



SC Broadband Advisory Council

Enabling South Carolinians to Thrive in the Global Digital Economy

South Carolina Office of Regulatory Staff | July 18, 2023

Agenda

Welcome / Roll Call Review / Approve Minutes Introductions	Jim Stritzinger, Co-Chair Anna Berger, Co-Chair
SC Broadband Office Update	Jim Stritzinger, ORS
BEAD Infrastructure / Digital Equity Planning	Team
Other Business	All
Next Meeting – Tuesday, Oct. 10, 2023 Adjourn	All



South Carolina

Majority Best Available Technology March 31, 2023

Best Available Technology (type | speed)

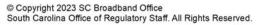
Fiber Speeds >= 100 Mbps/100 Mbps (symmetric)
Cable (DOCSIS X.X) Speeds >= 100 Mbps/20 Mbps
xDSL Speeds < 25 Mbps/3 Mbps
Fixed Wireless Speeds >= 10 Mbps/1 Mbps
 No Internet Service Available
Zero Households

Data Sources: Based on SC Broadband Office (SCBBO) analysis of residential FCC Broadband Data Collection, Dec. 31, 2022 submissions that were provided directly to our office by Internet Service Providers. In addition, SCBBO May 2023 Availability Challenge information has also been used to augment and update the base location data. Satellite and mobile broadband services are excluded. Ookla® Speedtest Intelligence® data from Jan. 1, 2019 through Mar. 31, 2023 combined for analysis in the region.

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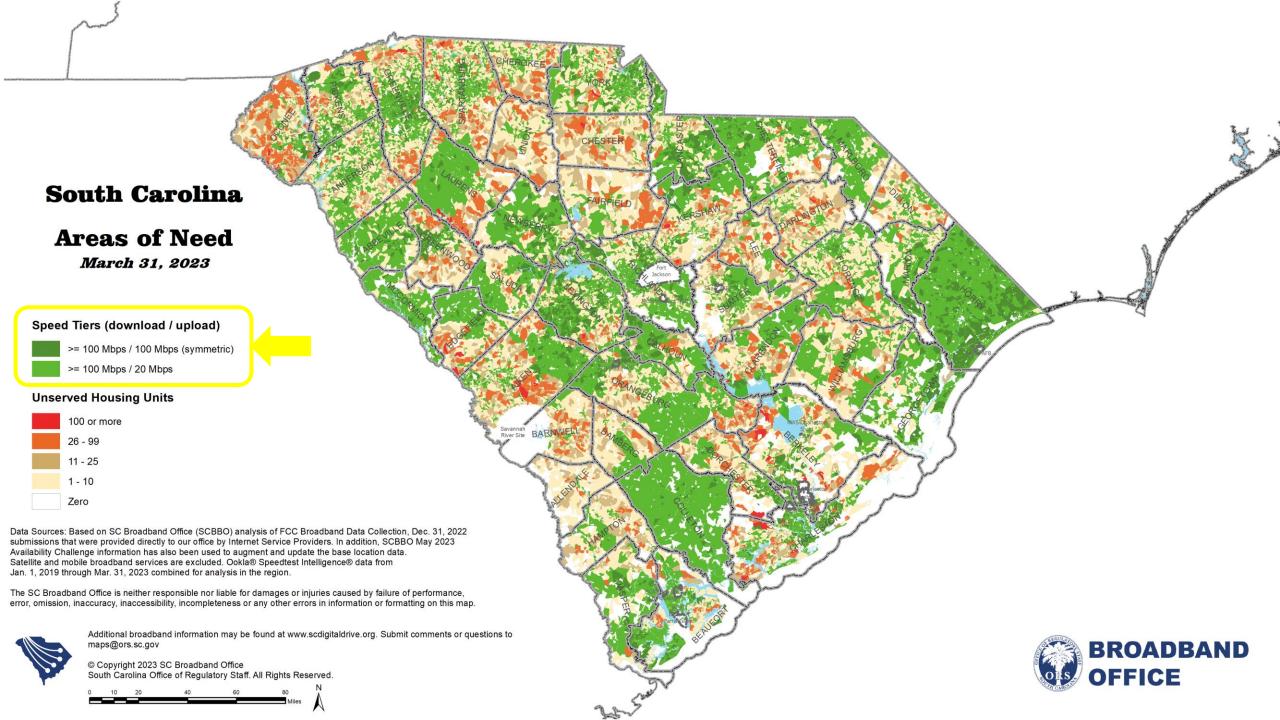


Additional broadband information may be found at www.scdigitaldrive.org. Submit comments or questions to maps@ors.sc.gov











Planning

December 31, 2024

Speed Tiers (download / upload)



Unserved Housing Units

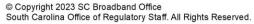


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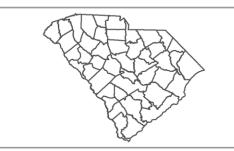


South Carolina

Statewide

Statistics

March 31, 2023



Population

Population estimates are calculated by multiplying Dec. 2022 FCC Broadband Servicable Locations (BSL) times an approximate residents per BSL.

Public K-12

K-12 student data reflects the subset of public school students which have been geocoded as of September 30, 2022. Student data was provided by the SC Department of Education.

Residential BSL Units

A social tail Deadband Servicebbi Usation (BSL) is a house, an apartment, a mobile home, a group of rooms, or a single room that is occupied (or if vacant, is intended for occupancy) as separate living quarters. Separate living quarters are those in which the occupants live and eat separately from any other persons in the building and which have direct access from the outside of the building or through a common hall. Dec, 2022 FCC BSL data is used in all calculations.

Qualified Residential BSL Units

Qualified BSLs are located within Difficult Development Areas (Qualified Census Tracts) as determined by US Housing and Urban Development utilizing Census 2010 format. Census 2020 translation was done by the SC Broadband Office (SCBBO).

ACP

The Affordable Connectivity Program (ACP) is an FCC benefit program that helps ensure that households can afford the broadband they need for work, school, healthcare and more.

Data Sources: Based on SC Broadband Office (SCBBO) analysis of residential FCC Broadband Data Collection, Dec. 31, 2022 submissions that were provided directly to our office by Internet Service Providers. In addition, SCBBO May 2023 Availability Challenge information has also been used to augment and update the base location data. Satellite and mobile broadband services are excluded. Ookla@ Speedtest Intelligence@ data from Jan. 1, 2019 through Mar. 31, 2023 combined for analysis in the region. ACP eligibility information provided by Education SuperHighway and enrollment reported by the Universal Service Administrative Company (USAC) through March 2022.

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US Census	Population	Population		SL
2010	4,625,364		2,137,683	
2020	5,118,425	10.7%	2,344,963	9.7%
March 31, 2023	5,282,634	3.2%	2,488,256	6.1%

CURRENT	Current Below 100↓ Mbps Download / 20↑ Mbps Upload							
	Population		Public K-12		Res BSL		Qual BSL	
March 31, 2023	394,419	7.7%	31,316	4.4%	191,548	7.7%	28,485	14.9%

ACCESS								
Fiber		Cable		Copper				
1,257,047	50.5%	2,170,076	87.2%	2,026,228	81.4%			

ADOPTION								
Fiber		Cable		Copper		Fixed Wireless		
461,307	18.5%	1,197,234	48.1%	241,831	9.7%	2,428	0.1%	

ACP Enrollment							
Subscribers		Service		Device		Devices	
324,332 37	7.1%	\$8,664,711		\$723,012		7,442	

INVESTMENTS		Projected Investment Impact							
managed by:	Population		Public K-12		Res BSL		Qual BSL		
Federal	26,581		3,959		13,448		4,169		
State	85,868		12,003		42,687		5,322		
Private	3,607		470		1,782		107		
Total	116,056		16,432		57,917		9,598		

FUTURE	Remaining Below 100↓ Mbps Download / 20个 Mbps Upload							
	Population		Public K-12		Res BSL		Qual BSL	
December 31, 2024	278,363	5.4%	14,884		133,631	5.4%	18,887	

www.SCDigitalDrive.org



Tools and resources to inform consumers and stakeholders

Don't have access to internet? Take the I Need Internet survey

 ${\sf Q}$ Search for maps by county and type

Estimated Current Total Housing Units

With At Least

 \square

100↓ Mbps / 20↑ Mbps Service

2,296,716*

Estimated Current Total Housing Units Without

100↓ Mbps / 20↑ Mbps Service

191,548*

Estimated Current Total Housing Units Funded Remaining To Be Built 100↓ Mbps / 20↑ Mbps Service

