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Expanding high speed Internet
for all South Dakotans.

**SOUTH DAKOTA
BROADBAND**

**South Dakota
State Broadband
Initiative**

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and Telecommunications (BIT)

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Internet Usage in South Dakota's Agricultural Community

These survey results are from a mailed survey to 6,500 agriculture producers across South Dakota in the first week of January 2012.

We give a huge *thanks* to the South Dakota agriculture producers who took the time to fill out our survey and return it to us. We had a 36% response rate from our mailing.

Revision Date 8/08/12

The Survey was conducted as part of the South Dakota State Broadband Initiative by the SD Bureau of Information and Telecommunications with cooperation from the National Agricultural Statistics Service of the USDA.



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Agricultural Community Survey - Summary and comments.

Beginning in January and ending in March 2012 we conducted the "Internet Usage in South Dakota's Agricultural Community" survey. The survey was framed around how agricultural producers use or would use the Internet for their farm/ranch operations. This specific sector is very important to the Broadband Initiative as these are the folks living in the rural areas of our state. The survey was conducted with cooperation from the National Agricultural Statistics Service of the USDA. The results are based on reports from South Dakota agricultural operators with the two main types of operations being 49% "crops" and 51% being "livestock / poultry". These results can be found on <http://Broadband.sd.gov> and additional details are available upon request to broadband@state.sd.us.

Initial Broadband Usage questions.

The survey indicated that 42% of the respondents utilized the Internet on a daily basis, another 17% used the Internet multiple times in the course of a day; while another 7% accessed the Internet for agricultural business purposes on a monthly basis, 20% used it occasionally and the remaining 31% reported never using the Internet for their farm/ranch operation.

Respondents ranked the value of the Internet to their farm/ranch business as: 34% "must have", 35% "some value", 16% "little value" and 15% as contributing "no value". With 85% of our respondents saying the Internet adds value to their operation, we need to keep working to increase broadband for our South Dakota ag producers.

What about those who are not using broadband?

For those respondents who reported not using broadband access, the most common reason reported was "I don't have a computer" (40%), while the second most common reason was "I am just not interested" (37%). When asked what would encourage respondent to sign up for broadband access, the most popular response was "I would not sign up for broadband for any reason" (40%), while the second most popular probable encouragement would be "if the price was more affordable" (29%), followed closely by "If someone would help teach me how to use it (22%)". Looking at those numbers we may need to provide more education on the capabilities the Internet and how it can benefit the ag community.

What about those who are using broadband?

How are they connecting?

The two most common connection methods were digital subscriber line (DSL) (24%), and fiber optic (fiber to the home) (24%).

What activities do they use while on the Internet?

As for personal activities on a daily basis, checking the weather reports is #1 (45%) followed by general browsing, reading news & communicating with friends & family. Paying bills is done by 51% of the respondents at some point in the year. Specific to the agriculture operations the most used daily activity is "Checking prices of commodities" at 30%, followed by the checking prices of inputs at 12%. 67% reported the activity of "Researching new agricultural related resources and products" at some point in the year with "at least a few times a year" being the most reported frequency.

Are they satisfied with their broadband connection?

The respondents reported they are Satisfied/Neutral on the "quality and reliability of the connection" (92%) and the "different features and services they offer" (94%). This tells us the providers in South Dakota are doing a good job for those they are able to provide connections to.

The most common range of the monthly fee paid for broadband Internet service was \$41.00 to \$60.00 (40%) and the second was \$21.00 to \$40.00 (28%).

What about when they are away from their ag operation?

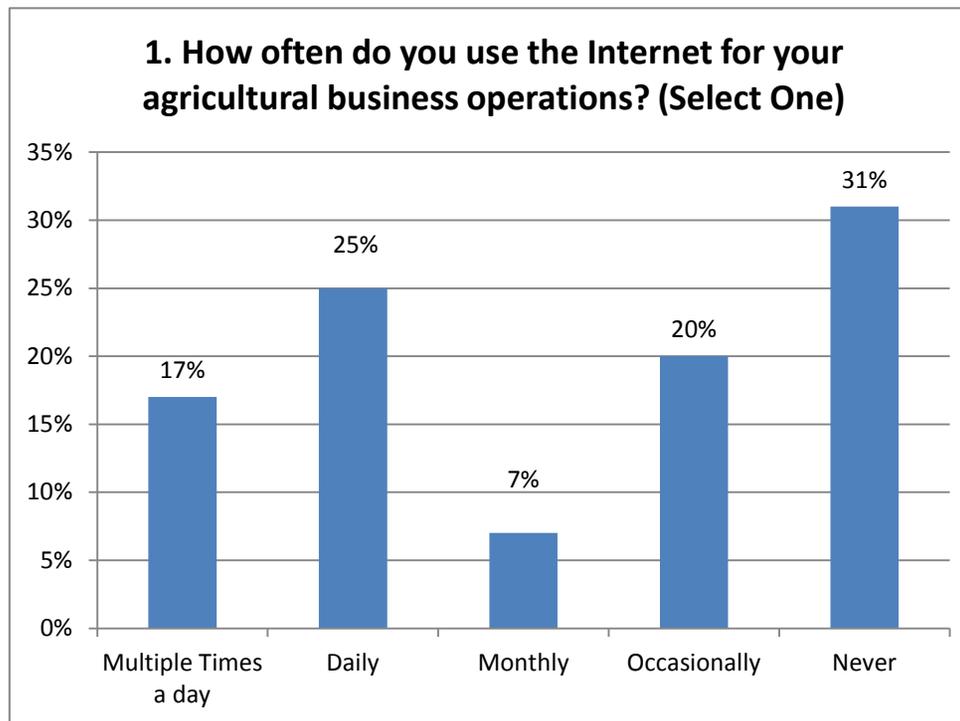
Broadband users reported that while away from their agricultural operation, 66% said "No – I don't connect wirelessly away from the agriculture operation", and when they did connect, the most popular method to establish a connection was using a "WI-FI HotSpot" (33%).

What about mobile/cell phone usage?

The survey indicated 92% of the respondents have a mobile/cell phone. Of these respondents having a mobile/cell phone, 27% spent additional money on a monthly data services plan to access the Internet, 20% did not buy the additional plan since they deemed it as too expensive, and the remaining 53% of mobile/cell phone users indicated no interest in additional data services. Of those buying the additional data services plan, the most common range of fees paid was "over \$25.00" (14%). When asked how essential is "data" services such as Internet on their phones they responded as: 13% "essential", 11% "undecided", and 18% "not essential".

Section 1. Initial Broadband Usage Questions:

1. How often do you use the Internet for your agricultural business operations? (Select One)					
N=1765	Multiple Times a day	Daily	Monthly	Occasionally	Never
	17%	25%	7%	20%	31%



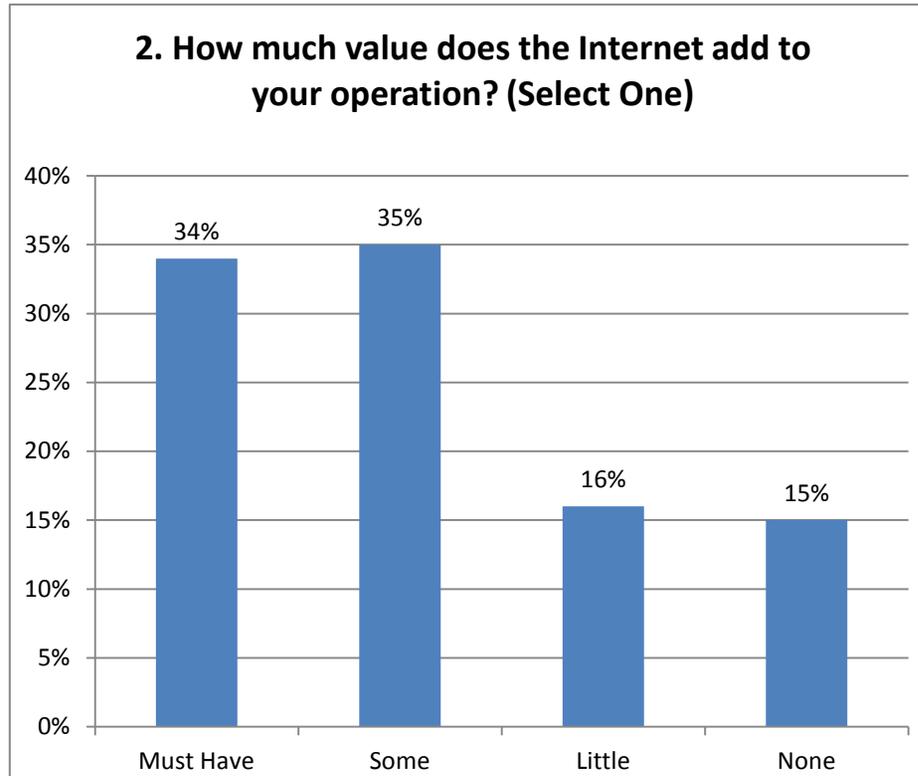
42% (17%+25%) of ag producers use the Internet daily. 31% of our respondents never use it.

And you could also say that $17+25+7+20=69\%$ of ag producers utilize the Internet at some point for their agriculture operations.

This is consistent with the USDA NASS Computer Ownership survey (Aug 2011) where they show that 66% of ag producers have computer access. So it appears that if they have a computer - they use it on the Internet for their agricultural business operation.

Section 1. Initial Broadband Usage Questions:

2. How much value does the Internet add to your operation? (Select One)				
N=1411	Must Have	Some	Little	None
	34%	35%	16%	15%

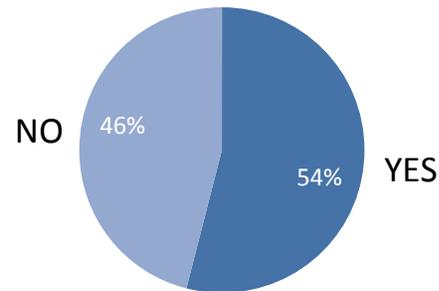


85% of our respondents tell us that they think the Internet adds value to their operation - with 34% of them stating it is a "Must Have"

Section 1. Initial Broadband Usage Questions:

