KLAMATH REGION
TELECOMMUNICATIONS STRATEGIC PLAN

Sponsored By:
THE CITY OF KLAMATH FALLS

and
THE KLAMATH FALLS TELECOMMUNICATIONS COMMITTEE

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EXECUTIVE SUMMARY

The Klamath Region is an area of great beauty, natural resources, history and community pride. Yet today we find ourselves confronted with many issues stemming from changing economic realities as well as the many existing challenges that present themselves to rural communities. Community discussion of ways to move the region forward frequently turns to the impediments of not having widely available and affordable advanced telecommunications infrastructure (i.e., broadband). Education, healthcare, governments, businesses, not for profits, myriad other organizations, and individual residents all will be positioned to take advantage of the benefits afforded through expanded opportunities for sharing information and knowledge through access to advanced communications capabilities.

Often we find that when community residents join together in a cooperative and collaborative planning process there is little they can't accomplish. This is true in a broad sense, and especially true for addressing community needs dealing with the acquisition and use of technologies such as advanced telecommunications. With appropriate planning and development, communities in the Klamath Region can leverage communication technologies previously unavailable to rural areas in the state, improving the quality of life and standards of living for all residents, such as the following.

- Access to world-class telecommunications services will enable community leaders to actively recruit companies to the Klamath Region.
- Family wage jobs will become the rule and not the exception.
- New options will become available for businesses to establish operations in rural areas as well as providing employees with the choice of working from their homes.
- Businesses that have survived years of economic hardship will grow and prosper.
- Educators and students alike will have the opportunities to develop skills and knowledge by employing telecommunication services to work with and learn from people around the world.
- Healthcare options will grow dramatically for communities and their residents in the Klamath Region. Online consultations, diagnostics, and patient monitoring will be available to those requiring special assistance. Medical staff will have access to state-of-the-art training.
- Public safety, of greater concern than ever before, will operate with improved efficiency and responsiveness.

Taking action on the goals identified in this Telecommunications Strategic Plan will result in positive impacts to the economic climate in the region and will also positively impact the quality of life for region residents.

Goal I – Services
All forms of telecommunications services will be accessible, reliable and reasonably priced for all Klamath Region community residents regardless of location.

Goal II - Maintenance, Operability, Security and Growth
Klamath Region telecommunications infrastructure will have standard communications capabilities, provide open access, encourage seamless network management, will be secure and use scaleable solutions to accommodate growth in demand and be adaptable to new applications and opportunities.

Goal III – Affordability
Provide quality telecommunications services at a reasonable cost by creating partnerships and aggregating demand to reduce operating costs to the benefit of the Klamath Region community users.

Goal IV – Empowerment
Provide a Klamath Region telecommunications infrastructure with high-speed and reliable access to communications-based technologies and information so that employees can be as efficient as possible, businesses can be competitive in the world of electronic commerce and residents can have every access to information and services.

Goal V - 21st Century Workforce Development
Improve overall competency of the Klamath Region's workforce by supporting a well-trained work force that encourages new business development and existing business growth that leverages advanced telecommunications services.

Success of this strategic plan depends on continued community participation, cooperation and collaboration. The planning process that got us here is rooted in a synthesis of best practices collected from successful ventures throughout the United States, indeed the world, combined with rigorous discussion and refinement from a cross-section of the Klamath Region's residents.

One of the first actions in response to this Strategic Plan needs to be the establishing of the Klamath Region Telecommunications Task Force (KRTTF). The group needs to be populated by representation from both the urban and rural areas of the county. The KRTTF would be charged with maintaining the Strategic Plan and monitoring progress on the further evolution of the Plan, and further work will be required. Additional next steps would include the forming of sector oriented committees to support the Strategic Plan and to work under the auspices of the regional Task Force, such as healthcare, education, commerce, government, and so on.

We present this Strategic Plan to the residents of the Klamath Region with the understanding the work has just begun and we need to continue our efforts together. Working together we can achieve our mission...

> *"To promote the development and utilization of the Klamath Region's telecommunications infrastructure, including advanced telecommunications services that are equal to or exceed those offered in large metropolitan urban areas, through public and/or private partnerships sufficient to provide our communities with reliable and reasonably priced access. "*

KLAMATH BASIN TELECOMMUNICATIONS STRATEGIC PLAN

Preface

The Klamath Falls Telecommunications Committee along with the City of Klamath Falls (see Appendix 1) sponsored the development of this Klamath Region Telecommunications Strategic Plan. The importance of collaborating and cooperating across many sectors of the Klamath Region is demonstrated in the process and outcome of this planning effort. This planning process commenced in February 0f 2002 with the acquisition of a consultant to help facilitate the process.

The strategic planning process consists of three phases.

1. A needs assessment,
2. Goal setting to address the most critical issues, and
3. The crafting of an appropriate action plan."

This strategic plan is consistent with and builds on the Regional Vision stated in the South Central Oregon "Consolidated Economic Development Strategy & Regional Investment Plan." (December 2001)

> "South Central Oregon abounds in natural and cultural resources, scenic beauty, history and community pride. The communities in Klamath and Lake Counties have come together to provide a vision of our future that is progressive and innovative and leads to healthy local communities and economies.
>
> While this plan delineates goals for healthy communities and healthy economies, we view the health, vitality and strength of our communities and economy as inextricably linked; without one, we cannot achieve the other. We understand that our region's quality of life depends on a robust economy and a robust economy begins with a high quality of life. Thus, we support all efforts to foster partnerships that improve the economy and quality of life throughout the region.
>
> Our local economies flourish by providing expansion opportunities for existing local businesses and a welcoming and promising atmosphere for appropriate business and industry. Our residents value a clean environment, and we want to attract new industry to our region that meet or exceed current environmental standards for air, water and land use.
>
> We are striving to build an employable workforce that is highly skilled and competitive in local, regional, state, national and world markets. We are working to provide educational opportunities to people of all ages that not only strengthen their employment possibilities, but also provide for life-long learning opportunities. We are **actively working to build local infrastructure**—streets, utilities, **telecommunications**, etc.—that supports our basic needs as well as the needs of business and industry.
> Although our counties desire to be on the cutting edge with regard to technology, telecommunications, education, commerce and tourism, we also treasure our rural lifestyle, physical surroundings and traditional frontier spirit. "

The assessment phase of this planning process relied heavily on a wide variety of existing materials in addition to a survey. Each is acknowledged fully in the body of the Plan. If any attributions were left out, please accept apologies and send an email to jirwin@mind.net to advise of the necessary correction. The Klamath Region owes a big thanks to all who contributed to the development of this Telecommunications Strategic Plan.

Vision Statement

The Klamath Region, an area rich with history and natural beauty, has the opportunity to create a thriving, economically diverse region that meets the challenges of the 21st Century. To fully develop the possibilities that lie ahead, the Klamath Falls Telecommunications Infrastructure Group will be a catalyst for raising awareness of the economic and education benefits of a robust, advanced telecommunications infrastructure. With appropriate planning and development, communities in the Klamath Region can leverage communication technologies previously unavailable to rural areas in the state, improving the quality of life and standards of living for all residents.

Access to world-class telecommunications services will enable community leaders to actively recruit companies to the Klamath Region.

- Family wage jobs will become the rule and not the exception.
- New options will become available for businesses to establish operations in rural areas as well as providing employees with the choice of working from their homes.
- Businesses that have survived years of economic hardship will grow and prosper.
- Educators and students alike will have the opportunities to develop skills and knowledge by employing telecommunication services to work with and learn from people around the world.
- Healthcare options will grow dramatically for communities and their residents in the Klamath Region. Online consultations, diagnostics, and patient monitoring will be available to those requiring special assistance. Medical staff will have access to state-of-the-art training.
- Public safety, of greater concern than ever before, will operate with improved efficiency and responsiveness.

Economic diversification is the cornerstone of a healthy, growing community. By taking full advantage of a well-planned telecommunications infrastructure, the Klamath Region is poised to become a first-rate destination for businesses and pleasure seekers alike, as well as the community at-large.

Mission Statement

To promote the development and utilization of the Klamath Region's telecommunications infrastructure, including advanced telecommunications services that are equal to or exceed those offered in large metropolitan urban areas, through public and/or private partnerships sufficient to provide our communities with reliable and reasonably priced access.

Goals/Objectives and Action Plans

Goal I – Services
All forms of telecommunications services should be accessible, reliable, and reasonably priced for all Klamath Region residents regardless of location.

Goal I Action Items:

A. Create a standing committee (Klamath Region Telecommunications Task Force) that builds on community participation and leadership to coordinate and oversee a community oriented telecommunications policy.

   1. Include membership/representation from a wide variety of area participants.

   2. Promote an open and inclusive telecommunications strategic planning process.

3. Ensure endorsement of the Strategic Plan by area institutions, businesses, and residents

4. Ensure implementation of the strategic plan

5. Periodically review and update the Strategic Plan

B. Provide public education to support and to encourage access to all forms of telecommunications, including broadband Internet access and high-speed data transfer.

1. Create and maintain an open forum to share telecommunications and technology knowledge.
   a. Sponsored by the Klamath Falls Telecommunications Group.
   b. Participation encouraged from all sectors of the region.
   c. Promoted by the chambers of commerce in the area.

2. Ensure regular presentations to the community by educators, technologists, and community development experts to build awareness and to exploit the motivation of residents to continually improve economic development and quality of life.
   a. Periodic telecommunication and technology conferences (e.g., "Increasing Profitability Through Telecommunications" scheduled for October 2002).
   b. Frequent seminars on new technology and how to use it.
   c. Share knowledge on the benefits for integrating technologies into daily life.
   d. Share knowledge of effective planning processes.

3. Utilize multiple communication channels to share information
   a. Websites
   b. eNewsletters
   c. Forums
   d. Open access TV
   e. Radio (e.g., public radio)
   f. Newspapers

C. Develop and maintain a publicly available telecommunication systems inventory.

1. Conduct an inventory of current systems and capabilities.

2. Establish a database of findings for regional planning purposes.

3. Publicize and make available the contents of the database.
   a. Website
   b. Newspaper articles
   c. Public radio
   d. Open access TV

D. Conduct and maintain a publicly available needs assessment

1. Periodically conduct an area-wide needs assessment.
   a. Number of residents that need services and what kinds of services they need.
   b. Use existing surveys and other sources of statistical information when available.

2. Publicize the list of available services and fees for all areas of the area

3. Publicize service gaps as a means to involving all of the community in deriving solutions.

E. Actively engage telecommunications providers in pursuing ways to provide affordable access to broadband services throughout the area.

1. Regularly meet with providers to share information about needs and demand.

2. Work with providers to develop a plan for ensuring reliable access to broadband services at competitive rates.

3. When applicable, develop a community-based action plan for attracting other providers or for creating a utility district using public or private/public resources.

F. Promote and support the use of community telecenters as broadband access points.
    1. Develop educational programs to demonstrate broadband capabilities.

    2. Actively promote these programs throughout the communities.

Goal II - Maintenance, Operability, Security and Growth
Klamath Region telecommunications infrastructure will have standard communications capabilities, provide open access, encourage seamless network management, and use scaleable solutions to accommodate growth in demand and be adaptable to new applications and opportunities.

Goal II Action Items:

A. All telecommunications systems of the area should be as versatile and compatible as possible with existing and future technology.

    1. Continually analyze existing systems for any deficiencies or limitations.

    2. Determine the most efficient and cost-effective way of correcting current deficiencies.

    3. Create mechanisms to ensure route redundancy to minimize downtime from infrastructure disruption.

B. The communications systems of the region should be compatible with telecommunications technology used by other entities outside the direct control of the region (e.g., state and federal systems).

    1. Identify current and potential system interfaces.

    2. Develop collaborative and cooperative approaches to creation of system interfaces.

    3. Determine the efficient and cost-effective ways of ensuring compatibility among systems.

C. Ensure that the Plan provides for a flexible and sustainable infrastructure

    1. Determine current technology and infrastructure needs.

    2. Identify best estimates of future needs.

    3. Ensure any significant changes or additions to existing or planned technology infrastructure accommodates anticipated demands at least three years into the future.

D. Support open access, open source, and open system architectures

    1. Promote alternatives that support standard protocols, equipment, software, and widely used expertise.

    2. Support and promote the use of standards and open system approaches to leverage purchasing power and to reduce maintenance costs.

3. Support and promote open access as a means to ensuring competition.

Goal III – Affordability
Provide quality telecommunications services at a reasonable cost by creating partnerships and aggregating demand to reduce operating costs to the benefit of the Klamath Region community users.

Goal III Action Items:

A. Collaborate with appropriate regional councils, consortia, and committees to understand possibilities for partnerships and aggregating demand.

1. Regional Fiber Consortium

2. Southern Oregon Telecommunications and Technology Council (SOTTC)

3. Klamath-Lake Regional Investment Board (RIB)

4. Government councils

5. Job Councils

6. Others as applicable

B. Work with State of Oregon's agencies and departments to create a viable shared statewide telecommunications infrastructure.

1. Department of Administrative Services

2. Oregon Economic and Community Development Department (OECDD)

3. Oregon Telecommunications Coordinating Council (ORTCC)

4. Oregon Department of Transportation (ODOT)

5. Other entities as appropriate

C. Create partnerships for the purpose of acquiring technologies/services using aggregated buying power and for decision-making influence.

1. Government

2. Education

3. Businesses of all sizes

4. Not for profits

5. Electric cooperatives

6. Telecommunications providers

7. Healthcare

D. Membership in the planning process should be open to all that are interested and qualified to participate. Special efforts to include:

1. Critical Users

2. Businesses

3. Education

4. Government (federal, state & local)

5. Telecommunications Services Providers

6. Healthcare providers

7. Not for profits

8. Residents

E. Where possible ensure telecommunication technologies take advantage of economies of scale available through using a shared infrastructure and shared expertise.

   1. Identify all potential users of a common countywide communications infrastructure.
      a. Education
      b. Business
      c. Healthcare
      d. Not for profits
      e. Government
      f. Residents

   2. Develop a coordinated plan to create a common shared infrastructure for telecommunications and applications.
      a. Business models
      b. Capital budgets
      c. Project plans
      d. Economic sustainability

   3. Share technical support wherever practical to reduce costs to county users.

Goal IV – Empowerment

Provide a Klamath Region telecommunications infrastructure with high-speed and reliable access to communications-based technologies and information so that employees can be as efficient as possible, businesses can be competitive in the world of electronic commerce, and residents can have every access to information and services.

Goal IV Action Items:

A. Encourage maximum use of current technology resources and develop ways to promote access for all of the residents and institutions of the area.

   1. Encourage the establishment and equipping of shared community broadband access points, such as community technology resource centers (AKA: telecenters) located throughout the region in schools, public libraries or in other convenient locations.

   2. Establish a visible and permanent re-cycling program to acquire quality surplus equipment and resources from business and government (for example, PC's).
      a. Recondition or upgrade through training programs.
      b. Make available to business and public service facilities.

B. Evaluate funding alternatives to finance the acquisition or subsidization of telecommunication access, equipment, operations, applications (e.g., eGovernment), and training necessary to utilize the infrastructure, equipment or software.

    1. Revenue generating activities

    2. Private venture capital

    3. Community wealth

    4. Corporate grants

    5. Tax incentives

    6. Bonds

    7. Government, corporate or foundation grants

    8. Other potential sources.

Goal V - 21st Century Workforce Development
Improve overall competency of Klamath Region's workforce by supporting a well-trained work force that encourages new business development and existing business growth that leverages advanced telecommunications services.

Goal V Action Items:

A. Provide opportunities for community residents to participate in a wide variety of learning opportunities available through educational institutions or telecenters, wherever they may be located.

    1. Promote use of online distributed education using self-paced and/or guided courses.

    2. Use expanded bandwidth for video courses, including Web-based approaches.

    3. Develop partnerships between Distance Education providers.
        a. Universities
        b. Community colleges
        c. School districts
        d. Technical training schools
        e. Other potential partners

    4. Provide information on programs and funding resources for training and certification
        a. Post on a single Website.
        b. Link to the info from other sites dealing with workforce development.

    5. Encourage and promote development of advanced degrees or technical skills training.
        a. Public Service Announcements
        b. Seminars

    6. Identify funding opportunities for students and employees seeking to improve skills.
        a. Post on a single Web site.
        b. Public Service Announcements.

    7. Work with business to encourage internships in technology and telecommunications.
        a. Develop incentives for internships.

        b. Provide mentoring and other forms of personal development.

    8. Develop programs to encourage leveraging of technology for new business development and to grow existing businesses.
        a. Assist with obtaining financing.
        b. Provide consultation on operations improvements.
        c. Focus on leveraging the new and emerging technologies.

B. Develop programs to educate residents on eCommerce opportunities.
    1. Develop and eCommerce curriculum dealing with eCommerce fundamentals and advanced concepts.
        a. High schools
        b. Klamath Community College
        c. OIT
        d. Telecenters

    2. Develop an eCommerce continuing education program for business owners and employees.
        a. Delivered onsite.
        b. Delivered at other convenient venues and times.

C. Work with the region's educational institutions, economic development departments and businesses to educate potential participants and to create campaigns to promote the area's capabilities in eCommerce, touting business incentives as well as telecommunication and technology capabilities.

    1. Create a "one-stop" assistance program that integrates all business licensing and application processes.
        a. Identify a single point of contact.
        b. Provide assistance (guidance) in completing any applications.
        c. Develop an informational package for use in both promotional activities and as a guideline for interested participants.

    2. Promote the eCommerce capabilities using regional, statewide, and nationwide media.
        a. Public Service Announcements (PSA's) on commercial venues.
        b. Purchase advertising on business programs (TV and Radio).
        c. Purchase advertising in national newspapers.
        d. Underwrite programs on JPR.
        e. Post information on Chamber of Commerce Websites

ASSESSMENT

Summary

Our assessment process took advantage of several existing sources of information to give us a profile of the area and a context for the value of advanced telecommunications access. Relatively current demographic profile information is available from the Oregon Employment Department; the U.S. Census Bureau; Center for Population Research & Census, PSU; Bureau of Economic Analysis; Oregon Tourism Commission; Oregon Department of Revenue; and Oregon Economic and Community Development Department. Websites for the County, Chamber and Regional Investment Board of South Central Oregon provided additional quality reports that provided both profile and strategic planning information.

The Regional Investment Board's strategic plan confirms there is a rapid growing awareness of the critical role telecommunications infrastructure plays in both economic and quality of life development. *[boldfacing added for emphasis]*:

> "...Building a strong foundation in our communities is important to community and economic health. Without safe, quality roads, water, power, sewer treatment, waste disposal/recycling and **fiber optics**, we cannot attract and retain business and industry in our communities. Furthermore, community facilities such as airports, community centers, city/town halls and fire/emergency services, enhance the comfort and security of current residents and anyone considering moving to the region. **Quality infrastructure is the backbone of our region and, without it, our region cannot be competitive.**"[1]

Our telecommunications assessment process included reviewing surveys conducted in 1999 and 2000 -- the SB622 Critical Users Survey, Community Users Survey and Oregon Household Telecommunications Survey. The planning team determined that given the rate of change in the telecommunications landscape more current information would be of value for this strategic planning process. To that end we designed and distributed a survey (see Appendix 4) to 525 members of the community. The survey population reflected the Chamber of Commerce, schools, and local government. 99 of the 525 surveys were completed and returned. This 19% return rate exceeded our expectations of a 4-6% return rate. We believe this is in part due to the interest in the topic by the population surveyed, although we have no hard data to that effect.

Not unlike many areas of the state, change is in the air. This is reflected in a number of the findings from the survey in the context of previously available information. A few of those results will be highlighted below. Please review the results of the Home and Business portions of the survey for further details. For previously available information see Klamath County Profile, Klamath and Lake Regional Assessment, "Oregon Household Telecommunications Survey" Winter 2000 - Klamath County, and SB 622 Survey of Critical and Community Users.

What jumps out is the degree to which the use of the Internet exploded and become a part of daily life. You are encouraged to review all of the surveys and their results. Survey participants also listed 3 concerns they had with regard to telecommunications.

Among the implications of the assessment is the need to ensure that a comprehensive and secure high-speed telecommunications infrastructure is available to all that want it. Additionally, we found a great deal of education in how to best leverage these technologies remains to be accomplished so that sufficient demand is generated to sustain and justify these investment. We now have data to support the goal already recognized by planners as a key component to a successful future for the region.

Note: numbers are %'s except where noted otherwise	1999 survey[1]	Home	Businesses
Personal computer ownership	52	92	97
Use the World Wide Web to make purchases	21	66	73
Have Internet access (at home)	81	89	--
Have Internet access (at work)	33	--	97
Dedicated telephone number usage - business	26	13	90
- Internet	28	38	33
Unique telephone numbers	2.8 per	1.3 per	8.72 per[3]
Internet Connections - dial-up	--	80	54
- high-speed[2]	--	20	54
Importance of Internet Access - critical + very important	--	67	88
Importance of Internet Speed - critical + very important	--	65	80
Website ownership	--	13	51
Telephone company rating - Excellent + Very Good	71	78	83
ISP rating - Excellent + Very Good	--	76	84
Internet Web/Usage - email	--	91	97
- World Wide Web	2-21	85	90

[1] This survey did not differentiate between home and business locations. At the time of this survey some of the questions we asked weren't occurring to the creators of the prior surveys.

[2] Some businesses maintain both dial-up and high-speed connections.

[3] Adjusted by removing one business with 3,000 lines.

[1] "Goal: Infrastructure," South Central Oregon Consolidated Economic Development Strategy & Regional Investment Plan 2001-2003, December 2001. page 19

Klamath Region Stakeholders

Agriculture

Commerce and Industry
   Chambers of Commerce
   Businesses of all sizes
   Manufacturing
   Service
   Retail
   Wholesale
   Wood products
   Mineral Extraction
   Geothermal
   Aggregate
   Consumers

Education
   Universities & colleges
   Community Colleges
   k-12
   Trade schools

Government
   Elected Officials
   Federal
   State
   County
   Cities
   Tribal

Health Care
   Hospitals
   Clinics
   Provider offices
   Imagery Facilities
   Other

Libraries

Not for profit entities

Recreation
   Tourists
   Visitors
   Lodging
   Food and Beverage

Residents

Telecommunications Industry
   Incumbent Local Exchange Carriers
   Cable Industry
   Competitive Local Exchange Carriers
   Internet Service Providers

Klamath County Profile

<u>Overview</u>

Location & Population: Home to Crater Lake National Park, Klamath County is located in the south-central part of Oregon, east of the Cascade Mountains. It is located in a region known as the Oregon High Desert and is geographically Oregon's fourth largest county.

Location	Population
City of Klamath Falls	20,940
Klamath Falls Metro Area	40,100
Klamath County	70,085

About Our Community: The City of Klamath Falls is the seat of Klamath County, Oregon and serves as the transportation and service center for a greater area referred to as "The Klamath Basin" (which includes south-central Oregon and north-central California).

Fresh Northwest Waters: The Upper Klamath Lake is the largest body of fresh water in the Pacific Northwest and covers more than 133 square miles. The City of Klamath Falls is located on the shores of Upper Klamath Lake, Lake Ewauna, and the Klamath River. There are more than 82 lakes and streams in Klamath County.

A Healthy Community Profile: Klamath Falls is an active community with many of the attractions of a larger city, but with the affordable lifestyle of a smaller town. All located in a wondrous natural setting! The downtown area features various shopping, dining, and cultural facilities. On the lakefront, Moore Park overlooks the massive Upper Klamath Lake and offers residents hiking, tennis and boating facilities.

Outdoor Recreation & Beauty: Snowmobile runs and downhill or alpine skiing is available at Mt. Shasta, Mt. Bachelor, Crater Lake, Mt. Ashland and various other locations. In addition, various rivers and mountain lakes offer a retreat for fishing, whitewater rafting, camping and hiking. An abundance of deer and wildlife, including the famous Klamath white pelicans, call this area home for much of the year. Klamath County is also home to one of the largest bald eagle populations in the United States.

A Growing Local Economy: The wood products industry, manufacturing, service, and technology sectors have helped to develop a diversified economic base for the area. Tourism is also a growing industry in area due to the extraordinary natural setting and the proximity of attractions such as Crater Lake National Park, Lava Beds National Monument, seven National Wildlife Refuges, and the Running Y Ranch & Resort *(featuring Oregon's only Palmer-designed golf course, as well as residential, lodge and recreational facilities)*. The Klamath Basin also supports substantial agricultural and ranching industries.

Varied Climate: With an annual precipitation average of 13 inches, plus the year-round temperate climate, the Klamath Basin attracts people looking for outdoor adventures throughout the year. Klamath Falls, located at an elevation of 4100 feet, offers a high, dry climate. The area is known for its warm summers in the 80s and 90s, crisp autumns, and mild, but often snowy winters. Known as Oregon's City of Sunshine, Klamath Falls enjoys nearly 300 days of sunshine each year.

Transportation Options: Klamath Falls is located at the junction of US Highway 97, and Oregon Highways 140 and 39. The area is served by both Amtrak passenger rail service and Horizon Airlines with several non-stop, one hour service to Portland, Oregon. Travel from Klamath Falls to: Medford is 1.25 hours west; Bend is 2.5 hours north; Reno, Nevada is 4 hours south.

Quality Health Care: Klamath Falls and the surrounding areas are served by Merle West Medical Center, a 176 bed health care facility. Merle West's full range of services include cancer and heart centers, a center for occupational health, a family practice residency program, a new family birthing center, and a kidney dialysis center. There are numerous general and specialty clinics and urgent care facilities throughout the city. In addition, two regional health care facilities are located in Medford.

Local Communication Sources: The area is served by a local newspaper, The Herald & News; a state-wide newspaper, The Oregonian; several AM and FM radio stations; 6 local or regional television stations; and cable television, satellite & telecommunication service companies.

Regional Tax & Cost of Living Information: Oregon has no sales tax. Property taxes are limited to $15.00 per thousand dollars of valuation, excluding voter-approved bonded debt. Using the ACCRA cost of living index for the 4th quarter of 1999, Klamath Falls had a composite index of 99.6 compared to the national average of 100. That compares with Portland at 111.7 and Los Angeles at 123.0.

