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Exposing the Hidden Connectivity Crisis for Older Adults

OATS | OLDER ADULTS TECHNOLOGY SERVICES
FROM AARP

The coronavirus pandemic has exposed a hidden crisis in connectivity for our country's older adults. As tens of millions of seniors continue to endure an indefinite period of social distancing and residential confinement, the stark inequities of digital access are becoming clear. Older adults are one of the largest demographics without meaningful use of the internet, and this has severe implications for individuals, families, communities, and our nation.

Those implications are as wide-ranging and diverse as older adults themselves. For some, lack of internet use means not taking advantage of tools that could help reduce feelings of loneliness. For others, this could mean an inability to manage finances online or use telehealth services to stay safely at home during quarantine. As a whole, being on the wrong side of the digital divide means older Americans are not using the tools that could help them live happier, healthier lives.

Humana and The Humana Foundation began investing in OATS in 2018, working to help seniors improve their social connections by offering technology classes designed for older learners via Senior Planet San Antonio. More recently, this partnership began exploring ways to help older adults during the COVID-19 health crisis, launching Aging Connected, a national campaign to connect at least one million seniors to the knowledge and technology needed to get online.

The Aging Connected report is part of this partnership and reveals urgent disparities in technology access and use among older adults. The report details both the many benefits of connectivity and the obstacles to achieving greater internet access, which have negatively affected U.S. seniors' ability to stay healthy, meaningfully engaged, and financially secure. Even more importantly, we present collaborative paths forward for solving this social challenge.

We're grateful for your interest in this report and the injustice it aims to uncover. If it strikes a resonant chord, we invite you to join us in our efforts and move towards solving this social crisis, together. All are welcome as we engage public, private and nonprofit sectors with older Americans looking for connectivity.

With Purpose,

Bruce D. Broussard
Chairman of the Board, Humana Foundation
President and CEO, Humana Inc.

Thomas Kamber, Ph.D.
Executive Director
Older Adults Technology Services

Getting older adults online has never been more urgent. The COVID-19 crisis has disrupted our nation's systems for social support, communications, and health care, demonstrating that home-based internet and digital skills are an essential lifeline for older adults. Unfortunately, large proportions of Americans over the age of 65 remain offline—a problem that many people recognize from personal experience, but until now have lacked statistical data to underpin anecdotal observations and provide a solid foundation for policies intended to close the gap.

In 2020, OATS, with the support of the Humana Foundation, commissioned the most comprehensive research study ever undertaken in this area, conducted by two leading academics: John Horrigan from The Technology Policy Institute, and Erin York Cornwell from Cornell University. This new research presents a detailed portrait of digitally disconnected older adults in America—how many people remain offline, what demographics are disproportionately affected, which barriers continue to perpetuate non-participation, and how existing connectivity resources match up with patterns of need.

In addition, this report will provide a blueprint for action. OATS is a social change organization and our partnership with Humana aims to create new collaborations and systems of practice that will bring more than a million older adults online. We have analyzed the research data in the context of existing programs, options for building new initiatives, and potential frameworks for lasting change. Our recommendations offer a path toward creating a more comprehensive and resilient system for bringing older Americans online and supporting them in achieving meaningful outcomes in health, social engagement, and other areas of life.

This report contains several overarching takeaways:

1 Digital disconnectedness is a serious national crisis. More than three decades after national policymakers became aware of the technology gap for older adults, **our research shows that nearly 22 million American seniors do not have wireline broadband access at home**. The scope and persistence of the problem are shocking reminders that nearly half of older Americans live with technological barriers that restrict social and other essential connections.

2 **Technology is exacerbating social divisions and inequalities**. Our research found disturbing correlations between digital disengagement and race, disability, health status, educational attainment, immigration, rural residence, and, of course, income. As America seeks to provide equal opportunity for all, the lack of internet access at home threatens to widen already serious divides between the privileged and disadvantaged.

3 Existing programs to help seniors get online are showing promise but are still too fragmentary and limited to complete the job. **A review of existing digital inclusion efforts targeting seniors found a hodgepodge of offerings, with large sections of the country served by no significant low-cost offerings or age-friendly initiatives.** The programs that do exist are virtually all sponsored by telecommunications companies in collaboration with nonprofit partners, with no direct public sector support.

4 The solutions to the problem are well within our reach. This is not the race to the moon, announced in 1960 before the technology existed to accomplish the task. **We know how to get seniors online right now,** and this report lays out the steps to achieve our goal of eliminating the age-based differential in home broadband use.

Drawing on the research presented in this report, OATS is making four recommendations to help guide policymakers and practitioners in closing the technology gap for older Americans. These recommendations call for action on increasing the supply of affordable connectivity for older adults, building widespread awareness among seniors on the importance of getting online, activation of a national network of partners to help promote and support broadband adoption, and meaningful action by public agencies tasked with addressing these issues.

Finally, OATS will be acting on these recommendations directly through the launch of **a new national partnership campaign to get over a million older adults online**. With generous support from the Humana Foundation, we launched "Aging Connected" this year with the aim of sparking a national dialogue about aging and connectivity, sponsoring research, building a consortium of public and private stakeholders, and sparking action to address this

Home-based broadband is, for most older Americans, an essential service. Broadband provides a critical link to social contacts, health information and services, commerce, financial management, and government and media. With over 70 percent of the population 18-59 online at home, many basic life activities have come to be mediated through technology—shopping, communicating, personal finance, even exercise. Technology may have become second nature for many people, but its ubiquity only underscores the disadvantage experienced by those who remain offline.

Some have questioned the priority of equipping older adults with in-home broadband and mainstream devices, suggesting that shared internet at local libraries or senior centers, and refurbished or limited-functionality computers, phones, or tablets are adequate for older users. In practice, these digital tools often lack important capabilities that seniors need to be successful in the modern age:

- Devices that lack full size screens interfere with essential functionalities. Document management and text editing are restricted. Interactive video such as Zoom cannot display group screens or live chats. Financial management screens are truncated.

