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Broadband Study Report

Prepared for the

Washington Utilities and Transportation Commission

Attachments

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June 27, 2008

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Attachment 1
Residential Community
(Across and for Each of the 5
Counties)
Survey Instrument Mark-up

Attachment 1
UTC BROADBAND
RESIDENTIAL COMMUNITY SURVEY
TOTAL RESPONDENTS
(N=1500)

INTRODUCTION: Hello, this is _____. I'm calling on behalf of the State of Washington Utilities and Transportation Commission. The State is seeking a better understanding of the broadband needs of Washington residents and what role it might play in meeting these needs. As part of this process, we are gathering information from residents about their Internet use. Would you be willing to spend ten minutes answering questions on this topic to help the State of Washington better understand your needs? Your responses will remain anonymous and will only be reported as part of a larger group. Some calls may be monitored for quality assurance.

QUALIFIER

1. First, may I verify that your household is located in a community the State is studying? In what County do you live? (N=1500 / 100%)

- 1. Columbia 20%
- 2. Ferry 20%
- 3. Grays Harbor 20%
- 4. Lewis 20%
- 5. Stevens 20%

2. City of Residence – Unique responses are available in the database that accompanies this Report.

ACCESS TO COMPUTERS AND THE INTERNET

First, I would like to understand the amount of access you have to computers and the Internet. I'm going to name technologies that you might have at home and how you use that technology. For each service that I name, please say yes or no.

3. Do you or someone in your household own a computer?

	Columbia N=300	Ferry N=300	Grays Harbor N=300	Lewis N=300	Stevens N=300	Total N=1500
Yes	78%	83%	75%	80%	84%	80%
No	22%	17%	25%	20%	16%	20%

a. If yes, how many?

	Columbia N=233	Ferry N=248	Grays Harbor N=226	Lewis N=239	Stevens N=252	Total N=1198
1	55%	61%	61%	66%	51%	59%
2	32%	25%	24%	23%	32%	27%
3	9%	9%	13%	6%	10%	10%
4	3%	2%	1%	2%	5%	3%
5	0.4%	0%	.4%	1%	1%	1%
6	0%	1%	.4%	.4%	.4%	.4%
7	0%	0%	0%	.4%	.4%	.2%

b. Is that computer a laptop or is one of your computers a laptop?

	Columbia N=233	Ferry N=248	Grays Harbor N=226	Lewis N=239	Stevens N=252	Total N=1198
Yes	44%	39%	38%	36%	45%	40%
No	56%	61%	62%	64%	55%	60%

4. Do you have Internet access at home?

	Columbia N=300	Ferry N=300	Grays Harbor N=300	Lewis N=300	Stevens N=300	Total N=1500
Yes	71%	70%	71%	72%	76%	72%
No	29%	30%	28%	27%	23%	28%
Don't Know	0%	.3%	1%	1%	.3%	.4%

4a. Who uses the computer(s) and Internet at your house? (Top 3 Responses)

First Response:

	Columbia N=213	Ferry N=209	Grays Harbor N=214	Lewis N=216	Stevens N=229	Total N=1081
I do	84%	80%	85%	90%	83%	85%
Spouse/Partner	10%	16%	12%	8%	13%	12%
Children	4%	2%	2%	2%	3%	3%

4b. What type of connection do you use at home to access the Internet? (Top 4 Responses)

First Response:

	Columbia N=213	Ferry N=209	Grays Harbor N=214	Lewis N=216	Stevens N=229	Total N=1081
Dial-up	24%	51%	15%	35%	44%	34%
DSL (Digital Subscriber Line)	44%	11%	24%	38%	25%	28%
Cable Modem	10%	12%	46%	12%	7%	17%
Satellite Internet Service	10%	17%	5%	4%	13%	10%

How much do you pay for that service?

	Columbia N=109	Ferry N=73	Grays Harbor N=120	Lewis N=87	Stevens N=82	Total N=471
Range	\$0-\$349	\$0-\$130	\$0-\$160	\$0-\$125	\$0-\$170	\$0-\$349
Mode	\$30	\$30	\$45	\$40	\$50	\$50
Mean	\$45	\$45	\$41	\$39	\$45	\$45
Standard Deviation	\$35	\$20	\$18	\$17	\$23	\$24

For those that have Dial-up, do you have a second phone line specifically for the Internet?

	Columbia N=51	Ferry N=103	Grays Harbor N=30	Lewis N=71	Stevens N=94	Total N=349
Yes	10%	18%	27%	16%	14%	16%
No	90%	82%	73%	85%	86%	84%

4b.1. What company or entity provides that service? (Top 5 responses) (N=1082/72%)

Internet Provider	N=
Qwest	187
Comcast	157
CenturyTel	107
Wild Blue	54
Blue Mountain Internet	30

4b.2. If you know it, please tell us your speed of connection (N=94)

Speed of Internet	Respondents
Less than 1 M	52%
1.1-5 M	23%
Greater than 5 M	24%

4b.3. How much time do you spend on the Internet at home? (N=1059)

In Minutes	Columbia N=211	Ferry N=206	Grays Harbor N=210	Lewis N=211	Stevens N=221	Total N=1059
Range	0-720	0-720	0-600	0-840	5-840	0-840
Mean	136	126	142	131	145	140
Mode	60	120	60	60	60	60
Standard Deviation	135	131	181	140	169	153

4b.4. Why have you not adopted a faster Internet connection? (Top 3 Responses)

First Response:

	Columbia N=75	Ferry N=145	Grays Harbor N=43	Lewis N=85	Stevens N=130	Total N=478
Not available in my area	45%	60%	35%	47%	48%	50%
It costs too much	28%	22%	12%	20%	24%	22%
I don't need it	13%	7%	31%	19%	15%	14%

5. I am going to read characteristics about your Internet service. As I read each one, please indicate whether you are “very satisfied” “satisfied” “dissatisfied” or “very dissatisfied” with that aspect of your Internet service.

5a. Speed of the Internet Connection:

	Columbia N=213	Ferry N=209	Grays Harbor N=214	Lewis N=216	Stevens N=229	Total N=1081
Very Satisfied	18%	11%	29%	20%	14%	18%
Satisfied	50%	37%	52%	47%	40%	45%
Dissatisfied	22%	28%	11%	21%	25%	22%
Very Dissatisfied	9%	22%	6%	10%	18%	13%
Don't Know/ Not Applicable	1%	3%	2%	1%	3%	2%

5b. Cost of Internet Connection:

	Columbia N=213	Ferry N=209	Grays Harbor N=214	Lewis N=216	Stevens N=229	Total N=1081
Very Satisfied	11%	12%	18%	21%	16%	16%
Satisfied	64%	68%	51%	59%	60%	60%
Dissatisfied	19%	14%	23%	13%	16%	17%
Very Dissatisfied	2%	3%	4%	2%	4%	3%
Don't Know/ Not Applicable	4%	3%	4%	5%	4%	4%

5c. Billing practices of the Internet provider:

	Columbia N=213	Ferry N=209	Grays Harbor N=214	Lewis N=216	Stevens N=229	Total N=1081
Very Satisfied	25%	27%	26%	22%	21%	24%
Satisfied	69%	63%	63%	69%	69%	67%
Dissatisfied	2%	3%	5%	5%	4%	4%
Very Dissatisfied	1%	1%	1%	0%	2%	1%
Don't Know/ Not Applicable	4%	5%	5%	4%	5%	5%

5d. Reliable access to the Internet:

	Columbia N=213	Ferry N=209	Grays Harbor N=214	Lewis N=216	Stevens N=229	Total N=1081
Very Satisfied	25%	14%	28%	27%	30%	27%
Satisfied	60%	62%	56%	63%	58%	60%
Dissatisfied	11%	18%	5%	6%	7%	9%
Very Dissatisfied	3%	4%	1%	4%	4%	3%
Don't Know/ Not Applicable	2%	2%	2%	1%	1%	2%

5e. Ease of use:

	Columbia N=213	Ferry N=209	Grays Harbor N=214	Lewis N=216	Stevens N=229	Total N=1081
Very Satisfied	23%	22%	36%	25%	27%	26%
Satisfied	70%	67%	56%	70%	62%	65%
Dissatisfied	7%	9%	4%	2%	5%	5%
Very Dissatisfied	1%	1%	1%	2%	4%	2%
Don't Know/ Not Applicable	1%	1%	2%	2%	2%	2%

5f. Customer Service Representative's knowledge and courteousness when you call for service:

	Columbia N=213	Ferry N=209	Grays Harbor N=214	Lewis N=216	Stevens N=229	Total N=1081
Very Satisfied	31%	26%	36%	25%	26%	29%
Satisfied	46%	49%	42%	45%	50%	46%
Dissatisfied	5%	3%	5%	7%	5%	5%
Very Dissatisfied	3%	1%	1%	2%	3%	2%
Don't Know/ Not Applicable	16%	21%	17%	21%	15%	18%

5g. Technical Support, such as installation and repair, provided by your ISP:

	Columbia N=213	Ferry N=209	Grays Harbor N=214	Lewis N=216	Stevens N=229	Total N=1081
Very Satisfied	22%	19%	33%	20%	21%	23%
Satisfied	54%	48%	45%	48%	50%	49%
Dissatisfied	8%	9%	3%	8%	7%	7%
Very Dissatisfied	1%	1.0%	1%	3%	4%	2%
Don't Know/ Not Applicable	16%	23%	17%	20%	18%	19%

6. Do you use the Internet anywhere else other than home?

	Columbia N=296	Ferry N=298	Grays Harbor N=298	Lewis N=298	Stevens N=299	Total N=1489
Yes	39%	41%	29%	28%	37%	35%
No	61%	59%	71%	71%	62%	65%
Don't Know	0%	0.3%	1%	0%	0.3%	0.3%
Refused	0%	0%	0%	1%	0%	0.1%

6a. Thinking of your Internet use at all these places other than home, work or school, about how many hours **in the last 30 days** would you say you have used the Internet in “other” locations?

Hours	Columbia N=107	Ferry N=107	Grays Harbor N=79	Lewis N=74	Stevens N=103	Total N=470
Range	0-120	0-120	0-168	0-120	0-120	0-168
Mode	0	0	0	0	0	0
Mean	15	15	23	20	15	18
Standard Deviation	28.5	31.8	40.9	35.2	27.5	32.5

7a. I am going to read you a short list of other places that you might use the Internet. For each one, please tell me if you use the Internet at that place.

7a-1. Do you use the Internet at work?

	Columbia N=115	Ferry N=121	Grays Harbor N=86	Lewis N=84	Stevens N=109	Total N=515
YES	70%	58%	71%	77%	76%	70%
NO	30%	42%	29%	23%	24%	30%

If they said yes:

How much time do you spend on the Internet at work? (N=336)

In Minutes	Columbia N=76	Ferry N=66	Grays Harbor N=57	Lewis N=62	Stevens N=75	Total N=336
Range	0-480	0-600	0-600	0-480	0-480	0-600
Mean	169	132	125	147	121	140
Mode	60	60	60	60	60	60
Standard Deviation	244	156	146	268	140	198

7a-1(a) Are you a computer professional?

	Columbia N=80	Ferry N=70	Grays Harbor N=61	Lewis N=65	Stevens N=83	Total N=359
YES	3%	14%	10%	9%	8%	9%
NO	98%	86%	90%	91%	92%	91%

7a-2. Do you use the Internet at school?

	Columbia N=115	Ferry N=121	Grays Harbor N=86	Lewis N=84	Stevens N=109	Total N=515
YES	16%	17%	12%	18%	20%	17%
NO	84%	84%	88%	82%	80%	84%

If yes: How much time do you spend on the Internet at school? (N=75)

In Minutes	Columbia N=15	Ferry N=20	Grays Harbor N=8	Lewis N=11	Stevens N=21	Total N=75
Range	2-300	15-480	0-120	15-180	15-180	0-480
Mean	89	134	61	73	95	97
Mode	60	120	120	60	60	60
Standard Deviation	83	134	52	82	89	99

7a-3. Do you use the Internet at a Public Library?

	Columbia N=115	Ferry N=121	Grays Harbor N=86	Lewis N=84	Stevens N=109	Total N=515
YES	13%	29%	37%	26%	25%	25%
NO	87%	71%	63%	74%	75%	75%

7a-4. Do you use the Internet at a relative or friend's house?

	Columbia N=115	Ferry N=121	Grays Harbor N=86	Lewis N=84	Stevens N=109	Total N=515
YES	39%	46%	50%	38%	40%	43%
NO	61%	55%	50%	62%	60%	58%

7a-5. Do you use the Internet at a retail shop with Internet services?

	Columbia N=115	Ferry N=121	Grays Harbor N=86	Lewis N=84	Stevens N=109	Total N=515
YES	17%	9%	11%	18%	9%	13%
NO	83%	91%	90%	82%	91%	87%

7a-6. Is there any other location where you use the Internet outside of the home?

	Columbia N=115	Ferry N=121	Grays Harbor N=86	Lewis N=84	Stevens N=109	Total N=515
YES	23%	23%	27%	19%	27%	24%
NO	77%	77%	73%	81%	73%	76%

If yes, where else did you use the Internet? (N=122)

	Total N=122
Hotel/Motel	41
On Vacation/Traveling	25
RV Parks	11
At work	8
Internet Cafes	8

7b. How many e-mail accounts do you have?

	Columbia N=213	Ferry N=219	Grays Harbor N=207	Lewis N=209	Stevens N=229	Total N=1080
Mean	4	4	5	4	2	4
Mode	2	1	1	1	1	1
Range	0-20	0-50	0-10	0-30	0-30	0-50

7c. Is that e-mail for work, school or personal use?

	Columbia N=213	Ferry N=219	Grays Harbor N=207	Lewis N=209	Stevens N=229	Total N=1080
Work	31%	28%	25%	26%	30%	28%
School	2%	1%	1%	1%	1%	1%
Personal	67%	72%	75%	73%	69%	71%

7d. How often do you use e-mail?

	Columbia N=213	Ferry N=219	Grays Harbor N=207	Lewis N=209	Stevens N=229	Total N=1080
At least once a day	78%	71%	68%	73%	74%	73%
Once a week/ Several times a week	17%	21%	21%	19%	21%	20%
Less than once a week	5%	7%	9%	7%	5%	7%
Don't Know	0%	1%	1%	1%	1%	1%
Refused	0%	0%	1%	0%	0%	0.1%

PHILOSOPHY REGARDING ACCESS TO THE INTERNET

The following questions are about high-speed Internet service, sometimes referred to as broadband.

8a. How important is it for YOU to have access to high-speed Internet services?

	Columbia N=300	Ferry N=300	Grays Harbor N=300	Lewis N=300	Stevens N=300	Total N=1500
Very Important	39%	44%	37%	38%	38%	39%
Important	15%	13%	16%	11%	21%	14%
Somewhat Important	17%	17%	11%	13%	18%	15%
Not at all Important	26%	24%	35%	34%	20%	28%
Don't Know	2%	2%	1%	3%	3%	2%
Refused	0%	0.3%	0.3%	1%	0%	0.3%

8b. Why is high-speed Internet access important to you? (N=895/60%)

Reason why High-speed Internet is Important	Number of people
Saves Time	512
Needed for Work	123
Communication with Others	31
Better Downloading Capabilities	26
Better Access to Information	20

8b1. How important is the speed of your Internet connection to you?

	Columbia N=300	Ferry N=300	Grays Harbor N=300	Lewis N=300	Stevens N=300	Total N=1500
Very Important	46%	48%	40%	39%	38%	42%
Important	18%	20%	19%	16%	21%	19%
Somewhat Important	13%	11%	9%	11%	18%	13%
Not at all Important	21%	18%	30%	30%	20%	24%
Don't Know	2%	2%	2%	4%	3%	2%
Refused	0%	0.3%	0.3%	1%	0%	0.3%

8c. How important is it for all Washington households to have access to high-speed service these days?

	Columbia N=300	Ferry N=300	Grays Harbor N=300	Lewis N=300	Stevens N=300	Total N=1500
Very Important	33%	41%	30%	26%	33%	33%
Important	24%	24%	24%	22%	25%	24%
Somewhat Important	21%	17%	19%	19%	18%	19%
Not at all Important	12%	9%	18%	20%	13%	14%
Don't Know	10%	9%	8%	12%	10%	10%
Refused	0%	0%	1%	1%	1%	1%

8d. How important is it for you to have access to high-speed Internet in a wireless environment?

	Columbia N=232	Ferry N=240	Grays Harbor N=223	Lewis N=222	Stevens N=238	Total N=1155
Very Important	24%	27%	17%	19%	25%	23%
Important	16%	22%	16%	15%	22%	18%
Somewhat Important	23%	20%	16%	19%	19%	19%
Not at all Important	33%	22%	45%	40%	26%	33%
Don't Know	5%	10%	6%	7%	8%	7%

8e. Why is high-speed wireless Internet access important to you?

	Columbia N=92	Ferry N=58	Grays Harbor N=44	Lewis N=46	Stevens N=58	Total N=270
24/7 Access	70%	50%	60%	61%	52%	58%
Stay in touch with the office	5%	1%	4%	5%	6%	4%
Stay in touch by e-mail	2%	2%	1%	7%	2%	3%
Access while at lunch	1%	1%	0%	0%	5%	2%
Other	22%	47%	34%	28%	35%	34%

TYPES OF INTERNET USE

9. I am going to read you a list of things you might use the Internet for. For each one, please tell me whether or not you use it, even if it isn't very important to you. Please also keep in mind that this could be on a computer that you have at home, work, school, or at some other place. Have you used the Internet to:

a. Visit the state of Washington’s government website?

	Columbia N=232	Ferry N=240	Grays Harbor N=223	Lewis N=222	Stevens N=238	Total N=1155
Yes	57%	53%	56%	56%	59%	56%
No	42%	46%	44%	44%	40%	43%
Don’t Know	0%	1%	0.4%	0%	1%	1%
Refused	0.4%	0%	0%	0%	0%	0.1%

b. Access local government services?

	Columbia N=232	Ferry N=240	Grays Harbor N=223	Lewis N=222	Stevens N=238	Total N=1155
Yes	60%	55%	54%	60%	60%	58%
No	40%	44%	46%	40%	40%	42%
Don’t Know	0%	1%	0%	0%	0%	0.2%
Refused	0%	0%	0%	0%	0.4%	0.1%

c. Find local school information?

	Columbia N=232	Ferry N=240	Grays Harbor N=223	Lewis N=222	Stevens N=238	Total N=1155
Yes	43%	27%	31%	30%	35%	33%
No	57%	73%	70%	70%	65%	67%
Don’t Know	0.4%	0%	0%	0%	0.4%	0.2%
Refused	0.4%	0%	0%	0%	0.4%	0.2%

d. Sell goods or services?

	Columbia N=232	Ferry N=240	Grays Harbor N=223	Lewis N=222	Stevens N=238	Total N=1155
Yes	16%	20%	15%	20%	24%	19%
No	83%	80%	85%	80%	75%	80%
Refused	0.4%	0%	0%	0%	0.4%	0.2%

e. Perform language translation?

	Columbia N=232	Ferry N=240	Grays Harbor N=223	Lewis N=222	Stevens N=238	Total N=1155
Yes	9%	9%	11%	13%	13%	11%
No	91%	91%	89%	87%	87%	89%
Don’t Know	0%	0%	0%	0%	0.4%	0.1%
Refused	0%	0%	0%	0%	0.4%	0.1%

f. Purchase goods and services?

	Columbia N=232	Ferry N=240	Grays Harbor N=223	Lewis N=222	Stevens N=238	Total N=1155
Yes	75%	71%	72%	71%	74%	73%
No	25%	29%	28%	29%	25%	27%
Refused	0%	0%	0%	0%	0.4%	0.1%

g. Make telephone calls?

	Columbia N=232	Ferry N=240	Grays Harbor N=223	Lewis N=222	Stevens N=238	Total N=1155
Yes	7%	8%	12%	6%	6%	8%
No	93%	92%	88%	94%	94%	92%
Refused	0.4%	0%	0%	0%	0.1%	0.2%

h. Find medical information?

	Columbia N=232	Ferry N=240	Grays Harbor N=223	Lewis N=222	Stevens N=238	Total N=1155
Yes	69%	68%	68%	67%	69%	68%
No	31%	32%	32%	33%	30%	31%
Don't Know	0%	0%	0%	1%	0.4%	0.2%
Refused	0.4%	0%	0%	0%	0.4%	0.2%

i. Keep in touch with family and friends?

	Columbia N=232	Ferry N=240	Grays Harbor N=223	Lewis N=222	Stevens N=238	Total N=1155
Yes	91%	90%	91%	87%	96%	91%
No	9%	10%	9%	13%	3%	9%
Refused	0.4%	0%	0%	0%	0.4%	0.2%

j. Play video games?

	Columbia N=232	Ferry N=240	Grays Harbor N=223	Lewis N=222	Stevens N=238	Total N=1155
Yes	40%	33%	39%	35%	34%	36%
No	60%	67%	61%	65%	66%	64%
Don't Know	0%	0.4%	0%	0%	0%	0.1%
Refused	0.4%	0%	0%	0%	0.4%	0.2%

k. Watch television or other videos?

	Columbia N=232	Ferry N=240	Grays Harbor N=223	Lewis N=222	Stevens N=238	Total N=1155
Yes	21%	16%	30%	26%	28%	24%
No	78%	84%	70%	74%	72%	76%
Refused	0.4%	0%	0%	0%	0.4%	0.2%

l. Share photos?

	Columbia N=232	Ferry N=240	Grays Harbor N=223	Lewis N=222	Stevens N=238	Total N=1155
Yes	68%	68%	66%	69%	75%	69%
No	32%	33%	34%	32%	25%	31%
Refused	0.4%	0%	0%	0%	0.4%	0.2%

m. Bank online?

	Columbia N=232	Ferry N=240	Grays Harbor N=223	Lewis N=222	Stevens N=238	Total N=1155
Yes	56%	50%	58%	53%	58%	55%
No	44%	50%	42%	47%	42%	45%
Refused	0.4%	0.4%	0%	0%	0.4%	0.3%

n. Get local news?

	Columbia N=232	Ferry N=240	Grays Harbor N=223	Lewis N=222	Stevens N=238	Total N=1155
Yes	56%	59%	63%	56%	59%	59%
No	44%	40%	37%	44%	41%	41%
Don't Know	0%	0.4%	0%	0%	0%	0.1%
Refused	0%	0%	0%	0%	0.4%	0.1%

o. Educate, like doing homework, taking a class?

	Columbia N=232	Ferry N=240	Grays Harbor N=223	Lewis N=222	Stevens N=238	Total N=1155
Yes	39%	35%	35%	33%	40%	37%
No	60%	65%	65%	67%	60%	63%
Refused	0.1%	0%	0%	0%	0.1%	0.2%

p. Research retail prices and product information?

	Columbia N=232	Ferry N=240	Grays Harbor N=223	Lewis N=222	Stevens N=238	Total N=1155
Yes	82%	80%	73%	76%	83%	79%
No	17%	20%	27%	23%	16%	21%
Don't Know	0%	0%	0.4%	1%	0%	0.2%
Refused	0.4%	0%	0%	0%	0.4%	0.2%

q. Find state or federal social services and government assistance, such as social security and housing?

	Columbia N=232	Ferry N=240	Grays Harbor N=223	Lewis N=222	Stevens N=238	Total N=1155
Yes	36%	38%	37%	39%	42%	38%
No	64%	62%	63%	60%	57%	61%
Don't Know	0%	0%	0%	1%	0.4%	0.2%
Refused	0.1%	0%	0%	0%	0.1%	0.2%

r. Find legal information?

	Columbia N=232	Ferry N=240	Grays Harbor N=223	Lewis N=222	Stevens N=238	Total N=1155
Yes	41%	39%	35%	37%	40%	39%
No	59%	60%	64%	63%	58%	61%
Don't Know	0%	0.4%	0.4%	0%	1%	0.3%
Refused	0.4%	0%	0%	0%	0.4%	0.2%

s. Contribute to a website, blog or other online forum?

	Columbia N=232	Ferry N=240	Grays Harbor N=223	Lewis N=222	Stevens N=238	Total N=1155
Yes	22%	20%	22%	27%	24%	23%
No	78%	79%	77%	72%	76%	77%
Don't Know	0%	1%	1%	1%	0.4%	1%
Refused	0%	0%	0%	0%	0.4%	0.1%

t. In the last 30 days have you used the Internet for anything else?

	Columbia N=232	Ferry N=240	Grays Harbor N=223	Lewis N=222	Stevens N=238	Total N=1155
Yes	16%	17%	16%	15%	16%	16%
No	84%	83%	83%	83%	84%	84%
Don't Know	0%	0%	2%	2%	0%	1%
Refused	0%	0%	0%	0%	0.4%	0.1%

u. Other: (N=182)

Top three responses were for travel including maps and hotel information, researching information, and work or business.

10. Question 10 was eliminated as being non-applicable prior to commencement of the Survey.

ON LINE CIVIC PARTICIPATION

11. In general, would you rather access government services:

	Columbia N=232	Ferry N=240	Grays Harbor N=223	Lewis N=222	Stevens N=238	Total N=1155
On Web/Via email	57%	55%	52%	44%	47%	51%
In Person	15%	13%	16%	15%	18%	15%
By Telephone	17%	20%	18%	23%	23%	20%
By Letter	6%	5%	5%	9%	6%	6%
Other	2%	0.4%	2%	1%	2%	1%
Don't Know	3%	7%	6%	8%	5%	6%
Refused	0.4%	0%	1%	1%	0.4%	0.4%

12. Question 12 was eliminated as being non-applicable prior to commencement of the Survey.

13a. Why are email and the Internet less than “very effective” means of communicating with government representatives?” (N=408/27%)

Why it is not effective	N=408
E-mail can be ignored or deleted	154
Loss of Personal Contact	110
Don't need to talk to government representative	55
Speed is slower	39
E-mail can be misunderstood	11

BUSINESS AND ECONOMIC DEVELOPMENT ISSUES

14. Have you used the Internet to operate a business from your home?

	Columbia N=232	Ferry N=240	Grays Harbor N=223	Lewis N=222	Stevens N=238	Total N=1155
Yes	17%	16%	11%	19%	19%	16%
No	82%	83%	89%	81%	81%	83%
Don't Know	0%	0.4%	0%	0%	0.4%	0.2%
Refused	0.4%	0%	0%	0%	0.4%	0.2%

14a. How important has this ability been to the success of your home-based business?

	Columbia N=40	Ferry N=39	Grays Harbor N=24	Lewis N=42	Stevens N=44	Total N=189
Very Important	70%	69%	79%	74%	61%	70%
Important	5%	8%	4%	12%	25%	12%
Somewhat Important	18%	18%	17%	12%	7%	14%
Not at all Important	8%	5%	0%	2%	5%	4%
Don't Know	0%	0%	0%	0%	3%	1%

15. In the past year, have you tried to find information about local businesses on the Internet?

	Columbia N=232	Ferry N=240	Grays Harbor N=223	Lewis N=222	Stevens N=238	Total N=1155
Yes	62%	58%	61%	57%	60%	60%
No	38%	41%	38%	43%	39%	39%
Don't Know	0.4%	1%	0.4%	1%	1%	1%
Refused	0%	0%	0%	0%	0.4%	0.1%

15a. In the past year, have you purchased any goods or services from a local or state business online?

	Columbia N=145	Ferry N=141	Grays Harbor N=138	Lewis N=127	Stevens N=146	Total N=697
Yes	55%	58%	64%	57%	54%	57%
No	44%	36%	35%	40%	43%	40%
Don't Know	1%	6%	1%	3%	2%	3%
Refused	0%	0%	0%	0%	0.7%	0.1%

16. How satisfied are you with the information about local businesses that you were able to find on the Internet?

	Columbia N=79	Ferry N=82	Grays Harbor N=88	Lewis N=72	Stevens N=79	Total N=400
Very Satisfied	39%	37%	35%	39%	28%	36%
Satisfied	37%	29%	26%	29%	51%	42%
Dissatisfied	22%	27%	16%	11%	15%	18%
Very Dissatisfied	1%	5%	2%	1%	5%	3%
Don't Know	1%	2%	1%	0%	1%	1%

17. What are all the reasons you can think of that you don't own or a computer? (Top 3 Responses)

First Response

	Columbia N=67	Ferry N=52	Grays Harbor N=74	Lewis N=61	Stevens N=48	Total N=302
Don't Want One	42%	42%	38%	72%	40%	47%
Cost/Too expensive	19%	25%	7%	10%	27%	17%
Don't Know how to use it	13%	14%	30%	7%	15%	16%

a. How much would you be willing to pay for a computer?

	Columbia N=7	Ferry N=5	Grays Harbor N=2	Lewis N=3	Stevens N=9	Total N=26
Mean	\$129	\$353	\$153	\$200	\$133	\$184
Mode	\$0	All unique responses.	All unique responses.	\$300	\$0	\$300
Range	\$0-\$800	\$5-\$1,000	\$5-\$300	\$0-\$300	\$0-\$500	\$0-\$1,000

18. What are all the reasons you can think of for not having access to the Internet at home? (Top 3 Responses)

First Response

	Columbia N=87	Ferry N=91	Grays Harbor N=86	Lewis N=84	Stevens N=71	Total N=419
Don't Want It	31%	17%	37%	50%	32%	33%
Cost/Too Expensive	22%	24%	7%	13%	25%	18%
Don't Know How to Use it	10%	17%	20%	11%	10%	14%

a. How much would you be willing to pay per month for Internet service?

	Columbia N=15	Ferry N=14	Grays Harbor N=4	Lewis N=8	Stevens N=13	Total N=54
Mean	\$20	\$20	\$19	\$9	\$33	\$19
Mode	\$0	\$10	All unique.	\$10	\$20	\$20
Range	\$0-\$30	\$0-\$50	\$10-\$30	\$0-\$25	\$0-\$200	\$0-\$200

19. Do you have any thoughts about how to enhance broadband availability in your community? (N=360/24%)

Thoughts on enhancing broadband	N=360/24%
Improve access in rural areas	165
Make it more affordable	99
Decrease the monopoly	29
Speed up the connection	15
Provide more information about it	10
Use Government Funding	9
Combine telephone and Internet service	9
Create a town wireless center	7

Use satellite services	5
Advertise for broadband	3

20. Is there anything you would like to add about broadband services in your community that I did not ask? (N=171/14%)

Additional Things to Add	N=171/14%
Enhance broadband in rural areas	40
Make computers and the Internet cheaper	31
Really like to have it	25
Provide Faster Service	22
Address Security Issues with the Internet	8
Provide Government Funding	8
We need the Internet to stay connected	7
Familiarize people with the Internet	7
Stop the monopoly on the Internet	7
Internet use is not important to us	5

DEMOGRAPHICS

Now I just have a few final questions to help us group your answers with others and confirm that we have reached a representative sample of local residents. All individual responses will remain confidential and this information will only be reported as part of a larger group.

21. How old are you?

	Columbia N=300	Ferry N=300	Grays Harbor N=300	Lewis N=300	Stevens N=300	Total N=1500
18-25	3%	5%	3%	4%	3%	4%
26-35	7%	9%	7%	9%	6%	8%
36-45	15%	7%	12%	8%	13%	11%
46-65	44%	54%	43%	43%	48%	47%
66 and older	30%	23%	32%	35%	29%	30%
Refused	1%	1%	3%	1%	1%	1%

22. How many people, including you, live in your house?

	Columbia N=300	Ferry N=300	Grays Harbor N=300	Lewis N=300	Stevens N=300	Total N=1500
1	21%	17%	20%	24%	14%	19%
2	51%	53%	46%	48%	50%	49%
3	11%	13%	14%	11%	13%	13%
4	9%	6%	10%	8%	12%	9%
5	6%	6%	5%	4%	5%	5%
6	2%	2%	3%	2%	3%	2%
7	1%	2%	1%	1%	1%	1%

	Columbia N=300	Ferry N=300	Grays Harbor N=300	Lewis N=300	Stevens N=300	Total N=1500
8	1%	0.3%	0%	1%	0.3%	0.4%
9	0%	0.3%	0%	0%	0.3%	0.1%
10	0%	0%	0.3%	0.3%	0%	0.1%

23. Do you have children under the age of 18 in your home?

	Columbia N=300	Ferry N=300	Grays Harbor N=300	Lewis N=300	Stevens N=300	Total N=1500
Yes	24%	21%	23%	21%	26%	23%
No	76%	78%	75%	79%	74%	76%
Refused	0.3%	0%	2%	0.3%	0.3%	1%

24. What is the last year of schooling you completed?

	Columbia N=300	Ferry N=300	Grays Harbor N=300	Lewis N=300	Stevens N=300	Total N=1500
Grade School or Some High School	7%	7%	6%	7%	8%	7%
High School Graduate	25%	28%	24%	27%	26%	26%
Some College, Technical or Vocational School or Two Year Degree	41%	41%	43%	41%	37%	41%
Four Year College Graduate	15%	16%	15%	15%	14%	15%
Post Graduate Work or Graduate Degree	10%	8%	10%	8%	14%	10%
Refused	1%	0%	2%	2%	1%	1%

25. Which of the following best describes your work life at this time?

	Columbia N=300	Ferry N=300	Grays Harbor N=300	Lewis N=300	Stevens N=300	Total N=1500
Employed full time	36%	27%	31%	30%	30%	31%
Employed part time	11%	12%	10%	7%	8%	10%
Self employed	7%	7%	7%	6%	10%	7%
Student	0.3%	1%	1%	1%	1%	1%
Homemaker	7%	5%	3%	9%	6%	6%
Unemployed, but looking for work	2%	2%	1%	2%	2%	2%
Unemployed but not looking for work	0%	1%	1%	1%	1%	1%
Retired	32%	40%	40%	41%	36%	38%
Disabled	4%	5%	5%	3%	4%	4%

	Columbia N=300	Ferry N=300	Grays Harbor N=300	Lewis N=300	Stevens N=300	Total N=1500
Refused	.3%	0%	2%	1%	1%	1%

If they have a disability, does it affect their ability to use the Internet?

	Columbia N=16	Ferry N=21	Grays Harbor N=15	Lewis N=12	Stevens N=18	Total N=82
Yes	13%	48%	40%	50%	17%	33%
No	81%	52%	53%	50%	83%	65%
Don't Know	6%	0%	7%	0%	0%	2%

26. Do you work from your home? (Asked of those working only.)

	Columbia N=172	Ferry N=146	Grays Harbor N=149	Lewis N=135	Stevens N=151	Total N=753
Yes	19%	22%	19%	22%	27%	22%
No	80%	78%	81%	78%	74%	78%
Don't Know	1%	0%	0%	0%	0%	0.1%
Refused	0.3%	0%	0.4%	0%	0%	0.3%

26a. Are you a telecommuter or do you have a home based business?

	Columbia N=33	Ferry N=32	Grays Harbor N=28	Lewis N=30	Stevens N=40	Total N=163
Telecommuter	18%	19%	11%	17%	33%	20%
Home Based Business	52%	63%	57%	70%	58%	60%
Other	30%	19%	32%	13%	10%	20%

Other Responses:

Top responses include Both (N=7), Adult Care (N=5), and Farmer (N=3).

27. What is the primary language spoken at your home?

	Columbia N=300	Ferry N=300	Grays Harbor N=300	Lewis N=300	Stevens N=300	Total N=1500
English	99%	99%	98%	99%	99%	99%
Spanish	1%	0.3%	0.3%	0.3%	0.3%	1%
Other	0%	0.3%	0.3%	0%	0%	0.1%
Refused	0%	0.1%	1%	0.3%	0.3%	1%

28. What race or ethnicity do you consider yourself?

	Columbia N=300	Ferry N=300	Grays Harbor N=300	Lewis N=300	Stevens N=300	Total N=1500
African American	0%	0.3%	0%	0%	0%	0.1%
Asian/Pacific Islander	1%	0.3%	1%	0.3%	1%	1%
Caucasian	93%	87%	92%	92%	93%	91%
Hispanic/Latino	3%	0.3%	1%	1%	0.3%	1%
American Indian	1%	9%	0.3%	2%	2%	3%
Other	2%	2%	4%	2%	3%	3%
Refused	1%	1%	2%	2%	2%	2%

29. Do you have a disability, handicap or chronic disease that keeps you from participating fully in work, school, housework or other activities?

	Columbia N=24	Ferry N=29	Grays Harbor N=23	Lewis N=17	Stevens N=22	Total N=115
Yes	67%	72%	65%	71%	82%	71%
No	33%	24%	35%	29%	18%	28%
Don't Know	0%	3%	0%	0%	0%	1%

29a. Does your disability impact your ability to use or your need for the Internet?

	Columbia N=16	Ferry N=21	Grays Harbor N=15	Lewis N=12	Stevens N=18	Total N=82
Yes	13%	48%	40%	50%	17%	33%
No	81%	52%	53%	50%	83%	65%
Don't Know	6%	0%	7%	0%	0%	2%

30. And which of the following broad categories best describes your total annual household income, before taxes?

	Columbia N=300	Ferry N=300	Grays Harbor N=300	Lewis N=300	Stevens N=300	Total N=1500
Under 25,000	15%	19%	16%	14%	14%	16%
25,000-35,000	10%	16%	11%	13%	14%	13%
35,000-50,000	18%	22%	18%	14%	16%	18%
50,000-75,000	20%	12%	14%	19%	16%	16%
75,000-100,000	8%	9%	10%	8%	9%	9%
100,000 or more	7%	5%	9%	9%	6%	7%
Refused/Don't know	21%	18%	23%	23%	23%	22%

Gender:

	Columbia N=300	Ferry N=300	Grays Harbor N=300	Lewis N=300	Stevens N=300	Total N=300
Male	33%	40%	37%	38%	40%	38%
Female	67%	60%	63%	62%	60%	62%

**UTC BROADBAND
RESIDENTIAL COMMUNITY SURVEY
COLUMBIA RESPONDENTS
(N=300)**

INTRODUCTION: Hello, this is _____. I'm calling on behalf of the State of Washington Utilities and Transportation Commission. The State is seeking a better understanding of the broadband needs of Washington residents and what role it might play in meeting these needs. As part of this process, we are gathering information from residents about their Internet use. Would you be willing to spend ten minutes answering questions on this topic to help the State of Washington better understand your needs? Your responses will remain anonymous and will only be reported as part of a larger group. Some calls may be monitored for quality assurance.

QUALIFIER

1. First, may I verify that your household is located in a community the State is studying? In what County do you live? (N=300 / 100%)

Columbia 100%

2. City of Residence – Unique responses are available in the database that accompanies this Report.

ACCESS TO COMPUTERS AND THE INTERNET

First, I would like to understand the amount of access you have to computers and the Internet. I'm going to name technologies that you might have at home and how you use that technology. For each service that I name, please say yes or no.

3. Do you or someone in your household own a computer?

	Columbia N=300
Yes	78%
No	22%

- a. If yes, how many?

	Columbia N=233
1	55%
2	32%
3	9%
4	3%
5	0.4%
6	0%
7	0%

b. Is that computer a laptop or is one of your computers a laptop?

	Columbia N=233
Yes	44%
No	56%

4. Do you have Internet access at home?

	Columbia N=300
Yes	71%
No	29%
Don't Know	0%

4a. Who uses the computer(s) and Internet at your house? (Top 3 Responses)

First Response:

	Columbia N=213
I do	84%
Spouse/Partner	10%
Children	4%

4b. What type of connection do you use at home to access the Internet? (Top 4 Responses)

First Response:

	Columbia N=213
DSL (Digital Subscriber Line)	44%
Dial-up	24%
Cable Modem	10%
Satellite Internet Service	10%

How much do you pay for that service?

	Columbia N=109
Range	\$0-\$349
Mode	\$30
Mean	\$45
Standard Deviation	\$35

For those that have Dial-up: Do you have a second phone line specifically for the Internet?

	Columbia N=51
Yes	10%
No	90%

4b.1. What company or entity provides that service?

Internet Provider	N=205
Qwest	88
Blue Mountain Internet (BMI)	26
Touchet Valley	9
CenturyTel	7

4b.2. If you know it, please tell us your speed of connection

Speed	Columbia N=19
Less that 1 Mbps	58%
1.1 Mbps – 5 Mbps	37%
Greater that 5 Mbps	5%

4b.3. How much time do you spend on the Internet at home?

In Minutes	Columbia N=211
Range	0-720
Mean	136
Mode	60
Standard Deviation	135

4b.4. Why have you not adopted a faster Internet connection? (Top 3 Responses)

First Response:

	Columbia N=75
Not available in my area	45%
It costs too much	28%
I don't need it	13%

5. I am going to read characteristics about your Internet service. As I read each one, please indicate whether you are “very satisfied” “satisfied” “dissatisfied” or “very dissatisfied” with that aspect of your Internet service.

5a. Speed of the Internet Connection:

	Columbia N=213
Very Satisfied	18%
Satisfied	50%
Dissatisfied	22%
Very Dissatisfied	9%
Don't Know/ Not Applicable	1%

5b. Cost of Internet Connection:

	Columbia N=213
Very Satisfied	11%
Satisfied	64%
Dissatisfied	19%
Very Dissatisfied	2%
Don't Know/ Not Applicable	4%

5c. Billing practices of the Internet provider:

	Columbia N=213
Very Satisfied	25%
Satisfied	69%
Dissatisfied	2%
Very Dissatisfied	1%
Don't Know/ Not Applicable	4%

5d. Reliable access to the Internet:

	Columbia N=213
Very Satisfied	25%
Satisfied	60%
Dissatisfied	11%
Very Dissatisfied	3%
Don't Know/ Not Applicable	2%

5e. Ease of use:

	Columbia N=213
Very Satisfied	23%
Satisfied	70%
Dissatisfied	7%
Very Dissatisfied	1%
Don't Know/ Not Applicable	1%

5f. Customer Service Representative's knowledge and courteousness when you call for service:

	Columbia N=213
Very Satisfied	31%
Satisfied	46%
Dissatisfied	5%
Very Dissatisfied	3%
Don't Know/ Not Applicable	16%

5g. Technical Support, such as installation and repair, provided by your ISP:

	Columbia N=213
Very Satisfied	22%
Satisfied	54%
Dissatisfied	8%
Very Dissatisfied	1%
Don't Know/ Not Applicable	16%

6. Do you use the Internet anywhere else other than home?

	Columbia N=296
Yes	39%
No	61%
Don't Know	0%
Refused	0%

6a. Thinking of your Internet use at all these places other than home, work or school, about how many hours **in the last 30 days** would you say you have used the Internet in “other” locations?

Hours	Columbia N=107
Range	0-120
Mode	0
Mean	15
Standard Deviation	28.5

7a. I am going to read you a short list of other places that you might use the Internet. For each one, please tell me if you use the Internet at that place.

7a-1. Do you use the Internet at work?

	Columbia N=115
YES	70%
NO	30%

If yes: How much time do you spend on the Internet at work?

In Minutes	Columbia N=76
Range	0-480
Mean	169
Mode	60
Standard Deviation	244

7a-1(a) Are you a computer professional?

	Columbia N=80
YES	3%
NO	98%

7a-2. Do you use the Internet at school?

	Columbia N=115
YES	16%
NO	84%

If yes, how much time do you spend on the Internet at School?

In Minutes	Columbia N=15
Range	2-300
Mean	89
Mode	60
Standard Deviation	83

7a-3. Do you use the Internet at a Public Library?

	Columbia N=115
YES	13%
NO	87%

7a-4. Do you use the Internet at a relative or friend's house?

	Columbia N=115
YES	39%
NO	61%

7a-5. Do you use the Internet at a retail shop with Internet services?

	Columbia N=115
YES	17%
NO	83%

7a-6. Is there any other location where you use the Internet outside of the home?

	Columbia N=115
YES	23%
NO	77%

7b. How many e-mail accounts do you have?

	Columbia N=213
Mean	4
Mode	2
Range	0-20

7c. Is that e-mail for work, school or personal use?

	Columbia N=213
Work	31%
School	2%
Personal	67%

7d. How often do you use e-mail?

	Columbia N=213
At least once a day	78%
Once a week/ Several times a week	17%
Less than once a week	5%
Don't Know	0%
Refused	0%

PHILOSOPHY REGARDING ACCESS TO THE INTERNET

The following questions are about high-speed Internet service, sometimes referred to as broadband.

8a. How important is it for YOU to have access to high-speed Internet services?

	Columbia N=300
Very Important	39%
Important	15%
Somewhat Important	17%
Not at all Important	26%
Don't Know	2%
Refused	0%

8b. Why is high-speed Internet access important to you?

Reason why High-speed Internet is Important	N=152
Saves time/ Faster connection	93
Need it to do work	20
Better downloading capabilities	6
Need it for Education	6
Communicating with others	6

8b1. How important is the speed of your Internet connection to you?

	Columbia N=300
Very Important	46%
Important	18%
Somewhat Important	13%
Not at all Important	21%
Don't Know	2%
Refused	0%

8c. How important is it for all Washington households to have access to high-speed service these days?

	Columbia N=300
Very Important	33%
Important	24%
Somewhat Important	21%
Not at all Important	12%
Don't Know	10%
Refused	0%

8d. How important is it for you to have access to high-speed Internet in a wireless environment?

	Columbia N=232
Very Important	24%
Important	16%
Somewhat Important	23%
Not at all Important	33%
Don't Know	5%

8e. Why is high-speed wireless Internet access important to you?

	Columbia N=92
24/7 Access	70%
Stay in touch with the office	5%
Stay in touch by e-mail	2%

Access while at lunch	1%
Other	22%

TYPES OF INTERNET USE

9. I am going to read you a list of things you might use the Internet for. For each one, please tell me whether or not you use it, even if it isn't very important to you. Please also keep in mind that this could be on a computer that you have at home, work, school, or at some other place. Have you used the Internet to:

a. Visit the state of Washington's government website?

	Columbia N=232
Yes	57%
No	42%
Don't Know	0%
Refused	0.4%

b. Access local government services?

	Columbia N=232
Yes	60%
No	40%
Don't Know	0%
Refused	0%

c. Find local school information?

	Columbia N=232
Yes	43%
No	57%
Don't Know	0.4%
Refused	0.4%

d. Sell goods or services?

	Columbia N=232
Yes	16%
No	83%
Refused	0.4%

e. Perform language translation?

	Columbia N=232
Yes	9%
No	91%
Don't Know	0%
Refused	0%

f. Purchase goods and services?

	Columbia N=232
Yes	75%
No	25%
Refused	0%

g. Make telephone calls?

	Columbia N=232
Yes	7%
No	93%
Refused	0.4%

h. Find medical information?

	Columbia N=232
Yes	69%
No	31%
Don't Know	0%
Refused	0.4%

i. Keep in touch with family and friends?

	Columbia N=232
Yes	91%
No	9%
Refused	0.4%

j. Play video games?

	Columbia N=232
Yes	40%
No	60%
Don't Know	0%
Refused	0.4%

k. Watch television or other videos?

	Columbia N=232
Yes	21%
No	78%
Refused	0.4%

l. Share photos?

	Columbia N=232
Yes	68%
No	32%
Refused	0.4%

m. Bank online?

	Columbia N=232
Yes	56%
No	44%
Refused	0.4%

n. Get local news?

	Columbia N=232
Yes	56%
No	44%
Don't Know	0%
Refused	0%

o. Educate, like doing homework, taking a class?

	Columbia N=232
Yes	39%
No	60%
Refused	0.1%

p. Research retail prices and product information?

	Columbia N=232
Yes	82%
No	17%
Don't Know	0%
Refused	0.4%

q. Find state or federal social services and government assistance, such as social security and housing?

	Columbia N=232
Yes	36%
No	64%
Don't Know	0%
Refused	0.1%

r. Find legal information?

	Columbia N=232
Yes	41%
No	59%
Don't Know	0%
Refused	0.4%

s. Contribute to a website, blog or other online forum?

	Columbia N=232
Yes	22%
No	78%
Don't Know	0%
Refused	0%

t. In the last 30 days have you used the Internet for anything else?

	Columbia N=232
Yes	16%
No	84%
Don't Know	0%
Refused	0%

u. Other:

Top three responses were for travel including maps and hotel information, researching information, and work or business.

10. Question 10 was eliminated as being non-applicable prior to commencement of the Survey.

ON LINE CIVIC PARTICIPATION

11. In general, would you rather access government services:

	Columbia N=232
On Web/Via email	57%
In Person	15%
By Telephone	17%
By Letter	6%
Other	2%
Don't Know	3%
Refused	0.4%

12. Question 12 was eliminated as being non-applicable prior to commencement of the Survey.

13a. Why are email and the Internet less than “very effective” means of communicating with government representatives?”

Why it is not effective	N=83
E-mails can be ignored or deleted	21
In person is better	20
Don't communicate with them	13
Don't know how to use it	5

BUSINESS AND ECONOMIC DEVELOPMENT ISSUES

14. Have you used the Internet to operate a business from your home?

	Columbia N=232
Yes	17%
No	82%
Don't Know	0%
Refused	0.4%

14a. How important has this ability been to the success of your home-based business?

	Columbia N=40
Very Important	70%
Important	5%
Somewhat Important	18%
Not at all Important	8%
Don't Know	0%

15. In the past year, have you tried to find information about local businesses on the Internet?

	Columbia N=232
Yes	62%
No	38%
Don't Know	0.4%
Refused	0%

15a. In the past year, have you purchased any goods or services from a local or state business online?

	Columbia N=145
Yes	55%
No	44%
Don't Know	1%
Refused	0%

16. How satisfied are you with the information about local businesses that you were able to find on the Internet?

	Columbia N=79
Very Satisfied	39%
Satisfied	37%
Dissatisfied	22%
Very Dissatisfied	1%
Don't Know	1%

17. What are all the reasons you can think of that you don't own or a computer? (Top 3 Responses)

First Response

	Columbia N=67
Don't Want One	42%
Cost/Too expensive	19%
Don't Know how to use it	13%

a. How much would you be willing to pay for a computer?

	Columbia N=15
Mean	\$129
Mode	\$0
Range	\$0-\$800

18. What are all the reasons you can think of for not having access to the Internet at home? (Top 3 Responses)

First Response

	Columbia N=87
Don't Want It	31%
Cost/Too Expensive	22%
Don't Know How to Use it	10%

a. How much would you be willing to pay per month for Internet service?

	Columbia N=15
Mean	\$20
Mode	\$0
Range	\$0-\$30

19. Do you have any thoughts about how to enhance broadband availability in your community?

Thoughts on enhancing broadband	N=70
Improve access/upgrade	34
Make it more affordable	14
Provide more choices of providers	6

20. Is there anything you would like to add about broadband services in your community that I did not ask?

Additional Things to Add	N=19
Make it available to rural areas	10
Make it faster	3
I just want it	2
Make it more affordable	2
Decrease the monopoly	1
Get the government involved	1
Provide more information to people	1

DEMOGRAPHICS

Now I just have a few final questions to help us group your answers with others and confirm that we have reached a representative sample of local residents. All individual responses will remain confidential and this information will only be reported as part of a larger group.

21. How old are you?

	Columbia N=300
18-25	3%
26-35	7%
36-45	15%
46-65	44%
66 and older	30%
Refused	1%

22. How many people, including you, live in your house?

	Columbia N=300
1	21%
2	51%
3	11%
4	9%
5	6%
6	2%
7	1%

8	1%
9	0%
10	0%
23	0%
99	0.3%

23. Do you have children under the age of 18 in your home?

	Columbia N=300
Yes	24%
No	76%
Refused	0.3%

24. What is the last year of schooling you completed?

	Columbia N=300
Grade School or Some High School	7%
High School Graduate	25%
Some College, Technical or Vocational School or Two Year Degree	41%
Four Year College Graduate	15%
Post Graduate Work or Graduate Degree	10%
Refused	1%

25. Which of the following best describes your work life at this time?

	Columbia N=300
Employed full time	36%
Employed part time	11%
Self employed	7%
Student	0.3%
Homemaker	7%
Unemployed, but looking for work	2%
Unemployed but not looking for work	0%
Retired	32%
Disabled	4%
Refused	.3%

26. Do you work from your home?

	Columbia N=172
Yes	19%
No	80%
Don't Know	1%
Refused	0.3%

26a. Are you a telecommuter or do you have a home based business?

	Columbia N=33
Telecommuter	18%
Home Based Business	52%
Other	30%

27. What is the primary language spoken at your home?

	Columbia N=300
English	99%
Spanish	1%
Other	0%
Refused	0%

28. What race or ethnicity do you consider yourself?

	Columbia N=300
African American	0%
Asian/Pacific Islander	1%
Caucasian	93%
Hispanic/Latino	3%
American Indian	1%
Other	2%
Refused	1%

29. Do you have a disability, handicap or chronic disease that keeps you from participating fully in work, school, housework or other activities?

	Columbia N=24
Yes	67%
No	33%
Don't Know	0%

29a. Does your disability impact your ability to use or your need for the Internet?

	Columbia N=16
Yes	13%
No	81%
Don't Know	6%

30. And which of the following broad categories best describes your total annual household income, before taxes?

	Columbia N=300
Under 25,000	15%
25,000-35,000	10%
35,000-50,000	18%
50,000-75,000	20%
75,000-100,000	8%
100,000 or more	7%
Refused/Don't know	21%

Gender:

	Columbia N=300
Male	33%
Female	67%

**UTC BROADBAND
RESIDENTIAL COMMUNITY SURVEY
FERRY COUNTY RESPONDENTS
(N=300)**

INTRODUCTION: Hello, this is _____. I'm calling on behalf of the State of Washington Utilities and Transportation Commission. The State is seeking a better understanding of the broadband needs of Washington residents and what role it might play in meeting these needs. As part of this process, we are gathering information from residents about their Internet use. Would you be willing to spend ten minutes answering questions on this topic to help the State of Washington better understand your needs? Your responses will remain anonymous and will only be reported as part of a larger group. Some calls may be monitored for quality assurance.

QUALIFIER

1. First, may I verify that your household is located in a community the State is studying? In what County do you live? (N=300 / 100%)

Ferry 100%

2. City of Residence – Unique responses are available in the database that accompanies this Report.

ACCESS TO COMPUTERS AND THE INTERNET

First, I would like to understand the amount of access you have to computers and the Internet. I'm going to name technologies that you might have at home and how you use that technology. For each service that I name, please say yes or no.

3. Do you or someone in your household own a computer?

	Ferry N=300
Yes	83%
No	17%

- a. If yes, how many?

	Ferry N=248
1	61%
2	25%
3	9%
4	2%
5	0%
6	1%
7	0%

b. Is that computer a laptop OR Is one of your computers a laptop?

	Ferry N=248
Yes	39%
No	61%

4. Do you have Internet access at home?

	Ferry N=300
Yes	70%
No	30%
Don't Know	.3%

4a. Who uses the computer(s) and Internet at your house? (Top 3 Responses)

First Response:

	Ferry N=209
I do	80%
Spouse/Partner	16%
Children	2%

4b. What type of connection do you use at home to access the Internet? (Top 4 Responses)

First Response:

	Ferry N=209
Dial-up	51%
DSL (Digital Subscriber Line)	11%
Cable Modem	12%
Satellite Internet Service	17%

How much do you pay for that service?

	Ferry N=73
Range	\$0-\$130
Mode	\$30
Mean	\$45
Standard Deviation	\$20

For those that have Dial-up: Do you have a second phone line specifically for the Internet?

	Ferry N=103
Yes	18%
No	82%

4b.1. What company or entity provides that service?

Internet Provider	N=209
Republic Internet	26
Wild Blue	20
CenturyTel	16
Amerion	12
Hughes Net	9

4b.2. If you know it, please tell us your speed of connection

Speed of Internet	Respondents
Less than 1 M	80%
1.1-5 M	20%
Greater than 5 M	0%

4b.3. How much time do you spend on the Internet at home?

In Minutes	Ferry N=206
Range	0-720
Mean	126
Mode	120
Standard Deviation	131

4b.4. Why have you not adopted a faster Internet connection? (Top 3 Responses)

First Response:

	Ferry N=145
Not available in my area	60%
It costs too much	22%
I don't need it	7%

5. I am going to read characteristics about your Internet service. As I read each one, please indicate whether you are “very satisfied” “satisfied” “dissatisfied” or “very dissatisfied” with that aspect of your Internet service.

5a. Speed of the Internet Connection:

	Ferry N=209
Very Satisfied	11%
Satisfied	37%
Dissatisfied	28%
Very Dissatisfied	22%
Don't Know/ Not Applicable	3%

5b. Cost of Internet Connection:

	Ferry N=209
Very Satisfied	12%
Satisfied	68%
Dissatisfied	14%
Very Dissatisfied	3%
Don't Know/ Not Applicable	3%

5c. Billing practices of the Internet provider:

	Ferry N=209
Very Satisfied	27%
Satisfied	63%
Dissatisfied	3%
Very Dissatisfied	1%
Don't Know/ Not Applicable	5%

5d. Reliable access to the Internet:

	Ferry N=209
Very Satisfied	14%
Satisfied	62%
Dissatisfied	18%
Very Dissatisfied	4%
Don't Know/ Not Applicable	2%

5e. Ease of use:

	Ferry N=209
Very Satisfied	22%
Satisfied	67%
Dissatisfied	9%
Very Dissatisfied	1%
Don't Know/ Not Applicable	1%

5f. Customer Service Representative's knowledge and courteousness when you call for service:

	Ferry N=209
Very Satisfied	26%
Satisfied	49%
Dissatisfied	3%
Very Dissatisfied	1%
Don't Know/ Not Applicable	21%

5g. Technical Support, such as installation and repair, provided by your ISP:

	Ferry N=209
Very Satisfied	19%
Satisfied	48%
Dissatisfied	9%
Very Dissatisfied	1.0%
Don't Know/ Not Applicable	23%

6. Do you use the Internet anywhere else other than home?

	Ferry N=298
Yes	41%
No	59%
Don't Know	0.3%
Refused	0%

6a. Thinking of your Internet use at all these places other than home, work or school, about how many hours **in the last 30 days** would you say you have used the Internet in “other” locations?

Hours	Ferry N=107
Range	0-120
Mode	0
Mean	15
Standard Deviation	31.8

7a. I am going to read you a short list of other places that you might use the Internet. For each one, please tell me if you use the Internet at that place.

7a-1. Do you use the Internet at work?

	Ferry N=121
YES	58%
NO	42%

If they said yes:

How much time do you spend on the Internet at Work? (N=66)

In Minutes	Ferry N=66
Range	0-600
Mean	132
Mode	60
Standard Deviation	156

7a-1(a) Are you a computer professional?

	Ferry N=70
YES	14%
NO	86%

7a-2. Do you use the Internet at school?

	Ferry N=121
YES	17%
NO	84%

If yes: How much time do you spend on the Internet...at School?

In Minutes	Ferry N=20
Range	15-480
Mean	134
Mode	120
Standard Deviation	134

7a-3. Do you use the Internet at a Public Library?

	Ferry N=121
YES	29%
NO	71%

7a-4. Do you use the Internet at a relative of friend's house?

	Ferry N=121
YES	46%
NO	55%

7a-5. Do you use the Internet at a retail shop with Internet services?

	Ferry N=121
YES	9%
NO	91%

7a-6. Is there any other location where you use the Internet outside of the home?

	Ferry N=121
YES	23%
NO	77%

7b. How many e-mail accounts do you have?

	Ferry N=219
Mean	4
Mode	1
Range	0-50

7c. Is that e-mail for work, school or personal use?

	Ferry N=219
Work	28%
School	1%
Personal	72%

7d. How often do you use e-mail?

	Ferry N=219
At least once a day	71%
Once a week/ Several times a week	21%
Less than once a week	7%
Don't Know	1%
Refused	0%

PHILOSOPHY REGARDING ACCESS TO THE INTERNET

The following questions are about high-speed Internet service, sometimes referred to as broadband.

8a. How important is it for YOU to have access to high-speed Internet services?

	Ferry N=300
Very Important	44%
Important	13%
Somewhat Important	17%
Not at all Important	24%
Don't Know	2%
Refused	0.3%

8b. Why is high-speed Internet access important to you?

Reason why High-speed Internet is Important	N=168
Saves Time/Faster	89
Needed for Work	28
Better Downloading Capabilities	14
Access Information/ Research	12
Educational Use	4

8b1. How important is the speed of your Internet connection to you?

	Ferry N=300
Very Important	48%
Important	20%
Somewhat Important	11%
Not at all Important	18%
Don't Know	2%
Refused	0.3%

8c. How important is it for all Washington households to have access to high-speed service these days?

	Ferry N=300
Very Important	41%
Important	24%
Somewhat Important	17%
Not at all Important	9%
Don't Know	9%
Refused	0%

8d. How important is it for you to have access to high-speed Internet in a wireless environment?

	Ferry N=240
Very Important	27%
Important	22%
Somewhat Important	20%
Not at all Important	22%
Don't Know	10%

8e. Why is high-speed wireless Internet access important to you?

	Ferry N=58
24/7 Access	50%
Stay in touch with the office	1%
Stay in touch by e-mail	2%
Access while at lunch	1%
Other	47%

TYPES OF INTERNET USE

9. I am going to read you a list of things you might use the Internet for. For each one, please tell me whether or not you use it, even if it isn't very important to you. Please also keep in mind that this could be on a computer that you have at home, work, school, or at some other place. Have you used the Internet to:

a. Visit the state of Washington's government website?

	Ferry N=240
Yes	53%
No	46%
Don't Know	1%
Refused	0%

b. Access local government services?

	Ferry N=240
Yes	55%
No	44%
Don't Know	1%
Refused	0%

c. Find local school information?

	Ferry N=240
Yes	27%
No	73%
Don't Know	0%
Refused	0%

d. Sell goods or services?

	Ferry N=240
Yes	20%
No	80%
Refused	0%

e. Perform language translation?

	Ferry N=240
Yes	9%
No	91%
Don't Know	0%
Refused	0%

f. Purchase goods and services?

	Ferry N=240
Yes	71%
No	29%
Refused	0%

g. Make telephone calls?

	Ferry N=240
Yes	8%
No	92%
Refused	0%

h. Find medical information?

	Ferry N=240
Yes	68%
No	32%
Don't Know	0%
Refused	0%

i. Keep in touch with family and friends?

	Ferry N=240
Yes	90%
No	10%
Refused	0%

j. Play video games?

	Ferry N=240
Yes	33%
No	67%
Don't Know	0.4%
Refused	0%

k. Watch television or other videos?

	Ferry N=240
Yes	16%
No	84%
Refused	0%

l. Share photos?

	Ferry N=240
Yes	68%
No	33%
Refused	0%

m. Bank online?

	Ferry N=240
Yes	50%
No	50%
Refused	0.4%

n. Get local news?

	Ferry N=240
Yes	59%
No	40%
Don't Know	0.4%
Refused	0%

o. Educate, like doing homework, taking a class?

	Ferry N=240
Yes	35%
No	65%
Refused	0%

p. Research retail prices and product information?

	Ferry N=240
Yes	80%
No	20%
Don't Know	0%
Refused	0%

q. Find state or federal social services and government assistance, such as social security and housing?

	Ferry N=240
Yes	38%
No	62%
Don't Know	0%
Refused	0%

r. Find legal information?

	Ferry N=240
Yes	39%
No	60%
Don't Know	0.4%
Refused	0%

s. Contribute to a website, blog or other online forum?

	Ferry N=240
Yes	20%
No	79%
Don't Know	1%
Refused	0%

t. In the last 30 days have you used the Internet for anything else?

	Ferry N=240
Yes	17%
No	83%
Don't Know	0%
Refused	0%

u. Other:

Top three responses were for travel including maps and hotel information, researching information, and work or business.

10. Question 10 was eliminated as being non-applicable prior to commencement of the Survey.

ON LINE CIVIC PARTICIPATION

11. In general, would you rather access government services:

	Ferry N=240
On Web/Via email	55%
In Person	13%
By Telephone	20%
By Letter	5%
Other	0.4%
Don't Know	7%
Refused	0%

12. Question 12 was eliminated as being non-applicable prior to commencement of the Survey.

13a. Why are email and the Internet less than “very effective” means of communicating with government representatives?”

Why it is not effective	N=78
E-mail can be ignored or deleted	25
Personal Contact is better	17
It is effective	12
Response time is slow	7
Don't use it to Communicate	7

BUSINESS AND ECONOMIC DEVELOPMENT ISSUES

14. Have you used the Internet to operate a business from your home?

	Ferry N=240
Yes	16%
No	83%
Don't Know	0.4%
Refused	0%

14a. How important has this ability been to the success of your home-based business?

	Ferry N=39
Very Important	69%
Important	8%
Somewhat Important	18%
Not at all Important	5%
Don't Know	0%

15. In the past year, have you tried to find information about local businesses on the Internet?

	Ferry N=240
Yes	58%
No	41%
Don't Know	1%
Refused	0%

15a. In the past year, have you purchased any goods or services from a local or state business online?

	Ferry N=141
Yes	58%
No	36%
Don't Know	6%
Refused	0%

16. How satisfied are you with the information about local businesses that you were able to find on the Internet?

	Ferry N=82
Very Satisfied	37%
Satisfied	29%
Dissatisfied	27%
Very Dissatisfied	5%
Don't Know	2%

17. What are all the reasons you can think of that you don't own or a computer? (Top 3 Responses)

First Response

	Ferry N=52
Don't Want One	42%
Cost/Too expensive	25%
Don't Know how to use it	14%

17a. How much would you be willing to pay for a computer?

	Ferry N=5
Mean	\$353
Mode	All unique responses.
Range	\$5-\$1000

18. What are all the reasons you can think of for not having access to the Internet at home? (Top 3 Responses)

First Response

	Ferry N=91
Don't Want It	17%
Cost/Too Expensive	24%
Don't Know How to Use it	17%

18a. How much would you be willing to pay per month for Internet service?

	Ferry N=14
Mean	\$20
Mode	\$10
Range	\$0-\$50

19. Do you have any thoughts about how to enhance broadband availability in your community?

Thoughts on enhancing broadband	N=91
Improve access in rural areas	50
Make it more affordable	12
Decrease the monopoly	5

20. Is there anything you would like to add about broadband services in your community that I did not ask?

Additional Things to Add	N=38
Enhance broadband in rural areas	22
Provide Faster Service	7
Make it Cheaper	3

DEMOGRAPHICS

Now I just have a few final questions to help us group your answers with others and confirm that we have reached a representative sample of local residents. All individual responses will remain confidential and this information will only be reported as part of a larger group.

21. How old are you?

	Ferry N=300
18-25	5%
26-35	9%
36-45	7%
46-65	54%
66 and older	23%
Refused	1%

22. How many people, including you, live in your house?

	Ferry N=300
1	17%
2	53%
3	13%
4	6%

5	6%
6	2%
7	2%
8	0.3%
9	0.3%
10	0%
23	0%
99	0%

23. Do you have children under the age of 18 in your home?

	Ferry N=300
Yes	21%
No	78%
Refused	0%

24. What is the last year of schooling you completed?

	Ferry N=300
Grade School or Some High School	7%
High School Graduate	28%
Some College, Technical or Vocational School or Two Year Degree	41%
Four Year College Graduate	16%
Post Graduate Work or Graduate Degree	8%
Refused	0%

25. Which of the following best describes your work life at this time?

	Ferry N=300
Employed full time	27%
Employed part time	12%
Self employed	7%
Student	1%
Homemaker	5%
Unemployed, but looking for work	2%
Unemployed but not looking for work	1%

Retired	40%
Disabled	5%
Refused	0%

26. Do you work from your home?

	Ferry N=146
Yes	22%
No	78%
Don't Know	0%
Refused	0%

26a. Are you a telecommuter or do you have a home based business?

	Ferry N=32
Telecommuter	19%
Home Based Business	63%
Other	19%

27. What is the primary language spoken at your home?

	Ferry N=300
English	99%
Spanish	0.3%
Other	0.3%
Refused	0.1%

28. What race or ethnicity do you consider yourself?

	Ferry N=300
African American	0.3%
Asian/Pacific Islander	0.3%
Caucasian	87%
Hispanic/Latino	0.3%
American Indian	9%
Other	2%
Refused	1%

29. Do you have a disability, handicap or chronic disease that keeps you from participating fully in work, school, housework or other activities?

	Ferry N=29
Yes	72%
No	24%
Don't Know	3%

29a. If you have a disability, does it affect their ability to use the Internet?

	Ferry N=21
Yes	48%
No	52%
Don't Know	0%

30. And which of the following broad categories best describes your total annual household income, before taxes?

	Ferry N=300
Under 25,000	19%
25,000-35,000	16%
35,000-50,000	22%
50,000-75,000	12%
75,000-100,000	9%
100,000 or more	5%
Refused/Don't know	18%

Gender:

	Ferry N=300
Male	40%
Female	60%

**UTC BROADBAND
RESIDENTIAL COMMUNITY SURVEY
GRAYS HARBOR RESPONDENTS
(N=300)**

INTRODUCTION: Hello, this is _____. I'm calling on behalf of the State of Washington Utilities and Transportation Commission. The State is seeking a better understanding of the broadband needs of Washington residents and what role it might play in meeting these needs. As part of this process, we are gathering information from residents about their Internet use. Would you be willing to spend ten minutes answering questions on this topic to help the State of Washington better understand your needs? Your responses will remain anonymous and will only be reported as part of a larger group. Some calls may be monitored for quality assurance.

QUALIFIER

1. First, may I verify that your household is located in a community the State is studying? In what County do you live? (N=300 / 100%)

Grays Harbor 100%

2. City of Residence – Unique responses are available in the database that accompanies this Report.

ACCESS TO COMPUTERS AND THE INTERNET

First, I would like to understand the amount of access you have to computers and the Internet. I'm going to name technologies that you might have at home and how you use that technology. For each service that I name, please say yes or no.

3. Do you or someone in your household own a computer?

	Grays Harbor N=300
Yes	75%
No	25%

- a. If yes, how many?

	Grays Harbor N=226
1	61%
2	24%
3	13%
4	1%
5	.4%
6	.4 %
7	0%

b. Is that computer a laptop OR Is one of your computers a laptop?

	Grays Harbor N=226
Yes	38%
No	62%

4. Do you have Internet access at home?

	Grays Harbor N=300
Yes	71%
No	28%
Don't Know	1%

4a. Who uses the computer(s) and Internet at your house? (Top 3 Responses)

First Response:

	Grays Harbor N=214
I do	85%
Spouse/Partner	12%
Children	2%

4b. What type of connection do you use at home to access the Internet? (Top 4 Responses)

First Response:

	Grays Harbor N=214
Cable Modem	46%
DSL (Digital Subscriber Line)	24%
Dial-up	15%
Satellite Internet Service	5%

How much do you pay for that service?

	Grays Harbor N=120
Range	\$0-\$160
Mode	\$45
Mean	\$41
Standard Deviation	\$18

For those that have Dial-up: Do you have a second phone line specifically for the Internet?

	Ferry N=103
Yes	27%
No	73%

4b.1. What company or entity provides that service?

Internet Provider	N=214
Comcast	105
Qwest	24
CenturyTel	22
Reach One Internet	12
Coast Communications	10

4b.2. If you know it, please tell us your speed of connection

Speed of Internet	Respondents
Less than 1 M	23%
1.1-5 M	12%
Greater than 5 M	65%

4b.3. How much time do you spend on the Internet at home?

In Minutes	Grays Harbor N=210
Range	0-600
Mean	142
Mode	60
Standard Deviation	181

4b.4. Why have you not adopted a faster Internet connection? (Top 3 Responses)

First Response:

	Grays Harbor N=43
Not available in my area	35%
I don't need it	31%
It costs too much	12%

5. I am going to read characteristics about your Internet service. As I read each one, please indicate whether you are “very satisfied” “satisfied” “dissatisfied” or “very dissatisfied” with that aspect of your Internet service.

