



MARKET ANALYSIS REPORT:

Abstract

SNAP Strategic Plan Initiative Opportunity Technology: Aiming to reduce the digital divide by improving client's access to services via technology.

February 2022

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Spokane County Digital Divide Report

Spokane Neighbors Action Partners (SNAP)

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I. Executive Summary

This report looks into the "digital divide" within Spokane County, Washington. The report starts by answering the question "what is the digital divide?" and follows up by describing what the demographics and digital infrastructure for Spokane County looks like. To identify the Spokane County "digital divide" a questionnaire was developed and distributed to a variety of community residents.

The survey results show that:

- 1. 48.75% report broadband internet is too expensive.
- 2. 43.27% report they access the internet through their cell phone.
- 3. 16.25% report that broadband internet is not available where they live. Additionally, a summary of the recommendations to lower the digital divide gap include:
 - 1. Providing education on what broadband providers are available for households within specific area codes.
 - 2. Providing education on FCC assistant programs designed to fund the broadband access gap.
 - 3. Focusing on policy change in six key areas (see page 11)

In late 2018, the Strategic Plan Implementation Team identified the Digital Divide challenge through a variety of surveys of staff and market research. It was identified as one of the major needs within our Strategic Plan Initiative #2 – Opportunity Technology with the outcome of this initiative as follows:

We know we have achieved this strategic priority initiative if we reduced the digital divide by improving client's access to services via technology.

The following Strategic Plan Action Steps were identified to assist us in reaching the above stated outcome:

Action Step #	Detailed Action Step	STATUS
2.1.3	Create common understanding and communicate about what is the digital divide, why is it important, what can we do to help close the divide.	Completed (See Exhibit B)
2.2.2	Host client focus groups (and surveys) to ascertain best ways to engage clients in technology planning (in person, virtual, phone, paper?)	To be Completed after Digital Divide report publication
2.2.3	Based on focus groups (and survey) feedback create method for engaging clients around technology and engage a minimum of 200 clients to provide technology development and deploy- ment feedback	To be Completed after focus groups meet
2.2.4	Develop action steps based on client focus groups (and survey) feedback to determine next steps and program implementation or enhancements (SNAP app, hardware lending library, telecom advocacy, client technology "help desk / assister / peer navigator")	To be Completed after method for engaging is devel- oped

End of Executive Summary

II. What is the Digital Divide?

The "digital divide" is a term that is used to characterize a growing gap between populations who have access to (and use) telecommunications and those who do not.¹ High-speed internet is a telecommunications tool that populations rely on to conduct daily business and to interact with each other, the economy and the government. The greater the "digital divide", the more opportunities that the gaped populations miss out on.² Populations with a lower social-economic status (including low-income, people of color, older, Native Americans, and rural residents³) experience more disparities within the "digital divide" and do not have the same opportunities as higher income or more affluent neighborhoods with more access.

The term "digital inclusion" refers to all the steps that are needed to ensure that all people, including the most disadvantaged, can access and use Information and Communication Technologies. The term "digital equity" is when all people have access to all digital technology to full participate in society.

In other words, some populations are privileged in their access and use of telecommunications when compared to other populations. Populations with high-speed internet are digitally empowered to network better, find more opportunities, and to increase their competence in the information society.⁴ Populations without access are left behind and are not able to interact with the rest of society.

⁻

¹ Angele G, Lennard K. Broadband Internet Access and the Digital Divide: Federal Assistance Programs. Congressional Research Service. www.crs.gov. RL30719. Published March 13, 2012.

² Lai J, Widmar NO. Revisiting the Digital Divide in the COVID-19 Era. Applied economic perspectives and policy. 2021;2020;43:458-464.

³ Sanders CK, Scanlon E. The Digital Divide Is a Human Rights Issue: Advancing Social Inclusion Through Social Work Advocacy. Journal of human rights and social work. 2021;6:130-143.

⁴ Mäkinen M. Digital Empowerment as a Process for Enhancing Citizens' Participation. E-learning and digital media. 2006;3:381-395.

