

DEL NORTE COUNTY
TELETRANSPORTATION/TELECOMMUNICATIONS STRATEGIC PLAN

SURVEY RESULTS

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Teletransportation/Telecommunications planners strengthen their policy determination and strategic planning efforts by continually identifying and understanding trends for their region. Decision makers often rely on long-term demographic and economic projections, based on current trends and foreseeable influences, in their strategic planning. Surveys complement information gathered from a variety of sources, for example, demographic analysis or economic projections. These tools are essential for planning and policy determination. However, they alone are not sufficient. Many contributing factors can compound one another in ways difficult to predict.

While the survey was not “random”, and as such not mathematically extensible across all of the population of the region, it did see a sufficiently high enough return rate to help us guide policy-making for the county.

Over the month of January – March, 2007 the Del Norte Chamber of Commerce membership and others responded to a survey on various factors related to telecommunications. The results are best used to understand how small to mid-sized businesses of the area think about these factors. When reviewing the responses keep in mind that this population was predominantly composed of businesses and government.

The response rate of 29% (see Figure 1) exceeded expectations and demonstrates the growing interest in telecommunications issues; reflecting growth in Internet access, importance of advanced services, ownership of personal computers and a number of other factors useful for planning purposes.

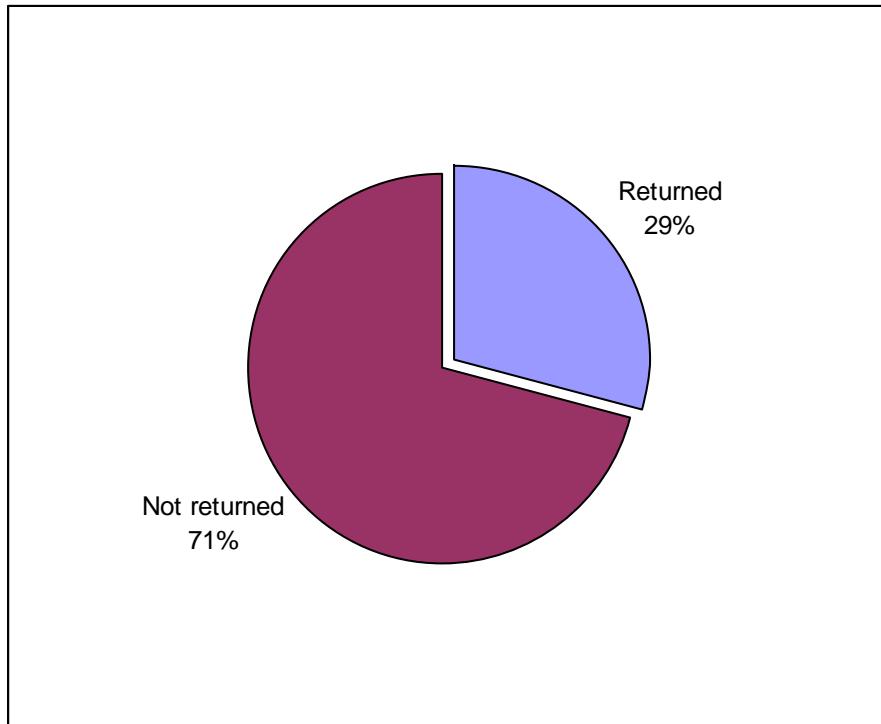


Figure 1- Survey Response Rate

The response rate (see Figure 20) from Crescent City (61%) when compared to the unincorporated responses (39%) was not unexpected given the address locations of chamber members.

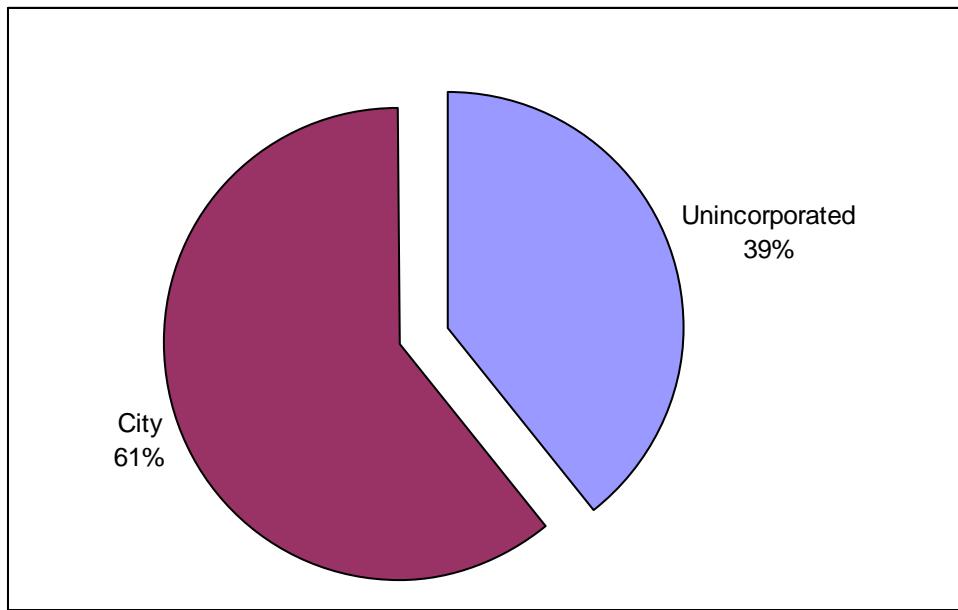


Figure 2 -Areas With Responses

The distribution of sectors self-reported on the survey responses (Figure 21) resonates with expectations for this largely services dominated economic environment. Services (12%) and Retail (11%) composed 23% of the total reported sectors. Education (7%), Not For Profits (8%),

Government (6%) composed 23% of the sectors reported. Taken together these sectors totaled 46%, and these are not all of the service-related sectors.

Home Based businesses (Figure 21) constituted 12% of the survey responses.

