilling (especially basic digital literacy and privacy and cyber security). Digital navigators will also provide feedback to the VCBB on community needs and impact.

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2.5.2 Establish a train-the-trainer model to assist other state agencies and non-governmental organizations already providing community social services to incorporate digital equity resources into their outreach efforts.

2.5.3 Assist local organizations, digital navigators, CAIs, and others with in-person events to encourage community awareness and adoption of digital equity resources (e.g., host a table at farmers markets, affordable housing communities, assisted living communities, or other venues primarily attended by Covered Populations to offer ACP enrollment support, basic digital literacy support, and information about other resources).

Covered Populations: This goal is designed to serve all Covered Populations.

Key Performance Indicators

Table 12. Goal 2 KPIs

Targeted Population	Baseline	12/31/2026	12/31/2028	12/31/2034
General Population	Percent of BEAD and Digital Equity subgrantees with documented meaningful community support or partnerships: Not applicable. Additional funding besides BEAD and Digital Equity grants to the State of Vermont committed for state-led digital equity programming: $0 Percent of towns served by a digital navigator: 0 percent	Percent of BEAD and Digital Equity subgrantees with documented meaningful community support or partnerships: 100 percent Additional funding besides BEAD and Digital Equity grants to the State of Vermont committed for state-led digital equity programming: $1 million Percent of towns served by a digital navigator: 20 percent	Percent of BEAD and Digital Equity subgrantees with documented meaningful community support or partnerships: 100 percent Additional funding besides BEAD and Digital Equity grants to the State of Vermont committed for state-led digital equity programming: $3 million cumulative Percent of towns served by a digital navigator: 60 percent	Percent of BEAD and Digital Equity subgrantees with documented meaningful community support or partnerships: 100 percent Additional funding besides BEAD and Digital Equity grants to the State of Vermont committed for state-led digital equity programming: $8 million cumulative Percent of towns served by a digital navigator: 100 percent

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Targeted Population	Baseline	12/31/2026	12/31/2028	12/31/2034
Individuals in Covered Households	Same as General Population	Same as General Population	Same as General Population	Same as General Population
Aging individuals (60 and above).	Same as General Population	Same as General Population	Same as General Population	Same as General Population
Incarcerated individuals	Same as General Population	Same as General Population	Same as General Population	Same as General Population
Veterans	Same as General Population	Same as General Population	Same as General Population	Same as General Population
Individuals with disabilities	Same as General Population	Same as General Population	Same as General Population	Same as General Population
Individuals with a language barrier	Same as General Population	Same as General Population	Same as General Population	Same as General Population
Individuals who are members of a racial or ethnic minority group	Same as General Population	Same as General Population	Same as General Population	Same as General Population
Individuals who primarily reside in a rural area.	Same as General Population	Same as General Population	Same as General Population	Same as General Population

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Goal 3: Ensure high-speed broadband services and devices are affordable.

Objectives and Core Activities

3.1 Ensure all households with an income level at or below 150 percent of the poverty line have access to a low-cost broadband service option.

3.1.1 Work with all ISPs in the State to ensure programs for broadband affordability are available, promoted, and utilized by Vermonters eligible to benefit from them.

3.1.2 As determined to be necessary by continued data collection and analysis as well as federal legislative developments, VCBB may also engage with state policymakers to develop additional, state-level affordability programs.

3.2 Promote the ACP and other related resources for broadband affordability and adoption.

3.2.1 Develop and disseminate materials explaining the ACP and how to register for it, working closely with organizations that serve and represent Covered Populations.

3.2.2 Develop and disseminate materials explaining resources for assistive technology for people with disabilities, including on-device and third-party devices.

3.2.3 Develop, maintain, and disseminate Vermont's digital equity asset inventory, working closely with organizations that serve and represent Covered Populations.

3.3 Ensure every Vermont household with a high school student living in it has a connected device and assistive technology (if needed).

3.3.1 Work with the Department of Education to design and implement a device access program.

3.3.2 Explore and cultivate public-private partnerships to ensure device access for all students.

3.4 Assist communities with strategies and resources to ensure affordability.

3.4.1 Engage directly with localities through either CUDs or municipal elected officials to develop an understanding of available local resources for broadband affordability and a plan to promote them.

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Covered Populations: This goal is designed to serve all Covered Populations, among others.

Key Performance Indicators

Table 13. Goal 3 KPIs

Targeted Population	Baseline	12/31/2026	12/31/2028	12/31/2034
General Population	Percent of households subscribing to fixed broadband: 72.71 percent[99] Percent of eligible households signed up for a broadband service subsidy (e.g., ACP): 20.6 percent[100] Percent of households owning a laptop, tablet, or personal computer: 92.32 percent[101] Percent of ACP eligible households reporting that they own a laptop, tablet, or personal computer: Not available	Percent of households subscribing to fixed broadband: 80 percent Percent of eligible households signed up for a broadband service subsidy (e.g., ACP): 30 percent Percent of households owning a laptop, tablet, or personal computer: 93 percent Percent of ACP eligible households reporting that they own a laptop, tablet, or personal computer: 50 percent	Percent of households subscribing to fixed broadband: 90 percent Percent of eligible households signed up for a broadband service subsidy (e.g., ACP): 50 percent Percent of households owning a laptop, tablet, or personal computer: 95 percent Percent of ACP eligible households reporting that they own a laptop, tablet, or personal computer: 80 percent	Percent of households subscribing to fixed broadband: 95 percent Percent of eligible households signed up for a broadband service subsidy (e.g., ACP): 70 percent Percent of households owning a laptop, tablet, or personal computer: 95 percent Percent of ACP eligible households reporting that they own a laptop, tablet, or personal computer: 90 percent
Individuals in Covered Households	Percent of households subscribing to fixed broadband: 57 percent of households making less than $30,000 per year nationwide (2021) 74 percent of households earning	Percent of households subscribing to fixed broadband: 65 percent of households making less than $30,000/year	Percent of households subscribing to fixed broadband: 85 percent of households making less than $30,000/year	Percent of households subscribing to fixed broadband: 95 percent of all households

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Targeted Population	Baseline	12/31/2026	12/31/2028	12/31/2034
	between $30,000 and $50,000 per year nationwide (2021) [102] Percent of households making less than $30,000/year owning a laptop, tablet, or personal computer: Desktop/Laptop – 59 percent Tablet – 41 percent nationwide (2021) [103]	80 percent of households with incomes between $30,000-$50,000/year Percent of households owning a laptop, tablet, or personal computer: 70 percent	90 percent of households with incomes between $30,000-$50,000 Percent of households owning a laptop, tablet, or personal computer: 85 percent	Percent of households owning a laptop, tablet, or personal computer: 95 percent
Aging individuals (60 and above).	Percent of households subscribing to fixed broadband: 77 percent of adults aged under 65 64 percent of adults aged 65 and over nationwide (2021)[104] Percent of households owning a laptop, tablet, or personal computer: Desktop – 62.5 percent nationwide (2017) Laptop - 59.5 percent nationwide (2017) Tablet - 44.5 percent nationwide (2019)[105]	Percent of households subscribing to fixed broadband: 70 percent Percent of households owning a laptop, tablet, or personal computer: 70 percent	Percent of households subscribing to fixed broadband: 78 percent Percent of households owning a laptop, tablet, or personal computer: 75 percent	Percent of households subscribing to fixed broadband: 85 percent Percent of households owning a laptop, tablet, or personal computer: 80 percent
Incarcerated individuals	Cost of device rental/computer time: Not currently available	Cost of device rental/computer time: ##	Cost of device rental/computer time: ##	Cost of device rental/computer time: ##
Veterans	Percent of households subscribing to fixed broadband: 69.7	Percent of households subscribing to fixed	Percent of households subscribing to fixed	Percent of households subscribing to fixed

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Targeted Population	Baseline	12/31/2026	12/31/2028	12/31/2034
	percent nationwide (2021)[106] Percent of households owning a laptop, tablet, or personal computer: Desktop– 35.8 percent Laptop– 44.8 percent Tablet– 29.1 percent nationwide (2021)[107]	broadband: 90 percent Percent of households owning a laptop, tablet, or personal computer: 50 percent	broadband: 92 percent Percent of households owning a laptop, tablet, or personal computer: 70 percent	broadband: 95 percent Percent of households owning a laptop, tablet, or personal computer: 95 percent
Individuals with disabilities	Percent of households subscribing to fixed broadband: 66.7 percent nationwide (2022)[108] Percent of households owning a laptop, tablet, or personal computer: 62 percent nationwide (2021)[109] Percent of households in possession of any necessary assistive technology: Not currently available	Percent of households subscribing to fixed broadband: 70 percent Percent of households owning a laptop, tablet, or personal computer: 70 percent Percent of households in possession of any necessary assistive technology: ##	Percent of households subscribing to fixed broadband: 80 percent Percent of households owning a laptop, tablet, or personal computer: 80 percent Percent of households in possession of any necessary assistive technology: ##	Percent of households subscribing to fixed broadband: 95 percent Percent of households owning a laptop, tablet, or personal computer: 95 percent Percent of households in possession of any necessary assistive technology: ##
Individuals with a language barrier ***Baselines for this population are currently in development. As a placeholder, the baselines for Covered Households are being used.**	Percent of households subscribing to fixed broadband: 57 percent of households making less than $30,000 per year nationwide (2021) 74 percent of households earning between $30,000 and $50,000 per year	Percent of households subscribing to fixed broadband: 65 percent of households making less than $30,000/year 80 percent of	Percent of households subscribing to fixed broadband: 85 percent of households making less than $30,000/year 90 percent of	Percent of households subscribing to fixed broadband: 95 percent of all households Percent of households owning a laptop, tablet, or

Targeted Population	Baseline	12/31/2026	12/31/2028	12/31/2034
	nationwide (2021) [110] Percent of households making less than $30,000/year owning a laptop, tablet, or personal computer: Desktop/Laptop – 59 percent Tablet – 41 percent nationwide (2021) [111]	households with incomes between $30,000-$50,000/year Percent of households owning a laptop, tablet, or personal computer: 93 percent	households with incomes between $30,000-$50,000 Percent of households owning a laptop, tablet, or personal computer: 95 percent	personal computer: 95 percent
Individuals who are members of a racial or ethnic minority group	Percent of households subscribing to fixed broadband: 71 percent of Black and 65 percent of Hispanic households nationwide (2021) [112] 90.1 percent of AAPI households nationwide (2016)[113] Percent of households owning a laptop, tablet, or personal computer: Desktop/Laptop: Black: 69 percent nationwide (2021) Hispanic: 67 percent nationwide (2021) AAPI: 95.2 percent nationwide (2016) [114] Tablet: Black: 54 percent nationwide (2021) Hispanic: 53 percent nationwide (2021) [115] AAPI: Not currently available	Percent of households subscribing to fixed broadband: Black – 77 percent Hispanic – 71 percent AAPI – 91 percent Percent of households owning a laptop, tablet, or personal computer: Black – 75 percent Hispanic – 75 percent AAPI – 95.2 percent	Percent of households subscribing to fixed broadband: Black – 85 percent Hispanic – 80 percent AAPI – 93 percent Percent of households owning a laptop, tablet, or personal computer: 85 percent for all racial and ethnic minorities, but 95.2 percent for AAPI	Percent of households subscribing to fixed broadband: 95 percent for all racial and ethnic minorities Percent of households owning a laptop, tablet, or personal computer: 98 percent for all racial and ethnic minorities
Individuals who primarily reside in a rural area.	Percent of households subscribing to fixed broadband: 72.71	Percent of households subscribing to fixed	Percent of households subscribing to fixed	Percent of households subscribing to fixed

Targeted Population	Baseline	12/31/2026	12/31/2028	12/31/2034
	percent[116] Percent of households owning a laptop, tablet, or personal computer: 72 percent desktop/laptop, 44 percent tablet nationwide (2021)[117]	broadband: 80 percent Percent of households owning a laptop, tablet, or personal computer: 80 percent	broadband: 90 percent Percent of households owning a laptop, tablet, or personal computer: 90 percent	broadband: 95 percent Percent of households owning a laptop, tablet, or personal computer: 95 percent

Goal 4: Advance digital literacy for all Vermonters both during the BEAD and Digital Equity Program performance periods now and into the future.