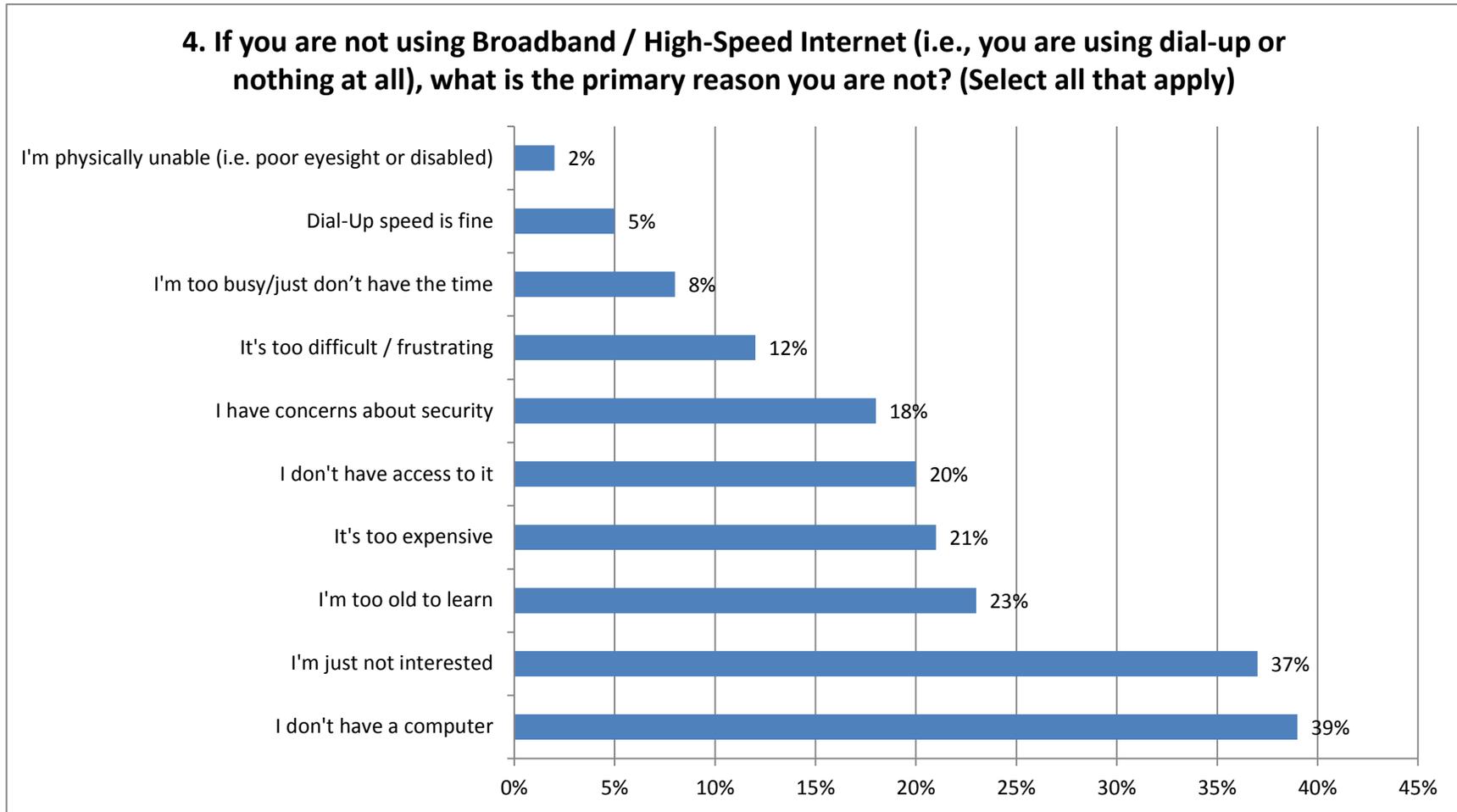
3. Have you ever had a service bundle (any combination of cell phone, home telephone, Internet and/or TV service) offered as a packaged deal?		
N=1768	Yes	No
	54%	46%

3. Have you ever had a service bundle (any combination of cell phone, home telephone, Internet and/or TV service) offered as a packaged deal?



Section 2. Questions for those who are not using Broadband: (If you use Broadband Internet go to Section 3)

4. If you are not using Broadband / High-Speed Internet (i.e., you are using dial-up or nothing at all), what is the primary reason you are not? (Select all that apply)										
N=501	I don't have a computer	I'm just not interested	I'm too old to learn	It's too expensive	I don't have access to it	I have concerns about security	It's too difficult / frustrating	I'm too busy/just don't have the time	Dial-Up speed is fine	I'm physically unable (i.e. poor eyesight or disabled)
	39%	37%	23%	21%	20%	18%	12%	8%	5%	2%

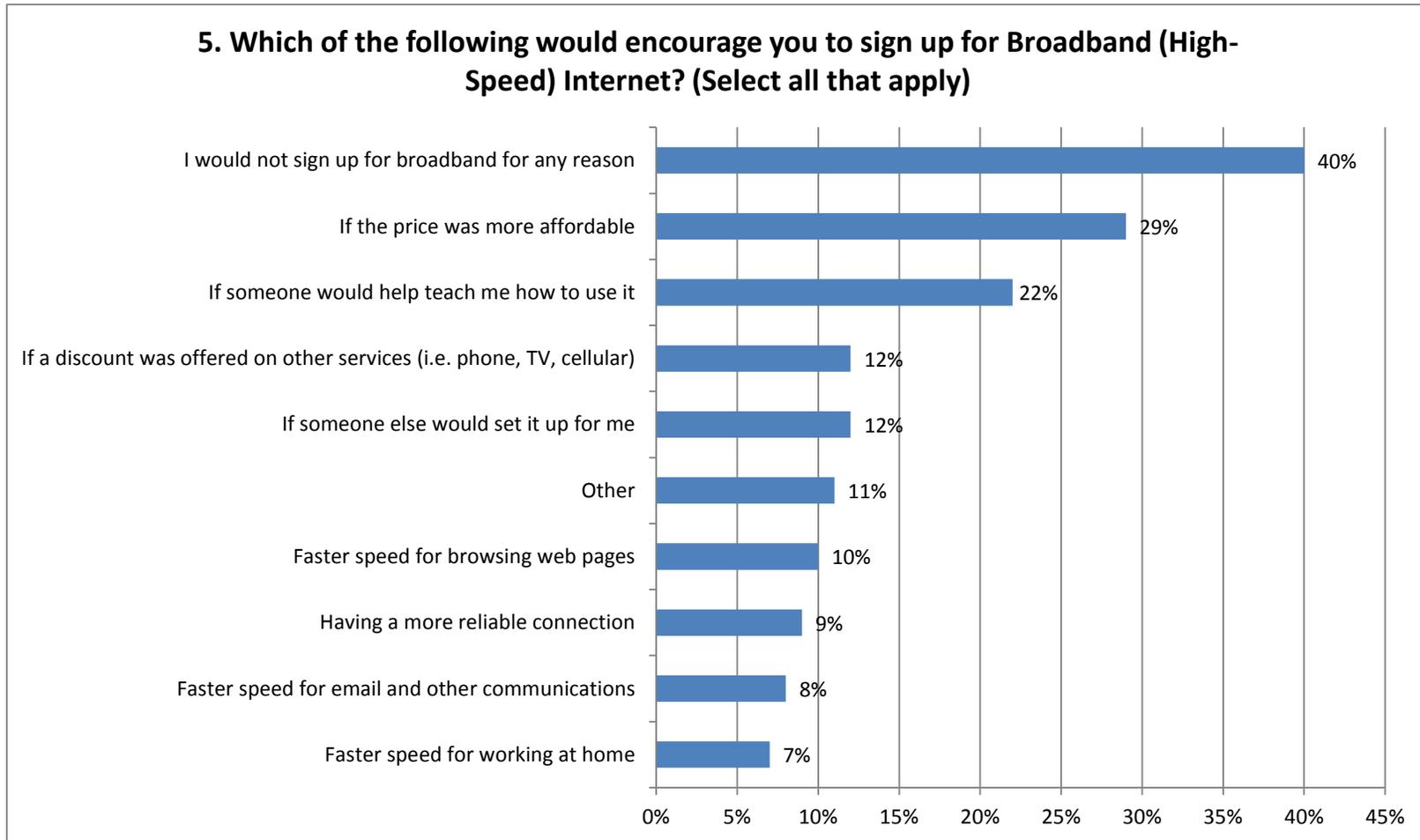


39% of respondents do not have a computer - thus why they are not using the Internet - followed closely by 37% who are just not interested. This is consistent with the USDA NASS computer ownership survey (2011) that stated 68% of the ag community has computer access.

And later in the survey numbers we will see that the 61% who DO own a computer are indeed utilizing it to improve their agriculture operations.

Section 2. Questions for those who are not using Broadband: (If you use Broadband Internet go to Section 3)

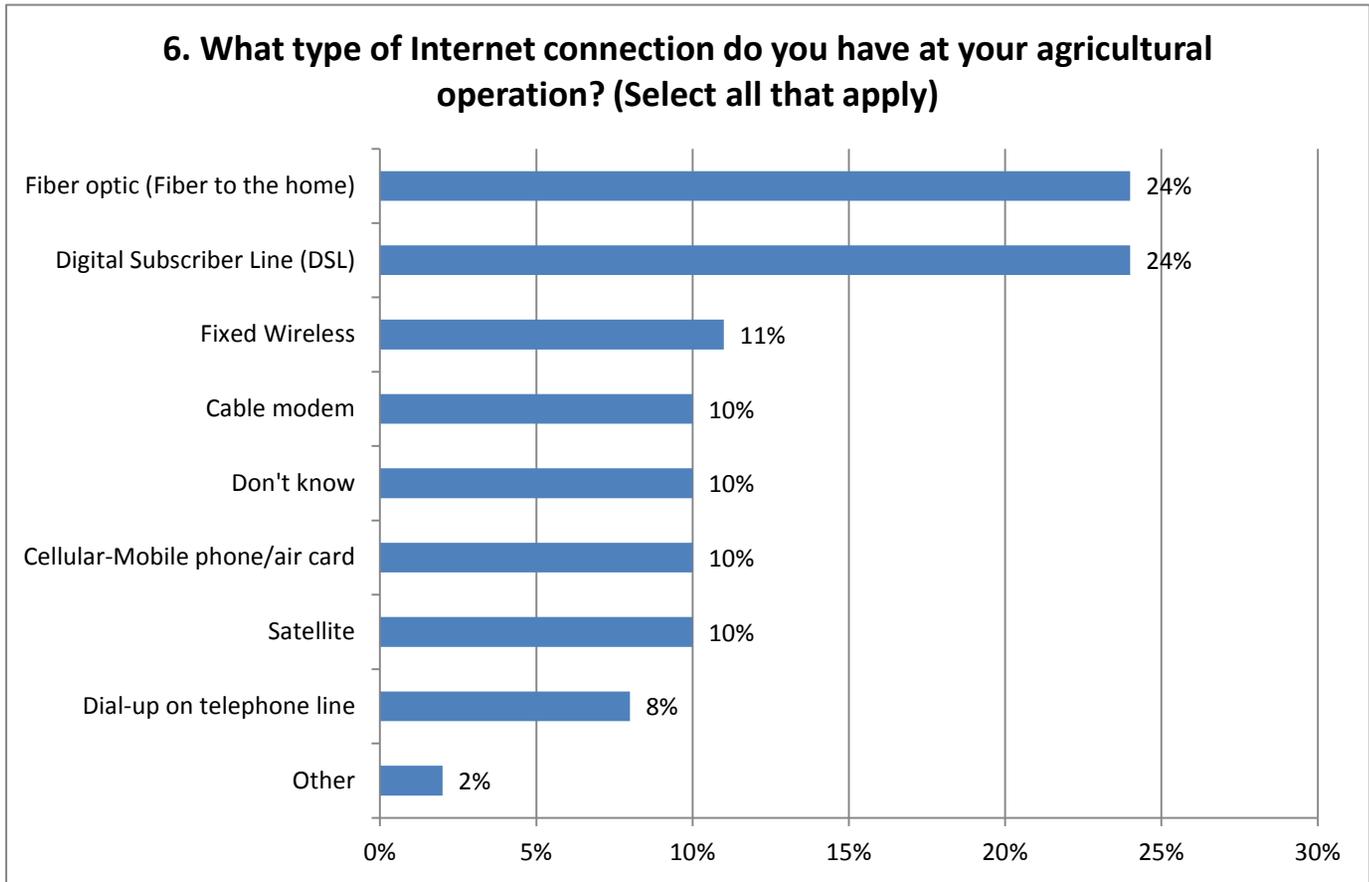
5. Which of the following would encourage you to sign up for Broadband (High-Speed) Internet? (Select all that apply)										
N=433	Faster speed for working at home	Faster speed for email and other communications	Having a more reliable connection	Faster speed for browsing web pages	Other	If someone else would set it up for me	If a discount was offered on other services (i.e. phone, TV, cellular)	If someone would help teach me how to use it	If the price was more affordable	I would not sign up for broadband for any reason
	7%	8%	9%	10%	11%	12%	12%	22%	29%	40%