57,917*

*Data current as of March 31st, 2023

South Carolina Broadband Office 2022 Accomplishments

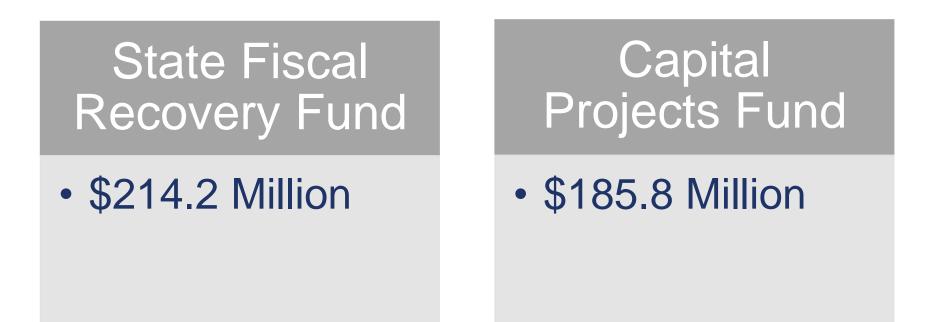




AMERICAN RESCUE PLAN ACT

Act 244 (H. 4408) \$400 Million for SC Broadband Infrastructure

Enacted May 13, 2022



The funds in the ARPA Broadband Account shall be used to expand broadband infrastructure to households, businesses, and communities in the State that are **unserved** or **underserved** by broadband services.

ARPA Capital Projects Fund



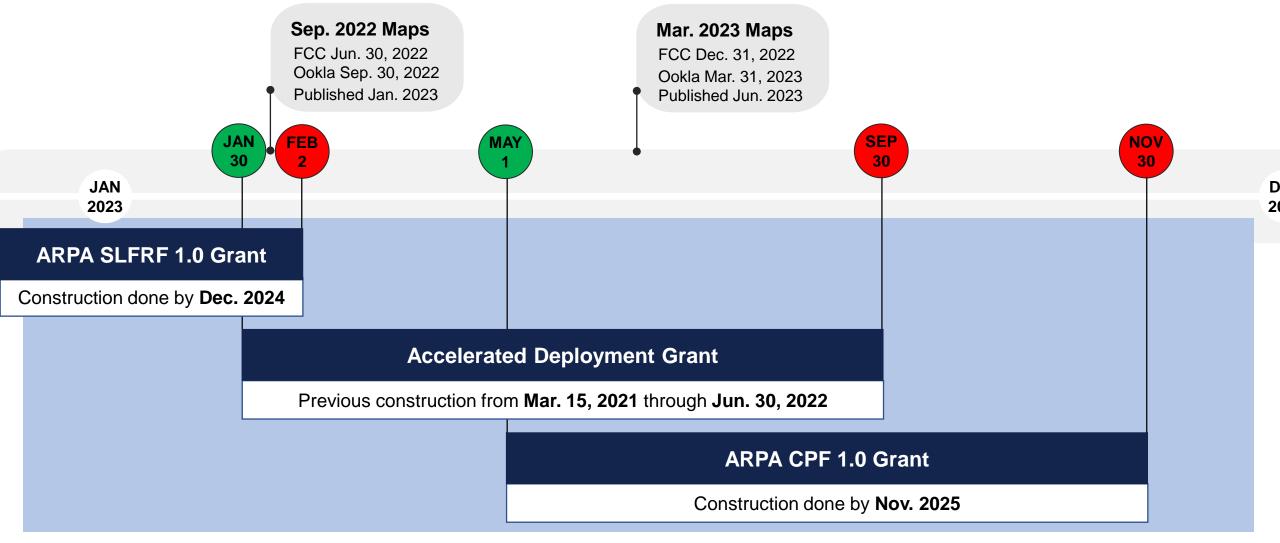
Unserved 2020 Census Blocks with:

- 1) More than 20 public K-12 student households; or,
- 2) Difficult Development Areas (HUD); or,
- 3) No Internet Service Provider (ISP); or,
- 4) <u>Underserved</u> Main Street Communities

Requires 100 Mbps Symmetric (100/100)

Source: H.4408, Section 9: Priority must be given to unserved areas with no current Internet Service Provider, Difficult Development Areas as identified by U.S. Housing and Urban Development, and census blocks that have a high concentration of unserved public K-12 student households as documented by the South Carolina Department of Education. Capital Projects Fund plan approved by US Treasury on March 7, 2023.

2023 SC BROADBAND GRANT PROGRAMS



* All dates are subject to change without notice.

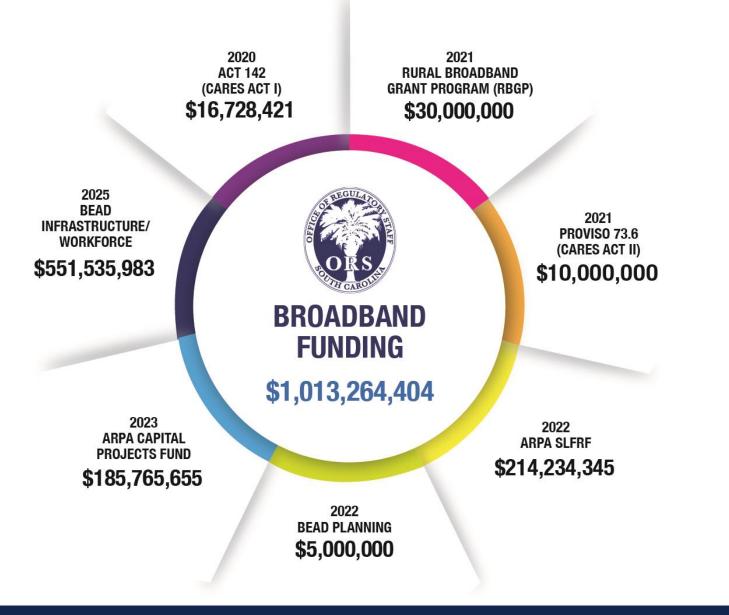
ARPA SLFRF Accelerated Deployment Grant

- Awarding up to \$25,193,089 across 10 ISPs
- Providing 50% match for work in unserved areas as of Sep. 2021
- Funding across 25 counties

ARPA CPF 1.0 Grant Applications

- Applications due Jul. 17, 2023
- Will award a portion of \$185.8M CPF fund allocation





5-Year Action Plan, Digital Equity Plan & Initial Proposal



- ▶ 5-Year Action Plan / Initial Proposal: To be eligible for the \$42.5b Broadband Equity, Access and Deployment (BEAD) funding program, an Eligible Entity that receives Initial Planning Funds (as South Carolina did on December 8, 2022) must submit a Five-Year Action Plan. An Initial Proposal must be submitted later (see below for dates). While there is overlap between the two documents, and the Five-Year Action Plan will inform the Initial Proposal, they also cover different activities and sections, as outlined below.
- **Digital Equity Plan:** For those states seeking to access the remaining State Digital Equity Grant Program funds (totaling \$2.69b), a Digital Equity Plan will be a key component of any application.

[
	5-Year Action Plan	Digital Equity Plan	Initial Proposal
Overview	Establishes State's broadband goals and priorities and serves as a comprehensive needs assessment that will inform future plans such as the Initial and Final Proposals.	Establishes a State's vision, goals and strategy for digital equity, with broadband affordability and adoption as key tenets.	Establishes how the State will ensure that every resident has access to reliable, affordable, high-speed broadband and the competitive process for selecting subgrantees.
Key Activities	 Documenting resources available Needs and gaps assessment Evaluating current and future state Identifying priorities and activities 	 Stakeholder outreach Documenting assets and existing plans Needs assessment (emphasis on covered populations) 	 Outline long-term objectives Describe how Community Anchor Institutions were determined Describe challenge process Provide climate threat assessment
Key Sections	 Vision, goals and objectives Existing programs Partnerships, asset inventory Obstacles and barriers Key execution strategies 	 Strategy and objectives Asset inventory Coordination and outreach strategy Implementation strategy 	 A template has not been released yet, but key sections will likely cover the activities above and intended use of the first 20% of funding, subgrantee selection process, etc.
Submittal Date	270 days after receipt of planning funds August 28, 2023	One year after receipt of planning funds November 30, 2023	180 days after NOAA of BEAD program Dec 27 th , 2023 ²