5a. Speed of the Internet Connection:

	Grays Harbor N=214
Very Satisfied	29%
Satisfied	52%
Dissatisfied	11%
Very Dissatisfied	6%
Don't Know/ Not Applicable	2%

5b. Cost of Internet Connection:

	Grays Harbor N=214
Very Satisfied	18%
Satisfied	51%
Dissatisfied	23%
Very Dissatisfied	4%
Don't Know/ Not Applicable	4%

5c. Billing practices of the Internet provider:

	Grays Harbor N=214
Very Satisfied	26%
Satisfied	63%
Dissatisfied	5%
Very Dissatisfied	1%
Don't Know/ Not Applicable	5%

5d. Reliable access to the Internet:

	Grays Harbor N=214
Very Satisfied	28%
Satisfied	56%
Dissatisfied	5%
Very Dissatisfied	1%
Don't Know/ Not Applicable	2%

5e. Ease of use:

	Grays Harbor N=214
Very Satisfied	36%
Satisfied	56%
Dissatisfied	4%
Very Dissatisfied	1%
Don't Know/ Not Applicable	2%

5f. Customer Service Representative's knowledge and courteousness when you call for service:

	Grays Harbor N=214
Very Satisfied	36%
Satisfied	42%
Dissatisfied	5%
Very Dissatisfied	1%
Don't Know/ Not Applicable	17%

5g. Technical Support, such as installation and repair, provided by your ISP:

	Grays Harbor N=214
Very Satisfied	33%
Satisfied	45%
Dissatisfied	3%
Very Dissatisfied	1%
Don't Know/ Not Applicable	17%

6. Do you use the Internet anywhere else other than home?

	Grays Harbor N=298
Yes	29%
No	71%
Don't Know	1%
Refused	0%

6a. Thinking of your Internet use at all these places other than home, work or school, about how many hours **in the last 30 days** would you say you have used the Internet in “other” locations?

Hours	Grays Harbor N=79
Range	0-168
Mode	0
Mean	23
Standard Deviation	40.9

7a. I am going to read you a short list of other places that you might use the Internet. For each one, please tell me if you use the Internet at that place.

7a-1. Do you use the Internet at work?

	Grays Harbor N=86
YES	71%
NO	29%

If they said yes: How much time do you spend on the Internet at Work? (N=57)

In Minutes	Grays Harbor N=57
Range	0-600
Mean	125
Mode	60
Standard Deviation	146

7a-1(a) Are you a computer professional?

	Grays Harbor N=61
YES	10%
NO	90%

7a-2. Do you use the Internet at school?

	Grays Harbor N=86
YES	12%
NO	88%

If yes, how much time do you spend on the Internet at School?

In Minutes	Grays Harbor N=8
Range	0-120
Mean	61
Mode	120
Standard Deviation	52

7a-3. Do you use the Internet at a Public Library?

	Grays Harbor N=86
YES	37%
NO	63%

7a-4. Do you use the Internet at a relative of friend's house?

	Grays Harbor N=86
YES	50%
NO	50%

7a-5. Do you use the Internet at a retail shop with Internet services?

	Grays Harbor N=86
YES	11%
NO	90%

7a-6. Is there any other location where you use the Internet outside of the home?

	Grays Harbor N=86
YES	27%
NO	73%

7b. How many e-mail accounts do you have?

	Grays Harbor N=207
Mean	5
Mode	1
Range	0-10

7c. Is that e-mail for work, school or personal use?

	Grays Harbor N=207
Work	25%
School	1%
Personal	75%

7d. How often do you use e-mail?

	Grays Harbor N=207
At least once a day	68%
Once a week/ Several times a week	21%
Less than once a week	9%
Don't Know	1%
Refused	1%

PHILOSOPHY REGARDING ACCESS TO THE INTERNET

The following questions are about high-speed Internet service, sometimes referred to as broadband.

8a. How important is it for YOU to have access to high-speed Internet services?

	Grays Harbor N=300
Very Important	37%
Important	16%
Somewhat Important	11%
Not at all Important	35%
Don't Know	1%
Refused	0.3%

8b. Why is high-speed Internet access important to you?

Reason why High-speed Internet is Important	N=156
Saves Time	78
Needed for Work	18
Communication with Others	9
Better Downloading/Transmitting Capabilities	9
Educational Use	5

8b1. How important is the speed of your Internet connection to you?

	Grays Harbor N=300
Very Important	40%
Important	19%
Somewhat Important	9%
Not at all Important	30%
Don't Know	2%
Refused	0.3%

8c. How important is it for all Washington households to have access to high-speed service these days?

	Grays Harbor N=300
Very Important	30%
Important	24%
Somewhat Important	19%
Not at all Important	18%
Don't Know	8%
Refused	1%

8d. How important is it for you to have access to high-speed Internet in a wireless environment?

	Grays Harbor N=223
Very Important	17%
Important	16%
Somewhat Important	16%
Not at all Important	45%
Don't Know	6%

8e. Why is high-speed wireless Internet access important to you?

	Grays Harbor N=44
24/7 Access	60%
Stay in touch with the office	4%
Stay in touch by e-mail	1%
Access while at lunch	0%
Other	34%

TYPES OF INTERNET USE

9. I am going to read you a list of things you might use the Internet for. For each one, please tell me whether or not you use it, even if it isn't very important to you. Please also keep in mind that this could be on a computer that you have at home, work, school, or at some other place. Have you used the Internet to:

a. Visit the state of Washington's government website?

	Grays Harbor N=223
Yes	56%
No	44%
Don't Know	0.4%
Refused	0%

b. Access local government services?

	Grays Harbor N=223
Yes	54%
No	46%
Don't Know	0%
Refused	0%

c. Find local school information?

	Grays Harbor N=223
Yes	31%
No	70%
Don't Know	0%
Refused	0%

d. Sell goods or services?

	Grays Harbor N=223
Yes	15%
No	85%
Refused	0%

e. Perform language translation?

	Grays Harbor N=223
Yes	11%
No	89%
Don't Know	0%
Refused	0%

f. Purchase goods and services?

	Grays Harbor N=223
Yes	72%
No	28%
Refused	0%

g. Make telephone calls?

	Grays Harbor N=223
Yes	12%
No	88%
Refused	0%

h. Find medical information?

	Grays Harbor N=223
Yes	68%
No	32%
Don't Know	0%
Refused	0%

i. Keep in touch with family and friends?

	Grays Harbor N=223
Yes	91%
No	9%
Refused	0%

j. Play video games?

	Grays Harbor N=223
Yes	39%
No	61%
Don't Know	0%
Refused	0%

k. Watch television or other videos?

	Grays Harbor N=223
Yes	30%
No	70%
Refused	0%

l. Share photos?

	Grays Harbor N=223
Yes	66%
No	34%
Refused	0%

m. Bank online?

	Grays Harbor N=223
Yes	58%
No	42%
Refused	0%

n. Get local news?

	Grays Harbor N=223
Yes	63%
No	37%
Don't Know	0%
Refused	0%

o. Educate, like doing homework, taking a class?

	Grays Harbor N=223
Yes	35%
No	65%
Refused	0%

p. Research retail prices and product information?

	Grays Harbor N=223
Yes	73%
No	27%
Don't Know	0.4%
Refused	0%

q. Find state or federal social services and government assistance, such as social security and housing?

	Grays Harbor N=223
Yes	37%
No	63%
Don't Know	0%
Refused	0%

r. Find legal information?

	Grays Harbor N=223
Yes	35%
No	64%
Don't Know	0.4%
Refused	0%

s. Contribute to a website, blog or other online forum?

	Grays Harbor N=223
Yes	22%
No	77%
Don't Know	1%
Refused	0%

t. In the last 30 days have you used the Internet for anything else?

	Grays Harbor N=223
Yes	16%
No	83%
Don't Know	2%
Refused	0%

u. Other:

Top three responses were researching information, financial purposes and downloading files.

10. Question 10 was eliminated as being non-applicable prior to commencement of the Survey.

ON LINE CIVIC PARTICIPATION

11. In general, would you rather access government services:

	Grays Harbor N=223
On Web/Via email	52%
In Person	16%
By Telephone	18%
By Letter	5%
Other	2%
Don't Know	6%
Refused	1%

12. Question 12 was eliminated as being non-applicable prior to commencement of the Survey.

13a. Why are email and the Internet less than “very effective” means of communicating with government representatives?”

Why it is not effective	N=71
E-mail can be ignored or deleted	31
Loss of Personal Contact	20
Speed is Slower	11
Don't need to communicate with the Government	10
Don't know how to use it	4

BUSINESS AND ECONOMIC DEVELOPMENT ISSUES

14. Have you used the Internet to operate a business from your home?

	Grays Harbor N=223
Yes	11%
No	89%
Don't Know	0%
Refused	0%

14a. How important has this ability been to the success of your home-based business?

	Grays Harbor N=24
Very Important	79%
Important	4%
Somewhat Important	17%
Not at all Important	0%
Don't Know	0%

15. In the past year, have you tried to find information about local businesses on the Internet?

	Grays Harbor N=223
Yes	61%
No	38%
Don't Know	0.4%
Refused	0%

15a. In the past year, have you purchased any goods or services from a local or state business online?

	Grays Harbor N=138
Yes	64%
No	35%
Don't Know	1%
Refused	0%

16. How satisfied are you with the information about LOCAL businesses that you were able to find on the Internet?

	Grays Harbor N=88
Very Satisfied	35%
Satisfied	26%
Dissatisfied	16%
Very Dissatisfied	2%
Don't Know	1%

17. What are all the reasons you can think of that you don't own or a computer? (Top 3 Responses)

First Response

	Grays Harbor N=74
Don't Want One	38%
Don't Know how to use it	30%
Cost/Too expensive	7%

17a. How much would you be willing to pay for a computer?

	Grays Harbor
Mean	\$153
Mode	All unique responses.
Range	\$5-\$300

18. What are all the reasons you can think of for not having access to the Internet at home? (Top 3 Responses)

First Response

	Grays Harbor N=86
Don't Want It	37%
Don't Know How to Use it	20%
Cost/Too Expensive	7%

a. How much would you be willing to pay per month for Internet service?

	Grays Harbor N=4
Mean	\$19
Mode	All unique.
Range	\$10-\$30

19. Do you have any thoughts about how to enhance broadband availability in your community?

Thoughts on enhancing broadband	N=60 (20%)
Make it more affordable	26
Improve access in rural areas	20
Decrease the monopoly	9

20. Is there anything you would like to add about broadband services in your community that I did not ask?

Additional Things to Add	N=20 (7%)
Make it cheaper	8
Expand Access	6
Decrease the Monopoly	3

DEMOGRAPHICS

Now I just have a few final questions to help us group your answers with others and confirm that we have reached a representative sample of local residents. All individual responses will remain confidential and this information will only be reported as part of a larger group.

21. How old are you?

	Grays Harbor N=300
18-25	3%
26-35	7%
36-45	12%
46-65	43%
66 and older	32%
Refused	3%

22. How many people, including you, live in your house?

	Grays Harbor N=300
1	20%
2	46%
3	14%
4	10%
5	5%
6	3%
7	1%
8	0%
9	0%
10	0.3%
23	0%
99	1%

23. Do you have children under the age of 18 in your home?

	Grays Harbor N=300
Yes	23%
No	75%
Refused	2%

24. What is the last year of schooling you completed?

	Grays Harbor N=300
Grade School or Some High School	6%
High School Graduate	24%
Some College, Technical or Vocational School or Two Year Degree	43%
Four Year College Graduate	15%
Post Graduate Work or Graduate Degree	10%
Refused	2%

25. Which of the following best describes your work life at this time?

	Grays Harbor N=300
Employed full time	31%
Employed part time	10%
Self employed	7%
Student	1%
Homemaker	3%
Unemployed, but looking for work	1%
Unemployed but not looking for work	1%
Retired	40%
Disabled	5%
Refused	2%

26. Do you work from your home?

	Grays Harbor N=149
Yes	19%
No	81%
Don't Know	0%
Refused	0.4%

26a. Are you a telecommuter or do you have a home based business?

	Grays Harbor N=28
Telecommuter	11%
Home Based Business	57%
Other	32%

27. What is the primary language spoken at your home?

	Grays Harbor N=300
English	98%
Spanish	0.3%
Other	0.3%
Refused	1%

28. What race or ethnicity do you consider yourself?

	Grays Harbor N=300
African American	0%
Asian/Pacific Islander	1%
Caucasian	92%
Hispanic/Latino	1%
American Indian	0.3%
Other	4%
Refused	2%

29. Do you have a disability, handicap or chronic disease that keeps you from participating fully in work, school, housework or other activities?

	Grays Harbor N=23
Yes	65%
No	35%
Don't Know	0%

29a. Does your disability impact your ability to use or your need for the Internet?

	Grays Harbor N=15
Yes	40%
No	53%
Don't Know	7%

30. And which of the following broad categories best describes your total annual household income, before taxes?

	Grays Harbor N=300
Under 25,000	16%
25,000-35,000	11%
35,000-50,000	18%
50,000-75,000	14%
75,000-100,000	10%
100,000 or more	9%
Refused/Don't know	23%

Gender:

	Grays Harbor N=300
Male	37%
Female	63%

**UTC BROADBAND
RESIDENTIAL COMMUNITY SURVEY
LEWIS COUNTY RESPONDENTS
(N=300)**

INTRODUCTION: Hello, this is _____. I'm calling on behalf of the State of Washington Utilities and Transportation Commission. The State is seeking a better understanding of the broadband needs of Washington residents and what role it might play in meeting these needs. As part of this process, we are gathering information from residents about their Internet use. Would you be willing to spend ten minutes answering questions on this topic to help the State of Washington better understand your needs? Your responses will remain anonymous and will only be reported as part of a larger group. Some calls may be monitored for quality assurance.

QUALIFIER

1. First, may I verify that your household is located in a community the State is studying? In what County do you live? (N=300 / 100%)

Lewis 100%

2. City of Residence – Unique responses are available in the database that accompanies this Report.

ACCESS TO COMPUTERS AND THE INTERNET

First, I would like to understand the amount of access you have to computers and the Internet. I'm going to name technologies that you might have at home and how you use that technology. For each service that I name, please say yes or no.

3. Do you or someone in your household own a computer?

	Lewis N=300
Yes	80%
No	20%

- a. If yes, how many?

	Lewis N=239
1	66%
2	23%
3	6%
4	2%
5	1%
6	.4%
7	.4%

b. Is that computer a laptop OR Is one of your computers a laptop?

	Lewis N=239
Yes	36%
No	64%

4. Do you have Internet access at home?

	Lewis N=300
Yes	72%
No	27%
Don't Know	1%

4a. Who uses the computer(s) and Internet at your house? (Top 3 Responses)

First Response:

	Lewis N=216
I do	90%
Spouse/Partner	8%
Children	2%

4b. What type of connection do you use at home to access the Internet? (Top 4 Responses)

First Response:

	Lewis N=216
Dial-up	35%
DSL (Digital Subscriber Line)	38%
Cable Modem	12%
Satellite Internet Service	4%

How much do you pay for that service?

	Lewis N=87
Range	\$0-\$125
Mode	\$40
Mean	\$39
Standard Deviation	\$17

For those that have Dial-up: Do you have a second phone line specifically for the Internet?

	Lewis N=71
Yes	16%
No	85%

4b.1. What company or entity provides that service?

Internet Provider	N=216
Qwest	41
Comcast	36
CenturyTel	26
TDS	16
People PC	9

4b.2. If you know it, please tell us your speed of connection

Speed of Internet	Respondents
Less than 1 M	67%
1.1-5 M	14%
Greater than 5 M	19%

4b.3. How much time do you spend on the Internet at home?

In Minutes	Lewis N=211
Range	0-840
Mean	131
Mode	60
Standard Deviation	140

4b.4. Why have you not adopted a faster Internet connection? (Top 3 Responses)

First Response:

	Lewis N=85
Not available in my area	47%
It costs too much	20%
I don't need it	19%

5. I am going to read characteristics about your Internet service. As I read each one, please indicate whether you are “very satisfied” “satisfied” “dissatisfied” or “very dissatisfied” with that aspect of your Internet service.

5a. Speed of the Internet Connection:

	Lewis N=216
Very Satisfied	20%
Satisfied	47%
Dissatisfied	21%
Very Dissatisfied	10%
Don't Know/ Not Applicable	1%

5b. Cost of Internet Connection:

	Lewis N=216
Very Satisfied	21%
Satisfied	59%
Dissatisfied	13%
Very Dissatisfied	2%
Don't Know/ Not Applicable	5%

5c. Billing practices of the Internet provider:

	Lewis N=216
Very Satisfied	22%
Satisfied	69%
Dissatisfied	5%
Very Dissatisfied	0%
Don't Know/ Not Applicable	4%

5d. Reliable access to the Internet:

	Lewis N=216
Very Satisfied	27%
Satisfied	63%
Dissatisfied	6%
Very Dissatisfied	4%
Don't Know/ Not Applicable	1%

5e. Ease of use:

	Lewis N=216
Very Satisfied	25%
Satisfied	70%
Dissatisfied	2%
Very Dissatisfied	2%
Don't Know/ Not Applicable	2%

5f. Customer Service Representative's knowledge and courteousness when you call for service:

	Lewis N=216
Very Satisfied	25%
Satisfied	45%
Dissatisfied	7%
Very Dissatisfied	2%
Don't Know/ Not Applicable	21%

5g. Technical Support, such as installation and repair, provided by your ISP:

	Lewis N=216
Very Satisfied	20%
Satisfied	48%
Dissatisfied	8%
Very Dissatisfied	3%
Don't Know/ Not Applicable	20%

6. Do you use the Internet anywhere else other than home?

	Lewis N=298
Yes	28%
No	71%
Don't Know	0%
Refused	1%

6a. Thinking of your Internet use at all these places other than home, work or school, about how many hours **in the last 30 days** would you say you have used the Internet in “other” locations?

Hours	Lewis N=84
Range	0-120
Mode	1
Mean	20
Standard Deviation	35.2

7a. I am going to read you a short list of other places that you might use the Internet. For each one, please tell me if you use the Internet at that place.

7a-1. Do you use the Internet at work?

	Lewis N=84
YES	77%
NO	23%

If they said yes:

How much time do you spend on the Internet...AT WORK? (N=62)

In Minutes	Lewis N=62
Range	0-480
Mean	147
Mode	60
Standard Deviation	268

7a-1(a) Are you a computer professional?

	Lewis N=65
YES	9%
NO	91%

7a-2. Do you use the Internet at school?

	Lewis N=84
YES	18%
NO	82%

If yes, how much time do you spend on the Internet at School?

In Minutes	Lewis N=11
Range	15-180
Mean	73
Mode	60
Standard Deviation	82

7a-3. Do you use the Internet at a Public Library?

	Lewis N=84
YES	26%
NO	74%

7a-4. Do you use the Internet at a relative of friend's house?

	Lewis N=84
YES	38%
NO	62%

7a-5. Do you use the Internet at a retail shop with Internet services?

	Lewis N=84
YES	18%
NO	82%

7a-6. Is there any other location where you use the Internet outside of the home?

	Lewis N=84
YES	19%
NO	81%

7b. How many e-mail accounts do you have?

	Lewis N=209
Mean	4
Mode	1
Range	0-30

7c. Is that e-mail for work, school or personal use?

	Lewis N=209
Work	26%
School	1%
Personal	73%

7d. How often do you use e-mail?

	Lewis N=209
At least once a day	73%
Once a week/ Several times a week	19%
Less than once a week	7%
Don't Know	1%
Refused	0%

PHILOSOPHY REGARDING ACCESS TO THE INTERNET

The following questions are about high-speed Internet service, sometimes referred to as broadband.

8a. How important is it for YOU to have access to high-speed Internet services?

	Lewis N=300
Very Important	38%
Important	11%
Somewhat Important	13%
Not at all Important	34%
Don't Know	3%
Refused	1%

8b. Why is high-speed Internet access important to you?

Reason why High-speed Internet is Important	N=144
Saves Time	80
Needed for Work	18
Better Downloading Capabilities	13
Better Communication	7
Better Access to Information	5

8b1. How important is the speed of your Internet connection to you?

	Lewis N=300
Very Important	39%
Important	16%
Somewhat Important	11%
Not at all Important	30%
Don't Know	4%
Refused	1%

8c. How important is it for all Washington households to have access to high-speed service these days?

	Lewis N=300
Very Important	26%
Important	22%
Somewhat Important	19%
Not at all Important	20%
Don't Know	12%
Refused	1%

8d. How important is it for you to have access to high-speed Internet in a wireless environment?

	Lewis N=222
Very Important	19%
Important	15%
Somewhat Important	19%
Not at all Important	40%
Don't Know	7%

8e. Why is high-speed wireless Internet access important to you?

	Lewis N=46
24/7 Access	61%
Stay in touch with the office	5%
Stay in touch by e-mail	7%

Access while at lunch	0%
Other	28%

TYPES OF INTERNET USE

9. I am going to read you a list of things you might use the Internet for. For each one, please tell me whether or not you use it, even if it isn't very important to you. Please also keep in mind that this could be on a computer that you have at home, work, school, or at some other place. Have you used the Internet to:

a. Visit the state of Washington's government website?

	Lewis N=222
Yes	56%
No	44%
Don't Know	0%
Refused	0%

b. Access local government services?

	Lewis N=222
Yes	60%
No	40%
Don't Know	0%
Refused	0%

c. Find local school information?

	Lewis N=222
Yes	30%
No	70%
Don't Know	0%
Refused	0%

d. Sell goods or services?

	Lewis N=222
Yes	20%
No	80%
Refused	0%

e. Perform language translation?

	Lewis N=222
Yes	13%
No	87%
Don't Know	0%
Refused	0%

f. Purchase goods and services?

	Lewis N=222
Yes	71%
No	29%
Refused	0%

g. Make telephone calls?

	Lewis N=222
Yes	6%
No	94%
Refused	0%

h. Find medical information?

	Lewis N=222
Yes	67%
No	33%
Don't Know	1%
Refused	0%

i. Keep in touch with family and friends?

	Lewis N=222
Yes	87%
No	13%
Refused	0%

j. Play video games?

	Lewis N=222
Yes	35%
No	65%
Don't Know	0%
Refused	0%

k. Watch television or other videos?

	Lewis N=222
Yes	26%
No	74%
Refused	0%

l. Share photos?

	Lewis N=222
Yes	69%
No	32%
Refused	0%

m. Bank online?

	Lewis N=222
Yes	53%
No	47%
Refused	0%

n. Get local news?

	Lewis N=222
Yes	56%
No	44%
Don't Know	0%
Refused	0%

o. Educate, like doing homework, taking a class?

	Lewis N=222
Yes	33%
No	67%
Refused	0%

p. Research retail prices and product information?

	Lewis N=222
Yes	76%
No	23%
Don't Know	1%
Refused	0%

q. Find state or federal social services and government assistance, such as social security and housing?

	Lewis N=222
Yes	39%
No	60%
Don't Know	1%
Refused	0%

r. Find legal information?

	Lewis N=222
Yes	37%
No	63%
Don't Know	0%
Refused	0%

s. Contribute to a website, blog or other online forum?

	Lewis N=222
Yes	27%
No	72%
Don't Know	1%
Refused	0%

t. In the last 30 days have you used the Internet for anything else?

	Lewis N=222
Yes	15%
No	83%
Don't Know	2%
Refused	0%

u. Other:

Top three responses were for travel including maps and hotel information, researching information, and work or business.

10. Question 10 was eliminated as being non-applicable prior to commencement of the Survey.

ON LINE CIVIC PARTICIPATION

11. In general, would you rather access government services:

	Lewis N=222
On Web/Via email	44%
In Person	15%
By Telephone	23%
By Letter	9%
Other	1%
Don't Know	8%
Refused	1%

12. Question 12 was eliminated as being non-applicable prior to commencement of the Survey.

13a. Why are email and the Internet less than “very effective” means of communicating with government representatives?”

Why it is not effective	N=91
E-mail can be ignored or deleted	34
Loss of Personal Contact	20
Speed is slower	11
Don't Communicate with the Government	10
Don't know how to use it	4

BUSINESS AND ECONOMIC DEVELOPMENT ISSUES

14. Have you used the Internet to operate a business from your home?

	Lewis N=222
Yes	19%
No	81%
Don't Know	0%
Refused	0%

14a. How important has this ability been to the success of your home-based business?

	Lewis N=42
Very Important	74%
Important	12%
Somewhat Important	12%
Not at all Important	2%
Don't Know	0%

15. In the past year, have you tried to find information about local businesses on the Internet?

	Lewis N=222
Yes	57%
No	43%
Don't Know	1%
Refused	0%

15a. In the past year, have you purchased any goods or services from a local or state business online?

	Lewis N=127
Yes	57%
No	40%
Don't Know	3%
Refused	0%

16. How satisfied are you with the information about LOCAL businesses that you were able to find on the Internet?

	Lewis N=72
Very Satisfied	39%
Satisfied	29%
Dissatisfied	11%
Very Dissatisfied	1%
Don't Know	0%

17. What are all the reasons you can think of that you don't own or a computer? (Top 3 Responses)

First Response

	Lewis N=61
Don't Want One	72%
Cost/Too expensive	10%
Don't Know how to use it	7%

a. How much would you be willing to pay for a computer?

	Lewis N=3
Mean	\$200
Mode	\$300
Range	\$0-\$300

18. What are all the reasons you can think of for not having access to the Internet at home? (Top 3 Responses)

First Response

	Lewis N=84
Don't Want It	50%
Cost/Too Expensive	13%
Don't Know How to Use it	11%

a. How much would you be willing to pay per month for Internet service?

	Lewis N=8
Mean	\$9
Mode	\$10
Range	\$0-\$25

19. Do you have any thoughts about how to enhance broadband availability in your community?

Thoughts on enhancing broadband	N=40 (13%)
Improve access in rural areas	18
Make it more affordable	10
Don't know, but do something	6

20. Is there anything you would like to add about broadband services in your community that I did not ask?

Additional Things to Add	N=26 (9%)
Enhance broadband in rural areas	9
Make computers and the Internet cheaper	5
Faster	3
Decrease Monopoly	3

DEMOGRAPHICS

Now I just have a few final questions to help us group your answers with others and confirm that we have reached a representative sample of local residents. All individual responses will remain confidential and this information will only be reported as part of a larger group.

21. How old are you?

	Lewis N=300
18-25	4%
26-35	9%
36-45	8%
46-65	43%
66 and older	35%
Refused	1%

22. How many people, including you, live in your house?

	Lewis N=300
1	24%
2	48%
3	11%
4	8%
5	4%
6	2%
7	1%
8	1%
9	0%
10	0.3%

23	0%
99	1%

23. Do you have children under the age of 18 in your home?

	Lewis N=300
Yes	21%
No	79%
Refused	0.3%

24. What is the last year of schooling you completed?

	Lewis N=300
Grade School or Some High School	7%
High School Graduate	27%
Some College, Technical or Vocational School or Two Year Degree	41%
Four Year College Graduate	15%
Post Graduate Work or Graduate Degree	8%
Refused	2%

25. Which of the following best describes your work life at this time?

	Lewis N=300
Employed full time	30%
Employed part time	7%
Self employed	6%
Student	1%
Homemaker	9%
Unemployed, but looking for work	2%
Unemployed but not looking for work	1%
Retired	41%
Disabled	3%
Refused	1%

26. Do you work from your home?

	Lewis N=135
Yes	22%
No	78%
Don't Know	0%
Refused	0%

26a. Are you a telecommuter or do you have a home based business?

	Lewis N=30
Telecommuter	17%
Home Based Business	70%
Other	13%

27. What is the primary language spoken at your home?

	Lewis N=300
English	99%
Spanish	0.3%
Other	0%
Refused	0.3%

28. What race or ethnicity do you consider yourself?

	Lewis N=300
African American	0%
Asian/Pacific Islander	0.3%
Caucasian	92%
Hispanic/Latino	1%
American Indian	2%
Other	2%
Refused	2%

29. Do you have a disability, handicap or chronic disease that keeps you from participating fully in work, school, housework or other activities?

	Lewis N=17
Yes	71%
No	29%
Don't Know	0%

29a. Does your disability impact your ability to use or your need for the Internet?

	Lewis N=12
Yes	50%
No	50%
Don't Know	0%

30. And which of the following broad categories best describes your total annual household income, before taxes?

	Lewis N=300
Under 25,000	14%
25,000-35,000	13%
35,000-50,000	14%
50,000-75,000	19%
75,000-100,000	8%
100,000 or more	9%
Refused/Don't know	23%

Gender:

	Lewis N=300
Male	38%
Female	62%

**UTC BROADBAND
RESIDENTIAL COMMUNITY SURVEY
STEVENS COUNTY RESPONDENTS
(N=300)**

INTRODUCTION: Hello, this is _____. I'm calling on behalf of the State of Washington Utilities and Transportation Commission. The State is seeking a better understanding of the broadband needs of Washington residents and what role it might play in meeting these needs. As part of this process, we are gathering information from residents about their Internet use. Would you be willing to spend ten minutes answering questions on this topic to help the State of Washington better understand your needs? Your responses will remain anonymous and will only be reported as part of a larger group. Some calls may be monitored for quality assurance.

QUALIFIER

1. First, may I verify that your household is located in a community the State is studying? In what County do you live? (N=300 / 100%)

Stevens 100%

2. City of Residence – Unique responses are available in the database that accompanies this Report.

ACCESS TO COMPUTERS AND THE INTERNET

First, I would like to understand the amount of access you have to computers and the Internet. I'm going to name technologies that you might have at home and how you use that technology. For each service that I name, please say yes or no.

3. Do you or someone in your household own a computer?

	Stevens N=300
Yes	84%
No	16%

- a. If yes, how many?

	Stevens N=252
1	51%
2	32%
3	10%
4	5%
5	1%
6	.4%
7	.4%

b. Is that computer a laptop OR Is one of your computers a laptop?

	Stevens N=252
Yes	45%
No	55%

4. Do you have Internet access at home?

	Stevens N=300
Yes	76%
No	23%
Don't Know	.3%

4a. Who uses the computer(s) and Internet at your house? (Top 3 Responses)

First Response:

	Stevens N=229
I do	83%
Spouse/Partner	13%
Children	3%

4b. What type of connection do you use at home to access the Internet? (Top 4 Responses)

First Response:

	Stevens N=229
Dial-up	44%
DSL (Digital Subscriber Line)	25%
Satellite Internet Service	13%
Cable Modem	7%

How much do you pay for that service?

	Stevens N=82
Range	\$0-\$170
Mode	\$50
Mean	\$45
Standard Deviation	\$23

For those that have Dial-up: Do you have a second phone line specifically for the Internet?

	Stevens N=94
Yes	14%
No	86%

4b.1. What company or entity provides that service?

Internet Provider	N=229
CenturyTel	42
Qwest	28
Internet Express	25
WildBlue	21
Comcast	15

4b.2. If you know it, please tell us your speed of connection

Speed of Internet	Respondents
Less than 1 M	59%
1.1-5 M	23%
Greater than 5 M	18%

4b.3. How much time do you spend on the Internet at home?

In Minutes	Stevens N=221
Range	5-840
Mean	145
Mode	60
Standard Deviation	169

4b.4. Why have you not adopted a faster Internet connection? (Top 3 Responses)

First Response:

	Stevens N=130
Not available in my area	48%
It costs too much	24%
I don't need it	15%

5. I am going to read characteristics about your Internet service. As I read each one, please indicate whether you are “very satisfied” “satisfied” “dissatisfied” or “very dissatisfied” with that aspect of your Internet service.

5a. Speed of the Internet Connection:

	Stevens N=229
Very Satisfied	14%
Satisfied	40%
Dissatisfied	25%
Very Dissatisfied	18%
Don't Know/ Not Applicable	3%

5b. Cost of Internet Connection:

	Stevens N=229
Very Satisfied	16%
Satisfied	60%
Dissatisfied	16%
Very Dissatisfied	4%
Don't Know/ Not Applicable	4%

5c. Billing practices of the Internet provider:

	Stevens N=229
Very Satisfied	21%
Satisfied	69%
Dissatisfied	4%
Very Dissatisfied	2%
Don't Know/ Not Applicable	5%

5d. Reliable access to the Internet:

	Stevens N=229
Very Satisfied	30%
Satisfied	58%
Dissatisfied	7%
Very Dissatisfied	4%
Don't Know/ Not Applicable	1%

5e. Ease of use:

	Stevens N=229
Very Satisfied	27%
Satisfied	62%
Dissatisfied	5%
Very Dissatisfied	4%
Don't Know/ Not Applicable	2%

5f. Customer Service Representative's knowledge and courteousness when you call for service:

	Stevens N=229
Very Satisfied	26%
Satisfied	50%
Dissatisfied	5%
Very Dissatisfied	3%
Don't Know/ Not Applicable	15%

5g. Technical Support, such as installation and repair, provided by your ISP:

	Stevens N=229
Very Satisfied	21%
Satisfied	50%
Dissatisfied	7%
Very Dissatisfied	4%
Don't Know/ Not Applicable	18%

6. Do you use the Internet anywhere else other than home?

	Stevens N=299
Yes	37%
No	62%
Don't Know	0.3%
Refused	0%

6a. Thinking of your Internet use at all these places other than home, work or school, about how many hours **in the last 30 days** would you say you have used the Internet in “other” locations?

	Stevens N=103
Range	0-120
Mode	0
Mean	16
Standard Deviation	27.5

7a. I am going to read you a short list of other places that you might use the Internet. For each one, please tell me if you use the Internet at that place.

7a-1. Do you use the Internet at work?

	Stevens N=109
YES	76%
NO	24%

If they said yes: How much time do you spend on the Internet at WORK?

In Minutes	Stevens N=75
Range	0-480
Mean	121
Mode	60
Standard Deviation	140

7a-1(a) Are you a computer professional?

	Stevens N=83
YES	8%
NO	92%

7a-2. Do you use the Internet at school?

	Stevens N=109
YES	20%
NO	80%

If yes: How much time do you spend on the Internet at School?

In Minutes	Stevens N=21
Range	15-180
Mean	95
Mode	60
Standard Deviation	89

7a-3. Do you use the Internet at a Public Library?

	Stevens N=109
YES	25%
NO	75%

7a-4. Do you use the Internet at a relative of friend's house?

	Stevens N=109
YES	40%
NO	60%

7a-5. Do you use the Internet at a retail shop with Internet services?

	Stevens N=109
YES	9%
NO	91%

7a-6. Is there any other location where you use the Internet outside of the home?

	Stevens N=109
YES	27%
NO	73%

7b. How many e-mail accounts do you have?

	Stevens N=229
Mean	2
Mode	1
Range	0-30

7c. Is that e-mail for work, school or personal use?

	Stevens N=229
Work	30%
School	1%
Personal	69%

7d. How often do you use e-mail?

	Stevens N=229
At least once a day	74%
Once a week/ Several times a week	21%
Less than once a week	5%
Don't Know	1%
Refused	0%

PHILOSOPHY REGARDING ACCESS TO THE INTERNET

The following questions are about high-speed Internet service, sometimes referred to as broadband.

8a. How important is it for YOU to have access to high-speed Internet services?

	Stevens N=300
Very Important	38%
Important	21%
Somewhat Important	18%
Not at all Important	20%
Don't Know	3%
Refused	0%

8b. Why is high-speed Internet access important to you?

Reason why High-speed Internet is Important	N=149
Saves Time	69
Needed for Work	27
Better Downloading Capabilities	21
Educational Uses	9
Better Access to Information	6

8b1. How important is the speed of your Internet connection to you?

	Stevens N=300
Very Important	38%
Important	21%
Somewhat Important	18%
Not at all Important	20%
Don't Know	3%
Refused	0%

8c. How important is it for all Washington households to have access to high-speed service these days?

	Stevens N=300
Very Important	33%
Important	25%
Somewhat Important	18%
Not at all Important	13%
Don't Know	10%
Refused	1%

8d. How important is it for you to have access to high-speed Internet in a wireless environment?

	Stevens N=238
Very Important	25%
Important	22%
Somewhat Important	19%
Not at all Important	26%
Don't Know	8%

8e. Why is high-speed wireless Internet access important to you?

	Stevens N=58
24/7 Access	52%
Stay in touch with the office	6%
Stay in touch by e-mail	2%
Access while at lunch	5%
Other	35%

TYPES OF INTERNET USE

9. I am going to read you a list of things you might use the Internet for. For each one, please tell me whether or not you use it, even if it isn't very important to you. Please also keep in mind that this could be on a computer that you have at home, work, school, or at some other place. Have you used the Internet to:

a. Visit the state of Washington's government website?

	Stevens N=238
Yes	59%
No	40%
Don't Know	1%
Refused	0%

b. Access local government services?

	Stevens N=238
Yes	60%
No	40%
Don't Know	0%
Refused	0.4%

c. Find local school information?

	Stevens N=238
Yes	35%
No	65%
Don't Know	0.4%
Refused	0.4%

d. Sell goods or services?

	Stevens N=238
Yes	24%
No	75%
Refused	0.4%

e. Perform language translation?

	Stevens N=238
Yes	13%
No	87%
Don't Know	0.4%
Refused	0.4%

f. Purchase goods and services?

	Stevens N=238
Yes	74%
No	25%
Refused	0.4%

g. Make telephone calls?

	Stevens N=238
Yes	6%
No	94%
Refused	0.1%

h. Find medical information?

	Stevens N=238
Yes	69%
No	30%
Don't Know	0.4%
Refused	0.4%

i. Keep in touch with family and friends?

	Stevens N=238
Yes	96%
No	3%
Refused	0.4%

j. Play video games?

	Stevens N=238
Yes	34%
No	66%
Don't Know	0%
Refused	0.4%

k. Watch television or other videos?

	Stevens N=238
Yes	28%
No	72%
Refused	0.4%

l. Share photos?

	Stevens N=238
Yes	75%
No	25%
Refused	0.4%

m. Bank online?

	Stevens N=238
Yes	58%
No	42%
Refused	0.4%

n. Get local news?

	Stevens N=238
Yes	59%
No	41%
Don't Know	0%
Refused	0.4%

o. Educate, like doing homework, taking a class?

	Stevens N=238
Yes	40%
No	60%
Refused	0.1%

p. Research retail prices and product information?

	Stevens N=238
Yes	83%
No	16%
Don't Know	0%
Refused	0.4%

q. Find state or federal social services and government assistance, such as social security and housing?

	Stevens N=238
Yes	42%
No	57%
Don't Know	0.4%
Refused	0.1%

r. Find legal information?

	Stevens N=238
Yes	40%
No	58%
Don't Know	1%
Refused	0.4%

s. Contribute to a website, blog or other online forum?

	Stevens N=238
Yes	24%
No	76%
Don't Know	0.4%
Refused	0.4%

t. In the last 30 days have you used the Internet for anything else?

	Stevens N=238
Yes	16%
No	84%
Don't Know	0%
Refused	0.4%

u. Other:

Top three responses were for travel including maps and hotel information, researching information, and entertainment purposes.

10. Question 10 was eliminated as being non-applicable prior to commencement of the Survey.

ON LINE CIVIC PARTICIPATION

11. In general, would you rather access government services:

	Stevens N=238
On Web/Via email	47%
In Person	18%
By Telephone	23%
By Letter	6%
Other	2%
Don't Know	5%
Refused	0.4%

12. Question 12 was eliminated as being non-applicable prior to commencement of the Survey.

13a. Why are email and the Internet less than “very effective” means of communicating with government representatives?”

Why it is not effective	N=83
E-mail can be ignored or deleted	31
Loss of Personal Contact	22
Don't need to talk to government representative	10
Speed is slower	5
Don't know how to use it	5

BUSINESS AND ECONOMIC DEVELOPMENT ISSUES

14. Have you used the Internet to operate a business from your home?

	Stevens N=238
Yes	19%
No	81%
Don't Know	0.4%
Refused	0.4%

14a. How important has this ability been to the success of your home-based business?

	Stevens N=44
Very Important	61%
Important	25%
Somewhat Important	7%
Not at all Important	5%
Don't Know	3%

15. In the past year, have you tried to find information about local businesses on the Internet?

	Stevens N=238
Yes	60%
No	39%
Don't Know	1%
Refused	0.4%

15a. In the past year, have you purchased any goods or services from a local or state business online?

	Stevens N=146
Yes	54%
No	43%
Don't Know	2%
Refused	0.7%

16. How satisfied are you with the information about LOCAL businesses that you were able to find on the Internet?

	Stevens N=79
Very Satisfied	28%
Satisfied	51%
Dissatisfied	15%
Very Dissatisfied	5%
Don't Know	1%

17. What are all the reasons you can think of that you don't own or a computer? (Top 3 Responses)

First Response

	Stevens N=48
Don't Want One	40%
Cost/Too expensive	27%
Don't Know how to use it	15%

a. How much would you be willing to pay for a computer?

	Stevens N=9
Mean	\$133
Mode	\$0
Range	\$0-\$500

18. What are all the reasons you can think of for not having access to the Internet at home? (Top 3 Responses)

First Response

	Stevens N=71
Don't Want It	32%
Cost/Too Expensive	25%
Don't Know How to Use it	10%

a. How much would you be willing to pay per month for Internet service?

	Stevens N=13
Mean	\$33
Mode	\$20
Range	\$0-\$200

19. Do you have any thoughts about how to enhance broadband availability in your community?

Thoughts on enhancing broadband	N=68
Improve access in rural areas	36
Make it more affordable	17
Don't Know, but hope they do something	5

20. Is there anything you would like to add about broadband services in your community that I did not ask?

Additional Things to Add	N=24
Enhance broadband in rural areas	10
Make computers and the Internet cheaper	8
Really like to have it	4

DEMOGRAPHICS

Now I just have a few final questions to help us group your answers with others and confirm that we have reached a representative sample of local residents. All individual responses will remain confidential and this information will only be reported as part of a larger group.

21. How old are you?

	Stevens N=300
18-25	3%
26-35	6%
36-45	13%
46-65	48%
66 and older	29%
Refused	1%

22. How many people, including you, live in your house?

	Stevens N=300
1	14%
2	50%
3	13%
4	12%
5	5%
6	3%
7	1%
8	0.3%
9	0.3%
10	0%
23	0.3%
99	1%

23. Do you have children under the age of 18 in your home?

	Stevens N=300
Yes	26%
No	74%
Refused	0.3%

24. What is the last year of schooling you completed?

	Stevens N=300
Grade School or Some High School	8%
High School Graduate	26%
Some College, Technical or Vocational School or Two Year Degree	37%

Four Year College Graduate	14%
Post Graduate Work or Graduate Degree	14%
Refused	1%

25. Which of the following best describes your work life at this time?

	Stevens N=300
Employed Full time	30%
Employed part time	8%
Self employed	10%
Student	1%
Homemaker	6%
Unemployed, but looking for work	2%
Unemployed but not looking for work	1%
Retired	36%
Disabled	4%
Refused	1%

26. Do you work from your home?

	Stevens N=151
Yes	27%
No	74%
Don't Know	0%
Refused	0%

26a. Are you a telecommuter or do you have a home based business?

	Stevens N=40
Telecommuter	33%
Home Based Business	58%
Other	10%

27. What is the primary language spoken at your home?

	Stevens N=300
English	99%
Spanish	0.3%
Other	0%
Refused	0.3%

28. What race or ethnicity do you consider yourself?

	Stevens N=300
African American	0%
Asian/Pacific Islander	1%
Caucasian	93%
Hispanic/Latino	0.3%
American Indian	2%
Other	3%
Refused	2%

29. Do you have a disability, handicap or chronic disease that keeps you from participating fully in work, school, housework or other activities?

	Stevens N=22
Yes	82%
No	18%
Don't Know	0%

29a. Does your disability impact your ability to use or your need for the Internet?

	Stevens N=18
Yes	17%
No	83%
Don't Know	0%

30. And which of the following broad categories best describes your total annual household income, before taxes?

	Stevens N=300
Under 25,000	14%
25,000-35,000	14%
35,000-50,000	16%
50,000-75,000	16%
75,000-100,000	9%
100,000 or more	6%
Refused/Don't know	23%

Gender:

	Stevens N=300
Male	40%
Female	60%

Attachment 2
Business and Non-Profit Community
Survey Instrument Mark-up

Attachment 2

UTC Telephone Business Broadband Survey

Respondents (N=400)

The State of Washington Utilities and Transportation Commission (UTC) is conducting this survey to determine the broadband usage, needs and interests of local businesses. Broadband is typically defined as a service that enables high-speed Internet access and data communications as opposed to low speed services such as dial-up connections. The results of the survey will be used to help the State gain a better of understanding of broadband availability and how that availability lends itself to economic opportunity. Please take a few minutes to let us know **if and how you currently utilize broadband services** and what impact broadband has on your business. **Thank you for your assistance!**

1. Business and Department: See CBG spreadsheet for details on names of Business and Departments
2. Number of Employees at your location:
 - a. Range: 1 to 400 employees
 - b. Mean: 8 employees
 - c. Mode: One employee (N=98/25%)
3. Mailing Address, Phone Number, Fax Number and E-mail Address: See CBG spreadsheet for Information
4. Person responding to this survey: See CBG Spreadsheet for Names

Title: (Top 10 Responses)

Title	Grays Harbor N=100	Lewis N=100	Stevens N=100	Columbia N=50	Ferry N=50	Total N=400
Owner	44	40	37	15	20	156
General Manager	10	5	4	2	2	23
Office Manager	6	4	4	2	4	20
All	2	5	8	1	0	16
Secretary	1	1	8	1	0	11
Bookkeeper	0	3	3	2	1	9
Sales Associate	2	3	2	0	0	7
Accountant	1	1	4	0	0	6
Customer Service	0	1	3	1	1	6
Administration	3	1	0	0	1	5
Management	1	2	0	0	1	4

Gender:

Gender	Grays Harbor	Lewis	Stevens	Columbia	Ferry	Total
Male	47%	43%	42%	44%	34%	43%
Female	53%	57%	58%	56%	66%	57%

5. Business Web Site Address: See CBG spreadsheet for details. (N=76/19%)

6. List any satellite or field offices of your business: (N=37/9%) See CBG spreadsheet for details.

7. Briefly describe what your business does:

Type of Business	Grays Harbor N=100	Lewis N=100	Stevens N=100	Columbia N=50	Ferry N=50	Total N=400
Agriculture, forestry, fishing	6%	4%	15%	10%	10%	9%
Mining	0%	0%	1%	0%	0%	.3%
Utilities	2%	3%	3%	4%	6%	3%
Construction	5%	8%	2%	2%	8%	5%
Manufacturing	6%	4%	6%	2%	0%	4%
Wholesale Trade	0%	0%	1%	2%	2%	.5%
Retail Trade	16%	22%	14%	22%	14%	18%
Transportation and Warehousing	4%	9%	2%	2%	0%	4%
Information	1%	0%	2%	0%	0%	.75%
Finance and Insurance	5%	3%	3%	0%	2%	3%
Real Estate and Rental Leasing	5%	1%	7%	4%	6%	5%
Federal Government	0%	0%	0%	2%	0%	.3%
State Government	0%	0%	0%	4%	0%	.5%
Local Government	0%	0%	1%	0%	0%	.3%
Non-Profits, Non Governmental Organizations	2%	2%	2%	2%	4%	2%
Educational Non-Profits	8%	4%	7%	8%	4%	6%
Medical Services	11%	7%	8%	8%	14%	9%
Arts, Entertainment and Recreation	10%	12%	10%	6%	10%	10%
Professional, Scientific and Technical Services	12%	5%	6%	4%	12%	8%
Refused	2%	4%	4%	4%	4%	4%
Other	3%	9%	5%	6%	4%	6%

Type of Business	Grays Harbor N=100	Lewis N=100	Stevens N=100	Columbia N=50	Ferry N=50	Total N=400
Media and Marketing	2%	1%	1%	2%	0%	1%
Public Safety	0%	2%	0%	0%	0%	.5%
Libraries	0%	0%	0%	4%	0%	.5%

Data and Internet Service Providers

8. Do you have Internet service at your business? (N=400)

	Grays Harbor N=100	Lewis N=100	Stevens N=100	Columbia N=50	Ferry N=50	Total N=400
YES	87%	88%	89%	72%	86%	84%
NO	13%	20%	11%	28%	14%	16%

Please check all the reasons for not having Internet Service at your business: (N=65/16%)

First Response:

Reasons for not having Internet service:	Grays Harbor N=13	Lewis N=20	Stevens N=11	Columbia N=14	Ferry N=7	Total N=65
Service not available	8%	0%	9%	0%	14%	5%
Not comfortable with it	0%	0%	0%	14%	0%	3%
Do not need it	62%	55%	55%	79%	29%	58%
Don't know how to use it	0%	5%	0%	0%	0%	2%
Another company supports my Internet needs	8%	5%	0%	0%	0%	3%
Too expensive	8%	20%	18%	0%	43%	15%
Other	15%	15%	18%	7%	14%	14%

Other Responses: (N=9) Do not want the service, do not have a computer, have plans on obtaining an Internet connection in the future.

8b. Do you plan to establish Internet service? (N=65/16%)

	Grays Harbor N=13	Lewis N=20	Stevens N=11	Columbia N=14	Ferry N=7	Total N=65
YES	8%	15%	27%	14%	14%	15%
NO	92%	85%	73%	86%	86%	85%

When do you plan to establish that Internet Service? (N=9)

When	Grays Harbor N=1	Lewis N=3	Stevens N=3	Columbia N=2	Ferry N=1	Total (N=10)
In 1-6 Months	1	1	2	2	0	6
7 months to a year	0	0	1	0	0	1
Over a year	0	2	0	0	0	2
Sometime in the Future	0	0	0	0	1	1

9. Who currently provides your business's local data communications and Internet service and connections?

Who provides data services?	Grays Harbor N=87	Lewis N=80	Stevens N=89	Columbia N=36	Ferry N=43	Total N=335
Qwest	23	14	15	10	0	62
Comcast	31	8	0	0	0	39
Internet Xpress	0	0	22	0	0	22
CenturyTel	3	1	11	0	5	20
TV Association	0	0	0	0	18	18
Rainer Connect	1	11	0	0	0	12
Wild Blue Internet	0	2	6	0	0	8
Verizon	1	1	4	0	0	6
Other*	28	43	31	26	20	148

* A complete listing can be found in the spreadsheet with CBG

10. What type of Internet Connection do you have?

Internet Connection	Grays Harbor N=87	Lewis N=80	Stevens N=89	Columbia N=36	Ferry N=43	Total N=335
Dial-up	7%	24%	28%	19%	19%	19%
Satellite Broadband	0%	6%	18%	6%	7%	8%
Fiber to the Premises	0%	0%	0%	3%	0%	.3%
DSL	54%	49%	38%	36%	5%	40%
Fixed Wireless	0%	0%	9%	3%	5%	3%
Cable Modem	23%	8%	1%	11%	49%	16%
Frame Relay	1%	1%	0%	0%	0%	1%

T-1	1%	4%	3%	3%	5%	3%
BPL	5%	4%	2%	0%	5%	3%
Other*	9%	5%	0%	19%	7%	7%

* A complete listing can be found in the spreadsheet with CBG

11. Speed of Internet Connection (when provided)

Speed of Dial-up Connection	N=25
20 – 35 Kbps	6
36 – 50 Kbps	2
51 – 56 Kbps	17

Speed of Satellite Broadband Connection	N=5
0-250 Kbps	2
251 – 500 Kbps	2
Greater than 500 Kbps	1

Speed of DSL Connection	N=36
Less than 1 Mbps	8
1.1 – 5 Mbps	19
5.1 – 10 Mbps	9

Speed of Fixed Wireless Connection	N=6
Less than 1 Mbps	4
1 Mbps	2

Speed of Cable Modem Connection	N=11
Less than 1 Mbps	6
1.1 – 5 Mbps	0
5.1 – 10 Mbps	5

Speed of Frame Relay Connection	N=1
3 Mbps	1

Speed of T-1 Connection	N=4
Less than 1 Mbps	1
1 - 2 Mbps	3

Speed of Frame Relay Connection	N=1
512 Kbps	1

Other Internet Connections	N=7
Wireless Broadband	5
Broadband	2

12. What do you currently pay for this service?

Internet Connection	Range	Mean	Mode
Dial-up (N=65)	\$5.00 to \$60.00	\$17.46	\$20.00
Satellite Broadband (N=39)	\$39.99 to \$79.99	\$54.60	\$59.99
Fiber to the Premises (N=1)	No costs provided	---	---
DSL (N=138)	\$40 to \$95	\$48.75	\$50.00
Fixed Wireless (N=13)	\$25 to \$89	\$41.45	\$45.00
Cable Modem (N=53)	\$35.50 to \$95	\$63.35	\$50.00
Frame Relay (N=2)	Nothing	---	---
T-1 (N=12)	\$225 to \$317	\$295.50	All unique.
Other (N=13)	\$14.95 to \$100	\$47.45	\$40.00

13. What is the term of your service contract?

Dial-Up Service Contract	Grays Harbor N=1	Lewis N=12	Stevens N=18	Columbia N=4	Ferry N=9	Total N=44
Month to Month	1	6	12	2	5	26
Every 3 Months	0	2	0	0	0	2
Every 4 Months	0	1	0	1	1	3
1 year	0	3	6	1	2	12
2 years	0	0	0	0	1	1

Satellite Broadband Service Contract	Grays Harbor N=0	Lewis N=5	Stevens N=16	Columbia N=1	Ferry N=2	Total N=24
Month to Month	0	2	7	1	0	10
1 year	0	2	8	0	2	12
1.5 years	0	1	0	0	0	1
2 years	0	0	1	0	0	1

**No responses for service contract for Fiber to the Premises

DSL Service Contract	Grays Harbor N=25	Lewis N=27	Stevens N=27	Columbia N=9	Ferry N=0	Total N=88
Month to Month	10	17	15	8	0	50
1 year	6	10	7	1	0	24
2 years	8	0	5	0	0	13
Greater than 2 years	1	0	0	0	0	1

Fixed Wireless Service Contract	Grays Harbor N=1	Lewis N=0	Stevens N=8	Columbia N=1	Ferry N=1	Total N=11
Month to Month	1	0	5	0	0	6
1 year	0	0	3	1	1	5

Cable Modem Service Contract	Grays Harbor N=7	Lewis N=5	Stevens N=0	Columbia N=3	Ferry N=13	Total N=28
Month to Month	6	4	0	2	9	21
1 year	1	1	0	1	4	7

T-1 Service Contract	Grays Harbor N=1	Lewis N=1	Stevens N=1	Columbia N=1	Ferry N=2	Total N=6
1 year	1	0	1	1	1	4
Greater than 2 years	0	1	0	0	1	2

14. Please rate the following aspects of your services by checking the appropriate column.

Service Issue	Very Satisfied	Satisfied	Dissatisfied	Very Dissatisfied	Don't Know/Not Applicable
Cost of Internet/network service	16%	48%	10%	2%	9%
Speed of the online connection	25%	42%	10%	6%	2%
Billing practices of your provider.	25%	46%	3%	1%	10%
Reliable access to the Internet	30%	46%	6%	1%	1%
Ease of use	33%	47%	3%	1%	.3%
Training and Technical Support	22%	38%	4%	.3%	20%
Customer Service Representative's knowledge and courteousness when you call for service	34%	38%	2%	1%	9%
Installation technician's ability and courteousness	32%	34%	2%	1%	16%

15. In the last 30 days, indicate which applications your data communications/Internet Access connection has supported? First response.

Applications the Internet has supported	Grays Harbor N=79	Lewis N=72	Stevens N=83	Columbia N=31	Ferry N=42	Total N=307
E-mail	91%	90%	93%	86%	98%	92%
Video conferencing	0%	1%	0%	0%	0%	.3%
File Sharing	0%	0%	0%	0%	0%	0%
Internet Telephone	0%	0%	0%	0%	0%	0%
E-Business	1%	1%	1%	3%	0%	1%
Website Applications	1%	1%	0%	6%	0%	1%
Business to business functions	1%	1%	1%	0%	2%	1%
Online Education	1%	0%	0%	0%	0%	.3%
Banking	1%	1%	1%	0%	0%	1%
Monitoring Functions	0%	1%	0%	0%	0%	.3%
Research	2%	1%	2%	3%	0%	2%
Other	1%	1%	2%	3%	0%	2%

Other (N=4): Bill paying, sell fish/wildlife, shopping, stock brokering.

16. How important is a robust broadband connection to the day-to-day operations of your business?

Importance of Broadband to Business	Grays Harbor N=100	Lewis N=100	Stevens N=100	Columbia N=50	Ferry N=50	Total N=400
Very Important	56%	46%	63%	48%	60%	55%
Important	10%	13%	10%	16%	12%	12%
Somewhat Important	15%	11%	17%	10%	4%	13%
Not at All Important	19%	30%	10%	26%	24%	21%

17. Why is a broadband connection important to you at your location?

Reasons why Broadband is Important to Business	Grays Harbor N=73	Lewis N=68	Stevens N=74	Columbia N=35	Ferry N=32	Total N=282
It is crucial to running the business	23	22	14	11	12	82
Get more done because it is faster	10	20	28	7	4	69
Easier to communicate with others	14	8	9	7	5	43
Better access to Information	11	5	9	4	5	34
Used for Accounting/Finance purposes	4	4	4	3	2	17
Better ability to download	2	0	4	0	2	8
Convenient	1	1	2	0	1	5
Easier to have it	2	0	2	2	0	6
I work directly with the Internet	3	3	1	1	1	9
It's not	3	5	1	0	0	9

18. Would it be beneficial to you if the broadband environment in your area were enhanced?

	Total N=400
YES	67%
NO	33%

Reasons why it would be beneficial to enhance broadband.	Grays Harbor N=50	Lewis N=50	Stevens N=73	Columbia N=24	Ferry N=31	Total N=228
Faster service allows for more to get done	23	24	30	10	14	101
More cost effective	11	4	11	2	4	32
Allows for connectedness and Internet accessibility	1	7	11	8	4	31
More competition for Internet Providers	9	7	11	2	1	30
Customers would be able to access more information for better business	0	2	5	2	3	12
It would be more reliable	1	1	4	0	2	8
Better ability to download large files	1	3	1	0	2	7
It would be nice	1	1	0	0	1	3
Ease of use	1	1	0	0	0	2
I am satisfied with what I have	2	0	0	0	0	2

19. Do you have any thoughts about how the State or any other entity could help enhance broadband availability in the Washington County in which you reside?

Enhancing Broadband Availability	Grays Harbor N=20	Lewis N=21	Stevens N=37	Columbia N=11	Ferry N=16	Total N=105
Install cables/towers to provide rural access	3	6	17	6	12	44
Have the State stay out and let Private business handle it	4	8	5	1	0	18
Stop the monopoly on the Internet service providers	4	3	3	1	1	12
Make it more affordable	3	3	6	2	0	14
Do something about it	0	1	2	0	0	3
Have the Government help with regulating companies and prices	0	0	0	1	3	4
Satisfied with the way it is	3	0	0	0	0	3
Update the services more	0	0	2	0	0	2
Other	1	0	1	0	0	2
Security	2	0	1	0	0	3

20. When you sought broadband services for your business at your location, how would you describe the availability of multiple, competing broadband options:

Competition Scenarios	Grays Harbor N=81	Lewis N=70	Stevens N=90	Columbia N=37	Ferry N=38	Total N=316
Competitive, several options	14%	16%	3%	11%	3%	10%
Somewhat Competitive, a handful of options	24%	17%	12%	22%	11%	17%
Only slightly competitive, two providers	33%	23%	32%	22%	21%	28%
Not competitive at all, only one provider option	25%	31%	38%	24%	42%	32%
There is not a broadband option suitable	5%	13%	14%	22%	24%	14%

21. Do you have any other comments about broadband service availability in your County?

Additional Things to Add?	Grays Harbor N=11	Lewis N=13	Stevens N=15	Columbia N=4	Ferry N=9	Total N=52
Help the residential and rural areas get access	3	6	8	2	6	25
Provide more options for Internet providers	2	1	3	0	1	7
Its fine, I'm glad that I have it	2	0	1	0	0	3
Speed up the connection	2	4	0	1	0	7
Make it cheaper	0	1	1	1	2	5
Have the State stay out of it	2	0	2	0	0	4
Enhance Security	0	1	0	0	0	1

**UTC Online Business Broadband Survey Mark-Up
(N=101)**

The Washington Utilities and Transportation Commission (UTC) has retained CBG Communications, Inc. to conduct this survey to determine the broadband usage, needs and interests of local businesses. Broadband is typically defined as a service that enables high-speed Internet access and data communications as opposed to low speed services such as dial-up connections. The results of the survey will be used to help Washington State government gain a better understanding of broadband availability and how that availability lends itself to economic opportunity. Please take a few minutes to let us know **if and how you currently utilize broadband services** and what impact broadband has on your business. **The survey should be completed by ____, 2008. Thank you for your assistance!**

1. Business: See Separate CBG Spreadsheet
2. In what Washington County does your business reside? (N=99)

County	Response Percent	Response Count
Columbia	20%	20
Ferry	8%	8
Grays Harbor	34%	34
Lewis	4%	4
Stevens	33%	33

Department: _____ N=89 See Separate CBG Spreadsheet

Top 7 Responses

Number	Response	Response
1	Administration	18
2	Owner	18
3	N/A	9
4	Management	7
5	Self Employed	6
6	All Departments	5
7	Information Technology	4

2. Number of employees at your location:
 - a. Range: 1 to 200 employees
 - b. Mean: 1.5 employees
 - c. Mode: One employee (N=17/18%)

3. Mailing address: ; Phone number: ; Fax number: ; E-mail address: See Separate CBG Spreadsheet

4. Person responding to this survey: See CBG Spreadsheet for Names
 Title: (Top 5 Responses) (N=96)

Number	Response	Response
1	Owner	38
2	General Manager	15
3	President	11
4	Office Manager	8
5	Executive Director	4

5. Your business Web site address: See CBG spreadsheet for details. (N=81/80%)
6. List any satellite or field offices of your business: See CBG spreadsheet for details. (N=60/59%)
7. Briefly describe what your business does:

Number	Response Text
1	Gifts
2	Restaurant/Cafe
3	Cottage rental and event planning
4	Research, yoga
5	Ranch does logging and log hauling. Horse Owner Success Books - We market a self-published book (on how to tie rope halters for horses) on the Internet and also provide print ad graphic and design layout on a freelance basis.
6	transportation (Class 8) used equipment sales
7	Membership organization, economic development
8	Real Estate Office
9	Small grain farming
10	Optometrist Optical
11	Custom computer programming & analysis services
12	Consulting and Training
13	Private non-profit social service corporation
14	Community Action Agency-assist low income people
15	Full Service Marina and boat Rentals
16	Electrical contracting
17	teach guitar, piano and early childhood music
18	Medical Community Health Centers. Also have Home Health Field staff.
19	Fire District - Put out fires & EMS
20	Real Estate
21	Software consulting/development
22	Public Library service for the 40,000 residents of Stevens County
23	Software Consulting, Outsourcing, and Custom creation
24	Tires, Wheels, Batteries, Under car parts
25	Non-Profit retail and Workforce Development and Social Services

Number	Response Text
26	Our farm sells chickens, eggs, beef and other farm products directly to customers. Currently, our use of the Internet for marketing is limited due to only having dial-up Internet service.
27	Veterinary Services
28	medical clinic
29	auto parts rebuilder
30	Write, edit, research
31	hotel and real estate development
32	Movie and Performance Theater
33	manufacture and sell light weight campfire cooking grills
34	We are a Chamber of Commerce and we also do a 1000 plus 16 page newsletter
35	Retail Sales of Furniture, Appliances and Electronics
36	Fine art limited edition prints and canvases, custom conservation framing, local original art, and much more
37	Multi Service Law Firm with emphasis in real estate, real estate related litigation, estate planning, estates, and probates
38	We take hunters hunting for a variety of species.
39	Gifts & Espresso
40	K-12 education
41	Banking
42	Cartography, Database Programming, Printing
43	Promotes and Protects the Businesses and Communities of Grays Harbor
44	Dentistry
45	Vacation Club
46	Graphic design -- brochures, newsletters, logos, marketing consulting
47	sell flowers, gifts, plush, candy plants, deliver floral bouquets
48	Real Estate
49	Any real estate needs, residential, multi family, commercial, property management, land, etc.
50	Career Development, Matching Job Seekers with Businesses
51	Insurance
52	Retail Sales
53	Lodging
54	Computer-related services
55	Nightly Rental
56	Convention center for meetings and growth of Tourism
57	Motel – Lodging
58	Transmission Repair
59	Water Garden Nursery retail
60	Retail Sales - Purified Water and Water Accessories
61	Roofing/Construction
62	Free lance photography, music instruction
63	Provides insurance to individuals and small businesses
64	Private investigator specializing in computer issues
65	Internet Service Provider. Monitoring and Installing Residential and Commercial Burglar and Fire Alarms
66	Graphic Design, Marketing and PR

Number	Response Text
67	Community College Education
68	Telecommunications
69	B & B
70	Manage timberland
71	Markets tourism for the county...putting 'heads in beds'.
72	Special Purpose District for Business, Infrastructure, & Transportation Development as well as providing access to water for the public.
73	Contracting
74	Newspaper
75	Ranch Hospitality
76	Hospitality
77	non-profit micro enterprise organization
78	we make and sell painted wood crafts for home decor
79	Odds & Ends-a business out of the home
80	Research based industrial newsletter
81	Agricultural based farming Ranching, Recreational opportunities, and Timber extracting.
82	Customer Service
83	Pre School
84	Vocational Training Program For Disadvantaged Youth
85	Hospitality
86	Vacations Rentals, Restaurants, Golf Courses, Land Development
87	Nationwide promotional company
88	Grain Cooperative
89	Sail Training, Custom Milling, Education programs
90	Community Banking
91	business promotion and tourism promotion
92	Make electricity from the wind
93	Pharmacy
94	Artist
95	dowsing, poetry, author, retired realtor
96	direct sales of candles and decorative accessories,

Data and Internet Service

8. Do you have Internet service at your business? (N=83)

Answer Options	Response Percent	Response Count
YES (go to Q17)	98%	81
NO (continue)	2%	2

8a. Please check all the reasons for not having Internet service at your business:

Answer Options	Response Percent	Response Count
Internet service isn't available.	0.0%	0
I'm not comfortable using the Internet.	0.0%	0
My business doesn't need Internet service.	0.0%	0

I don't know how to use the Internet.	0.0%	0
Another company supports my Internet service needs.	0.0%	0
Internet service is too expensive.	100.0%	2

Number	Other (please specify)
1	Satellite Internet has very high latency (700-1200ms) -- No other available options!
2	Only dial-up at this time.

8b. Do you plan to establish Internet service? (N=6)

Answer Options	Response Percent	Response Count
Yes (go to Q23)	50.0%	3
No (go to Q23)	50.0%	3
	If YES, when?	3

When?

Number	If YES, when?
1	As soon as a better service comes along, I will subscribe
2	When available
3	have it now

9. Who currently provides your business's local data communications, Internet service and connections?

(Top 6 Responses)

Number	Response Date	Response
1	Qwest	16
2	Internet Express	10
3	Wild Blue	7
4	Century Tel	5
5	Comcast	5
6	Columbia Electric	5

10. List below the type and speed of your connection(s) (check and fill in for all that apply) (N=76)

Answer Options	Response Percent	Response Count
Dial-up Line - 56 Kbps or Less	18%	14
Satellite Broadband	22%	17
ISDN	3%	2
Fiber to the Premises	8%	6
DSL	38%	29
Fixed Wireless	13%	10
Cable Modem	11%	8

Mobile Wireless (Cellular Aircard)	12%	9
Frame Relay/Fractional T-1 (i.e., CIR)	1%	1
T-1	13%	10
BPL (Broadband over Powerlines)	1%	1
Other (Indicate type and speed)	4%	3

Speed of Connection?

Speed of Dial-up Connection	N=7
20 – 35 Kbps	4
36 – 50 Kbps	3
51 – 56 Kbps	0

Speed of Satellite Broadband Connection	Upstream N=10	Downstream N=10
0 – 250 Kbps	4	2
251 – 500 Kbps	3	1
Greater than 500 Kbps	3	7

Fiber to the Premises	Upstream N=3	Downstream N=3
0 – 250 Kbps	1	0
251 – 500 Kbps	0	
Greater than 500 Kbps	2	3

Speed of DSL Connection	N=11
Less than 1 Mbps	5
1.1 – 5 Mbps	3
5.1 – 10 Mbps	3

Speed of Fixed Wireless Connection	N=5
Less than 1 Mbps	3
1 Mbps	2

Speed of Cable Modem Connection	N=3
Less than 1 Mbps	2
1.1 – 5 Mbps	1
5.1 – 10 Mbps	0

Speed of T-1 Connection	N=2
Less than 1 Mbps	0
1 - 2 Mbps	2

11. What do you currently pay for this service? (Monthly) (Indicate for each service checked above)

Internet Connection	Range
Dial-up (N=14)	\$9.95 to \$50.00
Satellite Broadband (N=16)	\$35.00 to \$190.00
Fiber to the Premises (N=1)	\$50.00 to \$80.00
DSL (N=29)	\$16.00 to \$400.00
Fixed Wireless (N=9)	\$14.99 to \$150.00
Cable Modem (N=8)	\$40.00 to \$75.00
Frame Relay (N=0)	Nothing
T-1 (N=11)	\$45.70 to \$3,400.00

12. What is the term of your service contract? _____

Dial-Up Service Contract	Total N=59
Month to Month	23
1 year	16
2 years	8
3 years or more	12

13. Please rate the following aspects of your services by checking the appropriate column. (N=78)

Answer Options	Very Satisfied	Satisfied	Dissatisfied	Very Dissatisfied	Don't Know/Not Applicable	Response Count
Cost of Internet/network service	11	43	13	6	3	76
Speed of the online connection	12	31	19	15	0	77
Billing practices of your provider.	19	45	4	1	6	75
Reliable access to the Internet	20	38	14	6	0	78
Ease of use	22	45	7	4	0	78
Training and technical support	12	33	12	6	14	77
Customer Service Representative's knowledge and courteousness when you call for service	16	39	8	4	9	76
Installation technician's ability and courteousness	23	31	4	2	16	76

14. In the last 30 days, indicate which applications your data communications/Internet Access connection has supported (*check all that apply*): (N=79)

Answer Options	Response Percent	Response Count
E-mail	100%	79
Video conferencing	15%	12
File sharing	53%	42
Internet telephone	11%	9
E-business	43%	34
Website applications	63%	50
Business to business functions	53%	42
Online education	33%	26
Banking	68%	54
Monitoring functions (energy, security, etc.)	10%	8
Research	57%	45
	Other (please specify)	11

Other Responses

Number	Other (please specify)
1	VPN connection between offices
2	Unable to use p2p file sharing (e.g. bittorrent), VPNs, or VOIP due to high latency
3	Remote Development

4	As we are a public library, we are used for all possible Internet services, both by staff and patrons
5	Retail Point-of-Sale
6	Publications and Communications
7	guest booking online
8	E-Bus & Website: not as a host, just control & Maint.
9	Audio Education/Entertainment
10	Marketing / P.R / Media Releases
11	Shopping

15. How important is a robust broadband connection to the day to day operations of your business (check one)? (N=81)

Answer Options	Response Percent	Response Count
Very Important	85%	69
Important	12%	10
Somewhat Important	3%	2
Not at All Important (Skip to Q26)	0%	0

16. Why is a broadband connection important to you at your location?

Number	Response Text
1	To purchase merchandise To price items for customers and order individually for them Banking
2	Wireless node would be a good service to customers and allow management to work on location rather than at home after hours.
3	e-mail with customers, update web site
4	I work for WSU as a researcher from my home. I am totally dependent upon Internet connections.
5	Finding information Road reports Weather reports Access to loads
6	Without broadband I believe we would see a dramatic decrease in business. We live on the web and slow speeds cause disconnects - people don't have time to wait.
7	95% of our business is done with Internet.
8	Broadband is a tool to help improve my bottom line as well as provide information for personnel information. It is very important for communicating about issues and the like.
9	We depend on stable Internet connection for our VPN connection. We have a server in Colville and need a constant Internet connection at both locations to make this work. We do electronic medical records at both locations.