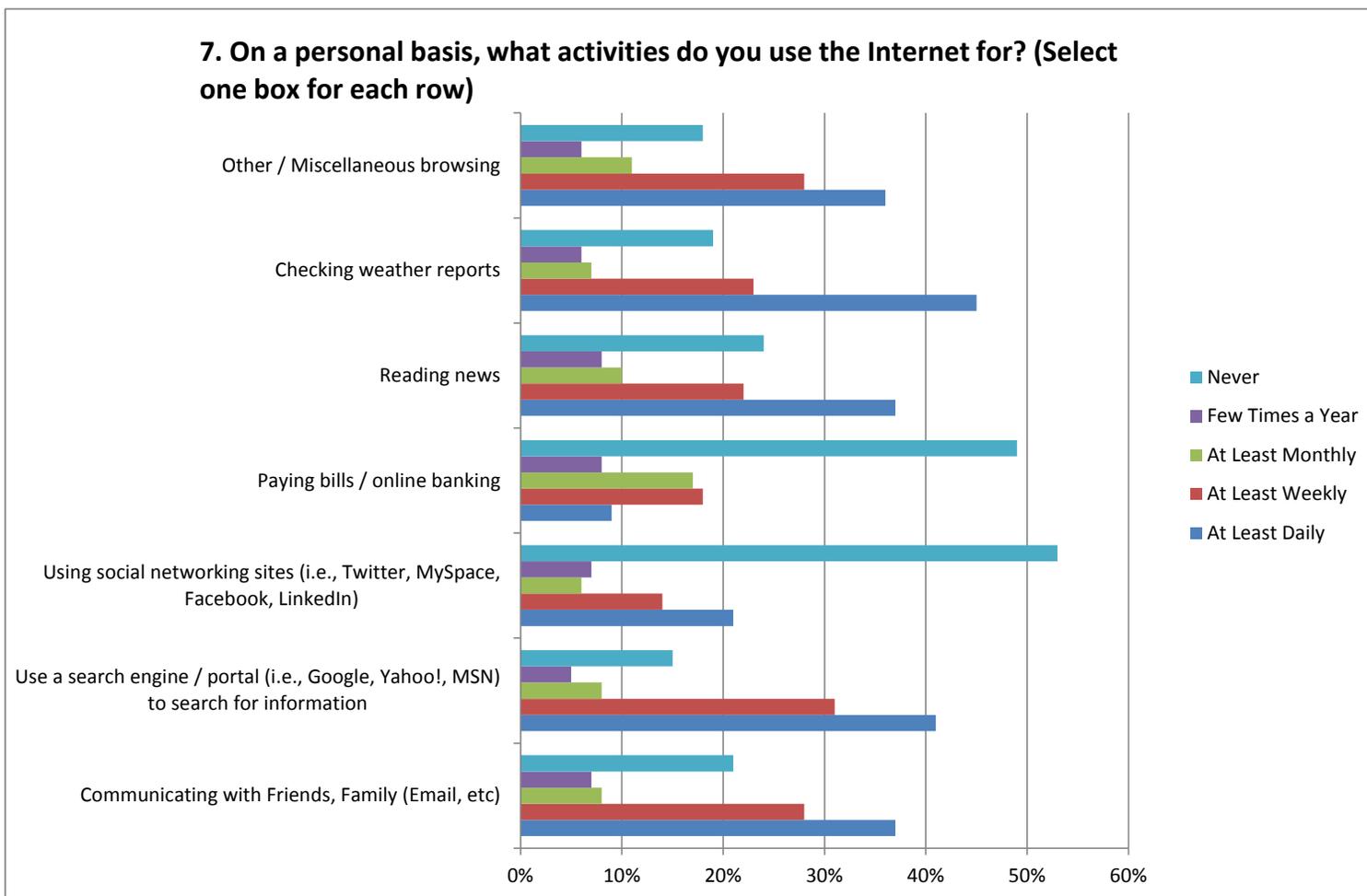
40% of respondents would not sign up for any reason - simply they just don't want it. 29% said they would be encouraged to sign up if the price was more affordable followed by 22% if someone would help teach them how to use it. This should be an indicator that we need to work to increase speed & availability as well as adoption rates in the ag community, through education classes, extension offices, universities and/or tech schools.

Section 3. Questions for those using Broadband

6. What type of Internet connection do you have at your agricultural operation? (Select all that apply)									
N=1449	Other	Dial-up on telephone line	Satellite	Cellular-Mobile phone/air card	Don't know	Cable modem	Fixed Wireless	Digital Subscriber Line (DSL)	Fiber optic (Fiber to the home)
	2%	8%	10%	10%	10%	10%	11%	24%	24%

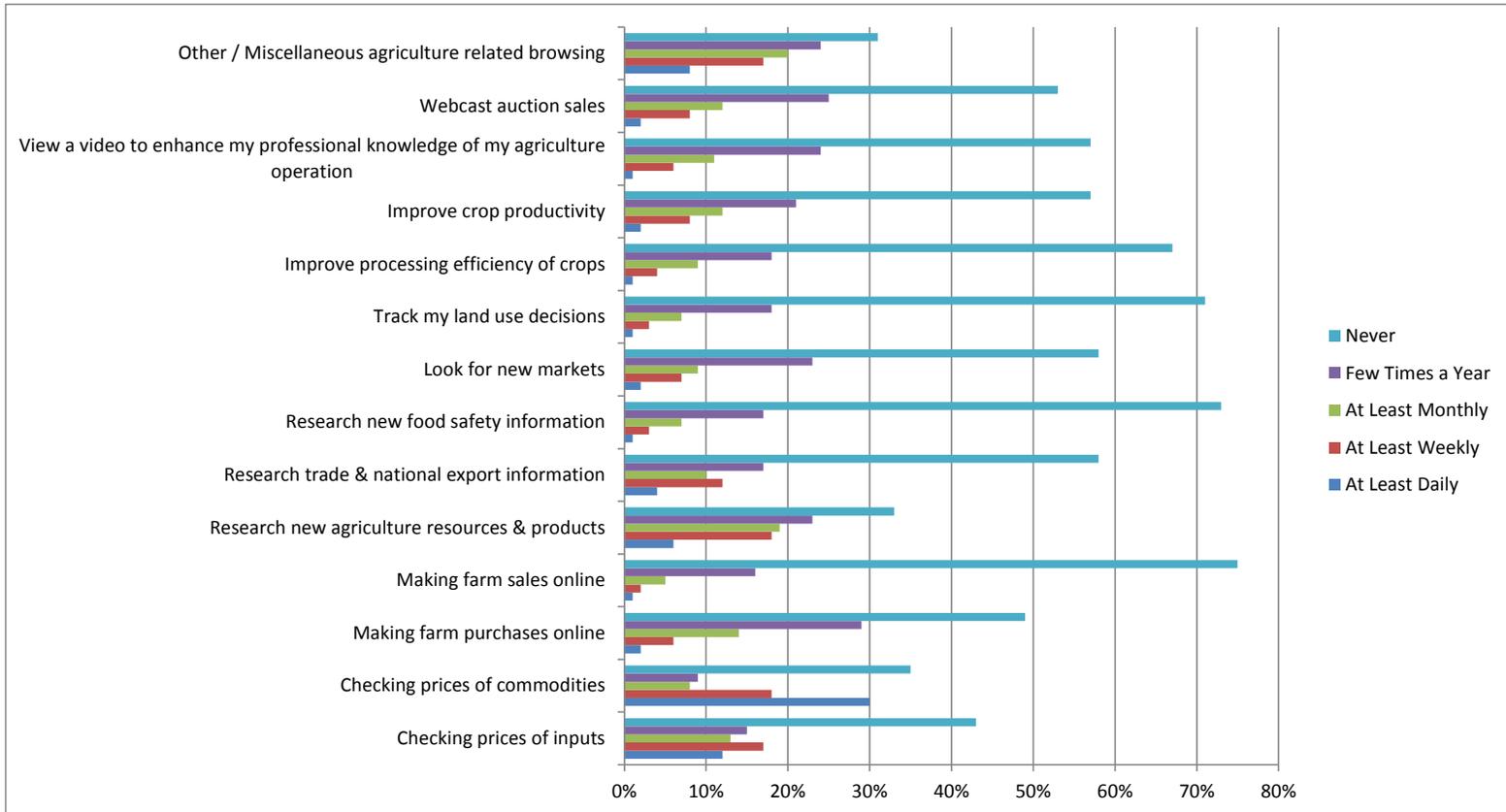


7. On a personal basis, what activities do you use the Internet for? (Select one box for each row)						
N=	Activity	At Least Daily	At Least Weekly	At Least Monthly	Few Times a Year	Never
1497	Communicating with Friends, Family (Email, etc)	37%	28%	8%	7%	21%
1523	Use a search engine / portal (i.e., Google, Yahoo!, MSN) to search for information	41%	31%	8%	5%	15%
1465	Using social networking sites (i.e., Twitter, MySpace, Facebook, LinkedIn)	21%	14%	6%	7%	53%
1471	Paying bills / online banking	9%	18%	17%	8%	49%
1498	Reading news	37%	22%	10%	8%	24%
1515	Checking weather reports	45%	23%	7%	6%	19%
1502	Other / Miscellaneous browsing	36%	28%	11%	6%	18%



