

# Survey Report on the Demand, Usage, Supply and Pricing of Broadband Services in Oregon

Public Utility Commission of Oregon

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# Broadband Services

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# Summary

The 2005 Oregon legislature enacted SB 13, which requires the Oregon Public Utility Commission to report each legislative session on the availability, demand, and use of broadband services in Oregon. Broadband services, as defined by the Federal Communications Commission, transfer data at rates exceeding 200,000 bits per second. This is the Commission's first legislative report.

To gather information for the report, the Commission surveyed representatives from each city and county in Oregon as well as members of the Oregon Telecommunications Coordinating Council. Twenty eight percent of the cities and thirty percent of the counties responded to the survey. The Commission also compiled statistics from published surveys of the Federal Communications Commission and the Oregon Economic and Community Development Department, among other sources.

The Commission found the following:

- As of December 2005, 685,000 high-speed lines served Oregon households, businesses, governments, and schools and universities. For comparison, there were 77,000 high-speed lines in Oregon in December 2000.
- Cable systems accounted for 55 percent of the high-speed lines and Asymmetric Digital Subscriber Lines accounted for 35 percent (ADSL transfer "uploaded" and "downloaded" information at differing speeds). Symmetric DSL, traditional wireline, fiber, satellite, mobile wireless and fixed wireless accounted for the rest of the high-speed lines.
- As of December 2005, only 2 percent of the zip code areas in Oregon had no broadband service provider as compared to 22 percent in December 2000.
- In December 2005, 57 percent of the zip code areas in Oregon had four or more broadband service providers.
- Broadband service options are greatest in the Portland Metropolitan area, the Willamette Valley, and Southern Oregon.
- Prices for DSL access do not appear to vary significantly across the state, with a low of \$24.95 per month, and a high of \$37.99 per month. Cable Internet pricing varies even less, with the minimum and maximum prices at \$51.99 and \$52.95 respectively.
- There does not appear to be any DSL or cable-modem service available in Wallowa County.
- The trends in Oregon mirror those of the nation as a whole.

# DISCUSSION

## Introduction

The 2005 Oregon Legislature enacted Senate Bill 13 that directed the Public Utility Commission (Commission) to analyze and report on the availability, demand and usage of broadband services. The legislation also precluded the Commission from gathering information for this study by imposing reporting requirements on the telecommunications utilities. Broadband services are defined as the transfer of data of at least 200,000 bits per second both in transmitting and receiving.

To undertake the study, working with members of the Oregon Telecommunications Coordinating Council, the Commission prepared and transmitted surveys to Oregon cities and counties. The Commission also reviewed information from publicly available sources. This report is the culmination of that effort.

## Findings

### Broadband Availability

- The number of high-speed lines in the state continues to grow, having increased ten-fold since the year 2000 (Appendix: Chart 6, page A-10).
- Similar to the national trend, the use of high speed Internet access service provided by the local cable company, is positively correlated with income and population density, although the majority of Oregonians have access to some sort of high speed Internet (Appendix: Graph 5, Graph 6, both page A-13). There was no evidence of a similar correlation between population density and DSL (Digital Subscriber Line), wireless, satellite, or dial-up Internet.
- All Oregonians that have phone lines have access to dial-up Internet access service, although, for some, that access incurs a long distance charge.<sup>4</sup>
- Ninety-eight percent of Oregon zip codes have at least one high speed line, and over half have at least four lines, where a high speed line is defined as one that provides over 200,000 bits per second in at least one direction (Appendix: Graph 2, Chart 4, both page A-7). Nationally, ninety-nine percent of all zip codes have at least one high speed line.<sup>1</sup> The state keeps pace with the nation, in terms of

percentage of zip codes with high speed providers and number of providers per zip code (Appendix: Graph 1, page A-7).

- Cable Internet access services comprise more than half of the current supply of broadband in the state at 55 percent, with Asymmetric DSL coming in second at 35 percent. Symmetric DSL, Traditional Wireline, Fiber, Satellite, Mobile Wireless and Fixed Wireless technologies are also used to provide service in the state, although at levels hovering around one percent (Appendix: Graph 3, page A-8). Of those, Fixed Wireless is the only technology that has seen significant growth in distribution in 2005, more than doubling from 2,726 lines to 5,969 lines (Appendix: Chart 6, page A-10).
- The Portland metropolitan area, the Willamette Valley, and Southern Oregon have the most options of high speed Internet providers, with most of those areas having seven or more providers. However, as stated, the vast majority of the state has at least one high speed service provider. This information was not reflected by survey respondents, indicating a lack of knowledge of service options by the public in general (Appendix: Map 2 (A-11), Map 3 (A-12), Map 4 (A-15), Map 5 (A-15), Map 7 (A-16), Map 8 (A-17)).

## Broadband Rates

- Aside from dial-up services, of those representatives that felt able to assess the pricing of broadband, the majority felt that local services were either moderately priced or somewhat expensive. Forty percent of those with dial-up available thought that the service was inexpensive. Although less than ten percent of the respondents felt that their service of cable, wireless, DSL and satellite was inexpensive, mildly or extremely. However, the majority of respondents did not feel that they could accurately compare pricing of local services to those across Oregon.<sup>4</sup> Aside from dial-up services the majority of respondents did not feel comfortable assessing the level of local demand for broadband services.<sup>4</sup>
- Further research shows that although access rates may not be considered extremely low, they do not, in fact, vary widely throughout the state. Among the areas that have DSL access, the lowest price for basic service is \$24.95 per month. The highest charge is \$37.99 per month, the average being \$32.26.

Cable Internet pricing is even more consistent throughout the state, with the minimum and maximum prices at \$51.99 and \$52.95 respectively, leaving the average at \$52.55 per month.

### Broadband Demand

- In terms of customer demand, satellite and dial-up responses were vastly different from those of cable, DSL, and wireless. Six and thirteen percent of dial-up and satellite customers felt that, at current prices, demand was extremely low. Alternatively for cable, DSL and wireless, no more than two percent of respondents felt that local demand was low. Instead, 25 percent of representatives responded that DSL incurred moderate demand. Additionally, thirteen percent of cable and wireless respondents felt local demand was moderate and seventeen percent of cable respondents thought that demand at current prices was high. We also polled respondents for their perception on local demand for services at significantly lower prices. Clearly, many respondents felt that demand would be higher were prices lower. However, many respondents commented that the majority of local residents would be happy to purchase high speed service at prices that were comparable to those of the rest of the state.

### Broadband Usage

- Over forty percent of respondents responded that their community used broadband for e-commerce, distance learning, and recreation or gaming. More than thirty percent of respondents indicated that their community utilized broadband for e-government applications, telework and telecommuting. Just above twenty percent of communities use broadband for public safety applications, telemedicine and telehealth. Other mentioned applications include research and development, online community participation, publishing, library applications and public equipment and supplies orders.<sup>4</sup> Some respondents commented that their usage of broadband services was restricted by the ADSL offered in their area. That is, where cable was not available, DSL was the high speed service of choice. However, the majority of DSL available throughout the United States, and indeed Oregon, is ADSL, or asymmetric DSL, where upload speeds are restricted to be lower than download speeds.

# APPENDIX

## PURPOSE

Under ORS 759.016, Oregon has a stated goal to improve the quality of life for the residents of Oregon by bridging economic gaps that may be caused, in part, by digital gaps. To that end, it is the intent of the legislature to promote access to broadband services across the state for present and future generations.

In order to meet the guidelines for broadband implementation, the state has set several benchmarks, including the assessment of current broadband service.

Senate Bill 13, enacted in 2005, directs the Public Utility Commission of Oregon (Commission) to prepare analyze and present to the 2007 Legislature a report that assesses: "...The availability of broadband services, the rates charged for broadband services, the demand for broadband services and the usage of broadband services." In developing this report the Commission is directed to "not impose reporting requirements on telecommunications utilities..." Hence, the Commission is charged with assessing the desirability and availability of Internet access services throughout the state of Oregon.

The Commission, with assistance from members of the Oregon Telecommunications Coordinating Council (ORTCC) conducted a survey, soliciting, city and county representatives and the ORTCC members to collect data on the availability and desirability of varying types of Internet access in their communities. The respondents were requested to speak on behalf of the members in their community about preferences and affordability, including:

- Number of providers for various Internet services
- Pricing of existing broadband service
- Demand for various Internet services at different price points
- Current usage of broadband for government applications
- Route redundancy and route diversity

## **ACTIVITY**

To conduct the research, the Commission worked closely with members of the Oregon Telecommunications Coordinating Council to create surveys tailored to cities and counties. The survey was sent to each member of the ORTCC and a representative from each Oregon city and county. The survey respondents were asked to answer the questionnaire as representatives of a geographic area, not as personal recipients of the survey.

Once the surveys were returned, the responses were entered into a database by Commission staff. The database was structured to allow a wide range of geographical-focused analysis, as well as analysis by business activity, income level and population. To maximize the usefulness of the data set, Commission staff conducted follow-up requests to those survey recipients who had not yet completed the survey. Once the data entry was complete, initial graphical and regional analysis was performed to determine the existence of a correlation between services, demand and demographic, regional, and economic factors. To be certain that due diligence was completed, staff also compared survey results to findings from other surveys and research, including the 2005 high speed FCC report<sup>1</sup>, Oregon Economic and Community Development Department DSL map<sup>2</sup>, and cable map<sup>3</sup>. With the information from the survey, and additional research data, trends and implications were compiled into this report.