<p>10</p>	<p>We do almost all of our business (except the training) by computer since our constituents are all over the country and world.</p>
<p>11</p>	<p>My business model takes advantage of the low cost of living of rural eastern Washington. I am unable to compete as well as I would prefer due to the limitations of high-speed Internet access. I have inquired about fractional T1s and have had site surveys for WIMAX offerings but the services are unavailable due to the distance from the CO (~45k ft) and no line of sight to wireless towers.</p> <p>I would like to use VOIP, VPNs, and be able to fully use my Internet connection but the high latency of satellite makes this difficult or impossible in most cases.</p> <p>I typically access remote systems via ssh (command-line logins) and due to high latency am always waiting for my characters to appear after typing them. This slows down my work considerably.</p>
<p>12</p>	<p>Broadband Internet connection isn't just important to us at our location, it's turned out to be vital to the health of our businesses as well as our personal safety!</p> <p>We are situated up in the Blue Mountains off the grid, miles from the nearest landline phone connection. Prior to satellite broadband hookup to the Internet, we were totally dependent on cell phones (with marginal reception) as our means of being in touch with the rest of the world.</p> <p>For years, what we had was an excruciatingly slow connection (5 times slower than dial-up) via a special box connected to an old analog bag cell phone. But that was better than nothing and it worked to send and receive email and do a very limited amount of activities on the Internet.</p> <p>Broadband satellite has not only opened up the world to us, it has allowed us to be more competitive and effective in our businesses.</p> <p>With more and more state and federal government agencies expecting businesses to interact with them online, having satellite broadband Internet connection here at our "in home" office has been vital. Instead of making a 32-mile-round-trip to town with my notebook computer to town where Wi-Fi is publicly available, I no longer have to spend a day getting online business taken care of.</p> <p>From home I'm now able to:</p> <ul style="list-style-type: none"> • Manage our web site, from which (for over 6 years) we have sold our self-published book to folks in some 18 different countries around the world • Do online banking and bill paying, take care of state and federal

	<p>reports and payments (which saves time, gas, and is so handy when we are snowed in and the road are drifted shut),</p> <ul style="list-style-type: none"> • Receive assignments (with photos and graphic) and send completed ads to a newspaper I do graphic layout and design for. <p>Finally, when our cell phone system was down for nearly 2 days during a severe winter storm, satellite broadband was the ONLY means of communication we had. And this summer during wildfire season, being able to go on the Internet and check on conditions will be most helpful.</p>
13	Required for state and federal contract compliance and use of program online software applications.
14	We do booking on line, as well as banking, etc.
15	Clinics run schedule program for medical practice; starting elec health records for sites. Clinics and some home health staff connect via VPN for data exchange. Just downloading forms from Internet can be time consuming.
16	Savings in transportation fuel cost. 30 miles to high-speed access. Can not access large date files.
17	We enter incidents in a reporting program called ERS. Also we must look up information and conduct business on the web.
18	We often sign onto our clients networks to do development for them. We have to be able to do this to function.
19	As a public library, we are often people's ONLY access to high-speed Internet. Many of our patrons buy laptops just so that they can come use the library's free wireless because they have only dial-up available at home. While the libraries certainly can use more and better bandwidth, our real concern is that people throughout Stevens County are being left behind in the information age because affordable high-speed Internet is just not an option for them. Only those who can afford satellite Internet get anything higher speed than dial-up, and many people live in hilly regions where even satellite is not an option. This is a HUGE problem in our area. I am glad you're taking a survey of our area and I hope to see this change in the future.
20	The Internet is the best (if not only) source of reliable information for our industry (computer science)
21	connection to HQ for technical support, intranet and email plus Credit card transactions.
22	With a better Internet speed, we can spend our marketing time more effectively as well as add interesting components to our business website.
23	Time savings to obtain information for patients, and need for broadband to download X-ray pictures of patients. Also, medical research much better on broadband.
24	I need faster connectivity...my satellite service is slower than I expected it to be.
25	Rely for reservation and VPN connections
26	Not very important currently. I am going into semi-retirement. I

	was an early business user on the web when the company started in Idaho and used online purchasing via credit cards as soon as Micron provided the service. I recently simplified the web page, downsized the product line and stopped importing products from Europe. Frankly, it is a bit late for me to use high-speed Internet communication. Also, I don't think it is particularly important to expand access to rural NE Washington. If it is important to the business, the business owner would move to a location where access is available. We have plenty of access in Stevens Co.
27	Online sales and research while customers are waiting
28	Many courts require online filing and traditional mail is too slow; legal research in many different environments.
29	50% of my business comes from Internet and I must be able to communicate with my server when away from home
30	I deal with large datasets that are often available on line. Before satellite I had to drive to the library for downloads. Now I can download, upload and maintain my website.
31	Because of the number of times we connect with the Internet, and for the multiple uses we make of the Internet.
32	for the transition of pictures and x-rays
33	Have cable access only.
34	Because I live in a very rural location, a broadband connection is crucial for me to conduct business with my clients throughout Grays Harbor County and WA state at large. Many of the services I provide rely on the Internet for transmission of data, accessing information, etc.
35	We do almost everything online
36	I do 85% of my business connections through online services
37	Customers in our Center expect the connection
38	product ordering service, research and direct wholesaler ordering.
39	VoIP phone. Most of our work is done over the Internet
40	Simply that it is the best available in our area that keeps our business up and running.
41	transfer of images of pond construction less time better resolution because of larger image files sent
42	e-mail, Internet searches, news, industry information websites
43	Satellite is the only option currently
44	All of our business is conducted over the Internet. Without high-speed Internet, a lot of our business would not be possible.
45	My main focus is computer forensics. Nearly all operations involve Internet activity in some form. Also, my telephone service is VoIP.
46	Most of the communications with customers and suppliers are done through the Internet
47	It is our principal means of communication across the state.
48	We are in a rural area so all of our advertising and correspondence relies on our broadband connection. I also do all my banking and

	bill paying as well.
49	Outbound Internet email, web browsing, VPN connections to users and other offices
50	We are in the "marketing" industry and we rely on having immediate access to news so that we can respond QUICKLY to potential leads on stories that we can pitch to writers, and other tourism activity happening around the state and country.
51	We conduct the majority of our business via email and use the Internet heavily for research, contacts, government information, laws related to our business, etc.
52	Research, Communication, Finance, News and weather, entertainment
53	Time
54	day to day business, knowledge, information, service for our guests at the 106 unit motel.
55	Along w/other services we operate an e-commerce website to help rural artists and artisans sell what they make. The local system is over-subscribed so the speeds are VERY slow in the afternoon. The slow speeds cost us staff time. In addition, power surges in the system knock out our wireless system altogether costing us even more staff time.
56	maintaining website, also, I am a freelance writer and use the Internet to submit photos, articles and communicate with publications. Dial-up was totally unsatisfactory for uploading files photos to the website or sending them to publications.
57	If it is cost effective, broadband would open many possibilities and improve the ease of day to day computer use.
58	I need to be able to surf the Internet quickly -- sometimes four or more sites at one time.
59	Extremely important as the dial-up was just way to slow and because I am always on it makes it easier to do what I need to do. And with dial-up I couldn't be online because it also used my business line so I couldn't receive voice calls during business hours if I was online so my time was limited during the day.
60	Up to date forms and research. Receipt of documents. Order placement and confirmation
61	We primarily use the access for inter family communication, Business research and planning. Monitoring of personal and business accounts, and bill paying. Reduces the costs of postage and eliminates the need for frequent trips to town reducing fuel costs.
62	Performance would cut the time spent on line.
63	Utilized in the educational process by staff and students and is essential to the basic operations of the school district.
64	we need to be able to connect to other locations, to share information, to research issues, to gain training.
65	EMail responses to our advertising Ability to manage our websites

66	As in all business today, our companies rely heavily on a fast and reliable Internet connection for everything from banking, to supply ordering, to Internet based reservations systems and, of course, email capabilities.
67	We live in a very rural place. I love living here - but some sacrifices have to be made as it isn't the most convenient location. Faster, more reliable Internet would be GREAT!!! My company is a nationwide promotional company - with the Internet I can conduct most of my business from Republic - which is super.
68	Clientele for our ships range from San Diego, CA to British Columbia. Internet communications are critical to communications with media, teachers, and passengers and with our ships. Our Spar Shop builds masts, yards, etc. for Tall Ships from around the world. Rapid, concise communications is needed to ensure we deliver what a client needs. Internet is also used to make arrangements for shipping oversize pieces to various points around the country.
69	We are more and more dependent on the use of the Internet to communicate with our branches and our customers. It is also our way of communicating with many of our customers.
70	We use it for communications with our potential visitors and new residents, who have money to spend in our area.
71	Part of communication system to generating system and corporate offices
72	dial-up is way too time consuming
73	I communicate with customers via email, I print items to advertise my business, and I submit my shows orders via Internet. It makes my livelihood easier and more proficient.

17. When you sought broadband services for your business at your location, how would you describe the availability of multiple, competing broadband options: (N=76)

Answer Options	Response Percent	Response Count
Competitive, several options	1%	1
Somewhat Competitive, a handful of options	12%	9
Only Slightly Competitive, two providers	24%	18
Not Competitive at All, only one provider option	51%	39
There is not a broadband option available that is suitable for my business.	12%	9

18. Would it be beneficial to you if the broadband environment in your area was enhanced? (N=75)

Answer Options	Response Percent	Response Count
Yes	92%	69
No	8%	6
If yes, how would it be beneficial:		62

18a. If yes, how would it be beneficial:

Number	If yes, how would it be beneficial:
1	Cost
2	More choices would be nice.
3	Competition is always healthy in the market place.
4	Speed, access, cost
5	Additional service providers would help assure current technologies along with fees and services.
6	more reliable and with competition cost less. Faster speeds hopefully.
7	Stable and fast connection is imperative for my business.
8	I wish Qwest would expand to our area so that we could combine services to save money. Many communities are using package deals for television, cell phone and computers.
9	I could complete my work much more efficiently and take advantage of advanced services (VOIP, VPNs, P2P, and Conferencing).
10	If "enhanced" would include providing faster upload and download speeds that would be most helpful.
11	Many of our satellite offices do not have broadband access.
12	If all our sites and staff could connect via Internet it would make communication and operating expenses decrease
13	Access via something other than Satellite
14	More reliable when it snows.
15	More access for our employees at home would be great!
16	For the library, we would have more options for getting more and better bandwidth. For our patrons, it would mean they would have more options for affordable, high-speed Internet. We constantly meet people who are, in their own words, "computer illiterate." Sometimes this is because of their own choice, but often it is because they simply do not have access to high-speed Internet and so have not made computers a priority. Then when they go to find jobs, they are left behind in the information curve. As someone who works in public service, I just want to see the people in this area have the best quality of life

	possible, and I think that - in part - includes access to the best communication tools out there.
17	Qwest is really the only option for competitive bandwidth speeds. The other options are less reliable and slower. With Qwest, however, we don't seem to be getting the actual speeds/bandwidth we pay for. According to Qwest bandwidth test, we get 6mbps down and .7mbps up. according to general Internet bandwidth tests, (CNET) we get occasionally as low as 1262.4 Kbps! I imagine usage, etc is causing this level of variation....
18	More choices for Managed network providers for more advanced connections such as MPLS
19	I would like to use it at home at a lower cost than current systems provide.
20	Would give me options for better and faster connectivity.
21	Faster, more competition, better for our economy so more people shop at my store!
22	speed of access
23	Need faster more efficient service from a single provider
24	\$80/month is twice as expensive for a fraction of the communication speed with DSL, especially for uploads. I am also worried about Internet Neutrality.
25	More services, speed, and redundancy County-wide will better assist business growth
26	faster picture transitions
27	if we had one.
28	I would be able to complete my work in a more timely manner. Speeding up getting things to providers would give me more time. Also, a more robust Internet environment would allow me to be able to get products to printers without having to physically mail a CD.
29	extremely. My guests use the Internet services and have complained that it is spotty and not fast. I have the fastest available in my area. We have old phone lines that can't handle the service very well. We need better phone lines on the hill in Aberdeen. It goes out every year in October and they never replace it. I have been here for 14 years
30	I would add to my home today if available. I would change to DSL in a second if it was available here in Ocean Shores.
31	Faster
32	1. Competition 2. Ability to save on phone service by going 100% VoIP with Cell backup.
33	I can't get it at my home, but down the block it's available to my business - I'd like to streamline and have both as I'd like to keep similar in both locations as I learn to use it and the services I can get more out of it for my work and pleasure.
34	easier wireless access; shared connection with home, office, field
35	Perhaps local customer service instead of usually foreign customer

	service supporters. Another service might be faster. It really isn't 100 mbps
36	We waited years for a provider to arrive here, using satellite Internet for a faster connection until the bandwidth seemed to fill up and it no longer worked well.
37	Further competition could force providers away from their current services model.
38	Cost, reliability, speed, technical assistance
39	Our satellite broadband is satisfactory but there are limitations and inconveniences. I would have preferred a DSL connection but it is not available in my area. My business is 11 1/2 miles SW of town.
40	Higher speeds would provide better access and might provide more options for VPN connections.
41	Again, consistency, and immediate availability to stay competitive in our industry. Things change quick. Couldn't answer Number 25, because that is handled at the county level.
42	Choices in town are excellent, but the outlying areas could use more options.
43	I also support several computer customers who are unable to get broadband connections and that makes it more difficult to work on their computers
44	???
45	ease of availability for higher speed connections for business to business solutions. competitive pricing. Bring business to our area. I know of one business that moved out of town because they could not get enough bandwidth.
46	Adequate broadband speed would save us staff time and enable us to provide better service.
47	Although satellite is the best option for us at this time, we have limited availability from time to time because of dense cloud cover and other atmospheric conditions.
48	Computer Internet usage would take a whole lot less time.
49	I would not spend all my time waiting for websites to download.
50	Maybe
51	Satellite is not reliable during winter snow storms and some wet and icy condition. Faster up loads would help speed up the time required on the computer.
52	Would cut my on line time 50%!
53	I am not sure we could get better service or cost?
54	Competition
55	It would be nice to have more than one true option that offered high-speed Internet for both uploading and downloading information. Our needs vary so having other options would be nice.
56	Faster, more reliable service.
57	Present provider seems hesitant to serve outlying areas. Perhaps

	some competition would encourage more effort.
58	Redundancy of service essential for banks and more competition should enable us to get better overall price for the service
59	Make it faster and more reliable for those doing business from home.
60	At the site we have a T-1 line which is very reliable but in Dayton we have DSL and the system is up and down regularly. I affects work production because we can not communicate to the corporate office.
61	Speed
62	more options, competition, hopefully faster connections

18b. Do you have any thoughts about how the State or any other entity could help enhance broadband availability in your County? (N=39)

Number	Response Text
5	Make it more available to people outside our city limits and at speeds and expense that make it worthwhile.
7	When I first moved here, I had to use dial-up to run two businesses and that was almost impossible. I then went to Satellite DSL but had problems with it being slow given the number of computers we operate at the same time here in the office. The DSL made all the difference in the world and needs to be available for all business in the area.
8	<p>The state could mandate that the oligarchy of wire plants (Qwest, CenturyTel) provide broadband services (DSL at least) to areas with a certain population level.</p> <p>There are a lot of mountains in this area and centrally locating wireless towers on the highest mountain tops would give line of sight to almost everyone with high-gain antennas or horns.</p> <p>An alternative would be to setup some type of full mesh between all subscribers to extend coverage to hard to reach, rural locations.</p> <p>If none of this is feasible, perhaps the state utility commission could set lower rates for leased-lines in rural areas where other broadband options are unavailable. I would get a T1 if it was available and didn't cost \$500/month, even if the available bandwidth was oversold 10:1.</p>
9	<p>Use grants to help level the playing field so all rural folks can have a fair shot at getting broadband connection, regardless of where they live.</p> <p>For example: Out on the Palouse, hills prevent some households from having a clear line of site from their home to the satellite, making putting up a tall pole and running extra line necessary. The high cost created by these "non-standard" installations are a barrier</p>

	that prevent some households from obtaining broadband service. A grant to pay the difference for this non-standard service would allow more "equal access" to all.
10	Provide resources necessary to install the infrastructure
13	Require phone companies to upgrade their lines for DSL.
14	Grants.
15	I think the companies need to realize that there are many people who live in this county and more move here all the time. While we are relatively small in population, there are still a lot of people who want high-speed Internet and are willing to pay for it.
16	Our daughter in Kirkland last year had Verizon Broadband at home for \$15/mo, which is not available here. Qwest charges \$40/mo here for the same service. Need lower prices for the rural areas.
17	The State can leave the issue alone and let private business serve people who want it. Telephone and Internet service should either be public or private, I think we have made that choice in this country. Leave it alone.
18	document and provide lists of prospective customers to prospective providers of broadband providers, Eltopia has indicated they need about 25 customers in an area to install sub-towers
19	Century Tel has had fiber optic cable installed along Hwy 25 for 6 or 7 years, 200 ft away from my office, but they refuse to provide me access. Make this like rural electrification, give geeks a chance.
20	More C.E.R.B. support & funds for infrastructure improvement (Broadband) on public Property
22	One way may be to offer incentives for providers to improve access in unserved areas. My situation is somewhat unique in that high-speed cable access ends about 5 miles from my home to the north, and Qwest high-speed access ends about 6 miles from the south. My neighbors and I have no alternatives than satellite, which in my three years I have found to be awful in terms of service, speed and operation. Prowers seem to resist the cost of infrastructure to support those who live here, saying there are not enough users to make the investment worthwhile. I think all of us, however, would sign up for both cable and high-speed Internet vs. satellite.
23	Yes, it is important to be able to do things online. 80% of my guests bring a computer with them or use my computer for checking emails and printing a plane boarding pass. It will be more and more important each year.
26	Talk to Robert Bain at noWYR. He may have some ideas. I think noWYR would be here now if they had the financing for equipment. They can definitely set up a link that could back haul the bandwidth to a backbone provider in either Seattle or Tacoma at a better delivered price than can be had for fiber rental.
27	Support Qwest or any carrier that is willing to come into our area to complete it's full incorporation of the city of Ocean Shores - perhaps with funds to do so - or give the city grant monies to have wifi broadband on the coast (could be a great tourism booster!) that small mom and pop establishments would not have to go to the expense of

	putting it in - other cities have it and advertising having it!
	open wireless!!! being hooked up to a wire is stupid!!
28	with all the laptops and other devices pigging backing onto a few open access points (Starbucks) open wireless over the entire city will cut the costs of infrastructure repair and maintenance
29	wireless hot spot; fiber backbone
30	Make it easy for private enterprise by not over regulating
	Internet access is quickly becoming as basic a utility as power and telephone service. Cable television providers and telcos are only extending service if they believe they can turn a profit, but broadband-capable outside plant is becoming an essential part of any community's infrastructure.
32	If the public utility district were in the outside plant business, cable or fiber could reach all areas with electrical service. The utility could then lease these facilities to providers. Consumer-hostile practices such as "throttling" of competing providers' content could be prohibited under terms of the lease.
33	Allow the PUD to bring the fiber they have near all rural homes and businesses to their homes and allow them to provide Internet services.
34	I suppose it is a matter of funding to increase the area with DSL capabilities. Phone lines in rural areas are not DSL compatible so a major upgrade would have to occur. I am not sure what options are available. Grants for rural improvements????
36	There are still several areas in GH County that do not have access to DSL, etc. They are still on the "dial-up" mode. Not good for trying to grow our business and stay on top of communicating with our local businesses and partners in tourism.
37	Support funding for installation of networks. This is like electricity was in the early 1900's - expensive to build the infrastructure, but necessary for all citizens, not just highly population urban centers.
38	deregulation and the elimination of the B&O tax to help encourage small business to fill the gap with wireless cells, and private lines.
40	The 'pipeline.' Our area does not have enough broadband capability for many businesses to have T-1 connections.
41	Allow the PUD to provide direct services to customers.
42	If Verizon were forced to provide DSL, or if there were funding for more cable repeaters or if a communications company with a more rural-friendly business were allowed into our area. Verizon won't invest unless they are sure there are adequate customers to cover their cost. They do not subscribe to the theory that if you build it, they will come.
43	Help support it financially.
44	Allow us to use the already-available services in Canada -- only five miles from my location.
45	Make it available to everyone.

46	Ferry County is a low population county at only 3.3 people per square mile. The state needs to increase or subsidize the broad band infrastructure to allow for a profitable operation. There are many reasons the state is responsible for the need in this county.(too many to list here)
47	How soon can I get it without spending an arm and a leg for it?
48	Make sure the whole county is wired.
49	add more fiber
50	With our current laws prohibiting lending and credit to business from state/public monies, change the law. We also need to enhance the use of TIFT and/or LIFT taxation in WA State.
51	Competition for business between companies helps to keep the price of those services down and more reasonable. Offering a reasonably priced way for small municipalities to set up wireless city-wide systems would be a great benefit to these small communities.
52	Provide tax incentives or ways to assist private enterprise in building infrastructure and or obtaining loans or capital to expand in more rural area.

19. Do you have any other comments about broadband service availability in your County?
(N=40)

Number	Response Text
2	Coming from Honolulu, the choices there were more plentiful and offered less expensive solutions.
4	Essential to community development and my livelihood.
5	Everyone should have access to it, as there is so much that can be learned. We have country people in mountain areas here that have a time with access.
6	Have not used broadband before.
7	Needs to be faster and cost less
8	Make rural homes more accessible to broadband should be a priority.
9	I only live 8.5 miles east of Colville and am very disappointed in the available Internet connectivity options. I would like to live in a more rural location but can't do so unless a reliable high-speed connection is available.
10	The town of Dayton got broadband a few years back. Some businesses made Wi-Fi available to the public and that was a huge help for us. For example, I was able to take our notebook computer into town and update our website, do computer software updates, and take care of online state and federal government reports connected with our businesses. In short, Dayton's Wi-Fi access allowed us to grow our businesses.
11	It would be extremely beneficial for our staff as well as our clinic locations.
12	No service 3 miles from the center of Colville.
13	We need more competition.

14	Wildblue is so slow and I can't get DSL or Wireless at my home in Kettle Falls!
15	I think high-speed Internet would help people in this area catch up on a certain lack in computer skills that I often see, and attract more young professional talent to this area. There are people who are willing to work remotely or start up Internet businesses in our area, but need the high-speed Internet that they just can't get right now. I think high-speed Internet would help very much with the education of our students and the expansion of our businesses.
16	Bandwidth in town versus out of town is a huge issue. Getting high-speed outside the city limits prevents alternative business development options. We couldn't build a new office and get the bandwidth needed to support it outside town city limits. Further, the pipes into the towns are getting more and more use, we need more!
17	Government could help the small scale rural areas to be competitive and affordable for broadband. I think it is needed to allow rural people to move into the developing information age.
18	Limited in some areas and non-existent in others.
19	as more people learned it might be available and what you can do to increase your business, interest would increase
20	I think phone companies are waiting to destroy net neutrality and charge us by the megabyte. Give them some kind of incentive to add more customers without gouging us.
21	Broadband connectivity has greatly improved in the last three years.
22	I know that it is available
23	I think the rest of our county seems to be well-served; however, there may be other pockets like my area out there. The more money I can make, the more I pay in taxes.
24	I tried Comcast and they could not even come close to servicing me in my area on the hill. We get allot of interruptions from emergency satellites on the hill for the city and hospital.
25	We are rural so service has been slow to expand.
27	Satsop Ind. Park has bandwidth galore, but the cost is high. The major backbone providers are in Tacoma and Seattle and any local reseller is going to need an inexpensive way to back haul to one of those locations. If that can be accomplished, local wireless providers could branch out into the country at competitive rates and speeds. Some rural areas will still be a problem because local repeaters might not be financially attractive enough if they serve only one or two clients. Satellite is an expensive alternative and latency issues make it a poor choice, especially for VoIP phone service.
28	Qwest has been a god send! We have been up 100% of the time - minus any in climate weather full power outages! They have kept our commerce going! :)
29	continue to provide and up-grade training on broadband uses and possibilities through local chamber, community college, schools, etc.
30	It's excellent in some sections of some towns and in some areas even rural, but not our location so far. What we have is way better than the old

	dial-up though.
31	Multiple providers have now arrived in Winlock
32	Bandwidth is bandwidth, yet VoIP, e-mail, web browsing, and video are sold as distinct service packages, even though all use the same physical facilities.
33	In the major population bases, there are multiple avenues of service available. In the rural parts of the county there is no cable or fiber that is cost effective for the phone companies or cable groups to provide the appropriate services.
35	We are working hard to improve our quality of life and economy in GH County. We seem to be blessed with one crisis after another, however, we always fight our way back and having broadband available to everyone and every business would be a huge asset to our being more attractive to new residents and businesses to Grays Harbor County.
36	The reason we have DSL here is because of a grant received through CERB from a Qwest settlement during the long-distance wars. If left to a purely market decision, we would not have it. Yet Qwest has found that it DID pay to have service here - they have a tremendous number of customers. Private industry needs to be pushed to provide rural communities.
38	Bring more!
39	The Republic TV Association has been allowed to monopolize local service while not providing adequate service to the customers. They've been offered assistance over and over and refuse. The PUD gave them money to support redundancy while they determined if they could raise their rates to support it in the future. They decided they shouldn't raise their rates so now we're back to one way out of town. You can't run an Internet-dependent business without redundancies. Our business has the potential to grow and yet it makes no sense to run an Internet-based business in this area. If they don't want to work with us to increase the local capacity then they need to allow competition.
40	We were on a waiting list for nearly a year to get our satellite service. Dial-up speed was very low (14 kbps) because of the antique phone equipment in this area. It really seems that with many cottage industries in this area, wider broadband access would boost the local economy on many different levels. Broadband redundancy would potentially bring in some new employers as well. At times living here is like a return to the 80s.
41	The customer service reps at Verizon, my phone provider, are always willing to offer DSL and are amazed the service is not available to me. Fiber optic cables run along Hwy 21, just a half a mile from my house, but the cables are dark.
43	I am very happy to finally have it in our community. I only keep my dial-up for backup if the broadband should go down.
44	It is the only way for Ferry County to attract and encourage small business or any business to locate here or have an opportunity to compete in the market place today.
45	I have been waiting nearly 4 years to get Qwest to

	bring it to me. I only live 3.5 miles from the center of Colville.
48	We have no broadband where I live. It is SLOW dial-up only. Many web features take so long to load, they are for all intents and purposes they are inaccessible. I could not run my existing business from the area where I live due to the slow Internet speed.
49	Not available to many who live and work from their computers in the area outside the city.

Attachment 3
Educational Survey Instrument
Mark-up

Attachment 3

**UTC Broadband Study
Survey of Educational Communities in
Columbia, Ferry, Grays Harbor, Lewis, Stevens,
(N=38)**

1. What is the local school district that you represent?

<u>County</u>	<u>School District</u>
1. Columbia	Dayton School District
2. Columbia	Starbuck School District
3. Ferry	Curlew School District
4. Ferry	Inchelium School District
5. Ferry	Keller School District
6. Ferry	Orient School District
7. Ferry	Republic School District
8. Grays Harbor	Aberdeen School District
9. Grays Harbor	Cosmopolis School District
10. Grays Harbor	Hoquiam School District
11. Grays Harbor	Lake Quinault School District
12. Grays Harbor	McCleary School District
13. Grays Harbor	Montesano School District
14. Grays Harbor	North Beach School District
15. Grays Harbor	Oakville School District
16. Grays Harbor	Ocosta School District
17. Grays Harbor	Satsop School District
18. Grays Harbor	Taholah School District
19. Grays Harbor	Wishkah Valley School District
20. Lewis	Boistfort School District
21. Lewis	Centralia School District
22. Lewis	Chehalis School District
23. Lewis	Evaline School District
24. Lewis	Morton School District
25. Lewis	Mossyrock School District
26. Lewis	Napavine School District
27. Lewis	Onalaska School District
28. Lewis	Pe Ell School District
29. Lewis	White Pass School District
30. Lewis	Winlock School District
31. Stevens	Columbia River Christian Academy
32. Stevens	Colville School District
33. Stevens	Kettle Falls School District
34. Stevens	Loon Lake School District
35. Stevens	Northport School District
36. Stevens	Onion Creek School District
37. Stevens	Summit Valley School District
38. Stevens	Wellpinit School District

2. How many employees are at your location:

Number of Employees	N=32
0-25	9
26-50	10
51-100	5
100-200	3
201-300	2
301-400	1
Greater than 400	1

3. What is your mailing address?
See CBG spreadsheet for the complete data.

4. What is your phone number?
See CBG spreadsheet for complete data.

5. What is your fax number?
See CBG spreadsheet for complete data.

6. What is your e-mail address?
See CBG spreadsheet for complete data.

7. Who is the person responding to this survey?
See CBG spreadsheet for complete data.

8. What is your title?

Position Title	N=32
Technology oriented Person	21
Superintendent	4
Teacher	3
Administrative Assistant	2
Librarian	1
Principal	1

9. What is you school district’s web site address?
See CBG spreadsheet for complete data

10. List the location of the main and any satellite or field offices of your school district.
See CBG spreadsheet for complete data

11. What do you currently use telecommunications/broadband network services for?

What are these services used for	Percent of Respondents
High-speed Data Links Between Sites	44%
E-mail	97%
Internet/Other Database Access	97%
Website Applications	77%
File Sharing	38%
Research	77%
Online education	71%
Slow Speed Data (System Monitoring and Control)	9%
Communication with Central School Office	27%
Communications with Public Safety	29%
Internal Telephone System	27%
Video conferencing	59%
Teletraining/Staff Training	38%
Distance Learning	44%

12. For each of the networks and services you have, indicate the speed of your connection. If you have the service, but are not sure of the speed, indicate “don’t know” in the text box.

Type of Connection	Percent of Respondents
Dial-up	13%
ISDN	16%
DSL	28%
Cable Modem	16%
Frame Relay/Fractional T-1	13%
T-1	80%
Satellite Broadband	13%
Fiber Optics	38%
Fixed Wireless	16%
Mobile Wireless	13%
Other	10%

Speed of Internet Connection:

Internet Connection	Speed	Number of Respondents
Dial-up	None reported	0
ISDN	10 Mbps	1
DSL	256 Kbps	2
	768 Kbps	1
Cable Modem	None reported	0
Frame Relay/Fractional T-1	None reported	0
T-1	100 Mbps	1
	6 T-1	1
	2700 Kbps	1

Internet Connection	Speed	Number of Respondents
Satellite Broadband	None reported	0
Fiber Optics	100 Mbps	2
	10 Mbps	2
Fixed Wireless	None reported	0
Mobile Wireless	None reported	0

13. How are the above indicated telecommunications/broadband networks/services provided?

How services are provided	% responding
We have our own intra district network	24%
We use the State's K-20 Network	97%
Contract with the cable company	21%
Contract with the telephone company	39%
Contract with another provider	15%
Other	6%

Type of Service	Provider	N=10
Contract with Cable Company	Coast Access	1
	Comcast	1
Contract with Telephone Company	TDS	1
	CenturyTel	3
	Loon Lake Homelink	1
	Qwest	2
Other provider	Techtel	1

14. What do you currently pay annually for this service?

Current Annual pay for Service	N=14
\$2000-2999	8
\$3000-3999	3
Greater than \$4000	3

15. What is the term of your service contract?

Term of Service Contract	N=24
Annually	10
Greater than 3 Years	2
Don't Know	11
Different lengths for different services	1

16. Which of the above companies do you consider to be your PRIMARY network service provider?

Primary Network Provider	N=30
K-20	26
CenturyTel	2
Techline	1
Don't Know	1

17. Please rate your level of satisfaction with your PRIMARY contract – provided network/services.

Characteristics of Service	Very Satisfied	Satisfied	Dissatisfied	Very Dissatisfied	N/A
Number of Companies to choose from	11%	30%	15%	9%	35%
Service Rates	16%	37%	13%	0%	34%
Billing Practices	19%	47%	0%	0%	34%
Reliability	39%	52%	0%	0%	9%
Ease of Use	42%	46%	3%	0%	9%
Training and Support	16%	47%	6%	0%	31%
Customer Service Representative's knowledge and courteousness	25%	44%	0%	0%	31%
Installation technicians ability and courteousness	19%	47%	0%	0%	34%

18. Do you utilize the Washington State K-20 Network?

YES: 97%

NO: 3%

19. Describe how you utilize the K-20 Network?

How do you use the K-20 Network	N=26
Access the Internet	23
Support Connectivity	1
Access Information	1
E-rate	1

20. Please list school locations that are currently connected together via the network(s) you utilize.
See spreadsheet for complete data

21. Do you find that your current network(s) or services are too slow, or unable to meet your current or projected application demands?

YES: 52%

NO: 49%

22. What applications need higher speeds?

What applications need higher speeds	Percent of Yes Respondents
GIS (Geographic Information Systems)	15%
Faster/greater data throughput between locations	46%
Full motion video	100%
Capacity for additional users	54%

Other Applications listed:

- Student Interactive Web Curriculum
- Online Education

23. For the networks you utilize, are your current data, voice, and video systems reliable?

YES: 88%
NO: 13%

24. How important is a robust broadband connection to your day-to-day school operations?

Very Important: 53%
Important: 34%
Somewhat Important: 9%
Not at all Important 3%

25. Why are broadband connections important to your local school district?

Reasons why broadband is important	N=23
Need it to run distance learning programs	7
Important for administrative work	6
Access important information	5
Speed of connection	2
Connected to outside world	2
Video conferencing	1

26. When you sought network services for your local school district, how would you describe the availability of multiple, competing service and infrastructure options?

Competitive 3%
Somewhat Competitive 24%
Slightly Competitive 10%
Not competitive at all 45%
Not a network option suitable 17%

27. Would it be beneficial to you if broadband environment in your area was enhanced?

YES: 65%
NO: 36%

Why would it be beneficial?

Reasons why it would be beneficial	N=15
Provide more competition for providers	5
Would help out the community	3
Increase the bandwidth	2
Be able to do school work from home	2
Increase the speed	2
Better video conferencing	1

28. If enhanced broadband network infrastructure and services were developed within your area to provide cost-effective, highly reliable video, and data communications, your district would use it for....?

What enhanced Broadband would allow	% responding
High-speed Data Links Between Sites	36%
E-mail	18%
Internet/Other Database Access	6%
Website Applications	18%
File Sharing	8%
Research	8%
Online education	20%
Slow Speed Data (System Monitoring and Control)	50%
Communication with Central School Office	20%
Communications with Public Safety	31%
Internal Telephone System	50%
Video conferencing	14%
Teletraining/Staff Training	22%
Distance Learning	20%

29. For each category checked above, please describe the planned use of such an enhanced network.

4 respondents: Allow for better online education programs
1 respondent: Better video conferencing

30. What is the most important network-related issue facing your local school district at this time?

Most important network issue	N=20
Improve networking infrastructure and hardware	6
Improve Cost	4
Increase bandwidth	4

Provide faster service	2
Staff training online	1
Update equipment	1
Ease of use	1
Online Education	1

31. What are the most critical long-term network-related needs of your local school district?

Most important long-term network needs	N=25
Replace old hardware	9
Improve connection	4
None	3
Improve budget	2
Increase bandwidth	2
Security concerns	2
Video conferencing	1
Better connections	1
Online education	1

32. Do you have any thoughts about how the State or any other entity could help enhance broadband availability in your area?

Ideas on how to enhance broadband	N=11
Run more fibers to the area	6
Upgrade phone system	2
Provide cheaper access	2
Provide higher speed	1

33. Do you have any other comments about broadband service and infrastructure availability in your area?

Additional things to add	N=7
Provide more competition	3
Bring more fibers to schools	2
Increase in rural areas for students at home	1
Provide higher speed	1

Attachment 4

Library Survey Instrument Mark-up

Attachment 4

**UTC Library Community Broadband Data Network Survey
Total Respondents (N=4)**

The Washington Utilities and Transportation Commission (UTC) has retained CBG Communications, Inc. to conduct this survey to determine the broadband data network usage, needs and interests of libraries in five Washington counties (Columbia, Ferry, Grays Harbor, Lewis and Stevens). The results of the survey will be used to help Washington State government gain a better understanding of your Library district’s utilization of network infrastructure and services and how such utilization lends itself to the provision of library services, including public access to the Internet. Please take a few minutes to let us know how you currently utilize broadband network infrastructure and services and what impact broadband has on the operations of your library district. **The survey should be completed by May 12, 2008. Thank you for your assistance!**

1. Library District you represent:

Library District

- Timberland Regional Library
- North Central Regional Library - Republic Community Library
- Libraries of Stevens County (Stevens County Rural Library District)
- Columbia County Rural Library District

2. Number of employees:

#	Library District	Number of Employees
1	Timberland Regional Library	400+
2	North Central Regional Library - Republic Community Library	3
3	Libraries of Stevens County	27
4	Columbia County Rural Library District	4

3. Mailing address:

#	Library District	Mailing Address	Phone Number	Fax Number	E-mail Address
1	Timberland Regional Library	415 Tumwater Blvd. SW, Tumwater, WA. 98501	360.943.5001	360.586.6838	gculp@trlib.org
2	North Central Regional Library - Republic Community Library	794 S Clark Ave, Republic WA	509.775.3328	509.775.3328	republic@ncrl.org

3	Libraries of Stevens County	PO Box 744, Loon Lakes, WA 99148	509.233.9521	509.233.9821	tomb@scrld.org
4	Columbia County Rural Library District	315 S 1 st Street, Dayton, WA 99328	509.382.4131	509.382.1059	Jlyons@daytonwa.net

4. Person responding to this survey:

#	Library District	Person responding to this survey	Title
1	Timberland Regional Library	Gwen Culp	Information Technology Manager
2	North Central Regional Library - Republic Community Library	Barbara Walters	IT Manager
3	Libraries of Stevens County	Tom Brown	Systems Administrator
4	Columbia County Rural Library District	Janet Lyons	Director

5. Your Library District's Web site address:

#	Library District	Library's Website
1	Timberland Regional Library	www.trlib.org
2	North Central Regional Library - Republic Community Library	www.ncrl.org
3	Libraries of Stevens County	www.scrld.org
4	Columbia County Rural Library District	www.ccrld.lib.wa.us

6. List (or attach a list of) the main and any branch locations of your Library District:

#	Library District	Locations
1	Timberland Regional Library	
2	North Central Regional Library - Republic Community Library	On file with CBG
3	Libraries of Stevens County	Library of the Lakes
4	Columbia County Rural Library District	Dayton Memorial/Library Only One

Data and Internet Service

7. We currently use telecommunications/broadband networks/services for: *(check all that apply)*

	Timberland Regional Library	North Central Regional Library - Republic Community Library	Libraries of Stevens County	Columbia County Rural Library District
High-speed Data (1.54 Megabits per second or greater) Links Between Sites	X		X	
E-mail	X	X	X	X
Internet/Other Database Access	X	X	X	X
Website applications	X		X	X
File sharing	X			X
Research	X	X	X	X
Online education	X		X	X
Slow Speed Data (System Monitoring and Control)				
Communication and data exchange with central library office	X	X	X	
Communications with Public Safety	X			
Internal Telephone System (i.e., PBX, VoIP)	X			
Video conferencing				
Teletraining/Staff Training	X		X	X
Distance Learning	X		X	
Other? Please describe:				

8. For each of the networks and services you have, indicate below the type and speed of your connection(s) (*check and fill in for all that apply*)

	Timberland Regional Library	North Central Regional Library - Republic Community Library	Libraries of Stevens County	Columbia County Rural Library District
Dial-up Line - 56 Kbps or Less			X	
ISDN				
DSL			768 K	
Cable Modem		Unknown	6 Mbps	1 MB down; 512 K up
Frame Relay/ Fractional T-1; CIR				
T-1	X		X	
Satellite Broadband			1.5 Mbps	
Fiber Optics	10 mb and 100 mb			
Fixed Wireless			1.5 Mbps	
Mobile Wireless (Cellular Aircard)				
Broadband over Power Lines (BPL)				
Other: Type				

9. How are the above indicated telecommunications/broadband networks/services provided? (*Check all that apply*)

	Timberland Regional Library	North Central Regional Library - Republic Community Library	Libraries of Stevens County	Columbia County Rural Library District
We have our own intradistrict network (<i>please attach diagram in PDF form if available</i>) If this is the only service				

you have checked, Go to Q11				
We contract with the cable company. Name of company:			Comcast	Touchet Valley Television
We contract with the telephone company. Name of company:	Qwest			
We contract with another telecommunications/broadband provider. Name of company:	Washington K-20 Network for Internet access	TV Association of Republic	Eltopia InternetXpress Wild Blue	
Other:			Washington K-20	Cable company provides free access

9a. What do you currently pay annually for this service? (*Indicate for each service checked above*)

Number	Library District	Current annual payment for services
1	Timberland Regional Library	Qwest -\$238,392/yr (\$71,518 after E-rate discount); K-20 – approximately \$13,000/yr
2	North Central Regional Library - Republic Community Library	\$50.50/mo
4	Libraries of Stevens County	K-20 - \$2,941; Internet Xpress - \$107; Wild Blue - \$142; Qwest \$4,104
5	Columbia County Rural Library District	\$0

9b. What is the term of your service contract(s)?

Number	Library District	Current term of services
1	Timberland Regional Library	Various
2	North Central Regional Library - Republic Community Library	Month to Month
4	Libraries of Stevens County	Varies

Number	Library District	Current term of services
5	Columbia County Rural Library District	NA

9c. Which of the above companies is your PRIMARY network/service provider?

Number	Library District	Current Primary Network
1	Timberland Regional Library	Qwest
2	North Central Regional Library - Republic Community Library	
4	Libraries of Stevens County	Washington K-20
5	Columbia County Rural Library District	Touchet Valley Television

10. Please rate your level of satisfaction with your PRIMARY contract-provided network/services. (*underline one response for each issue below*)

Timberland Regional Library	Very Satisfied	Satisfied	Dissatisfied	Very Dissatisfied	Don't Know/ Not Applicable
Number of companies to choose from when looking for a provider	1	<u>X</u>	3	4	NA
Service rates	1	<u>X</u>	3	4	NA
Billing practices	<u>X</u>	2	3	4	NA
Reliability	<u>X</u>	2	3	4	NA
Ease of use	<u>X</u>	2	3	4	NA
Customer Service Reps' knowledge and courteousness	<u>X</u>	2	3	4	NA
Installation technicians' ability and courteousness	<u>X</u>	2	3	4	NA

North Central Regional Library – Republic Community Library	Very Satisfied	Satisfied	Dissatisfied	Very Dissatisfied	Don't Know/ Not Applicable
Number of companies to choose from when looking for a provider	1	2	3	<u>X</u>	NA
Service rates	1	<u>X</u>	3	4	NA
Billing practices	1	<u>X</u>	3	4	NA
Reliability	1	2	<u>X</u>	4	NA
Ease of use	1	<u>X</u>	3	4	NA
Customer Service Reps' knowledge and courteousness	<u>X</u>	2	3	4	NA
Installation technicians' ability and courteousness	<u>X</u>	2	3	4	NA

Libraries of Stevens County	Very Satisfied	Satisfied	Dissatisfied	Very Dissatisfied	Don't Know/ Not Applicable
Number of companies to choose from when looking for a provider	X	2	3	4	NA
Service rates	X	2	3	4	NA
Billing practices	X	2	3	4	NA
Reliability	X	2	3	4	NA
Ease of use	X	2	3	4	NA
Customer Service Reps' knowledge and courteousness	X	2	3	4	NA
Installation technicians' ability and courteousness	X	2	3	4	NA

Columbia County Rural Library	Very Satisfied	Satisfied	Dissatisfied	Very Dissatisfied	Don't Know/ Not Applicable
Number of companies to choose from when looking for a provider	1	2	3	4	NA
Service rates	1	2	3	4	NA
Billing practices	1	2	3	4	NA
Reliability	1	2	3	4	NA
Ease of use	1	2	3	4	NA
Customer Service Reps' knowledge and courteousness	1	2	3	4	NA
Installation technicians' ability and courteousness	1	2	3	4	NA

11 Do you utilize the Washington State K-20 Network? Yes No

Number	Library District	Do you utilize the Washington State K-20 Network?	
		Yes	No
1	Timberland Regional Library	X	
2	North Central Regional Library - Republic Community Library		X
4	Libraries of Stevens County	X	
5	Columbia County Rural Library District		X

12. If yes, please describe how you utilize the K-20 Network.

Number	Library District	Describe you utilization of the K-20 Network
1	Timberland Regional Library	100mb connection from Timberland Regional Library Administrative Service Center in Tumwater to the K-20 Network for Internet access
2	North Central Regional Library - Republic Community Library	
4	Libraries of Stevens County	We use K-20 to provide Internet service to out patrons and access to our web server and data server
5	Columbia County Rural Library District	

13. Please list (or attach a list or map of) library locations that are currently connected together via the network(s) you utilize.

Number	Library District	List of library locations that are connected
1	Timberland Regional Library	On file with CBG
2	North Central Regional Library - Republic Community Library	
4	Libraries of Stevens County	Library of the Lakes; Colville Public Library are connected via P2? Provided by Qwest
5	Columbia County Rural Library District	

14. Do you provide public access to the Internet? Yes No

Number	Library District	Do you public access to the Internet?	
		Yes	No
1	Timberland Regional Library	X	
2	North Central Regional Library - Republic Community Library	X	
4	Libraries of Stevens County	X	
5	Columbia County Rural Library District	X	

15. If yes, please describe how such public Internet access is provided:

Number	Library District	How is such public Internet access provided?
1	Timberland Regional Library	674,341 total public Internet sessions in 2007 for Timberland 5-county library system which includes 139518 in Timberland libraries in Grays Harbor County and 93292 in Timberland libraries in Lewis County
2	North Central Regional Library - Republic Community Library	Republic offers 3 Public Internet terminals. The computers were purchased through a 3rd party library vendor "Useful". They also have 2 computers designated for searching the catalog
4	Libraries of Stevens County	Computers for the public to use and wireless hot spots
5	Columbia County Rural Library District	4 Internet computers, 1 PAC stations (also online); Fee Wi-Fi

16. Please rate the utilization of such access by the public

Very High High Moderate Low Not Used

	Timberland Regional Library	North Central Regional Library - Republic Community Library	Libraries of Stevens County	Columbia County Rural Library District
Very High	X	X	X	X
High				
Moderate				
Low				
Not Used				

17. Do you find that your current network(s) or services are too slow, or unable to meet your current or projected application demands?

Yes No (*Go to Q19*)

#	Library District	Library Response	
		Yes	No
1	Timberland Regional Library	X	
2	North Central Regional Library - Republic Community Library	X	
4	Libraries of Stevens County	X	
5	Columbia County Rural Library District	X	

18. What applications need higher speeds?

What applications need higher speeds?	Timberland Regional Library	North Central Regional Library - Republic Community Library	Libraries of Stevens County	Columbia County Rural Library District
GIS (Geographic Information Systems)				
Faster/greater data throughput between locations	X	X	X	
Full motion video	X			
Capacity for additional users <i>(please attach a list of locations or facilities if expanding beyond current sites)</i>				
Other <i>(describe)</i> :				Need more Internet computers

19. For any of the networks you utilize, are your current data, voice and video systems reliable?

Yes No **If No**, please describe any problems:

Number	Library District	For any of the networks you utilize, are your current data, voice and video systems reliable?	
		Yes	No
1	Timberland Regional Library	X	
2	North Central Regional Library - Republic Community Library		Dropped connections (packets) cause the staff to continually reboot the Horizon (library) database client software.
4	Libraries of Stevens County		
5	Columbia County Rural Library District		Could use microphone, earphones for online interactive seminars (for staff)

20. How important is a robust broadband connection to your day-to-day library operations (*check one*)?

How important is a robust broadband connection to your day-to-day library operations (check one)?	Timberland Regional Library	North Central Regional Library - Republic Community Library	Libraries of Stevens County	Columbia County Rural Library District
Very Important	X	X	X	X
Important				
Somewhat Important				
Not at All Important				

21. Why is (are) broadband connection(s) important to your library district?

Number	Library District	Why is (are) broadband connection(s) important to your library district?
1	Timberland Regional Library	We provide high-speed public Internet access in many remote areas where there is no affordable high-speed access at home or no high-speed access options at all. As web applications increase their bandwidth requirements we need to upgrade our connections. We also use our network to provide access for our 27 libraries to the applications installed at the Timberland Administrative Service Center in Tumwater, including the library circulation system, email, web servers, voice mail, content filtering, etc.
2	North Central Regional Library - Republic Community Library	Important for circulation of library material and for research which helps the community.
4	Libraries of Stevens County	The public has come to expect high-speed connection. Our circulation service requires broadband to give timely service
5	Columbia County Rural Library District	Many in community are low-income, have no other Internet service; computer classes in library; distance learning, maintenance and library website

22. When you sought network services for your library district, how would you describe the availability of multiple, competing service and infrastructure options (*check one*)?

How would you describe the availability of multiple, competing service and infrastructure options (check one)?	Timberland Regional Library	North Central Regional Library - Republic Community Library	Libraries of Stevens County	Columbia County Rural Library District
Competitive, many options				
Somewhat Competitive, a handful of options	X		X	X
Only Slightly Competitive, two providers				
Not Competitive at All, only one provider option		X		
There is not a network option available that is suitable for our local government.				

23. Would it be beneficial to you if the broadband environment in your area was enhanced?

Yes No

Number	Library District	Would it be beneficial to you if the broadband environment in your area was enhanced?	
		Yes	No
1	Timberland Regional Library	X	
2	North Central Regional Library - Republic Community Library	X	
4	Libraries of Stevens County		
5	Columbia County Rural Library District	X	

23a. If Yes, how would it be beneficial:

Number	Library District	How would it be beneficial?
1	Timberland Regional Library	It would be beneficial if the cost were reduced. _We have 10mb connection in 11 libraries, will be adding 2 more in 2008, and the rest are T1s. We will be adding multiple T1s in 2 locations in 2008 because 10mb Ethernet is not available or too costly. We have additional libraries where we would like to upgrade the network but additional T1s and Ethernet are both too costly
2	North Central Regional Library - Republic Community Library	Important for circulation of library material and for research which helps the community.
4	Libraries of Stevens County	
5	Columbia County Rural Library District	More people would have access to higher connectivity speed, so the library could then really consider downloadable books via tape and other services. Most people use dial-up

24. If enhanced broadband network infrastructure and services were developed within your jurisdiction to provide cost-effective, highly reliable video, voice and data communications, your organization would use it for:

Use of enhanced Broadband Network Infrastructure and Services	Timberland Regional Library		North Central Regional Library - Republic Community Library		Libraries of Stevens County		Columbia County Rural Library District	
	Current Need	Long-Term Need	Current Need	Long-Term Need	Current Need	Long-Term Need	Current Need	Long-Term Need
High-speed Data (1.54 Megabits per second or greater) Links Between Sites	X	X	X					X
E-Mail	X	X	X					X
Internet/Other Database Access	X	X	X				X	
Website applications	X	X					X	
File sharing	X	X	X				X	
Research	X	X	X					X
Online education	X	X						X
Slow Speed Data (System Monitoring and Control)		X					X	

Use of enhanced Broadband Network Infrastructure and Services	Timberland Regional Library		North Central Regional Library - Republic Community Library		Libraries of Stevens County		Columbia County Rural Library District	
	Current Need	Long-Term Need	Current Need	Long-Term Need	Current Need	Long-Term Need	Current Need	Long-Term Need
Communication with the central library office	X	X	X					X
Communications with Public Safety								X
Internal Telephone System (i.e., PBX, VoIP)	X	X		X				X
Video conferencing		X						X
Teletraining/Staff Training	X	X		X			X	
Distance Learning	X	X						X
Other? Please describe:								

25. For each category checked above, please describe the planned use of such an enhanced network.

Application (e.g., High-speed Data Links Between Sites)

Planned Use (e.g., Remote connection to central server)

#	Library District	Application (e.g., High-speed Data Links Between Sites)	Planned Use (e.g., Remote connection to central server)
1	Timberland Regional Library		
2	North Central Regional Library - Republic Community Library		
4	Libraries of Stevens County		
5	Columbia County Rural Library District	<p>High-speed Data links</p> <p>E-mail</p> <p>Video Conferencing</p>	<p>May have additional branches in future and need remote connection to central server.</p> <p>May need email if additional branches become a reality in the future. Current provider for email is only provided in city limits</p> <p>No one in town has the service, would be great to have services and ones that work with Community College in Walla Walla to provide</p>

#	Library District	Application (e.g., High-speed Data Links Between Sites)	Planned Use (e.g., Remote connection to central server)
		Teletraining Staff	college classes in our small rural town Need now since it is hard to get staff to other places to train

26. What is the most important network-related issue facing your library district at this time?

#	Library District	Most important network-related issue facing your library district
1	Timberland Regional Library	Cost and availability of Ethernet or multiple T1s – see 23a above
2	North Central Regional Library - Republic Community Library	VPN traffic between the branches and the main library.
4	Libraries of Stevens County	The public wants streaming media which requires a lot of bandwidth
5	Columbia County Rural Library District	We do not have enough public use computers

27. What are the most critical long-term network-related needs of your library district?

Number	Library District	Most critical long-term network-related needs of your library district
1	Timberland Regional Library	
2	North Central Regional Library - Republic Community Library	Database connection between the branches and main library
4	Libraries of Stevens County	More bandwidth
5	Columbia County Rural Library District	Providing high-speed data links especially as we grow and possibly add other branches in the County.

28. Do you have any thoughts about how the State or any other entity could help enhance broadband availability in your jurisdiction?

Number	Library District	How can the State help
1	Timberland Regional Library	
2	North Central Regional Library - Republic	No

Number	Library District	How can the State help
	Community Library	
4	Libraries of Stevens County	
5	Columbia County Rural Library District	State Library is already providing K-20 to schools and public libraries if they want it. Phone companies and/or power companies need to provide fiber optics in county. We are so rural and many hills in County that often satellite won't work

29. Do you have any other comments about broadband service and infrastructure availability in your jurisdiction?

Number	Library District	Comments about broadband service and infrastructure availability in your jurisdiction
1	Timberland Regional Library	
2	North Central Regional Library - Republic Community Library	No
4	Libraries of Stevens County	
5	Columbia County Rural Library District	

30. Does your Organization presently have a written plan to address future telecommunications needs and uses? Yes No Don't Know

If Yes, please submit a copy of the plan along with this Survey.

#	Library District	Does your Organization presently have a written plan to address future telecommunications needs and uses?			Please submit a copy of the plan along with this Survey
		Yes	No	Don't Know	
1	Timberland Regional Library				
2	North Central Regional Library - Republic Community Library			X	
4	Libraries of Stevens County			X	

#	Library District	Does your Organization presently have a written plan to address future telecommunications needs and uses?			Please submit a copy of the plan along with this Survey
		Yes	No	Don't Know	
5	Columbia County Rural Library District		X		

The UTC greatly appreciates your cooperation in completing this survey. **Please submit the completed survey by May 12, 2008 to robinson@cbgcommunications.com** or by fax to 610-889-7475. If you have any questions related to the survey, contact Tom Robinson with CBG Communications at 73 Chestnut Road, Paoli, PA 19301, by phone (610) 889-7471 or by email to the above address.

Attachment 5
Local Government Survey
Instrument Mark-up

Attachment 5

**UTC Government Broadband Data Network Survey Mark-up
Respondents (N=5 County/19 Cities & Towns)**

The Washington Utilities and Transportation Commission (UTC) has retained CBG Communications, Inc. to conduct this survey to determine the broadband data network usage, needs and interests of local governments. The results of the survey will be used to help Washington State government gain a better understanding of your jurisdiction’s utilization of network infrastructure and services and how such utilization lends itself to the provision of government services. Please take a few minutes to let us know **if and how** you currently utilize broadband network infrastructure and services and what impact broadband has on the operations of your local government. **The survey should be completed by May 5, 2008. Thank you for your assistance!**

1. Local Government: Department/Agency:

#	Local Government	Responding Department/Agency
1	City Of Chehalis,	IT
2	City of Kettle Falls	Planning
3	Town of Springdale	Clerk Treasurer
4	City of Westport	Computer Support
5	Town of Marcus	Mayor
6	Stevens County	Information Services Department
7	Lewis County	Information Services
8	City of Mossyrock	Clerk's Office
9	City of Ocean Shores	IT
10	City of Republic	Administration
11	Ferry County	MIS
12	Grays Harbor County	Network Administrator
13	City of Morton	All Departments
14	City of Winlock	All Departments
15	City of Centralia	Centralia Utilities/Information Technology
16	Town of Northport	Clerk/Treasurer
17	City of McCleary	City Administration
18	City of Toledo	Clerk's Office
19	Columbia County	IT & Emergency Management
20	City of Vader	Finance Department
21	City of Elma	Mayor
22	City of Oakville	Clerk's Office
23	City of Hoquiam	Finance
24	City of Elma	Clerk-Treasurer's Office/Building Inspector
25	City of Chewelah	City Administration

2. Number of employees:

#	Local Government	Number of Employees
1	City Of Chehalis,	145
2	City of Kettle Falls	15
3	Town of Springdale	4
4	City of Westport	30
5	Town of Marcus	3
6	Stevens County	350
7	Lewis County	NR
8	City of Mossyrock	4
9	City of Ocean Shores	95
10	City of Republic	9
11	Ferry County	2
12	Grays Harbor County	~500
13	City of Morton	12
14	City of Winlock	10
15	City of Centralia	150
16	Town of Northport	1 full time - 1 part time
17	City of McCleary	25
18	City of Toledo	7
19	Columbia County	NR
20	City of Vader	5
21	City of Elma	22
22	City of Oakville	4
23	City of Hoquiam	85
24	City of Elma	4
25	City of Chewelah	23

3. Mailing address: _____ Phone number: _____
 Fax number: _____ E-mail address: _____

#	Local Government	Mailing Address	Phone Number	Fax Number	E-mail Address
1	City Of Chehalis,	350 N Market Blvd., Chehalis, WA 98532	(360)345-1042		eschonack@ci.chehalis.wa.us
2	City of Kettle Falls	PO Box 457	(509)738-6821	(509)738-4577	kfkeeley@plix.com
3	Town of Springdale	PO Box 220	(509) 258-7258	(509) 258-9131	townofspringdalewa@yahoo.com or townofspringdalewa@live.com

#	<u>Local Government</u>	<u>Mailing Address</u>	<u>Phone Number</u>	<u>Fax Number</u>	<u>E-mail Address</u>
4	City of Westport	PO Box 505, Westport, WA 98595	360-268- 0131	360-268- 0921	codesandsafety@ci.westport.wa.us
5	Town of Marcus	P.O. Box 98, Marcus WA 99151	509-684- 3771	509-684- 6016	marcus@ultraplix.com
6	Stevens County	215 S. Oak Street, Room 113, Colville, WA 99114	(509) 684- 7505	(509) 684- 8310	mcurtis@co.stevens.wa.us
7	Lewis County				
8	City of Mossyrock	PO Box 96 Mossyrock, WA 98564	360 983- 3300	360 983- 8910	clerk@lewiscounty.com
9	City of Ocean Shores	PO Box 909, Ocean Shores, WA. 98569	360-289- 4210	360-289- 2762	lfundy@osgov.com
10	City of Republic	PO Box 331	509-775- 3216	509-775- 2571	cor@rcabletv.com
11	Ferry County	350 East Delaware #3	509-775- 5242	509-775- 5213	ddirks@co.ferry.wa.us
12	Grays Harbor County	100 W. Broadway, Suite #32, Montesano, WA 98563	360-249- 4144 x527	360-249- 5669	gmawhorter@co.grays-harbor.wa.us
13	City of Morton	PO Box 1089 Morton, Washington 98356	360-496- 6881	360-496- 6899	sclaycamp@visitmorton.com
14	City of Winlock	PO Box 777, Winlock, WA 98596	360-785- 3811	360-785- 4378	wincity@toledotel.com
15	City of Centralia	1100 North Tower Avenue	360-330- 7512	360-330- 7516	mbaine@cityofcentralia.com
16	Town of Northport	P.O. Box 177, Northport, WA 9157	(509)732- 4450	(509)732- 4450	northprt@theofficenet.com
17	City of McCleary	100 S 3rd Street, McCleary, WA 98557	360-495- 3667	360-495- 3097	bussen@cityofmccleary.com

#	<u>Local Government</u>	<u>Mailing Address</u>	<u>Phone Number</u>	<u>Fax Number</u>	<u>E-mail Address</u>
18	City of Toledo	PO Box 236, Toledo, WA 98591	360-864- 4564	360-864- 4566	cityoftoledo@toledotel.com
19	Columbia County	PO Box 5 Dayton, WA 99328	509-382- 2534		stephen_gregg@co.columbia.wa.us
20	City of Vader	PO Box 189, Vader, WA 98593	360.295.3222	360.295.3012	vader@toledotel.com
21	City of Elma	P.O. Box E	360-482- 2212	360-482- 4960	mayor@cityofelma.com
22	City of Oakville	P.O. Box D	360-273- 8916	360-273- 5120	oakvillecityhall@comcast.net
23	City of Hoquiam	609 8th Street, Hoquiam, WA 98550	360-532- 5700	360-532- 2306	mfolkers@cityofhoquiam.com
24	City of Elma	P.O. Box E Elma, WA 98541	360-482- 2212	360-482- 4960	diana@cityfoelma.com
25	City of Chewelah	P.O. Box 258	509-935- 8311	509-935- 6279	ckelling@cityofchewelah.org

4. Person responding to this survey: _____ Title: _____

#	<u>Local Government</u>	<u>Person responding to this survey</u>	<u>Title</u>
1	City Of Chehalis,	Ed Schonack	Contracted IT Administrator
2	City of Kettle Falls	David Keeley	City Planner
3	Town of Springdale	Lisa Sheppard	Clerk Treasurer
4	City of Westport	Charles Corbett	Code Enforcement Official/Safety & Health Officer/Computer Support
5	Town of Marcus	Fran Bolt	Mayor
6	Stevens County	Mark R. Curtis	Director, Information Services Department
7	Lewis County		
8	City of Mossyrock	Laverne Haslett	Temporary Financial Clerk
9	City of Ocean Shores	Lee Fundenberger	IT manager
10	City of Republic	CJ Stevens	Clerk/Treasurer
11	Ferry County	Darrell Dirks	MIS Director
12	Grays Harbor County	Gary Mawhorter	Network Administrator
13	City of Morton	Sherry Claycamp	City Clerk
14	City of Winlock	Judy Bradburn	Clerk/Treasurer

#	<u>Local Government</u>	<u>Person responding to this survey</u>	<u>Title</u>
15	City of Centralia	Marc A. Baine	Information Technology Manager
16	Town of Northport	Karen Baribault	Clerk-Treasurer
17	City of McCleary	Busse Nutley	City Administrator
18	City of Toledo	Jill Allison	Deputy Clerk
19	Columbia County	Stephen Gregg	IT Administrator
20	City of Vader	Kathy M Crawford	Clerk/Treasurer
21	City of Elma	Dave Osgood	Mayor
22	City of Oakville	Amy Durga	Clerk/Treasurer
23	City of Hoquiam	Mike Folkers	Finance Director
24	City of Elma	Diana Easton	Clerk-Treasurer
25	City of Chewelah	Curt Kelling	City Administrator

5. Your government's Web site address: _____

#	<u>Local Government</u>	<u>Government's Website</u>
1	City Of Chehalis,	www.cityofchehalis.com
2	City of Kettle Falls	www.kettlefalls.com
3	Town of Springdale	
4	City of Westport	http://ci.westport.wa.us
5	Town of Marcus	N/A
6	Stevens County	www.co.stevens.wa.us
7	Lewis County	
8	City of Mossyrock	N/A
9	City of Ocean Shores	osgov.com
10	City of Republic	www.republicwa.org
11	Ferry County	Ferry-County.com
12	Grays Harbor County	www.co.grays-harbor.wa.us
13	City of Morton	visitmorton.com
14	City of Winlock	winlock.wa.govoffice2.com
15	City of Centralia	www.cityofcentralia.com
16	Town of Northport	None
17	City of McCleary	www.cityofmccleary.com
18	City of Toledo	N/A
19	Columbia County	www.columbiaco.com
20	City of Vader	n/a
21	City of Elma	mayor@cityofelma.com
22	City of Oakville	None
23	City of Hoquiam	www.cityofhoquiam.com
24	City of Elma	cityofelma.com
25	City of Chewelah	cityofchewelaha.com

6. List (or attach a list of) the main and any satellite or field offices of your government:

#	Local Government	Locations
1	City Of Chehalis,	Within 2 miles of given address
2	City of Kettle Falls	580 S. Meyers St
3	Town of Springdale	
4	City of Westport	
5	Town of Marcus	N/A
6	Stevens County	Colville, Kettle Falls, Chewelah, Loon Lake, Davenport
7	Lewis County	
8	City of Mossyrock	N/A
9	City of Ocean Shores	Emailed
10	City of Republic	
11	Ferry County	350 East Delaware, Republic, Wa 99166
12	Grays Harbor County	Aberdeen, Hoquiam, Elma, Copalis, Westport, Montesano
13	City of Morton	250 Main Avenue Morton, Washington
14	City of Winlock	323 NE First Street, Winlock, WA 98695
15	City of Centralia	118 W. Maple Street
16	Town of Northport	None
17	City of McCleary	100 S 3rd Street, 700 W Maple - McCleary, WA
18	City of Toledo	
19	Columbia County	341 E. Main, Dayton, WA
20	City of Vader	317 8th Street, Vader, WA 95893
21	City of Elma	2nd & Main Street
22	City of Oakville	204 E Main St.
23	City of Hoquiam	609 8th Street, Hoquiam, WA 98550
24	City of Elma	202 W. Main
25	City of Chewelah	Chewelah

Data and Internet Service

7. We currently use telecommunications/broadband networks/services for: (check all that apply)
(N=23)

Answer Options	Response Percent	Response Count
High-speed Data Links Between Sites (1.54 Megabits per second or greater)	30%	7
E-mail	100%	23
Internet/Other Database Access	96%	22
Website applications	57%	13
File sharing	39%	9
E-government	22%	5

Research	65%	15
Online education	39%	9
Slow Speed Data (System Monitoring and Control)	9%	2
Intergovernmental functions	30%	7
Public Safety Communications	35%	8
Internal Telephone System (i.e., PBX, VoIP)	22%	5
Video conferencing	26%	6
Teletraining/Staff Training	22%	5
Distance Learning	22%	5
	Other (please specify)	3

<u>Number</u>	<u>Local Government</u>	<u>Other Response (Please Specify)</u>
1	City of Kettle Falls	online grant applications
2	Stevens County	Cellular Aircards & PDA's
3	Town of Northport	Daily Tasks

8. List below the type and speed of your connection(s) (*check and fill in for all that apply*) (N=23)

Answer Options	Response Percent	Response Count
Dial-up Line - 56 Kbps or Less	26%	6
ISDN	9%	2
DSL	57%	13
Cable Modem	26%	6
Frame Relay/Fractional T-1 (i.e., CIR)	13%	3
T-1	26%	6
Satellite Broadband	13%	3
Fiber optics	35%	8
Fixed Wireless	13%	3
Mobile Wireless (Cellular Aircard)	30%	7
Broadband over Power Lines (BPL)	13%	3
Other (indicate type and speed):	22%	5

#	Local Government	Dial-up Line – 56 Kbps or Less
4	City of Westport	Approx. 48Kbps
5	Town of Marcus	28K
6	Stevens County	33Kb
16	Town of Northport	52(?)
20	City of Vader	56K
24	City of Elma	Don't Know

#	<u>Local Government</u>	<u>ISDN</u>
5	Town of Marcus	Don't know
6	Stevens County	128 KB

#	<u>Local Government</u>	<u>DSL</u>
1	City Of Chehalis,	1.5 Mbs
5	Town of Marcus	N/A
6	Stevens County	786 Kb
7	Lewis County	Don't Know
13	City of Morton	Don't Know
15	City of Centralia	6 Mbps
18	City of Toledo	Don't' Know
19	Columbia County	7 Mbps
20	City of Vader	Don't Know
21	City of Elma	Don't Know
24	City of Elma	3 Mbps
25	City of Chewelah	1.5 mg

#	<u>Local Government</u>	<u>Cable Modem</u>
4	City of Westport	Approximately 12 Mbps
5	Town of Marcus	N/A
6	Stevens County	N/A
10	City of Republic	This is what we use; do not know the speed
17	City of McCleary	Don't Know
22	City of Oakville	Don't Know

#	<u>Local Government</u>	<u>Frame Relay/Fractional T-1 (i.e., CIR)</u>
5	Town of Marcus	Don't Know
6	Stevens County	N/A
7	Lewis County	56 K

#	<u>Local Government</u>	<u>T-1</u>
5	Town of Marcus	N/A
6	Stevens County	1.54 Mb
7	Lewis County	2 @ 1.5 MB
11	Ferry County	1.5 Mbs
12	Grays Harbor County	1.5 Mbps
19	Columbia County	1.5 mbps

#	<u>Local Government</u>	<u>Satellite Broadband</u>
5	Town of Marcus	N/A
6	Stevens County	N/A
16	Town of Northport	Don't Know (provided through Eltopia)

#	<u>Local Government</u>	<u>Fiber Optics</u>
1	City Of Chehalis,	5.0 Mbs
5	Town of Marcus	Not available
6	Stevens County	100 Mb & 1 Gb
7	Lewis County	10 MB, 100 MB, and 1 GB
12	Grays Harbor County	1 GB, 10/100 Mbps
15	City of Centralia	100 Mbps
23	City of Hoquiam	Don't Know
24	City of Elma	Don't Know

#	<u>Local Government</u>	<u>Fixed Wireless</u>
2	City of Kettle Falls	1130 kbps
5	Town of Marcus	N/A
6	Stevens County	54 Mb

#	<u>Local Government</u>	<u>Mobile Wireless (Cellular Aircard)</u>
1	City Of Chehalis,	Don't Know
5	Town of Marcus	N/A
6	Stevens County	128 Kb
7	Lewis County	1 MB
18	City of Toledo	Don't Know
20	City of Vader	Don't Know
24	City of Elma	Don't Know

#	<u>Local Government</u>	<u>Broadband over Power Lines (BPL)</u>
5	Town of Marcus	N/A
6	Stevens County	N/A
15	City of Centralia	4 Mbps

#	<u>Local Government</u>	<u>Other (indicate type and speed):</u>
5	Town of Marcus	N/A
6	Stevens County	N/A
8	City of Mossyrock	Don't' Know
12	Grays Harbor County	IP MobileNet – 56 K
19	Columbia County	2 Base – TL – 2 Mbps

9. How are the above indicated telecommunications/broadband networks/services provided? (Check all that apply) (N=21)

Answer Options	Response Percent	Response Count
We have our own network	19%	4
We contract with the cable company. Name of company:	48%	10
We contract with the telephone company. Name of company:	38%	8
We contract with another telecommunications/broadband provider. Name of company:	52%	11
Other (Indicate how provided and company)	14%	3

#	Local Government	We have our own network
6	Stevens County	We have our own network connected to the IGN/SGN/PGN
12	Grays Harbor County	Yes we have our own network
13	City of Morton	Local Provider – Tiger Mountain Tech
19	Columbia County	Various

#	Local Government	We contract with the cable company. Name of company:
4	City of Westport	Comcast
6	Stevens County	Charter Communication for one fiber link
7	Lewis County	Comcast
8	City of Mossyrock	Tiger Mountain
10	City of Republic	Republic Television Association
12	Grays Harbor County	Comcast
15	City of Centralia	Rainier Connect
17	City of McCleary	Comcast
20	City of Vader	Toledo Telenet
22	City of Oakville	Comcast

#	Local Government	We contract with the telephone company. Name of company:
1	City Of Chehalis,	Qwest
6	Stevens County	Qwest and CenturyTel
7	Lewis County	Qwest
11	Ferry County	Verizon
15	City of Centralia	Qwest/State of Washington DIS
18	City of Toledo	Toledo Telephone Co., Inc.
20	City of Vader	US Cellular
25	City of Chewelah	CenturyTel

#	<u>Local Government</u>	<u>We contract with another telecommunications/broadband provider. Name of company:</u>
1	City Of Chehalis,	Rainier Connect
2	City of Kettle Falls	Internet Xpress
6	Stevens County	AT&T, Verizon and unicell Cellular Aircards and Cell Phones
7	Lewis County	Sprint
11	Ferry County	Washington State DIS
12	Grays Harbor County	Techtel
15	City of Centralia	Mainnet/Corinex
18	City of Toledo	Sprint/Nextel
21	City of Elma	Reachone
23	City of Hoquiam	TSS Digital

#	<u>Local Government</u>	<u>Other</u>
5	Town of Marcus	Dial-up
6	Stevens County	County owned Emergency 911 radio network and Public Works radio network
7	Lewis County	PUD

9a. What do you currently pay for this service? (Indicate for each service checked above) \$

#	<u>Local Government</u>	<u>Current payment for services</u>
1	City Of Chehalis,	Don't Know
2	City of Kettle Falls	\$495 per year for service, \$420 for web page hosting
4	City of Westport	99.99/mo. for cable - 21.95/mo. for dial-up
5	Town of Marcus	\$25.00 per month
6	Stevens County	\$60/mo for Aircards, \$50/mo each for ten DSL connections, \$900/mo for single T1 connection to IGN, \$1800/yr for the one Charter fiber connection, \$850/mo for T1 connection to Davenport, \$450/mo for T1 connection to Chewelah
8	City of Mossyrock	\$30
10	City of Republic	The City pays nothing
11	Ferry County	\$420.00 for DIS T-1 Line
12	Grays Harbor County	Comcast - \$45; TechTel ??
13	City of Morton	\$1,100 Annually
15	City of Centralia	\$45 per loc/mo, \$2800/mo, Pilot Test
16	Town of Northport	Free for Town Hall - \$30.00 - \$50.00 for regular customers
18	City of Toledo	DSL - \$39.95/month; Cellular Aircards \$205.00/month
20	City of Vader	\$15/month for dial-up, \$32.99/month for DSL at Police Dept., \$146.02/month for 2 air cards
21	City of Elma	City Hall - \$64.95 Police - \$59.95
22	City of Oakville	\$95.00 per month
23	City of Hoquiam	\$377.43 per month

9b. What is the term of your service contract(s)?

