Central Sierra Connect
California Emerging Technologies Fund
Broadband Youth Survey Results

September 2009

This document summarizes the results from a California Emerging Technology Fund (CETF) sponsored youth survey that was compiled from April-September 2009 based on responses from a youth survey based in Tuolumne County. The objective of this summary is to provide results and insight for development of future broadband technology and services.

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ACKNOWLEGEMENTS

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ATCAA staff and volunteers including Shelly Hance, Kristin Rippee, and a host of volunteers.

A big thanks to our student volunteer who designed and collected the survey.

Finally, the youth responders who gave their precious time and feedback to our survey input.

Thanks! Sharon Crost, SierraTec Consulting and Michelle Shelton, Luminosity Tech Training and Consulting

EXECUTIVE SUMMARY

The key objective of the Tuolumne County youth survey was to assess the potential demand for broadband by youth in the Central Sierra, leveraging the 5 metrics used for our residential and business survey and established by CETF: Access + Applications + Affordability + Accessibility + Assistance = Adoption. We also asked for demographic information to help facilitate analysis of the results. A summary of questions and results is included in the appendix.

The survey was completed from April through September 2009 based on a sample of 106 responses.

Our key findings:

The most salient issue found in the youth survey results is that broadband is not available to the majority of the youth responders. 54.7% of responders report that high speed internet is not available. The second, but largely less significant issue is that 21.3% report that high speed internet is too expensive.

The survey responders were in 9th through 12th grade, which represents ages around 14-17 years old. This survey population is a relatively technically savvy population, where 91.3% of the population claim that most people they know are connected online. Less than 3% reported needing much support to get on the internet.

The majority of the responders have been online for more than 3 years (71.8% of responders) and almost 90% go online several times a week.

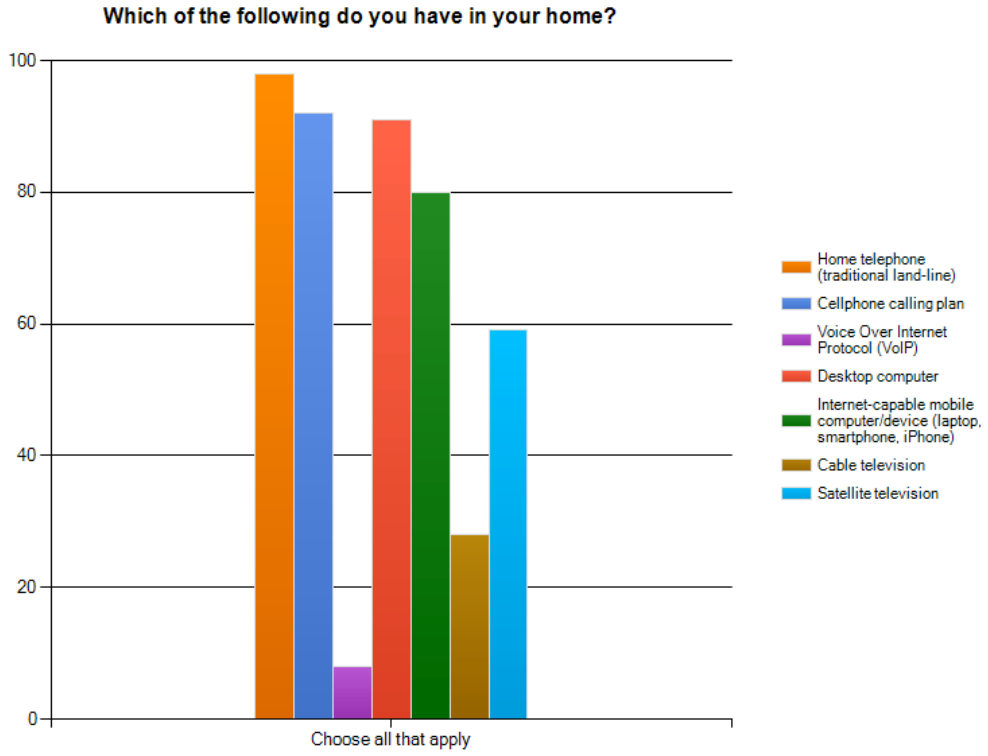
The responders connect to the internet using wireless devices (60%) and spend more time on cell phones than on traditional landlines.

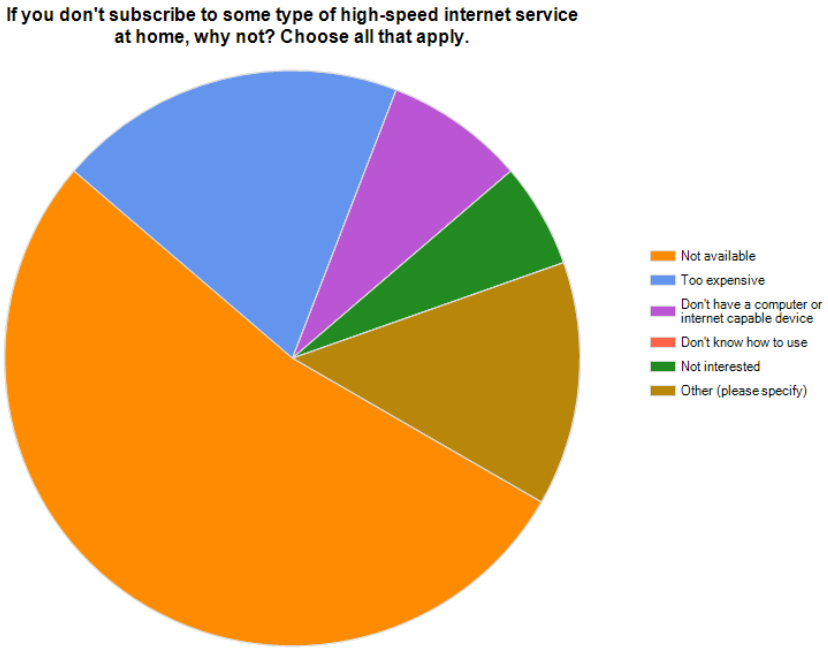
Results by Adoption Factors

The following section analyzes our results based on the 5 adoption factors we used in the survey. Please note that the Y-axis of the column charts represents number of responders, not percentage of responders. Since we had 106 responses in the survey, the percentage results are coincidentally similar.