- Use of non-mainstream operating systems limits options for popular apps that are designed for iOS and Android devices with up-to-date software. "Closed" systems present barriers to sharing information with family and social contacts who don't share the platforms, and who are unfamiliar with outmoded or non-standard technology when asked for technical support.

- Relying entirely on community institutions for internet access presents both inconvenience and risk for would-be adopters among the senior population. Covid-19 has underscored the need for home-based connectivity sufficient to enable users to perform daily tasks without traveling. Residential internet that offers substandard speeds or restrictive data caps can present severe obstacles for older users who must contend with erratic transfer rates and connections at the same time they are working to develop new digital skills and habits.

Even before COVID-19, seniors benefited from a host of specialized online services designed to make their lives easier and more rewarding, while enabling providers to realize significant cost savings and efficiencies. Examples include Medicare Part D signup, access to government forms, telehealth and financial services, and medical and monitoring devices that enable aging in place. **These services require larger screens, rich functionality, and a fast, stable connection to deliver effectively to older adults,** which is why wireline broadband connectivity is foundational to the Aging Connected agenda.
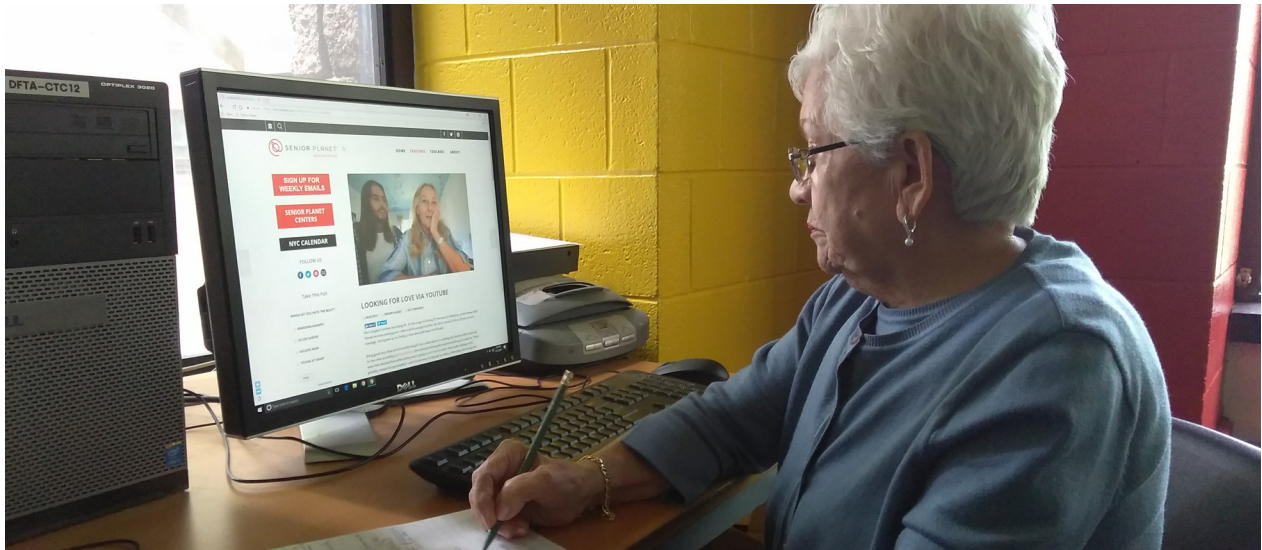
...experts agree that high-speed wireline access is essential in the near term to create a level playing field for residential internet users.

This is a problem that won't solve itself. Emerging technologies—wearables, 5G and satellite connections, voice activation, etc.—offer important future options, but experts agree that high-speed wireline access is essential in the near term to create a level playing field for residential internet users. Moreover, the technology gap for older adults is a dynamic problem; home wireline access is simply the first step in a broader agenda of supporting older adults in choosing and utilizing a wide range of technologies that contribute to independence, productivity, engagement, and personal growth. With an eye to this future, Aging Connected seeks to form relationships between service providers, device makers, seniors and their advocates to ensure maximum choice and flexibility.

This challenge affects us all: Seniors isolated by lack of access to reliable technology face personal hardships including physical and mental health issues that affect the quality and duration of their lives. Loved ones and caregivers are less able to support disconnected seniors effectively. Institutions such as governments, private healthcare providers and community-based organizations incur higher costs for delivering services. Because of the scale of the problem, any efforts to expand access will improve these outcomes for older adults and society as a whole.

The internet has been central to American life and commerce for more than two decades, and for most of that time, nearly everyone has observed or experienced the issues that older adults face in getting connected relative to other demographic groups. The connectivity gap has been the subject of study by organizations and government, and we have seen a rising commitment to increase access to underserved populations. However, there have heretofore been no studies that measure the number or the characteristics of seniors who remain left behind by society's progress toward fast, reliable broadband connectivity. Those studies that have appeared – such as ones from the Pew Foundation which provide glowing accounts of how seniors constitute the fastest growing population online – paint a distorted picture: seniors are the fastest growing group online today because they lagged for so long and are only starting to catch up. Of course their numbers are increasing. But how many are still left behind?

In 2020, with support from the Humana Foundation, OATS commissioned this study to answer those questions. Our goal was not just to find the topline numbers, but to identify particular characteristics among the older adult population that correspond to systematic exclusion from digital participation.

Research Methodology

OATS reviewed existing literature and reports on digital inclusion and online participation by older adults, along with program and internal research data that OATS has collected over time. We identified key gaps in the knowledge base and selected two leading experts to carry out extensive analysis on national data sets and report on key findings.

- John B. Horrigan, PhD, of the Technology Policy Institute, used data from the 2018 American Community Survey as a baseline for measuring the penetration of broadband access for seniors in the United States, to dig into the demographic profiles of underserved subgroups, and to identify barriers to adoption. The American Community Survey is conducted annually by the U.S. Census Bureau and collects data from 3.5 million households.

