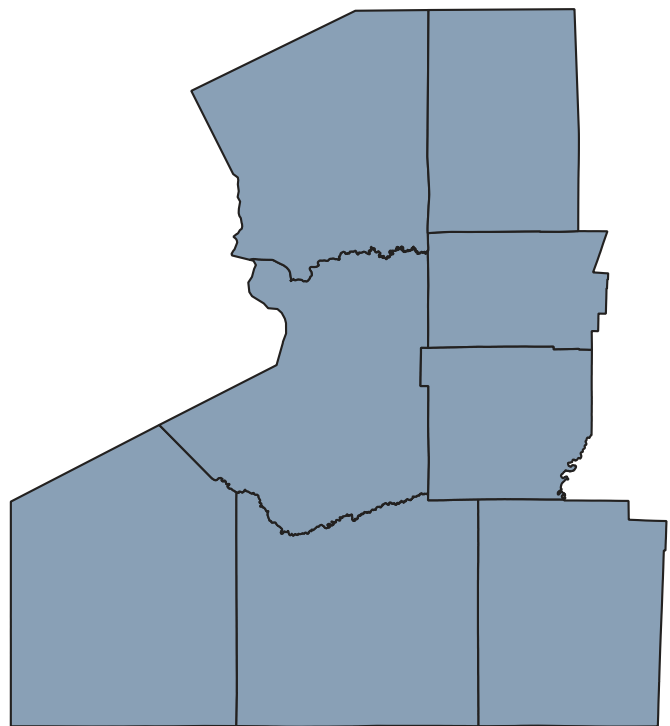




2025 State of Digital Skills, Access, and Use in Western New York



Prepared for the Western New York
Digital Equity Coalition by
Clementine Gold Group, LLC

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Executive Summary

This report describes findings from the Western New York Community Digital Literacy Survey using the 409 records included in the analytic file. The survey captured self-reported device access, digital skill confidence, patterns of internet use, and barriers to participation across eight Western New York counties. Paper responses accounted for 331/409 (80.9%) of the analytic sample and online responses accounted for 78/409 (19.1%).

The respondent base skewed older and heavily reflected the coalition's targeted outreach strategy. Adults ages 65 and older made up 166/409 (40.6%) of the sample, Erie and Niagara Counties together accounted for 302/409 (73.8%), and the sample included a large share of lower-income, single-person, and disability-affected households. Those characteristics matter for interpretation because this report is designed to describe the experiences of residents reached through this campaign, not to serve as a population-weighted estimate for the region.

Key Findings

- ▶ Device access was widespread but not universal. Smartphone ownership was 356/409 (87.0%); computer ownership was 278/409 (68.0%); tablet ownership was 216/409 (52.8%). 61/409 (14.9%) relied on a smartphone only, and 24/409 (5.9%) reported owning none of the listed devices.
- ▶ Cost was a dominant barrier. The cost of devices was a moderate or major problem for 241/409 (58.9%), and the cost of internet service was a moderate or major problem for 222/408 (54.4%).
- ▶ Confidence was strongest for everyday search, password, login, and communication tasks, but weakest for troubleshooting and accessibility-related tasks. Finding an answer online was rated 'on my own' by 307/408 (75.2%), while fixing Wi-Fi problems was rated 'on my own' by 155/409 (37.9%).
- ▶ Internet use was frequent for communication and information seeking, but much less common for several high-stakes or specialized services. Using the internet to communicate daily or weekly was reported by 338/406 (83.3%), while telehealth video appointments daily or weekly were reported by 37/406 (9.1%).
- ▶ Disparities were most visible by income, disability status, age, and access to a computer. Among respondents under \$30k, computer ownership was 63/122 (51.6%) compared with 102/116 (87.9%) among respondents at \$65k+; respondents without a computer were much less likely to report completing a multi-page online form 'on my own' (55/129 (42.6%)) than respondents with a computer (218/277 (78.7%)).
- ▶ Public places mattered for digital access and support. 170/409 (41.6%) reported using a library, school, community center, restaurant, or similar public place for internet access or digital help in the past year. Among those who used a public place and answered the helpfulness question, 153/163 (93.9%) rated those spaces as very or somewhat helpful.

1. Background and Purpose

The Western New York Digital Equity Coalition designed this survey to capture a region-wide snapshot of how adult residents (18 years and older) use digital tools in daily life, how confident they feel performing common online tasks, and what barriers make digital participation harder. The focus of this report is descriptive. It does not make recommendations. Instead, it tells the story of the current state of digital access, skills, confidence, and barriers across the eight-county region.

This project is supported by a Digital Equity Technical Assistance grant from the New York State ConnectALL Office. Survey design, administration, and analysis were conducted in alignment with the ethical guidelines and privacy standards established by the New York State ConnectALL Office. The survey effort is intended to inform ongoing conversations about digital equity in Western New York and contribute to a shared understanding of the challenges residents face in accessing and using digital technologies.

The instrument and cover sheet frame digital literacy broadly: not only whether residents can get online, but whether they can find information, communicate, complete forms, manage health tasks, navigate accounts and passwords, troubleshoot problems, and use accessibility features when needed. That wider framing is important because digital exclusion can stem from affordability, skills, usability, trust, accessibility, or the lack of a usable device, not just from whether someone technically has internet access.

We appreciate the time and contributions of survey participants and community partners who supported the survey effort. Their participation helps build a clearer understanding of digital experiences across Western New York and contributes to the development of future programs and resources that aim to better meet the needs of residents throughout the region.

2. Survey Overview and Analytic Approach

The survey includes seven sections covering community context (county, age, device ownership), digital skill confidence, frequency of online activities, challenges to internet use, use of public places for access/help, perceptions of accessibility and community readiness, and respondent demographics.

Most questions were multiple choice. For check-all-that-apply items (e.g., devices owned, kinds of support), percentages represent the share of respondents selecting each option; totals can exceed 100% because respondents could select more than one. For all percentages shown in this report, the numerator and denominator are provided as n/N.

Skill confidence (Section B) and challenges (Section D) were rated on 1-4 scales. In this report, we frequently summarize these items as:

- On my own = rating 4 (self-sufficient).
- Moderate/major problem = ratings 3-4 for barriers.

Where denominators vary due to skipped questions, N reflects the number of respondents who answered that item.

2.1 Data Cleaning and Analytic Sample

The original, combined dataset (n=468) included both online (n=105) and paper (n=363) survey submissions. Before analysis, the survey team applied eligibility, validity, and completeness screening steps so that results reflect adult respondents living within the eight-county Western New York region.

Responses were removed from analysis if any of the following age and location conditions were met:

- ▶ Respondent was under 18 years of age. (n=9)
- ▶ Age was left blank. (n=9)
- ▶ Age was entered as 0. (n=3)

- ▶ “Other” was selected for county of residence. (n=6)
- ▶ ZIP code was entered as 0. (n=3)
- ▶ ZIP code not assigned to a geography, (e.g. 14554) (n=1)
- ▶ ZIP code was within New York State but outside of the study area, (e.g. Monroe County, Steuben County). (n=2)
- ▶ ZIP code was located outside of New York State. (n=21)

In addition to eligibility and validity checks, overall item missingness was assessed at the response level. Across all reviewed responses, the number of missing data fields ranged from 0 to 53. Numerous responses had many fields where data was missing.

To reduce the influence of highly incomplete submissions, responses with six (6) or more missing data fields were excluded from the analysis. Write-in fields for “Other” responses and fields where respondents could “check all that apply” were excluded from the missing data analysis. See Appendix C for the histogram of the missing data distribution.

After data cleaning, the analytic sample used throughout this report is N = 409 (unless otherwise noted for item-level nonresponse).

2.2 Sampling, Outreach, and Survey Administration

The Western New York Digital Literacy Survey used a mixed-mode approach to reach residents across the eight counties of Western New York. A paper survey instrument was transcribed into a digital format for online completion to ensure that both modes captured the same questions and response options. Survey participation was voluntary and anonymous.

The online version of the survey was promoted through the Western New York Digital Equity Coalition (WNYDEC) website, which included a direct link to the online survey. The website also included a form where residents could request paper copies of the survey to be mailed to their home. In addition, the online survey was promoted through paid digital advertising on Facebook and Instagram.

Paper participation occurred through two complementary methods:

- In-person engagement through community partners. WNYDEC partnered with local community organizations across all eight counties to distribute and collect completed paper surveys. This often occurred through tabling at existing community events and/or by leaving surveys with partner staff to administer over a period of time. Partner settings included public libraries, senior centers, food pantries, faith-based organizations, farmers markets, schools, offices of elected officials, healthcare providers, and Cooperative Extension offices.
- Mail-based household outreach. Paper surveys were mailed directly to homes across Western New York with a postage-paid return envelope. Addresses were selected using a randomized sample of 1,501 adult residents, evenly divided across the eight counties. Out of the 1,501 surveys mailed out, 47 completed surveys were mailed back.

Both in-person engagement and mail-based outreach were intentionally oriented toward communities more likely to experience digital disconnection. Targeting considerations included areas with lower broadband subscription rates, higher poverty levels, greater disability prevalence, and/or higher shares of residents aged 65 and older. As a result, the achieved

sample should be interpreted as reflecting the experiences of residents reached through these outreach strategies, rather than a strictly representative sample of all adults in the region.

2.3 Limitations

Several limitations should be considered when interpreting the findings from this survey. First, although the survey was mailed to a random sample of households across Western New York and included clear instructions and postage-paid return envelopes, the response rate for mailed surveys was extremely low. Mailing additional surveys beyond the initial batch of 1,501 was not feasible or cost-effective, which limited the overall survey sample size.

Second, telephone administration was considered as a possible survey method, but experts strongly advised against it because of the likelihood of respondent fatigue. Given the length of the survey and the time required to complete it by phone, many potential respondents would likely have ended the call or declined to participate due to lack of time or interest. Participation by phone would likely have depended on respondents being highly motivated to complete the survey, which would also have limited the sample size.

Third, the online version of the survey produced several responses with clearly invalid location information, including zip codes that appeared random and inconsistent with the study area. These responses also contained unrealistic answers, making it apparent that they were not submitted by human respondents and were likely generated by bots. As a result, those records were excluded from the analysis. While this step was necessary to protect the quality of the findings, it also reduced the number of usable responses.

Finally, in-person administration of the paper survey proved to be the most effective mode of data collection, particularly in community-based settings. However, this approach also had limitations. In several community spaces, survey administrators encountered individuals who were unable to participate because they could not read. In some cases, the survey could be read aloud to respondents, but this was only possible to a limited extent and was not always efficient or comfortable for participants. As a result, people with low literacy may be underrepresented in the final sample.

Taken together, these limitations suggest that the survey findings should be understood as an important but incomplete picture of digital literacy across the region. The results provide valuable insight into the experiences of respondents who were reached through the available methods, but they may not fully capture the perspectives of all residents, particularly those facing the greatest barriers to participation.

2.4 Incentives

To encourage participation while protecting respondent anonymity, the survey included a modest incentive to thank participants for their time without linking any personal information to their survey responses. Individuals who completed the survey had the option to enter a raffle for a chance to win one of three \$200 Walmart gift cards. Participation in the raffle was entirely voluntary, and choosing whether or not to enter did not affect survey participation.

To preserve anonymity, respondents who wished to enter the raffle provided their contact information separately from the survey itself, either through a raffle slip or by using a QR code linked to an online form. When paper materials were returned together, the survey and raffle slip were immediately separated so that identifying information could not be connected to survey responses. Raffle drawings were held monthly through February 2026. Only one entry per household was eligible to win a gift card, and each entrant could win only one gift card. Entries that were not selected in an earlier drawing were carried forward into subsequent drawings.

3. Respondent profile (overall demographics)

The respondent profile provides important context for interpreting the findings. Erie County accounted for 220/409 (53.8%) of the sample and Niagara County for 82/409 (20.0%); together they comprised 302/409 (73.8%) of all included responses. Paper surveys made up 331/409 (80.9%) of the analytic sample, underscoring the importance of offline outreach for reaching residents.

Age ranged from 18 to 95 years (median: 56; mean: 54.4). Adults ages 65 and older represented 166/409 (40.6%) of the sample. Age when respondents first used the internet was reported by 370/409 (90.5%); among those valid A04 responses, 205/370 (55.4%) reported first using the internet at age 18 or older. The timing of first internet use tracked closely with respondents' current age: among respondents ages 18-44 who answered A04, 12/149 (8.1%) first used the internet at age 18+, compared with 131/135 (97.0%) among respondents ages 65+.

Demographically, the sample leaned female (280/409 (68.5%)), included substantial shares of respondents with high school or less education (113/409 (27.6%)) and with a bachelor's degree or higher (146/409 (35.7%)), and included many lower-income or single-person households. Among respondents who answered the income question, 122/404 (30.2%) reported household income under \$30,000, while 116/404 (28.7%) reported \$65,000 or more. Single-person households made up 134/409 (32.8%) of the sample. Disability status was reported as 'Yes' by 121/388 (31.2%), and assistive technology use was reported by 44/391 (11.3%). Race and ethnicity were captured as check-all-that-apply items, so categories overlap; white respondents were the largest group (276/409 (67.5%)), followed by Black respondents (83/409 (20.3%)).

Table 1. Respondents by county (N=409)

County	n	Percent (n/N)
Allegany	11	11/409 (2.7%)
Cattaraugus	25	25/409 (6.1%)
Chautauqua	36	36/409 (8.8%)
Erie	220	220/409 (53.8%)
Genesee	8	8/409 (2.0%)
Niagara	82	82/409 (20.0%)
Orleans	14	14/409 (3.4%)
Wyoming	13	13/409 (3.2%)

Table 2. Submission mode (N=409)

Mode	n	Percent (n/N)
Paper	331	331/409 (80.9%)
Online	78	78/409 (19.1%)

Table 3. Age group (N=409)

Age group	n	Percent (n/N)
18-24	14	14/409 (3.4%)
25-34	64	64/409 (15.6%)
35-44	72	72/409 (17.6%)
45-54	45	45/409 (11.0%)
55-64	48	48/409 (11.7%)
65-74	105	105/409 (25.7%)
75+	61	61/409 (14.9%)

Table 4. Age when first used the internet (grouped; N=370)

Age first used internet	n	Percent (n/N)
0-9	40	40/370 (10.8%)
10-14	77	77/370 (20.8%)
15-17	48	48/370 (13.0%)
18-24	47	47/370 (12.7%)
25-34	47	47/370 (12.7%)
35-44	51	51/370 (13.8%)
45-54	33	33/370 (8.9%)
55+	27	27/370 (7.3%)

Table 5. Gender identity (check all that apply; N=409)

Option	n	Percent (n/N)
Female	280	280/409 (68.5%)
Male	110	110/409 (26.9%)
Non-binary	4	4/409 (1.0%)
Transgender	2	2/409 (0.5%)
Gender queer	1	1/409 (0.2%)
Prefer to self describe	2	2/409 (0.5%)
Prefer not to answer	11	11/409 (2.7%)
Unknown	2	2/409 (0.5%)

Table 6. Highest level of education completed (N=409)

Education	n	Percent (n/N)
Less than high school	17	17/409 (4.2%)
High school diploma or GED	96	96/409 (23.5%)
Some college, no degree	83	83/409 (20.3%)
Associate degree (e.g., AA, AS)	54	54/409 (13.2%)
Bachelor's degree (e.g., BA, BS)	87	87/409 (21.3%)
Master's degree (e.g., MA, MS, MBA)	54	54/409 (13.2%)
Doctoral or professional degree (e.g., PhD, JD, MD)	5	5/409 (1.2%)
Other	13	13/409 (3.2%)

Table 7. Annual household income before taxes (N=404)