Excellent Educational Facilities: Local higher education facilities include the Oregon Institute of Technology (OIT) and Klamath Community College (KCC). Southern Oregon University (SOU) is located in Ashland, 70 miles west and offers distance learning programs. Our students consistently score above the national average. Parochial education is available at three schools in the city. Here is some additional information on primary and secondary education options in Klamath County:

	Klamath Falls City School District	Klamath County School District
Number of Students	4,000	6,000
Elementary Schools	7	14
Junior High Schools	3	2
High Schools	3	5

Arts & Culture: The 800-seat Ross Ragland Theater hosts performers of various musical genres from around the region and the world. A 30-year-old theatrical troupe, The Linkville Players, produces four plays and a musical each year. The Klamath Chorale, Klamath Symphony, Klamath Art Association, and many other cultural groups all have seasonal performances and shows throughout the local area. Enjoy a visit to numerous antique shops and art galleries or the Baldwin, Klamath County or Favell Museum.

Retail & Trade: Larger "brand name" stores located in Klamath Falls include Gottschalks, Emporium, Fred Meyer, Bi-Mart, Wal-Mart, and Big K. In addition, there are many locally-owned smaller businesses which offer unique and specialized shopping.[1]

History

Klamath County was established on October 17, 1882. It was created from the western part of Lake County and named after a tribe of Indians which white travelers called the Klamath, also spelled Clammite.

Klamath County is situated in south central Oregon. The county is bounded on the south by California, on the east by Lake County, on the north by Deschutes County, and on the west by Jackson and Douglas Counties. The county, Oregon's fourth largest, has 6,135 square miles.

When the Legislative Assembly created Klamath County in 1882, it designated Linkville as the county seat, although it gave the voters the chance to select another site at the 1884 general election. Linkville was renamed Klamath Falls in 1893.

In 1888 the county acquired its first courthouse for $3,500. Previously a school or rented commercial premises housed county offices. By 1912 the need for a new courthouse was pressing. However, for the next thirteen years a dispute raged over its location and which of the two courthouses being built would be accepted. The first courthouse, known as the Hot Springs Courthouse, was designed along Grecian architectural lines, but, due to law suits and recall elections only the exterior was finished. When construction stopped, $112,000 had been spent, with an additional $60,000 needed to complete the project. It was torn down in 1927 to make way for the Klamath Union High School. In 1918 construction began on another courthouse, known as the Main Street Courthouse which was built next to the existing one. In spite of injunctions to halt construction, the work was completed within a year, but the building was not fully occupied until 1923, when all legal questions were settled. The structure cost about

$122,000. Earthquakes in 1992 severely damaged the building, and county offices were relocated to temporary quarters. Construction of a new courthouse and administrative center began in 1997.

The government of Klamath County consisted originally of a county judge, two county commissioners, clerk, treasurer, coroner, surveyor, and sheriff. The judge's position was abolished in 1965, and the number of county commissioners increased from two to three.

Klamath County is served by Senate Districts 27 and 30; Representative Districts 53, 54, and 60; and the Second Congressional District.

The 1890 census cited a population of 2,444. Since then the county has experienced steady growth. The 1997 population of 61,600 represented a 6.8% increase from 1990.

Historically, Klamath County's economy has been based on timber and agriculture. Three-fourths of the county is forested; however, over half of it is publicly owned. The large stands of timber have resulted in the development of wood products industries in the county. In spite of the altitude, short growing season, low rainfall, and cold winters, agricultural plays an important role in the local economy. Excellent soil, adequate water for irrigation, extensive sunshine, and the introduction of cash crops such as potatoes and feed barley contribute to the agricultural industry. There is the potential to develop geothermal energy through the exploitation of the geothermal water found in many parts of the county. The many lakes and mountains, including Crater Lake National Park, attract tourists and recreational visitors to the county.

The Klamath Indian Tribe and Reservation add to the county's history. The Klamath Reservation was established in 1864 by treaty and covered about fifty square miles of land east and northeast of Klamath Falls. The federal government's policy of termination and assimilation resulted in the tribe being abolished in 1961. However, in 1975 a fully functioning tribal government was reestablished, and the Klamath Tribe was recognized by the federal government in 1986. The 1990 census showed the tribe to consist of 2,370 members. [2]

Economic Indicators (table 1)

Klamath County [3]	1994	1995	1996	1997	1998	1999
Population	60,500	61,600	61,600	61,600	62,000	62,300
Labor Force	28,520	28,430	29,790	29,170	28,930	28,753
Total Employment	26,050	26,330	27,190	26,310	26,270	26,257
Unemployment	2,470	2,100	2,600	2,860	2,660	2,496
Unemployment Rate (%)	8.7	7.4	8.7	9.8	9.2	8.7
Non-Farm Payroll Employment	21,160	21,920	22,780	22,720	22,910	N/A
Total Covered Employment	20,768	21,635	22,494	22,573	22,341	22,978
Total Covered Payroll ($ thousands)	444,221	478,686	520,494	543,001	539,180	N/A
Average Annual Payroll Per Employee ($)	21,390	22,126	23,139	23,657	24,134	24,540
Number of Business Units	1,676	1,692	1,704	1,773	1,804	1,773
Total Personal Income ($ thousands)	976	1,056	1,123	1,160	1,250.5	N/A
Annual Per Capita Personal Income ($)	16,095	17,222	18,034	18,466	19,800	N/A
Assessed Value of Property ($ millions)	2,491	2,650	2,878	3,786	3,263	3,404
Residential Construction Building Permits--- Value ($ thousands)---	151 22,642	307 22,942	226 27,477	237 30,461	N/A	N/A
Travel Expenditures ($ thousands)	87,670	94,430	99,650	102,630	N/A	N/A

Travel-Related Employment	1,399	1,469	1,482	1,456	N/A	N/A

N/A -- Data is not yet available.
Sources: Oregon Employment Department; Center for Population Research & Census, PSU; Bureau of Economic Analysis; Oregon Tourism Commission; Oregon Department of Revenue; Oregon Economic and Community Development Department - Updated February 1, 2001

People Quick Facts (table 2)

People QuickFacts [4]	Klamath County	Oregon
Population, 2000	63,775	3,421,399
Population, percent change, 1990 to 2000	10.5%	20.4%
Persons under 5 years old, percent, 2000	6.4%	6.5%
Persons under 18 years old, percent, 2000	25.8%	24.7%
Persons 65 years old and over, percent, 2000	14.9%	12.8%
White persons, percent, 2000 (a)	87.3%	86.6%
Black or African American persons, percent, 2000 (a)	0.6%	1.6%
American Indian and Alaska Native persons, percent, 2000 (a)	4.2%	1.3%
Asian persons, percent, 2000 (a)	0.8%	3.0%
Native Hawaiian and Other Pacific Islander, percent, 2000 (a)	0.1%	0.2%
Persons reporting some other race, percent, 2000 (a)	3.4%	4.2%
Persons reporting two or more races, percent, 2000	3.5%	3.1%
Female persons, percent, 2000	50.0%	50.4%
Persons of Hispanic or Latino origin, percent, 2000 (b)	7.8%	8.0%
White persons, not of Hispanic/Latino origin, percent, 2000	84.1%	83.5%
High school graduates, persons 25 years and over, 1990	28,123	1,511,760
College graduates, persons 25 years and over, 1990	4,583	382,171
Housing units, 2000	28,883	1,452,709
Homeownership rate, 2000	68.0%	64.3%
Households, 2000	25,205	1,333,723
Persons per household, 2000	2.49	2.51
Households with persons under 18, percent, 2000	33.4%	33.4%
Median household money income, 1997 model-based estimate	$30,781	$37,284
Persons below poverty, percent, 1997 model-based estimate	15.9%	11.6%
Children below poverty, percent, 1997 model-based estimate	22.8%	16.3%

Business Quick Facts (table 3)

Business QuickFacts [4]	Klamath County	Oregon
Private nonfarm establishments, 1999	1,606	99,945
Private nonfarm employment, 1999	17,212	1,332,403
Private nonfarm employment, percent change 1990-1999	12.2%	31.0%
Nonemployer establishments, 1998	3,274	209,844
Manufacturers shipments, 1997 ($1000)	562,564	47,665,990
Retail sales, 1997 ($1000)	544,823	33,396,849
Retail sales per capita, 1997	$8,678	$10,297

Minority-owned firms, percent of total, 1997	6.3%	6.2%
Women-owned firms, percent of total, 1997	22.1%	27.6%
Housing units authorized by building permits, 2000	150	19,877[1]
Federal funds and grants, 2000 ($1000)	319,388	16,552,889
Local government employment - full-time equivalent, 1997	2,230	117,999

Geography Quick Facts (table 4)

Geography QuickFacts [4]	Klamath County	Oregon
Land area, 2000 (square miles)	5,944	95,997
Persons per square mile, 2000	10.7	35.6
Metropolitan Area	None	

1: Includes data not distributed by county.
(a) Includes persons reporting only one race.
(b) Hispanics may be of any race, so also are included in applicable race categories.

FN: Footnote on this item for this area in place of data
NA: Not available
D: Suppressed to avoid disclosure of confidential information
X: Not applicable
S: Suppressed; does not meet publication standards
Z: Value greater than zero but less than half unit of measure shown
F: Fewer than 100 firms

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[1] http://www.co.klamath.or.us:8080/HumanResources/Community.htm
[2] http://arcweb.sos.state.or.us/county/cpklamathhome.html
[3] http://www.econ.state.or.us/CENCEIKA.HTM
[4] Source U.S. Census Bureau: State and County QuickFacts. Data derived from Population Estimates, 2000 Census of Population and Housing, 1990 Census of Population and Housing, Small Area Income and Poverty Estimates, County Business Patterns, 1997 Economic Census, Minority- and Women-Owned Business, Building Permits, Consolidated Federal Funds Report, 1997 Census of Governments
http://quickfacts.census.gov/qfd/states/41/41035.html

Klamath and Lake County Regional Assessment
[Note: This is an extract from the larger document]

Summary

Two major forces have shaped Oregon's economy since 1980. High technology and services now play a larger role in the economy. Timber is less dominant. The economy has also grown rapidly, especially during the 1990s. Key changes and forces within the economy are listed below:

- Total non-farm jobs grew 41.2 percent between 1980 and 1997.
- Since 1988, Oregon's per capita income grew much faster than average per capita income across the United States. It increased from 90 percent of the average in 1988 to nearly 96 percent in 1997.
- Service-producing sectors (which include business services and health services) are now a larger part of the economy than goods-producing sectors (which include manufacturing and agriculture).
- Within goods-producing industries, electronics is growing rapidly while timber and wood products is declining.

However, Lake and Klamath Counties have not always kept pace with these overall trends. Outside of Oregon's urban areas, per capita income since 1990 has been only 80 percent of the national average. In recent years, through Oregon Benchmarks and state and regional Community Solutions Teams, the state has been extremely active in its rural communities and counties. The state, by committing resources and technical assistance, is helping to diversify local economies and mitigate the heavy downturns brought on by the decline of the timber industry.

Located in southern Oregon along the eastern border of the Cascade Mountains and bordering California, Lake County at 8,340 square miles (5.34 million acres) and Klamath County at 6,151 miles (3.93 million acres) are the third and fourth largest counties in Oregon. Together, these counties cover over 14,490 square miles, with an average of 1 person square mile in Lake County and 10 people per square mile in Klamath County. Some of the hurdles to achieving a more diversified, stronger economy in Lake and Klamath Counties include: creating a highly skilled workforce, developing the infrastructure to support industry and community needs and building community capacity to solve local problems.

Regional Vision

South Central Oregon abounds in natural and cultural resources, scenic beauty, history and community pride. The communities in Klamath and Lake Counties have come together to provide a vision of our future that is progressive and innovative and leads to healthy local communities and economies.

While this plan delineates goals for healthy communities and healthy economies, we view the health, vitality and strength of our communities and economy as inextricably linked; without one, we cannot achieve the other. We understand that our region's quality of life depends on a robust economy and a robust economy begins with a high quality of life. Thus, we support all efforts to foster partnerships that improve the economy and quality of life throughout the region

Our local economies flourish by providing expansion opportunities for existing local businesses and a welcoming and promising atmosphere for appropriate business and industry. Our residents value a clean environment, and we want to attract new industry to our region that meet or exceed current environmental standards for air, water and land use.

We are striving to build an employable workforce that is highly skilled and competitive in local, regional, state, national and world markets. We are working to provide educational opportunities to people of all ages that not only strengthen their employment possibilities, but also provide for life-long learning opportunities. We are actively working to build local infrastructure—streets, utilities, telecommunications, etc.—that supports our basic needs as well as the needs of business and industry.

Although our counties desire to be on the cutting edge with regard to technology, telecommunications, education, commerce and tourism, we also treasure our rural lifestyle, physical surroundings and traditional frontier spirit.

We recognize that all of the elements important to a healthy community are woven together. As one fabric, they support a high quality of life for local residents. As the illustration below characterizes, each element, each thread, is important to our overall quality of life.
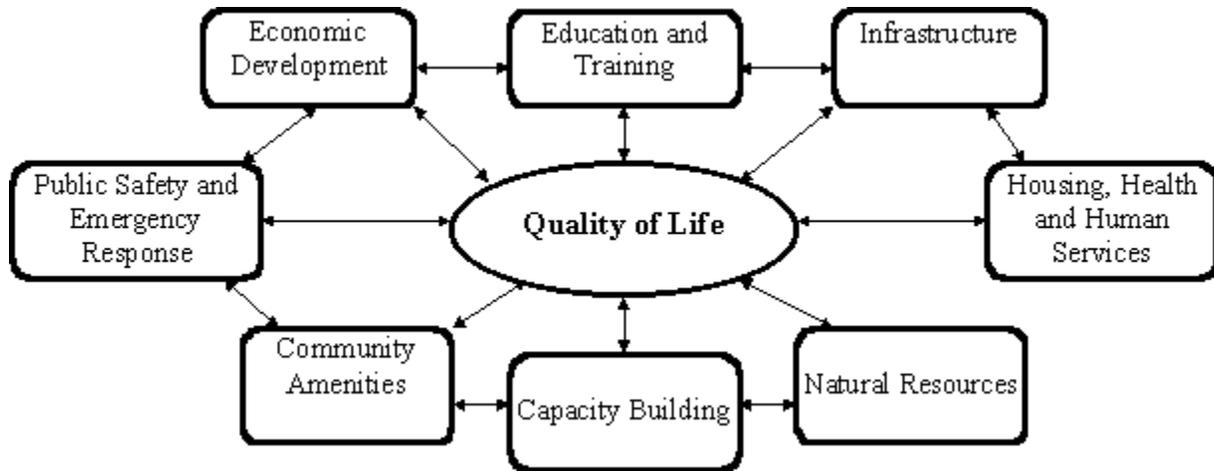
History of Lake and Klamath Counties

Lake County, first settled in the 1870s by sheep and cattle ranchers, was established from the eastern part of Jackson County and southern part of Wasco County on October 24, 1874. Its name derives from the numerous freshwater lakes throughout the county. When the Legislative Assembly created Lake County, it temporarily located the county seat at Linkville until voters selected a permanent site in Lakeview. Lakeview was chartered as the county seat in 1889. In 1890, a fire destroyed 75 businesses in downtown Lakeview, which were rebuilt by 1901 using primarily brick and iron. Lakeview overlooks Goose Lake and is called the "*The Tallest Town in Oregon,"* because its elevation (4,800 feet) surpasses that of any incorporated community in the state.

Lake County is represented by Senate District 30, House District 60 and the Second Congressional District. The 1875 census showed a population of 944, which jumped to 2,804 by 1880. The population in 1997 was 7,400.

Because of poor transportation connections with the rest of Oregon, the early economic orientation of Lake County was toward California, the county's southern border, and particularly mining interests. During the 1840s and 1850s, the county was part of the military courier route between The Dalles along the Columbia River and the Presidio in San Francisco. The county did not acquire a railroad until the 1890s.

The traditional county economy rests on timber, agriculture, mining and government. In spite of low rainfall and a short growing season, a combination of homesteading and irrigation has permitted agriculture—in the form of ranching and grain production—to thrive. The Fremont National Forest provides the county's timber supply. Federal land management agencies remain a consistent component of the local economy, otherwise reliant on seasonal agriculture and timber for jobs. Tourism is a growing industry centering on unique landmarks, such as Hart Mountain National Antelope Refuge, Abert Rim, Hunter's Hot Springs, Goose Lake and other areas.

Klamath County was created from the western half of Lake County on October 17, 1882. It derived its name from a tribe of Indians called the Klamath or Clammite. The Klamath Tribes—composed of the Klamath, Modoc and Yahooskin Band of the Snake Indians, commonly called Piaute—made their traditional homes east of the Cascade Mountains in Klamath and Lake Counties. The legends, passed on

by elders, tell that the Klamath people have been in the same area since time immemorial. Tribal ancestors witnessed the eruption of Mt. Mazama and the creation of Crater Lake.

The Klamath Indian Tribes and reservation add to the county's history. The traditional homeland of the Klamath Tribes was approximately 20 million acres. But when the Klamath Reservation was established in 1864 by treaty, the tribe accepted lands approximating 1.9 million acres, covering about fifty square miles of land east and northeast of present day Klamath Falls. The federal government's policy of termination and assimilation resulted in the tribes being abolished in 1961. However, in 1975, a fully functioning tribal government was reestablished, and the Klamath Tribes were again recognized by the federal government in 1986. The 1990 census showed the tribe consisting of 2,370 members.

White settlement began in 1846 along the Applegate Immigrant Trail, which precipitated clashes between the two cultures and led to the Modoc Indian War of 1872. When the Legislative Assembly created Klamath County in 1882, it designated Linkville as the county seat, although it gave voters the chance to select another site at the 1884 general election. Linkville was renamed Klamath Falls in 1893 and remains the county seat to this day. The 1890 census cited the county population at 2,444. Since then, the county has experienced relatively steady growth. The 1997 estimated population of 61,600 represented a 6.8% increase from 1990 figures.

Klamath County is served by Senate Districts 27 and 30; Representative Districts 53, 54 and 60; and the Second Congressional District.

Historically, Klamath County's economy was built on timber and agriculture. Three-fourths of the county is forested; over half of it is publicly owned. The large stands of timber resulted in the development of a local wood products industry. Similar to neighboring Lake County, agriculture continues to play an important role in the local economy, despite a high altitude, short growing season, low rainfall and cold winters. Excellent soil, adequate water for irrigation, extensive sunshine, and the introduction of cash crops, such as potatoes and feed barley, contribute to a long history of agriculture. Additionally, geothermal energy has the potential to extend the normal growing season and expand agricultural opportunities. Natural geothermal hot wells provide heat for many homes, businesses and the Oregon Institute of Technology. Tourism is a burgeoning industry, benefiting from the county's lakes and mountains, the Winema National Forest, Crater Lake National Park, the Upper and Lower Klamath Wildlife Refuges and the Klamath Marsh National Wildlife Refuge.

Geography, Natural Resources and Climate

Klamath County's western boundary on the crest of the Cascade Mountains, with peaks that reach 8,000 feet, receives some of the deepest snow accumulation on the West Coast. Remaining county lands form the northernmost part of the Great Basin, a semi-arid high desert plateau averaging 4,000 to 6,000 feet in elevation and 10-15 inches of precipitation per year. Some 70% of county land is forested. Over half of the land is publicly owned (55.8%); 43.8% is in national forest. The area's diverse landscape supports a variety of biological communities. The eastern slope of the Cascades hosts abundant fir forests, while pine and juniper thrive on the ridges of the eastern plateau. The rugged Cascade Mountains cover the western quarter of the county. Mt. Scott in Crater Lake National Park (8,939 ft.) is the highest point in this county.

Most lands within the county lie within the upper Klamath River watershed. Rivers flow through the region's many valleys and are detained occasionally by sizeable lakes and marshes. There are numerous fresh water lakes in the county: Upper Klamath Lake, Lake Ewauna, Swan Lake, Agency Lake, Odell Lake, Davis Lake, Crescent Lake and, the most well known, Crater Lake. Crater Lake is located 62 miles northwest of Klamath Falls, within the rim of an extinct volcano. At 2,000 feet deep, it is the deepest lake in the United States and the fifth deepest lake in the world. Upper Klamath Lake, the largest body of fresh water in Oregon, is about eight miles wide and 40 miles long. Odell, Davis and Crescent Lakes are located in the northeastern corner of the county. The Klamath River, rising in Lake Ewauna just south of Upper Klamath Lake and flowing southwest into California, drains the southern part of the county. The Williamson and Sprague Rivers, emptying into Upper Klamath Lake, drain the central and eastern portion

of the county. Further, the 14,400 acre Upper Klamath, and the 53,600 acre Lower Klamath National Wildlife Refuges, along with the 37,600 acre Klamath Marsh National Wildlife Refuge, are home to waterfowl, eagles, grebes, swans, cranes, shorebirds, pelicans and big game. These refuges and other recreation sites can be accessed from Klamath County's Volcanic Legacy Scenic Byway, an All-American Road, and the Outback National Scenic Byway, the Modoc Volcanic Scenic Byway, and the Lassen Volcanic Byway.

The climate of Klamath County is characterized by relatively dry summers with moderate temperatures and winters with moderate to low temperatures. Much of the winter precipitation falls as snow. Total average annual snowfall in Klamath Falls is about 41 inches. Crater Lake receives approximately 521 inches annually. Average precipitation ranges from as little as ten inches in the basin to over 70 inches in the mountains.

Killing frosts have been recorded throughout the county in every month of the year. Growing seasons range from 20 to 40 days at higher elevations to 100 to 125 days in the valleys. Climate is the major limitation on crop production.

Lake County is located in the south-central portion of Oregon on the California and Nevada borders. Klamath County adjoins Lake County on the west, Harney County on the east; and Deschutes County on the north. Most of the land in the county is high plateau, part of the "Great Basin," with elevations ranging from 4,130 to 8,446 feet. A few peaks are over 8,000 feet. Crane Mountain, the highest peak, is 8,446 feet. The topography consists of desert, sagebrush, rimrocks, mountain forests, lakes, and crystal clear streams. Lake County averages only 16 inches of annual precipitation, most of which is snow. At least 78% of Lake County is publicly owned, not forested, and suitable only for livestock. Most of the area is grass-shrub rangeland. About 15% of the land in the county is forested, and approximately five percent is used for cropland or hay production.

The lakes for which Lake County is named are alkali lakes of the Great Basin, such as Summer Lake, Lake Abert and Goose Lake, which the county shares with California. Fremont National Forest (1,198,301 acres), located east of the Cascade Mountains in the high elevation lava tablelands of south central Oregon, is located almost entirely in Lake County. The Oregon-California border marks the Forest's southern boundary, while its eastern boundary includes part of the Warner Mountain Range. A gentle to moderate terrain prevails over most of the Forest and elevations range from 4,000 and 8,000 feet above sea level. Slopes are generally 40% or less, although steep slopes along fault scarps and in narrow drainages are not uncommon. Abundant stands of fir exist at higher north facing elevations, while drought tolerant tree species, such as Juniper and Ponderosa Pine, and white fir and lodgepole pine also exist in the Forest. More than 3,000 species of fish and wildlife live in the Forest, including mule deer, Rocky Mountain elk, pronghorn antelope, trout, largemouth bass, Canada geese, whistling swans, mallards, black bear, mountain lion, bobcat, bald eagles, peregrine falcon, big horn sheep, sandhill cranes, white pelicans and coyotes. The Chewaucan, Sycan, and Sprague Rivers are the major streams originating in the Forest.

The Gearhart Mountain Wilderness, totaling 22,823 acres, is the Fremont National Forest's only wilderness. Other special areas in the Forest include the Slide Rock Mountain Geologic Area, the scene of a massive slide on the north face of the volcano, and two Wild and Scenic Rivers, the North Fork of the Sprague River and the Sycan River.

The climate of Lake County is cool and semi-arid to sub-humid, characterized by cold winters, warm summers, and a short frost-free growing season. Annual precipitation averages eight to ten inches in the lower basins, 12 to 16 inches in some mountain valleys, and 16 to 25 inches in the forested uplands. Frosts may occur in any month, and growing seasons average around 100 days. Snowfall ranges from about 20 inches annually in the basins to over 70 inches in the mountains.

Population

During the 1970s, the population of Lake and Klamath Counties grew by more than 18 percent. About half of this growth came from in-migration, but the area's growth lagged behind the state average of almost 26 percent.

The 1980s included population losses for both counties, commencing during the 1980-82 recession, and continuing through 1986. The state's general economic recovery, which started in 1983, proceeded at a slow pace in Klamath and Lake Counties. But the strong market for timber and wood products, which began in late 1986, produced an upsurge of economic activity, ending the pattern of population decline in both counties.

By 1989, payroll employment in Klamath County finally recovered to pre-recession levels, a situation attained in Lake County in 1987. Despite layoffs in timber and wood products over the years, and the mild 1991-92 recession, a slow rate of population growth continued in both counties, partially from net in-migration. However, a decline in federal spending and the downsizing of the federal government, along with a declining timber industry, has led to increasing out-migration in Lake County in 1996 and 1997.

Data from the 1990 census reveal a reversal of the growth pattern in the previous decade. The 1990 population was 57,800, a decline of 1,317 or 2.23 percent since 1980. The decline was composed of two elements: migration, the movement of people in and out of the county, and natural increase. In the case of Klamath County, a net population out-migration of 5,187 was only partially offset by a natural increase of 3,870. Statewide, population increased by more than 210,000 or 8.12 percent over the decade.

The 1990 racial makeup of Klamath County included 53,191 White, 381 African American, 2,370 Native American, 461 Asian, 2,984 Hispanics and 1,299 persons of other races. The most significant minority development over the past decade has been the influx of immigrants from Mexico, most of whom found initial employment in the Klamath Basin's agriculture and potato packing industry, with subsequent expansion into the retail sales sector.

By 1998, the estimated population had climbed to 62,000, an increase of approximately 7 percent from 1990. According to the Oregon Employment Department's projections, the county's population will increase to 64,996 by the year 2000, and to 91,547 by 2040.