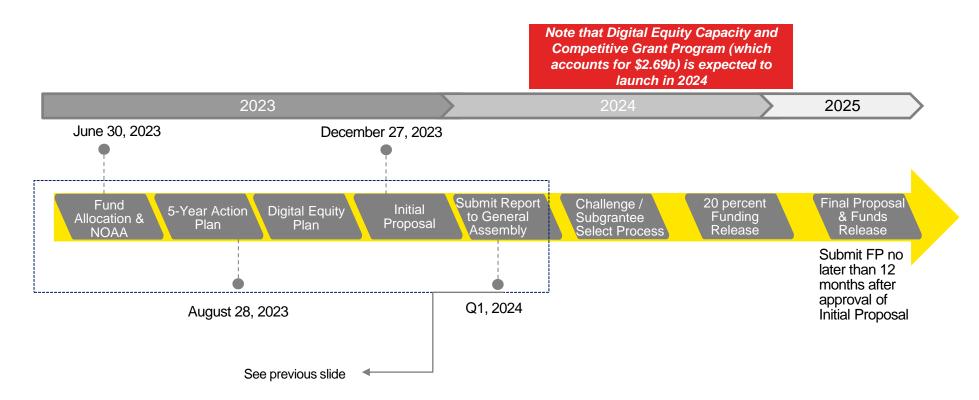
These three documents will inform a more concise strategic broadband summary which will be submitted to the SC General Assembly and made public.

 1 Digital Equity Planning funds were received on December 1, 2022 2 Notice of Available Amounts (NOAA) is expected June 30th, 2023

Timelines



Once the Five-Year-Action, Digital Equity, Initial Proposal and General Assembly Report are submitted in 2023, future activities include conducting a challenge process, the release of 20% of the total funds, the submittal of a Final Proposal, and finally the release of the full amount of BEAD funding upon approval of the Final Proposal.





Thank you!

Jim Stritzinger Director, SC Broadband Office jstritzinger@ors.sc.gov

Office: (803) 737-0825 Mobile: (803) 606-6398

Mike Shealy Director, SC Digital Equity Office mike.shealy@admin.sc.gov

Office: (803) 612-9057 Mobile: (803) 315-4449





BETTER-INTERNET SURVEY

Nabil Natafgi, PhD, MPH | Assistant Professor, USC Julie Moreland | CEO, Vizbii Technologies, Inc.



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OUTLINE

- Background: What did we do?
- Approach: How did we do it?
- Results: What did we find?
- Future Directions: What's next?

Get Connected **Get SC** Connected Get SC Connected GetSC Connected **Get SC** Connected SC



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BACKGROUND

Get Get Connected Get Connected Get SC C

OUR OBJECTIVES

- Identify areas of greatest need to help bring reliable, high-speed internet to every South Carolinian
- Provide survey design, execution, data collection, and analysis/reporting that fulfill the research requirements for SCBBO and SCDE





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KEY PARTNERS



admin

THE SOUTH CAROLINA DEPARTMENT of ADMINISTRATION













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PATIENT

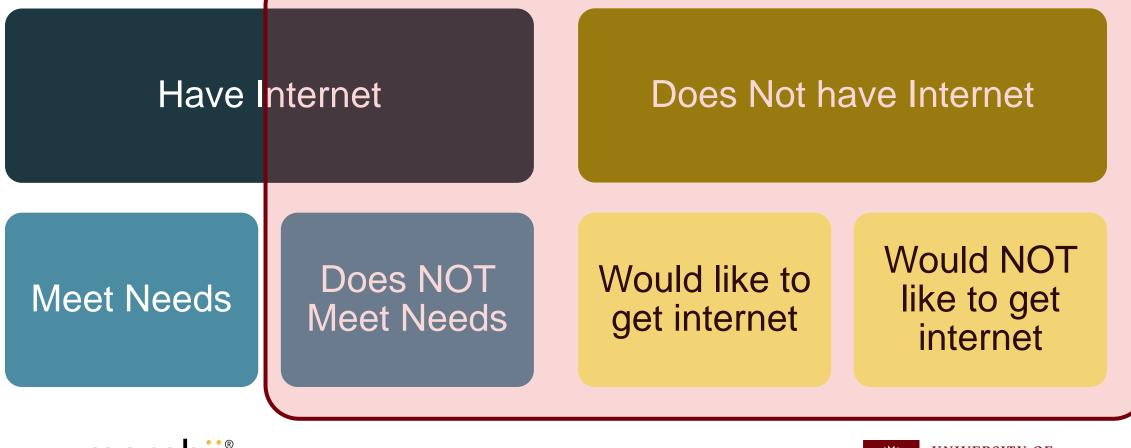
STUDIO

ENGAGEMENT

APPROACH

Get Get Connected Get Connected Get SC C

FOUR TARGET GROUPS





23



SURVEY DOMAINS

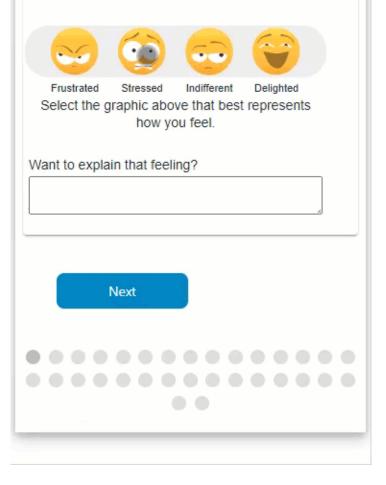
- Survey design focused on capturing barriers to highspeed internet access and adoption whether related to geography, cost, device/service accessibility, or otherwise.
- How the lack of internet influences the healthcare system, economic stability, education, food, community & social contexts, and physical environment.







How do you feel about the current options for connecting your home to the internet?





Better-Internet Survey

Keep going! You're approaching the halfway point and helping to build a better internet in South Carolina with each response.

People who participate in certain government programs might be eligible for \$30 per month financial assistance to pay for internet service through the Affordable Connectivity Program (ACP). Are you familiar with this program?

Yes No

Previous

Next

SURVEY LAUNCH

- Better Internet Survey went live to the public on February 21st, 2023
- The survey is available in English and Spanish and there are paper, IVR, and online versions.







MARKETING CAMPAIGN

Five minutes can improve your internet

TAKE THE Better-Internet Survey



Scan QR to take the "Better Internet Survey"



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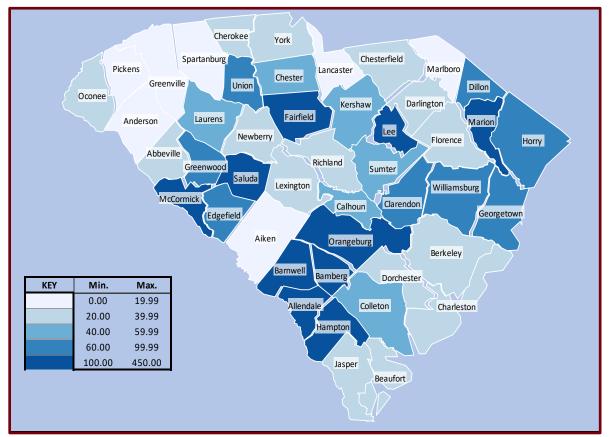
RESULTS

Get Get Connected Get Connected Get SC C

RESPONSE RATE

- All Survey Responses: 18,481
 - 94 per 10,000 household
 - 36 per 10,000 resident
- % Reached last question: 14,823 (80.3%)
- % Complete: 13,024 (70.5%)
- Spanish: 3.6%