Income	n	Percent (n/N)
Prefer not to answer	62	62/404 (15.3%)
Under \$10,000	46	46/404 (11.4%)
\$10,000 – \$19,999	29	29/404 (7.2%)
\$20,000 – \$29,999	47	47/404 (11.6%)
\$30,000 – \$39,999	36	36/404 (8.9%)
\$40,000 – \$49,999	32	32/404 (7.9%)
\$50,000 – \$64,999	36	36/404 (8.9%)
\$65,000 – \$84,999	40	40/404 (9.9%)
\$85,000 – \$109,999	34	34/404 (8.4%)
\$110,000 – \$149,999	26	26/404 (6.4%)
\$150,000 – \$199,999	11	11/404 (2.7%)
\$200,000 or more	5	5/404 (1.2%)

Table 8. Household structure (N=409)

Household type	n	Percent (n/N)
Single person household	134	134/409 (32.8%)
Couple with children	84	84/409 (20.5%)
Couple, no children	72	72/409 (17.6%)
Single parent with children	50	50/409 (12.2%)
Multi-generational household (for example, grandparents, parents, and children)	27	27/409 (6.6%)
Shared household with roommates or friends	9	9/409 (2.2%)
Extended family household (for example, siblings, cousins, or other relatives)	9	9/409 (2.2%)
Other	4	4/409 (1.0%)
Prefer not to say	20	20/409 (4.9%)

Table 9. Employment status (N=403)

Employment status	n	Percent (n/N)
Employed full-time	111	111/403 (27.5%)
Employed part-time	47	47/403 (11.7%)
Self-employed	15	15/403 (3.7%)
Unemployed, looking for work	22	22/403 (5.5%)
Unemployed, not looking for work	11	11/403 (2.7%)
Homemaker	5	5/403 (1.2%)
Student	10	10/403 (2.5%)
Retired	130	130/403 (32.3%)
Unable to work / disabled	39	39/403 (9.7%)
Other (please specify)	13	13/403 (3.2%)

Table 10. Disability status (N=388)

Disability status	n	Percent (n/N)
Yes	121	121/388 (31.2%)
No	242	242/388 (62.4%)
Prefer not to answer	25	25/388 (6.4%)

Table 11. Use of assistive technology when using the internet (N=391)

Response	n	Percent (n/N)
Yes	44	44/391 (11.3%)
No	317	317/391 (81.1%)
Prefer not to answer	30	30/391 (7.7%)

Table 12. Race/ethnicity (check all that apply; N=409)

Note: categories are not mutually exclusive: totals can exceed 100 percent.

Option	n	Percent (n/N)
Asian (any selection)	10	10/409 (2.4%)
Black (any selection)	83	83/409 (20.3%)
Hispanic/Latino/a/x (selected)	21	21/409 (5.1%)
Native American/Indigenous (any selection)	12	12/409 (2.9%)
White (any selection)	276	276/409 (67.5%)
Other (selected Other)	4	4/409 (1.0%)
Prefer not to answer	21	21/409 (5.1%)
Prefer to self describe	1	1/409 (0.2%)
Unknown	1	1/409 (0.2%)

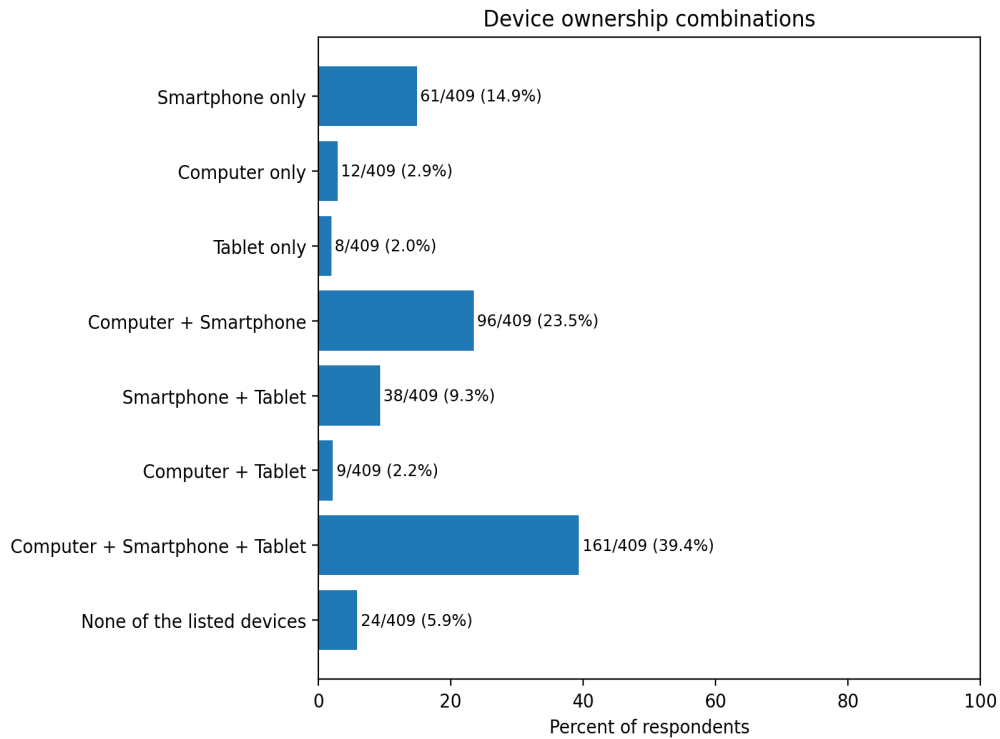
4. Access and device environment

Most respondents reported owning at least one internet-capable device, but the device mix points to important constraints in what people can realistically do online. Smartphone ownership was 356/409 (87.0%), compared with 278/409 (68.0%) for computers and 216/409 (52.8%) for tablets. 61/409 (14.9%) relied on a smartphone only, and 24/409 (5.9%) reported owning none of the listed devices.

Table 13. Device types owned (check all that apply; N=409)

Device type	n	Percent (n/N)
Computer	278	278/409 (68.0%)
Smartphone	356	356/409 (87.0%)
Tablet	216	216/409 (52.8%)
No listed device	24	24/409 (5.9%)

Figure 1. Device ownership combinations



Below are the counts for each device ownership combination shown in Figure 1 (N=409 respondents): Computer only: 12; Smartphone only: 61; Tablet only: 8; Computer + Smartphone: 96; Computer + Tablet: 9; Smartphone + Tablet: 38; Computer + Smartphone + Tablet: 161; None of the listed devices: 24.

Among respondents who reported owning none of the listed devices (N=24), the most commonly selected reasons were affordability (9/24 (37.5%)), not needing a device for daily life (7/24 (29.2%)), and discomfort or low confidence using technology (7/24 (29.2%)).

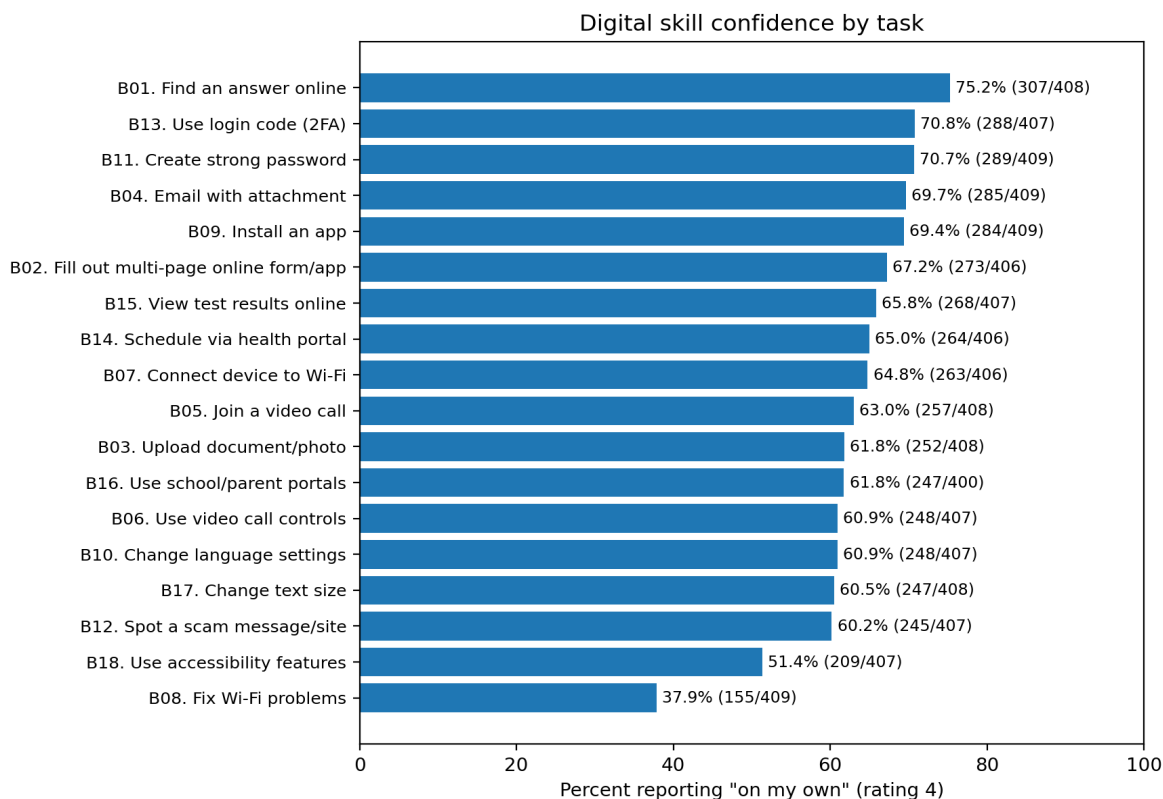
Table 14. Reasons for not owning a device (among respondents with no listed device; N=24)

Reason (check all that apply)	n	Percent (n/N)
Too expensive/can't afford a device	9	9/24 (37.5%)
Don't need a device for daily life	7	7/24 (29.2%)
Can use someone else's device	4	4/24 (16.7%)
Internet/data service too expensive	3	3/24 (12.5%)
Not comfortable / don't know how	7	7/24 (29.2%)
Privacy / scams / security concerns	2	2/24 (8.3%)
Poor internet/cell service in area	2	2/24 (8.3%)
Disability makes it difficult	0	0/24 (0.0%)
Other	0	0/24 (0.0%)
No reason selected	4	4/24 (16.7%)

5. Digital skill confidence (self-reported)

Respondents rated their confidence in performing 18 common digital tasks on a 1-4 scale. Across all respondents, the mean per-respondent skill index was 3.28 and the median was 3.72. Overall, 241/409 (58.9%) had an average rating of 3.5 or higher across the 18 tasks, while 81/409 (19.8%) averaged below 2.5, indicating consistently low confidence across the skill set.

Figure 2. Percent reporting they can do each task "on my own" (rating 4)



The highest self-sufficiency levels were reported for finding an answer online (307/408 (75.2%)), creating a strong password (289/409 (70.7%)), and using a login code for two-factor authentication (288/407 (70.8%)). The lowest self-sufficiency was reported for fixing Wi-Fi problems (155/409 (37.9%)) and using accessibility features (209/407 (51.4%)). These gaps matter because troubleshooting and accessibility settings often determine whether a person can stay connected when something goes wrong or when a website or app is difficult to use.

Table 15. Skill confidence summary (N varies by item)

Skill	On my own (4)	Can't / lot of help (1-2)	Mean rating
B01. Find an answer online	307/408 (75.2%)	54/408 (13.2%)	3.53
B02. Fill out multi-page online form/app	273/406 (67.2%)	63/406 (15.5%)	3.43
B03. Upload document/photo	252/408 (61.8%)	87/408 (21.3%)	3.27
B04. Email with attachment	285/409 (69.7%)	75/409 (18.3%)	3.39
B05. Join a video call	257/408 (63.0%)	86/408 (21.1%)	3.26
B06. Use video call controls	248/407 (60.9%)	100/407 (24.6%)	3.20
B07. Connect device to Wi-Fi	263/406 (64.8%)	83/406 (20.4%)	3.29
B08. Fix Wi-Fi problems	155/409 (37.9%)	133/409 (32.5%)	2.83
B09. Install an app	284/409 (69.4%)	70/409 (17.1%)	3.40
B10. Change language settings	248/407 (60.9%)	93/407 (22.9%)	3.19
B11. Create strong password	289/409 (70.7%)	70/409 (17.1%)	3.44
B12. Spot a scam message/site	245/407 (60.2%)	89/407 (21.9%)	3.29
B13. Use login code (2FA)	288/407 (70.8%)	71/407 (17.4%)	3.41
B14. Schedule via health portal	264/406 (65.0%)	81/406 (20.0%)	3.31
B15. View test results online	268/407 (65.8%)	81/407 (19.9%)	3.32
B16. Use school/parent portals	247/400 (61.8%)	106/400 (26.5%)	3.16
B17. Change text size	247/408 (60.5%)	90/408 (22.1%)	3.22
B18. Use accessibility features	209/407 (51.4%)	111/407 (27.3%)	3.04

6. How residents use the internet in daily life (past year)

Respondents reported how often they or members of their household used the internet for 14 activities in the past year. The pattern is one of strong routine use for communication and information seeking, but more uneven participation for high-stakes services such as telehealth, government applications, public transit, ride share, and online learning.

Table 16. Internet use frequency summary (N varies by item)

Activity	Daily/Weekly	Rarely/Never	Not applicable	N
C01. Looked up information online	313/409 (76.5%)	39/409 (9.5%)	25/409 (6.1%)	409
C02. Used the internet to communicate	338/406 (83.3%)	32/406 (7.9%)	15/406 (3.7%)	406
C03. Government applications/services	77/409 (18.8%)	186/409 (45.5%)	45/409 (11.0%)	409
C04. Telehealth video appointment	37/406 (9.1%)	255/406 (62.8%)	51/406 (12.6%)	406
C05. Used an accessibility feature	93/406 (22.9%)	200/406 (49.3%)	71/406 (17.5%)	406
C06. Purchased goods or services	153/409 (37.4%)	103/409 (25.2%)	27/409 (6.6%)	409
C07. Took an online course	45/405 (11.1%)	233/405 (57.5%)	74/405 (18.3%)	405
C08. Looked up public transit routes and schedules	61/406 (15.0%)	210/406 (51.7%)	97/406 (23.9%)	406
C09. Booked a ride share service	48/406 (11.8%)	238/406 (58.6%)	80/406 (19.7%)	406
C10. Used an app to monitor/control home	118/407 (29.0%)	167/407 (41.0%)	100/407 (24.6%)	407
C11. Managed a calendar	235/409 (57.5%)	96/409 (23.5%)	34/409 (8.3%)	409
C12. Checked the weather forecast	325/409 (79.5%)	38/409 (9.3%)	20/409 (4.9%)	409
C13. Looked up a business, organization, or landmark	272/409 (66.5%)	57/409 (13.9%)	21/409 (5.1%)	409
C14. Used online banking	233/408 (57.1%)	92/408 (22.5%)	38/408 (9.3%)	408

Activities most commonly done daily or weekly included:

- Communicating online (338/406 (83.3%))
- checking the weather forecast (325/409 (79.5%))
- Looking up information online (313/409 (76.5%))

Activities least commonly done daily or weekly included:

- Telehealth video appointments (37/406 (9.1%)),
- Taking an online course (45/405 (11.1%))
- Booking a ride share service (48/406 (11.8%))

The fact that everyday communication is common while several higher-challenge or specialized services were less common suggests that basic connectivity does not automatically translate into broad digital participation.

7. Barriers and challenges to using the internet fully

Respondents rated how much of a problem each barrier is for themselves or their household (1 = no problem; 4 = major problem). Across the region, affordability was the clearest pressure point, but barriers related to privacy, account management, website usability, and the need to provide sensitive information were also common.