Lake County is sparsely populated, with a population density of only one person per square mile. The 1990 population of Lake County was approximately 7,200, a decline of over 300 persons, or 4 percent, from the previous decade. The out-migration of over 800 persons for that period was mitigated by a natural increase of births over deaths totaling 541 persons. The 1990 racial makeup of Lake County included 6,411 White, 198 Native Americans, 5 African Americans, 46 Asians, 270 Hispanics, and 270 persons of other races.

By 1998, the estimated population had climbed to 7,400, a 3 percent increase over 1990 figures. According to the Oregon Employment Department's projections, Lake County's population will increase to 7,779 by the year 2000, and to 9,235 by 2040.

Community Profile, Housing, Medical Services, Education

The communities of Klamath and Lake Counties are best characterized by their active citizens, many of whom participate on Community Action Teams that were established by local, state and federal partners. With the assistance of state, county and U.S. Forest Service officials, these teams complete community strategic plans, which assist in efforts to seek funding for local projects. The plans also tie into larger planning efforts at the city, county and state levels.

Overall, an abundance of housing existed in Klamath Falls over the last decade, while housing supplies in the smaller and more rural communities of Klamath and Lake Counties was only adequate. In the last

few years, the supply of available low and medium priced residential property has increased significantly in Klamath County, but not in Lake County. While a number of farms and ranches throughout the two counties exist on the market, they are zoned for exclusive farm or forest use, and further housing development on these properties is extremely limited. Housing transactions generally are less active in the small, rural communities, as development is slow and employment opportunities few in these areas.

All categories of rental housing are limited in the more remote areas of the counties. Often such housing is substandard and may not meet federal standards for safe and sanitary housing. In many communities, houses may be in ill repair. Recently, Lake County has taken positive steps to enact laws that provide for the clean up of blighted property.

In Klamath County, rental housing vacancy rates are low and finding appealing rental property is difficult. Organizations with a high turnover of people, such as the Training Pilots of the Air National Guard and students at the Oregon Institute of Technology place constant demand on rental units in Klamath Falls. Major construction, such as a new gas pipeline east of Klamath Falls, and the new Government Center and Courthouse also place significant pressure on the market.

Other factors have contributed to the scarcity of rental housing around the region. Over the past 10 years, over 700 rental units were condemned and demolished. Furthermore, the lack of adequate tax incentives and the continued low rental rates in the area have deterred investors from building additional units.

Finally, housing accessible to the physically disabled and elderly is limited in the region, with the exception of convalescent/retirement homes and specialized elder care facilities. With the influx of retirees to Klamath and Lake Counties, the housing stock falls short of the need. Accommodations such as wheel chair ramps and handicapped facilities are rare as well. The stock of housing that is suitable for disabled and elderly persons could potentially increase as the Federal Fair Housing laws take effect.

Klamath and Lake County are served by Merle West Medical Center in Klamath Falls, the Lake District Hospital in Lakeview, and the Rogue Valley and St. Charles Hospitals in Medford and Bend respectively. The Merle West Medical Center admits more than 6,400 people annually as inpatients, over 24,000 annually as emergency room patients and 74,000 annually as outpatients. The hospital has 176 beds, not including the Plum Ridge Care Center, which is a nursing home with 120 beds. More than $57 million in revenue is charged annually, $4 million of which is not collected and is written off as uncompensated care. Medicare insures half of all patients.

Built in 1970, the Lake District Hospital has 21 beds in its acute care unit and 47 beds in its long-term care facility. Five physicians and two nurse practitioners serve as members of the medical staff. Air-Life and Mercy flights are also available to regional medical centers in Bend and Medford.

While the Merle West Medical Center and Lake District Hospital serve as regional medical centers, many local residents must drive long distances to access these services. In rural communities across the region, access to medical, dental, mental health, and chemical dependency services is still a pressing need.

Klamath and Lake Counties are known for their strong K-12 school systems. Public school students in the region perform on par with the rest of the state, and scholarships such as the Burt Snyder Scholarship, Anna Jones Scholarship and Collins McDonald Scholarship provide higher education opportunities for graduating seniors in Lake County.

The region also benefits from the presence of the Oregon Institute of Technology, Klamath Community College, the Lake County Learning Center, Head Start programs and private schools.

Oregon Institute of Technology, the only public institute of technology in the Pacific Northwest, provides degree programs and educational opportunities in the applied sciences and programs that prepare students to be effective members of their communities.

Klamath Community College's mission is "to offer quality learning opportunities which enhance growth and development for the individuals, businesses and organizations within our greater community." Both institutions serve the citizens and communities throughout the region and are active partners in community projects.

Klamath and Lake Counties Economic Profiles

As previously stated, the traditional backbone of Klamath and Lake Counties economy was mining, timber and agriculture, and much of the region was settled by loggers, miners, farmers and ranchers as well as their families. However, by the early 1900s, the mining industry and its resources had played out. Thus, timber and agriculture became mainstays in the region's economy. The latter half of the 1970s was a period of substantial economic growth for the South Central region, led by a strong timber and wood products industry. Yet in the early 1980s, the recession of 1980-82 brought sharp employment reductions in timber and wood products, transportation, construction, and government, due in part to a decrease in timber supply, Spotted Owl legislation, the closure of Kingsley Air Force Base in Klamath County, and out-migration.

Although the rest of the country began a recovery period in 1983, South Central Oregon experienced continued deterioration through 1986, partially fueled by a reduction in timber harvests and depressed agricultural sector.

The region experienced a marked upturn in economic activity after 1986, led by a rebounding timber market, the designation of Kingsley Field as an Air National Guard training center, increased employment in diversified light manufacturing and improved markets for agricultural products.

Prospects for sustained future growth rest primarily on additional diversification of the region's economy and work force, and continued support of a value-added natural resource based economy within the region. Klamath and Lake Counties are striving to not only diversify industry representation and markets for products, but also the local labor force. Training, education and vocational programs have been added to local educational institutions in telecommunications, computers and technology fields. This effort is aimed at bringing Klamath and Lake Counties into the global market through the technology. Evidence of diversification in Klamath County includes the development of a destination resort, the pursuit of a local ski area, and the Klamath Tribes gaming casino. Additionally, Lake County has been working with Sustainable Northwest to train local workers and increase jobs opportunities in natural resource restoration.

As Oregon's fourth largest county, covering 3,820,000 acres—2.6 million of which are forest and 750,000 farmland—agriculture, timber and related businesses remain major economic elements throughout the county. The County's assessed value is $32,581,794, and real market value is $3,263,216,405.

A third important element in the county economy is transportation. Two railroads, Southern Pacific and Burlington Northern, long-haul trucking, and bus and air transportation is available in the county.

Crater Lake, Oregon's only National Park, as well as, the Upper and Lower Klamath National Wildlife Refuges, the Klamath Marsh National Wildlife Refuge, the Volcanic Scenic By-Way, and the Klamath Tribes Casino bring many visitors to the county each year. Thus, tourism is probably the fourth most important element in the county's economy.

The City of Klamath Falls, with its urban population of some 45,000 people and location at the confluence of Highways 97 and 140, serves as a regional trade center for roughly 75,000 people from south central Oregon and north central California. With the addition of fiber optic cable, Klamath Falls will also become the hub for a regional telecommunications—specifically, TeleVillage—program. The TeleVillage program will link rural and remote communities to the Internet and the information super highway.

Local government remains a major contributor to the local economy, as does the Oregon Institute of Technology, the Winema National Forest, the National Park Service, and the Air National Guard Training Center at Kingsley Field.

Klamath County is a major timber producer, ranking in the top half dozen of Oregon Counties for timber production. At peak pre-recession production levels, timber and wood products provided employment for almost 5,000 workers. Employment in the industry currently totals about 2,700, a total not likely to increase due to raw material constraints, a highly competitive market and continuing automation. New re-manufacturing enterprises such as pulp and paper, chip and other fiber-based products could potentially increase the number of new jobs in this industry.

Klamath County produces hay, oats, barley, potatoes and beef cattle. Constrained over the past decade by rising costs and declining prices, the agricultural sector witnessed falling land values and eroding farm capitalization. Through 1993, improved prices for hay, grain, livestock and potatoes, and the end of a drought, sharply improved farm income. However, falling livestock prices adversely affected income levels again in 1994 and 1995.

Employment in trade, services and government provides a degree of stability to the local economy, helping to offset fluctuations in the markets for agricultural and timber products.

Recession and the closure of Weyerhaeuser's Klamath Falls sawmill characterized the period from 1990 to 1997. The Weyerhaeuser mill was once the largest ponderosa pine sawmill anywhere. Then, the closure of the Modoc Mill left only two mills operating in the county. Bright spots in the local economy included the influx of large numbers of pipeline workers during the 1992 construction of a new natural gas pipeline, the opening of Oregon's first Wal-Mart store and a large new Gottschalk's department store. This followed by an influx of out-of-state migrants drawn by the area's low real estate costs and livability helped Klamath County regain ground. The opening of Aquaglass (fiberglass bathroom fixtures) and of Sykes Enterprises (computers software/hardware support for PC purchasers) began the push to diversify the local economy. And the opening of the first phase of the $200 million dollar Running Y Ranch Resort and the Klamath Tribes gaming casino in 1998 further sparked development in the tourism and recreation sectors.

The outlook for 1999 and beyond depends greatly on the timber and wood products industry. However, an upturn in timber employment is not likely since maturation of second-growth timber will not occur until well into the next century, and the timber supply rests, in part, on the outcome and implementation of the Northwest Forest Plan.

However, much of the future growth potential rests in increasing economic diversification, the prospects for which look increasingly promising. The future of tourism and recreation look good at present, with Klamath County actively pursuing the Pelican Butte ski area, an opportunity that could provide year-round recreation in the area. The plans for the ski area are still under review by the Department of the Interior.

Moreover, efforts to turn the local airport, Kingsley Field, into a major international trade center and Foreign Trade Zone continue, as does the boost to the economy from an influx of retirees, primarily from California. The same factors that have attracted new residents (e.g., a relatively low cost of living, affordable housing, a pleasant and clean environment, recreational opportunities, and a safe community) also have the potential to attract new industry looking to compete in the vast California and Asian markets.

Although the downward trend in government employment was stymied in the late 1990s by the expansion of the Air National Guard's training activities at Kingsley Field, earlier abandoned by the U.S. Air Force. Future prospects for government sector employment has dimmed with budget reductions affecting federal and state agencies, one example being the consolidation of the Bureau of Land Management and National Park Service serving the Winema National Forest.

However, the outlook for agriculture is bright as cattle and potato prices rise. Good prices for grain, hay and sugar beets keep the farm sector steady, although have little effect on direct farm employment, farm income or employee wages, although the recent increase in the federal minimum wage may change that.

Construction has expanded over the past four years, with 1995 alone witnessing an explosion of commercial development ranging from a new motel, two retirement facilities, two pipeline projects, the Sykes Enterprises building, a home improvement chain store, and a new County Administration building. These developments are expected to spur residential development in 1999. Coupled with the potential development of the Pelican Butte Ski Resort, the construction industry could remain strong for several years.

Timber and wood products, government and agriculture form the basis of Lake County's economy. Government, bolstered by the presence of the Fremont National Forest staff and a regional Bureau of Land Management headquarters, is the largest source of payroll income in the county.

The private sector includes logging, millwork, door manufacturing and ranching. Ranching operations are based largely on livestock, hay and grain production. The national effect of timber market variations has been amplified in Lake County due to problems of relative isolation, small size of mills, and the lack of by-product utilization at the local level. Helping to offset these disadvantages is the existence of the Lakeview Federal Sustained Yield Unit, which requires that timber harvested on a designated area of the Fremont National Forest be processed in mills located in Lakeview or Paisley. The Unit was established in 1950, pursuant to provisions of the Federal Sustained Forest Management Act of March 24, 1994. Furthermore, the region's relationship with Sustainable Northwest is anticipated to develop local business in the areas of small diameter wood products and forest restoration.

Seasonality is another factor affecting the local labor market. Due to extensive summer employment provided by government, logging and agriculture, unemployment rates during that time of the year commonly dip into the 8 or 9 percent range. However, in the winter, unemployment often soars to 12 to 14 percent. It is important to note that although seasonal labor is a strong force in the economy, by in large, these seasonal jobs are not jobs that provide a "living" or "family" wage. Thus, many individuals will work two to three jobs in the summer in order to put aside money for the harder winter months.

Currently, only one sawmill remains operational in Lake County—the Fremont Sawmill—in Lakeview. For a time, employment losses in other sectors were offset by increases in millwork employment. However, from mid 1996 to mid 1997, this industry has also been in slow decline. Budget reductions affecting the U.S. Forest Service and Bureau of Land Management have also eroded a basic stabilizing component of the local economy.

The economic outlook for Lake County over the next several years is questionable. With only one timber mill remaining in operation, and little likelihood of any increase in harvesting, additional employment from logging and millwork seems unlikely. However, there is the potential for additional employment in the area of small diameter wood product development and active restoration in the Fremont National Forest. As the federal government downsizes and more of its work is contracted out, private restoration businesses could become responsible for management activities that were once the responsibility of federal agencies. The establishment of a minimum security work camp in Lakeview in 2003 could provide some 150 relatively well paying jobs, 40 percent of which would be filled by Corrections professionals and their families moving into the area. The Oregon Department of Corrections has estimated that the local population would fill 60 percent of these jobs.

Klamath and Lake Counties' Employment Profile

Table 1 compares the basic industrial structure of Klamath and Lake Counties for 1996 and 2006. The rate of employment growth in Klamath and Lake Counties over the 1996-2006 period (16.9%) is expected to trail that of the state as a whole (21%), as has been the case over the past two decades. However, if the proposed Pelican Butte Ski Area is approved, the rate of growth will very likely expand toward the end of the period as tourism/recreation and real estate development accelerates and more

investors move into the area. Development prospects in Lake County rest largely with the work of the Sustainable Northwest and the Lakeview Sustained Yield Unit Working Group as well as the minimum security work camp.

Present prospects indicate limited gains in manufacturing, with the exception of a proposed gas-fired generating plant in Klamath Falls and any manufacturing opportunities that arise from an expansion of the dairy industry.

In the non-manufacturing sector, services and local government are projected to grow rapidly, thanks mainly to expanding employment at the Klamath Tribes gaming casino and the Running Y Ranch Resort, as well as the possible ski area development.

Table 1 - Employment Projections By Industry for Klamath & Lake Counties 1996 –2006.

	1996	2006	Change	% Change
Total Non-Farm Payroll Employment	25,730	30,070	4,340	16.9%
Good Producing	5,790	6,270	480	8.3%
Service Producing	19,940	23,800	3,860	19.4%
Manufacturing	4,440	4,630	190	4.3%
Mining	40	50	10	25.0%
Construction	1,310	1,600	290	22.1%
Trans., Comm., & Utilities	940	1,070	130	13.8%
Trade	6,440	7,480	1,040	16.1%
Wholesale	1,590	1,910	320	20.1%
Retail	4,850	5,570	720	14.8%
Finance, Insurance, Real Estate	1,050	1,240	190	18.1%
Services	5,710	7,300	1,590	27.8%
Government	5,810	6,710	910	15.7%
Federal	1,210	1,290	80	6.6%
State	1,280	1,560	280	21.9%
Local	3,320	3,860	540	16.3%

Over the 1990-1999 period, one basic occupational employment problem has plagued the area – the replacement of high-paying jobs in manufacturing and transportation/utilities with lower-paying jobs in trades and services. A major problem facing Klamath and Lake Counties is finding replacements for the large number of jobs that have been lost in the relatively high-paying timber and wood products and transportation sectors.

What does "relatively higher wages" actually mean? In 1996, in Oregon, the annual average wage in manufacturing was $34,862; in construction, $33,001; in transportation/utilities, $33,559. On the other hand, wages averaged $15,849 in retail trade and $23,614 in services. In households with two or more working members, with one worker employed in a high-wage occupation and the other(s) in one or more lower-wage occupation, a comfortable income level can be maintained. The problem lies in the ability to maintain a balanced growth between primary and secondary wage jobs as the labor force expands.

Future job growth in Klamath County is expected to center on Klamath Falls and surrounding communities, ranging from Chiloquin in the north to Merrill and Bonanza to the south. Prospects for growth in Lake County appear only marginal over the coming decade, barring some unexpected development. Future development will see a shift from the narrow set of skills needed for jobs in the timber industry to the more varied skills required in a diversified manufacturing, natural resource restoration and service economy. To maintain a strong and viable regional economy, Lake County and

the rural areas of Klamath County must be targeted for economic development that requires high-skill, high-wage jobs.

Table 2 summarizes projected employment growth by major occupational group in Lake and Klamath Counties between 1996 and 2006. While non-farm payroll employment grew by 10.6 percent over the past decade, it is projected to expand by 16.5 percent over the 1996-2006 decade. The higher rate still remains below the state average (20.7%), as has been the case for the past two decades. Furthermore, should any of the anticipated developments, such as Pelican Butte Ski Resort, not come to fruition some of these projections and growth assumptions will change.

Table 2 - Klamath and Lake Counties Occupational Projections 1996-2006 - Wage and Salary Employment.

Occupational Title	1996 Estimated Employment	2006 Projected Employment	1996-2006 Percent Growth	1996-2006 Net Growth	Percent of Net Distribution
Total, All Occupations	26,306	30,650	16.5%	4,344	100.0%
Managers & Administrators	1,192	1,376	15.4%	184	4.2%
Professional & Technical	5,160	6,171	19.6%	1,011	23.3%
Sales Related Occupations	2,323	2,794	20.3%	471	10.8%
Clerical/Admin Support	3,471	3,838	10.6%	367	8.5%
Service Occupations	4,312	5,408	25.4%	1,096	25.2%
Agricultural, Forestry Workers	1,747	2,011	15.1%	264	6.1%
Production, Construction, Operators, Maint., Laborers	7,736	85,20	11.6%	884	20.4%
Non-classifiable Employees	465	532	14.4%	67	1.5%

Income and Wage Profile

In the 1970s and earlier, manufacturing of timber and wood products was the leading income source by a wide margin in Klamath County. Since 1982, manufacturing has been displaced by transfer payments as the principal source of income. In the 1990s, transfer payments have remained the leading source of income by a widening margin, trailed by investment income, services, and manufacturing.

The sharp rise in transfer payments did not result from large income gains for individuals receiving welfare or unemployment insurance. Indeed, the portion of transfer payments related to these purposes was only about 15 percent. Rather, the primary cause of the rapid rise has been gains in both the number of recipients and amounts paid to those receiving Social Security, Medicare, veteran's benefits, and government retirement.

The retirement community obviously has become of rising importance in the local economy. However, the slow rate of growth in dividends, interest, and rent sector, typically an important source of income for retirees, would tend to indicate that many local retirees are relatively low income.

Per capita personal income in Klamath County increased by about 51 percent between 1985 and 1995, a gain that was above the rate of inflation (roughly 42%) for the period, indicating a real income growth in per capita of about nine percent over that decade. Leading growth sectors over the past decade were construction, services, finance, insurance, and real estate. The sharp decline in farm income points to the cyclical nature of the markets for agricultural products. The only sector of the local economy with a major loss in real income was manufacturing, which, in real terms, declined some 39 percent, as timber and wood products declined.

The jump in construction and finance are indicators of a faster rate of growth in the 1990s. A slow pace of growth in trade earnings may indicate travel to nearby Medford, Oregon for retail and service sector shopping.

In Klamath County, the highest annual average wage was received in federal government ($33,768), followed by transportation/utilities employees ($32,216), manufacturing ($31,140), and state government ($28,730). The annual wage for all covered workers was $23,108, compared with the statewide average of $27,031.

In 1995, transfer payments, investments, and state and local government ranked as the leading sources of income in Lake County. A dramatic decline in farm income, a leading source of income only a few years earlier, is indicative of the highly cyclical nature of farm income. Manufacturing, another traditional source of income in Lake County, continues to slide, trailing only agriculture in terms of income. Reduced employment levels in the U.S. Forest Service and the Bureau of Land Management are also reflected in the decline. (Most of the land in Lake County is public.)

Conversely, an aging population continues to support the rapid growth in transfer payments, and the jump in finance income may well indicate increased activity in real estate sales. As was noted for Klamath County, the retirement community appears to be assuming a relatively more important role in the local economy.

Between 1985 and 1995, per capita personal income reached $16,317 in Lake County, which ranked 28th among Oregon's 36 counties in 1995, compared with 14th in 1993. Per capita income was well below the statewide average of $21,530 and the United States average of $23,196. Highest average wages were found in the federal government ($34,789), state government ($27,636), and transportation/utilities ($26,357). Lowest wages are in trade ($14,519), construction ($14,385), and services ($11,649).

Sources:
Oregon Employment Department, Regional Economic Profile, Region 11: 1998, p.5.
Table 1 from Oregon Employment Department's Region 11, Regional Economic Profile, p.24.
Table 2 is from the Oregon Employment Department's 1998, Region 11 Regional Economic Profile, p. 26.

Klamath Region Telecommunications Providers

Telephony, TV & Internet

Company	Tel	TV	ISP
ATG	X		
ATI	X		
ATT	X		X
AOL	X		X
Call Manage	X		
CDS Internet			X
CenturyTel	X		X
CellularOne	X		
Charter		X	X
Compushare			X
Computer Country			X
CVC Internet			X
DirecTV		X	X
Eisco			X
Fireserve			X
kfalls.net			X
MSN			X
PCI North West	X		X
Qwest	X		X
Sprint	X		
Unicom	X		
US Cellular	X		
Wal*Mart			X
WebTV			X
Wizards Magic Net			X

Source - Klamath Basin Telecommunications survey, 2002.

Oregon Household Telecommunications Survey Winter 2001

REGION 9 (KLAMATH, LAKE)

As one part of a continuing effort to better serve the needs of Oregon residents, the Oregon Economic and Community Development Department (OECDD) contracted with the Oregon Survey Research Laboratory (OSRL) to conduct a representative survey of households on a variety of telecommunications issues. OSRL conducted a random-digit-dial (RDD) telephone survey of 1,696 households January - February 1999. (See Appendix 2 for further information, including the survey instrument). This first set of charts reflects the aggregated findings for Klamath and Lake counties. Following that are the Klamath County results. Both sets are included for comparison purposes.

Figure 1 Computer and Internet use

* Very likely and somewhat likely
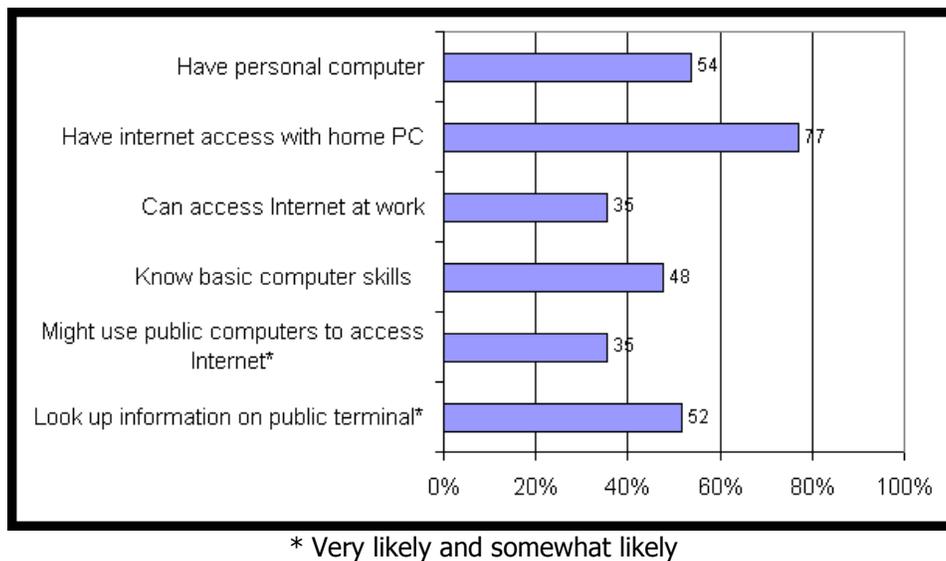
Figure 2 Internet service provider cost

Figure 3 Amount willing to spend per month for particular ISP service
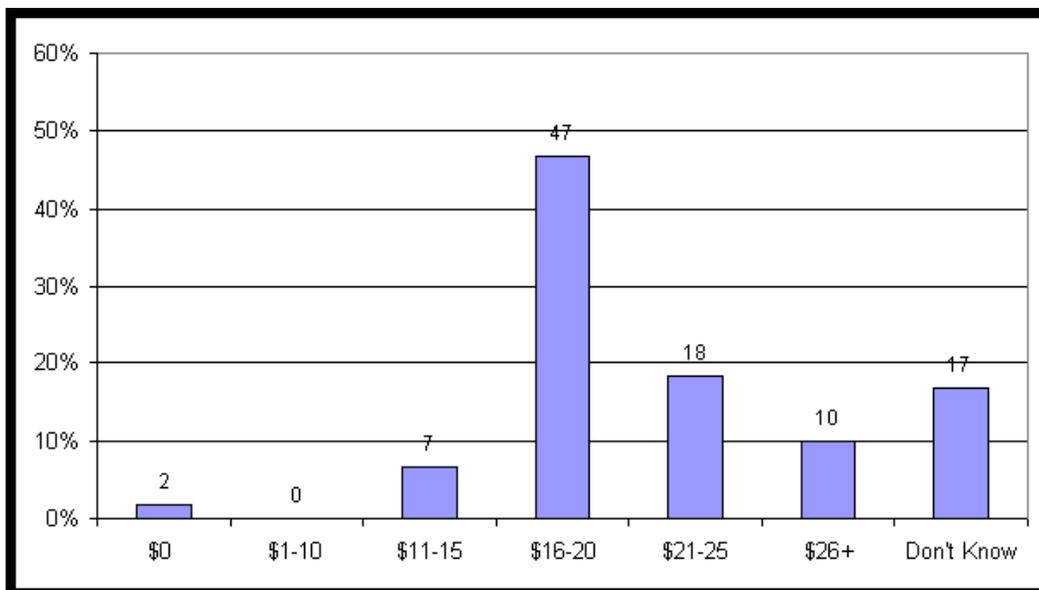