III. Spokane County Demographics:

General Population Demographics

(Please note as of April, 2020, Spokane County had a population of 539,339)

R	a	се	:

White	88.9%
Black or African American	2%
American Indian and Alaska Native	1.8%
Asian	2.4%
Native Hawaiian and Other Pacific Islander	.6%
Hispanic or Latino	6.1%

Income & Poverty:

Median household income	\$56,904
Per capita income	\$31,146
Persons in poverty	13.4%

Age and Sex:

Persons under 5 years	6%
Persons under 18 years	22%
Persons 65 years and over	16.6%
Female	50.4%

Computer and Internet use:

Households with a computer 92.6% Households with broadband internet 87%

subscription

Families and Living Arrangements

Households 202,811 Persons per household 2.41

Survey Respondents' Demographics:

Race:

White	74.04%
Black or African American	5.6%
American Indian and Alaska Native	6.49%
Asian	0.59%
Native Hawaiian and Other Pacific Islander	0.88%
Other and Mixed race	12.38%

Average Demographics Survey Respondents:

Sorting by the highest response zip code (99207), the majority of responses were from the 25-44 age group. This group earns less than \$2,000 monthly.

The average download speed reported was 19Mbs and the average upload speed reported was 4.3 Mbs. This group primarily accesses the internet through their cell phone.

The average family household size is 3.1 (self included). This group reported that a reduced costs of Internet access would be helpful.⁵

⁵ Additional Survey Data found in Exhibit II of this Report

IV. Spokane County Digital Infrastructure:

The population of Spokane County has several different fixed internet providers to choose from. Speeds top out at a 1000 Mbs down and 35 Mbs up. However, this selection of providers is not available for every household and differs based on the actual address of the household and if the service provider can support additional users. For example, "Ptera" may offer 25 Mbs down and 10 Mbs up, but they have a limited number of fixed wireless receivers they can deploy and if they are all is use, a new household cannot be added to the service.

Spokane County fixed intern	et providers: ^{6,7,8}		
Provider:	Tech:	Down (Mbs)*:	Up (Mbs):
Comcast	Cable	1000	35
ViaSat	Satellite	100	3
Wired or Wireless	Fixed Wireless	30	10
Ptera	Fixed Wireless	25	10
T-Mobile	Fixed Wireless	25	3
Hughes Network Systems	Satellite	25	3
Lumen Technologies	ADSL	15	.75
VSAT Systems	Satellite	2	1.3

These providers are centered around the population centers. Households that are located away from population centers (found in rural environments) may not have access to cable, fixed wireless, or ADSL service providers. Satellite internet may their only option.

*Please note:

Mbps = Megabit per second (Mbit/s or Mb/s)

Mbs = Megabyte per second

Megabits per second to MB/s Examples

- ADSL 8.0 Mbit/s has 1 MB/s download rate and 1.0 Mbit/s = 0.125 MB/s upload rate.
- ADSL2 12.0 Mbit/s has 1.5 MB/s download rate and 1.0 Mbit/s = 0.1625 MB/s upload rate.
- ADSL2 24.0 Mbit/s has 3 MB/s download rate and 3.3 Mbit/s = 0.4125 MB/s upload rate.
- USB 2.0 transmission speed 480 Mbit/s = 60 MB/s.

⁶ Fixed Broadband Deployment. Federal Communications Commission. https://broadbandmap.fcc.gov/#/. Accessed January 1, 2022.

⁷ This is a listing from the FCC broadband search website. Individuals can put their specific address in to get a listing of service providers.

⁸ This listing does not include Starlink or other, soon to be released, internet providers.

V. FCC Recommended Household Broadband Requirement:

The Federal Communication Commission recommends broadband speeds based on the number of people using an internet source and the programs the people are using:9

Definitions:	Light Use - (Basic functions: email, browsing, basic video, VoIP, Internet radio)		High Use - (Basic functions plus more than one high-demand application running at the same time)	
1 user on 1 device	Basic	Basic	Medium	
2 users or devices at a time	Basic	Medium	Medium/Advanced	
3 users or devices at a time	Medium	Medium	Advanced	
4 users or devices at a time	Medium	Advanced	Advanced	
		*Mbps (Megabits per s	second) is the standard	
Basic Service = 3 to 8 Mk	ops*	measure of broadband speed. It refers to the		
Medium Service = 12 to 2	25 Mbps*	speed with which information packets are		
Advanced Service = More than 25 Mbps*		downloaded from, or uploaded to, the internet.		

This means that the average Spokane County household, that supports 2.41 people, needs an "Advanced Service" (more than 25 Mbs down / 3 Mbs up) to support life during COVID (online video streaming with online education). The FCC also states that for every student an additional 5-25 Mbs download speed is required.¹⁰ This number can add up quickly for larger households.