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Objectives and Core Activities

4.1 Assist communities with strategies and resources to ensure broadband affordability and accessibility, along with connecting communities with digital skilling and other related resources.

- 4.1.1 Encourage and support public-private partnerships including between ISPs, tech companies, CUDs, municipalities, nonprofits, and other community organizations to ensure community-centered and community-driven broadband and digital equity solutions are available to and adopted by Vermonters statewide.
- 4.1.2 Establish a hotline available to the public for support getting information on digital equity resources, particularly the ACP benefit and digital literacy resources available remotely or in their community, and a referral to their local digital navigator.

4.2 Establish a coordinated effort with other state agencies to promote digital inclusion across Vermont.

- 4.2.1 Continue to coordinate with agencies and nonprofits undertaking similar or related work, to avoid duplication and maximize efficiency. This includes but is not limited to convening the Digital Equity Core Team.

4.3 Promote the accessibility and inclusivity of digital public services.

- 4.3.1 Audit and evaluate Vermont's state public services for accessibility and inclusivity.

4.3.2 Share results of accessibility audit with relevant state agencies along with recommended solutions and resources to improve accessibility. Also distribute guidance to units of local government through the CUDs.

4.3.3 Work with partners to ensure intentional outreach to communities with disabilities regarding accessible and inclusive resources.

4.3.4 Design and implement a grant program for community organizations to upgrade their websites, materials, and online services to ensure accessibility.

4.4 Ensure all Vermonters have access to accessible, multi-lingual, community-based technical support.

4.4.1 Coordinate the translation of digital equity-related public service resources into languages other than English (including Spanish, American Sign Language/Braille).

4.4.2 Encourage BEAD or Digital Equity Program subgrantees to follow accessibility best practices on their websites and to create only accessible materials.

4.4.3 Facilitate the production and dissemination of quick digital literacy tutorial videos, especially on topics of privacy and cyber-security. Ensure the availability of a repository of basic digital literacy resources accessible and free, regardless of education level and language.

4.5 Encourage utilization of digital navigators by Covered Populations and ensure that Vermonters who are selected as digital navigators are themselves representative of Covered Populations.

4.5.1 Make intentional efforts to recruit digital navigators who are members of Covered Populations.

4.5.2 Establish a system to direct Vermonters who are members of a Covered Population to a representative Digital Navigator.

4.5.3 Engage organizations who represent Vermont's Covered Populations to develop specific strategies to promote digital skills resource utilization among the Covered Population that they serve.

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Key Performance Indicators

Table 14: Goal 4 KPIs

Targeted Population	Baseline	12/31/2026	12/31/2028	12/31/2034
General Population	Percent of population surveyed reporting confidence in their digital literacy: 28.8 percent Percent of Vermonters that report confidence in their ability to use the Internet safely and securely: 40.9 percent Number of reported fraud reports and online crimes reported (e.g., hacks, online scams) in Vermont: 185/100,000 inhabitants (FTC fraud statistics)[118]; 707 (FBI Internet crime statistics)[119] Percent of VCBB funded, digital equity-focused programs and resources that are available in plain language, in multiple languages, and designed for accessibility: 0 percent Number of Covered Populations represented among Digital Navigators: 0	Percent of population surveyed reporting confidence in their digital literacy: 35 percent Percent of Vermonters that report confidence in their ability to use the Internet safely and securely: 45 percent Number of reported fraud reports and online crimes reported (e.g., hacks, online scams) in Vermont: Tracked Percent of VCBB funded, digital equity-focused programs and resources that are available in plain language, in multiple languages, and designed for accessibility: 30 percent	Percent of population surveyed reporting confidence in their digital literacy: 45 percent Percent of Vermonters that report confidence in their ability to use the Internet safely and securely: 55 percent Number of reported fraud reports and online crimes reported (e.g., hacks, online scams) in Vermont: Tracked Percent of VCBB funded, digital equity-focused programs and resources that are available in plain language, in multiple languages, and designed for accessibility: 70 percent	Percent of population surveyed reporting confidence in their digital literacy: 65 percent Percent of Vermonters that report confidence in their ability to use the Internet safely and securely: 75 percent Number of reported fraud reports and online crimes reported (e.g., hacks, online scams) in Vermont: Tracked Percent of VCBB funded, digital equity-focused programs and resources that are available in plain language, in multiple languages, and designed for accessibility: 100 percent

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Targeted Population	Baseline	12/31/2026	12/31/2028	12/31/2034
		Number of Covered Populations represented among Digital Navigators: 3	Number of Covered Populations represented among Digital Navigators: 7	Number of Covered Populations represented among Digital Navigators: 8
Individual in Covered Households	Percent of population surveyed reporting confidence in their digital literacy: 17.9 percent Percent of Vermonters that report confidence in their ability to use the Internet safely and securely: 32.4 percent	Percent of population surveyed reporting confidence in their digital literacy: 35 percent Percent of Vermonters that report confidence in their ability to use the Internet safely and securely: 45 percent	Percent of population surveyed reporting confidence in their digital literacy: 45 percent Percent of Vermonters that report confidence in their ability to use the Internet safely and securely: 55 percent	Percent of population surveyed reporting confidence in their digital literacy: 65 percent Percent of Vermonters that report confidence in their ability to use the Internet safely and securely: 75 percent
Aging individuals (60 and above).	Percent of population surveyed reporting confidence in their digital literacy: 23.9 percent Percent of Vermonters that report confidence in their ability to use the Internet safely and securely: 39.1 percent	Percent of population surveyed reporting confidence in their digital literacy: 30 percent Percent of Vermonters that report confidence in their ability to use the Internet safely and securely: 50 percent	Percent of population surveyed reporting confidence in their digital literacy: 45 percent Percent of Vermonters that report confidence in their ability to use the Internet safely and securely: 65 percent	Percent of population surveyed reporting confidence in their digital literacy: 75 percent Percent of Vermonters that report confidence in their ability to use the Internet safely and securely: 85 percent
Incarcerated individuals	Percent of population surveyed reporting confidence in their digital literacy: Not available	Percent of population surveyed reporting confidence in their digital	Percent of population surveyed reporting confidence in their digital	Percent of population surveyed reporting confidence in their digital

Targeted Population	Baseline	12/31/2026	12/31/2028	12/31/2034
	Percent of population that report confidence in their ability to use the Internet safely and securely: Not available	literacy: ## Percent of population that report confidence in their ability to use the Internet safely and securely: ##	literacy: ## Percent of population that report confidence in their ability to use the Internet safely and securely: ##	literacy: ## Percent of population that report confidence in their ability to use the Internet safely and securely: ##
Veterans	Percent of population surveyed reporting confidence in their digital literacy: 18 percent Percent of Vermonters that report confidence in their ability to use the Internet safely and securely: 32 percent	Percent of population surveyed reporting confidence in their digital literacy: 30 percent Percent of Vermonters that report confidence in their ability to use the Internet safely and securely: 40 percent	Percent of population surveyed reporting confidence in their digital literacy: 45 percent Percent of Vermonters that report confidence in their ability to use the Internet safely and securely: 55 percent	Percent of population surveyed reporting confidence in their digital literacy: 70 percent Percent of Vermonters that report confidence in their ability to use the Internet safely and securely: 80 percent
Individuals with disabilities	Percent of population surveyed reporting confidence in their digital literacy: 23 percent Percent of Vermonters that report confidence in their ability to use the Internet safely and securely: 33.49 percent Percent of Vermonters with disabilities that report they have what they need to productively use technology (e.g., assistive technologies) and that	Percent of population surveyed reporting confidence in their digital literacy: 30 percent Percent of Vermonters that report confidence in their ability to use the Internet safely and securely: 40 percent Percent of Vermonters with	Percent of population surveyed reporting confidence in their digital literacy: 45 percent Percent of Vermonters that report confidence in their ability to use the Internet safely and securely: 55 percent Percent of Vermonters with	Percent of population surveyed reporting confidence in their digital literacy: 65 percent Percent of Vermonters that report confidence in their ability to use the Internet safely and securely: 75 percent Percent of Vermonters with

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Targeted Population	Baseline	12/31/2026	12/31/2028	12/31/2034
	it works well:	disabilities that report they have what they need to productively use technology (e.g., assistive technologies) and that it works well:	disabilities that report they have what they need to productively use technology (e.g., assistive technologies) and that it works well:	disabilities that report they have what they need to productively use technology (e.g., assistive technologies) and that it works well:
Individuals with a language barrier ***Baselines for this population are currently in development. As a placeholder, the baselines for Covered Households are being used.**	Percent of population surveyed reporting confidence in their digital literacy: 17.9 percent Percent of Vermonters that report confidence in their ability to use the Internet safely and securely: 32.4 percent	Percent of population surveyed reporting confidence in their digital literacy: ## Percent of Vermonters that report confidence in their ability to use the Internet safely and securely: ##	Percent of population surveyed reporting confidence in their digital literacy: ## Percent of Vermonters that report confidence in their ability to use the Internet safely and securely: ##	Percent of population surveyed reporting confidence in their digital literacy: ## Percent of Vermonters that report confidence in their ability to use the Internet safely and securely: ##
Individuals who are members of a racial or ethnic minority group	Percent of population surveyed reporting confidence in their digital literacy: 16.4 percent Percent of Vermonters that report confidence in their ability to use the Internet safely and securely: 26 percent	Percent of population surveyed reporting confidence in their digital literacy: 25 percent Percent of Vermonters that report confidence in their ability to use the Internet safely and securely: 35 percent	Percent of population surveyed reporting confidence in their digital literacy: 40 percent Percent of Vermonters that report confidence in their ability to use the Internet safely and securely: 50 percent	Percent of population surveyed reporting confidence in their digital literacy: 60 percent Percent of Vermonters that report confidence in their ability to use the Internet safely and securely: 70 percent
Individuals who primarily	Percent of population	Percent of	Percent of	Percent of

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Targeted Population	Baseline	12/31/2026	12/31/2028	12/31/2034
reside in a rural area.	surveyed reporting confidence in their digital literacy: 33.5 percent Percent of Vermonters that report confidence in their ability to use the Internet safely and securely: 46.9 percent	population surveyed reporting confidence in their digital literacy: 45 percent Percent of Vermonters that report confidence in their ability to use the Internet safely and securely: 50 percent	population surveyed reporting confidence in their digital literacy: 55 percent Percent of Vermonters that report confidence in their ability to use the Internet safely and securely: 65 percent	population surveyed reporting confidence in their digital literacy: 75 percent Percent of Vermonters that report confidence in their ability to use the Internet safely and securely: 85 percent

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Goal 5: Enhance workforce development for broadband and the digital economy.

Objectives and Core Activities

5.1 Increase capacity of education and training programs to develop the talent pipeline.

- 5.1.1 Assist with the design and implementation of job shadowing, training, and apprenticeship programs.
- 5.1.2 Work with the Department of Corrections to incorporate training opportunities for incarcerated individuals.
- 5.1.3 Continue to support the design and implementation of apprenticeship and job training programs in collaboration with the Department of Labor and potential employers.

5.2 Increase industry awareness and involvement in the opportunity created by these programs.

- 5.2.1 Continue to convene a working group of stakeholders related to broadband and workforce development (i.e., Department of Labor, technical colleges).
- 5.2.2

5.3 Promote, target, and recruit participants in Vermont.

5.3.1 Collaborate with stakeholders and community organizations to promote training and career opportunities to Covered Populations.

