

Competition Survey
Year 2005 Final Report

TELECOMMUNICATION COMPETITION SURVEY

YEAR 2005 REPORT

Economic Research and
Financial Analysis Division

Public Utility Commission of Oregon

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Executive Summary

In January 2005, the staff of the Public Utility Commission of Oregon sent a survey to the 248 certified local exchange carriers (LEC) in Oregon for the purpose of assessing the status of local telephone competition in Oregon. The survey asked all carriers, both incumbent local exchange carriers (ILECs) and competitive local exchange carriers (CLECs), to provide information about the local services they provided during December 2004. Survey responses were received from all 34 ILECs and 157 out of 214 CLECs, for a total response rate of 77 percent.

HIGHLIGHTS

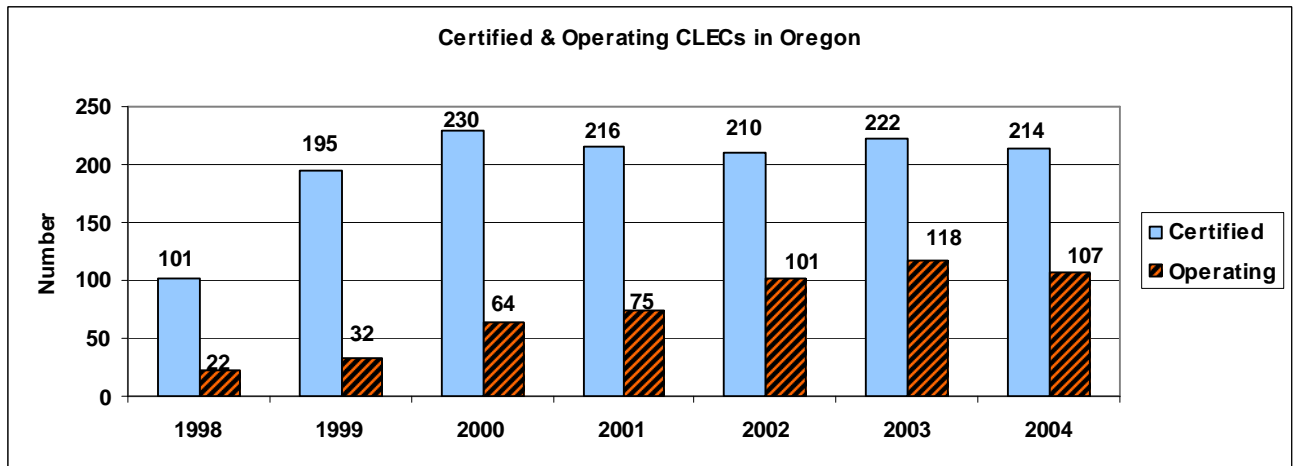
Total Oregon Local Exchange Service Revenue 2004.....	\$865 Million
ILEC Revenue - \$Millions / Share	\$723 / 84%
CLEC Revenue - \$Millions / Share.....	\$142 / 16%
Total Switched Lines at Year-end 2004.....	2,230,803
ILEC Switched Lines / Market Share.....	1,959,459 / 88%
CLEC Switched Lines / Market Share	271,344 / 12%
Total Residential Switched Lines at Year-end 2004.....	1,332,000
ILEC Residential Switched Lines / Market Share	1,278,522 / 96%
CLEC Residential Switched Line / Market Share	53,478 / 4%
Total Business Switched Lines at Year-end 2004	644,880
ILEC Business Switched Lines / Market Share	434,724 / 67%
CLEC Business Switched Line / Market Share	210,156 / 33%
Total Wholesale Switched Lines at Year-end 2004.....	253,923
ILEC Wholesale Switched Lines / Market Share	246,213 / 97%
CLEC Wholesale Switched Lines / Market Share.....	7,710 / 3%
Change from prior Year - Total Switched Lines / % Change	-50,650 / -2%
Change from prior Year - ILEC Switched Lines / % Change	-65,423 / -3%
Change from prior Year - CLEC Switched Lines / % Change	14,773 / 6%
Unbundled Network Elements Platform UNE-Ps, Lines	96,055
CLECs Having Certificates	214
CLECs Doing Business / % of Total CLECs.....	107 / 50%
Total Number of Private Line Circuits	46,659