## **LIMITATIONS OF ANALYSIS**

There were several limitations to the analysis. First, the response rate to the surveys was somewhat low. Of the 280 surveys mailed to city and county representatives, the Commission received responses from 79 [28% response] and 11 [30% response], respectively. If federal survey response rates are any indication of quality or quantity of information, prior to 2005, voluntary submissions represented less than .05% of total high speed lines, and now with new orders in place, still only represent, at most 2%. This offers insight into the fact that only providers with more than 250 lines in a given state are obligated to report. As for those who did respond, many may not have felt confident in their general knowledge of the local broadband environment and thus were reluctant to provide precise numerical assessments of service availability, demand, pricing and usage. Another limitation to the analysis was the prohibition of burdensome contact with telecommunications providers. Therefore,



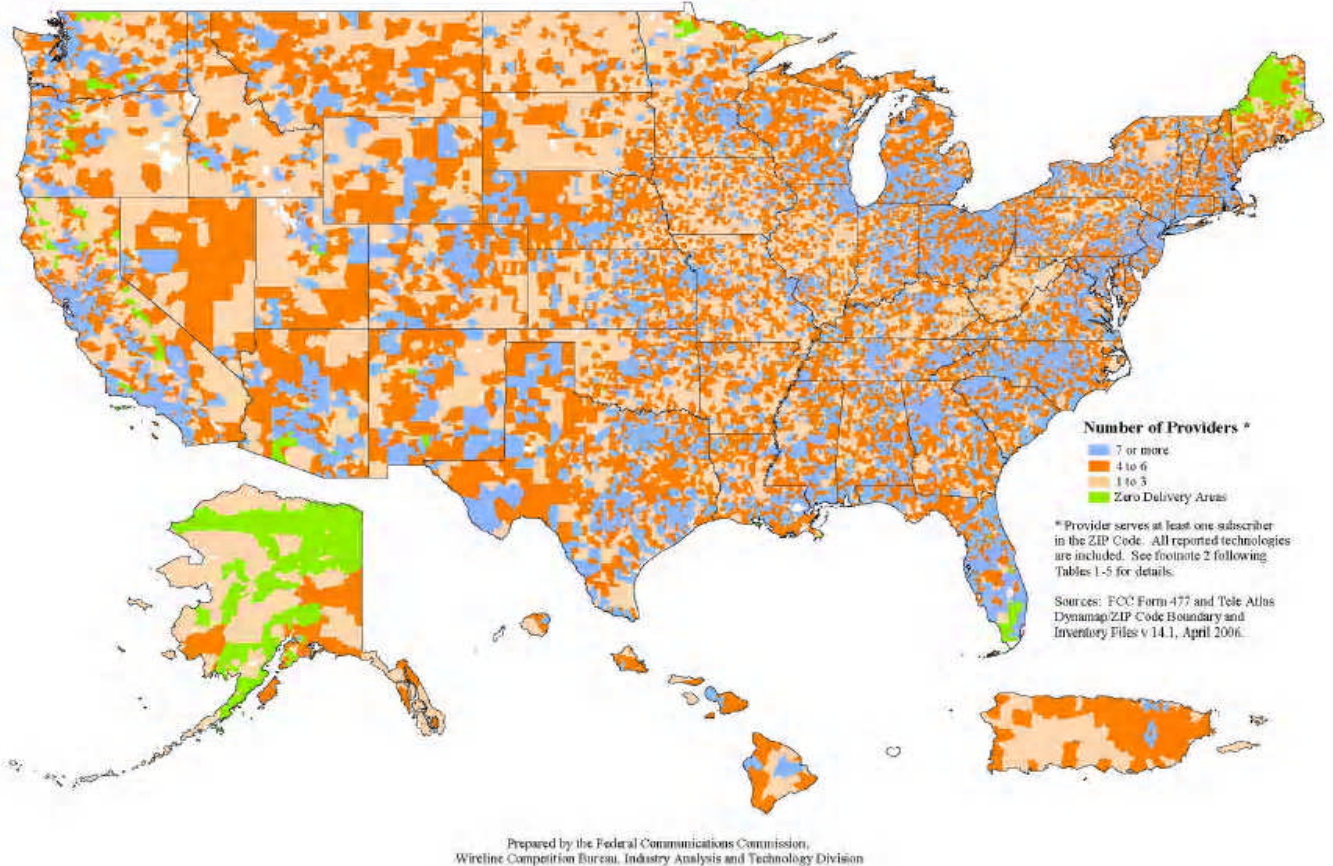
our analysis and results must rely on individual perception of local markets and independent research. While the prohibition understandably protects telecommunications providers from government information requests, it nevertheless reduced the richness of the data set. Additionally, although much information can be gathered from the FCC and other government agencies, as providers are required to register with the FCC, non-facilities based Internet service providers are not under any governmental reporting obligation. Facilities based providers are those that own the portion of the communication facilities that contains the end-user portion.

Finally, the present survey did not query about all types of broadband available in the state of Oregon (including fiber), and did not differentiate between ADSL and other types of DSL. Therefore some statistical tests were not applicable to these services.

Therefore, the Commission presents the above analysis in consideration and in light of the limitations and aforementioned data exclusions.

## Map 1

### High-Speed Providers by 5-Digit Geographical ZIP Code (As of December 31, 2005)



source<sup>1</sup>

From the map above, we can see that Oregon fares very similar to the rest of the country in terms of high-speed Internet access, aside from several small sections of zero delivery access, which may be related to the line of sight destruction caused by the Cascade Mountain range, as well as unpopulated areas and National Forest lands.

## Chart 1

### Oregon - High-Speed Lines by Type of End User

(Over 200 kbps in an least one direction)

	2,000	2,001		2002		2003		2004		2005	
	Dec	Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec
Residential and Small Business	66,261	82,919	131,279	173,314	242,996	290,128	365,309	423,943	489,569	505,260	587,550
Other	10,578	10,323	26,769	26,235	32,453	28,332	15,198	15,504	21,059	56,607	97,985
Total	76,839	93,242	158,048	19,549	275,449	318,460	380,507	439,447	510,628	561,867	685,535

source <sup>1,5-14</sup>

Consistent with the rest of the country, the number of high-speed lines in Oregon has been increasing every year since recording began in 2000.

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## Chart 2

### Oregon - Percentage zip codes with High-Speed Lines by Year

(Over 200 kbps in an least one direction)

Number of Providers	2000		2001		2002		2003		2004		2005	
	Jun	Dec	June	Dec	Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec
Zero	14%	22%	9%	14%	12%	8%	6%	5%	4%	4%	3%	2%
one	19%	*	*	*	15%	14%	11%	10%	8%	11%	11%	5%
Two	19%	*	*	*	20%	20%	20%	18%	18%	19%	16%	10%
three	22%	64%*	64%*	59%	17%	19%	15%	18%	16%	19%	17%	12%
four	14%	6%	11%	14%	12%	14%	14%	17%	17%	11%	9%	13%
Five	8%	7%	7%	8%	7%	8%	7%	7%	8%	9%	11%	10%
Six	4%	1%	6%	4%	9%	8%	7%	5%	6%	3%	5%	9%
seven	1%	0%	3%**	2%*	7%	7%	4%	2%	3%	4%	5%	6%
eight	0%	0%	**	**	2%	3%	3%	4%	5%	4%	3%	5%
nine	0%	0%	**	**	0%	0%	5%	4%	5%	4%	2%	5%
Ten or more	0%	0%	**	**	0%	0%	7%	11%	9%	11%	17%	23%

\*Recorded as one-three in these years

\*\* Recorded as seven-or-more in these years

source<sup>1,5-14</sup>

## Chart 3

### Nationwide - Percentage zip codes with High-Speed Lines by Year

(Over 200 kbps in an least one direction)

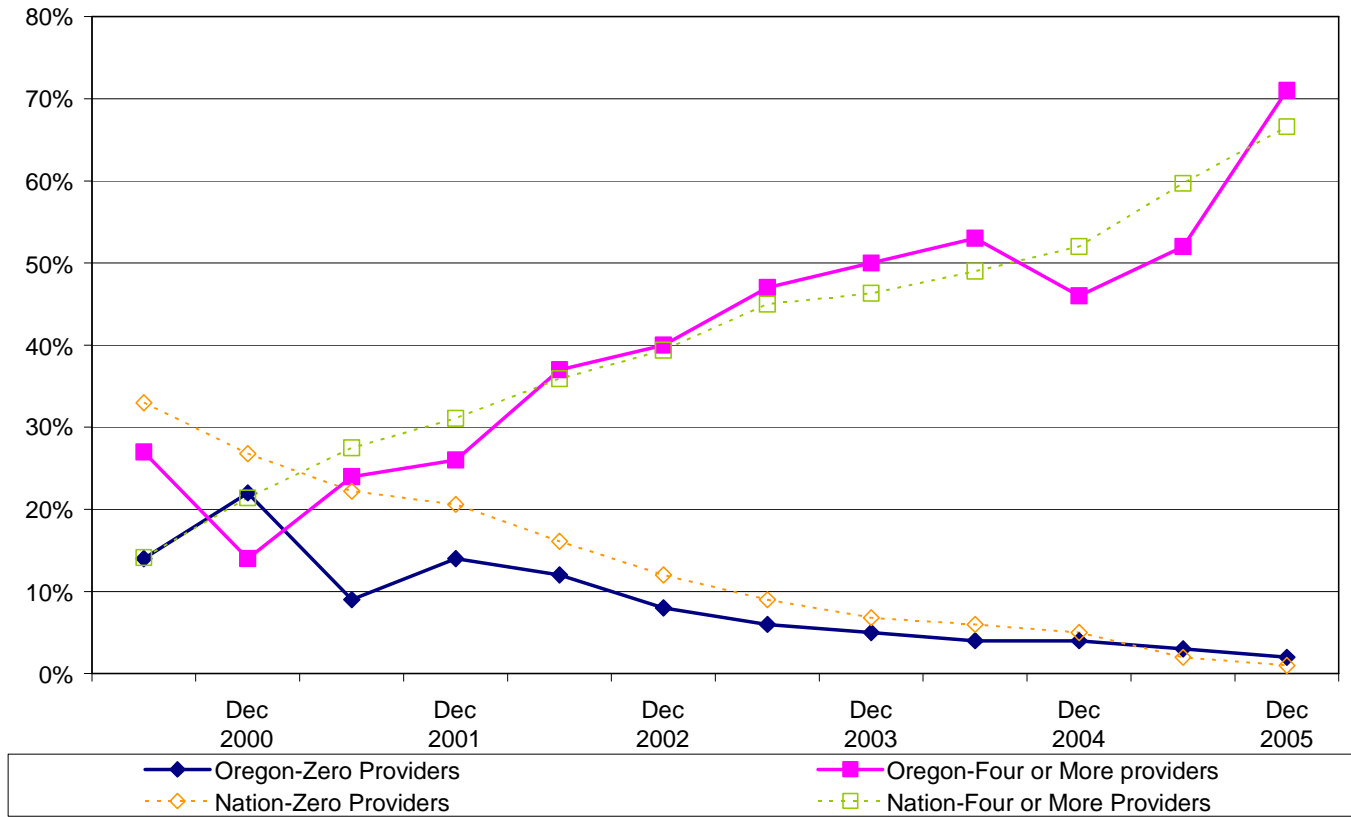
Number of Providers	2000		2001		2002		2003		2004		2005	
	Jun	Dec	June	Dec	Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec
zero	33%	27%	22%	21%	16%	12%	9%	7%	6%	5%	2%	1%
one	26%	23%	20%	19%	18%	17%	16%	15%	14%	12%	9%	6%
two	18%	18%	17%	16%	16%	17%	17%	17%	17%	16%	14%	12%
three	9%	11%	13%	13%	13%	14%	14%	15%	15%	15%	15%	15%
four	5%	6%	8%	9%	10%	10%	11%	11%	12%	12%	13%	14%
five	3%	4%	5%	6%	7%	7%	8%	8%	8%	9%	10%	10%
six	3%	3%	4%	4%	5%	5%	5%	6%	6%	6%	7%	8%
seven	2%	2%	3%	3%	3%	4%	4%	4%	4%	5%	5%	6%
eight	1%	2%	2%	3%	3%	3%	3%	3%	4%	4%	4%	5%
nine	0%	2%	2%	2%	2%	2%	3%	3%	3%	3%	4%	4%
ten or more	0%	2%	4%	4%	6%	8%	11%	11%	12%	13%	18%	21%