Section 3. Questions for those using Broadband

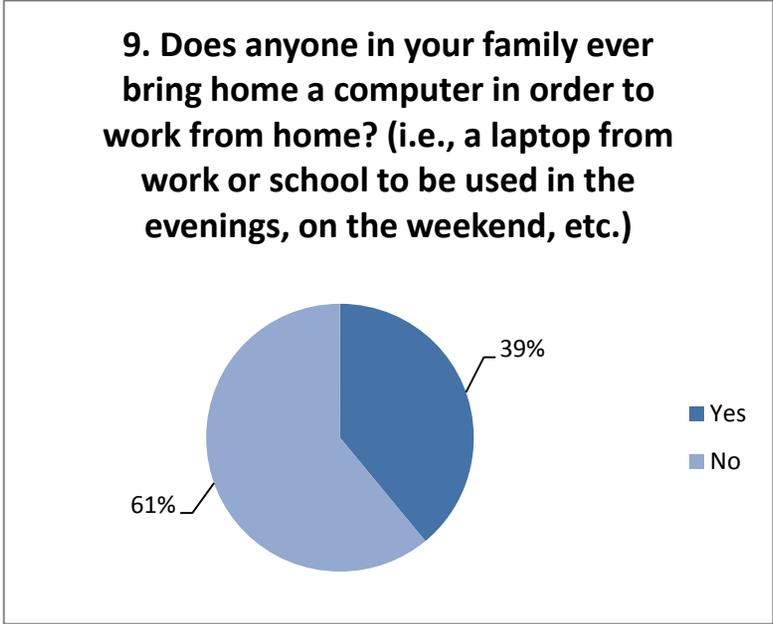
8. Specific to agriculture operations, for which activities do you use the Internet? (Select one box for each row)						
N=	Activity	At Least Daily	At Least Weekly	At Least Monthly	Few Times a Year	Never
1483	Checking prices of inputs	12%	17%	13%	15%	43%
1504	Checking prices of commodities	30%	18%	8%	9%	35%
1487	Making farm purchases online	2%	6%	14%	29%	49%
1473	Making farm sales online	1%	2%	5%	16%	75%
1500	Research new agriculture resources & products	6%	18%	19%	23%	33%
1476	Research trade & national export information	4%	12%	10%	17%	58%
1476	Research new food safety information	1%	3%	7%	17%	73%
1482	Look for new markets	2%	7%	9%	23%	58%
1476	Track my land use decisions	1%	3%	7%	18%	71%
1475	Improve processing efficiency of crops	1%	4%	9%	18%	67%
1475	Improve crop productivity	2%	8%	12%	21%	57%
1481	View a video to enhance my professional knowledge of my agriculture operation	1%	6%	11%	24%	57%
1487	Webcast auction sales	2%	8%	12%	25%	53%
1499	Other / Miscellaneous agriculture related browsing	8%	17%	20%	24%	31%



The highest percentage on **each** of these activities was "Never", however 30% check the price of commodities daily and a few times a year 29% make online purchases. This indicates that our farmers in South Dakota are not fully utilizing the Internet to help improve their operations. This should be an indicator that we need to work to increase speed & availability as well as adoption rates in the ag community, through education classes, extension offices, universities and/or tech schools.

Section 3. Questions for those using Broadband

9. Does anyone in your family ever bring home a computer in order to work from home? (i.e., a laptop from work or school to be used in the evenings, on the weekend, etc.)		
N= 1638	Yes	No
	39%	61%



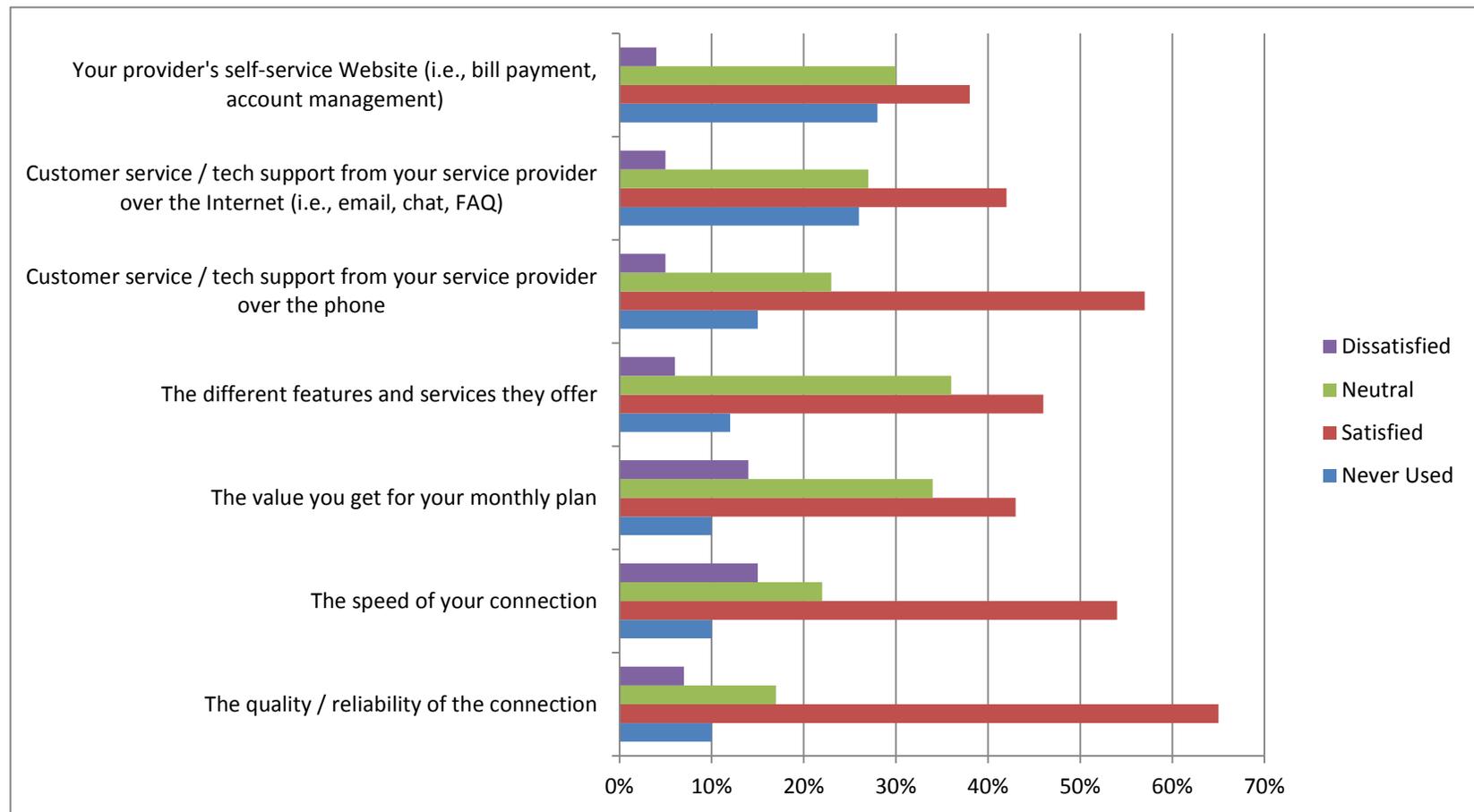
At first glance it was a concern that only 39% respondents were bringing home a computer with all the work and effort put into all of the one-to-one laptop initiatives across the schools in South Dakota.

But as we look further into the data we find that the majority of those filling out the survey do not have children living at home....

(Q#21 tells us 72% of our respondents do not have children living at home.)

Section 3. Questions for those using Broadband

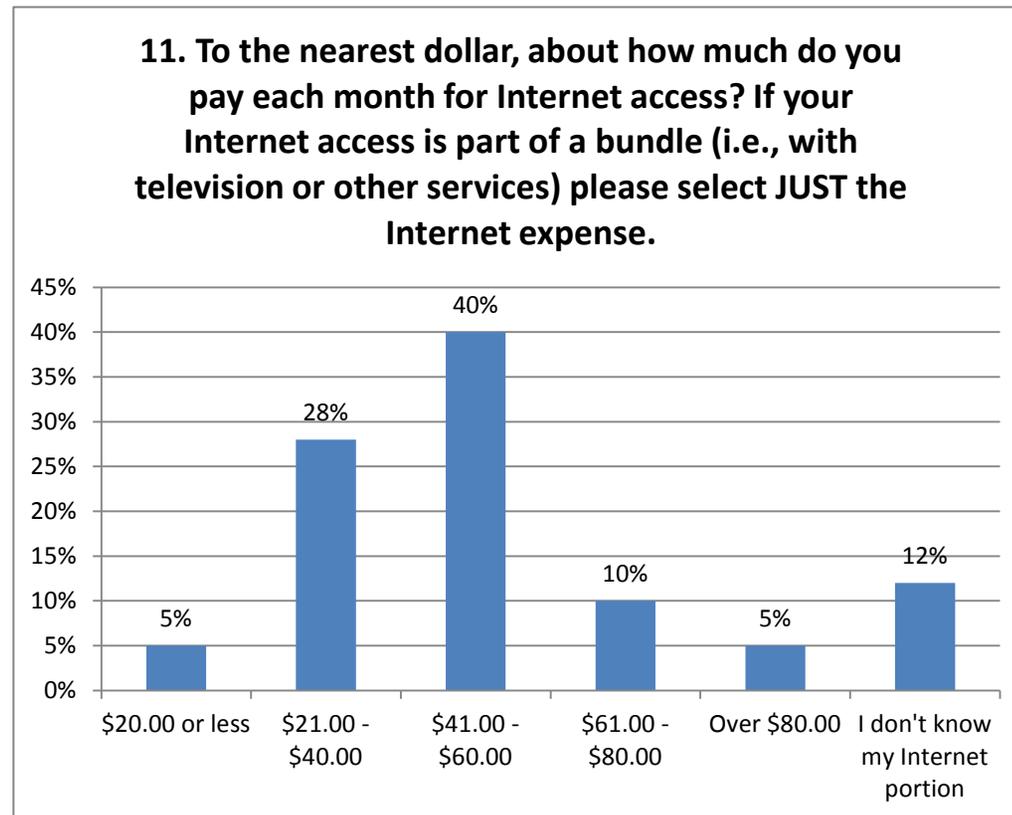
10. With regard to your current Internet connection, how satisfied are you with the following? (Select one box for each row)					
N=	Activity	Never Used	Satisfied	Neutral	Dissatisfied
1513	The quality / reliability of the connection	10%	65%	17%	7%
1511	The speed of your connection	10%	54%	22%	15%
1504	The value you get for your monthly plan	10%	43%	34%	14%
1490	The different features and services they offer	12%	46%	36%	6%
1501	Customer service / tech support from your service provider over the phone	15%	57%	23%	5%
1497	Customer service / tech support from your service provider over the Internet (i.e., email, chat, FAQ)	26%	42%	27%	5%
1492	Your provider's self-service Website (i.e., bill payment, account management)	28%	38%	30%	4%



The highest percentage on ALL of these questions was "Satisfied". This tells us that the providers in South Dakota are doing a satisfactory job. And 92% of the respondents are satisfied or ok "neutral" with the quality / reliability of their connection, so it would appear that if/when providers are able to get a connection to a rural resident they are satisfied with the connection.