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Lower Capacity Circuits / % of Total.....	25,853 / 55%
Higher Capacity Circuits / % of Total.....	20,806 / 45%
Total Number of xDSL.....	184,246
All LEC Capital Expenditures-\$Millions / % of Revenue	\$120 / 14%
CLEC Capital Expenditures-\$Millions / % of Revenue.....	\$41 / 29%
ILEC Capital Expenditures-\$Millions / % of Revenue.....	\$80 / 11%

Growth in the number of operating competitive local exchange providers has leveled off. While over the last seven years, the number of certified CLECs increased from 101 to 214 and the number of CLECs actually providing services in Oregon increased from 22 to 107, during 2004 the numbers actually declined slightly.

CLEC Certificate Trends 1998 to 2004



As of December 2004, 107 out of the 214 certified CLECs reported that they were actually providing local exchange services (50 percent, down from 53 percent in 2003). By using a widely recognized measure of market share, percentage of local switched telephone lines, CLEC market share was 12.2 percent (up from 11.2 percent in 2003). According to the survey responses, competitive entry in Oregon's telecommunications market is still small in the residential segment. In year 2004, CLECs had a 4.1 percent (up from 2.8 percent in 2003) share of the Oregon residential market. Most competitive entry is in the business segment. CLECs were supplying 32 percent (up from 30 percent in 2003) of business customers' switched local exchange lines statewide.

The number of total Oregon LEC switched local exchange lines dropped two percent, from 2.28 million (after data correction by CLECs) in 2003 to 2.23 million in 2004. The following table summarizes the switched lines serviced in Oregon.

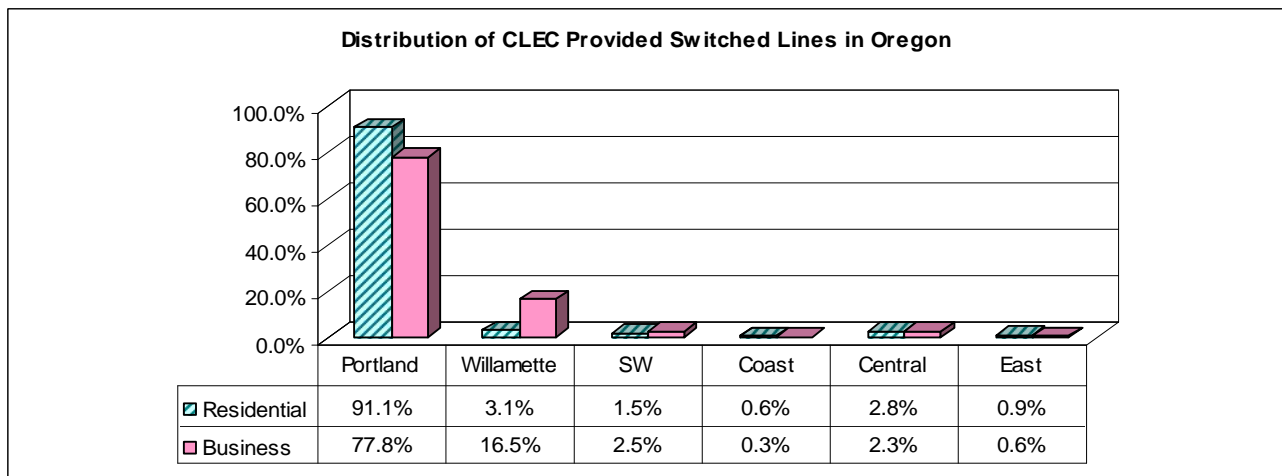
All LECs Switched Services: Lines (000s) and Shares (%)

2004	Total	Residential	Business
ILECs	1,959	1,279	435
CLECs	271	53	210
All-LECs	2,231	1,332	645
ILECs	87.8%	96.0%	67.4%
CLECs	12.2%	4.0%	32.6%
All-LECs	100.0%	100.0%	100.0%

Competitive entry into the telecommunications market varies across different regions in Oregon. In Portland, the Willamette Valley, Central, and Southwest, CLECs were providing between 12.4 percent and 42.4 percent of business customers' switched local exchange lines. While on the Coast and in Eastern Oregon CLECs were providing 2.0 percent and 5.4 percent of switched lines to business customers respectively.