Figure 3. Percent reporting each barrier as a moderate or major problem (ratings 3-4)

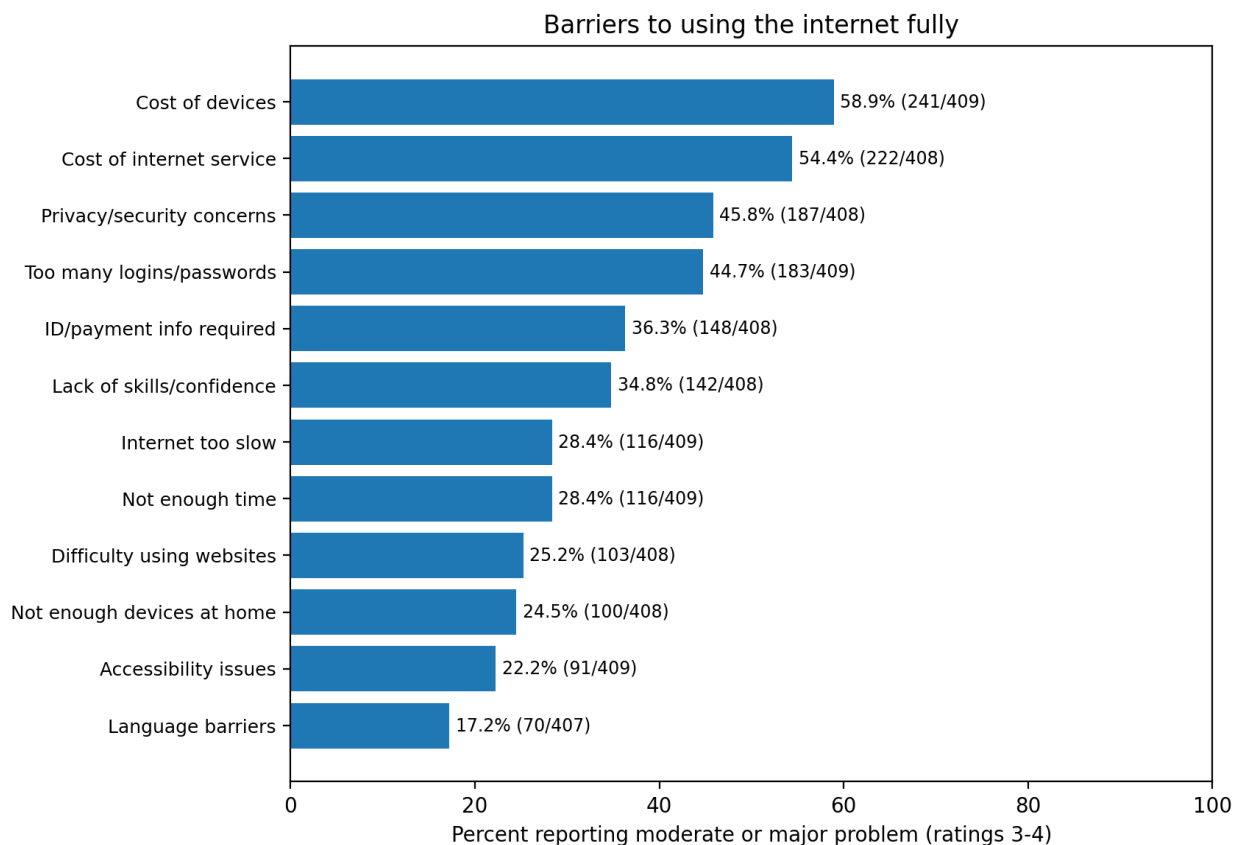


Table 17. Barrier ratings summary (N varies by item).

Barrier	Moderate/major (3-4)	Major (4)	N
Cost of devices	241/409 (58.9%)	109/409 (26.7%)	409
Cost of internet service	222/408 (54.4%)	102/408 (25.0%)	408
Lack of skills/confidence	142/408 (34.8%)	69/408 (16.9%)	408
Not enough devices at home	100/408 (24.5%)	49/408 (12.0%)	408
Accessibility issues	91/409 (22.2%)	43/409 (10.5%)	409
Language barriers	70/407 (17.2%)	38/407 (9.3%)	407
Internet too slow	116/409 (28.4%)	57/409 (13.9%)	409
Privacy/security concerns	187/408 (45.8%)	102/408 (25.0%)	408
ID/payment info required	148/408 (36.3%)	87/408 (21.3%)	408
Too many logins/passwords	183/409 (44.7%)	103/409 (25.2%)	409
Not enough time	116/409 (28.4%)	50/409 (12.2%)	409
Difficulty using websites	103/408 (25.2%)	52/408 (12.7%)	408

Cost of devices was rated as a moderate or major problem by 241/409 (58.9%), and the cost of internet service by 222/408 (54.4%). At the same time, usability and trust challenges were also substantial: too many logins/passwords were a moderate or major problem for 183/409 (44.7%), privacy/security concerns for 187/408 (45.8%), and having to provide ID or payment information online for 148/408 (36.3%). These patterns suggest that digital exclusion is not only a question of having service, but also of being able to navigate challenges, risk, and complexity.

8. Public places as access and support points

Not everyone has consistent access to devices, connectivity, or help at home. The survey therefore asked whether respondents had used a public place, such as a library, school, community center, or restaurant, for internet access or digital help in the past 12 months. Overall, 170/409 (41.6%) reported using a public place at least once in the past year.

Table 18. Use of public places for internet access or digital help (N=409)

Response	n	Percent (n/N)
No - Never	224	224/409 (54.8%)
Yes - Less than once a month	84	84/409 (20.5%)
Yes - Monthly	38	38/409 (9.3%)
Yes - Weekly	31	31/409 (7.6%)
Yes - Daily	11	11/409 (2.7%)
Yes - Several times per day	6	6/409 (1.5%)
Don't know	6	6/409 (1.5%)
Prefer not to say	8	8/409 (2.0%)

Use of public places was not just occasional. 86/409 (21.0%) reported using a public place monthly or more often.

Table 19. Helpfulness of public places (among those who used a public place and answered; N=163)

Helpfulness rating	n	Percent (n/N)
Very helpful	103	103/163 (63.2%)
Somewhat helpful	50	50/163 (30.7%)
Not very helpful	8	8/163 (4.9%)
Not at all helpful	2	2/163 (1.2%)

Among respondents who used a public place and answered the helpfulness question, 153/163 (93.9%) said those spaces were very or somewhat helpful. This finding reinforces the importance of physical community infrastructure as part of the region's digital environment.

9. Perceptions of inclusiveness, community readiness, and support needs

Section F asked respondents how accessible they think websites and apps are for people with disabilities, how available digital content is in preferred languages, how important digital confidence is for the future of their community, how well communities are doing today, and what kinds of support would help households and communities take fuller advantage of the internet.

Table 20. Perceived accessibility of websites/apps for people with disabilities (N=381)

Response	n	Percent (n/N)
Very accessible	107	107/381 (28.1%)
Somewhat accessible	161	161/381 (42.3%)
Not very accessible	91	91/381 (23.9%)
Not at all accessible	22	22/381 (5.8%)

Table 21. Perceived availability of websites/apps in preferred languages (N=359)

Response	n	Percent (n/N)
Very available	145	145/359 (40.4%)
Somewhat available	136	136/359 (37.9%)
Not very available	63	63/359 (17.5%)
Not at all available	15	15/359 (4.2%)

Table 22. Importance of digital confidence for the community's future (N=404)

Response	n	Percent (n/N)
Very important	309	309/404 (76.5%)
Somewhat important	64	64/404 (15.8%)
Not very important	21	21/404 (5.2%)
Not at all important	10	10/404 (2.5%)

Table 23. How well communities are doing today to ensure residents can use digital tools confidently (N=393)

Response	n	Percent (n/N)
Very well	89	89/393 (22.6%)
Somewhat well	159	159/393 (40.5%)
Not very well	102	102/393 (26.0%)
Not at all well	43	43/393 (10.9%)

Table 24. Types of support respondents said would most help (check all that apply; N=401)

Support type	n	Percent (n/N)
Lower cost for internet service	277	277/401 (69.1%)
Lower cost for devices	239	239/401 (59.6%)
Training to build skills/confidence	193	193/401 (48.1%)
Better internet service (speed/reliability/coverage)	184	184/401 (45.9%)
Tech support when problems come up	163	163/401 (40.6%)
Accessibility features/support for disabilities	135	135/401 (33.7%)
Public places to get help (libraries, schools, community centers)	132	132/401 (32.9%)
Easier-to-use government websites/online services	129	129/401 (32.2%)
More devices in the household	104	104/401 (25.9%)
Help in multiple languages	80	80/401 (20.0%)

Overall, respondents saw meaningful room for improvement in the inclusiveness of digital systems. Websites and apps were rated 'not very' or 'not at all' accessible to people with disabilities by 113/381 (29.7%), and websites and apps were rated 'not very' or 'not at all' available in the preferred languages of respondents' communities by 78/359 (21.7%). At the same time, respondents overwhelmingly viewed digital confidence as important for the future of their communities (309/404 (76.5%) rated it 'very important'), while 145/393 (36.9%) said their community is doing 'not very well' or 'not at all well' today with their digital confidence.

Support priorities closely mirrored the barriers reported elsewhere in the survey. Lower cost internet service (277/401 (69.1%)) and lower cost devices (239/401 (59.6%)) were the most frequently selected supports, followed by training to build skills or confidence (193/401 (48.1%)), better internet service (184/401 (45.9%)), and tech support when problems come up (163/401 (40.6%)).

Open-ended write-in responses reinforced these themes. A total of 52/409 (12.7%) respondents provided a write-in comment. Of those 52 write-ins, 18/52 (34.6%) said no additional supports were needed, 4/52 (7.7%) were uncertain or unclear, and 30/52 (57.7%) named at least one additional support need or idea. The most common themes were training or education to build skills (10/52 (19.2%)), internet service access (4/52 (7.7%)), public/community locations for access or help (4/52 (7.7%)), online safety/scam awareness (4/52 (7.7%)), and support tailored to older adults (4/52 (7.7%)). Several responses also pointed to device affordability, non-digital options such as paper forms, respectful treatment when asking for help, and the importance of in-person support.

Table 25. Themes from write-in responses on additional digital support needs (N=52 write-ins)

Theme (coded from write-ins)	Mentions among write-ins
Training / education to build skills	10/52 (19.2%)
Internet service access	4/52 (7.7%)
Public/community locations for access or help	4/52 (7.7%)
Online safety, scams, and digital awareness	4/52 (7.7%)
Support tailored to older adults	4/52 (7.7%)
Device affordability or access	2/52 (3.8%)
Usability/accessibility and non-digital options	2/52 (3.8%)
Other community/basic needs mentioned	2/52 (3.8%)
Hands-on tech support (setup/installation)	1/52 (1.9%)
Transportation to services	1/52 (1.9%)
Respectful, non-stigmatizing help	1/52 (1.9%)
Funding/support for organizations	2/52 (3.8%)
Workplace support (time to learn)	1/52 (1.9%)

10. Barriers and disparities in skills and access

This section highlights notable differences across respondent groups. These comparisons are descriptive and based on the survey sample; they should not be interpreted as population estimates. Several county and subgroup samples are small, so percentages may be unstable. Even so, the pattern is clear: barriers and lower confidence tend to cluster among respondents with fewer resources, older age, disability, and limited device access.

10.1 Differences by income

Income shows one of the clearest relationships with device access, cost burden, and digital skill confidence. Respondents under \$30,000 were much less likely to have a computer (63/122 (51.6%)) than respondents at \$65,000+ (102/116 (87.9%)). They were also more likely to rely on a smartphone only (25/122 (20.5%) vs. 8/116 (6.9%)) and more likely to report internet cost as a moderate or major problem (86/122 (70.5%) vs. 41/116 (35.3%)).

Figure 4. Computer ownership by income group

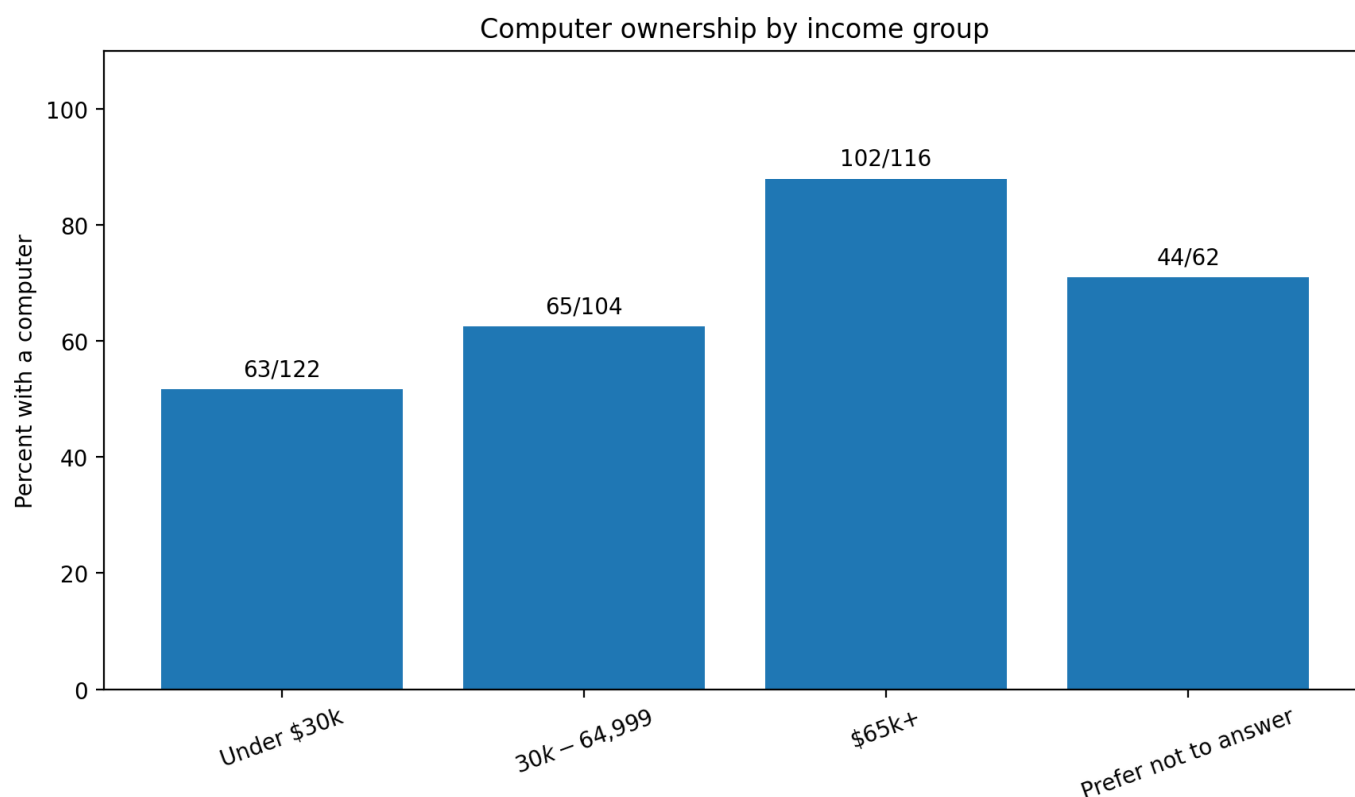


Table 26. Key indicators by income group

Income group	N	Has a computer	Smart-phone only	No device	Internet cost moderate/major	Skill index (mean)	Fill out online form "on my own"	Fix Wi-Fi "on my own"
Under \$30k	122	63/122 (51.6%)	25/122 (20.5%)	16/122 (13.1%)	86/122 (70.5%)	3.08	73/120 (60.8%)	51/122 (41.8%)
\$30k-\$64,999	104	65/104 (62.5%)	16/104 (15.4%)	4/104 (3.8%)	60/104 (57.7%)	3.17	64/104 (61.5%)	37/104 (35.6%)
\$65k+	116	102/116 (87.9%)	8/116 (6.9%)	2/116 (1.7%)	41/116 (35.3%)	3.66	97/116 (83.6%)	54/116 (46.6%)
Prefer not to answer	62	44/62 (71.0%)	11/62 (17.7%)	2/62 (3.2%)	32/61 (52.5%)	3.11	36/61 (59.0%)	11/62 (17.7%)

10.2 Differences by education

Education level also tracked with access and confidence. Respondents with a high school education or less were less likely to have a computer (50/113 (44.2%)) than respondents with a bachelor's degree or higher (124/146 (84.9%)). They also reported lower self-sufficiency for completing a multi-page online form (54/111 (48.6%) vs. 113/146 (77.4%)).

