Community Council
July 19
1:30-4:00
University of Nebraska Technology Park
4701 Innovation Drive

Tentative Agenda

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Roll Call
Notice of Posting of Agenda
Notice of Nebraska Open Meetings Act Posting
Approval of March 23,2009 Minutes
Public Comment

Broadband Survey of Nebraska Households—Rebecca Vogt
http://psc.nebraska.gov/home/NPSC/NTIA/Internet_Connectivity_and_Use_in_Nebraska.pdf

Websites for Growth Update—Tim O'Brien
http://websitesforgrowth.com/

Broadband Mapping Update--PSC

BTOP and BIP update

Health Information Exchange Update

Planning Activities—Next Steps

BTOP and BIP update

Membership

Meeting notice and agenda were posted on the Public Meeting and NITC websites on July 15,2010.

COMMUNITY COUNCIL
Nebraska Information Technology Commission
March 23, 2009 9:30 AM to 12:00 noon CT
Lincoln-Executive: Lincoln Executive Bldg.-Suite 103, 521 S 14th ST.
Columbus: Columbus Public Library-Columbus Rm., 2nd Fl., 2504 14th St.
Kearney: Public Library and Info. Center-2nd Fl., 2020 First Avenue
Scottsbluff: Panhandle Research & Extension Center -High Plains Rm., 4502 Avenue I
Wayne: Wayne State College, Conn Library, Rm. 15, 1111 Main Street
PROPOSED MINUTES

MEMBERS PRESENT
Chris Anderson, City of Central City (Lincoln site)
Rod Armstrong, AIM Institute (Lincoln site)
Jason Barelman, Wayne State College (Wayne site)
Norene Fitzgerald, Economic Development Professional
Darla Heggem, Twin Cities Development, Scottsbluff-Gering (Scottsbluff site)
Lynn Manhart, Central City Public Library (Lincoln site)
Tim O'Brien, Nebraska Department Economic Development
Angie Ramaekers, Columbus Area Chamber of Commerce (Columbus site)
Jerry Vap, Public Service Commission

MEMBERS ABSENT
Mitch Arnold, Preferred Partners, LLC; Scott Bovick, City of Nebraska City; Don Costello, University of Nebraska, Lincoln; Linda Fettig, Rural Development Commission; Dean Folkers, Department of Education; John Jordison, Great Plains Communication; Joan Modrell, Department of Labor; Dan Shundoff, Intellicom

Staff and Guests: Anne Byers, Community Information Technology Manager; Steve Henderson, IT Administrator; and Lori Lopez Urdiales, Administrative Assistant

ROLL CALL, NOTICE OF POSTING OF AGENDA, NOTICE OF NEBRASKA OPEN MEETINGS ACT POSTING

Ms. Fitzgerald called the meeting to order at 9:30 a.m. There were seven members present at the time of roll call. A quorum was not present to conduct official business. The meeting proceeded with informational items. The meeting announcement was posted on the NITC Web site on March 9, 2009 and on the Nebraska Public Meeting Calendar on March 17, 2009. The agenda was posted on March 19, 2009.

PUBLIC COMMENT

There was no public comment.

Ms. Manhart arrived to the meeting. A quorum was now present.

STIMULUS FUNDING FOR BROADBAND, Lt. Governor Rick Sheehy
(Summary of Broadband Programs and **Federal Register Notice: Joint Broadband Technology Opportunities Program Request for Information)**

Lt. Governor Rick Sheehy provided information regarding the following grant opportunities published in the Federal Register on March 12th.

Broadband Technology Opportunities Program (BTOP): Section 6001 creates the Broadband Technology Opportunities Program (BTOP) which offers competitive grants for broadband deployment efforts from the National Telecommunications and Information Administration (NTIA), Department of

Commerce. There is $4.35 billion available to fund projects. Grants are to be awarded by the end of FY 2010.

Requirements - grants may be awarded to:

- Acquire equipment, instrumentation, networking capability, hardware and software, digital network technology, and infrastructure for broadband services
- Construct and deploy broadband infrastructure
- Ensure access to broadband service by community anchor institutions
- Facilitate access to broadband service by low-income, unemployed, aged, or vulnerable population to provide educational and employment opportunities
- Construct and deploy broadband facilities that improve public safety broadband communications services

States may be consulted with respect to identifying unserved and underserved areas, and regarding "the allocation of grant funds within that State for projects in or affecting the State." NTIA will award at least one grant in each state. A 20% match is required. The match may be waived. Eligible entities are states and political subdivisions, nonprofit organizations, and other entities, including broadband service or infrastructure providers.

Broadband Data Improvement Act Funding: NTIA (Department of Commerce) has $350 million available for grants. The time frame has not been specified.

Requirements - grants may be awarded to:

- Create a statewide broadband availability map to identify unserved areas
- Conduct extensive market research to understand the barriers to broadband adoption
- Create and facilitate local technology planning teams to produce tactical business plans for improved technology use
- Generate collaboration between the public and private sectors to encourage broadband deployment and adoption
- Create programs for improved computer ownership and Internet use in low-adoption areas

A 20% match is required.

USDA – Rural Utilities Service: Loans, grants, and loan guarantees are available for open access broadband infrastructure projects that serve rural areas primarily from the USDA.

There is $2.5 billion available for Loans, Grants, and Loan Guarantees. The time frame has not been specified. Priority will be given to projects that can commence quickly.

Requirements:

> At least 75% of the area to be served shall be in a rural area without sufficient access to broadband service. Priority will be given to open access projects, to projects providing access to the highest number of unserved rural residents, and to current or former USDA borrowers. Priority will also be given to projects that can commence quickly. Projects funded through this program cannot also be funded through the Broadband Technology Opportunities Program.

Additional Programs through which Nebraska Entities Could Receive Funding

- **BTOP Funding for Public Computer Center Capacity and Grants for Innovative Programs for Adoption of Broadband Service.** The BTOP funding language provides that "not less than $200,000,000 shall be available for competitive grants for expanding public computer center capacity, including at community colleges and public libraries; not less than $250,000,000 shall be available for competitive grants for innovative programs to encourage sustainable adoption of broadband service…"

Lt. Governor Sheehy stated that the funding should be available within the next year and a half.

Members were given an opportunity to ask questions and provide comments. Discussion points and concerns from the members included:

- Definitions will be a key issue as to eligibility.
- Deployment and the last mile - In rural areas, last and middle mile connectivity can be expensive.
- Determination of "equity" for underserved.

- Mapping issues. Mr. Hand stated that the Public Service Commission plans to apply for funding for broadband mapping.
- Competition among providers and proprietors may make public information on infrastructure difficult to acquire.

UPDATE ON DEVELOPING WEBSITES FOR GROWTH PROJECT
Tim O'Brien, Nebraska Department of Economic Development

Mr. O'Brien reported that he has been working with eleven communities to develop more interactive and informative websites that show the quality of life in their communities. A checklist is used to assess community's website. Some of the areas covered are health care, education, employment and recreational opportunities. Jobs and career opportunities have been the reasons why people are leaving Nebraska, especially in the I.T. field. Research shows that if jobs are available, 80% of those who have left would be interested in returning to Nebraska. Webinars have been developed for participants on marketing their communities. The project has been attempting to hire an intern through UNL Career Services but have not been successful. Ms. Byers informed the council that she and Connie Hancock gave a presentation to city clerks about website development. The Office of the CIO will not have funding for future projects but will explore other options for funding options. Perhaps there will be opportunities through the stimulus funding. The council recommended discussing this further in 2-3 months when more information on stimulus funding. The following website has been developed to provide updated information on the project: http://websitesforgrowth.com/.

