



# **Mixed-method Study on Information, Communications, and Access to Government Benefits among Rural Populations**

Lila Rabinovich, Francisco Perez-Arce, and Tabasa Ozawa

MRDRC WP 2023-474

UM23-Q2

# Mixed-method Study on Information, Communications, and Access to Government Benefits among Rural Populations

**Lila Rabinovich**

University of Southern California

**Francisco Perez-Arce**

University of Southern California

**Tabasa Ozawa**

University of Southern California

October 2023

Michigan Retirement and Disability Research Center, University of Michigan, P.O. Box 1248.  
Ann Arbor, MI 48104, [mrdrc.isr.umich.edu](http://mrdrc.isr.umich.edu), (734) 615-0422

## Acknowledgements

The research reported herein was performed pursuant to a grant from the U.S. Social Security Administration (SSA) funded as part of the Retirement and Disability Research Consortium through the University of Michigan Retirement and Disability Research Center Award RDR18000002-05. The opinions and conclusions expressed are solely those of the author(s) and do not represent the opinions or policy of SSA or any agency of the federal government. Neither the United States government nor any agency thereof, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of the contents of this report. Reference herein to any specific commercial product, process or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply endorsement, recommendation or favoring by the United States government or any agency thereof.

## Regents of the University of Michigan

Jordan B. Acker, Huntington Woods; Michael J. Behm, Grand Blanc; Mark J. Bernstein, Ann Arbor; Paul W. Brown, Ann Arbor; Sarah Hubbard, Okemos; Denise Ilitch, Bingham Farms; Ron Weiser, Ann Arbor; Katherine E. White, Ann Arbor; Santa J. Ono, *ex officio*



# Mixed-method Study on Information, Communications, and Access to Government Benefits among Rural Populations

## Abstract

Rural communities face specific challenges to accessing information about government safety net programs that can provide essential assistance to reduce urban-rural inequalities and contribute to the rural economy. This mixed-methods study examines these challenges, and preferred methods for outreach efforts to increase program awareness and take-up in rural areas. Our qualitative findings align broadly with previous research that suggests distance to in-person resources and unreliable internet access are critical obstacles in rural areas. These challenges are exacerbated for groups with more vulnerabilities, including those on low-incomes, the elderly, those experiencing disease or disability, compromising their ability to access information, benefit claim support, and, in the case of disability claims, the required medical records. Nevertheless, quantitative analyses reveal that, despite having lower internet literacy, rural populations overall have similar access to certain Social Security information resources as their urban peers, notably the Social Security Statement. Still, a large number of rural respondents have low levels of information and access and, overall, rural areas exhibit a strong preference for print and in-person Social Security information relative to nonrural respondents. Government agencies' expansion of online access to programs and information to counteract the barriers to in-person access in rural areas may be only partially effective, since internet connectivity and literacy remain a challenge for some, especially in more disadvantaged areas. Native American reservations may be of particular concern. Moreover, the focus on online access may be insufficient for rural communities where many continue to prefer other modes of communication.

## Citation

Rabinovich, Lila, Francisco Perez-Arce, and Tabasa Ozawa. 2023. "Mixed-method Study on Information, Communications, and Access to Government Benefits among Rural Populations." Ann Arbor, MI. University of Michigan Retirement and Disability Research Center (MRDRC) Working Paper; MRDRC WP 2023-474.

<https://mrdrc.isr.umich.edu/publications/papers/pdf/wp474.pdf>



## Introduction

According to the U.S. Department of Agriculture's (USDA) Economic Research Service, 46 million people, or 14% of the United States population, lived in rural areas in 2020 (Dobis et al. 2021). People living in rural areas face a series of challenges including a shortage of employment opportunities, lower wages, poor internet access, and long distances to health and social services that contribute to higher poverty, food insecurity, disability, and mortality rates, as well as lower labor force participation (Cross et al. 2021; Rural Health Information Hub 2022; Gong et al. 2019; Coleman 2017; Crankshaw 2023; Basu et al. 2019; USDA 2022a; USDA 2022b; Duffy et al. 2022). Minorities are especially affected, with differences in outcomes being more pronounced for nonwhite rural versus urban individuals (Sage et al. 2019).

Federal and state benefits such as Social Security's retirement, Social Security Disability Insurance (SSDI) and Supplemental Security Income (SSI), as well as Supplemental Nutrition Assistance Program (SNAP), Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), and others, provide essential assistance to reduce urban-rural inequities and contribute to the rural economy (Vogel et al. 2021; DeWitt et al. 2020). Yet, while participation in some benefits programs is higher among rural than urban residents, gaps remain in benefit access in rural areas. For example, 14% of SNAP-eligible rural residents do not receive benefits; in some rural areas, this figure is closer to 25% (Bailey 2014; DeWitt et al. 2022). Moreover, reliance on Social Security may be greater in rural areas, where ownership of retirement accounts and stocks and mutual funds is lower than in urban areas (Copeland 2022), and disability rates are higher (Crankshaw 2023).

In spite of the important role of Social Security and other government programs in rural areas, there is limited research about how communication preferences and barriers to information and benefit enrollment operate on the ground among rural populations. While the Social Security Administration and other government agencies provide direct information and claim support to the general population through their website, offices, and other channels, access to these resources may be harder for rural communities given the distance to in-person services and challenges with internet connectivity. Highly isolated communities, or those with higher concentrations of minority households may be at particular disadvantage in terms of access (Weber 2007).

This mixed-methods and literature review study examines the barriers to information and enrollment in government programs faced by rural populations, and their preferred methods of communication for outreach and educational efforts to increase awareness and take-up. Ultimately, the study aims to provide insights on communications to rural populations.

## **Motivation and background**

Rural populations face distinct barriers accessing government programs compared to their urban counterparts. The environmental and sociocultural characteristics of rural areas increase the information, process, and social costs of seeking government benefits, factors associated with the incomplete take-up of benefits (Janssens and Van Mechelen 2022; Ko and Moffitt 2022). Information costs are the up-front time, energy, and resources that potential applicants spend to seek information about a program, such as its eligibility criteria and application process (Janssens and

Van Mechelen 2022). Process costs are the additional time, energy, and resources needed to file for the benefit, such as filling out lengthy and complex forms and traveling to medical appointments or government offices (Kleven and Kopczuk 2011). Finally, the social cost of filing for public benefits is the experience of welfare stigma, both internally through self-stigmatization and externally through stigmatization by other community members and government staff (Baumberg 2016).

Existing literature on the barriers in accessing government benefits among rural populations has largely focused on three themes understood to have the strongest influence in rural communities: transportation and the extent of internet connectivity (both of which are direct contributors to information and process costs) and welfare stigma.

First, compared to urban residents, rural residents experience longer travel distances and time to government offices and other community resources that facilitate benefit enrollment (Akinlotan et al. 2021; Edward et al. 2021; Thomas and Kauff 2012). Rural populations are more likely to report travel as a financial burden than urban populations due to high fuel expenditures and opportunity costs from missed work hours (Akinlotan et al. 2021). Long travel distances in rural areas are compounded by limited accessible and affordable public transportation, shown to impair take-up of government programs such as WIC (Panzera et al. 2017; Rosenberg et al. 2003) and access to health care services in rural communities (Edward et al. 2021). The lack of public transportation options limits access to government offices, especially among nondrivers who may be potential beneficiaries of government benefits, such as older adults, people with disabilities and/or low-income (McDaniels et al. 2018).

Government agencies have sought to reduce barriers to access through online platforms for information and claiming processes. For instance, the Social Security Administration has multiple social media accounts to share information about their programs and services, and applications for Social Security benefits can be submitted online through their website (Social Security Administration n.d.). In fact, one study found that a reform enabling individuals to submit SSDI applications fully online increased application rates the most in rural areas, suggesting that the reform lowered the information and process costs for rural residents who experience greater barriers to accessing field offices (Foote et al. 2019). However, there is still limited research on the utility of digital applications for the takeup of other public benefits, and existing evidence shows mixed results (e.g., Ebenstein and Stange 2010; Schwabish 2012).

Yet, although online access to government programs and information has increased significantly in recent years, many rural areas still have limited access to high-speed, reliable, and affordable broadband internet. In 2019, the Federal Communications Commission (FCC) estimated that about 17% of the rural population lacked access to broadband of at least 25 Mbps (Rachfal 2021). Rural residents also have to pay significantly higher prices for broadband service than urban residents due to limited provider options, hindering internet access for people with low incomes (Butrica and Schwabish 2022; Torng 2022). In addition, digital access is limited for people with disabilities who have lower access to computers, internet, and broadband in both rural and urban areas (Butrica and Schwabish 2022), and comfort with online benefit applications among older adults is low, with only 43% of Social Security retirement claims being filed completely online (Aubry and Wandrei 2021).

Finally, there is a long history of research on how stigma impacts the utilization of services in rural settings. Stigma — whether internal or external (Baumberg 2016) — around certain government benefits can deter information-seeking and potentially impact claiming behaviors (Moffitt 1983). Qualitative and survey studies have documented the way in which stigma interacts with program utilization and behaviors in rural communities (e.g., Nooney et al. 2013; Struber and Kronesbusch 2004; Isaacs et al, 2020). The empirical literature on stigma’s effect on participation in rural areas (which has mostly focused on means-tested programs such as Medicaid, TANF, and SNAP), however, remains limited and inconclusive (Nicolli 2015).