Figure 3 Amount willing to spend per month for particular ISP service
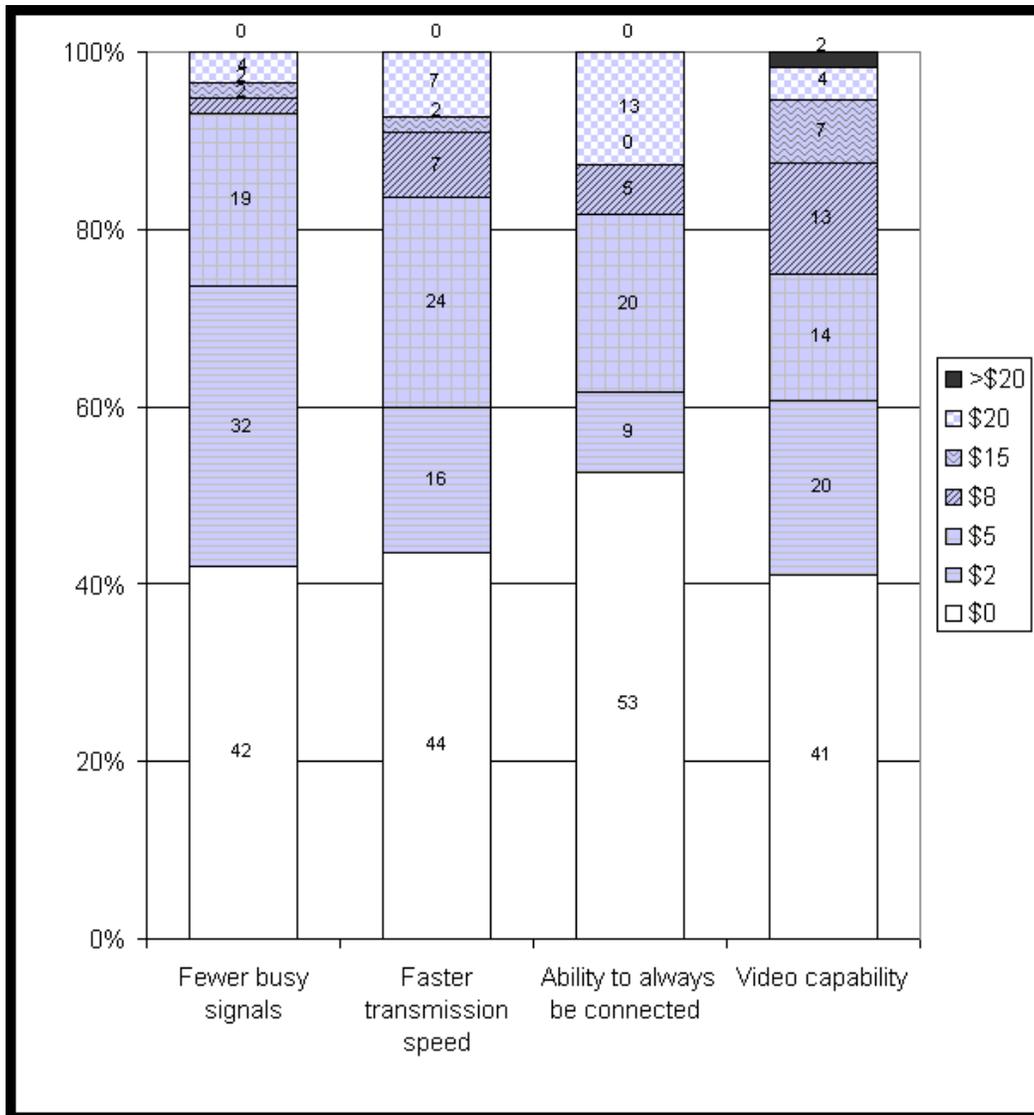
Figure 4 World Wide Web use

* Categories are often, sometimes, and rarely/never.
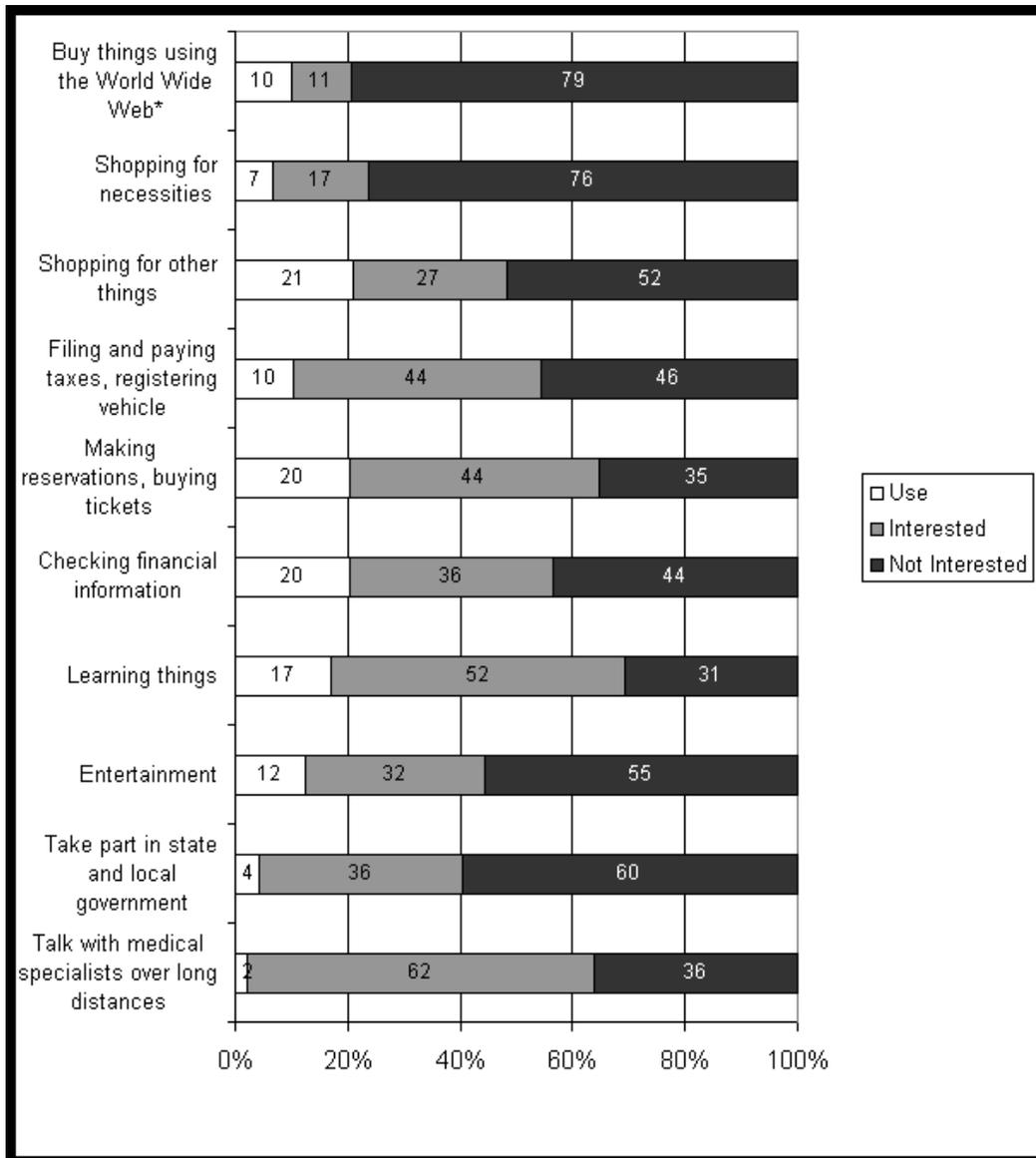
Figure 5 TV and cable

Figure 6 Typical monthly telephone bill
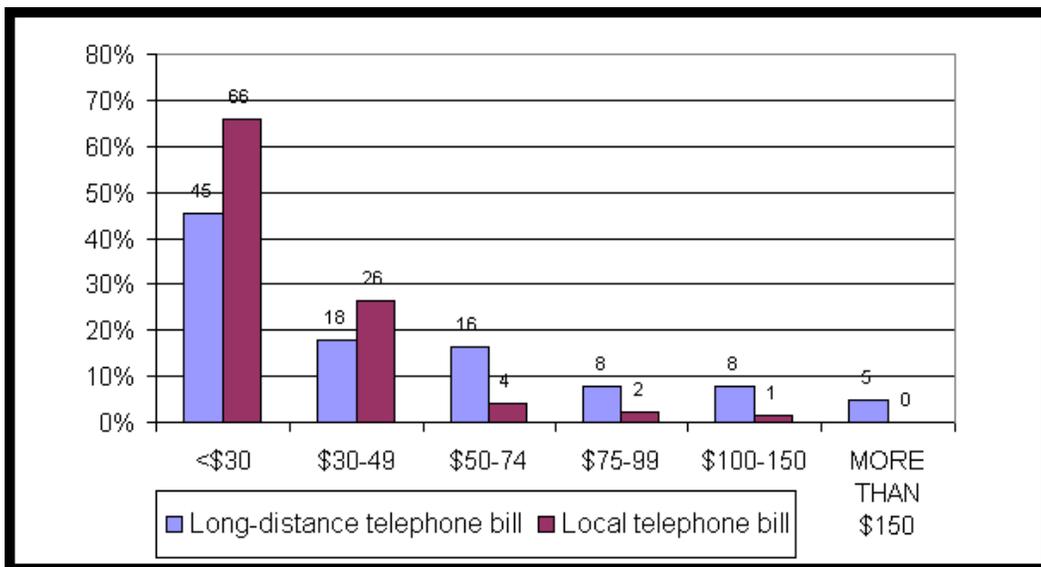
Figure 7 Satisfaction with local telephone service
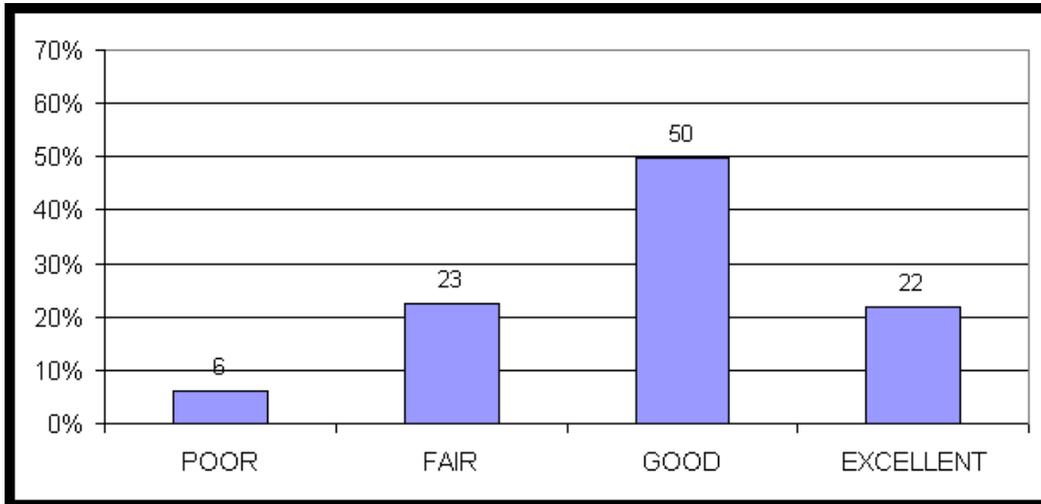
Figure 8 Number of telephone numbers per household
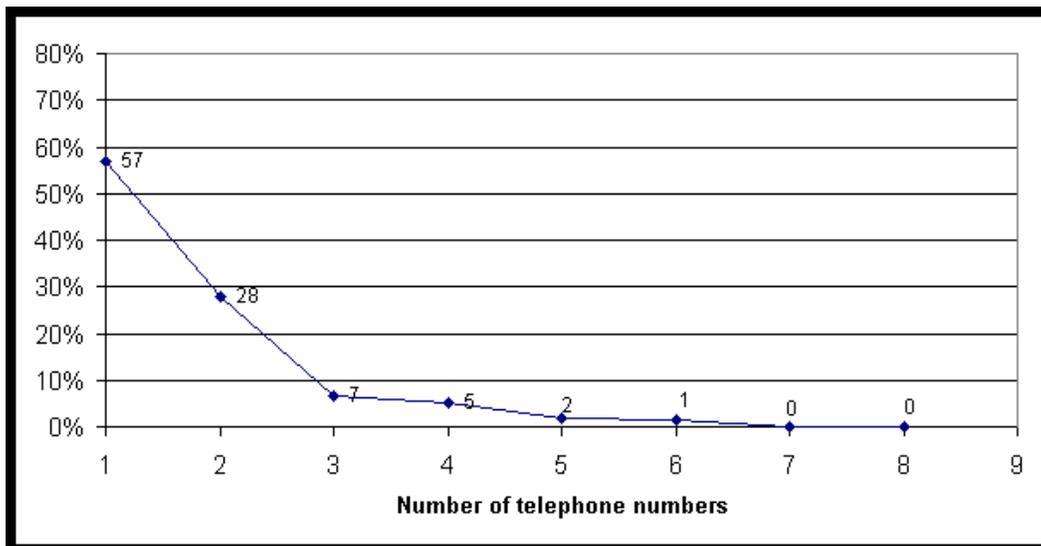
Figure 9 Plans for adding a second telephone line, and most willing to pay for it
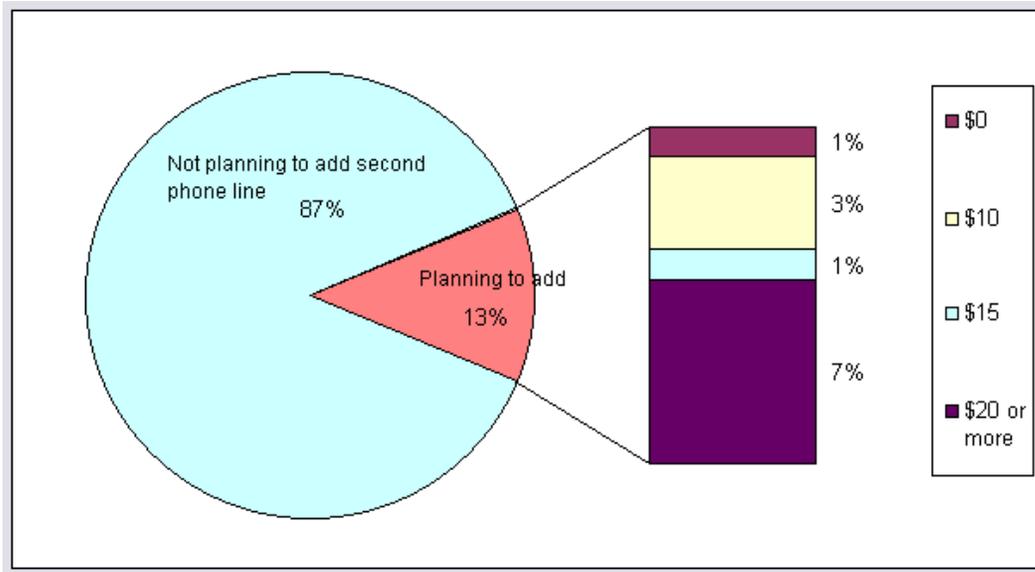
Figure 10 Use of secondary lines
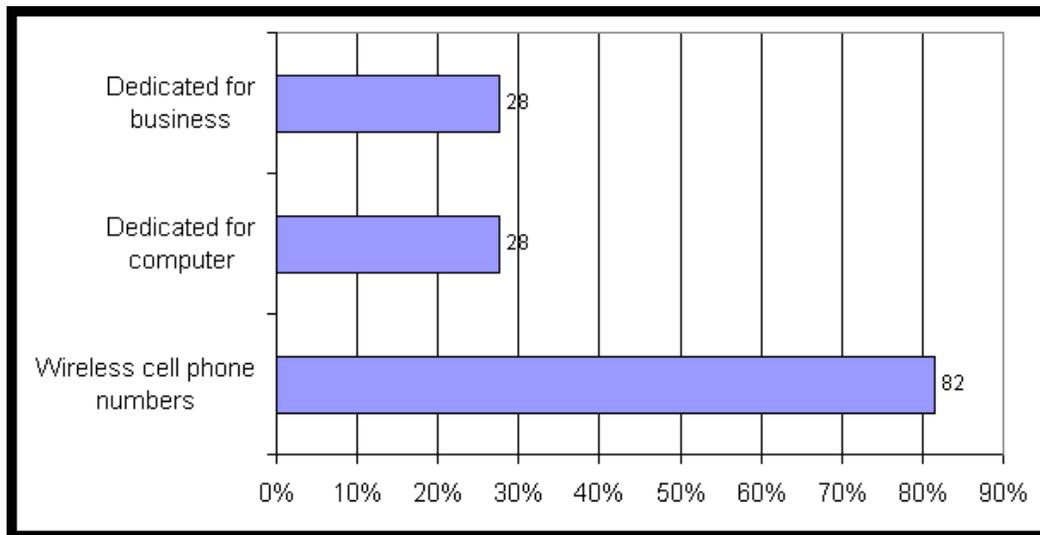
Figure 11 Fax and other special phone services
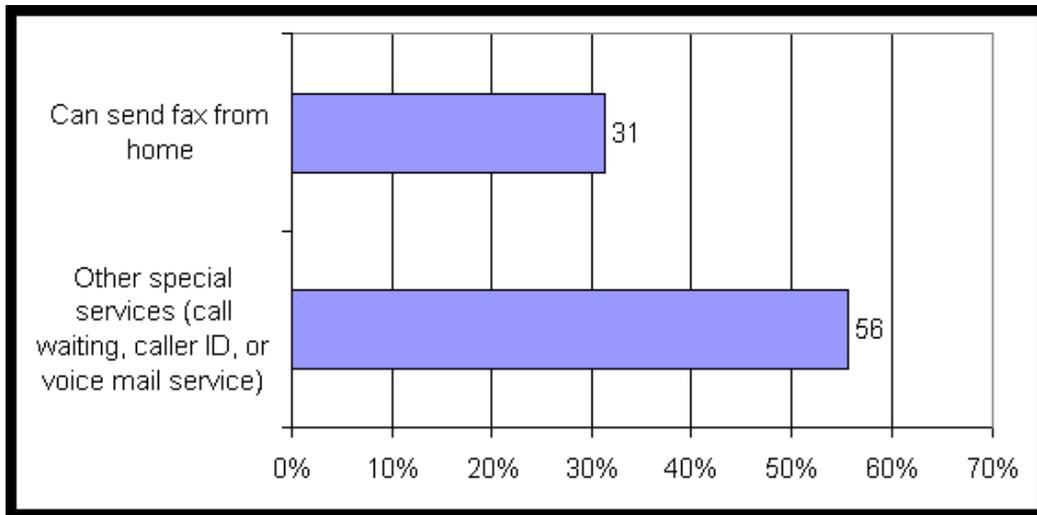
Figure 12 Like to have other special services (call waiting, caller ID, or voice mail service), and most willing to pay for them

Source: http://darkwing.uoregon.edu/~osrl/telecomoedd/frmtelecom.htm
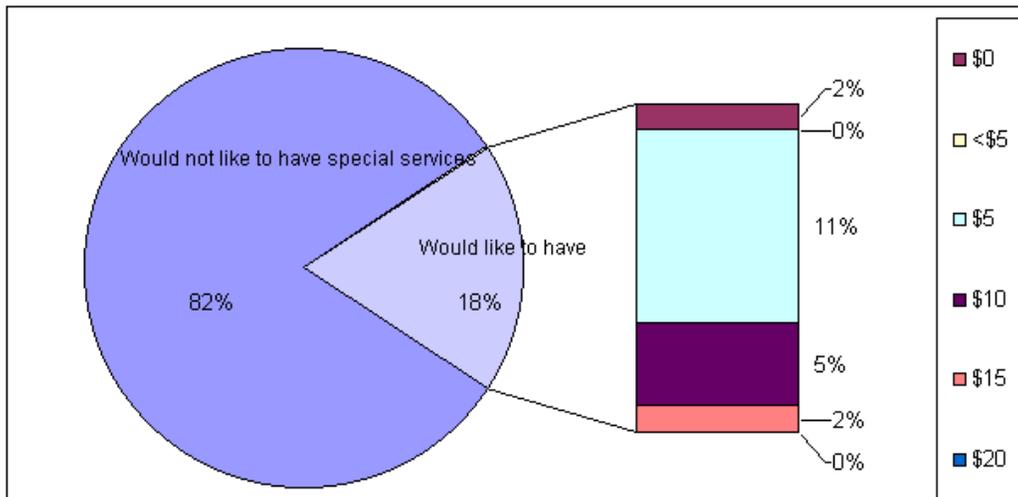
Figure 13 – Computer and Internet use
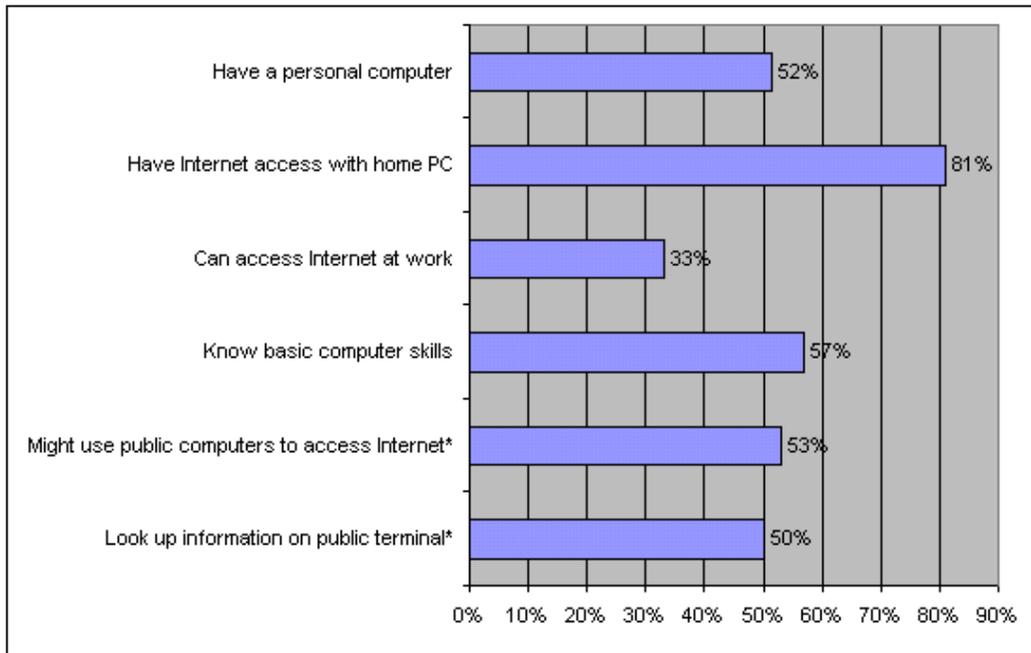
* Very Likely and Somewhat Likely