#	Local Government	Term of your service contract
1	City Of Chehalis,	Yearly
2	City of Kettle Falls	renewed annually
4	City of Westport	Monthly
5	Town of Marcus	6 months
6	Stevens County	Aircards are 2/year contracts, DSL's are month-to-month, T1's are yearly contracts, Charter is a yearly contract,
8	City of Mossyrock	Don't Know
10	City of Republic	No contract
12	Grays Harbor County	Monthly
13	City of Morton	Annual March to March
15	City of Centralia	1 year, annual (in review), 6 months
16	Town of Northport	Free for Town Hall - Tower is placed on our property
18	City of Toledo	Unknown
20	City of Vader	1 year for dial-up, 2 years for DSL, no term for air cards
22	City of Oakville	monthly
23	City of Hoquiam	Annual
25	City of Chewelah	on going

9c. Which of the above companies is your primary network/service provider?

#	Local Government	Primary Network/Service Provider
1	City Of Chehalis,	Rainier Connect
2	City of Kettle Falls	Internet Xpress
4	City of Westport	Comcast
5	Town of Marcus	Plix.com
6	Stevens County	Qwest
8	City of Mossyrock	Tiger Mountain
10	City of Republic	same one
11	Ferry County	DIS
12	Grays Harbor County	self
15	City of Centralia	Rainier Connect
16	Town of Northport	Eltopia
18	City of Toledo	Toledo Telephone Co., Inc.
20	City of Vader	Toledo
21	City of Elma	Reachone
22	City of Oakville	Comcast
23	City of Hoquiam	TSS
25	City of Chewelah	CenturyTel

10. Please rate your level of satisfaction with your primary contract-provided network/services. (Circle one response for each issue below) (N=19)

Answer Options	Very Satisfied	Satisfied	Dissatisfied	Very Dissatisfied	Don't Know/Not Applicable	Response Count
Number of companies to choose from when looking for a provider	1	9	9	0	0	19
Service rates	2	11	3	0	2	18
Billing practices	4	10	0	1	3	18
Reliability	5	11	2	0	0	18
Ease of use	5	10	3	0	0	18
Customer Service Reps' knowledge and courteousness	5	12	1	0	0	18
Installation technicians' ability and courteousness	3	14	0	0	0	17

11 Do you utilize the following networks provided by the State Department of Information Services? (N=21)

- a. IGN (InterGovernmental Network) Yes No
- b. PGN (Public Government Network) Yes No

Answer Options	Yes	No	Response Count
IGN (InterGovernmental Network)	5	16	21
PGN (Public Government Network)	1	18	19

12. If yes to any of the above, please describe how you utilize these networks: (N=5)

- a. IGN
- b. PGN

#	Respondent	IGN	PGN
6	Stevens County	Courts to AOC, 911 to WSP, Counseling Center to DSHS, single Internet Provider services, connectivity link for our satellite offices/aircards, elections, Auditor to the Digital Archives, Treasurer to the Dept of Revenue, E-Gov services to residents, VPN connections	911 inquires to NCIC
7	Lewis County	State access, and Internet Access	

11	Ferry County	Internet Access, Application Access, Research	
12	Grays Harbor County	Internet, Courts, Health, Sheriff, WSP ACCESS, Email, Emergency Services, VPN	
19	Columbia County	Various services	

13. Please list (or attach a list or map of) local government locations that are currently connected together via the network(s) you utilize.

#	Respondent	Response Text
1	City of Chehalis	City Hall/Police Department; Fire Department; Public Works; Community Services; Wastewater Treatment Plant
6	Stevens County	Stevens County Courthouse (Colville) T1 Stevens County Courthouse Annex (Colville) Fiber Stevens County 911 Dispatch Center (Colville) Fiber Stevens County Public Works Admin (Colville) Fiber Stevens County Public Works Shop (Colville) Wireless Stevens County Public Works Shop (Chewelah) DSL Stevens County Public Works Shop (Kettle Falls) DSL Stevens County Land Fill (Kettle Falls) DSL Stevens County Counseling Center (Colville) Fiber Stevens County Counseling Client Services Office (Colville) DSL Stevens County Counseling Center (Chewelah) T1 & DSL Stevens County Counseling Center (Davenport) T1 & DSL Stevens County Counseling Workstation at DSHS (Colville) T1 Stevens County Sheriff Substation (Loon Lake) DSL Stevens County Sheriff's Evidence Bldg (Colville) DSL Stevens County Fairgrounds (Colville) DSL Stevens County Weed Board and Conservation District (Colville) Fiber Stevens County Elections Dept (Colville) T1 Stevens County Prosecutor's Child Support Office (Colville) T1 Stevens County Kid's First Office (Colville) T1
10	City of Republic	none
12	Grays Harbor	All police agencies in Grays Harbor County

14. Do you find that your current network(s) or services are too slow, or unable to meet your current or projected application demands? (N=19)
 Yes No (**Go to Q16**)

Answer Options	Response Percent	Response Count
Yes	21%	4
No (Go to Q24)	79%	15

15. What applications need higher speeds? (N=3)

Answer Options	Response Percent	Response Count
GIS (Geographic Information Systems)	33%	1
Faster/greater data throughput between locations	67%	2
Full motion video	33%	1
Capacity for additional users	67%	2
	Other (please specify)	3

#	Respondent	Other (please specify)
5	Town of Marcus	Since we are only on dial-up (copper!!) everything is too slow
6	Stevens County	At our current connection speeds, we are not able to transmit a complete data backup digitally to a remote site.
10	City of Republic	Do not understand the question don't think it applies to us

16. For any of the networks you utilize, are your current data, voice and video systems reliable? (N=17)

Yes No **If No**, please describe any problems

Answer Options	Response Percent	Response Count
Yes	77%	13
No	24%	4
	If NO, please describe any problems:	4

Number	Respondent	If NO, please describe any problems:
4	City of Westport	N/A
6	Stevens County	Cellular service providers do not have sufficient coverage in the county for essential emergency services. Most of our sites are single point connections with no redundant paths available.
11	Ferry County	Ferry County has no Redundancy for Voice Or Data Lines
16	Town of Northport	Don't know

17. How important is a robust broadband connection to your day to day government operations (*check one*)? (N=20)

Answer Options	Response Percent	Response Count
Very Important	55%	11
Important	15%	3
Somewhat Important	25%	5
Not at All Important (Skip to Q27)	5%	1

18. Why is (are) broadband connection(s) important to your local government?

#	Respondent	Response Text
1	City of Chehalis	Critical data is accessed daily by police and fire departments. Non critical yet extremely important data is accessed daily by other departments that would otherwise not be able to function without it.
2	City of Kettle Falls	Online forms and government to government transactions. Downloading large databases.
4	City of Westport	Saves a lot of time. Access to information is much easier.
5	Town of Marcus	Doing business, Economic Development, Education
6	Stevens County	Everyday business practices in all county departments rely absolutely on broadband connections. If these connections slow down or break, essential services cannot be performed.
7	Lewis County	Primary (Cellular) functions are for Law Enforcement and it is necessary for 24/7 access. IGN is needed for day to day business operations both for State agency access, and for Internet communications.
10	City of Republic	faster Internet
11	Ferry County	More and More Offices are relying on web base applications for there day to day business. Courts, Juvenal, Prosecutor, Corrections and E-911.I know my office would not be able to function with out it. We use the Internet to fix most of are software and hardware problems.
12	Grays Harbor County	Department connectivity to IGN
15	City of Centralia	These help ensure reliable connectivity between locations, reliable email delivery and reliable remote system connectivity.
18	City of Toledo	Communication reasons
21	City of Elma	Day to day operations
22	City of Oakville	We use email and Internet daily
23	City of Hoquiam	Communication and productivity.
25	City of Chewelah	It would be more important, but they have never had them is this area, so we've not done any ramping up to use them

19. When you sought network services for your local government, how would you describe the availability of multiple, competing service and infrastructure options? (N=19)

Answer Options	Response Percent	Response Count
Competitive, many options	0%	0
Somewhat Competitive, a handful of options	26%	5
Only Slightly Competitive, two providers	32%	6
Not Competitive at All, only one provider option	37%	7
There is not a network option available that is suitable for our local government.	5%	1

20. Would it be beneficial to you if the broadband environment in your area was enhanced? (N=18)

Yes No

Answer Options	Response Percent	Response Count
Yes	83%	15
No	17%	3
If YES, how would it be beneficial?		12

20a. If Yes, how would it be beneficial:

#	Respondent	If YES, how would it be beneficial?
1	City of Chehalis	If by enhance, you mean broadband to more remote locations, this would benefit the City to help connect facilities that are currently unable to access the network.
2	City of Kettle Falls	backup link would be nice
4	City of Westport	Would hopefully make prices and services more competitive.
6	Stevens County	Continuity of essential government services could be maintained and efficiencies could be gained.
7	Lewis County	It would benefit us the most for a higher speed access to the IGN. Other outlying areas could benefit greatly from DSL, or Cellular particularly for emergency services, and remote connectivity.
10	City of Republic	probably more reliable. We are in a quite remote area, feel lucky to have what we have got
11	Ferry County	Redundancy would be key
12	Grays Harbor County	Mobile Data Terminals
13	City of Morton	More options and services
15	City of Centralia	More options with competitive cost(s).
20	City of Vader	Only beneficial when we can afford the service
22	City of Oakville	there are many outlying areas here that only have dial-up options and they would like high-speed.

21. If enhanced broadband network infrastructure and services were developed within your jurisdiction to provide cost-effective, highly reliable video, voice and data communications, your organization would use it for: (N=18)

Answer Options	Current Need	Longer Term Need	Response Count
High-speed Data Links Between Sites (1.54 Megabits per second or greater)	6	8	14
E-Mail	14	4	18
Internet/Other Database Access	12	4	16
Website applications	11	7	18
File sharing	7	6	13
E-government	5	6	11
Research	12	3	15
Online education	8	5	13
Slow Speed Data (System Monitoring and Control)	5	3	8
Intergovernmental functions	7	4	11
Public Safety Communications	8	9	17
Internal Telephone System (i.e., PBX, VoIP)	5	8	13
Video conferencing	5	8	13
Teletraining/Staff Training	3	7	10
Distance Learning	6	4	10
Other (please specify application and whether a current or longer term need)			1

#	Respondents	Other (please specify application and whether a current or longer term need)
6	Stevens County	Voice over IP would be a longer term need.

22. For each category checked above, please describe the planned use of such an enhanced network.
- | | |
|---|---|
| Application (e.g., High-speed Data Links Between Sites) | Planned Use (e.g., Remote connection to central server) |
|---|---|

Number	Response Date	Response Text
1	City of Chehalis	Our current 5 Mbs connection is more than adequate for our needs at this time. What we need is funding to help give our "remote" sites a broadband connection both for data and for security.
6	Stevens County	High-speed Links - Productivity is currently hampered with slow connections back to the central network which affects all services listed. T1 connection to the IGN - All county departments compete for access to the IGN through one T1 connection. This causes slow connectivity responses and inefficient use of bandwidth. An enhanced broadband network would increase productivity and provide a redundant connection to the IGN.

23. What is the most important network-related issue facing your local government at this time?

Number	Respondent	Response Text
1	City of Chehalis	Access to remote sites.
2	City of Kettle Falls	Reliability. Needs to be up and functioning during work hours.
5	Town of Marcus	Having only dial-up (copper) Almost everything we do is compromised in terms of downloading or uploading. We need to network with all of our States governmental offices and entities
6	Stevens County	Continuity of county operations in case of disruption of the single point connection of our only option to the IGN.
7	Lewis County	Secure remote connectivity.
10	City of Republic	I am not sure how to answer, or if I am the one to answer.
12	Grays Harbor County	Coverage due to topology
13	City of Morton	City lacks up to date technology
15	City of Centralia	Fiber connectivity speed is the most important network-related issue facing our local government at this time.
20	City of Vader	We can't afford high-speed access for all departments. The local DSL provider is unreliable at times.
22	City of Oakville	n/a

24. What are the most critical long-term network-related needs of your local government?

Number	Respondent	Response Text
1	City of Chehalis	Security/monitoring of sites.
2	City of Kettle Falls	Not certain
5	Town of Marcus	Same
6	Stevens County	Create a redundant broadband connection from Colville to the IGN. Increased State data transmission requirements and network security encryptions call for greater bandwidth.
7	Lewis County	Isolated sites needing secure connectivity.
10	City of Republic	same as above
12	Grays Harbor County	Mobility of users
15	City of Centralia	Availability of fiber connections and competitive pricing with local vendors are both critical long-term network-related needs.
20	City of Vader	The ability to work quickly and smoothly with other government agencies.
22	City of Oakville	n/a

25. Do you have any thoughts about how the State or any other entity could help enhance broadband availability in your jurisdiction?

Number	Respondent	Response Text
1	City of Chehalis	Grants or some other form of funding. We have the companies needed to do the work, we just need the funding.
5	Town of Marcus	We do have broadband coming into our area by the fall of 2008
6	Stevens County	As the State Offices require increased data interactivity with county departments, the broadband requirements have been exponentially increased. State resources should be provided to enhance the broadband availability to meet the data interactivity requirements.
7	Lewis County	Make available a higher speed connection for the IGN.
10	City of Republic	don't know
12	Grays Harbor County	No
15	City of Centralia	Encourage more vendors to offer services in the local Lewis County area.
20	City of Vader	No
22	City of Oakville	No

26. Do you have any other comments about broadband service and infrastructure availability in your jurisdiction?

Number	Response Date	Response Text
1	City of Chehalis	As stated before, what is in place is more than adequate. It just needs to be expanded.
4	City of Westport	We have good service we just don't have a variety of service providers in this area. Our current service meets our needs and will probably continue to meet our needs for the foreseeable future.
6	Stevens County	Due to our rural location, the local telecommunication company is unwilling to expand their current capabilities. Local government could pursue competitive broadband options with State financial assistance.
7	Lewis County	Our preference is fiber optics whenever possible. Other services with third party vendors have the inherent issues of possible downtime, and questionable support.
10	City of Republic	don't know
12	Grays Harbor County	No
20	City of Vader	We are a small city in a rural area, so there is not much choice.
22	City of Oakville	No

27. Does your Organization presently have a written plan to address future telecommunications needs and uses? Yes No Don't Know (N=17)

If Yes, please submit a copy of the plan along with this Survey.

Answer Options	Response Percent	Response Count
Yes	0%	0
No	100%	17

The UTC greatly appreciates your cooperation in completing this survey. **Please submit the completed survey by May 5, 2008.** If you have any questions related to the survey, contact Tom Robinson with CBG Communications at 73 Chestnut Road, Paoli, PA 19301, by phone (610) 889-7471 or by email to robinson@cbgcommunications.com

Attachment 6
Tribal Nations Survey Instrument
Mark-up

Attachment 6

**UTC Tribal Nations Broadband Data Network Survey
Respondents (N=3 out of 4 Tribal Nations)**

The Washington Utilities and Transportation Commission (UTC) has retained CBG Communications, Inc. to conduct this survey to determine the broadband data network usage, needs and interests of tribal nations in five Washington counties (Columbia, Ferry, Grays Harbor, Lewis and Stevens). The results of the survey will be used to help Washington State government gain a better understanding of your Tribal Nations utilization of network infrastructure and services and how such utilization lends itself to the provision of tribal services, including public access to the Internet. Please take a few minutes to let us know how you currently utilize broadband network infrastructure and services and what impact broadband has on the operations of your tribal nation. **The survey should be completed by May 12, 2008. Thank you for your assistance!**

1. Local/Tribal Government: Department:

Tribal Nations

County

Department

Chehalis Confederated Indian Tribal Nation
(interview held; awaiting completed survey)

Lewis County

Information Technology

Quinault Indian Tribal Nation

Grays Harbor
County

IT Department

Colville Confederated Indian Tribes

Ferry and

Information Technology

Spokane Indian Tribal Nation (awaiting
response)

Stevens County

2. Number of employees:

#	Tribal Nation	Number of Employees
1	Chehalis Confederated Indian Tribal Nation	2
2	Quinault Indian Tribal Nation	300+
3	Colville Confederated Indian Tribes	28

3. Mailing address:

#	Tribal Nation	Mailing Address	Phone Number	Fax Number	E-mail Address
1	Chehalis Confederated Indian Tribal Nation	420 Howanut Road, Oakville, WA 98568	360-273-5911	360-273-5914	KNaini@chehalisTribes.org
2	Quinault Indian Tribal Nation	POB 189, Taholah WA 98587	360-276-4191	360-276-4191	gterry@quinault.org
3	Colville Confederated Indian Tribes	PO Box 150 Nespelem, WA 99116	509-634-2589		sharon.deleon@colvilletribes.com

4. Person responding to this survey:

#	Tribal Nations	Person responding to this survey	Title
1	Chehalis Confederated Indian Tribal Nation	Kameron Naini	IT Director
2	Quinault Indian Tribal Nation	Gene Terry	IT Manager
3	Colville Confederated Indian Tribes	Kyle Desautel	Project Manager

5. Your government's/nation's Web site address:

#	Tribal Nations	Tribe's Website
1	Chehalis Confederated Indian Tribal Nation	www.chehalis-tribe.org
2	Quinault Indian Tribal Nation	www.Quinaultindiannation.com
3	Colville Confederated Indian Tribes	www.colvilletribes.com

6. List (or attach a list of) the main and any satellite or field offices of your government/nation:

#	Tribal Nations	Locations
1	Chehalis Confederated Indian Tribal Nation	Youth Center, Head Start, Elders Center, Family Services, Family Resources Center, Tribal Center, Natural Resources/DNR, Court/Public Safety, Health Clinic, Store No 1, and offices
2	Quinault Indian Tribal Nation	Queets Village, Tsa'Alal field office (Lake Quinault), Aberdeen TANF Office, Salmon River, Mercer Island
3	Colville Confederated Indian Tribes	

Data and Internet Service

7. We currently use telecommunications/broadband networks/services for: (check all that apply)

	Chehalis Confederated Indian Tribal Nation	Quinault Indian Tribal Nation	Colville Confederated Indian Tribes
High-speed Data (1.54 Megabits per second or greater) Links Between Sites	X		X
E-mail	X	X	X

	Chehalis Confederated Indian Tribal Nation	Quinault Indian Tribal Nation	Colville Confederated Indian Tribes
Internet/Other Database Access	X	X	X
Website applications			X
File sharing	X	X	X
E-government			X – depending on def. K.G.
Research		X	X
Online education	X		X
Slow Speed Data (System Monitoring and Control)			X
Intergovernmental functions	X	X	X
Communications with Public Safety	X	X	X
Internal Telephone System (i.e., PBX, VoIP)	X	X	X
Video conferencing	X	X	
Teletraining/Staff Training		X	X
Distance Learning		X	X
Other? Please describe:			

8. List below the type and speed of your connection(s) (*check and fill in for all that apply*)

	Chehalis Confederated Indian Tribal Nation	Quinault Indian Tribal Nation	Colville Confederated Indian Tribes
Dial-up Line - 56 Kbps or Less			X
ISDN			
DSL		1.5 Mb down	
Cable Modem	X		
Frame Relay/Fractional T-1; CIR			
T-1	X	X	X
Satellite Broadband		1.5 Mb	
Fiber Optics	10 Gigabit Backbone	10/100/1000Mb	100 Mbps – 1 Gbps
Fixed Wireless		G	11-54 Mbps
Mobile Wireless (Cellular Aircard)			256 Kbps+/-
Broadband over Power Lines (BPL)			
Other: Type		We are currently in process of replacing DSL with two Bonded T1s for Internet and a Point-to-Point T1 from main Network in Taholah to village of Queets Speed = 3.0Mb & 1.5Mb	

9. How are the above indicated telecommunications/broadband networks/services provided? (*Check all that apply*)

	Chehalis Confederated Indian Tribal Nation	Quinault Indian Tribal Nation	Colville Confederated Indian Tribes
We have our own intra district network (<i>please attach diagram in PDF form if available</i>) If this is the only service you have checked, Go to Q11	X – Map on File with CBG		X
We contract with the cable company. Name of company:	Comcast		
We contract with the telephone company. Name of company:		CenturyTel	X
We contract with another tele-communications/ broadband provider. Name of company:			Qwest
Other:			

9a. What do you currently pay annually for this service? (*Indicate for each service checked above*)

Number	Tribal Nation	Current annual payment for services
1	Chehalis Confederated Indian Tribal Nation	
2	Quinault Indian Tribal Nation	DSL's are about \$50 each. The T1 w/ Internet will be \$ 850 @ Month and P-2-P T1 will be \$ 185 mo.
3	Colville Confederated Indian Tribes	

9b. What is the term of your service contract(s)?

Number	Tribal Nation	Current term of services
1	Chehalis Confederated Indian Tribal Nation	
2	Quinault Indian Tribal Nation	3 yr contract
3	Colville Confederated Indian Tribes	

9c. Which of the above companies is your PRIMARY network/service provider?

#	Tribal Nation	Current Primary Network
1	Chehalis Confederated Indian Tribal Nation	
2	Quinault Indian Tribal Nation	We maintain our own network internally. CenturyTel is our telco/Internet provider.
3	Colville Confederated Indian Tribes	Qwest

10. Please rate your level of satisfaction with your PRIMARY contract-provided network/services. (underline one response for each issue below)

Quinault Indian Tribal Nation	Very Satisfied	Satisfied	Dissatisfied	Very Dissatisfied	Don't Know/ Not Applicable
Number of companies to choose from when looking for a provider	1	2	X	4	NA
Service rates	1	2	X	4	NA
Billing practices	1	X	3	4	NA
Reliability	1	2	X	4	NA
Ease of use	1	2	X	4	NA
Customer Service Reps' knowledge and courteousness	1	2	X	4	NA
Installation technicians' ability and courteousness	1	X	3	4	NA

Colville Confederated Indian Tribes	Very Satisfied	Satisfied	Dissatisfied	Very Dissatisfied	Don't Know/ Not Applicable
Number of companies to choose from when looking for a provider	1	2	3	4	NA
Service rates	1	2	3	4	NA
Billing practices	1	2	3	4	NA
Reliability	X	2	3	4	NA
Ease of use	X	2	3	4	NA
Customer Service Reps' knowledge and courteousness	X	2	3	4	NA
Installation technicians' ability and courteousness	X	2	3	4	NA

- 11 Do you utilize the following networks provided by the State Department of Information Services?
- a. IGN (InterGovernmental Network) Yes No
 - b. PGN (Public Government Network) Yes No

#	Tribal Nation	IGN		PGN	
		Yes	No	Yes	No
1	Chehalis Confederated Indian Tribal Nation		X		X
2	Quinault Indian Tribal Nation		X		X
3	Colville Confederated Indian Tribes	X			X

12. **If yes** to any of the above, please describe how you utilize these networks:
- a. IGN
 - b. PGN

#	Tribal Nation	IGN	K-20
1	Chehalis Confederated Indian Tribal Nation		Our Tribal Schools are connected to the K-20 Network – Multiple T-1s
2	Quinault Indian Tribal Nation	We started our network with WA State but found them too restrictive and not responsive enough	
3	Colville Confederated Indian Tribes	WIC (and possibly more)	

13. Please list (or attach a list or map of) local/tribal government locations that are currently connected together via the network(s) you utilize.

#	Tribal Nation	List of tribal locations that are connected
1	Chehalis Confederated Indian Tribal Nation	Youth Center, Head Start, Elders Center, Family Services, Family Resources Center, Tribal Center, Natural Resources/DNR, Court/Public Safety, Health Clinic, Store No 1, and offices
2	Quinault Indian Tribal Nation	Queets Village, Tsa'Alal field office (Lake Quinault), Aberdeen TANF Office, Salmon River, Mercer Island
3	Colville Confederated Indian Tribes	

14. Do you find that your current network(s) or services are too slow, or unable to meet your current or projected application demands?
 Yes No (*Go to Q19*)

#	Tribal Nation	Tribal Response	
		Yes	No
1	Chehalis Confederated Indian Tribal Nation		
2	Quinault Indian Tribal Nation	X	
3	Colville Confederated Indian Tribes	X	

15. What applications need higher speeds?

What applications need higher speeds?	Chehalis Confederated Indian Tribal Nation	Quinault Indian Tribal Nation	Colville Confederated Indian Tribes
GIS (Geographic Information Systems)		X	X
Faster/greater data throughput between locations		X	X
Full motion video			X
Capacity for additional users (please attach a list of locations or facilities if expanding beyond current sites)			X
Other (describe):		Need more options and more secure links between remote sites	VOIP

16. For any of the networks you utilize, are your current data, voice and video systems reliable?
 Yes No **If No**, please describe any problems:

#	Tribal Nation	For any of the networks you utilize, are your current data, voice and video systems reliable?	
		Yes	No
1	Chehalis Confederated Indian Tribal Nation		
2	Quinault Indian Tribal Nation		Not Perfect. We have some down time and interruptions.
3	Colville Confederated Indian Tribes	X	

17. How important is a robust broadband connection to your day-to-day government operations (*check one*)?

How important is a robust broadband connection to your day-to-day operations (check one)?	Chehalis Confederated Indian Tribal Nation	Quinault Indian Tribal Nation	Colville Confederated Indian Tribes
Very Important			X
Important		X	
Somewhat Important			
Not at All Important			

18. Why is (are) broadband connection(s) important to your local/tribal government?

#	Tribal Nation	Why is (are) broadband connection(s) important to your government?
1	Chehalis Confederated Indian Tribal Nation	
2	Quinault Indian Tribal Nation	A great many of our day to day and critical process both internal and external are dependent on internal network and Internet.
3	Colville Confederated Indian Tribes	Medical, Financial, Legal, Research and Development

19. When you sought network services for your tribal nation, how would you describe the availability of multiple, competing service and infrastructure options (*check one*)?

How would you describe the availability of multiple, competing service and infrastructure options (check one)?	Chehalis Confederated Indian Tribal Nation	Quinault Indian Tribal Nation	Colville Confederated Indian Tribes
Competitive, many options			
Somewhat Competitive, a handful of options			X
Only Slightly Competitive, two providers			
Not Competitive at All, only one provider option		X	
There is not a network option available that is suitable for our local government.			

20. Would it be beneficial to you if the broadband environment in your area was enhanced?

Yes No

#	Tribal Nation	Would it be beneficial to you if the broadband environment in your area was enhanced?	
		Yes	No
1	Chehalis Confederated Indian Tribal Nation	X	
2	Quinault Indian Tribal Nation	X	
3	Colville Confederated Indian Tribes	X	

20a. **If Yes**, how would it be beneficial:

#	Tribal Nation	How would it be beneficial?
1	Chehalis Confederated Indian Tribal Nation	Bring broadband throughout the whole reservation
2	Quinault Indian Tribal Nation	More stability and consistency in Tribal operations
3	Colville Confederated Indian Tribes	Higher speed for enhanced services and more competitors for better pricing

21. If enhanced broadband network infrastructure and services were developed within your jurisdiction to provide cost-effective, highly reliable video, voice and data communications, your organization would use it for:

Use of enhanced Broadband Network Infrastructure and Services	Chehalis Confederated Indian Tribal Nation		Quinault Indian Tribal Nation		Colville Confederated Indian Tribes	
	Current Need	Long-Term Need	Current Need	Long-Term Need	Current Need	Long-Term Need
High-speed Data (1.54 Megabits per second or greater) Links Between Sites	X				X	
E-Mail	X			X	X	
Internet/Other Database Access	X			X	X	
Website applications				X	X	
File sharing	X			X	X	
E-government					X	
Research					X	
Online education	X				X	
Slow Speed Data (System Monitoring and Control)					X	
Intergovernmental functions				X	X	
Communications with Public Safety				X	X	
Internal Telephone System (i.e., PBX, VoIP)	X			x	X	
Video Conferencing	X			X	X	
Teletraining/Staff Training				x	X	
Distance Learning				X	X	
Other? Please describe:		Video-on-Demand				

22. For each category checked above, please describe the planned use of such an enhanced network.

Application (e.g., High-speed Data Links Between Sites)

Planned Use (e.g., Remote connection to central server)

#	Tribal Nation	Planned Use (e.g., Remote connection to central server)
1	Chehalis Confederated Indian Tribal Nation	
2	Quinault Indian Tribal Nation	<ul style="list-style-type: none"> -E-Mail : face-2-face, phone/voicemail, email ? email has become indispensable in day-2-day communications. -Internet/Other Database Access: The Internet is the ONLY way to do many of our day-2-day operations. Financial transactions, filing intergovernmental report, etc. -Website applications: We will soon incorporate document management which will use WebAccess to information. -File sharing: Same as above. -Intergovernmental functions: Many governmental agencies (Federal, State, etc.) only have online access for interactions with them. -Public Safety Communications: Same as Above also including Home Land Security , and interagency communications. -Internal Telephone System (i.e., PBX, VoIP): We currently have a PBX. We will NOT update to VoIP until bandwidth is increased and is stable. -Video conferencing: We currently use for UofW Cancer program and training. -Teletraining/Staff Training: Same a Above. -Distance Learning: We have many Quinaults that are working toward degrees using distance learning
3	Colville Confederated Indian Tribes	

23. What is the most important network-related issue facing your local/tribal government at this time?

#	Tribal Nation	Most important network-related issue facing your government
1	Chehalis Confederated Indian Tribal Nation	
2	Quinault Indian Tribal Nation	Adequate bandwidth that is Stable!
3	Colville Confederated Indian Tribes	Availability, Reliability, Security, Speed

24. What are the most critical long-term network-related needs of your local/tribal government?

#	Tribal Nation	Most critical long-term network-related needs of your government
1	Chehalis Confederated Indian Tribal Nation	
2	Quinault Indian Tribal Nation	Adequate bandwidth that is Stable!
3	Colville Confederated Indian Tribes	More of the same above

25. Do you have any thoughts about how the State or any other entity could help enhance broadband availability in your jurisdiction?

#	Tribal Nation	How can the State help
1	Chehalis Confederated Indian Tribal Nation	
2	Quinault Indian Tribal Nation	The WA. State K20 network is providing 10-100 Mb to all schools in State. If the State DIS could bring Fiber and associated equipment to Taholah School then we would have the benefits for Tribal government also.
3	Colville Confederated Indian Tribes	

26. Do you have any other comments about broadband service and infrastructure availability in your jurisdiction?

#	Tribal Nation	Comments about broadband service and infrastructure availability in your jurisdiction
1	Chehalis Confederated Indian Tribal Nation	
2	Quinault Indian Tribal Nation	Need it sooner than later !
3	Colville Confederated Indian Tribes	

27. Does your Organization presently have a written plan to address future telecommunications needs and uses? Yes No Don't Know

If Yes, please submit a copy of the plan along with this Survey.

#	Tribal Nation	Does your Organization presently have a written plan to address future telecommunications needs and uses?			Please submit a copy of the plan along with this Survey
		Yes	No	Don't Know	
1	Chehalis Confederated Indian Tribal Nation				
2	Quinault Indian Tribal Nation				
3	Colville Confederated Indian Tribes				

The UTC greatly appreciates your cooperation in completing this survey. **Please submit the completed survey by May 12, 2008 to robinson@cbgcommunications.com** or by fax to 610-889-7475. If you have any questions related to the survey, contact Tom Robinson with CBG Communications at 73 Chestnut Road, Paoli, PA 19301, by phone (610) 889-7471 or by email to the above address.

Attachment 7
Broadband Providers Survey
Instrument Mark-up

Attachment 7

**UTC Broadband Provider Survey Mark-up
Respondents (N= 8)**

The Washington Utilities and Transportation Commission (UTC) has retained CBG Communications, Inc. to conduct this survey to help determine the level of broadband accessibility to residences and businesses in **Columbia, Ferry, Grays Harbor, Lewis and Stevens Counties**. The results of the survey will be used to help Washington state government gain a better understanding of broadband availability and factors preventing more widespread availability of broadband technologies. We would appreciate it if you could respond to the survey questions below and let us know how your company fulfills broadband needs through the provision of infrastructure and services in each or any of the counties. Please also let us know about plans for deploying or expanding broadband access in the future. **Based on the timetable for completion of the overall project, it would be helpful to have your response to this survey by April 23, 2008.** Thank you for your assistance!

1. Business: _____
Department: _____

Providers	Department
Internet Xpress, Inc.	
Verizon Northwest Inc.	Public Affairs, Policy and Communication
Charter Communications	Northwest Key Market Area
Inland Telephone Company	Accounting
TechTell	Finance
McDaniel Telephone Company d/b/a TDS Telecom Department	
Qwest Corporation	Public Policy/Network/Regulatory Compliance
CenturyTel	Government Relations

2. Person responding to this survey: __Title: ____

Providers	Person responding to this survey	Title
Internet Xpress, Inc.	David Smith	Vice President
Verizon Northwest Inc.	Richard E. Potter	Director, PAP&C (Northwest)
Charter Communications	Petra Redchuk	Director, Government Relations
Inland Telephone Company	James K. Brooks	Treasurer/Controller
TechTell	Dan Jones	President
McDaniel Telephone Company	Gail Long	Manager, State Government Affairs
Qwest Corporation	Mark Reynold	Asst. VP Public Policy & Regulatory Affairs
CenturyTel	Mary Taylor	Government Relations Manager

3. Mailing address:____Phone number:___ Fax number:___E-mail address:_____

Provider	Mailing Address	Phone Number	Fax Number	E-mail Address
Internet Xpress, Inc.	463 West 5th Ave	509.685.0403	590.684.2047	desmith@plix.com
Verizon Northwest Inc.	1800 41st St. (WA0105RA), Everett, WA 98201	425.261.5006	525.261.5262	Richard.potter@verizon.com
Charter Communications	222 NE Park Plaza Drive, Vancouver, WA 98684	360.258.5108	360.258.5097	predchuk@chartercom.com
Inland Telephone Company	PO Box 171, Roslyn, WA 98941	509.649.2211	509.649.3300	jbrooks@inlandnet.com
TechTell	81 Tower Blvd, Elma WA 98541			Dan.jones@techtell.com
McDaniel Telephone Company	PO Box 1566 Oregon City, OR 97045	503.656.8399	503.656.8660	Gail.long@tdstelecom.com
Qwest Corporation	1600 7 th Ave. Room 3206, Seattle, WA 98191	206.345.1568	206.343.4040	Mark.reynolds@qwest.com
CenturyTel	219 Legion Way SW, #203D, Olympia, WA 98501	360.943.6886	360.943.2114	Mary.taylor@CenturyTel.com

4. Business Web site: _____

Provider	Website
Internet Xpress, Inc.	www.plix.com
Verizon Northwest Inc.	www.verizon.com
Charter Communications	www.charter.com
Inland Telephone Company	N/A
TechTell	www.techtell.com ; www.techline.com
McDaniel Telephone Company	www.tdstelecom.com
Qwest Corporation	www.qwest.com
CenturyTel	www.CenturyTel.com

5. List any satellite or field offices of your business:

Provider	Locations
Internet Xpress, Inc.	N/A
Verizon Northwest Inc.	N/A
Charter Communications	Wenatchee; Yakima; Kennewick; Ellensburg and Walla Walla
Inland Telephone Company	Uniontown
TechTell	Aberdeen, Elma, Olympia, Cosmopolis
McDaniel Telephone Company	N/A
Qwest Corporation	Qwest has field offices/garages and central offices throughout its territory, throughout the state.
CenturyTel	Too numerous to list

6. Satellite or field office local contact information: _____

Provider	Mailing Address	Phone Number	Fax Number	E-mail Address
Internet Xpress, Inc.	N/A			
Verizon Northwest Inc.	N/A			
Charter Communications	Contact person listed above			
Inland Telephone Company	N/A			
TechTell	N/A			
McDaniel Telephone Company	N/A – please contact Gail Long			
Qwest Corporation	N/A			
CenturyTel	Too numerous to list			

Data and Internet Services Provided

7. Please indicate the technologies and services currently utilized by your organization to provide access to the Internet (*check and fill in for all that apply*):

Technologies and Services	Internet Express, Inc	Verizon Northwest Inc.	TechTell	McDaniel Telephone Company	Qwest	Century Tel
Fiber-To-The- Premise (FTTP, FTTH) Information is confidential and proprietary.			X			
Digital Subscriber Line (xDSL) Information is confidential and proprietary.	X		X	X	X	X
Cable Modem						

Technologies and Services	Internet Express, Inc	Verizon Northwest Inc.	TechTell	McDaniel Telephone Company	Qwest	Century Tel
T-1	X	X	X	X	X	X
Frame Relay	X		X		X	
ISDN	X		X		X	
Dial-up	X		X	X	X	X
Consumer Satellite						
Broadband						
Broadband over Power Lines (BPL)						
Mobile Wireless Data Services (Describe wireless technology(ies) used): _____ _____					X – This is provided through a resale arrangement with a wireless provider	
Fixed Wireless (Describe wireless technology(ies) used): _____ _____	X – Canopy wireless from Morterola 5.2, 5.7, 900		X – Free hot spots			
Other (Describe): _____ _____						X – Ethernet services available in some areas

Provided Connection Characteristics:

8. **Residential Service** – Please list all levels of service and their characteristics offered in each County:

COLUMBIA COUNTY:

Provider	Name of Service Level	Upstream Speed	Downstream Speed	Technology Utilized	Geographic Area Served	Monthly Cost to Customer*
Inland Telephone Company	DSL	128K	384K	ADSL	Prescott Exchange	\$49.95
Qwest - Dayton wire center	MSN NB Dial-up			Dial-up	100% (see map)	\$21.95
Qwest - Dayton wire center	7Mb	up to 896k	up to 7Mb	xDSL	Varying %'s of subs	\$54.99
Qwest - Dayton wire center	1.5Mb	up to 896k	up to 1.5Mb	“	“	\$44.99
Qwest - Dayton wire center	256k	up to 896k	up to 256k	“	“	\$31.99
Qwest - Pomeroy wire Center	MSN NB Dial-up			Dial-up	100% (see map)	\$21.95
Qwest - Pomeroy wire Center	7Mb	up to 896k	up to 7Mb	xDSL	Varying %'s of subs	\$54.99
Qwest - Pomeroy wire Center	1.5Mb	up to 896k	up to 1.5Mb	“	“	\$44.99
Qwest - Pomeroy wire Center	256k	up to 896k	up to 256k	“	“	\$31.99
Qwest - Waitsburg wire center	MSN NB Dial-up			Dial-up	100% (see map)	\$21.95
CenturyTel	DSL	128 Kbps	256 Kbps	DSLAM/ ATM	Starbuck	\$31.20
CenturyTel	DSL	256 Kbps	1.5 Mbps	DSLAM/ ATM	Starbuck	\$41.20

FERRY COUNTY:

Provider	Name of Service Level	Upstream Speed	Downstream Speed	Technology Utilized	Geographic Area Served	Monthly Cost to Customer*
Verizon Northwest Inc.	T-1	1.544 Mbs	1.544 Mbs	various		Tariffed charges; total amount depends on characteristics of a given customer's order
Qwest - Orient-Laurier (remote)	MSN NB Dial-up			Dial-up	100% (see map)	\$21.95
CenturyTel	Dial-up		Up to 56 Kbps	Apex 1000 and Remote Access Server	Hunters/Inchelium* Kettle Falls*	\$12.95 to \$17.95 plans “”
CenturyTel	DSL	128 Kbps	256 Kbps	DSLAM/ATM	Hunters/Inchelium* Kettle Falls*	\$31.20 “”
CenturyTel	DSL	256 Kbps	1.5 Mbps	DSLAM/ATM	Hunters* Kettle Falls*	\$41.20 “”
CenturyTel	DSL	512 Kbps	3 Mbps	DSLAM/ATM	Kettle Falls*	\$51.20
CenturyTel	DSL	512 Kbps	6 Mbps	DSLAM/ATM	Kettle Falls*	\$51.20
CenturyTel	DSL	768 Kbps	8 Mbps	DSLAM/ATM	Kettle Falls*	\$51.20
CenturyTel	DSL	786 Kbps	10 Mbps	DSLAM/ATM	Kettle Falls*	\$51.20

* Exchange falls into both Ferry and Stevens Counties

* Exchange falls into both Ferry and Stevens Counties

* Exchange falls into both Ferry and Stevens Counties

GRAYS HARBOR COUNTY:

Provider	Name of Service Level	Upstream Speed	Downstream Speed	Technology Utilized	Geographic Area Served	Monthly Cost to Customer*
Verizon Northwest Inc.	T-1	1.544 Mbs	1.544 Mbs	Various		Tariffed charges; total amount depends on characteristics of a given customer's order
TechTell	Gold Broadband	3Mb	7Mb	DSL	Aberdeen, Hoq.	\$89.99
TechTell	Dial-up	56k		Dial-up	All of Grays Harbor	\$17.00
Qwest - Aberdeen wire center	MSN NB Dial-up			Dial-up	100% (see map)	\$21.95
Qwest - Aberdeen wire center	7Mb	up to 896k	up to 7Mb	xDSL	Varying %'s of subs	\$54.99
Qwest - Aberdeen wire center	1.5Mb	up to 896k	up to 1.5Mb	"	"	\$44.99
Qwest - Aberdeen wire center	256k	up to 896k	up to 256k	"	"	\$31.99
CenturyTel	Dial-up		Up to 56 Kbps	Apex 1000 and Remote Access Server	Elma McCleary Montesano	\$12.95 to \$17.95 plans " "
CenturyTel	DSL	128 Kbps	256 Kbps	DSLAM/ ATM	Elma Humptulips Lake Quinault McCleary Montesano Ocosta Pacific Beach	\$31.20 " " " " " "
CenturyTel	DSL	256 Kbps	1.5 Mbps	DSLAM/ ATM	Elma Humptulips Lake Quinault McCleary Montesano Ocosta Pacific Beach	\$41.20 " " " " " "
CenturyTel	DSL	512 Kbps	3 Mbps	DSLAM/ ATM	Elma Montesano	\$51.20 "

Provider	Name of Service Level	Upstream Speed	Downstream Speed	Technology Utilized	Geographic Area Served	Monthly Cost to Customer*
CenturyTel	DSL	512 Kbps	6 Mbps	DSLAM/ATM	Elma Montesano	\$51.20 “”
CenturyTel	DSL	768 Kbps	8 Mbps	DSLAM/ATM	Elma Montesano	\$51.20 “”
CenturyTel	DSL	786 Kbps	10 Mbps	DSLAM/ATM	Elma Montesano	\$51.20 “”

LEWIS COUNTY:

Provider	Name of Service Level	Upstream Speed	Downstream Speed	Technology Utilized	Geographic Area Served	Monthly Cost to Customer*
Verizon Northwest Inc.	T-1	1.544 Mbs	1.544 Mbs	various		Tariffed charges; total amount depends on characteristics of a given customer's order
McDaniel Telephone Company	DSL	512K	Up to 3M	DSL	See map	\$49.95
McDaniel Telephone Company	DSL	512K	Up to 1.5M	DSL	See map	\$39.95
McDaniel Telephone Company	DSL	512K	Up to 768K	DSL	See map	\$29.95
McDaniel Telephone Company	Dial-Up	Up to 56K	Up to 56K	Dial-Up	See map—throughout entire serving area	\$19.95
Qwest - Centralia wire center, Chehalis wire center, Rochester wire center and Winlock wire center	MSN NB Dial-up			Dial-up	100% (see map)	\$21.95
Qwest - Centralia wire center, Chehalis wire center, Rochester wire center and Winlock wire	7Mb	up to 896k	up to 7Mb	xDSL	Varying %'s of subs	\$54.99

center						
Qwest - Centralia wire center, Chehalis wire center, Rochester wire center and Winlock wire center	1.5Mb	up to 896k	up to 1.5Mb	“	“	\$44.99
Qwest - Centralia wire center, Chehalis wire center, Rochester wire center and Winlock wire center	256k	up to 896k	up to 256k	“	“	\$31.99
CenturyTel	Dial-up		Up to 56 Kbps	Apex 1000 and Remote Access Server	Glenoma Mineral Morton Packwood Randle	\$12.95 to \$17.95 plans “” “” “”
CenturyTel	DSL	128 Kbps	256 Kbps	DSLAM/ ATM	Curtis Glenoma Mineral Morton Packwood Pe Ell Randle Vader	\$31.20 “” “” “” “” “” “” “”
CenturyTel	DSL	256 Kbps	1.5 Mbps	DSLAM/ ATM	Curtis Glenoma Mineral Morton Packwood Pe Ell Randle Vader	\$41.20 “” “” “” “” “” “” “”
CenturyTel	DSL	512 Kbps	3 Mbps	DSLAM/ ATM	Morton Packwood Randle Vader	\$51.20 “” “” “”
CenturyTel		512 Kbps	6 Mbps	DSLAM/ ATM	Morton Packwood Randle Vader	\$51.20 “” “” “”
CenturyTel		768 Kbps	8 Mbps	DSLAM/ ATM	Morton Packwood Randle Vader	\$51.20 “” “” “”

CenturyTel		786 Kbps	10 Mbps	DSLAM/ ATM	Morton Packwood Randle Vader	\$51.20 “” “” “”
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STEVENS COUNTY:

Provider	Name of Service Level	Upstream Speed	Downstream Speed	Technology Utilized	Geographic Area Served	Monthly Cost to Customer*
Internet Express	XDSL	768K-1.5Mb	768K-1.5Mb	xDSL	Colville, WA	\$75-\$225
Internet Express	QwestDSL/ CenturyTel DSL	128K-865K	256K-7Mb	DSL	Qwest & CenturyTel DSL service areas	\$16.95- \$98.95
Internet Express	Canopy Wireless	256K-1.5Mb	256K-1.5Mb	Canopy Fixed Wireless	Colville, Kettle Falls, Addy, Arden	\$35.95- \$49.95
Internet Express	DS-1	1.5Mb	1.5Mb	Standard DS-1	Colville, Chewelah	\$365-\$380
Qwest - Colville wire center, Deer Park wire center, Loon Lake wire center, Northport wire center and Springdale wire center	MSN NB Dial-up			Dial-up	100% (see map)	\$21.95
Qwest - Colville wire center, Deer Park wire center, Loon Lake wire center, Northport wire center and Springdale wire center	7Mb	up to 896k	up to 7Mb	xDSL	Varying %'s of subs	\$54.99
Qwest - Colville wire center, Deer Park wire center, Loon Lake wire center, Northport wire center and Springdale wire center	1.5Mb	up to 896k	up to 1.5Mb	“	“	\$44.99

Provider	Name of Service Level	Upstream Speed	Downstream Speed	Technology Utilized	Geographic Area Served	Monthly Cost to Customer*
Qwest - Colville wire center, Deer Park wire center, Loon Lake wire center, Northport wire center and Springdale wire center	256k	up to 896k	up to 256k	“	“	\$31.99
CenturyTel	Dial-up		Up to 56 Kbps	Apex 1000 and Remote Access Server	Chewelah Hunters* Kettle Falls* Valley	\$12.95 to \$17.95 plans “” “” “”
CenturyTel	DSL	128 Kbps	256 Kbps	DSLAM/ ATM	Chewelah Hunters* Kettle Falls* Valley	\$31.20 “” “” “”
CenturyTel	DSL	256 Kbps	1.5 Mbps	DSLAM/ ATM	Chewelah Hunters* Kettle Falls* Valley	\$41.20 “” “” “”
CenturyTel	DSL	512 Kbps	3 Mbps	DSLAM/ ATM	Chewelah Kettle Falls*	\$51.20 “”
CenturyTel	DSL	512 Kbps	6 Mbps	DSLAM/ ATM	Chewelah Kettle Falls*	\$51.20 “”
CenturyTel	DSL	768 Kbps	8 Mbps	DSLAM/ ATM	Chewelah Kettle Falls*	\$51.20 “”
CenturyTel	DSL	786 Kbps	10 Mbps	DSLAM/ ATM	Chewelah Kettle Falls*	\$51.20 “”

9. **Business Class Service** – Please list all available levels of connectivity and their characteristics offered as a business class service within each of the Counties:

COLUMBIA COUNTY:

Provider	Name of Service Level	Upstream Speed	Downstream Speed	Technology Utilized	Geographic Area Served	Monthly Cost to Customer*
Qwest - Dayton wire center, Pomeroy wire center and Waitsburg wire center	MSN NB Dial-up			Dial-up	100% (see map)	\$21.95
Qwest - Dayton wire center, Pomeroy wire center and Waitsburg wire center	7Mb	up to 896k	up to 7Mb	xDSL	Varying %'s of subs	\$69.25
Qwest - Dayton wire center, Pomeroy wire center and Waitsburg wire center	1.5Mb	up to 896k	up to 1.5Mb	“	“	\$50.50
Qwest - Dayton wire center, Pomeroy wire center and Waitsburg wire center	256k	up to 896k	up to 256k	“	“	\$38.00
CenturyTel	DSL	256 Kbps	1.5 Mbps	DSLAM/ ATM	Starbuck	\$51.20
CenturyTel	T1 (1.5 throughput)				Starbuck	Varies on configuration

FERRY COUNTY:

Provider	Name of Service Level	Upstream Speed	Downstream Speed	Technology Utilized	Geographic Area Served	Monthly Cost to Customer*
Verizon Northwest Inc.	T-1	1.544 Mbs	1.544 Mbs	various		Tariffed charges; total amount depends on characteristics of a given customer's

Provider	Name of Service Level	Upstream Speed	Downstream Speed	Technology Utilized	Geographic Area Served	Monthly Cost to Customer*
						order
Qwest - Colville wire center, Deer Park wire center, Loon Lake wire center, Northport wire center and Springdale wire center	MSN NB Dial-up			Dial-up	100% (see map)	\$21.95
CenturyTel	DSL	256 Kbps	1.5 Mbps	DSLAM/ATM	Kettle Falls*	\$51.20
CenturyTel	T1 (1.5 throughput)				Kettle Falls*	Varies on configuration

GRAYS HARBOR:

Provider	Name of Service Level	Upstream Speed	Downstream Speed	Technology Utilized	Geographic Area Served	Monthly Cost to Customer*
Verizon Northwest Inc.	T-1	1.544 Mbs	1.544 Mbs	various		Tariffed charges; total amount depends on characteristics of a given customer's order
TechTell	ETTH	100Mb	100Mb	Fiber	Grays Harbor	150.00 – up
TechTell	Gold DSL	3Mb	8Mb	DSL	Grays Harbor	89.99
Qwest - Aberdeen wire center	MSN NB Dial-up			Dial-up	100% (see map)	\$21.95
Qwest - Aberdeen wire center	7Mb	up to 896k	up to 7Mb	xDSL	Varying %'s of subs	\$69.25
Qwest - Aberdeen wire center	1.5Mb	up to 896k	up to 1.5Mb	“	“	\$50.50
Qwest - Aberdeen wire center	256k	up to 896k	up to 256k	“	“	\$38.00
CenturyTel	DSL	256 Kbps	1.5 Mbps	DSLAM/ATM	Elma Humptulips Lake Quinault McCleary	\$51.20 “” ”” ”” ””

Provider	Name of Service Level	Upstream Speed	Downstream Speed	Technology Utilized	Geographic Area Served	Monthly Cost to Customer*
					Montesano Ocosta Pacific Beach	""
CenturyTel	DSL	512 Kbps	3 Mbps	DSLAM/ ATM	Elma Montesano	\$61.20
CenturyTel	DSL	768 Kbps	8 Mbps	DSLAM/ ATM	Elma Montesano	\$61.20
CenturyTel	DSL	786 Kbps	Up to 10 Mbps	DSLAM/ ATM	Elma Montesano	\$61.20
CenturyTel	T1 (1.5 throughput)				Elma Humptulips Lake Quinault McCleary Montesano Ocosta Pacific Beach	Varies on configuration " " " " " "
CenturyTel	Ethernet	10- 1000Mbps		Copper/ Fiber Layer Two service	Elma Montesano Lake Quinault	Varies on configuration " "
CenturyTel	DSL	256 Kbps	1.5 Mbps	DSLAM/ ATM	Elma Humptulips Lake Quinault McCleary Montesano Ocosta Pacific Beach	\$51.20 " " " " "

LEWIS COUNTY:

Provider	Name of Service Level	Upstream Speed	Downstream Speed	Technology Utilized	Geographic Area Served	Monthly Cost to Customer*
McDaniel Telephone Company	T-1 (Symmetrical dedicated Internet)	Starts at 1.5M	Starts at 1.5M	T-1 Service	Throughout the entire exchanges	ICB – varies depending on distance & speed
McDaniel Telephone Company	DSL	512K	Up to 3M	DSL	See Map	\$99.00
McDaniel Telephone Company	DSL	512K	Up to 1.5M	DSL	See Map	\$69.00

Provider	Name of Service Level	Upstream Speed	Downstream Speed	Technology Utilized	Geographic Area Served	Monthly Cost to Customer*
McDaniel Telephone Company	DSL	512K	Up to 768K	DSL	See Map	\$49.00
	Dial-Up	Up to 56K	Up to 56K	Dial-Up	Throughout the entire exchanges	\$19.95
Qwest - Centralia wire center, Chehalis wire center, Rochester wire center and Winlock wire center	MSN NB Dial-up			Dial-up	100% (see map)	\$21.95
Qwest - Centralia wire center, Chehalis wire center, Rochester wire center and Winlock wire center	7Mb	up to 896k	up to 7Mb	xDSL	Varying %'s of subs	\$69.25
Qwest - Centralia wire center, Chehalis wire center, Rochester wire center and Winlock wire center	1.5Mb	up to 896k	up to 1.5Mb	“	“	\$50.50
Qwest - Centralia wire center, Chehalis wire center, Rochester wire center and Winlock wire center	256k	up to 896k	up to 256k	“	“	\$38.00
CenturyTel	DSL	256 Kbps	1.5 Mbps	DSLAM/ ATM	Curtis Glenoma Mineral Morton Packwood Pe Ell Randle Vader	\$51.20 “” “” “” ”” ”” ”” ””

Provider	Name of Service Level	Upstream Speed	Downstream Speed	Technology Utilized	Geographic Area Served	Monthly Cost to Customer*
CenturyTel	DSL	512 Kbps	3 Mbps	DSLAM/ATM	Curtis Morton Packwood Randle	\$61.20 "" "" ""
CenturyTel		768 Kbps	8 Mbps	DSLAM/ATM	Curtis Morton Packwood Randle	\$61.20 "" "" ""
CenturyTel		786 Kbps	Up to 10 Mbps	DSLAM/ATM	Morton Packwood Randle	\$61.20 "" "" ""
CenturyTel	T1 (1.5 throughput)				Curtis Glenoma Mineral Morton Packwood Pe Ell Randle Vader	Varies on configuration "" "" "" "" "" "" ""
CenturyTel	Ethernet	10-1000Mbps		Copper/ Fiber Layer Two service	Morton Pe Ell Vader	Varies on configuration "" ""

STEVENS COUNTY:

Provider	Name of Service Level	Upstream Speed	Downstream Speed	Technology Utilized	Geographic Area Served	Monthly Cost to Customer*
Internet Express	XDSL	70B-15mb	762-1.5Mb	xDSL	Colville, WA	\$75-\$225
Internet Express	BSH	15Mb				
Internet Express		256-1.5Mb				
Qwest - Colville wire center, Deer Park wire center, Loon Lake wire center, Northport wire center and Springdale wire center	MSN NB Dial-up			Dial-up	100% (see map)	\$21.95

Qwest - Colville wire center, Deer Park wire center, Loon Lake wire center, Northport wire center and Springdale wire center	7Mb	up to 896k	up to 7Mb	xDSL	Varying %'s of subs	\$69.25
Qwest - Colville wire center, Deer Park wire center, Loon Lake wire center, Northport wire center and Springdale wire center	1.5Mb	up to 896k	up to 1.5Mb	“	“	\$50.50
Qwest - Colville wire center, Deer Park wire center, Loon Lake wire center, Northport wire center and Springdale wire center	256k	up to 896k	up to 256k	“	“	\$38.00
CenturyTel	DSL	256 Kbps	1.5 Mbps	DSLAM/ ATM	Chewelah Hunters* Kettle Falls* Valley	\$51.20 “” ”” ””
CenturyTel	DSL	512 Kbps	3 Mbps	DSLAM/ ATM	Chewelah Kettle Falls*	\$61.20 “”
CenturyTel	DSL	768 Kbps	8 Mbps	DSLAM/ ATM	Chewelah Kettle Falls*	\$61.20 “”
CenturyTel	DSL	786 Kbps	Up to 10 Mbps	DSLAM/ ATM	Chewelah Kettle Falls*	\$61.20 “”
CenturyTel	T1 (1.5 throughput)				Chewelah Hunters* Kettle Falls* Valley	Varies on configuration “” ”” ””

CenturyTel	Ethernet	10-1000Mbps		Copper/ Fiber Layer Two service	Chewelah Hunters Kettle Falls	Varies on configuration “” ””
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10. Does your company provide broadband service in any of the five counties under agreements (Franchises, Right-Of-Way, Master Permits, etc.) with the State, County or municipalities? If so, please assist us in documenting these arrangements by sending an electronic copy, paper copy or web link to Dick Nielsen at the street or e-mail address listed at the end of the survey:

Provider	Title of Agreement/Authorization/Certification	Entity Agreement is with (State, County, etc.)	Expiration Date of Agreement
McDaniel Telephone Company	N/A – as a telecommunications provider, the company has no exclusive arrangements and provides broadband via the same arrangements as utilized for telecommunications services.		
CenturyTel	CenturyTel is concerned that a response to this request would necessarily contain valuable commercial information that when submitted in this context would be deemed to constitute public records under RCW Title 42, Chapter 56. In CenturyTel’s view there are inadequate assurances that such information would not be subject to public disclosure. Therefore CenturyTel must respectfully declines to respond to this request.		

11. Please describe any planned deployment of broadband services in the next 2 years within each of the five Counties:

Provider	Response
Internet Xpress, Inc.	We will be expanding our wireless offerings further north and west of Colville.
Verizon Northwest Inc.	Information is confidential and proprietary.
Charter Communications	No response
Inland Telephone Company	
TechTell	We will continue to offer services in coordination with the Grays Harbor PUD

<p>McDaniel Telephone Company</p>	<p>See map and response to question 15 below. Note that current plans for deployment are subject to change. The information provided in response to this request is the Company’s best estimate of the future at a given point in time and therefore is not cast in concrete. There are additional sites beyond those depicted on the map that are currently under consideration for DSL deployment but have not been approved to date.</p>
<p>Qwest</p>	<p>In accordance with its Washington Rural Broadband Service Expansion Plan filed in Docket UT-061625 (Qwest’s Alternative Form of Regulation (“AFOR”) docket), Qwest has designated the following wire centers for the deployment of broadband services during the 4 year term of the AFOR:</p> <ul style="list-style-type: none"> - Columbia County: Waitsburg - Lewis County: Rochester; Winlock - Stevens County: Deer Park; Northport; Springdale <p>The attached copy of Qwest’s Revised Washington Rural Broadband Services Expansion Plan contains more information about the planned deployments.</p>
<p>CenturyTel</p>	<p>CenturyTel is concerned that a response to this request would necessarily contain valuable commercial information that when submitted in this context would be deemed to constitute public records under RCW Title 42, Chapter 56. In CenturyTel’s view there are inadequate assurances that such information would not be subject to public disclosure. Therefore CenturyTel must respectfully declines to respond to this request.</p>

12. Please describe any planned deployment of broadband services after the next 2 years within each of the five Counties:

Provider	Response
Internet Xpress, Inc.	Look for the areas that need broadband the largest
Verizon Northwest Inc.	Information is confidential and proprietary
Charter Communications	
Inland Telephone Company	
TechTell	We will continue to offer services in coordination with the Grays Harbor PUD
McDaniel Telephone Company	Capital planning beyond 2 years is not available at this time. TDS plans to continue deploying broadband services where technically and economically feasible
Qwest	<p>In accordance with its Washington Rural Broadband Service Expansion Plan filed in Docket UT-061625 (Qwest’s Alternative Form of Regulation (“AFOR”) docket), Qwest has designated the following wire centers for the deployment of broadband services during the 4 year term of the AFOR:</p> <ul style="list-style-type: none"> - Columbia County: Waitsburg - Lewis County: Rochester; Winlock - Stevens County: Deer Park; Northport; Springdale <p>The attached copy of Qwest’s Revised Washington Rural Broadband Services Expansion Plan contains more information about the planned deployments.</p>
CenturyTel	CenturyTel is concerned that a response to this request would necessarily contain valuable commercial information that when submitted in this context would be deemed to constitute public records under RCW Title 42, Chapter 56. In CenturyTel’s view there are inadequate assurances that such information would not be subject to public disclosure. Therefore CenturyTel must respectfully declines to respond to this request.

13. Please provide maps of each of the five Counties showing in detail where each service level provided by your company is available. These maps may be hard copies or electronic files sent to Dick Nielsen at the street or e-mail address below. The maps can also be provided via a web link if available. If such maps are considered proprietary, please describe your procedure whereby they can be accessed or viewed at your company's location:

Provider	Response
Internet Xpress, Inc.	
Verizon Northwest Inc.	Verizon Northwest Inc. serves the portion of Ferry County that is with in the Company's Republic and Curlew Exchanges. It serves the portion of Grays Harbor County that is within its Westport Exchange. See the exchange maps on file with the WUTC.
Charter Communications	
Inland Telephone Company	Inland believes that 100% of the Prescott exchange customers can be served by DSL; 2% of the customers are in Columbia County
TechTell	If you want to meet face to face I can draw some high level boundaries on a map
McDaniel Telephone Company	See electronic map attached. The company did not submit detailed maps of facilities as that information is deemed confidential by the company.
Qwest	Attached is the Washington State Telecom Exchange Area Map which shows Qwest's wire center boundaries in each of the five counties. This map is maintained by the WUTC. Qwest considers any maps that contain product deployment information proprietary. If Qwest is required to produce such proprietary maps, it would make appropriate arrangements for review.
CenturyTel	CenturyTel is concerned that a response to this request would necessarily contain valuable commercial information that when submitted in this context would be deemed to constitute public records under RCW Title 42, Chapter 56. In CenturyTel's view there are inadequate assurances that such information would not be subject to public disclosure. Therefore CenturyTel must respectfully declines to respond to this request.

14. Please describe any obstacles preventing further deployment of broadband services by your company at this time:

Provider	Response
Internet Xpress, Inc.	Location – cost of backbone bandwidth
Verizon Northwest Inc.	Specific information on the situation in the subject areas is confidential and proprietary. In general, obstacles to deployment may include high capital and operating costs compared to likely revenue.
Charter Communications	
Inland Telephone Company	

Provider	Response
TechTell	The Public groups need a fund to tap into to assist in laying conduits when local streets etc. are under construction
McDaniel Telephone Company	The greatest challenges for broadband deployment in rural Washington relate to density and cost. As technology evolves and costs decrease deployment opportunities expand.
Qwest	Decisions regarding broadband deployment are based on economic analyses that evaluate potential return on investment. The major factors that influence the analyses are existing network design and capacity, population density, and competition.
CenturyTel	The single biggest obstacle that works against deployment of broadband services to the last remaining unserved areas is the lack of a viable business case. Without some form of universal service assistance, customer density is often too low and cost per customer too high to provide broadband service at a marketable price that will cover costs. The level of customer demand is another factor that can inhibit development of a viable business case and should also be factored into any public policy decision on whether to provide some kind of universal service support for deployment of broadband to a particular area. It has also been CenturyTel's experience that another obstacle to making a viable business case for broadband deployment to some of the more remote and low density areas is the "back haul" costs associated with linking customers to media gateways. In CenturyTel's view, although some attention has been focused upon "wiring" rural communities, far too little attention has been paid to the costs of then linking such communities to media gateways located in the more urban areas.

15. Any comments or additional information you would like to add?

Provider	Response
Internet Xpress, Inc.	I don't have a good map that is digital at this time
Verizon Northwest Inc.	
Charter Communications	
Inland Telephone Company	
TechTell	We support "wholesale" style public infrastructure for rural areas. There has been great success in Grays Harbor with this model. The reason for the success is due to the fact that economic development is the driver and all parties are aware of this. In some of the other areas around the state where this has been tried it has not been a success. The biggest hurdle business wise for the local service providers has been the fact that Comcast has a closed network. Comcast should be regulated and pushed to open access just as the telephone companies have been to increase competition.

Provider	Response
McDaniel Telephone Company	As of April 2008, DSAs serving approximately 67% of the customers in Lewis County have been equipped to provide access to broadband services with a penetration level of approximately 50%. If the Company is able to deploy all of the DSL currently planned and approved within the next two years, that percentage will increase to approximately 83%. To the extent additional DSAs are approved for deployment that percentage will increase accordingly.
Qwest	Qwest is not providing any proprietary information in its responses regarding its broadband deployment in Washington because there is currently no provision for protection of such data. Qwest would note that it is required to provide extensive annual broadband deployment information, under a protective order, to the Washington Utilities and Transportation Commission as a condition of its AFOR.

If you have any questions related to this survey contact Dick Nielsen with CBG Communications at the phone number or e-mail address listed below.

The UTC greatly appreciates your cooperation in completing this survey. Please send your completed survey by April 23, 2008 to:

Dick Nielsen
 1597 Race Street
 St. Paul, MN 55102
 P (651) 340-5300
 F (651) 340-5820
nielsen@cbgcommunications.com

Attachment 8

Residential Review by County

Attachment 8

RESIDENTIAL REVIEW BY COUNTY

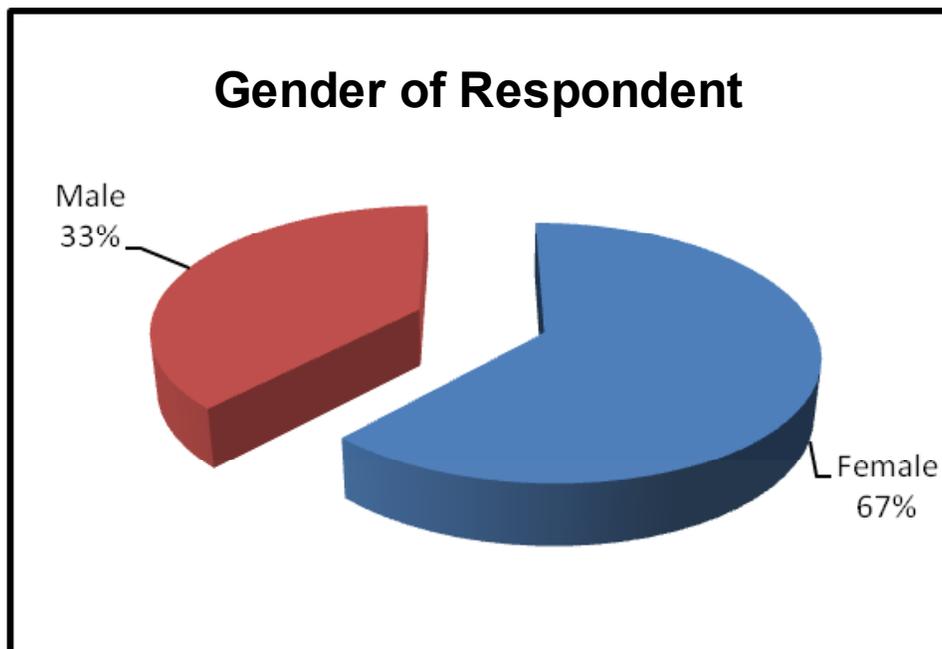
COLUMBIA COUNTY

DEMOGRAPHICS

Before launching into a discussion of the findings, it is appropriate to understand the demographics of the responding sample within Columbia County.

Sample Description

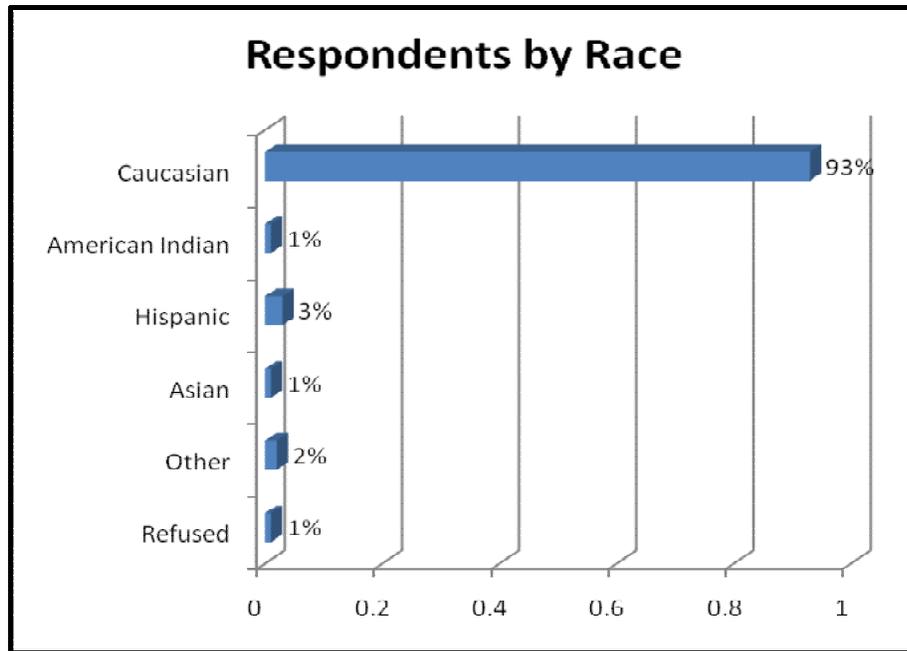
The sample for this survey consisted of 300 randomly selected residents from Columbia County in the State of Washington. A screening question was used to ensure respondents were currently living in that particular county. All respondents were 18 or older. Overall, 33% of the respondents were male and the remaining 67% were female. This is a result of the telephone most likely to be answered by a woman in the household¹ and the slightly greater population of women to men in Columbia County (for every 100 women, 95 men²).



¹ McGuckin, Nancy (2001). Hang-ups, Looking at non-response in telephone surveys. www.fhwa.dot.gov/ohim/hang-ups. Retrieved May 26, 2008.

² American FactFinder, United States Census Bureau, retrieved May 26, 2008.

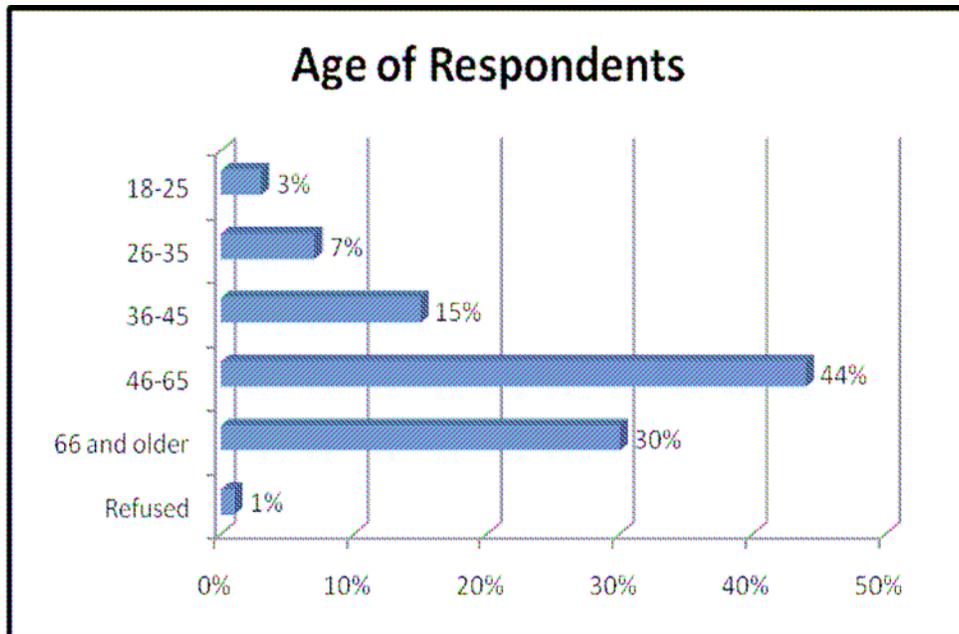
Most respondents were Caucasian (93%). One percent (1%) were American Indian, 3% were Hispanic, and 1 % were Asian. Two percent (2%) of respondents identified with another racial type not presented by the surveyor and 1% chose not to provide racial information. All of the reported demographic areas are consistent with the United States Census within the reported margin of error of the data.