VI. Research Methodology:

The research team designed a survey with a list of 14 questions that were designed to collect as much information on Spokane County's digital divide as possible. The survey was limited to 14 questions to keep the printed survey size down to 1 page (printed front and back). The questions were validated against a panel of key population leaders prior to the survey deployment.

The survey was created on Oct 18, 2021, and closed on Dec 23, 2021. The digital survey (and link) was distributed via a web site that SNAP created featured on the local news and emailed to a

Household Broadband Guide. Federal Communications Commission. https://www.fcc.gov/consumers/guides/household-broadband-guide. Accessed January 1, 2022.

¹⁰ Broadband Speed Guide. Federal Communications Commission. https://www.fcc.gov/consumers/guides/broadband-speed-guide. Accessed January 1, 2022.

network of non-profit organizations. ^{11,12} Additionally, printed surveys were hand delivered to Spokane County's library system and other key non-profit support groups by a team of volunteers. Once the survey time period was completed, the printed surveys were recollected and manually entered into the digital survey database.

Finally, to entice the population to compete the survey, everyone who completed the survey was offered the opportunity enter into a drawing to win \$25 gift cards that were provided by private donors.

VII. Survey Results:

The questionnaire was viewed by 620 people, collected 452 responses, and was completed by 328 people (72.57%). The survey took an average of 2 minutes to compete per individual.

Useful findings from the survey:

Percentage of Respondents	Reporting Challenge
71.57%	Report they use broadband to access the internet
48.75%	Report that broadband internet is too expensive
43.27%	Report they access the internet with their cell phone
37.16%	Report reduced costs of internet would help
34.29%	Report they access the internet with their computer, table, or laptop
16.25%	Report that broadband internet is not available where they live
16.22%	Report they do have internet
13.48%	Report increased data plan would help
13.11%	Report that availability of internet access where I live would help
12.61%	Report they do have internet, but it is not adequate
12.57%	Report they access the internet through the library wireless internet (WiFi)
7.61%	Report they use satellite to access the internet
6.38%	Report training on how to use the internet would help

Kaur R, 'We've seen more and more clients coming forward': SNAP hopes to bridge digital divide. KXLY. https://www.kxly.com/weve-seen-more-and-more-clients-coming-forward-snap-hopes-to-bridge-digital-divide/. Accessed January 1, 2022.

¹² SNAP Digital Divide Survey. https://www.snapwa.org/digitaldivide/. Accessed January 1, 2022.

VIII. Recommendations

#1: Education on Available Broadband Providers

Of those respondents to the survey, 16.25% report that broadband internet is not available where they live. However, according to the FCC, nearly all of Spokane County has access to some sort of internet, either through cable, satellite, fixed wireless, or ADSL. 100% of the 16.25% people who responded that they do not have access to broadband internet are located in a zip code that offers several different options of broadband internet. The table below lists the zip codes that responded and the number of broadband providers in that zip code.

7in

% of ro-

Number of

City Name	State	Zip	% of re-	Number of
,		Code	sponses	Providers
AIRWAY HEIGHTS	Washington	99001	1.30%	8
CHATTAROY	Washington	99003	1.30%	6
CHENEY	Washington	99004	6.17%	9
DEER PARK	Washington	99006	2.92%	9
ELK	Washington	99009	2.60%	6
GREENACRES	Washington	99016	1.30%	7
MEDICAL LAKE	Washington	99022	1.30%	9
ROCKFORD	Washington	99030	0.65%	5
VERADALE	Washington	99037	0.97%	8
WELLPINIT	Washington	99040	1.30%	4
FRUITLAND	Washington	99129	0.65%	4
SPOKANE	Washington	99201	5.84%	9
SPOKANE	Washington	99202	4.87%	7
SPOKANE	Washington	99203	2.92%	8
SPOKANE	Washington	99204	2.92%	7
SPOKANE	Washington	99205	5.84%	8
SPOKANE	Washington	99206	4.87%	7
SPOKANE	Washington	99207	13.96%	8
SPOKANE	Washington	99208	5.52%	10
SPOKANE	Washington	99212	1.62%	11
SPOKANE	Washington	99216	3.90%	7
SPOKANE	Washington	99217	4.87%	8
SPOKANE	Washington	99218	2.92%	9
SPOKANE	Washington	99223	11.36%	7
SPOKANE	Washington	99224	2.60%	7

Without validating physical addresses, there is no way to know where the actual gaps are. However, to ensure that the households know that there are solutions to the broadband gap, the

FCC broadband map search tool should be provided to the population so they can see all of their options. This will allow the households to reach out to the different providers to see what company best meets their needs.