Government agencies provide information and enrollment assistance to reduce the barriers to accessing government benefits and increase take-up among eligible rural populations. These, however, are not always delivered through appropriate communication channels that can overcome existing barriers (Bhargava and Manoli 2015; Hernanz et al. 2004; Ko and Moffitt 2022).

Increasingly, research has explored differences in information preferences across population subgroups (e.g., Rabinovich and Perez-Arce forthcoming; Carman et al. 2023; Knapp and Perez-Arce 2022; Viceisza et al. 2022; Rabinovich and Perez-Arce 2021). However, understanding of the specific communication preferences and appropriate channels for outreach and information delivery for rural populations is still limited. There are, nevertheless, indications that in-person and phone resources are more important in rural than urban areas; for instance, Aubry and Wandrei (2021) found that those who claim Social Security retirement benefits completely online (without interacting with the SSA in person or through the phone) are more likely to live in



metropolitan areas, be college-educated, and have a higher income. Similarly, Farid et al. (2023) found that phone applicants to SSI and SSDI were more likely to live in rural areas and less likely to live in an area with an SSA field office. Qualitative research has yielded similar findings about the centrality of in-person and phone resource availability (e.g., Edward et al. 2021; National Advisory Committee on Rural Health and Human Services 2014).

## **Approach**

We conducted a mixed-methods study to examine the barriers faced by rural populations when seeking government benefits, and their preferred methods of communication for outreach and educational efforts to increase information and enrollment.

Our quantitative approach contrasts the Social Security knowledge, and access to and preferences for accessing information, of rural respondents to the urban and suburban populations. We evaluate differences by rural status in terms of knowledge about Social Security retirement benefits, knowledge about disability programs, preferences, and access to information. Since we focus some of our analyses on the access to online sources, we also analyze differences in terms of internet literacy and internet usage.

The rural status of the respondents is inferred from their addresses. We use an indicator variable that indicates whether the respondent lives in a rural area (versus urban or suburban).

We analyze differences in knowledge and preferred sources of information based on rural status, with and without controls for a rich set of demographic and socioeconomic variables. The quantitative analyses use the Understanding America Study (UAS) panel, a national representative internet-based survey of over 13,000 U.S. adults. To achieve nationally representativeness, the UAS sampling is based on U.S. postal records (Alattar et al. 2018). Respondents who do not have access to the internet are provided with a tablet, internet connection, and training. This enhances representativeness, including of the population with limited internet access and experience. Participants engage in longitudinal surveys covering diverse topics, including knowledge of Social Security, sources of retirement and Social Security information, and knowledge and perceptions of Social Security disability programs, from which we obtain the majority of our information.<sup>1</sup>

Every two years, all UAS participants are invited to complete surveys on Social Security related topics. Our analysis incorporates the latest available surveys, including UAS 457 (knowledge about OASI and SSDI), UAS 459 (information channels), and UAS 322 (disability program knowledge). We included further data from other surveys for control variables (such as education, race and ethnicity, income, and wealth). All of the variables used were included in the UAS comprehensive file (June 2023 release).

For the qualitative data collection, we leveraged the UAS to identify individuals who live in rural areas. A random selection was invited to participate in this interview study. Because the UAS is nationally representative, recruiting from it helps prevent

---

<sup>1</sup> Despite the fact that panelists answer repeated surveys on Social Security, there is no evidence that respondents learn about it due to survey exposure (Alattar et al. 2018). Hence, there is little concern from panel conditioning.

samples that are too homogenous, which is important given the diversity of America's rural population. While a sample of 50 does not permit full representation of every demographic group, we stratified our sample to ensure representation of Black and Hispanic respondents, some geographic variability, and diversity in terms of beneficiary status and age.

We conducted 50 semistructured interviews with participants over the phone. Interviews proceeded in a systematic way where early questions were open-ended and later questions were more specific, to avoid priming respondents with the researchers' hypotheses. The interviews differed slightly depending on whether participants were current benefit recipients. For those who currently receive benefits, the interview focused on the barriers and facilitators to learning about and applying for benefits. For those who do not currently receive benefits, we explored their level of awareness of benefit eligibility and perceived barriers and facilitators to information and application/claiming resources. In addition, we asked the whole sample about preferences for information and communications about government benefits, including their optimal sources, channels, content, and timing of communications and outreach.

All interviews were tape-recorded and transcribed for later review, coding, and analysis. We used Dedoose qualitative analysis software to support the organization and coding of the raw qualitative data. Following the analytical approach developed by Thomas (2006) and Braun and Clarke (2006), a coding scheme for the raw data was developed through an inductive and iterative approach, closely reading and rereading transcripts to identify codes for labeling and organizing of the data. Two team members independently coded five (10%) of the transcripts to establish inter-rater reliability (final

Cohen's kappa of 0.91), after which all transcripts were coded line-by-line. The resulting output was analyzed to identify themes, subthemes within the data, and develop an understanding of how these relate to one another.

The University of Southern California's Institutional Review Board provided ethics approval for this study.

## **Findings**

### *Qualitative sample description*

Our interview sample consisted of 50 individuals, with a median age of 59 (range: 25 to 75), and consisting of 38% male (n = 19), 14% non-Hispanic Black (n = 7), and 12% Hispanic (n = 6). Five participants (10%) were of Native American descent, or mixed Native American and other. Twenty-four participants (48%) were currently receiving benefits from Social Security and/or other sources. Twenty participants had an associate college degree or some college (no degree); 11 had a Bachelor's degree; 13 had advanced degrees, and; six had a high school education or less.

### *Barriers to access and information*

The qualitative data reveals mixed views about the extent to which rural areas experience greater challenges to access information and resources on government programs and services. One group felt that access was not a challenge for those who "planned ahead" (Int. A10, male, no benefits), and that information is readily available for those seek it:

*[T]he school gives everyone as much information as they'd like on it. On disabilities and things. And then there's always community*

*areas, there's the churches. If somebody wants it, there's always ways.*

(Int. A36, female, receives benefits)

Others recognized that access to information and resources could be significantly burdensome in rural areas, due to limitations with transportation options, long distances to in-person resources, and slow, unreliable, or nonexistent internet connectivity. In what follows, we describe these qualitative findings in greater detail, and provide results from relevant survey data analyses to shed further light on barriers to information and access in rural communities.

### Internet connectivity

Participants' experiences with internet connectivity were not uniform. As expected, many of our participants (about 60% of the sample) reported challenges with internet connectivity. For others, however, internet access was not a problem.

While most participants reported having a device and an internet connection, several noted issues with bad coverage, high costs, and unreliable service:

*[Internet is] expensive. It constantly goes off. The service is very sporadic. And it's a monopoly so, it's not much of a choice.* (Int. A22, female, receives benefits)

*[I have problems connecting to the internet] every day.*

*[Y]esterday we had no service all day. I don't know what it is... So that's a challenge.* (Int. A23, female, receives benefits)

*[U]p until last year [the connection] has been pretty bad, nonexistent. So, it was harder to do things online...* (Int. A14, male, no benefits)

*[W]e have to pay about twice as much as a person who lives in a city. (Int. A7, male, receives benefits)*

A few participants noted that while their own coverage was reliable, others in nearby areas may have significant connectivity issues, especially in Native American reservations.

*This area for coverage is tough [...] [I]f you go a certain direction in our area, it's the reservation and they don't have the towers there to have internet capability there at all or very few areas that are spotty. So, it's really tough. (Int. A26, female, receives benefits)*

*Our county's very big. The reservation is 15, 10 miles from me, and a lot of areas of the reservation, which is humungous, the [tribal name] reservation, they don't have any service. (Int. B10, female, receives SSDI benefits)*

Participants reported on ways they and members of their communities deal with internet coverage issues, notably using the wireless connection provided by fast food restaurants, schools, and libraries, although even these resources were not always effective:

*I know a lot of very, very poor people. [A] lot of them hang out near McDonald's, they're getting on the McDonald's Wi-Fi. (Int. A28, female, receives benefits)*

*[W]e have a library here that's five miles from here and we go down, but it's slow. Can't even get anything done. (Int. A23, female, receives benefits)*

*I guess the bottom line is if you live in a rural area, you pretty much accept all that stuff. So if the computer goes down because the electricity beeps, you turn it off and you go do something else for an hour or so and you go back and do it again. (Int. A24, female, no benefits)*

One participant reported being provided with a phone as part of a program for low-income individuals, and even then being unable to connect:

*I was in the grocery store one day. And the guy came in and he was like, "Hey, they giving free phones out there. All you gotta do is be on Disability or have a food stamp card." I get Disability. He said, "Well, go out there and sign up for one." And I did, and I got the phone. But it just doesn't pick up. And I've called and told them a million times that it's not picking up in my area, could I send it back to them or could they send me a new SIM card? I don't even charge that phone up anymore. (Int. T02, female, receives benefits)*

### Internet literacy and usage

Qualitatively, we did not discern any particular internet literacy and usage patterns or messages; the discussion about access to and use of online resources focused, as described in previous sections, on internet connectivity challenges.