Fifty-one percent (51%) of respondents live with another person in their home while 21% live alone, 11% of responding households have three people, 9% have four people, and 6% of respondents have five people living in their home. The rest of the respondents (5%) had 6 or more people living in their home. On average there were 2 people per household. Only 24% of the sample had children under the age of 18 in the household. Most respondents (99%) spoke English in their home while 1% spoke Spanish.

The respondents represented a wide range of ages. The largest age group was between 46 and 65 (44% of respondents). Thirty percent (30%) were over 65, 15% were between 36 and 45, 7% were between 26 and 35 and 3% of respondents were in the youngest age group, under 25 years of age. The telephone sample in Columbia County had an older average respondent than the

United States Census reports. In 2000, the over 65 population in the county was 19% and the 45-64 population was 28%.



The sample represented a broad range of education levels. Forty-one percent (41%) had completed some college, vocational school or a two year degree. Seven percent (7%) completed some grade school or high school and 25% of respondents graduated from high school. A smaller percentage (15%) completed college and only 10% had completed post graduate work or a graduate degree. One percent (1%) refused to report their highest education level.

There was a fairly even distribution of income ranges for the sample. Fifteen percent (15%) of the sample had an income of \$25,000 or less. Ten percent (10%) had an income between \$25,000 and \$35,000. Eighteen percent (18%) had an income between \$35,000 and \$50,000. Twenty percent (20%) had an income between \$50,000 and \$75,000. Eight (8%) had an income between \$75,000 and \$100,000. Seven percent (7%) make more than \$100,000 in their household. Finally, 21% refused to report their annual household income. The income per household reflects census data in the area.

As far as employment, most respondents were either employed full time (36%) or were retired (32%). The high retirement number is a result of the older respondents. Eleven percent (11%) were employed part time, 7% were self-employed, 7% were homemakers and 4% were disabled and unable to work. Other respondents were people who were unemployed but looking for work (2%) and .3 % refused to provide information about their employment.

Of the respondents that worked (N=172), 19% worked from home and 80% commuted to work. Of the 33 people that worked at home, 18% were telecommuters, 52% worked at a home-based business and 30% performed other work from home.

ACCESS TO COMPUTERS

One of the key objectives of the study was determine the penetration of personal computers and the Internet in these five rural counties selected for study. Of the 300 people surveyed in Columbia County, 78% reported having a computer in their household. Most of the respondents had at least one computer (55%); however 32% and 9% of respondents owned two and three computers respectively. Only 44% of the sample that owned computers (N=233) had a laptop while the majority (56%) owned a desktop computer.

Of the respondents that did not own a computer (N=67), the top three first responses as to why they did not own one were that they didn't want one (42%), it was too expensive (19%) and that they don't know how to use it (13%).

Those without computers and thought they were too expensive were asked how much they would be willing to pay for a new computer . Seven people responded and the majority (N=5) indicated nothing. Of the remaining two individuals, one said they would be willing to pay \$100 and one indicated they would be willing to pay \$800 dollars for a new computer.

ACCESS TO THE INTERNET

A significant number of survey respondents (71%) had some form of Internet in their home. On average these individuals were paying \$45 dollars per month for their Internet service.

Of the respondents that did not have Internet access at home (N=87), the most common responses were the same as those for not wanting a computer. Thirty-one percent (31%) said that they didn't want it, 22% said that it was too expensive, and 10% said that they didn't know how to use it. When those that thought Internet access was too expensive were asked how much they would be willing to pay for Internet service a month, the range was nothing, indicated by 48% of respondents, to \$30 per month. The average reported amount was \$20 dollars per month.

INTERNET USE

When asked who uses the computer or the Internet in the household, the majority of respondents (84%) first replied that they do. The second most common user was a spouse or partner (10%) and the third most common was children (4%). Other responses mentioned by the respondents indicated that grandchildren and other relatives also use the computer and the Internet.

The type of Internet connection that was most common among the respondents who reported having the Internet (N=213), was Digital Subscriber Line (DSL, 44%). Twenty-four percent (24%) used dial-up, 10% used a cable modem and 10% used satellite Internet service. In addition, 5% of people have fixed wireless broadband.

Those with Internet service were asked who their provider was. The majority of respondents who knew their Internet provider listed Qwest (N=88). Blue Mountain Internet (N=15), BMI (N=11), Touchet (N=9) and CenturyTel (N=7) were also popular among the residents of Columbia County for Internet providers.

The speed of the internet connection was perceived in a highly variable manner among the respondents. Although numerous respondents answered the question related to current internet speed with responses such as "slow, fast, faster than dial-up, slower than it should be, etc." only a handful of respondents were able to provide the speed of their internet connection (N=19). Most reported a connection speed less than 1 Mbps (58%). 37 % of individuals reported a connection speed between 1 and 5 Mbps, and 5% of respondents reported a connection greater than 5 Mbps.

Of those respondents who had slower Internet connections (N=75), the most popular reason for not selecting a faster Internet connection was *because it was not available in their area* (45%). Twenty-eight percent (28%) of respondent's first responses were that it costs too much and 13% said that they did not need it.

To further explore how and where the Internet was used, respondents were asked about their Internet use at home and away from home.

At home, respondents reporting spending between no time online (1%) to 14 hours a day online. The mode, or the most frequent response, was that they spent an hour online a day (22%). When considering all responses, the average time online was 2 hours and 15 minutes a day.

Those with and without Internet service were asked whether they used the Internet in a place other than their own home. A majority (61%) replied that they only used the Internet in their home, while 39% (N=115) said they access the Internet at a place other than their home. In the last thirty days, the range of time spent online away from home, was from no time (38%) to 120 hours (4%). The most frequently reported amount of hours spent online in the last 30 days away from home among those that reported some activity was 10 hours (7%). The average time online away from home was 15 hours in the last 30 days or roughly 30 minutes a day.

A majority of respondents indicated that they used the Internet at work (70%), but the amount of time varied from spending no time online to eight hours a day. The most frequent response was not spending any time online a day at work. For those that do spend time online at work, the most reported time online was an hour (16%)

If the respondent indicated that they spent time online at work, a follow-up question was posed asking if they were a computer professional. Three percent (3%) of respondents indicated that they were computer professionals.

The majority of the sample did not use the internet at a school (84%). Of those that use the internet at school (N=15), the range of online time was between 2 minutes and five hours, with the most frequent response an hour a day online at school (40%).

Thirteen percent (13%) of respondents indicated using the Internet service available at the public library. Several of these (32%) were residents reporting not having an Internet connection. This suggests that the library has become a key location for those without broadband access to use the Internet.

Thirty-nine percent (39%) of respondents (N=115) reported that they used the Internet at a friend or relative's house. The majority of these (53%) were respondents without Internet service. Additionally, 17% of the sample reported using the Internet at retail locations. This was not predominantly those without Internet access at home, but was significantly more likely to be rural residents with laptop capabilities.

The most common number of e-mail accounts for respondents with Internet access in Columbia County surveyed was 2 email accounts, the range was from 0 (5%) to 20 (1%), with the majority indicating they had one email account (39%) and a similar amount of people indicating they had two (36%).

In describing their primary e-mail account, most respondents used their e-mail for personal reasons (67%), while 31% used it for work and 2% used it for school. When describing their second email account, it was most likely for work or school.

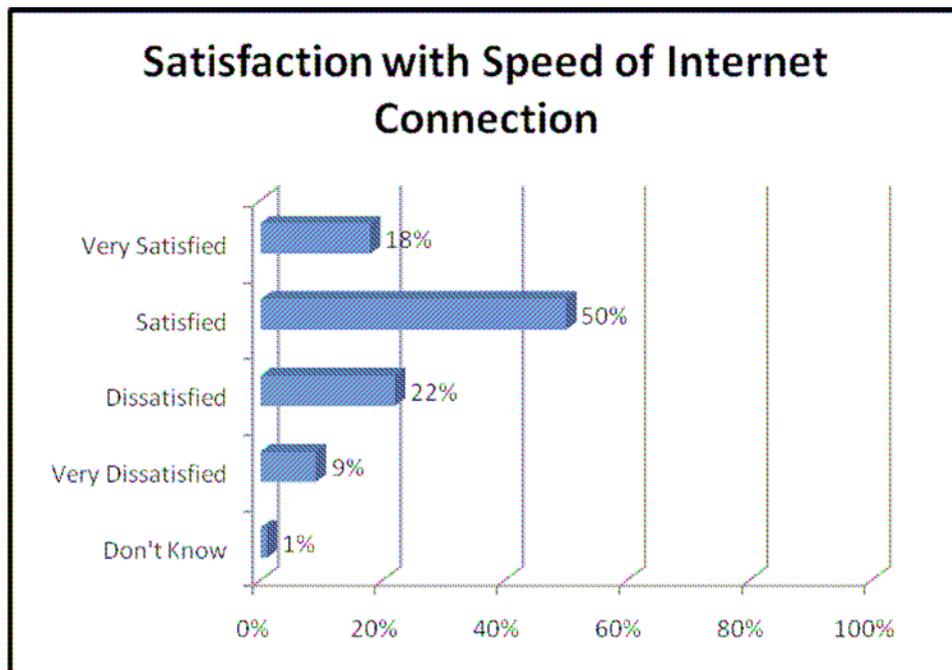
A large majority of the individuals with an Internet connection replied that they used their e-mail account at least once a day (78%) or once or several times a week (17%). A smaller percentage (5%), use their e-mail account less than once a week.

E-Mail Usage	Total N=213
At least once a day	78%
Once a week/ Several times a week	17%
Less than once a week	5%

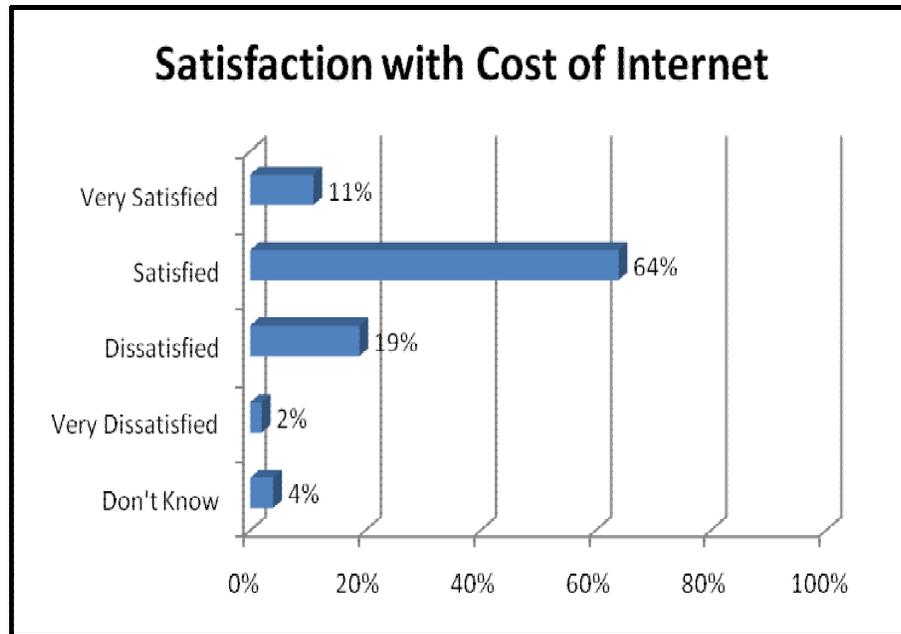
OVERALL SATISFACTION WITH INTERNET SERVICE

Respondents with an Internet connection (N=213) were asked to rate their satisfaction with specific aspects of their Internet services. The services with the highest satisfaction, with 94% of respondents indicating they were “satisfied” or “very satisfied,” were the billing practices of the Internet provider and the ease of use.

The most dissatisfaction was expressed with the speed of the Internet connection with 31% of respondents indicating they were “dissatisfied” or “very dissatisfied.” This was indicated most frequently by dial-up users, however there was also some dissatisfaction expressed by DSL and satellite Internet users with the speed of the connection.



The cost of the Internet service also showed high rates of dissatisfaction with one in five (21%) respondents reporting they were “dissatisfied” or “very dissatisfied” with their Internet costs.



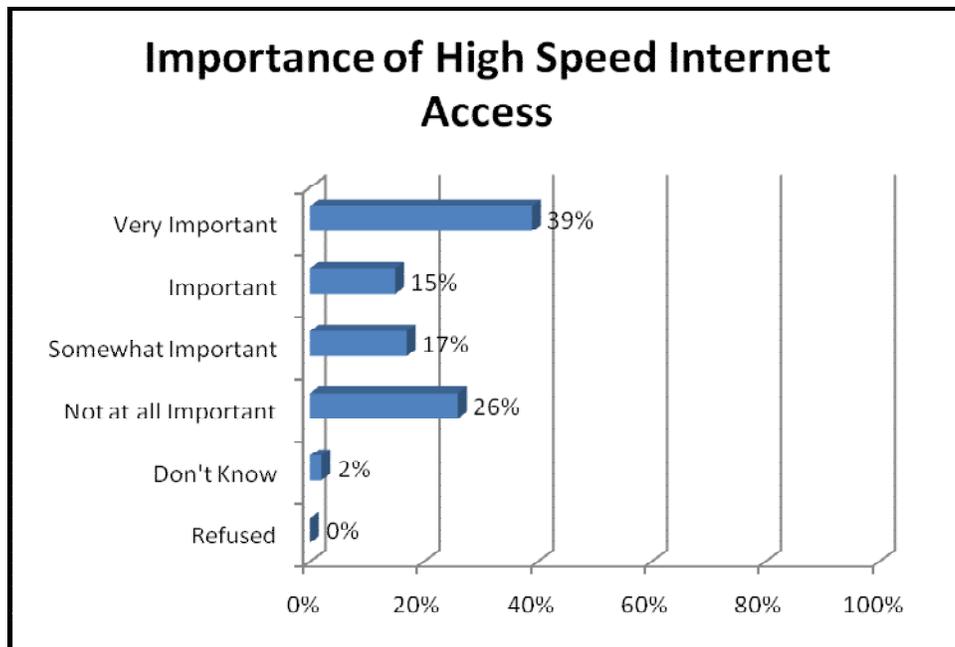
Additionally, a little more than 1 in 10 respondents (14%) expressed dissatisfaction with the reliability of the service. Customer service knowledge and technical support received generally positive ratings.

Responses to other specific Internet services asked during the interview are shown in the chart below.

Internet Service Characteristics	Very Satisfied	Satisfied	Dissatisfied	Very Dissatisfied	Don't Know/ N/A
Speed	18%	50%	22%	9%	1%
Cost	11%	64%	19%	2%	4%
Billing Practices	25%	69%	2%	1%	4%
Reliable Access	25%	60%	11%	3%	2%
Ease of Use	23%	70%	7%	1%	1%
Customer Service's Knowledge and courteousness	31%	46%	5%	3%	16%
Technical Support	22%	54%	8%	1%	16%

PHILISOPHY REGARDING ACCESS TO THE INTERNET

All respondents were asked questions about high speed Internet access, also known as broadband. When asked whether it was important for them to have high speed Internet access, results varied. Thirty-nine percent (39%) said that they felt it was “very important” to have high speed Internet access and 15% indicated it was “important.” Seventeen percent (17%) indicated it was “somewhat important” while over one fourth of the respondents (26%) said that it was “not at all important.”

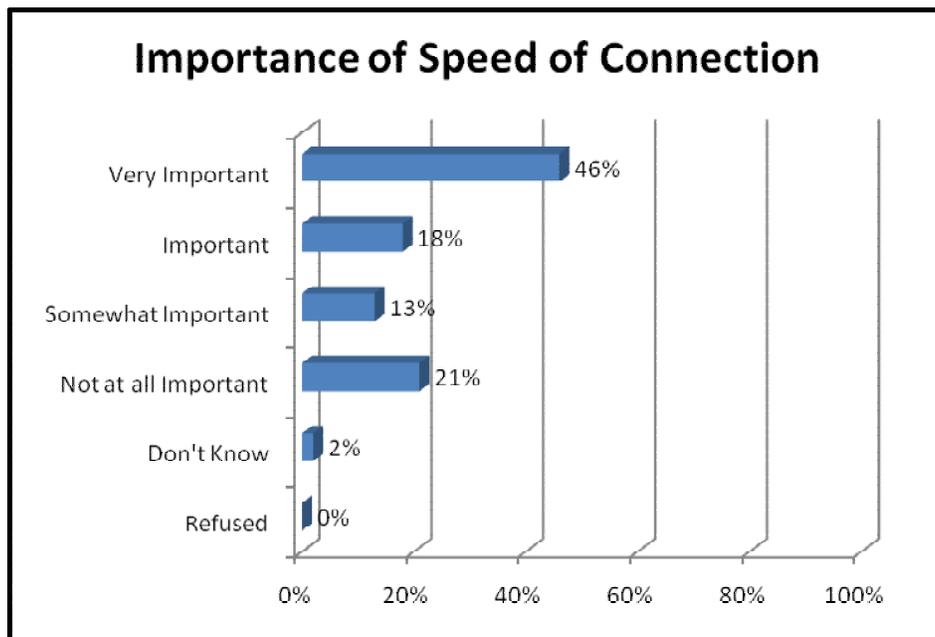


Those that responded it was “very important” or “important,” to have high speed Internet were asked to give reasons why. The most common reason why was that it was faster and so it saves time (N=93). Other reasons as to why high speed Internet is important is because it is needed for work (N=20) and communication with others (N=6). Other reasons are listed in the chart below:

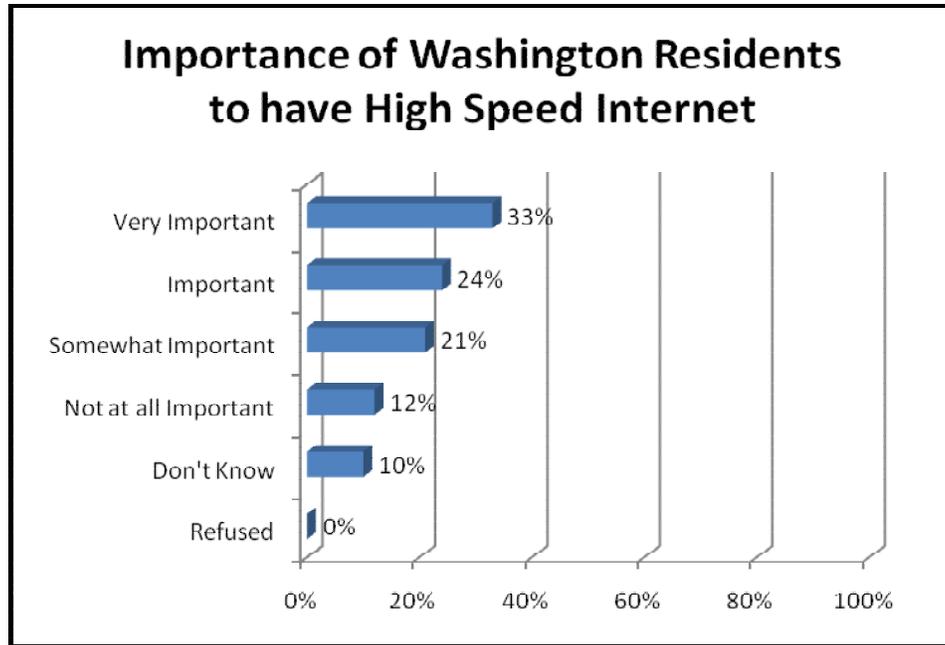
Reason why High Speed Internet is Important	N=152
Saves time/ Faster connection	93

Need it to do work	20
Better downloading capabilities	6
Need it for Education	6
Communicating with others	6

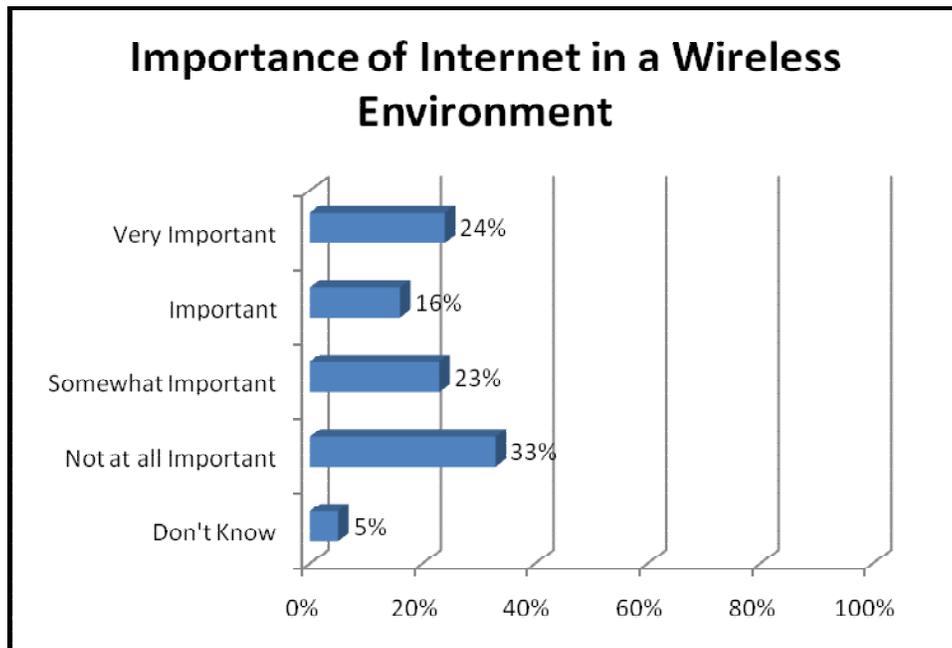
All respondents were also asked how important the speed of their Internet connection was to them and these responses mirrored the responses given when asked whether it was important for them to have high speed Internet access. Forty-six percent (46%) said that they felt it was “very important” to have high speed Internet access and 18% indicated it was “important.” Only 13% indicated it was “somewhat important” while 21% said that it was “not at all important.”



When asked how important it was for all Washington households to have access to high speed Internet, respondents (N=300) increased the overall level of importance slightly with 33%, 24%, and 21% of respondents indicating that it was “very important,” “important,” or “somewhat important,” respectively. Fourteen percent (12%) indicated that it was not important at all.



When asked how important it was that the respondent has access to high speed Internet in a wireless environment, responses were evenly distributed. Twenty-four (24%) of respondents indicated it was “very important” and 16% indicated it was “important.” Twenty-three percent (23%) indicated it was “somewhat important” and 33% said it was “not at all important.”



Of the respondents that said it was “very important” (N=92), the majority (70) indicated it was important to them because they had 24/7 access to the Internet. Other reasons were to stay in touch with the office (5%), stay in touch by e-mail (2%) or access the Internet while at lunch (1%). The rest of the respondents (22%) listed other reasons. Some additional responses were that the connection is fast, it is important for work/education and that lack of wires allows for increased mobility.

TYPES OF INTERNET USE

A list of common reasons to use the Internet was presented to the respondents and the results are presented in the chart below. These are based on the Pew Internet and American Life project findings.

The most popular reasons for using the Internet were to keep in touch with family and friends (91%), research retail prices and product information (82%), purchase goods and services (75%), and share photos (68%).

Fewer people use the Internet to make phone calls (7%) or perform language translation (9%).

Reasons for Use of the Internet	Yes	National Yes Figure	No
Keep in touch with family and friends	91%	92%	9%
Research retail prices and product information	82%	81%	17%
Purchase goods and services	75%	66%	25%
Share photos	68%	37%	32%
Find medical information	69%	80%	31%
Get local news	56%	47%	44%
Access local government services	60%	66%	40%
Visit Washington government’s website	57%	66% (their state)	42%
Bank online	56%	53%	44%
Find legal information	41%	--	59%

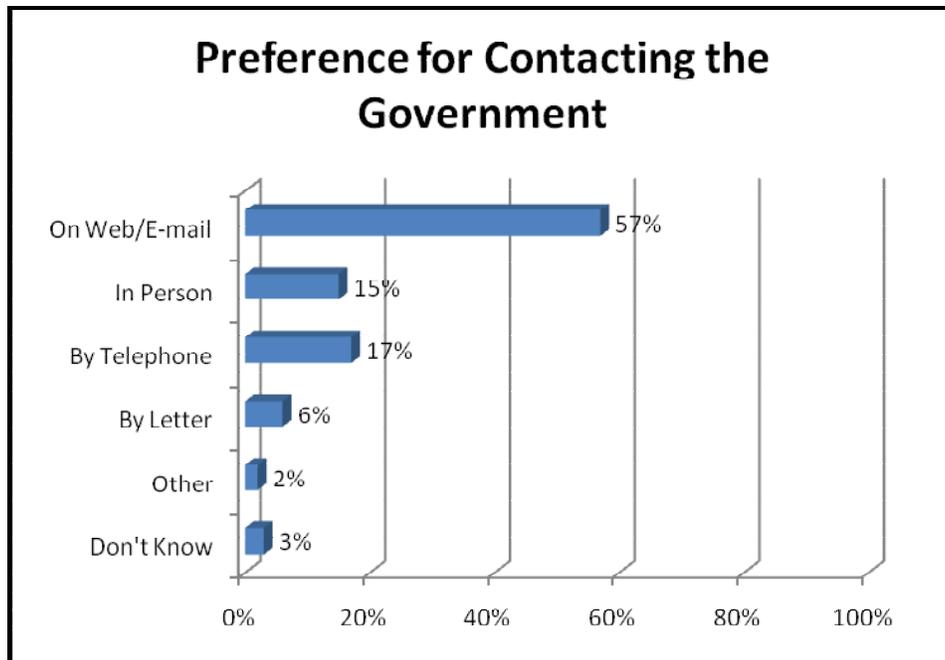
Find state or federal social services and government assistance	36%	66%	64%
Educational (take a class online)	39%	13%	60%
Play video games	40%	35%	60%
Find local school information	43%	57%	57%
Watch television or other videos	21%	56%	78%
Contribute to a website, blog or other online forum	22%	22%	78%
Sell goods or services	16%	15%	83%
Perform language translation	9%	--	91%
Make telephone calls	7%	13%	93%

The most bandwidth intensive activity on this list is video over the Internet and Columbia County reports 35% less activity in this area than the national average. Telephone calls via the Internet are also lower in Columbia County (-6%), find government services (-30%) and find medical information (-11%). Residents are more likely to shop online (+9%) and use the Internet for educational purposes (+26%).

Other reasons people use the Internet include travel purposes, like finding directions, using e-mail for communication and researching general information.

ON LINE CIVIC PARTICIPATION

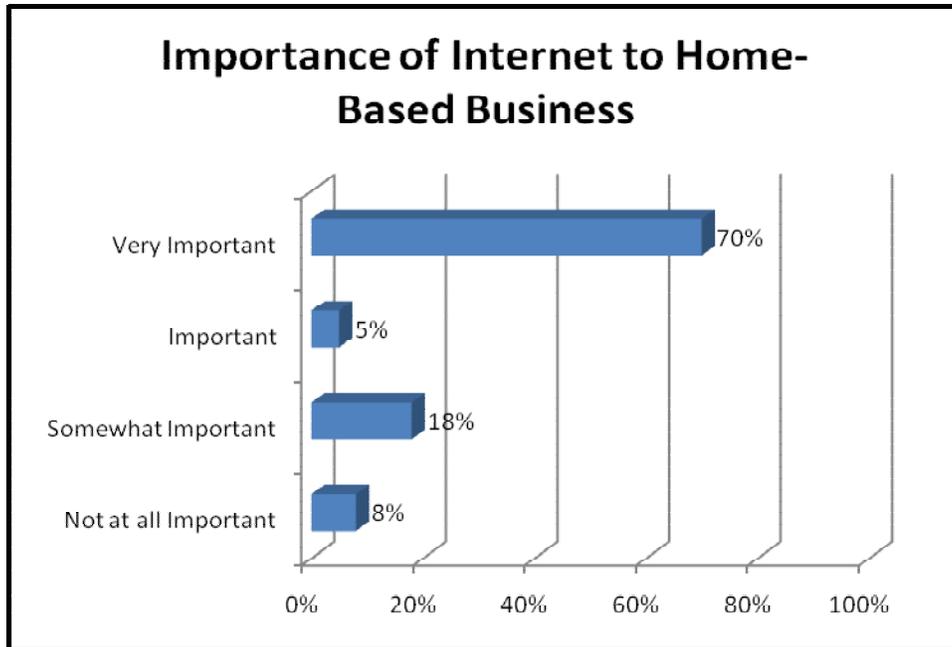
When asked how they would like to access government services, a majority of individuals with Internet capabilities (N=232) indicated that they would prefer to access the information on the web or via e-mail (57%). Seventeen percent (17%) said they would prefer to access information by telephone and 15% preferred obtaining the information in person.



In addition, if respondents believed e-mail was a less than very effective way to communicate opinions about issues that affect the community they were asked to give reasons why. The top four responses were that an e-mail could be ignored or deleted (N=21), lose personal contact (N=20), they don't need to communicate with the government (N=13) and an e-mail can be easily misunderstood (N=5).

BUSINESS AND ECONOMIC DEVELOPMENT ISSUES

Of those respondents that indicated they had an Internet connection (232), 17% have used the Internet to operate a business from their home. Of those 40 individuals who have done so, the majority (70%) believe that the Internet has been “very important” to the success of the home-based business. Five percent (5%) say that the Internet has been “important”, 18% say it has been “somewhat important,” and only 8% say that it is “not at all important.”



Respondents with Internet capability were asked if, in the past year, they had used the Internet to find information about local business. Sixty-two (62%) responded that they had, and of those 145 individuals, 55% said that they have purchased good or services from local or state businesses online.

62% of respondents use their Internet connection to find information about local businesses. Of those, 55% have purchased goods or services online.

When asked to rate their satisfaction with the information about local business on the Internet, 76% said they were “very satisfied” or “satisfied.” Twenty-two percent (22%) said they were dissatisfied and 1% said they were “very dissatisfied.”

CLOSING THOUGHTS

At the end of the survey, respondents were asked if they had any thoughts about how to enhance broadband availability in the community and 23%/N=70 offered suggestions. Most respondents said it was important to get access to more rural areas by upgrading and building more infrastructure to those areas (N=34).

Fourteen people (N=14) said that making it more affordable would help as well. Also, there was a group of people who believed that increasing competition would also help (N=6).

When asked if they had anything additional to add about broadband that was not covered in the survey, 7% of people added additional thoughts, some had multiple ideas. Among those that did, the most common was a reiteration of the fact that broadband needs to be enhanced in rural areas (N=10). Three respondents said that they would like to see faster Internet service. Two respondents (N=2) said that they wanted Internet services and computers to be more affordable.

KEY FINDINGS IN COLUMBIA COUNTY

Access to computers:

- Seventy-eight percent (78%) of respondents report having a computer in the home. This is consistent with the estimates of United States PC penetration.
- Fifty-five percent (55%) of these homes have one computer, 32% have two computers, 9% have three computers in the home.
- Forty-four percent (44%) of residents describe at least one of their computers as a laptop.
- The primary reasons for not owning a computer are: don't want one (42%), too expensive (19%) and don't know how to use it (13%).
- The majority of non-PC owners indicated they are not willing to purchase a new computer.

Access to the Internet:

- Seventy-one percent (71%) of respondents have access to the Internet at home, which costs on average \$45 a month.

- Of these: 44% have DSL, 24% have dial-up, 10% have a cable modem, 10% use a satellite Internet service and 5% have fixed wireless broadband.
- Those without Internet service: 31% said they didn't want it, 22% said it was too expensive, 10% said they didn't know how to use the Internet.
- Those without Internet service and willing to pay to get it (1 in 2) said on average they'd pay \$20 a month to receive Internet service.
- The top two Internet providers are Qwest and Blue Mountain Internet (BMI).

Quality of Internet service:

- Thirty-one percent (31%) of Internet users are dissatisfied or very dissatisfied with the speed of their Internet connection.
- One in five Internet users (21%) are dissatisfied or very dissatisfied with the cost of Internet service.
- 14% expressed dissatisfaction with the reliability of the service.

Philosophy about Internet access:

- The majority of respondents felt that access to high speed Internet was important or very important (54%). When describing its importance, most said it was important because it saved time and created efficiencies for work and keeping in contact with others.
- The speed of the Internet connection was described as very important or important by 64% of respondents.

- Fifty-seven percent (57%) of respondents felt it was important or very important for all Washington residents to have access to high speed Internet.
- Forty percent (40%) of respondents thought access to the Internet in a wireless environment was very important or important. When asked why, most indicated 24/7 access to the Internet was critical for work, the ability to stay in touch with the office or check e-mail.
- Fifty-seven percent (57%) of respondents with Internet access indicated they would like to access government services via the web or e-mail.

Internet use:

- Who uses Internet at home: 84% the respondent, 10% a spouse or partner, 4% children.
- Average time online per day at home was 2 hours and 15 minutes
- Sixty-one percent (61%) only use the Internet at home.
- Of the 39% that use the Internet away from home, 70% use it at work, 5% use it at school, 13% go to the public library, 39% use it at a friend or relative's house. Among those who use the Internet at a friend or relative's house, 53% reported not having an Internet connection at home. Additionally 17% bring their laptop to a retail outlet or use a computer there.
- The library is also a key location for those without Internet at home to access broadband. Of those that visit the library to use the Internet, 32% were residents reporting not having an Internet connection at home.

- Most residents with Internet access have two email accounts (36%) and 78% check e-mail everyday. Sixty-seven percent (67%) use their e-mail for personal reasons, while 31% use it for work, and 2% use e-mail for school.
- The most popular Internet activities are keeping up with family and friends (91%), research retail prices and product information (82%), purchase goods and services (75%), find medical information (69%), and share photos (68%).

Economic indicators among Columbia County respondents:

- Seventeen percent (17%) of residents with Internet access indicated they have used that connection to operate a business from their home and of those 70% described the Internet has “very important” to the success of their home based business.
- Sixty-two percent (62%) of respondents had used the Internet to access information about local businesses and 55% of those said they had purchased goods online from a local or Washington business.

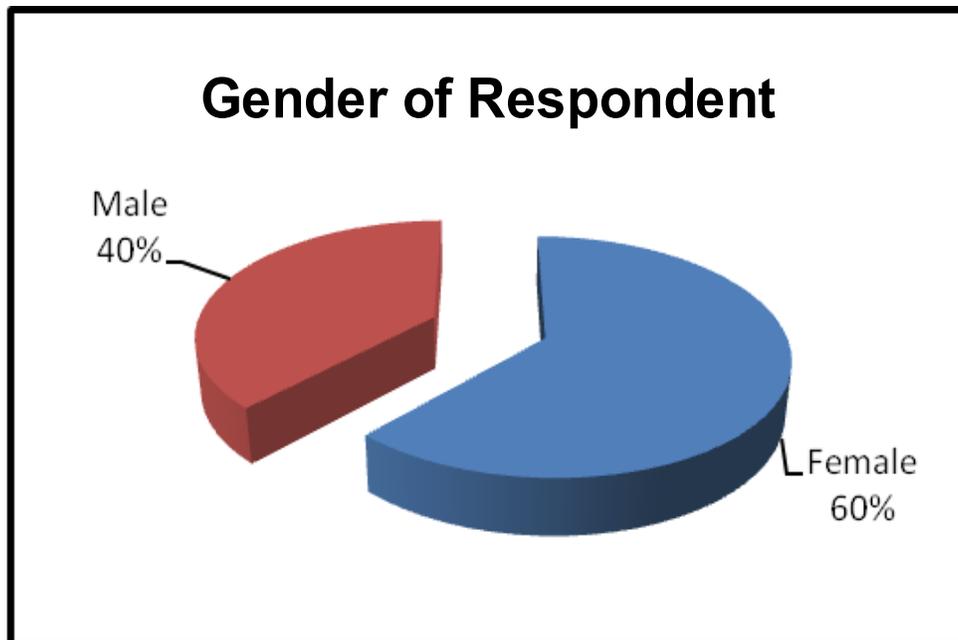
FERRY COUNTY

DEMOGRAPHICS

Before launching into a discussion of the findings, it is appropriate to understand the demographics of the responding sample within Ferry County.

Sample Description

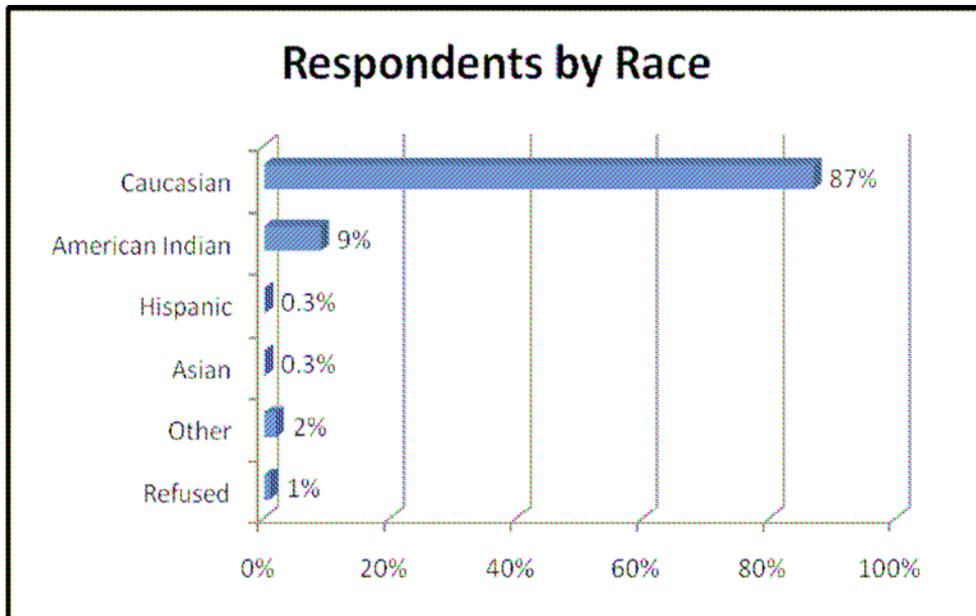
The sample for this survey consisted of 300 randomly selected residents from Ferry County in the State of Washington. A screening question was used to ensure respondents were currently living in that particular county. All respondents were 18 or older. Overall, 40% of the respondents were male and the remaining 60% were female. This is a result of the telephone most likely to be answered by a woman in the household³



Most respondents were Caucasian (87%). Nine percent (9%) were American Indian, .3 % were Hispanic, and .3 % Asian. Two percent (2%) of respondents identified with another racial type not presented by the surveyor and 1% chose not to provide racial information. The racial

³ McGuckin, Nancy (2001). Hang-ups, Looking at non-response in telephone surveys. www.fhwa.dot.gov/ohim/hang-ups. Retrieved May 26, 2008.

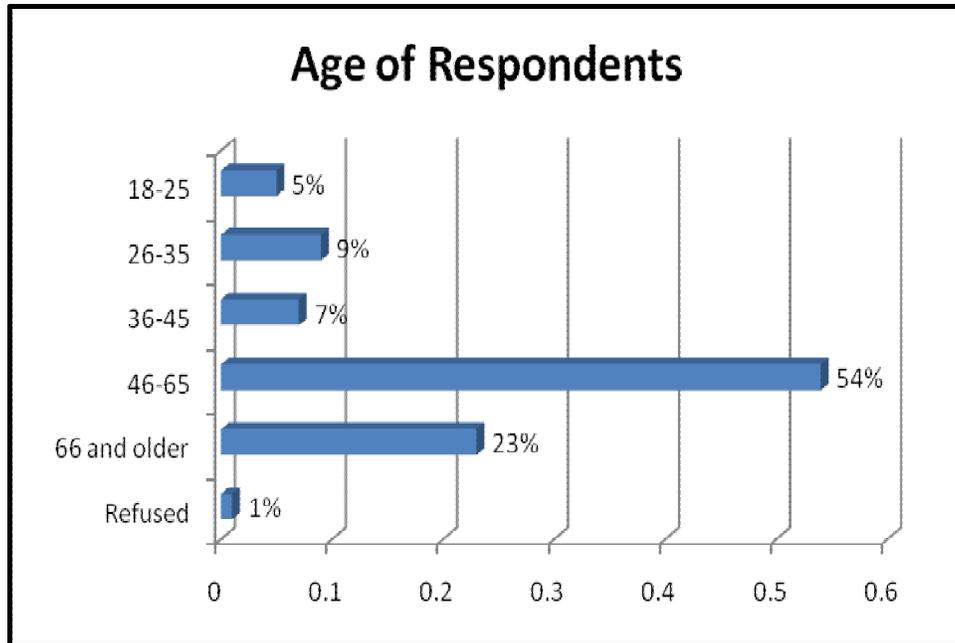
composition of the responding sample is very similar to the area. The U.S. Census in 2000 reported 79% Caucasian, 17% American Indian and .3% Hispanic.⁴



Fifty-three percent (53%) of respondents live with another person in their home while 17% live alone, 13% of responding households have three people, 6% of respondents have four people, and 6% of respondents have five people living in their home. The rest of the respondents (5%) had between 6 and 9 people living in their home. On average there were 2 people per household. Only 21% of the sample had children under the age of 18 in the household. Most respondents (99%) spoke English in their home while .3% spoke Spanish. These findings are consistent with the U.S. Census.

The respondents represented a wide range of ages. The largest age group was between 46 and 65 (54% of respondents). Twenty-three (23%) were over 65, 7% were between 36 and 45, 9% were between 26 and 35 and 5% of respondents were in the youngest age group, under 25 years of age. The responding sample trended older than the U.S. Census reports for Ferry County.

⁴ FactFinder. United States Census. Retrieved May 26, 2008.



The sample represented a broad range of education level. Forty-one percent (41%) had completed some college, vocational school or a two year degree. Seven percent (7%) completed some grade school or high school and 28% of respondents graduated from high school. A smaller percentage (16%) completed college and only 8% had completed post graduate work or a graduate degree. The education levels of the responding sample are consistent with the U.S. Census.

There was a fairly even distribution of income ranges for the sample. Nineteen percent (19%) of the sample had an income of \$25,000 or less. Sixteen percent (16%) had an income between \$25,000 and \$35,000. Twenty-two percent (22%) had an income between \$35,000 and \$50,000. Twelve percent (12%) had an income between \$50,000 and \$75,000. Nine (9%) had an income between \$75,000 and \$100,000. Five percent (5%) make more than \$100,000 in their household. Finally, 18% refused to report their annual household income.

As far as employment, most respondents were either employed full time (27%) or were retired (40%). Twelve percent (12%) were employed part time, 7% were self-employed, 5% were homemakers and 5% were disabled and unable to work. Other respondents were people who

were unemployed but looking for work (2%) and 1 % were unemployed and not looking for work.

Of the respondents that worked (N=146), 22% worked from home and 78% commuted to work. Of the 32 people that worked at home, 19% were telecommuters, 63% worked at a home-based business and 19% performed other work from home.

ACCESS TO COMPUTERS

One of the key objectives of the study was determine the penetration of personal computers and the Internet in these five rural counties selected for study. Of the 300 people surveyed in Ferry County, 83% reported having a computer in their household. Most of the respondents had at least one computer (61%); however 25% and 9% of respondents owned two and three computers respectively. Only 39% of the sample that owned computers (N=248) had a laptop while the majority (61%) owned another type of computer.

Of the respondents that did not own a computer (N=52), the top three first responses as to why they did not own one were that they didn't want one (42%), it was too expensive (25%) and that they don't know how to use it (14%).

Those without computers who thought they were too expensive were asked how much they would be willing to pay for a new computer. All of these respondents were willing to pay something for a computer, but the range was between \$5 and \$1000 dollars.

ACCESS TO THE INTERNET

A significant number of survey respondents (70%) had Internet in their home. On average these individuals were paying \$45 dollars per month for their Internet service.

Of the respondents that did not have Internet access at home (N=91), the most common responses were the same as those for not wanting a computer. Seventeen percent (17%) said that they didn't want it, 24% said that it was too expensive, and another 17% said that they didn't know how to use it. When those who thought Internet service was too expensive were asked

how much they would be willing to pay for Internet service a month, the range was nothing to \$50 per month. The most common reported amount was \$10 dollars per month.

INTERNET USE

When asked who uses the computer or the Internet in the household, the majority of respondents (80%) first replied that they do. The second most common user was a spouse or partner (16%) and the third most common was children (2%). Other responses mentioned by the respondents indicated grandchildren and other relatives also use the computer and the Internet.

The type of Internet connection that was most common among the respondents who reported having the Internet (N=209), was Dial-up (51%). Twelve percent (12%) use a cable modem, 11% use digital subscriber line (DSL) and 17% use satellite Internet service.

Those with Internet service were asked who their provider was. The majority of respondents who have Internet use Republic Internet (N=26), Wild Blue (N=20) or CenturyTel (N=16).

The perceived speed of the internet connection was highly variable among respondents. Most respondents answered the question with phrases such as “Faster than dial-up, slow, fast, not as fast as it should be.” Just a few respondents were able to provide the actual speed of their internet connection (N=15). Because most residents of this county have a dial-up connection, the most common connection speed was less than 1Mbps with 80% of respondents stating between 1 and 1 Mbps. There remaining respondents, (20%), stated they had speeds between 1.1 Mbps and 5 Mbps with no respondents indicating speeds above 5 Mbps.

Of those respondents who had slower Internet connections (N=145), the most popular reason for not selecting a faster Internet connection was because it was not available in their area (60%). Twenty-two (22%) of respondent’s first responses were that it costs too much and 7% said that they did not need it.

To further explore how and where the Internet was used, respondents were asked about their Internet use at home and away from home.

At home, respondents reporting spending between no time online (2%) to 12 hours a day online. The mode, or the most frequent response, was that they spent two hours online a day (19%). When considering all responses, the average time online was 2 hours and 6 minutes a day.

Respondents were asked whether they used the Internet in a place other than their own home. A majority (59%) replied that they only used the Internet in their home while 41% (N=122) said they access the Internet at a place other than their home. In the last thirty days, the range of time spent online away from home, was from no time (36%) to 120 hours (6%). The most frequently reported amount of hours spent online in the last 30 days away from home among those that reported some activity was 1 hour (8%).

A majority of respondents indicated that they used the Internet at work (58%), but the time varied with spending no time online to ten hours a day. The most frequent response was not spending any time online a day at work. The mode for time spent on the Internet at work was 1 hour per day (26%).

If the respondent indicated that they spent time online at work, a follow-up question was posed asking if they were a computer professional. Fourteen percent (14%) of these respondents indicated that they were computer professionals.

The majority of the sample did not use the Internet at school (84%). Of those that did and provided an amount of usage (N=20), the range of online time was between 15 minutes and 8 hours, with the most frequent response being two hours a day online at school (20%).

Twenty-nine percent (29%) of respondents indicated using the Internet service available at the public library. A majority of these (39%) were residents reporting not having an Internet connection. This suggests that the library has become a key location for those without broadband access to use the Internet.

Forty-six percent (46%) of respondents (N=121) reported that they used the Internet at a friend or relative’s house. This included 51% of respondents without Internet service at home. Additionally, 9% of the sample reported using the Internet at retail locations. This was not predominantly those without Internet at home but was significantly more likely to be rural residents with laptop capabilities.

The most common number of e-mail accounts for respondents with Internet access in Ferry County surveyed was 4 email accounts, the range was from 0 (7%) to 50 (.4%), with the majority indicating they had one email account (42%) and over one in three indicating they had two accounts (35%).

In describing their primary email account, most respondents used their e-mail for personal reasons (72%), while 28% used it for work and 1% used it for school. When describing their second email account, it was most likely for work or school.

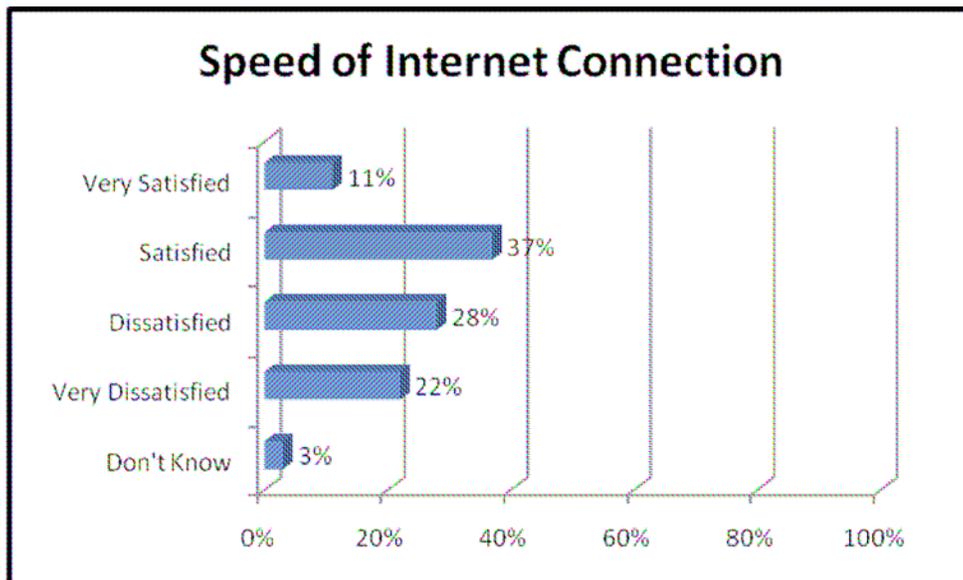
A large majority of the individuals with an Internet connection replied that they used their e-mail account at least once a day (71%) or once or several times a week (21%). A smaller percentage (7%), use their e-mail account less than once a week.

E-Mail Usage	Total N=219
At least once a day	71%
Once a week/ Several times a week	21%
Less than once a week	7%
Don't Know	1%

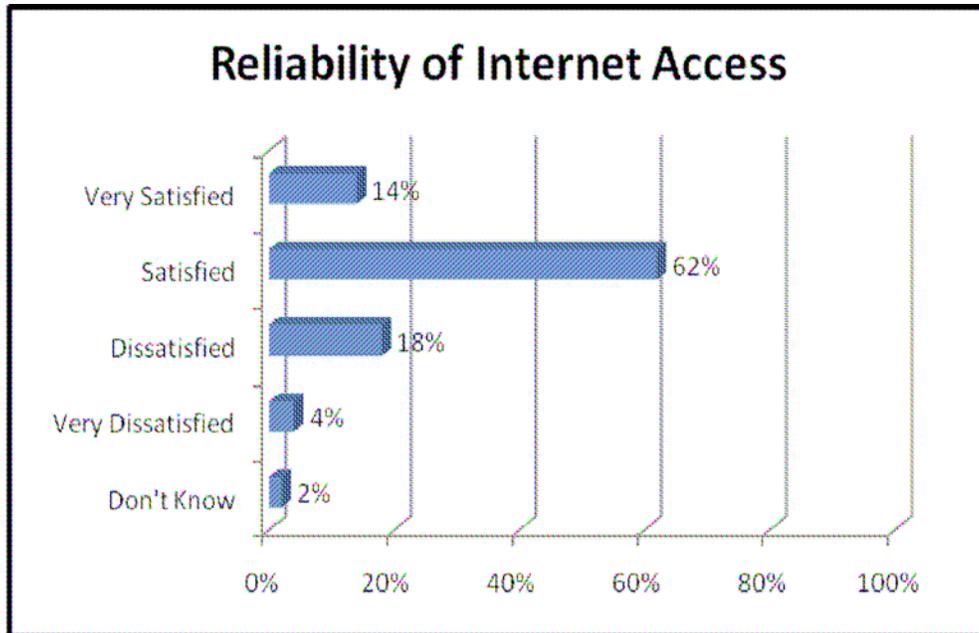
OVERALL SATISFACTION WITH INTERNET SERVICE

Respondents with an Internet connection (N=209) were asked to rate their satisfaction with specific aspects of their Internet services. The services with the highest satisfaction, with 90% of respondents indicating they were “satisfied” or “very satisfied,” were the billing practices of the Internet provider and the ease of use.

The most dissatisfaction was expressed with the speed of the Internet connection with 50% of respondents indicating they were “dissatisfied” or “very dissatisfied.” This was indicated most frequently by dial-up users, however there was also some dissatisfaction expressed by satellite Internet users with the speed of the connection.



The reliability of the Internet service also showed high rates of dissatisfaction with one in five (22%) respondents reporting they were “dissatisfied” or “very dissatisfied” with their Internet reliability.



Additionally, a little more than 1 in 6 respondents (17%) expressed dissatisfaction with the cost of the service.

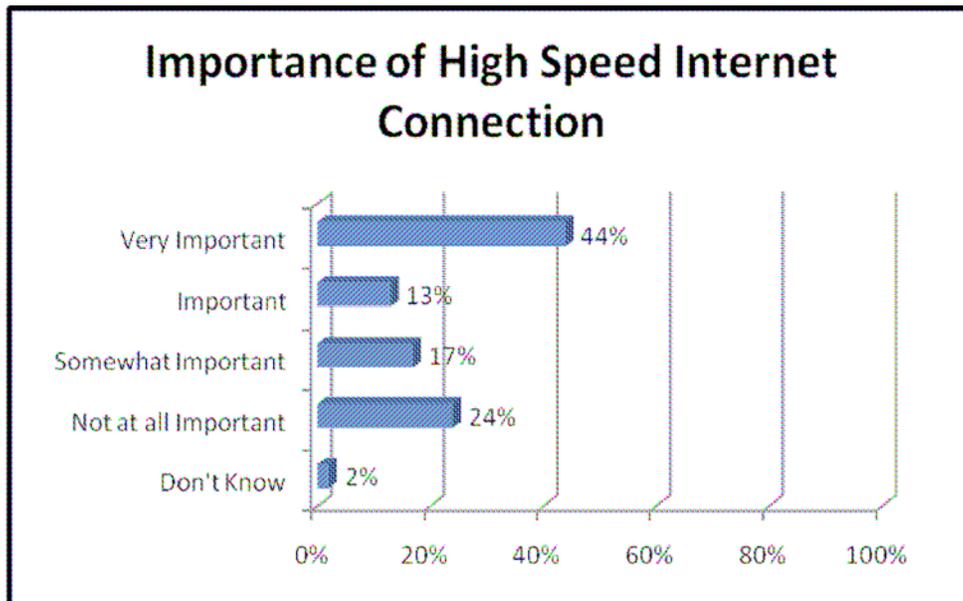
Customer service knowledge and technical support received generally positive ratings.

Responses to other specific Internet services asked during the interview are shown in the chart below.

Internet Service Characteristics	Very Satisfied	Satisfied	Dissatisfied	Very Dissatisfied	Don't Know/ N/A
Speed	11%	37%	28%	22%	3%
Cost	12%	68%	14%	3%	3%
Billing Practices	27%	63%	3%	1%	5%
Reliable Access	14%	62%	18%	4%	2%
Ease of Use	22%	67%	9%	1%	1%
Customer Service's Knowledge and courteousness	26%	49%	3%	1%	21%
Technical Support	19%	48%	9%	1%	23%

PHILISOPHY REGARDING ACCESS TO THE INTERNET

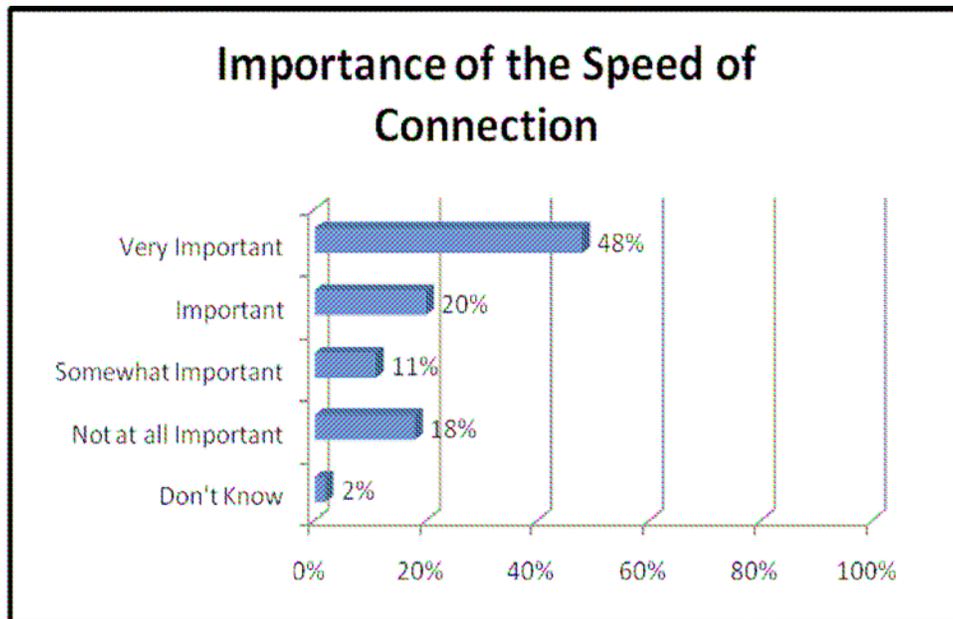
All respondents were asked questions about high speed Internet access, also known as broadband. When asked whether it was important for them to have high speed Internet access, results varied. Forty-four percent (44%) said that they felt it was “very important” to have high speed Internet access and 13% indicated it was “important.” Seventeen percent (17%) indicated it was “somewhat important” while one fourth of the respondents (24%) said that it was “not at all important.”



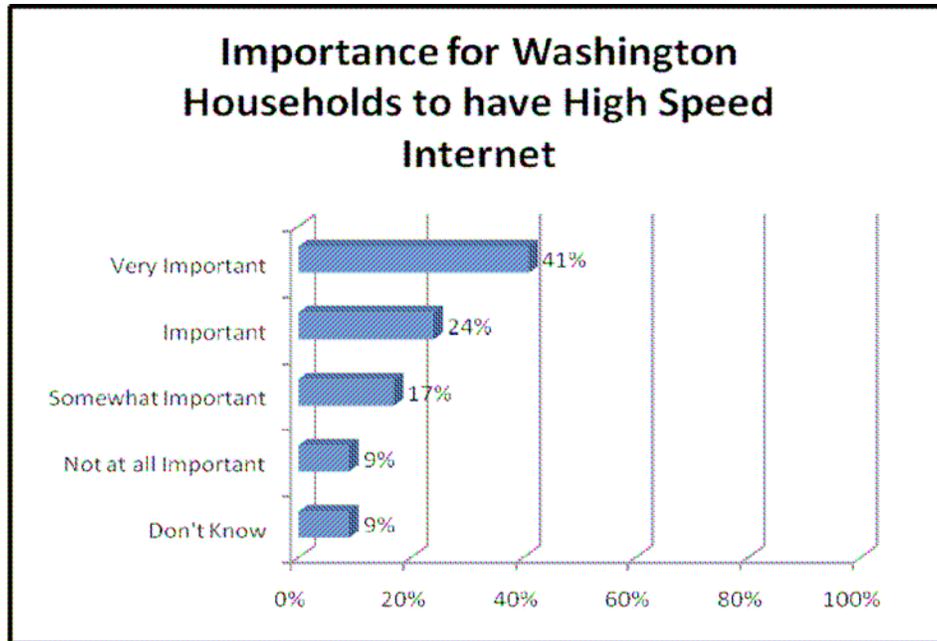
Those that responded it was “very important” or “important,” to have high speed Internet were asked to give reasons why. The most common reason why was that it was faster and so it saves time (N=89). Other reasons as to why high speed Internet is important is because it is needed for work (N=28) and that it is easier to communicate with others (N=14). Other reasons are listed in the chart below:

Reason why High Speed Internet is Important	N=168
Saves Time/Faster	89
Needed for Work	28
Better Downloading Capabilities	14
Access Information/ Research	12
Educational Use	4

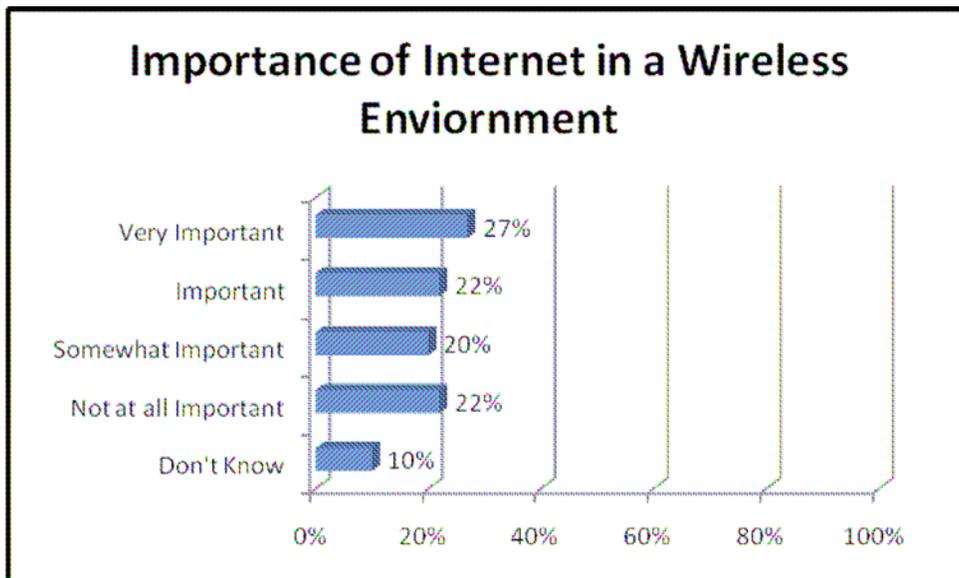
All respondents were also asked how important the speed of their Internet connection was to them and these responses mirrored the responses given when asked whether it was important for them to have high speed Internet access. Forty-eight percent (48%) said that they felt it was “very important” to have high speed Internet access and 20% indicated it was “important.” Only 11% indicated it was “somewhat important” while 18% said that it was “not at all important.”



When asked how important it was for all Washington households to have access to high speed Internet, overall importance rose slightly with 41%, 24%, and 17% of respondents indicating that it was “very important,” “important,” or “somewhat important,” respectively. Nine percent (9%) indicated that it was not important at all.



When asked how important it was that the respondent has access to high speed Internet in a wireless environment, responses were evenly distributed (N=240). Twenty-seven (27%) of respondents indicated it was “very important” and 22% indicated it was “important.” Twenty percent (20%) indicated it was “somewhat important” and 22% said it was “not at all important.”



TYPES OF INTERNET USE

A list of common reasons to use the Internet was presented to the respondents and the results are presented in the chart below. Results are compared with the national Pew Internet and American Life project findings.

The most popular reasons for using the Internet were to keep in touch with family and friends (90%), research retail prices and product information (80%), purchase goods and services (71%), and share photos (68%).

Fewer people use the Internet to make phone calls (8%) or perform language translation (9%).

Reasons for Use of the Internet	Yes	National Yes Figure	No
Keep in touch with family and friends	90%	92%	10%
Research retail prices and product information	80%	81%	20%
Purchase goods and services	71%	66%	29%
Share photos	68%	37%	33%
Find medical information	68%	80%	32%
Get local news	59%	47%	40%
Access local government services	55%	66%	44%
Visit Washington government’s website	53%	66% (their state)	46%
Bank online	50%	53%	50%
Find legal information	39%	--	60%
Find state or federal social services and government assistance	38%	66%	62%
Educational	35%	13%	65%
Play video games	33%	35%	67%
Find local school information	27%	57%	73%
Contribute to a website, blog or other online forum	20%	22%	79%
Sell goods or services	20%	15%	80%
Watch television or other videos	16%	56%	84%
Perform language translation	9%	--	91%
Make telephone calls	8%	13%	92%

Respondents in Ferry County are more likely to use the Internet to sell goods, engage in educational opportunities, share photos, and purchase goods. They are less likely to use the Internet to watch videos, find local school information and find government assistance.

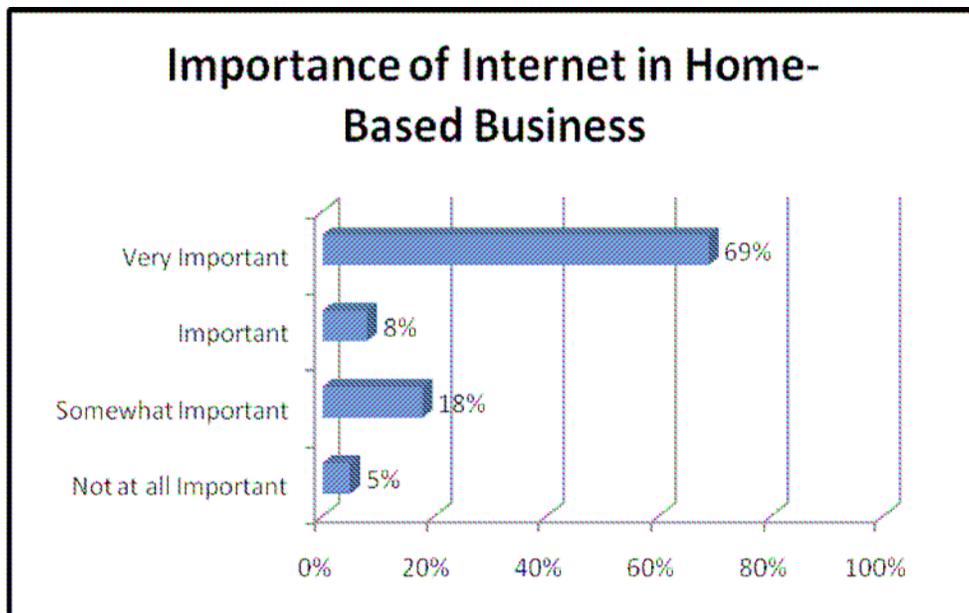
ON LINE CIVIC PARTICIPATION

When asked how they would like to access government services, a majority of individuals with Internet capabilities (N=240) indicated that they would prefer to access the information on the web or via e-mail (55%). Twenty percent (20%) said they would prefer to access information by telephone and 13% preferred obtaining the information in person.

In addition, if respondents believed e-mail was a less than very effective way to communicate opinions about issues that affect the community, they were asked to give reasons why. The top four responses were that an e-mail could be ignored or deleted (N=25), lose personal contact (N=17), that it is an effective way to communicate (N=12) and that the response time is too slow (N=7).

BUSINESS AND ECONOMIC DEVELOPMENT ISSUES

Of those respondents that indicated they had an Internet connection (240), 16% have used the Internet to operate a business from their home. Of those 39 individuals who have done so, the majority (69%) believe that the Internet has been “very important” to the success of the home-based business. Eight percent (8%) say that the Internet has been “important”, 18% say it has been “somewhat important,” and only 5% say that it is “not at all important.”



Respondents with Internet capability were asked if, in the past year, they had used the Internet to find information about local business. Fifty-eight (58%) responded that they had, and of those 141 individuals, 58% said that they have purchased good or services from local or state businesses online.

58% of respondents use their Internet connection to find information about local businesses. Of those, 58% have purchased goods or services online.

When asked to rate their satisfaction with the information about local business on the Internet, 66% said they were “very satisfied” or “satisfied.” Twenty-seven percent (27%) said they were dissatisfied and 5% said they were “very dissatisfied.”

CLOSING THOUGHTS

At the end of the survey, respondents were asked if they had any thoughts about how to enhance broadband availability in the community and 30%/N=91 offered suggestions. Most respondents said it was important to get access to more rural areas by building more infrastructure and providing more services for those areas (N=50).

Twelve people (N=12) said that making it more affordable would help as well. Also, there was a group of people who believed that increasing competition and decreasing a perceived monopoly on Internet service would also help (N=5).

When asked if they had anything additional to add about broadband that was not covered in the survey, 13% of people added additional thoughts. Among those that did, the most common response was a reiteration of the fact that broadband needs to be enhanced in rural areas (N=22). Seven people (N=7) said that they would like to see faster Internet service. Three respondents (N=3) said that they wanted Internet services and computers to be cheaper so they were more affordable.

KEY FINDINGS IN FERRY COUNTY

Access to computers:

- Eighty-three percent (83%) of respondents report having a computer in the home. This is consistent with the estimate of United States PC penetration.
- Sixty-one percent (61%) of these homes have one computer, 25% have two computers, 9% have three computers in the home.
- Thirty-nine percent (39%) of residents describe at least one of their computers as a laptop.
- The primary reasons for not owning a computer are: don't want one (42%), too expensive (25%) and don't know how to use it (14%).
- Some respondents without a computer would be willing to pay for one, but the range of how much they would be willing to pay was between \$5 and \$1000.

Access to the Internet:

- Seventy percent (70%) of respondents have access to the Internet at home, which costs on average \$45 a month.
- Of these: 51% have dial-up, 17% use a satellite Internet service, 12% have a cable modem, 11% have DSL, 5% have fixed wireless broadband.
- Those without Internet service: 24% said it was too expensive, 17% said they didn't want it, 17% said they didn't know how to use the Internet.
- Those without Internet service and willing to pay to get it most commonly said they'd pay \$10 a month to receive Internet service.

- Top three Internet providers are Republic Internet, Wild Blue or CenturyTel.

Quality of Internet service:

- 50% of Internet users are dissatisfied or very dissatisfied with the speed of their Internet connection.
- One in five Internet users (22%) are dissatisfied or very dissatisfied with their Internet reliability.
- Seventeen percent (17%) expressed dissatisfaction with the cost of the service.

Philosophy about Internet access:

- The majority of respondents felt that access to high speed Internet was important or very important (57%). When describing its importance, most said it was important because it saved time and created efficiencies for work and keeping in contact with others.
- The speed of the Internet connection was described as very important or important by 68% of respondents.
- Sixty-five percent (65%) of respondents felt it was important or very important for all Washington residents to have access to high speed Internet.
- Forty-nine percent (49%) of respondents thought access to the Internet in a wireless environment was very important or important.
- Fifty-five percent (55%) of respondents with Internet access indicated they would like to access government services via the web or e-mail.

Internet use:

- Who uses Internet: 80% the respondent, 16% a spouse or partner, 2% children.
- Average time online per day at home was two hours and 6 minutes
- Fifty-nine percent (59%) only use the Internet at home.
- Of the 41% that use the Internet away from home, 58% use it at work, 5% use it at school, 29% go to the public library and 46% use it at a friend or relative's house. Among those who use the Internet at a friend or relative's house, 51% reported not having an Internet connection at home. Additionally 9% bring their laptop to a retail outlet or use a computer there.
- The library is also a key location for those without Internet at home to access broadband. Of those that visit the library to use the Internet, 39% were residents reporting not having an Internet connection at home.
- Most residents with Internet access have one email account (42%) and 71% check e-mail everyday. 72% use their e-mail for personal reasons, while 28% use it for work, and 1% use e-mail for school.
- The most popular Internet activities are keeping up with family and friends (90%), research retail prices and product information (80%), purchase goods and services (71%), find medical information (68%), and share photos (68%).