source<sup>1,5-14</sup>

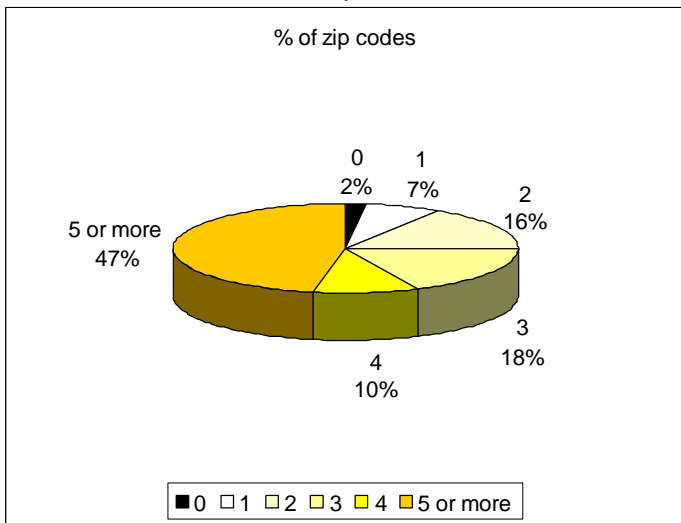
Compared with the rest of the country, Oregon has kept pace with the number of high speed lines. In 2005, nationally, one percent of zip codes had zero providers (compared with Oregon's two percent) and 20.7 percent had ten or more (compared with Oregon's 23%). The graphs below demonstrate this visually.

**Graph 1**

**Percent of Zip Codes with High Speed Providers**



**Graph 2**

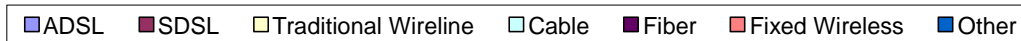
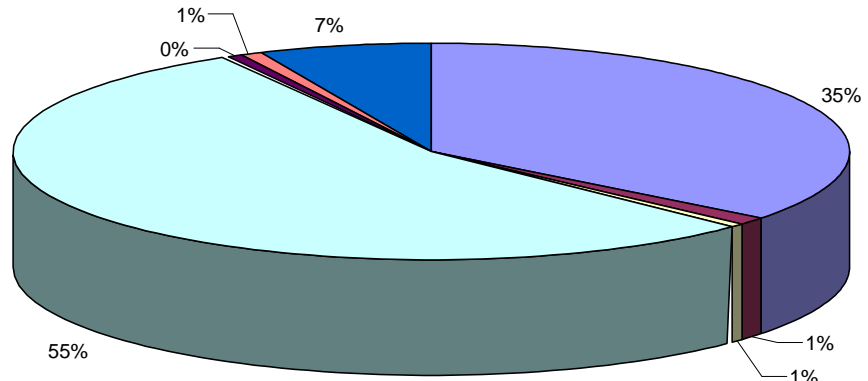


**Chart 4**

% of zip codes cumulatively	# of lines	% of zip codes exactly
100	0	2
98	1	7
91	2	16
75	3	18
57	4	10
47	5	8
39	6	6
33	7	5
28	8	2
26	9	3
23	10	23

### Graph 3

Percentage of High Speed Lines by Type

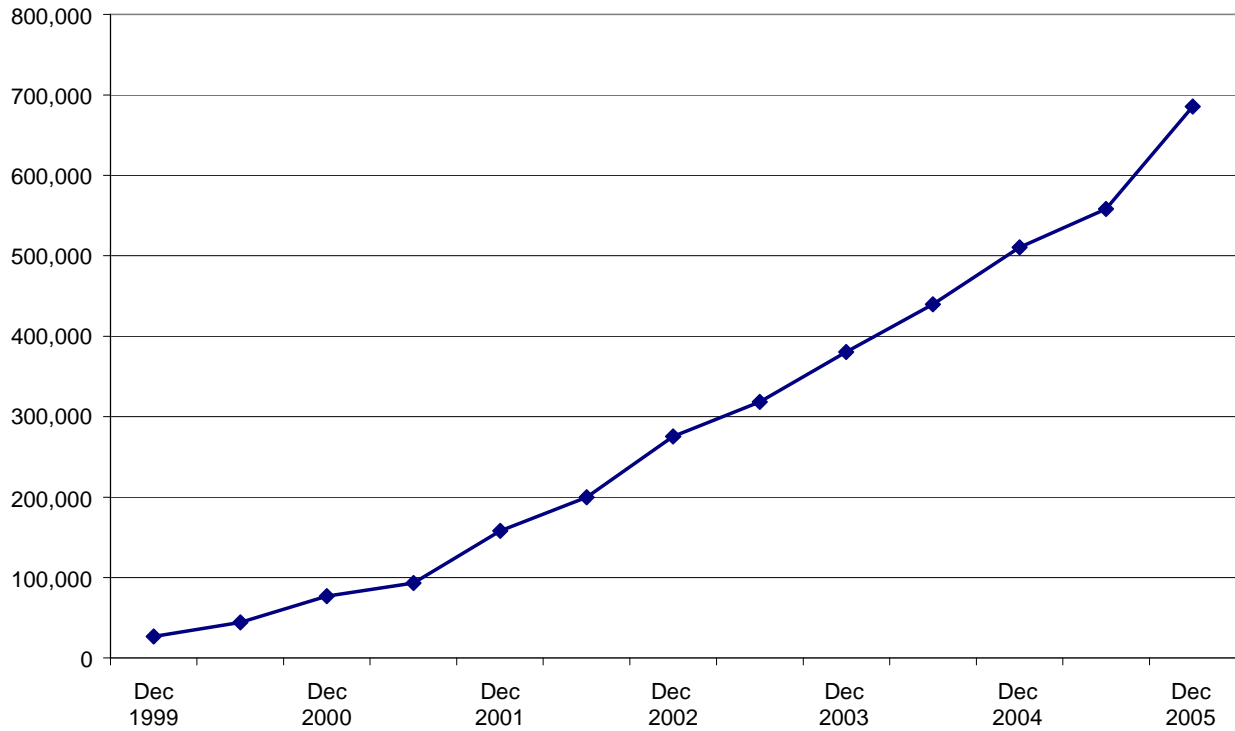


source<sup>1</sup>

The majority of high speed access in this country, is provided in the way of Cable. The second most frequent technology is Asymmetric DSL (ADSL). The other technologies, in total, account for ten percent of all high speed lines.

**Graph 4**

**Number of High Speed Lines in Oregon**



source<sup>1,5-14</sup>

The number of high speed lines has been increasing at an increasing rate, since 1999, when the FCC began recording high-speed data.

## Chart 5

**Oregon - Number of Providers of High Speed Lines by Year and Type**  
(Over 200 kpbs in an least one direction)

Type of Provider	2000 Jun	2000 Dec	2001 June	2001 Dec	2002 Jun	2002 Dec	2003 Dec	2004 Jun	2004 Dec	2005 Jun	2005 Dec
ADSL	4	5	6	8	11	11	13	18	18	32	35
SDSL	**	**	**	**	**	**	**	**	**	13	13
Traditional Wireline	**	**	**	**	**	**	**	**	**	13	13
Cable Modem	*	*	*	*	*	4	5	5	5	7	7
Fiber	**	**	**	**	**	**	**	**	**	8	9
Satellite	**	**	**	**	**	**	**	**	**	*	*
Fixed Wireless	**	**	**	**	**	**	**	**	**	9	9
Mobile Wireless	**	**	**	**	**	**	**	**	**	*	*
Power Line & Other	9	10	9	13	13	15	15	20	19	0	0
Total (Unduplicated)	10	11	11	16	17	21	24	29	29	54	57

source 1,5-14

Competition, defined by the number of providers, registered with the FCC has increased every year since 2000. In addition, the types of lines have expanded since 2000, giving consumers more alternatives.

## Chart 6

**Oregon - Number of High Speed Lines by Year and Type**

(Over 200 bps in at least one direction)

Type of Line	1999 Dec	2000 Jun	2000 Dec	2001 Jun	2001 Dec	2002 Jun	2002 Dec	2003 Jun	2003 Dec	Jun 2004	2004 Dec	2005 Jun	2005 Dec
ADSL	27,062	19,989	31,644	25,877	57,899	68,747	82,555	95,654	117,253	142,483	171,861	197,927	243,053
SDSL	**	**	**	**	**	**	**	**	**	**	**	7,579	7,693
Traditional Wireline	**	**	**	**	**	**	**	**	**	**	**	4,666	4,958
Cable	*	*	*	*	*	*	165,343	197,794	233,737	262,513	301,586	336,553	374,277
Fiber	**	**	**	**	**	**	**	**	**	**	**	3,143	3,392
Satellite	**	**	**	**	**	**	**	**	**	**	**	*	*
Fixed Wireless	**	**	**	**	**	**	**	**	**	**	**	2,726	5,969
Mobile Wireless	**	**	**	**	**	**	**	**	**	**	**	*	*
Power line & Other		*	*	*		*	27,551	25,012	29,517	34,451	37,181	0	0
All High Speed Lines	27,062	44,186	76,839	93,242	158,048	199,549	275,449	318,460	380,507	439,447	510,628	558,489	685,535