Survey data, however, tells a deeper story about internet literacy and usage in rural areas. Following Rabinovich and Perez-Arce (2021), we created an internet literacy index. It is based on a set of 35 questions that measure internet literacy, adapted from Van Deursen et al. (2016), and included in the two most recent waves of the Social Security literacy surveys in the UAS (we use the fourth round, UAS 457). The questions ask respondents to self-report knowledge in a number of areas, including questions about whether the respondent knows how to download files, fill online forms, change privacy settings, bookmark a website, and download apps to a mobile device. Using Principal Components Analysis (PCA), we created an index variable “internet literacy,” that weights 35 variables constructed from their loading into the first component. We then standardized the index to have a mean of zero and a standard deviation of one.

Table 1 below shows that rural respondents have lower internet literacy scores than urban and suburban populations. The difference in scores is wider than what would be predicted based on socioeconomic characteristics of the rural population alone: after controlling for demographics, education, income, and wealth, rural residents still score about 0.11 standard deviations below their nonrural counterparts.

The survey also asks 14 questions about online activities typically done by respondents. We construct a variable by adding up the number of activities that a respondent does “often” or “very often.” The third and fourth column of Table 1 report the results when using this as the outcome variable. Rural residents report lower rates of internet usage. Even after accounting for a comprehensive set of controls, rural respondents indicate they “often or very often” engage in 0.36 fewer activities out of the



14 inquired about than their nonrural counterparts (the 0.36 fewer activities represent a 6.5% reduction from the 5.58 mean for the nonrural).

**Table 1: Differences in internet literacy and internet usage**

	Internet literacy index <sup>1</sup> {standardized}		Internet usage score <sup>2</sup> {# of activities often or more}	
	Model 1	Model 2	Model 1	Model 2
<b>Rural</b>	-0.202*** (0.032)	-0.107*** (0.033)	-0.545*** (0.120)	-0.363*** (0.114)
<b>Male</b>		-0.012 (0.021)		0.705*** (0.071)
<b>Hispanic</b>		-0.038 (0.029)		0.166* (0.100)
<b>Black</b>		-0.095** (0.037)		0.009 (0.126)
<b>Other nonwhite</b>		-0.112*** (0.033)		0.130 (0.113)
<b>Observations</b>	9,260	8,172	10,164	8,449
<b>R-squared</b>	0.171	0.232	0.042	0.156
<b>Controls</b>	Demo	All	Demo	All
<b>Mean dependent variable for nonrural white respondents</b>	0	-0.0400	5.420	5.580

**Source:** Authors' calculations using the June 2023 UAS Comprehensive File (internet literacy data from UAS 457).

**Notes:** Outcome variables are internet literacy and usage indices described in the text.<sup>1</sup> Literacy internet index is a standardized index of internet literacy (mean zero and standard deviation 1).

<sup>2</sup> Internet usage score is a sum of the number of types of internet activities that respondents perform often or very often (out of 14). The items used in the internet literacy and usage scores are available in the documentation for UAS 457 in the UAS data pages

<https://uasdata.usc.edu/survey/UAS+457>. Model 1 includes only demographic controls for gender and age categories while Model 2 includes race and ethnicity indicators, educational attainment, income, and wealth controls. Asterisks indicate results are statistically different from zero: \* (10%), \*\* (5%), \*\*\* (1%).

Table 2 below shows the coefficients for “rural” from individual regressions where the dependent variables are indicators of whether respondents engage often or very often on each of the respective activities used in the score above. The regressions include age and gender control variables as in Table 1 above.

Important differences appear when looking at the specific online activities that the rural population engages in. While rural respondents are less likely to video-chat and do online banking, they are slightly more likely than the nonrural to use social media and are equally likely to look up information about Social Security and other government programs.

Perhaps the lower access to internet and lower levels of internet literacy are counterbalanced by a higher need to access information online given the greater difficulty of getting to government offices for such information. The result that rural respondents are less likely to routinely fill applications online is also noteworthy, as it is relevant for the provision of government services.

**Table 2: Internet usage for the rural and nonrural populations**

Online activity	Rural	Mean dependent var for nonrural white
Video-chat	-0.033**	0.260
Video conference	-0.051***	0.230
Look up information about Social Security	0.005	0.0500
Look up information about other government programs	0.000	0.0600
Check account balances	-0.041**	0.730
Bank accounts, manage or transfer money	-0.061***	0.670
Use email	-0.054***	0.870
Transfer files with co-workers	-0.049***	0.320
Use social media	0.030*	0.570
Take online classes	-0.002	0.130
Shop	-0.025	0.620
Pay bills	-0.071***	0.700
Fill an application	-0.074***	0.380
Telemedicine visit	-0.045***	0.130

**Source:** Author's calculations using the June 2022 UAS Comprehensive File (outcome data from UAS 457).

**Notes:** Outcome measure is an indicator for whether respondent conducts the activity. Results from regressions that include age and gender controls. The questions and the full internet literacy items are available in the documentation for UAS 457 in the UAS data pages <https://uasdata.usc.edu/survey/UAS+457>. Asterisks indicate results are statistically different from zero: \* (10%), \*\* (5%), \*\*\* (1%).

### Transportation and distance to resources

Our sample reported significant distances to institutional and commercial resources, including Social Security offices, hospitals and health care providers, and grocery stores. Many participants did not find long distances to be a particular challenge, since they had their own reliable transportation and, as several noted, they were used to long drives. As one participant said: "An hour [drive] is very doable" (Int. AO9, male, receives benefits). Still, even some of these participants recognized that

their ability to access resources relied on their good health and the fact that they could afford to pay for gas and had vehicles in good working order.

However, others noted that transportation to various locations (government offices, grocery stores, health care providers, etc.) could be a challenge because of the long drives:

*We used to have a Department of Economic Security office here, but they moved to [X] Town, an hour away, [which was] a challenge. [But] now just recently they closed that office, so now we got to go two hours away. (Int. A23, female, receives benefits)*

This was especially true for participants and family members who had disabilities or medical conditions, who were elderly, and/or who had low incomes. These individuals had to rely on others for transportation, including transportation organized by local churches, or van services that required advance booking, have limited availability, and may include other riders:

*I have to call a nonemergency medical transport. You can ask them to stop at stores and get groceries and stuff like that. I don't have transportation myself. [City's] the only place where we get groceries, and we go to clinics. (Int. A30, male, receives benefits)*

*So, my parents live in a nursing home now, and it becomes a big challenge for them for medical procedures. Oftentimes I end up having to take off work to drive 'em. [T]he big thing is either me taking off or finding somebody willing to drive. I would say transportation's a giant issue as far as doctors and health care, finding good health care. I*

*mean, we have access to it, but it's an hour drive usually. (Int. A34, male, no benefits)*

*There's nothing wrong with the [transportation] service. It's just that you may get on and you have two or three other people on there and you gotta wait at their doctor's appointment for them. You don't know how long you're gonna be away from home. And I just don't like that. (Int. A2, female, receives benefits)*

For a number of individuals, access to health care providers was noted as especially challenging, even for those with their own transportation. Several participants had medical conditions and had to visit their providers frequently, which entailed a significant amount of travel and time off from work or other activities for themselves and family members who had to drive them.

*I go to the VA hospital. I go there three or four times a week. It's [m]aybe 40 or 50 miles away. (B1, male, receives benefits)*

*My wife is a tribal member of the [tribal name] tribe, so she can get [health] benefits from there, but we don't... [F]or the dental and the eyeglasses she would have to go over to [X town], which is probably about 60 miles away. (Int. A33, male, receives benefits)*

The cost associated with this amount of travel, which is more common for those undergoing any kind of medical care, emerged as an important challenge:

*One thing that I would like to see with public transportation, though, is we have several elderly people that have to go 60 miles away*

*for dialysis three days a week, and they're still charged the \$75 each day for those three days [T]hat is an insane amount of money, especially when you're on a fixed income and your Social Security doesn't barely cover anything. [T]hat would be one thing that needs to be changed as far as public transportation in this area. (Int. A11, female, receives benefits).*

As a result of the distance to health care providers, a few participants who had applied for disability benefits reported long journeys to obtain the necessary medical records, with high associated costs:

*I had to drive mostly, I had to go — I went to [X town], which was 70 miles away then I had to make a trip to [city] which was about four hours. (Int. B5, male, receives benefits)*

#### Access to Social Security and other government resources

Exploring access to Social Security offices specifically, we asked participants if they knew where the closest office was to their places of residence. Many knew where the office was; others assumed there would be one in the nearest large town but were not certain. Participants were more likely to be aware of the location of offices for other programs — such as SNAP and unemployment — than Social Security:

*I think they may have shut [an office] down recently in my county so I want to say [the nearest one is] maybe in [X county] or another surrounding county. Probably about 30 minutes away. (A10, female, receives benefits)*

*I would assume it's somewhere about 45 miles away from me in [X city], but I don't know that for sure. (Int. A31, female, no benefits)*

Twenty-eight individuals reported the distance from their homes to the nearest Social Security office (or large town) in miles, which was on average 38 miles (range: 1 to 125; median: 32.5). An additional 14 individuals cited an average distance to the nearest office (or large town) in minutes (average: 39 minutes; range: 10 to 90 minutes; median: 34.5). The remaining interviewees either did not know (n = 2) or did not provide a response.