Figure 14 – Internet service provider cost
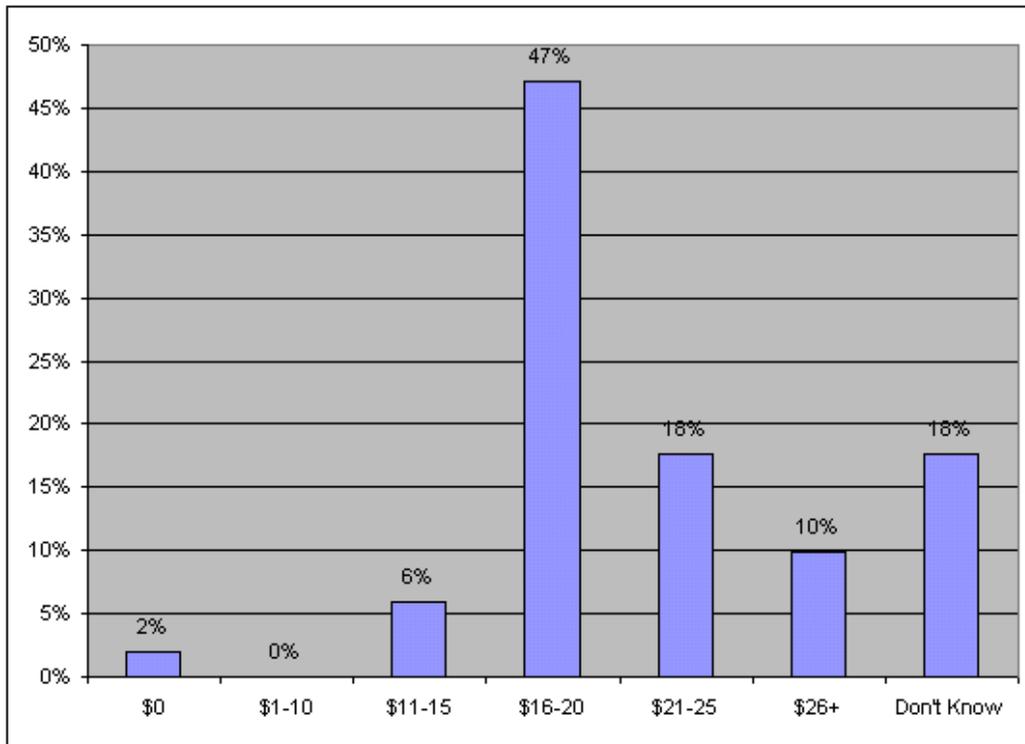
Figure 15 - Amount willing to spend per month for particular ISP service
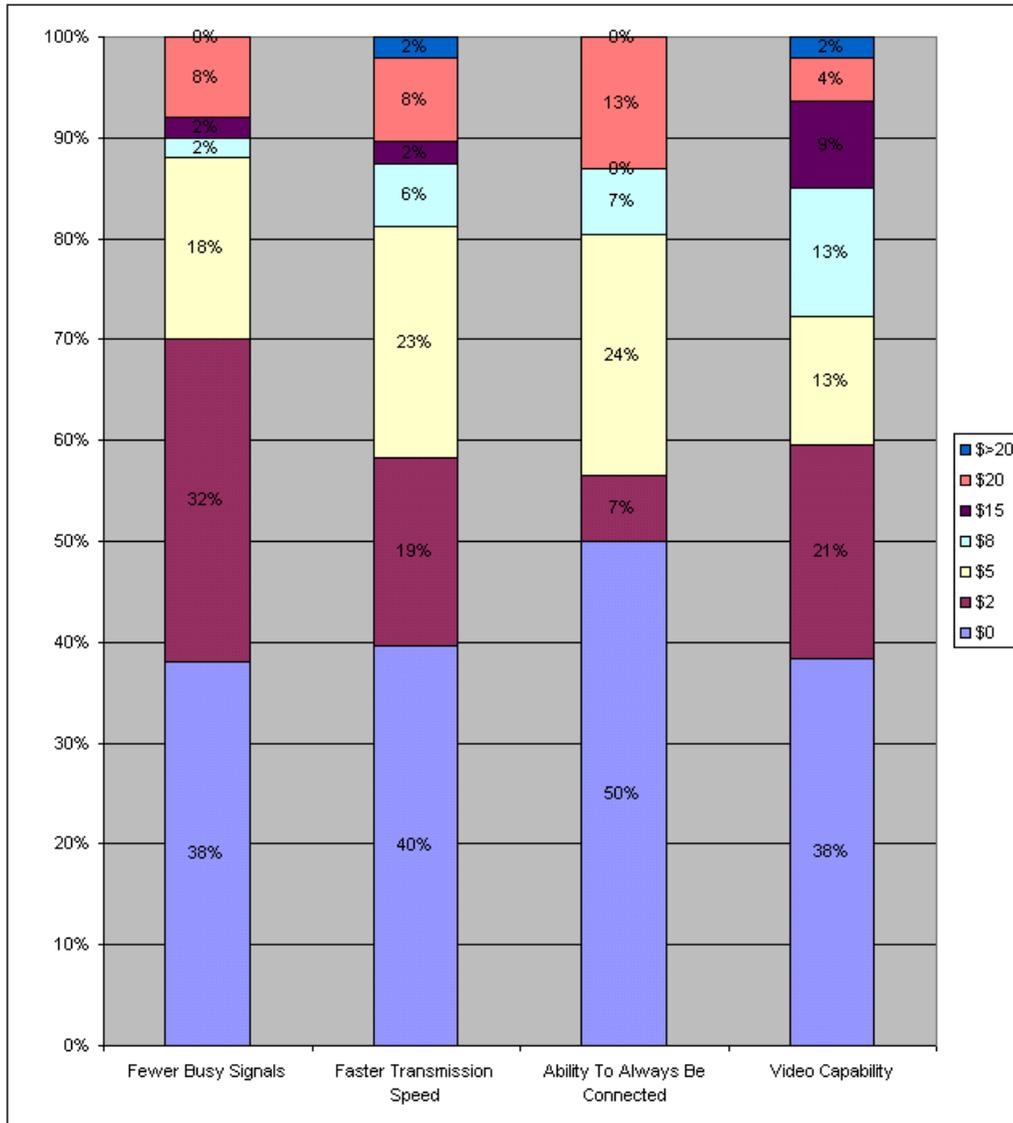
Figure 16 – World Wide Web use
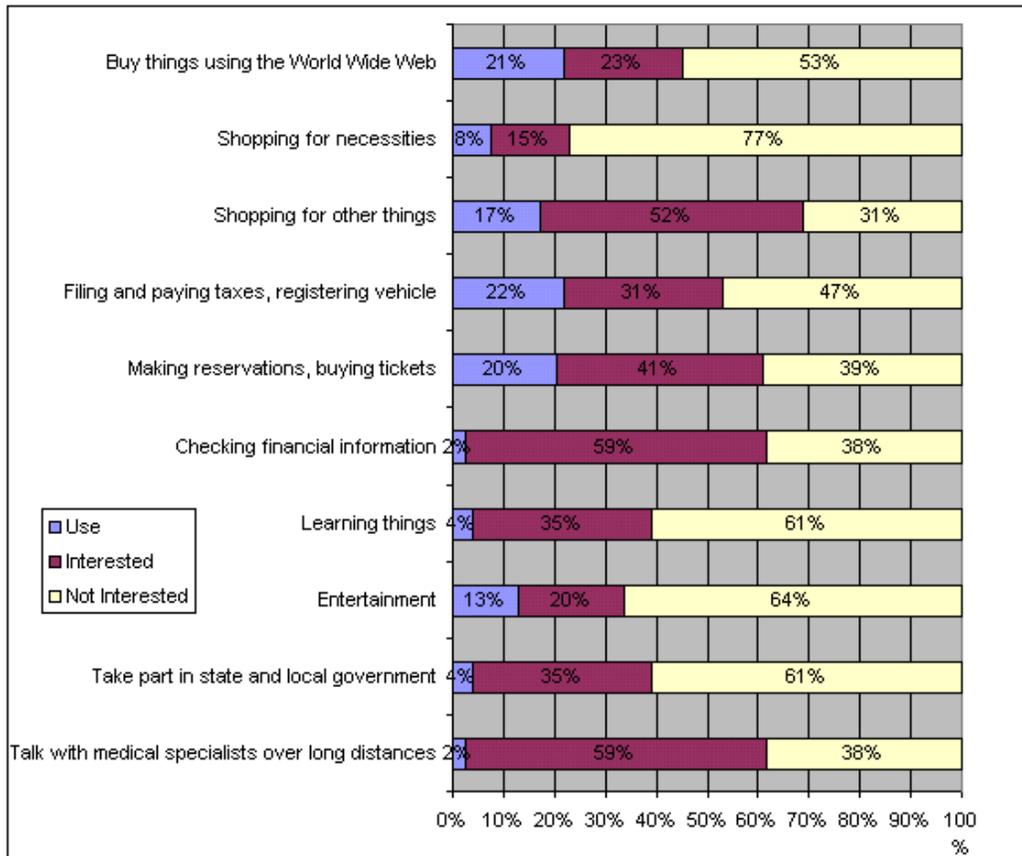
## Figure 17 – TV and cable
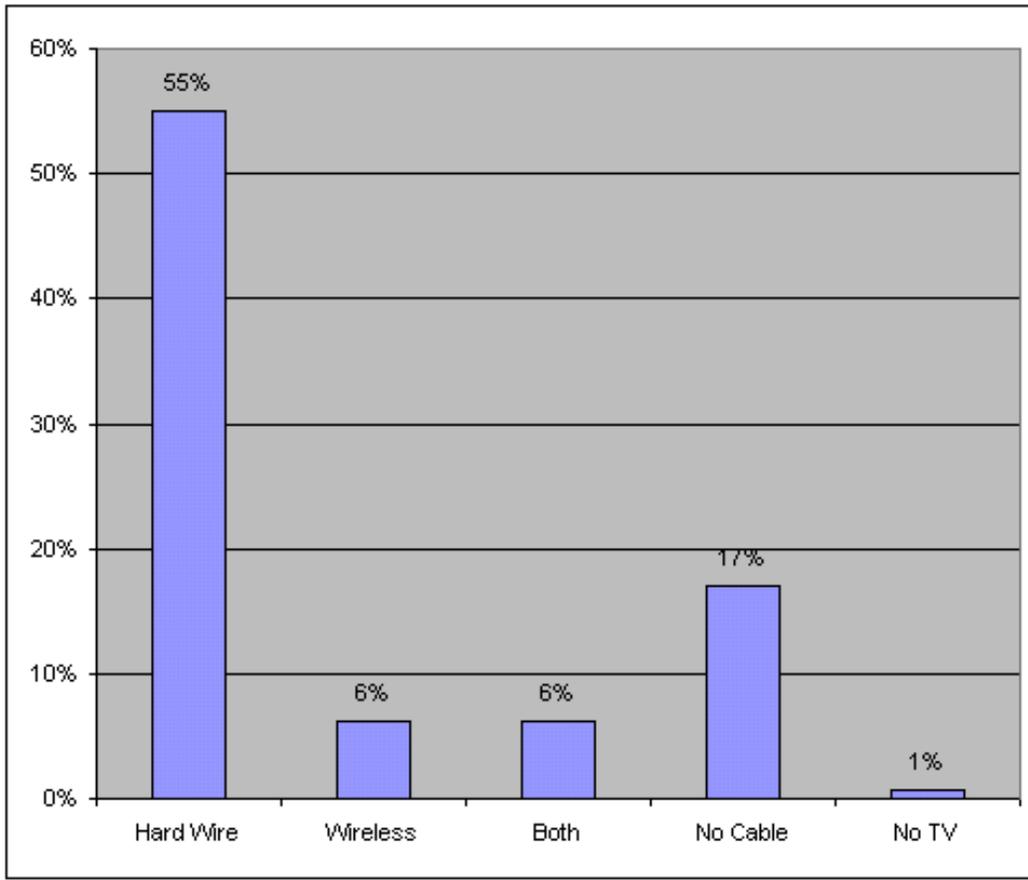
Figure 18 – Typical monthly telephone bill
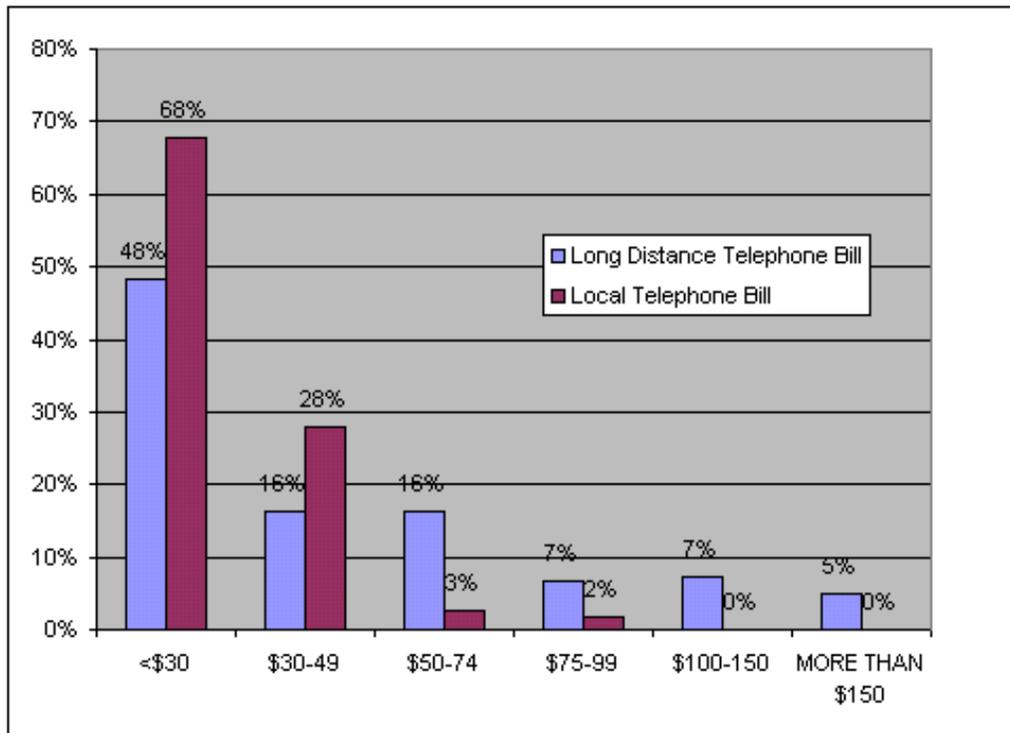
Figure 19 – Satisfaction with local telephone service
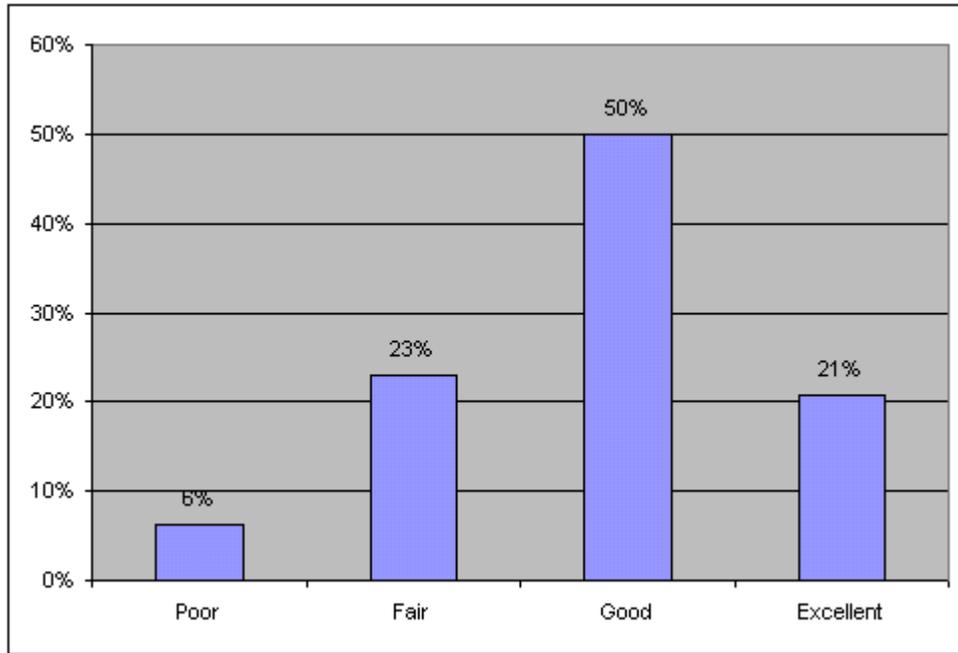
Figure 20 – Number of telephone numbers per household

Figure 22 – Use of secondary lines
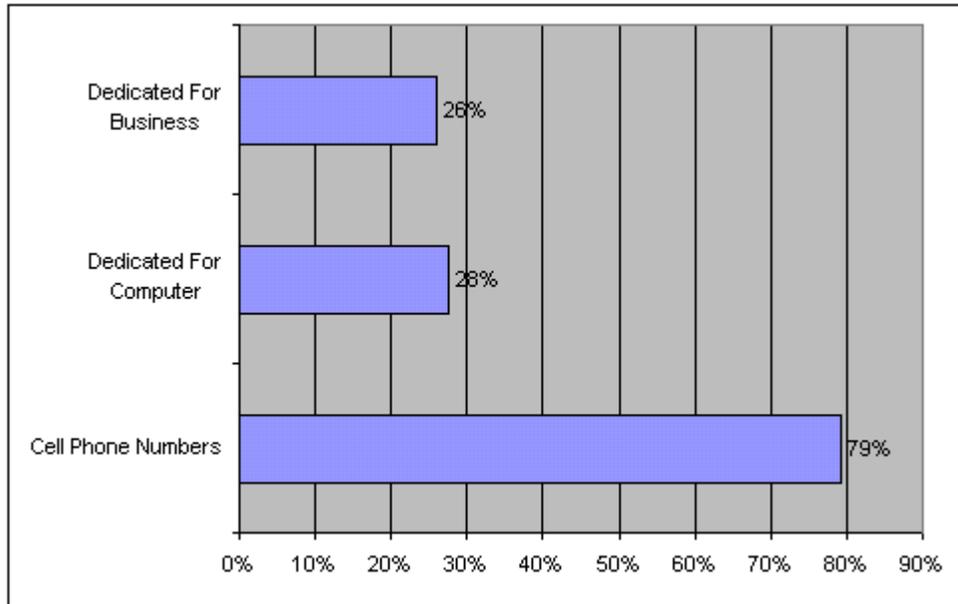
Figure 23 – Fax and other special phone services

Klamath and Lake Counties SB 622 Survey of Critical and Community Users

March 2000 Needs and Priorities Survey Results/Reports conducted as part of the groundwork for the SB 622 project preparation process. This is a separate survey from the preceding survey results.

<u>Introduction</u>
In the spring of 2000, Klamath and Lake Counties participated in a statewide survey mandated by SB622. Working from contact lists developed by the Klamath County Economic Development Association, the Lake County Economic Development office, and Chambers of Commerce from both counties, OIT's Oregon Technology Center administered the survey and tabulated its results.

This report summarized the significant findings of the survey. It also reported the result of the public forums held in each county to discuss the implications of the survey results.

<u>Major Conclusions</u>
A summary of findings and conclusions from the survey as follows:

1. It was no surprise that critical users in both counties voiced the same concerns and themes as other rural communities nationally. Indeed, the responses within the survey can be summarized in terms of **the clear desire for day-to-day access to reliable, high quality, high-speed telecommunications services at affordable prices**. In other words, these users require **infrastructure** to match their needs.

2. Most participants saw their needs for telecommunications services increasing, not only in volume, but also in the array of services and applications. **Participants made it clear that the "future is now" in terms of their dependency upon access to bandwidth for future growth and prosperity.**

3. In both counties, there is a somewhat **tentative view** of the benefits of collaboration.

4. **There is an important need for community education in all aspects of telecommunications.** Responses to many of the questions regarding services may have been biased by lack of user information and knowledge, especially in areas related to ecommerce and Internet usage in general.

<u>Critical User Survey (extract of findings)</u>
- About 20% of the respondents are currently using videoconferencing. Nearly 50% indicated plans to do so. Most of these look forward to using videoconferencing within the next 1-2 years or sooner.

- Most Internet users are reliant upon leased lines and dial-up modems for connectivity. Most connect at less than 64 K. Nearly all respondents view Internet access as critical to very important.

- Providing information and marketing were the main uses of Internet and WWW reported currently. Within three years, buying and selling services is seen to be important on a daily and weekly basis.

- The majority of the respondents maintain a web site to provide information about themselves. Most own their own servers and are satisfied with their Internet service offerings.

- Increased speed is by far the main concern of Internet users.

- The majority of respondents are not ready to participate in any form of joint effort to procure telecommunications services. Regional economic development organizations were identified as the primary agencies to drive any form of cooperative effort.

<u>Community Survey</u>
There is little to suggest any material difference in issues and priorities at the community level from those of the critical users as indicated by the summary of the community discussions that followed.

<u>Summary</u>
Facing similar needs and challenges with respect to access to affordable high-speed access to telecommunications services, the discussions in each county basically concluded with the question "What next?" Having fulfilled the requirements to participate in the SB622, it would be accurate to say that the involved citizens and leadership in both counties are waiting for the answer to this question.

Source: "Summary Report – SB 622 Telecommunications Survey Results for Klamath and Lake Counties." Prepared by the Oregon Technology Center. Oregon Institute of Technology in cooperation with the Klamath County Economic Development Association And Lake County Economic Development, Klamath Falls Oregon, July 5, 2000

Figure 25 - Home Survey Section Response

Home Survey Section
(99 Surveys)

Not completed
12%
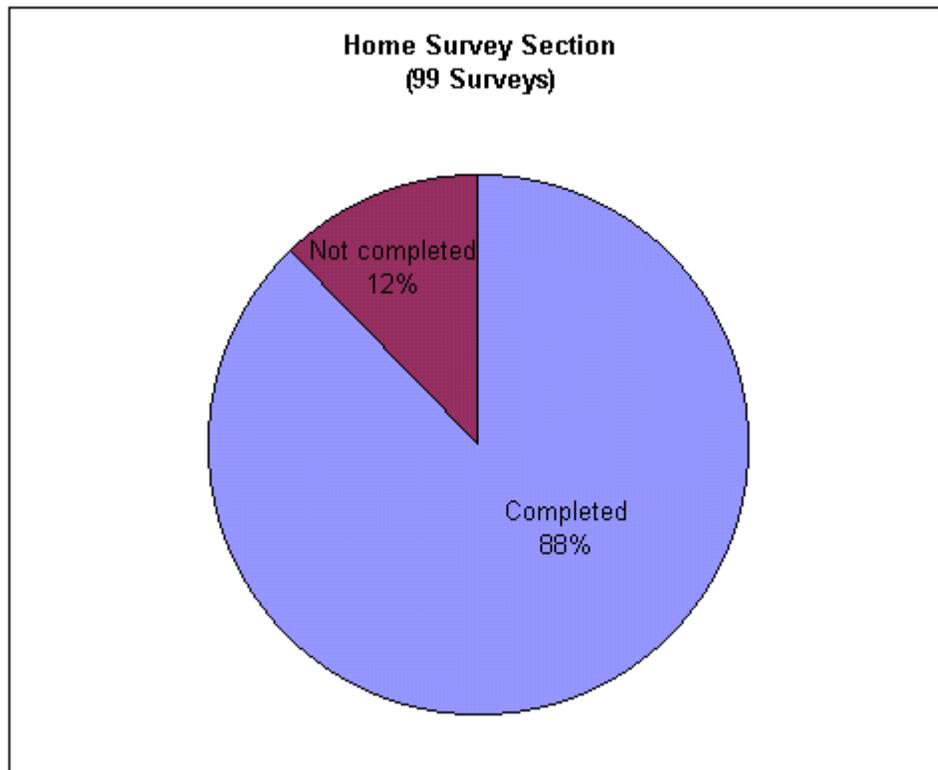
Completed
88%

Returned Surveys
Home Section Completed - 87
Home Section Not completed - 12

Figure 26 - Home PC Ownership
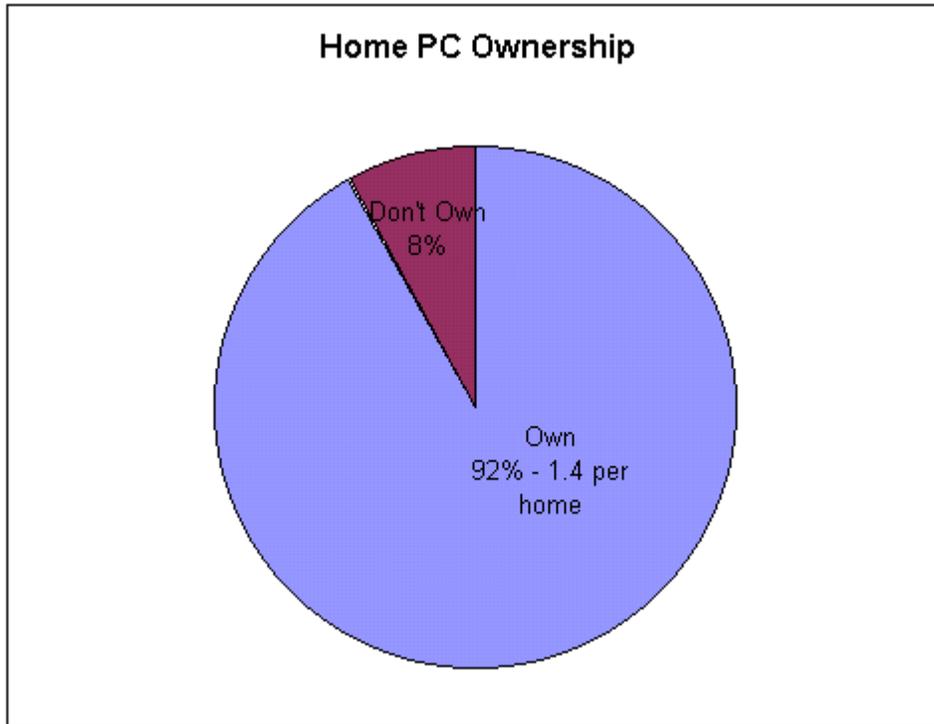
Own - 80
Don't Own - 7

Reasons cited for non-ownership

Too expensive	0
Unimportant	2 **
Access elsewhere	3
Need training	0
Don't like technology	0
Prefer personal interaction	1 ***

** indicated PC's available at work
*** Same response provided under Business portion
Note: 2 "Don't Own" responders did not complete any of these elements

Figure 27 - Skills At Home

Skills At Home

	Word processing	Spreadsheets	Presentations	Database
	89%	63%	34%	61%
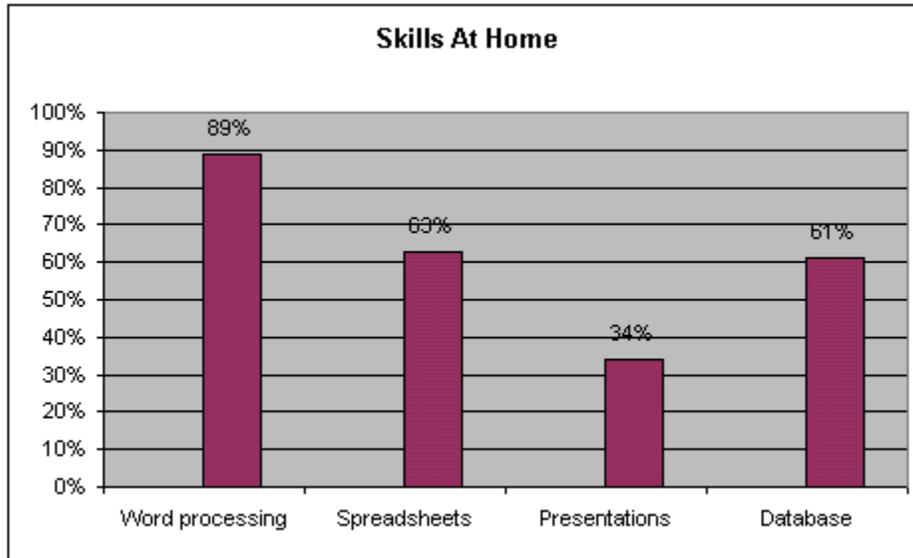
Figure 28 - Home Internet/Web Usage