MEMBERSHIP
Anne Byers, Community I.T. Manager

Matthew Williams has been nominated to serve on the council representing Libraries.

Mr. Vap moved to approve the nomination of Matthew Williams to serve on the council. Mr. Armstrong seconded. Roll call vote: Vap-Yes, Armstrong-Yes, Manhart-Yes, Heggem-Yes, Fitzgerald-Yes, Barelman-Yes, and Anderson-Yes. Results: Yes-8, No-0, Abstain-0. Motion carried.

Terry Lowe, representing Municipalities, has been approached to serve on the council but has not indicated his availability. Council members suggested the following persons to serve as new members: John Caske and Roger Hahn.

Ms. Fitzgerald asked members to consider nominations for the remaining vacant seats on the council: one Libraries representative and two Local Government representatives.

APPROVAL OF MAY 22, 2009 MINUTES*

Ms. Barelman moved to approve the May 22, 2008 minutes as presented. Mr. Armstrong seconded. Roll call vote: Anderson-Yes, Barelman-Yes, Fitzgerald-Yes, Heggem-Yes, Manhart-Yes, Armstrong-Yes, and Vap-Yes. Results: Yes-8, No-0, Abstain-0. Motion carried.

ACTION PLANS

Ms. Byers informed the council members to being thinking about the current action plans for Community I.T. Planning. Ideas and thoughts from members included:
- Continue communities web site development.
- Research other states for best practices.
- Utilize schools and libraries. Most all communities have a school and library. The state should collaborate with these entities, as well as county offices.
- Broadband and IT can promote entrepreneurships.

- Conduct another Community Needs Assessment Survey. The Community Council could utilize the results to be more proactive and educate and informed communities about technology. Some communities have no I.T. contact to even develop a web site, or a city council to promote one.
- Develop standards for communities or perhaps work with Department of Economic Development to develop standards.
- Utilize the league of municipalities to provide input and get information out to communities about the advantages of I.T. to promote their community. Some aggressive communities in Nebraska have made I.T. a duty of the City Administrator and is evaluated on this annually.
- Community Council should consider how we can market the State of Nebraska.

Mr. Hahn stated that St. Mary's and Emmit are the only Nebraska communities without broadband. Mr. Vap informed the members that 93% of Nebraska communities have broadband capabilities.

NEXT MEETING DATE AND TIME MEETING AND ADJOURNMENT

Ms. Byers will survey the council members regarding their availability for the next meeting.

With no further business, Ms. Fitzgerald adjourned the meeting at 11:11 a.m.

Meeting minutes were taken by Lori Lopez Urdiales and reviewed by Anne Byers of the Office of the CIO/NITC.

INTERNET CONNECTIVITY AND USE IN NEBRASKA

A RESEARCH REPORT

REBECCA VOGT

ANNE BYERS

CONNIE HANCOCK

CHARLOTTE NARJES

TIM O'BRIEN

Executive Summary

The Nebraska Public Service Commission was awarded a grant from the Department of Commerce's National Telecommunications and Information Administration (NTIA) for conducting a study of broadband use and needs in Nebraska. The University of Nebraska-Lincoln conducted the survey for the Commission. In addition, the Nebraska Information Technology Commission (NITC) Community Council and Nebraska Department of Economic Development (DED) collaborated with the Commission on this survey. The survey included questions about Nebraskans' current use of technology, their opinions about community technology resources, and technology training needs. Some of the findings include:

Approximately four out of every five households (81%) in Nebraska has Internet service.

- ✓ Older persons, persons with lower household incomes, persons with lower education levels, households without children, and households in the nonmetropolitan areas of the state are the groups less likely to have Internet service in their home.

Just over three-quarters (76%) of Nebraska households have broadband service.

- ✓ Similar to Internet access, the groups less likely to have broadband service include: older persons, persons with lower incomes, persons with lower education levels, and households without children.
- ✓ Persons living in metropolitan areas are more likely than persons living in nonmetropolitan areas to have broadband. Eighty-three percent of persons living in the Omaha area and 81 percent of persons living in the Lincoln area have broadband. In comparison, 56 percent of persons living in the Central Nebraska area have broadband.

Almost one-half (48%) of dial-up only households say they don't currently have a broadband connection because it is too expensive.

Common Internet activities for households with Internet access include: sending or receiving e-mail, checking weather reports and forecasts, using an online search engine, education or research, getting news online, using a social networking site, and online banking or bill pay.

- ✓ Broadband users are more likely than dial-up only users to do each of the activities listed.

Nebraska households are generally satisfied with the reliability, speed and support of their Internet service. However, they are less satisfied with the price of their service.

- ✓ Dial-up users are more likely than broadband users to be satisfied with the price of their Internet service. However, broadband users are more likely than dial-up users to be satisfied with the reliability, speed and support of their service.

Nebraskans' opinions are somewhat mixed about the types of Internet services available in their community or area. Many households (37%) are somewhat or very satisfied with the types of services available. However, just over one-quarter (28%) are somewhat or very dissatisfied with the services in their area.

  ✓ Residents living outside city limits are more likely than residents living within city limits to express dissatisfaction with the types of Internet services available in their area.

Most Nebraska households (75%) have access to a local place, such as a library or school, in their neighborhood or community where they can use an Internet-accessible computer for free. Forty-one percent of the households without Internet access use the computer resources at the public use facility.

Most Nebraska households (68%) agree that it is important to have free public Internet 'hotspots' available in the community. However, only 46 percent say there are such free 'hotspots' available in their community. Fourteen percent say there are no free public 'hotspots' in their community and 40 percent don't know if any are available.

Many Nebraskans are interested in certain information technology courses such as website development and basic computer networking. And most prefer traditional delivery methods for this training such as: CD or DVD, face to face workshops with hands-on computer work, online courses and delivery of information via a newsletter.

Most Nebraska households believe the following broadband applications are important: exchanging health information so that providers have a complete health record when treating you (86%), using telehomecare to monitor chronic health conditions (80%), online banking (80%), using telemedicine to consult with health care providers (79%), taking advantage of distance learning opportunities (78%), using government services online (paying for taxes or applying for licenses online) (78%), and contributing to economic growth in your community (76%).

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Introduction

The Nebraska Public Service Commission was awarded a grant from the Department of Commerce's National Telecommunications and Information Administration (NTIA) for conducting a study of broadband use and needs in Nebraska. The University of Nebraska-Lincoln conducted the survey for the Commission with collaboration from the Nebraska Information Technology Commission (NITC) Community Council and Nebraska Department of Economic Development (DED). The survey included questions about Nebraskans' current use of technology, their opinions about community technology resources, and technology training needs. This report details 2,910 responses to the survey.