Section 3. Questions for those using Broadband

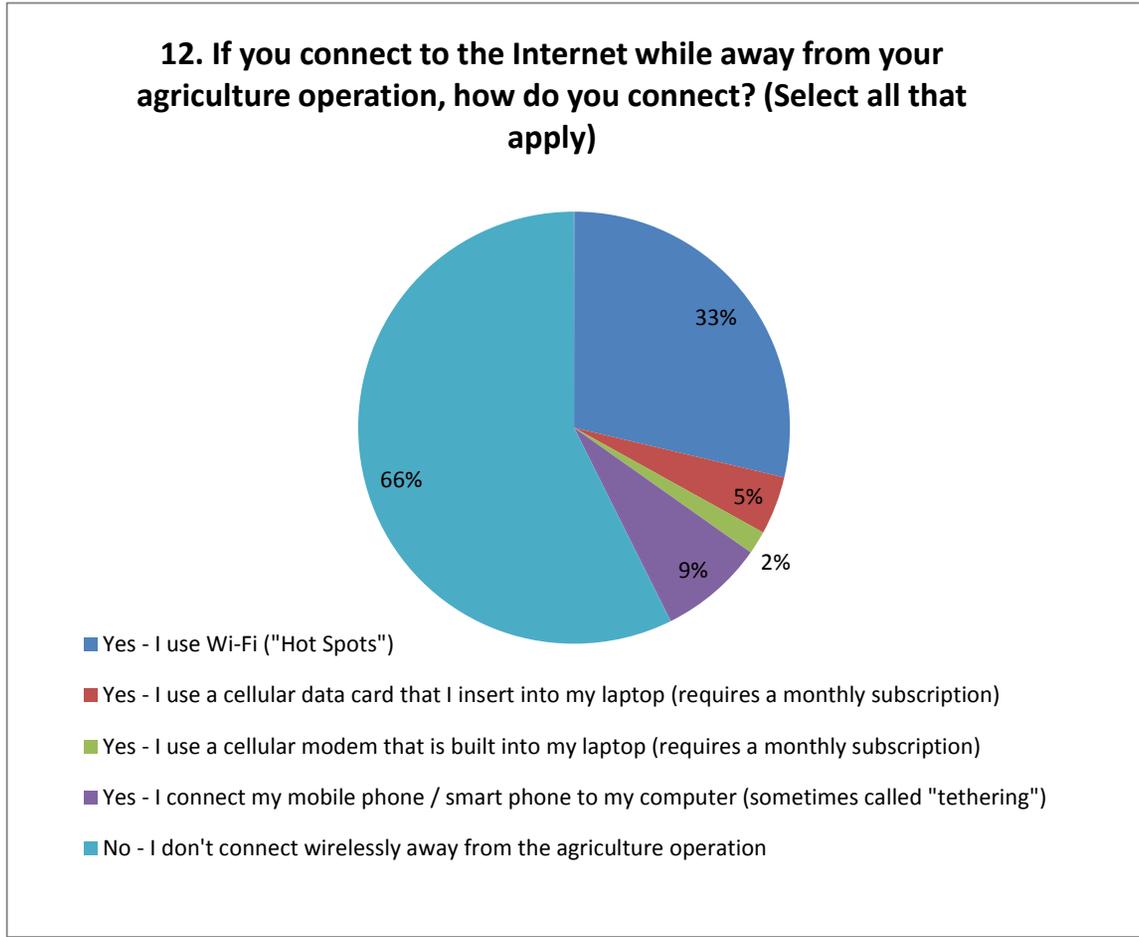
11. To the nearest dollar, about how much do you pay each month for Internet access? If your Internet access is part of a bundle (i.e., with television or other services) please select JUST the Internet expense.						
N=1440	\$20.00 or less	\$21.00 - \$40.00	\$41.00 - \$60.00	\$61.00 - \$80.00	Over \$80.00	I don't know my Internet portion
	5%	28%	40%	10%	5%	12%



It looks like the \$20 to \$60 range is the typical price paid for internet.

Section 3. Questions for those using Broadband

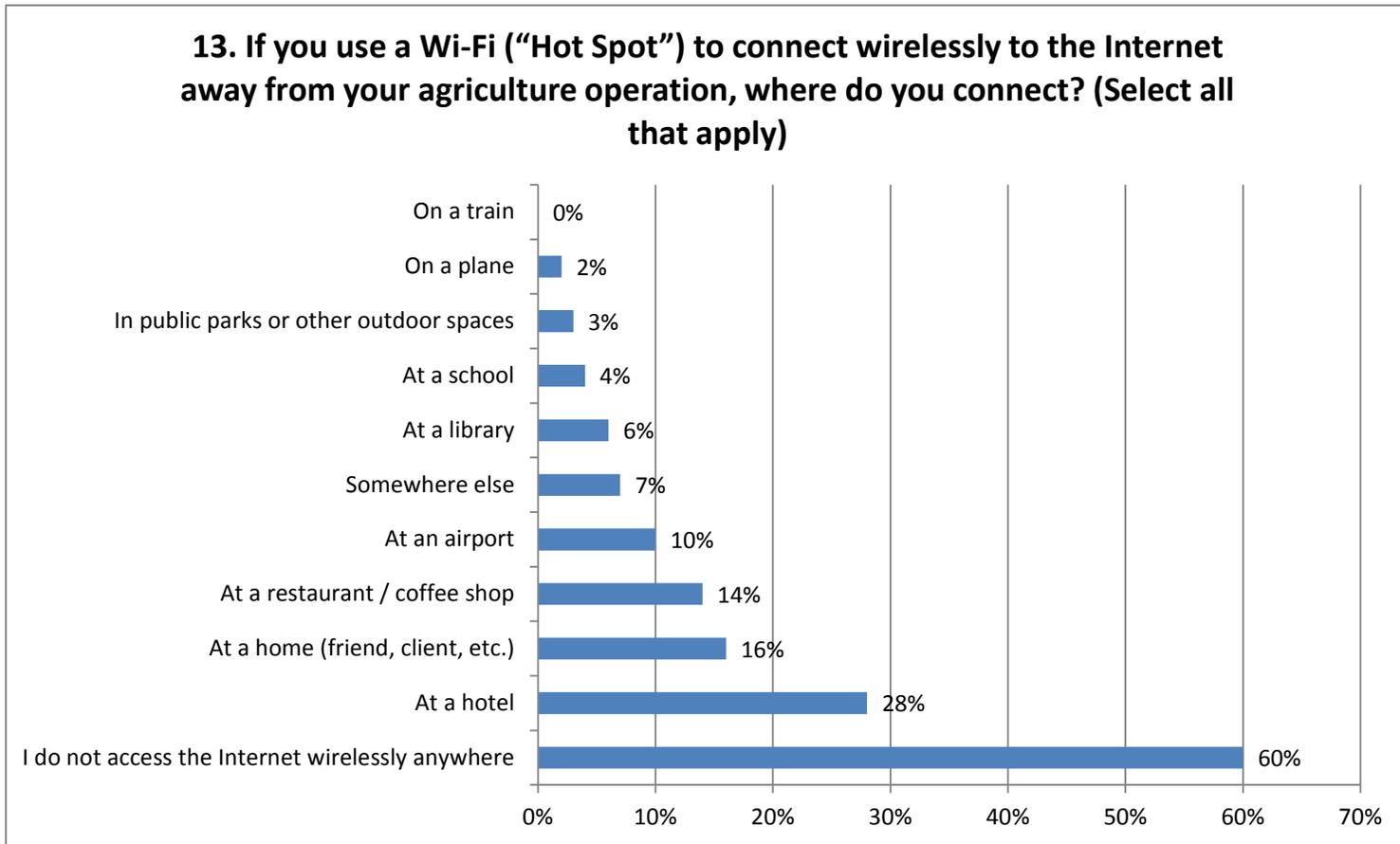
12. If you connect to the Internet while away from your agriculture operation, how do you connect? (Select all that apply)					
N=1459	Yes - I use Wi-Fi ("Hot Spots")	Yes - I use a cellular data card that I insert into my laptop (requires a monthly subscription)	Yes - I use a cellular modem that is built into my laptop (requires a monthly subscription)	Yes - I connect my mobile phone / smart phone to my computer (sometimes called "tethering")	No - I don't connect wirelessly away from the agriculture operation
	33%	5%	2%	9%	66%



66% of the ag producers do not connect when away from their operations. When they did connect, the most popular method to establish a connection was using a "WI-FI HotSpot" (33%).

Section 3. Questions for those using Broadband

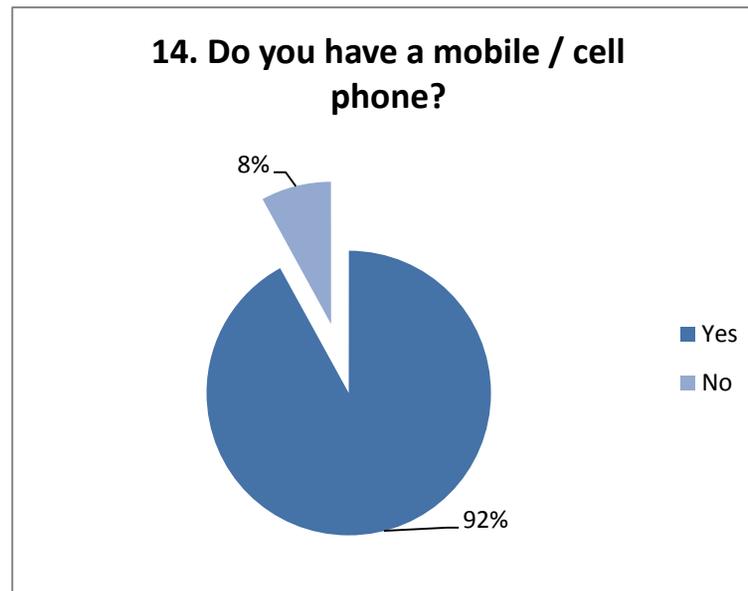
13. If you use a Wi-Fi (“Hot Spot”) to connect wirelessly to the Internet away from your agriculture operation, where do you connect? (Select all that apply)											
N=1191	I do not access the Internet wirelessly anywhere	At a hotel	At a home (friend, client, etc.)	At a restaurant / coffee shop	At an airport	Somewhere else	At a library	At a school	In public parks or other outdoor spaces	On a plane	On a train
	60%	28%	16%	14%	10%	7%	6%	4%	3%	2%	0%



It makes some sense that 60% do not access the Internet wirelessly anywhere because in Q#4 76% of our respondents either did not have a computer (obviously needed to connect wirelessly) or they just were not interested in broadband.