Two participants cited language barriers for tribal members, describing how lack of English proficiency intersects with other structural barriers, notably poor internet connectivity:

*[P]eople like [my mother-in-law], there are a lot of elderly people that don't have computer skills. She [...] doesn't even speak English. She can't even get instructions from somebody from Social Security. She has to go with a translator, and she wouldn't be able to get [internet] service anyway. (Int. B10, female, receives benefits)*

*There's not a lot that's available to [tribal members] or in a way they can understand. Because you have some of them coming off the reservation, especially the elderly that would be looking at more of the retirement benefits, or supplementary type income that maybe they don't understand... [T]he struggle at the Social Security office is the language barrier. Then, they try and push people to the websites, of course. But you've got these people that can't even get internet access out in the*

*middle of nowhere. So, this is a problem. They have to be able to come into an office. They're traveling quite far to come into Social Security offices. So, help these people and have resources available that they can understand. (Int. A26, female, receives benefits)*

Participants who had applied for benefits other than through Social Security reported mixed experiences with access to the required resources and the process more broadly. Some noted that the application process for benefits such as SNAP, TANF, WIC, unemployment, and others was straightforward and fast, whether the application was completed online or in person (such as through the local Department of Health Services, Department of Economic Security, and similar office locations). This was also the perception of at least one participant who did not have direct experience of these programs:

*I know a lot of people that have [it] here [in our area], and they just didn't have the same issue. They were able to get their benefits going much sooner if they qualify than they did dealing with Social Security. Oh my goodness, yeah, much easier. (Int. B10, female, receives benefits)*

Others, however, had experienced significant challenges such as erroneous information from the relevant agency, stressful or hostile interactions, and burdensome processes. Interestingly, in only one case were the challenges mentioned explicitly linked to living in a rural area. In that case, however, a participant noted that bad



information from a VA representative had led him to travel to various offices across the county to process paperwork for VA benefits:

*[E]very time I tried to get the VA medical side... [they] sent me all over the country. I mean, I was going to [X town], [Y town], and [Z town] trying to get my VA benefits started. And nothing. It wouldn't happen. I finally got to this year... I went in [again], we got a new guy, he sat me down, got it taken care of that day. I don't understand why they ran me around and all that, and it's like I lost so many benefits because of that.*

(Int. A41, male, receives benefits)

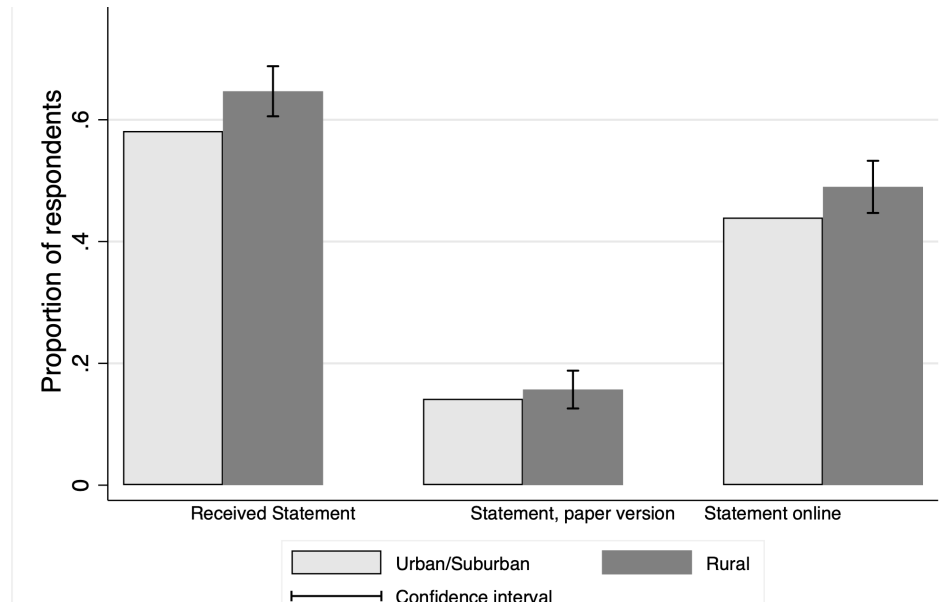
The quantitative analyses provide additional insights into access to Social Security resources in rural areas. These analyses show that the rural population has had at least as good access as the nonrural population to a key information product from the Social Security Administration: the Social Security statement. Rural respondents are slightly but statistically significantly more likely to have seen their Social Security statement than their nonrural counterparts (see panel A of Figure 1). Fifty-eight percent of urban and suburban respondents have ever seen a Social Security statement, while 65% of rural respondents have seen it. A higher proportion of rural respondents have seen both the online version (16% versus 14%) and the paper version (49% versus 44%).

In a prior section, we presented results showing that, despite their lower level of internet literacy and general internet use, rural respondents are at least as likely to use the internet to access information about Social Security and government programs. When asked about the use of *my Social Security*, an online resource, rural respondents

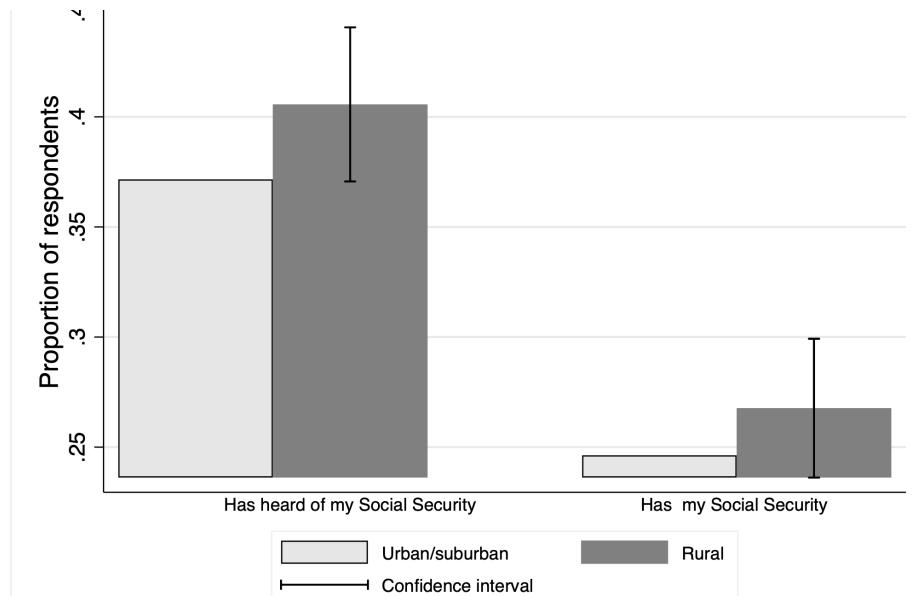
are both more likely to say they have heard of it, and to have used it (Figure 1, Panel B). Rural respondents are 4 percentage points more likely than their nonrural counterparts to have heard of *my* Social Security, and 2 percentage points more likely to have used it (though the difference is not statistically different from zero).

**Figure 1: Rural versus urban/suburban status and access to information**

Panel A. The Social Security Statement.



Panel B. Awareness and usage of my Social Security



**Source:** Authors' calculations using the Comprehensive File (data from UAS 459). Brackets reflect 95% confidence intervals relative to white respondents.

Note, however, that the fact that access to these information products is not lower in rural areas does not mean that there is no need for more outreach in rural areas. In fact, a majority of rural residents do not have a *my* Social Security account, and a sizeable minority (35%) have never seen their Social Security Statement. Given the importance of these sources for decision-making,<sup>2</sup> and given the lower access to physical offices in rural areas, efforts may be warranted to further increase access to these online tools.

### Social Security literacy

In the qualitative interviews, participants tended to be relatively confident about their knowledge of Social Security. This was, as expected, more common among those closer to retirement age, and those who had claimed or were already receiving Social Security benefits.

Our survey data analysis revealed that there are no marked differences between rural and nonrural respondents in terms of knowledge of OASI Social Security programs. Both groups of respondents get on average around 9.2 answers correctly (out of 15). In the regressions with a full set of controls, rural residency is associated with a 0.1-point higher level of the Social Security literacy index. This coefficient is small and statistically insignificant.

Significant differences, however, emerge in terms of knowledge about the Social Security disability programs (SSDI and SSI) specifically. In the models shown in

---

<sup>2</sup> Rabinovich and Perez-Arce (2021) show that people find the information in *my* Social Security valuable. Armour (2018), Smith (2020), Armour et al. (2022), and Perez-Arce and Rabinovich (2022) show that the Social Security statement affects decision-making.

columns (3) to (6) of Table 3, the coefficients for rural are both positive and statistically significant. Perhaps, this results from the fact that disability rates are higher in rural areas (Crankshaw 2023).