Survey Methodology

Nebraskans were surveyed about their computer and Internet usage, community technology resources and technology training needs through a mail survey conducted in February and March 2010 by the University of Nebraska-Lincoln Center for Applied Rural Innovation. The 14-page survey was mailed to approximately 6,200 households (6,174 deliverable households out of the 6,600 initial list).

Households were sampled equally from eight regions across the state, using economic development districts as approximate guides. However, for this study Dakota County is included with the Northeast Nebraska district. And, Lancaster County was sampled separately to approximate the Lincoln metropolitan area.

See Appendix Figure 1 for the counties included in each region.

A 47% response rate was achieved using the total design method (Dillman, 1978). The sequence of steps used follow:

1. A pre-notification letter was sent requesting participation in the study.
2. The questionnaire was mailed with an informal letter signed by the Commission Chair approximately seven days later.
3. A reminder postcard was sent to the entire sample approximately seven days after the questionnaire had been sent.
4. Those who had not yet responded within approximately 14 days of the original mailing were sent a replacement questionnaire.

In addition to the regional comparisons, data will be analyzed by location of residence (outside city limits compared to those living in communities), education level, income level, age, and presence of children in the household.

The data presented throughout this paper are weighted to correct for the oversampling of some regions of the state. The margin of error for the results based on the entire sample is plus or minus 1.8 percentage points.

Respondent Profile

The average age of respondents is 52.9 years. Seventy-four percent live within the city limits of a town or village. Ninety-seven

percent have attained at least a high school diploma.

Thirty-two percent of the respondents report their 2009 approximate household income from all sources, before taxes, as below $40,000. Fifty-eight percent report incomes over $50,000. Two percent are of Hispanic ethnicity. Ninety-five percent are White and two percent are African American.

Seventy-five percent were employed in 2009 on a full-time, part-time, or seasonal basis. Forty-five percent of those employed reported working in a management, professional, or education occupation.

Nebraskans' Technology Use

Most Nebraska households (84%) use either a desktop (71%) or laptop computer (52%). Many households also use other devices: iPod or other MP3 player (41%), game consoles (30%), smart phone (24%), personal digital assistant (5%), e-book reader (3%) and other (1%).

Most households using a desktop computer access the Internet with it (93%). Similarly, 93 percent of households using a laptop computer use it to access the Internet. Users of other devices that access the Internet using them include: smart phone (86%), e-book readers (56%), game consoles (37%), personal digital assistants (30%), and iPod or MP3 players (28%).

Internet Access at Home

Almost one in five households (19%) in Nebraska does not have Internet service. Different subgroups of the population have higher Internet adoption rates than others.

Age

Younger persons are more likely than older persons to have Internet access at home. Ninety-three percent of persons age 19 to 39 have Internet access at home, compared to 56 percent of persons age 65 and older.

Household Income

Households with higher incomes are more likely than those with lower incomes to have Internet access at home. Ninety-eight percent of households with incomes of $75,000 or more have Internet access at home, compared to 55 percent of persons with household incomes under $20,000.

Education Level

Persons with higher education levels are more likely than persons with less education to have Internet access. Ninety-five percent of persons with at least a four year college degree have Internet access at home, compared to 41 percent of persons with less than a high school education.

Families

Households with children are more likely than households without children to have

Figure 1. Internet Access by Demographic Factors and Region
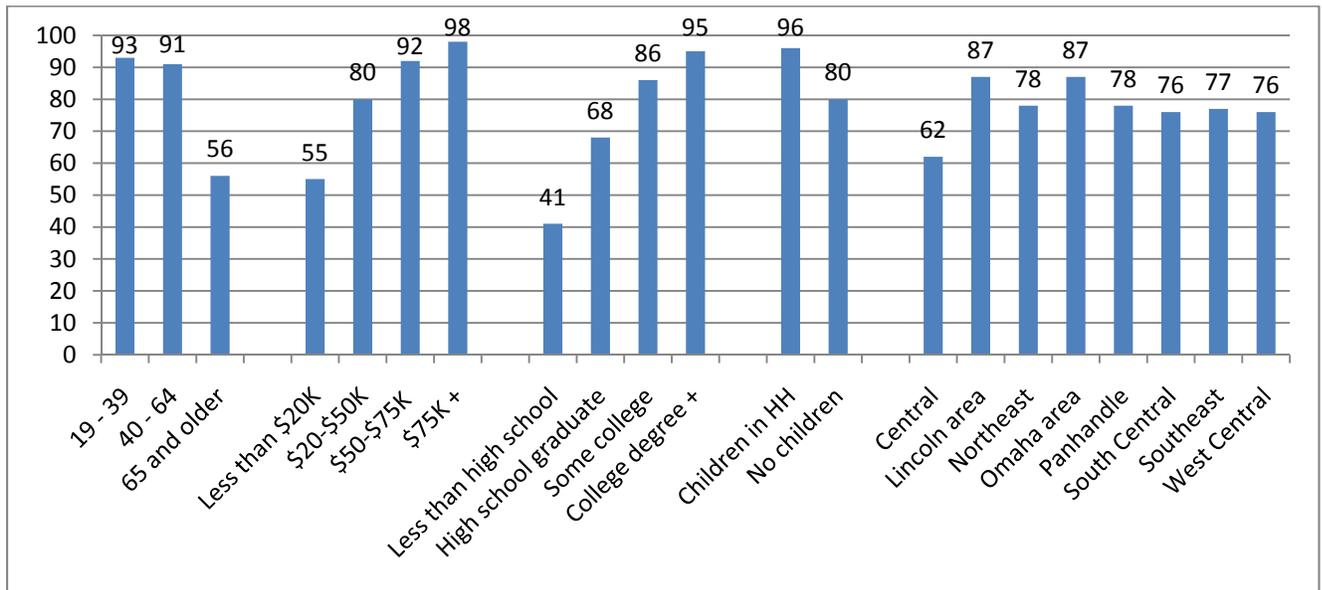
Internet access. Ninety-six percent of households with children have Internet access at home, compared to 80 percent of households without children.

Within City Limits

There are no statistically significant differences in Internet access between persons living outside city limits and persons living within city limits. Eighty-six percent of persons living outside city limits have Internet access, compared to 84 percent of persons living within city limits.

Region

Households in the metropolitan areas are more likely than households in the nonmetropolitan areas of the state to have Internet access at home. Eighty-seven percent of persons living in both the Lincoln and Omaha metropolitan areas have Internet access at home. In comparison, 62

percent of persons living in the Central Nebraska area have Internet access.

Broadband Service at Home

Nebraskans were asked what type of Internet service they have at their home. They were allowed to select more than one answer. It should be noted that the respondents may not know the details of their home Internet connection. For example, some respondents may have confused a home wireless network with a fixed wireless provider.

Over one-third (36%) of households have cable modem access and over one-quarter (28%) report having a wireless connection. Five percent have a dial-up connection.

When examining the combinations of responses, just over three-quarters (76%) of

Table 1. Type of Internet Connection

Do not have Internet	19%
Dial up using a phone modem	5%
DSL-enabled phone line	25%
Satellite connection	4%
Wireless connection	28%
Cable modem	36%
Fiber to the home	1%
Wireless mobile card or cellular service	12%
Don't know	1%
Other	0%*

*=Less than 1 percent.

Nebraska households have broadband service. Four percent have only dial-up service. One percent of the households don't know what type of Internet service they have.