5.4 Support for the private sector to create sustainable employment opportunities.

5.4.1 Continue to liaise with ISPs and CUDs (and associated contractors) to understand workforce needs and challenges as well as collaborate on training and recruitment strategies.

5.4.2 Engage employers in a variety of industries in the state to understand what employment opportunities may be created in the digital economy with wider availability and adoption of broadband, and work with employers to develop Vermont-specific recruitment strategies for attracting Vermont-based talent.

5.5 Establish a roadmap of career possibilities for participants in the Workforce Development Programs.

5.5.1 Work with employers and workforce development partners to define, document, publish, and disseminate career roadmaps to articulate long-term opportunities for people entering or re-entering the workforce.

5.6 Encourage the recruitment of a diverse workforce of Vermonters for jobs in the broadband ecosystem and in the broader digital economy.

5.6.1 Maintain contact with ISPs, CUDs, and associated contractors to stay informed of their hiring needs generally, encourage them to hire locally, and inform them of where they can find qualified Vermonters ready to work.

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Covered Populations: This goal is designed to serve the following Covered Populations, among others: low-income households, incarcerated individuals, veterans, people with disabilities, people with language barriers, racial and ethnic minorities, and rural inhabitants.

Key Performance Indicators

Note to readers: The Key Performance Indicators in this section are still in development. We are working with key partners to develop realistic goals for these metrics, and to add a metric focused on expanded digital economy opportunities.

Table 15. Goal 5 KPIs

Targeted Population	Baseline	12/31/2026	12/31/2028	12/31/2034
General Population	Number of new local fiber technicians recruited and trained for a mix of inside (installing equipment, working with customers) and outside (running fiber) work through the VCBB's training program: 0 Percent of graduates of VCBB-supported training programs that secure jobs in relevant industries within 12 months of program completion: 0 percent	Number of new local fiber technicians recruited and trained for a mix of inside (installing equipment, working with customers) and outside (running fiber) work through the VCBB's training program: 100 Percent of graduates of VCBB-supported training programs that secure jobs in relevant industries within 12 months of program completion: 50 percent	Number of new local fiber technicians recruited and trained for a mix of inside (installing equipment, working with customers) and outside (running fiber) work through the VCBB's training program: 200 Percent of graduates of VCBB-supported training programs that secure jobs in relevant industries within 12 months of program completion: 80 percent	Number of new local fiber technicians recruited and trained for a mix of inside (installing equipment, working with customers) and outside (running fiber) work through the VCBB's training program: 200 Percent of graduates of VCBB-supported training programs that secure jobs in relevant industries within 12 months of program completion: ## percent
Individuals in Covered Households	Number of new local fiber technicians recruited and trained for a mix of inside (installing equipment, working with customers) and outside (running fiber) work through the VCBB's training program: 0 Percent of graduates of	Number of new local fiber technicians recruited and trained for a mix of inside (installing equipment, working with customers) and outside (running fiber) work through the VCBB's training program: ## Percent of graduates of VCBB-supported training programs	Number of new local fiber technicians recruited and trained for a mix of inside (installing equipment, working with customers) and outside (running fiber) work through the VCBB's training program: ## Percent of graduates of VCBB-supported training programs	Number of new local fiber technicians recruited and trained for a mix of inside (installing equipment, working with customers) and outside (running fiber) work through the VCBB's training program: ## Percent of graduates of VCBB-supported training programs

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Targeted Population	Baseline	12/31/2026	12/31/2028	12/31/2034
	VCBB-supported training programs that secure jobs in relevant industries within 12 months of program completion: 0 percent	that secure jobs in relevant industries within 12 months of program completion: ##	that secure jobs in relevant industries within 12 months of program completion: ##	that secure jobs in relevant industries within 12 months of program completion: ##
Aging individuals (60 and above).	Number of new local fiber technicians recruited and trained for a mix of inside (installing equipment, working with customers) and outside (running fiber) work through the VCBB's training program: 0 Percent of graduates of VCBB-supported training programs that secure jobs in relevant industries within 12 months of program completion: 0 percent	Number of new local fiber technicians recruited and trained for a mix of inside (installing equipment, working with customers) and outside (running fiber) work through the VCBB's training program: ## Percent of graduates of VCBB-supported training programs that secure jobs in relevant industries within 12 months of program completion: ##	Number of new local fiber technicians recruited and trained for a mix of inside (installing equipment, working with customers) and outside (running fiber) work through the VCBB's training program: ## Percent of graduates of VCBB-supported training programs that secure jobs in relevant industries within 12 months of program completion: ##	Number of new local fiber technicians recruited and trained for a mix of inside (installing equipment, working with customers) and outside (running fiber) work through the VCBB's training program: ## Percent of graduates of VCBB-supported training programs that secure jobs in relevant industries within 12 months of program completion: ##
Incarcerated individuals	Number of new local fiber technicians recruited and trained for a mix of inside (installing equipment, working with	Number of new local fiber technicians recruited and trained for a mix of inside (installing equipment, working with customers) and outside	Number of new local fiber technicians recruited and trained for a mix of inside (installing equipment, working with customers) and outside	Number of new local fiber technicians recruited and trained for a mix of inside (installing equipment, working with customers) and outside

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Targeted Population	Baseline	12/31/2026	12/31/2028	12/31/2034
	customers) and outside (running fiber) work through the VCBB's training program: 0 Percent of graduates of VCBB-supported training programs that secure jobs in relevant industries within 12 months of program completion: 0 percent	(running fiber) work through the VCBB's training program: ## Percent of graduates of VCBB-supported training programs that secure jobs in relevant industries within 12 months of program completion: ##	(running fiber) work through the VCBB's training program: ## Percent of graduates of VCBB-supported training programs that secure jobs in relevant industries within 12 months of program completion: ##	(running fiber) work through the VCBB's training program: ## Percent of graduates of VCBB-supported training programs that secure jobs in relevant industries within 12 months of program completion: ##
Veterans	Number of new local fiber technicians recruited and trained for a mix of inside (installing equipment, working with customers) and outside (running fiber) work through the VCBB's training program: 0 Percent of graduates of VCBB-supported training programs that secure jobs in relevant industries within 12 months of program completion: 0 percent	Number of new local fiber technicians recruited and trained for a mix of inside (installing equipment, working with customers) and outside (running fiber) work through the VCBB's training program: ## Percent of graduates of VCBB-supported training programs that secure jobs in relevant industries within 12 months of program completion: ##	Number of new local fiber technicians recruited and trained for a mix of inside (installing equipment, working with customers) and outside (running fiber) work through the VCBB's training program: ## Percent of graduates of VCBB-supported training programs that secure jobs in relevant industries within 12 months of program completion: ##	Number of new local fiber technicians recruited and trained for a mix of inside (installing equipment, working with customers) and outside (running fiber) work through the VCBB's training program: ## Percent of graduates of VCBB-supported training programs that secure jobs in relevant industries within 12 months of program completion: ##

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Targeted Population	Baseline	12/31/2026	12/31/2028	12/31/2034
Individuals with disabilities	Number of new local fiber technicians recruited and trained for a mix of inside (installing equipment, working with customers) and outside (running fiber) work through the VCBB's training program: 0 Percent of graduates of VCBB-supported training programs that secure jobs in relevant industries within 12 months of program completion: ##	Number of new local fiber technicians recruited and trained for a mix of inside (installing equipment, working with customers) and outside (running fiber) work through the VCBB's training program: ## Percent of graduates of VCBB-supported training programs that secure jobs in relevant industries within 12 months of program completion: ##	Number of new local fiber technicians recruited and trained for a mix of inside (installing equipment, working with customers) and outside (running fiber) work through the VCBB's training program: ## Percent of graduates of VCBB-supported training programs that secure jobs in relevant industries within 12 months of program completion: ##	Number of new local fiber technicians recruited and trained for a mix of inside (installing equipment, working with customers) and outside (running fiber) work through the VCBB's training program: ## Percent of graduates of VCBB-supported training programs that secure jobs in relevant industries within 12 months of program completion: ##
Individuals with a language barrier	Number of new local fiber technicians recruited and trained for a mix of inside (installing equipment, working with customers) and outside (running fiber) work through the VCBB's training program: 0 Percent of graduates of VCBB-supported training programs that	Number of new local fiber technicians recruited and trained for a mix of inside (installing equipment, working with customers) and outside (running fiber) work through the VCBB's training program: ## Percent of graduates of VCBB-supported training programs that secure jobs in relevant industries within 12 months of program	Number of new local fiber technicians recruited and trained for a mix of inside (installing equipment, working with customers) and outside (running fiber) work through the VCBB's training program: ## Percent of graduates of VCBB-supported training programs that secure jobs in relevant industries within 12 months of program	Number of new local fiber technicians recruited and trained for a mix of inside (installing equipment, working with customers) and outside (running fiber) work through the VCBB's training program: ## Percent of graduates of VCBB-supported training programs that secure jobs in relevant industries within 12 months of program

Targeted Population	Baseline	12/31/2026	12/31/2028	12/31/2034
	secure jobs in relevant industries within 12 months of program completion: 0 percent	completion: ##	completion: ##	completion: ##
Individuals who are members of a racial or ethnic minority group	Percent of graduates of VCBB-supported training programs that secure jobs in relevant industries within 12 months of program completion: 0 percent	Number of new local fiber technicians recruited and trained for a mix of inside (installing equipment, working with customers) and outside (running fiber) work through the VCBB's training program: ## Percent of graduates of VCBB-supported training programs that secure jobs in relevant industries within 12 months of program completion: ##	Number of new local fiber technicians recruited and trained for a mix of inside (installing equipment, working with customers) and outside (running fiber) work through the VCBB's training program: ## Percent of graduates of VCBB-supported training programs that secure jobs in relevant industries within 12 months of program completion: ##	Number of new local fiber technicians recruited and trained for a mix of inside (installing equipment, working with customers) and outside (running fiber) work through the VCBB's training program: ## Percent of graduates of VCBB-supported training programs that secure jobs in relevant industries within 12 months of program completion: ##
Individuals who primarily reside in a rural area.	Number of new local fiber technicians recruited and trained for a mix of inside (installing equipment, working with customers) and outside (running fiber) work through the VCBB's training program: 0	Number of new local fiber technicians recruited and trained for a mix of inside (installing equipment, working with customers) and outside (running fiber) work through the VCBB's training program: ## Percent of graduates of VCBB-supported training programs that secure jobs in	Number of new local fiber technicians recruited and trained for a mix of inside (installing equipment, working with customers) and outside (running fiber) work through the VCBB's training program: ## Percent of graduates of VCBB-supported training programs that secure jobs in	Number of new local fiber technicians recruited and trained for a mix of inside (installing equipment, working with customers) and outside (running fiber) work through the VCBB's training program: ## Percent of graduates of VCBB-supported training programs that secure jobs in

Targeted Population	Baseline	12/31/2026	12/31/2028	12/31/2034
		relevant industries within 12 months of program completion: ##	relevant industries within 12 months of program completion: ##	relevant industries within 12 months of program completion: ##

Goal 6: Improve socio-economic conditions across Vermont.

Objectives and Core Activities

6.1 Ensure fair labor standards among BEAD subgrantees (in line with Vermont's BEAD Initial Proposal).

- 6.1.1 Oversee BEAD subgrantees to ensure accountability for fair labor standards and encourage recruiting from Covered Populations and other Underrepresented Communities and State-supported apprenticeship programs.
- 6.1.2 Work with the Department of Labor (and other state offices as appropriate) to help employers increase their understanding and adoption of inclusive hiring and retention practices.
- 6.1.3 Invite employers who have already incorporated fair labor standards and inclusive hiring and retention practices to share their resources and recommendations.
- 6.1.4 Encourage BEAD subgrantees to set goals for hiring, management, and retention practices.