- Erin York Cornwell, PhD, Cornell University Associate Professor of Sociology, examined similar questions around inequalities in home internet access among community-residing older adults using evidence from the National Social Life, Health and Aging Project (NSHAP)[1]. NSHAP is a nationally representative, population-based longitudinal study conducted between 2005-2011 of older adults living independently in their communities. Participants responded to questions about their age, gender, socioeconomic status, health, housing context, and in-home internet service or lack

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[1] Waite, Linda J., Kathleen Cagney, Benjamin Cornwell, William Dale, Elbert Huang, Edward O. Laumann, Martha McClintock, Colm A. O'Muircheartaigh, and L. Phillip Schumm. National Social Life, Health, and Aging Project (NSHAP): Wave 2 and Partner Data Collection. ICPSR34921-v1. Ann Arbor, MI: Inter-university Consortium for Political and Social Research [distributor], 2014-04-29. doi:10.3886/ICPSR34921.v1

thereof. The results demonstrate the confluence of sociodemographic indicators and broadband internet access.

York Cornwell also investigated patterns of broadband adoption against the benchmark eligibility standards of one lighthouse industry initiative designed to serve vulnerable, lower income people: Comcast's Internet Essential Program. Both researchers shared findings that highlight the urgency of the need for a coordinated national strategy and point the way to effective, targeted interventions that stakeholders can use to bridge the technology gap and bring more older Americans into the mainstream of connected information services. Here are some of the key results of our research.

A National Connectivity Crisis: 21.8 Million Older Americans Offline at Home

Our most important finding is the enormous number of American seniors – an estimated 21.8 million – who still do not have broadband access to the internet. According to the American Community Survey, only 58 percent of Americans age 65 or older have wireline broadband internet service at home, compared with 73 percent of all other adults. Age is one of the three strongest predictors, along with income and educational attainment, in correlating with residential non-adoption. Since older adults are a large (and growing) portion of the national population, **the 42 percent who lack internet at home represent the second largest demographic group of Americans left behind in the digital age.**[2]

Percentage of Americans With In-Home Wireline Broadband

21,800,000 Adults 65+ without in-home wireline broadband

Legend:
■ Adults 18-64
■ Adults 65+
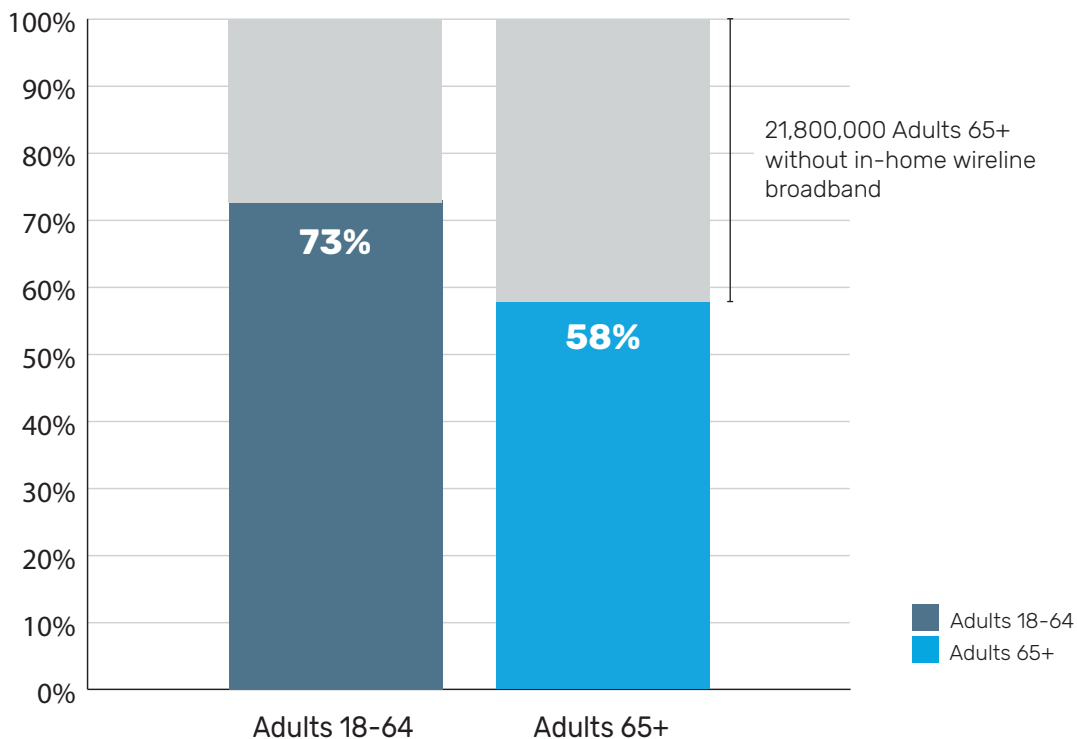
[2] Poverty is the strongest determinant for total population lacking internet at home.

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Knowing the scope of the problem from a national perspective is simply the first step in understanding the problem of technology exclusion facing older Americans.

Moreover, the technology gap for older Americans is not closing by itself. Twenty five years after the invention of the Word Wide Web, the gap between seniors and the rest of the population in terms of home broadband adoption stands at 15 percent—which represents a differential of 5.6 million older adults who would be online today if home wireline broadband participation were equalized across the age range. Absent a coordinated or significant public sector strategy, progress on closing the digital divide for seniors has stalled. One longtime activist on technology inclusion for older adults interviewed for this report pointed out that the technology gap has persisted more than 30 years. Indeed, recent data from the Pew Research Center show that older Americans lag younger by double-digits on a range of technology measures—internet use (23 percent gap); smartphones (25 percent gap); tablets (19 percent gap); and social media (35 percent gap).[3] To provide context, if we were to move all 5.6 million "surplus" digitally disconnected older Americans together into one locale, they would make up the second largest city in America.