Like Internet access, many demographic subgroups are more likely than other groups to have broadband service.

Age

Younger persons are more likely than older persons to have broadband service. Ninety-two percent of persons age 19 to 39 have broadband, compared to 48 percent of persons age 65 and older. Conversely, six percent of persons age 65 and older have only dial-up service, compared to one percent of persons age 19 to 39.

Household Income

Persons with higher household incomes are more likely than persons with lower incomes to have broadband service.

Ninety-four percent of persons with household incomes of $75,000 or more have broadband, compared to 44 percent of persons with household incomes less than $20,000. On the other hand, eight percent of persons with household incomes less than $20,000 have only dial-up service, compared to three percent of persons with household incomes of $50,000 or more.

Education Level

Persons with higher education levels are more likely than persons with less education to have broadband service. Ninety-one percent of persons with at least a four year college degree have broadband, compared to 31 percent of persons with less than a high school education.

Families

Persons with children in their household are more likely than persons without children to have broadband. Ninety-three percent of persons with children in their household have broadband, compared to 74 percent of persons without children in the household.
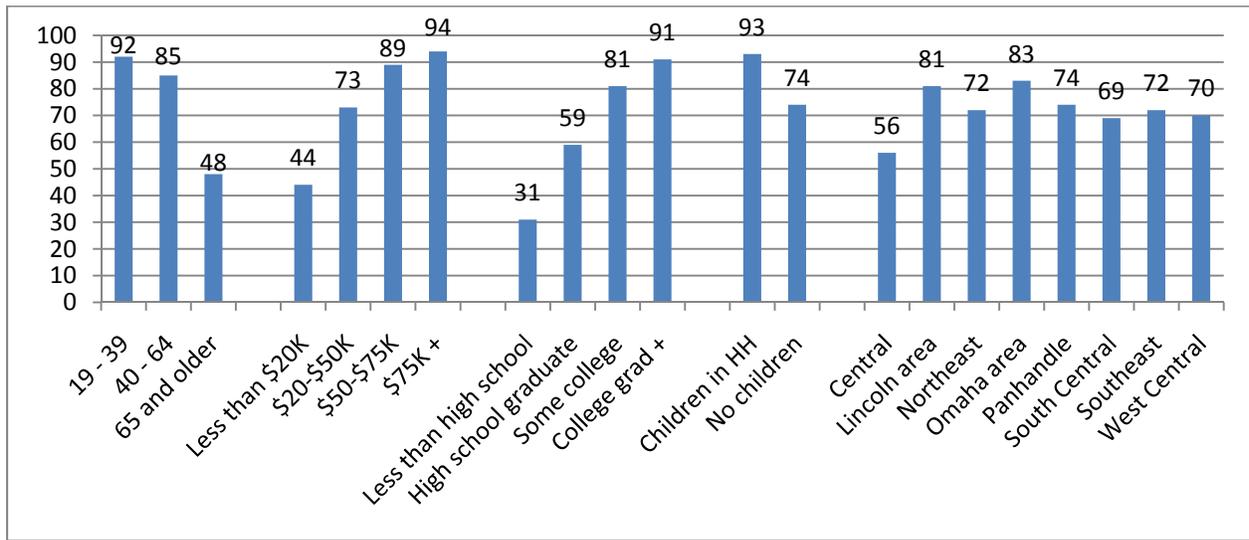
Within City Limits

Eighty percent of persons living within city limits have broadband service, compared to 79 percent of persons living outside city limits.

Region

Persons living in metropolitan areas are more likely than persons living in

Figure 2. Broadband Service by Demographic Factors and Region

nonmetropolitan areas to have broadband. Eighty-three percent of persons living in the Omaha area and 81 percent of persons living in the Lincoln area have broadband. In comparison, 56 percent of persons living in the Central Nebraska area have broadband service.

Non-Broadband Users' Plans for Adoption and Reasons for Not Adopting

Persons who do not currently have a broadband connection were asked when they plan to acquire a broadband or high-speed connection. Most don't know when or if they will get a broadband connection.

Eight percent plan to subscribe to broadband service as soon as it is available and 14 percent plan to within a year. Nine percent are planning to get a connection within 2 to 3 years. Almost one-half (47%)

have no definite plans to get a broadband connection and seven percent don't plan to ever get one. Fourteen percent don't know when they plan to get a broadband connection and two percent answered other.

Persons without a current broadband connection were then asked why they don't have it. They were allowed to circle more than one response. Note that nonusers of the Internet did not answer this question, only those Internet users having dial-up service only. Almost one-half (48%) say it is too expensive. One-quarter (25%) are satisfied with their current connection. One in five (20%) say broadband is not available and 19 percent say they don't know enough about it.

Earlier, it was noted that older persons, persons with lower household incomes, persons with lower education levels and residents of the Central Nebraska area are the groups less likely to have broadband

Table 2. Reasons for Not Currently Having a Broadband Connection

It is not available	20%
It is too expensive	48%
I don't know enough about it	19%
I'm satisfied with my current connection	25%
I don't like choice of service providers available	5%
I can't see the benefit of a broadband connection	1%
I don't know	2%
Other	5%

n=118 for dial-up only users

service. The main barriers to broadband subscribership for older persons include: too expensive (44%), satisfied with their current connection (33%), and don't know enough about it (25%).

The primary barriers to broadband subscribership for persons with lower household incomes include: too expensive (61%), don't know enough about it (44%), and satisfied with current connection (17%). Barriers for persons living in the Central Nebraska area include: too expensive (50%), not available (42%), don't know enough about it (29%) and satisfied with current connection (21%).

Internet Use

The next set of questions were asked only of those respondents who have Internet access at home (n = 2357).

Sixty percent of home Internet users have a home wireless network. Over one-half (56%) of the Internet households say

someone works from home using the Internet at least a few times a month. Almost one-quarter (22%) work from home using the Internet every day. Twenty-six percent say they never use the Internet to work from home and an additional 10 percent answered not applicable.

Most dial-up only households (64%) do not work from home. However, most broadband households (66%) say someone works from home using the Internet.

Technologies can enhance work. Just over one-half (51%) of Internet households say that technologies such as Internet, e-mail, cell phones and instant messaging have improved their ability to do their job a lot. An additional 22 percent say these technologies have improved their ability to do their job some.

Almost one-half (48%) say technologies have allowed them more flexibility in the hours they work either some or a lot. Most (57%) say technologies improved their ability to share ideas with co-workers either some or a lot. And, most households (77%) say technologies have expanded the number of people they communicate with either some (29%) or a lot (48%).

Furthermore, most (60%) of households say technologies have increased the amount of time they spend working from home at least a little. Twenty-one percent say technologies have increased the time spent working at home only a little, 20 percent say it has increased the time some and 19 percent say it has increased the time a lot.

However, technologies can also bring some other consequences. Most (60%) of households say technologies have made it harder to forget about work at home and on the weekends at least a little (19% say only a little, 24% answered some and 17% say a lot).

Next households were asked how often anyone in their household uses their home Internet connection to do various items. Most households (93%) send or receive e-mail at least once a week. Almost three-quarters (74%) use e-mail at least once per day. Other Internet activities done at least weekly include: use an online search

engine (80%), check weather reports and forecasts (77%), get news online (75%), for education or research (71%), use a social networking site (59%), and online banking or bill pay (48%). See Appendix Table 1 for the complete listing of frequencies for these items.