Table 27. Key indicators by education group

Education group	N	Has a computer	Smartph one only	No device	Internet cost moderate/ major	Skill index (mean)	Fill out online form “on my own”	Fix Wi-Fi “on my own”
High school or less	113	50/113 (44.2%)	26/113 (23.0%)	16/113 (14.2%)	80/113 (70.8%)	2.85	54/111 (48.6%)	31/113 (27.4%)
Some college/ Associate	137	96/137 (70.1%)	21/137 (15.3%)	5/137 (3.6%)	61/136 (44.9%)	3.41	100/136 (73.5%)	62/137 (45.3%)
Bachelor's or higher	146	124/146 (84.9%)	12/146 (8.2%)	2/146 (1.4%)	73/146 (50.0%)	3.50	113/146 (77.4%)	59/146 (40.4%)
Other	13	8/13 (61.5%)	2/13 (15.4%)	1/13 (7.7%)	8/13 (61.5%)	3.07	6/13 (46.2%)	3/13 (23.1%)

10.3 Differences by disability status

Respondents who reported a disability were also more likely to report compounded barriers. Computer ownership among respondents with a disability was 68/121 (56.2%), compared with 180/242 (74.4%) among respondents without a disability. Internet cost was a moderate or major problem for 82/121 (67.8%) of respondents with a disability, compared with 110/242 (45.5%) among those without one.

Table 28. Key indicators by disability status

Do you have a disability?	N	Has a computer	Smartph one only	No device	Internet cost moderate/ major	Skill index (mean)	Fill out online form “on my own”	Fix Wi-Fi “on my own”
Yes	121	68/121 (56.2%)	24/121 (19.8%)	11/121 (9.1%)	82/121 (67.8%)	3.09	65/119 (54.6%)	46/121 (38.0%)
No	242	180/242 (74.4%)	32/242 (13.2%)	8/242 (3.3%)	110/242 (45.5%)	3.49	185/241 (76.8%)	102/242 (42.1%)
Prefer not to answer	25	15/25 (60.0%)	4/25 (16.0%)	3/25 (12.0%)	16/25 (64.0%)	2.66	12/25 (48.0%)	3/25 (12.0%)

10.4 Differences by computer access

Computer access is a major dividing line in the data. Respondents without a computer were far more likely to rely on a smartphone only (61/131 (46.6%)) or to report no listed device at all (24/131 (18.3%)). They also showed much lower self-sufficiency for completing multi-page online forms (55/129 (42.6%)) than respondents who had a computer (218/277 (78.7%)).

Table 29. Key indicators by whether a respondent has a computer

Owns computer	N	Has a computer	Smartphone only	No device	Internet cost moderate/major	Skill index (mean)	Fill out online form "on my own"	Fix Wi-Fi "on my own"
No	131	0/131 (0.0%)	61/131 (46.6%)	24/131 (18.3%)	89/131 (67.9%)	2.71	55/129 (42.6%)	37/131 (28.2%)
Yes	278	278/278 (100.0%)	0/278 (0.0%)	0/278 (0.0%)	133/277 (48.0%)	3.54	218/277 (78.7%)	118/278 (42.4%)

10.5 Differences by county (high-level)

County-level patterns reflect both local conditions and uneven sample sizes. The table below provides a high-level snapshot by county, while detailed county profiles appear in Appendix B. Small Ns in several counties mean percentages can move substantially with only a few additional responses.

Table 30. Selected indicators by county

County	N	Has a computer	Smartphone only	Internet cost mod/major	Skill index (mean)	Fill out online form "on my own"	Fix Wi-Fi "on my own"	Used public place (any)
Allegany	11	8/11 (72.7%)	1/11 (9.1%)	8/11 (72.7%)	3.43	6/11 (54.5%)	3/11 (27.3%)	4/11 (36.4%)
Cattaraugus	25	13/25 (52.0%)	7/25 (28.0%)	16/25 (64.0%)	2.95	14/24 (58.3%)	10/25 (40.0%)	11/25 (44.0%)
Chautauqua	36	21/36 (58.3%)	10/36 (27.8%)	19/36 (52.8%)	3.38	23/36 (63.9%)	10/36 (27.8%)	22/36 (61.1%)
Erie	220	157/220 (71.4%)	25/220 (11.4%)	119/219 (54.3%)	3.24	144/219 (65.8%)	77/220 (35.0%)	89/220 (40.5%)
Genesee	8	8/8 (100.0%)	0/8 (0.0%)	6/8 (75.0%)	3.90	8/8 (100.0%)	5/8 (62.5%)	7/8 (87.5%)
Niagara	82	51/82 (62.2%)	15/82 (18.3%)	35/82 (42.7%)	3.34	60/81 (74.1%)	38/82 (46.3%)	29/82 (35.4%)
Orleans	14	10/14 (71.4%)	2/14 (14.3%)	10/14 (71.4%)	3.55	10/14 (71.4%)	4/14 (28.6%)	3/14 (21.4%)
Wyoming	13	10/13 (76.9%)	1/13 (7.7%)	9/13 (69.2%)	2.97	8/13 (61.5%)	8/13 (61.5%)	5/13 (38.5%)

Among counties with larger samples, Chautauqua stood out for heavier use of public places (22/36 (61.1%)); Cattaraugus showed one of the lowest average skill index values (2.95) and relatively low computer ownership (13/25 (52.0%)); Niagara showed somewhat lower internet cost burden (35/82 (42.7%)) than Erie (119/219 (54.3%)). Several small-sample counties, especially Genesee, Orleans, and Wyoming, should be interpreted cautiously.

11. Conclusions (notable differences and disparities)

Across this survey sample, digital life was common and important, but not evenly experienced. The data show a spectrum: some respondents reported high confidence across tasks and frequent online engagement, while others faced overlapping barriers tied to device access, affordability, age, disability, and the challenges built into online systems.

- Affordability is a central constraint. More than half of respondents rated device costs (241/409 (58.9%)) and internet service costs (222/408 (54.4%)) as moderate or major problems. Those burdens were especially pronounced among lower-income respondents (86/122 (70.5%) under \$30k vs. 41/116 (35.3%) at \$65k+).

1.

- Having a smartphone did not guarantee full digital participation. Smartphone ownership was nearly universal in the sample, but 61/409 (14.9%) relied on a smartphone only and 24/409 (5.9%) had no listed device. Respondents without a computer were far less likely to report being able to complete a multi-page online form 'on my own' (55/129 (42.6%)) than respondents with a computer (218/277 (78.7%)).

2.

- Skill gaps were most visible when tasks involved troubleshooting, accessibility, or challenges. Fixing Wi-Fi problems had the lowest 'on my own' rate (155/409 (37.9%)), and using accessibility features was also among the lowest-confidence tasks (209/407 (51.4%)). At the same time, too many logins/passwords (183/409 (44.7%)) and privacy/security concerns (187/408 (45.8%)) were major sources of challenge.

3.

- Age and disability intersected with access and confidence. The sample included 166/409 (40.6%) respondents ages 65+, and age-at-first-use data show that most older respondents first used the internet only in adulthood (131/135 (97.0%)). Respondents ages 75+ had a mean skill index of 2.59, compared with 3.74 among ages 25-34. Respondents with a disability also reported lower computer ownership (68/121 (56.2%) vs. 180/242 (74.4%)) and lower self-sufficiency for online forms (65/119 (54.6%) vs. 185/241 (76.8%)).

4.

- Physical places and human support were a part of the digital ecosystem. 170/409 (41.6%) used a public place for internet access or help in the past year, and 153/163 (93.9%) of users who answered the helpfulness item described those places as very or somewhat helpful. Write-in responses added the same story in residents' own words: 52/409 (12.7%) respondents wrote in a comment, and the most common themes were training, internet service access, public/community locations, online safety/scam awareness, and supports tailored to older adults.

Appendix A. Regionwide frequency tables (question-by-question)

This appendix provides regionwide frequency tables for each survey item. For each table, N is the number of respondents who answered the item unless otherwise noted. For check-all-that-apply items, totals can exceed 100 percent because respondents could select more than one response option.

Section A. Community context and devices

A01. Which county do you live in? N=409

Response	n	Percent (n/N)
Allegany	11	11/409 (2.7%)
Cattaraugus	25	25/409 (6.1%)
Chautauqua	36	36/409 (8.8%)
Erie	220	220/409 (53.8%)
Genesee	8	8/409 (2.0%)
Niagara	82	82/409 (20.0%)
Orleans	14	14/409 (3.4%)
Wyoming	13	13/409 (3.2%)

A03. Age group (derived from age in years) N=409

Response	n	Percent (n/N)
18-24	14	14/409 (3.4%)
25-34	64	64/409 (15.6%)
35-44	72	72/409 (17.6%)
45-54	45	45/409 (11.0%)
55-64	48	48/409 (11.7%)
65-74	105	105/409 (25.7%)
75+	61	61/409 (14.9%)

A04. Age (years) when you first used the internet (grouped) N=370

Range: 0-80 years; median: 20; mean: 25.7.

Age first used internet	n	Percent (n/N)
0-9	40	40/370 (10.8%)
10-14	77	77/370 (20.8%)
15-17	48	48/370 (13.0%)
18-24	47	47/370 (12.7%)
25-34	47	47/370 (12.7%)
35-44	51	51/370 (13.8%)
45-54	33	33/370 (8.9%)
55+	27	27/370 (7.3%)

A05. Device types owned (check all that apply) N=409

Option	n	Percent (n/N)
Computer	278	278/409 (68.0%)
Smartphone	356	356/409 (87.0%)
Tablet	216	216/409 (52.8%)
No listed device	24	24/409 (5.9%)

A06. Reasons for not owning a device (among respondents with no listed device) N=24

Reason	n	Percent (n/N)
Too expensive/can't afford a device	9	9/24 (37.5%)
Don't need a device for daily life	7	7/24 (29.2%)
Can use someone else's device	4	4/24 (16.7%)
Internet/data service too expensive	3	3/24 (12.5%)
Not comfortable / don't know how	7	7/24 (29.2%)
Privacy / scams / security concerns	2	2/24 (8.3%)
Poor internet/cell service in area	2	2/24 (8.3%)
Disability makes it difficult	0	0/24 (0.0%)
Other	0	0/24 (0.0%)
No reason selected	4	4/24 (16.7%)

Section B. Skill confidence ratings (1-4)**B01. Use the internet to find an answer to a specific question N=408**

Response	n	Percent (n/N)
1. I can't do this	35	35/408 (8.6%)
2. I can do this with a lot of help	19	19/408 (4.7%)
3. I can do this with a little help	47	47/408 (11.5%)
4. I can do this on my own	307	307/408 (75.2%)

B02. Fill out a multi-page online form or application (e.g., DMV, SNAP, or Social Security) N=406

Response	n	Percent (n/N)
1. I can't do this	36	36/406 (8.9%)
2. I can do this with a lot of help	27	27/406 (6.7%)
3. I can do this with a little help	70	70/406 (17.2%)
4. I can do this on my own	273	273/406 (67.2%)

B03. Upload a document or photo to a website N=408

Response	n	Percent (n/N)
1. I can't do this	53	53/408 (13.0%)
2. I can do this with a lot of help	34	34/408 (8.3%)
3. I can do this with a little help	69	69/408 (16.9%)
4. I can do this on my own	252	252/408 (61.8%)

B04. Send an email with an attachment N=409

Response	n	Percent (n/N)
1. I can't do this	50	50/409 (12.2%)
2. I can do this with a lot of help	25	25/409 (6.1%)
3. I can do this with a little help	49	49/409 (12.0%)
4. I can do this on my own	285	285/409 (69.7%)

B05. Join a video call (Zoom, Teams, FaceTime) N=408

Response	n	Percent (n/N)
1. I can't do this	64	64/408 (15.7%)
2. I can do this with a lot of help	22	22/408 (5.4%)
3. I can do this with a little help	65	65/408 (15.9%)
4. I can do this on my own	257	257/408 (63.0%)

B06. Use controls on a video call (e.g., mute/unmute, turning my camera off/on) N=407

Response	n	Percent (n/N)
1. I can't do this	68	68/407 (16.7%)
2. I can do this with a lot of help	32	32/407 (7.9%)
3. I can do this with a little help	59	59/407 (14.5%)
4. I can do this on my own	248	248/407 (60.9%)

B07. Connect a device to Wi-Fi N=406

Response	n	Percent (n/N)
1. I can't do this	61	61/406 (15.0%)
2. I can do this with a lot of help	22	22/406 (5.4%)
3. I can do this with a little help	60	60/406 (14.8%)
4. I can do this on my own	263	263/406 (64.8%)

B08. Fix Wi-Fi problems when the connection doesn't work N=409

Response	n	Percent (n/N)
1. I can't do this	93	93/409 (22.7%)
2. I can do this with a lot of help	40	40/409 (9.8%)
3. I can do this with a little help	121	121/409 (29.6%)
4. I can do this on my own	155	155/409 (37.9%)

B09. Install an app on a phone, tablet, or computer N=409

Response	n	Percent (n/N)
1. I can't do this	49	49/409 (12.0%)
2. I can do this with a lot of help	21	21/409 (5.1%)
3. I can do this with a little help	55	55/409 (13.4%)
4. I can do this on my own	284	284/409 (69.4%)

B10. Change language settings on a device N=407

Response	n	Percent (n/N)
1. I can't do this	76	76/407 (18.7%)
2. I can do this with a lot of help	17	17/407 (4.2%)
3. I can do this with a little help	66	66/407 (16.2%)
4. I can do this on my own	248	248/407 (60.9%)

B11. Create a strong password N=409

Response	n	Percent (n/N)
1. I can't do this	39	39/409 (9.5%)
2. I can do this with a lot of help	31	31/409 (7.6%)
3. I can do this with a little help	50	50/409 (12.2%)
4. I can do this on my own	289	289/409 (70.7%)

B12. Spot a message or website that might be a scam N=407

Response	n	Percent (n/N)
1. I can't do this	37	37/407 (9.1%)
2. I can do this with a lot of help	52	52/407 (12.8%)
3. I can do this with a little help	73	73/407 (17.9%)
4. I can do this on my own	245	245/407 (60.2%)

B13. Use a code sent to your phone/email to log into a web site N=407

Response	n	Percent (n/N)
1. I can't do this	49	49/407 (12.0%)
2. I can do this with a lot of help	22	22/407 (5.4%)
3. I can do this with a little help	48	48/407 (11.8%)
4. I can do this on my own	288	288/407 (70.8%)

B14. Schedule an appointment using a health portal or app N=406

Response	n	Percent (n/N)
1. I can't do this	58	58/406 (14.3%)
2. I can do this with a lot of help	23	23/406 (5.7%)
3. I can do this with a little help	61	61/406 (15.0%)
4. I can do this on my own	264	264/406 (65.0%)