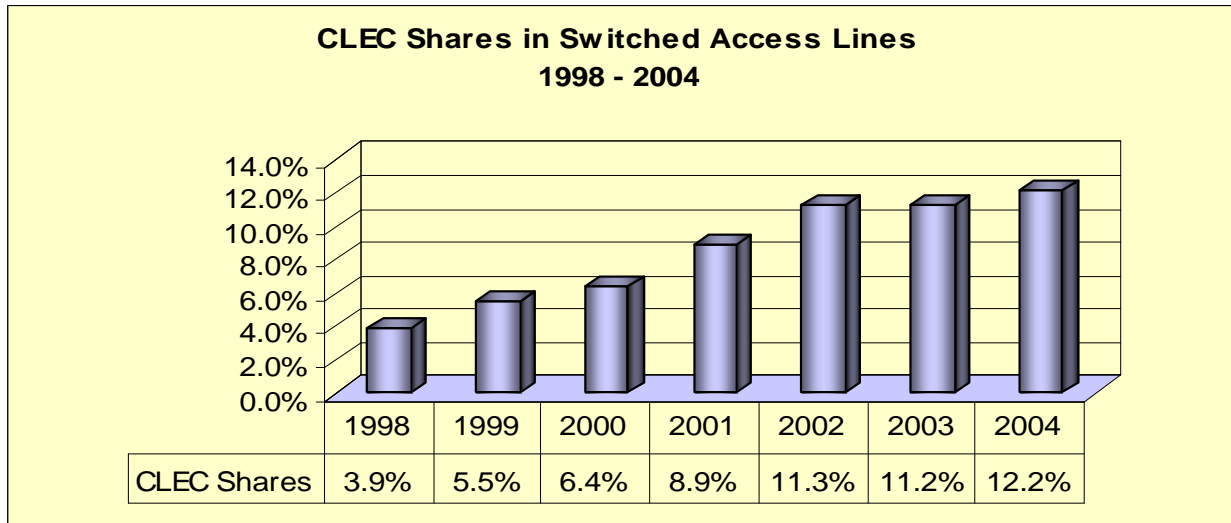
Of the 2.23 million switched access lines served by all local exchange carriers, 60 percent were residential lines; CLECs served 4.0 percent of the residential lines, slightly higher than the prior year. Forty-six percent of all residential lines were in the Portland area. CLECs served 8.0 percent of residential lines in the Portland area, 1.4 percent in Central Oregon, and 2.1 percent elsewhere in the state.

Distribution of Switched Access Lines Provided by CLEC



Seventy-eight percent of CLEC's business lines and 91 percent of residential lines were in the Portland Metropolitan area. CLEC switched service revenues were \$119 million in 2004, up from \$107 million in 2003.

Growth of Competition in Oregon 1998 – 2004



The share of switched access lines served by CLECs at the end of 2004 represented 12.2 percent¹ of total access lines in Oregon, compared to a CLEC share of 18.5 percent across the entire country.²

The number of CLEC lines increased by 5.8 percent in 2004, from 256,571 to 271,344. By comparison, total ILEC lines decreased by 3.2 percent during the preceding year, from 2,024,882 to 1,959,459.

¹ 2003 CLEC's share is adjusted from 13.9% to 11.2% resulting from a company's data correction.

² Source: July 8, 2005 FCC Data Release on Local Telephone Competition

I. Purpose of the Survey

The purpose of the survey is to collect information from incumbent and competitive local exchange carriers to determine the status of competition for local exchange services in Oregon. This study is a key component of the 1999 Oregon legislation requiring the OPUC to report on telecommunications issues.

II. Survey Participants and Responses

In January 2005, the Commission staff sent a survey to all 248 carriers currently holding a certificate issued by the Commission to provide local services in Oregon. Of the 248 certified local exchange carriers (LECs), 34 are incumbent local exchange carriers (ILECs), and 214 are competitive local exchange carriers (CLECs). The ILECs consist of 23 telecommunications utilities and 11 cooperatives. These are the traditional local telephone service providers in the state. CLECs compete with the traditional carriers. The survey asked all LECs to provide information regarding their operations in 2004.

All 34 ILECs responded to the survey. One-hundred fifty-seven out of the 214 (73.4 percent) competitive providers responded. The overall response rate for LECs was 77 percent (Table 1). Fifty-seven percent (59 percent last year) of all certified carriers were actually providing services in December 2004, 100 percent of ILECs and 50 percent (53 percent last year) of CLECs (107 out of 214). For purposes of this analysis, we assume that all non-responding CLECs were not providing local service in Oregon.