#2: Education on Available Federal Broadband Discounts.

Of those respondents to the survey, 48.75% report that broadband internet is too expensive. For reference, the table below shows the average costs of internet from different providers.

Service Provider	Tech	Estimated Monthly Cost
Comcast	Cable	20 - 300
ViaSat	Satellite	100 - 150
Ptera	Fixed Wireless	45 - 85
T-Mobile	Fixed Wireless	50
Hughes Network Systems	Satellite	60 - 150
Lumen Technologies	ADSL	50

To assist with these costs the FCC recently (Dec 31, 2021) launched an "affordable connectivity program". 13

The benefit provides a discount of up to \$30 per month toward internet service for eligible households and up to \$75 per month for households on qualifying Tribal lands. Eligible households can also receive a one-time discount of up to \$100 to purchase a laptop, desktop computer, or tablet from participating providers if they contribute more than \$10 and less than \$50 toward the purchase price.

This program should be provided to all community members so they can lower the cost of their broadband. Education and assistance could also be provided to help households select the best internet for their needs.

#3: Promote Policy Changes for Digital Divide

Of those respondents to the survey, 43.27% report they access the internet through their cell phone and only 34.29% access the internet through a computer, tablet, or laptop. Part of this "digital inclusion" strategy should be to provide web sites and services that work on mobile devices as well as full size computers.

When someone visits a website that is not mobile friendly (for example, the city of Cheney online bill pay web site is not built for mobile devices) they face an additional burden that the rest of the population does not have to bother with.

Policy change would ensure that those with only have a mobile device are able to access everything that the rest of the population can.

FCC Launches Affordable Connectivity Program. Federal Communications Commission. https://www.fcc.gov/document/fcc-launches-affordable-connectivity-program. Accessed January 2, 2022.

The National Digital Inclusion Alliance (NDIA) is thrilled to share their new policy priorities.¹⁴ The priorities urge Congress and the federal government to address the digital divide from multiple angles, resulting in all people in the United States having the tools to thrive in today's digital world.

The NDIA's recommendations will come as no surprise to our affiliates and friends, in fact, many of them come directly from our affiliates as they are the boots on the ground, leading the work that makes closing the digital divide possible.

The policy priorities define recommendations in six key areas:

- 1. Make Broadband Affordable for Everyone in the United States
- 2. Fund and Support Community-Based Digital Inclusion Programs
- 3. Fund and Invest in Progressive Digital Skills Pathways for Everyone in the United States
- 4. Increase Access to Devices for Everyone in the United States
- 5. The FCC Should Collect and Disseminate More Granular Broadband Adoption Data and Affordability Data Twice Annually
- 6. Ensure Equitable Deployment of Broadband Services

¹⁴ Huffman A, NDIA Releases Our First-Ever Policy Priorities, Digital Inclusion News, Policy Positions, https://www.digitalinclusion.org/blog/2021/10/18/ndia-releases-our-first-ever-policy-priorities/, Accessed on Jan 5, 2022

IX. Exhibits:

- I. SNAP 2021 Digital Divide Survey
- II. SNAP 2021 Digital Divide Survey results
- III. SNAP Digital Divide Fact Sheet
- IV. Other Supporting Documents

Exhibit I: SNAP 2021 Digital Divide Survey

Spokane Neighborhood Action Partners (SNAP) Community Needs Assessment Survey



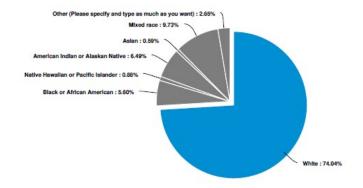
Thank you for completing the attached survey. This survey will give voice to technology related needs of your household

1.	Do you ha	ave access to the internet in your home?							
		Yes (go to question #2)							
		No (if marked NO, go to question #3)							
		Yes, but not as adequate as needed (go to question #2)							
2.	Does you	r internet access meet your needs?							
	1	1 1 1							
	5 We	4 3 2 1 orks great Works ok It is adequate Could be better Works Poorty							
3.	If you ans	wered no to question #1, what prevents you from internet at home?							
		It's too expensive							
		It's not available where I live							
		The internet connection isn't reliable							
		I don't want or need access to the internet							
		Limited Data plans							
		Other (Please Specify)							
4	How do y	ou access internet service (Check ALL that apply)							
	☐ Cell phone								
		Personal computer, tablet or laptop: if yes, how do you connect to the internet							
		□ Dial-up, □ Tethering from another device or phone □ Satellite □ Broadband □ Other (Please Specify)							
		At Work / school / library							
		Have a loaned computer I am using, if yes, how do you connect to the internet							
		□ Dial-up, □ Tethering from another device or phone □ Satellite □ Broadband □ Other (Please Specify)							
		I don't use the internet							
		Other(Please Specify)							