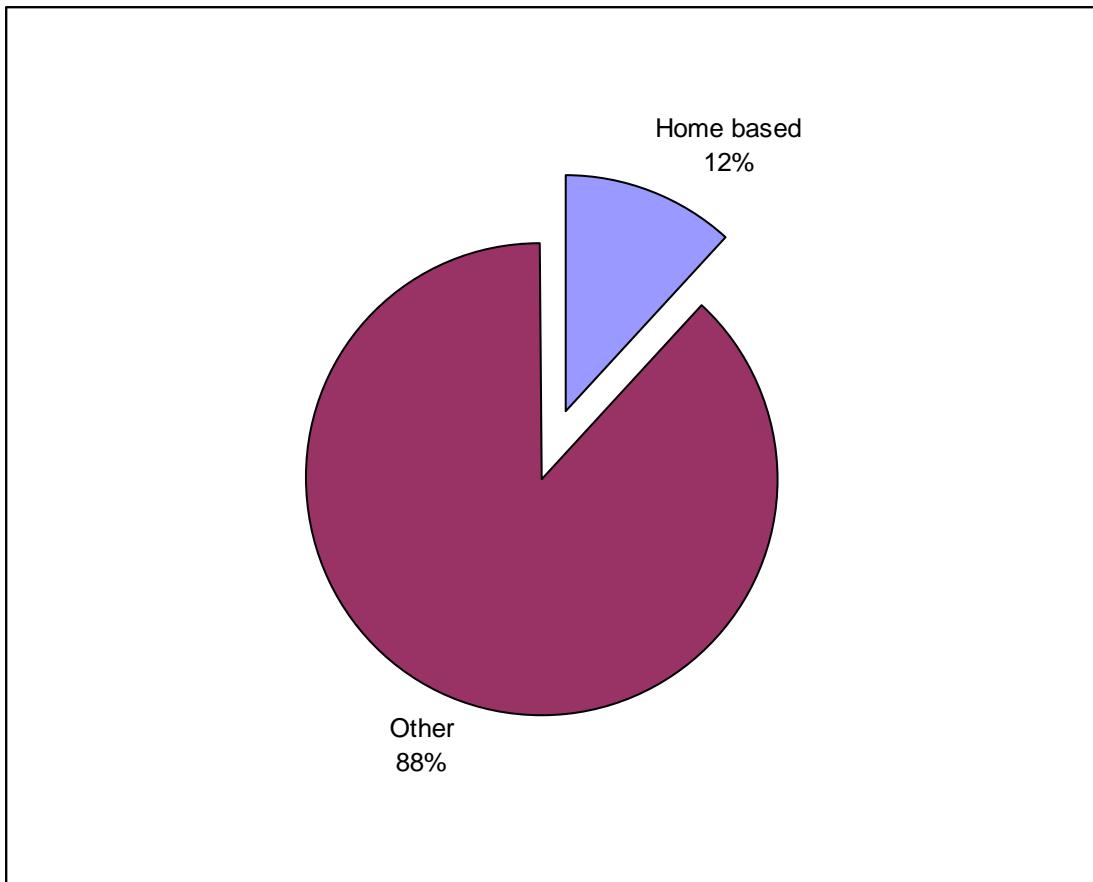


Figure 3 - Home Based Businesses

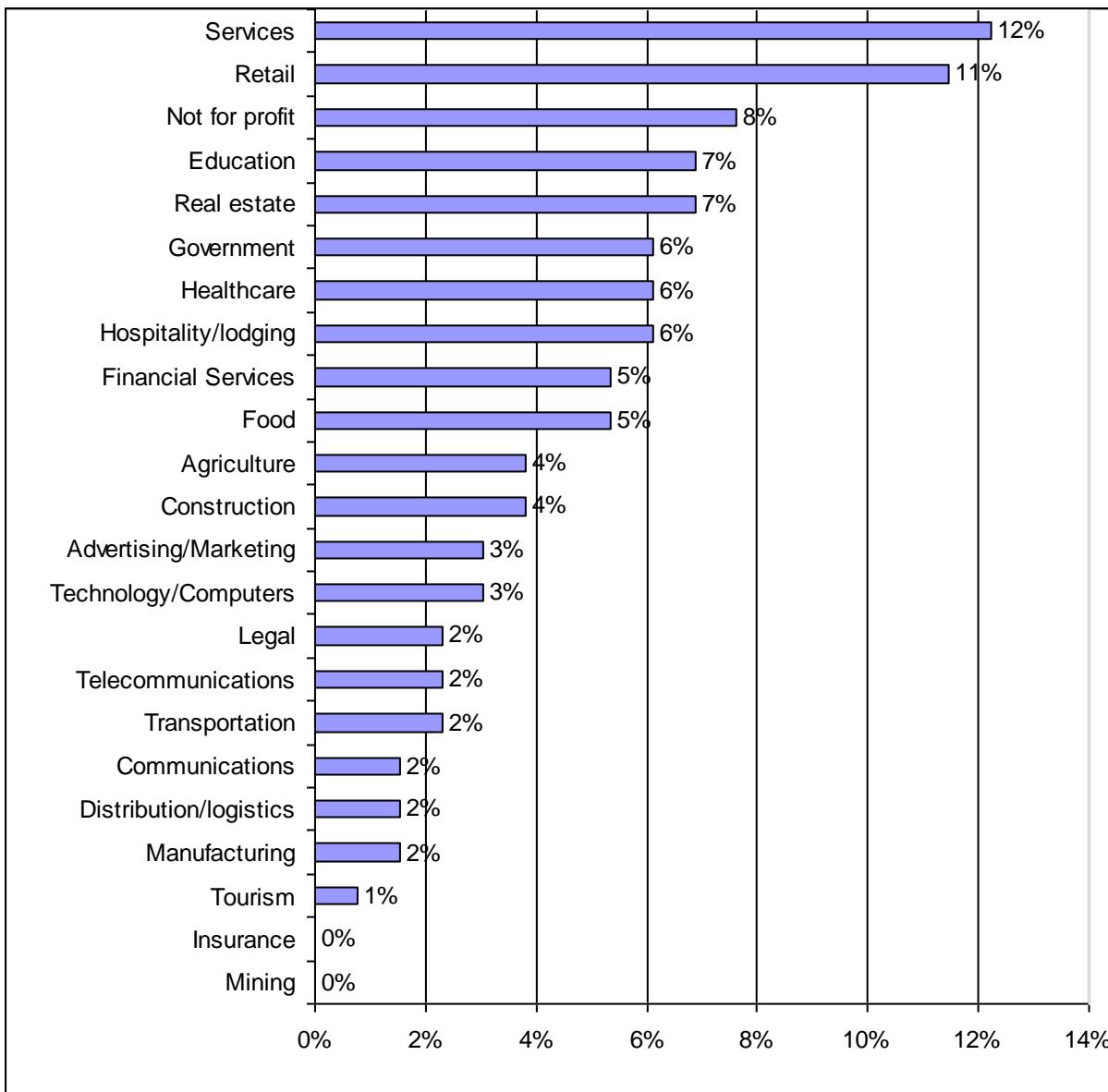


Figure 4 - Sectors

Telecommunications Connections (Figure 22) indicate the expected high level of landline connections (97%) and a high level of cellular phone connections (71%). Everyone had at least one form of telephony connection.