Section 4. Mobile / Cell Phone Questions

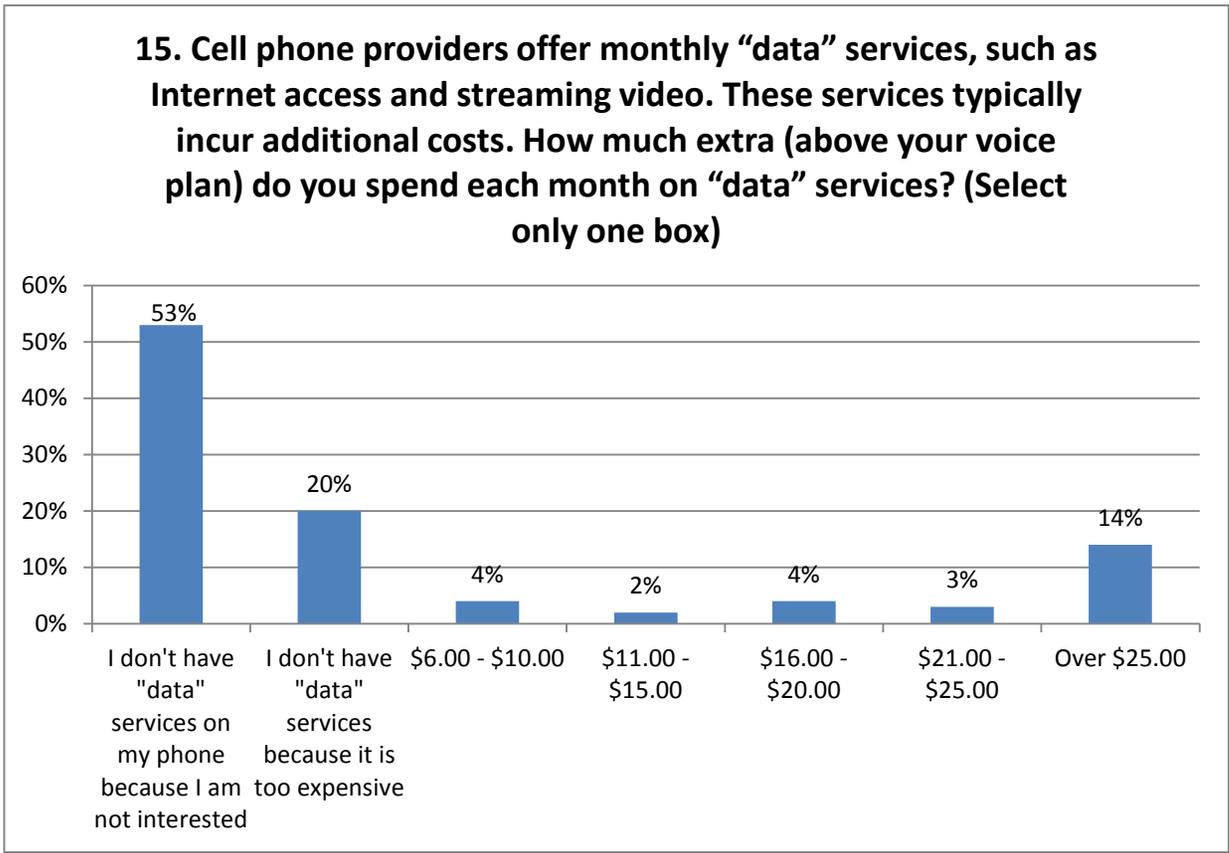
14. Do you have a mobile / cell phone?		
N=1779	Yes	No
	92%	8%



Our respondents have really embraced the mobile / cell phone technology. How can we use this as a bridge over and into the broadband arena?

Section 4. Mobile / Cell Phone Questions

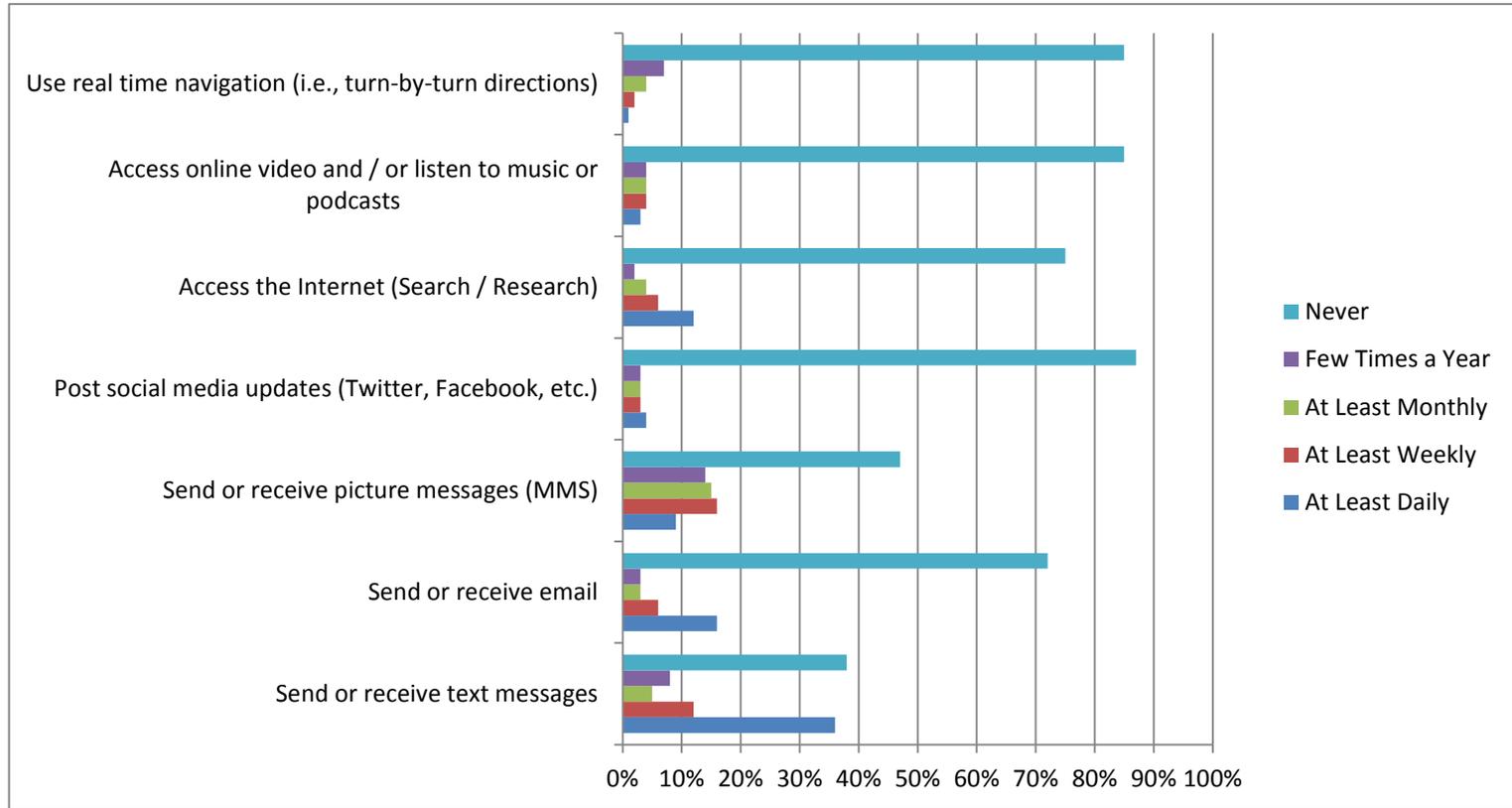
15. Cell phone providers offer monthly “data” services, such as Internet access and streaming video. These services typically incur additional costs. How much extra (above your voice plan) do you spend each month on “data” services? (Select only one box)							
N=1591	I don't have "data" services on my phone because I am not interested	I don't have "data" services because it is too expensive	\$6.00 - \$10.00	\$11.00 - \$15.00	\$16.00 - \$20.00	\$21.00 - \$25.00	Over \$25.00
	53%	20%	4%	2%	4%	3%	14%



27% spent additional money on a monthly data services plan to access the Internet. 20% did not buy the additional plan since they deemed it as too expensive, and the remaining 53% of mobile/cell phone users indicated no interest in additional data services. Of those buying the additional data services plan, the most common range of fees paid was “over \$25.00” (14%).

Section 4. Mobile / Cell Phone Questions

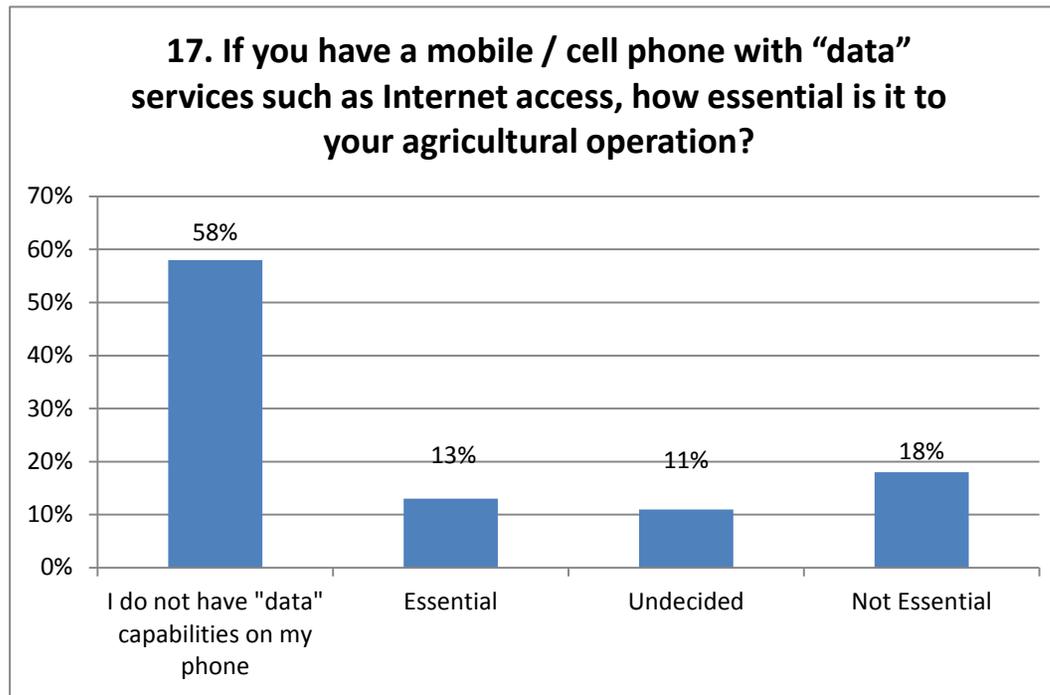
16. How frequently do you do the following activities on a cell phone / smart phone or handheld device? (Select one box for each row)						
Responses	Activity	At Least Daily	At Least Weekly	At Least Monthly	Few Times a Year	Never
1594	Send or receive text messages	36%	12%	5%	8%	38%
1566	Send or receive email	16%	6%	3%	3%	72%
1569	Send or receive picture messages (MMS)	9%	16%	15%	14%	47%
1565	Post social media updates (Twitter, Facebook, etc.)	4%	3%	3%	3%	87%
1567	Access the Internet (Search / Research)	12%	6%	4%	2%	75%
1565	Access online video and / or listen to music or podcasts	3%	4%	4%	4%	85%
1562	Use real time navigation (i.e., turn-by-turn directions)	1%	2%	4%	7%	85%



Note that the majority (73% - Q#15) of our respondents do not have data capabilities on their cell phones. One thing to note however is that 36% use it daily for sending text messages so it appears that if they have that capability a significant percentage of our respondents are using that feature daily.