Accelerating Inequality: Patterns of Digital Nonparticipation

Knowing the scope of the problem from a national perspective is simply the first step in understanding the problem of technology exclusion facing older Americans. What if some groups are disproportionately represented among those who are offline? Are there concentrations of those affected that relate to geography, demography, or class? Answering these questions allows a fuller understanding of the social consequences of the digital divide for seniors, and permits an examination of issues related to social equity and civic engagement. Finally, by identifying characteristics that correlate with digital exclusion, we can better target interventions to geographies and institutional networks that correspond to the highest concentrations of the disconnected.

OATS worked with Professor York Cornwell to analyze a sample of 2,145 people over 62 years of age who were interviewed for the NSHAP study. Our analysis demonstrates clear patterns of exclusion that systematically correspond with factors such as race, health and disability status, and income level. These disparities were observed using logistic regression that calculated odds ratios for bivariate and multivariate models, with both models showing strong correlations with key variables.[4]

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[3] Pew Center, Citation: "Tech Adoption Climbs Among Older Adults," Monica Anderson and Andrew Perrin. May 2017
[4] Our dependent variable is self-reported lack of internet at home or primary use of it outside the home. Note that for this section of our research, the data set is NSHAP, so the population is 62+, the survey was completed in 2011, and the dependent variable is a composite of two questions related to home internet access and primary place of accessing the internet. Contact OATS for more detail.

QUANTIFYING THE CONNECTIVITY GAP: RESEARCH FINDINGS

- The two strongest predictors of lack of broadband were **low educational attainment** (less than a high school degree) and **income below $25,000**. Both categories were more than ten times more likely to be offline at home than the reference categories for people with higher education or higher incomes, respectively.

- **Race was a significant factor as well.** Black people were 2.6 times more likely to be offline, and Latinos were 3.4 times more likely to be offline than White people. And living in areas of high concentrations of poverty was associated with a 6.7 times higher likelihood of lacking home broadband, while living in Census tracts with over 50 percent African-Americans corresponded to a 3.7 times higher likelihood.

- **Health status plays a role,** with people reporting poor-to-middling health over three times more likely to be offline, as well as people reporting functional impairment (twice as likely), frequent depressive symptoms (1.5 times as likely), and Medicaid enrollment (2.7 times as likely).

- Finally, household composition and place of residence are important factors. Older adults who are **single** (2.7 times as likely) or **live in rural areas** (1.6 times as likely) have elevated odds of lacking home internet service.

These findings are alarming for those who believe our society has a responsibility to strive for equity for disadvantaged or historically excluded groups. The portrait presented here is one where technology barriers are further reducing the quality of life for older adults who are already challenged by poverty, ill health, racism, lack of education, or social and physical isolation. For many older adults, several factors may be operating simultaneously: For instance, a low-income senior with less than a high school degree who has a functional impairment and lives alone is very unlikely to be online at home, based on the data from this study. Digital disengagement for this individual simply adds an additional layer of burdens to overcome—diminished resources for connecting with government services, fewer tools for healthcare management, limited functionality for online financial transactions, higher costs for goods and services, and less access to news and information. Technology, which could be a great equalizer, is instead serving to drive many older Americans further from the mainstream.

As a second frame of analysis, OATS asked Dr. York Cornwell to analyze patterns of digital participation with reference to the enrollment criteria for the country's largest digital inclusion program for low-income people: Comcast's Internet Essentials program.[5] Internet Essentials offers broadband internet at a reduced cost ($9.95/month) for individuals who qualify for public assistance programs such as housing assistance, Medicaid, Supplemental Nutrition Assistance Program, Supplemental Security Income, Temporary Assistance for Needy Families, Women
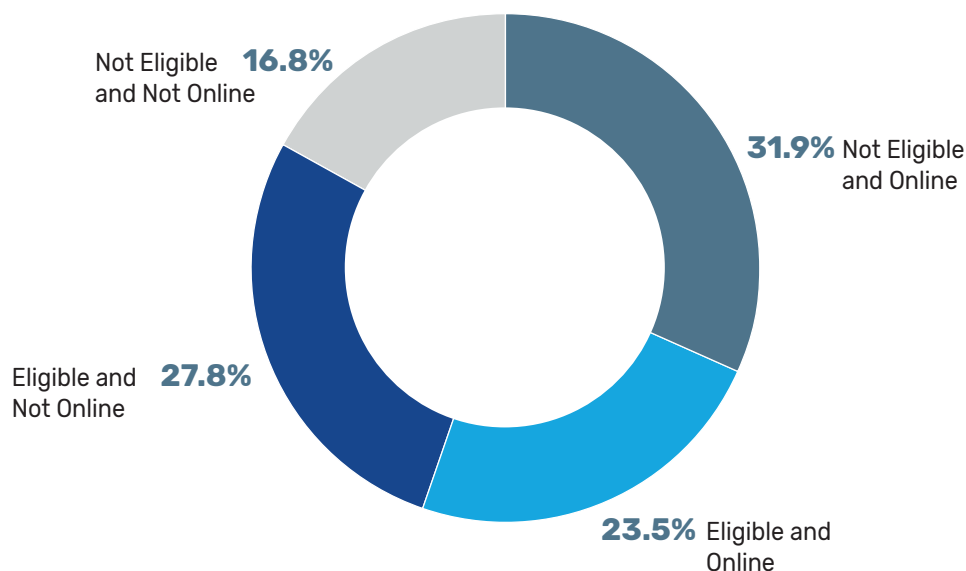
QUANTIFYING THE CONNECTIVITY GAP: RESEARCH FINDINGS

Infants and Children, or a VA Pension. York Cornwell used NSHAP data to assess in-home internet access among community-residing older adults who would be likely eligible for the program if they lived in a Comcast service area. She selected NSHAP variables that correspond to Internet Essentials eligibility categories: income below $25,000, coverage by Medicaid, military veteran status, and employment status (including unemployed, laid off and looking for work, or disabled and unable to work).[6]

Our analysis uncovered a critically important disparity in the current distribution of offerings of low-cost options for older adults. Her estimate of the potential "reach" of the Internet Essentials program is **53.8 percent of older Americans where Comcast provides service**. By contrast, Spectrum Internet Assist, which limits senior eligibility to SSI recipients, is available to approximately 1.9 percent of older adults in their service area. Other telecommunications companies such as T-Mobile offer special pricing for all older adults (although at much higher rates than Comcast), and still others offer nothing at all. There are no federal, state, or local guidelines regarding eligibility criteria for these kinds of private sector offerings, and the regulatory agencies typically do not require the companies to report data on how many older adults are actually served, even for agreements negotiated as part of corporate mergers.