Broadband users are more likely than dial-up only users to do each of the items listed. For example, 90 percent of broadband users get news online, compared to 59 percent of dial-up users. And, 73 percent of broadband users have done online banking or bill pay, compared to just 30 percent of dial-up users.

Table 3. Internet Activities by Type of Internet Access

	All Internet Users	Dial-up Users	Broadband Users
	% of Households Doing Each Item		
Send or receive e-mail	98	95	99
Check weather reports and forecasts	93	70	94
Use an online search engine	92	76	93
For education or research	91	73	93
Get news online	88	59	90
Buy a product online	86	59	88
Visit a state or local government website	84	63	85
Make travel arrangements	76	35	78
Watch a video on videosharing site like YouTube or GoogleVideo	72	23	75
Listening to music	72	34	74
Online banking or bill pay	70	30	73
Use a social networking site like Twitter, MySpace, Facebook	69	35	71
Work related activities	65	32	67
Play games online	62	40	64
Send instant messages	60	32	62
Look online for job information	58	33	59
Apply for a job online	47	31	48
Make a donation to charity	36	8	37
Download a podcast	33	11	34
Taking online courses	31	11	32
Buy or sell stocks, mutual funds or bonds	23	9	24
VoIP, Skype, magicJack	19	2	19
Create or work on your own blog	16	9	17
Two-way audio/video meetings	15	6	16

Satisfaction with Internet Service

Nebraska households appear to be generally satisfied with their Internet service. Most Internet households are somewhat or very satisfied with the following aspects of their Internet service: reliability (70%), speed (64%), and support (57%). However, they are less satisfied with the price of their Internet service (42%). In fact, 43 percent of Internet households are somewhat or very *dissatisfied* with the price of their service.

Dial-up users are more likely than broadband users to be satisfied with the price of their Internet service (63% compared to 41% of broadband users).

However, broadband users are more likely than dial-up users to be satisfied with the reliability, speed and support of their Internet service.

Table 4. Satisfaction with Internet Service

	All Internet Users	Dial-up Users	Broadband Users
	% very or somewhat satisfied		
Price	42	63	41
Reliability	70	47	71
Speed	64	22	66
Support	57	34	58

Broadband users living outside city limits are more likely than broadband users within city limits to express dissatisfaction with the speed of their Internet service. Thirty

percent of broadband users living outside city limits are dissatisfied with the speed of their service, compared to 23 percent of broadband users living within city limits.
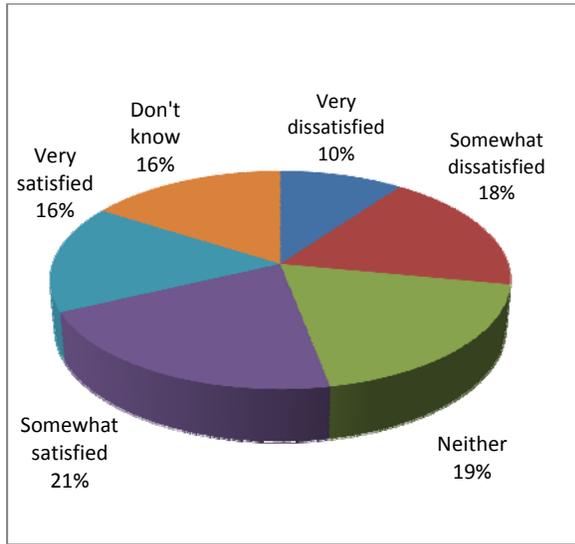
Users of mobile broadband service (Internet service for portable devices) are somewhat satisfied with their service. Most mobile broadband users (60%) are somewhat or very satisfied with the coverage of their service. And, many are satisfied with the speed (48%) and support (48%) of this service. However, many express *dissatisfaction* with the price (45%) of their mobile broadband service. Forty percent are satisfied with the price of their service.

Community Technology Resources

Nebraskans' opinions are somewhat mixed about the types of Internet service available in their community or area. Many households (37%) are somewhat or very satisfied with the types of Internet service available in their community or area. However, just over one-quarter (28%) are somewhat or very dissatisfied with the services in their area.

Residents living in the Southeast region of the state are more likely than residents of other regions to express dissatisfaction with the types of services available in their area. Thirty-six percent of Southeast area

Figure 3. Satisfaction with Types of Internet Services Available in Area

When asked what types of Internet services are available in their area, the most common service is dial-up (61%). Other services available include: DSL (56%), cable modem (56%), wireless connection (49%), satellite connection (40%), wireless mobile card or cellular service (38%), and fiber to the home (10%). A significant portion (27%) answered don't know.

Residents living within city limits are more likely than residents living outside city limits to say the following services are available in their area: DSL (59% compared to 50%), wireless connection (52% compared to 41%), cable modem (64% compared to 35%), wireless mobile card or cellular service (41% compared to 33%), and fiber to the home (11% compared to 8%). Residents living outside city limits are more likely than residents living within city limits to have dial-up (64% compared to 60%) and satellite services (48% compared to 37%) available.

residents are very or somewhat dissatisfied with the types of service available, compared to 25 percent of the Omaha area residents.

Residents living outside city limits are more likely than residents living within city limits to express dissatisfaction with the types of Internet service available in their area. Thirty-nine percent of persons living outside city limits are dissatisfied with the types of service available, compared to 24 percent of persons living within city limits.

Residents of the Central region are *less* likely than residents of other regions to say they have the following services available: dial-up (54%), DSL (48%), wireless

Table 5. Satisfaction with Types of Internet Services Available by Region

	Dissatisfied	Neither	Satisfied	Don't know
Central	32	15	29	25
Lincoln area	30	24	32	15
Northeast	30	15	36	19
Omaha area	25	19	43	14
Panhandle	29	17	35	20
South Central	27	19	36	18
Southeast	36	17	32	15
West Central	31	16	35	19
Total	*28*	*19*	*37*	*16*

Table 6. Types of Internet Services Available in Area by Region

	Dial-up	DSL	Satellite	Wireless	Cable modem	Fiber to the home	Wireless mobile card or cellular service	Don't know
				% of households indicating service was available				
Central	54	48	34	33	26	6	30	32
Lincoln area	62	67	38	51	62	8	43	26
Northeast	63	54	42	46	48	9	36	25
Omaha area	56	51	39	52	70	15	43	28
Panhandle	66	54	46	51	49	8	36	27
South Central	63	58	41	47	49	6	36	28
Southeast	63	62	43	43	35	6	30	25
West Central	65	54	41	54	46	6	31	27
Total	*61*	*56*	*40*	*49*	*56*	*10*	*38*	*27*

connection (33%), and cable modem (26%). Omaha area residents are the regional group most likely to have cable modem (70%) and fiber to the home (15%) available. Lincoln area residents are the group most likely to have DSL service available (67%).

Most Nebraska households believe that the Internet services available in their community or area are somewhat or very adequate for their household (93%), businesses in the community (93%), for attracting new residents (83%) and for future generations (78%). However, while one-half (50%) believe the Internet services are very adequate for their household, only 30 percent believe they are very adequate for future generations.