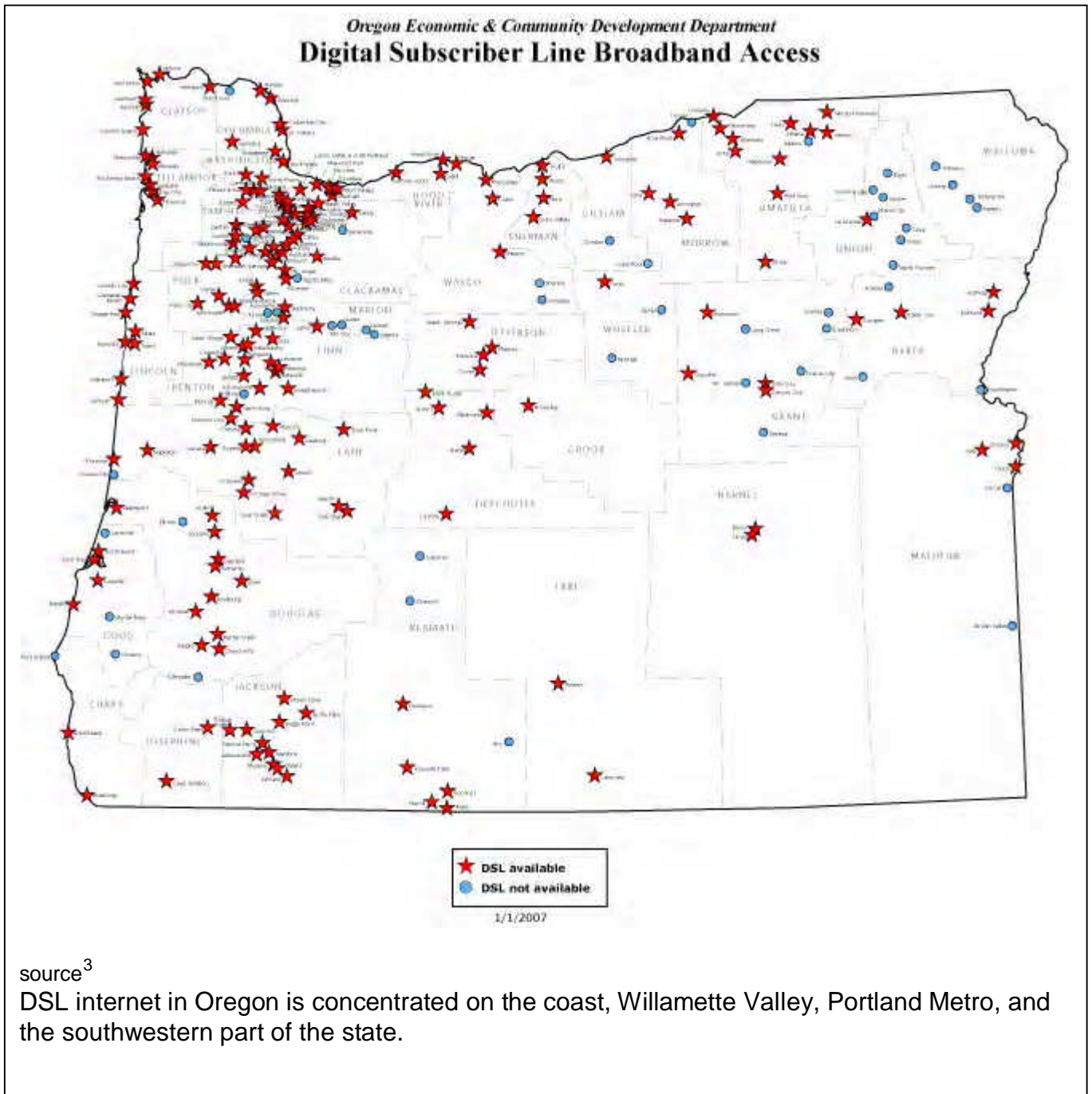
source 1,5-15

The number of high speed lines has been increasing at an increasing rate, since 1999, when the FCC began recording high-speed data.



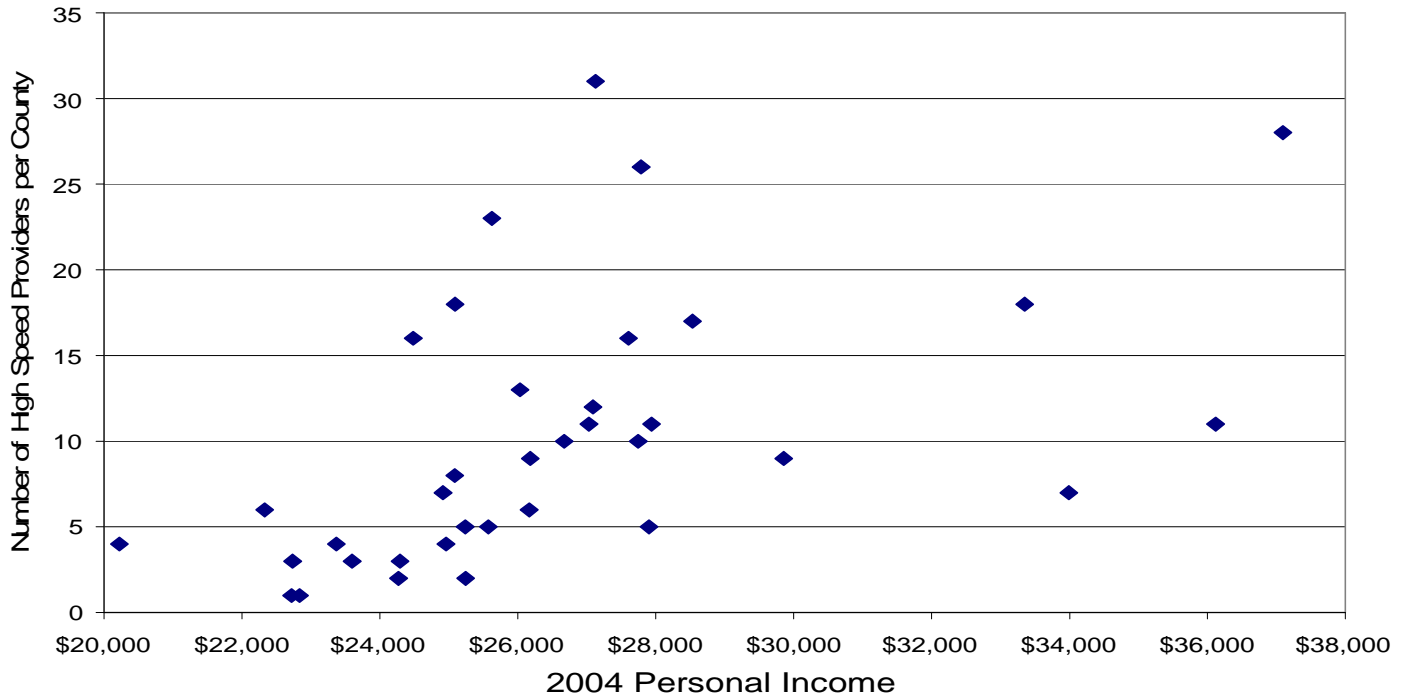


Map 3



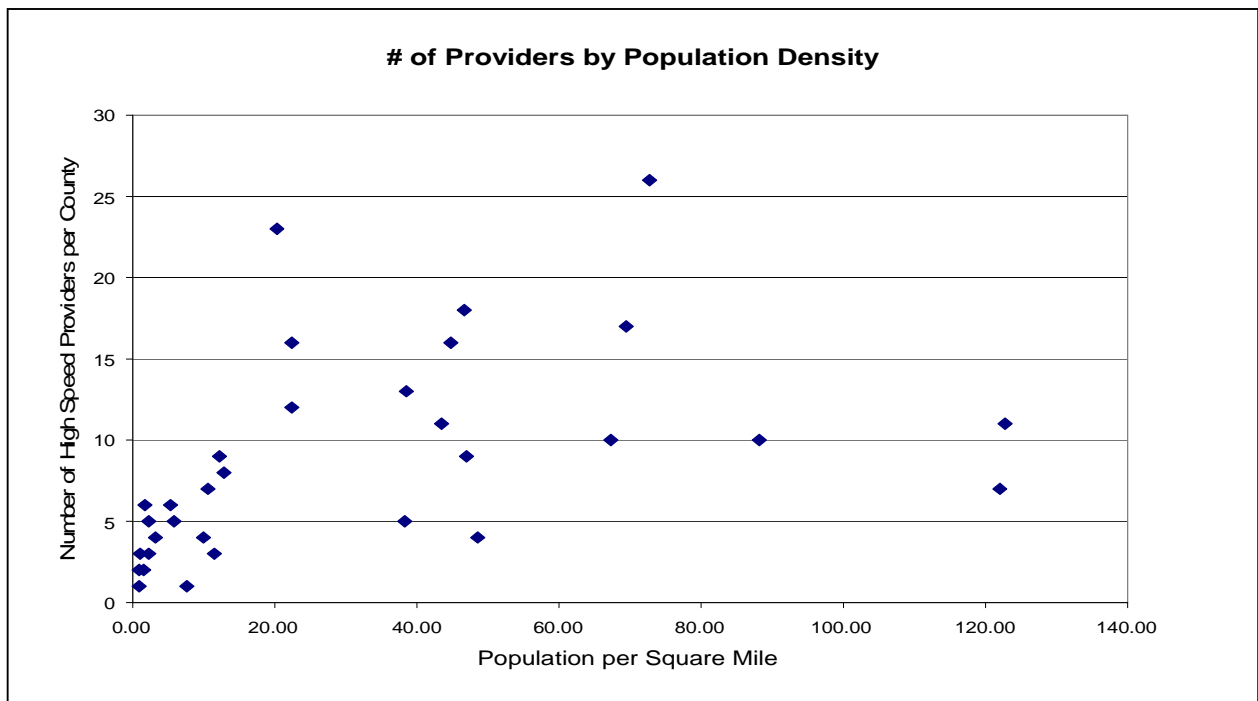
**Graph 5**

**Cable Internet Providers by Income**



source<sup>1,16</sup>

**Graph 6**



source<sup>1,16</sup>

Cable Internet in Oregon, like cable Internet, nationally, seems to be correlated with income and population density. Further study may confirm or dispute this inference.

**Chart 7**

**Perception of Rates Charged for Broadband Services in Oregon**

	Inexpensive	Somewhat Inexpensive	Moderately Priced	Somewhat Expensive	Extremely Expensive	Not Able to Assess
DSL	1.1%	5.4%	30.4%	23.9%	3.3%	16.3%
Cable	1.1%	3.3%	17.4%	20.7%	5.4%	13.0%
Wireless	5.4%	4.3%	15.2%	10.9%	4.3%	31.5%
Satellite	0.0%	0.0%	7.6%	13.0%	18.5%	35.9%
Dial Up	14.1%	26.1%	18.5%	8.7%	1.1%	17.4%

**Comparison of Rates Charged for Broadband Services with the rest of the State**

	Much Less Expensive	Somewhat Less Expensive	Equally as Expensive	Somewhat More Expensive	Much More Expensive	Not Able to Assess
DSL	0.0%	1.1%	18.5%	10.9%	8.7%	43.5%
Cable	0.0%	2.2%	16.3%	8.7%	3.3%	32.6%
Wireless	2.2%	3.3%	8.7%	9.8%	5.4%	45.7%
Satellite	0.0%	0.0%	18.5%	4.3%	2.2%	50.0%
Dial Up	1.1%	3.3%	28.3%	13.0%	2.2%	38.0%

source<sup>4</sup>

The majority of consumers find broadband services either moderately priced, or somewhat expensive. Most respondents were not able to compare local rates with the rest of the state. Of those that were, most believed that their service was equally as expensive as the rest of Oregon.