B15. Look up test results online through a health portal N=407

Response	n	Percent (n/N)
1. I can't do this	57	57/407 (14.0%)
2. I can do this with a lot of help	24	24/407 (5.9%)
3. I can do this with a little help	58	58/407 (14.3%)
4. I can do this on my own	268	268/407 (65.8%)

B16. Access or use school or parent portals (e.g., checking grades, paying fees) N=400

Response	n	Percent (n/N)
1. I can't do this	78	78/400 (19.5%)
2. I can do this with a lot of help	28	28/400 (7.0%)
3. I can do this with a little help	47	47/400 (11.8%)
4. I can do this on my own	247	247/400 (61.8%)

B17. Change text size on a website or device N=408

Response	n	Percent (n/N)
1. I can't do this	66	66/408 (16.2%)
2. I can do this with a lot of help	24	24/408 (5.9%)
3. I can do this with a little help	71	71/408 (17.4%)
4. I can do this on my own	247	247/408 (60.5%)

B18. Use accessibility features (e.g., video captions, high contrast mode, screen magnifier, voice control) N=407

Response	n	Percent (n/N)
1. I can't do this	80	80/407 (19.7%)
2. I can do this with a lot of help	31	31/407 (7.6%)
3. I can do this with a little help	87	87/407 (21.4%)
4. I can do this on my own	209	209/407 (51.4%)

Section C. Frequency of online activities (past year)

C01. Looked up information online (e.g., health, finances, government services, latest news, current events, research topics, etc.) N=409

Response	n	Percent (n/N)
Daily	240	240/409 (58.7%)
Weekly	73	73/409 (17.8%)
Biweekly	12	12/409 (2.9%)
Monthly	20	20/409 (4.9%)
Rarely	29	29/409 (7.1%)
Never	10	10/409 (2.4%)
Not applicable	25	25/409 (6.1%)

C02. Used the internet to communicate (e.g., email, text/messaging, or video call) N=406

Response	n	Percent (n/N)
Daily	281	281/406 (69.2%)
Weekly	57	57/406 (14.0%)
Biweekly	11	11/406 (2.7%)
Monthly	10	10/406 (2.5%)
Rarely	18	18/406 (4.4%)
Never	14	14/406 (3.4%)
Not applicable	15	15/406 (3.7%)

C03. Used the internet to fill out government applications or access government services (e.g., paying taxes online, renewing a driver's license, or applying for benefits such as Social Security, SNAP, or Medicaid) N=409

Response	n	Percent (n/N)
Daily	35	35/409 (8.6%)
Weekly	42	42/409 (10.3%)
Biweekly	11	11/409 (2.7%)
Monthly	90	90/409 (22.0%)
Rarely	133	133/409 (32.5%)
Never	53	53/409 (13.0%)
Not applicable	45	45/409 (11.0%)

C04. Had a telehealth video appointment with a doctor, nurse, or other healthcare provider N=406

Response	n	Percent (n/N)
Daily	17	17/406 (4.2%)
Weekly	20	20/406 (4.9%)
Biweekly	17	17/406 (4.2%)
Monthly	46	46/406 (11.3%)
Rarely	155	155/406 (38.2%)
Never	100	100/406 (24.6%)
Not applicable	51	51/406 (12.6%)

C05. Used an accessibility feature (e.g., video captions, screen magnifier, screen reader, voice control) N=406

Response	n	Percent (n/N)
Daily	58	58/406 (14.3%)
Weekly	35	35/406 (8.6%)
Biweekly	16	16/406 (3.9%)
Monthly	26	26/406 (6.4%)
Rarely	112	112/406 (27.6%)
Never	88	88/406 (21.7%)
Not applicable	71	71/406 (17.5%)

C06. Purchased goods or services (e.g., Amazon, Walmart, Instacart, memberships, cloud services, etc.) N=409

Response	n	Percent (n/N)
Daily	49	49/409 (12.0%)
Weekly	104	104/409 (25.4%)
Biweekly	40	40/409 (9.8%)
Monthly	86	86/409 (21.0%)
Rarely	62	62/409 (15.2%)
Never	41	41/409 (10.0%)
Not applicable	27	27/409 (6.6%)

C07. Took an online course N=405

Response	n	Percent (n/N)
Daily	22	22/405 (5.4%)
Weekly	23	23/405 (5.7%)
Biweekly	7	7/405 (1.7%)
Monthly	46	46/405 (11.4%)
Rarely	133	133/405 (32.8%)
Never	100	100/405 (24.7%)
Not applicable	74	74/405 (18.3%)

C08. Looked up public transit routes and schedules (e.g., NFTA, etc.) N=406

Response	n	Percent (n/N)
Daily	31	31/406 (7.6%)
Weekly	30	30/406 (7.4%)
Biweekly	14	14/406 (3.4%)
Monthly	24	24/406 (5.9%)
Rarely	104	104/406 (25.6%)
Never	106	106/406 (26.1%)
Not applicable	97	97/406 (23.9%)

C09. Booked a ride share service (e.g., Uber Lyft, etc.) N=406

Response	n	Percent (n/N)
Daily	13	13/406 (3.2%)
Weekly	35	35/406 (8.6%)
Biweekly	14	14/406 (3.4%)
Monthly	26	26/406 (6.4%)
Rarely	111	111/406 (27.3%)
Never	127	127/406 (31.3%)
Not applicable	80	80/406 (19.7%)

C10. Used an app to monitor or control your home (e.g., Ring camera, WiFi-enabled thermostat, etc.) N=407

Response	n	Percent (n/N)
Daily	88	88/407 (21.6%)
Weekly	30	30/407 (7.4%)
Biweekly	7	7/407 (1.7%)
Monthly	15	15/407 (3.7%)
Rarely	34	34/407 (8.4%)
Never	133	133/407 (32.7%)
Not applicable	100	100/407 (24.6%)

C11. Managed a calendar N=409

Response	n	Percent (n/N)
Daily	182	182/409 (44.5%)
Weekly	53	53/409 (13.0%)
Biweekly	16	16/409 (3.9%)
Monthly	28	28/409 (6.8%)
Rarely	45	45/409 (11.0%)
Never	51	51/409 (12.5%)
Not applicable	34	34/409 (8.3%)

C12. Checked the weather forecast N=409

Response	n	Percent (n/N)
Daily	253	253/409 (61.9%)
Weekly	72	72/409 (17.6%)
Biweekly	13	13/409 (3.2%)
Monthly	13	13/409 (3.2%)
Rarely	25	25/409 (6.1%)
Never	13	13/409 (3.2%)
Not applicable	20	20/409 (4.9%)

C13. Looked up a business, organization, or landmark (directions, address, phone #, email) N=409

Response	n	Percent (n/N)
Daily	130	130/409 (31.8%)
Weekly	142	142/409 (34.7%)
Biweekly	25	25/409 (6.1%)
Monthly	34	34/409 (8.3%)
Rarely	39	39/409 (9.5%)
Never	18	18/409 (4.4%)
Not applicable	21	21/409 (5.1%)

C14. Used online banking N=408

Response	n	Percent (n/N)
Daily	162	162/408 (39.7%)
Weekly	71	71/408 (17.4%)
Biweekly	15	15/408 (3.7%)
Monthly	30	30/408 (7.4%)
Rarely	29	29/408 (7.1%)
Never	63	63/408 (15.4%)
Not applicable	38	38/408 (9.3%)

Section D. Challenges to internet use (1-4)**D01. Cost of devices N=409**

Response	n	Percent (n/N)
1. No problem	86	86/409 (21.0%)
2. Small problem	82	82/409 (20.0%)
3. Moderate problem	132	132/409 (32.3%)
4. Major problem	109	109/409 (26.7%)

D02. Cost of internet service N=408

Response	n	Percent (n/N)
1. No problem	105	105/408 (25.7%)
2. Small problem	81	81/408 (19.9%)
3. Moderate problem	120	120/408 (29.4%)
4. Major problem	102	102/408 (25.0%)

D03. Lack of digital skills/confidence N=408

Response	n	Percent (n/N)
1. No problem	176	176/408 (43.1%)
2. Small problem	90	90/408 (22.1%)
3. Moderate problem	73	73/408 (17.9%)
4. Major problem	69	69/408 (16.9%)

D04. Limited availability of devices in my household N=408

Response	n	Percent (n/N)
1. No problem	243	243/408 (59.6%)
2. Small problem	65	65/408 (15.9%)
3. Moderate problem	51	51/408 (12.5%)
4. Major problem	49	49/408 (12.0%)

D05. Accessibility issues (vision, hearing, mobility, etc.) N=409

Response	n	Percent (n/N)
1. No problem	248	248/409 (60.6%)
2. Small problem	70	70/409 (17.1%)
3. Moderate problem	48	48/409 (11.7%)
4. Major problem	43	43/409 (10.5%)

D06. Language barriers N=407

Response	n	Percent (n/N)
1. No problem	298	298/407 (73.2%)
2. Small problem	39	39/407 (9.6%)
3. Moderate problem	32	32/407 (7.9%)
4. Major problem	38	38/407 (9.3%)

D07. Internet service is too slow N=409

Response	n	Percent (n/N)
1. No problem	187	187/409 (45.7%)
2. Small problem	106	106/409 (25.9%)
3. Moderate problem	59	59/409 (14.4%)
4. Major problem	57	57/409 (13.9%)

D08. Concerns about privacy/security N=408

Response	n	Percent (n/N)
1. No problem	132	132/408 (32.4%)
2. Small problem	89	89/408 (21.8%)
3. Moderate problem	85	85/408 (20.8%)
4. Major problem	102	102/408 (25.0%)

D09. Having to provide ID or payment information online N=408

Response	n	Percent (n/N)
1. No problem	193	193/408 (47.3%)
2. Small problem	67	67/408 (16.4%)
3. Moderate problem	61	61/408 (15.0%)
4. Major problem	87	87/408 (21.3%)

D10. Too many logins, passwords, or accounts to keep track of N=409

Response	n	Percent (n/N)
1. No problem	137	137/409 (33.5%)
2. Small problem	89	89/409 (21.8%)
3. Moderate problem	80	80/409 (19.6%)
4. Major problem	103	103/409 (25.2%)

D11. Not enough time to learn or use the internet N=409

Response	n	Percent (n/N)
1. No problem	228	228/409 (55.7%)
2. Small problem	65	65/409 (15.9%)
3. Moderate problem	66	66/409 (16.1%)
4. Major problem	50	50/409 (12.2%)

D12. Difficulty using websites (e.g., small/confusing text, not mobile-friendly, or not in my preferred language, etc.) N=408

Response	n	Percent (n/N)
1. No problem	217	217/408 (53.2%)
2. Small problem	88	88/408 (21.6%)
3. Moderate problem	51	51/408 (12.5%)
4. Major problem	52	52/408 (12.7%)

Section E. Public places for internet access/help

E01. Used a public place to access the internet or get digital help (past 12 months) N=409

Response	n	Percent (n/N)
No - Never	224	224/409 (54.8%)
Yes - Less than once a month	84	84/409 (20.5%)
Yes - Monthly	38	38/409 (9.3%)
Yes - Weekly	31	31/409 (7.6%)
Yes - Daily	11	11/409 (2.7%)
Yes - Several times per day	6	6/409 (1.5%)
Don't know	6	6/409 (1.5%)
Prefer not to say	8	8/409 (2.0%)

E02. Helpfulness of public places (among respondents who reported using a public place) N=163

Response	n	Percent (n/N)
Very helpful	103	103/163 (63.2%)
Somewhat helpful	50	50/163 (30.7%)
Not very helpful	8	8/163 (4.9%)
Not at all helpful	2	2/163 (1.2%)

Section F. Community perceptions and supports

F01. Accessibility of websites/apps for people with disabilities N=381

Response	n	Percent (n/N)
Very accessible	107	107/381 (28.1%)
Somewhat accessible	161	161/381 (42.3%)
Not very accessible	91	91/381 (23.9%)
Not at all accessible	22	22/381 (5.8%)

F02. Availability of websites/apps in preferred languages N=359

Response	n	Percent (n/N)
Very available	145	145/359 (40.4%)
Somewhat available	136	136/359 (37.9%)
Not very available	63	63/359 (17.5%)
Not at all available	15	15/359 (4.2%)

F03. Importance of digital confidence for the community's future N=404

Response	n	Percent (n/N)
Very important	309	309/404 (76.5%)
Somewhat important	64	64/404 (15.8%)
Not very important	21	21/404 (5.2%)
Not at all important	10	10/404 (2.5%)

F04. How well the community is doing to ensure residents can use digital tools confidently N=393

Response	n	Percent (n/N)
Very well	89	89/393 (22.6%)
Somewhat well	159	159/393 (40.5%)
Not very well	102	102/393 (26.0%)
Not at all well	43	43/393 (10.9%)

F05. Supports that would most help (check all that apply) N=401

Support type	n	Percent (n/N)
Lower cost for internet service	277	277/401 (69.1%)
Lower cost for devices	239	239/401 (59.6%)
Training to build skills/confidence	193	193/401 (48.1%)
Better internet service (speed/reliability/coverage)	184	184/401 (45.9%)
Tech support when problems come up	163	163/401 (40.6%)
Accessibility features/support for disabilities	135	135/401 (33.7%)
Public places to get help (libraries, schools, community centers)	132	132/401 (32.9%)
Easier-to-use government websites/online services	129	129/401 (32.2%)
More devices in the household	104	104/401 (25.9%)
Help in multiple languages	80	80/401 (20.0%)

F06. Are there other supports that would help that are not listed above?

Below is the full verbatim list of all 52 F06 write-in comments (exact spelling/capitalization as captured; n=52 write-ins out of N=409 respondents).

01) Transportation to services

02) great choices

03) Community wifi

04) need grocery stores no grocery stores in area

05) no cost solar/senser outside lights around the house to help lower costs

- 06) as essential as tech is paper should still be optional
- 07) not an issue
- 08) Stop treating people who need help like trash or a problem and actually help them
- 09) edu
- 10) more help for seniors to recognize scams and avoid them
- 11) people to install things like modems
- 12) Media literacy, Scam id training
- 13) Computer classes in churches and cell phone use
- 14) Increase more grant opportunities available to nonprofits and small businesses
- 15) More public and community computing location
- 16) programs for community? Hard to read the rest
- 17) Training class
- 18) No
- 19) None I can think of
- 20) Employer-sponsored time to learn and leverage these tools for work and outside of work.
- 21) No
- 22) No
- 23) No
- 24) Internet users awareness
- 25) Broader internet coverage
- 26) No
- 27) None
- 28) No, there is not
- 29) Free internet service could be made readily available to older users to encourage digital literacy
- 30) No
- 31) Having multiple options for internet providers
- 32) Classes in digital literacy
- 33) No
- 34) Don't think so
- 35) Lower cost for devices
- 36) Senior Centers
- 37) Get rid of constant pop ups
- 38) training for elderly
- 39) more hours and public community places help in libraries
- 40) low to no cost device
- 41) NA
- 42) ease of use is needed
- 43) Education classes
- 44) Satisfactory
- 45) Not sure
- 46) I don't even know what I don't know
- 47) in my home training
- 48) No
- 49) Help the need?
- 50) No
- 51) Foundations
- 52) Nope

Section G. Demographics (frequencies)

G01. Highest level of education completed N=409

Response	n	Percent (n/N)
Less than high school	17	17/409 (4.2%)
High school diploma or GED	96	96/409 (23.5%)
Some college, no degree	83	83/409 (20.3%)
Associate degree (e.g., AA, AS)	54	54/409 (13.2%)
Bachelor's degree (e.g., BA, BS)	87	87/409 (21.3%)
Master's degree (e.g., MA, MS, MBA)	54	54/409 (13.2%)
Doctoral or professional degree (e.g., PhD, JD, MD)	5	5/409 (1.2%)
Other	13	13/409 (3.2%)

G03. Employment status N=403

Response	n	Percent (n/N)
Employed full-time	111	111/403 (27.5%)
Employed part-time	47	47/403 (11.7%)
Self-employed	15	15/403 (3.7%)
Unemployed, looking for work	22	22/403 (5.5%)
Unemployed, not looking for work	11	11/403 (2.7%)
Homemaker	5	5/403 (1.2%)
Student	10	10/403 (2.5%)
Retired	130	130/403 (32.3%)
Unable to work / disabled	39	39/403 (9.7%)
Other (please specify)	13	13/403 (3.2%)

G05. Gender identity (check all that apply) N=409

Option	n	Percent (n/N)
Female	280	280/409 (68.5%)
Male	110	110/409 (26.9%)
Non-binary	4	4/409 (1.0%)
Transgender	2	2/409 (0.5%)
Gender queer	1	1/409 (0.2%)
Prefer to self describe	2	2/409 (0.5%)
Prefer not to answer	11	11/409 (2.7%)
Unknown	2	2/409 (0.5%)

G07. Race/ethnicity (check all that apply) N=409

Note: categories are not mutually exclusive: totals can exceed 100 percent.