5. What would be helpful in improving or gaining access to the internet/technology for your household?									
		Reduced cost of internet access							
		☐ Increased data plan							
		Training on how to use the internet							
	Ţ	☐ Availability of internet access where	I live						
	Į.	□ Faster internet connection equipment to access the internet such as smart phone, router, tablet □ Need tools in the language I speak □ Other (Please Specify)							
	Į.								
	(
6.	Please I	Provide your ZIP CODE of your househol	d						
7.	Age		8. Total Monthly Income Per Household						
		18-24	☐ Under \$2,000						
		25-34	\$ 2,000 / \$3,999						
		35-44	\$ 4,000 / \$5,999						
		45-54	\$ 6,000 / \$7.999						
		44-64	S 8.000 / \$9.999						
		65 or older	\$10,000 / \$11,999						
		Choose not to disclose	\$12,000 / \$14,999						
			Above 15,000						
9	a. Includ	ling yourself, how many people live in yo	our household?						
1	o. Includ	ling yourself, how many people under a	ge of 18 are living in your household?						
1	1. Which	category or categories best describes y	your race?						
		White							
		Black or African American							
		Native Hawaiian or Pacific Islander							
		American Indian or Alaskan Native							
		Asian							
		Mixed Race							
		Other (Please Specify)							

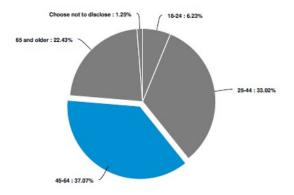
Exhibit II: SNAP 2021 Digital Divide Survey results

Which category (or categories) best describes your race?



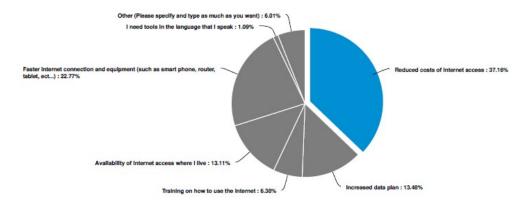
Answer	Count	Percent	20%	40%	60%	80%	100%
White	251	74.04%					
Black or African American	19	5.6%					
Native Hawaiian or Pacific Islander	3	0.88%					
American Indian or Alaskan Native	22	6.49%					
Asian	2	0.59%					
Mixed race	33	9.73%	-				
Other (Please specify and type as much as you want)	9	2.65%					
otal	339	100%					

What is your age?



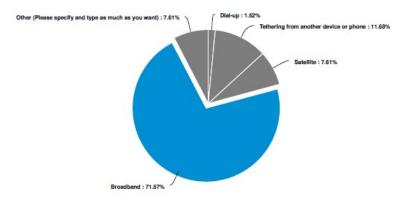
Answer	Count	Percent	20%	40%	60%	80%	100%
18-24	20	6.23%					
25-44	106	33.02%					
45-64	119	37.07%					
65 and older	72	22.43%					
Choose not to disclose	4	1.25%					
otal	321	100%					

What would be helpful in improving or gaining access to the internet or other technology for you or others in your household?



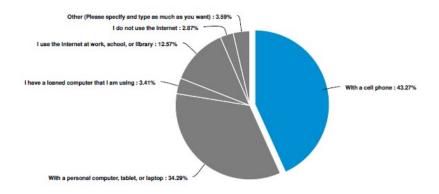
Answer	Count	Percent	20%	40%	60%	80%	1009
Reduced costs of internet access	204	37.16%					
Increased data plan	74	13.48%					
Training on how to use the internet	35	6.38%					
Availability of internet access where I live	72	13.11%					
Faster internet connection and equipment (such as smart phone, router, tablet, ect)	125	22.77%					
I need tools in the language that I speak	6	1.09%					
Other (Please specify and type as much as you want)	33	6.01%					
otal	549	100%					

With this device, how do you connect to the internet?