**Chart 8**

**Demand for Broadband Services at Current Prices in Oregon**

	Extremely Low Demand	Somewhat Low Demand	Moderate Demand	Somewhat High Demand	Extremely High Demand	Not Able to Assess
DSL	0.0%	7.6%	25.0%	15.2%	12.0%	26.1%
Cable	1.1%	6.5%	13.0%	17.4%	9.8%	40.2%
Wireless	2.2%	9.8%	13.0%	7.6%	9.8%	45.7%
Satellite	13.0%	12.0%	9.8%	0.0%	3.3%	51.1%
Dial Up	6.5%	16.3%	18.5%	9.8%	5.4%	32.6%
All Types	1.1%	4.3%	18.5%	26.1%	7.6%	32.6%

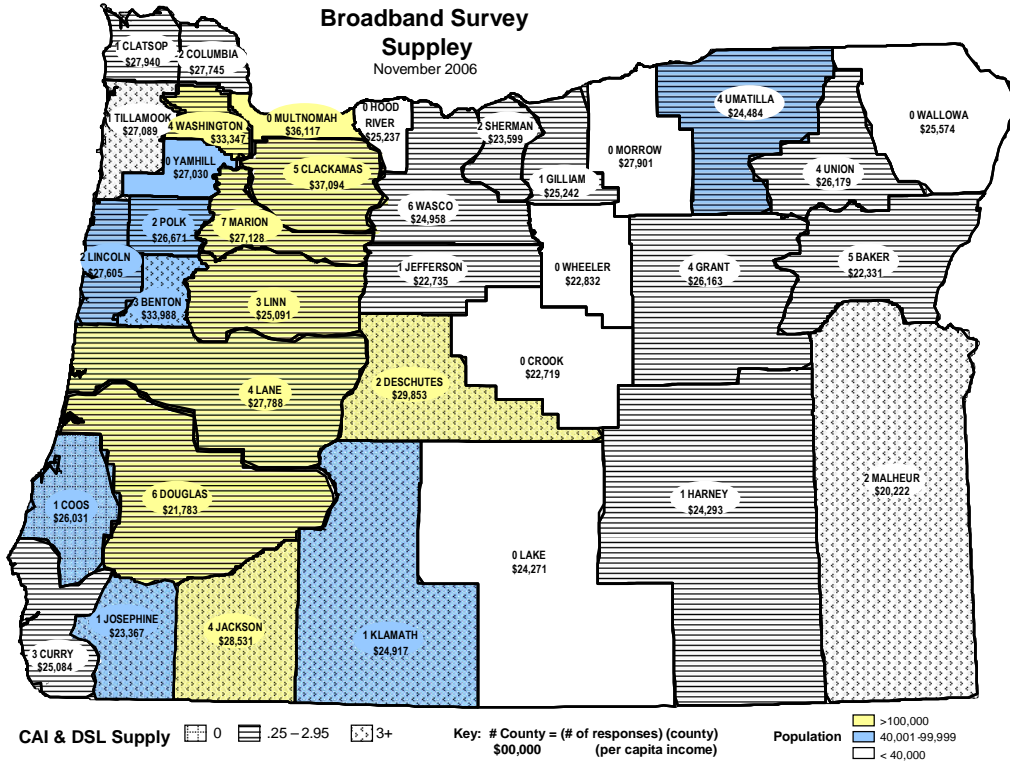
**Perception of Demand for Broadband Service at Significantly Lower Prices**

	Extremely Low Demand	Somewhat Low Demand	Moderate Demand	Somewhat High Demand	Extremely High Demand	Not Able to Assess
DSL	0.0%	1.1%	4.3%	25.0%	37.0%	19.6%
Cable	1.1%	3.3%	5.4%	16.3%	26.1%	34.8%
Wireless	0.0%	2.2%	8.7%	14.1%	20.7%	41.3%
Satellite	3.3%	7.6%	10.9%	8.7%	8.7%	48.9%
Dial Up	6.5%	17.4%	10.9%	12.0%	10.9%	30.4%
All Types	0.0%	0.0%	2.2%	28.3%	39.1%	20.7%

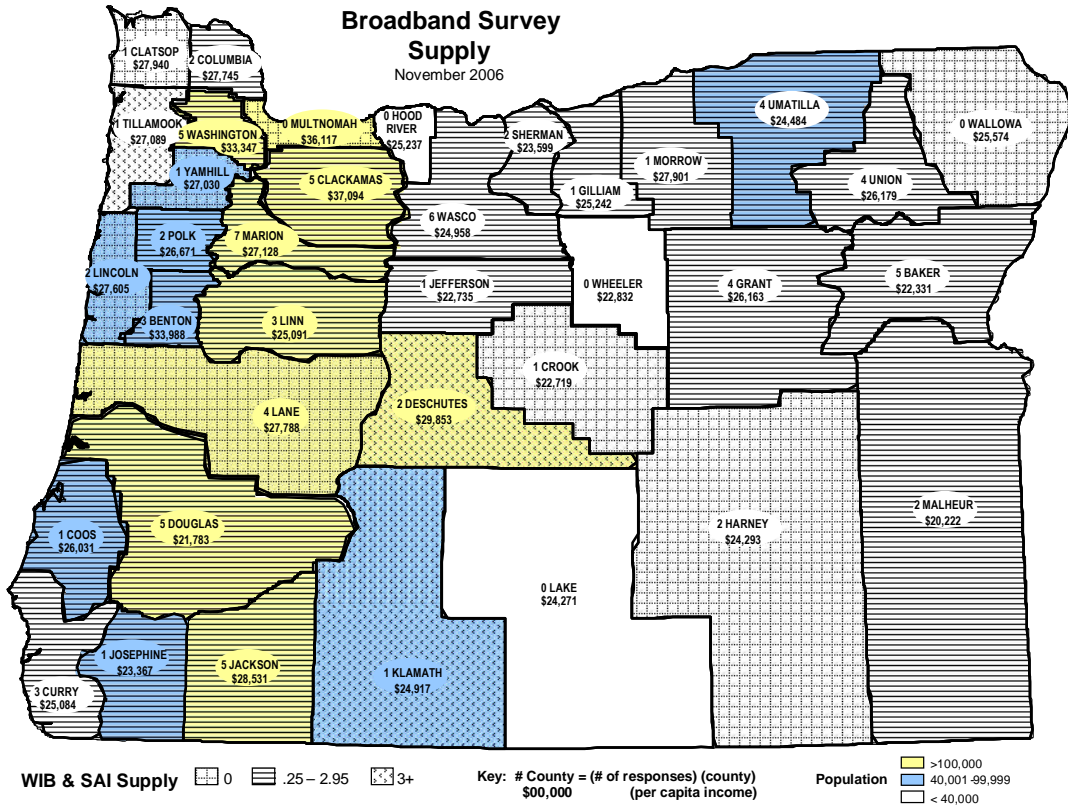
source<sup>4</sup>

Demand for premium high speed access is greater than that for dial-up and satellite. As expected, demand is even higher at lower prices.