Access

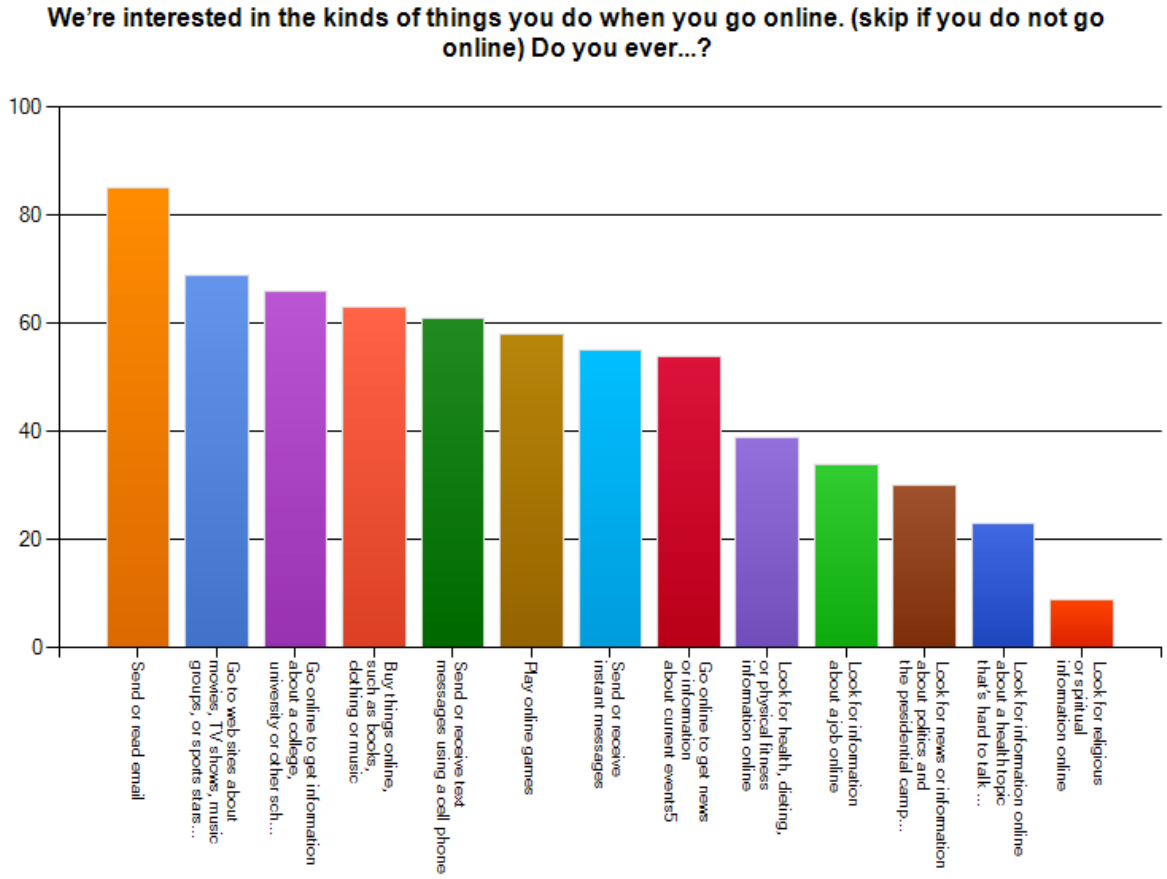
We asked responders to tell us about their communication connections. Almost 90% of the youth in our community have land line phones, cell phones, cable or satellite television, and desktop computers. About 80% have an internet capable mobile device. On the other hand, youth does not have access to high speed internet at home. The survey results show that the key broadband adoption issue in our rural community is that youth suffers from lack of broadband availability. 54.7% of our responders report that broadband is not available. This is a significant issue, particularly due to the high usage of and competence in internet applications.




If you don't subscribe to some type of high-speed internet service at home, why not? Choose all that apply.
Not available
Too expensive
Don't have a computer or internet capable device
Don't know how to use
Not interested
Other (please specify)