Home Internet/Web Usage

Email	WWW	Public computer	Purchase online	Sell online	Online Data processing	Work from home
91%	85%	8%	66%	11%	17%	32%
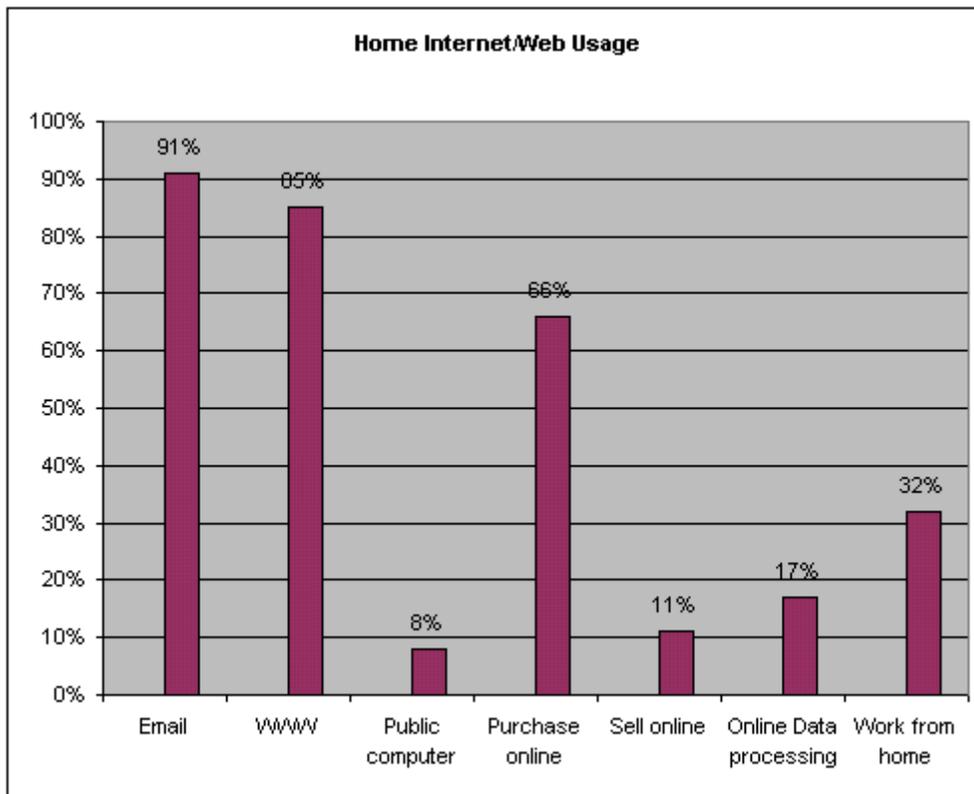
Figure 29 - Home Internet Access

Home Internet Access
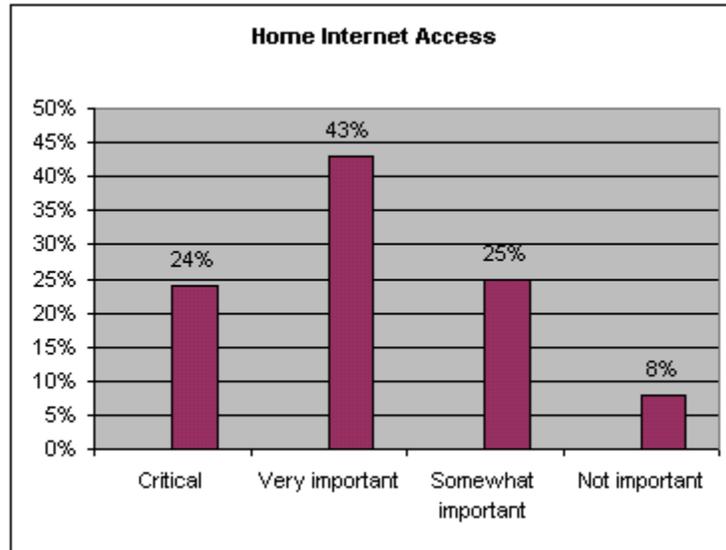
Figure 30 - Home Internet Speed

Home Internet Speed
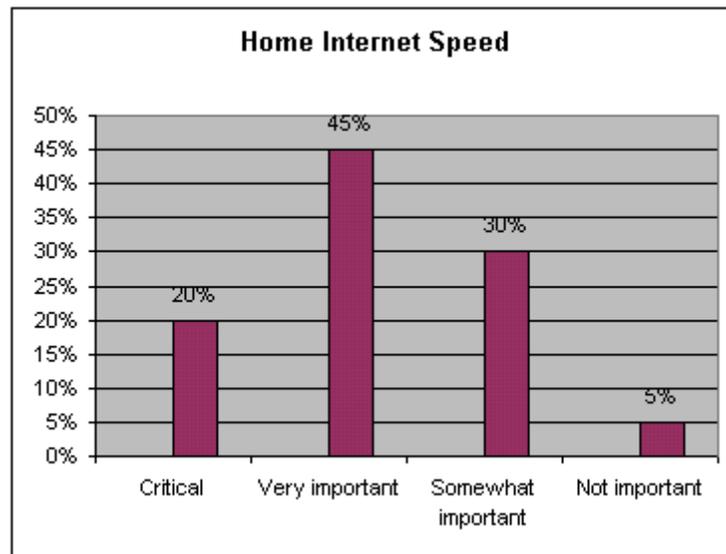
Figure 31 - Home Internet Connections

Home Internet Connections

Not Connected 11%

Connected 89%
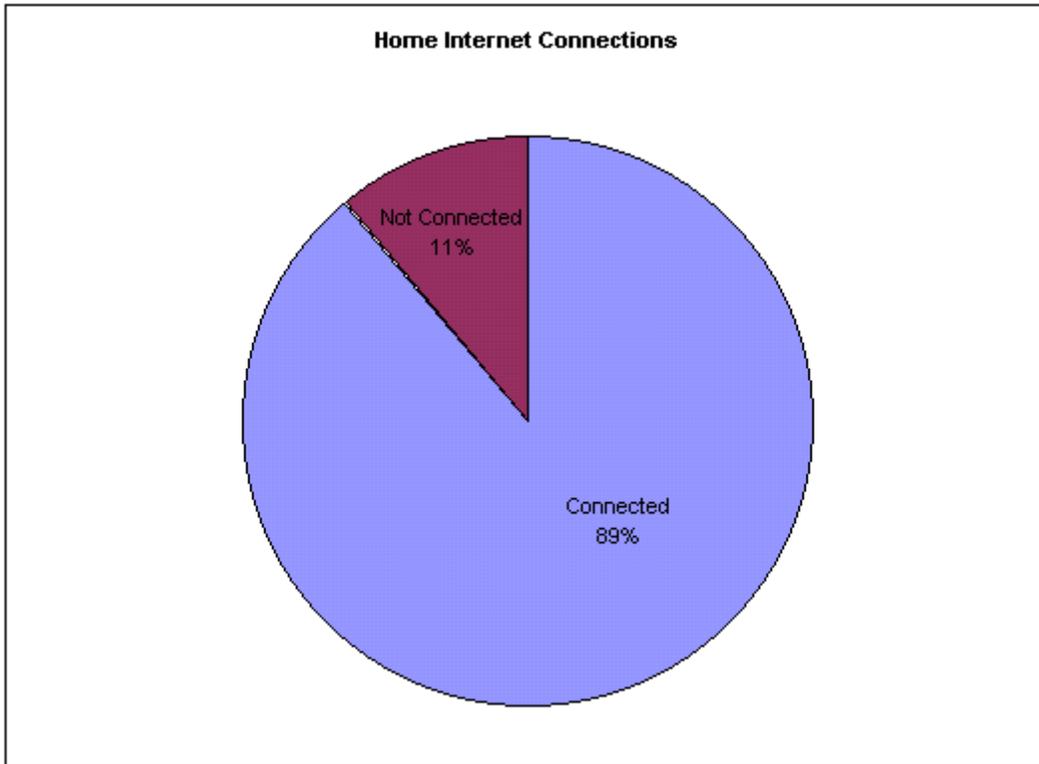
Figure 32 - Home Internet Connection Type

Home Internet Connection Type

Dial up	ISDN	DSL	Cable	Satellite	Fixed Point	T1, T3, OC3
80%	1%	1%	10%	3%	5%	0%
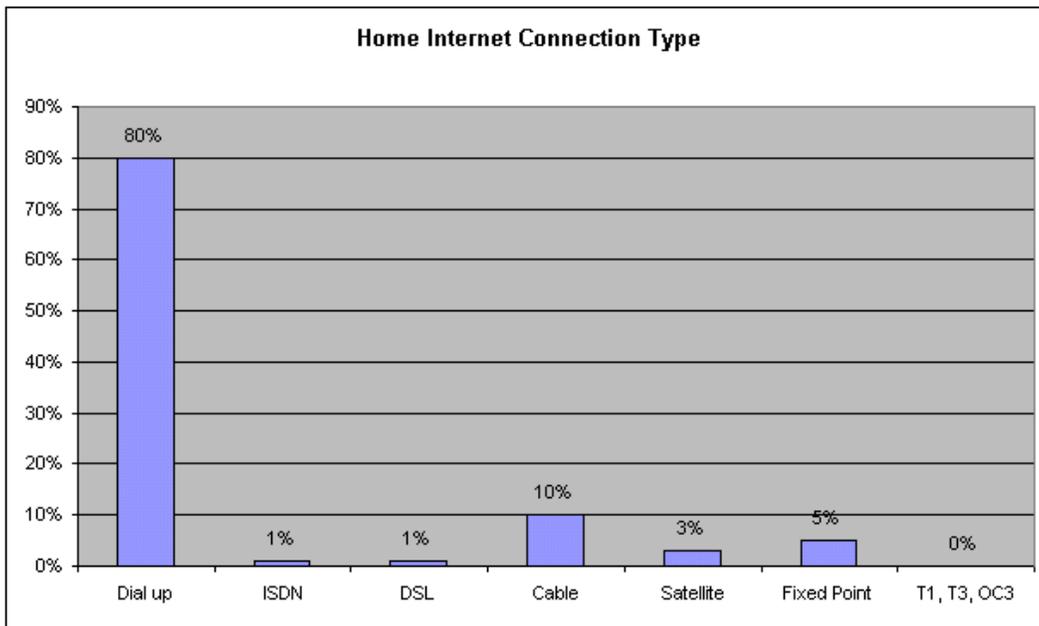
Figure 33 - Home Connections Fees

Home Connection Fees (48 Responses)
Average = $26.19

$0-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	80-90	90-100
3	16	23	4	1	0	1	0	0	1
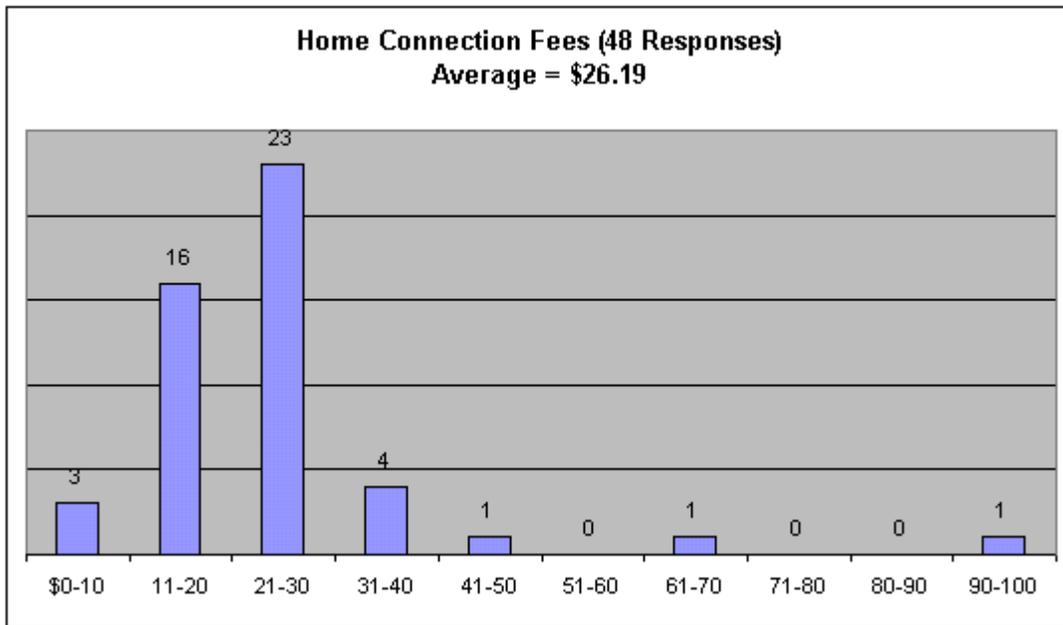
Figure 34 - Home Telephone Number Usage

Home Number Usage - 86 Numbers
(1.3 numbers per home)

Personal/Family use	Dedicated for business	Internet	FAX (dedicated)	Shared
88%	13%	38%	1%	21%
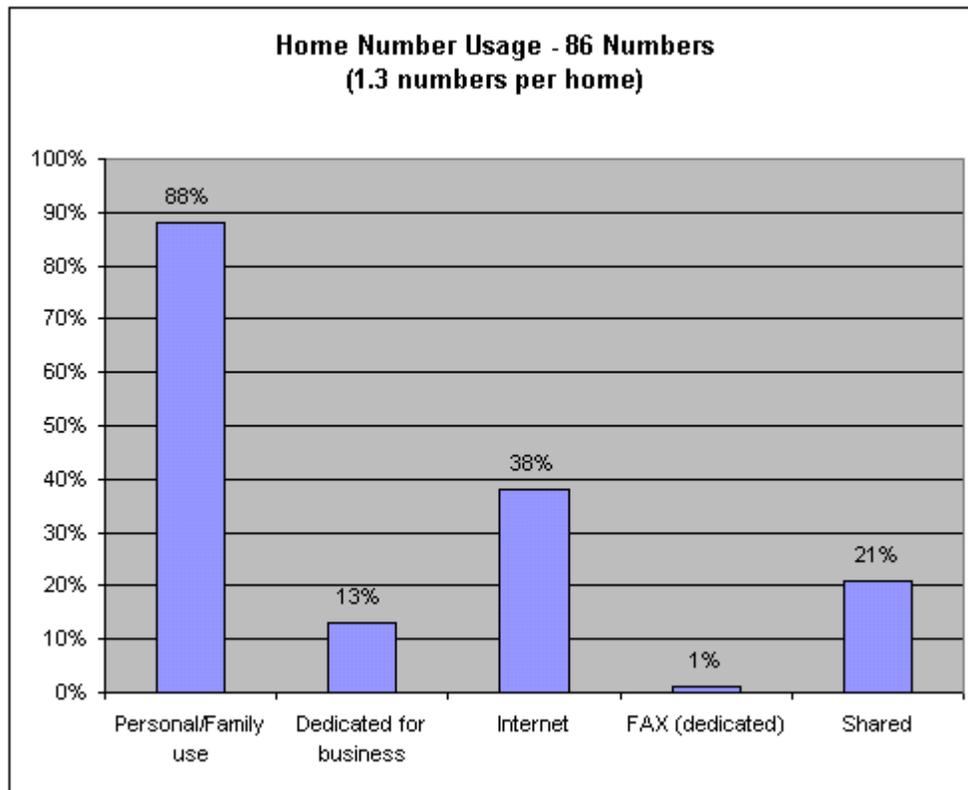
Figure 35 - Home Telecommunications Connections

Home Telecommunications Connections (192 connections)

Category	Percentage
POTS	42%
Cell	26%
Satellite Internet	1%
Fixed Point Internet	3%
Cable TV	22%
Satellite TV	6%
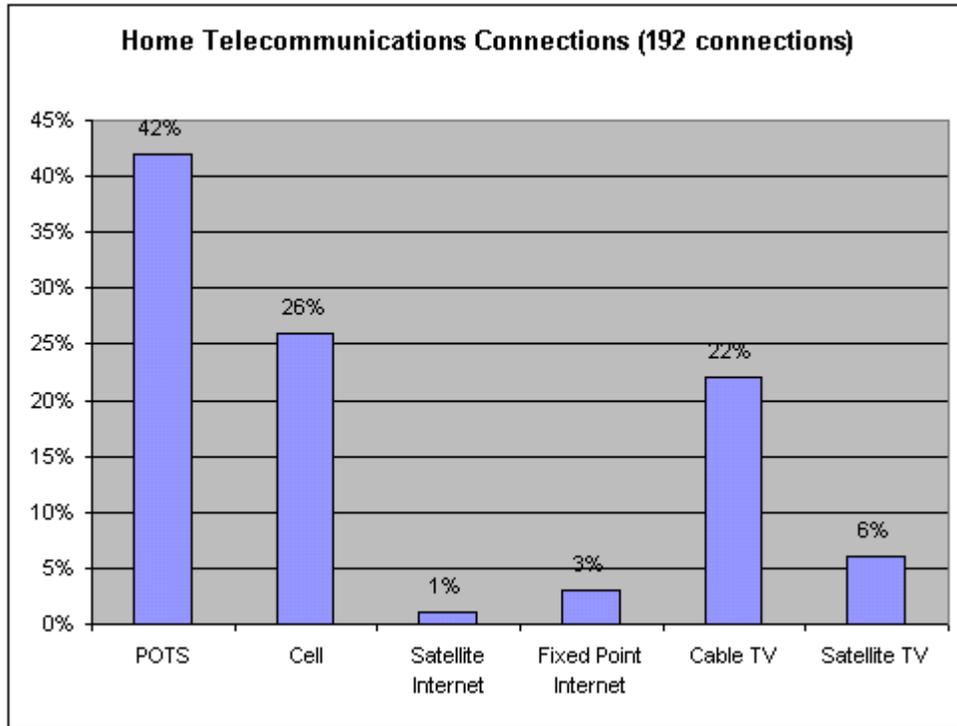
Figure 36 - Telephone Company Rating - Home

Telephone Company Rating - Home

Rating	Percentage
Excellent	12%
Very Good	66%
Fair	19%
Poor	3%
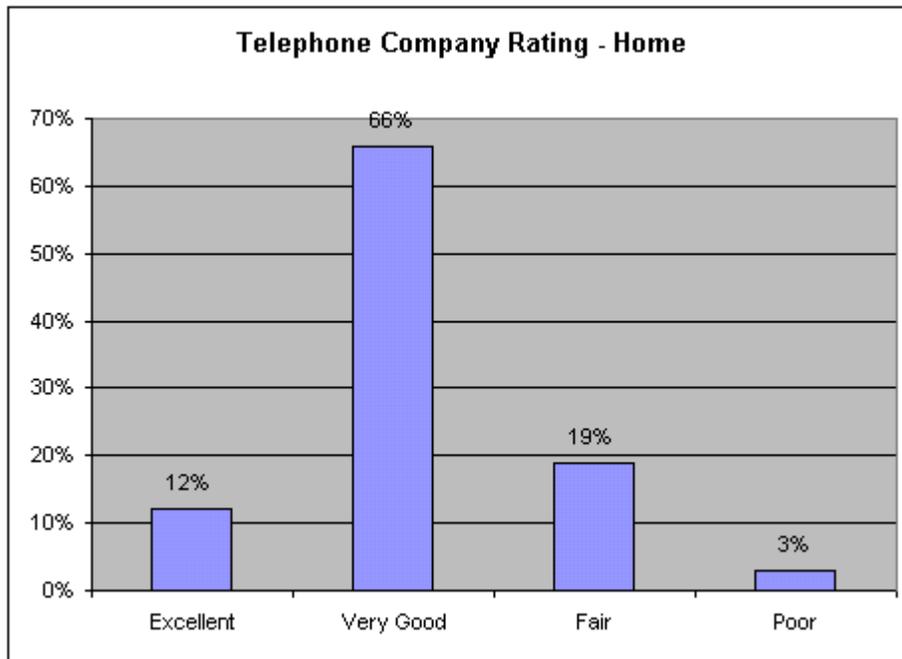
Figure 37 - ISP Rating - Home

ISP Rating - Home
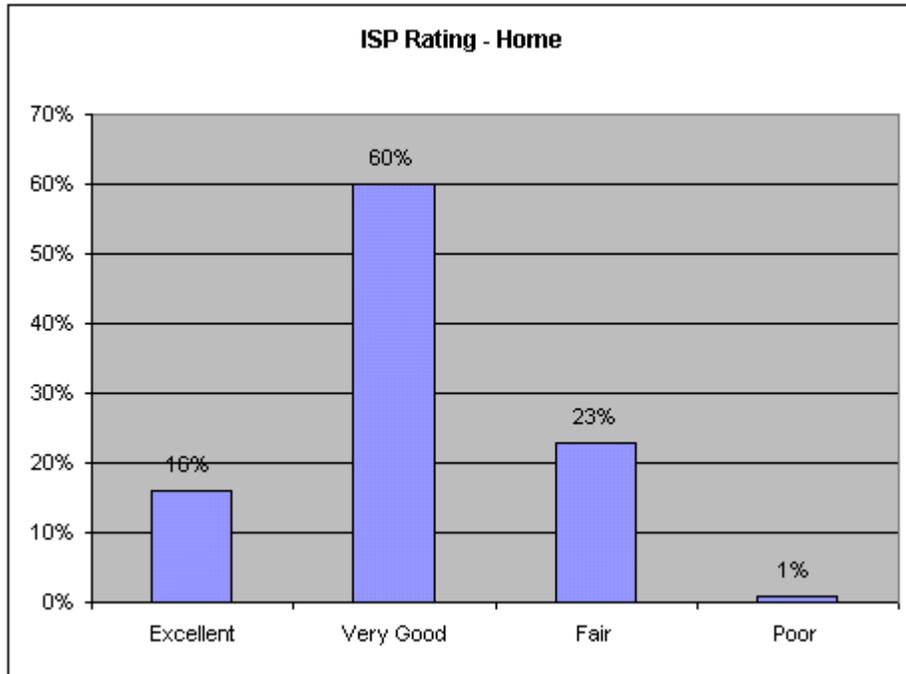
Homes With Websites
11 (13%)

Websites At Home
1 (9%)

Websites At ISP
5 (45%)

Websites In Unknown Location
5 (45%)

Figure 38 - Home Locations
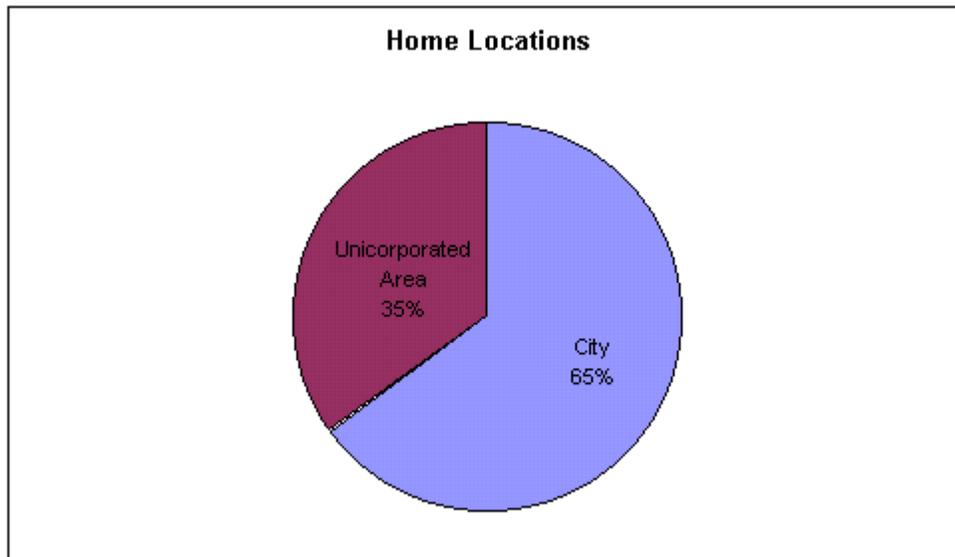
Home Locations

Figure 39 - Business Survey Section Completed

Completed Business Survey Section
(99 surveys)

Not completed
6%

Completed
94%
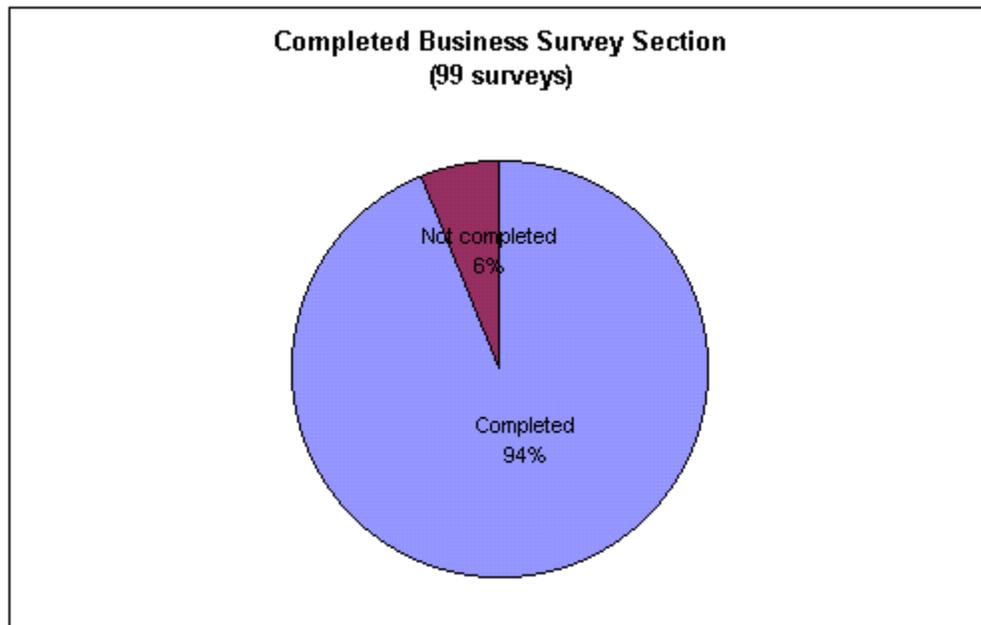
Figure 40 - Business Sectors Responding To Survey

Business Sectors Responding To Survey
(12.88 employees per business)

Sector	Percent
Transportation	2%
Services	2%
Sales	2%
Retail	14%
Real Estate	4%
Not For Profit	7%
Manufacturing	3%
Legal Services	1%
Insurance	3%
Hospitality/Lodging	5%
Home Based	5%
Healthcare	8%
Government	4%
Food	4%
Financial Services	10%
Education	7%
Distribution	1%
Consulting	2%
Construction	7%
Communications	6%
Bookstore	1%
Agriculture	1%
Advertising	1%

Figure 41 - PC Ownership

Business PC Ownership

Don't Own
3%

Own
97% (12.5 per
business)

Reasons cited for non-ownership

Too expensive	1
Unimportant	0
Access elsewhere	0
Need training	1
Don't like technology	0
Prefer personal interaction	2