TV connections for cable (44%) and satellite (8%) is on par with expectations, keeping in mind that these were predominantly businesses and government responses. TV reception with an antenna was reported at 0%. Notably the Wireless Internet – Satellite (8%) reporting matched the satellite TV, although these were not the same respondents. It was no surprise to find use of Satellite Wireless Internet given the rurality of the county, although there were a couple of instances where the respondent's business was apparently located in the Charter cable footprint (not every survey was returned with the business name and/or specific location).

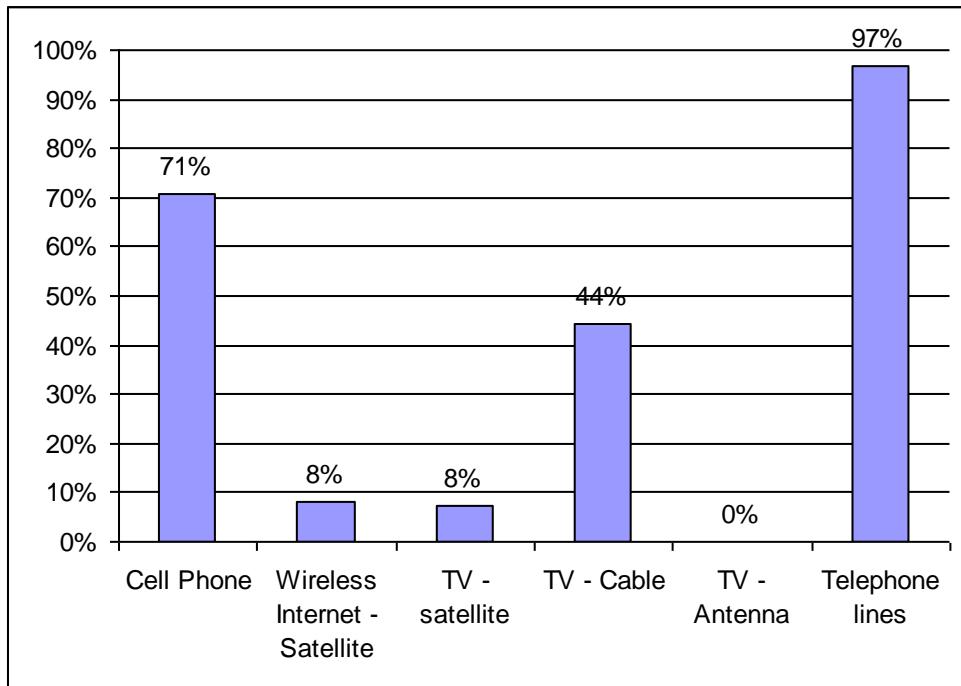


Figure 5 - Telecommunications Connections

Del Norte County businesses and government POT usage (Figure 23) revealed that telephony use is predominantly dedicated for Business (13%). A substantial number of lines are dedicated for FAX usage (66%). Lines dedicated to Internet dial-up were at 13%. Personal / Family Use (33%) was not surprising, and honest.

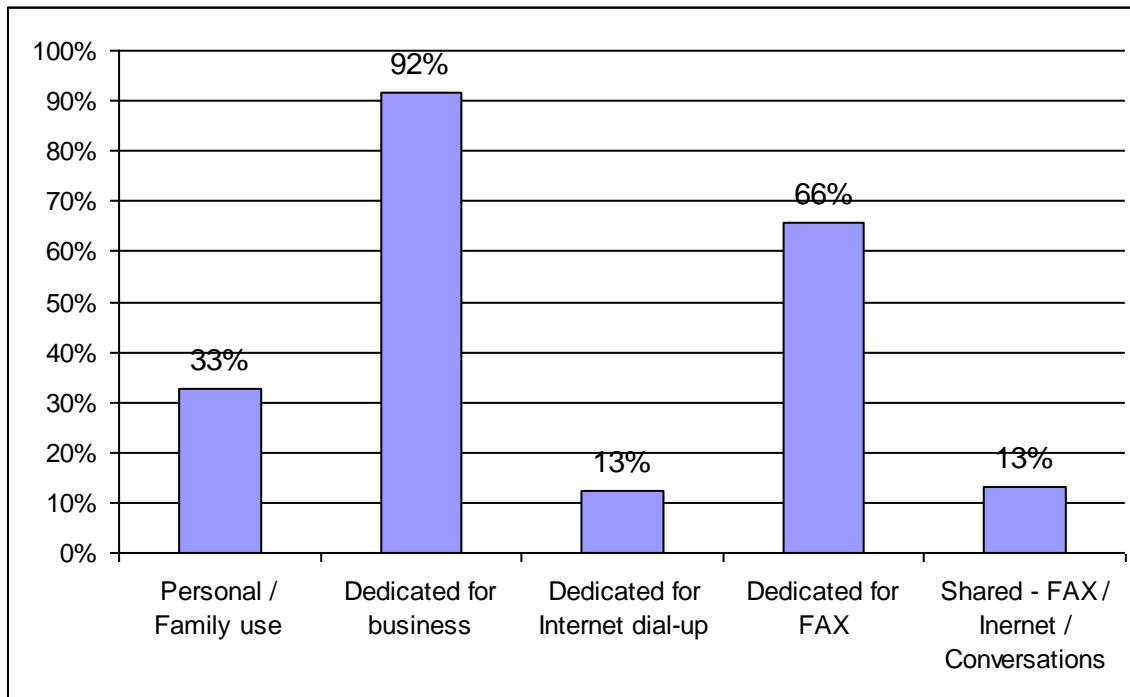


Figure 6 - Plain Old Telephone (POT) Usage

Service provider ratings indicated 67% of respondents (Excellent – 11% and Good – 56%) were largely satisfied with their telephony service. This flies somewhat in the face of anecdotal

reporting derived from interviews. There the complaints generally were linked to “rain fade” circumstances or failures due to service interruptions of another source (i.e., this cuts to the route redundancy issues).