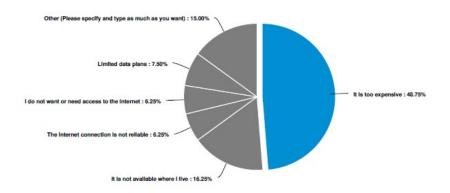
Answer	Count	Percent	20%	40%	60%	80%	100%
Dial-up	3	1.52%					
Tethering from another device or phone	23	11.68%					
Satellite	15	7.61%	I				
Broadband	141	71.57%					
Other (Please specify and type as much as you want)	15	7.61%	I				
otal	197	100%					

How do you typically access internet service?



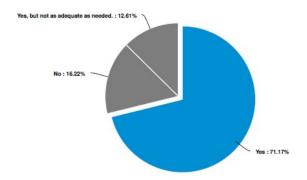
Answer	Count	Percent	20%	40%	60%	80%	100%
With a cell phone	241	43.27%					
With a personal computer, tablet, or laptop	191	34.29%					
I have a loaned computer that I am using	19	3.41%					
I use the internet at work, school, or library	70	12.57%					
I do not use the internet	16	2.87%					
Other (Please specify and type as much as you want)	20	3.59%					
otal	557	100%					

What prevents you from having internet at home?



Answer	Count	Percent	20%	40%	60%	80%	1009
It is too expensive	39	48.75%					
It is not available where I live	13	16.25%					
The internet connection is not reliable	5	6.25%					
I do not want or need access to the internet	5	6.25%					
Limited data plans	6	7.5%	ı				
Other (Please specify and type as much as you want)	12	15%					
otal	80	100%					

Do you have access to broadband internet in your home?



Answer	Count	Percent	20%	40%	60%	80%	100%
Yes	316	71.17%					
No	72	16.22%					
Yes, but not as adequate as needed.	56	12.61%					
Total	444	100%					

An introduction to the

DIGITAL DIVIDE #EID100

Sheraz Khan, Daniel Grieco, Robin Ha, Spiros Xanthios

WHAT is it?

Definition: The gap between demographics and areas that have access to modern information & communications technology from those who don't.

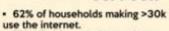


WHO does it effect?





WEALTHY VS. POOR



- 77% of older people require a walkthrough to set up a device.
 27% of disabled adults have never
- In the U.S., 75% of urban residents use the internet, compared to 69% of rural residents.





WHERE is it located?

- 31% of the world does not have 3G coverage.
- 15% of the world has no electricity.
- South Koreans pay as much as half of what Americans pay for internet that is 200 times faster in speed.

Lowest Amount of Access







Internet

Highest Amount of Access







HOW can we fix it?





The Rasperry Pi Foundation is dedicated to creating affordable solutions in computer technology.









earn more more about other solutions, such as new political political, for the digital divide here:



Google labs has researched and tested Project Loon, a state-of-the-art balloon technology that brings internet to the masses.

SNAP is conducting a Digital Divide Assessment Survey from Monday, Nov 8 to Sunday, Nov 21, 2021



We need YOUR HELP to

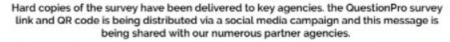
DISTRIBUTE THE FOLLOWING SURVEY LINK

Use this link: <u>www.snapwa.org/digitaldivide</u> or scan this QR code:

Please send to your networks:

- · Email distribution lists
- Clients
- Patrons
- Neighbors

(We encourage your staff to fill out the survey as well!



This survey will give a voice to the needs of households within Spokane County.

If language translation services are required:
Please email feedback@snapwa.org or call (509)-456-SNAP (7627)
SNAP staff will connect caller to our translation service.

If a hard copy survey is completed: Please call (509)-456-7627 for drop-off locations



Cameryn Flynn | (she/her/hers) Project and Grants Manager (509) 456-7627 (509) 385-4119 (Cell) 3102 W. Whistalks Way (Mailing Address) Spokane, WA 99224

If you are interested in receiving SNAP services, you may visit our website: www.snapwa.org, or call our main line: (509) 456-SNAP



HELP YOUR NEIGHBORS



To help serve our neighbors' needs, we are conducting a Digital Divide survey.

Are you a Spokane County resident?
Then we want to hear from you!

Drawing for \$25 gift card available to all who complete a survey

Complete the survey here:

www.snapwa.org/survey

All surveys are to be completed by: Nov 21, 2021

Who is SNAP?

We have been neighbors by your side for over 50 years, offering hand-ups and long-term solutions to eliminate poverty and increase the human potential of our community by providing opportunities for people in need.

If you have any questions or concerns regarding this survey, please contact us:

feedback@snapwa.org OR 509-456-SNAP ext. 5505