Map 4



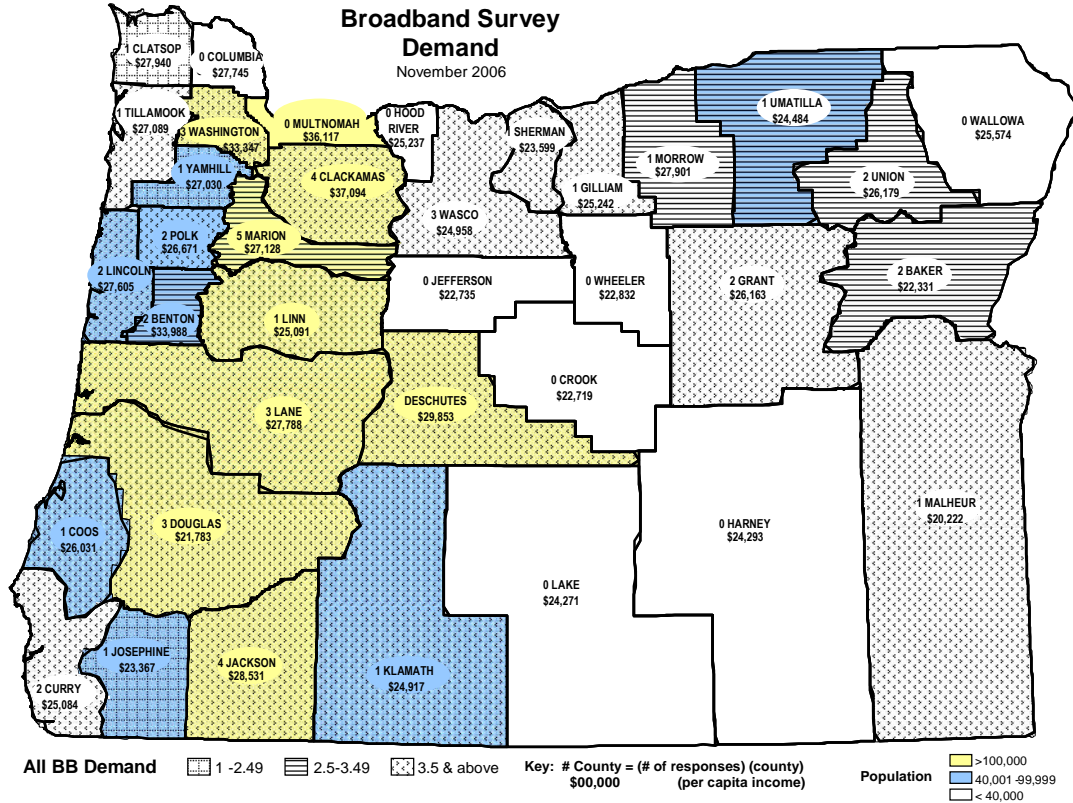
Map 5



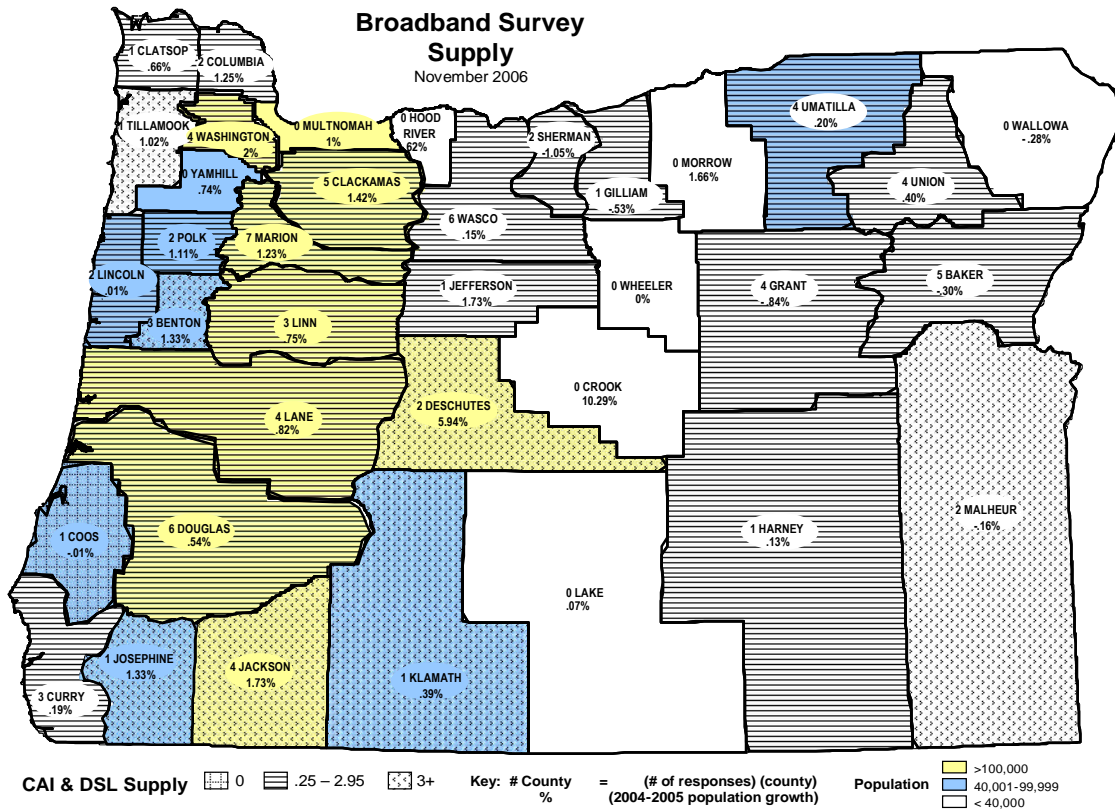
source<sup>4</sup>



Map 6

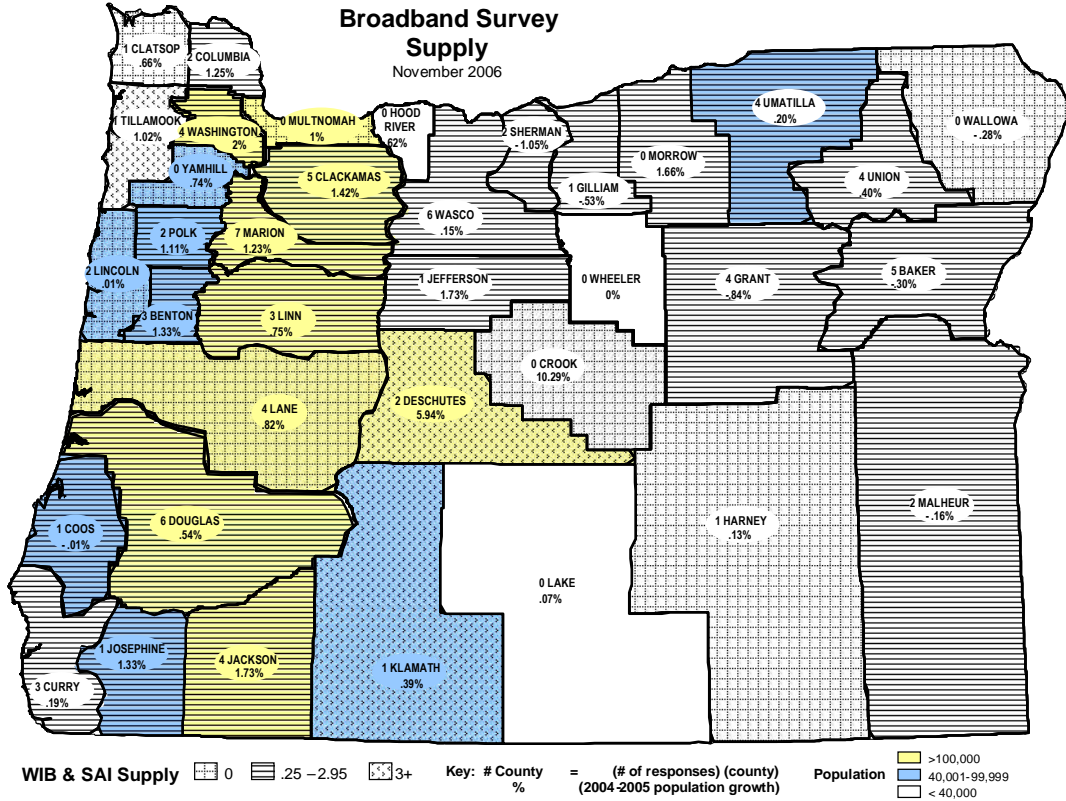


Map 7

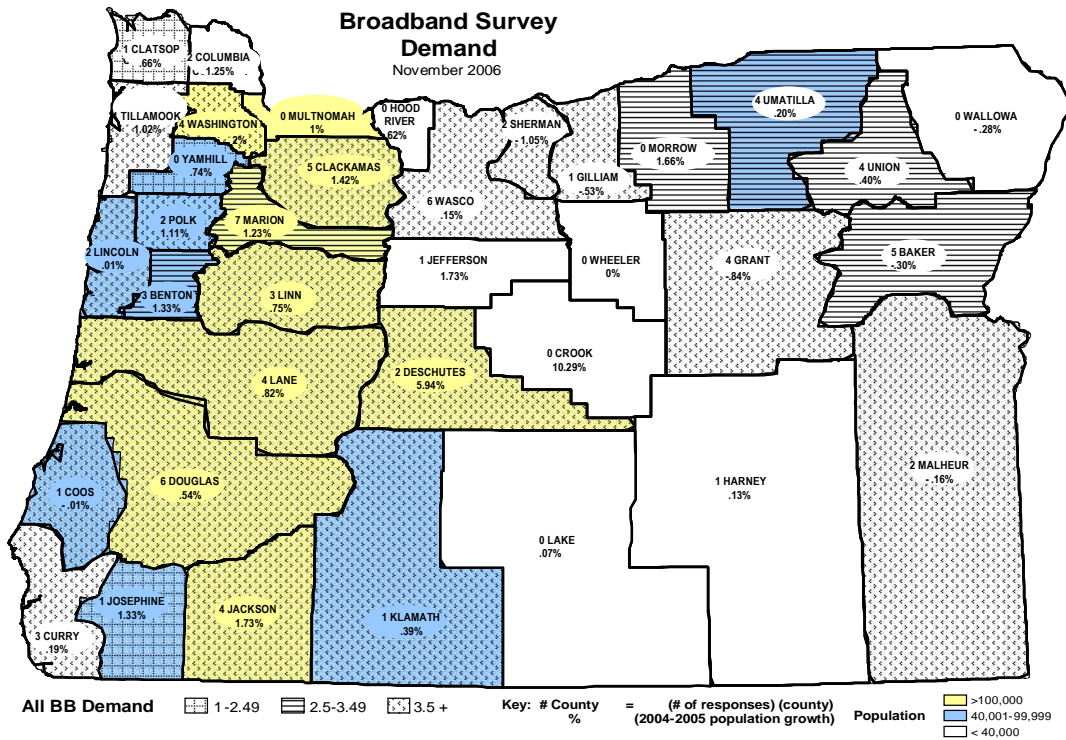


source<sup>4</sup>

Map 8



Map 9



source<sup>4</sup>

County	City	Access to Digital Subscriber Line Service	Base DSL Service Price	Digital Subscriber Line Service Provider	Access to Cable Modem Service	Base Cable Modem Service Price	Cable Modem Service Provider	Population (2005 estimate)
Baker	Baker City	YES	\$31.99	Qwest	NO			9,960
Baker	Greenhorn	NO		Century/Tel	NO			2
Baker	Haines	NO		Cascade U	NO			440
Baker	Halfway	YES	\$52.90	Pine Tel.	NO			350
Baker	Huntington	NO	\$24.95	Century/Tel	NO			520
Baker	Richland	YES	\$58.50	Eagle Tel.	NO			150
Baker	Sumpter	YES	\$31.99	Qwest	NO			170
Baker	Unity	NO		Oregon Tel	NO			120
Benton	Adair Village	YES	\$31.99	Qwest	YES	\$52.95	Comcast	905
Benton	Corvallis	YES	\$31.99	Qwest	YES	\$52.95	Comcast	53,165
Benton	Monroe	YES	\$44.40	Monroe	NO			610
Benton	Philomath	YES	\$29.95	Pioneer	YES	\$52.95	Comcast	4,400
Clackamas	Barlow	YES	\$39.95	Canby	NO			140
Clackamas	Canby	YES	\$39.95	Canby	YES	\$44.99	Willamette Broadband	14,385
Clackamas	Damascus	YES	\$37.99	Verizon	YES	\$52.95	Comcast	9,670
Clackamas	Estacada	NO		Cascade	YES	\$52.95	Comcast	2,480
Clackamas	Gladstone	YES	\$31.99	Qwest	YES	\$52.95	Comcast	12,170
Clackamas	Happy Valley	YES	\$37.99	Verizon	YES	\$52.95	Comcast	7,275
Clackamas	Johnson City/Milwaukie	YES	\$31.99	Qwest	NO			630
Clackamas	Lake Oswego*	YES	\$31.99	Qwest	YES	\$52.95	Comcast	36,075
Clackamas	Milwaukie	YES	\$31.99	Qwest	YES	\$52.95	Comcast	20,655
Clackamas	Molalla	YES	\$29.95	Molalla	NO			6,395
Clackamas	Oregon City	YES	\$31.99	Qwest	YES	\$52.95	Comcast	28,965
Clackamas	Rivergrove*	YES	\$31.99	Qwest	NO			350
Clackamas	Sandy	YES	\$37.99	Verizon	NO			6,680
Clackamas	West Linn	YES	\$31.99	Qwest	YES	\$52.95	Comcast	24,075
Clackamas	Wilsonville*	YES	\$37.99	Verizon	YES	\$52.95	Comcast	16,510