York Cornwell estimates that, of those who are likely eligible for Internet Essentials or a program using similar underlined criteria, 27.8 percent are not currently online. Another 16.8 percent would likely not qualify for means-tested subsidies but still lack internet at home—i.e., people who theoretically

In-Home Internet Access and Low-Cost Service Eligibility Among Older Adults
(NSHAP Wave 2, weighted, n=2,388)

- Not Eligible and Not Online **16.8%**
- **31.9%** Not Eligible and Online
- Eligible and Not Online **27.8%**
- **23.5%** Eligible and Online

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[6] Note that York Cornwell's analysis is based on a sample of people over 62 who would likely be eligible for Internet Essentials or a program with similar eligibility criteria. Internet Essentials is not available in all 50 states, so is being used here as a reference standard for estimating the potential national impact of a low-cost option for older adults. Also note that her estimate is based on matching reported characteristics of respondents with Comcast eligibility standards; actual rates may vary due to factors such as family size, program enrollment patterns, local poverty thresholds, etc.

could afford market-rate service but don't see the value proposition or lack the training or knowledge to use the technology. This first group, whom York Cornwell calls the "unreached," are the most likely to be served through extension of affordable access through publicly or privately subsidized low-cost offerings. They are also the highest priority for a campaign to get the most vulnerable older Americans online.

Where are these "unreached" individuals, and what can we learn about them from the NSHAP data? York Cornwell calculated odds ratios for various demographic categories and found some similarities with the general population of offline older adults, as well as some important differences:

- Lower incomes and low educational attainment continue to be strong predictors of internet nonparticipation in this group, with people lacking a high school degree continuing to be the least likely to go online at home (17.7 times more likely to lack internet)

- Gender is a stronger predictor than in the general group of older adults offline (see above), with women having a 2.5 times higher likelihood of being offline than men

- Race is a stronger predictor in this group, with Blacks (3.1 times as likely) and Latinos (4.5 times as likely) suffering much higher rates of nonparticipation, and being foreign-born is also a significant variable (2.3 times as likely to be offline)

- Being single and living alone is a stronger predictor in this group (3.5 times as likely)

- Finally, rural location (1.7 times more likely), poor-to-fair health (3.5-4.2 times as likely), and disability (1.9 times as likely) are still significant predictors of being offline.[7]

The picture that emerges from these data is again one where overlapping characteristics of education, race and immigration, health, gender, isolation, rural residence, and disability are factors that compound one's likelihood of lacking broadband at home for older adults. A multivariate model (which controls for variations in sociodemographic and socioeconomic status) found continued strong associations for advanced age, lower educational attainment, living alone, race, and income. These patterns underscore the potential social consequences of the digital gap for older Americans and present a disturbing image of millions of older people living in digital isolation while also grappling with some of our society's most recognized social challenges.

Finally, the notable size of the second group (16.8 percent of older Americans equals approximately 8.8 million people) suggests that there is a compelling public interest in

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[7] OATS conducted confirmation testing by calculating comparable outcomes using ACS 2018 data, which resulted in findings that closely matched those reported from the NSHAP. For more information on specific data and calculations, contact OATS.

addressing the population who are above means-test thresholds but are still offline in large numbers. This group, when examined by York Cornwell, showed particularly high associations with poor health, low education, residence in a high-poverty Census tract, and identification as Latino. Data patterns such as these should be the initial building blocks for determining a strategy to promote internet participation among this overlooked population.

The Role of Geography

Thus far we have only considered the patterns of digital nonparticipation from a nationwide viewpoint, but there are important differences across geographies that may play a role in shaping who is online, as well as guiding practice for those seeking to make change. To begin with, internet access is not evenly distributed across the United States, with significant gaps in coverage existing particularly in rural and lower income areas. Second, each wireline service provider has a unique footprint for coverage, and as we have seen, this can translate into significant differences in patterns of low-cost opportunities for older subscribers. Finally, older adults themselves are not evenly distributed in terms of geography, meaning that efforts to bring them online should consider prioritizing geographies where the most people can be reached.

OATS calculated the broadband adoption gap on a statewide basis by analyzing Census data from the 2018 American Community Survey to find the percentage of people below and above 65 who were online. We found wide disparities in home broadband use by people, with different states having adoption rates as much as 30 percentage points higher or lower, and some variation in which locations had the highest/lowest rates for seniors.

Lowest Rates		Highest Rates	
Age 18-64			
Mississippi	53.0%	New Hampshire	82.4%
Arkansas	56.8%	New Jersey	82.6%
Oklahoma	61.6%	Massachusetts	82.9%
Age 65+			
Mississippi	39.6%	New Hampshire	70.2%
Arkansas	43.5%	Washington	66.4%
Alabama	48.3%	Delaware	66.4%

Finally, we calculated the percentage point difference between home broadband participation between the younger and older groups, allowing us to rank the states by the size of their adoption gap and determine which have the largest disparity by age:

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8 U.S. Census Bureau; American Community Survey, 2018 American Community Survey 1-Year Estimates, generated using data.census.gov; <https://data.census.gov/cedsci/>; (5 January 2020).