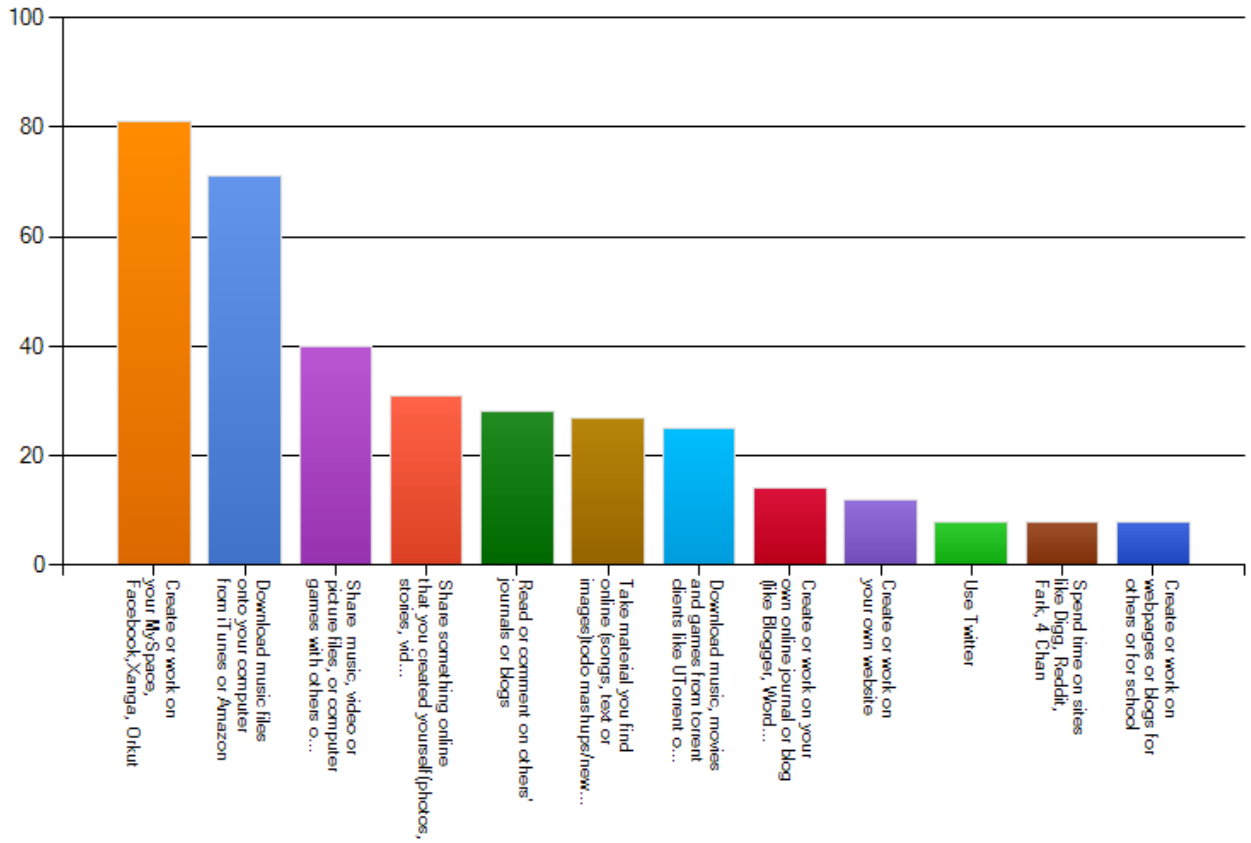
Applications

Our results show a high demand for all types of internet applications, including those functional through dial-up as well as broadband applications. Email ranked the highest in terms of online applications. Interestingly, our youth responders are highly connected: email, text messaging and instant messaging are all communication activities performed by more than 50% of the responders.



We also asked about online activities such as participating in generating user content and social media. Social networking ranked highest (83.5% of responders claimed to do this activity online), followed by downloading and sharing music. Our responses indicate that more youth is online for social activities and entertainment than in online school or research work.

The following are things people sometimes do online. Please choose any of following activities if you do them.

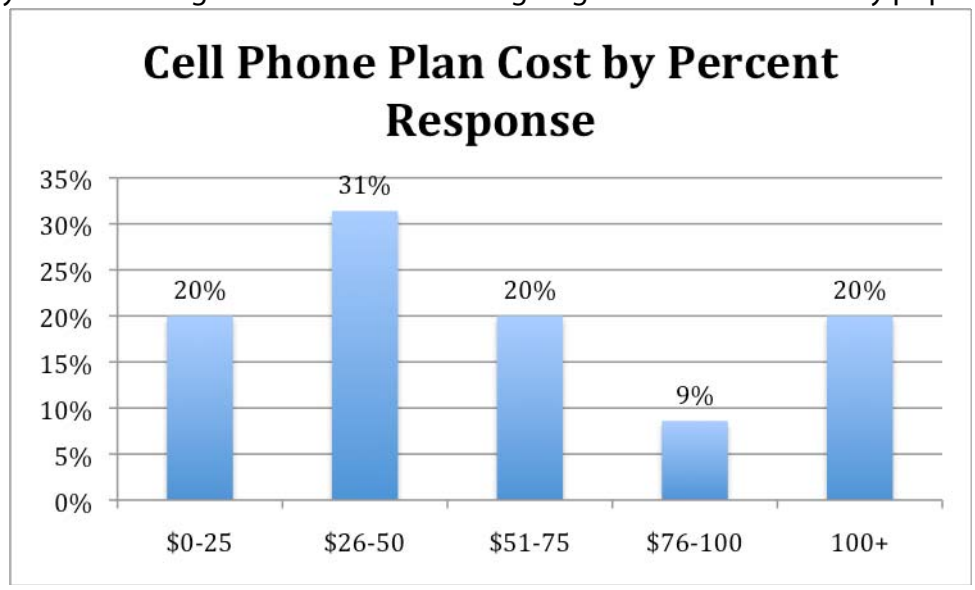


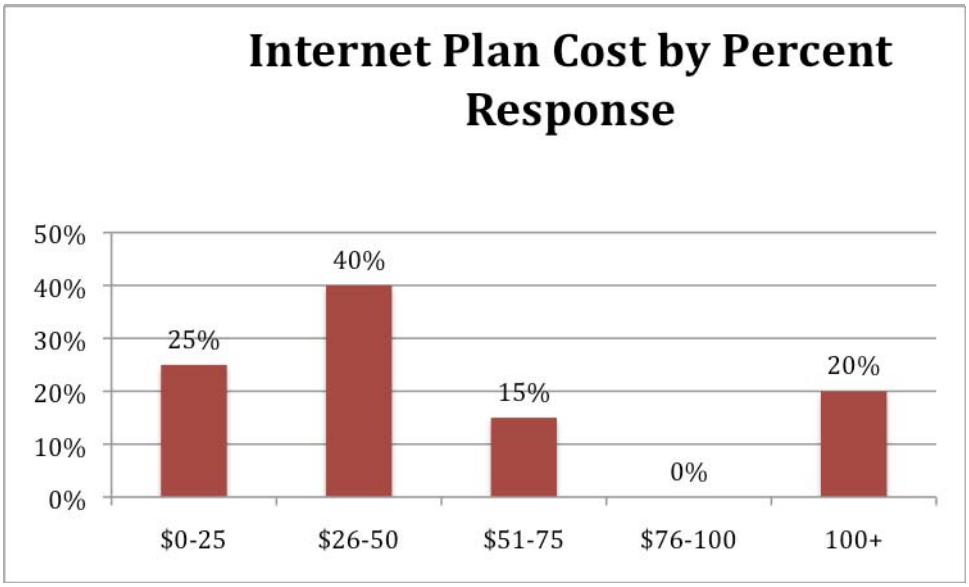
Affordability

We asked several questions to assess the affordability of communication for youth. Note that often the plan is paid for by parents which could skew the assessment. First we asked about monthly cost for cell phone plans. Most pay about $26-$50 per month, with large variation in cell phone plans from less than $25 to more than $100. Similarly, monthly plans for internet had large variation. Most pay $26-$50 per month, with equally as many who pay $25 or less as those who pay $100 or more.

As shown in the pie chart above, when we asked youth why they do not go online, the second most significant answer was affordability, 21.3% claim that they do not go online because it is too expensive.