Information for this table and subsequent pages through A-27, was provided by Christopher Tamarin, Telecommunications Coordinator, Oregon Economic and Community Development Department



County	City	Access to Digital Subscriber Line Service	Base DSL Service Price	Digital Subscriber Line Service Provider	Access to Cable Modem Service	Base Cable Modem Service Price	Cable Modem Service Provider	Population (2005 estimate)
Clatsop	Astoria	YES	\$31.99	Qwest	YES	\$51.99	Charter Communications	9,910
Clatsop	Cannon Beach	YES	\$31.99	Qwest	YES	\$51.99	Charter Communications	1,650
Clatsop	Gearhart	YES	\$31.99	Qwest	YES	\$51.99	Charter Communications	1,055
Clatsop	Seaside	YES	\$31.99	Qwest	YES	\$51.99	Charter Communications	6,165
Clatsop	Warrenton	YES	\$31.99	Qwest	YES	\$51.99	Charter Communications	4,330
Columbia	Clatskanie	NO		Verizon	NO			1,660
Columbia	Columbia City	YES	\$31.99	Qwest	YES	\$52.95	Comcast	1,785
Columbia	Prescott	YES	\$31.99	Qwest	NO			60
Columbia	Rainier	YES	\$31.99	Qwest	NO			1,760
Columbia	St. Helens	YES	\$31.99	Qwest	YES	\$52.95	Comcast	11,795
Columbia	Scappoose	YES	\$24.95	CenturyTel	YES	\$52.95	Comcast	5,700
Columbia	Vernonia	YES	\$37.99	Verizon	NO			2,275
Coos	Bandon	YES	\$37.99	Verizon	NO			3,065
Coos	Coos Bay	YES	\$37.99	Verizon	YES	\$51.99	Charter Communications	15,850
Coos	Coquille	YES	\$37.99	Verizon	NO			4,205
Coos	Lakeside	NO		Verizon	YES	\$51.99	Charter Communications	1,420
Coos	Myrtle Point	NO		Verizon	NO			2,510
Coos	North Bend	YES	\$37.99	Verizon	YES	\$51.99	Charter Communications	9,640
Coos	Powers	NO		Verizon	NO			730
Crook	Pineville	YES	\$31.99	Qwest	YES	\$49.95	Crestview Cable	9,080
Curry	Brookings	YES	\$37.99	Verizon	YES	\$51.99	Charter Communications	6,185
Curry	Gold Beach	YES	\$37.99	Verizon	YES	\$51.99	Charter Communications	1,930

County	City	Access to Digital Subscriber Line Service	Base DSL Service Price	Digital Subscriber Line Service Provider	Access to Cable Modem Service	Base Cable Modem Service Price	Cable Modem Service Provider	Population (2005 estimate)
Curry	Port Orford	NO		Verizon	NO			1,225
Deschutes	Bend	YES	\$31.99	Qwest	YES	\$56.95	Bend Broadband	70,330
Deschutes	Redmond	YES	\$31.99	Qwest	YES	\$56.95	Bend Broadband	20,010
Deschutes	Sisters	YES	\$31.99	Qwest	YES	\$56.95	Bend Broadband	1,660
Douglas	Canyonville	YES	\$39.99	Citizens	NO			1,530
Douglas	Drain	YES	\$24.95	CenturyTel	NO			1,045
Douglas	Elkton	NO		Cascade	NO			197
Douglas	Glendale	NO	\$39.99	Citizens	NO			915
Douglas	Myrtle Creek	YES	\$39.99	Citizens	YES	\$51.99	Charter Communications	3,535
Douglas	Oakland	YES	\$31.99	Qwest	NO			940
Douglas	Reedsport	YES	\$37.99	Verizon	YES	\$51.99	Charter Communications	4,240
Douglas	Riddle	YES	\$39.99	Citizens	NO			1,025
Douglas	Roseburg	YES	\$31.99	Qwest	YES	\$51.99	Charter Communications	20,790
Douglas	Sutherlin	YES	\$31.99	Qwest	NO			7,500
Douglas	Winston	YES	\$31.99	Qwest	NO			5,265
Douglas	Yoncalla	YES	\$24.95	CenturyTel	NO			1,090
Gilliam	Arlington	YES	\$34.95	Embarq	NO			570
Gilliam	Condon	NO		TDS	NO			770
Gilliam	Lonerock	NO		CenturyTel	NO			20
Grant	Canyon City	YES	\$24.95	CenturyTel	NO			650
Grant	Dayville	YES	\$24.95	CenturyTel	NO			160
Grant	Granite	NO		CenturyTel	NO			30
Grant	John Day	YES	\$24.95	CenturyTel	NO			1,845
Grant	Long Creek	NO		CenturyTel	NO			220
Grant	Monument	YES	\$24.95	CenturyTel	NO			150
Grant	Mt. Vernon	NO		CenturyTel	NO			600

County	City	Access to Digital Subscriber Line Service	Base DSL Service Price	Digital Subscriber Line Service Provider	Access to Cable Modem Service	Base Cable Modem Service Price	Cable Modem Service Provider	Population (2005 estimate)
Grant	Prairie City	NO		CenturyTel	NO			1,100
Grant	Seneca	NO		CenturyTel	NO			220
Harney	Burns	YES	\$24.95	CenturyTel	NO			3,015
Harney	Hines	YES	\$24.95	CenturyTel	NO			1,760
	Cascade							
Hood River	Locks	YES	\$34.95	Embarq	NO			1,155
Hood River	Hood River	YES	\$34.95	Embarq	YES	\$51.99	Charter Communications	6,450
Jackson	Ashland	YES	\$31.99	Qwest	YES	\$51.99	Charter Communications	20,880
Jackson	Butte Falls	YES	\$34.95	Embarq	NO			445
Jackson	Central Point	YES	\$31.99	Qwest	YES	\$51.99	Charter Communications	15,640
Jackson	Eagle Point	NO	\$34.95	Embarq	YES	\$51.99	Charter Communications	7,585
Jackson	Gold Hill	YES	\$31.99	Qwest	YES	\$51.99	Charter Communications	1,080
Jackson	Jacksonville	YES	\$31.99	Qwest	YES	\$51.99	Charter Communications	2,490
Jackson	Medford	YES	\$31.99	Qwest	YES	\$51.99	Charter Communications	70,855
Jackson	Phoenix	YES	\$31.99	Qwest	YES	\$51.99	Charter Communications	4,660
Jackson	Rogue River	YES	\$31.99	Qwest	YES	\$51.99	Charter Communications	1,995
Jackson	Shady Cove	YES	\$34.95	Embarq	NO			2,680
Jackson	Talent	YES	\$31.99	Qwest	YES	\$51.99	Charter Communications	6,255
Jefferson	Culver	YES	\$31.99	Qwest	YES	\$49.95	Crestview Cable	1,020
Jefferson	Madras	YES	\$31.99	Qwest	YES	\$49.95	Crestview Cable	5,600
Jefferson	Metolius	YES	\$31.99	Qwest	YES	\$49.95	Crestview Cable	805

County	City	Access to Digital Subscriber Line Service	Base DSL Service Price	Digital Subscriber Line Service Provider	Access to Cable Modem Service	Base Cable Modem Service Price	Cable Modem Service Provider	Population (2005 estimate)
Josephine	Cave Junction	YES	\$39.99	Citizens	NO			1,500
Josephine	Grants Pass	YES	\$31.99	Qwest	YES	\$51.99	Charter Communications	26,085
Klamath	Bonanza	YES	\$24.95	CenturyTel	NO			425
Klamath	Chiloquin	YES	\$24.95	CenturyTel	NO			720
Klamath	Klamath Falls	YES	\$31.99	Qwest	YES	\$51.99	Charter Communications	20,400
Klamath	Malin	YES	\$24.95	CenturyTel	NO			800
Klamath	Merrill	YES	\$24.95	CenturyTel	NO			915
Lake	Lakeview	YES	\$24.95	CenturyTel	NO		Charter in 2007	2,625
Lake	Paisley	YES	\$24.95	CenturyTel	NO			250
Lane	Coburg	YES	\$31.99	Qwest	NO			1,070
Lane	Cottage Grove	YES	\$31.99	Qwest	NO			9,110
Lane	Creswell	YES	\$24.95	CenturyTel	NO			4,525
Lane	Dunes City	NO		Verizon	YES	\$51.99	Charter Communications	1,330
Lane	Eugene	YES	\$31.99	Qwest	YES	\$52.95	Comcast	146,160
Lane	Florence	YES	\$31.99	Qwest	YES	\$51.99	Charter Communications	8,185
Lane	Junction City	YES	\$31.99	Qwest	YES	\$52.95	Comcast	4,945
Lane	Lowell	YES	\$31.99	Qwest	NO			920
Lane	Oakridge	YES	\$31.99	Qwest	NO			3,680
Lane	Springfield	YES	\$31.99	Qwest	YES	\$52.95	Comcast	55,855
Lane	Veneta	YES	\$31.99	Qwest	NO			3,955
Lane	Westfir (Oak.)	YES	\$31.99	Qwest	NO			330
Lincoln	Depoe Bay	YES	\$24.95	CenturyTel	YES	\$29.95	Millenium Digital Media	1,275
Lincoln	Lincoln City	YES	\$34.95	Embarq	YES	\$51.99	Charter Communications	7,615