SC Region	%
Lowcountry	30
Midlands	25.5
PeeDee	27.2
Upstate	17.3



Response Rate (per 10,000) of population per county





UNDER/UNSERVED COMMUNITY

51%

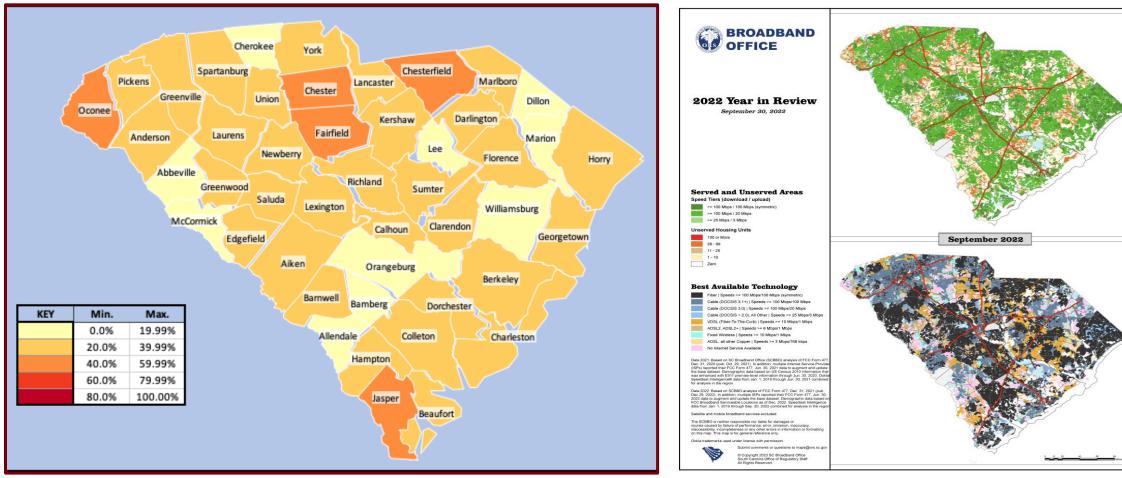
N=16,126	Has Internet: Needs Met	Has Internet: Needs Not Met	No Internet or Cell Only: Wants It	No Internet or Cell Only: Does not want it
Count (n)	7,355	4,341	3,874	556
Percent (%)	45.6%	26.9%	24.0%	3.5%



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GEOGRAPHY OF UNDERSERVED COMMUNITIES



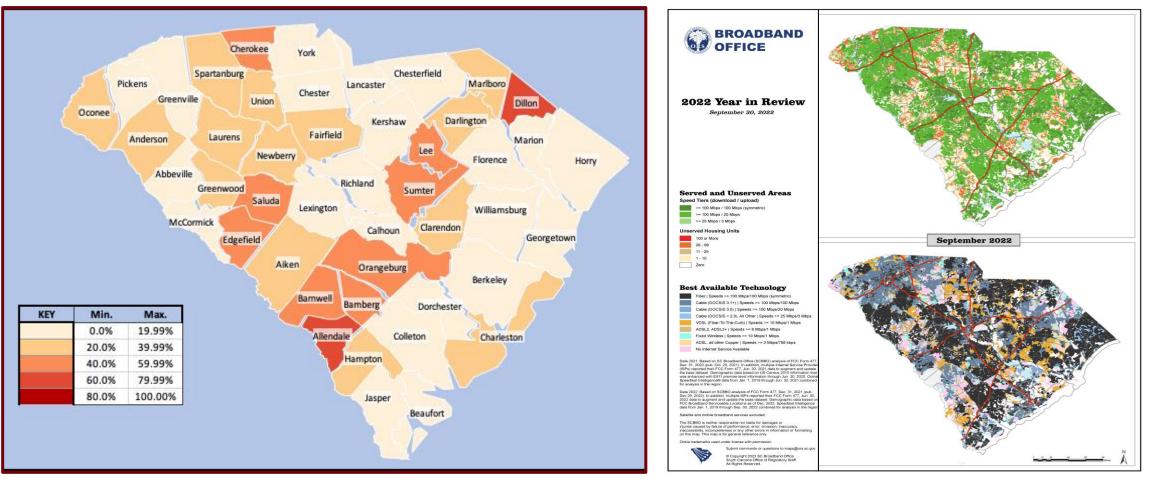


Percentage (% out of all county responses) of underserved community per county



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GEOGRAPHY OF UNSERVED COMMUNITIES





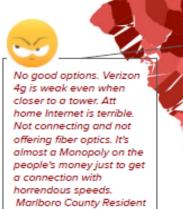
33

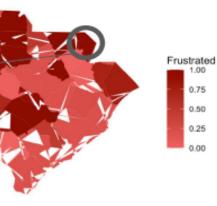
Percentage (% out of all county responses) of <u>unserved</u> community per county



Overview: Feeling About Options

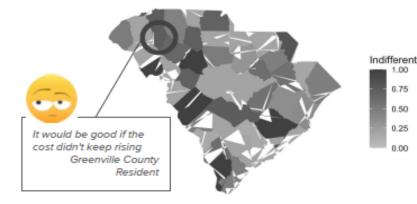
How do you feel about the current options for connecting your home to the internet?

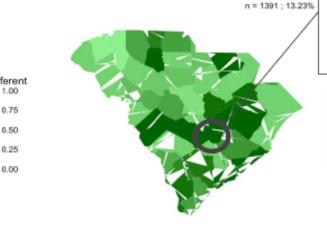




n = 3825 ; 37.68%

n = 2535 : 24.57%





n = 2286 ; 22.55%

I pay \$210.00 a month for service that

Internet to perform some of my task at

Edgefield County Resident

Stressed

1.00

0.75

0.50

0.25

0.00

Delighted

0.75

0.50

0.25

0.00

is no good but I have to have the

work and it keeps me on my toes wondering if I'll lose my job **50%** expressed **'negative' feeling** (Frustrated or Stressed) regarding their options

And these negative feelings are **felt more** intensely at .76 and .70 respectively.

We waited for years to have reliable internet with a fast enough speed to stream content. Finally, NTI Net installed fiber optic past our house about 18 months ago. Now we are able to operate wireless security cameras outside our home, stream TV, webcams. Orangeburg County Resident.

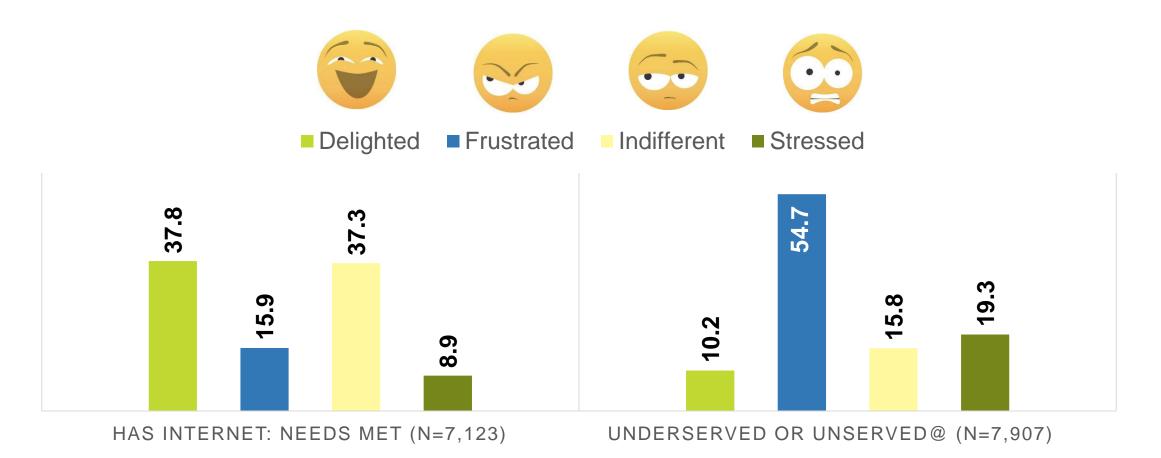
*Based on the analysis of Vizbii team of a subset of the data; slide by Vizbii team





FEELING ABOUT OPTIONS

How do you feel about the current options for connecting your home to the internet?