6.2 Support workforce development opportunities in broadband related industries.

- 6.2.1 Support CAIs and work with them to develop or expand programs and resources to increase the use of digital access for socio-economic mobility.
- 6.2.2 Facilitate public-private partnerships on vocational rehabilitation: Work with technology companies on vocational rehabilitation programs that recruit and skill Vermonters from Covered Populations.

6.3 Empower Vermont residents, agencies, organizations, and businesses with the ability to use technology to study, work, communicate, and access health and other social services.

- 6.3.1 Facilitate the development of digital skilling resources focused on in-demand job skills and promote them across the state.[120]

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6.3.2 Work with the Department of Health to ensure patients are able to access the Internet for telemedicine and remote patient monitoring as well as emergency health services.

Covered Populations: This goal is designed to serve all Covered Populations and others

Key Performance Indicators

Vermont will monitor several key performance indicators across the State and in funded network service areas to gauge the indirect impact of broadband access and digital equity initiatives on socio-economic factors, described below. The VCBB has not defined specific targets because, while it believes there is correlation between digital equity and other social impact measures, it can be challenging to measure direct causation between something like broadband access and improved health outcomes. Still, the VCBB deems it important to monitor the broader landscape of Vermont's socio-economic indicators.

Note to readers: Vermont is currently developing additional Key Performance Indicators for this goal related to health outcomes, which will be added before the draft is submitted to NTIA.

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Table 16. Goal 6 KPIs

Targeted Population	Baselines	
	Economic	Education
General Population	Unemployment rate. *Baseline (2023): 1.9 percent.*[121] Number of remote workers. *Baseline (2023): Not available.* Median household income level. *Baseline (2021): $67,674.*[122] Population change (gain/loss). *Baseline (2022): 647,064.*[123]	High school graduation rates. *Baseline (2022): 82.8 percent*[124] Student performance on college readiness assessment. *Baseline (2022): 52 percent*[125]
Individual in Covered Households	Unemployment rate. *Baseline (2023): ##* Number of remote workers. *Baseline (2023): Not available.*	High school graduation rates. *Baseline (2022): 74.6 percent*[126] Student performance

Targeted Population	Baselines	
	Economic	**Education**
	Median household income level. *Baseline (2021): ##* Population change (gain/loss). *Baseline ##*	on college readiness assessment. *Baseline (2022): 36 percent*[127]
Aging individuals (60 and above).	Number of remote workers. *Baseline (2023): Not available.* Median household income level. *Baseline (2021): $71,769*[128] Population change (gain/loss). *183,157*[129]	
Incarcerated individuals	Population change (gain/loss). *Baseline (2023): 1,337*[130]	High school graduation rates. Student performance on standardized test scores.
Veterans	Unemployment rate. *Baseline (2023): 2.7 percent*[131] Number of remote workers. *Baseline (2023): Not available.* Median household income level. *Baseline (2023): $59,559*[132] Population change (gain/loss). *Baseline (2021): 34,347*[133]	
Individuals with disabilities	Employment rate. *Baseline (2017): 45.9 percent*[134] Number of remote workers. *Baseline (2023): Not available.*	High school graduation rates. *Baseline (2022): 70.2 percent*[137] Student performance on college readiness assessment. *Baseline*

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Targeted Population	Baselines	
	Economic	**Education**
	Median household income level. *Baseline (2017): $41,600*[135] Population change (gain/loss). *Baseline (2021):126,258*[136]	*(2022): 19 percent*[138]
Individuals with a language barrier	Unemployment rate. *Baseline (2023): ##* Number of remote workers. *Baseline (2023): Not available.* Median household income level. *Baseline (2021): $62,046*[139] Population change (gain/loss). *Baseline (2021) 7,075*[140]	High school graduation rates. *Baseline (2022): 63.3 percent*[141] Student performance on college readiness assessment. *Baseline (2022): 29 percent*[142]
Individuals who are members of a racial or ethnic minority group	Unemployment rate. *Baseline (2023):* Black: 2.9 percent Hispanic: 2.3 percent AAPI:1.5 percent[143] Number of remote workers. *Baseline (2023): Not available.* Median household income level. *Baseline (2018):* Black: $43,548 Hispanic: $51,322 AAPI: $55,568[144] Population change (gain/loss). *Baseline (2021): Black or African American: 8,166* *Hispanic: 13,368* *American Indian and Alaska Native: 1,520* *AAPI: 10,924* *Two or more races: 21,622*[145]	High school graduation rates. *Baseline (2022):* *Black: 73.8 percent* *Hispanic: 83.2 percent* *AAPI: 82.6 percent*[146] Student performance on college readiness assessment. *Baseline (2022):* *Black: 32 percent* *Hispanic: 54 percent* *AAPI: 62 percent*[147]

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Targeted Population	Baselines	
	Economic	Education
Individuals who primarily reside in a rural area.	*Same as general population:* Unemployment rate. *Baseline (2023): 1.9 percent.*[148] Number of remote workers. *Baseline (2023): Not available.* Median household income level. *Baseline (2021): $67,674.*[149] Population change (gain/loss). *Baseline (2022): 647,064.*[150]	High school graduation rates. *Baseline (2022): 82.8%*[151] Student performance on college readiness assessment. *Baseline (2022): 52 percent*[152]

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Monitoring, Evaluation, and Learning

While commencing its work on digital equity, the VCBB discovered it was difficult to compile adequately granular data to understand Vermont's baseline for digital equity indicators. Given this challenge, an early priority for the VCBB at the start of implementing its Digital Equity Plan will be to establish the data collection function so the VCBB can fully understand its baseline and continue to monitor progress going forward. The VCBB takes an adaptive and learning approach guided by data and community input. Key steps to its approach to monitoring, evaluating, and learning during the implementation of this plan include:

- Establish a data collection, management, and monitoring function to better understand baselines for digital equity in Vermont and specifically for Covered Populations. Determine the data collection and management practices to enable the VCBB to regularly evaluate the impact of programs towards intended digital equity outcomes, particularly for Covered Populations.

- Where necessary and permissible by law, establish partnerships and data sharing agreements with other agencies and organizations that already routinely collect relevant data to contribute to this analysis (e.g., state agencies of health, education, corrections, labor, etc.).
- Regularly monitor and evaluate progress towards key performance indicators (KPIs) and utilization of digital equity programs and services by Covered Populations to determine areas for improvement and to learn and evolve Vermont's approach.
- Establish a publicly available dashboard that transparently displays Vermont's progress towards its digital equity KPIs.

Table 16 describes the data sources and monitoring plan for each KPI.

Table 17. Data Sources for KPIs

Goal	KPI	Data Source	Granularity	Frequency of Tracking
Goal: Mobilize resources for end-to-end broadband infrastructure deployments to all unserved and underserved locations and CAIs in Vermont.	Percent of currently unserved and underserved on-grid locations with 100/100 Mbps broadband or better available	FCC BDC	Location	Quarterly, consistent with BEAD "at least" semi-annual subgrantee reporting requirements
	Percent of currently unserved and underserved off-grid locations with access to 100/20 Mbps broadband or better available	FCC BDC	Location	Semi-annually, consistent with BEAD "at least" semiannual subgrantee reporting requirements
	Percent of CAIs with one Gbps symmetrical broadband available	Vermont's BEAD CAI list	Location	Annually
	Percent of Vermont towns with at least one CAI with one Gbps symmetrical broadband available	Vermont's BEAD CAI List	Location	Annually
	Percent of CAIs *that are correctional facilities* with one Gbps symmetrical broadband available	Vermont's BEAD CAI List	Location	Annually
Goal: Ensure sustainable, community-driven solutions across the	Percent of BEAD and Digital Equity subgrantees with documented meaningful community support or partnerships	Subgrantee proposals, letters of support, progress reports	Grant	Annually
	Additional funding besides BEAD and	VCBB	Grant	Annually

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Goal	KPI	Data Source	Granularity	Frequency of Tracking
entire state.	Digital Equity grants to the State of Vermont committed for state-led digital equity programming			
	Percent of towns in Vermont served by a Digital Navigator	VCBB	Individual	Annually
Goal: Ensure high-speed broadband services and devices are affordable.	Percent of households subscribing to fixed broadband	Department of Public Service	State	Annually
	Percent of eligible households signed up for a broadband service subsidy (e.g., ACP)	Universal Service Administrative Co., US Census	County or zip code	Monthly
	Percent of households own a laptop, tablet, or personal computer	US Census	Statewide	Annually
	Percent of ACP eligible households reporting that they own a laptop, tablet, or personal computer	VCBB Survey	Individually	Annually
Goal: Advance digital literacy and accessibility for all Vermonters both during the BEAD performance period and into the future.	Percent of population surveyed reporting confidence in their digital literacy	VCBB Survey	Individual	Annually
	Percent of Vermonters that report confidence in their ability to use the Internet safely and securely	VCBB Survey	Individual	Annually
	Number of reported fraud reports and online crimes reported (e.g., hacks, online scams) in Vermont	FTC, Federal Bureau of Investigation	State	Annually
	Percent of VCBB funded, digital equity-focused programs and resources that are available in plain language, multiple languages, and designed for accessibility	VCBB internal data	Per Program/Individual	Annually
	Number of Covered Populations represented among Digital Navigators	VCBB	Individual	Annually
	Percent of Vermonters with disabilities that report they have what they need to productively use technology (e.g., assistive technologies)	VCBB Survey	Individual	Annually
Goal:	Number of new local	Program report	Individual	Annually

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Goal	KPI	Data Source	Granularity	Frequency of Tracking
Enhance workforce development for broadband and the digital economy.	fiber technicians recruited and trained for a mix of inside (installing equipment, working with customers) and outside (running fiber) work through the VCBB's training program			
	Percent of graduates of VCBB-supported training programs that secure jobs in relevant industries within 12 months of program completion	VCBB survey	Individual	Annually
Goal: Improve socio-economic conditions across Vermont.	Unemployment rate	Vermont Department of Labor[153]	State	Annually
	Number of remote workers	Agency of Commerce and Community Development	State	Annually
	Median household income level	Vermont Department of Taxes	State	Annually
	Population change (gain/loss)	US Census Bureau	State	Annually
	High school graduation rates	Vermont Education Dashboard	School	Annually
	Student performance on college readiness assessment	Vermont Education Dashboard	School	Annually

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Accountability

The VCBB takes its accountability—both to the NTIA and to the Vermont public—seriously. To ensure transparency and accountability, the VCBB will take the following steps mentioned above and summarized below:

- Establish a virtual method that presents the VCBB's progress towards KPIs as well as allows for public feedback or questions regarding programs, in addition to other resources such as the Asset Inventory.
- Regular reporting on performance and learning posted publicly.
- Frequent and open communication and engagement with stakeholders and the public.
- All presentations and materials intended for a public audience will be in plain language and evaluated for accessibility.

Funding and Sustainability

The VCBB is the state office responsible for implementing Vermont's BEAD and Digital Equity Plans. This has enabled the State of Vermont to ensure alignment in the design of both programs and will continue to ensure alignment during implementation. As outlined in Vermont's BEAD Five-Year Action Plan and Initial Proposal, the VCBB expects to use BEAD and other available funds to achieve the objectives of ensuring access to high-speed, reliable broadband to all currently unserved and underserved locations and CAIs. Since reliable broadband access is a major need for the state, the VCBB expects it will need to use all its BEAD funding on broadband deployment projects. As such, programs focused on broadband adoption, device access and affordability, and digital skilling will be resourced under Vermont's Digital Equity Plan. However, if the VCBB is successful in optimizing available BEAD funds (e.g., by encouraging subgrantees to reduce costs, maximize private sector matches, and obtain additional funding for deployments), the VCBB might be able to free up BEAD funding for non-deployment digital equity programming. Whether or not this can be achieved, the VCBB plans to ensure close alignment between BEAD and Digital Equity initiatives.