Option	n	Percent (n/N)
Asian (any selection)	10	10/409 (2.4%)
Black (any selection)	83	83/409 (20.3%)
Hispanic/Latino/a/x (selected)	21	21/409 (5.1%)
Native American/Indigenous (any selection)	12	12/409 (2.9%)
White (any selection)	276	276/409 (67.5%)
Other (selected Other)	4	4/409 (1.0%)
Prefer not to answer	21	21/409 (5.1%)
Prefer to self describe	1	1/409 (0.2%)
Unknown	1	1/409 (0.2%)

G09. Household structure N=409

Response	n	Percent (n/N)
Single person household	134	134/409 (32.8%)
Couple with children	84	84/409 (20.5%)
Couple, no children	72	72/409 (17.6%)
Single parent with children	50	50/409 (12.2%)
Multi-generational household (for example, grandparents, parents, and children)	27	27/409 (6.6%)
Shared household with roommates or friends	9	9/409 (2.2%)
Extended family household (for example, siblings, cousins, or other relatives)	9	9/409 (2.2%)
Other	4	4/409 (1.0%)
Prefer not to say	20	20/409 (4.9%)

G11. Annual household income before taxes N=404

Response	n	Percent (n/N)
Under \$10,000	46	46/404 (11.4%)
\$10,000 – \$19,999	29	29/404 (7.2%)
\$20,000 – \$29,999	47	47/404 (11.6%)
\$30,000 – \$39,999	36	36/404 (8.9%)
\$40,000 – \$49,999	32	32/404 (7.9%)
\$50,000 – \$64,999	36	36/404 (8.9%)
\$65,000 – \$84,999	40	40/404 (9.9%)
\$85,000 – \$109,999	34	34/404 (8.4%)
\$110,000 – \$149,999	26	26/404 (6.4%)
\$150,000 – \$199,999	11	11/404 (2.7%)
\$200,000 or more	5	5/404 (1.2%)
Prefer not to answer	62	62/404 (15.3%)

G12. Disability status N=388

Response	n	Percent (n/N)
Yes	121	121/388 (31.2%)
No	242	242/388 (62.4%)
Prefer not to answer	25	25/388 (6.4%)

G13. If yes, which type of disability do you have? (among respondents who reported a disability) N=121

Option (check all that apply)	n	Percent (n/N)
Physical	76	76/121 (62.8%)
Developmental	17	17/121 (14.0%)
Intellectual	17	17/121 (14.0%)
Other	15	15/121 (12.4%)
Prefer not to answer	10	10/121 (8.3%)

G15. Use of assistive technology when using the internet N=391

Response	n	Percent (n/N)
Yes	44	44/391 (11.3%)
No	317	317/391 (81.1%)
Prefer not to answer	30	30/391 (7.7%)

Appendix B. County profiles (selected indicators)

This appendix summarizes selected indicators by county. County sample sizes vary substantially and several counties have small N; interpret percentages with caution.

Allegany County (N=11)

Indicator	Value
Average age (years)	46.3
Age first used internet (median; A04)	14 (N=10)
First used internet at age 18+ (A04>=18)	4/10 (40.0%)
Has a smartphone	10/11 (90.9%)
Has a computer	8/11 (72.7%)
Smartphone only	1/11 (9.1%)
No listed device	0/11 (0.0%)
Skill index (mean, 1-4)	3.43
Fill out online form "on my own" (B02=4)	6/11 (54.5%)
Fix Wi-Fi "on my own" (B08=4)	3/11 (27.3%)
Internet cost moderate/major (D02=3-4)	8/11 (72.7%)
Internet too slow moderate/major (D07=3-4)	6/11 (54.5%)
Used public place for access/help (E01 starts with Yes)	4/11 (36.4%)
Gender: Female	8/11 (72.7%)
Gender: Male	3/11 (27.3%)

Education (grouped):

Education group	n	Percent (n/N)
High school or less	4	4/11 (36.4%)
Some college/Associate	4	4/11 (36.4%)
Bachelor's or higher	3	3/11 (27.3%)
Other	0	0/11 (0.0%)

Income (grouped):

Income group	n	Percent (n/N)
Under \$30k	3	3/11 (27.3%)
\$30k-\$64,999	1	1/11 (9.1%)
\$65k+	3	3/11 (27.3%)
Prefer not to answer	3	3/11 (27.3%)

Cattaraugus County (N=25)

Indicator	Value
Average age (years)	45.5
Age first used internet (median; A04)	15 (N=22)
First used internet at age 18+ (A04>=18)	8/22 (36.4%)
Has a smartphone	21/25 (84.0%)
Has a computer	13/25 (52.0%)
Smartphone only	7/25 (28.0%)
No listed device	3/25 (12.0%)
Skill index (mean, 1-4)	2.95
Fill out online form "on my own" (B02=4)	14/24 (58.3%)
Fix Wi-Fi "on my own" (B08=4)	10/25 (40.0%)
Internet cost moderate/major (D02=3-4)	16/25 (64.0%)
Internet too slow moderate/major (D07=3-4)	7/25 (28.0%)
Used public place for access/help (E01 starts with Yes)	11/25 (44.0%)
Gender: Female	18/25 (72.0%)
Gender: Male	7/25 (28.0%)

Education (grouped):

Education group	n	Percent (n/N)
High school or less	13	13/25 (52.0%)
Some college/Associate	8	8/25 (32.0%)
Bachelor's or higher	3	3/25 (12.0%)
Other	1	1/25 (4.0%)

Income (grouped):

Income group	n	Percent (n/N)
Under \$30k	13	13/25 (52.0%)
\$30k-\$64,999	4	4/25 (16.0%)
\$65k+	6	6/25 (24.0%)
Prefer not to answer	2	2/25 (8.0%)

Chautauqua County (N=36)

Indicator	Value
Average age (years)	50.5
Age first used internet (median; A04)	18 (N=33)
First used internet at age 18+ (A04>=18)	19/33 (57.6%)
Has a smartphone	31/36 (86.1%)
Has a computer	21/36 (58.3%)
Smartphone only	10/36 (27.8%)
No listed device	2/36 (5.6%)
Skill index (mean, 1-4)	3.38
Fill out online form "on my own" (B02=4)	23/36 (63.9%)
Fix Wi-Fi "on my own" (B08=4)	10/36 (27.8%)
Internet cost moderate/major (D02=3-4)	19/36 (52.8%)
Internet too slow moderate/major (D07=3-4)	15/36 (41.7%)
Used public place for access/help (E01 starts with Yes)	22/36 (61.1%)
Gender: Female	19/36 (52.8%)
Gender: Male	15/36 (41.7%)
Gender: Transgender	1/36 (2.8%)
Gender: Gender queer	1/36 (2.8%)
Gender: Prefer to self describe	1/36 (2.8%)
Gender: Prefer not to answer	1/36 (2.8%)

Education (grouped):

Education group	n	Percent (n/N)
High school or less	7	7/36 (19.4%)
Some college/Associate	12	12/36 (33.3%)
Bachelor's or higher	15	15/36 (41.7%)
Other	2	2/36 (5.6%)

Income (grouped):

Income group	n	Percent (n/N)
Under \$30k	10	10/36 (27.8%)
\$30k-\$64,999	11	11/36 (30.6%)
\$65k+	9	9/36 (25.0%)
Prefer not to answer	6	6/36 (16.7%)

Erie County (N=220)

Indicator	Value
Average age (years)	55.8
Age first used internet (median; A04)	20 (N=198)
First used internet at age 18+ (A04>=18)	108/198 (54.5%)
Has a smartphone	190/220 (86.4%)
Has a computer	157/220 (71.4%)
Smartphone only	25/220 (11.4%)
No listed device	12/220 (5.5%)
Skill index (mean, 1-4)	3.24
Fill out online form "on my own" (B02=4)	144/219 (65.8%)
Fix Wi-Fi "on my own" (B08=4)	77/220 (35.0%)
Internet cost moderate/major (D02=3-4)	119/219 (54.3%)
Internet too slow moderate/major (D07=3-4)	62/220 (28.2%)
Used public place for access/help (E01 starts with Yes)	89/220 (40.5%)
Gender: Female	148/220 (67.3%)
Gender: Male	57/220 (25.9%)
Gender: Non-binary	4/220 (1.8%)
Gender: Transgender	1/220 (0.5%)
Gender: Prefer to self describe	1/220 (0.5%)
Gender: Prefer not to answer	8/220 (3.6%)
Gender: Unknown	2/220 (0.9%)

Education (grouped):

Education group	n	Percent (n/N)
High school or less	55	55/220 (25.0%)
Some college/Associate	77	77/220 (35.0%)
Bachelor's or higher	81	81/220 (36.8%)
Other	7	7/220 (3.2%)

Income (grouped):

Income group	n	Percent (n/N)
Under \$30k	55	55/220 (25.0%)
\$30k-\$64,999	59	59/220 (26.8%)
\$65k+	69	69/220 (31.4%)
Prefer not to answer	34	34/220 (15.5%)

Genesee County (N=8)

Indicator	Value
Average age (years)	46.9
Age first used internet (median; A04)	21 (N=8)
First used internet at age 18+ (A04>=18)	4/8 (50.0%)
Has a smartphone	8/8 (100.0%)
Has a computer	8/8 (100.0%)
Smartphone only	0/8 (0.0%)
No listed device	0/8 (0.0%)
Skill index (mean, 1-4)	3.90
Fill out online form "on my own" (B02=4)	8/8 (100.0%)
Fix Wi-Fi "on my own" (B08=4)	5/8 (62.5%)
Internet cost moderate/major (D02=3-4)	6/8 (75.0%)
Internet too slow moderate/major (D07=3-4)	0/8 (0.0%)
Used public place for access/help (E01 starts with Yes)	7/8 (87.5%)
Gender: Female	6/8 (75.0%)
Gender: Male	2/8 (25.0%)

Education (grouped):

Education group	n	Percent (n/N)
High school or less	0	0/8 (0.0%)
Some college/Associate	2	2/8 (25.0%)
Bachelor's or higher	6	6/8 (75.0%)
Other	0	0/8 (0.0%)

Income (grouped):

Income group	n	Percent (n/N)
Under \$30k	2	2/8 (25.0%)
\$30k-\$64,999	1	1/8 (12.5%)
\$65k+	2	2/8 (25.0%)
Prefer not to answer	3	3/8 (37.5%)

Niagara County (N=82)

Indicator	Value
Average age (years)	56.9
Age first used internet (median; A04)	24 (N=74)
First used internet at age 18+ (A04>=18)	49/74 (66.2%)
Has a smartphone	71/82 (86.6%)
Has a computer	51/82 (62.2%)
Smartphone only	15/82 (18.3%)
No listed device	5/82 (6.1%)
Skill index (mean, 1-4)	3.34
Fill out online form "on my own" (B02=4)	60/81 (74.1%)
Fix Wi-Fi "on my own" (B08=4)	38/82 (46.3%)
Internet cost moderate/major (D02=3-4)	35/82 (42.7%)
Internet too slow moderate/major (D07=3-4)	17/82 (20.7%)
Used public place for access/help (E01 starts with Yes)	29/82 (35.4%)
Gender: Female	65/82 (79.3%)
Gender: Male	16/82 (19.5%)
Gender: Prefer not to answer	1/82 (1.2%)

Education (grouped):

Education group	n	Percent (n/N)
High school or less	28	28/82 (34.1%)
Some college/Associate	29	29/82 (35.4%)
Bachelor's or higher	23	23/82 (28.0%)
Other	2	2/82 (2.4%)

Income (grouped):

Income group	n	Percent (n/N)
Under \$30k	36	36/82 (43.9%)
\$30k-\$64,999	17	17/82 (20.7%)
\$65k+	18	18/82 (22.0%)
Prefer not to answer	11	11/82 (13.4%)

Orleans County (N=14)

Indicator	Value
Average age (years)	51.3
Age first used internet (median; A04)	16 (N=13)
First used internet at age 18+ (A04>=18)	6/13 (46.2%)
Has a smartphone	14/14 (100.0%)
Has a computer	10/14 (71.4%)
Smartphone only	2/14 (14.3%)
No listed device	0/14 (0.0%)
Skill index (mean, 1-4)	3.55
Fill out online form "on my own" (B02=4)	10/14 (71.4%)
Fix Wi-Fi "on my own" (B08=4)	4/14 (28.6%)
Internet cost moderate/major (D02=3-4)	10/14 (71.4%)
Internet too slow moderate/major (D07=3-4)	5/14 (35.7%)
Used public place for access/help (E01 starts with Yes)	3/14 (21.4%)
Gender: Female	9/14 (64.3%)
Gender: Male	4/14 (28.6%)
Gender: Prefer not to answer	1/14 (7.1%)

Education (grouped):

Education group	n	Percent (n/N)
High school or less	4	4/14 (28.6%)
Some college/Associate	2	2/14 (14.3%)
Bachelor's or higher	7	7/14 (50.0%)
Other	1	1/14 (7.1%)

Income (grouped):

Income group	n	Percent (n/N)
Under \$30k	2	2/14 (14.3%)
\$30k-\$64,999	6	6/14 (42.9%)
\$65k+	5	5/14 (35.7%)
Prefer not to answer	0	0/14 (0.0%)

Wyoming County (N=13)

Indicator	Value
Average age (years)	58.3
Age first used internet (median; A04)	47 (N=12)
First used internet at age 18+ (A04>=18)	7/12 (58.3%)
Has a smartphone	11/13 (84.6%)
Has a computer	10/13 (76.9%)
Smartphone only	1/13 (7.7%)
No listed device	2/13 (15.4%)
Skill index (mean, 1-4)	2.97
Fill out online form "on my own" (B02=4)	8/13 (61.5%)
Fix Wi-Fi "on my own" (B08=4)	8/13 (61.5%)
Internet cost moderate/major (D02=3-4)	9/13 (69.2%)
Internet too slow moderate/major (D07=3-4)	4/13 (30.8%)
Used public place for access/help (E01 starts with Yes)	5/13 (38.5%)
Gender: Female	7/13 (53.8%)
Gender: Male	6/13 (46.2%)