**Table 3: Differences in Social Security by urbanicity, OASI disability programs**

	Knowledge about OASI programs		Knowledge about SSDI		Knowledge about SSI	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
<b>Rural</b>	-0.021 (0.102)	0.115 (0.099)	1.249*** (0.124)	0.602*** (0.108)	0.339*** (0.048)	0.112** (0.044)
<b>Observations</b>	5,782	4,922	10,164	8,449	10,164	8,449
<b>R-squared</b>	0.164	0.287	0.050	0.051	0.025	0.019
<b>Controls</b>	Demo	All	Demo	All	Demo	All
<b>Mean dependent variable for nonrural white respondents</b>	9.192	9.193	5.84	6.80	2.06	2.39

**Source:** Authors' calculations using the June 2023 UAS Comprehensive File (knowledge data from UAS 457, UAS 322).

**Notes:** Outcome variables are the Social Security knowledge indices described in the text. First two columns use the Social Security knowledge index from UAS 457. Last four columns use SSDI and SSI knowledge indices respectively, both from UAS 322 . Model 1 includes only demographic controls for gender and age categories while Model 2 includes race and ethnicity indicators, educational attainment, income, and wealth controls. Asterisks indicate results are statistically different from zero: \* (10%), \*\* (5%), \*\*\* (1%).

## Stigma

Both participants who are currently receiving means-tested support, such as through SNAP or SSI, and those who are not initially reported they do not perceive stigma against beneficiaries in their community. People noted several reasons for this; for instance, some participants said that there are many poor people in the community

receiving benefits so everyone is used to it, while others said beneficiary status is a private matter so people are not aware of who receives benefits and who does not.

*[I]t doesn't have the stigma it used to have. I think it's just everybody is used to it now and it's no big deal. I think it's very common around here, because all the children in school, they all get free lunch [...] because it's such a poor area. (A32, female, receives benefits)*

Nevertheless, a few individuals reported that some stigma does exist around receiving means-tested benefits. One participant described what she observed in her community:

*I do know — because I'm superintendent of schools — that our registration day next week, those parents on SNAP or any kind of assistance will not fill out the forms. Because they don't want the school district knowing how much they make, how poor they are and then that hurts our school district's ability to receive grants or to be a Title I school and have everybody get free lunch. We do because enough people are filling out those forms, but there's a lot that won't. (A28, female, receives benefits)*

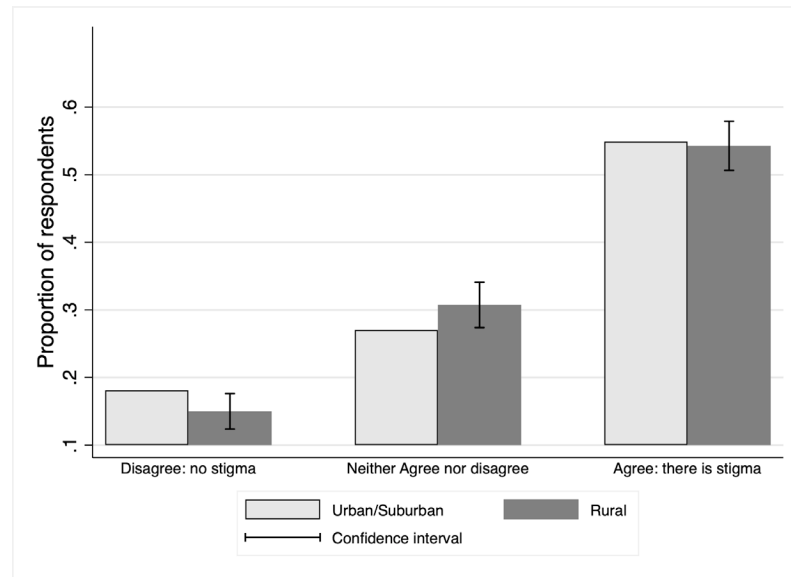
Moreover, several individuals were quick to note that disability benefits (both through SSI and SSDI) are a “gray area,” as one participant called it (A25, male, no benefits). While most understood the importance of programs supporting mothers and children, such as WIC and SNAP, they felt that people in their community receive disability benefits who should not. This was not an isolated view among our participants;

almost 20% of the sample — most, but not all, of them not current beneficiaries of any program — brought this issue up (an additional ~5% of participants argued that there were many ‘undeserving’ beneficiaries across other means-tested programs as well):

*[I]t gets frustrating when you see people abusing the system and not appreciating the benefits that they get and being wasteful and [...] not working when they could. I've worked all my life and will continue to do so as long as I can. So it does bother me when I see people who could work, but they just choose not to. (A20, male, receives benefits).*

The UAS survey on Knowledge, Perceptions, and Experiences with Social Security Disability programs includes a question on whether there is stigma attached to receiving disability benefits. The results suggest perceptions of stigma around disability benefits are not unique to rural areas: We find that a majority of both rural (55%) and nonrural (54%) respondents agree that there is stigma attached to receiving disability benefits. Among rural respondents, 31% neither agree nor disagree with the statement, and only 15% disagrees that there is stigma.

**Figure 2: Stigma attached to receiving disability benefits**



**Source:** Authors' calculations using the Comprehensive File (data from UAS 322). Brackets reflect 95% confidence intervals relative to white respondents.

## Communication and outreach preferences

Rural respondents are statistically significantly less likely to receive information about retirement from employers, the media, and for profit organizations (see Table 4). Despite the challenges in access, they are not significantly less likely to receive information from SSA, other government agencies, nonprofit or other community organizations.



**Table 4: Differences in information sources about Social Security by rural status**

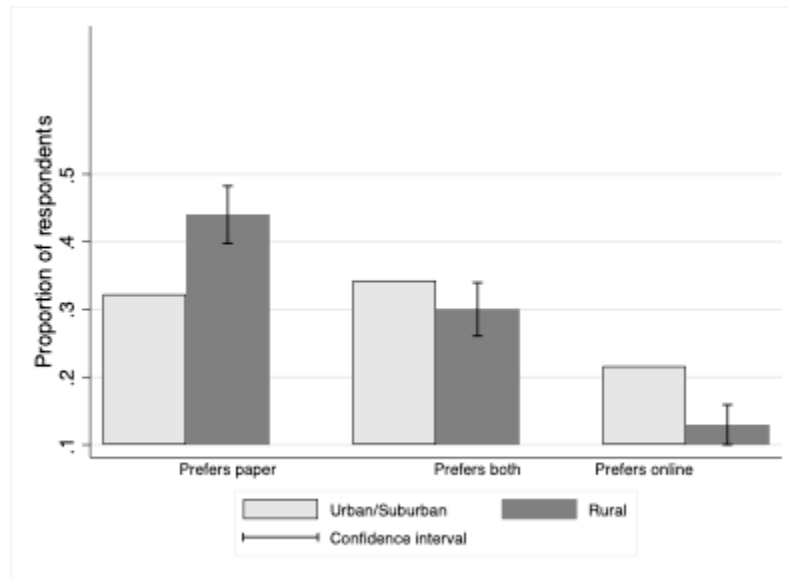
	Employer	Media	Social Security Admin.	Other Gov. Agencies	For Profit Business (e.g., banks)	Nonprofit Orgs.	Other Community Orgs.
<b>Rural</b>	-0.075*** (0.017)	-0.034*** (0.010)	-0.017 (0.015)	0.009 (0.005)	-0.071*** (0.015)	-0.000 (0.008)	-0.009 (0.006)
<b>Obs.</b>	7,569	7,569	7,569	7,569	7,569	7,569	7,569
<b>R-squared</b>	0.013	0.011	0.131	0.003	0.077	0.029	0.004
<b>Mean dependent for white</b>	0.346	0.0906	0.270	0.0169	0.312	0.0639	0.0233

**Source:** Authors' calculations using the June 2023 UAS Comprehensive File (outcome variables from UAS 459).

**Notes:** Results from regressions that include race and ethnicity indicators, age (indicators for 18 to 29;30 to 39,...80 and older) and gender controls. { \* (10%), \*\* (5%), \*\*\* (1%).

Rural respondents have a distinct preference against online content, more so than nonrural respondents. When asked how respondents would prefer to receive the Social Security Statement, a large majority of rural respondents say they would prefer to receive either in paper only, or both in paper and electronic format. The proportion saying they would prefer it in electronic format only is small (13%), and substantially and significantly smaller than among the urban and suburban population (22%).

**Figure 3: Preferences for online versus paper communication, the Social Security Statement**



**Source:** Authors' calculations using the Comprehensive File (data from UAS 459). Brackets reflect 95% confidence intervals relative to white respondents.

The “Channels of Information about Social Security” survey includes questions about how respondents would prefer to receive information or contact the Social Security Administration. A number of questions in the survey ask: *“For each of the following services, how would you prefer to contact Social Security?”* The response options are: *Speak on the phone with an employee at a national Teleservice Center / Speak on the phone with an employee at a local office / Visit a local office / Use the internet/email.* We constructed indicator variables for preferring using the internet or email, preferring visiting a local office, or preferring to speak on the phone (teleservice center or with a local office employee). We then regress these variables against the rural dummy, and, alternatively, the short (age indicators and gender) and long list of control variables.

Table 5 shows the results for the variables corresponding to preferences for receiving information about retirement. Despite the larger distances to SSA’s offices, rural respondents have a higher preference for visiting local offices relative to the nonrural respondents. The coefficients for the *rural* dummy are statistically significant and positive for “visit a local office” and negative for “use the internet/email.” These results are robust to including the rich set of control variables. While a majority of respondents prefer online means for accessing information (63.7% among the nonrural), rural respondents are 9 percentage points less likely than nonrural to prefer online, and 7.4 percentage points more likely to prefer visiting a local office. The inclusion of educational, income, and wealth controls explain part of the difference, but the coefficient for rural in those two cases remains statistically significant.