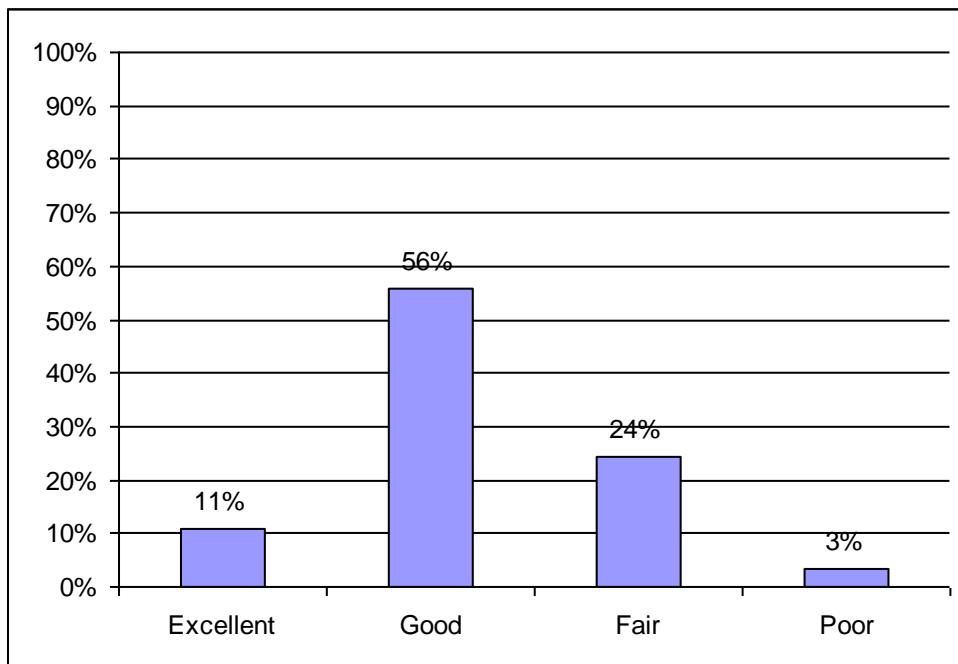


Figure 7 - Service Provider Ratings

PC Ownership and Usage (Figure 25) indicated a very high level of PC ownership (96%). Word Processing (88%) was the highest indicated PC application. Spreadsheet usage at 75% was a near second. Database (68%), Digital Photography (61%) and Presentations (47%) followed

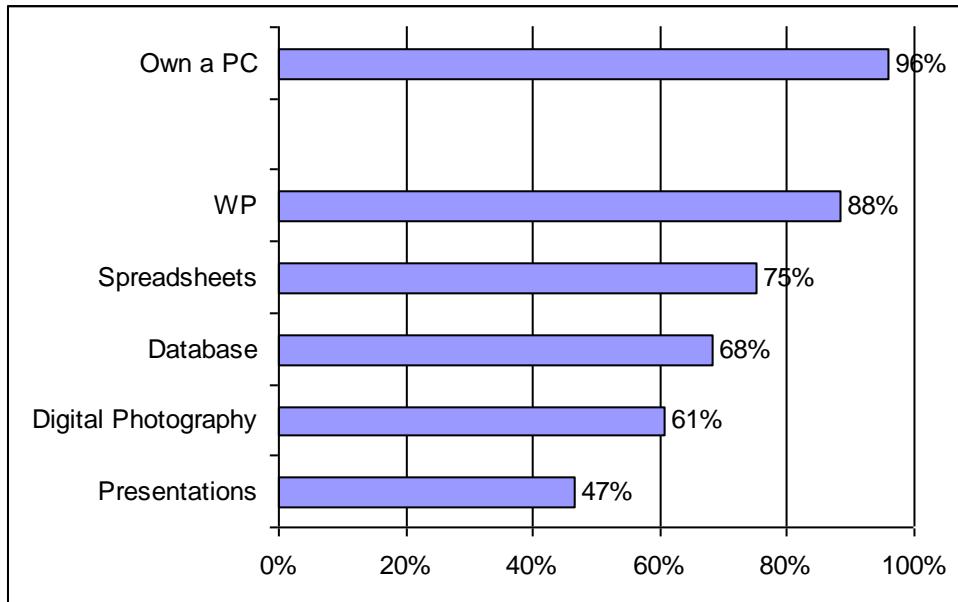


Figure 8 - PC Ownership and Usage

Other uses of PCs included:

MCSEs & MCSAs

HVAC control, security

DEL NORTE TELETRANSPORTATION STRATEGIC PLAN – SURVEY RESULTS

QuickBooks	Real time quotes/stock & mutual fund trades
Geographic Information System	Attendance
Training	Teleconfencing & telehealth specialist services
Cards	Drafting
Brochures.	Web Design
Free WiFi	Programming
Web access	Automotive sites
Email	Online catalog
Computer Aided Design	Video production
Drafting	Artwork
Point of Sale	Visio
Flyers	Distance/online education
Party tickets	Human Resources
Financial systems	Airline and other reservations

A solid 92% reported use of the Internet/Web in their business. The predominant usage was that of Sending and Receiving Email (90%). Folks are using the Internet/Web to look up information (87%). Online purchases are at 79%. Only 28% report selling goods or services online.