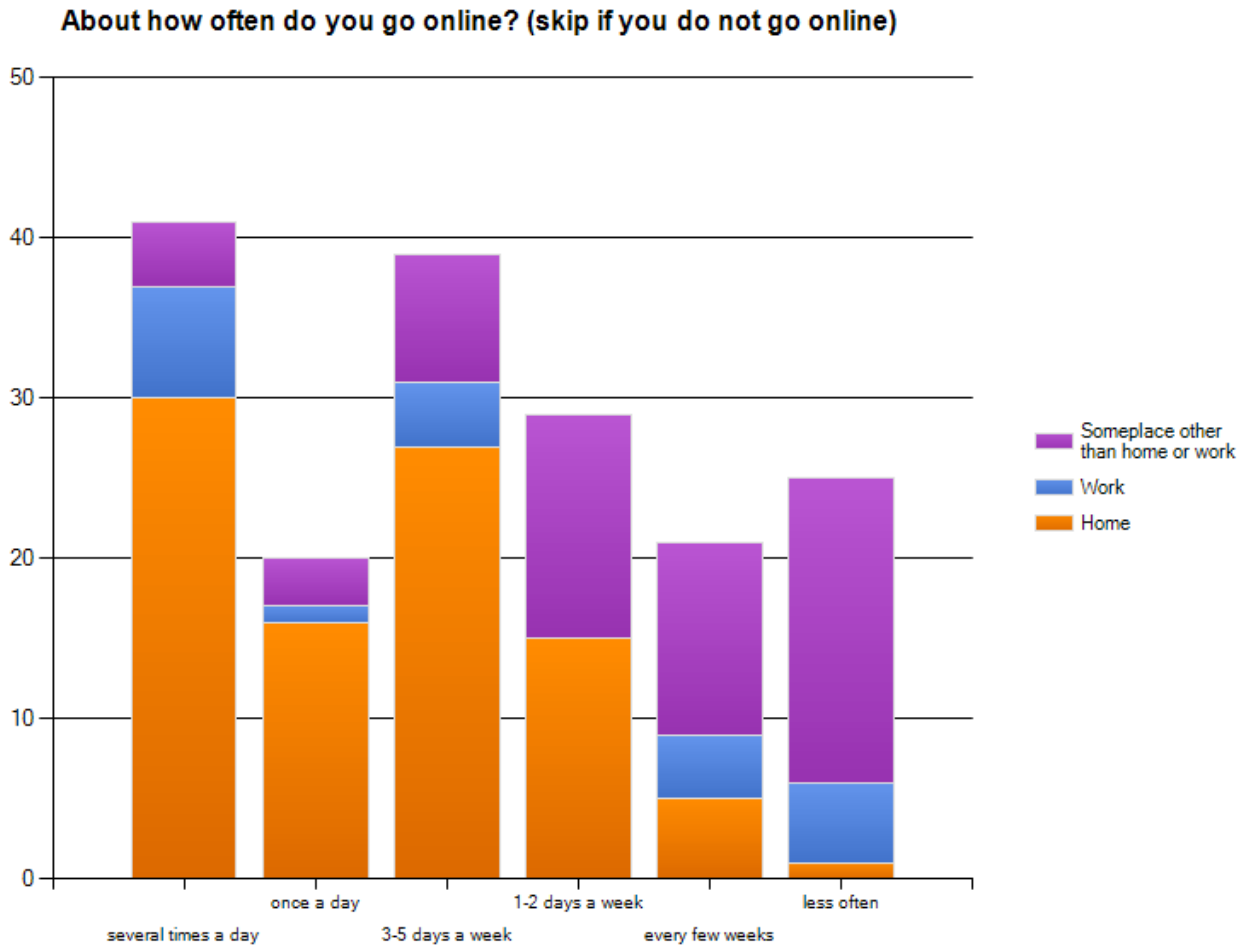
In our region we also queried adult residences and businesses and and we can imply that affordability was not as significant of a barrier for going online in these survey populations.