These results are very similar to the answers given for other activities, such as “replace a Social Security card” or “correct mistakes in earnings on my Social Security record” (results not shown).

**Table 5: Preferences for receiving information about retirement**

	Use the internet/email		Visit local office		Telephone	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
<b>Rural</b>	-0.090*** (0.021)	-0.057*** (0.021)	0.074*** (0.017)	0.058*** (0.017)	0.016 (0.017)	-0.001 (0.018)
<b>Observations</b>	5,421	4,606	5,421	4,606	5,421	4,606
<b>R-squared</b>	0.033	0.105	0.012	0.049	0.019	0.039
<b>Controls</b>	Demo	All	Demo	All	Demo	All
<b>Mean dependent variable for nonrural white respondents</b>	0.637	0.624	0.168	0.175	0.196	0.202

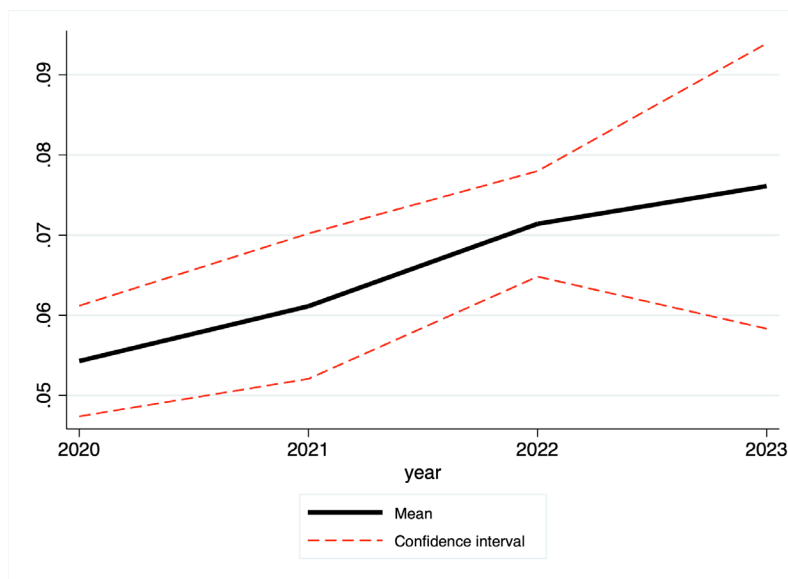
**Source:** Authors’ calculations using the June 2023 UAS Comprehensive File (preference data from UAS 459).

**Notes:** Outcome variable is an indicator for response options (telephone/in person/online).

Model 1 includes only demographic controls for gender and age categories while Model 2 includes educational attainment, income, and wealth controls. Asterisks indicate results are statistically different from zero: \* (10%), \*\* (5%), \*\*\* (1%).

It is important to acknowledge that preferences for online communications could continue to increase. Figure 4 shows the changes since 2020 in terms of the percentage of respondents who answered that they often or very often use the internet to look up information about Social Security. The increase in the frequency of the use of online tools through the years may translate to an increase in relative preferences for online tools.

**Figure 4: Trajectories in internet activities, use of the internet to look up Social Security information**



**Note:** Figure shows the percentage of respondents who say they often or very often use the internet to look for information about Social Security, per calendar year.

**Source:** Authors' calculations using the Comprehensive File (data from UAS 231 and UAS 457). Dashed lines reflect 95% confidence intervals relative to white respondents.

No distinct communications and outreach preferences for Social Security and other program information were discerned in the qualitative interviews. Participants cited a wide range of sources they have used or would trust for information, including online resources, in-person visits or calls to relevant state or federal government offices, community centers, radio, TV, churches, social networks, and public libraries — most of which were noted to have significant traction as informational opportunities in rural settings:

*[Y]ou got your newspaper, your library, senior center, your social services office, and probably even the Chamber of Commerce would probably have information in this smaller town. [E]ven in the doctor's office, everybody's got pamphlets about 'if you need assistance with this you pick up the pamphlet,' do whatever it tells you to do and see if you're qualified, but that's basically how it is out here (Int. B5, male, receives benefits).*

However, several participants highlighted the importance of print information available in settings that individuals frequent. For example, participants noted that in impoverished rural settings, or near or at Native American reservations, “pamphlets that are very easy to spot in a room” (Int. B10, female, receives benefits ), such as in health care facilities, Native American health service clinics, addiction treatment centers, food pantries, and cafeterias may be most effective to reach low-income or isolated rural households.

Others noted, similarly, that print information displayed in commercial settings such as supermarkets would also reach the target population:

*The question is, where are people going that would maybe need these services? [T]hey're going to the grocery store. [T]hey're going to the gas station, or they're going to the 7 Eleven. Is there some way of using those places, maybe not necessarily to provide the services, but to get the information out there? Or sometimes, maybe even in the doctor's office or in the hospital. (Int. A37, female, no benefits)*

Local newspapers, including tribal newspapers, were mentioned frequently by participants, who typically argued these papers have a wide reach and are thus also promising information channels:

*[T]he local paper would be a great way for Social Security to get information to the people. Especially, Social Security is generally the business of older people and the paper is also more popular with older people than with younger people [...] (Int. A16, male, no benefits)*

*[T]he tribe sends out a tribal newspaper every month to all the tribal members that are registered... It's got a lot of informative stuff, just on the [tribe name] tribe itself, but it also has other things in there for tribal members and tribal businesses, and it lists all the places in there where you can get your benefits... (Int. A33, male, no benefits)*

Among those with access to electronic devices and the internet, the Social Security website was mentioned frequently as a source of information on benefits, as well as a platform to conduct transactions (such as claiming retirement). Several noted that, in spite of unreliable internet connectivity and limitations in the information available online, the website was a good starting point given the physical distance to

offices and long delays with phone communications. As one individual said: “[T]here are conveniences because of being in a rural area doing things online, you don't have to drive there [to the office].” (Int. A40, male, no benefits)

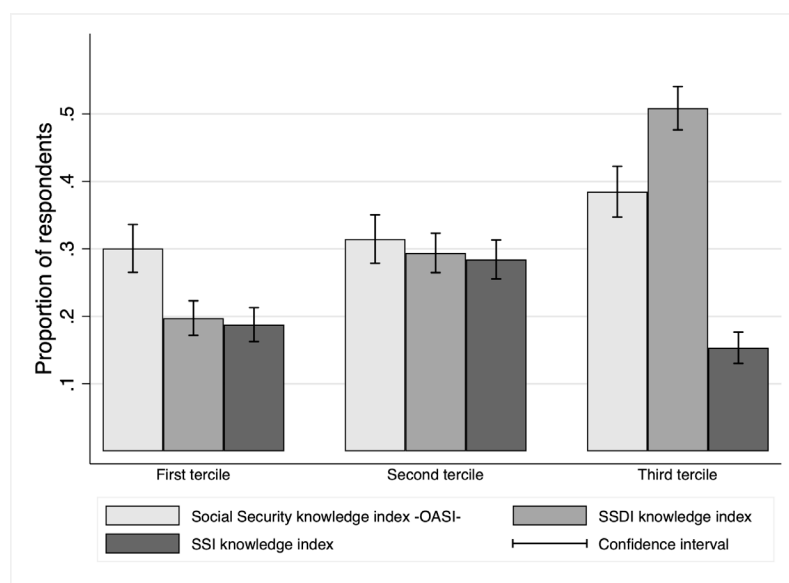
## **Disparities in knowledge and access to information within the rural population**

The quantitative analyses presented so far have shown that, in terms of certain outcomes, the rural population is not worse off on average than the nonrural population. But, as we have pointed out, and as highlighted by the qualitative analyses, this does not imply that the rural population does not have specific needs and challenges in terms of Social Security communications. In this section, we highlight the large disparities existing within the rural population in terms of some of these outcomes.

Figure 5 below shows the proportion of rural respondents scoring at each tercile of the Social Security knowledge indices analyzed before, with the terciles defined in terms of the national distribution. The figure shows the percentages in each tercile for each of the three indices previously shown (OASI, SSDI, and SSI knowledge indices).

A significant percentage of rural respondents scored in the lowest terciles of each of the Social Security indices. On the OASI Social Security Index, about 30% of rural respondents scored 7 or less (out of 15), which corresponds to the first tercile at the national level. On the SSDI index, 21% got fewer than five correct answers out of the 12 questions that comprise the SSDI knowledge index, and 20% answered zero questions correctly (out of the four questions that comprise the SSI knowledge index).

**Figure 5: Proportion of the rural population scoring in each tercile of the Social Security knowledge indices**



**Source:** Authors' calculations using the Comprehensive File (data from UAS 457). Brackets reflect 95% confidence intervals relative to white respondents.

## Implications

Rural communities share some of the challenges with the nonrural population, but also face specific challenges in accessing information and government programs that can provide them with much needed support. Our study's qualitative findings align broadly with those of previous research suggesting that distance to in-person resources and unreliable internet access are critical obstacles for those living in rural areas.