The VCBB will also undertake an inclusive approach to collaboration on digital equity initiatives to maximize impact and to jointly leverage as many resources as possible through the collective ecosystem of stakeholders to achieve shared aims. Through its partnership approach, the VCBB intends to work with other state agencies to embed digital equity as a priority in their strategy as an enabler for their sector-specific objectives. The result will be both a statewide and sector-specific approach to digital equity owned and embodied by agencies beyond the broadband office.

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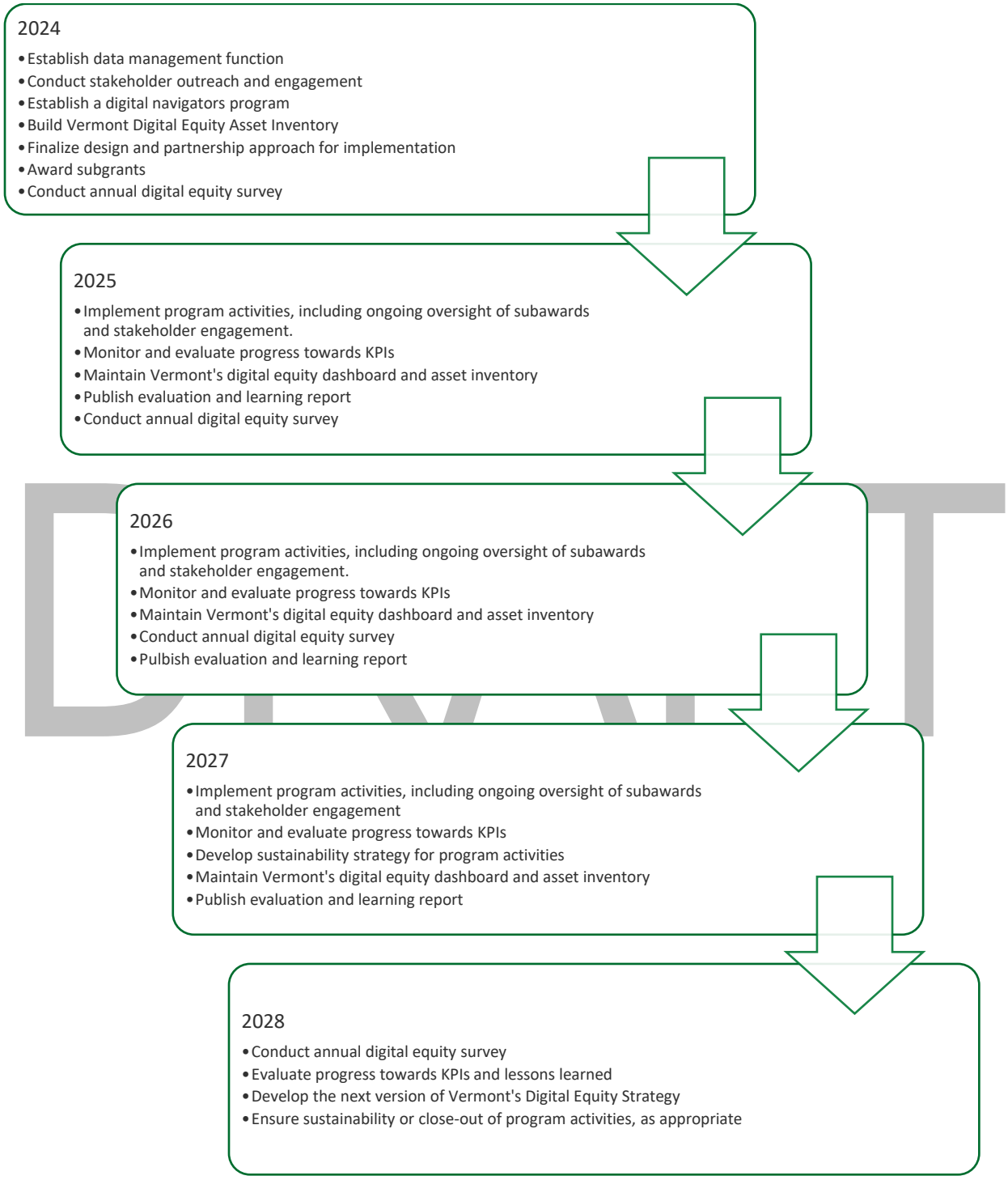
Partnership with the private and philanthropic sectors will be an important element. The VCBB intends to encourage collaboration and contribution of both monetary and in-kind resources. For example, contributions of expertise can catalyze skilling and career opportunities while donations of devices could equip a CAI with computers for its community. The VCBB also intends to support efforts by the State Legislature to advance policies and allocation of state funds to support digital equity initiatives. Through widespread collaboration, digital equity will become institutionalized throughout Vermont's public and community services.

Timeline

Figure 9 provides an estimated timeline for implementation of this plan. In Year one (2024), the VCBB will focus on continued stakeholder engagement, establishing a strong data management platform, launching Vermont's asset inventory, and finalizing the design of its activities and corresponding partnerships and subgrants. Years two through four focus on implementation, partnerships and stakeholder management, and monitoring and adapting its strategy based on progress towards KPIs and feedback from stakeholders. In 2028, the VCBB will turn its focus to concluding activities and devising the next five-year strategy for ensuring digital equity for Vermonters.

Figure 9. Vermont's Estimated Digital Equity Implementation Timeline



Alignment with Existing Policies and Priorities

The ability to access and meaningfully use the Internet and information technology is an important enabler for positive impact in many other areas. Vermont's objectives for digital equity intersect with its objectives for health, education, workforce development, economic growth, environmental sustainability, public safety, and more. Each Vermont agency has its own goals and objectives but there is a recurring theme of equitable access to resources and services to ensure all Vermonters can live healthy, productive lives. Priorities of equity, opportunity, and resilience emerge across agencies and sectors. While causation will be difficult to prove, the VCBB believes strongly in the correlation between Internet and technology access and positive socio-economic outcomes.

Education: The State Board of Education has goals to ensure that young Vermonters are among the best-educated in the United States, well-prepared as young citizens, and ready to move on to post-secondary vocational/career preparation and education. It also seeks to establish a PreK-12 educational system that delivers equity and excellence at a cost to Vermonters that is affordable and sustainable.[154] Achieving these goals will rely on students' ability to access and use connected technology to prepare them for future educational and career opportunities. Studies have shown correlations between increased broadband access and improved educational outcomes (measured by standardized test scores), particularly for Black and Hispanic/Latino communities in the United States.[155] The VCBB seeks to improve access to computers and the Internet for students and improve digital literacy and skilling for Vermonters of all ages.

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Energy: Vermont's Public Service Department operates the Efficiency Vermont initiative, which is about advancing energy justice and ensuring that Vermont is taking the most proactive possible approach to improving energy sustainability. Through that initiative, the state is engaging in research, both into the disparate impacts of climate change on marginalized communities, and into approaches that can be taken to close gaps. Efficiency Vermont is also working to reduce energy burdens for populations who have historically spent an outsized share of their income on energy bills relative to most other households. This is largely income focused work, but Efficiency Vermont is also looking at the energy burdens that face communities of color, English language learners, and renters. Vermont's digital equity work will help Efficiency Vermont to reach Vermonters more easily to learn about their experience with energy usage and sustainability and will also support Vermonters in accessing information about energy assistance programs, sustainability best practices, and Public Service Department programming. Ensuring an equitable ability to access and afford energy utility service is also essential in ensuring Vermonters are able to access the Internet and connected devices; without power, neither will work.

Natural resources and the environment: Vermont's Agency of Natural Resources has positioned equity of access to natural resources, and the need for programs and practices reflect the needs and preferences of all Vermonters, at the center of its mission. The Agency has an office dedicated to civil rights and environmental justice,

and the Vermont State Legislature has passed an Environmental Justice law, which is designed to ensure all Vermonters regardless of race, cultural background, or income have equitable access to environmental benefits such as clean air and water, healthy food, and public transportation.[156] Advancing digital equity in Vermont will improve individuals access to Agency of Natural Resources programs and information about Vermont's natural resources. Improving access to connectivity will also expand access to information on environmental best practices so that all Vermonters can better contribute to maintaining the states pristine lands and waters.

Public services and civic engagement: Access to online information technology can improve the accessibility, utilization, and transparency of public services. Digitizing public services in an accessible and inclusive manner can make relevant information instantly available to constituents, expedite access to benefits, and facilitate civic engagement. This enhanced access can be particularly useful for rural populations, people with disabilities, people with language barriers who can use technology to overcome challenges they face accessing public services in person. Digital transformation and e-government initiatives have been prioritized by governments around the word, including in a memorandum from the White House in September 2023 issuing guidance to government agencies on digitizing services.[157] One of the goals of Vermont's Agency of Digital Services is to "improve Vermonters experience with state government by transitioning outdated paper processes with on-line, streamlined services."[158] During the process to develop Vermont's BEAD and Digital Equity Plans, the option to hold virtual listening sessions and office hours enabled broader participation from Vermonters in shaping the plans (e.g., people who faced transportation, health, or other barriers to attending an in-person session were still able to participate). Vermont state legislation protects net neutrality so Vermonters can access the information of their choosing.[159] To realize the benefits of e-government services, Vermonters need to be empowered to access such programs and services online and the online public services must be accessible for people with limited literacy, language barriers, and/or with disabilities. Through this Digital Equity Plan, the VCBB plans to work with other state agencies to ensure information and services are available digitally and accessible to people with disabilities.

Health and human services: The Vermont Department of Health has identified health equity as a key priority in its State Health Assessment and Improvement Plan. The Department uses Vermont's Social Vulnerability Index to identify census tracts across the state that may need more help responding to public health threats. It has established a Health Equity Capacity Building Program, which provides financial and technical capacity-building support for community organizations working to address health disparities. The Department provides culturally and linguistically appropriate care and written resources. Disparities are regularly monitored through risk assessment surveys which collect data about social conditions that affect respondents' health, as well as demographic information. The Department has also created and implemented a community-based Health Equity Navigators program, which recruits Vermonters who are already community leaders to serve as embedded community support to connect in-need Vermonters with available health resources. The VCBB plans to combine the

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structure of historically established, national digital navigator programs and to use the Department of Health's Health Equity Navigators program to further personalize the healthcare experience.

There is a growing body of evidence supporting the link between Internet access and improved health outcomes—or lack of Internet access correlating to worse health outcomes.[160] With over 28 percent of its population aged 60 or older, access to healthcare is of particular importance. The Department of Human Services has a "comprehensive vision in which all Vermonters are healthy and well by providing programs, services, and supports in partnership with community organizations to support Vermonters in need and help shape more resilient communities."[161] The Department of Health envisions "healthy Vermonters living in healthy communities," which includes goals of communities having the capacity to respond to health needs and health equity for all.[162] In a state as rural as Vermont, the ability for patients to connect with health services online and for health providers to provide preventative and follow-up care efficiently and virtually has the potential to improve health outcomes for Vermonters. Data from Cigna show patients also save an average of $93 per visit when utilizing non-urgent virtual care, $120 saved for a virtual visit with a specialist, and $141 saved for a virtual urgent care appointment.[163] This is aligned with the VCBB's own goal to improve socio-economic conditions across Vermont by ensuring Vermonters can access technology and have the skills to leverage such services, contributing to improved health and other social outcomes.