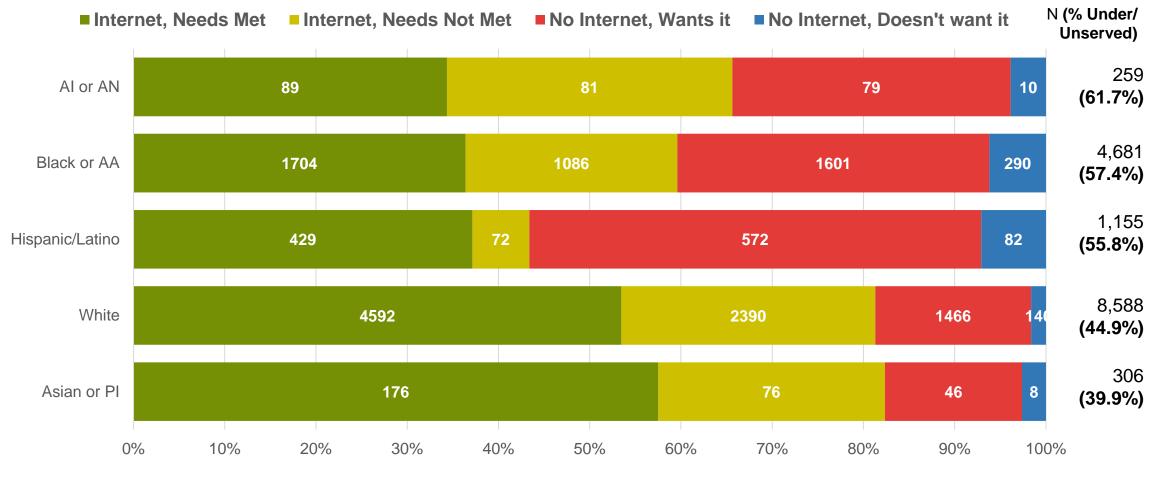




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INTERNET NEEDS BY RACE/ETHNICITY



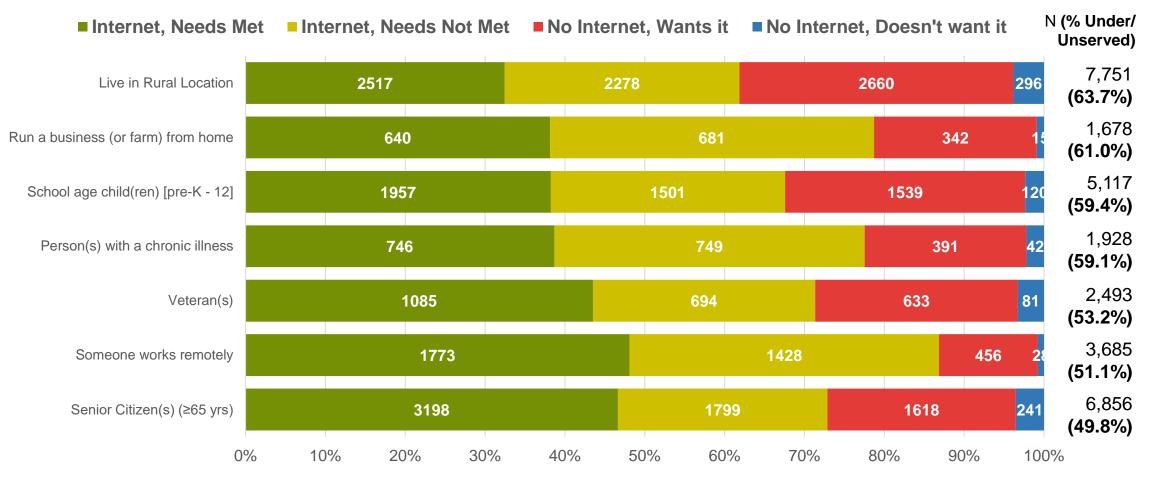


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AI or AN = American Indian or Alaska Native PI = Asian or Pacific Islander | AA: African American



INTERNET NEEDS BY HOUSEHOLD MAKEUP



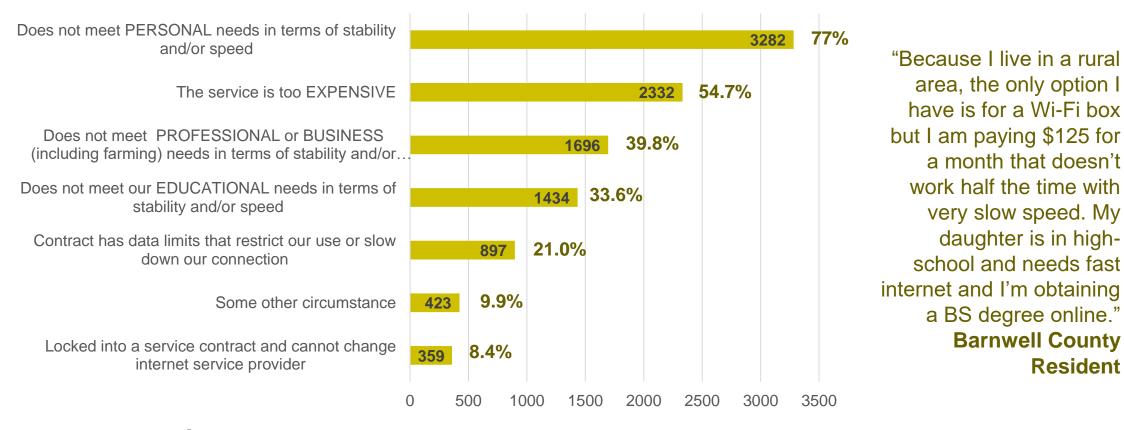


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BARRIERS – HAS INTERNET, NEEDS NOT MET

Which statement(s) best describes your situation or circumstances when it comes to your current home internet connection? Select all that apply.





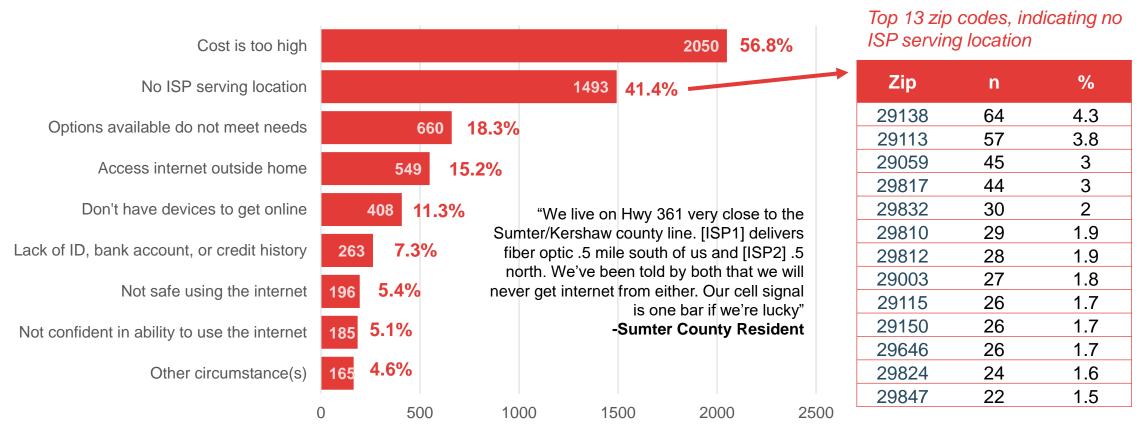


38

[among those who have Internet and Needs Not Met, N=4,341]

BARRIERS – NO INTERNET OR CELL ONLY, WANTS IT

Based on your experience, which of the following statements describe your situation or circumstance(s)? Select any that apply.





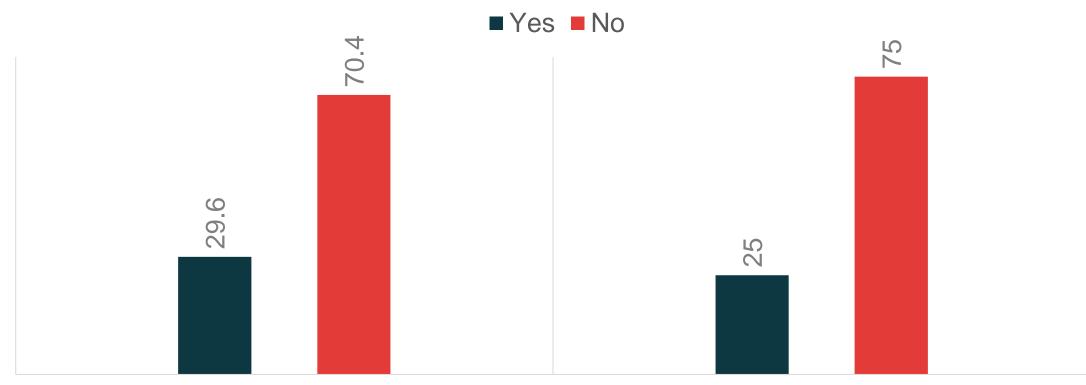
39

[among those with (No Internet Or Cell Only) AND WANT Internet = 3,874]



ACP FAMILIARITY

Are you familiar with the Affordable Connectivity Program (ACP) program?