West Central residents are more likely than residents of other regions to believe the Internet services available in their community are not at all adequate for their household.   Thirteen percent of West Central residents say the Internet services available are not at all adequate for their

household, compared to three percent of Omaha area residents. Southeast residents are the regional group most likely to think the Internet services are not at all adequate for businesses in the community (15%).

Residents living in the metropolitan areas are less likely than residents of the nonmetropolitan regions to say the Internet services in their area are not at all adequate for attracting new residents. Only 10 percent of Omaha area residents and 14 percent of Lincoln area residents say the Internet services available in their area are not at all adequate for attracting new residents. However, at least one in five households in the nonmetropolitan regions think the Internet services available are not at all adequate for attracting new residents.

A similar pattern occurs when rating the adequacy of Internet services available in their area for future generations. Metropolitan area residents are less likely than nonmetropolitan region residents to say the services are not at all adequate for future generations.

Table 7. Inadequacy of Internet Services for Various Items by Region

	Your household	Businesses in the community	Attracting new residents	Future generations
		% answering not at all adequate		
Central	12	11	22	27
Lincoln area	5	7	14	19
Northeast	10	8	25	27
Omaha area	3	5	10	16
Panhandle	10	9	23	30
South Central	8	8	20	22
Southeast	12	15	24	28
West Central	13	7	23	28
Total	*7*	*7*	*17*	*22*
Residents outside city limits	15	13	25	34
Residents within city limits	4	5	14	17

Persons living outside city limits are more likely than persons living within city limits to say the Internet services available in their area are not at all adequate for all of the items listed. As an example, just over one-third (34%) of persons living outside city limits say the Internet services available are not at all adequate for future generations. This opinion is shared by just 17 percent of persons living within city limits.

Most Nebraska households (75%) have access to a local place, such as a library or school, in their neighborhood or community where they can use an Internet-accessible computer for free. Eight percent say they don't have access to such a place and 18 percent don't know if such a place is available locally.

Southeast region residents and the Central region residents are less likely than the residents of other regions to have access to a public use facility. Sixty-four percent of

Southeast area residents and 68 percent of Central area residents say they have access to a public use facility. In comparison, 80 percent of Panhandle residents have access to a public use facility.

American Indians or Alaska natives are the racial group *least* likely to have access to a public use facility. One-half (50%) of

Figure 4. Access to Public Use Facility by Region
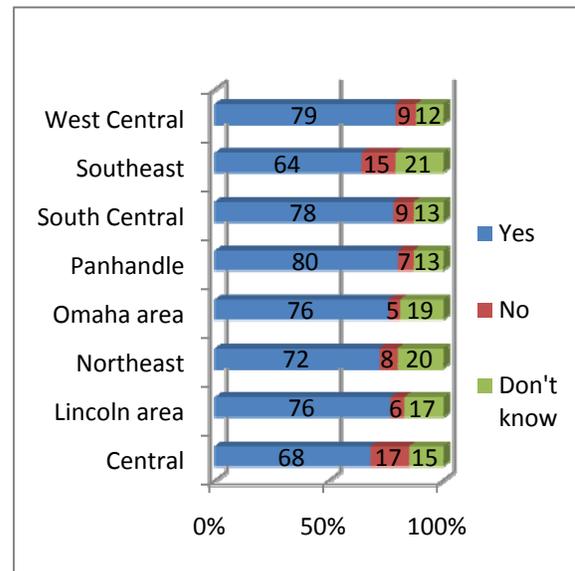
American Indians/Alaska natives have access to a public use facility, 20 percent report having no access to such a facility and 30 percent don't know if such a place is available. Most African Americans (96%) report having access to a public use facility as do Hispanics (87%).

The households that have access to a public use facility were then asked how often they use the computer resources at the facility. Most households (63%) never use the computer resources at the public use facility. Four percent use the computer resources more than once a week, two percent use them about once a week, two percent use them about twice a month and three percent use them about once a month. Eight percent of households use the computer resources about once every few months and 19 percent use them less often.

Persons with no Internet access at home use the computer resources at the public use facility more often than households with Internet at home. Forty-one percent of the households without Internet access use the computer resources at the public use facility. Nine percent of households without Internet access use the computer resources more than once a week and an additional 14 percent use the computers at least once a month. Just over one-third (35%) of dial-up only households and 37 percent of broadband households use the computer resources at the public facility.

Minority groups are more likely than whites to use the computer resources at the public use facility. Sixty percent of both Asian/Pacific Islanders and American Indian/Alaska Natives use the computer resources at these facilities. And, over one-half (52%) of African Americans use the computers at the facility. In comparison, just over one-third (35%) of whites use the computer resources at the public use facilities.

Most persons who use the computer resources at the public use facility are very or somewhat satisfied with the hours the computers are available (59%), the number of available computers (55%), the location of the facility (70%), and building accessibility (70%).

Almost one-half (46%) of households say there are free public Internet 'hotspots' (Wi-Fi access points or areas for connecting to the Internet such as at airports, coffee shops, restaurants, etc.) available in their community. Fourteen percent say there are no free public Internet 'hotspots' in their community and 40 percent don't know if any are available.

Sixteen percent say there are pay for service 'hotspots' in their community, 15 percent say they are not available and 69 percent don't know if they are available.

Over one-third (35%) of Central area residents say there are no free public Internet 'hotspots' in their community. And, almost one-half (48%) of Central area

Figure 5. Availability of Free Public ' Hotspots' by Region
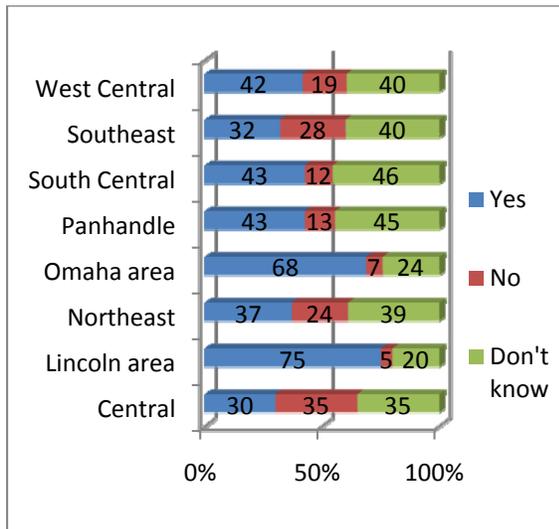
residents say there are no pay for service 'hotspots' in their community.

Most households (76%) agree that it is important to have free public Internet 'hotspots' available in the community. Only six percent disagree with this statement and 18 percent neither agree nor disagree.

Almost one-half (48%) of households agree that they are more likely to frequent businesses that offer free Internet 'hotspots'. Thirteen percent disagree and over one-third (38%) neither agree nor disagree.

Younger persons are more likely than older persons to agree that is important to have free public Internet 'hotspots' in the community. Eighty-eight percent of persons age 19 to 39 agree that having free public Internet 'hotspots' in the community is important, compared to 62 percent of persons age 65 and older. And, younger persons are more likely to frequent

businesses that offer free Internet 'hotspots' (56 percent compared to 37 percent of persons age 65 and older).