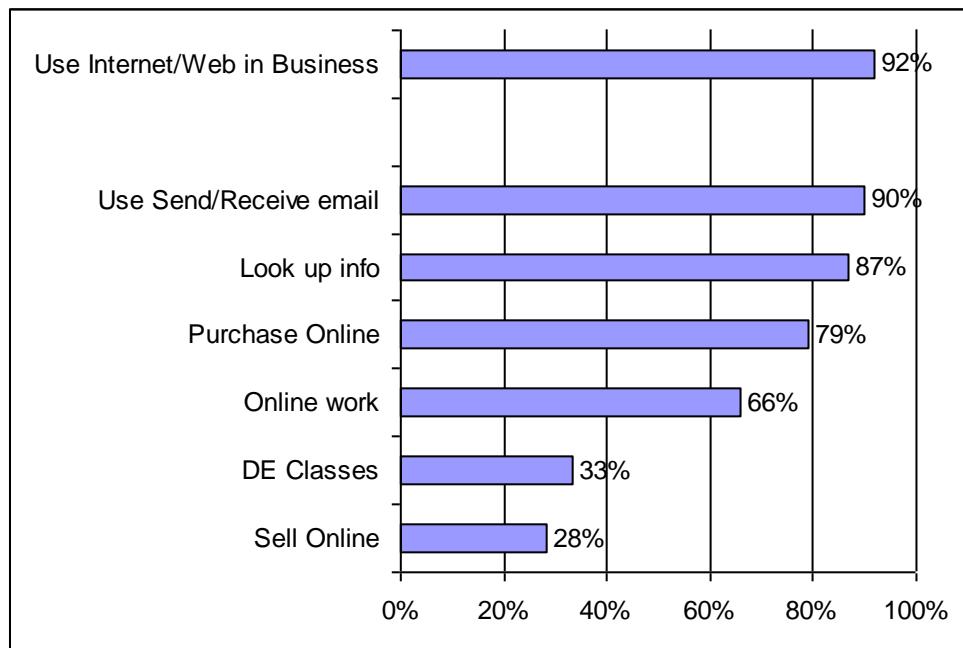


Figure 9 - Business Internet/Web Usage

There is strong interest in Business Management Training (17%). Business Communications (29%) was the leading category. A close second was Marketing Strategy (26%). Management and Leadership (23%), Web site design and Maintenance (22%), Business Law (22%), Interviewing and Hiring the Right People (21%), e-Commerce (21%), and, somewhat surprisingly, Achieving Balance at work and at home (21%) all scored very close together. As the respondents were all existing entities it's not too surprising to see the low score for Building and Operating a Business (8%).

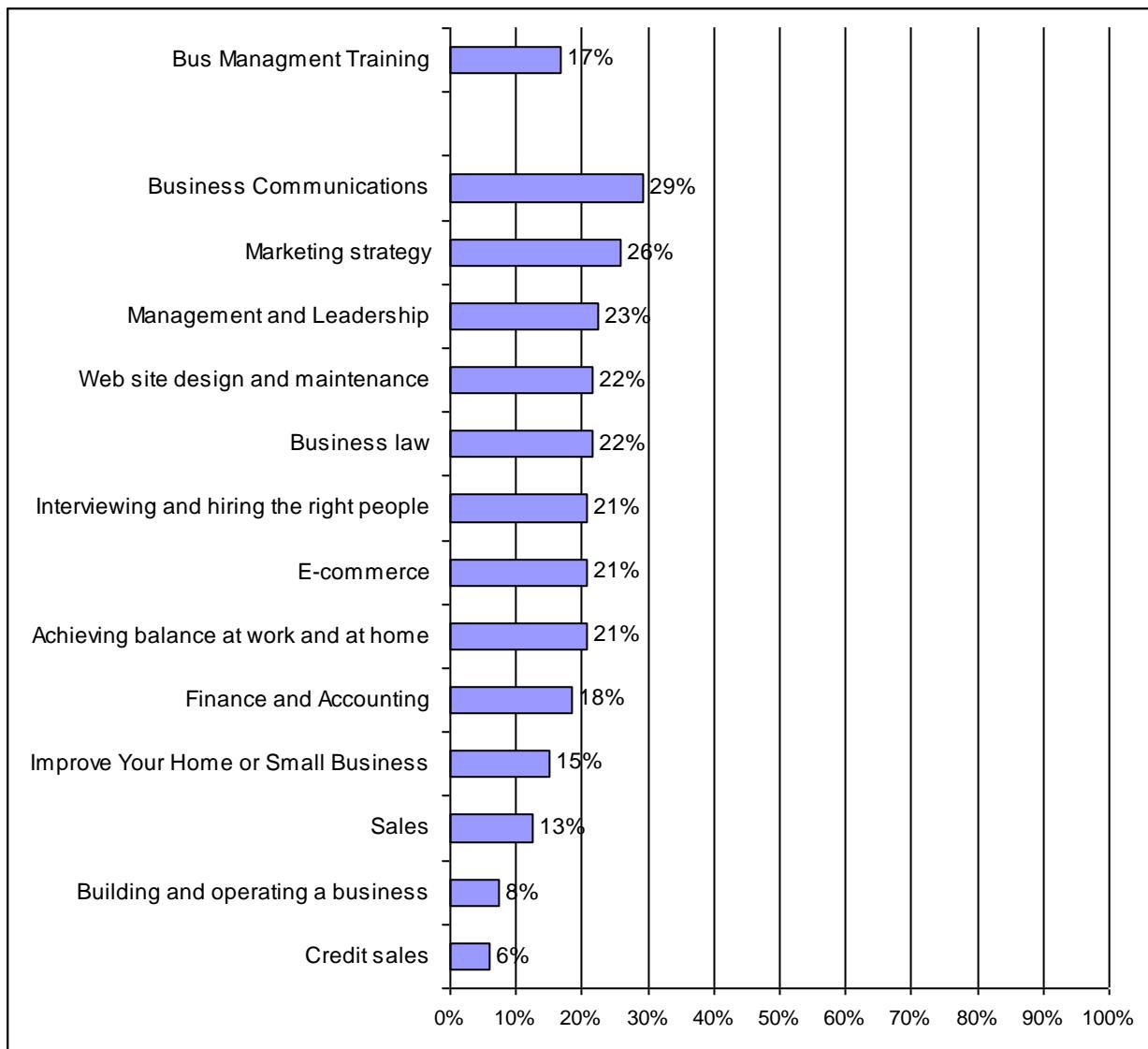


Figure 10 - Interest in Training

Access (Figure 28) and Speed (Figure 29) are related. In the Access category 78% rated this as Critical to Very Important. Only 4% rated Access as Not Important.