HAS INTERNET: NEEDS MET (N=6,996)

UNDERSERVED OR UNSERVED@ (N=7,785)

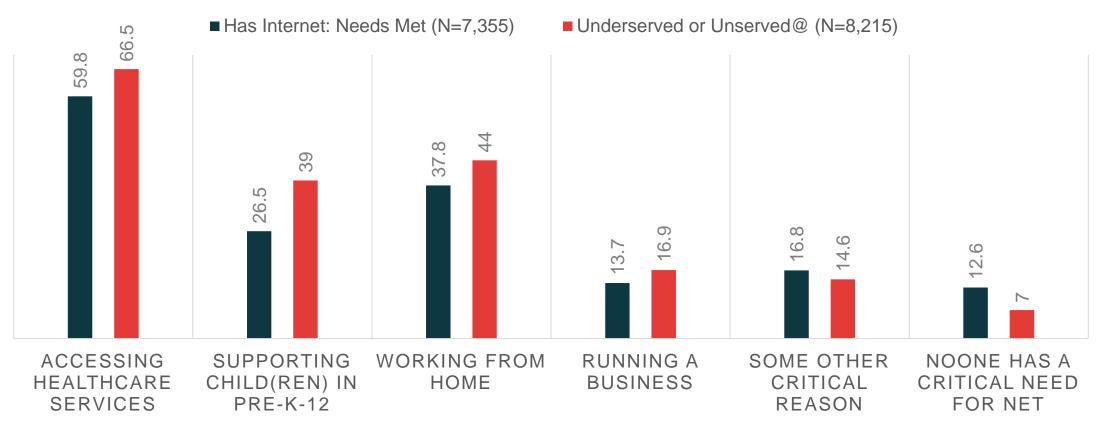


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CRITICAL NEEDS

Whether you have internet at home or not, complete the following statement by selecting ALL options that apply to members of your household. I/We NEED reliable internet access at home for:

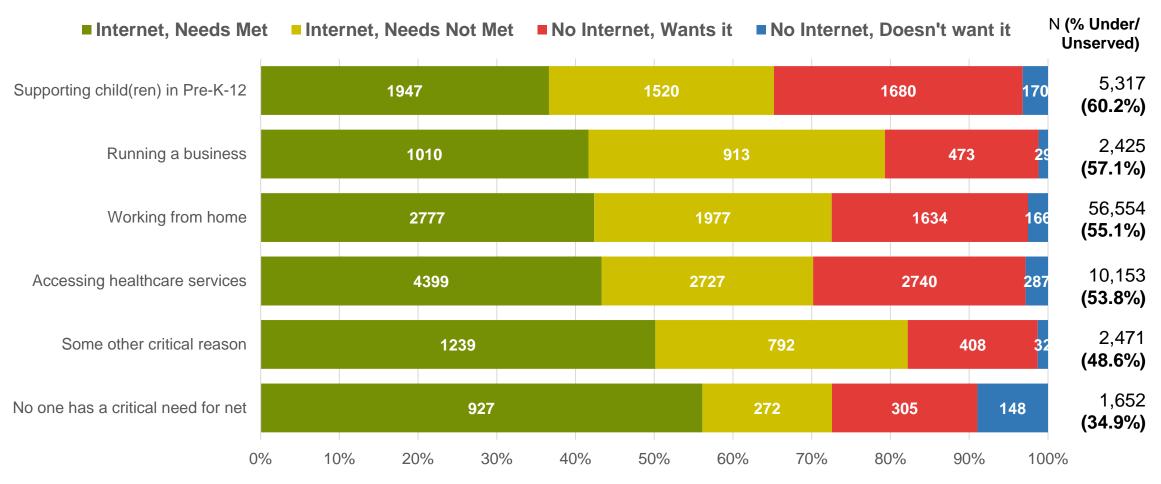




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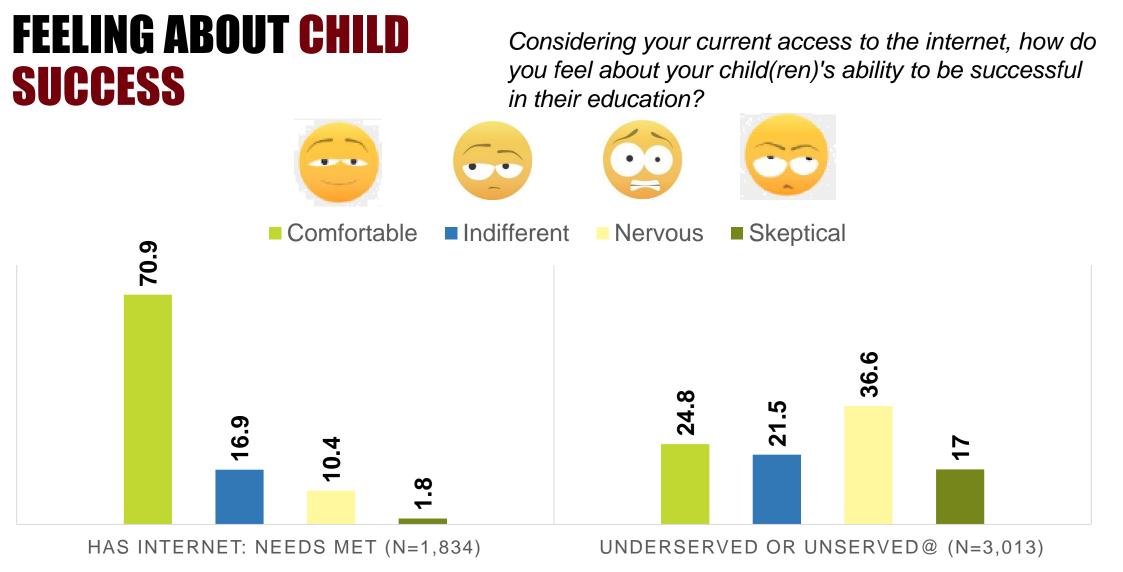
INTERNET NEEDS BY CRITICAL NEED





42







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[Among Critical Need_Education]



FUTURE DIRECTIONS

Get Get Connected Get Connected Get SC C

WHAT'S NEXT?

- 5-year Action Plan EY & SC BBO
- Research Answer Policy-Relevant Research Questions
- Dissemination To: Academics, Policymakers, Community, other Stakeholders





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THANKS!

Nabil Natafgi, PhD, MPH, CPH

Assistant Professor, Health Services Policy & Management Associate Director, Patient Engagement Studio nnatafgi@mailbox.sc.edu

Julie Moreland Board Member, CEO, Vizbii Julie@Morphii.com





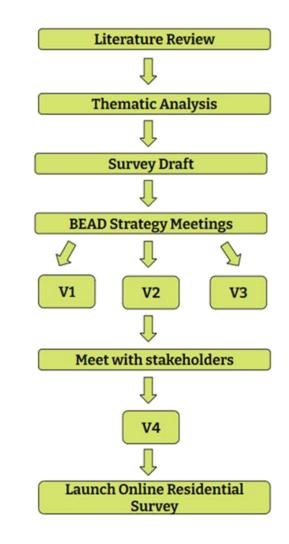


APPENDIX

UNIVERSITY OF South Carolina

SURVEY DESIGN

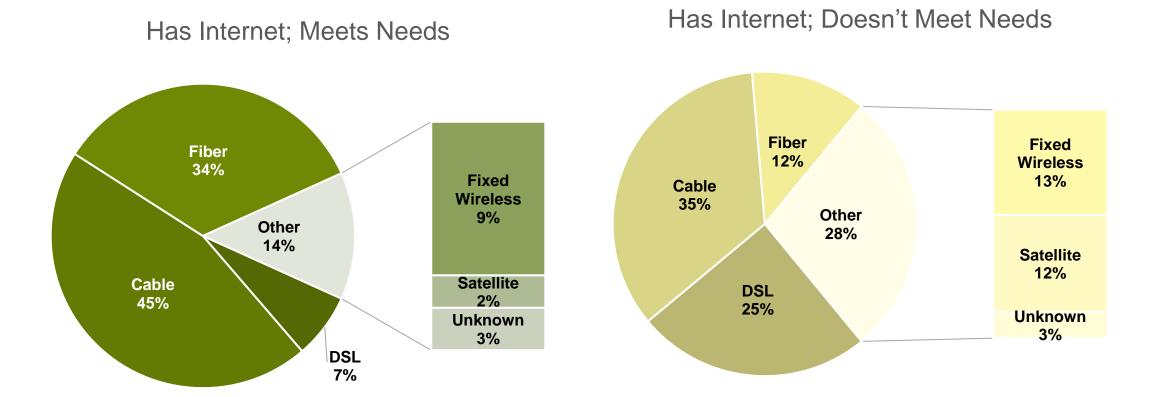
- The survey development was an iterative process starting with a review of literature and similar initiatives followed by thematic analysis to develop a draft initial survey
- Weekly meetings were held with key partners to review and refine various stages of the survey
- The survey tool was pilot tested.