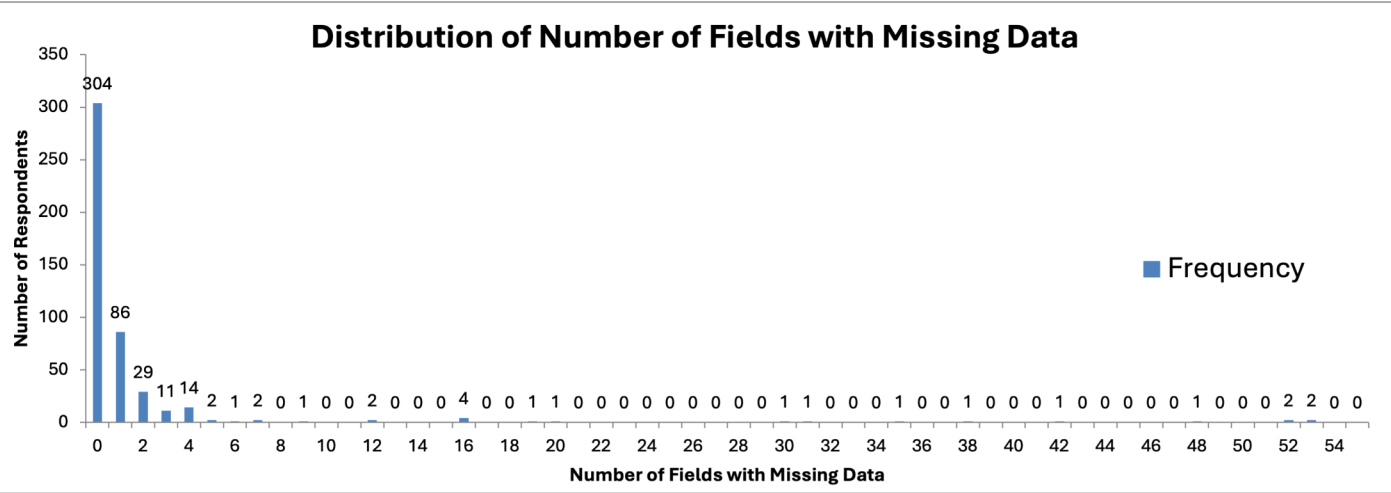
Education (grouped):

Education group	n	Percent (n/N)
High school or less	2	2/13 (15.4%)
Some college/Associate	3	3/13 (23.1%)
Bachelor's or higher	8	8/13 (61.5%)
Other	0	0/13 (0.0%)

Income (grouped):

Income group	n	Percent (n/N)
Under \$30k	1	1/13 (7.7%)
\$30k-\$64,999	5	5/13 (38.5%)
\$65k+	4	4/13 (30.8%)
Prefer not to answer	3	3/13 (23.1%)

Appendix C. Missing Data Distribution



N = 468 respondents (original, combined dataset)

Selected interpretations:

- 304 respondents submitted surveys where 0 fields had missing data.
- 86 respondents submitted surveys where 1 field had missing data.
- 2 survey respondents submitted surveys where 53 fields had missing data.

Appendix D. Original Survey Instrument

Community Digital Literacy Survey

Introduction:

Thank you for taking part in the Western New York Digital Literacy Survey! The Western New York Digital Equity Coalition is leading this effort to better understand how people across our region use digital tools and technology in their daily lives.

Your responses will play an important role in shaping a clearer picture of our region's digital skills — including how confident people feel using computers, the internet, and online resources to find, create, and share information. The results will strengthen our grant applications, give us more credibility when we advocate for resources, and help us design meaningful programs based on actual needs rather than assumptions.

The project is supported by a Digital Equity Technical Assistance grant from the New York State ConnectALL Office. We appreciate your time and contribution towards building future programs and resources that truly meet the needs of all Western New Yorkers.

This survey includes seven sections and should take about 10 minutes to complete. If you are uncertain about a question or it does not apply to you, you may skip it and continue to the next one.

What is digital literacy?

The National Digital Inclusion Alliance defines digital literacy as, “the ability to use information and communication technologies to find, evaluate, create, and communicate information, requiring both cognitive and technical skill”.

Privacy:

Please note that this survey is completely anonymous, and we do not collect any personally identifying information. Your answers will remain private and will only be used to help the Western New York Digital Equity Coalition better understand our community's digital needs. Your honest responses are important and greatly appreciated.

Raffle Drawing:

To thank you for completing this survey, you'll be entered into a raffle for a chance to win one of two \$200 Walmart gift cards! Participation in the raffle is completely voluntary, and your survey responses will remain anonymous. After completing the survey, you'll have the option to provide contact information separately so we can notify you if you're selected as a winner.



Section A. We'd like to start with a few simple questions that will help us understand your community context.

A01. Which county do you live in? *(Check one)*

- ☐ Allegany ☐ Cattaraugus ☐ Chautauqua ☐ Erie ☐ Genesee
☐ Niagara ☐ Orleans ☐ Wyoming ☐ Other

A02. What is your home zip code? *(Write in below)*

A03. What is your age (years)? *(Write in below)*

A04. Age (years) when you first used the internet?
(Write in below)

A05. What types of devices do you currently own?
(Check all that apply)

- ☐ Computer (e.g., MacBook, Chromebook, Surface, Samsung Galaxy Book, etc.)
☐ Smartphone (e.g., Apple iPhone, Google Pixel, Samsung Galaxy, etc.)
☐ Tablet (e.g., Apple iPad, Samsung Tab, Amazon Fire Tablet, etc.)

A06. If you don't currently own any of these types of devices, why not? *(Check all that apply)*

- ☐ Too expensive or can't afford one
☐ Don't need one for my daily life
☐ I can use someone else's device when needed
☐ Internet or data service is too expensive
☐ I don't know how to use one/not comfortable with technology
☐ Concerned about privacy, scams, or security
☐ Poor internet or cell service in my area
☐ Disability makes it difficult to use
☐ Other *(please specify):*

Section B. So many opportunities in work, healthcare, education, and daily life now depend on being online. We want to understand what feels easy and what feels harder, so our community can ensure everyone has the skills they need. **Rate your skill level 1-4 if you had to perform this skill today. If you aren't sure, leave that skill blank.**

B01. Use the internet to find an answer to a specific question *(Check one)*

- ☐ 1. I can't do this ☐ 2. I can do this with a lot of help
☐ 3. I can do this with a little help ☐ 4. I can do this on my own

B02. Fill out a multi-page online form or application (e.g., DMV, SNAP, or Social Security) *(Check one)*

- ☐ 1. I can't do this ☐ 2. I can do this with a lot of help
☐ 3. I can do this with a little help ☐ 4. I can do this on my own

B03. Upload a document or photo to a website *(Check one)*

- ☐ 1. I can't do this ☐ 2. I can do this with a lot of help
☐ 3. I can do this with a little help ☐ 4. I can do this on my own

B04. Send an email with an attachment *(Check one)*

- ☐ 1. I can't do this ☐ 2. I can do this with a lot of help
☐ 3. I can do this with a little help ☐ 4. I can do this on my own

B05. Join a video call (Zoom, Teams, FaceTime) *(Check one)*

- ☐ 1. I can't do this ☐ 2. I can do this with a lot of help
☐ 3. I can do this with a little help ☐ 4. I can do this on my own

B06. Use controls on a video call (e.g., mute/unmute, turning my camera off/on) *(Check one)*

- ☐ 1. I can't do this ☐ 2. I can do this with a lot of help
☐ 3. I can do this with a little help ☐ 4. I can do this on my own

B07. Connect a device to Wi-Fi *(Check one)*

- ☐ 1. I can't do this ☐ 2. I can do this with a lot of help
☐ 3. I can do this with a little help ☐ 4. I can do this on my own

B08. Fix Wi-Fi problems when the connection doesn't work *(Check one)*

- ☐ 1. I can't do this ☐ 2. I can do this with a lot of help
☐ 3. I can do this with a little help ☐ 4. I can do this on my own

B09. Install an app on a phone, tablet, or computer *(Check one)*

- ☐ 1. I can't do this ☐ 2. I can do this with a lot of help
☐ 3. I can do this with a little help ☐ 4. I can do this on my own

B10. Change language settings on a device *(Check one)*

- ☐ 1. I can't do this ☐ 2. I can do this with a lot of help
☐ 3. I can do this with a little help ☐ 4. I can do this on my own

B11. Create a strong password *(Check one)*

- ☐ 1. I can't do this ☐ 2. I can do this with a lot of help
☐ 3. I can do this with a little help ☐ 4. I can do this on my own

B12. Spot a message or website that might be a scam *(Check one)*

- ☐ 1. I can't do this ☐ 2. I can do this with a lot of help
☐ 3. I can do this with a little help ☐ 4. I can do this on my own

B13. Use a code sent to your phone/email to log into a web site *(Check one)*

- ☐ 1. I can't do this ☐ 2. I can do this with a lot of help
☐ 3. I can do this with a little help ☐ 4. I can do this on my own

B14. Schedule an appointment using a health portal or app *(Check one)*

- ☐ 1. I can't do this ☐ 2. I can do this with a lot of help
☐ 3. I can do this with a little help ☐ 4. I can do this on my own

B15. Look up test results online through a health portal *(Check one)*

- ☐ 1. I can't do this ☐ 2. I can do this with a lot of help
☐ 3. I can do this with a little help ☐ 4. I can do this on my own

B16. Access or use school or parent portals (e.g., checking grades, paying fees) (Check one)

- ☐ 1. I can't do this ☐ 2. I can do this with a lot of help
☐ 3. I can do this with a little help ☐ 4. I can do this on my own

B17. Change text size on a website or device (Check one)

- ☐ 1. I can't do this ☐ 2. I can do this with a lot of help
☐ 3. I can do this with a little help ☐ 4. I can do this on my own

B18. Use accessibility features (e.g., video captions, high contrast mode, screen magnifier, voice control) (Check one)

- ☐ 1. I can't do this ☐ 2. I can do this with a lot of help
☐ 3. I can do this with a little help ☐ 4. I can do this on my own

Section C. We want to understand how well our community is keeping up with changes that affect work, health, learning, and daily life. **In the past year, how often have you or members of your household been able to use the internet in these ways? If it did not apply to you, choose "Not applicable".**

C01. Looked up information online (e.g., health, finances, government services, latest news, current events, research topics, etc.) (Check one)

- ☐ Daily ☐ Weekly ☐ Biweekly ☐ Monthly ☐ Rarely
☐ Never ☐ Not applicable

C02. Used the internet to communicate (e.g., email, text/messaging, or video call) (Check one)

- ☐ Daily ☐ Weekly ☐ Biweekly ☐ Monthly ☐ Rarely
☐ Never ☐ Not applicable

C03. Used the internet to fill out government applications or access government services (e.g., paying taxes online, renewing a driver's license, or applying for benefits such as Social Security, SNAP, or Medicaid) (Check one)

- ☐ Daily ☐ Weekly ☐ Biweekly ☐ Monthly ☐ Rarely
☐ Never ☐ Not applicable

C04. Had a telehealth video appointment with a doctor, nurse, or other healthcare provider (Check one)

- ☐ Daily ☐ Weekly ☐ Biweekly ☐ Monthly ☐ Rarely
☐ Never ☐ Not applicable

C05. Used an accessibility feature (e.g., video captions, screen magnifier, screen reader, voice control) (Check one)

- ☐ Daily ☐ Weekly ☐ Biweekly ☐ Monthly ☐ Rarely
☐ Never ☐ Not applicable

C06. Purchased goods or services (e.g., Amazon, Walmart, Instacart, memberships, cloud services, etc.) (Check one)

- ☐ Daily ☐ Weekly ☐ Biweekly ☐ Monthly ☐ Rarely
☐ Never ☐ Not applicable

C07. Took an online course (Check one)

- ☐ Daily ☐ Weekly ☐ Biweekly ☐ Monthly ☐ Rarely
☐ Never ☐ Not applicable

C08. Looked up public transit routes and schedules (e.g., NFTA, etc.) (Check one)

- ☐ Daily ☐ Weekly ☐ Biweekly ☐ Monthly ☐ Rarely
☐ Never ☐ Not applicable

C09. Booked a ride share service (e.g., Uber Lyft, etc.) (Check one)

- ☐ Daily ☐ Weekly ☐ Biweekly ☐ Monthly ☐ Rarely
☐ Never ☐ Not applicable

C10. Used an app to monitor or control your home (e.g., Ring camera, WiFi-enabled thermostat, etc.) (Check one)

- ☐ Daily ☐ Weekly ☐ Biweekly ☐ Monthly ☐ Rarely
☐ Never ☐ Not applicable

C11. Managed a calendar (Check one)

- ☐ Daily ☐ Weekly ☐ Biweekly ☐ Monthly ☐ Rarely
☐ Never ☐ Not applicable

C12. Checked the weather forecast (Check one)

- ☐ Daily ☐ Weekly ☐ Biweekly ☐ Monthly ☐ Rarely
☐ Never ☐ Not applicable

C13. Looked up a business, organization, or landmark (directions, address, phone #, email) (Check one)

- ☐ Daily ☐ Weekly ☐ Biweekly ☐ Monthly ☐ Rarely
☐ Never ☐ Not applicable

C14. Used online banking (Check one)

- ☐ Daily ☐ Weekly ☐ Biweekly ☐ Monthly ☐ Rarely
☐ Never ☐ Not applicable

Section D. We know the internet doesn't always work well for everyone. To build solutions that work for the whole community, we need to understand what kinds of challenges make it harder to use the internet fully. **For each item, please tell us how much of a problem it is for you or members of your household on a scale of 1-4.**

D01. Cost of devices (Check one)

- ☐ 1. No problem ☐ 2. Small problem ☐ 3. Moderate problem
☐ 4. Major problem

D02. Cost of internet service (Check one)

- ☐ 1. No problem ☐ 2. Small problem ☐ 3. Moderate problem
☐ 4. Major problem

D03. Lack of digital skills/confidence (Check one)

- ☐ 1. No problem ☐ 2. Small problem ☐ 3. Moderate problem
☐ 4. Major problem

D04. Limited availability of devices in my household (Check one)

- ☐ 1. No problem ☐ 2. Small problem ☐ 3. Moderate problem
☐ 4. Major problem

D05. Accessibility issues (vision, hearing, mobility, etc.) (Check one)

- ☐ 1. No problem ☐ 2. Small problem ☐ 3. Moderate problem
☐ 4. Major problem

D06. Language barriers (Check one)

- ☐ 1. No problem ☐ 2. Small problem ☐ 3. Moderate problem
☐ 4. Major problem

D07. Internet service is too slow *(Check one)*
☐ 1. No problem ☐ 2. Small problem ☐ 3. Moderate problem
☐ 4. Major problem

D08. Concerns about privacy/security *(Check one)*
☐ 1. No problem ☐ 2. Small problem ☐ 3. Moderate problem
☐ 4. Major problem

D09. Having to provide ID or payment information online
(Check one)
☐ 1. No problem ☐ 2. Small problem ☐ 3. Moderate problem
☐ 4. Major problem

D10. Too many logins, passwords, or accounts to keep track of
(Check one)
☐ 1. No problem ☐ 2. Small problem ☐ 3. Moderate problem
☐ 4. Major problem

D11. Not enough time to learn or use the internet *(Check one)*
☐ 1. No problem ☐ 2. Small problem
☐ 3. Moderate problem
☐ 4. Major problem

D12. Difficulty using websites (*e.g., small/confusing text, not mobile-friendly, or not in my preferred language, etc.*)
(Check one)
☐ 1. No problem ☐ 2. Small problem ☐ 3. Moderate problem
☐ 4. Major problem

Section E. Not everyone has what they need at home, so public spaces like libraries and community centers can make a big difference. These questions help us see how well those resources support our community.

E01. In the past 12 months, have you or anyone in your household gone to a public place (*such as a library, school, community center, or restaurant*) to access the internet or get help using computers, smartphones, or online services?
(Check one)
☐ No - Never ☐ Yes - Less than once a month
☐ Yes - Monthly ☐ Yes - Weekly ☐ Yes - Daily
☐ Yes - Several times per day ☐ Don't know
☐ Prefer not to answer

E02. If yes to the previous question, how helpful have those public places been in providing internet access or digital help for you or your household? *(Check one)*
☐ Very helpful ☐ Somewhat helpful ☐ Not very helpful
☐ Not at all helpful

Section F. Now we'd like your thoughts on digital life in your community: How inclusive online spaces are, how vital digital tools are, how well we're doing, and what support might help everyone participate?