QUANTIFYING THE CONNECTIVITY GAP: RESEARCH FINDINGS

Home Broadband Gap by State and Age

Broadband Gap (Quartiles)
- 5.7% - 14%
- 14.1% - 15.2%
- 15.3% - 17.5%
- 17.6% - 24.2%
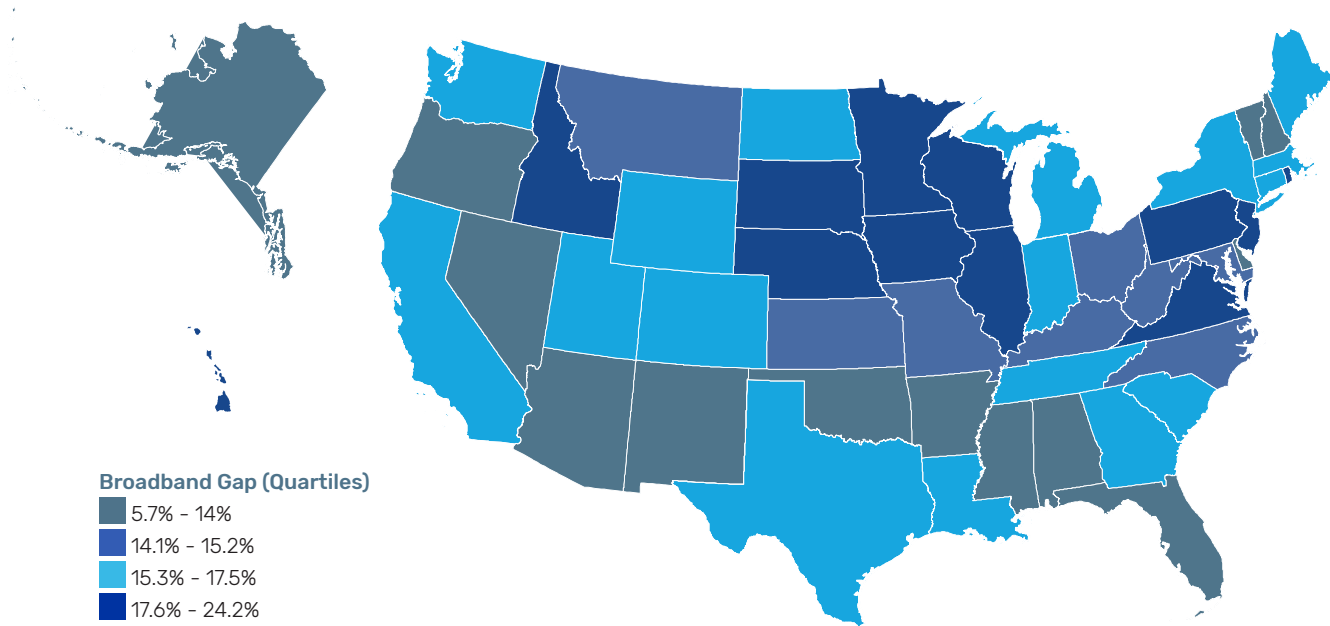
Smallest Gap	Age 18-64	Age 65+	Broadband Gap
Alaska	69.4%	63.7%	5.7%
Nevada	74.5%	64.4%	10.0%
Arizona	72.9%	62.0%	10.8%
Vermont	74.2%	63.4%	10.8%
Florida	75.0%	64.1%	10.9%

Largest Gap	Age 18-64	Age 65+	Broadband Gap
Wisconsin	73.2%	53.3%	19.9%
Pennsyvalnia	77.7%	57.6%	20.2%
Minnesota	76.6%	56.0%	20.6%
Nebraska	75.5%	54.1%	21.4%
District of Columbia	81.0%	56.8%	24.2%

This calculation reveals very large disparities between states on the issue of digital inclusion for seniors. Alaska has a relatively low adoption gap–just 5.7 percent, possibly reflected by the strong value proposition for older adults who might be isolated by weather and geography. Two other states with large rural areas have low gaps–Nevada and Arizona. The difference between the lower gap states and the higher ones should be noteworthy to policy-makers: Minnesota and Nebraska both have gaps over 20 percent, and highly urbanized Washington, DC has a gap of 24.2 percent.

These wide disparities may reflect multiple overlapping causes. Some states have higher levels of economic inequality than others. Heterogeneity in telecommunications providers and offerings may play an important role. Living in a rural area, apparently does not play a role in this context; we tested the disparity using the 2018 ACS data and found that, while urban and metro areas have higher home wireline adoption rates for 18-64 year-olds (a gap of about 16 percent), this gap remains consistent when we look at "non-metro" areas. Residence in a rural area tends to reduce home wireline adoption rates by 10 percentage points for both young and old. Nevertheless, the very large gap in certain states compared to their more equitable counterparts suggests a potentially fruitful area of focus for activists and policymakers.

IMPLICATIONS

The overarching conclusion that emerges from this research is that older Americans are undergoing a connectivity crisis of enormous magnitude and severity in social consequence. The pandemic has erased any doubt that high-speed, affordable, home broadband is a lifeline for older adults, yet more than 20 million seniors are enduring the strain of isolation and health risk with no wireline connectivity in their residence. Over 80 percent of Covid deaths in the United States have been individuals over 65 years of age. It is disheartening to know that, based on our research, approximately 40 percent of them likely lacked the technology resources for communication, social support, health information, and financial management that were essential for so many others during this terrible time.

Moreover, our research quantifies for the first time the extent to which the digital divide for older Americans compounds long-standing patterns of inequality and vulnerability. We found, using the most comprehensive data sets available and the most experienced researchers conducting analysis, that lack of home broadband correlated strongly with virtually all major categories of socioeconomic inequality. If you are over 65 and lack a high school diploma, live in poverty, are non-White or foreign-born, live alone, suffer from poor health or physical disability, are female, or live in a rural area, then digital privation is likely added to any burdens you endure. In a nation committed to promoting equal opportunity for our citizens and seeking to redress past and continuing injustices, the technology gap stands out as a force that divides us, leaving millions of vulnerable older adults without many of the benefits of the digital age. Digital exclusion is widespread, impactful in consequences, and strongly correlated with "protected classes" that have been the focus of extensive protections in our laws and policies. Based on this research, we see the technology gap for older adults as a major civil rights challenge for our time.