Figure 42 - PC Skills At Business

PC Skills At Business

- Word processing: 96%
- Spreadsheets: 80%
- Presentations: 39%
- Database: 73%
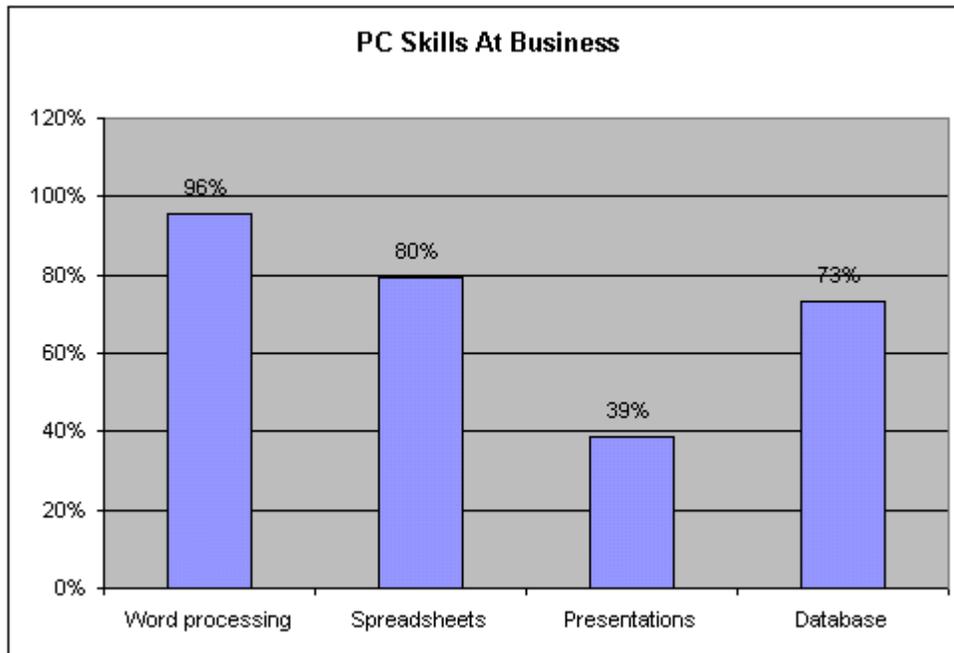
Figure 43 - Internet/Web Usage At Business

Internet/Web Usage At Business

Category	Percentage
Email	97%
WWW	90%
Public computer	14%
Purchase online	73%
Sell online	22%
Online Data processing	44%
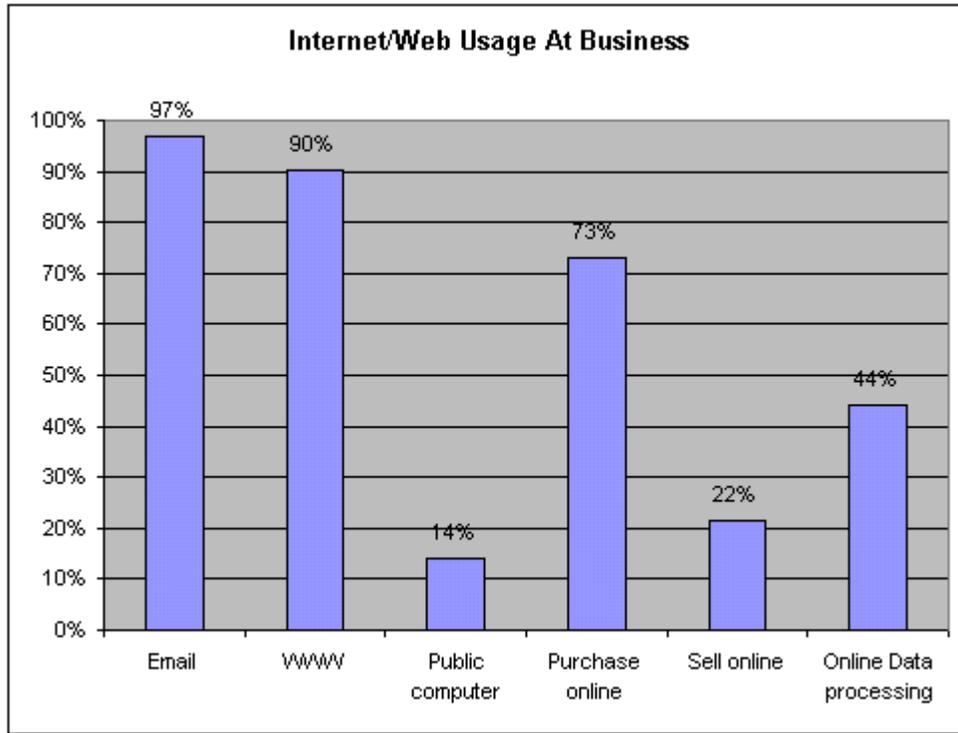
Figure 44 - Business Internet Access

Business Internet Access

Category	Percentage
Critical	46%
Very important	42%
Somewhat important	9%
Not important	4%
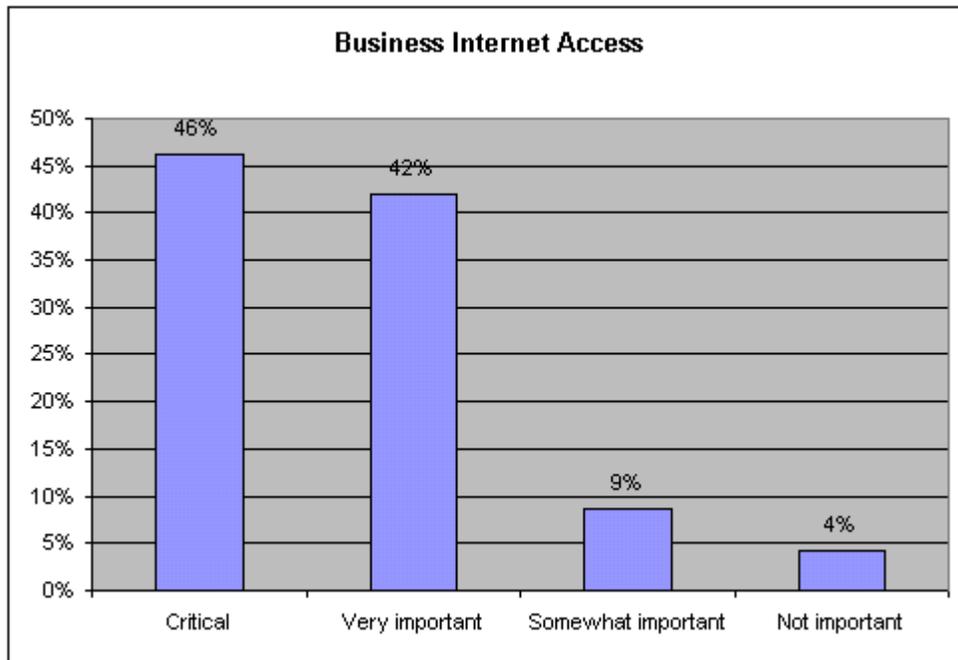
Figure 45 - Business Internet Speed

Business Internet Speed

	Critical	Very important	Somewhat important	Not important
	33%	47%	13%	6%
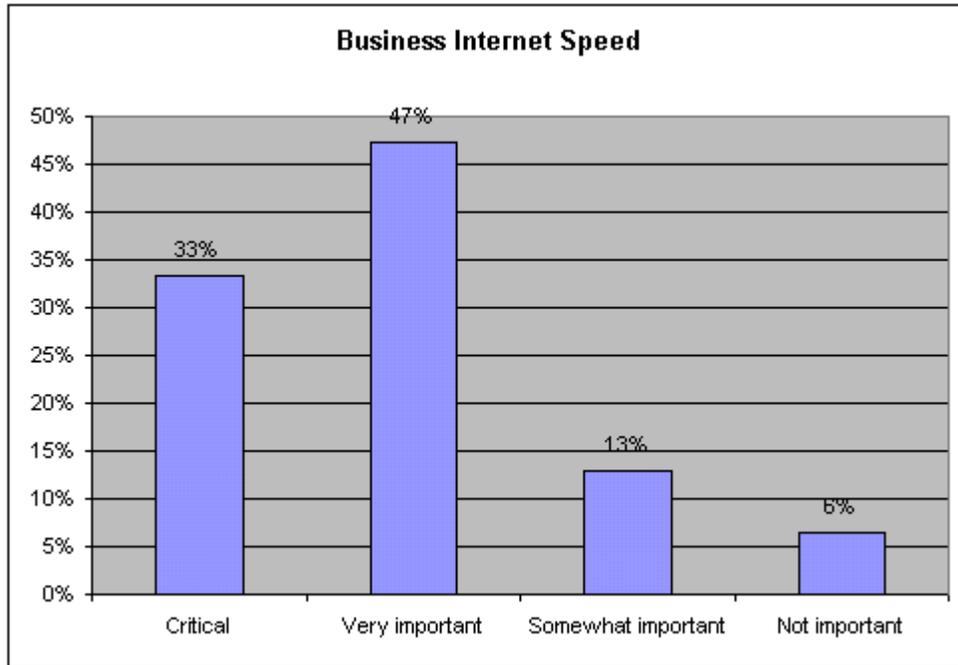
Figure 46 - Business Internet Connections

Business Internet Connections

Not Connected 3%

Connected 97%
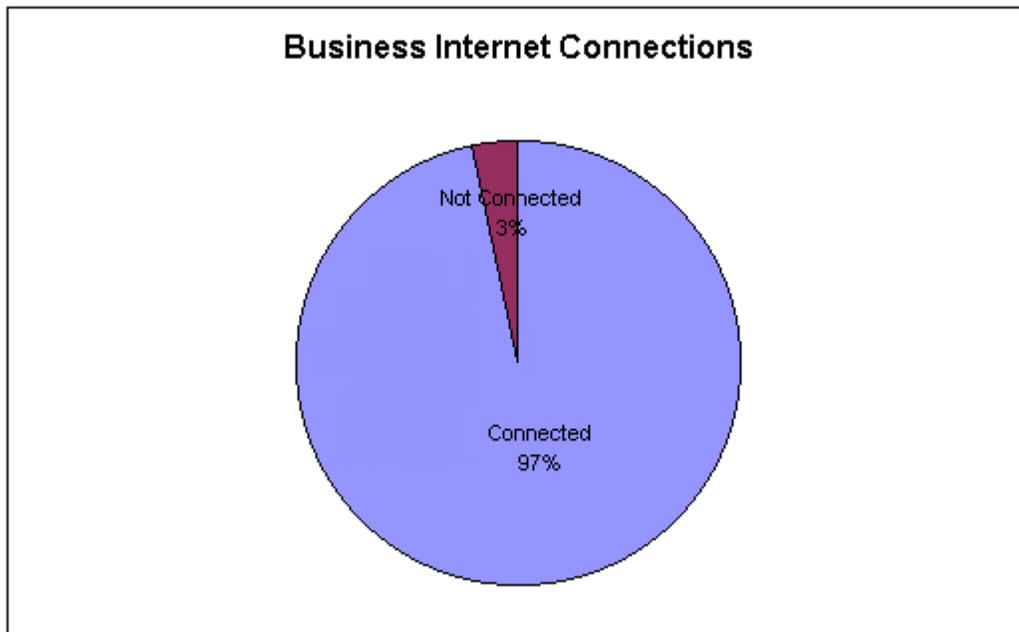
Figure 47 - Business Internet Connection Type

Business Internet Connection Type

Connection Type	Percentage
Dial up	54%
ISDN	4%
DSL	12%
Cable	9%
Satellite	6%
Fixed Point	14%
T1, T3, OC3	9%
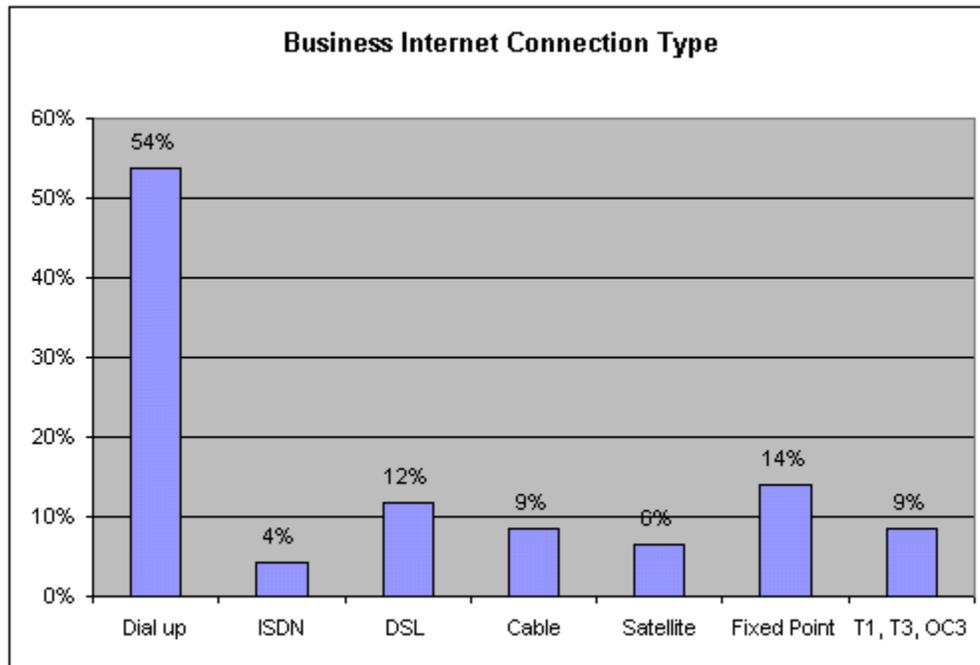
Figure 48 - Business Connection Fees

Business Connections Fees

Fee Range	Percentage
$0-10	0%
11-20	27%
21-30	23%
31-40	8%
41-50	13%
51-60	4%
61-70	4%
71-80	8%
81-100	4%
101-300	6%
301-500	0%
501-700	2%
701-800	2%

Figure 49 - Business Number Usage
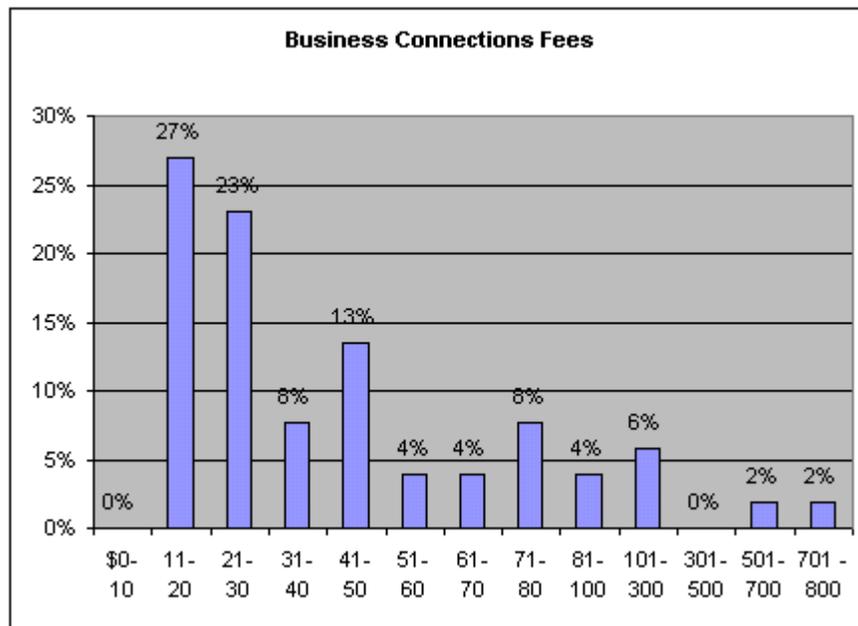
Figure 49 - Business Number Usage
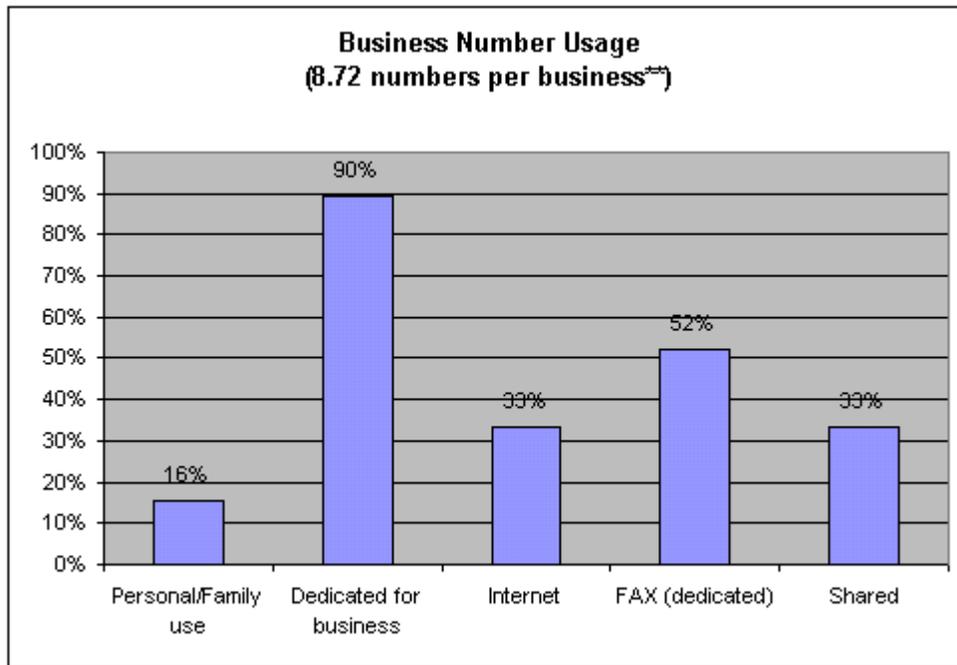
Business Telephone Lines	96
Cell phone only	0
Total business numbers	3828
Average Numbers per Business [1]	0.03 (8.72)

[1] 8.72 results when a 3000 number business is removed

Figure 50 - Businesses With Web Sites
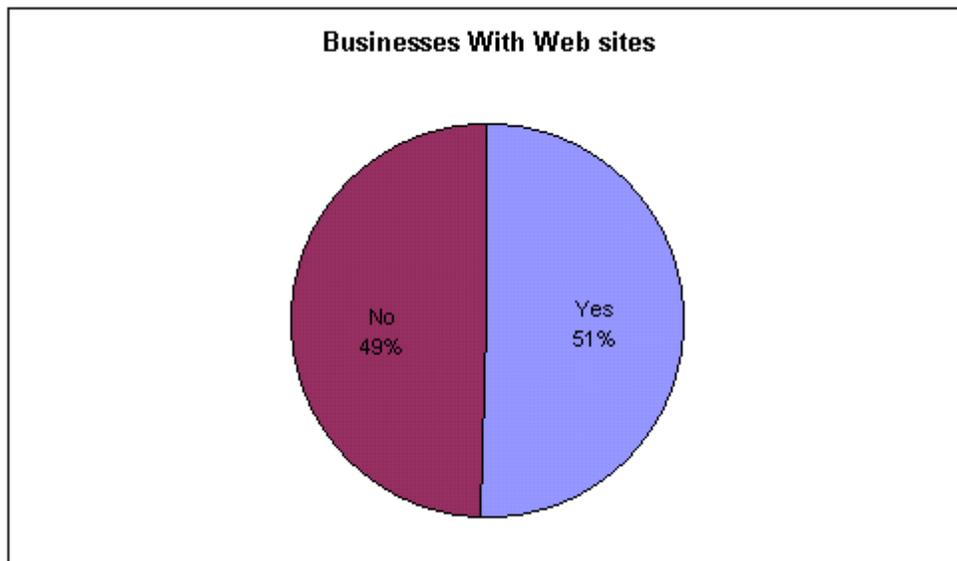
Figure 51 - Business Web Site Locations

Business Web site Locations

On site
32%

ISP
68%
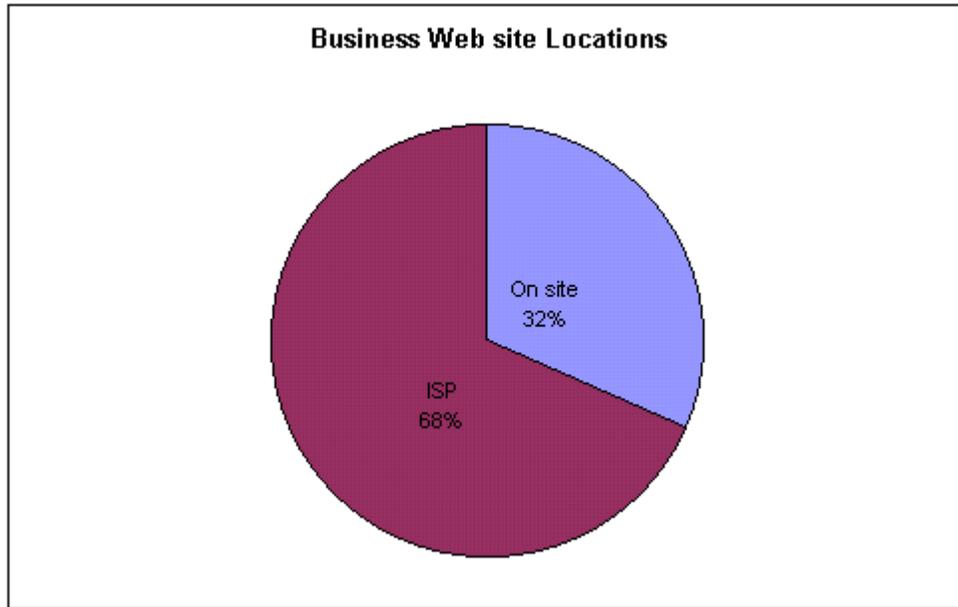
Figure 52 - Business Telecommunications Connections By Technology Type

**Business Telecommunications Connections
By Technology Type**

POTS	45%
Cell	31%
Satellite Internet	2%
Fixed Point Internet	7%
Cable TV	11%
Satellite TV	4%
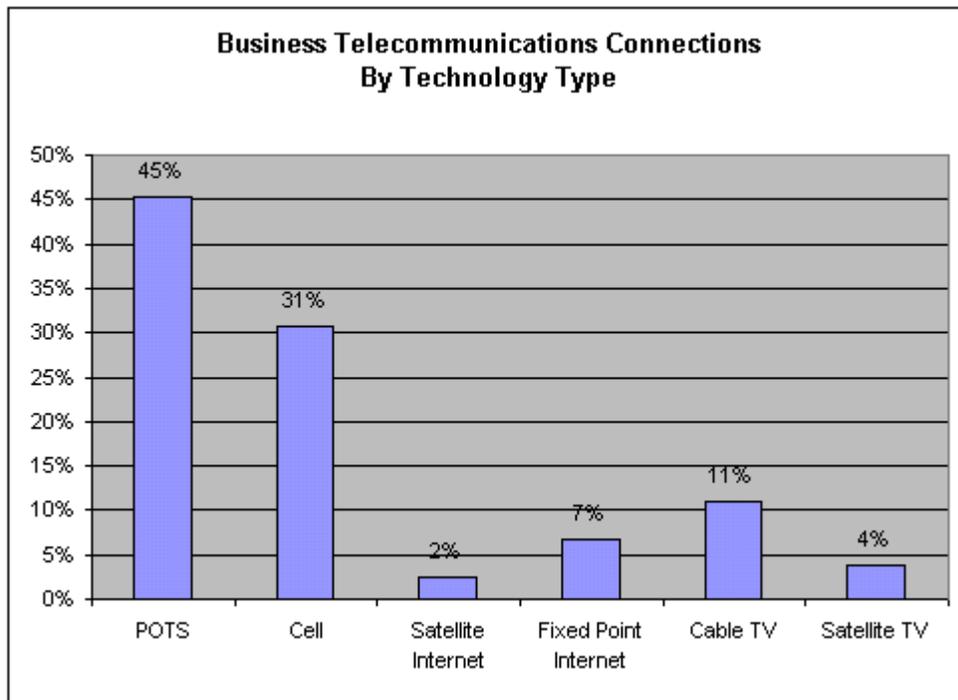
<u>Figure 53 - Telephone Company Rating - Business</u>

Telephone Company Rating - Business

Excellent: 18%
Very Good: 65%
Fair: 15%
Poor: 2%
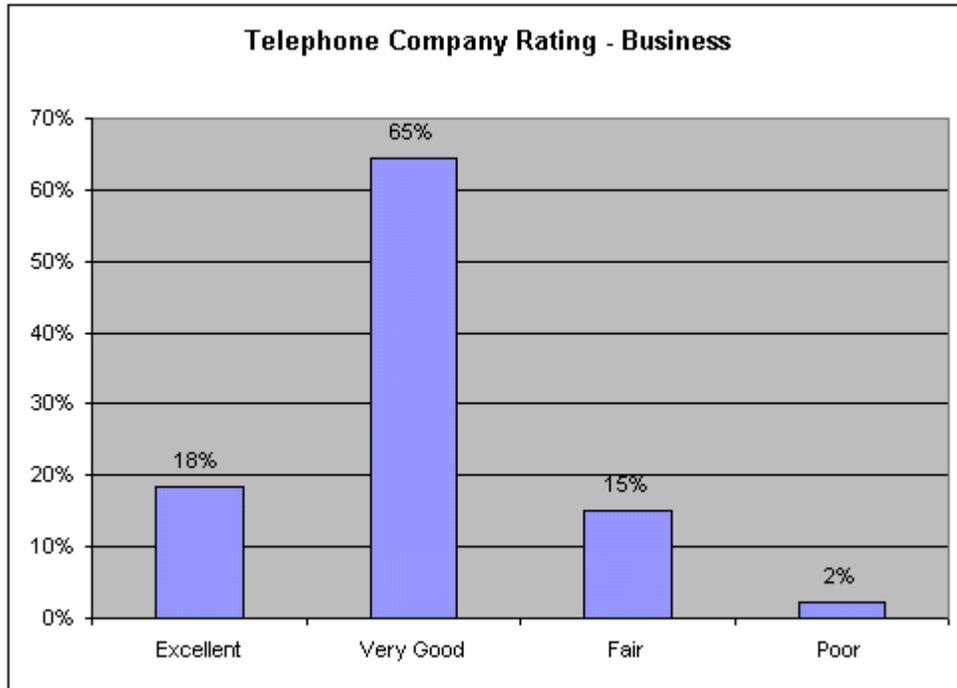
<u>Figure 54 - ISP Rating - Business</u>