In the Speed category 76% rated this as Critical to Very Important, whereas 6% rated Speed as Not Important.

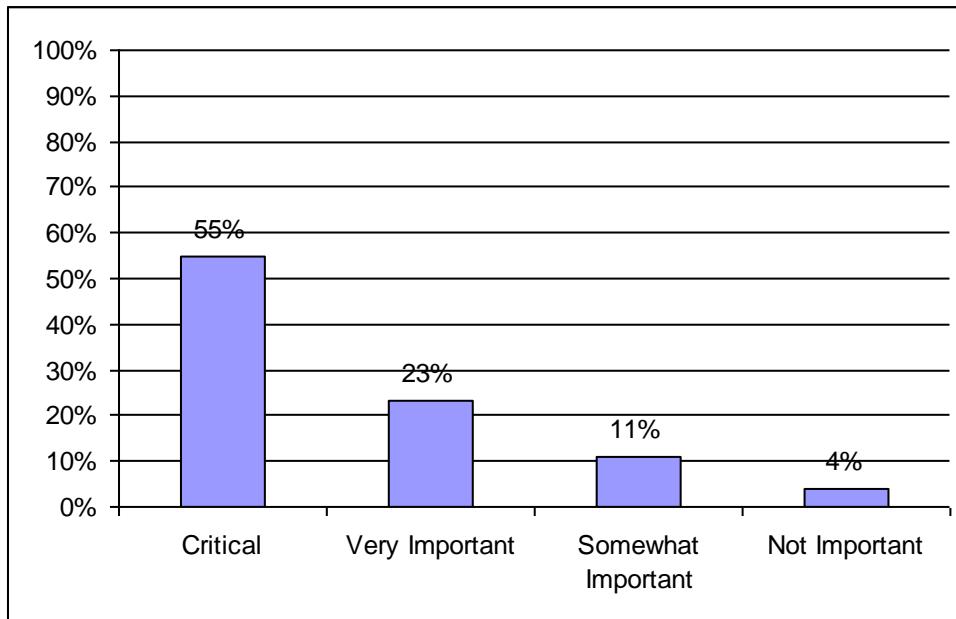


Figure 11 - Access

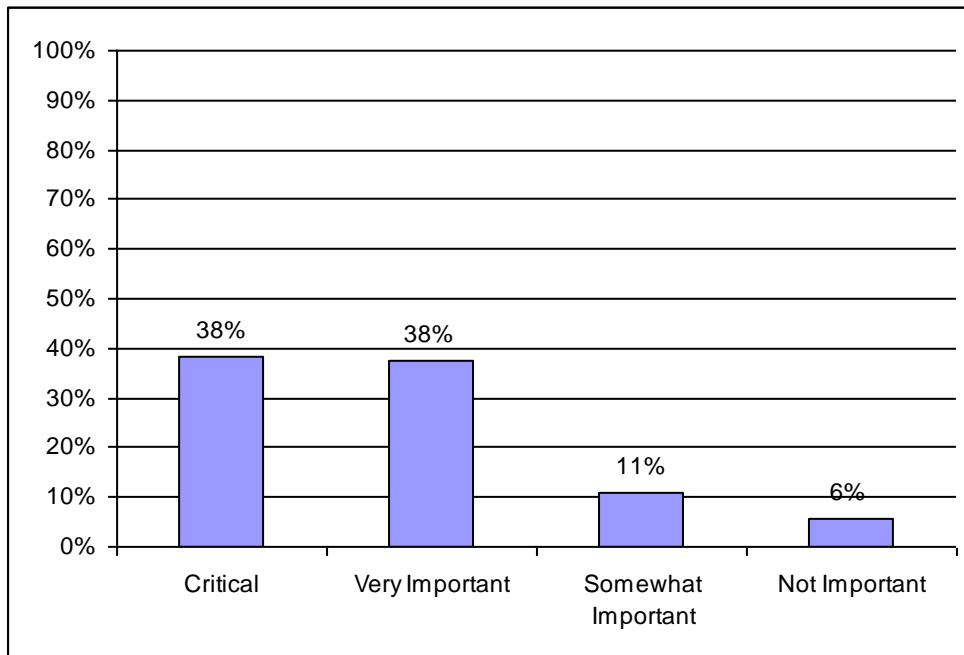


Figure 12 - Speed

Paying for more Speed (42%) was not supported fully by the amounts people are willing to pay. Indeed, many reported a willingness to pay for more speed and then indicated a lesser amount than they currently pay. This is consistent with the general lack of understanding of the cost of providing services as well as the value derived from those services. It may very well be that those wishing a lower price point have not as yet realized the full value that can be derived from the broadband service. Yet 26% indicated a willingness to pay over \$60. This is likely to be the price point for Charter's 10 mbps service when it is made available.