The qualitative findings provide additional nuance to how information challenges are experienced on the ground. Distance to government program and health care resources constitute a significant burden for participants seeking in-person information and resources, especially in terms of gas costs, vehicle maintenance, and time. Similarly, we find that internet connectivity is a multilayered challenge, with some



participants reporting unreliable or limited connectivity in their homes or surrounding areas, and others reporting reliable access but high costs of internet connection. These challenges are exacerbated for more vulnerable groups, including those on low-incomes, the elderly, those experiencing disease or disability, those living in more isolated areas, and those who lack their own transportation, compromising their ability to access information, benefit claim support and, in the case of disability claims, the required medical records.

The quantitative analyses reveal that, despite internet literacy challenges, rural populations have similar access to certain Social Security information resources as their nonrural peers. Interestingly, rural residents exhibit a distinct familiarity with Social Security disability programs, outpacing urban and suburban communities. These results challenge the notion that rural communities are disadvantaged in accessing critical government data. The quantitative findings suggest that rural individuals may make up for their higher distance from physical resources with greater usage of mail and internet information.

There are large disparities within the rural population in terms of knowledge and access, with many exhibiting low levels of knowledge and little access to communication tools. The qualitative findings highlight the specific challenges faced by many respondents who have low levels of access to information.

Many rural individuals make up for their higher distance from physical resources with greater usage of mail and internet information. Nevertheless, government agencies' push to expand online access to programs and information to counteract the barriers to in-person access in rural areas may be only partially effective, since internet

connectivity continues to be a challenge. This is especially problematic in highly isolated or marginalized areas. Native American reservations may be of particular concern.

Moreover, the focus on online access may be insufficient — albeit still necessary — for rural communities that continue to prefer other modes of communication even when internet connectivity is not an issue. Qualitatively, we did not observe distinct communications and outreach preferences for Social Security and other program information. However, participants cited a range of information sources that could have wide reach in rural areas, highlighting that certain analog approaches may be most effective for outreach. In particular, print information provided through community or senior centers, health care settings, public libraries, and local newspapers may be especially able to broaden exposure to critical program information, especially for most rural residents facing the most vulnerabilities. From survey data analysis, we observe a stronger preference in rural areas for print and in-person Social Security information relative to nonrural respondents. These findings align with those from previous research showing that individuals in rural areas are less likely to claim Social Security retirement benefits completely online (Aubry and Wandrei 2021) and more likely to claim benefits by phone (Farid et al. 2023). However, we may expect preferences for online communications to increase since, as we find, more people increasingly use the internet to look up information.

The heightened understanding of disability programs in rural areas hints at unique needs or experiences within these communities, suggesting a demand for targeted resources and interventions.

The study's qualitative findings are also revealing of some of the dynamics of stigma in rural communities. While some participants perceived low stigma against government program beneficiaries — especially in areas where poverty and safety net program participation is high — others reported some degree of shame associated with being a beneficiary, or suspicions against beneficiaries of certain programs (notably Social Security disability, and to a lesser extent means-tested programs such as SNAP). The quantitative analysis, however, shows that perceptions of stigma around Social Security disability benefits specifically do not differ significantly between rural and urban populations. Although the effect of stigma on health care utilization in rural areas has been documented, it is still unclear whether and how stigma affects information-seeking behaviors and program take-up in rural areas: Future research could examine this question in greater depth.

## References

- Akinlotan, Marvellous, Kristin Primm, Nima Khodakarami, Jane Bolin, and Alva O Ferdinand. 2021. "Rural-Urban Variations in Travel Burdens for Care: Findings from the 2017 National Household Travel Survey." Southwest Rural Health Research Center Policy Brief. <https://srhrc.tamu.edu/publications/travel-burdens-07.2021.pdf>.
- Alattar, Laith, Matt Messel, and David Rogofsky. 2018. "An Introduction to the Understanding America Study Internet Panel." *Social Security Bulletin* 78 (2).
- Armour, Philip, 2018. The role of information in disability insurance application: an analysis of the social security statement phase-in. *American Economic Journal: Economic Policy*, 10(3), pp.1-41.
- Armour, Philip, Katherine Carman. and Mandlenkosi Dube. 2022. The Redesigned Social Security Statement's Short-Term Impacts on Near Retirees. Ann Arbor, MI. University of Michigan Retirement and Disability Research Center (MRDRC) Working Paper.
- Aubry, Jean-Pierre, and Kevin Wandrei. 2021. *How to Increase Usage of SSA's Online Tools* [Working Paper]. Center for Retirement Research at Boston College. [https://crr.bc.edu/wp-content/uploads/2021/11/wp\\_2021-15.pdf](https://crr.bc.edu/wp-content/uploads/2021/11/wp_2021-15.pdf)
- Bailey, John M. (2014. Supplemental Nutrition Assistance Program and Rural Households. Retrieved November 18 from [https://www.ruralhealth.us/NRHA/media/Emerge\\_NRHA/PDFs/snap-and-rural-households.pdf](https://www.ruralhealth.us/NRHA/media/Emerge_NRHA/PDFs/snap-and-rural-households.pdf)
- Basu, Sanjay, Seth A. Berkowitz, Robert L. Phillips, Asaf Bitton, Bruce E. Landon, and Russell S. Phillips. 2019. "Association of Primary Care Physician Supply With Population Mortality in the United States, 2005-2015." *JAMA Internal Medicine* 179 (4): 506–14. <https://doi.org/10.1001/jamainternmed.2018.7624>.

- Baumberg, Ben. 2016. The stigma of claiming benefits: A quantitative study. *Journal of Social Policy*, 45(2), 181–199. <https://doi.org/10.1017/S0047279415000525>
- Bhargava, Saurahb, and Dayanand Manoli. 2015. Psychological Frictions and the Incomplete Take-Up of Social Benefits: Evidence from an IRS Field Experiment. *American Economic Review*, 105(11), 3489–3529. <https://doi.org/10.1257/aer.20121493>
- Braun, Virginia, and Victoria Clarke. 2006. "Using thematic analysis in psychology." *Qualitative Research in Psychology* 3, no. 2: 77-101.
- Butrica, Barbara, and Jonathan Schwabish. 2022. *Technology and Disability: The Relationship Between Broadband Access and Disability Insurance Awards* (Working Paper CRR WP 2022-13). Center for Retirement Research at Boston College. [https://crr.bc.edu/wp-content/uploads/2022/10/wp\\_2022-13.pdf](https://crr.bc.edu/wp-content/uploads/2022/10/wp_2022-13.pdf)
- Carman, Katherine, Samer Atshan, and Jhacova Williams. 2023. "Disparities in Social Security Knowledge and the Role of Social Capital." Ann Arbor, MI. University of Michigan Retirement and Disability Research Center (MRDRC) Working Paper; MRDRC WP 2023-458. <https://mrdrc.isr.umich.edu/publications/papers/pdf/wp458.pdf>
- Copeland, Craig. 2022. Understanding the Finances of Rural Vs. Urban Americans. EBRI Issue Brief. Retrieved August 2023. <https://www.ebri.org/content/understanding-the-finances-of-rural-vs.-urban-americans>
- Crankshow, Katrina. 2023 "Disability Rates Higher in Rural Areas Than Urban Areas". June 26, 2023. Census.gov, America Counts: Stories <https://www.census.gov/library/stories/2023/06/disability-rates-higher-in-rural-areas-than-urban-areas.html>

Cross, Sarah H., Robert M. Califf, and Haider J. Warraich. 2021. "Rural-Urban Disparity in Mortality in the US From 1999 to 2019." *JAMA* 325 (22): 2312–14.  
<https://doi.org/10.1001/jama.2021.5334>.

DeWitt, Emily, Rachel Gillespie, Heather Norman-Burgdolf, Kathryn M. Cardarelli, Stacey Slone, and Alison Gustafson. 2020. "Rural SNAP Participants and Food Insecurity: How Can Communities Leverage Resources to Meet the Growing Food Insecurity Status of Rural and Low-Income Residents?" *International Journal of Environmental Research and Public Health* 17, no. 17: 6037.

DeWitt, Emily, Rachel Gillespie, Heather Norman-Burgdolf, Stacey Slone, Kathryn M. Cardarelli, and Alison Gustafson. 2022. "Exploring the Relationship Between SNAP Enrollment and Food Insecurity in Rural Appalachia." *Journal of Hunger & Environmental Nutrition*: 1-12.