Section 4. Mobile / Cell Phone Questions

17. If you have a mobile / cell phone with “data” services such as Internet access, how essential is it to your agricultural operation?				
N=1525	I do not have "data" capabilities on my phone	Essential	Undecided	Not Essential
	58%	13%	11%	18%

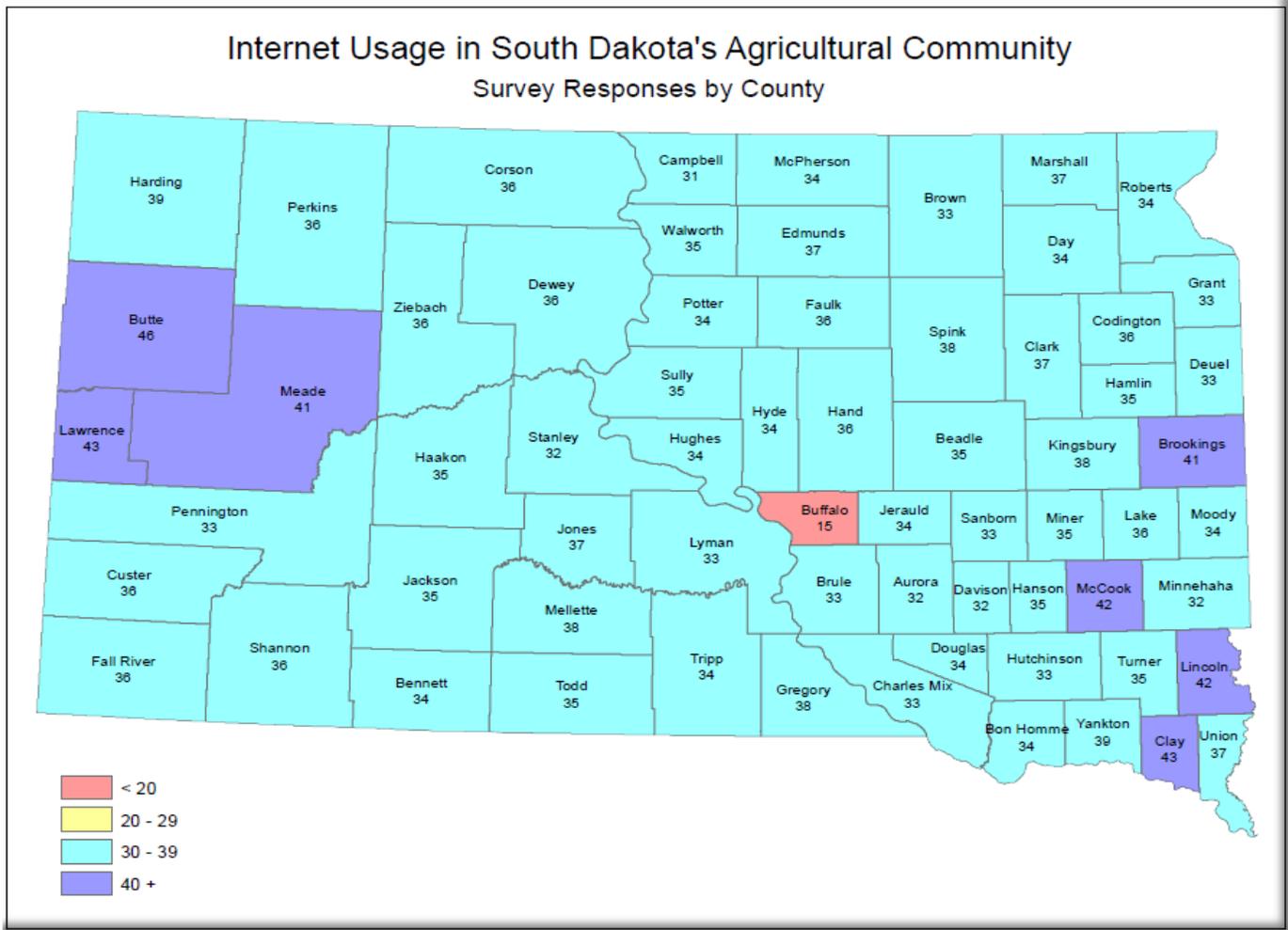


58% of our respondents do not have "data" capabilities. Upon review of Q#15 we begin to determine why - 53% stated they are not interested and 20% cite cost as the reason they don't have "data" services.

When asked how essential is “data” services such as Internet on their phones they responded as: 13% “essential”, 11% “undecided”, and 18% “not essential”.

Section 5. Demographic Information

18. What is your zip code?

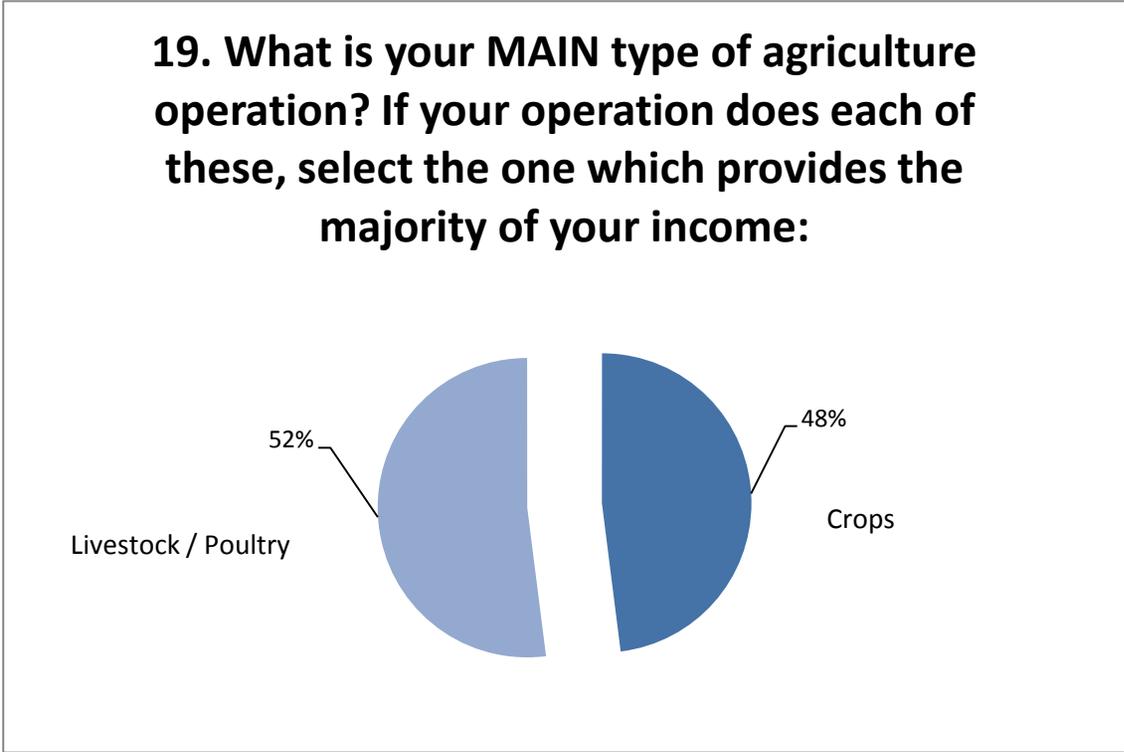


As this map/chart shows, we were able to get a very good cross reference from each of the counties across the state. Each area of our state is well represented.

Note that we did have a few respondents that may live just across the border but farm/ranch in SD – thus we also included them in our survey.

Section 5. Demographic Information

19. What is your MAIN type of agriculture operation? If your operation does each of these, select the one which provides the majority of your income:		
N=1773	Crops	Livestock / Poultry
	48%	52%



Our respondents are a great cross reference between Crops and Livestock / Poultry operations. This mix between crop and livestock farms is supported by the 2007 census of agriculture.

Section 5. Demographic Information

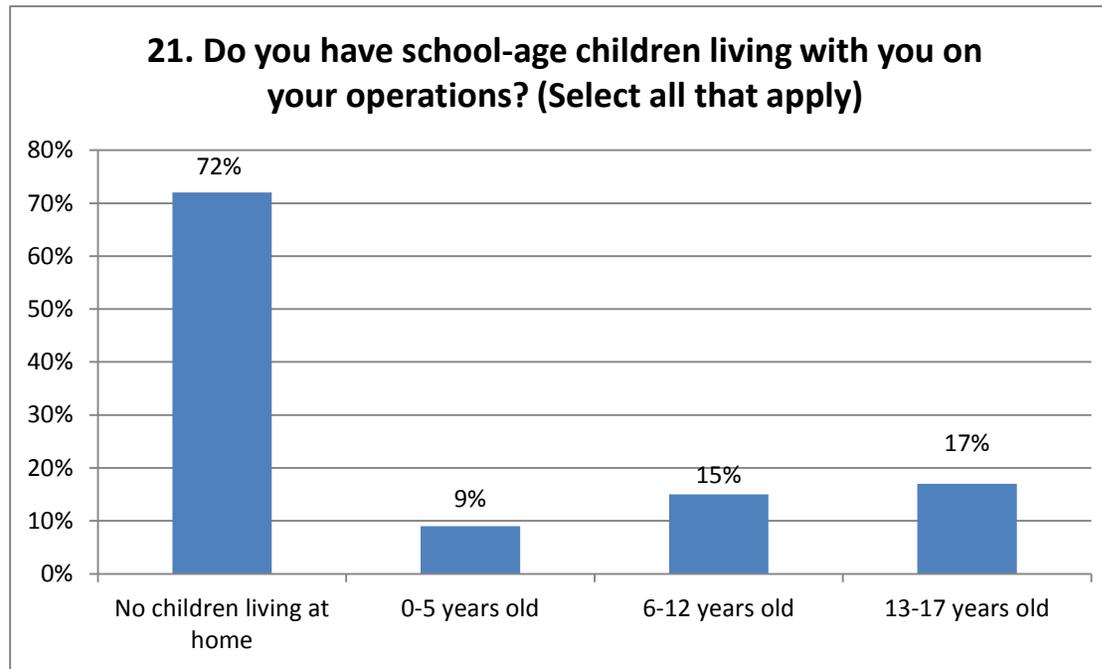
20. How many miles is it from your agriculture operation to the nearest city / town?

MIN	0
MAX	250
AVERAGE	11.336

Note some respondents indicated that they live in town. According to USDA statistic specialists, it is not uncommon for someone to live in town but then "farm" in the country - for example, 10-15+ miles out of town.