The persistence of the digital divide for seniors suggests that concerted public and private sector action will be required to alter patterns of technology availability, affordability, adoption, and utilization. More than 20 years after the creation of the World Wide Web, tens of millions of seniors are still offline, and despite increases in overall digital participation, home broadband adoption by older adults is still a long way from universal. Moreover, as new technologies are introduced, systems need to be in place to steepen the adoption curve for older adults. Even if we reach full adoption of home broadband by older adults at some point, there will be new devices, apps, and user skills and knowledge that must be diffused through the population in a timely fashion. New organizational capacity will be needed in senior centers, libraries, senior care facilities, and in the nonprofit organizations that can forge partnerships with stakeholders in industry and government.

In addition to socioeconomic and demographic disparities, the fragmented and erratic system that serves older Americans with residential wireline broadband-both market-rate and low-

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The implications of this research point the way toward targeted strategies that can effectively extend the benefits of broadband connectivity to the underserved community of seniors.

cost-means that residential location is a major determinant of whether seniors are likely to be online. The comparatively large technology adoption gaps between young and old observed in places like Washington, DC, Nebraska, and Minnesota point to a geographic pattern of disparity that overlays the demographic elements discussed above. In areas where the gap between young and old is larger, the comparatively higher rates of technology adoption by people between the ages of 18-64 suggest not only that the physical infrastructure for home broadband is present, but also that a general culture of technology use predominates as well-just not for older adults. From an equity standpoint, these are high-priority geographies where closing the digital divide may not only be more feasible due to more robust infrastructure, but where it also may help bridge a socio-cultural gap between the generations. In short, if we seek to take action to heal an age-divided society, closing the technology gap in high-disparity states should stand out as a priority.

The implications of this research point the way toward targeted strategies that can effectively extend the benefits of broadband connectivity to the underserved community of seniors. These challenges fall into two main categories: **increasing uptake and utilization of services** among those who have access to broadband services – either subsidized or full-price – but do not take advantage of them, and **expanding programs that provide low-cost access**. Our research makes clear that millions of higher-income older adults aren't subscribing partly because they lack the awareness of the value of the internet-a disconnect that can be addressed by increasing demand through increased awareness of the technology value proposition by older adults, and providing training and support for novice users. At the same time, expanding low-cost options for older adults is a supply-side approach that can make affordable broadband more available to help address the affordability challenges many older people face.

On the demand side, it is critical to raise awareness of existing low-cost options for older Americans who may be able to take advantage of them. This research has underscored the importance in particular of the Comcast Internet Essentials initiative as a program that potentially covers half of older adults in the 40 states where they have service-providing

access for approximately 25 times more seniors than Spectrum's version (notably, most other providers offer no low-cost options for seniors at all). Expanding awareness of this program and any others that provide comparable discounts for older adults should gain priority as a strategy. In addition, finding ways to increase the ease of adoption and awareness of the benefits of internet adoption to the higher-income population is critical, as over a third of the offline population over 65 falls outside the eligibility range for a subsidized program. Public service announcements, nonprofit/corporate awareness campaigns, and efforts to enlist caregivers and family members as ambassadors and facilitators can all contribute to helping this segment of the aging population to get online through market-rate offerings.

...connectivity gaps among seniors intersect with other factors such as race, immigration status, physical limitations and income...

Because connectivity gaps among seniors intersect with other factors such as race, immigration status, physical limitations and income, efforts to address digital inclusion must be infused with the best practices around reaching these communities at large. Skills training is another factor; a 2017 Pew Research Center study found that 60 percent of all adults were interested in training on how to use online resources to find trustworthy information. Such training can have an impact–46 percent of recent broadband subscribers with digital skills training used the internet for job search compared with 35 percent for those without training. John Horrigan has drawn attention to this issue of "digital readiness": the uncertainty that new internet users bring to their online experience. Low levels of digital readiness afflict those new to the internet, as well as experienced users who may struggle with new applications, and are a significant barrier for older adults seeking to become first-time internet subscribers.

Finally, expanding the supply of affordable broadband for older Americans will require convincing more providers to create low-cost programs, expand existing eligibility criteria, or lower prices for existing offerings targeted at older customers. An inconsistent and unstable regulatory environment at the federal, state, and local levels has resulted in the current patchwork of offerings and suggests that additional opportunities for older consumers may be as likely to emerge from nonprofit-corporate partnerships as from negotiations for regulatory considerations. Importantly, the Covid relief legislation passed by Congress in December, 2020, included a provision for a $50 monthly subsidy for broadband expenditures–the first such subsidy available through the federal government and a possible watershed in the evolution of policies designed to close the digital divide.

In late 2020 OATS, with founding support from the Humana Foundation, launched Aging Connected, a national campaign to help close the technology gap for older adults. This research report was commissioned to help guide the strategy and action plan for the initiative, which has the goal of bringing a million older Americans online by the end of 2022. Based on the findings described here, we are recommending four starting points for a national agenda:

1 **Publicize and clearly articulate the value of broadband to seniors.** Many seniors do not connect to broadband even when they have affordable access because they do not see or understand the value, or are intimidated by the perceived complexity of getting online. Aging Connected calls for a concerted campaign to raise awareness of connectivity options among older adults and the organizations that work with them, focusing on clear messages that are relevant to the specific needs and concerns of this audience. Marketing and publicity efforts must address both low-cost and market-rate options to reach diverse audiences of offline seniors.