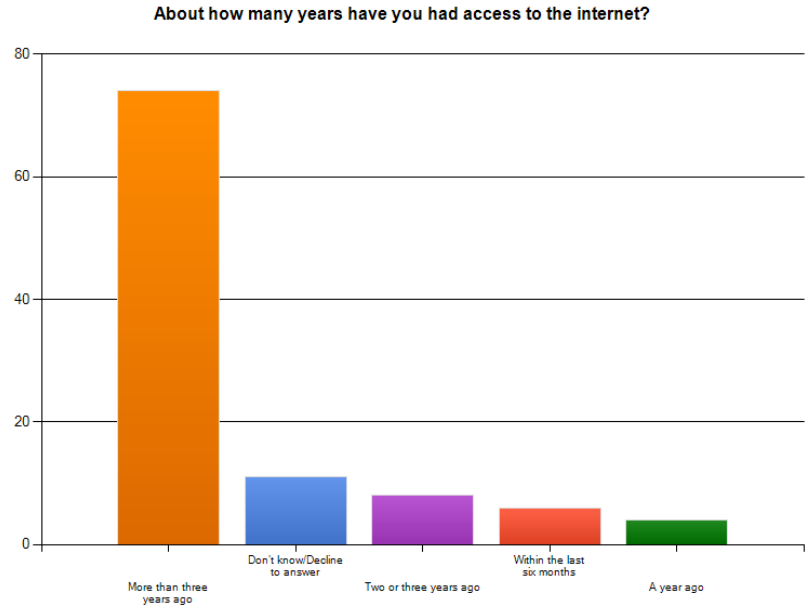


Accessibility

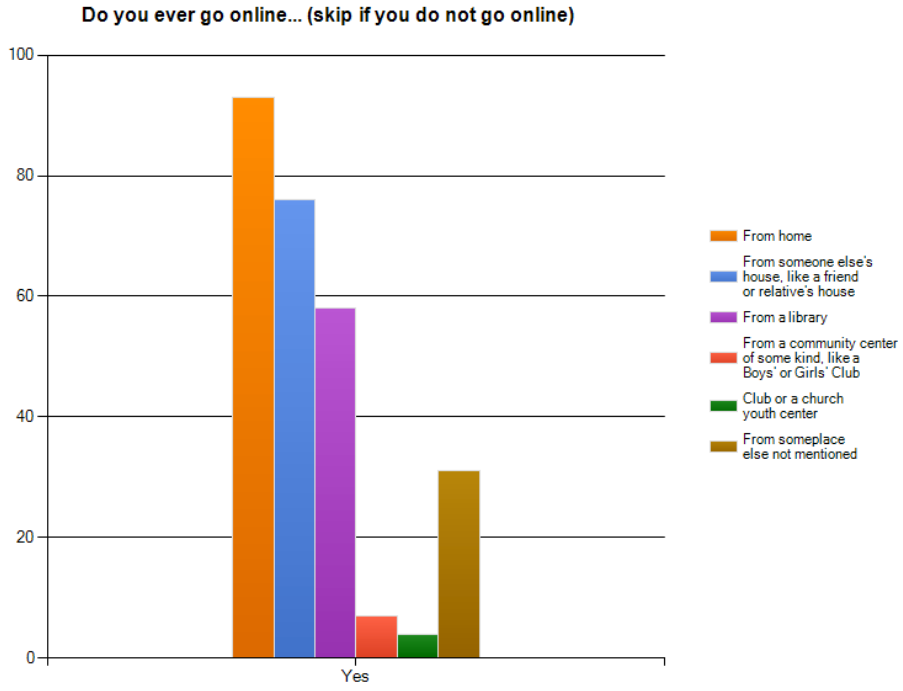
We wanted to know how often youth goes online, and in what locations they have online accessibility. We found that those that have access to the internet at home are significantly more likely to access the internet several times a day. We can't conclude if those that have easy access are more likely to go online, or those that are online are more likely to demand access at home. This would be an interesting follow-up question.



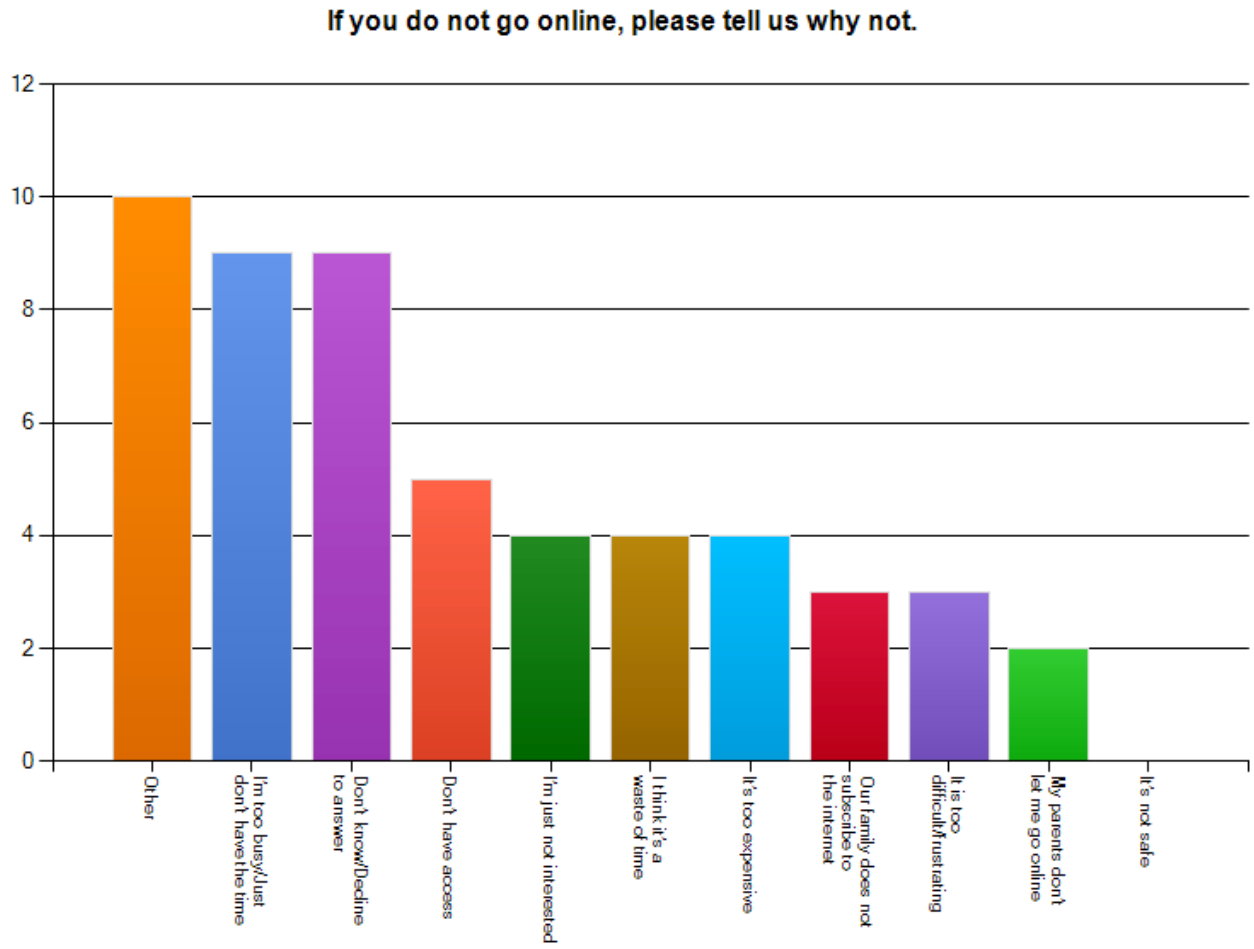
We queried responders to find out how long they had been using the internet. We found that most of our youth have been using the internet for more than 3 years. Given that some of our youngest responders are in the 9th grade, this implies that youth has been active on the internet since elementary school. A small percentage is relatively new to the internet. It would be an interesting follow-up to find out why this population wasn't exposed to the internet during their elementary school years.



We wanted to understand where youth go to get access to the internet. The majority of youth access the internet from home. Those that do not have access to the internet will go online at somebody else's home, at the library or at other locations. Interestingly those that are connected at home will also go online at someone else's home or the library.



For those that don't go online, we were interested in understanding the concerns or barriers to going online. The most significant selected response was that the responders were just too busy or didn't have time to go online. Additionally, responders don't have access, find it's too expensive or their parents do not give them access to the internet. There were many responders that selected the "other" category but we did not query further to find out if there were other significant barriers that were not accounted for in the question. We did not distinguish access speed (dial-up versus high speed access). This clarification could account for some of the access frustrations that youth reported in going online.