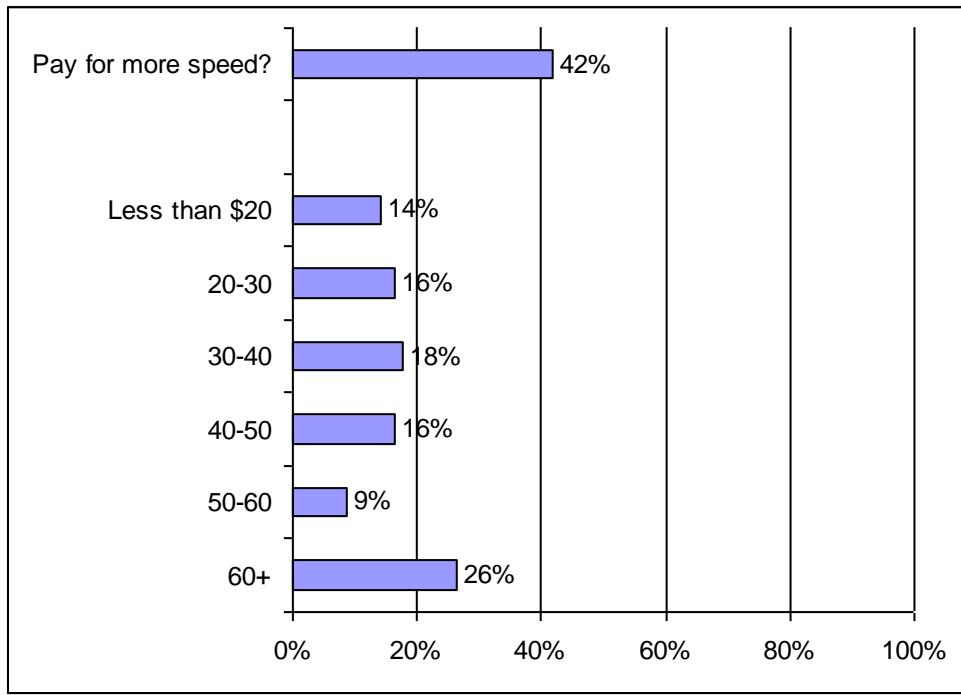


Figure 13 - Price

When asked about their view of telecommunications technologies (Figure 31) that would be important to the future, many respondents indicated little or no knowledge of Virtual Private Networks, DS/3, Fast Ethernet, Gigabit Ethernet. Again this is not a surprising finding in that the vast majority of those responding were relatively small entities.

Wireless (land-based) (32%) was widely seen as the future. DS/3 (23%), Wireless Satellite (22%), T-1 (22%), and Cable (22%) were neck and neck. It's not too surprising to see ISDN (3%) at the bottom of the heap. This is an aging technology that is still used by some in the county, but then so is T/1 technology. However, given the limited service offerings by Verizon, one is not surprised to see T/1, ISDN and DS/3 represented in the mix.

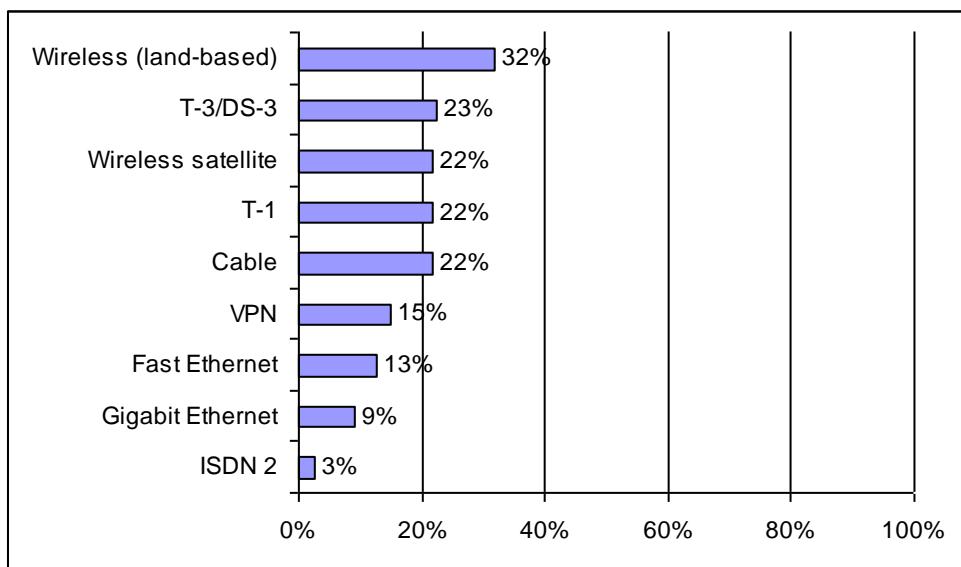


Figure 14 - Future

Interestingly 26% of respondents indicated videoconferencing on site (8%) and a need for videoconferencing (18%). This reflects the view of the importance of face-to-face encounters. Videoconferencing availability would pay for itself in short order in saving of dollars for travel expenses and time to travel.

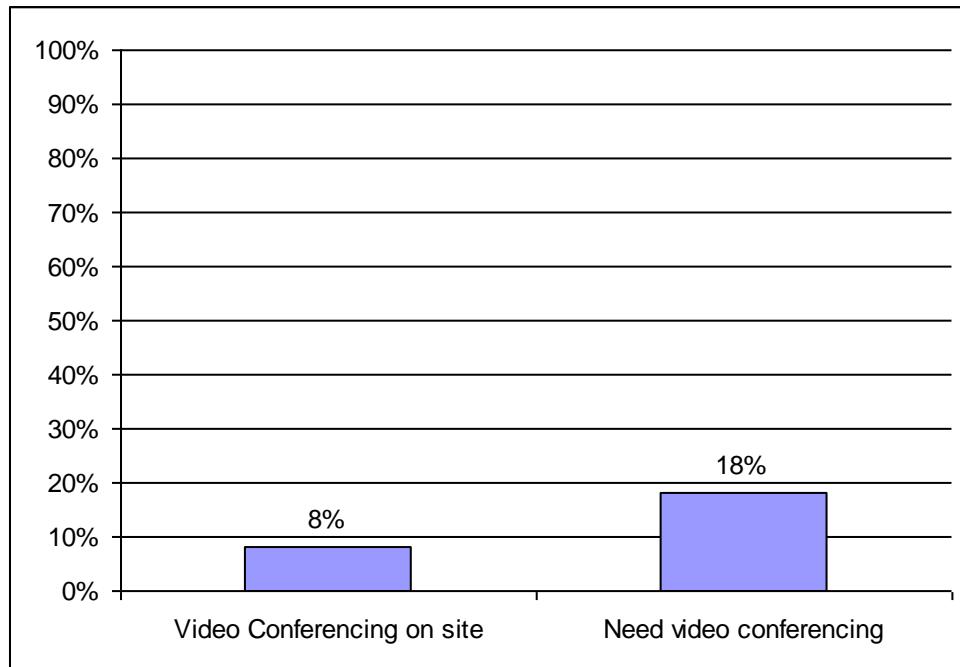


Figure 15 - Videoconferencing

Comments – Voice:

Many of comments addressed cellular phone issues with reception. Others addressed the way rates are imposed (i.e., tariffs, no “tariff card” in the county, i.e., the CA PUC has not established rates per say and Verizon charges what they want vs. a regulated rate). Some aspects of telecommunications as they relate to public safety were brought up.