Persons with lower household incomes are more likely than persons with higher incomes to frequent businesses that offer free Internet 'hotspots'. Seventy-two percent of persons with household incomes under $20,000 agree that they are more likely to frequent businesses that offer free 'hotspots', compared to 46 percent of persons with household incomes of $75,000 or more.

Omaha area residents are more likely than residents of other regions of the state to agree that it is important to have free public Internet 'hotspots' available in the community. Eighty-three percent of Omaha area residents agree with this statement, compared to 63 percent of Southeast area residents.

Technology Training Needs

Most Nebraskans talk to family and friends (76%) and search the Internet (75%) to stay up to date on technology. Fifty-three percent read newspapers to stay current on technology.

Younger persons are more likely than older persons to use the following items to stay up to date on technology: searching the Internet, talk to family and friends, videos, and podcasts. Persons age 40 to 64 are the

Figure 6. How Nebraskans Stay Up to Date on Technology
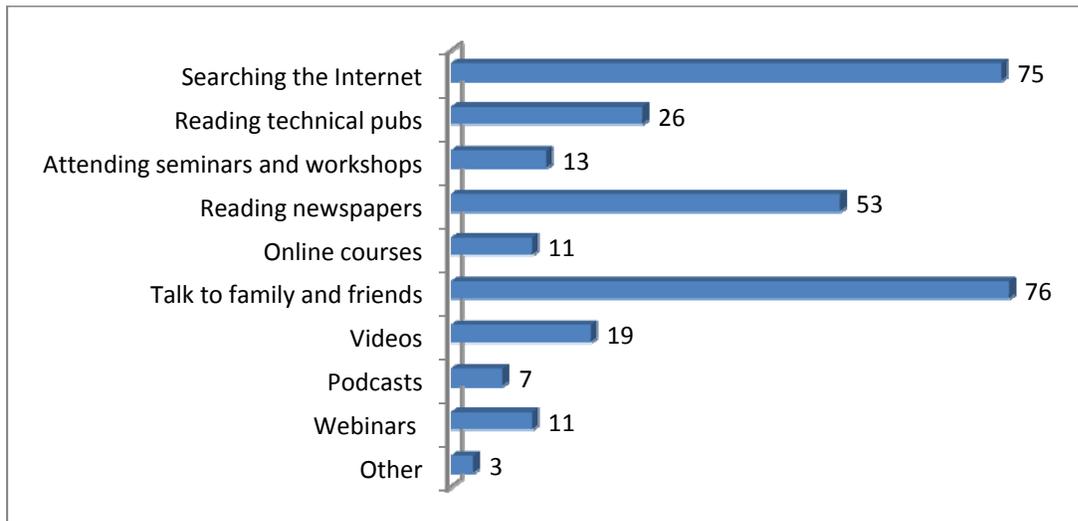
age group most likely to use webinars to stay up to date on technology. And, persons age 65 and older are the group most likely to read technical publications and magazines to stay up to date.

Persons living in both the Lincoln and Omaha metropolitan areas are more likely than persons living in the nonmetropolitan regions of the state to search the Internet to stay up to date on technology. Lincoln area residents are the group most likely to use podcasts.

Many Nebraskans are interested in certain information technology courses. Forty-one percent of Nebraskans are somewhat or very interested in courses on website development and basic computer networking.

The proportions interested in other courses include: basic computer use (38%), using the Internet (36%), audio/video production (35%), social networking (30%), e-mail use (29%), and writing for the Web (27%).

Certain groups are more likely than others to express interest in some of these courses. Older persons are more likely than younger persons to be interested in basic computer courses, such as basic computer use, e-mail use and using the Internet. Over one-half (53%) of persons age 65 and older are interested in a course on using the Internet, one-half (50%) are somewhat or very interested in a basic computer use course, and 46 percent are interested in an e-mail use course.

Younger persons are more likely than older persons to be interested in courses on website development and audio/video production. Fifty-eight percent of persons age 19 to 39 are interested in a course on website development, compared to 34 percent of persons age 65 and older. And, approximately 46 percent of persons under the age of 65 are interested in a course on audio/video production, compared to 30 percent of persons age 65 and older.

Persons with lower education levels are more likely than persons with more education to be interested in courses on basic computer use, e-mail use, using the Internet, social networking, and writing for the Web. As an example, 80 percent of persons without a high school education are interested in a basic computer use course, compared to 29 percent of persons with at least a four-year college degree.

Persons with lower household incomes are more likely than persons with higher incomes to be interested in all of the courses listed. For example, 60 percent of persons with household incomes under $20,000 are interested in a course on using the Internet, compared to 34 percent of persons with household incomes of $75,000 or more.

Residents of the Southeast area are more likely than residents of other regions to be interested in a course on e-mail use. Forty-eight percent of persons living in the Southeast area of the state are interested in an e-mail use course, compared to 24 percent of persons living in the Lincoln area. Omaha area residents are the regional group most interested in a class on writing for the Web. Forty-three percent of Omaha residents are interested in this course, compared to 25 percent of South Central area residents.

Hispanics are more likely than non-Hispanics to be interested in each of the courses listed. As an example, three-quarters (75%) of Hispanics are very or somewhat interested in a course on website development, compared to 41 percent of non-Hispanics.

African Americans are the racial group most likely to be interested in taking each of the courses listed. Most African Americans (79%) are somewhat or very interested in taking a course on audio/video production and 78 percent are interested in a course on basic computer use. Almost three-quarters (72%) of African Americans are interested in courses on website development and basic computer networking.

When asked about delivery options for training, Nebraskans prefer more conventional methods. Most Nebraskans rate the following as very or somewhat useful: CD or DVD (82%), face to face half-day workshops with hands-on computer work (77%), face to face all day workshops with hands-on computer work (74%), online courses (71%), and delivery of information via a newsletter (69%). The proportions rating other methods as somewhat or very useful include: Webinar format (62%); videos (57%); podcasts (51%); and delivery of information via a blog, wiki, social network (46%).
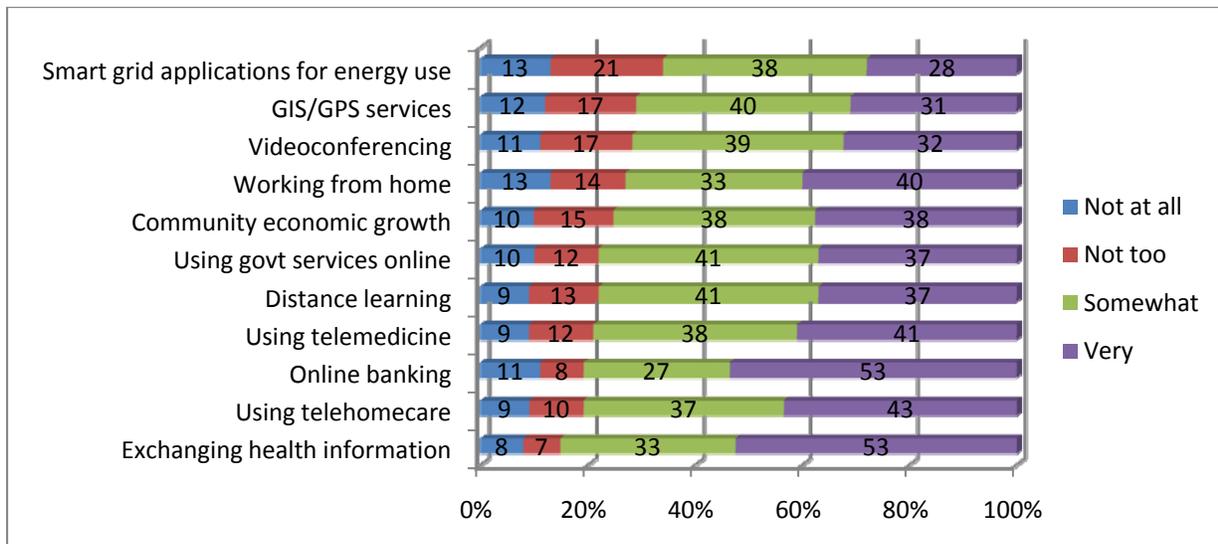
Younger persons are more likely than older persons to rate the following delivery options for training as useful: delivery of information via a blog, wiki, social network; face to face workshops (both half day and full day); podcasts; and video.