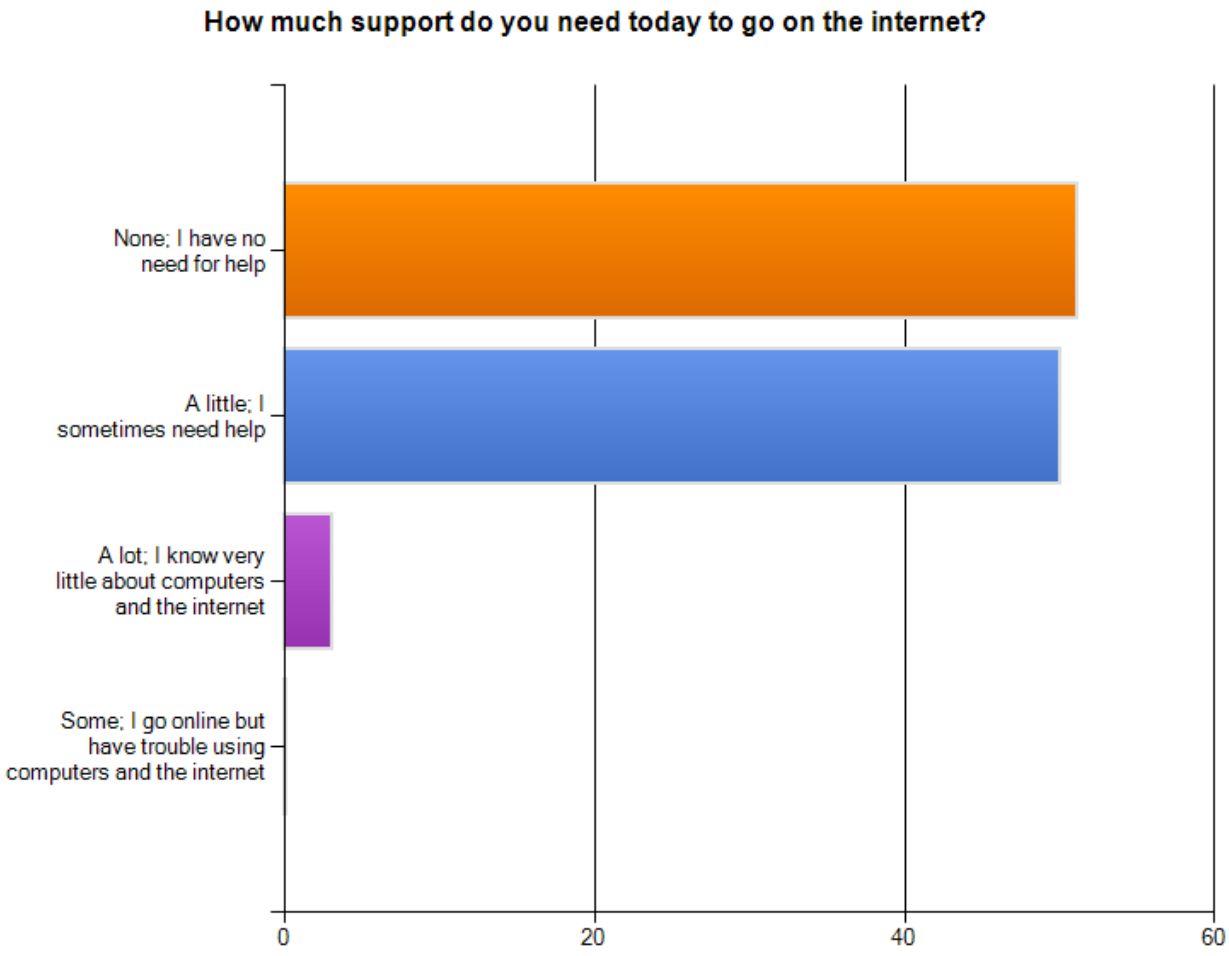


Another way that we assessed concerns over internet accessibility was to ask about the satisfaction level of the users. The crosstab below shows that those that don't go online or are using dial-up as a connection method are much more likely to report dissatisfaction using the internet whereas those that have high speed access are significantly more satisfied.

	Don't go online at home	Dial-up telephone line	High-speed DSL phone line	Cable modem	Wireless connection (either land-based or
Very satisfied	0.0% (0)	7.1% (1)	32.6% (14)	**100.0% (1)**	**42.9% (9)**
Somewhat satisfied	20.0% (1)	21.4% (3)	**55.8% (24)**	0.0% (0)	**42.9% (9)**
Not satisfied	0.0% (0)	28.6% (4)	11.6% (5)	0.0% (0)	9.5% (2)
Very dissatisfied	20.0% (1)	**42.9% (6)**	0.0% (0)	0.0% (0)	4.8% (1)
N/A	**60.0% (3)**	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)