Table 1. Survey Response Rates and Service Operation Rates

2004	Survey Sent	Responded	Response Rate %
Total LECs	248	191	77.0%
ILECs	34	34	100.0%
CLECs	214	157	73.4%
	Survey Sent	Service Provided	Operation Rate %
Total LECs	248	141	56.9%
ILECs	34	34	100.0%
CLECs	214	107	50.0%

III. Service Types

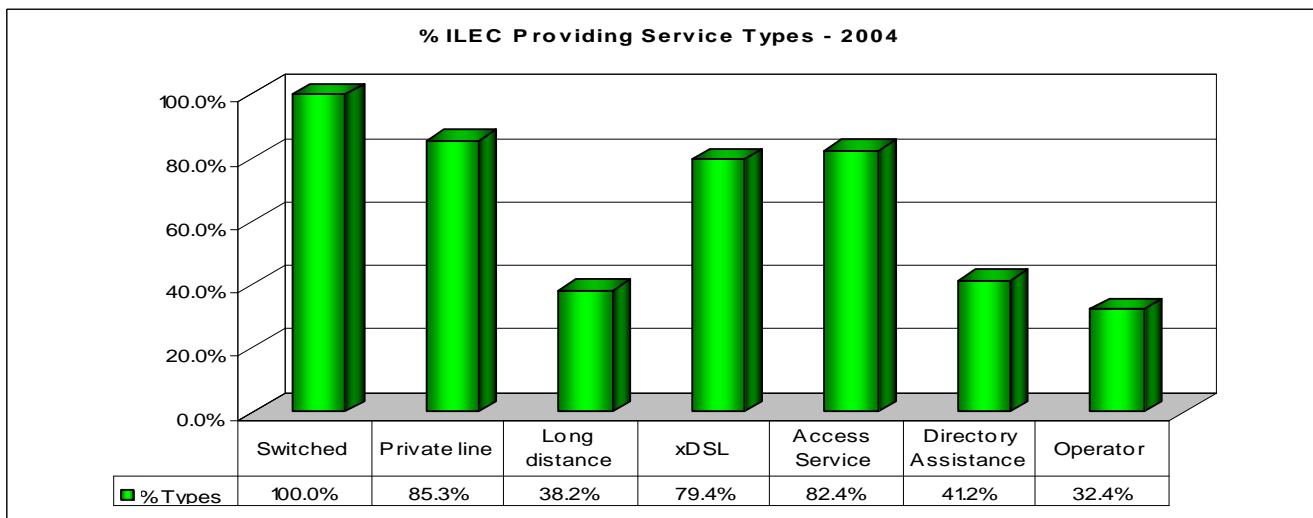
1. ILEC Service Types

All 34 ILECs provided local exchange switched service to retail customers. Local switched services include dial tone, local (toll-free) calling, directory listings, and various features such as call waiting and caller ID. Local exchange private line (i.e., dedicated, point-to-point) services also include DSL (Digital Subscriber Lines) services. ILEC service types and the percentage providing each type for 2004 are shown in Table 2 and Figure 1.

Table 2. Market Coverage for General Services – ILECs

Service Types	# of ILECs Providing Service	% of ILECs Providing Service
Local Exchange Switched Service	34	100.0%
Local Exchange Private Line Service:	29	85.3%
Lower Capacity	29	85.3%
Higher Capacity	18	52.9%
Long Distance Service	13	38.2%
xDSL (Digital Subscriber Line)	27	79.4%
Access service	28	82.4%
Directory Assistance	14	41.2%
Operator	11	32.4%
Telecom using Cable TV Facilities	0	0.0%
Telecom using VoIP	0	0.0%
Others	11	32.4%