Economic indicators among respondents:

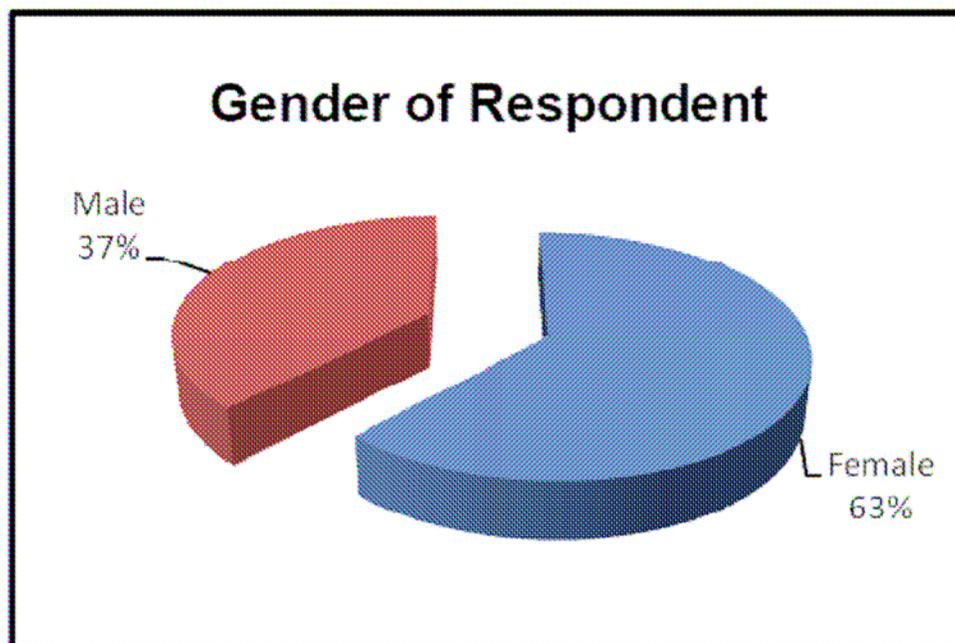
- Sixteen percent (16%) of residents with Internet access indicated they have used that connection to operate a business from their home and of those 69% described the Internet as "very important" to the success of their home-based business.

- Fifty-eight percent (58%) of respondents had used the Internet to access information about local businesses and 58% of those said they had purchased goods online from a local or Washington business.

GRAYS HARBOR COUNTY

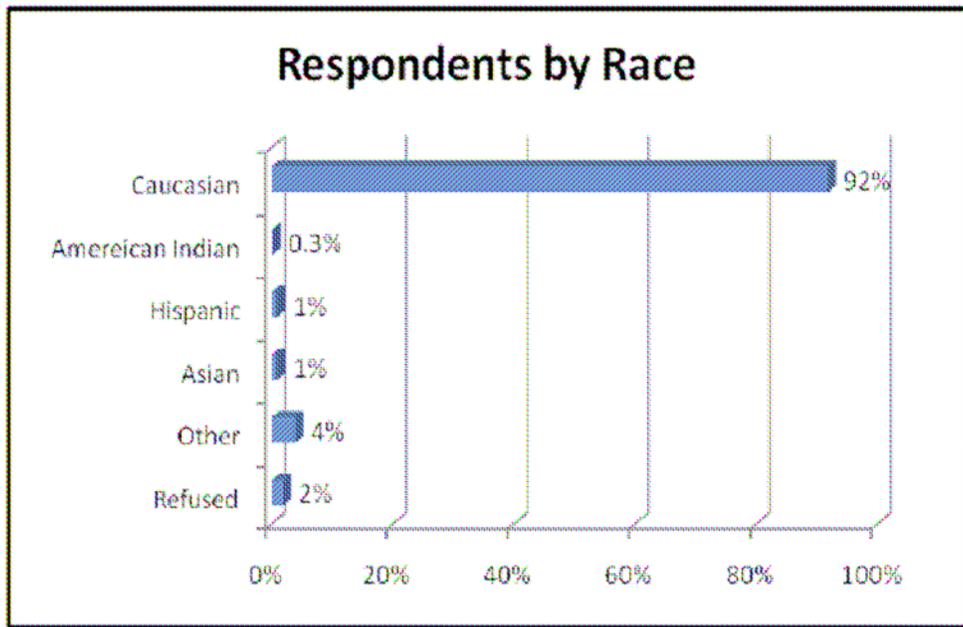
DEMOGRAPHICS

The sample for this survey consisted of 300 randomly selected residents from Grays Harbor County in the State of Washington. A screening question was used to ensure respondents were currently living in that particular county. All respondents were 18 or older. Overall, 37% of the respondents were male and the remaining 63% were female. This is a result of the telephone most likely to be answered by woman in the household.⁵



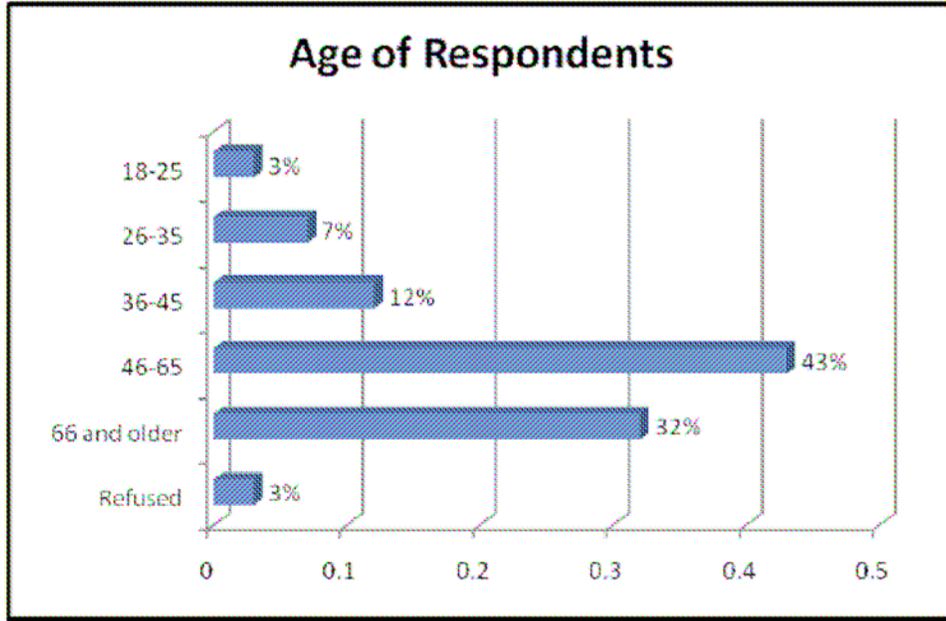
Most respondents were Caucasian (92%). One percent (1%) were Asian, 1 % were Hispanic and .3 % were American Indian. Four percent (4%) of respondents identified with another racial type not presented by the surveyor and 2% chose not to provide racial information. The responding sample is consistent with U.S. Census data available for Grays Harbor County within the margin of error.

⁵ McGuckin, Nancy (2001). Hang-ups, Looking at non-response in telephone surveys. www.fhwa.dot.gov/ohim/hang-ups. Retrieved May 26, 2008.



Forty-six percent (46%) of respondents live with another person in their home while 20% live alone, 14% of responding households have three people, 10% have four people, and 5% have five people living in their home. The rest of the respondents (5%) had 6 or more people living in their home. On average there were 2 people per household. Slightly more than 23% of the sample had children under the age of 18 in the household. Most respondents (98%) spoke English in their home while .3% spoke Spanish and 1% refused to provide that information.

The respondents represented a wide range of ages. The largest age group was between 46 and 65 (43% of respondents). Thirty-two (32%) were over 65, 12% were between 36 and 45, 7% were between 26 and 35 and 3% of respondents were in the youngest age group, under 25 years of age. The responding sample trended older than the last US Census report for Grays Harbor County.



The sample represented a broad range of education level. Forty-three percent (43%) had completed some college, vocational school or a two year degree. Six percent (6%) completed some grade school or high school and 24% of respondents graduated from high school. A smaller percentage (15%) completed college and only 10% had completed post graduate work or a graduate degree.

There was a fairly even distribution of income ranges for the sample. Sixteen percent (16%) of the sample had an income of \$25,000 or less. Eleven percent (11%) had an income between \$25,000 and \$35,000. Eighteen percent (18%) had an income between \$35,000 and \$50,000. Fourteen percent (14%) had an income between \$50,000 and \$75,000. Ten (10%) had an income between \$75,000 and \$100,000. Nine percent (9%) make more than \$100,000 in their household. Finally, 23% refused to report their annual household income.

As far as employment, most respondents were either employed full time (31%) or were retired (40%). Ten percent (10%) were employed part time, 7% were self-employed, 3% were homemakers and 5% were disabled and unable to work. Other respondents were people who were unemployed but looking for work (1%) and 1 % were unemployed and not looking for work.

Of the respondents that worked, 19% worked from home and 81% commuted to work. Of the 28 people that worked at home, 11% were telecommuters, 57% worked at a home-based business and 32% performed other work from home.

ACCESS TO COMPUTERS

One of the key objectives of the study was to determine the penetration of personal computers and the Internet in the five rural counties selected for study. Of the 300 people surveyed, 75% reported having a computer in their household. Most of the respondents had one computer (61%); however 24% and 13% of respondents owned two and three computers respectively. Only 38% of the sample that owned computers (N=226) had a laptop while the majority (62%) owned a desktop computer.

Of the respondents that did not own a computer (N=74), the top three first responses as to why they did not own one were that they did not want one (38%), they didn't know how to use it (30%), and that it was too expensive (7%).

Those without computers were asked how much they would be willing to pay for a new computer. Ten respondents said "nothing." The remaining said they would be willing to pay between \$5 and \$300 for a new computer.

ACCESS TO THE INTERNET

A significant number of survey respondents (71%) had Internet in their home. On average these individuals were paying \$41 dollars per month for their Internet service.

Of the respondents that did not have Internet access at home (N=86), the most common responses were the same as those for not wanting a computer. Thirty-seven percent (37%) said that they didn't want it, 20% said that they didn't know how to use it, and 7% said that it was too expensive. When asked how much they would be willing to pay for Internet service a month, the range was "nothing" to \$30 dollars per month. The average reported amount was \$19 dollars per month.

INTERNET USE

When asked who uses the computer or the Internet in the household, the majority of respondents (85%) first replied that they do. The second most common user was a spouse or partner (12%) and the third most common was children (2%). Other responses mentioned by the respondents indicated grandchildren and other relatives also use the computer and the Internet.

The type of Internet connection that was most common among the respondents who reported having the Internet (N=214), was a cable modem (46%), then Digital Subscriber Line (DSL) (24%), then dial-up (15%) and finally Satellite Internet Service (5%).

Those with Internet service were asked who their provider was. The majority of respondents who have Internet use Comcast (N=105), Qwest (N=24) or CenturyTel (N=22).

The speed of the internet connection was highly variable for the respondents. Most respondents offered their perception of the speed of their connection with phrases such as “slower than it should be, fast, slow, faster than dial-up, etc..” Only a few respondents were able to provide their specific connection speed (N=17). Grays Harbor’s higher availability of cable modem and DSL services shows up here with 65% of respondents stating they had speeds above 5 Mbps and nearly 12% of respondents indicating their speed was between 1 Mbps and 5 Mbps. The lower penetration of dial-up, compared to the other four counties in the study, shows up with fewer than 24% of respondents reporting speeds less than 1 Mbps.

Of those respondents who had slower Internet connections (N=43), the most popular reason for not selecting a faster Internet connection was because it was not available in their area (35%). Thirty one percent (31%) of respondent’s first responses said they did not need it and 12% said it costs too much.

To further explore how and where the Internet was used, respondents were asked about their Internet use at home and away from home.

At home, respondents reporting spending between no time online (2%) to 10 hours a day online. The mode, or the most frequent response, was that they spent an hour online a day (26%). When considering all responses, the average time online was 2 hours and 22 minutes a day.

Respondents were asked whether they used the Internet in a place other than their own home. A majority (71%) replied that they only used the Internet in their home while 29% (N=86) said they access the Internet at a place other than their home. In the last thirty days, the range of time spent online away from home, was from no time (36%) to 168 hours (5%). The most frequently reported amount of hours spent online in the last 30 days away from home among those that reported some activity was 60 hours (7%).

A majority of respondents indicated that they used the Internet at work (71%), but the time varied with spending no time online to ten hours a day. The most frequent response for those that spent time on the Internet was an hour per day (23%).

If the respondent indicated that they spent time online at work, a follow-up question was posed asking if they were a computer professional. Ten percent (10%) of these respondents indicated that they were computer professionals.

The majority of the sample did not use the Internet at school (88%). Of those that were (N=10), the most frequent response was an hour a day online at school (38%).

Twelve percent (12%) of total respondents (or 37% of those using the Internet outside of home) indicated using the Internet service available at the public library. A number of these (39%) were residents reporting not having an Internet connection. This suggests that the library has become a key location for those without broadband access to use the Internet.

Half (50%) of respondents (N=86) reported that they used the Internet at a friend or relative's house. Additionally, 11% of the sample reported using the Internet at retail locations. This was not predominantly those without Internet, but was significantly more likely to be rural residents with laptop capabilities.

The average number of e-mail accounts for respondents with Internet access in Grays Harbor County surveyed was 5 email accounts, the range was from 0 (4%) to 10 (1%), with the majority indicating they had one email account (44%) and slightly under one in three indicating they had two accounts (31%).

In describing their primary email account, most respondents used their e-mail for personal reasons (75%), while 25% used it for work and 1% used it for school. When describing their second email account, it was most likely for work or school.

A large majority of the individuals with an Internet connection replied that they used their e-mail account at least once a day (68%) or once or several times a week (21%). A smaller percentage (9%), use their e-mail account less than once a week.

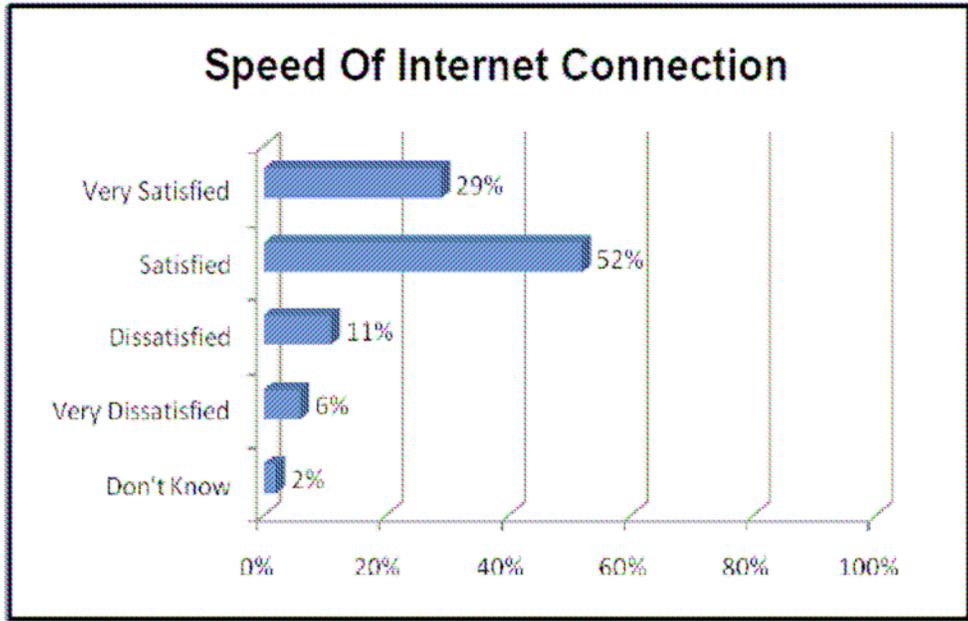
E-Mail Usage	Total N=207
At least once a day	68%
Once a week/ Several times a week	21%
Less than once a week	9%

OVERALL SATISFACTION WITH INTERNET SERVICE

Respondents with an Internet connection at home (N=214) were asked to rate their satisfaction with specific aspects of their Internet services. The services with the highest satisfaction, with 92% of respondents indicating they were “satisfied” or “very satisfied,” with the ease of use.

The most dissatisfaction was expressed with the cost of the Internet connection with 27% of respondents indicating they were “dissatisfied” or “very dissatisfied.” This was indicated most frequently by dial-up and DSL users.

The speed of the Internet service also showed high rates of dissatisfaction with one in six (17%) respondents reporting they were “dissatisfied” or “very dissatisfied” with their Internet speed.



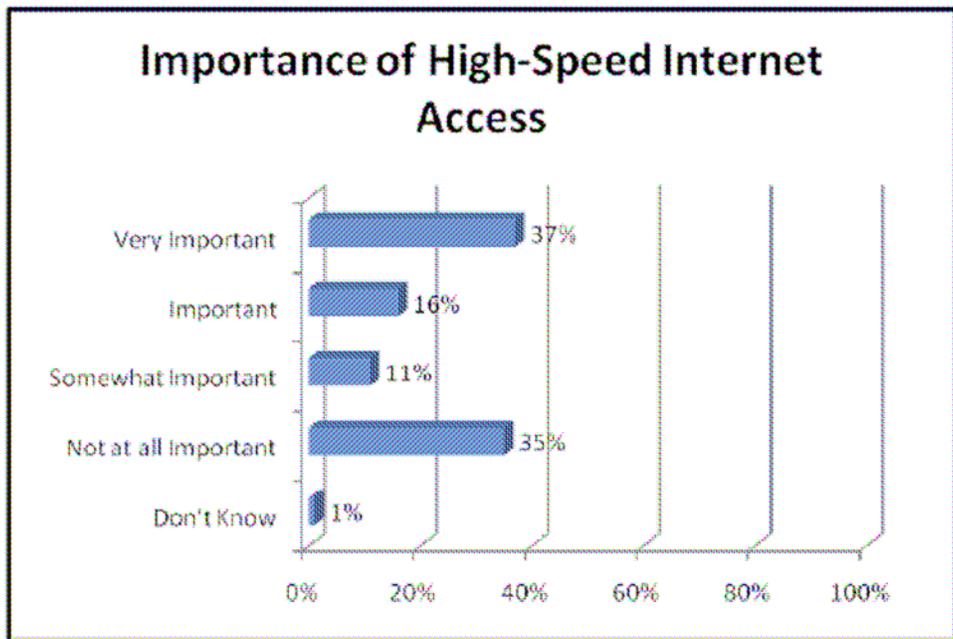
Customer service knowledge and technical support received generally positive ratings.

Responses to other specific Internet services asked during the interview are shown in the chart below.

Internet Service Characteristics	Very Satisfied	Satisfied	Dissatisfied	Very Dissatisfied	Don't Know/ N/A
Speed	29%	52%	11%	6%	2%
Cost	18%	51%	23%	4%	4%
Billing Practices	26%	63%	5%	1%	5%
Reliable Access	28%	56%	5%	1%	2%
Ease of Use	36%	56%	4%	1%	2%
Customer Service's Knowledge and courteousness	36%	42%	5%	1%	17%
Technical Support	33%	45%	3%	1%	17%

PHILISOPHY REGARDING ACCESS TO THE INTERNET

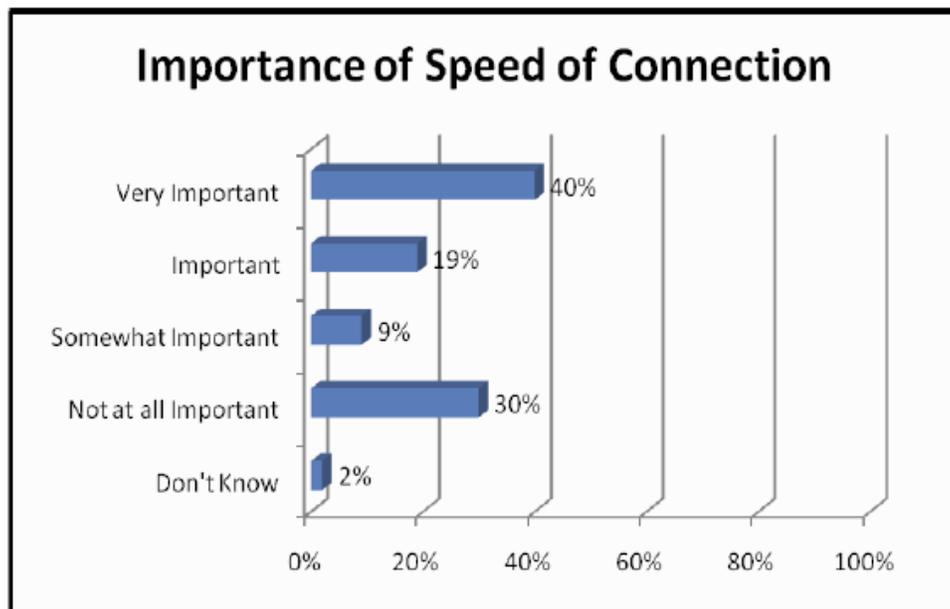
All respondents were asked questions about high speed Internet access, also known as broadband. When asked whether it was important for them to have high speed Internet access, results varied. Thirty-seven percent (37%) said that they felt it was “very important” to have high speed Internet access and 16% indicated it was “important.” Eleven percent (11%) indicated it was “somewhat important” while over one third of the respondents (35%) said that it was “not at all important.”



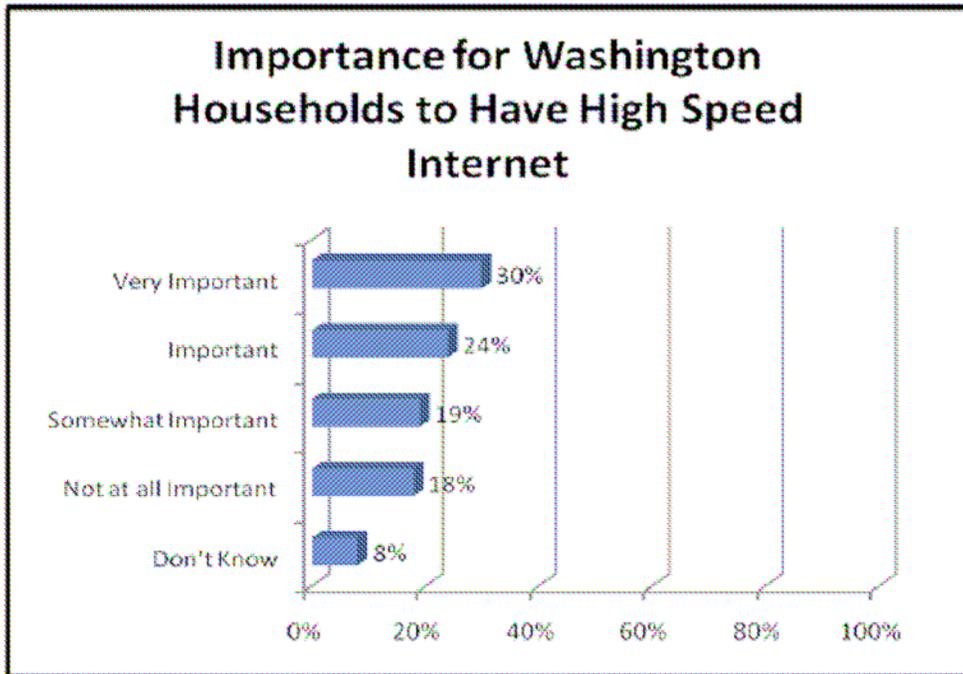
Those that responded it was “very important” or “important,” to have high speed Internet were asked to give reasons why. The most common reason why was that it was faster and so it saves time (N=78). Other reasons as to why high speed Internet is important is because it is needed for work (N=18) and that it is easier to communicate with others (N=9). Other reasons are listed in the chart below:

Reason why High Speed Internet is Important	N=156
Saves Time	78
Needed for Work	18
Communication with Others	9
Better Downloading/Transmitting Capabilities	9
Educational Use	5

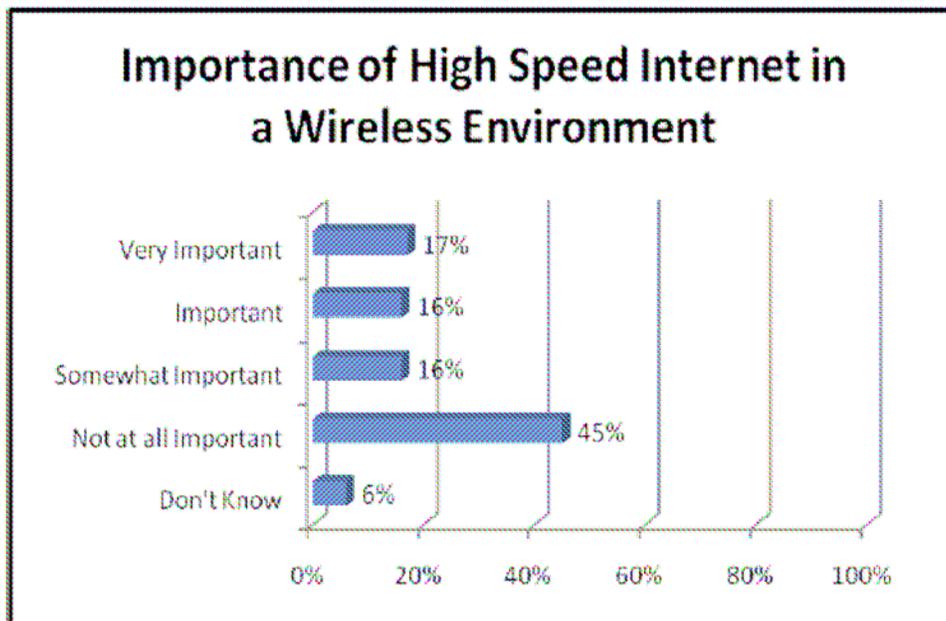
All respondents were also asked how important the speed of their Internet connection was to them and these responses mirrored the responses given when asked whether it was important for them to have high speed Internet access. Forty percent (40%) said that they felt it was “very important” to have high speed Internet access and 19% indicated it was “important.” Only 9% indicated it was “somewhat important” while other respondents (30%) said that it was “not at all important.”



When asked how important it was for all Washington households to have access to high speed Internet, responses improved slightly with 30%, 24%, and 19% of respondents indicating that it was “very important,” “important,” or “somewhat important,” respectively. Eighteen percent (18%) indicated that it was not important at all.



When asked how important it was that the respondent has access to high speed Internet in a wireless environment, responses varied (N=223). Seventeen (17%) of respondents indicated it was “very important” and 16% indicated it was “important.” Another 16% indicated it was “somewhat important” and 45% said it was “not at all important.”



Of the respondents that said it was “very important” (N=44), more than half (60%) indicated it was important to them because they had 24/7 access to the Internet. Other reasons were to stay in touch with the office (4%) and to stay in touch by e-mail (1%).

TYPES OF INTERNET USE

A list of common reasons to use the Internet was presented to the respondents and the results are presented in the chart below. Results are compared with the national Pew Internet and American Life project findings.

The most popular reasons for using the Internet were to keep in touch with family and friends (91%), research retail prices and product information (73%), purchase goods and services (72%), and find medical information (68%).

Relatively few people use the Internet to perform language translation (11%), make phone calls (12%), or sell goods and services (15%).

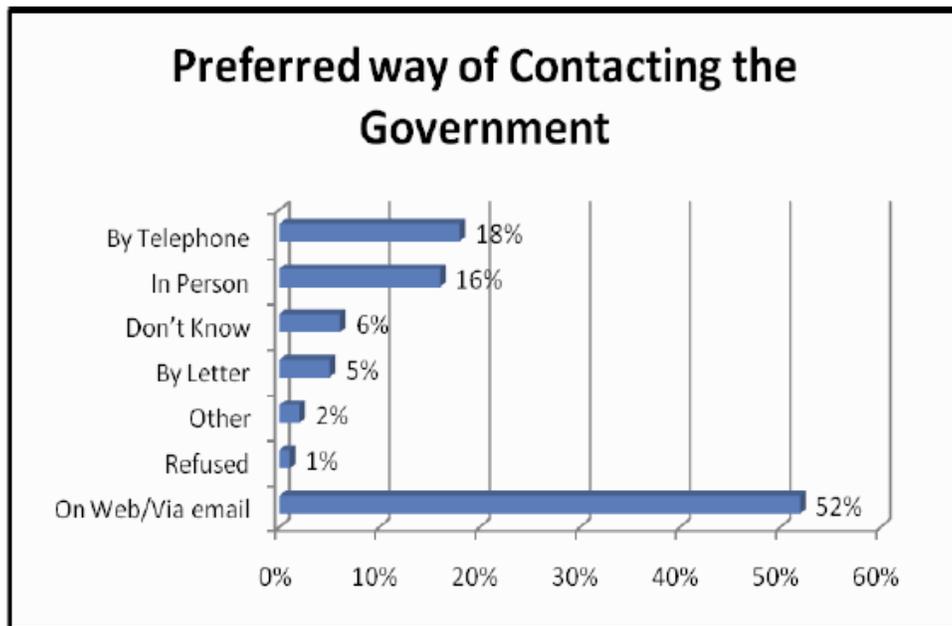
Reasons for Use of the Internet	Yes	National Yes Figure	No
Keep in touch with family and friends	91%	92%	9%
Research retail prices and product information	73%	81%	27%
Purchase goods and services	72%	66%	29%
Find medical information	68%	80%	32%
Share photos	66%	80%	34%
Get local news	63%	47%	40%
Bank online	58%	66%	42%
Visit Washington government’s website	56%	66% (their state)	44%
Access local government services	54%	53%	46%
Play video games	39%	35%	61%
Find state or federal social services and government assistance	37%	66%	63%
Find legal information	35%	---	64%
Educational	35%	13%	65%
Find local school information	31%	57%	70%
Watch television or other videos	30%	56%	70%
Contribute to a website, blog or other online forum	22%	22%	77%
Sell goods or services	15%	15%	85%
Make telephone calls	12%	13%	88%
Perform language translation	11%	---	89%

Respondents in Grays Harbor are more likely than others in the nation to go online and retrieve local news and take a class. They are less likely to watch a video, find local school information and use the Internet to access government services.

The top three other reasons include using the Internet for financial purposes, performing research of general information and downloading files.

ON LINE CIVIC PARTICIPATION

When asked how they would like to access government services, a majority of individuals with Internet capabilities (N=223) indicated that they would prefer to access the information on the web or via e-mail (52%). Sixteen percent (16%) said they would prefer to access information in person and 18% preferred obtaining the information in person.



In addition if respondents believed that e-mail was a less than very effective way to communicate opinions about issues that affect the community, they were asked to give reasons why. The top four responses were that an e-mail could be ignored or deleted (N=31), lose personal contact (N=20), that the response time is too slow (N=11) and that they don't need to communicate with the government (N=10).

BUSINESS AND ECONOMIC DEVELOPMENT ISSUES

Of those respondents that indicated they had an Internet connection (N=223), 11% have used the Internet to operate a business from their home. Of those 24 individuals who have done so, the majority (79%) believe that the Internet has been “very important” to the success of the home-based business. Four percent (4%) say that the Internet has been “important”, and 17% say it has been “somewhat important.”

Respondents with Internet capability were asked if, in the past year, they had used the Internet to find information about local business. Sixty-one (61%) responded that they had, and of those 138 individuals, 64% said that they have purchased good or services from local or state businesses online.

**61% of respondents use their Internet connection to find information about local businesses.
Of those, 64% have purchased goods or services online.**

When asked to rate their satisfaction with the information about local business on the Internet, 61% said they were “very satisfied” or “satisfied.” Sixteen percent (16%) said they were dissatisfied and 2% said they were “very dissatisfied.”

CLOSING THOUGHTS

At the end of the survey, respondents were asked if they had any thoughts about how to enhance broadband availability in the community and 20%/N=60 offered suggestions. Most respondents said it was important to provide more affordable services (N=26).

Twenty people (N=20) said it was also important to get access to more rural areas by building more infrastructure in and to those areas. Also, there was a group of people who believed that increasing competition and decreasing the perceived monopoly on broadband service would also help (N=9).

When asked if they had anything additional to add about broadband that was not covered in the survey, 7% of people added additional thoughts. Among those that did, the most common was a

reiteration of the fact that broadband needs to be more affordable (N=8). Six respondents said that they would like to see service expanded to broader areas. Three people wanted to decrease the monopoly on high speed Internet service that they believe some providers have.

KEY FINDINGS IN GRAYS HARBOR COUNTY

Access to computers:

- Seventy-five percent (75%) of respondents report having a computer in the home. This is consistent with the United States estimates of PC penetration.
- Sixty-one percent (61%) of these homes have one computer, 24% have two computers, 13% have three computers in the home.
- Thirty-eight percent (38%) of residents describe at least one of their computers as a laptop.
- The primary reasons for not owning a computer are: don't want one (38%), too expensive (7%) and don't know how to use it (30%).
- Ten respondents without a computer are not willing to purchase one. Of those without a computer that would be willing to pay for one, the range of how much they would be willing to pay was between \$5 and \$300.

Access to the Internet:

- Seventy-one percent (71%) of respondents have access to the Internet at home, which costs on average \$41 a month.
- Of these: 46% have a cable modem, 24% have DSL, 15% have dial-up, 5% use a satellite Internet service, 5% have fixed wireless broadband.

- Those without Internet service: 37% said they didn't want it, 7% said it was too expensive, 30% said they didn't know how to use the Internet.
- Those without Internet service and willing to pay to get it said on average they'd pay \$19 a month to receive Internet service.
- Top three Internet providers are Comcast, Qwest and CenturyTel.

Quality of Internet service:

- Twenty-seven percent (27%) of Internet users are dissatisfied or very dissatisfied with the cost of their Internet connection.
- Seventeen percent (17%) expressed dissatisfaction with the speed of the service.

Philosophy about Internet access:

- The majority of respondents felt that access to high speed Internet was important or very important (53%). When describing its importance, most said it was important because it saved time and created efficiencies for work and keeping in contact with others.
- The speed of the Internet connection was described as very important or important by 59% of respondents.
- Fifty-four percent (54%) of respondents felt it was important or very important for all Washington residents to have access to high speed Internet.
- Thirty-three percent (33%) of respondents thought access to the Internet in a wireless environment was very important or important.

- Fifty-two percent (52%) of respondents with Internet access indicated they would like to access government services via the web or e-mail.

Internet use:

- Who uses Internet: 85% the respondent, 12% a spouse or partner, 2% children.
- Average time online per day at home was two hours and 22 minutes
- Seventy-one percent (71%) only use the Internet at home.
- Of the 29% that use the Internet away from home, 71% use it at work, 50% use it at a friend or relative's house, 37% go to the public library. Additionally 11% bring their laptop to a retail outlet or use a computer there.
- Most residents with Internet access have one email account (44%) or two email accounts (31%). 68% check their e-mail everyday. 75% use their e-mail for personal reasons, while 25% use it for work, and 1% use e-mail for school.
- The most popular Internet activities are keeping up with family and friends (91%), research retail prices and product information (73%), purchase goods and services (72%), and find medical information (68%).

Economic indicators among respondents:

- Eleven percent (11%) of residents with Internet access indicated they have used that connection to operate a business from their home and of those 79% described the Internet as "very important" to the success of their home based business.

- Sixty-one percent (61%) of respondents had used the Internet to access information about local businesses and 64% of those said they had purchased goods online from a local or Washington business.

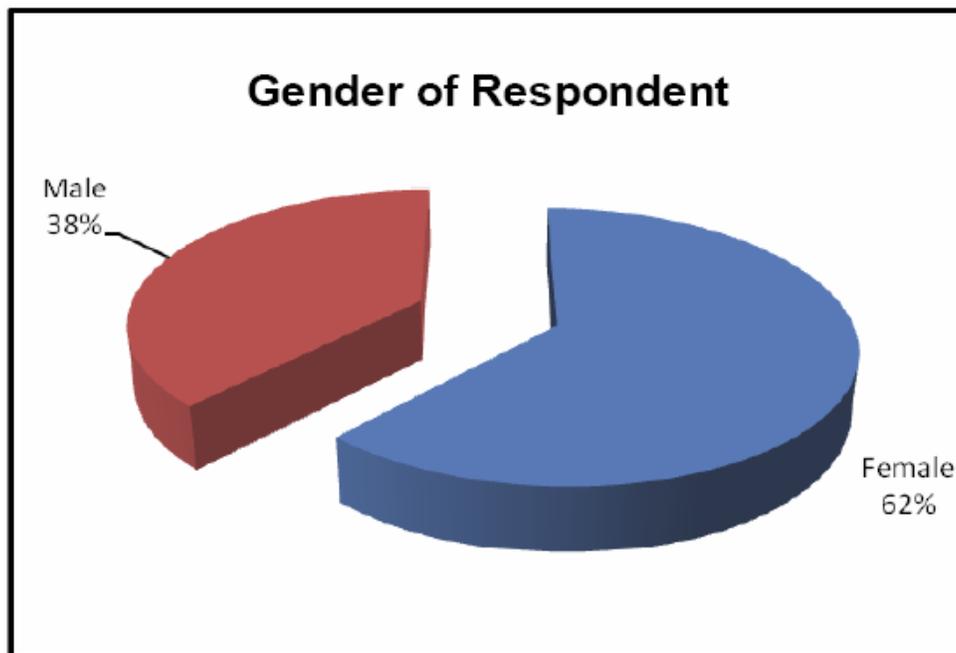
LEWIS COUNTY

DEMOGRAPHICS

Before launching into a discussion of the findings, it is appropriate to understand the demographics of the responding sample within Lewis County.

Sample Description

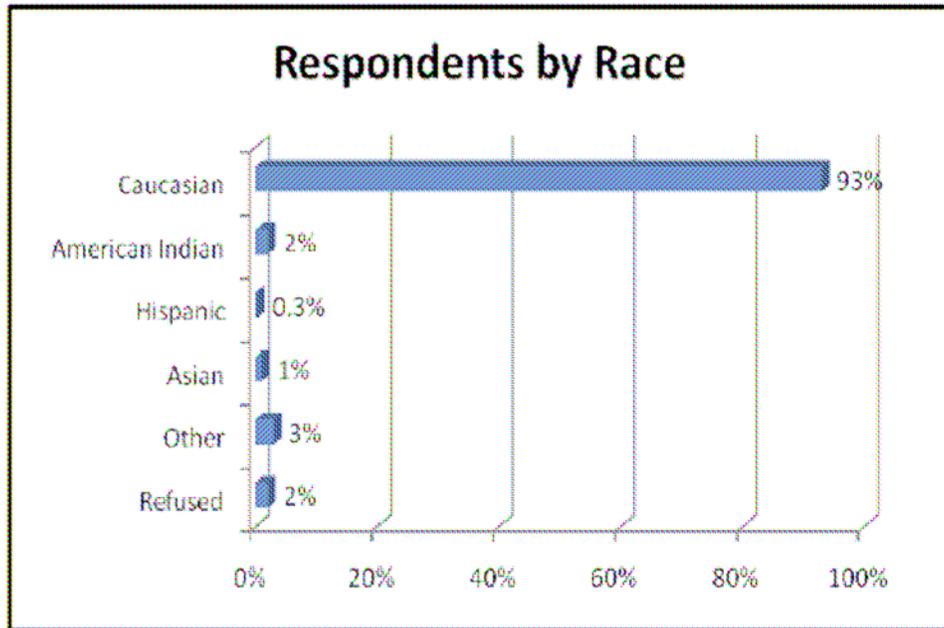
The sample for this survey consisted of 300 randomly selected residents from Columbia County in the State of Washington. A screening question was used to ensure respondents were currently living in that particular county. All respondents were 18 or older. Overall, 38% of the respondents were male and the remaining 62% were female. This is a result of the telephone most likely to be answered by woman in the household.⁶ Additionally, there are slightly more females living in the county than males (95 males to every 100 females).



Most respondents were Caucasian (92%). Two percent (2%) were American Indian, 1% were Hispanic, and .3 % were Asian. Two percent (2%) of respondents identified with another racial

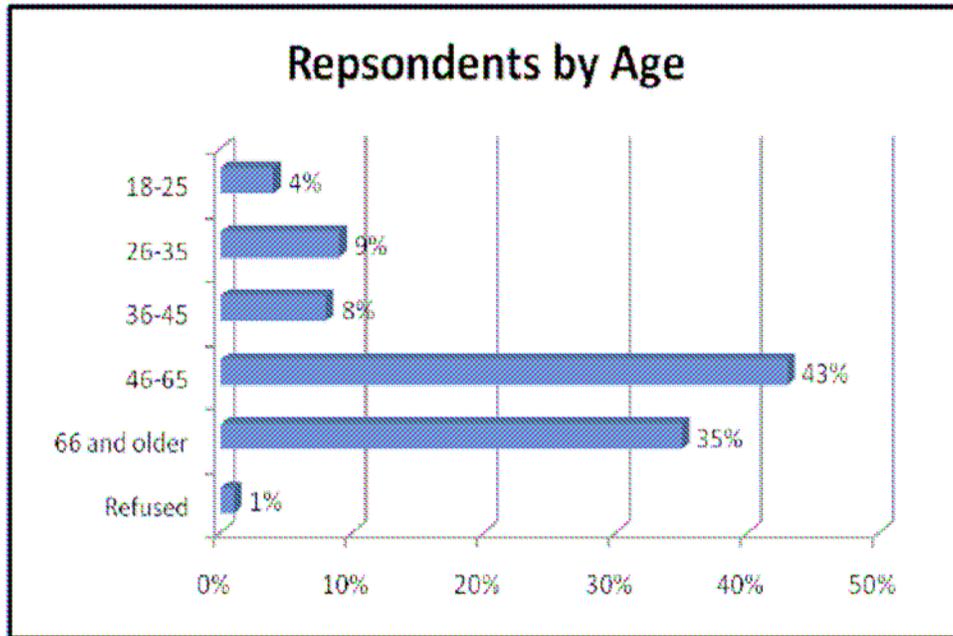
⁶ McGuckin, Nancy (2001). Hang-ups, Looking at non-response in telephone surveys. www.fhwa.dot.gov/ohim/hang-ups. Retrieved May 26, 2008.

type not presented by the surveyor and 2% chose not to provide racial information. The responding sample was consistent by race with the findings of the U.S. Census in 2000.



Forty-eight percent (48%) of respondents live with another person in their home while 24% live alone, 11% of responding households have three people, 8% of respondents have four people, and 4% have five people living in their home. Most of the rest of the respondents, slightly more than 4%, had between 6 and 10 people living in their home. Only 21% of the sample had children under the age of 18 in the household. Most respondents (99%) spoke English in their home while .3% spoke Spanish.

The respondents represented a wide range of ages. The largest age group was between 46 and 65 (43% of respondents). Thirty percent (35%) were over 65, 8% were between 36 and 45, 9% were between 26 and 35 and 4% of respondents were in the youngest age group, under 25 years of age. Respondents' age trended older than the U.S. Census.



The sample represented a broad range of education levels. Forty-one percent (41%) had completed some college, vocational school or a two year degree. Seven percent (7%) completed some grade school or high school and 27% of respondents graduated from high school. A smaller percentage (15%) completed college and only 8% had completed post graduate work or a graduate degree. Two percent (2%) refused to report their highest education level.

There was a fairly even distribution of income ranges for the sample. Fourteen percent (14%) of the sample had an income of \$25,000 or less. Thirteen percent (13%) had an income between \$25,000 and \$35,000. Fourteen percent (14%) had an income between \$35,000 and \$50,000. Nineteen percent (19%) had an income between \$50,000 and \$75,000. Eight (8%) had an income between \$75,000 and \$100,000. Nine percent (9%) make more than \$100,000 in their household. Finally, 23% refused to report their annual household income.

As far as employment, most respondents were either employed full time (30%) or were retired (41%). Seven percent (7%) were employed part time, 6% were self-employed, 9% were homemakers and 3% were disabled and unable to work. Other respondents were people who were unemployed but looking for work (2%) and 1 % refused to provide information about their employment.

Of the respondents that worked (N=135), 22% worked from home and 78% commuted to work. Of the 30 people that worked at home, 17% were telecommuters, 70% worked at a home-based business and 13% performed other work from home.

ACCESS TO COMPUTERS

One of the key objectives of the study was determine the penetration of personal computers and the Internet in these five rural counties selected for study. Of the 300 people surveyed in Lewis County, 80% reported having a computer in their household. Most of the respondents had at least one computer (66%); however 23% and 6% of respondents owned two and three computers respectively. Thirty-six percent (36%) of the sample that owned computers (N=239) had a laptop while the majority (64%) owned a desktop computer.

Of the respondents that did not own a computer (N=61), the top three first responses as to why they did not own one were that they didn't want one (72%), it was too expensive (10%) and that they don't know how to use it (7%).

Those without computers that wanted one were asked how much they would be willing to pay for a new computer. Of those, one individual said they would not be willing to pay for a computer, while the two other respondents said they would be willing to pay \$300 dollars for one.

ACCESS TO THE INTERNET

A significant number of survey respondents (72%) had some form of Internet in their home. On average these individuals were paying \$39 dollars per month for their Internet service.

Of the respondents that did not have Internet access at home (N=84), the most common responses were the same as those for not wanting a computer. Half of the respondents (50%) said that they didn't want it, 13% said that it was too expensive, and 11% said that they didn't know how to use it. When asked how much they would be willing to pay for Internet service a month, the range was nothing to \$25 per month. The average and most frequent reported amount was close to \$10 dollars per month.

INTERNET USE

When asked who uses the computer or the Internet in the household, the majority of respondents (90%) first replied that they do. The second most common user was a spouse or partner (8%) and the third most common was children (2%). Other responses mentioned by the respondents indicated grandchildren and other relatives also use the computer and the Internet.

The type of Internet connection that was most common among the respondents who reported having the Internet (N=216), was Digital Subscriber Line (DSL, 38%). Thirty-five percent (35%) used dial-up, 12% used a cable modem and 4% used satellite Internet service.

Those with Internet service were asked who their provider was. The majority of respondents who knew their Internet provider listed Qwest (N=41). Comcast (N=36), CenturyTel (N=26), TDS (N=16), and PeoplePC (N=9) were also popular among the residents of Lewis County for Internet providers.

The reported speed of the internet connection was highly variable for the respondents. Most respondents answered with statements such as: “slower than it should be, slow, fast, faster than dial-up, not cable modem speed, etc.” A few respondents provided the specific speed of the connection (N=21). The most common connection speed was less than 1Mbps with 67% of respondents stating a speed under 1 Mbps. Slightly more than 14% stated they have speeds between 1 Mbps and 5 Mbps with 19% indicating they have higher than 5 Mbps for network speeds.

Of those respondents who had slower Internet connections (N=85), the primary reason for not selecting a faster Internet connection was because it was not available in their area (47%).

Twenty-eight percent (20%) of respondent’s first responses were that it costs too much and 19% said that they did not need it.

To further explore how and where the Internet was used, respondents were asked about their Internet use at home and away from home.

At home, respondents reporting spending between no time online (1%) to 14 hours a day online. The mode, or the most frequent response, was that they spent an hour online a day (26%). When considering all responses, the average time online was 2 hours and 11 minutes a day.

Respondents were asked whether they used the Internet in a place other than their own home. A majority (71%) replied that they only used the Internet in their home while 28% (N=84) said they access the Internet at a place other than their home. In the last thirty days, the range of time spent online away from home, was from no time (33%) to 120 hours (7%). The most frequently reported amount of hours spent online in the last 30 days away from home among those that reported some activity was 1 hour (8%). The average time online away from home was 20 hours in the last 30 days or roughly 40 minutes a day.

A majority of respondents indicated that they used the Internet at work (77%), but the time varied with spending no time online to eight hours a day. The most frequent response was not spending any time online a day at work. For those that do spend time online at work, the most reported amount of time was one hour (32%).

If the respondent indicated that they spent time online at work, a follow-up question was posted asking if they were a computer professional. Nine percent (9%) of respondents indicated that they were computer professionals.

The majority of the sample was not enrolled in school (82%). Of those that were, the range of online time was between 15 minutes and three hours, with the most frequent response an hour a day online at school (27%).

Twenty-six percent (26%) of respondents indicated using the Internet service available at the public library. A majority of residents reporting not having an Internet connection indicated using the library's service (50%) This suggests that the library has become a key location for those without broadband access to use the Internet.

Thirty-eight percent (38%) of respondents (N=84) reported that they used the Internet at a friend or relative’s house. This included, but not predominantly, those without Internet service. Additionally, 18% of the sample reported using the Internet at retail locations. This was not predominantly those without Internet, but was significantly more likely to be rural residents with laptop capabilities.

The average number of e-mail accounts for respondents with Internet access in Lewis County surveyed was 4 email accounts, the range was from 0 (4%) to 30 (.5%), with the majority indicating they had one email account (52%) and 28% indicating they had two accounts.

In describing their primary email account, most respondents used their e-mail for personal reasons (73%), while 26% used it for work and 1% used it for school. When describing their second email account, it was most likely for work or school.

A large majority of the individuals with an Internet connection replied that they used their e-mail account at least once a day (73%) or once or several times a week (19%). A smaller percentage (7%), use their e-mail account less than once a week.

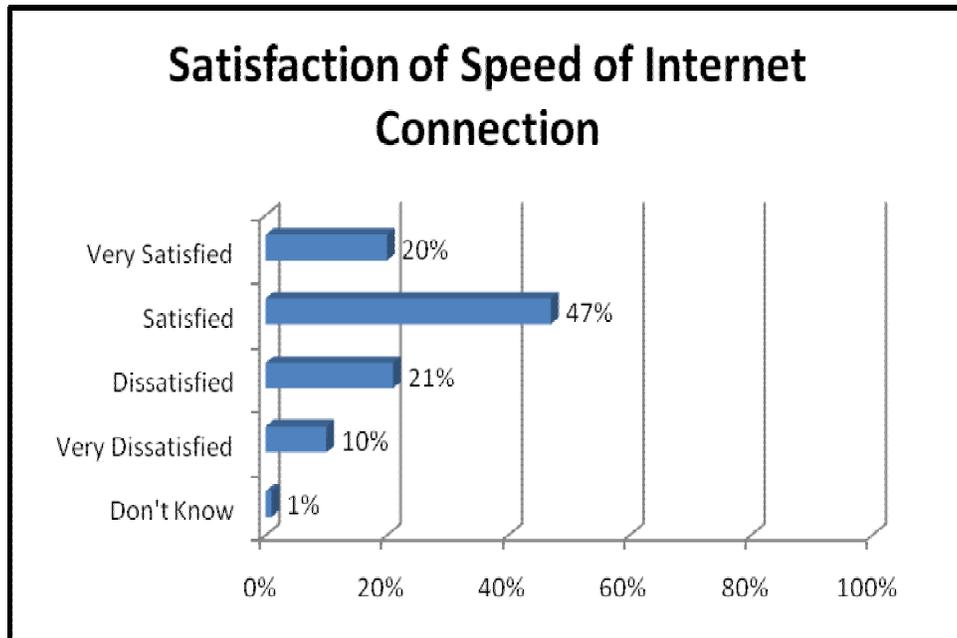
E-Mail Usage	Total N=209
At least once a day	73%
Once a week/ Several times a week	19%
Less than once a week	7%

OVERALL SATISFACTION WITH INTERNET SERVICE

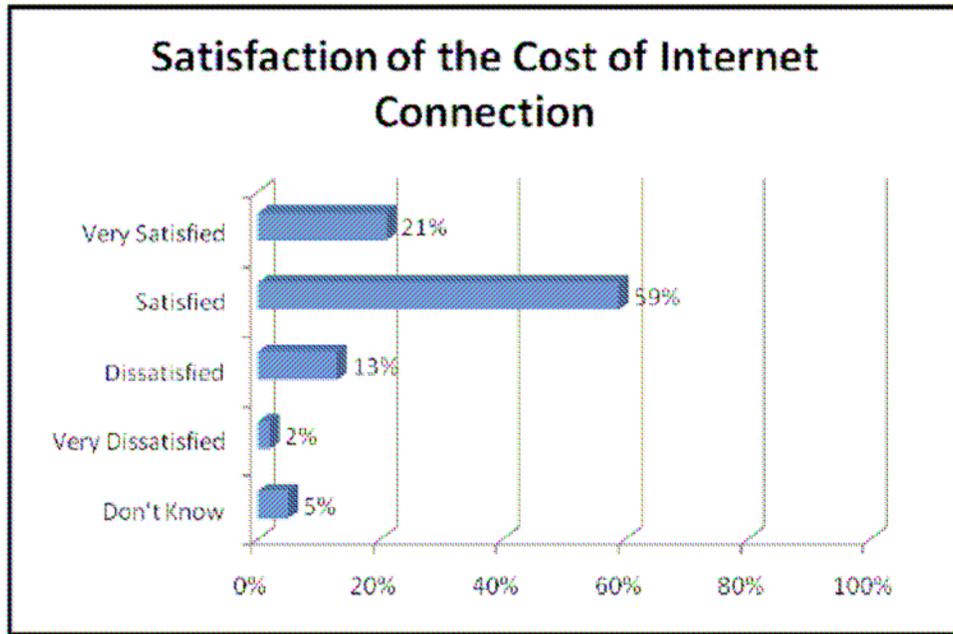
Respondents with an Internet connection (N=216) were asked to rate their satisfaction with specific aspects of their Internet services. The services with the highest satisfaction, with 95% of respondents indicating they were “satisfied” or “very satisfied” with the ease of use and 91% of

respondents indicating they were “satisfied” or “very satisfied” with the billing practices of the Internet provider.

The most dissatisfaction was expressed with the speed of the Internet connection with 31% of respondents indicating they were “dissatisfied” or “very dissatisfied.” This was indicated most frequently by DSL and dial-up users.



The cost of the Internet service also showed high rates of dissatisfaction with 15% of respondents reporting they were “dissatisfied” or “very dissatisfied” with their Internet costs.



Additionally, a little more than 1 in 10 respondents (10%) expressed dissatisfaction with the reliability of the service.

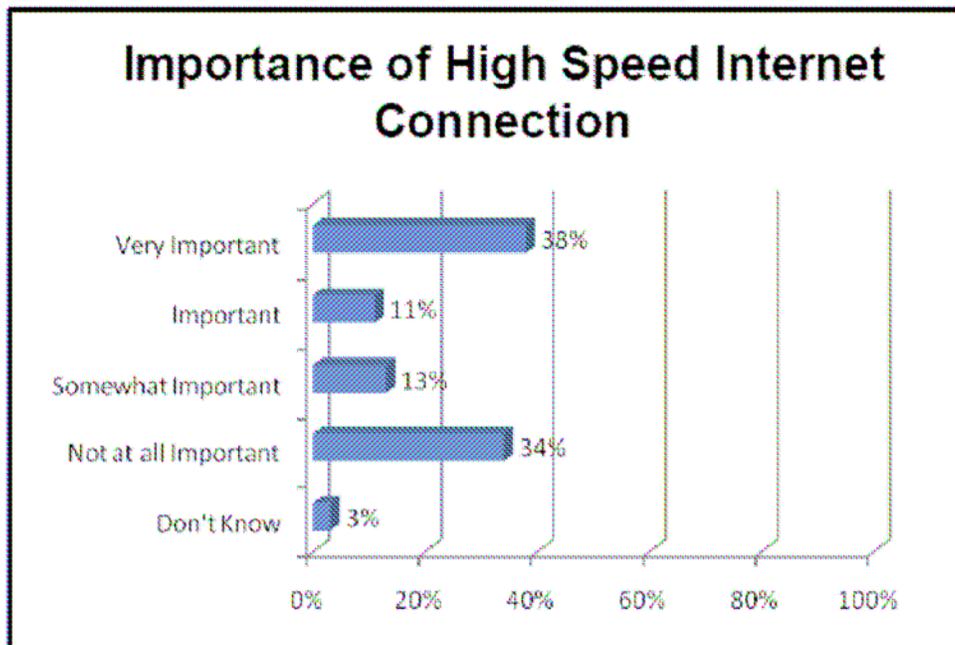
Customer service knowledge and technical support received generally positive ratings.

Responses to other specific Internet services asked during the interview are shown in the chart below.

Internet Service Characteristics	Very Satisfied	Satisfied	Dissatisfied	Very Dissatisfied	Don't Know/ N/A
Speed	20%	47%	21%	10%	1%
Cost	21%	59%	13%	2%	5%
Billing Practices	22%	69%	5%	0%	4%
Reliable Access	27%	63%	6%	4%	1%
Ease of Use	25%	70%	2%	2%	2%
Customer Service's Knowledge and courteousness	25%	45%	7%	2%	21%
Technical Support	20%	48%	8%	3%	20%

PHILISOPHY REGARDING ACCESS TO THE INTERNET

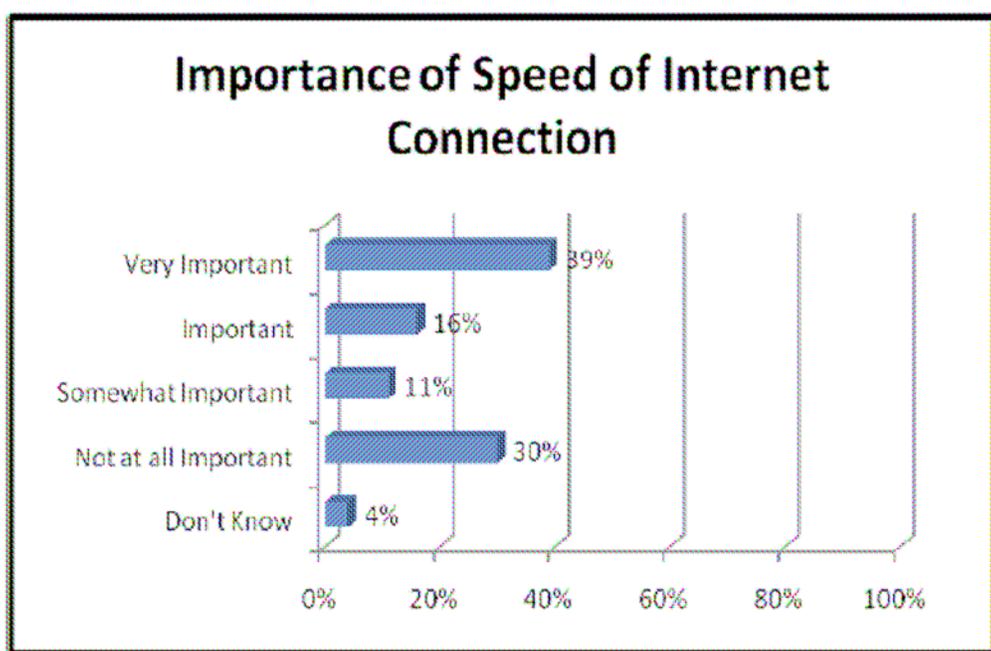
All respondents were asked questions about high speed Internet access, also known as broadband. When asked whether it was important for them to have high speed Internet access, results varied greatly. Thirty-eight percent (38%) said that they felt it was “very important” to have high speed Internet access and 11% indicated it was “important.” Thirteen percent (13%) indicated it was “somewhat important” while over one third of the respondents (34%) said that it was “not at all important.”



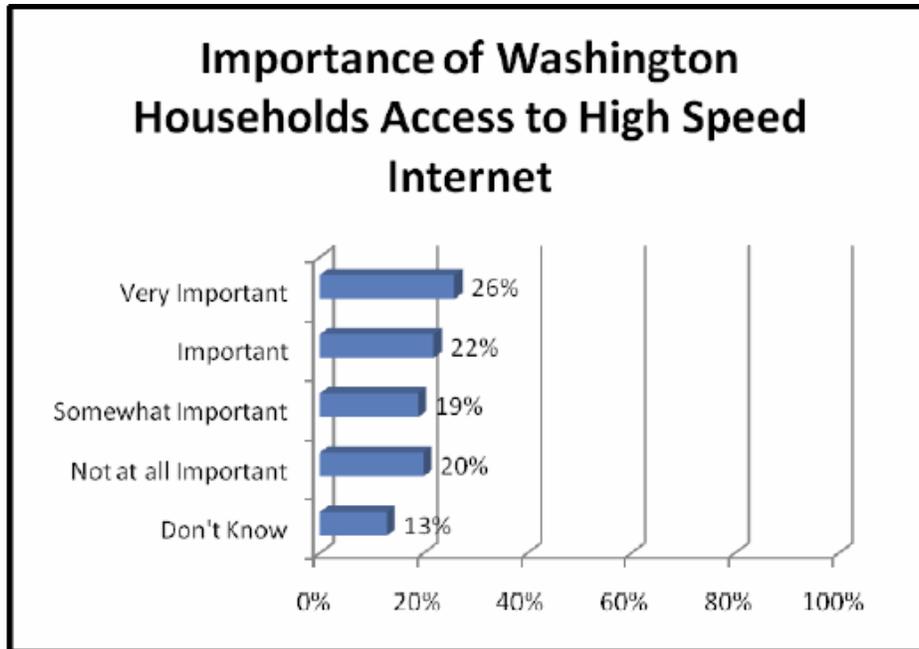
Those that responded it was “very important” or “important,” to have high speed Internet were asked to give reasons why. The most common reason why was that it was faster and so it saves time (N=80). Other reasons as to why high speed Internet is important is because it is needed for work (N=18) and that it has better downloading capabilities (N=13). Other reasons are listed in the chart below:

Reason why High Speed Internet is Important	N=44
Saves Time	80
Needed for Work	18
Better Downloading Capabilities	13
Better Communication	7
Better Access to Information	5

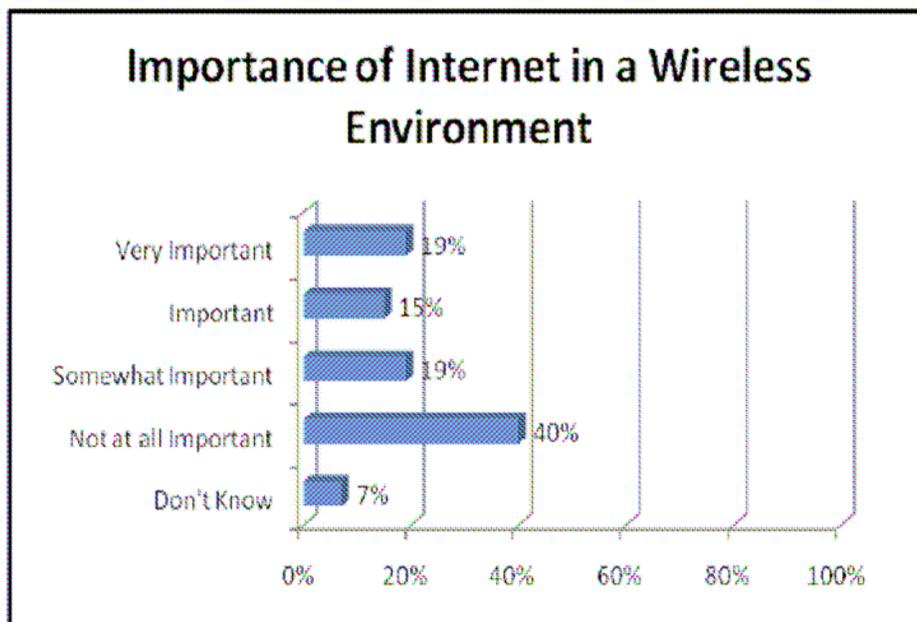
All respondents were also asked how important the speed of their Internet connection was to them and these responses mirrored the responses given when asked whether it was important for them to have high speed Internet access. Thirty-nine percent (39%) said that they felt it was “very important” to have high speed Internet access and 16% indicated it was “important.” Only 11% indicated it was “somewhat important” while 30% said that it was “not at all important.”



When asked how important it was for all Washington households to have access to high speed Internet, responses improved slightly with 26%, 22%, and 19% of respondents indicating that it was “very important,” “important,” or “somewhat important,” respectively. Twenty percent (20%) indicated that it was not important at all.



When asked how important it was that the respondent has access to high speed Internet in a wireless environment, responses varied. Nineteen (19%) of respondents indicated it was “very important” and 15% indicated it was “important.” Nineteen percent (19%) indicated it was “somewhat important” and 40% said it was “not at all important.”



Of the respondents that said it was “very important” (N=46), the majority (61%) indicated it was important to them because they had 24/7 access to the Internet. Other reasons were to stay in touch with the office (5%) or stay in touch by e-mail (7%) The rest of the respondents (28%) listed other reasons. Some additional responses were that the connection is fast, it is important for work/education and that lack of wires allows for increased mobility.

TYPES OF INTERNET USE

A list of common reasons to use the Internet was presented to the respondents and the results are presented in the chart below. These are based on the Pew Internet and American Life project findings.

The most popular reasons for using the Internet were to keep in touch with family and friends (87%), research retail prices and product information (76%), purchase goods and services (71%), and share photos (69%).

Fewer people use the Internet to make phone calls (6%) or perform language translation (13%).

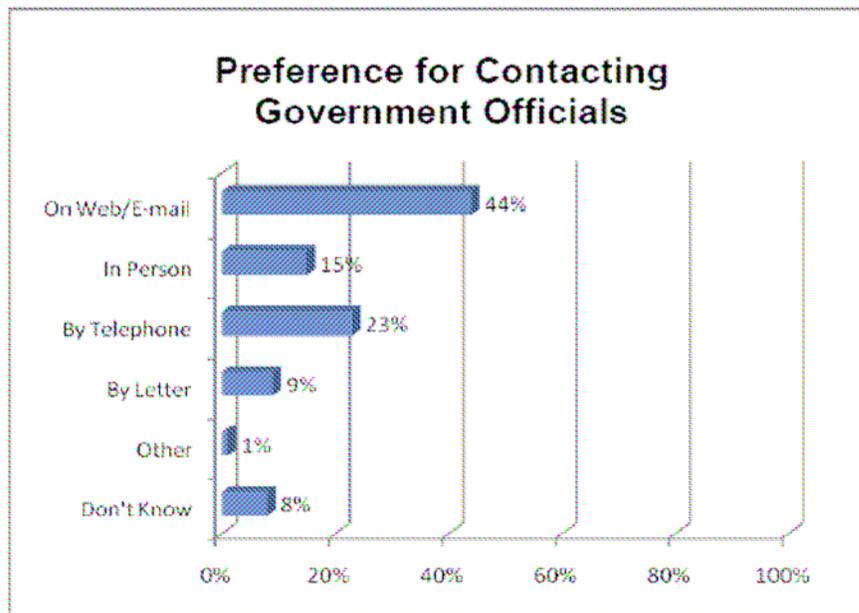
Reasons for Use of the Internet	Yes	National Yes Figure	No
Keep in touch with family and friends	87%	92%	13%
Research retail prices and product information	76%	81%	23%
Purchase goods and services	71%	66%	29%
Share photos	69%	80%	32%
Find medical information	67%	80%	33%
Access local government services	60%	47%	40%
Get local news	56%	66%	44%
Visit Washington government’s website	56%	66% (their state)	44%
Bank online	53%	53%	47%
Find state or federal social services and government assistance	39%	66%	60%
Find legal information	37%	---	63%
Play video games	35%	13%	65%
Educate	33%	35%	67%
Find local school information	30%	57%	70%
Contribute to a website, blog or other online forum	27%	22%	72%
Watch television or other videos	26%	56%	74%
Sell goods or services	20%	15%	80%
Perform language translation	13%	---	87%

Make telephone calls	6%	13%	94%
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Respondents in Lewis County were more likely to use their Internet connections than the rest of the country to access local government services, play video games and make online purchases. They are less likely to watch videos online, find local school information and make telephone calls.

ON LINE CIVIC PARTICIPATION

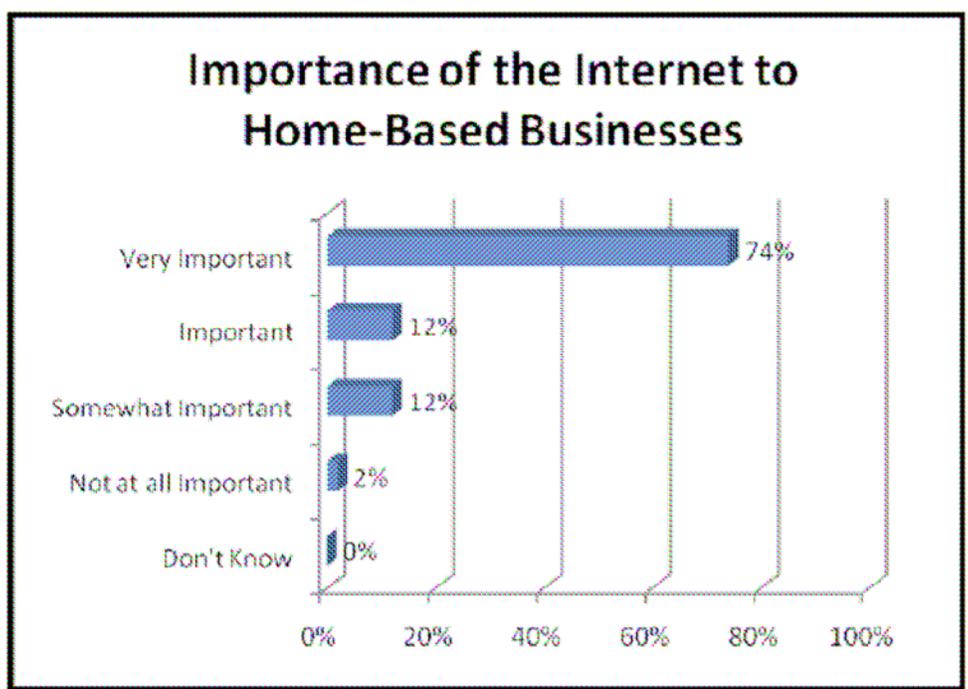
When asked how they would like to access government services, a majority of individuals with Internet capabilities (N=222) indicated that they would prefer to access the information on the web or via e-mail (44%). Twenty-three (23%) said they would prefer to access information by telephone and 15% preferred obtaining the information in person.



In addition, respondents were asked to give reasons why e-mail was a less than very effective way to communicate opinions about issues that affect the community (N=91). The top four responses were that an e-mail could be ignored or deleted (N=34), lose personal contact (N=20), it takes too long to write and get a response (11), they don't need to communicate with the government (N=10) and that they don't know how to use it (N=4).

BUSINESS AND ECONOMIC DEVELOPMENT ISSUES

Of those respondents that indicated they had an Internet connection (222), 19% have used the Internet to operate a business from their home. Of those 42 individuals who have done so, the majority (74%) believe that the Internet has been “very important” to the success of the home-based business. Twelve percent (12%) say that the Internet has been “important”, 12% say it has been “somewhat important,” and only 2% say that it is “not at all important.”



Respondents with Internet capability were asked if, in the past year, they had used the Internet to find information about local business. Fifty-seven percent (57%) responded that they had, and of those 127 individuals, 57% said that they have purchased good or services from local or state businesses online.

57% of respondents use their Internet connection to find information about local businesses. Of those, 57% have purchased goods or services online.

When asked to rate their satisfaction with the information about local business on the Internet, 68% said they were “very satisfied” or “satisfied.” Eleven percent (11%) said they were dissatisfied and 1% said they were “very dissatisfied.”

CLOSING THOUGHTS

At the end of the survey, respondents were asked if they had any thoughts about how to enhance broadband availability in the community and 13%/N=40 offered suggestions. Most respondents said it was important to get access to more rural areas such as by building more infrastructure to, in and around those areas (N=18).

Ten people (N=10) said that making it more affordable would help as well. Also, six people said that they were unaware of what should be done, but that there should be something done so they could have it.

When asked if they had anything additional to add about broadband that was not covered in the survey, 9% of people added additional thoughts. Among those that did, the most common was a reiteration of the fact that broadband needs to be enhanced in rural areas (N=9). Five respondents said that Internet should be less expensive. Three respondents said that they would like to see faster Internet service.

KEY FINDINGS IN LEWIS COUNTY

Access to computers:

- Eighty percent (80%) of respondents report having a computer in the home. This is consistent with the United States estimates of PC penetration.
- Sixty-six percent (66%) of these homes have one computer, 23% have two computers, 6% have three computers in the home.
- Thirty-six percent (36%) of residents describe at least one of their computers as a laptop.

- The primary reasons for not owning a computer are: don't want one (72%), too expensive (10%) and don't know how to use it (7%).
- One respondent without a computer is not willing to purchase one. Two respondents without a computer said they would be willing to pay \$300 for one.

Access to the Internet:

- Seventy-two percent (72%) of respondents have access to the Internet at home, which costs on average \$39 a month.
- Of these: 38% have DSL, 35% have dial-up, 4% use a satellite Internet service, 12% use a cable modem.
- Those without Internet service: 50% said they didn't want it, 13% said it was too expensive, 11% said they didn't know how to use the Internet.
- Those without Internet service and willing to pay to get it said on average they'd pay \$10 a month to receive Internet service.
- Top three Internet providers are Qwest, Comcast and CenturyTel.

Quality of Internet service:

- Thirty-one percent (31%) of Internet users are dissatisfied or very dissatisfied with the speed of their Internet connection.
- Fifteen percent (15%) expressed dissatisfaction with the cost of the service.