Dobis, Elizabeth A., Thomas P. Krumel, Jr., John Cromartie, Kelsey L. Conley, Austin Sanders, and Ruben Ortiz. 2021. Rural America at a Glance. 2021 Edition Issue. Retrieved November 18 from  
<https://www.ers.usda.gov/webdocs/publications/102576/eib-230.pdf>

Duffy, Emily W., Daniele A. Vest, Cassandra R. Davis, Marissa G. Hall, Molly De Marco, Shu Wen Ng, and Lindsey Smith Taillie. 2022. "'I Think That's the Most Beneficial Change That WIC Has Made in a Really Long Time': Perceptions and Awareness of an Increase in the WIC Cash Value Benefit" *International Journal of Environmental Research and Public Health* 19, no. 14: 8671.  
<https://doi.org/10.3390/ijerph19148671>

Ebenstein, Avraham, and Kevin Stange. 2010. Does inconvenience explain low take-up? Evidence from unemployment insurance. *Journal of Policy Analysis and Management*, 29(1), 111–136. <https://doi.org/10.1002/pam.20481>

Edward, Jean, Thompson, Robin, and Andrea Jaramillo. 2021. Availability of Health Insurance Literacy Resources Fails to Meet Consumer Needs in Rural,

- Appalachian Communities: Implications for State Medicaid Waivers. *The Journal of Rural Health*, 37(3), 526–536. <https://doi.org/10.1111/jrh.12485>
- Farid, Monica, Michael Anderson, Gina Freeman, and Christopher Earles. 2023. "Effects of Suspending In-person Services at SSA Field Offices on Disability Applications and Allowances" (BC23-05). Unpublished Manuscript. MRDRC.
- Foot, Andrew, Michel Grosz, and Stephanie Rennane. 2019. The Effect of Lower Transaction Costs on Social Security Disability Insurance Application Rates and Participation. *Journal of Policy Analysis and Management*, 38(1), 99–123. <https://doi.org/10.1002/pam.22095>
- Gong, Gordon, Scott G. Phillips, Catherine Hudson, Debra Curti, and Billy U. Philips. 2019. "Higher US rural mortality rates linked to socioeconomic status, physician shortages, and lack of health insurance." *Health Affairs* 38, no. 12: 2003-2010.
- Hernanz, Virginia, Franck Malherbet, and Michele Pellizzari. 2004. *Take-Up of Welfare Benefits in OECD Countries: A Review of the Evidence* [Working Paper]. OECD. <https://doi.org/10.1787/525815265414>
- Isaacs, Sydeena E., Lenka Shriver, and Lauren Haldeman. 2020. "Qualitative analysis of maternal barriers and perceptions to participation in a federal supplemental nutrition program in Rural Appalachian North Carolina." *Journal of Appalachian Health* 2, no. 4: 37.
- Janssens, Julie, and Natascha Van Mechelen. 2022. To take or not to take? An overview of the factors contributing to the non-take-up of public provisions. *European Journal of Social Security*, 24(2), 95–116. <https://doi.org/10.1177/13882627221106800>
- Kleven, Henrik Jacobsen., and Kopczuk, Wojciech. 2011. Transfer Program Complexity and the Take-Up of Social Benefits. *American Economic Journal: Economic Policy*, 3(1), 54–90. <https://doi.org/10.1257/pol.3.1.54>

- Knapp, David. and Francisco Perez-Arce, 2022. Racial and Ethnic Disparities in Knowledge about Social Security Programs. Ann Arbor, MI. University of Michigan Retirement and Disability Research Center (MRDRC) Working Paper.
- Ko, Wonsik, and Robert Moffitt. 2022. *Take-up of Social Benefits* (Discussion Paper Series). Institute of Labor Economics. <https://docs.iza.org/dp15351.pdf>
- McDaniels, Bradley W., Debra A. Harley, and David T. Beach. 2018. "Transportation, Accessibility, and Accommodation in Rural Communities." In *Disability and Vocational Rehabilitation in Rural Settings: Challenges to Service Delivery*, edited by Debra A. Harley, Noel A. Ysasi, Malachy L. Bishop, and Allison R. Fleming, 43–57. Cham: Springer International Publishing. [https://doi.org/10.1007/978-3-319-64786-9\\_3](https://doi.org/10.1007/978-3-319-64786-9_3).
- Moffitt, Robert. 1983. An Economic Model of Welfare Stigma. *The American Economic Review*, 73(5), 1023–1035.
- National Advisory Committee On Rural Health and Human Services. 2014. Rural Implications of the Affordable Care Act Outreach, Education, and Enrollment. Retrieved November 18 from <https://www.hrsa.gov/sites/default/files/hrsa/advisory-committees/rural/2014-aca-rural-outreach.pdf>
- Nicoll, Kerri Leyda. 2015. Why Do Eligible Households Not Participate in Public Antipoverty Programs?: A Review, *Journal of Poverty*, 19:4, 445-465, DOI: 10.1080/10875549.2015.1015069
- Nooney, Lori L.; Giomo-James, Elisabetta; Kindle, Peter A.; Norris, Debra S.; Myers, Ryan R.; Tucker, Alyssa; and Stanley, Robert Jon. 2013. "Rural Food Pantry Users' Stigma and Safety Net Food Programs," *Contemporary Rural Social Work Journal*: Vol. 5 : No. 1 , Article 7. Available at: <https://digitalcommons.murraystate.edu/crsw/vol5/iss1/7>



- Panzer, Anthony Dominic, Karen Castellanos-Brown, Courtney Paolicelli, Ruth Morgan, Anna Potter, and Danielle Berman. 2017. "The impact of federal policy changes and initiatives on breastfeeding initiation rates and attitudes toward breastfeeding among WIC participants." *Journal of Nutrition Education and Behavior* 49, no. 7: S207-S211.
- Perez-Arce, Francisco, and Lila Rabinovich. 2022. "The Impacts of the Social Security Statement Redesign on People's Knowledge and Behavioral Intentions: A Surey Experiment". Ann Arbor, MI. University of Michigan Retirement and Disability Research Center (MRDRC) Working Paper.
- Rabinovich, Lila, and Francisco-Perez-Arce. 2021. "Mixed-methods Study to Understand Use of the *my* Social Security Online Platform." Ann Arbor, MI. University of Michigan Retirement and Disability Research Center (MRDRC) Working Paper.
- Rabinovich, Lila and Francisco Perez-Arce. Forthcoming. Understanding the Social Security Communication Needs of Hispanics with Limited English Language Proficiency. (Unpublished MRDRC manuscript).
- Rachfal, Colby Leigh. 2021. *The Digital Divide: What Is It, Where Is It, and Federal Assistance Programs*(R46613). Congressional Research Service.  
<https://crsreports.congress.gov/product/pdf/R/R46613>
- Rosenberg, Terry J., Julie K. Alperen, and Mary Ann Chiasson. 2003. "Why do WIC participants fail to pick up their checks? An urban study in the wake of welfare reform." *American Journal of Public Health* 93, no. 3: 477-481.
- Rural Health Information Hub. 2022. Rural Data Explorer. Rural Health Information Hub. Retrieved November 11 from <https://www.ruralhealthinfo.org/data-explorer>
- Sage, Rayna, Bryce Ward, Andrew Myers, and Craig Ravesloot. 2019. "Transitory and enduring disability among urban and rural people." *The Journal of Rural Health* 35, no. 4: 460-470.

- Schwabish, Jonathan. 2012. *Downloading Benefits: The Impact of Online Food Stamp Applications on Participation*. Congressional Budget Office.
- Smith, Barbara, 2020. Can Informational Interventions Be Effective Policy tools? An Initial Assessment of the Social Security Statement, *Social Security Bulletin*, 80(4), 1-22.
- Social Security Administration. n.d.. *Social Media Hub*. Social Security. Retrieved July 25, 2023, from [https://www.ssa.gov/socialmedia/\[TK7\]](https://www.ssa.gov/socialmedia/[TK7])
- Thomas, David R. 2006. "A general inductive approach for analyzing qualitative evaluation data." *American Journal of Evaluation* 27, no. 2: 237-246.
- Thomas, Clency, and Jacqueline Kauff. 2012. *Web- Based Benefits Access Tools: Mitigating Barriers for Special Needs Populations* (Special Topics Paper). Mathematica Policy Research.  
[https://aspe.hhs.gov/sites/default/files/migrated\\_legacy\\_files//43926/rpt.pdf](https://aspe.hhs.gov/sites/default/files/migrated_legacy_files//43926/rpt.pdf)
- USDA. 2022a. Rural employment and unemployment. Economic Research Service. Retrieved August 2023: <https://www.ers.usda.gov/topics/rural-economy-population/employment-education/rural-employment-and-unemployment/>
- USDA. 2022b. Rural poverty and wellbeing. Economic Research Service. Retrieved August 2023: <https://www.ers.usda.gov/topics/rural-economy-population/rural-poverty-well-being/>
- Van Deursen, Alexander JAM, Ellen J. Helsper, and Rebecca Eynon. 2016. *Development and Validation of the Internet Skills Scale (ISS)*. *Information, Communication & Society* 19 (6): 804-823. ISSN 1369-118X
- Viceisza, Angelino, Amaia Calhoun, and Gabriella Lee. 2022. "Racial and Ethnic Disparities in Retirement Outcomes: Impacts of Outreach." *The Review of Black Political Economy* 0(0). <https://doi.org/10.1177/00346446231182343>

Vogel, Stephen, Cristina Miller, Katherine Ralston. 2021. Impact of USDA's Supplemental Nutrition Assistance Program (SNAP) on Rural and Urban Economies in the Aftermath of the Great Recession. Economic Research Service. Retrieved November 18 from [https://www.ers.usda.gov/webdocs/publications/102287/err-296\\_summary.pdf?v=5769.6](https://www.ers.usda.gov/webdocs/publications/102287/err-296_summary.pdf?v=5769.6)

Weber, Bruce A. 2007. Rural poverty: Why should states care and what can state policy do? *Journal of Regional Analysis & Policy*, 37(1), 48–52.