County	City	Access to Digital Subscriber Line Service	Base DSL Service Price	Digital Subscriber Line Service Provider	Access to Cable Modem Service	Base Cable Modem Service Price	Cable Modem Service Provider	Population (2005 estimate)
Lincoln	Newport	YES	\$31.99	Qwest	YES	\$51.99	Charter Communications	9,925
Lincoln	Siletz	YES	\$31.99	Qwest	NO			1,130
Lincoln	Toledo	YES	\$31.99	Qwest	YES	\$51.99	Charter Communications	3,585
Lincoln	Waldport	YES	\$29.95	Pioneer	NO			2,060
Lincoln	Yachats	YES	\$29.95	Pioneer	YES	\$51.99	Charter Communications	730
Linn	Albany*	YES	\$31.99	Qwest	YES	\$52.95	Comcast	45,360
Linn	Brownsville	YES	\$24.95	CenturyTel	NO			1,530
Linn	Halsey	YES	\$59.77	Roomer	NO			760
Linn	Harrsburg	YES	\$31.99	Qwest	YES	\$52.95	Comcast	3,275
Linn	Lebanon	YES	\$24.95	CenturyTel	YES	\$52.95	Comcast	13,940
Linn	Lyons	YES	\$39.95	Peoples	YES	\$44.99	Williamette Broadband	1,090
Linn	Mill City*	NO		Verizon	YES	\$44.99	Williamette Broadband	1,555
Linn	Millersburg / Albany	YES	\$31.99	Qwest	NO			830
Linn	Scio	YES	\$48.95	Scio	NO			725
Linn	Sodaville	NO		CenturyTel	NO			290
Linn	Sweet Home	YES	\$24.95	CenturyTel	YES	\$52.95	Comcast	8,500
Linn	Tangent	YES	\$31.99	Qwest	YES	\$52.95	Comcast	955
Linn	Waterloo	NO		CenturyTel	NO			230
Malheur	Adrian	NO		Malheur	NO			187
Malheur	Jordan Valley	NO		Or. Idaho Utilities	NO			240
Malheur	Nyssa	YES	\$31.99	Malheur	NO			3,175
Malheur	Ontario	YES	\$31.99	Malheur	NO			11,245
Malheur	Vale	YES	\$31.99	Malheur	NO			1,990
Marion	Aumsville	NO		Verizon	YES	\$44.99	Williamette Broadband	3,130

County	City	Access to Digital Subscriber Line Service	Base DSL Service Price	Digital Subscriber Line Service Provider	Access to Cable Modem Service	Base Cable Modem Service Price	Cable Modem Service Provider	Population (2005 estimate)
Marion	Aurora	YES	\$24.95	CenturyTel	YES	\$44.99	Williamette & Comcast	785
Marion	Detroit	NO		Verizon	NO			255
Marion	Donald	YES	\$24.95	Century Tel	YES	\$44.99	Williamette Broadband	750
Marion	Gates*	NO		Verizon	YES	\$44.99	Williamette Broadband	495
Marion	Gervais	YES	\$44.95	Gervais	YES	\$44.99	Williamette Broadband	2,240
Marion	Hubbard	YES	\$31.99	Qwest	YES	\$44.99	Williamette Broadband	2,855
Marion	Idanha*	NO		Verizon	NO			230
Marion	Jefferson	YES	\$31.99	Qwest	NO			2,515
Marion	Keizer	YES	\$31.99	Qwest	YES	\$52.95	Comcast	34,735
Marion	Mt. Angel	YES	\$44.95	Mt. Angel	YES	\$51.99	Charter Communications	3,630
Marion	St. Paul	YES	\$39.99	St. Paul	NO			415
Marion	Salem*	YES	\$31.99	Qwest	YES	\$52.95	Comcast	147,250
Marion	Scotts Mills	NO		Verizon	NO			300
Marion	Silverton	YES	\$37.99	Verizon	YES	\$51.99	Charter Communications	8,230
Marion	Stayton	YES	\$39.95	Stayton	YES	\$44.99	Williamette Broadband	7,505
Marion	Sublimity	YES	\$39.95	Stayton	YES	\$44.99	Williamette Broadband	2,225
Marion	Turner	NO		Verizon	YES	\$44.99	Williamette Broadband	1,570
Marion	Woodburn	YES	\$31.99	Qwest	YES	\$44.99	Williamette Broadband	22,110
Morrow	Boardman	YES	\$24.95	CenturyTel	NO			3,175
Morrow	Heppner	YES	\$24.95	CenturyTel	NO			1,420
Morrow	Ione	YES	\$24.95	CenturyTel	NO			340
Morrow	Irrigon	NO		CenturyTel	NO			1,790
Morrow	Lexington	YES	\$24.95	CenturyTel	NO			281
Multnomah	Fairview	YES	\$37.99	Verizon	YES	\$52.95	Comcast	9,425
Multnomah	Gresham	YES	\$37.99	Verizon	YES	\$52.95	Comcast	95,900
Multnomah	Maywood Park	YES	\$31.99	Qwest	NO			750

County	City	Access to Digital Subscriber Line Service	Base DSL Service Price	Digital Subscriber Line Service Provider	Access to Cable Modem Service	Base Cable Modem Service Price	Cable Modem Service Provider	Population (2005 estimate)
Multnomah	Portland*	YES	\$31.99	Qwest	YES	\$52.95	Comcast	556,370
Multnomah	Trousdale	YES	\$37.99	Verizon	YES	\$52.95	Comcast	14,880
Multnomah	Wood Village	YES	\$37.99	Verizon	YES	\$52.95	Comcast	2,880
Polk	Dallas	YES	\$31.99	Qwest	NO		Charter in 2007	14,040
Polk	Falls City	YES	\$31.99	Qwest	NO			980
Polk	Independence	YES	\$31.99	Qwest	NO			7,515
Polk	Monmouth	YES	\$31.99	Qwest	NO			8,795
Sherman	Grass Valley	YES	\$34.95	Embarq	NO			170
Sherman	Moro	YES	\$34.95	Embarq	NO			320
Sherman	Rufus	YES	\$34.95	Embarq	NO			270
Sherman	Wasco	YES	\$34.95	Embarq	NO			398
Tillamook	Bay City	YES	\$34.95	Embarq	YES	\$51.99	Charter Communications	1,170
Tillamook	Garibaldi	NO		Embarq	NO			900
Tillamook	Manzanita	YES	\$40.00	Nehalem T	NO			660
Tillamook	Nehalem	YES	\$40.00	Nehalem T	NO			210
Tillamook	Rockaway Beach	YES	\$34.95	Embarq	NO			1,345
Tillamook	Tillamook	YES	\$34.95	Embarq	YES	\$51.99	Charter Communications	4,300
Tillamook	Wheeler	YES	\$40.00	Nehalem T	NO			420
Umatilla	Adams	NO		CenturyTel	NO			330
Umatilla	Athens	YES	\$31.99	Qwest	NO			1,270
Umatilla	Echo	YES	\$24.95	CenturyTel	NO			695
Umatilla	Helix	YES	\$50.95	Helix	NO			190
Umatilla	Hermiston	YES	\$31.99	Qwest	NO			15,025
Umatilla	Milton-							
Umatilla	Freewater	YES	\$31.99	Qwest	NO			6,540
Umatilla	Pendleton	YES	\$31.99	Qwest	NO		Charter in 2007	17,025

County	City	Access to Digital Subscriber Line Service	Base DSL Service Price	Digital Subscriber Line Service Provider	Access to Cable Modem Service	Base Cable Modem Service Price	Cable Modem Service Provider	Population (2005 estimate)
Umattilla	Pilot Rock	YES	\$24.95	CenturyTel	NO			1,545
Umattilla	Stanfield	YES	\$31.99	Qwest	NO			2,150
Umattilla	Ukiah	NO		CenturyTel	NO			260
Umattilla	Umattilla	YES	\$31.99	Qwest	NO			6,370
Umattilla	Weston	YES	\$31.99	Qwest	NO			725
Union	Cove	NO		Verizon	NO			620
Union	Elgin	NO		Verizon	NO			1,655
Union	Imbler	NO		Verizon	NO			290
Union	Island City	NO		Verizon	NO			955
Union	La Grande	YES	\$37.99	Verizon	NO		Charter in 2007	12,525
Union	North Powder	NO		CenturyTel	NO			490
Union	Summerville	NO		Verizon	NO			120
Union	Union	NO		Verizon	NO			1,960
Wallowa	Enterprise	NO		Verizon	NO			1,945
Wallowa	Joseph	NO		Verizon	NO			1,090
Wallowa	Lostine	NO		Verizon	NO			250
Wallowa	Wallowa	NO		Verizon	NO			870
Wasco	Antelope	NO		TransCascades North State	NO			60
Wasco	Dufur	NO		Telco	NO			610
Wasco	Maupin	YES	\$24.95	CenturyTel	NO			450
Wasco	Mosier	YES	\$34.95	Embarq	NO			420
Wasco	Shaniko	NO		TransCascades	NO			20
Wasco	The Dalles	YES	\$34.95	Embarq	YES	\$51.99	Charter Communications	12,505
Washington	Banks	YES	\$37.99	Verizon	YES	\$52.95	Comcast	1,430
Washington	Beaverton	YES	\$37.99	Verizon	YES	\$52.95	Comcast	83,095
Washington	Cornelius	YES	\$37.99	Verizon	YES	\$52.95	Comcast	10,585
Washington	Durham	YES	\$37.99	Verizon	YES	\$52.95	Comcast	1,390



County	City	Access to Digital Subscriber Line Service	Base DSL Service Price	Digital Subscriber Line Service Provider	Access to Cable Modem Service	Base Cable Modem Service Price	Cable Modem Service Provider	Population (2005 estimate)
Washington	Forest Grove	YES	\$37.99	Verizon	YES	\$52.95	Comcast	19,565
Washington	Gaston	NO		Verizon	YES	\$52.95	Comcast	630
Washington	Hillsboro	YES	\$37.99	Verizon	YES	\$52.95	Comcast	82,025
Washington	King City	YES	\$37.99	Verizon	NO			2,130
Washington	North Plains	YES	\$31.99	Qwest	YES	\$52.95	Comcast	1,700
Washington	Sherwood	YES	\$37.99	Verizon	YES	\$52.95	Comcast	14,940
Washington	Tigard	YES	\$37.99	Verizon	YES	\$52.95	Comcast	45,500
Washington	Tualatin*	YES	\$37.99	Verizon	YES	\$52.95	Comcast	25,465
Wheeler	Fossil	YES	\$24.95	CenturyTel	NO			460
Wheeler	Mitchell	NO		CenturyTel	NO			170
Wheeler	Spray	NO		CenturyTel	NO			140
Yamhill	Amity	NO		Verizon	YES	\$52.95	Comcast	1,480
Yamhill	Carlton	YES	\$34.95	Embarq	YES	\$52.95	Comcast	1,585
Yamhill	Dayton	NO		Verizon	YES	\$52.95	Comcast	2,280
Yamhill	Dundee	YES	\$37.99	Verizon	YES	\$52.95	Comcast	2,965
Yamhill	Lafayette	NO		Verizon	YES	\$52.95	Comcast	3,105
Yamhill	McMinnville	YES	\$37.99	Verizon	YES	\$52.95	Comcast	30,020
Yamhill	Newberg	YES	\$37.99	Verizon	YES	\$52.95	Comcast	20,565
Yamhill	Sheridan	YES	\$34.95	Embarq	YES	\$44.99	Willamette Broadband	5,785
Yamhill	Willamina*	YES	\$34.95	Embarq	YES	\$44.99	Willamette Broadband	1,860
Yamhill	Yamhill	YES	\$37.99	Verizon	YES	\$52.95	Comcast	820

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