TECHNOLOGY TYPE BY NEED

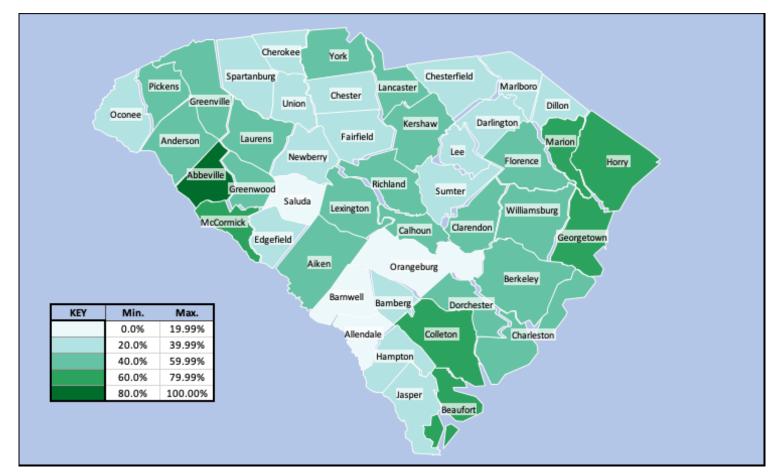


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GEOGRAPHY OF SERVED COMMUNITIES



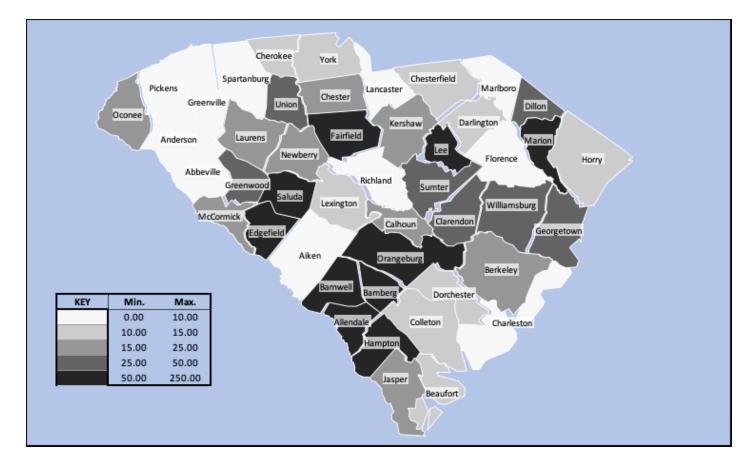
Percentage (% out of all county responses) of <u>served</u> community per county

50





GEOGRAPHY OF UNDER/UNSERVED COMMUNITY



Rate (per 10,000) of <u>Under/</u> <u>Unserved</u> community per county

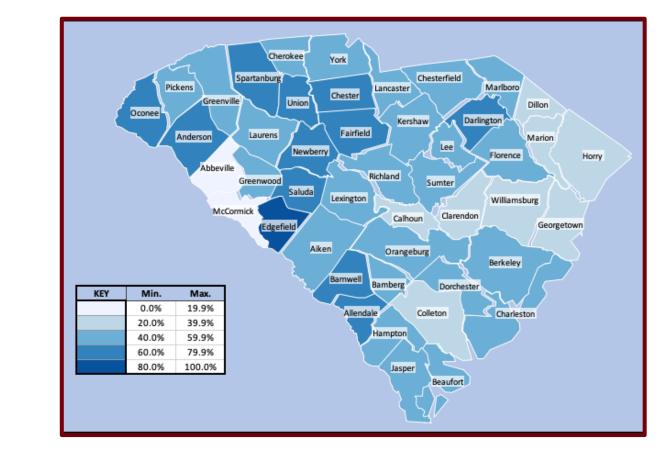


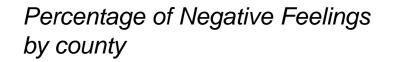
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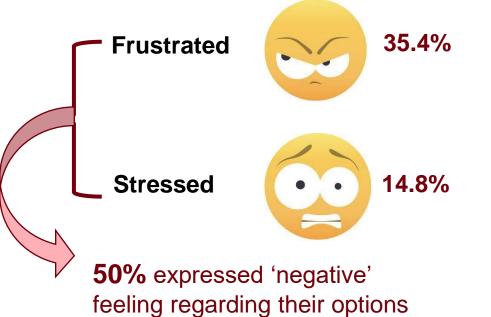


FEELING ABOUT OPTIONS

How do you feel about the current options for connecting your home to the internet?



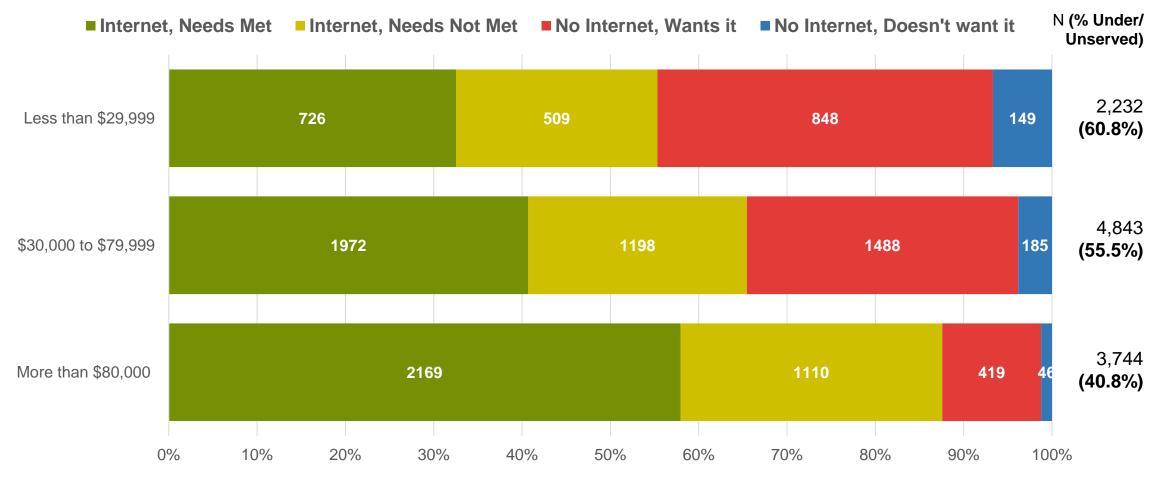








INTERNET NEEDS BY HOUSEHOLD INCOME

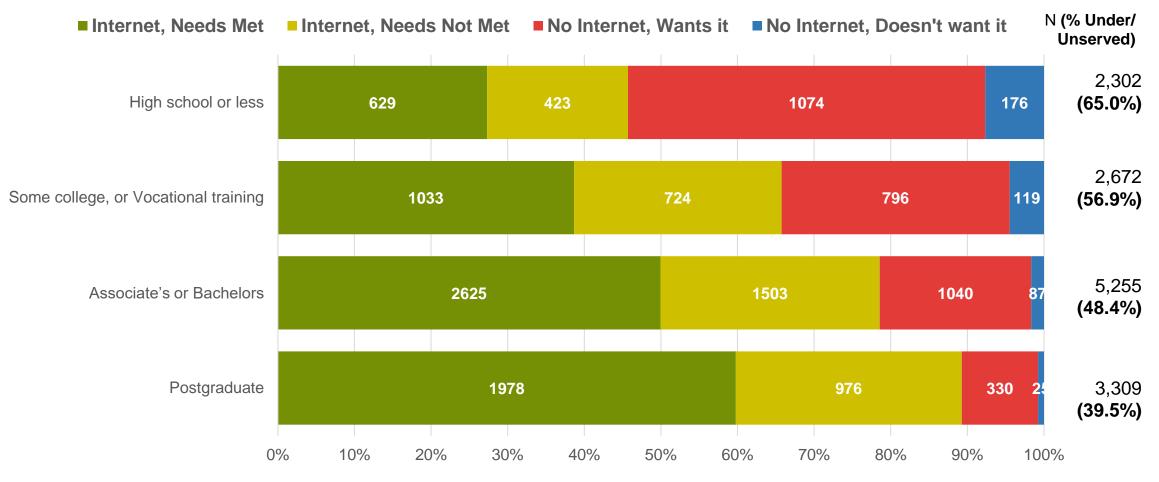




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INTERNET NEEDS BY EDUCATION LEVEL