Finally, households were asked how important they feel various broadband applications are. Most Nebraska households feel each of these applications are important. At least three-quarters of households rate the following as very or somewhat important: exchanging health information so that providers have a complete health record when treating you (86%), using telehomecare to monitor chronic health conditions (80%), online banking (80%), using telemedicine to consult with health care providers (79%), taking advantage of distance learning opportunities (78%), using government services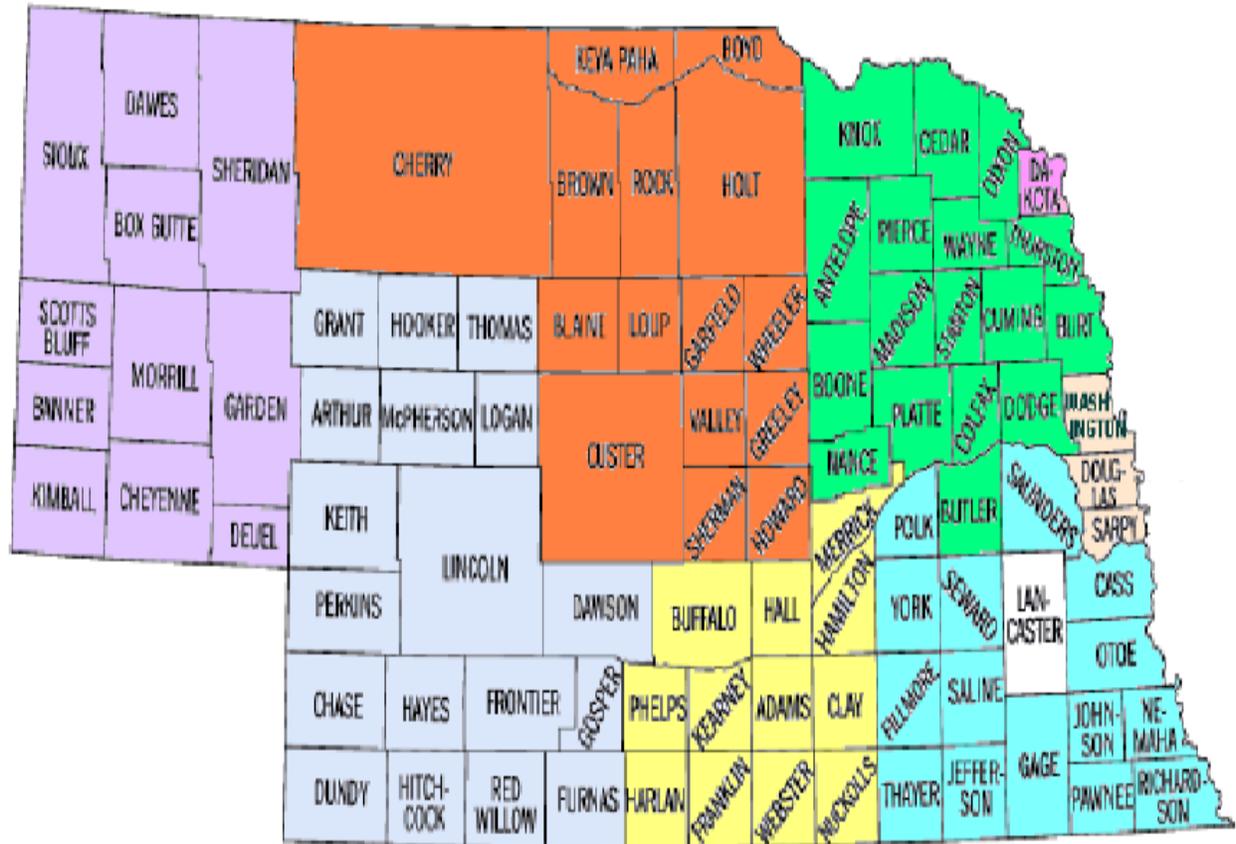 online (paying for taxes or applying for licenses online) (78%), and contributing to economic growth in your community (76%).

Younger persons are more likely than older persons to view telemedicine, telehomecare, videoconferencing, working from home, monitoring and adjusting energy use through smart grid applications, contributing to economic growth in your community, GIS/GPS services, using government services online, and online banking as important broadband applications.

Figure 7. Importance of Broadband Applications

Appendix Figure 1. County Regions

Panhandle Area Development District

Central Nebraska Economic Development District

West Central Nebraska Economic Development District

South Central Economic Development District

Northeast Nebraska Economic Development District

Siouxland Interstate Metropolitan Planning Council

Metropolitan Area Planning Agency

Southeast Nebraska Development District

Appendix Table 1. How Frequently Do Internet Activities

	Several times a day	*About once/ day*	*3 – 5 days/ week*	*1 – 2 days/ week*	*Every few weeks*	*Less often*	*Never*
Send or receive e-mail	48%	26%	11%	8%	4%	2%	2%
Use a social networking site like Twitter, MySpace, Facebook	26	17	6	10	6	5	31
Send instant messages	17	10	6	8	7	12	41
Create or work on your own blog	2	3	1	3	2	6	84
VoIP, Skype, magicJack	3	1	1	3	5	6	82
Two-way audio/video meetings	1	2	1	1	4	7	85
Get news online	23	25	13	14	7	6	12
Check weather reports and forecasts	21	26	16	14	9	7	7
For education or research	18	18	19	16	13	8	9
Use an online search engine	36	19	15	10	7	6	8
Visit a state or local government website	3	4	6	11	26	34	16
Look online for job information	4	3	5	6	10	29	42
Apply for a job online	2	2	2	4	7	29	53
Buy a product online	2	2	5	9	40	29	14
Make travel arrangements	1	1	2	4	17	51	24
Make a donation to charity	1	0.4	0.4	1	6	27	64
Online banking or bill pay	5	11	13	19	15	6	30
Buy or sell stocks, mutual funds or bonds	1	1	1	2	4	14	77
Watch a video on videosharing site like YouTube or GoogleVideo	6	7	12	14	16	17	28
Listening to music	9	11	11	11	12	18	29
Play games online	11	12	9	9	9	13	38
Download a podcast	1	3	3	3	7	16	67
Work related activities	14	11	7	10	10	13	35
Taking online courses	3	2	2	3	5	16	69

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