Philosophy about Internet access:

- Nearly half of respondents felt that access to high speed Internet was important or very important (49%). When describing its importance, most said it was important because it saves time, is needed for work and has better downloading capabilities.
- The speed of the Internet connection was described as very important or important by 55% of respondents.
- Forty-eight percent (48%) of respondents felt it was important or very important for all Washington residents to have access to high speed Internet.
- Thirty-four percent (34%) of respondents thought access to the Internet in a wireless environment was very important or important.
- Forty-four percent (44%) of respondents with Internet access indicated they would like to access government services via the web or e-mail.

Internet use:

- Who uses Internet: 90% the respondent, 8% a spouse or partner, 2% children.
- Average time online per day at home was two hours and 11 minutes.
- Seventy-one percent (71%) only use the Internet at home.
- Of the 28% that use the Internet away from home, 77% use it at work, 38% use it at a friend or relative's house, 26% go to the public library. However, among those without a home Internet connection, 50% use the library's service. Additionally 18% bring their laptop to a retail outlet or use a computer there.

- Most residents with Internet access have on average one email account (52%) or two email accounts (28%). 73% check their e-mail everyday. 73% use their e-mail for personal reasons, while 26% use it for work, and 1% use e-mail for school.
- The most popular Internet activities are keeping up with family and friends (87%), research retail prices and product information (76%), purchase goods and services (71%), and share photos (69%).

Economic indicators among respondents:

- Nineteen percent (19%) of residents with Internet access indicated they have used that connection to operate a business from their home and of those 74% described the Internet has “very important” to the success of their home based business.
- Fifty-seven percent (57%) of respondents had used the Internet to access information about local businesses and 57% of those said they had purchased goods online from a local or Washington business.

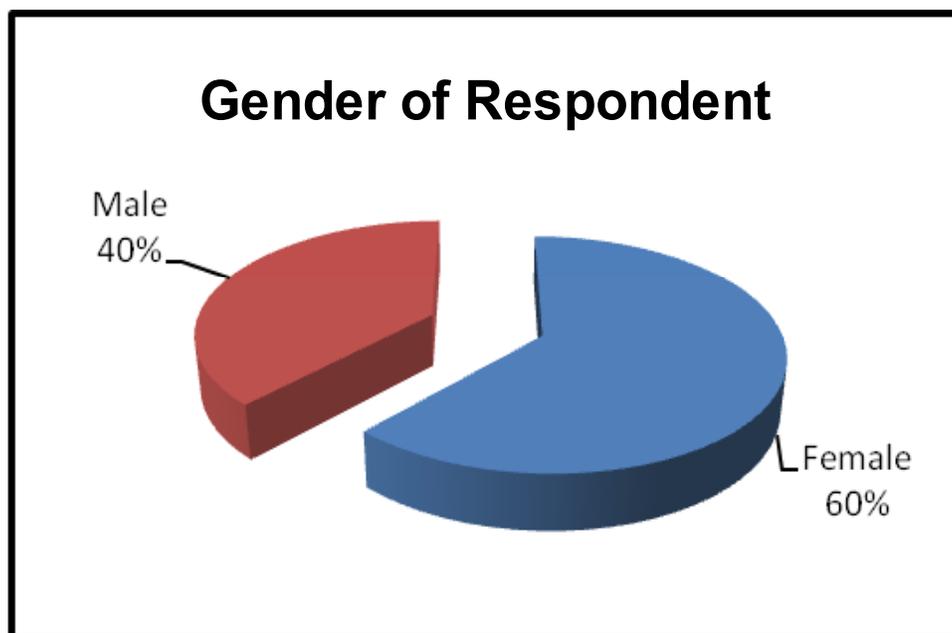
STEVENS COUNTY

DEMOGRAPHICS

Before launching into a discussion of the findings, it is appropriate to understand the demographics of the responding sample within Stevens County.

Sample Description

The sample for this survey consisted of 300 randomly selected residents from Stevens County in the State of Washington. A screening question was used to ensure respondents were currently living in that particular county. All respondents were 18 or older. Overall, 40% of the respondents were male and the remaining 60% were female. This is a result of the telephone most likely to be answered by a woman in the household⁷ and the slightly greater population of women to men in Stevens County (for every 100 women, 99 men).⁸

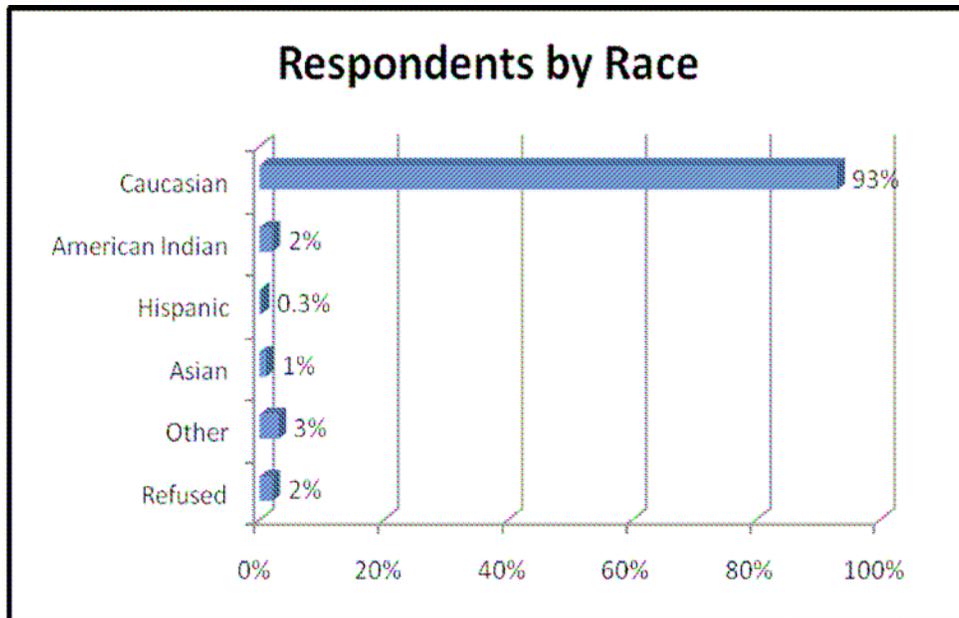


Most respondents were Caucasian (93%). Two percent (2%) were American Indian, .3% Hispanic, and 1 % were Asian. Three percent (3%) of respondents identified with another racial

⁷ McGuckin, Nancy (2001). Hang-ups, Looking at non-response in telephone surveys. www.fhwa.dot.gov/ohim/hang-ups. Retrieved May 26, 2008.

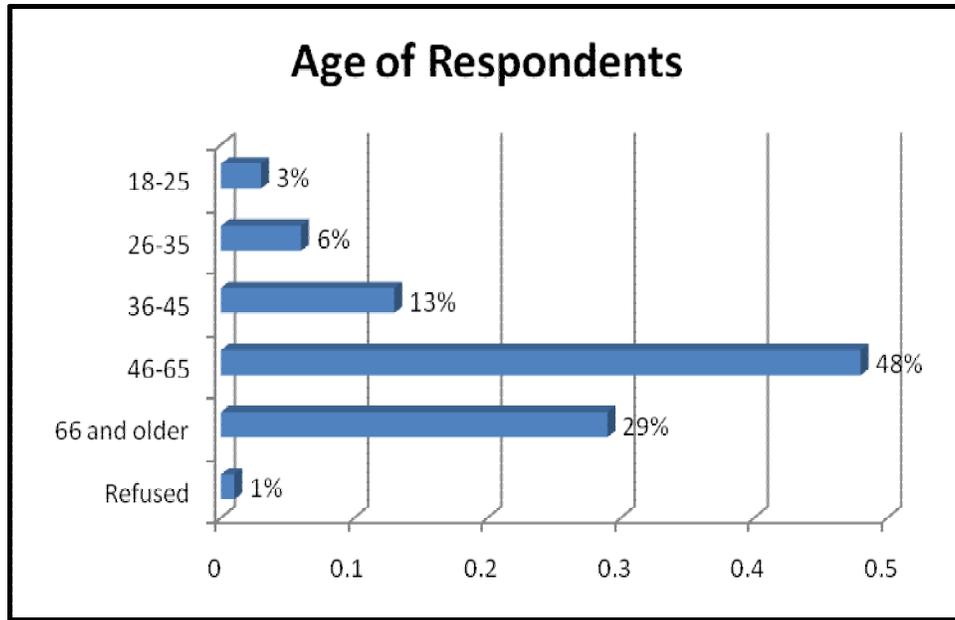
⁸ American FactFinder, United States Census Bureau, retrieved May 26, 2008.

type not presented by the surveyor and 2% chose not to provide racial information. The responding sample was consistent with the U.S. Census by race in the area.



Fifty percent (50%) of respondents live with another person in their home while 14% live alone, 13% have three people, 12% have four people, and 5% have five people living in their home. The rest of the respondents (6%) had 6 or more people living in their home. Only 26% of the sample had children under the age of 18 in the household. Most respondents (99%) spoke English in their home while .3% spoke Spanish.

The respondents represented a wide range of ages. The largest age group was between 46 and 65 (48% of respondents). Twenty-nine (29%) were over 65, 13% were between 36 and 45, 6% were between 26 and 35 and 3% of respondents were in the youngest age group, under 25 years of age. The responding sample trended older than the 2000 U.S. Census reports for Stevens County.



The sample represented a broad range of education levels. Thirty-seven percent (37%) had completed some college, vocational school, or a two year degree. Eight percent (8%) completed some grade school or high school and 26% of respondents graduated from high school. A smaller percentage (14%) completed college and only 14% had completed post graduate work or a graduate degree. One percent (1%) refused to report their highest education level.

There was a fairly even distribution of income ranges for the sample. Fourteen percent (14%) of the sample had an income of \$25,000 or less. Another fourteen percent (14%) had an income between \$25,000 and \$35,000. Sixteen percent (16%) had an income between \$35,000 and \$50,000. Sixteen percent (16%) had an income between \$50,000 and \$75,000. Nine (9%) had an income between \$75,000 and \$100,000. Six percent (6%) make more than \$100,000 in their household. Finally, 23% refused to report their annual household income.

As far as employment, most respondents were either employed full time (30%) or were retired (36%). Eight percent (8%) were employed part time, 10% were self-employed, 6% were homemakers, and 4% were disabled and unable to work. Other respondents were people who were unemployed but looking for work (2%) and 1 % refused to provide information about their employment.

Of the respondents that worked (N=151), 27% worked from home and 74% commuted to work. Of the 40 people that worked at home, 33% were telecommuters, 58% worked at a home based business and 10% performed other work from home.

ACCESS TO COMPUTERS

One of the key objectives of the study was determine the penetration of personal computers and the Internet in these five rural counties selected for study. Of the 300 people surveyed in Stevens County, 84% reported having a computer in their household. Most of the respondents had at least one computer (51%); however 32% and 10% of respondents owned two and three computers respectively. Only 45% of the sample that owned computers (N=252) had a laptop while the majority (55%) owned a desktop computer.

Of the respondents that did not own a computer (N=48), the top three first responses as to why they did not own one were that they didn't want one (40%), it was too expensive (27%) and that they don't know how to use it (15%).

Those without computers who said they were too expensive were asked how much they would be willing to pay for a new computer. The majority (56%) indicated nothing. Of the remaining 44%, the range of what they were willing to pay was between \$100 and \$500 dollars. On average, respondents were willing to pay \$133 dollars for a computer.

ACCESS TO THE INTERNET

A significant number of survey respondents (76%) had some form of Internet in their home. On average these individuals were paying \$45 dollars per month for their Internet service.

Of the respondents that did not have Internet access at home (N=71), the most common responses were the same as those for not wanting a computer. One third of the respondents (32%) said that they didn't want it, 25% said that it was too expensive, and 10% said that they didn't know how to use it. For those who desired Internet access but thought it was too expensive, when asked how much they would be willing to pay for Internet service a month, the

range was nothing, indicated by 15% of respondents, to \$200 per month. The average reported amount was \$33 dollars per month.

INTERNET USE

When asked who uses the computer or the Internet in the household, the majority of respondents (83%) first replied that they do. The second most common user was a spouse or partner (13%) and the third most common was children (3%). Other responses mentioned by the respondents indicated grandchildren and other relatives also use the computer and the Internet.

The type of Internet connection that was most common among the respondents who reported having the Internet (N=229), was Dial-up with 44% of respondents using this type of Internet connection. Twenty-five percent (25%) of respondents use Digital Subscriber Line (DSL), 13% use Satellite Internet Service and 7% use a cable modem.

Those with Internet service were asked who their provider was. The majority of respondents who knew their Internet provider listed CenturyTel (N=42). Qwest (N=28), Internet Xpress (N=25), Wild Blue (N=21), and Comcast (N=15) were also popular among the residents of Stevens County for Internet providers.

The speed of the Internet connection was highly variable among the respondents. Most respondents simply answered with statements such as: “slow, fast, faster than dial-up, fast like DSL, etc.” A small number of respondents were able to give a specific connection speed (N=22). The most common connection speed was less than 1Mbps with just over 59% stating speeds below 1 Mbps. Nearly 23% of individuals reported a connection speed between 1 and 5Mbps, and another 18% reported a connection speed greater than 5Mbps.

Of those respondents who had slower Internet connections (N=130), the most popular reason for not selecting a faster Internet connection was because it was not available in their area (48%). Twenty-four percent (24%) of respondent’s first responses were that it costs too much and 15% said that they did not need it.

To further explore how and where the Internet was used, respondents were asked about their Internet use at home and away from home.

At home, respondents reporting spending between a few minutes online (1%) to 14 hours a day online. The mode, or the most frequent response, was that they spent an hour online a day (22%). When considering all responses, the average time online was 2 hours and 25 minutes a day.

Respondents were asked whether they used the Internet in a place other than their own home. A majority (62%) replied that they only used the Internet in their home while 37% (N=109) said they access the Internet at a place other than their home. In the last thirty days, the range of time spent online away from home, was from no time (43%) to 120 hours (2%). The most frequently reported amount of hours spent online in the last 30 days away from home among those that reported some activity was 10 hours (5%). The average time online away from home was 16 hours in the last 30 days or roughly 32 minutes a day.

A majority of respondents indicated that they used the Internet at work (76%), but the time varied with spending no time online to eight hours a day. The most frequent response was not spending any time online a day at work. For those that do spend time online at work, the majority spent an hour online (28%)

If the respondent indicated that they spent time online at work, a follow-up question was posed asking if they were a computer professional. Eight percent (8%) of these respondents indicated that they were computer professionals.

The majority of the sample was not enrolled in school (80%). Of those that were, the range of online time was between 15 minutes and three hours, with the most frequent response an hour a day online at school (48%).

Twenty-five percent (25%) of respondents who used the Internet away from home indicated using the Internet service available at the public library. A number of these were residents

reporting not having an Internet connection (55% of no Internet respondents). This suggests that the library has become a key location for those without broadband access to use the Internet.

Forty percent (40%) of respondents (N=109) who use the Internet away from home reported that they used the Internet at a friend or relative’s house. This included, but not predominantly, those without Internet service. Additionally, 9% of this sample reported using the Internet at retail locations. This was not predominantly those without Internet, but was significantly more likely to be rural residents with laptop capabilities.

The average number of e-mail accounts for respondents with Internet access in Stevens County surveyed was 2 email accounts, the range was from 0 (3%) to 30 (.4%), with the majority indicating they had one email account (47%) and 30% indicating they had two accounts.

In describing their primary email account, most respondents used their e-mail for personal reasons (69%), while 30% used it for work and 1% used it for school. When describing their second email account, it was most likely for work or school.

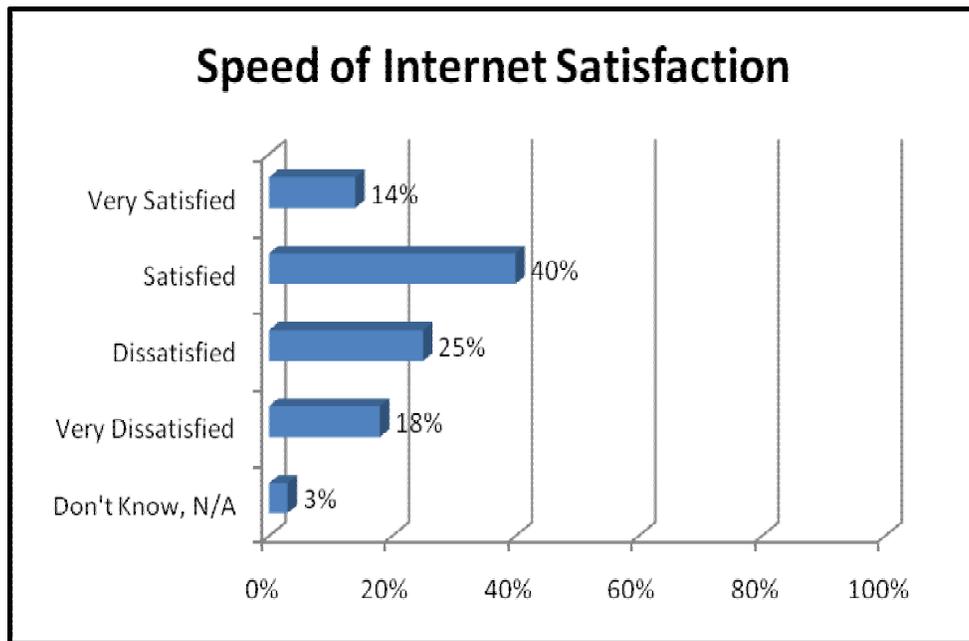
A large majority of the individuals with an Internet connection replied that they used their e-mail account at least once a day (74%) or once or several times a week (21%). A smaller percentage (5%), use their e-mail account less than once a week.

E-Mail Usage	Total N=229
At least once a day	74%
Once a week/ Several times a week	21%
Less than once a week	5%

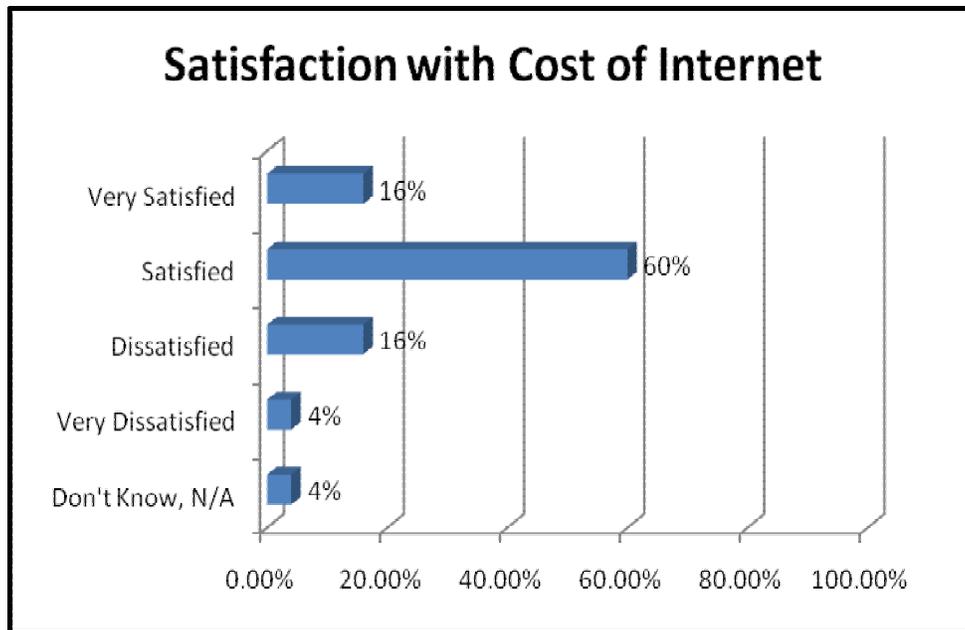
OVERALL SATISFACTION WITH INTERNET SERVICE

Respondents with an Internet connection (N=229) were asked to rate their satisfaction with specific aspects of their Internet services. The services with the highest satisfaction, with 90% of respondents indicating they were “satisfied” or “very satisfied” with the billing practices of their Internet provider.

The most dissatisfaction was expressed with the speed of the Internet connection with 43% of respondents indicating they were “dissatisfied” or “very dissatisfied.” This was indicated most frequently by dial-up users, however there was also some dissatisfaction expressed by satellite Internet and DSL users with the speed of the connection.



The cost of the Internet service also showed high rates of dissatisfaction with one in five respondents (20%) respondents reporting they were “dissatisfied” or “very dissatisfied” with their Internet costs.



Additionally, a little more than 1 in 10 respondents (11%) expressed dissatisfaction with the reliability of the service. This was most frequently reported by dial-up users.

Customer service knowledge and technical support received generally positive ratings.

Responses to other specific Internet services asked during the interview are shown in the chart below.

Internet Service Characteristics	Very Satisfied	Satisfied	Dissatisfied	Very Dissatisfied	Don't Know/ N/A
Speed	14%	40%	25%	18%	3%
Cost	16%	60%	16%	4%	4%
Billing Practices	21%	69%	4%	2%	5%
Reliable Access	30%	58%	7%	4%	1%
Ease of Use	27%	62%	5%	4%	2%
Customer Service's Knowledge and courteousness	26%	50%	5%	3%	15%
Technical Support	21%	50%	7%	4%	18%

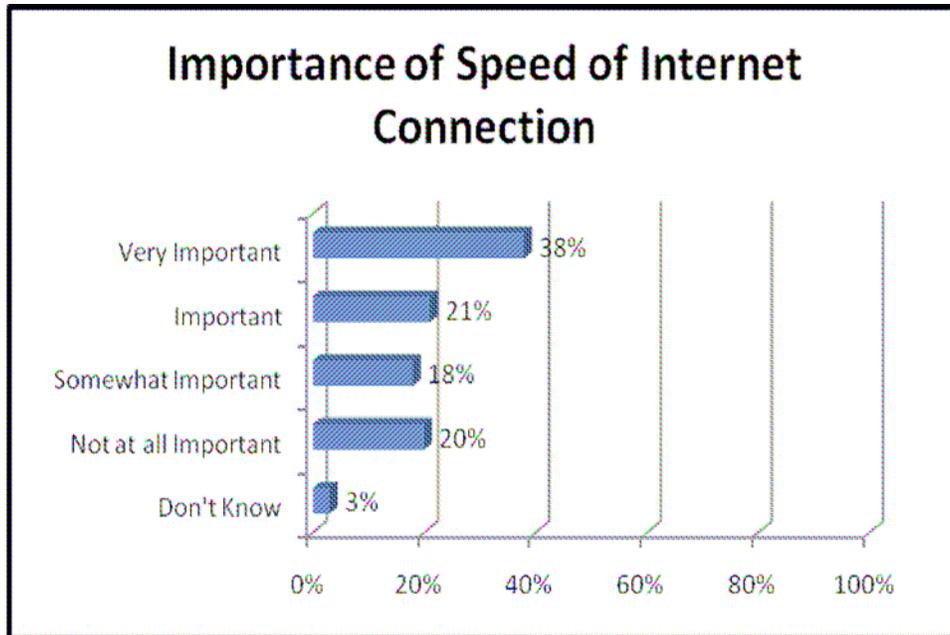
PHILISOPHY REGARDING ACCESS TO THE INTERNET

All respondents were asked questions about high speed Internet access, also known as broadband. When asked whether it was important for them to have high speed Internet access, results varied greatly. Thirty-eight percent (38%) said that they felt it was “very important” to have high speed Internet access and 21% indicated it was “important.” Eighteen percent (18%) indicated it was “somewhat important” while over one fifth of the respondents (20%) said that it was “not at all important.”

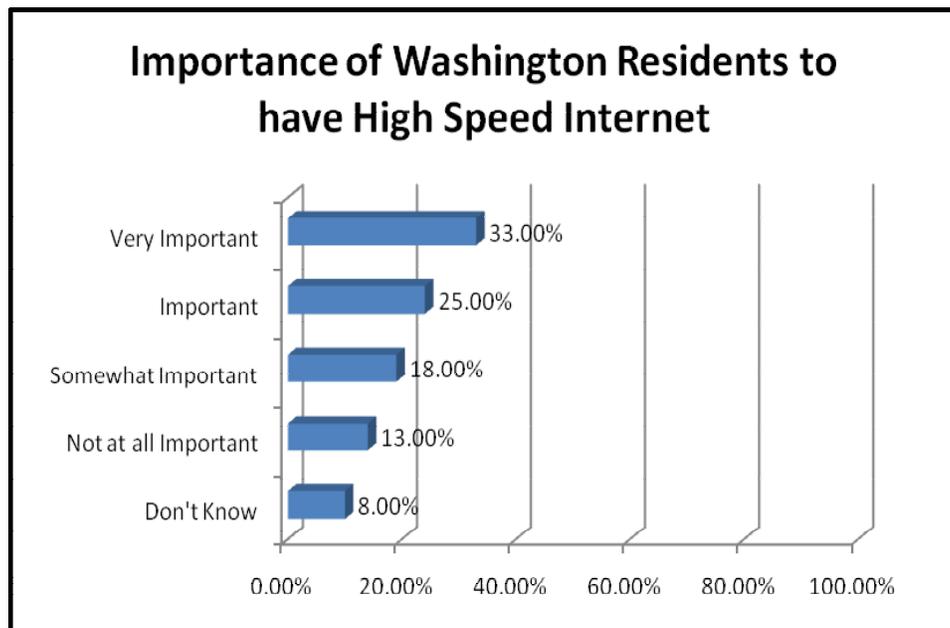
Those that responded it was “very important” or “important,” to have high speed Internet were asked to give reasons why. The most common reason why was that it was faster and so it saves time (N=69). Other reasons as to why high speed Internet is important is because it is needed for work (N=27) and that it has better downloading capabilities (N=21). Other reasons are listed in the chart below:

Reason why High Speed Internet is Important	N=149
Saves Time	69
Needed for Work	27
Better Downloading Capabilities	21
Educational Uses	9
Better Access to Information	6

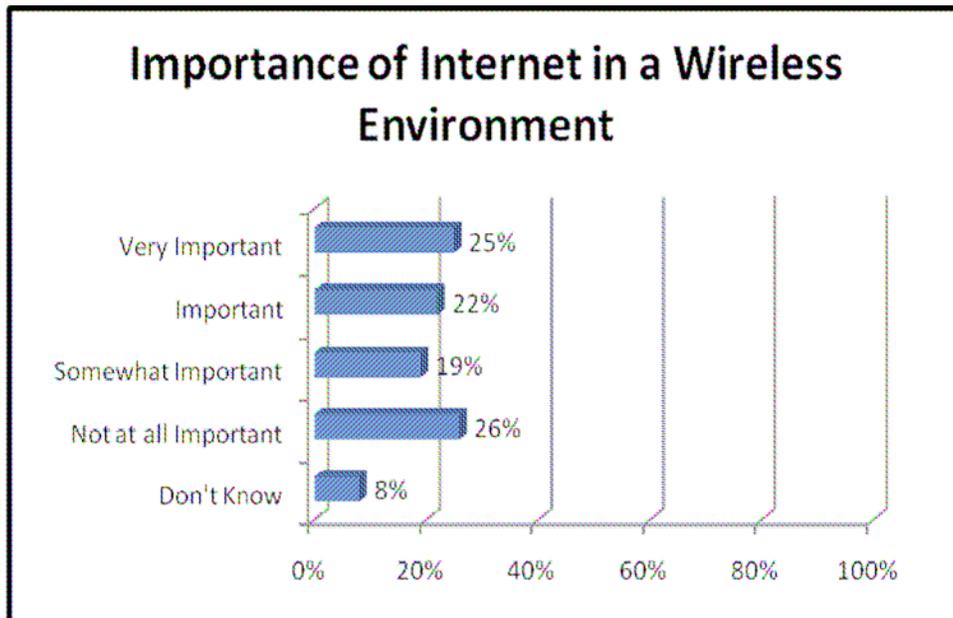
All respondents were also asked how important the speed of their Internet connection was to them and these responses mirrored the responses given when asked whether it was important for them to have high speed Internet access. Thirty-eight percent (38%) said that they felt it was “very important” to have high speed Internet access and 21% indicated it was “important.” Only 18% indicated it was “somewhat important” while 20% said that it was “not at all important.”



When asked how important it was for all Washington households to have access to high speed Internet, responses improved slightly with 33%, 25%, and 18% of respondents indicating that it was “very important,” “important,” or “somewhat important,” respectively. Thirteen percent (13%) indicated that it was not important at all.



When asked how important it was that the respondent has access to high speed Internet in a wireless environment, responses were evenly distributed. Twenty-five percent (25%) of respondents indicated it was “very important” and 22% indicated it was “important.” Nineteen percent (19%) indicated it was “somewhat important” and 26% said it was “not at all important.”



Of the respondents that said it was “very important” (N=58), the majority (52%) indicated it was important to them because they had 24/7 access to the Internet. Other reasons were to stay in touch with the office (6%) or stay in touch by e-mail (2%). The rest of the respondents (35%) listed other reasons.

TYPES OF INTERNET USE

A list of common reasons to use the Internet was presented to the respondents and the results are presented in the chart below. These are based on the Pew Internet and American Life project findings.

The most popular reasons for using the Internet were to keep in touch with family and friends (96%), research retail prices and product information (83%), share photos (75%), and purchase goods and services (74%).

Fewer people use the Internet to make phone calls (6%) or perform language translation (13%).

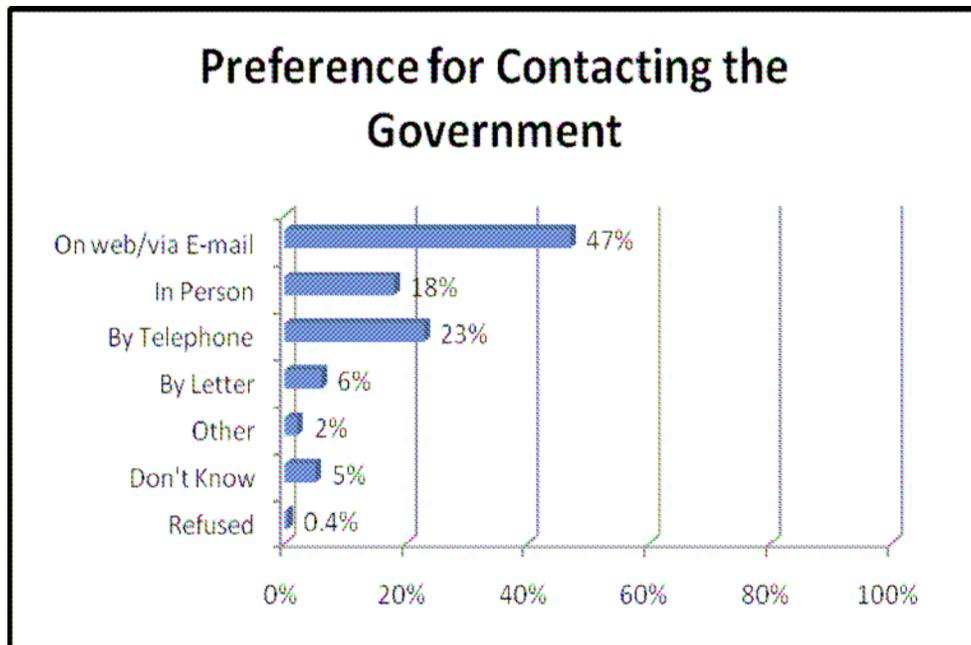
Reasons for Use of the Internet	Yes	National Yes Figure	No
Keep in touch with family and friends	96%	92%	3%
Research retail prices and product information	83%	81%	16%
Share photos	75%	80%	25%
Purchase goods and services	74%	66%	25%
Find medical information	69%	80%	30%
Access local government services	60%	66%	40%
Visit Washington government's website	59%	66% (their state)	40%
Bank online	58%	53%	42%
Get local news	59%	47%	41%
Find state or federal social services and government assistance	42%	66%	57%
Find legal information	40%	--%	58%
Education	40%	13%	60%
Find local school information	35%	35%	65%
Play video games	34%	57%	66%
Watch television or other videos	28%	56%	72%
Contribute to a website, blog or other online forum	24%	22%	76%
Sell goods or services	24%	15%	75%
Perform language translation	13%	--	87%
Make telephone calls	6%	13%	94%

Respondents in Stevens County are more likely to go online than their national counterparts to share photos, make online purchases, sell goods, bank online and seek educational opportunities. Respondents were less likely than their national counterparts to go online and watch videos, find medical information and state and federal information about social services,

The top three other reasons to use the Internet was to research general information, make travel plans and entertainment purposes.

ON LINE CIVIC PARTICIPATION

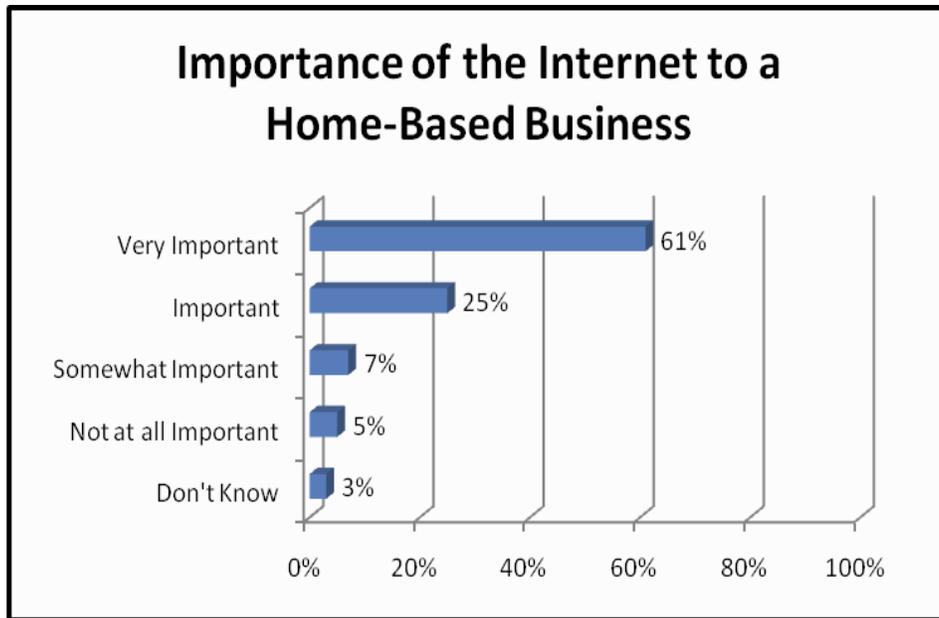
When asked how they would like to access government services, a majority of individuals with Internet capabilities (N=238) indicated that they would prefer to access the information on the web or via e-mail (47%). Twenty-three (23%) said they would prefer to access information by telephone and 18% preferred obtaining the information in person.



In addition, respondents were asked to give reasons why e-mail was a less than very effective way to communicate opinions about issues that affect the community (N=83). The top five responses were that an e-mail could be ignored or deleted (N=31), lose personal contact (N=22), they don't need to communicate with the government (N=10), it takes too long to write and get a response (5), and that they don't know how to use it (N=4).

BUSINESS AND ECONOMIC DEVELOPMENT ISSUES

Of those respondents that indicated they had an Internet connection (N=238), 19% have used the Internet to operate a business from their home. Of those 44 individuals who have done so, the majority (61%) believe that the Internet has been “very important” to the success of the home-based business. Twenty-five percent (25%) say that the Internet has been “important”, 7% say it has been “somewhat important” and only 5% say that it is “not at all important.”



Respondents with Internet capability were asked if, in the past year, they had used the Internet to find information about local business. Sixty percent (60%) responded that they had, and of those 146 individuals, 54% said that they have purchased good or services from local or state businesses online.

60% of respondents use their Internet connection to find information about local businesses. Of those, 54% have purchased goods or services online.

When asked to rate their satisfaction with the information about local business on the Internet, 79% said they were “very satisfied” or “satisfied.” Fifteen percent (15%) said they were dissatisfied and 5% said they were “very dissatisfied.”

CLOSING THOUGHTS

At the end of the survey, respondents were asked if they had any thoughts about how to enhance broadband availability in the community and 23%/N=68 offered suggestions. Most respondents said it was important to get access to more rural areas by building more infrastructure and adding services in those areas (N=36).

Seventeen people (N=17) said that making it more affordable would help as well. Also, five people said that they were unaware of what should be done, but that there should be something done so they could have it.

When asked if they had anything additional to add about broadband that was not covered in the survey, 8% of people added additional thoughts. Among those that did, the most common was a reiteration of the fact that broadband needs to be enhanced in rural areas (N=10). Also, eight mentioned that the Internet and computers should be less expensive.

KEY FINDINGS IN STEVENS COUNTY

Access to computers:

- Eighty-four percent (84%) of respondents report having a computer in the home. This is consistent with the United States estimates of PC penetration.
- Fifty-one percent (51%) of these homes have one computer, 32% have two computers, 10% have three computers in the home.
- Forty-five percent (45%) of residents describe at least one of their computers as a laptop.
- The primary reasons for not owning a computer are: don't want one (40%), too expensive (27%) and don't know how to use it (15%).
- Fifty-six percent (56%) of respondents without a computer are not willing to purchase one. 44% of respondents without a computer, on average, indicated they would be willing to pay \$133 for a computer.

Access to the Internet:

- Seventy-six percent (76%) of respondents have access to the Internet at home, which costs on average \$45 a month.

- Of these: 44% have dial-up, 25% have DSL, 13% use a satellite Internet service, 7% use a cable modem.
- Those without Internet service: 32% said they didn't want it, 25% said it was too expensive, 10% said they didn't know how to use the Internet.
- Those without Internet service and willing to pay to get it said on average they'd pay \$33 a month to receive Internet service.
- Top three Internet providers are CenturyTel, Qwest and Internet Xpress.

Quality of Internet service:

- Forty-three percent (43%) of Internet users are dissatisfied or very dissatisfied with the speed of their Internet connection.
- Twenty percent (20%) expressed dissatisfaction with the cost of the service.

Philosophy about Internet access:

- The majority of respondents felt that access to high speed Internet was important or very important (59%). When describing its importance, most said it was important because it is faster and saves time, is needed for work and has better downloading capabilities.
- The speed of the Internet connection was described as very important or important by 59% of respondents.
- Fifty-eight percent (58%) of respondents felt it was important or very important for all Washington residents to have access to high speed Internet.

- Forty-seven percent (47%) of respondents thought access to the Internet in a wireless environment was very important or important.
- Forty-seven percent (47%) of respondents with Internet access indicated they would like to access government services via the web or e-mail.

Internet use:

- Who uses Internet: 83% the respondent, 13% a spouse or partner, 3% children.
- Average time online per day at home was two hours and 25 minutes.
- Sixty-two percent (62%) only use the Internet at home.
- Of the 37% that use the Internet away from home, 76% use it at work, 40% use it at a friend or relative's house, 25% go to the public library. Additionally 9% bring their laptop to a retail outlet or use a computer there.
- Most residents with Internet access have on average one email account (47%) or two email accounts (30%). 74% check their e-mail everyday. 69% use their e-mail for personal reasons, while 30% use it for work, and 1% use e-mail for school.
- The most popular Internet activities are keeping up with family and friends (96%), research retail prices and product information (83%), share photos (75%) and purchase goods and services (74%).

Economic indicators among respondents:

- Nineteen percent (19%) of residents with Internet access indicated they have used that connection to operate a business from their home and of those 61% described the Internet has “very important” to the success of their home based business.
- Sixty percent (60%) of respondents had used the Internet to access information about local businesses and 54% of those said they had purchased goods online from a local or Washington business.

Attachment 9

Focus Groups and Interviews

Attachment 9

INTERVIEWS AND FOCUSED DISCUSSIONS

INFORMATIONAL INTERVIEWS

Beginning on April 1, 2008, shortly after the Project Kickoff Meeting, and continuing through the final stages of information gathering on May 27, 2008, CBG engaged in a number of informational interviews with officials from State associations, State agencies, legislative offices and legislators that have been involved with the initial formation of the Broadband Survey Project. The purpose of these interviews was to ensure that the information gathering effort that we had designed was consistent with the general consensus concerning the desired data set that would result from the Broadband Survey, as well as to provide discussions along the way to share and obtain feedback on some of the information gathered. A synopsis of information gathered from these interviews is provided by category below.

State Associations

CBG met with a representative from the Association of Washington Cities early on in the project, as well as meeting through a telephone interview with the Acting Executive Director of the Washington State Association of Counties to talk about their understanding of the Counties and Cities under study, key contacts within those jurisdictions and the outcomes of the Broadband Survey efforts that would provide them with informative data. The information gleaned from these interviews included:

- Information related to broadband's impact on economic development can be critical to understanding its role in helping build sustainable communities.
- There should be an understanding of the benefit to jurisdictions, both small and large, of basic electronic interaction, such as e-mail, provision and use of Web sites and other related issues.

- It will be important to know what can be done to address problems that are cited by the Survey.
- It will be important to know whether cities should consider doing something to enhance the broadband climate themselves.
- It will be important to know what the biggest inhibitors are to the provision of broadband services.
- Can dial-up communications, which is the only thing available in certain areas, truly support government services? It will be important to know how local governments are disseminating information and whether the availability, or lack of availability, of broadband affects the development of businesses within a jurisdiction and limits the provision of any government services.
- The perception is that in rural Washington, there is a lot of Internet access, but not broadband.
- Can a greater level of broadband help pull a County out of economic distress?
- Redundancy appears to be a critical issue in rural areas.

State Agencies

Informational interviews were held with the Network Manager for the Washington Department of Transportation as well as officials from the Department of Information Services and associated entities related to the Statewide NGN, SGN, IGN, PGN and K-20 Networks. The key findings from those meetings were the following:

- The Department of Transportation (DOT) has 300 sites across the State and utilizes whatever connectivity it can in order to provide reliable access. This includes T-1s, DSL connections and access to State fiber optic connections. In areas like Ferry County, it can also include dial-up connections.

- The Department of Transportation also uses wireless T-1s that are provided as part of a Statewide 800 MHz implementation.
- The Department of Transportation also provides Wi-Fi hot spots at a number of its sheds in order that those on the road can upload data from handhelds and laptops.
- There are also microwave links for some communications.
- The DOT also used to use satellite connections but had latency problems and was able to replace those with DSL.
- It is important to remember that wherever you place a telecommunications facility, you need power, which can be a problem provisioning to remote sites.
- Any statewide master mapping and planning effort, based on the complexities of deriving information from different documents in different electronic formats as well as obtaining information that is stipulated as proprietary or confidential, will be a significantly complicated effort.
- Regarding the Statewide network, it has significant capability with an OC192, DWDM backbone. Current node sites are in Seattle, Yakima, Olympia, Pullman, Spokane and Vancouver. Any statewide network needs to have a standardization of technology in order to be properly supportable.
- The Washington Statewide network provides a significant number of underlying networks, including the K-20 Network, the Intergovernmental Network (IGN), State Governmental Network (SGN), and the Public Governmental Network (PGN). The K-20 Network has been significantly successful in bringing broadband to the classroom with about 98% of classrooms having broadband access. Other users of the Network include the Library Districts, hospitals and other qualified entities.
- Statewide contracts to provide E-rated services for schools and libraries as well as other lower cost connections have been helpful in developing standardized connectivity, regardless of whether the user is in a dense area or rural sections.

State Executive and Legislative Support Staff

Interviews were held with representatives of the Office of Program Research concerning the House TEC (Technology, Energy and Communications) Committee, the Governor's Executive Policy Office and the Senate WET (Water, Energy and Telecommunications) Committee. Key findings from those interviews included:

- There are a number of issues that need to be reviewed based on the results of the Broadband Survey, including:
 - What type of public resources would be needed to increase broadband availability and adoption?
 - Is there a focus throughout the State on this issue?
- The Connected Nations non-profit organizational concept is out there to be reviewed.
- There will be a review of whether the PUDs, restricted to wholesale services now, are to be allowed to retail services.
- What are the jobs that could be developed in rural areas if broadband availability was increased?
 - In other words, what is the economic development data that would support greater State involvement in enhancing broadband?
 - Are there resources currently provided by and/or managed by DIS and DOT that could be leveraged?
- What are the current efforts that are underway in the State that can point the State in the right direction?
- Economic diversification is needed in areas that are largely supported by timber and mining operations.

- Can greater access to the Internet help build jobs that are knowledge and economy based?
- Does the provision of broadband largely follow major transportation corridors?
- What are the ramifications of State action or inaction?
- Does broadband provide a reasonable telecommuting/E-commerce strategy that would help enhance economic development in rural areas?
- Is there a balance between availability and affordability?
- If the State already has significant backbone infrastructure in place, how far does it go and can it be used to help leverage additional last mile services?
- Can it be determined that there is a public sector answer to this problem?
- Based on infrastructure that's out there, what would be the cost of new public sector infrastructure?
- How much should the Federal government contribute to these efforts?

State Legislators

Interviews were also held with two State Representatives and a State Senator. Key findings from those interviews are below:

- It will be important to understand how the State should measure the effectiveness of its efforts toward broadband development, and where the State should target its resources.
- State policy is that if high-speed Internet access will boost economic development, then we should efficiently approach boosting high-speed Internet access.
- What is the broadband impact on non-profits, and what should their involvement be in working on enhanced broadband?

- If the public infrastructure is mapped, such as that from PUDs, local governments and the K-20 Network, how should the same information be provided by private entities, and is the answer a cooperative effort on the part of public and private providers?
 - Could part of the Statewide backbone be utilized for a wider range of broadband services in areas that need it?
- Ultimately, the Federal government may need to be involved as well.
- What will new technologies such as WiMAX bring to the table?
- WSU's Extension has been involved in these efforts. Their efforts should be reviewed.
- How will the PUDs be involved going forward?
- There is a perceived frustration on the part of rural communities in not having the same levels of service as the more dense urban communities.
- It will be important to look at both wireline and wireless solutions.
- Broadband is important to businesses, and the level of this importance is increasing. If businesses can't get the desired services from the private providers, what is the range of other solutions, including public involvement?
- Once it is determined what types of resources can be developed to resolve the problems noted, it is important to know where the population is that has the need.
- Call center and other types of technologies are migrating to home-based businesses, but homes need sufficient broadband access in order to be able to serve in that capacity. This trend will most likely continue. How do we help households throughout the State be able to be involved in such business initiatives?

FOCUS DISCUSSION GROUPS AND INTERVIEWS

Initial findings and assumptions concerning broadband and network availability and use were tested in focus discussions that were conducted with representatives from a number of organizational Communities of Interest and community leaders in the five counties.

Additionally, in-depth interviews were held with key representatives in each County, both to establish baseline information, as well as augment information gathered during the Broadband Survey Study. The organizational types and types of group participants were many and varied and ranged from representatives from Public Agencies, Educational Organizations and Public Safety Entities to business groups, PUDs, service providers and Community Organizations.

Generally, each group was conducted using the following overall categories of discussion:

- The Goals and Objective of the broadband Survey Project were outlined at the beginning of the discussion so that all participants were familiar with them at the beginning of the discussion.
- The term “Broadband” was defined for group participants (i.e., needed for high-speed Internet access) as well as the services, technologies and infrastructure that enabled the provision of broadband within each County.
- The characteristics of the current broadband environment within each County as we had determined to that point were tested and verified.
- Inhibitors to broadband availability were discussed and delineated.
- Inhibitors to broadband adoption were discussed and delineated.
- Potential solutions to overcoming the inhibitors were discussed for each County.
- Near the end of each group, there was discussion of the groups’ attitudes, opinions and thoughts concerning the State’s role in facilitating broadband network development.
- Participants were given an opportunity for final thoughts and comments.

A summary of the findings related to the various group discussions is detailed below.

Additionally, a series of interviews concerning broadband availability and use related to different interest groups within the five Counties were also held to gain additional information to that gathered in both Surveys and Focus Groups. A synopsis of these interviews and the key points of discussion gleaned from them and the focus groups can be found below as they pertain to each County.

Findings

Columbia County

A focused discussion was held on May 20, 2008 at 9:00 a.m. with participants in a Columbia County Focus Group including the Mayor of Dayton and representatives of the Columbia County Planning Department, Washington State University, the Dayton Chamber of Commerce, Puget Sound Energy, the Dayton School District, the Columbia REA, a bank and Congresswoman Rodgers' office. The key findings from the focused discussion are as follows:

- Beyond the various discussion topics provided, a number of questions were also raised and discussed including:
 - What are the technology goals of the State? Do they have a particular network in mind?
 - How much should developers contribute to the expansion of broadband into their developments?
 - Companies are not going to come in without a good business plan. What ways outside of subsidizing could improve the business plan?
 - Speeds are available for a price. The price is too high, so how can that be brought into line with what people can afford?
 - Can providers that are simply running through the County be leveraged to provide some form of service in the County? (AT&T for example)

- BPL would be ideal if it can be refined and provide sufficient bandwidth. Infrastructure is in place for much of the network.
- WSU has a connection to the State that the participant indicates is really good and is fast, but is not sure how it works.
- Entrepreneurs live in the County. They need broadband to share ideas, research etc. It is their livelihood.
- Self contained communities need broadband to reach out to the world.
- DSL connection speeds seem to slow down at certain times of the day. DSL is not reliable. Qwest's customer service is not satisfactory.
- The general public needs to be educated in forums such as this as well as other ways on the benefits of broadband, what is available and what is technically possible but not available.
- Fiber optics would change the demographics of rural areas. No opinion was given as to whether this would be a good or bad outcome.
- Young people are far more likely to need/want broadband access. We need to plan for the future "I may not see the result but we need to make broadband a national infrastructure much the same way highways evolved into what they are today". "It needs to be everywhere"; "it is an international economy/community".
- Fiber doesn't make sense based on density. A wireless solution should be sought.
- Dayton is relatively well situated considering its location, size and density. The participant indicated that she is grateful for what she has, but is still interested in higher speeds.
- The Schools indicate that the K-20 Network needs competition. It has become stagnant and quicker options are needed. Educational opportunities outside the school walls need to be available for students.

- The entire State needs to be better connected.
- The west side of the State is urban and the east side is rural. Broadband could bridge the two sides.
- Can't visualize subsidizing a network.
- Several businesses could work together to get broadband deployed to their facilities.
- It is one thing to upgrade or expand an existing network, another to build from scratch. Should look at expanding networks such as REA in the near term.
- Gas prices are only going to drive up the need/desire for more broadband.
- Not having broadband creates an economic barrier.
- Forks WA, and the entire peninsula have banded together to deploy broadband. It may not be a boom but it is clearly spurring development.
- "I would love to have broadband 13 miles outside of Dayton at my home, but I'm not paying \$400.00 for installation and \$55.00 per month for satellite".
- Low interest loans from the State may help to promote expansion.
- More and more people are working, at least in part, from home. This will increase the need for broadband and other affordable communications.
- Regarding Healthcare, telemedicine is expanding rapidly. From sharing test results such as X-rays to sharing video of procedures and other information is key in rural areas.
- Regarding Education, access is needed to information from outside the 4 walls of the school.

FERRY COUNTY

Interviews

Interview with the Tri-County Economic Development District Specialist for Ferry County, the Mayor of the City of Republic, a Councilperson for the City of Republic, the Administrator of the Ferry County Public Hospital District, the IT Director of Ferry County Public Hospital District and the Manager of the Ferry County PUD – 9:00 a.m., April 22, 2008

A meeting was held with a variety of representatives involved with telecommunications and broadband development efforts in Ferry County. The key points of discussion that occurred during the group interview are the following:

- There is one main telecommunications backbone connection in and out of Ferry County. When it is lost, everything is down in Republic and much of the rest of the County. This occurred recently with an outage lasting approximately 13 hours.
- Efforts have been underway for a number of years, most recently with significant activity in 2006 to access grants for broadband development in Ferry County.
 - There are limitations on who can access certain federal grants (based on whether they are a designated census place or whether they are in the Rand McNally Atlas) and their level of broadband.
 - Republic wouldn't qualify, for example, because they have a modest level of cable modem service that barely exceeds the FCC definition.
- The Hospital has access to video conferencing services through the Inland Northwest Health Services (INHS) in Spokane, but because of the slow speed connection, it can't take full advantage of the service.
 - These connections are vital since, being in a rural area, meeting electronically is far more efficient and much less costly than driving to and from Spokane.

- The cable company is a non-profit cooperative, the TV Association of Republic (TVAR). It provides up to 384 Kbps symmetrical cable modem service in and just outside of Republic and provides wireless broadband (802.11 g) service to some of the outlying communities.
- Verizon is the Local Exchange Carrier for Republic and other sections of Ferry County. CenturyTel provides LEC services along the Columbia River.
- Dial-up is used by a number of residents in the County.
 - 26.4 Kbps is the best that some of the older copper infrastructure will support.
- Interviewees noted that access to services is much more difficult in rural areas.
- The PUD has explored the provision of telecommunications services, but is concerned that if it moved to invest in infrastructure needed to provide such services and then provided them, Verizon or another commercial provider would then upgrade its network, provide competition and then lengthen the PUD's return on investment to longer than acceptable to the PUD Board.
- There potentially would be some Federal government interest in participating with the State and localities in determining ways to bring redundant, reliable and higher capacity broadband to Ferry County, since the Job Corps and the Border Patrol are affected by the same lack of redundancy and capacity.
- Similar to the PUD, TVAR is somewhat risk averse, because they want to keep prices low.
 - For example, there was discussion that TVAR, if it upgraded its backbone, could keep a redundant T-1 connection from Verizon for its cable modem service, but such redundancy would cause rates to go up by about \$5.00 a month per subscriber, and this would not be an acceptable increase for TVAR members.
- Interviewees noted that a core group of community members had been working on broadband and telecommunications issues since 2004, which resulted in a final working

document of a strategy and action plan, last updated in October, 2006. As part of this, the County had developed an accounting of \$195,749 that it had provided in cash and in-kind funding to the broadband development effort to indicate to grant authorities that it had already provided contributions that could be seen as matching funds.

- Interviewees thought that, because of the lack of adequate broadband in Ferry County, the cost of education and the cost of health care was higher than it should be, and access to these services was lower than it should be, if more and better education and health care services could be facilitated by higher capacity broadband connections.
- Interviewees also believed that Verizon and the other LECs have too much control over the level and type of services that are provided within rural areas like Ferry and that there should be some sort of reasonable, mandatory baseline.
- Interviewees noted that broadband over cellular was more spotty than the already spotty cellular voice service.
 - With a cellular air card, Verizon's broadband over cellular service was available in Republic.
- The minimal broadband that is available in Ferry County is being used for marginal video conferencing, but for higher quality video and, in the case of education, advanced courses where higher speed is needed for ancillary materials (such as video streams), this was not either available or consistently reliable within Ferry.
- Interviewees believed that, from a business revitalization standpoint, working from home and operating home-based businesses (including both crafts and knowledge-based businesses such as consulting) were critically dependent upon high capacity broadband connections.
 - Participants indicated that the Internet was critical for selling such products and services to an adequate client base and that broadband was going to provide more opportunities than dial-up.

- Regarding satellite broadband services, participants indicated that there were significant limitations.
 - For example, interviewees indicated that they rarely got the 512 Kbps upstream that was promised, and because satellite services now have “fair use” policies where downloads were limited, that this again provided restrictions that reduced the utility of the service.
 - Participants indicated that, with so many services requiring electronic filing, online access was critical.
- Interviewees indicated, for example, that they were aware of a case where an organization’s new system for billing required connection with an office in Denison, Iowa, and that it required the system to be continually up and running in order to get real time information, print receipts, etc. Based on this, unreliable Internet access and broadband provision in Ferry would create significant problems for this billing system which requires real time connections.
 - For example, once when Internet service was lost for hours, bills were not able to go out until four days later based on the necessary interface that had to occur between the two systems.
- Interviewees again noted that, with one main backbone connection into Ferry, when it is cut, everything is out, including online business operations, Federal government operations and even 911 service.
- Interviewees indicated that it would be important to look at the BPA high power transmission lines, since they were on a separate path out of Ferry through Kettle Falls in Stevens County.
 - Since the Federal government owns the property, couldn’t there be a relationship between the State and Federal governments to develop a redundant connection utilizing available space on those transmission towers?

- Interviewees indicated that, while it may be helpful for the PUD to also have the ability to provide retail services, there would still be the problem of providing an adequate return on investment in the face of potential competition.
 - Another idea was that perhaps the State could create local broadband exchanges, in the same way that local telephone exchanges were created, and perhaps even broadband franchises for small rural communities could be developed.
- The PUD indicated that they were seeing a 60% annual increase in new power connections, primarily due to new housing development.
 - This constituted over 30 new connections in 2008.
 - Accordingly, it would be important to find a way to ensure that these new developments have broadband service from the beginning (so it doesn't compound the problem already being evidenced).
- Interviewees noted that TVAR was continuing to develop the provision of wireless 802.11 g Wi-Fi services in some of the northern Ferry areas, including Curlew and others.

Focused Discussions

A focused discussion was held in Ferry County at the Republic City Hall on May 21, 2008 at 2:30 p.m. with seventeen (17) members of the Ferry County Community, including elected officials from the City of Republic, a Ferry County commissioner, the Ferry County Management Information Services (MIS) Director, the Manager and Technical Staff person from the Ferry County Public Utility District (PUD), the cable service provider, the TV Association of Republic (TVAR), the Ferry County staff person for the Tri-County Economic Development District, two representatives from Ferry County Counseling Services, the Director of Stone Soup, a representative from the Republic Library (part of the North Central Regional Libraries District), other members of the business community that also represented RRDA (the Rural Resource Development Association), and the Administrator of the Ferry County Hospital.

Key Findings from the discussion are as follows:

- Cable in Republic, extends outside of Republic somewhat.
 - 384 kbps symmetrical is the maximum cable modem-based broadband speed available at this point.
 - Problems have often occurred because the cable system's backbone provider from Omak can sometimes have technical issues.
 - Maximum 100 Mbps wireless backbone connection just put into place (2 T-1s from Verizon before).
- No DSL, but supposed to be in the process of putting in along the main street corridor (Verizon).
 - Inchelium has DSL through CenturyTel.
- Television Association of Republic (TVAR) has wireless connection to Canada.
- No other microwave broadband in the County.
- Verizon Wireless provides broadband in Ferry via its cellular network.
- AT&T is spotty.
- Sprint – limited or no service in Ferry.
- T-1s are costly, with inconsistent pricing and limited capacity.
 - Need basic PRI, but according to Verizon we are a non-tariffed area so can't obtain.
 - DS-3 – also costly with constant price changing, inconsistent story from Verizon.
- Libraries not using K-20 Network. North Central is only Library this far east, so they only use their cable modem connection.

- Concerning Satellite broadband:
 - Many of TVAR's customers have been dumping satellite to get TVAR cable modem service.
 - County's Road Department satellite connection doesn't work well.
- Verizon said basically it would take an "Act of Congress" to get what Community Services agency wanted in the way of connectivity.
- The Stone Soup representative indicated – We need to know what the definition of broadband service is. Often after 2:00 pm (school kids) slow down the cable modem Internet service.
- TVAR said this was essentially fixed today, because TVAR now has a much higher capacity backbone.
- TVAR's system had no lost packets, but here to Omak would lose 60 – 6,000 milliseconds. Today 19 milliseconds to Omak plus no packet loss when new backbone was activated.
- Redundancy: TVAR had for a while, but couldn't afford to keep the 2 T-1 lines as well as the new microwave connection.
- Core facilities are connected, but remote facilities "not so much".
- For dial-up in Ferry, 21.6 Kbps is a "good" connection. More often, dial-up is not even usable nowadays.
 - Some homes toward Republic get 56 Kbps.
- Dial-up utility – depends on the service provider.
- Slow dial-up is due to lots of noise on the line.

- One of the inhibitors: Verizon has mentioned problematic ROI but hasn't mentioned specifics.
- TVAR – once investment is in, having additional costumers doesn't cost.
- Friends of TVAR (FTVAR) is non-profit; every customer is an investor, but still have to pay NCI Datacom (for Internet Access; backbone).
- Technology and implementation/operation cost changes can be inhibitors.
- TVAR hasn't noticed that the cost to the customer is an inhibitor concerning its cable modem service.
- Cost isn't much of a factor when increased speed can be realized.
- Access to and knowledge of technology: Library sees many people that do not have a home computer and also people who want to look up something but don't know how.
 - They help set up e-mail accounts regularly.
 - Low income families often can't afford computers; then, some have computers but no service.
 - 3 computers for public access to the Internet and Wi-Fi at the Library.
- Library's Horizon online catalog program slows down the Internet more than if all three (3) computers are being used.
- It's the only Library in Ferry County (NCRL-North Central Regional Library).
 - Slowest in NCRL, but also farthest away from the main branch.
- Stone Soup representative: People don't always know why broadband is relevant to them so they adopt a "why bother?" attitude.
- People in Ferry and other rural areas are also afraid of putting financial information on line – banking or purchasing.

- Need to see value for themselves.
- Republic has a Technology Center.
 - Shop the Frontier has public access and also offers free computer training.
- Also, when response is slow, Internet use becomes frustrating and users again take a “why bother?” attitude.
- Government involvement - such as in Springdale and Marcus in Stevens County should be looked at.
- Grant funds are available if your community has a level of broadband which is below the Federal Standard – USDA can fund if under a certain level (200 Kbps is the Federal Standard).
- EcliptixNet did speed testing in Marcus and Springdale to verify low level of access.
- Disaster situations are a great concern - can’t work from home if no phone, Internet, etc.
- Border Patrol is also affected by lack of redundancy.
- If main fiber cut, all goes down; cell phone, credit card verification machines, etc., because there is only one run into Republic.
- Public Agency hot spots like the Library; Curlew, other Public Agencies could set up hot spots that could also be used for public safety.
- BPA could be a potential route for a redundant backbone connection out of Ferry. It goes from Kettle Falls to Pine Grove – government already owns ROW.
- The PUD Manager suggests passing legislation that would require certain activities to be carried out via video conference. This would, in turn, require an increase in broadband across the State in order to comply.

- Telemedicine: use this to leverage for higher capacity access. Hospital Administrator: this could reduce healthcare costs. See specialists by a video conference. Students could take classes without getting kicked off the network (which happens frequently in online learning in Ferry because of slow speed).
- Community Services and mental health patients would be well served by higher speed broadband enabling more and better video conferencing.
- Strength of economy is computerization.
 - We support Kingdome in Western Washington. Why can't they support broadband in Eastern Washington?
- How are other counties doing this?
- Follow models for how telephone and power were brought to all Americans.
 - Not a technology or \$ problem, but a will problem.
- Rural China has better service than this area.
- Political Will is #1 Inhibitor.
- CCN – Communities Connect Network – working on these issues.
- 25 people from different Community and business sectors have come together to advance political initiatives on broadband.
- PUDs don't have authority to retail or use funds generated from other utility operations (such as power) to build fiber.
- For PUD – need clear authority, then money to build, then client.
- Hot spots – Fairgrounds would be a good location.

- First right of refusal – if no private provider will come in because too low of an ROI, could PUD or government provide? Some states do it this way.
- Hospital Administrator - If State really wanted to do this, it would sit down with private companies and foster provision of service without limiting competition.
- Need to look beyond situation here to the State as a whole.
- We need the technology everyone else has here. Verizon, etc., complains about taking potential business away from them if government or PUD provides, but they've had ten (10) years to provide. Give PUD ten (10) years, while Verizon can't do anything and see if broadband improves.
- Ferry is a small community which includes many retirees, but also many entrepreneurs that need broadband.
- Republic Mayor - government shouldn't create jobs but should create the infrastructure needed for private sector to create jobs.
- Need to look at programs – many “rural” programs go to those that may have been “rural” in nature before, but are no longer.
- Who will decide when State's goals have been accomplished?
- Need measurable goals – State needs to serve rural areas. Grant program needs to measure standards other than “provide service for X people” (because grant agencies want to reduce monetary investment per person). Same project here or in Ellensburg, for example, can cost the same, but there is a different dollar amount per person investment.
- Also, larger areas can “buy” grants through more ability to match funds.

Other Thoughts

- Telco's false advertisements have created perception that rural areas have broadband, but don't in actuality.

- Perhaps there should be a “false advertising tax” that comes back to rural areas.
- Telco’s should send decision-makers to meetings.
- How will broadband service be defined?.

GRAYS HARBOR COUNTY

Interviews

Interview with the Director, Central Services, and the Network Administrator, Grays Harbor County – 9:00 a.m., April 2, 2008

This interview was held to obtain background on broadband availability and use in Grays Harbor County, from the County’s perspective. The following are the key information items that were gleaned from the interview:

- The PUD has placed fiber optics in certain portions of the County out to Aberdeen.
- The primary provider of cable services is Comcast, with CenturyTel as one of the larger Local Exchange Carriers.
- There are smaller ISPs, including companies such as Reach One.
- There are nine incorporated municipalities within Grays Harbor County. Aberdeen is the largest city.
- On networking issues, the County has relatively little interaction with the cities. Certainly, though, related to public safety communications, there is significant interaction between the Sheriff’s Office and the Police Departments.

- The County's Economic Development officials have been part of continuing efforts to share resources and information to enhance the telecommunications and broadband climate in the County.
- There is significant work between systems integrators, independent service providers, the PUD and LECs such as CenturyTel to enhance broadband development opportunities.
- The County has made a lot of investment in wireless communications, especially for public safety dispatch and emergency communications.
 - There are some dead spots and concerns over the small bandwidth available for data communications on these wireless systems.
- The County currently does not provide a lot of Web-based services, including high bandwidth services such as video streaming.
 - More Web-based services are not a concern for the near future, but could be an item for discussion in the future.
- The County's IP radio network for public safety data communications (voice is still analog) is based on five towers that have 80% coverage of the County's 1900 square miles, although there is a lot of forest land in the 20% not covered.
 - The data connection is low bandwidth (around 50 Kbps), but to date it has allowed them sufficient data communications to access booking photos and other high capacity data by using thumbnail graphics and other tools that work within a low bandwidth environment.
 - Because of centralized databases, the records needed by public safety personnel can be accessed.
- The County has its own fiber for a number of its facility connections
 - It is hooked into the State network (IGN and PGN) for accessing the Internet.
 - It also uses radio communications for remote T-1s.

- The fiber is in a ring architecture around the Montesano campus.
- It leases lines through Techtell and CenturyTel as well as the PUD to County facilities in Junction City and the Aberdeen campus.
- Qwest provides local exchange services in Aberdeen and Hoquiam.
- The County does see an increase in its bandwidth needs over time to provide greater services to mobile data terminals as well as meet a demand for higher capacity remote connections for County employees.
- There are some Wi-Fi hot spots in Grays Harbor, including the Starbucks outlets which are concentrated in Aberdeen.
- To expand public use of wireless Internet in County facilities, the County would want to make sure that these are separate connections that do not touch their internal network.
- The County indicated that the coverage for cell service is getting better over time as operators improve and expand their networks.

Focused Discussion

Because of its relative size, two focused discussions were held in Grays Harbor County. The first focused on issues pertaining to Public Agencies and included the Grays Harbor County Network Administrator, a representative from the Timberland Regional Library, the Director of the County's 911 Center, a representative of the Grays Harbor PUD, a representative from the City of Westport and two representatives from a service provider/systems integrator TechTel/TechLine that provides support services to various Public Agencies.

This focused discussion was held at the Grays Harbor County Administration Building in Montesano on May 16, 2008 at 9:00 a.m.

Key findings from this discussion included:

- PUDs used to have the authority to provide retail services, under a commercial provider “right of first refusal” proviso.
- The EDC should have a map that shows all the transportation runs of all the carriers.
- WPUDA (Washington Public Utilities Districts Association) has done a telecom survey that reports the need for additional delivery of services by PUDs.
- The PUD in Grays Harbor currently wholesales services and provides power as well as services to the various Port Authorities in Grays Harbor.
- The PUD can provide Ethernet services from 10 Mbps to 1 Gbps.
- There needs to be a focus on redundancy:
 - You can either build your own; or
 - You can use two different carriers.
- So far the Public Safety Communications System, while it would like to have full redundancy in its communications, has chosen to live with the down time of one system or another based on the cost of complete redundancy.
- There are some pre-existing backups:
 - For example, the IGN (which runs along fiber connections) can be backed up by a microwave system which can also be used as an alternate connection mechanism.
 - The problem is that the bandwidth is significantly reduced on the backup; however, it’s still bandwidth that you can count on.
- Backups are typically limited in capacity.
- The Public Safety infrastructure that utilizes PUD fiber utilizes collapsed rings with physical alternate routes.

- It is essentially IP over radio for their voice and data communications.
- Public Safety agencies did not attempt to have 100% coverage because of the cost.
 - Essentially, one-half of the sites needed for 100% coverage provided 90% coverage.
 - It's important to stress that the system does cover all the populated areas (there are many areas of forest in Grays Harbor County).
 - It's a low bandwidth system, because the County was able to achieve that coverage only with low bandwidth (in other words, they traded capacity for coverage capability).
- The County hasn't yet looked at cellular air cards for mobile data like a number of the other Counties have.
 - The radios in the vehicles have fairly high power.
- The handheld radios use the same systems so have similar coverage (less indoors).
 - The officers can also use cellular phones for voice when necessary.
- The key for the County is that the Public Safety infrastructure is owned and controlled by them.
- Also, they believe that the RF coverage is much greater than the cellular system would allow if cell cards were used instead of a portion of the RF for low bandwidth data.
- The PUD is able to do some things that others can't because they can have a longer ROI.
- Topography is an issue as is obtaining permits from groups like DNR (the State Department of Natural Resources).
- The County indicated that it is not a stumbling block to permitting anything that the PUD or commercial providers need to do to expand broadband.

- In fact, there are a number of permitting authorities that the PUD and commercial providers need to go through, including:
 - Cities and Counties (are good at providing permits in a timely manner).
 - The State DOT (is getting better).
 - DNR (can be problematic based on environmental concerns).
 - Railroad rights-of-way permits are difficult; they typically cost \$4,000-\$5,000 per crossing, and it takes 90 days to get a permit.
 - One of the toughest, because of environmental and ecological concerns, is the Federal Fish and Wildlife Department, when their permission is needed to go across rivers.
- These issues have led, in some cases, to utilizing wireless communications such as microwave, rather than fiber.
- The County indicates that its shops around the County have lower speed services.
 - A lot of them have wireless (radio) T-1s.
- Fiber is currently moving out from Aberdeen towards Hoquiam and then the Shore.
- Fiber also goes down the Route 12/8/101 corridor towards Thurston County.
 - By 2010, the PUD will have fiber at the edge of Thurston County and McCleary.
- Participants indicated that the copper telephone line infrastructure in much of Grays Harbor is old.
 - Dial-up doesn't work as well as it can in many places.
- CenturyTel switches to Qwest at the ORV, which has made it difficult to get the proper level of service to them.

- DSL is at Lake Quinault.
- There should be a way to expand infrastructure by leveraging the Port Authorities' needs, especially as they relate to economic development and are in concert with transportation initiatives.
- Latency is a significant issue for especially consumer satellite broadband.
 - At higher prices for commercial satellite broadband, you can buy a block of satellite time and significantly increase your capacity and decrease latency issues.
- The Public Safety radio system is a VHF system.
- The PUD has a number of different customers on the private side, including banks and other private businesses, as well as the libraries, and utilizes a combination of both fiber and radio circuits.
- The predominant wireless carriers in Grays Harbor are Verizon, AT&T and US Cellular. Verizon has the most number of sites, and US Cellular has good coverage. AT&T has the least amount of coverage in Grays Harbor.
- There are topography issues to providing especially wireless service; Westport is a notable example.
- If an anchor tenant can be procured, then infrastructure can often be expanded based on that.
- Providers do have T-1s available, but they can be costly.
- In approximately 1999 to 2000, the PUD started building fiber out to the major pockets.
 - The focus was to bring in out-of-town providers that could provide such services as DSL that would then spawn other businesses that needed DSL and other types of resellers.
- Coast Communications is a cable provider in a number of areas on the County's Coast.

- Comcast Cablevision also provides service and provides cable modems where they provide cable service.
- Verizon will provide T-1s nearly everywhere, but the cost depends on the number of exchanges it goes through.
- The original fiber project to Aberdeen was sending fiber from substation to substation, but eventually multiple providers were riding the fiber, including potentially Comcast in the future.
- Westport has one facility still on dial-up.
 - They would have to look at bringing a specific line into the plant.
- There are capacity issues on Verizon's fiber.
- The school systems in the County have a 70% E-rate.
 - The libraries take advantage of that.
 - Even with E-rate, though, because of the way that T-1s, for example, are done by mileage, it can be costly.
- For example, some needed circuits can cost as much as \$1,500 a month.
 - This definitely affects economic development and business growth.
 - Those that really need it have found ways to pay for multiple T-1s or whatever is needed, but this does detract from their bottom line.
- Participants felt that it would be important to have a definition of broadband, to know what the benchmark is.
- When looking at extending their infrastructure, providers need to look at their potential client base, knowing that some of the potential clients don't want it or don't need it.
- Education is important so that people realize what value broadband has to them.