ISP Rating - Business

Excellent: 25%
Very Good: 59%
Fair: 16%
Poor: 0%
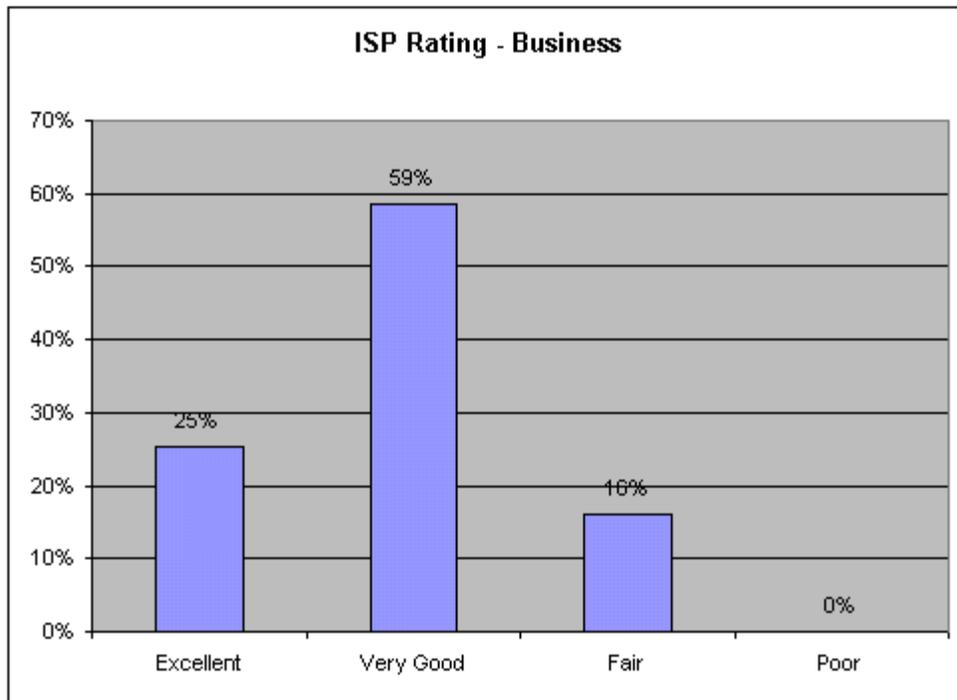
Figure 55 - Business Locations

Business Locations

Unicorporated Area 22%

City 78%
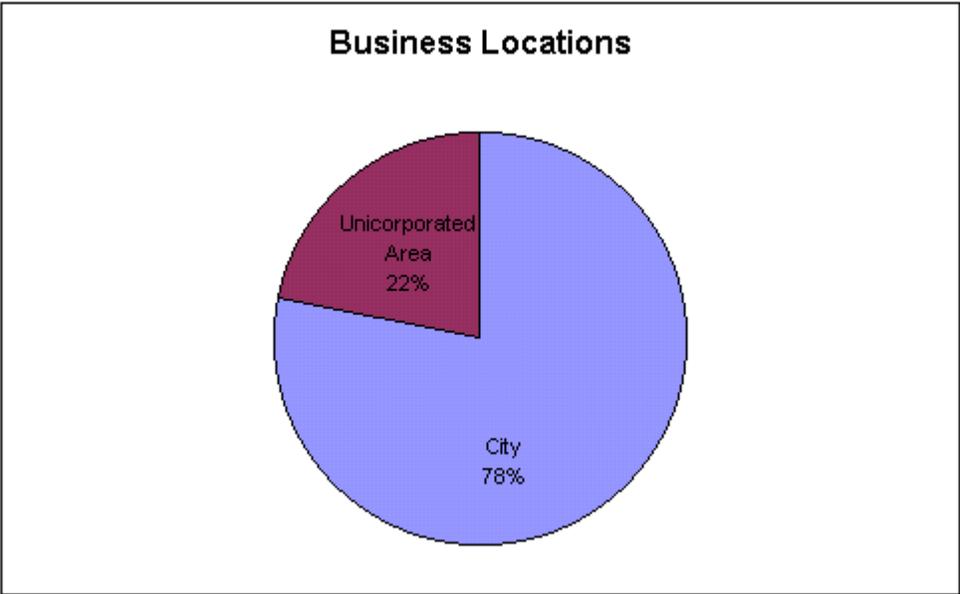
Klamath Region Strengths, Weaknesses, Opportunities, and Threats

We found truly multi-faceted opportunities, needs, issues and concerns with interdependencies at many levels. Any set of goals and the ensuing activities to achieve those goals needs to be formulated in a manner that addresses these sometimes complex interrelationships. Each of the elements in the list is associated with the goal(s) containing activities to address the finding. We identified five Goals/Objectives.

The SWOT analysis session on 9 September 2002 held at the Klamath Falls Chamber of Commerce conference facility yielded the following results.

| Strengths	I	II	III	IV	V
Workforce				X	X
Demand for telecommunications services	X	X	X		
Awareness of telecom [and what it means]	X			X	X
Connected to I-5 via fiber [Qwest SONET ring]	X	X	X	X	X
Route diversity [Qwest SONET ring]	X				
Community support and collaboration	X				
Telecommunication group diversity	X	X	X	X	X
Education – k-20, southern OR ESD	X	X	X	X	X
Open learning center	X			X	X
Healthcare	X	X	X	X	X
Fiber is here [may not be lit in some cases]	X	X	X	X	
Evolving economy				X	X
Diverse economy	X	X	X	X	X
Sense of community	X	X	X	X	X
Businesses and residents embracing technology	X			X	X
Quality of life	X		X	X	X
Government involvement	X	X	X	X	X
Transportation hub				X	X
Attachment to old values	X			X	

Weaknesses	I	II	III	IV	V
Workforce training				X	X
Lack of work ethic				X	X
Social change	X			X	X
Low population base				X	X
Isolated	X			X	X
Lack of last mile	X	X	X	X	
Fiber unlit ==> [lack of] services	X	X	X		
Fiber unlit ==> lack of a business plan	X	X	X		
Fiber unlit ==> lack of capital	X	X	X		
Fiber unlit ==> lack of cooperation in aggregating demand	X	X	X		
Southbound transportation [e.g., air services]				X	X
Stagnant economy				X	X
Full utilization of available technology	X	X	X	X	X
Lack of competition [in telecommunications service providers and services]	X	X		X	X
Low per capita income				X	X
Topology		X			
Lack of open access		X			
"Brain drain" – age flight				X	X
Lack of information technology support		X			
Lack of cybersecurity expertise		X			

SWOT Analysis (continued)

Opportunities	I	II	III	IV	V
Light the [unlit] fiber (Consortia)	X	X	X	X	
Telecom 101 [education]	X			X	X
eCommerce potential	X			X	X
Area attractiveness (retain young people) – Retention, recruitment, people, and business	X			X	X
Increase access to education and health	X	X	X	X	X
Build community	X	X	X	X	X
Aggregate demand	X	X	X		
Make things more affordable and competitive	X	X	X		
Higher quality of life	X	X	X	X	X
Cleaner industries	X			X	X
Improved choices	X	X	X	X	X
Access to new markets (global)	X	X	X	X	X
Convenience	X	X	X	X	
Connectivity with the rest of the state plus with California	X	X	X	X	
Threats	I	II	III	IV	V
Rogue Valley	X	X	X	X	X
Economic diversity				X	X
Economic status of up-line carriers [solvency of telecommunications providers]	X	X	X	X	X
Resistance to change	X			X	X
Attachment to old values	X			X	X
Rapid growth	X	X	X	X	X
State economic situation				X	X
Funding for education – k-20	X			X	X
Competition with existing business technology business churn				X	X
Lack of voting population	X			X	
Cybersecurity		X			X
Areas of Concern (from Survey)	I	II	III	IV	V
Access/Availability	X				
Affordability			X		
Building a downtown telecenter				X	X
Connections	X	X			
Equipment being dated by time you pay for it					
Desire a good Website				X	X
Security/Privacy	X	X		X	X
Service & service levels	X	X	X	X	X
Training/Education	X			X	X
Voicemail					

APPENDICES
Appendix 1 - Klamath Region Telecommunications Strategic Planning Committee

Name	Organization	eMail
Stephanie Bailey	Klamath County Chamber of Commerce	sbailey@klamath.org
Jeff Ball	City of Klamath	ball@ci.klamath-falls.or.us
Agnes Box	OIT	boxa@oit.edu
Quentin Breen	AlwaysOn, CEO	qlb@alwaysonnetwork.net
Dave Davis	Klamath County School District	daved@kcsd.k12.or.us
Betty Dickson	Klamath Falls City Council	consortia@charter.net
Mike Greenstreet	Greenstreet Consulting	consult@cqca.com
Frank Hoblit	Bel-Tel Telephone Services	fhoblit@cvc.net
Larry Holzgang	OECDD - Regional Development Officer	larry.holzgang@state.or.us
Allen Irvine	MWMC	airvine@mwmc,org
Lee Matchett	Fireserve	lmatchett@fireserve.net
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Rich Ryan	Hunter Communications	rryan@coreds.com
Dan Stanton	AlwaysOn, COO	dans@easystreet.com
Debi Stritzke	KCC	stritzke@kcc.cc.or.us
Chris Tamarin	OECDD	Christopher.Tamarin@state.or.us
Gary Weldon	U.S. Forestry	gweldon@fs.fed.us

Appendix 2 - Oregon Household Telecommunications Survey Methodology

Winter 2000 Methodology and Results By Toshihiko Murata, Project Director, and Patricia A. Gwartney, Founding Director, Oregon Survey Research Laboratory, 5245 University of Oregon, Eugene, OR 97403-5245, Telephone: 541-346-0824, Facsimile: 541-346-5026, Email: osrl@oregon.uoregon.edu, WWW: http://darkwing.uoregon.edu/~osrl

I. Introduction

As one part of a continuing effort to better serve the needs of Oregon residents, the Oregon Economic and Community Development Department (OECDD) contracted with the Oregon Survey Research Laboratory (OSRL) to conduct a representative survey of households on a variety of telecommunications issues. OSRL conducted a random-digit-dial (RDD) telephone survey of 1,696 households January - February 1999. This report summarizes the survey methodology and results.

II. Survey Methodology

This section describes the development of the survey instrument, the survey sampling strategy, and data collection efforts.

Survey Instrument

The survey's goal was to obtain statistically valid and reliable information from Oregon households about telecommunications-related behaviors, plans, needs, knowledge, and attitudes. OSRL developed survey questions in close consultation with OECDD representatives. Many questions replicate those in the Central Oregon Household Telecommunications Survey, conducted by OSRL Fall 1999 for the Central Oregon Telecommunications Task Force. Other questions OSRL developed, tested, and implemented specially for this project.

The telephone survey instrument addressed the following topics:

1. Household computer ownership and the "Oregon Benchmarks" question on computer skills;
2. Internet and World Wide Web (WWW) access at home, monthly cost of home Internet service, household members who use the Internet connection, and modem speed and type;
3. Largest amount willing to pay for better Internet and WWW service (unbundled), in addition to current bill, for:
   a. fewer busy signals,
   b. faster transmission speed,
   c. ability to always be connected, and
   d. video capability;
4. Internet and WWW access through employer or volunteer work, and frequency of such use;
5. Anticipated frequency of Internet and WWW access in public places in 3-5 years for employment-related purposes and informational purposes;
6. Current frequency of WWW use for buying things;
7. WWW use already, desire to use, or disinterest in using, for the following purposes:
   a. shopping for necessities, such as groceries and medicines,
   b. shopping for other things, such as clothes, cars, or trucks,
   c. conducting government business, such as filing taxes or registering motor vehicles,
   d. making reservations or buying tickets,
   e. checking financial information, such as on-line banking or the stock market,
   f. learning things, such as taking college classes for credit, registering for classes, learning new job skills, or on-the-job training,
   g. entertainment, such as watching TV or movies, listening to music, or downloading music,

     h.   taking part in state and local government, such as giving testimony, or watching debates and votes (using real-time video), and

     i.   talking with medical specialists over long distances (using real-time video);

8. Household television ownership, cable service, and wireless cable;
9. Household telephones, including:
     a.   service quality,
     b.   number of telephone lines,
     c.   plans to add an additional line,
     d.   largest amount willing to pay for a second home telephone line,
     e.   cell telephones,
     f.   computer-dedicated lines,
     g.   home business-dedicated lines,
     h.   presence of telephone services (call waiting, caller ID, or voice mail),
     i.   largest amount willing to pay for telephone services (call waiting, caller ID, or voice mail),
     j.   ability to send faxes,
     k.   monthly costs for long-distance, and
     l.   monthly costs for local telephone services;
10. Knowledge questions concerning:
     a.   the ability to place long distance telephone calls via the Internet, and
     b.   awareness of digital subscriber lines (DSL);
11. Demographic and background questions, including age, sex, race/ethnicity, education, employment, home business, presence of children in home, household income, and county.

Completed interviews averaged 21 minutes. Respondents were completely anonymous (i.e., no one can be identified in any way). OSRL obtained human subject approval for the survey from the University of Oregon Committee for the Protection of Human Subjects.

Sampling

Accurate sampling was one key part of OSRL's strategy to achieve the goal of statistically valid and reliable information from Oregon households about telecommunications. Another study goal was to better understand rural regional telecommunications needs. To achieve these goals, OSRL implemented a regional over-sampling strategy, concentrating on rural areas.

OECDD provided OSRL with information identifying 11 county-defined regions, which closely match the agency's usual regional divisions. All Oregon urban areas were placed into a single "region." Rural areas were divided into 10 regions, defined in the list below:

Region 1 Urban areas, including all Multnomah County, urban areas of Washington and Clackamas Counties, and larger cities (Albany, Ashland, Bend, Eugene, Springfield, and Salem).

Region 2 Clatsop, Columbia, and Tillamook Counties, plus rural areas of Washington County.

Region 3 Benton, Lane, Lincoln, and Linn Counties.

Region 4 Coos, Curry, and Douglas Counties.

Region 5 Jackson and Josephine Counties.

Region 6 Baker, Morrow, Umatilla, Union, and Wallowa Counties.

Region 7 Grant, Harney, and Malheur Counties.

Region 8 Hood River, Gilliam, Sherman, Wasco, and Wheeler Counties.

Region 9 Klamath and Lake Counties.

Region 10 Crook, Deschutes, and Jefferson Counties.

Region 11 Marion, Polk, and Yamhill Counties, plus rural areas of Clackamas County.

OSRL's goal was to obtain 150 interviews in each region. OSRL employs the Genesys Sampling System, the same used by the U.S. Census Bureau for its large-scale random-digit-dial (RDD) surveys. The Genesys procedure employs an RDD algorithm that is used in conjunction with our computer-aided telephone interviewing system (CATI). Within each region, OSRL obtained lists of all postal zip codes. Based on the zip codes, OSRL generated RDD samples of telephone numbers for each region.

This system is valuable both because it avoids biases encountered in telephone books and similar lists, and because new and unlisted telephone numbers have equal chances of selection as established numbers. This pre-programmed sampling process is accomplished without interviewer intervention. Telephone numbers appear automatically on interviewers' computer screens and are dialed by a keystroke (preventing dialing errors).

The first survey question asked respondents their county of residence, to ensure each sample unit was in its pre-defined region. A few respondents, however, did not know their county (1.3%). For such cases, we assigned them to the county that our sampling methodology said they resided in. The completed sample sizes for Regions 1, 2, 3, 4, 5, 7, 8, 9, and 10 were between n=150 and n=154. Region 5 had n=148, Region 6 had n=160, and Region 11 had n=175.

Altogether, 6,770 telephone numbers were randomly generated within regions. Of those, 3,859 (57%) were disconnected, non-working, nonresidential, fax/modem lines, or otherwise ineligible for the study. For 827 telephone numbers (12%), the status could not be determined (e.g., the numbers were continuously busy or no one ever answered, as occurs with telephone booths). From the remaining 2,084 telephone numbers, 1,700 interviews were completed and 2 were partially completed. After data collection, 6 cases were removed from the final data set because too many data were missing in the survey questions. In a few instances, adults who answered the survey did not know the answers to technical telecommunications and computer questions, and they voluntarily handed the telephone over to another household member to answer a few questions.

The net CASRO response rate was 71.7% and the refusal rate was 11.3%. Response rates varied by region, from a high of 80.6% in Region 6 (Baker, Morrow, Umatilla, Union, and Wallowa Counties) to a low of 65.5% in the combined urban areas (Region 1). Refusal rates also varied by region, from a high of 16.0% in Region 9 (Klamath and Lake Counties) to a low of 8.8% in Region 11 (Clackamas, Marion, Polk, and Yamhill Counties). A complete sample, call disposition, and response rate report for each region and the entire study is provided in another section of this final report.

For completed sample sizes of about 150 in each region, sampling error is moderate. Sampling errors are calculated to help users of survey data assess how much confidence to place in a particular result in order to generalize from sample estimates back to the population. Sampling error is determined in part by sample size: the larger a sample is, the lower the sampling error. Sampling error is also determined by how much variability is in a particular statistic; thus, a variable split 50-50 has higher estimated sampling error than one split 95-5.

For a sample n=150 from a region with population N=1,000,000, at the 95% confidence level, a variable with a 50-50 proportional split has a confidence interval of .08. This means readers can be 95% sure that the true population figure is between 42% and 58% (i.e., 50% ± 8). On a 90-10 split, the confidence interval is .05, which means readers can be 95% sure that the true population figure is between 85% and 95% (i.e., 95% ± 5).

Data Collection

Interviewer training was conducted January 10, 2000. Interviewing was conducted from 9:00 a.m. to 9:00 p.m. all days of the week (except Sunday mornings) between January 11th and February 25th until the regional target sample sizes of completed interviews were achieved. Only well-experienced interviewers participated in this survey. Summary interviewer instructions are provided elsewhere in this final report.

The survey was conducted using OSRL's computer-aided telephone interviewing system (CATI). In CATI, sampling, interviewing and data entry is accomplished interactively. The programmed survey instrument contains all survey questions, interviewer probes for consistency, and pre-coded answer categories. Skip logic is programmed into CATI, preventing inappropriate questions from being asked.

In administering the survey, trained interviewers use telephone headsets in sound-reduced carrels at computer workstations connected by an NT network. Randomly distributed telephone numbers appear automatically at each workstation and are mated to pre-programmed survey instruments. As respondents answer questions, interviewers enter their answers into CATI's data file. Telephone numbers are stripped automatically from the data to ensure respondent anonymity. The CATI system eliminates out-of-range responses and wild codes by validating each response interactively and not allowing unacceptable responses. Thus, the CATI system eliminates many routine, error-prone coding and data entry tasks, enabling OSRL to maintain the highest standards of quality control.

Appendix 3 - Klamath Basin Telecommunications Survey

The Telecommunications committee is developing a Telecommunications Strategic Plan for the area. We need just a couple of moments of your time to help us update some information. Countywide surveys conducted by the state of Oregon within the past two years gave us a good benchmark. We'd like to see what, if anything, has changed in a few of the categories surveyed.

Please complete the enclosed telecommunications survey (both sides – Home and Business) by checking all of the applicable items in each of the categories listed. Your responses will be factored into the planning process and so are very important.

Questions? Feel free to get in touch with the Strategic Planning Facilitator.

<div align="center">

John Irwin
jirwin@mind.net   541.664.2456

</div>

Once you've completed the survey, PLEASE return the survey ASAP. *It's important!* Mail it using the stamped self-addressed envelope or drop it off at the Chamber office. Cut-off for participation is the second week in May. **MEMBERS WOULD LIKE TO SEE THE SURVEYS COMPLETED AND RETURNED BY MAY 15th, 2002.**

<div align="center">

507 Main Street - Klamath Falls, Oregon 97601
1-877-KLAMATH

</div>

Results of this survey will be published on line at www.callineb.com (see DOCUMENTS page). Targeted timeframe for posting is June 15th, 2002.

Thanks in advance for investing this time in your community.

Sincerely,

Klamath Basin Telecommunications Committee

KLAMATH BASIN TELECOMMUNICATIONS SURVEY – HOME
PLEASE CHECK BOXES FOR ALL THAT APPLY

Computer and Internet Use
- ☐ Have a personal computer (Number ____)
  If no PC, check all that apply…
  - ☐ Too expensive
  - ☐ Unimportant
  - ☐ Access to a PC elsewhere
  - ☐ Need training
  - ☐ Don't like technology
  - ☐ Prefer personal interaction

Computer skills I use...
- ☐ Word Processing   ☐ Presentations
- ☐ Spreadsheets   ☐ Database

Internet/Web
- ☐ Use email
- ☐ Use the World Wide Web
- ☐ Use a public computer to access the Internet
- ☐ Purchase items/services online
- ☐ Sell items/services online
- ☐ Online data processing (exchange reports, online updates, apply for permits, etc.)
- ☐ Work from home

Importance of Internet Access
- ☐ Critical
- ☐ Very important
- ☐ Somewhat important
- ☐ Not important

Internet connection speed
- ☐ Critical
- ☐ Very important
- ☐ Somewhat important
- ☐ Not important

Internet connections
- ☐ No   ☐ Yes

If YES,   Monthly Fee
- ☐ Dial up over telephone line $_____
- ☐ ISDN $_____
- ☐ DSL $_____
- ☐ Cable modem $_____
- ☐ Wireless (satellite) $_____
- ☐ Wireless (fixed point) $_____
- ☐ T1, T3, OC3 (Dedicated Access) $_____

Telephone lines in your home
- ☐ No ☐ Yes
  How many telephone numbers _____
If YES, Used for…
- ☐ Personal/family use
- ☐ Dedicated for business use
- ☐ Internet dial-up
- ☐ Dedicated for FAX machine
- ☐ Shared - FAX/Internet/conversations

Telecommunication connections
- ☐ Telephone lines   ☐ Cable – TV
- ☐ Cell phone   ☐ TV (Satellite)
- ☐ Wireless Internet (Satellite)
- ☐ Wireless Internet (Fixed Point)

Rate your overall home telecommunications service(s)
Telephony (telephone calls)
- ☐ Excellent   ☐ Good   ☐ Fair ☐ Poor

Internet Service Providers
- ☐ Excellent   ☐ Good   ☐ Fair ☐ Poor

List your communications service providers:
_____
_____
_____
_____
_____

Do you have a Website:
- ☐ No ☐ Yes
If yes, hosting location:
- ☐ Onsite ☐ At an ISP

Your Name (optional):
_____

Your location:
- ☐ City   ☐ Unincorporated area
  City Name _____)

What are three concerns you have about telecommunications development (home or business?
1.

2.

3.

Please complete both sides and return the survey. *It's important!*
507 Main Street - Klamath Falls, Oregon 97601

KLAMATH BASIN TELECOMMUNICATIONS SURVEY - BUSINESS

PLEASE CHECK BOXES FOR ALL THAT APPLY

Computer and Internet Use
☐ Have a personal computer (Number _____)
  If no PC, check all that apply…
    ☐ Too expensive
    ☐ Unimportant
    ☐ Access to a PC elsewhere
    ☐ Need training
    ☐ Don't like technology
    ☐ Prefer personal interaction

Computer skills I use...
☐ Word Processing   ☐ Presentations
☐ Spreadsheets   ☐ Database

Internet/Web skills
☐ Use email
☐ Use the World Wide Web
☐ Use a public computer to access the Internet
☐ Purchase items/services online
☐ Sell items/services online
☐ Online data processing (exchange reports,
   online updates, apply for permits, etc.)

Importance of Internet Access
☐ Critical
☐ Very important
☐ Somewhat important
☐ Not important

Internet connection speed
☐ Critical
☐ Very important
☐ Somewhat important
☐ Not important

Internet connections
☐ No   ☐ Yes
If YES,   Monthly Fee
☐ Dial up over telephone line $_____
☐ ISDN $_____
☐ DSL $_____
☐ Cable modem $_____
☐ Wireless (satellite) $_____
☐ Wireless (fixed point) $_____
☐ T1, T3, OC3 (Dedicated Access) $_____

Do you have a Website:
☐ No ☐ Yes
If yes, hosting Location:
☐ Onsite ☐ At an ISP

Telephone lines in your business
☐ No ☐ Yes
  How many telephone numbers _____
If YES, Used for…
☐ Personal/family use
☐ Dedicated for business use
☐ Internet dial-up
☐ Dedicated for FAX machine
☐ Shared - FAX/Internet/conversations

Communication connections
☐ Telephone lines   ☐ TV (Cable)
☐ Cell phone   ☐ TV (Satellite)
☐ Wireless Internet (Satellite)
☐ Wireless Internet (Fixed Point)

Connections – additional information
                            What would be a
Current Future   reasonable monthly Fee?
  ☐   ☐   Wireless (satellite) $_____
  ☐   ☐   Wireless (fixed point) $_____
  ☐   ☐   DSL $_____
  ☐   ☐   ISDN $_____
  ☐   ☐   T-1 $_____
  ☐   ☐   DS-3 $_____
  ☐   ☐   OC-3 $_____
  ☐   ☐   Gigabit Ethernet $_____
  ☐   ☐   Fast Ethernet $_____
  ☐   ☐   Virtual Private Network $_____
  ☐   ☐   Other (specify _____) $_____
  ☐ I don't recognize most of this stuff.

Rate your overall business telecommunications
service(s)
Telephony (telephone calls)
☐ Excellent   ☐ Good   ☐ Fair ☐ Poor

Internet Service Providers
☐ Excellent   ☐ Good   ☐ Fair ☐ Poor

List your communications service providers:
_____
_____
_____
_____
_____
_____

Business Name (optional):
_____

Your location:
☐ City   ☐ Unincorporated area
  City Name _____)

Your business sector:
☐ Healthcare   ☐ Hospitality/Lodging
☐ Government   ☐ Communications
☐ Not for profit   ☐ Financial Services

Home Based Business: ☐ No ☐ Yes
☐ Retail   ☐ Food
☐ Manufacturing   ☐ Real Estate
☐ Education   ☐ Construction

☐ Other (Specify _____)   Number of Employees: _____