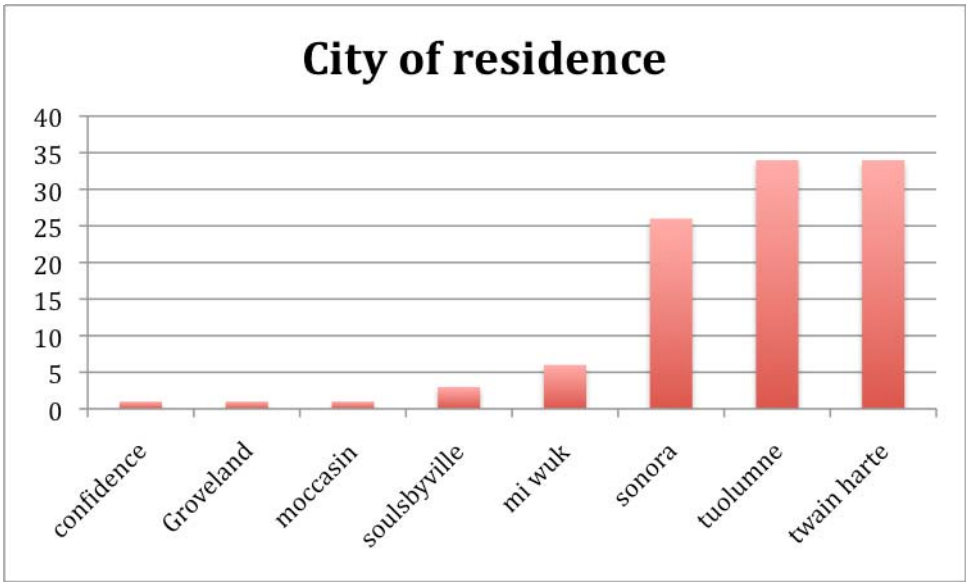
Assistance

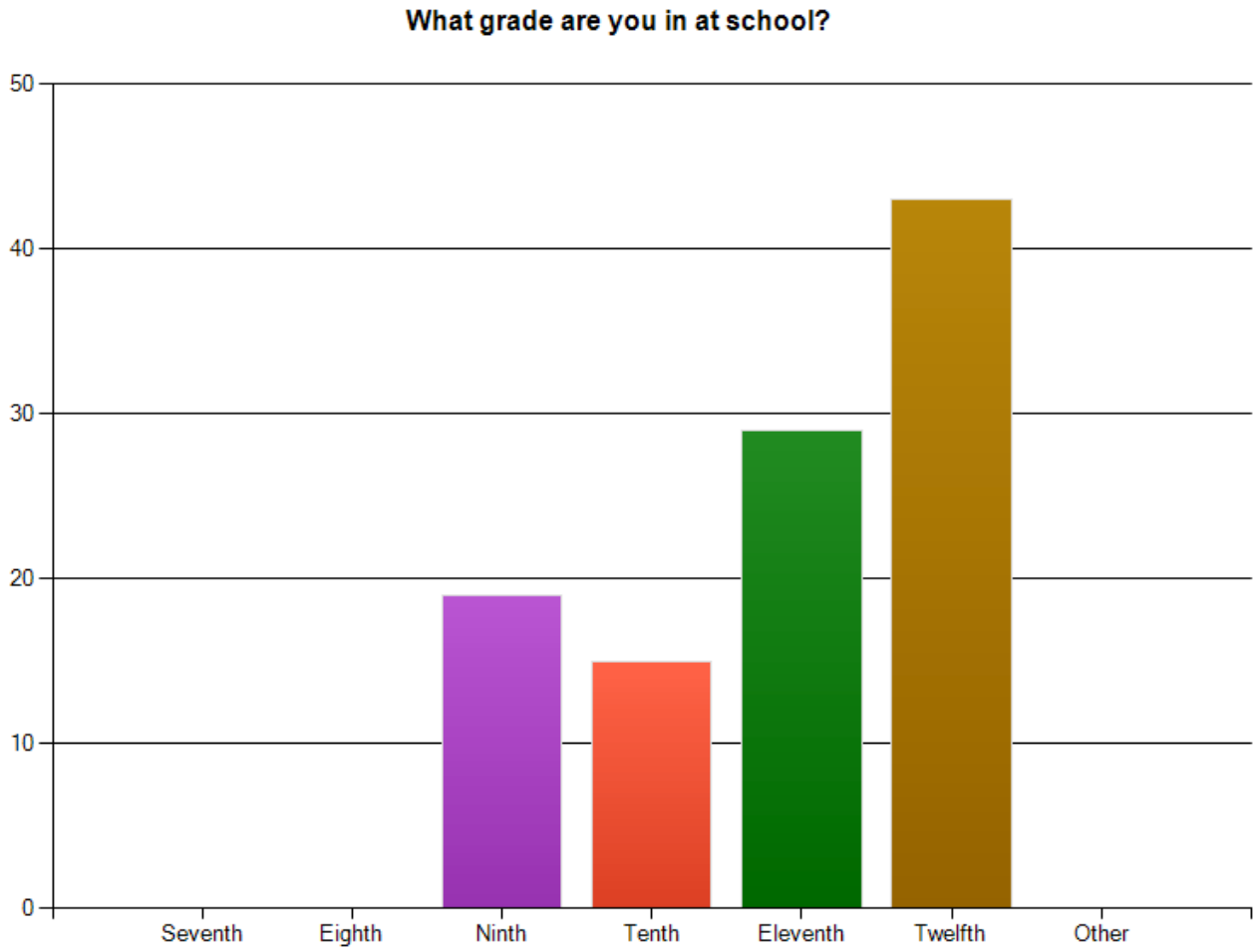
Our youth responders have a high understanding and competence using the internet. The vast majority of our responders need little or no assistance going online. None of our youth responders reported having trouble using computers or the internet.