Community and workforce development: Access to remote, virtual options for education and training is valuable and empowering for many people, including people who live in remote areas, have a disability that makes it difficult to travel or participate in a classroom, or are incarcerated. Vermont's Department of Disabilities, Aging, and Independent Living's vision is to "make Vermont the best state in which to grow old or to live with a disability - with dignity, respect and independence."[164] The Department of Corrections seeks to provide justice-involved individuals with opportunities for self-improvement.[165] Connecting currently incarcerated individuals with virtual education and training opportunities has the potential to accelerate self-improvement and improve their opportunities once released, reducing rates of recidivism.

Vermont has multiple agencies focused on issues such as community and workforce development (e.g., Agency of Commerce and Community Development, Department of Housing and Community Development, Department of Labor). They share objectives of serving Vermont residents and business to ensure they can live well, explore meaningful work opportunities, create jobs, and support vibrant and resilient communities.[166] Under the BEAD and Digital Equity Programs, new job and business opportunities will be enabled through expanded Internet access (and the jobs necessary to deploy that infrastructure) as well as enhanced remote-work opportunities. These opportunities can be promoted to underrepresented populations, including racial and ethnic minorities and low-income communities, and to attract and retain additional talent in the state.

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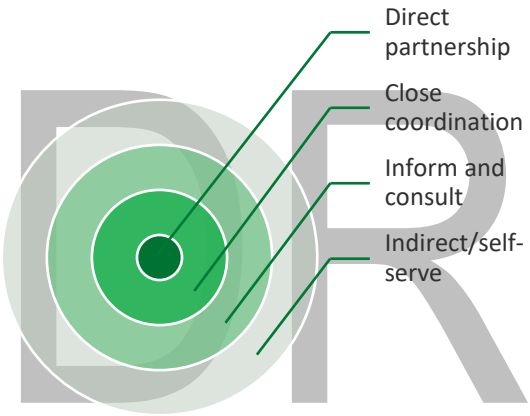
To ensure local alignment and coordination, the VCBB will continue to work closely with providers and communities, including Vermont's 10 Communications Union Districts (CUDs)—organizations of two or more towns that joined together as a municipal entity to build communication infrastructure together.[167] The CUDs are grantees of Vermont's state broadband grant funds, key stakeholders for the BEAD program, and the primary coordination mechanism for universal broadband access across most of Vermont.

Collaboration and Partnerships

As described above, there is significant intersectionality between issues of digital equity and other socio-economic inequities. A diverse set of partnerships will be important for the successful implementation of Vermont's Digital Equity Plan to realize the intended goals and objectives. The VCBB intends to have varying degrees of collaboration with organizations in Vermont, including:

Figure 10: Vermont's Partnership Approach



Direct partnership: The VCBB will contract with and fund directly organizations that have the expertise, capacity, and relationships to implement components of the Digital Equity Plan or reach particular Covered Populations. The VCBB and these stakeholders will work together to plan and implement activities through direct partnership.

Close coordination: The VCBB will work closely with a network of stakeholders for mutual support of programs and services, thereby maximizing the uptake, adoption, and impact of those programs and services by Covered Populations. These stakeholders will be consulted during plan development and implementation, and the VCBB will seek to coordinate its activities with these organizations' initiatives.

Inform and consult: Some organizations will be valuable collaborators for the VCBB to keep informed of programs and progress and for the VCBB to be informed of any related efforts by these stakeholders. Stakeholders in this category will be encouraged to participate in public comment periods and office hours as a baseline and will also be important in spreading public awareness of digital equity programs and resources.

Indirect/self-serve: The outermost circle, labeled indirect or self-serve, describes when organizations or individuals seek out information and communication from VCBB of their own accord. Those organizations and individuals may move into one of the three inner-more circles upon engaging with the VCBB.

A description of types of organizations that will be important collaborators are described below.

Types of Potential Partner Organizations

State and Non-Governmental Social Service Organizations
An important step in advancing digital equity is making sure that people are aware of the resources available to them (e.g., low-cost broadband plans, digital skills training, affordable devices) and how to access them. Other state and non-governmental organizations are already providing social services to Covered Populations and can be valuable conduits of information about digital equity resources. The VCBB can work with such organizations to ensure they are equipped with the information, materials, and training to inform and assist their clients with digital equity resources. Digital equity resources can thus become embedded into their ongoing approach to serving Vermonters.

Local Community Anchor Institutions
Because the causes of the adoption gap can be so varied, designing and implementing programs in collaboration with community-based organizations and leaders who know the local community challenges deeply and have earned the community's trust will improve program adoption and impact. Community anchor institutions provide an array of important services to nearby residents, and ensuring they can offer resources (and/or referrals) for Internet and device access as well as digital skilling will bolster their impact in the community.

Institutions of Higher Learning
Vermont plans to engage with several institutions of higher learning in the state, including: Vermont State University, the University of Vermont, Champlain College, Norwich University, and the Community College of Vermont. The VCBB also plans to collaborate with vocational schools, technical colleges, and adult learning organizations. Partnerships with these entities will have three main focuses: (1) improve digital skilling for students; (2) increase internship and career opportunities in technology and broadband industries; and (3) improve networking and recruitment efforts with BEAD subgrantees and other employers operating in Vermont or with remote work opportunities. Through such partnerships, Vermonters will be better equipped with the skills and experience with technology to pursue diverse career options.

Organized Labor and Workforce Development Agencies
The VCBB has already established a Workforce Development Team consisting of multiple organizations important to strengthening Vermont's broadband deployment workforce. As part of this effort, the VCBB has initiated a training program and is building relationships with ISPs who they hope will recruit from graduates of the program.

Once BEAD implementation has progressed sufficiently, the VCBB plans to work with the Department of Labor to develop strategies that will allow Vermonters to take full advantage of new job opportunities enabled by expanded broadband availability and improved digital equity. This may include (but is by no means limited to): a re-skilling

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program for workers in at-risk industries, a support program for new broadband-based businesses coming to the State, or a training program to help existing businesses take greater advantage of improved broadband service.

Private Sector Companies
The VCBB recognizes the role private companies play in the digital equity spaces, whether as employers, developers of technology and infrastructure, and centers of expertise. Engaged in the effort to advance digital equity, they can contribute expertise, services, devices, training, and sometimes funding to support advancing digital equity. The VCBB also recognizes the role the private sector plays in sustaining the necessary changes in behavior and practice to address inequities.

As the VCBB prepares for implementation of its Digital Equity Plan, it will refine its collaboration and partnership approach and identify and build relationships with specific stakeholders within each category of engagement. The section below titled Stakeholder Engagement Plan provides a more detailed description of engagement activities.

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Stakeholder Engagement Plan

Since inception, the VCBB has made collaboration and public feedback central to the development of its BEAD and DEA plans. Vermont steadfastly believes that these plans should be built to reflect the genuine needs and lived experiences of the Vermont public in general and of Vermont's Covered Populations in particular. This has been central to the drafting process for both this plan and the BEAD Five-year Action Plan.[168]

Stakeholder engagement thus far has included:

- Bi-weekly meetings of the Digital Equity Core Planning Team
- Six regional in-person events (Brattleboro, Rutland, Burke, Newport, Shoreham, Swanton) focused on regions with low rates of broadband access and/or adoption
- Three statewide virtual events
- 22 virtual "roundtables"— convening group conversations, as well as individual meetings with relevant stakeholder groups as identified by the VCBB
- 13 one-on-one interviews with members of the Digital Equity Core Planning Team, CUDs, and several ISPs
- Five community-based events specifically targeting Covered Populations
- 2,100 responses to the community survey (as of November 19, 2023)
- 44 responses to the request for public input on the BEAD Five-Year Action Plan and Initial Proposal
- [Number to be added] comments submitted in response to the 30-day public comment period on the draft Digital Equity Plan

The VCBB is committed to maintaining this approach and continuing to foster an environment of engaged stakeholders (including the public). This will be important to ensure programs are designed and implemented appropriately, with community buy-in and accountability, and evaluated and adapted based on measurable impact and community feedback.

To ensure stakeholders are informed and engaged, the VCBB plans to undertake the following engagement tactics summarized in Table 17 and described in detail below. Creating and implementing true equity in any policy area is always a work in progress. Therefore, it is critical that Vermont continues to collaborate and learn from its stakeholders.

Table 18. Stakeholder Engagement Tactics

Engagement Tactic	Stakeholders Reached Include
Convene Digital Equity Core Planning Team meetings	State agencies and nonprofit organizations providing social and digital equity-related services statewide
Convene the broadband workforce development working group	Department of Labor, technical colleges, workforce development organizations, labor organizations, adult education institutions
Participate in other equity-related working groups	Other state agencies, Black, Indigenous, People of Color affiliation groups
Targeted engagement and partnerships	Nonprofits, community anchor institutions, representatives of Covered Populations, civil rights organizations
Liaise with CUDs and BEAD subgrantees	CUDs, Internet service providers
Offer regular office hours with VCBB Digital Equity Officer	General public
Conduct public requests for input and public comment periods	General public
Quarterly Digital Equity Update and Listening Session	General public
Facilitate VCBB Board Meetings	VCBB Board, general public

Convene the Digital Equity Core Planning Team

Prior to commencing the plan development process, the VCBB assembled an advisory working group called the Digital Equity Core Planning Team. This team was designed to include organizations working with each of NTIA's Covered Populations and other Underrepresented Communities statewide and represent Vermont's CAI categories. Many of the representatives to the Digital Equity Core Planning Team are also members of the Covered Populations that they work with, further underscoring their deep understanding of the experiences of these segments of Vermont's population. This group has been meeting on a biweekly basis since January 2023, and advised on the development of the external engagement process to ensure that it was equitable and would be effective in reaching all segments of Vermont's population.

Members of the Digital Equity Core Planning Team include:

- **The Adult Education and Literacy Network** provides free basic literacy and math instruction, high school diploma and General Educational Development completion, and English Language Learning classes.
- **The Association of Area Agencies on Aging** represents five non-profits across the State that help aging individuals access caregiver support, meal programs, transportation, and other services.
- **The Association of Planning and Development Commissions** represents Vermont's 11 regional planning commissions, which act as a link between municipal affairs and state government.
- **The Community Action Partnership** is a network of five non-profit organizations that provides programs and services to low-income Vermonters.
- **The Department of Corrections** is a government agency that oversees six prisons across the state and 12 probation and patrol offices.
- **The Department of Disabilities, Aging, and Independent Living** is a government agency that offers services for Vermonters over 60, individuals with physical or developmental disabilities, and individuals who are Deaf, Hard-of-Hearing, Late-deafened, DeafBlind, or DeafDisabled.
- **The Department of Libraries** supports Vermont libraries as they work to ensure access to quality information for their patrons.
- **The Vermont Office of Racial Equity** partners with non-profits and local, state, and federal government to advance equity and social justice.
- **The U.S. Committee on Refugees and Immigrants** provides education, workforce development, translation, resettlement, and integration services to Vermont's newcomers.
- **The U.S. Department of Housing and Urban Development** administers programs to ensure fair and equal housing opportunity for all.
- **The Vermont Center for Independent Living** supports individuals with disabilities so that they can live in their own homes and make their own decisions.
- **The Vermont Communications Union District Association** serves to unite the interests of Vermont's growing municipal Internet networks, devising ways to share resources and voicing CUD consensus on critical policy issues.
- **The Vermont Council on Rural Development** is a partnership of national, state, and local non-profit, government, and business leaders that works to address issues facing rural communities.
- **The Vermont Veterans and Family Outreach Program** is part of the Office of Veterans Affairs and helps veterans and their families obtain the benefits they have earned through their service.

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The Core Planning Team contributed valuable input to shape the vision and objectives, implementation strategy, partnership strategy, and awareness campaign ideas reflected in both the BEAD Plan as well as this plan. During the implementation phase, the VCBB will continue to convene the Digital Equity Core Planning Team on a regular basis to exchange information for planning, implementation, coordination, evaluation, and learning purposes.