- Lack of tariffs
- Reception that is consistent and dependable
- Clear signal
- US Cellular has gotten worse over the years.
- Reception, redundancy
- Limitations on services
- Poor cellular reception
- Intermittent service interruptions for no apparent reason
- Verizon provides a very limited suite of services to business customers. Residential customers have many more options e.g., voice mail, call waiting, etc.
- Telephone -- quality of service is poor - line noise, etc.. Cell need broader/better coverage
- More GETS phone numbers for critical communications during emergencies; Increased number of cell towers to provide better cell service (too many holes currently)
- Use 1 company - right now we use Verizon for local, IDT for long distance
- System sometimes busy

- As cell service improves in DN County we can go to having all 911 calls not coming from highways go directly to the SO and not to Humboldt CHP.
- Not too concerned
- Could be improved
- Slow local phone service if needed on site. Cellular dropped calls too often.
- Price
- Outdated facilities and switches and other infrastructure with local telco
- Up time, quality, cell availability, digital in Klamath
- Still have analog service for all phones -- so can't select some models for use -- voice service is difficult -- Sales
- Expense relative to other areas
- Cell reception is bad here...why doesn't the US go to satellite cell like Europe?
- Better cell service. Too many dead zones.
- Better cell service at reasonable, affordable rates
- Current service has tendency to go out. Need reliable service.

Comments – Internet/World Wide Web

Route redundancy is mentioned often, as is reliability of services. These are often interrelated issues. Cost and lack of competitions are addressed.

- From TV to Internet would be nice to have in the harbor and or wireless Internet
- Lack of options
- I need to be more versatile with skills
- Lack of redundant fiber between Humboldt & the outside world.
- Uninterrupted service
- Redundant fiber
- Employees who work at home in Klamath need high speed Internet.
- DSL needed in Del Norte County
- Speed, bandwidth, redundancy
- High cost of high-speed Internet access
- Internet security/fraud activity, identity theft
- We need broadband in Del Norte County. Even in my small business I'm frustrated trying to move large files to & from my southern clients.
- Need for AFFORDABLE broadband service!
- May turn to conference calls or video training soon.
- Complete a redundant OC3 route into county as back up for equipment or line outages.
- We need DSL. We need more choices to lower prices.
- Can be an invasion of privacy ie - identity theft! But provides access to lots of information technology.
- System down without redundancy
- Needs to be brought into the new century
- Fiber optic needed for local business growth.
- Price
- Redundancy - we need another fiber circuit coming in from another geographic area. We need this badly.
- Faster connection speed
- Bring us into the current century for Internet availability

- Critical in our isolated area -- broadband service would mean more effective use of this tool
- Single provider, expense
- Concerned with downtime of Internet with Charter
- We need DSL in this area
- Good but could be better. High-speed video conferencing.
- College of the Redwoods WAN link between Crescent City and Eureka is two T1's. The monthly fee is outrageous.
- Current service has tendency to go out. Need reliable service.
- There is only one Internet provider other than dial-up.
- More customer access to high speed Internet.
- Privacy - security

Comments – Video/Television

Quality of cable reception as well as price is mentioned. Quality will improve once Charter has completed the infrastructure improvements on the Oregon coast. Rates are equivalent to other areas in Charter territory. One reference to content. Another to educational content.

- Having to have cable and satellite to get local channels if we wanted to have satellite. Also, horrible reception for FX , CBS and NBC always seems to get bad when viewing a big sporting event is on! RRRR
- Cable reception
- Looking into videoconferencing
- High cost of cable TV
- Suggestive programming during children's viewing hours / violent programming on kid's TV shows
- Finish cable to each school site; expand availability for educational video streaming through cable channel 4 or 9.
- We only have Charter and it is very high priced.
- Cable needs to be less expensive
- None
- More ISDN, connecting neighboring cable systems such as Humboldt SuddenLink with DN Charter.
- We use "gather place" to hold meetings (share) -- can show files, etc. on computer -- video might be a great future tool.
- No teleconference capability
- Cable TV is way to expensive!
- Need teleconference capabilities
- Basic cable is priced way above the value content it is providing.

Comments - Other (for example, training)

Comments in this category ranged and indicated a wide range of opinions from the region.

- My Internet use is getting more and more limited with only one dial up line. Some detailed websites cannot display via a phone line, plus having only 1 line for the phone, fax, credit card and Internet generally makes it difficult to use the Internet during business hours.

- We have no redundancy, lack of choices and no tariffs on high speed or PRI's through phone company.
- Most of our mail and electronic business is completed from a home office in Sacramento, but we hope to move that function to Del Norte County -- & therefore we hope the appropriate infrastructure is available there to support it.
- I am mostly retired. I hire one person in Del Norte. Have several rentals in Arizona. I hire one person there. Love Del Norte.
- RE New Economy Business Skills: Send them to SBDC
- This survey seems like a lot more than a technology survey.
- I have included an idea for a business (IRS DE). I also would like people to realize we should not put "all our eggs in the tourism basket" and think about other businesses that would work in this area, ie, certain manufacturing (surf boards, wet suits, rafts, kayaks, etc.). My connection with the chamber is personal. I do not have a business -- individual membership.
- Sometimes I realize that I must think of the library and also the literacy programs with a "business" type twist in order to obtain public interest. I'm still working on this and look at all opportunities for growth, whether personal, staff or our 2 Americorps Members - volunteers.
- WAN to all sites in Humboldt County
- The DN-Curry Comm. Concert Assoc. is the provider for four classical-popular musical concerts a year at Crescent Elk Auditorium. We are a 501c3 volunteer organization making use of newspaper and radio advertising and announcements. 1) We would like to be on the C of C web page for folks deciding or not to move to our area. 2) We like all publicity possible for our area.
- I would like to see Del Norte work more with Humboldt top bring better service to both counties. Del Norte should work with the Redwood Technology Consortium, Redwood region Economic Development and county.
- We need Verizon fiber optics.
- Need better, faster Internet service. Would enhance business community. Bring additional jobs.
- There does not seem to be a sense of urgency to get us caught up with the rest of the world as far as communications is concerned. We need to bridge this gap. Consensus is that the world stops at San Francisco (being northern CA). WE are northern CA and we have needs for services also, for business and for pleasure.
- This survey does not apply to us.