2 **Prioritize social equity and inclusion.** Our research highlights the socio-economic and geographic disparities that intersect with issues of connectivity among older adults. Aging Connected invites organizations with cultural competencies and longstanding relationships with at-risk populations of seniors to focus on the issues of technology enablement in coordination with national aging-based organizations. Geographies with comparatively high age-based disparities or high concentrations of poverty and underserved demographics should be prioritized for action. Policymakers and stakeholders must be made aware that digital inclusion is a social equity issue.

3 **Expand access to low-cost offers.** The wide disparity in programs and coverage for affordable broadband should be corrected. Aging Connected urges telecom providers, in partnership with nonprofit supporters, to embrace the best practices around affordability and extend these programs to serve meaningful numbers of older adults, including veterans, lower-income and disabled seniors, and enrollees in major social service programs. The federal subsidy program launched in 2020 should be extended if initial results are successful. Stakeholders should join in a collaborative effort to collect comprehensive data regarding seniors' online participation and program outcomes.

4 **Develop content, communities and experience for older adults to increase utilization of broadband services.** OATS and other senior-focused organizations have developed effective programs over the years to promote engagement, from age-appropriate training curricula to senior-focused online communities like Senior Planet. Aging Connected proposes investing in and extending targeted content and communities that make older adults feel at home online, with a special emphasis on high value topics such as digital health, social engagement, and financial security.

AGING CONNECTED: A PROGRAMMATIC APPROACH FOR SUSTAINED ACTION

This research should be the beginning of a longer conversation requiring sustained attention and commitment on the part of all stakeholders. Aging Connected is calling on organizations to join a national campaign to help close the technology adoption gap for older adults, and is coordinating the efforts of telecommunications companies, nonprofit senior service providers, and public sector agencies, to help seniors maximize the benefit of technology.

As organizations work across sectors to address all components of successful digital inclusion initiatives, change must also come from the top. The solution cannot rely on telecom companies alone; it calls for a national federally led effort with state and local action and engagement. Public funding should be allotted to the connectivity crisis and incentivize and support private organizations to join forces to bridge the gap. While increased funding is essential, a new federal policy must be partnered with effective programming.

Many existing programs addressing the digital divide focus on sociodemographic indicators that are associated with broader social exclusion. This is appropriate, as lack of connectivity exacerbates existing inequalities. However, as age itself is one of the largest determinants of home internet access, it should also be a primary focus. Collaboration from senior service providers, advocacy organizations and telecommunication organizations will also be essential.

This level of sustained commitment will allow us to spot new challenges before they bloom into crises, and to measure, monitor and adjust tactics to be sure resources are being used effectively.

Now that this social crisis has been brought to light, we invite you to join us in pursuing a bold path forward, drawing on the solutions presented here. Aging Connected has a goal of bringing at least one million seniors online by coordinating the efforts of internet service providers, health care organizations, public sector officials, and nonprofits already working on aging and digital equity issues.

Please visit **www.AgingConnected.org** for more information or email us at **info@agingconnected.org** to get the conversation started or request additional information about the methodology and research referenced in this report.

Why Now?

The urgency of tackling this crisis is greater than ever. The COVID-19 pandemic has left nearly 50 million older Americans facing an ongoing period of home confinement, exacerbating the disparity in older adults' internet connectivity and digital literacy. The consequences are severe: lack of access to public health information; diminished social support, and; high rates of social isolation. Simply put, seniors are dying from loneliness and disengagement, and many more have not been given the opportunities and resources to pursue their full potential.

Stakeholders across sectors are beginning to engage in response to the COVID-19 crisis. Comcast has launched a series of summits under their low-cost brand, Internet Essentials, which includes digital equity activists. The Administration for Community Living (ACL) held a Mobilizing and Empowering the Nation and Technology to Address Loneliness & Social Isolation (MENTAL) Health Innovation Challenge, seeking to collate online tools to help socially isolated Americans connect and engage. AARP partnered with Senior Planet to train more than 12,000 members on the basics of Zoom to participate online with friends, family and the multitude of virtual programs.

Why OATS?

Older Adults Technology Services, a 16-year-old nonprofit organization, is uniquely placed to lead the Aging Connected movement and promote widespread digital engagement. From its origins in a single Brooklyn neighborhood, OATS has grown into a trusted international force for social change. After a series of successful collaborations, OATS formally joined the AARP family as a charitable affiliate in 2021. The affiliation allows OATS to pursue its mission at scale, helping seniors harness the power of technology no matter their socioeconomic circumstances, geography, educational background or age.
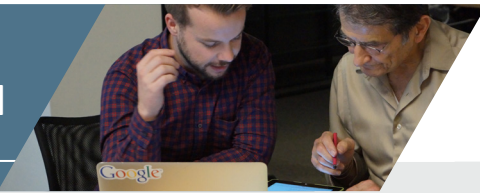
A CALL TO ACTION

While OATS teaches free technology classes through Senior Planet, an initiative offering courses, programs, and activities that help seniors learn new skills, save money, get in shape, make new friends, the organization is not itself technology-focused. Instead, we see technology as an entry point for a myriad of conversations and collaborations with older adults seeking positive change in their lives. When older adults commit to personal change, the first step is often to seek to learn new skills to achieve their goals. OATS is privileged to be the first stop for thousands of older people embarking on such a transformation.

Finally, systems change requires shaping public policies and practices. OATS participates in a wide range of commissions, policy councils, and advisory boards across the U.S. Public sector collaborations such as the NYCHA 10,000 tablet project are the result of years of alliances. Under the Aging Connect banner, we have launched a Mayor's Pledge, calling upon leaders of cities across the country to commit to promoting digital equity and supporting aging services for older adults. This bold pledge centralizes connectivity initiatives, ensuring the inclusion of older adults and measuring progress.

With a growing base of committed older adults as members, partnerships with public and non-profit organizations across the U.S., and an "A List" of corporate and philanthropic collaborators, OATS is well positioned to shape the future of aging which must include Aging Connected.

APPRECIATION