Convene the Broadband Workforce Development Team

The VCBB has made workforce planning and development one of its top priorities since its inception.[169] Since 2021, the VCBB has been developing and implementing a Workforce Development Program that will ensure Vermont is able to meet the expected timelines for BEAD-funded projects. In partnership with the Vermont Department of Labor, the VCBB administered a survey in December 2021 to understand the current state of the broadband deployment workforce, and to identify gaps prior to the disbursement of BEAD funds and the commencement of BEAD-funded network deployments.

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The results highlighted a significant broadband construction labor shortage. The VCBB identified next steps to address the gaps identified in the survey and has been working to address those gaps through a stakeholder-led and collaborative process. Activities have included:

- Established the Workforce Development Team, which has been meeting weekly since February 2022 and includes representatives from ISPs, construction companies, the Fiber Broadband Association, and initially the Communications Workers of America (CWA). Labor interests are now being represented by the International Brotherhood of Electrical Workers (IBEW) because the CWA does not cover Vermont and New Hampshire in the field. The VCBB also continued individualized conversations with many of these groups, including the IBEW, throughout the BEAD planning process, including during the development of the 5-Year Action Plan and Initial Proposal, as well as the Digital Equity Plan, to understand specific ways the VCBB could support these organizations and improve worker availability, retention, and satisfaction. Meetings will continue to occur monthly throughout the implementation of Vermont's Digital Equity Plan.
- The VCBB reached out to 41 employers in New England and then created an advisory committee to represent the industry. The advisory committee included Fidium Fiber, Syracuse Utilities, and Eustis Cable. As BEAD-funded projects near completion, the VCBB also plans to establish a new advisory committee on how to retain and attract new, tech focused workers to the state of Vermont. Industry representatives will include those whose businesses rely heavily on broadband and connected technologies.
- The VCBB is setting up an apprenticeship program for fiber optic installers. There is only one nationally recognized apprenticeship program (that is for fiber optic installers). The training program includes outside and inside fiber technicians,

flaggers and tree clearing. It is in development and expected to start this fall and will continue through BEAD implementation.

- The VCBB is working directly with employers on employee retention, which has been historically deemphasized in the broadband deployment industry, and working to reach untapped pools of potential workers, such as women.

Participate in Existing Equity Working Group Meetings

The VCBB is participating in existing equity-focused coalitions and working groups where Vermont organizations, state agencies, and community leaders congregate to discuss and share resources for fostering equity in various policy areas (e.g., environmental, health, diversity, and inclusion). The VCBB's participation will allow networking and collaborative exploration of incorporating digital equity into broader efforts. These meetings will also serve as fora for these organizations, state agencies, and community leaders to provide feedback on digital equity needs and solutions.

Targeted Engagement

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The VCBB has developed an extensive network of organizations with whom it plans to engage directly and partner (see Partnerships section above) to achieve its digital equity objectives. A targeted approach is valuable in particular in reaching specific Covered Populations. The ecosystem of organizations and initiatives serving Covered Populations in Vermont will continue to evolve, as will the VCBB's approach to targeted engagement. The VCBB will seek to maintain a current stakeholder landscape and exchange information with relevant organizations that either focus on digital equity topics specifically or focus on Covered Populations specifically to maximize opportunities to advance digital equity. The VCBB will work with these organizations to better understand their mission and programming, to identify ways that the VCBB can support existing efforts focused on improving digital equity, and to identify ways that these organizations may be able to fold more specific digital equity-focused work into their existing activities.

Liaise with CUDs and BEAD Subgrantees

The VCBB is responsible for administering both the BEAD and Digital Equity Programs for Vermont. An important component of both programs will be ensuring equitable and affordable broadband access working closely with CUDs and BEAD subgrantees. The VCBB will liaise with these entities to ensure accountability for affordable, high-quality broadband service to all Vermonters and that communities are informed of broadband deployment timelines and service offerings.

The VCBB hosts weekly check-ins with the Vermont Communications Union District Association (VCUDA). Vermont's CUDs are unique in that they are both units of local government and potential BEAD subgrantees who will have a critical role in operating Vermont's connectivity infrastructure. As units of local government, there are robust accountability measures in place and mechanisms by which the CUDs hear from members of the public. They are also in regular communication with each of the individual member towns within the CUD itself. These organizations are extremely well-positioned to hear feedback directly from the community on what their digital equity needs are, whether their needs are being met through the programs in this plan, and whether or not there is awareness of digital equity resources among the greater Vermont population. The VCBB plans to continue holding these meetings through the implementation of its BEAD and Digital Equity Plans.

Opportunities for Public Comment

The VCBB places significant importance on making the development of these plans an iterative process and on consulting not just stakeholder organizations, but members of the Vermont public, throughout plan formation. Below describes the public feedback opportunities the VCBB will make available during plan implementation. Through these efforts, the VCBB seeks to make its staff and programing accessible and accountable to Vermonters.

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Monthly Office Hours with Vermont's Digital Equity Officer
During the Internet for All planning process, Vermont hired its first Digital Equity Officer. Vermont's Digital Equity Officer will lead implementation of the State's Digital Equity Plan and will also serve as the public face of Vermont's digital equity efforts. During the implementation of Vermont's Digital Equity Plan, the Digital Equity Officer will hold regular office hours. These office hours will be open to the public by appointment to facilitate coordination and create an environment for open and unhampered communication. The focus of the office hours will be two main objectives: (1) to solicit feedback on the effectiveness of planned or ongoing digital equity activities, and (2) to answer questions from members of the public or other stakeholders. Office hours will be scheduled from 12:00pm – 1:00pm to allow individuals to participate during a common break from work. Office hours will occur weekly until Vermont's final Digital Equity Plan is submitted and will occur twice monthly through the implementation of the Digital Equity Plan.

In conjunction with these virtual office hour opportunities, Vermont's Digital Equity Officer also plans to visit local communities throughout Vermont to meet with organizations and community members about digital equity, to inform them of ongoing or forthcoming digital equity programs, and to establish long-term, equitable working with relationships with communities.

VCBB Board Meetings
The VCBB's governing board meets monthly in a virtual, web conference. These meetings are open to the public and recorded, with the recordings posted publicly. During VCBB Board meetings, the VCBB staff provide programmatic updates, and the Board discusses strategic priorities and makes funding decisions, among other activities. A standing agenda item for each Board meeting is "public comment," at which point any member of the public may share a comment to the board and staff.

During the implementation phase of Vermont's Digital Equity Plan, the VCBB plans to provide the Board with quarterly updates related to the plan's implementation and success in meeting the goals described above. This update will include a short verbal presentation to the Board as well as the production and dissemination of a written update chronicling Vermont's progress in reaching various digital equity-focused objectives. The dates and times of Board meetings are publicly announced in advance, and the materials being presented to the Board are also made public 10 days before the meeting. Members of the public will be welcome to attend the Board session and hear any updates, and provide feedback, and will also be able to access the written update report.

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Public Comment Periods
The VCBB ensured the draft Digital Equity Plan went through a 30-day public comment period, which occurred from December 1-31, 2023, to ensure all Vermonters had an opportunity to share their feedback and help shape the strategy. In total, Vermont received [number to be added] comments during the public comment period.

This public comment period was publicized extensively through targeted outreach to stakeholder organizations, coverage in print, online, radio, and television media, and amplification on social media (both by the VCBB and by members of the VCBB's Digital Equity Core Planning Team). The VCBB team then reviewed each comment individually and identified the most appropriate way to incorporate the feedback into the draft plans. Going forward, each time the State of Vermont prepares a new version of its Digital Equity Plan, a draft will be shared for public comment.

Quarterly Digital Equity Update and Listening Session
In addition to the update provided in the Board meeting, the VCBB plans to establish a stand-alone update and listening session once per quarter through the implementation phase. These meetings will be one-hour long and will be held virtually to ensure their accessibility to Vermonters across the state and for Vermonters with limited mobility. As with all the VCBB's events, accessibility accommodations will be available at the event, and written quarterly update materials will be prepared in multiple languages to ensure that all Vermonters can access them.

Meetings will begin with a presentation of the pillars of Vermont's Digital Equity Plan, updates on the program and activities, and progress towards meeting metrics and goals established within the Plan. The meeting will then include a facilitated, open-mic style public feedback session, with members of the public provided a three-to-five minute

window to provide feedback on the implementation of Vermont's Digital Equity Plan, and to identify any additional gaps that should be addressed.

Ongoing Opportunities for Public Feedback
The VCBB believes in providing many different options for the public to provide feedback to be as accessible as possible. As during the plan development phase, the VCBB will welcome written letters or emails as well as phone calls at any point. During the plan drafting period, Vermont received over 160 pieces of feedback through these ongoing feedback channels. Availability of these feedback channels will continue through the implementation phase of the Digital Equity Plan and will be regularly monitored by the VCBB.

Conclusion

In areas from employment to health to agriculture to education, access to affordable, reliable fixed broadband connectivity is essential to take full advantage of opportunities and services. Although Vermont is a state that demonstrably prioritizes equity across sectors, significant barriers to digital equity continue to exist, which disproportionately affect members of Covered Populations. The VCBB has taken a collaborative, stakeholder-driven approach to developing its Digital Equity Plan, which lays the groundwork for comprehensive, long-term, and sustained elimination of broadband adoption barriers. While the VCBB recognizes that creating true digital equity will require a long-term commitment far beyond the lifetime of the Digital Equity Act and associated Digital Equity programs, Vermont is confident that full implementation of this plan will allow the state to achieve its goals and build a more equitable future for the state.

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Definitions

The following definitions are copied from the NTIA Digital Equity Act NOFO.

Table 19: NTIA Definitions

Term	Definition
Aging Individual	The term “aging individual” means an individual who is 60 years of age or older.
Community Anchor Institution	The term “community anchor institution” means a public school, a public or multi-family housing authority, a library, a medical or healthcare provider, a community college or other institution of higher education, a State library agency, and any other nonprofit or governmental community support organization.
Covered Household	The term “covered household” means a household, the income of which for the most recently completed year is not more than 150 percent of an amount equal to the poverty level, as determined by using criteria of poverty established by the Bureau of the Census.
Covered Populations	The term “covered populations” means: Individuals who live in covered households; Aging individuals; Incarcerated individuals, other than individuals who are incarcerated in a Federal correctional facility; Veterans; Individuals with disabilities; Individuals with a language barrier, including individuals who— Are English learners; and Have low levels of literacy; Individuals who are members of a racial or ethnic minority group; and 8. Individuals who primarily reside in a rural area.
Digital Equity	The term “digital equity” means the condition in which individuals and communities have the information technology capacity that is needed for full participation in the society and economy of the United States.
Digital Inclusion	The term “digital inclusion” means individual- and community-level access to robust broadband connections; Internet-enabled devices that meet their needs; and the skills to explore, create and collaborate in the digital world.
Digital Literacy	The term “digital literacy” means the skills associated with using technology to enable users to find, evaluate, organize, create, and communicate information.
Digital Navigator	Digital navigators are trusted guides who assist community members in Internet adoption and the use of computing devices. Digital navigation services include ongoing assistance with affordable Internet access, device acquisition, technical skills, and application support.

Rural	The term “rural area” means any area other than – 1. A city or town that has a population of greater than 50,000 inhabitants; 2. Any urbanized area contiguous and adjacent to a city or town that has a population of greater than 50,000 inhabitants; and 3. In the case of a grant or direct loan, a city, town, or incorporated area that has a population of greater than 20,000 inhabitants.