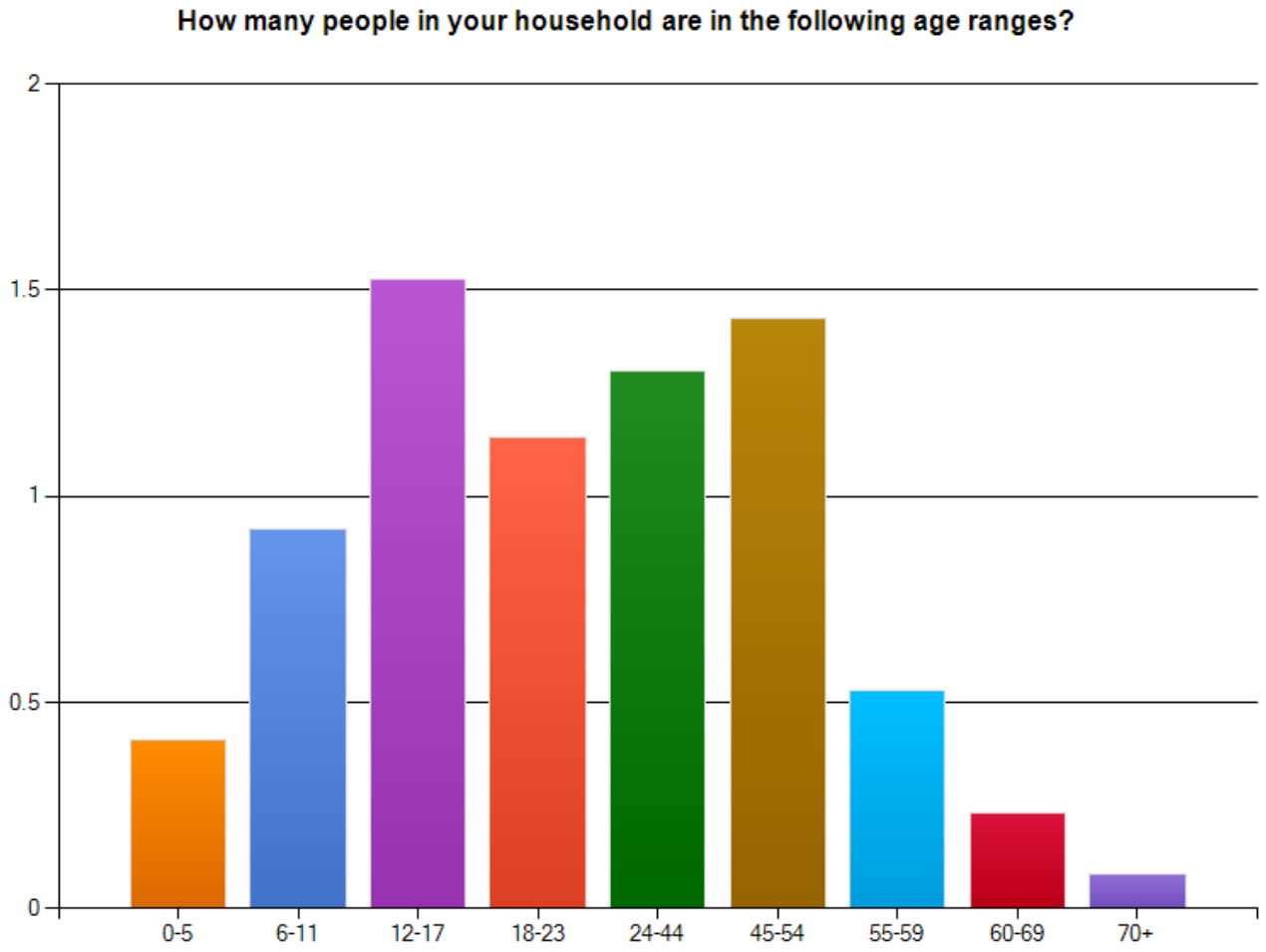


Demographic Questions

We asked responders about their city of residence, their grade in school, and the ages of people in their household. All of the responders were in 9th through 12th grade. The survey queried a sample of youth from a wide city of residence population of Tuolumne County. Demographic charts are shown below.




What grade are you in at school?
50
40
30
20
10
0
Seventh
Eighth
Ninth
Tenth
Eleventh
Twelfth
Other



Further Questions and Research

The survey results may raise the following questions or ideas for further research:

- Are unconnected youth more likely to fall behind their peers academically and socially? And if so how much impact would this disability have on youth?
- This survey was limited to youth in 9-12th grade. How would results be different for younger responders?
- How likely is it that our community's youth will leave their rural community to seek better access to broadband technologies? One of the concerns of our community is that our younger population will leave and not be able to return due in part to technological inequalities.

Appendix A: Methodology

The main deliverables for the survey portion of the project were survey design, development of a project database, data input, data analysis and reporting.

Process Steps:

1) Determine overall draft types of questions and analysis needed
2) Review and sign-off questions with key stakeholders
3) Select and procure online survey tool
4) Create survey form
5) Input test survey questions
6) Send out test survey to colleagues for beta testing and feedback
7) Test analysis of survey results
8) Collect surveys
9) Input data into electronic tool
10) Cleanse data
11) Monitor and analyze results
12) Close survey

Survey Sampling

- The survey was based on a statistically significant sample from the main areas within our county.

Electronic Survey Process

- The electronic survey format we used was based on a 3rd party tool called "Survey Monkey" to collect, analyze and download information
- All of the surveys were manually into the online survey tool.

Survey response rate

- Over a hundred youth were surveyed through the personal effort of our youth surveyor, resulting in a good return of 106 responses.

Survey Analysis

- All surveys were eventually input into the online tool for consolidation and analysis.
- Survey Monkey was used to download and analyze results. Due to some limitations in Survey Monkey, Excel was also used for some of the analysis.
- Survey Monkey charts tend to be shown by number of responses versus percentage of responses, making the charts less valuable.

Process Wins, Loses, and Learnings

- Our survey completion rate was quite favorable, leading to statistically significant results.
- Survey Monkey was a good tool for the survey process.
- Some of the questions were not worded in a way that we gained as much as we could have.
- In cases where we allowed responders to add an "other" response, we did not leave a blank space to query for an open ended response.

Methodology Recommendations

- The online survey tool is an excellent choice for this type of survey, analysis and reporting
- This was an excellent project for a youth intern to help learn about the process and inspire other youth on the topic

Appendix B: List of Questions by Survey Objective

#	Question (abbreviated)	Access	Access-ibility	Afford-ability	Appli-cations	Assist-ance	Demo-graphics
1	Where do you live (City, Zip Code)						X
2	How many people in your household are in the following age ranges?						X
3	What grade are you in at school?						X
4	Which of the following do you have in your home?	X					
5	Who provides your cell service? How much does it cost?	X		X			
6	Who provides your internet service? How much does it cost?	X		X			
7	Please tell us how satisfied you are with your cell and internet service.	X					
8	If you do not go online, please tell us why not.	X					
9	If you don't subscribe to some type of high-speed internet service at home, why not? Choose all that apply.		X				
10	About how many years have you had access to the internet?		X				
11	Do you ever go online... (assessing where people connect i.e. home, friend's home, etc.)		X				
12	About how often do you go online? (skip if you do not go online)		X				
13	Do you ever go online using a wireless device like a PDA, cell phone, iPhone,or wireless netbook/laptop?		X				
14	And on a typical day, do you spend more time talking with your friends on your cell phone, or talking with them on a regular landline phone?	X					
15	Does the computer you use at HOME connect to the internet through a dial-up telephone line, or do you have some other type of connection, such as a DSL enabled phone line, a cable TV modem, a wireless connection, or a T-1 or fiber optic connection?	X					
16	Overall, would you say that most of the people you know use the internet, only some of the people you know use the internet, or do very few or none of the people you know use the internet?		X				
17	How much support do you need today to go on the internet?					X	
18	We're interested in the kinds of things you do when you go online. (skip if you do not go online) Do you ever…?				X		

19	The following are things people sometimes do online. Please choose any of following activities if you do them.				X		

Appendix C: Survey Questions