Section 5. Demographic Information

21. Do you have school-age children living with you on your operations? (Select all that apply)				
N=1778	No children living at home	0-5 years old	6-12 years old	13-17 years old
	72%	9%	15%	17%

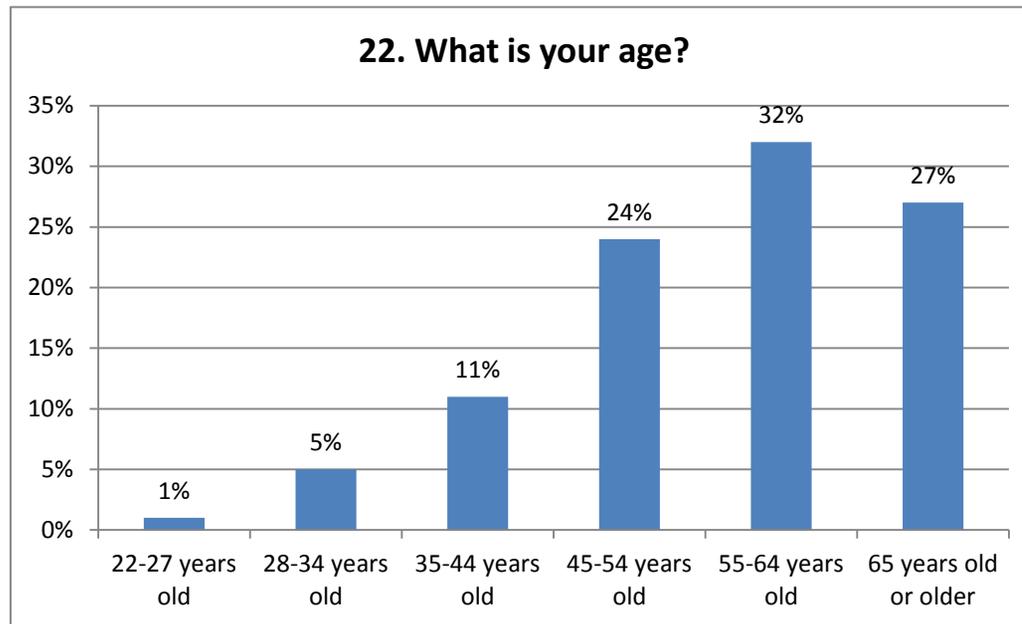


This was the **third** most responded to question. Age was #1 Education level was #2

With 72% of respondents not having children living at home with them. That helps understand why the percentage of folks who bring home a computer to do work or school work is also so low.

Section 5. Demographic Information

22. What is your age?						
N=1790	22-27 years old	28-34 years old	35-44 years old	45-54 years old	55-64 years old	65 years old or older
	1%	5%	11%	24%	32%	27%



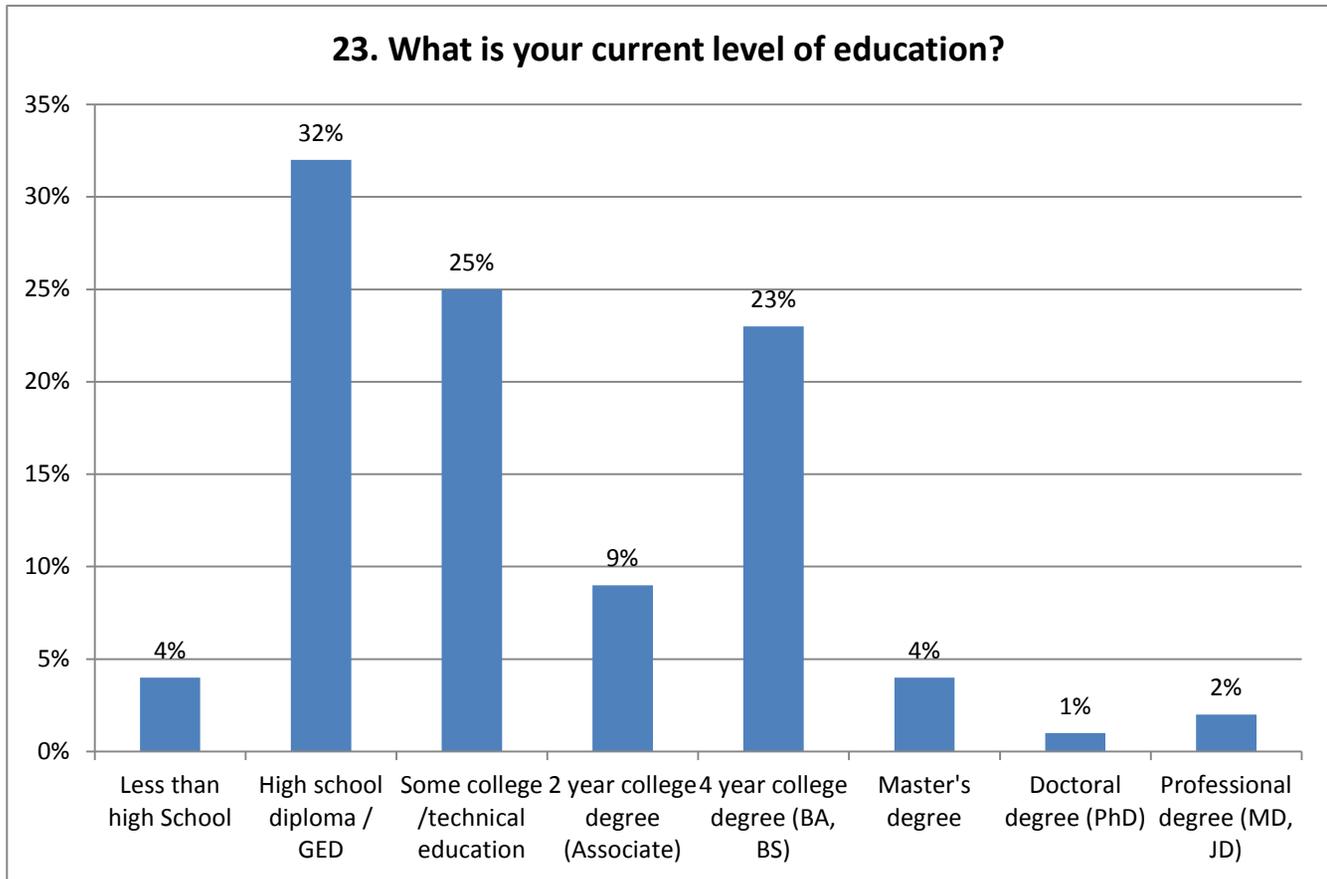
This was the **most** responded to question. Education level was #2

59% of our respondents were over the age of 55.

83% are 45 or older.

Section 5. Demographic Information

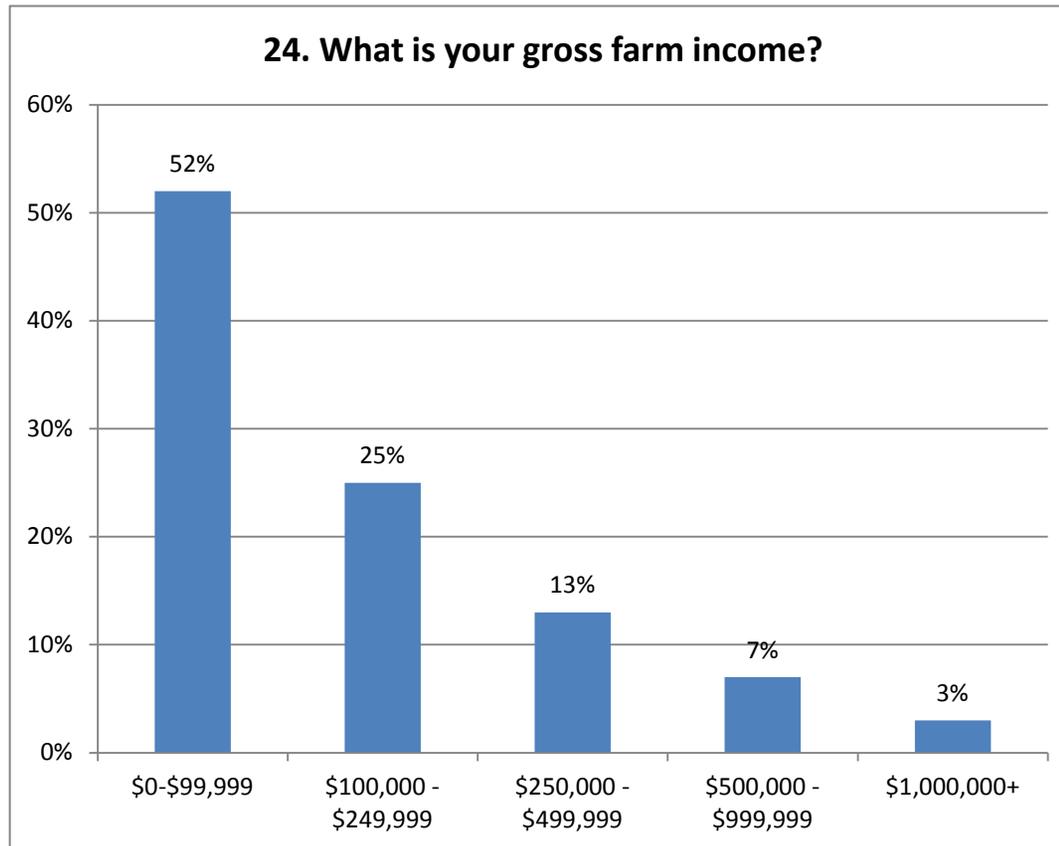
23. What is your current level of education?								
N=1784	Less than high School	High school diploma / GED	Some college /technical education	2 year college degree (Associate)	4 year college degree (BA, BS)	Master's degree	Doctoral degree (PhD)	Professional degree (MD, JD)
	4%	32%	25%	9%	23%	4%	1%	2%



This was the **second** most responded to question. Age was #1
 64% of our respondents have education beyond a High School diploma / GED.

Section 5. Demographic Information

24. What is your gross farm income?					
	\$0- \$99,999	\$100,000 - \$249,999	\$250,000 - \$499,999	\$500,000 - \$999,999	\$1,000,00 0+
N=1575	52%	25%	13%	7%	3%



Resources for more Information

South Dakota Links about the State Broadband Initiative	
South Dakota Broadband Initiative Home Page	http://broadband.sd.gov
All SBI Grantees in the State Of South Dakota	http://www2.ntia.doc.gov/south-dakota
NTIA Project Descriptions and Reports	http://www2.ntia.doc.gov/grantee/south-dakota-bureau-of-information-telecommunications
Federal Links	
The National Broadband Plan	http://broadband.gov/
Broadband Technology Opportunities Program (BTOP)	http://www.ntia.doc.gov/broadbandgrants
See what the other states are doing	http://www2.ntia.doc.gov/StateBroadbandLinks
State Broadband Data & Development Program Now called State Broadband Initiative (SBI)	http://www2.ntia.doc.gov/SBDD

For more information on agriculture in South Dakota, visit the following websites:
http://sdda.sd.gov/ http://sdda.sd.gov/Department/PDF/ag%20Brochure%202012_web.pdf http://www.ers.usda.gov/data-products/state-fact-sheets.aspx http://www.nass.usda.gov/Statistics_by_State/South_Dakota/index.asp http://www.agclassroom.org/kids/stats/southdakota.pdf

More results of the survey	
Results of each of the individual survey questions With some analysis specific to the question.	<p>All are found at our website http://broadband.sd.gov</p>
Cross tabulation tables If you want to better understand how two different survey items inter-relate, then review these cross tabulations	
Each question results by county Examine the results per county and compare with others	



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