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Acronyms

Table 20: Acronyms

Acronym	Definition
ACP	Accordable Connectivity Program
BDC	Broadband Data Collection
BEAD	Broadband Equity, Access, and Deployment
CAP	Community Action Partnership
CUD	Communications Union District
DEA	Digital Equity Act
DoC	Department of Corrections
HH	Households
FCC	Federal Communications Commission
Gbps	Gigabits per second
Mbps	Megabits per second
NTIA	National Telecommunications and Information Administration
USCRI	US Committee on Refugees and Immigrants
VCBB	Vermont Community Broadband Board

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Appendices

Stakeholder Engagement Process

Public Survey

The VCBB developed and released a survey to collect feedback from Vermonters, particularly those who were unable or unwilling to attend public events. The survey was developed in close concert with the Digital Equity Core Planning Team and included 18 questions on Vermonters' experience with the digital divide along with eight demographic questions to understand which Vermonters were providing feedback. A copy of the survey is available as an Appendix.

Questions for the survey were developed and reviewed by the entire project team to ensure that the feedback collected through the survey would be useful in developing the plan and that the survey provided a comprehensive overview of respondent Vermonters' experience with Internet connectivity. The survey was reviewed for accessibility by Converge Accessibility (a disability and accessibility strategy firm) and for plain language and readability by Green Mountain Self Advocates, a Vermont-based group that advocates for individuals with intellectual and developmental disabilities and has members of that community on staff. It was also made and distributed on an accessible platform (Microsoft Forms). A Spanish language version of the survey was also developed, as this was of particular importance to the migrant farmworker community.

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The survey was distributed extensively through a variety of channels. Digital Equity Core Team members distributed the survey widely throughout their own networks and posted on social media channels. The VCBB made exhaustive efforts to distribute the survey; it was included in all press releases that were issued after its publication and was posted on all the VCBB social media channels. The VCBB sent the survey to members of the Vermont Senate and General Assembly, Vermont's Regional Planning Commissions, Communications Union Districts, school superintendents, town clerks, and submitted it to various organizations for inclusion in newsletters. The VCBB also worked with the Vermont Department of Corrections to have the survey distributed to currently incarcerated Vermonters during educational programming. It was always sent with a request to recipients to distribute it to their networks. Members of the project team also distributed the survey to various organizations throughout the State as identified through the stakeholder identification process described above. Members of the project team, including Digital Equity Core Planning Team members, consulting staff, and Vermont staff members also shared the survey on their personal social media channels. In total, Vermont received 2,100 responses to the survey (as of November 19, 2023).

Public Comment Period

Vermont's Digital Equity Plan went through a robust period of public comment. As described below, various drafts of the plan became public through meetings of the VCBB's Board. There was also a formal, 30-day Public Comment period, which occurred from December 1-31, 2023. In total, Vermont received [number to be added] comments during the public comment period.

This public comment period was publicized extensively through targeted outreach to stakeholder organizations, coverage in print, online, radio, and television media, and amplification on social media (both by the VCBB and by members of the VCBB's Digital Equity Core Planning Team. The VCBB team then reviewed each comment individually and identified the most appropriate way to incorporate the feedback into the draft plans.

Public Listening Sessions

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In addition to the survey, Vermont offered real-time opportunities for the public to provide feedback and ask questions about the BEAD and Digital Equity planning process. Vermont hosted two virtual listening sessions via Zoom, and six in-person listening sessions in communities across Vermont.[170] Based on current broadband availability and adoption data for the State of Vermont, event locations were chosen proximate to areas with the lowest rates of broadband availability and adoption, while also balancing with the need to have geographic breadth across the state. Event locations were also chosen to ensure easy access to major roads and highways wherever possible, to increase the likelihood of participation for those not from the immediately surrounding region. The events were held most frequently in the evenings, to avoid conflicting with work commitments, with one virtual listening session occurring at noon on a weekday (during popular lunch times), and one in-person event occurring on a weekend. Activities for children were made available for any attendees who could not secure childcare.

Events were planned in close consultation with the Disability and Accessibility Specialist to ensure they would be accessible. In-person events were held exclusively in ADA-accessible locations, with a particular focus on existing gathering places and trusted locations like libraries (where most events were held) and town halls. At virtual events, American Sign Language Interpreters were engaged through the entire event providing real-time interpretation services. Accessibility accommodations were also available for all in-person events by request.

In total, 145 Vermonters attended these real-time listening sessions. Attendees included several small business owners and representatives of relevant stakeholder organizations. The presentation delivered by the VCBB at the start of these events is attached as an Appendix.

The VCBB also identified events where Vermonters, and particularly Vermonters who were members of underrepresented communities, were already gathering, and, where appropriate, established a presence at these events. Events attended included the Vermont Veterans Summit, a VTRID Barbecue (for members of the deaf, hard of hearing, late deafened, DeafBlind, and DeafDisabled community), a World Refugee Day celebration, and an ACP enrollment and outreach event hosted by the Department of Housing and Urban Development and the Barre Housing Authority. At these events, members of the project team distributed the public feedback survey, assisted individuals in completing the survey, and answered questions about the Internet for All planning process.

Request for Input

Vermont issued an RFI, asking Vermonters to provide their input. The RFI was extensive and solicited information about existing digital equity-related programming, gaps, potential new policy solutions, and ways to make community-members aware of resources. The RFI was open to the public, including both organizations and individuals, but questions were extensive, and it was most specifically marketed to organizations currently doing equity-focused work. In total, Vermont received four responses to the RFI. Responders highlighted the opportunity for the VCBB to assist with making public resources accessible to people with disabilities, ensuring widespread access to digital literacy training resources at community anchor institutions like schools, enabling remote work opportunities for an inclusive and resilient Vermont.

A copy of the questions posed by Vermont in the RFI is included at the end of this document as an Appendix.

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Focus Groups on Draft Plan

In order to ensure that Vermont's Digital Equity Plan actually closes the digital divide and meets the needs of Vermonters, the VCBB conducted focus groups with members of the Vermont public. These focus groups were specific to each Covered Population so that Vermonters could share feedback or discuss their needs in the most comfortable possible environment. The VCBB worked with various stakeholder organizations, and in particular members of the Digital Equity Core Planning team, to identify and recruit participants.

Focus group meetings were at least two hours long, and had the following structure:

- Introductory Remarks from VCBB staff.
- Presentation of Vermont's Digital Equity Plan and key concepts/policies included.
- Written survey to record initial reactions.

- Structured, open-ended discussion with VCBB staff serving as facilitators and guiding the conversation towards specific ideas and/or specific plan sections for feedback.

Focus group participants were compensated for their time. The VCBB also continued to engage interested individuals as they updated the plans to reflect focus group feedback, in order to ensure that changes adequately reflected the comments of the group.

Public Board Meetings

The VCBB is governed by a five-member Board of Directors, whose members are appointed by the Governor, the Speaker of the House, the Senate Committee on Committees, and VCUDA. The Board is the main governing body and directs and approves all activities of the VCBB. The Board meets monthly in virtual sessions to get updates from VCBB staff and industry actors and approve various policies, grants, or applications. These Board meetings are open to the public.

The VCBB staff has made several public updates and presentations of the Digital Equity Plan. The VCBB presented an initial draft of the plan for Board feedback in November 2023. At that time, the Digital Equity Plan draft also became public through its inclusion in the Board packet. An updated draft of the plan, which was updated to reflect board feedback as well as the feedback of various stakeholder organizations, in January 2023.

Prior to the Board's final vote to approve the submission of Vermont's Digital Equity Plan, the Plan also went through a formal public comment period (described above). During the implementation phase of Vermont's Digital Equity Plan, the VCBB plans to provide the board with quarterly updates related to the plan's implementation and success in meeting the goals described above. This update will include a short verbal presentation to the Board as well as the production and dissemination of a written update chronicling Vermont's progress in reaching various digital equity-focused objectives. The dates and times of Board meetings are publicly announced in advance, and the materials being presented to the Board are also made public 10 days before the meeting. Members of the public will be welcome to attend the board session and hear any updates and will also be able to access the written update report. As described above, Vermont's Digital Equity Officer will be making her contact information publicly available (and will include it in the written update on digital equity implementation and members of the public will be invited to reach out to her directly with any follow-up questions or feedback.

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List of Organizations Engaged During the Development of this Plan

The VCBB's full Local Coordination Tracker is available here. Table 20 describes organizations the VCBB was actively collaborating with at the time of publication of this strategy.

Table 21. Broadband Deployment and Adoption Partnerships

Partners	Description of Current or Planned Role in Broadband Deployment and Adoption
Adult Education and Literacy Network	VCBB Digital Equity Core Team Member and non-governmental organization.
Association of Area Agencies on Aging	VCBB Digital Equity Core Team Member and non-governmental organization supporting aging Vermonters statewide.
Association of Planning and Development Commissions	VCBB Digital Equity Core Team Member and statewide association of local regional planning commissions.
Chittenden County CUD	Supporting the most populated county in VT.
Community Action Partnership	VCBB Digital Equity Core Team Member and non-governmental organization focused on community development.
CVFiber CUD	Made up of 20 communities in Central Vermont, partnered with Waitsfield/Champlain Valley Telecom as the operator.
Department of Corrections	VCBB Digital Equity Core Team Member and governmental organization overseeing correctional facilities.
Department of Disabilities, Aging, and Independent Living	VCBB Digital Equity Core Team Member and government department supporting older Vermonters and Vermonters with disabilities.
Department of Libraries	VCBB Digital Equity Core Team Member and government department overseeing State libraries, and supporting public libraries across the state.
DVFiber CUD	Made up of 24 towns in mostly southeastern VT.
ECFiber CUD	Vermont's first CUD, formed in 2008 to solve broadband

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Partners	Description of Current or Planned Role in Broadband Deployment and Adoption
	issues in the Upper Valley. Today, ECFiber is approaching 7,000 customers on 1,600 miles of network in 23 of its 31 towns and has issued $64M in revenue bonds.
Equal Access to Broadband	VCBB Digital Equity Core Team Member and non-governmental organization focused on affordable access. Offers consulting to broadband providers on digital inclusion and provides direct support in ACP enrollment.
Lamoille FiberNet CUD	Made up of nine towns in Lamoille County, working to expand high-quality Internet access to the county's underserved homes.
Maple Broadband CUD	Partnered with Waitsfield/Champlain Valley Telecom as the operator.
NEK Broadband CUD	Has $23.5M in USDA ReConnect and Rural Business Development funding, including provider match for fiber buildout in the Northeast Kingdom.
Northwest FiberworX CUD	Supports 22 communities in northwestern Vermont.
Office of Racial Equity	VCBB Digital Equity Core Team Member and government department focused on racial equity.
Otter Creek CUD	Supports 18 municipalities in and near the Rutland Region.
Public Service Department	The Telecommunications and Connectivity Division within the PSD works to ensure that every Vermonter has access to quality, reliable, and affordable communications services. As a regulator, they provide oversight of companies' compliance with Vermont Laws and Public Utility Commission orders and rules governing their operations.
Southern VT CUD	Partnering with Fidium Fiber to bring service to 14 towns in Bennington County.
US Committee on Refugees and Immigrants	VCBB Digital Equity Core Team Member and government committee supporting refugees and immigrants.
HUD	VCBB Digital Equity Core Team Member and US government agency.

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Partners	Description of Current or Planned Role in Broadband Deployment and Adoption
Vermont Center for Independent Living	VCBB Digital Equity Core Team Member and non-governmental organization supporting Vermonters with disabilities to live independently.
VT Communications Union District Association (VCUDA)	VCBB Digital Equity Core Team Member and non-governmental statewide association of CUDs.
Vermont Council on Rural Development	VCBB Digital Equity Core Team Member and non-governmental organization supporting rural economic development.
Veterans Outreach	VCBB Digital Equity Core Team Member and government organization supporting Veterans.
Vermont Technical College	Vermont Technical College develop and implement a Fiber Optic Broadband Apprenticeship program in partnership with the Vermont Department of Labor, the Fiber Broadband Association, CUDs, and the VCBB[171]

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