- There is concern about certain forms of broadband as to their reliability.
 - Especially if lower reliability may impact the public safety side.
 - For instance, there was a recent outage that, because of a lack of redundancy, took down customers for a number of hours.
- Participants discussed that having different technologies and pathways to provide redundancy (for example, 50% wireless and 50% wireline) could be the best form of redundancy.
- There was discussion about how changes in consumer use of technology are a key concern for public safety, since location information was critical to 911 systems. With cell phones, approximate locations can be given, but not necessarily specifically identifiable ones (without some sort of GPS capability).
- Getting into the provision of residential services could cause a big pushback from commercial providers if it was a PUD or government entity.
 - The PUD would rather engage in public/private partnerships.
- Commercial providers also indicate that they can move faster than governmental entities, whereas even the PUD can't move as fast and has to become more adept in developing service level agreements (SLAs).
 - However, the PUD can look at a 30 year return on their investment, which a commercial provider can't.
- Participants agreed that the economic development angle related to greater deployment of broadband was a huge factor.
- The PUD had at one time looked at BPL but was concerned about the high cost of implementation, the problems of co-existing with the power system, the bandwidth that can be provided for the cost and other factors, and determined that BPL was not a viable technology for them.

- The ability to get broadband in Grays Harbor depends on where you are.
 - For example, right outside of Oakville, the exchange areas go back to Qwest, and because the Qwest CO is remote, high-speed services are not provided there.
- Comcast provides broadband wherever it provides cable service, but does not provide cable service in areas that do not meet its density criteria.
- CenturyTel is able to pursue broadband services (for example, DSL is provided in most of its exchanges in Grays Harbor), because they can offset the cost with Universal Service fund monies.
 - Montesano is their hub.
- Qwest is only able to provide DSL where they have remotes off of their COs such as Aberdeen and Ocean Shores.
- Verizon is in Westport and Grayland where they do not provide DSL but will provide T-1s (although the T-1s can be costly).
- Coast Communications (the cable provider on the Coast) began with a big fiber deployment in the 1990s in order to stage providing cable modem and other advanced services.
 - There are significant challenges to DSL on the Coast.
- Regarding the Timberland Libraries in Grays Harbor, most of them provide wireless public access services during library hours, but they are heavily used with over 650,000 sessions annually.
- Health and Social Services provides a hot spot around the Courthouse area.
- The County might provide other hot spots in the future, but would need to know that it would never touch their internal network for security purposes.

- The Sheriff's Office is looking at hot zones for its deputies to remotely download information.
- In Westport, they have four sites connected together, including a hot spot at the Senior Center.
- Participants believe that broadband is very important for home-based businesses.
- For true economic development to occur there has to be the ability to provide education, provide access to research and enable a progression of knowledge.
- Participants thought that the definition of broadband should have a parameter that indicates how the quality of education is enhanced.
- Regarding public safety, there is a concern related to reducing time to respond.
 - This is problematic in places like Hoquiam where there is no cell service.
- The County and the PUD are large providers and users of telecommunications services that see a great need to work together to create a redundant environment.
 - It was noted, for example, that the December storm took major lines down and so everybody was down in the County.
- The PUD talked about the public/private partnerships, including co-builds that have been beneficial for both entities.
 - For example, the PUD and CenturyTel worked together to build a 50 mile stretch of fiber in which both paid for 25 miles, but both got the benefit of a 50 mile link.
- Working with Qwest is problematic since they always want a "do not compete" clause regarding any shared infrastructure.
- Regarding Comcast, there seems to be interest, at least at the local level.

- There's not a whole lot of new development to incorporate the pre-wiring of last mile infrastructure as new homes and businesses are being built.
 - There is a new lumber mill where fiber will go.
 - Fiber also serves a biodiesel plant and was placed into Port Authority facilities.
- The key is in providing an incentive to buildout related to providers' capital budgets.
- Regarding placing infrastructure along with public works projects, the City of Elma recently did a big road rebuilding project but didn't put in any conduit or notify the PUD that they could place conduit during the project.
 - This was a missed opportunity to provide for future critical infrastructure.
- Participants indicated that the needs and input of telecommunications companies need to be provided for in the permitting process.
- A large part of this is an awareness issue, and required notification would resolve this problem.
- Topography in Grays Harbor is especially problematic and could cause problems for even 700 MHz services.
- Regarding last mile services, there are pockets that are missing service along the Transportation Corridors.
- The State could best be involved by:
 - Providing grant funds.
 - Reimbursing costs.
 - Defining high-speed and broadband and ensuring that the definition can be adjusted and expanded over time.
 - Focusing on economic development.

- Making sure that providers are focused on cooperation and collaboration.

A second group was held on Tuesday, May 20, 2008 at the Grays Harbor Chamber of Commerce facility in Aberdeen. Twenty-four (24) community and organizational representatives were present in a group that focused primarily on business and Economic Development issues as they pertained to broadband. The group discussed the reasons they thought the County faced broadband hurdles and the current issues surrounding the lack of robust broadband competition in the area.

Key points from the discussion were as follows:

- Stakeholders felt that there were two compounding factors associated with broadband in Grays Harbor County. The first is the lack of a robust market. Return on investment issues were cited as the primary reasons they thought more effort had not been placed on the County receiving priority in broadband development. Within the last two years, Comcast Cable (in attendance at the focused discussion) indicated that the cable system had been upgraded to 860 MHz and began offering high-speed Internet access to residents. As a result, broadband in the key County corridors was more available to residents.
- Three key providers are active in the business broadband market in the County according to focus group members: CenturyTel, Qwest and Comcast.
- Telephone lines in the area were described as “lousy” and suffering from water damage to the area. In practice, Qwest phone lines were described as supporting 24 Kbps for dial-up.
- Several businesses are using satellite business class broadband services.
- Service support for broadband is described as in “Seattle” and telephone support service is weak. Because of the 90 minute travel time to Seattle, several participants noted that it was difficult to get customer service support to physically come to the area and that there were often several days of downtime when dealing with broadband issues. One participant who runs an investment/financial planning business described her ability to

service her clients as severely hampered by the lack of broadband service and the weak customer service support she receives as a DSL user.

- The other key issue mentioned by participants was the lack of education among community residents on the importance and opportunities associated with high-speed Internet services. This was described as equally problematic. The Port Authority had a Learning Center with a computer lab for several years that was popular. Courses were offered and community involvement was good; however, financial backing for that project had stopped and the lab was closed.
- Several providers were also present for the conversation and indicated that it was difficult to service the rural pockets of the County because of local restrictions cities and incorporated areas often attached to the launch of services, pole attachment fees, conditions of smaller communities (terrain and poorly maintained infrastructure), rules related to undergrounding and surface wiring.
- Potential solutions mentioned were centralized permitting authorities so that when rights of way were open and utilized that everyone who had an interest knew the opportunity to lay fiber existed. Perhaps funding for cities to put conduit in so that public/private partnerships could be established for broadband would be helpful.
- The PUD indicated if this were the case, they could lay more fiber quickly and then businesses down the road could pay for the end connection and lighting up the system. Residential high-speed Internet was described as more problematic for the PUD to become a solution to the problem.
- Several mentioned the need for a “master group” to work to establish broadband in these communities for the State.
- FERC/NERC monies for public safety might be a portion of the solution.
- There needs to be more conversation about the lack of broadband so that others can be educated about the PUD activities and the importance of taking advantage of open ROW to co-locate infrastructure.

- The State should tackle the question, how do we get the price down for long fiber runs?
- Slim broadband provisions. The K-20 Network only brings broadband to the school district, the school district then must work to establish interconnects. CenturyTel provides the Aberdeen School District with its interconnection. The CenturyTel area General Manager is forward thinking and doesn't have the corporate mentality, so he has been good to work with in Grays Harbor and at the Satsop Business Park. Some school districts don't have a service provider willing to do that.
- "You can tell this is really a leadership issue when you have someone like the person running CenturyTel in the area making things happen." "This isn't about corporate dollars as much as it is about leadership and vision about what broadband can do for small communities." TechTel.
- "Once you bring broadband, you must also bring redundancy. While we are beginning to see better broadband provision, we are concerned that the systems don't have redundancy." Ocean Spray.
- "VPN capability is virtually impossible, but a necessity for business today." Pond Place.
- Lake Quinault was described as a key tourism area and that the area suffers from a lack of broadband provision which is unacceptable for tourism today. It is problematic to have conferences with large groups there and often broadband provision has to be made on an ad hoc basis.
- A wireless cloud will help, but it won't solve the problem. The solution has to include a hardwire solution.
- "We have a 25-30 year old workforce and they need to be taught about broadband and its potential." Grays Harbor County Commissioner.
- The PUD described getting a flurry of calls to provision areas with fiber. Forty percent of the calls were described as coming from businesses and 60% of calls were described as

coming from Internet Service Providers trying to find fiber in the ground to provide to their clients.

- In January, when the County faced a weather emergency, the Emergency Operations System was not prepared with enough phone lines. Concerns were also expressed about interoperability among public safety providers.
- The infrastructure companies need to move past the profit mindset and think about creating communities for the future.
- Perhaps the State of Washington should have its own version of E-rate or universal service funds to bring broadband to rural pockets.
- “Economic development is greatly dependent on infrastructure for broadband - our future depends on it.” Grays Harbor Economic Development Council.

LEWIS COUNTY

Interviews

Interview with the IT Contractor from Comp Prime for the City of Chehalis – 8:00 a.m., April 24, 2008

A baseline interview to determine broadband use and availability by and in the City of Chehalis in Lewis County was conducted with the City’s IT Contractor. Key information points gleaned from that interview are the following:

- The City Police, as well as the County Sheriff’s Office, has just recently moved to Sprint’s broadband over cellular service for mobile data.
 - The City is tied into the County for 911 services.
- For the Court system’s connection, Comcast provides cable modem service.

- There are two DSL connections provided by Qwest for both the wastewater and water treatment plants (these are outside of the range for accessing the City's fiber system).
- The City has several facilities within the City's boundaries that are connected by fiber optics provided by Rainier Connect.
 - For the City, this was provided as a dark fiber lease of up to 5 Mbps capacity usage.
 - The contract with Rainier Connect is a five year contract.
- Comcast's service for the Court system is their business class service.
- The DSL connections used by the City are 1 Mbps upstream and 5 Mbps downstream asymmetrical connections.
- The PUD also provides fiber, which is used by the County and other entities.
- There are a number of independent telephone companies in Lewis County.
 - For example, Toledo Telephone serves the City of Toledo.
 - There are also other cable companies in Lewis such as Millennium Digital (now Broadstripe) which serves Napavine.
- Besides providing contract services for Chehalis, Comp Prime also provides 802.11 g Wi-Fi services along the I-5 corridor.
- The City of Chehalis has been working with Go Networks (formerly Netwave) to develop a plan to provide free hot spots across the City in public areas, primarily for public Internet access, but it would also be utilized by public agencies.
 - The City Council is still considering this plan.
- Other commercial entities such as Starbucks and McDonald's provide free Wi-Fi in Chehalis.

- The City uses a central SQL server as well as Microsoft Exchange to share information between buildings over the network.
 - They are not providing video over the network at this time.
- There are some businesses within Centralia that are still on dial-up.
 - The common complaint about satellite broadband is the latency and the slow transfer rate for the upstream feed.
 - Additionally, there are some places, based on the topography, where satellite transmission doesn't work very well.
- There are local ISPs that serve rural sections of Lewis County.

Interview with General Manager and Information Technology Manager, City of Centralia's City Light Public Utilities – 2:00 p.m., April 25, 2008

- An interview was held with representatives from the City of Centralia's City Light Public Utilities Department to develop a baseline of information related to Centralia's use of and potential provision of broadband services. Key points from the interview are as follows:
- Centralia's City Light is in the midst of a broadband over power lines (BPL) pilot project.
 - There is the potential that BPL could provide a competitive option to established carriers.
- The current pilot project is actually testing the equipment of two vendors.
 - Both are hybrid BPL architectures utilizing some backbone fiber, the electrical system and then wireless broadband transmission points to groups of homes.
 - The wireless system is a proprietary system that uses the 2.4 GHz unlicensed band.

- There are some current issues with reliability, connectivity, bandwidth and speed, plus the system as it is currently configured has single points of failure (there is no redundancy).
- City Light is evaluating the current pilot project but is concerned that it must be ultimately “plug and play” and provide a model that has consistent, reliable service in order to be commercially viable.
- It also needs some additional feature enhancements such as an opening splash page.
- The current speed of the system averages 750 Kbps to 1 Mbps transfer rate per user.
- Regarding other services, Centralia representatives noted that some in Centralia were still on dial-up, and certainly households throughout Lewis County may only have access to dial-up (or satellite broadband).
- Comcast provides cable modem services in Centralia and other parts of Lewis County.
 - Experience indicates that out of 6 Mbps provided in the downstream direction, only 2 Mbps may be realized on an average basis, considering contention for the bandwidth from other users.
- Rainier Connect provides fiber connectivity for many agencies in Centralia, including the Police Department and Fire Authority. Rainier Connect provides leased fiber services, including both 100 Mbps and 1 Gbps services. The interviewees noted that the Lewis PUD also provides fiber communications, including to many County facilities.
- In fact, there are no City of Centralia facilities that are not on fiber.
- City Light owns the majority of poles and conduits within the City.
- There are concerns that BPL will complicate their automated meter reading system plans.
- City Light has a Pole Attachment Agreement with Rainier Connect.
- Qwest provides DSL services in the City.

- There are smaller ISPs and resellers of services within the City.
- Comp Prime also operates in Centralia. DSL from Rainier Connect provides the connectivity for one of the City's informational kiosks. Qwest's CO is in downtown Centralia.
 - Qwest is doing some extending to bring DSL services further out from this CO.
- City Light's core business is the provision of power, and it serves businesses with power connections.
 - They have also occasionally run fiber for other facilities, including a connection from the Hospital to the Qwest Point of Presence (PoP).
- There are some areas of the City that don't have broadband access.
- Regarding satellite services, Wild Blue and others offer multi megabit download speeds with 512 Kbps upstream speeds.
 - Experience indicates that it's not consistently provided, and that there are weather and other issues which create problems with access.
- The PUD had early BPL-related discussions to potentially bring that type of service to Lewis County locations such as Packwood and Morton, but these efforts have not proceeded.

Interview with Lewis County IT and GIS Personnel – 11:00 a.m., April 24, 2008

- The County, beyond the fiber to its core facilities, has utilized other services to reach remote locations, including frame relay to Sheriff's office substations and occasionally Comcast cable modems.
- Much of the County's facilities are connected by PUD fiber.
 - The approximate cost for 100 Mbps service is \$2,500 a year.

- There are also some DSL connections to outlying facilities, typically with speeds of 384 Kbps.
- Frame relay is approximately \$100-\$200 a month.
- Some of the services are paid by the mile, and some are paid by the amount of bandwidth utilized.
- The PUD currently doesn't provide fiber services to other entities except the County.
 - They've indicated that they don't want to be a broad-based broadband service provider.
- Other providers in the County include Toledo Telephone (no DSL can be found at about four miles outside of Toledo).
 - Another fixed wireless provider is Cascade Networks which provides 1 Mbps services.
- The Sheriff's deputies' vehicles recently began using Sprint air card service for the mobile data terminals in the vehicles.
- Lewis County has connections to the IGN.
- From an economic development standpoint, interviewees indicated that companies with franchise locations want broadband services between their locations. This is a problem when dealing with companies that have multiple options in some areas (such as in the Seattle area) but more limited options in others, such as they face in parts of Lewis County.
- Businesses in cities and towns are generally okay and have various options.
- Sometimes situations can be leveraged to provide a greater service.

- For example, Pe Ell received monies to assist with cleanup and rebuilding after a flood, and they were able to fund additional cell towers with monies received so that they no longer had dead zones.

Focused Discussions

Similar to Grays Harbor County, a focused discussion was held with representatives from Public Agencies and those that support Public Agencies at the Lewis County Public Services Center on May 15, 2008 at 2:00 p.m. The group included representatives from Lewis County's Board of County Commissioners, Lewis County's Information Services Division, Lewis County's Planning Department, the County's Department of Emergency Management, the County's 911 Center, the City of Centralia Police Department, Centralia's Utility Department (which is in the midst of a BPL Pilot program), the City of Toledo and an engineering manager from Toledo Telephone which provides services to the City.

Key points from the discussion are as follows:

- The I-5 Corridor is well served with broadband.
 - Within a few miles either East or West of the corridor there is, however, only dial-up or satellite service.
- There are pockets of people that are served where the providers have deemed it cost effective and the topography is conducive.
- The further East you go from the I-5 corridor, the more the lack of broadband.
- Other transportation corridors also have broadband service, such as US 12, but you lose broadband service within a shorter distance than the I-5 corridor.
- There is a lack of competition in broadband services.
 - Some of it has to do with the penetration of fiber optics in the County (which is not as high as it should be).

- Much of it has to do with the cost of providing service and then competing for market share.
- Countywide, the Sheriff's Office uses a broadband over cellular system for mobile data communications.
 - They have changed providers twice; their current provider is Sprint (they just moved to them in the last three weeks based on better coverage and lower cost).
- Through competition they were able to lower their costs to about \$20 per month per vehicle and increase their data rate to about 1.2 Mbps.
- Their perspective of AT&T/Cingular is that the coverage is spotty.
- Cable service (and thus cable modem service) is provided by Comcast and Millennium Digital along the I-5 corridor, with smaller providers in other places.
 - Participants believe that cable service is unavailable to a significant percentage of the population.
- In the Chehalis/Centralia area, Qwest and Rainier Connect are the dominant broadband providers.
- Around Toledo, Toledo Telephone provides DSL to 100% of its coverage area.
 - They can provision as high as 10 Mbps services.
- Other providers include TDS/McDaniel.
- The County uses PUD fiber.
 - The County also uses Rainier Connect fiber as does the City of Chehalis.
- The PUD has fiber available down towards Winlock and Napavine, as well as in the Centralia/Chehalis area and out the Route 12 corridor towards Morton.

- Many County facilities are connected by fiber, but some County shops only have dial-up, and because of the low speed can't get access to the County network.
- Some local fire districts also don't have any service other than dial-up because of their remote location.
- The Police Departments in the various Cities do have high-speed Internet access from various providers.
- The perception of the participants was that the small cities along the I-5 and US-12 corridor have the most difficulty getting high-speed Internet access.
- This is unlike Centralia/Chehalis where there is significant competition.
- Broadband over cellular carriers include Sprint, Verizon, AT&T and US Cellular.
 - Of all these, Sprint and US Cellular have the better coverage.
- Participants indicated that whenever they have pursued broadband to remote locations that the biggest problem has always been that the cost is expensive to extend service a significant distance from existing lines.
- They also indicated that Qwest has a significant amount of old copper infrastructure and that they would need an upgrade in this infrastructure, as well as extending fiber optics in order to provide DSL in some areas.
- The County's Public Safety Dispatch System is a VHF system which works better with the County's topography.
 - They are moving towards making the system more narrow band-compatible based on FCC rebanding requirements.
 - They have been told that to go to a higher UHF (perhaps 800 MHz) system would cost as much as \$25 million.

- There are pockets of non-coverage with the existing system, but the cost would be significant to reach those areas.
 - Most of these pockets of non-coverage are in places where there are no fulltime residents.
- They also have issues indoors with the handheld devices.
- They're still identifying pockets of non-coverage and participants noted that Lewis County is 120 miles from the Eastern to the Western border, and is the largest County in landmass in Western Washington.
- Participants indicated that the majority of the population is in the Centralia/Chehalis corridor.
 - Perhaps only 20,000 people are spread out around the rest of the County.
- They are concerned about limitations on capacity with some of their existing broadband systems.
 - This is based on the large amount of digital information that needs to be transported; for example with Public Safety, getting digital photo arrays takes a significant amount of capacity.
 - Similarly, in-car cameras that are used for patrol, if they were able to deliver video real-time back to dispatch, would take significant capacity.
- For Public Safety, time is critical.
 - They currently have a 90 day retention/storage requirement in the vehicles for mobile data, which is necessary because of the bandwidth limitation to provide such data in real-time.
- Participants noted that the capacity is shared on some of their broadband systems, such as broadband over cellular.

- Participants indicated that opposition to the provision of new broadband facilities (such as the placement of towers) hasn't been big.
- It is more of the cost that the public may have to bear to help support such systems that is the concern.
- The County is looking at Wi-Fi for the Fair Grounds (Chehalis is the location of the Southwest Washington Fair).
 - They indicate that people coming to the Fair Grounds want to have that type of access.
- There are some Lewis County residents that don't have a computer, so they don't, for instance, have e-mail.
 - However, participants felt that this was a choice in many cases because they want a life style that is somewhat reclusive.
- Participants felt like they were "an Eastern Washington County in Western Washington".
- In Toledo, the belief is that some elderly residents for instance either don't want a computer or Internet access or broadband, or they don't know much about it to know what use it would be to them.
- Participants felt that as the population changes and younger people, that are technology savvy, age, that the need for and use of broadband services will continue to increase.
- There was concern that broadband technology is changing faster than the end user can change or that their devices can change.
 - For instance, one representative indicated that dial-up was certainly a problem for residents getting e-mails and photos from family, and that DSL would help, but there would still be significant questions from residents, so it indicates the need for training on the use of the Internet and the type of connection that is needed.

- Participants indicated that Centralia Community College was trying to reach out to that market.
- Public Access to the Internet is available at the Timberland Libraries.
 - Participants indicated that this provided benefits as well as created problems (such as providing access for predatory, criminal elements).
- Participants felt that the reliability of existing systems was pretty good.
- Regarding redundancy, participants felt that there was a cost vs. benefit trade-off.
 - For example, for Public Safety, the benefit is great so the high cost could be acceptable. However, for public users, the cost may be too high and some down time may be acceptable.
- For Public Safety, data is secondary; voice is critical.
 - This is why Public Safety entities have an issue with voice over IP that would travel the same path as the data circuits. In some way, having a different voice vs. data system provides a level of redundancy.
- Within Lewis County there is a backbone ring with alternate paths out of the County (for example, north to Seattle and south to Portland. This includes infrastructure provided by CenturyTel, AT&T and State Department of Transportation Fiber).
- Regarding the potential provision of broadband by local governments (such as being pursued by Centralia and Chehalis), the analysis should include what the additional service brings vs. existing capability and what the interest and potential adoption rate will be.
- If successful, potentially such services could expand into the provision of other applications.

- There were concerns, though, that pricing structures would need to change up and down based on market conditions, and such volatility isn't consistent with typical government investments.
- Also, participants indicated that capital budgets for local governments are limited, so there is only so much that could be afforded especially in a competitive environment.
- From an economic development perspective, there is an expectation that a high degree of broadband services should be available.
 - This includes beyond the urban areas, especially in the growing South County.
- Similarly, the thought was that looking at planning infrastructure for the future, especially in urban growth areas (UGAs) might allow Lewis County to jump ahead and develop a continuing evolution of opportunities going forward.
- The Toledo telephone representative indicated that the company was leaving its options open as to how to potentially expand as a CLEC beyond its borders.
 - It has looked at opportunities but so far hasn't proceeded with them.
- The PUD has lots of fiber that was originally put in between its substations.
- Since they have "opened the doors" on providing wholesale services on their fiber, they have been able to meet some needs at good rates.
- Participants thought that it would be important that the PUDs or government entities work to provide broadband where it currently can't be provided under traditional commercial provider models.
 - There should be checks and balances that ensure that the competitive market flourishes while ensuring that Lewis County residents have a reasonable access to broadband.

- Participants noted that broadband services provision is a business and that it must operate like a business whoever is providing it.
 - There should be some mutual benefit between good public policy and good business.
- Participants indicated that it would be important not to have artificial barriers in place that would restrict the provision of broadband.
- Perhaps the State could look at offsets to, or reductions in, taxes and other monetary contributions by providers in exchange for expanding infrastructure and services.
- The County indicated that it currently charges permit fees per foot and balances the cost of those fees with the need to ensure development of infrastructure.
- Perhaps the State could work in concert with the Growth Management Act and expand broadband in concert with transportation initiatives.
- Participants all agreed that they “can’t sit back and do nothing”.
- Regarding State action though, they indicated that it is important that the State not “throw out a mandate and not fund it”.
- Participants indicated that there was a significant interwoven relationship between State and local government and that they thought that an important point to remember is that children growing up in Washington State will have to compete on a global level. Accordingly, perhaps the push for broadband should come from the root desire to advance education.

Also similar to Grays Harbor County, a second discussion was held in cooperation with the Centralia/Chehalis Chamber of Commerce on June 11, 2008 at a local restaurant in Centralia. Attendance at the focus group was by a large number of infrastructure providers, a public utility district representative, several local businesses and one member of the public. The discussion

focused on economic development and other issues related to bringing broadband to rural areas like Lewis County.

- Several members of the group mentioned that connecting the remaining areas of Lewis County without broadband service could be accomplished with line extensions and programs that ensure funding. Additionally, relief from regulatory processes would provide an incentive to help that happen.
- Several broadband providers mentioned that uptake was relative low in several key pockets of Lewis County, making it very difficult to convince “higher ups” that it was a profitable venture to bring infrastructure to these pockets.
- The one member of the public mentioned the high cost of satellite broadband services.
- One member of the focus group thought that the PUD was doing a “good job” in bringing broadband infrastructure to some of these areas, but that communication needed to be better between Internet service retailers and the PUD, as well as retail outlets and cities. One described these as “lost opportunities” for extending lines to rural residents.
- If the State could pursue some public/private partnerships that made investment in line extension less risky, the infrastructure providers indicated a willingness to “sit down and talk” about the possibilities.
- Several participants mentioned the possibility of relaxing some of the utility regulations as a way to stimulate rural broadband development. One infrastructure provider indicated that the costs associated with these policies sometimes constituted 40% of their business expenses.
- One Lewis County employee thought that the rural broadband initiative was in conflict with the State’s Growth Management Act that provided oversight of the way that rural Washington would develop going forward.

- A participant mentioned concern for smaller telecom businesses, saying that in several instances it was small businesses that had reached out to the rural areas to fill in the gap left by large telecom providers. Would any new programs that may be implemented protect these small businesses that can't compete with the pricing and package options of the larger companies? Another participant wanted to know who would pay for network transport.
- One provider suggested that a subsidized coupon program could assist the few in rural broadband areas that want broadband until enough density was established that made the return on investment viable to bring wireline services to the areas.
- Another participant suggested that the State establish hot spots at all the State rest areas, State Parks and libraries to stimulate understanding and adoption of broadband benefits; one of the key reasons rural uptake for broadband is low.
- Low interest loans for telecom providers to wire rural areas, with longer payback periods, were suggested by several of the participants.
- Another participant was concerned that the State would support a wireless program and thought that there were too many security concerns with a wireless canopy approach.
- The effort to bring rural broadband to the area should be included as part of the State's green initiatives because broadband would create a more successful telecommuting opportunity for areas outside of the Seattle and Olympia communities.

STEVENS COUNTY

Interviews

Interview with the City Planner for the City of Kettle Falls – 10:30 a.m., April 23, 2008

- Kettle Falls has a wireless connection for Internet access provided by Internet Xpress from Colville to the City Administration Building in Kettle Falls. It's a fixed wireless T-1 equivalent, typically running at 1.13 megabits.
- The Police Department, in a separate facility, has a separate connection provided by Internet Xpress at a much lower transfer rate.
- Kettle Falls Public Safety personnel will be moving to laptops for mobile data and will use wireless air card technology.
- USDA Rural Development Community Connect Broadband grants are being used to bring high-speed Internet to Springdale, Marcus and Northport.
- CenturyTel provides DSL in Kettle Falls in a radius approximately two and a half miles from the Central Office.
- Qwest provides DSL in Colville.
 - There is a gap between Colville and Kettle Falls.
- There is cable service provided by Charter in the City, but not too far outside of the City limits.
- Charter does not currently provide cable modem service. The understanding is that Charter would have to “clean up” its system in order to provide such services. This would also potentially enable the provision of telephone service by Charter.
- Kettle Falls allows panel antennas on its water tank in order to help facilitate cellular service.

- There are problems with latency related to satellite broadband connections.
- The Mt. Carmel Hospital and St. Joseph's Hospital in Chewelah are connected to a statewide network.
- The WSU Extension Office at the Colville Community College location is connected into the statewide network for distance learning purposes.
- Avista is the power company in Stevens County, and they have a generating station in Kettle Falls.
- There is a new tower providing cellular service to Kettle Falls which has improved the service that was recently placed on either Federal or State (DNR) property.
 - There are two older towers up on a nearby mountain with old TV translators which might be able to be leveraged for the provision of new wireless services.
 - The City doesn't have any existing conduit that could be utilized for additional infrastructure that would need to be placed.
- Kettle Falls service from Internet Xpress costs \$41.00 a month.
 - CenturyTel offers a 512 Kbps DSL service for \$56.00 a month.
- Several groups have placed hot spots along the Route 395 corridor, primarily to enhance capabilities for tourists.
- Stevens County has a PUD that provides water and sewer services in certain locations. The understanding is that they are not interested in providing telecommunications services.

Interview with the Internet Hosting Specialist for SecureWebs and the Owner of Internet Xpress – 2:30 p.m., April 22, 2008, at SecureWebs' office in Kettle Falls

- SecureWebs is an Internet hosting firm; Internet Xpress is an Internet Service Provider (ISP).

- Comcast provides cable modem service for an approximate nine mile area coming out of Spokane into southern Stevens County.
- Members of the Stevens County community began approximately 16 years ago to try to foster better telecommunications/broadband network development in the County.
- Qwest provides service from Colville north to the Canadian border.
 - CenturyTel surrounds the Qwest service area.
- The perception is that CenturyTel is more proactive in providing broadband services to its local exchange areas.
- CenturyTel has a significantly greater amount of fiber in the ground than Qwest does.
- In 1999/2000, the main backbone connection for the County was microwave (155 megabits utilizing 3 analog T-3 circuits from Colville into Spokane).
 - Since then, CenturyTel has placed fiber from Kettle Falls into Spokane and meets up with Qwest fiber between Kettle Falls and Colville.
 - There is supposed to be a manual backup, provided by Qwest, to the fiber connection that goes from Colville into Spokane through a microwave connection.
 - The belief is that this is the existing analog connection, even though Qwest was urged to put in a digital wireless connection.
- The resellers and alternate providers, such as Internet Xpress, try to work together to continue to enhance the broadband climate.
 - For example, Internet Xpress has worked with another provider based out of Chewelah called Eltopia to share equipment and bandwidth.
- Internet Xpress uses a DS3 connection to get into Spokane.

- Internet Xpress provides a variety of services depending on what its customers want and what it's able to provision, including xDSL, wireless, T-1s and dial-up connections.
- SecureWebs moved to Kettle Falls from Colville when it couldn't get the appropriate capacity connection from Qwest.
 - It receives a 10 Mbps Ethernet connection from CenturyTel provided over its gigabit Ethernet backbone.
- CenturyTel can also provision 100 Mbps and 1 Gigabit per second (Gbps) service to its customers.
 - SecureWebs was the first CenturyTel fiber connection outside of its Central Office.
- Internet Xpress's wireless connections are 1.5 Mbps mostly, but it can provision up to 2 Mbps.
- Because of the topography, there are significant line of sight issues to providing wireless broadband in Stevens.
- Dial-up over land lines is not as good as it could be either, because of the significant amount of old copper infrastructure.
- Regarding satellite, capabilities are dependent upon the service that is accessed and weather conditions as to how good service is in any one location.
- DSL service out of Kettle Falls, Chewelah and Colville really only provides reliable operations about 10,000 feet from the CO.
- A group called Air Pipe has tower sites coming north into Stevens out of Spokane and will provide high capacity wireless broadband services at varying lease rates.

- The perception concerning cable modem service from Charter is that they have begun recently to upgrade their system in preparation of providing broadband.
- Generally interviewees believe, where cellular broadband service is provided, that the average speed of connection is around 768 Kbps.
- In a rural market, the struggle is always to determine what is truly necessary and then how to meet the necessary need in a financially reasonable manner.
 - Accordingly, decisions have to be made based on cost.
- Ideally, infrastructure will be designed for maximum capability and flexibility and then provisioned over time up to that capability.

Interview with the Economic Development Director for the WSU Extension Office in Stevens County – 10:00 a.m., May 9, 2008, by telephone

- Online degrees are designed so that a dial-up connection will be viable.
- However, online education is also designed for a number of constituencies and to interface when necessary with the classroom curriculum.
 - Accordingly, if the speed of connection wasn't an issue, WSU and others could provide much more information of a diverse nature at higher levels.
 - For example, interactive video could be woven in. There could be shared documents and other teaching tools that could be employed that can't be used over dial-up.
- The experience of bringing in Washington Dental's customer support operations into Colville proved that when a variety of interested parties (education, economic development, service providers, and the business community) all work together that there can be a successful outcome.

- In essence, Washington Dental would not have moved its operations to Colville unless Qwest was ultimately able to provide the level of broadband service that it needed.
- Redundancy is a critical issue that the members of RITC (Rural Information Technology Center) fully believed was resolved with the fiber connection was completed.
 - However, when there was an area-wide outage recently, it was clear that, while technically there may be a redundant connection, it is not working in the manner that it should.
- WSU's understanding is that the Colville area, Chewelah area and Kettle Falls area are fairly well served with broadband at this point.
- There also has to be some education of those moving into rural areas before they come, that the level of services they had in urban areas may not be available.
 - The perception is that, while this concept heretofore might be intuitive, now many people believe that broadband is as ubiquitous as telephone service, but this clearly is not so.
 - Some of this falls on providers in that they need to be transparent about what they have and offer now and what they are capable of offering and when they will have enhanced services in the future.
- The RITC at one point had a membership of 40 people that have a long-term interest in this subject.
 - Their essential focus is on information technology and how it impacts economic development.
- The South County area is growing and clearly has capabilities that many in the rest of the County don't.
- The concept of "broadband islands" is a good one to characterize Stevens County.

- Perhaps one way to advance the climate is to employ the “loaned executive concept” where expertise could be brought in where needed to devote the time needed to pursuing an enhanced environment.
- Clearly one of the issues is that a greater level of information needs to be shared and plans for the future need to be shared by the service providers.
 - There needs to be a way of doing this without breaking confidentiality.
- Overall, the big question is, how do you break down the barriers that are keeping the broadband environment from advancing in rural areas?

Interview with a Technology Consultant and RITC Director – 1:30 p.m., May 22, 2008, by telephone

An interview was held by telephone with a long-time member of the RITC who has also worked for various entities on telecommunications and technology issues in Stevens County, including the Valley School District. Key information determined during the interview included:

- There is all sorts of potential with the old Alcoa plant location, but the present owners do not appear interested in pursuing an expanded use of either the current campus fiber optics or the potential for developing wireless communications in the Valley from its current capabilities.
 - There have been, from time to time, potential buyers for the property that may have been interested in looking at becoming a hub for communications in that location, but none of those have panned out.
- The Washington Dental redundancy project (in order to ensure that their network would always be up before they located some of their critical operations in Stevens) was successful in that redundant backbone connections in and out of Colville were at least technically achieved.

- Evidence since then indicates that perhaps it wasn't as complete as it should be.
- RITC has been an effective community technology planning group in the past, but has not been as active recently.
 - There was a significant focus of that group on broadband/telecommunications infrastructure development.
 - One of the focuses which has begun to develop was to look at intermediate connectivity through a series of hot spots down the 395 corridor.
- RITC also focused on the development of a portal Web site for the Upper Columbia region.
- There was also a focus on computer literacy training, especially for adults.
- There is a sense that traffic aggregation, if it's achievable, would provide the demand that would spur greater infrastructure from providers.
- There is strong leadership in the County to help facilitate expanded broadband infrastructure, including County officials, RITC members, WSU Extension and economic development interests.
 - It is important to note that it's not just broadband which will spur economic development, but also ensuring that workers within Stevens have the proper skills, training and resources that businesses need.
- It's important to know that Stevens, especially the South County, is a growing area, and there is an expectation that proper telecommunications will be available to homes and businesses.
- For implementation efforts to be successful, it typically takes a properly developed strategy that is well timed politically.

- Individual jurisdictions such as Marcus, Northport and Springdale have been successful in getting USDA grant funds to advance their broadband environment. Based on that, perhaps the State can similarly assist.
- In this region, it's important to leverage the talents of groups such as Stone Soup which have the vision to drive broadband expansion within Ferry, Stevens and Pend Oreille.
- Efforts are underway to also leverage the existing and new talent available in the Upper Columbia region, meaning 20-40 year old entrepreneurs who are telecom savvy and highly motivated.
- It's important, also, to build on the efforts of groups like the Tri-County Economic Development District.

Interview with a Stevens County Commissioner – 8:45 a.m., April 23, 2008

An interview was held with a Stevens County Commissioner to gather baseline information about past Stevens County broadband development efforts. Key findings from that interview include:

- The County has been looking at perhaps developing its own backbone communications in a wireless manner by providing high capacity backbone wireless into Spokane.
 - Such a wireless system could leverage land that it owns on Colville Mountain (a Verizon tower already occupies some of that land through a lease with the County; perhaps another tower could be constructed), and then develop a connection to Scoop Mountain (where the County already owns the land and a tower) and then on into Spokane.
- Eventually, DNR sites could also be utilized as well as connections into Pend Oreille County and then into Spokane.
 - Funding would need to be developed to facilitate such a wireless backbone.

- In the 1999/2000 timeframe, the State found that the Colville exchange has not been fairly treated by Qwest. Qwest agreed to upgrade its network and also provide \$1,000,000 for expansion.
- The County believes that such a backbone could be a pilot project that would provide a concept for developing not only redundant backbones, but master locations for further distribution of fixed wireless communications to households that only have dial-up or unreliable satellite broadband at this point.
- It was noted that there are a number of businesses which need high-speed communications within Stevens County and now rely on the Internet for a significant volume of their sales.
- It's important to leverage the efforts of current economic development authorities in Stevens when pursuing broadband, including such entities as the Tri-County Economic Development District and the Colville Chamber of Commerce.

Interview with the Director of the Tri-County Economic Development District – 8:00 a.m., May 22, 2008, at the District's Offices in Colville

At a meeting with the Director concerning the role that the Tri-County Economic Development District is playing in broadband development, the following key information was discussed:

- Potentially, a regional economic development group can play a key role in facilitating broadband expansion.
 - For example, the Tri-County Economic Development District could work to pool requirements and aggregate traffic so that demand would be concentrated for high capacity connections.

- Perhaps similar to other states, the State could facilitate a broader statewide network (for example, with high capacity hubs in each of the County seats) that would then spur greater broadband development within those Counties, where needed.
- Efforts of the PUD in Pend Oreille County to leverage their thousand miles of electrical plant to string fiber and bring fiber to the premises to all of the 5,000 homes in Pend Oreille County (similar to the network developed by Grant County) are instructive.
 - For example, in order to move this far, it's taken involvement of the PUD, County Commissioners and other County leadership, the Port Authority, citizens groups and extensive surveying of constituencies. The PUD is now looking at how such an effort would be funded and where exactly it would go. A significant portion of the total cost would be needed for only 20% of the population (more than half of the cost). Decisions will need to be made concerning the best cost versus benefit.
- Regarding the Pend Oreille effort, the business case for the fiber was made by initially looking at the monitoring that would be needed for electrical power facilities.
- Most likely, the next step will be a demonstration project.
- Rural areas clearly have problems in developing ubiquitous broadband for its residents.
 - Perhaps because BPA lines run between Counties and in critical corridors, they could be leveraged for the placement of broadband infrastructure.

Interview with the Information Services Director, Network Administrator and a Commissioner for Stevens County – 8:30 a.m., April 17, 2008, by telephone

An initial baseline interview was held with Stevens County officials to determine the efforts related to, and the current status of, broadband development in Stevens County. The key findings from that interview are:

- Seventy percent (70%) of the land mass in Stevens County is owned by the State or Federal government and the Spokane Indian Tribe.

- The County currently uses cellular air card services for mobile public safety data communications. Because of the lack of seamless connections (public safety vehicles go in and out of service areas all the time), they use a Netmotion server to ensure that the connection stays active.
 - The cost is approximately \$60 per month per car.
 - They would like to develop some Wi-Fi hot spots as alternatives and faster upload locations for Sheriff's deputies.
 - They noted that the municipal Wi-Fi system in Spokane was used by police and other public safety personnel.
- Traffic aggregation was discussed. It was noted that if all the local government agencies participated in aggregating their traffic, the cost for a 100 Mbps connection could be supported and that this would be more than enough bandwidth for their combined applications.
- It was discussed how the new Court system in the State required a 2 Mbps connection to all Courts and that, because of that and because it would require two T-1s in many locations at a fairly high rate, it was costing rural Courts approximately \$900 a month to support that connection.
- There are three locations in Stevens County that require psychiatric consults for mental health applications.
 - Video conferencing is the best way to do this, but it is somewhat limited by the speed of connection.
- Potentially, could a non-profit be developed that could work to aggregate traffic, develop a pilot project and develop higher capacity, redundant backbone connections?
- Mt. Carmel Hospital has a significant need for telemedicine connections.

- The County’s mental health locations are using 768 Kbps DSL through point-to-point wireless connections.
- There was discussion about the continuation of County government operations at offsite locations in a disaster situation and how to develop those in a “hot site” manner so that essential services can continue and FEMA standards can be met.
 - To do this will require significant broadband connectivity.
- In the past, they had approached the Bonneville Power Administration (BPA) about leveraging fiber that was being placed from tower to tower and then substations for BPA needs and determine whether that could be utilized for routing high-speed connections throughout the State. This discussion ended when the BPA indicated that they had easements for the power and ancillary facilities, but that they were uncertain whether other types of services (such as telecommunications) would require additional easements.

Focused Discussions

Similar to Ferry County, group discussions were developed to provide for a wide-variety of community interests to be represented and focus on the topics at hand. However, because of the relative size of Stevens County, it was determined that two timings would be offered for such a group so that the size of each group would be conducive to lively, interactive discussions, enabling each member to participate fully and to glean the greatest amount of information from each group. Both groups were held at the Colville Public Library on Tuesday, May 20, 2008.

The first group was held at 9:00 a.m. and included the Director of the Colville Chamber of Commerce, a Stevens County Commissioner, the Director of the Stevens County Information Services Department and the County’s Network Administrator, a representative of the Colville School District, representatives from two providers of services to a variety of organizations within the Stevens County community, including Superior Communications and Internet Xpress and a retired former Boeing telecommunications professional representing the Stevens County Rural Information Technology Center (RITC), a non-profit focused on information technology broadband and telecommunications issues pertaining to the County.

Key discussion points from this group are as follows:

- CenturyTel is the dominant local exchange provider in Stevens County.
- Qwest serves Colville and areas up in northern Stevens County.
 - They provide landline DSL in Colville and have used DSL extenders (such as the Lucent Stinger) to service the Arden area.
- The Comfort Inn in Colville has a T-1 that is used by the Comfort Inn to provide wireless access.
- EcliptixNet will serve Marcus through a USDA Rural Broadband grant with 802.11 services.
- All agreed that the level and type of service depended significantly on where you are in the County.
- It was discussed that most cellular aircard services provide about 512 Kbps with some providing as high as 1.2 to 1.4 Mbps.
 - The Sheriff's Office is using cellular air cards for its mobile data terminals.
- There was a Wall Street Journal article on 5/19 that detailed problems with municipal and other broadband efforts in this country, as well as how far the country is behind other nations.
- Qwest is providing up to a 7 Mbps downstream DSL service (around 1 to 1.5 Mbps upstream).
- There was significant discussion as to whether Quality of Service (QoS) was being provided.

- One of the participants, a Qwest reseller/contractor, indicated that there was clearly QoS within the routers, and that there was some gating of bandwidth to ensure that video streaming wasn't monopolizing the network.
- Guaranteed 1.5 Mbps symmetrical DSL is running about \$600/month (including the router, 2 hour response time and other services).
- Qwest was also trying to provide MPLS technology within its LEC area to help maximize the ability to provide and ensure sufficient bandwidth availability in its LEC area.
- It was indicated that they could probably provide such services outside of the LEC area as well.
- It was determined that for telecommuters such costs might be prohibitive.
 - Remote work would need certain levels of QoS to be effective.
- Charter is providing some fiber for use by Stevens County.
 - Apparently this fiber comes out of Charter's backbone.
 - It was not known whether they are providing fiber based services to other entities in Colville, but they are not providing cable modem services.
- The school district has connections from all schools to the district office that are over district-owned fiber.
 - It is a mixture of aerial and underground fiber.
- One of the remote facilities is served by satellite broadband.
- The County has one microwave connection from the County office building to the Fairgrounds.
 - There is also an old microwave connection to Scoop Mountain which is not active.

- The County's Public Safety Radio System is a VHF system which will have to go through re-banding to develop more narrowband use of channels.
- This process is underway.
- The Sheriff's Deputies use AT&T's Edge cellular aircard system.
- The Deputies report that the Netmotion server (which keeps the link active even when there are dropouts) has made it seem like service is transparent, although it does not have ubiquitous coverage throughout the County.
 - The use both VPNs and encryption on that system.
- The Public Safety Radio System is also used by the County's Public Works and Emergency Management agencies.
- Handheld devices do not have the same level of coverage, although using a booster inside the car, the coverage increases from one bar to five bars.
- It was thought by participants that CenturyTel has been and is in the future much more likely to expand its system.
 - For instance it was indicated that CenturyTel provided DSL to a pocket of 25 homes in Daisey.
- Qwest, on the other hand, is reportedly concerned about extending its service, because if it extends its service for 200 potential subscribers, it may need to give access to others to provide competitive services over its platform, which means that, if for example it extended it to 200 households, it might only get half of those households as its own customers.
- There was discussion about how there were microwave communications from Colville down to Deer Park and then into Spokane.
 - The question is how active is that connection.

- Qwest does not provide either Ethernet or ATM services out of its Colville exchange.
- Participants remarked that Colville is an island of Qwest.
 - Accordingly, it did not seem to interested in making more investment in its Colville exchange.
- There was significant discussion about the fiber interconnect between Qwest and CenturyTel, where CenturyTel added about a 3 mile link, paid for by Qwest, and then CenturyTel provides capacity for Qwest for its backbone into Spokane.
- This seems like a cooperative effort but, participants noted that it is only being used for the backbone for existing phone/DSL communications for Qwest, and Qwest would not either provide or allow CenturyTel to provide gigabit Ethernet services into Colville (which could be provided through this link at least to the central office location).
- It was noted by participants that Qwest had upgraded its CO to provide high capacity DSL service.
- It was also noted that providers acted differently depending on whether they were an LEC within their exchange area or whether they were trying to act as a CLEC in other exchange areas.
- There was some discussion about this probably being a top end problem.
 - In other words the local provider representatives wanted to expand and provide more services, but there were significant logistics in working with the hierarchies of the other parties.
 - Participants believed that this had significantly inhibited initiatives that could have been developed long ago.
- Participants remarked about how counties with active PUDs had developed significant communications that had not only benefited the PUDs and other Public entities, but also

providers in that they provided fiber pathways where the providers were not going to build such pathways, but could lease them.

- Pend Oreille County was provided as one example, as well as Grant County.
- It was discussed how the CenturyTel fiber ran.
- The microwave was supposed to provide the different, separate, redundant path for Stevens County.
 - Participants indicated that there is no hot switchover though.
 - The thought was that perhaps an alternate connection could be taken down Route 395.
- The County has also looked at two or three high-capacity microwave paths that it could install going from Colville Mountain to Scoop Mountain and then into Spokane or Colville Mountain to Chewelah Peak and then into Spokane or Colville Mountain into Pend Oreille County and then into Spokane.
- The State apparently has a point-of-presence (PoP) at Liberty Lake.
 - Perhaps it could be moved to Colville or another NOC (Network Operations Center) could be put in Colville.
- The K-20 infrastructure in Stevens County is all T-1s.
- Perhaps if multiple clients were interested in higher speed connections, their traffic could be aggregated and the aggregation of traffic could result in the higher demand that would then lend itself to an appropriate ROI for providers.
 - There was some discussion as to who would be the aggregator of such traffic.
- There was also discussion as to if the County built redundant microwave paths who would maintain such a path and would maintenance and support be available 24x7

- Many agreed that communities within Stevens County were “Broadband Islands”.
- Internet Xpress provides a significant amount of fixed wireless using line of sight DSL connections.
- There was discussion about why DSL would fall off so dramatically in speed at different locations.
- It was discussed that it was not only the distance from the CO but the amount of muxing (multiplexing) Qwest does with its lines.
- It was discussed that incumbents control a lot of the options and this has inhibited deployment.
 - It was discussed that the providers do a significant amount of lobbying and that most of this lobbying is active resistance on the part of providers to initiatives that would place burdens on them (participants felt that these burdens were reasonable; they thought that the providers would think that these were unreasonable).
 - Also, the claim of confidentiality related to the nature of provider facilities was a significant inhibitor to determining the best targets for deployment.
 - The focus of incumbents on a quick ROI and “low hanging fruit” also creates an inhibitor to deployment.
 - If this focus was to be maintained, infrastructure would need to be subsidized to bring it quickly to rural areas.
- There was discussion that a T-1, which in some areas would be as low as \$100 to \$200 a month, for 8 miles between exchange areas in Stevens County, in each exchange would be about \$400 a month, but was instead as much as \$800 a month.
 - In other words, connections between two exchange areas in rural locations essentially resulted in doubling the cost.

- It was discussed that a T-1 in within the City of Chewelah would be about \$400 a month.
- There was discussion about universal service fund and federal charges and that the Federal Government already places a federal charge on every line of service.
 - If it is important to bring broadband, could there be the same sort of “broadband-related “ charge.
- There was discussion about the age of the copper infrastructure in Stevens County and the fact that when services are tied to copper such as DSL it may be unreliable based on the age of the infrastructure.
- It was discussed that sometimes public access points decrease business incentive to adopt broadband at the business location.
 - For example, it was discussed that auto mechanics in Colville instead of getting broadband access at their shop, go to the library, log-in and download documents that require high-speed at the library, print them out and then take them back to the shop.
- The County again reiterated that they had access to tower locations and that if funding were available to the County; they could provide the redundant paths into Spokane. It was discussed for example, that Yakima County which was a NOC for the Statewide Network, because of that had two ways to Seattle and a third way to Portland, so redundancy is not a problem for them.
- There was again discussion related to grant County’s PUD and its fiber project to 6,000 homes.
 - There was discussion as to whether it would be successful as just a whole-sale model or whether it would take retail provision of services in order to make the investment fully successful.
- There was discussion about how there was a hodgepodge of current State requirements and Laws which may affect what the State’s focus is going forward.

- Again, redundancy was indicated as critical for both providers and users of broadband in Stevens County.
- There was some discussion as to whether public funds should be used for only public network use, or potentially whether commercial use of public backbones could be provided if it were in the public's interest.
- What is the definition of wholesale, for example?
 - For example, some understood that the rates for access for some of the PUD infrastructure were too high and that the support of the system was too low.
 - Could there be standardization at the State level of rate structures and support mechanisms for public provision of wholesale infrastructure and services?
- All agreed there needed to be alternative pathways for broadband in Stevens County
- There was discussion about whether systems carrying secure public traffic could carry commercial traffic.
- There was discussion as to whether big corporations that had significant connectivity (such as Wal-Mart at its Colville location) could work with the community to provide redundancy, especially in catastrophic situations.
 - Another example was Mount Carmel Hospital since it was part of the Providence HealthCare system.
- One participant who had retired from Boeing, indicated that big corporations hire other big corporations to provide their networks and redundancy.
 - For instance, IBM manages and provides connectivity for Boeing.
- Could big corporations be brought in to run and manage State-wide networks?

- There was again discussion on aggregated traffic and that since the State already worked on such aggregation, perhaps State Agencies could be involved in helping to facilitate that at the local level.
- Participants indicated that it was really important to remember that it is not just backbone issues but it was last mile issues that were also critical in order to cover all the residents of Stevens County.
- An example was given of the AOC, for instance, that had deemed it a requirement that every Court had a 2 Mbps connection to the State-wide network, but that this was not necessarily feasible in many Court areas without a very high cost (such as multiple T-1s).
- Perhaps partnerships with private businesses (blending public policy, economic development and business requirements) could help develop a consortium, authority or other organizational structure that could help expand connectivity in Stevens County.
- There was discussion of partnerships with private providers if they were willing, or required to, work with local entities.
 - It was discussed how Franklin County had worked with Verizon to expand infrastructure and services there.
- It was reinforced that putting more State NOCs around the State (especially one at Colville) would help expand infrastructure.
- There was some discussion about whether redundant infrastructure up into Canada and back could be accessed.
- Regarding the last mile problem, some indicated taking a look at Lake Thomas. It would show how costly it could be.

The second group, held in the afternoon at 1:30 p.m., also represented a wide range of interests including representatives from the Town of Marcus, the Director of the Stevens County Rural Library District, the IT Administrator of Mount Carmel Hospital and other IT staff, a representative from the Educational Service District 101, as well as an additional representative

from the Colville School District, business representatives including CFS Inc., Benny's Colville Inn, LaVigne Group LLC, Hachisoft Corp., and additional representative from RITC and the service provider Eltopia that provides service in various jurisdictions around Stevens County.

The key discussion points from this group are as follows:

- EcliptixNet is going to provide wireless broadband services to Marcus, Springdale and Northport utilizing USDA Rural Broadband Development grant funds.
- Eltopia is providing wireless broadband services up the Route 395 corridor (including in Chewelah) utilizing 802.11 distribution in the 2 GHz frequency range with backbone in the 5 GHz frequency range.
 - They have been negotiating with Lightcorp to provide backbone services (rather than the wireless backbone they use now), but have not found a beneficial cost structure as of yet (Lightcorp is a division of CenturyTel).
- The Colville School District is connected to the State's K-20 Network with 6 T-1s.
- Participants noted that Stevens County is served by a "patchwork quilt" of services.
- The libraries use a T-1 at Colville to feed their wireless Internet access.
 - In Northport, they use Wild Blue satellite service.
 - Their experience has been pretty good with Wild Blue.
 - They pay a commercial rate but don't believe they receive any higher level of service than residents.
- For many in Stevens County, dial-up or cellular "air cards" (which are line of sight wireless from a cell tower) are the only option for Internet access.
- Other participants indicated that most have access to satellite.

- The services in Stevens include Hughes (formerly DirectWave), Wild Blue and Starband.
- Hughes has a fair use policy that allows only a certain amount of upstream and downstream use of the system within a given 24 hour period.
 - A participant noted that there was no fair use policy before there was an increase in customers (the increase apparently tended to clog the network, resulting in the fair use policy).
 - If a user violates the fair use policy, they are barred from using the service for 24 hours.
- The libraries have eight locations throughout Stevens County.
 - All have high-speed Internet access, feeding wireless public access, except for Onion Creek.
 - Onion Creek is only open every Wednesday for five hours, so it provides a dial-up connection.
- The libraries began the provision of public wireless access in September 2005.
 - In January 2006, they saw a significant increase in users, as everybody brought in their “Christmas laptops” to utilize the service.
- Onion Creek School has a T-1 for access to the K-20 Network.
- Most participants agreed that the ability to telecommute (work from home) is a big issue in Stevens County.
 - It is problematic, because many workers have much greater access at work than they do at their home.

- One participant remarked that a good base of connectivity was key for many types of businesses and their workers, and to achieve it in Stevens, they had to pay a high premium.
 - For example, paying the high cost of bringing in a T-1 to a person's residence that otherwise would only have dial-up or satellite access.
 - This is a significant challenge for small businesses that may not be able to pay that type of access (in other words, it would cost them more to serve one of their telecommuters than it costs them to serve their entire business).
- Participants noted that the State should look at somehow helping increase satellite coverage since it would seem to be the only type of coverage that is ubiquitous across the rural areas in Washington.
- Participants indicated that the Northwest Alloys Plant (owned by Alcoa) had a significant amount of advanced infrastructure at their plant.
 - For example, it has fiber around a campus environment and high-speed, high capacity satellite communications.
 - Several valleys could be served from that location.
 - One of the members of RITC has investigated with Alcoa, and while Alcoa has all but shuttered the plant, it had no interest in allowing the community to access that infrastructure or becoming a base of operations for providing additional services.
 - There was some thought that a DS3 connection was also being provided to the Alcoa campus.
- There was discussion about what services were available in Chewelah and whether they are doing any type of municipally-sponsored broadband service. No one was aware of such an effort.
- All agreed that there is a growing need for bandwidth throughout the County.

- Especially for such services as downloadable audio and video.
- The libraries indicated that they were already being pressed for having bandwidth available to provide such services.
- The libraries indicated they could accommodate audio, but not video, so it may hamper their ability to be a portal for the community to a wide amount of information that would require a high capacity broadband connection for effective access.
- The inhibitors to obtaining adequate bandwidth at this point include:
 - High cost.
 - It's not always an option, depending on the location.
 - There is significant inconsistency from location to location.
 - The libraries especially mentioned how they have to use a variety of services to achieve their goal of high-speed Internet access at almost all of their locations.
- The schools indicated that more and more of their curriculum required high-speed access between the schools and the Internet.
 - The schools are utilizing fiber between locations, but they only have 6 T-1s to the K-20 Network.
 - They remarked that the sixth T-1 was just put in and is already nearing capacity use.
- T-1s are available and would be considered broadband at 1.54 megabits per second symmetrical.
 - However, based on the pricing structure (where the cost could be significantly higher as it moves between exchanges), cost can be significant for T-1s.

- In the case of access to the K-20 Network, though, they are significantly less because of E-rate support funding and the fact that the State pricing structure also bases the cost for the schools on bandwidth usage.
- The Addy area now has a wireless broadband connection through Internet Xpress, and some believe that there was also wireline DSL service.
 - Internet Xpress has a DS3 to the Internet backbone, but will limit its customers, do some traffic shaping, etc., in order to maximize the use of that bandwidth.
- Internet Xpress provides fixed wireless services, including DSL, T-1s and other types of proprietary services, but this may not necessarily be enough at certain locations (such as hotels) for traveler and tourists and business people who could monopolize a shared network just by accessing video streaming.
- Benny's Colville Inn utilizes an Internet Xpress T-1 right now, but it is also testing 7x1 (7 megabits per second downstream and 1 megabit per second upstream) DSL, which Qwest indicated would be \$80 per month.
- Redundancy is a huge concern for those in Stevens County, because the belief is that there is no truly redundant path in and out of the County.
 - People are right to be concerned, most recently evidenced by a cut in the fiber owned by CenturyTel but used by Qwest and there were complete outages in the Colville area.
- Washington Dental Services was brought into the area as a major boost for economic development, because of the promise of redundancy.
 - The redundant link is supposed to be a microwave link from Qwest's Colville central office to Spokane.
 - Participants varied in their belief as to whether this microwave link was active, but even if so, it apparently was not acting as a hot standby for a cut in the main fiber line.

- Northport apparently stayed up, meaning that the microwave might have limited capacity to serve certain parts of the Qwest local exchange area when its main distribution line was down.
- Northport will be one of those receiving EcliptixNet's services, hopefully starting this summer.
 - The way the service works is to have a main tower in each locale, with repeaters where needed to serve the entire town.
 - In Marcus, for example, there should be one backbone tower and one repeater station on top of the Marcus Town Hall providing wireless broadband services to the Town, and then service to residents and businesses for a fee.
- The Springdale Community Center (Springdale is one of those that will receive EcliptixNet service) may already be providing Wi-Fi, but it would be hooked to a dial-up connection.
- It was indicated that the Stevens County community was at "a stage of expectation," where residents perceive that the government should be making sure that broadband is provided like any other essential service.
 - Clearly this is a problem in Colville, because high bandwidth is needed for a variety of entities accessing or providing broadband within Colville.
- The hospital (Mt. Carmel Hospital) has a significant network with over 1,200 pieces of gear on line.
- They use H.323 video conferencing at 460 kilobits per second.
- They anticipate that they will continue to add different types of streaming video on their network and to and from their network including:
 - Online/distance learning.
 - Training.

- A variety of other types of video communications increasing the need for bandwidth.
- Right now they have 4 T-1s connecting Mt. Carmel Hospital, and they have 2 T-1s connecting St. Joseph's Hospital.
 - These connections are to INHS out of Spokane.
- Most of their video conferencing is used for training or communications between doctors or hospital officials.
- Occasionally it is used for patient diagnosis.
- They would need a much higher degree of granularity of the video connection in order to do remote monitoring, surgical procedures, etc., because there can be no lag in data and no lag in video.
 - So far, the reimbursement model has not been determined for paying for the much higher speed needed for this type of video.
- Participants noted that it would be important for any strategy to increase broadband to focus on a wide variety of constituencies from residents to businesses to institutions.
 - It was noted that EcliptixNet had discussed its desire to serve all these constituencies in accessing the broadband grants.
- There was some discussion about the variety of wireless broadband over cellular services, and it was noted that all had problems in varying degrees around the County.
- It was noted that in the far north of the County, there had still been party lines in the not too distant past and that Qwest had spent a significant sum to redo the lines and lay new copper infrastructure.
 - Why could they do that and not, at the same time, provide the infrastructure needed for DSL?

- There was some discussion as to whether Qwest was able to tap Universal Service funds to upgrade its basic telephone system, but that these same funds would not have supported an upgrade incorporating infrastructure such as fiber and DSL terminal equipment.
- It was discussed that one of the big inhibitors to the availability of broadband was a lack of cooperation between companies in order to develop the facilities and infrastructure needed.
 - For example, it was noted that the cost of T-1s jumped significantly when you had to go between exchange areas and that there was no easy way to get them to cooperate on other types of communications that could be provisioned if one or the other LEC did not want to do it.
- There was a discussion regarding the lack of adoption that a certain portion of the population doesn't want broadband (or even Internet access, for that matter) or they don't need it.
- By the same token, there are isolated residents that need better Internet, or need to make sure that high quality Internet is available for some of their operations.
 - For example, it was mentioned that a rancher who didn't need high-speed himself so didn't want to invest in higher cost satellite Internet versus dial-up (which would have been the only option), nevertheless wanted to make sure that his broker had high-speed Internet because a lot of the cattle were sold over the Internet.
- There was discussion again that if groups got together, perhaps they could provide the incentive for the providers to bring facilities and infrastructure by guaranteeing a certain number of clients.
 - Arden, for example, was mentioned as one of those areas that had done this successfully.

- It was also discussed that perhaps people had just grown to accept the situation that they couldn't get broadband, but if it was presented to them, they would take the service.
- There was some discussion that there was some magic, yet unknown, density or take-rate number for the providers to come in and build infrastructure.
 - Part of the discussion centered on that this may be a different number for different areas, depending on what the cost was to bring the backbone to connect up the last mile of infrastructure.
- There was also significant discussion that if there was a big community momentum to change the dynamic, it could significantly help.
- The libraries again discussed their desire to digitize media, including podcasts and programs that are developed at the libraries and provide them through a portal established by the library system.
 - The libraries indicated that part of their mission was to connect people in a rural environment back into the larger world and ensure that they can be a part of the discussion and debate on any issue of interest.
- There was discussion that those in rural areas have literally leapt into the broadband evolution, by being behind for so long but then adopting state-of-the-art technology (for example, rather than many who went from basic PCs to more advanced desktops to laptops to handheld devices, the rural residents went straight from nothing to high capacity, wirelessly enabled laptops).
- There was discussion that there is a wide range of demographics that use the public access to the Internet at the libraries, thus showing that high-speed Internet would be of benefit to all in the County.
 - There is also a corollary effect of increased book checkouts because public access brings people into the library.

- The demand on the public Internet access is now so high that they have to both gate access and establish a time period for use.
- Participants indicated that there was a bandwidth shock when engaging in workforce development activities for higher technology concerns in the County (such as a software company).
 - For example, they want to draw college graduates that are tech savvy, but such graduates are used to high capacity broadband being available, and when it's not at the intended workplace or residence, they may choose to go elsewhere.
 - This is seen as a significant inhibitor to economic development because it would slow the startup of new local businesses in the knowledge business, and would spur existing local businesses to potentially seek location elsewhere.
 - In other words, the lack of broadband availability will stunt the growth of economic development.
- There was a general feeling that if a higher capacity infrastructure was built, it would be promptly utilized.
- Mt. Carmel Hospital, part of the Providence Hospital Group, indicated that the lack of broadband was a significant inhibitor in their recruiting.
- It was discussed that even higher end communities such as homes around Black Lake, where there is no cell service, inhibited additional development in those areas.
- Even the hunters in Fruitland could utilize DSL.
- It was notable that in the southern part of the County, even where there was no municipal infrastructure because the development there is simply a large subdivision in the unincorporated County, there was significant broadband because of the density and the proximity to more suburban/urban areas.
- Participants remarked that the government's involvement should be similar to roads.

- i.e., build and control the major highways, but provide access to a variety of different services to utilize those highways independently.
- All indicated that monopolies are problematic in this regard.
- There was discussion, for instance, when major corporations were looking for locations for branches, that the lack of high-speed, cost-effective access to a home office could inhibit the desire to locate in Stevens County.
- Since ROI is a significant issue, perhaps where the State could get involved is somehow shortening the ROI for the providers so that the bottom line becomes more feasible.
- All agreed that grants would be helpful since EcliptixNet would not have built its system without the USDA grant.
- Others indicated that rural development grants from the State, such as those that come through CTED, would be useful.
- There was some discussion as to where the federal government fit in. Perhaps a nationwide broadband initiative supplemented by state and local efforts would be the ultimate key to enhancing broadband in Stevens County.

Attachment 10
Maps – See
Separate Electronic Files

Attachment 10

MAPS – SEE SEPARATE ELECTRONIC FILES

Attachment 11

Glossary of Key Terms

Attachment 11

GLOSSARY OF KEY TERMS

Access Point (AP) – Transmitter and receiver utilized to create a wireless connection between devices. End users connect wirelessly to the network via an Access Point.

Asymmetrical Speeds – A network system design characteristic where return speed is lower than forward speed. This allows for more of the network’s capability or throughput to be utilized by the forward portion of the network allowing for faster downloads than uploads.

Backbone/Backhaul – Transmission media utilized to connect APs or network nodes within a system to each other and to the main network and to the Internet. Backhauls can consist of fiber optic cables, WiMAX and other wireless technologies.

Broadband – High-speed connectivity via a network (most often referring to connectivity to the Internet). As defined by the FCC, first generation broadband is 200 Kbps in at least one direction. The FCC In March, 2008 defined seven tiers of broadband service from 200 Kbps up to 100 Mbps or more. The United States Department of Agriculture (USDA) - Rural Utilities Service (RUS), requires a minimum of 200 Kbps in both the upstream and downstream direction for providers to qualify for its loan and grant programs. The stakeholders that were consulted during the design of the survey suggested that 1.5 Mbps downstream and upstream was seen by many as constituting broadband service.

Broadband Island – Small isolated areas of broadband availability.

BPL (Broadband-Over Powerline) – A network utilizing electrical conductors (a power provider’s lines) as its transport medium.

Competitive Local Exchange Carrier (CLEC) – A telephone company that competes with the incumbent telephone carrier.

Cable Modem – A device that converts information from one device (computer) to a usable form for another device (cable TV network). I.e., Information from a computer is converted to a useable format

for transport on the cable TV network and converted back to a format useable by a computer at the receive site modem.

DIS (Department of Information Services) – Provider of leadership, policy and service choices for the use of information technology for state and local agencies, educational entities, tribal governments and qualifying non-profit groups.

Digital Divide – The inability of residents to access broadband and Internet services based on economic or geographic reasons.

Digital Subscriber Line (DSL) – A telephone system-based data communications service that utilizes modulation schemes that allow high-speed transmission of data on copper or phone lines.

Downstream – Also known as “download” or “forward direction”. Connectivity path from a network service provider, or ISP, to the customer’s location.

ESDs (Educational Service Districts) – 9 Regional educational agencies, within the State of Washington, serving local school districts and state-approved private schools with administrative support.

Evolution Data Optimized (EVDO) – A fast wireless broadband network utilized by cellular providers.

Fiber Optic Cable – Cable made from glass that provides the medium for transmission of light along a designated path. Single mode fiber is utilized to transport light over long distances. Multiple wavelengths, also known as colors of light, can be transmitted on a single fiber to increase the throughput capabilities of the fiber.

Fiber To The Premises (FTTP) – A communications network utilizing fiber optics up to or into a household, business or other facility. Also called FTTH or Fiber To The Home.

Fiber To The Node (FTTN) – Also known as Fiber To The Neighborhood. A communications system utilizing fiber optics to feed to a distribution point most often within a few blocks of households. This

system then utilizes copper or coaxial cables to feed the homes. Fiber To The Curb (FTTC) is similar in design to FTTN.

Fixed Wireless - Broadband service typically provided in a point-to-point configuration from a central tower location, or through a series of towers (hops) as part of a mesh network, to a customer premise location.

General Packet Radio Service (GPRS) – A high-speed data network utilized by cellular providers.

Hot Spot – The area being served via an AP or other radio device enabling connectivity to the wireless network.

Hot Zone – This term is utilized to describe an area served by a wireless system. Often a network made up of 2 or more hot spots.

IGN (Intergovernmental Network) (DIS website definition) - The common, standard Internet Protocol-based data network to be used by state agencies to connect state agencies, counties, and cities with known end points, managed gateways, and applications.

ILEC (Incumbent Local Exchange Carrier) – The original (usually largest) LEC serving a defined area.

Internet Protocol (IP) – Internetworking protocol used to transmit data across and between switched networks. Also specifies the formatting and addressing scheme of information packets.

ISP – Internet Service Provider. Private company or other organization offering connectivity to the Internet.

K-20 (The K-20 Education Network) – (K-20 website definition) Provider of a technology pipeline providing a single, solution to meet video and data needs of the state’s entire educational community—in communities large and small, urban and rural, across the state.

Kilobits Per Second (Kbps) – One thousand bits of information transmitted between devices in one second, i.e., 256 Kbps = 256,000 bits of information transported over a network per second.

LEC (Local Exchange Carrier) - Provider of local phone services, as well as origination and termination of long distance services, within a defined area (exchange).

Megabits Per Second (Mbps) – One million bits of information transmitted between devices in one second, i.e., 1.5 Mbps = 1,500,000 bits of information transported over a network per second.

NGN (Next Generation Network) (DIS website definition) - Transportation network that carries the majority of voice, video and data for local, county and state inter-government communications, and is the foundation for DIS network service delivery.

PGN (Public Government Network) – The network that deploys government applications and services to the public.

PUD (Public Utility District) - Not-for-profit, locally controlled provider of utility service in a given County of Washington.

RUS (Rural Utilities Services) – Agency of the federal government that was developed to promote the electrification of rural areas of the country. Today charged with providing rural areas with utilities including Electricity, water, sewer and telecommunications through public/private partnerships.

SGN (State Government Network) (DIS website definition) - The common, standard Internet Protocol-based network used by state agencies to connect separate locations within and among those agencies.

Symmetrical Speeds – a system design characteristic allowing equal speeds in the forward and return paths of the network.

Upstream – Also known as “upload” or “return direction”. Connectivity from the customer back to the network service provider or ISP.

USDA (United States Department of Agriculture) – The USDA’s Rural Development Utilities Program helps rural utilities expand and keep technology up to date through government initiatives.

UTC (Utilities and Transportation Commission) – State Agency (Mission Statement from UTC’s Website): “The UTC protects consumers by ensuring that utility and transportation services are fairly priced, available, reliable and safe.”

Voice over IP (VoIP) – Transmission of voice communications as IP packets, allowing for transportation of voice over the Internet, LANs and WANs.

Wi-Fi (Wireless Fidelity) – Wireless local area networks based on the IEEE’s (Institute of Electrical and Electronics Engineers, Inc.) 802.11 standards. 802.11 refers to a group of standards in place today as well as standards that are currently being developed.

WiMAX (Worldwide Interoperability for Microwave Access) – Wireless wide area networks based on the IEEE’s 802.16 standards. Capable of transmission speeds up to 70 Mbps over 70 miles with actual speed and coverage far less based on applications and terrain.

Attachment 12

Bibliography

Attachment 12

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