F01. In your opinion, how generally accessible are websites and apps to people with disabilities (*for example, vision, hearing, or mobility challenges*)? *(Check one)*
☐ Very accessible ☐ Somewhat accessible
☐ Not very accessible ☐ Not at all accessible

F02. In your opinion, are websites and apps generally available in the languages people in your community prefer to use? *(Check one)*
☐ Very accessible ☐ Somewhat accessible
☐ Not very accessible ☐ Not at all accessible

F03. How important do you think it is for the future of your community that all residents are able to use the internet and digital tools confidently? *(Check one)*
☐ Very important ☐ Somewhat important
☐ Not very important ☐ Not at all important

F04. How well do you think your community is doing today at making sure all residents are able to use the internet and digital tools confidently? *(Check one)*
☐ Very well ☐ Somewhat well ☐ Not very well
☐ Not well at all

F05. Which of the following kinds of support would most help your household or community take fuller advantage of the internet and digital tools? *(Check all that apply)*
☐ Lower cost for internet service
☐ Lower cost for devices (*computers, tablets, smartphones*)
☐ More devices available in the household
☐ Better internet service (*speed, reliability, coverage*)
☐ Training to build skills or confidence
☐ Help in multiple languages
☐ Accessibility features and support for people with disabilities
☐ Easier-to-use government websites and online services
☐ Tech support when problems come up
☐ Public places to get help (*libraries, schools, community centers*)

F06. Are there other supports that would help that are not listed above? *(Write in below)*

Section G. We have a few final questions that will help us understand how different groups in our community are experiencing the internet. This helps ensure that solutions reflect the diversity of our region and work well for everyone.

G01. What is your highest level of education completed?
(Check one)
☐ Less than high school ☐ High school diploma or GED
☐ Some college, no degree ☐ Associate degree (*e.g., AA, AS*)
☐ Bachelor's degree (*e.g., BA, BS*)
☐ Master's degree (*e.g., MA, MS, MBA*)
☐ Doctoral or professional degree (*e.g., PhD, JD, MD*)
☐ Other

G02. If you chose "other" level of education, please specify
(Write in below)

G03. What is your employment status? *(Check one)*

- ☐ Employed full-time ☐ Employed part-time ☐ Self-employed
☐ Unemployed, looking for work
☐ Unemployed, not looking for work ☐ Homemaker
☐ Student ☐ Retired ☐ Unable to work / disabled
☐ Other *(please specify)* _____

G04. If you chose other for your employment status, please specify *(Write in below)*

G05. What is your gender identity? *(Check all that apply)*

- ☐ Female ☐ Male ☐ Non-binary ☐ Transgender ☐ Agender
☐ Gender fluid ☐ Gender queer ☐ Prefer to self describe
☐ Prefer not to answer ☐ Unknown

G06. If you prefer to self describe your gender identity, please specify *(Write in below)*

G07. What is your race or ethnicity? *(Check all that apply)*

- ☐ Asian - East *(China, Japan, North Korea, South Korea, Hong Kong, etc.)*
☐ Asian - South *(India, Afghanistan, Bangladesh, Pakistan, Sri Lanka, etc.)*
☐ Asian - Southeast *(Thailand, Vietnam, Cambodia, Singapore, Indonesia, etc.)*
☐ Black - African *(Nigeria, Kenya, Uganda, Ghana, Mali, etc.)*
☐ Black - African American
☐ Black - Afro-Caribbean *(Jamaica, Haiti, Trinidad & Tobago, Bermuda, Antigua & Barbuda, etc.)*
☐ Black - Other
☐ Hispanic or Latino/a/x *(Dominican Republic, Puerto Rico, Mexico, Ecuador, Costa Rica, etc.)*
☐ Middle Eastern/North African *(Egypt, Morocco, Algeria, Libya, Palestine, etc.)*
☐ Native North, Central, or South American *(including Alaskan Native)*
☐ Native - other
☐ Hawaiian or Other Pacific Islander *(Polynesia, Micronesia, Melanesia)*
☐ White - Europe *(UK, Spain, Italy, Germany, Russia, etc.)*
☐ White - Other *(any non-European country)*
☐ Hispanic or Latino/a/x
☐ Not Hispanic or Latino/a/x
☐ Prefer not to answer
☐ Prefer to self describe
☐ Other
☐ Unknown to person completing survey
☐ Unknown to person survey is being completed for

G08. If you chose other or self describe for your race or ethnicity, please specify *(Write in below)*

G09. Which of the following best describes your household? *(Check one)*

- ☐ Single person household
☐ Couple, no children
☐ Couple with children
☐ Single parent with children
☐ Multi-generational household *(for example, grandparents, parents, and children)*
☐ Shared household with roommates or friends
☐ Extended family household *(for example, siblings, cousins, or other relatives)*
☐ Other
☐ Prefer not to answer

G10. If you chose "other" for your household, please specify *(Write in below)*

G11. What is your annual household income before taxes? *(Check one)*

- ☐ Under \$10,000
☐ \$10,000 - \$19,999
☐ \$20,000 - \$29,999
☐ \$30,000 - \$39,999
☐ \$40,000 - \$49,999
☐ \$50,000 - \$64,999
☐ \$65,000 - \$84,999
☐ \$85,000 - \$109,999
☐ \$110,000 - \$149,999
☐ \$150,000 - \$199,999
☐ \$200,000 or more
☐ Prefer not to answer

G12. Do you have a disability? *(Check one)*

- ☐ Yes ☐ No ☐ Prefer not to answer

G13. If yes, which type of disability do you have? *(Check all that apply)*

- ☐ Physical ☐ Developmental ☐ Intellectual
☐ Other ☐ Prefer not to answer

G14. If you chose "other" for type of disability, please specify *(Write in below)*

G15. Do you ever rely on assistive technology—such as screen readers, voice control, or other tools—when using the internet because of a disability? *(Check one)*

- ☐ Yes ☐ No ☐ Prefer not to answer

Appendix E. Mail Coverage: ZIP Code by County

County	Number of Surveys	%	Number of ZIP Codes Contacted By Mail	Unique ZIP Codes Contacted By Mail
Allegany	44	2.9%	14	14709, 14711, 14715, 14727, 14735, 14739, 14744, 14754, 14777, 14806, 14813, 14822, 14880, 14895
Cattaraugus	78	5.2%	16	14042, 14070, 14101, 14138, 14171, 14706, 14719, 14726, 14731, 14737, 14743, 14753, 14760, 14770, 14772, 14779
Chautauqua	127	8.5%	15	14048, 14062, 14063, 14136, 14701, 14712, 14716, 14733, 14738, 14747, 14750, 14757, 14782, 14784, 14787
Erie	988	65.8%	46	14001, 14006, 14026, 14031, 14032, 14043, 14047, 14051, 14052, 14068, 14072, 14075, 14080, 14081, 14086, 14127, 14139, 14141, 14150, 14201, 14202, 14203, 14204, 14206, 14207, 14208, 14209, 14210, 14211, 14212, 14213, 14214, 14215, 14216, 14217, 14218, 14219, 14220, 14221, 14222, 14223, 14224, 14225, 14226, 14227, 14228
Genesee	27	1.8%	6	14013, 14020, 14125, 14416, 14422, 14525
Niagara	175	11.7%	12	14012, 14092, 14094, 14105, 14108, 14120, 14132, 14172, 14301, 14303, 14304, 14305
Orleans	36	2.4%	7	14098, 14103, 14411, 14470, 14476, 14477, 14571
Wyoming	26	1.7%	8	14009, 14011, 14024, 14113, 14427, 14530, 14569, 14591

Appendix F. Sample Coverage: Self-reported ZIP Code by Self-reported County

County (Self-reported)	Number of Surveys	%	Number of ZIP Codes (Self-reported)	Unique ZIP Codes (Self-reported)
Allegany	11	2.7%	7	14706, 14709, 14711, 14715, 14770, 14813, 14895
Cattaraugus	25	6.1%	9	14042, 14706, 14719, 14737, 14740, 14755, 14760, 14770, 14779
Chautauqua	36	8.8%	8	14048, 14081, 14135, 14136, 14701, 14722, 14733, 14738
Erie	220	53.8%	43	14001, 14004, 14043, 14059, 14068, 14072, 14075, 14081, 14085, 14086, 14094, 14125, 14139, 14141, 14150, 14169, 14201, 14202, 14203, 14204, 14206, 14207, 14208, 14209, 14210, 14211, 14212, 14213, 14214, 14215, 14216, 14217, 14219, 14220, 14221, 14222, 14223, 14224, 14225, 14226, 14227, 14228, 14231
Genesee	8	2.0%	3	14011, 14020, 14040
Niagara	82	20.0%	11	14092, 14094, 14105, 14120, 14174, 14202, 14209, 14301, 14303, 14304, 14305
Orleans	14	3.4%	5	14103, 14105, 14411, 14470, 14479
Wyoming	13	3.2%	7	14009, 14011, 14040, 14082, 14113, 14427, 14569

Note: "Self-reported" is an important caveat because some ZIP codes may cover multiple counties.

Appendix G. Development and Administration of the Pilot Survey

Prior to administering the final Western New York Digital Literacy Survey, a pilot version of the instrument was developed and tested during Fall 2025. The purpose of the pilot survey was to evaluate the clarity, structure, and usability of the survey questions and to gather feedback that could inform improvements before launching the final regional survey. The pilot survey served as an important step in refining the instrument and ensuring that the final survey would effectively capture information about digital access, digital skills, and technology use across Western New York.

The pilot survey was administered online only. While the project team had always intended to include both online and paper versions of the survey because of the topic's focus on digital access and potential barriers to online participation, the paper version was developed only after the pilot testing phase. As a result, the pilot survey was made available exclusively through an online platform. The pilot phase allowed the research team to gather early responses while also inviting respondents to provide feedback on their experience completing the survey.

Pilot respondents were asked to evaluate several aspects of the survey, including how easy the questions were to understand, the overall length of the survey, and the usability of the online survey platform. A total of 23 respondents completed the pilot feedback questions. Several respondents also provided open-ended comments about their experience completing the survey.

Feedback from pilot respondents provided valuable insights into how the survey could be improved. Some respondents noted that the survey felt too long or contained questions that might not directly inform programmatic or policy actions. Others suggested that more open-ended questions could provide richer insights into people's experiences with digital technology. Respondents also identified areas where the survey could be made easier to navigate or understand. For example, suggestions included simplifying the introductory language, clarifying the skill-rating scale used in certain sections, adding response options such as "not applicable," and improving the ability to move between survey questions. Other comments highlighted broader issues relevant to digital inclusion, such as language accessibility and the potential barriers created by requiring an online-only format for participation.

In addition to feedback from pilot respondents, members of the Western New York Digital Equity Coalition (WNYDEC) board reviewed the survey and provided comments on specific questions and survey design elements. To organize and track this feedback, the project team used a collaborative survey refinement tool, which compiled comments and suggestions from board members and project staff. This tool allowed the team to systematically review proposed changes and document how each comment was considered during the revision process.

The project team also held meetings with WNYDEC partners to discuss the survey instrument and review the feedback collected through the pilot and the refinement tool. During this process, participants discussed opportunities to improve the clarity, length, and structure of the survey. Following these discussions, the research team finalized revisions to the survey instrument. As part of the refinement process, 25 questions were removed, reducing the survey to 73 total questions. The final survey was also redesigned to accommodate a paper format, resulting in a four-page, 11×17 folded booklet with an attached cover sheet.

These revisions allowed the project team to produce a streamlined survey instrument that balanced the need for comprehensive data with the goal of maintaining an accessible and

manageable survey experience for respondents. The development and testing of the pilot survey therefore played a critical role in shaping the final survey instrument used for the Western New York Digital Literacy Survey.

Appendix H. In-Person Survey Engagement Sites and Community Partners

To complement the online survey and mail-based outreach, the Western New York Digital Literacy Survey included an in-person engagement component. This approach was designed to reach residents who may face barriers to participating in online surveys, including individuals with limited internet access, limited digital skills, or limited familiarity with online forms. In-person engagement allowed community members to complete paper surveys in trusted local settings and, when needed, receive assistance from partner staff or survey team members.

Survey outreach was conducted through partnerships with community organizations, libraries, senior centers, faith-based organizations, local government offices, and community events across the eight counties of Western New York. These sites were selected because they are places where residents regularly gather to access services, participate in community activities, or receive information and support. Many of these locations serve populations that are more likely to experience barriers to digital access or digital literacy, including older adults, low-income households, and individuals who rely on community-based services.

At these locations, paper surveys were distributed and collected either through tabling at community events or by leaving survey materials with partner organizations for a period of time so that staff could assist residents in completing the survey. This approach helped ensure that participation opportunities were available in environments that were familiar and accessible to residents.

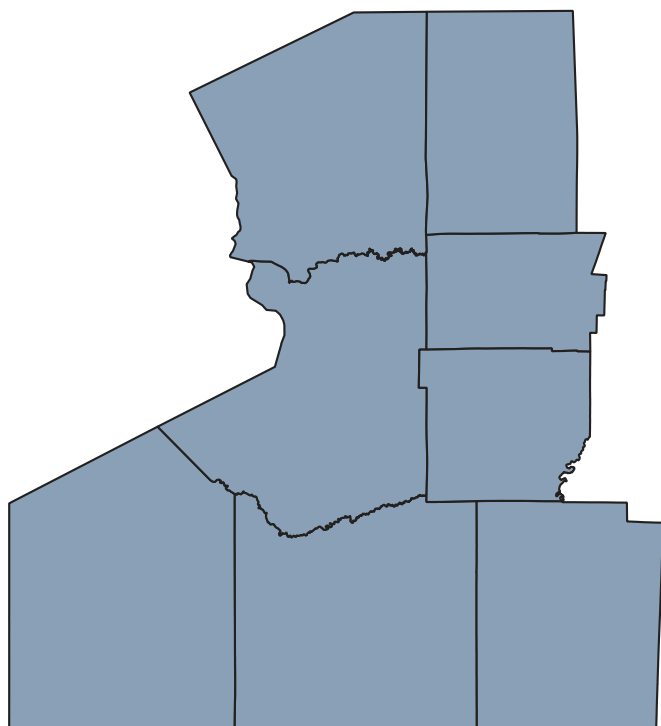
The following organizations and locations supported in-person engagement and distribution of the survey:

- Northland Workforce Training Center
- Erie County Department for the Aging at the Gloria J. Parks Community Center
- Elma United Methodist Church
- Elma Public Library
- Lockport Schools Family Empowerment Center
- Temple Beth Zion
- Cheektowaga Senior Center
- Energy Literacy Workshop at Wrobel Towers in Niagara Falls
- Marilla Free Library
- Marilla Country Store
- James Prendergast Library Association
- F. J. Donovan Post 1626
- Stevens Memorial Community Library
- Anderson-Lee Library
- Medina Canal Village Winter Indoor Farmers' Market
- Salamanca Antique Mall
- East Side Collaborative Partnership
- Amherst Main Library
- Buffalo & Erie County Public Library
- Frank E. Merriweather, Jr. Branch Library
- Mental Health Association in Niagara County
- Lewiston Public Library
- Office of Erie County Legislator Lawrence Dupre

- Niagara County Cornell Cooperative Extension
- Universal Primary Care (Allegany and Cattaraugus Counties)

These partnerships played an important role in expanding the reach of the survey and ensuring that residents who may not otherwise participate in an online survey had an opportunity to share their experiences with digital access and digital skills. By engaging trusted community organizations and public institutions, the survey was able to reach a broader and more diverse group of participants across Western New York.

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