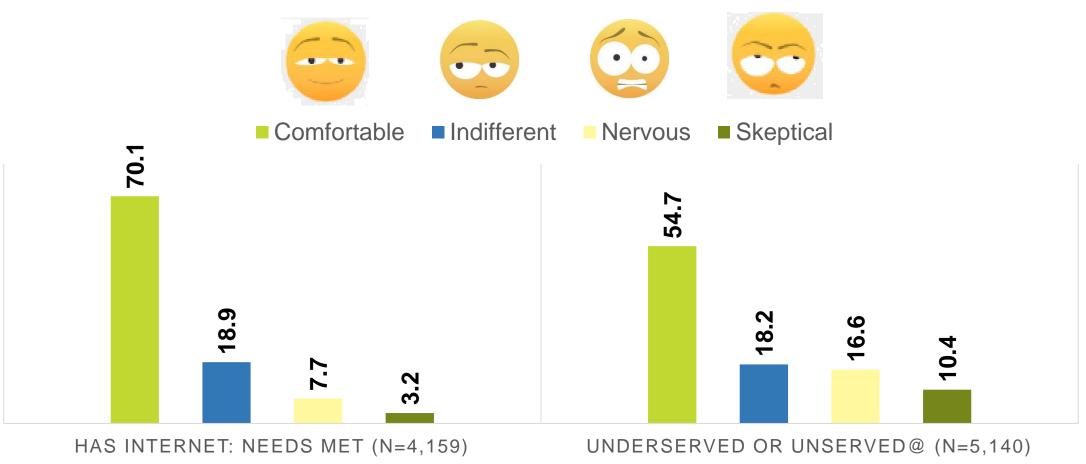


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FEELING ABOUT TECHNOLOGY FOR HEALTH SERVICES

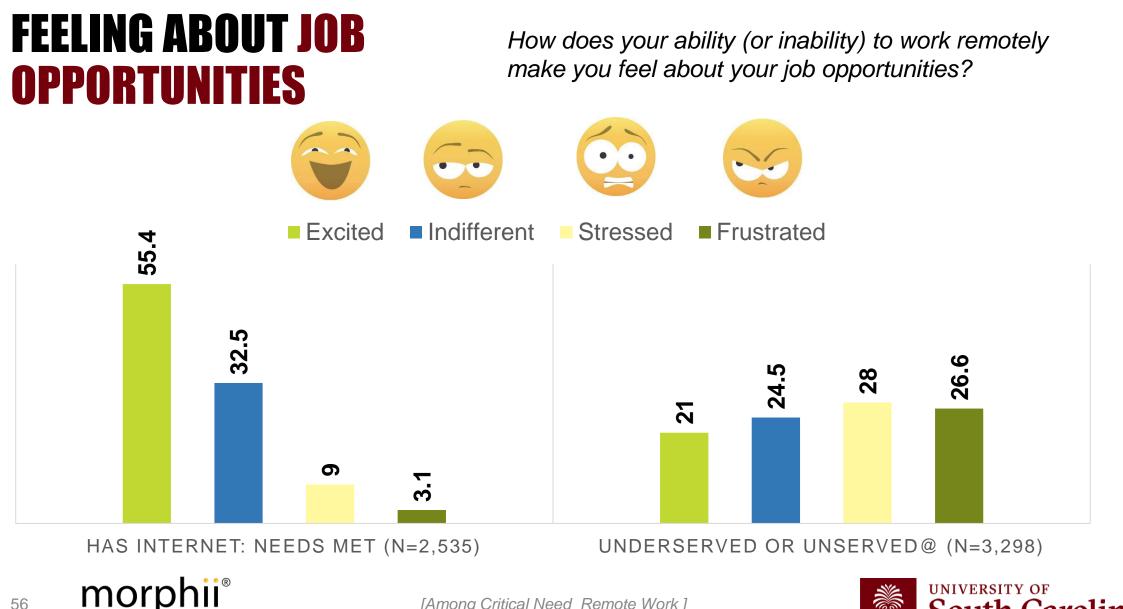
How do you feel about using technology to access healthcare services?





[Among Critical Need_Healthcare]



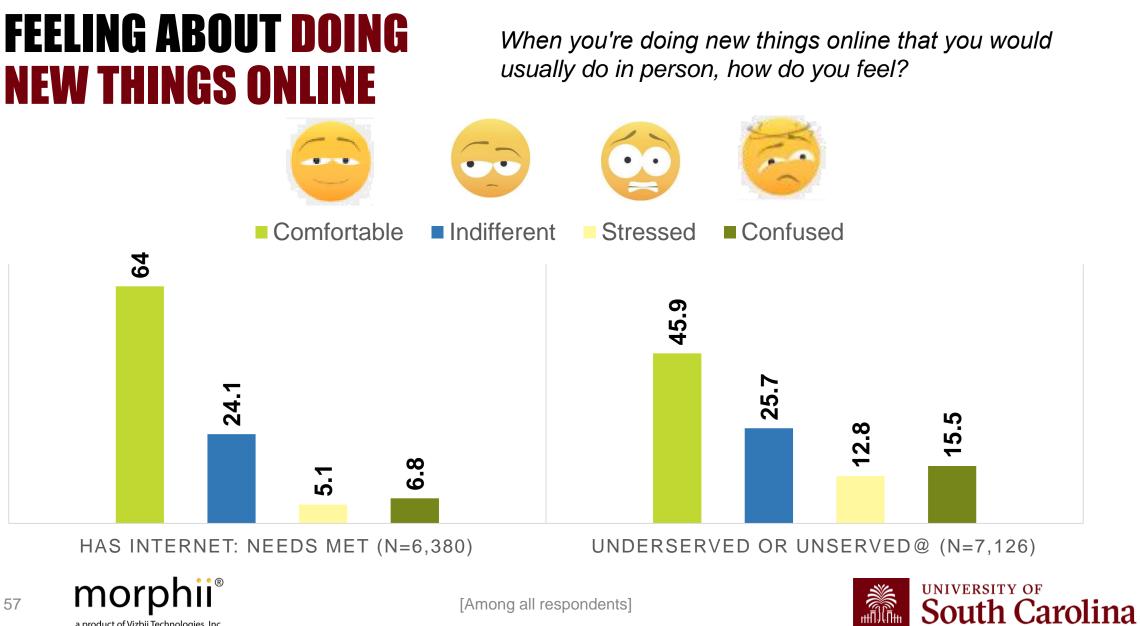


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[Among Critical Need_Remote Work]

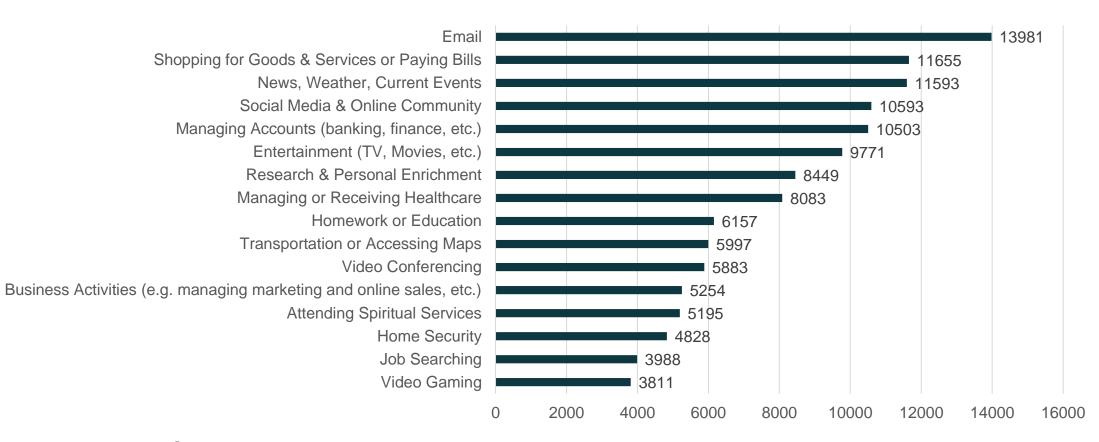




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INTERNET USE

In general, how do you use the internet today? Select ALL that apply, regardless of how or where you connect to the internet.



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