Figure 1. Service Types and Distributions – ILECs



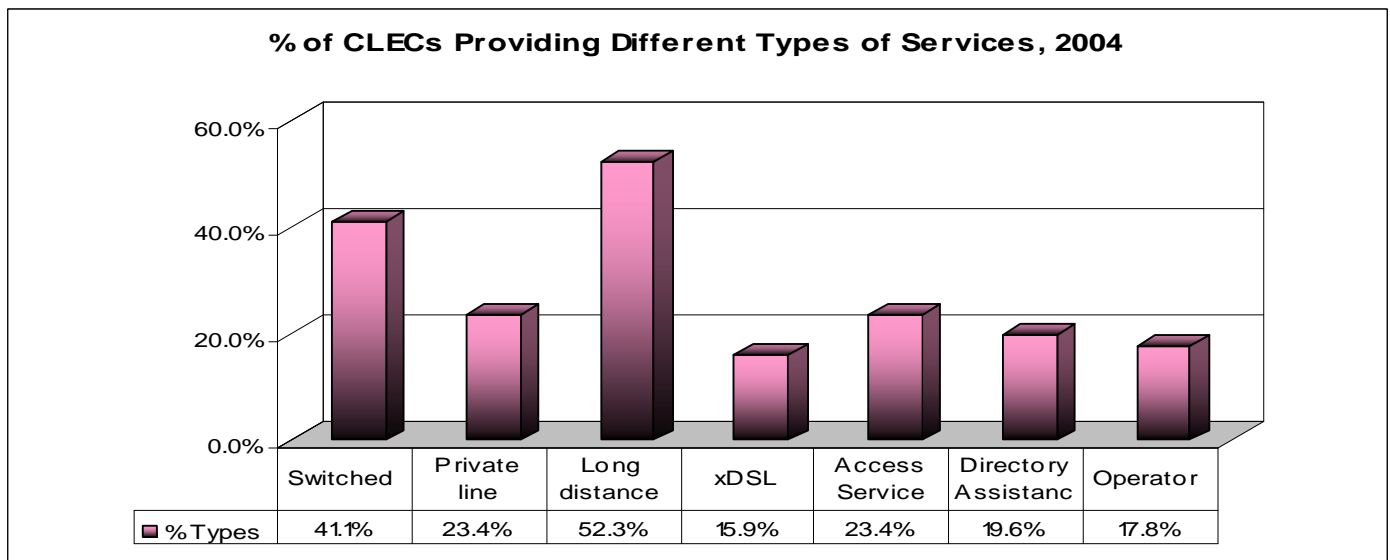
2. CLEC Service Types

As of December 2004, of the 214 certified CLECs, 107 (50 percent) were providing some kind of telecommunications service in Oregon (down from 53 percent in 2003). We assume that only those CLECs that responded to our survey were providing services in Oregon. Of the 107 CLECs that were providing services, 44 were providing local exchange service (down from 49 in 2003). Fifty-six CLECs were providing long distance service (up from 54 in 2003), and 25 were providing inter-exchange private line services. The CLECs service types and distributions are shown in Table 3 and Figure 2.

Table 3. Market Coverage by General Services – CLECs

CLEC Service Types	#of CLECs Providing Service	% of CLECs Providing This Service
Operating CLECs	107	
Local Exchange Switched Service	44	41.1%
Local Exchange Private Line Service:	25	23.4%
Lower Capacity	16	15.0%
Higher Capacity	23	21.5%
Long Distance Service	56	52.3%
xDSL (Digital Subscriber Line)	17	15.9%
Access service	25	23.4%
Directory Assistance	21	19.6%
Operator	19	17.8%
Telecom using Cable TV Facilities	2	1.9%
Telecom using VoIP	3	2.8%
Others	39	36.4%

Figure 2. Service Types and Distributions – CLECs



IV. Switched Services – Market Size and Share Analysis

1. Market Size and Shares

The market share of ILECs has fallen in the local market as CLEC services have expanded. In 2004, there were 107 CLECs competing in the local telecommunication services market. The CLECs as a group had a market share ranging between 5.3 percent and 15.4 percent, depending on how market share is measured. In this report, market share is measured in three ways: (1) customers, (2) lines, and (3) revenues.

Table 4. Oregon Switched Service Market Shares – 2004

2004	Customers	Lines	Revenue-\$ millions
ILEC	1,351,220	1,959,459	654.3
CLEC	76,324	271,344	119.1
Total	1,427,544	2,230,803	773.4
%	Customers	Lines	Revenue
ILEC	94.7%	87.8%	84.6%
CLEC	5.3%	12.2%	15.4%
Total	100.0%	100.0%	100.0%

(1) The CLEC share of retail customers³ was 5.3 percent. Few customers obtained local exchange switched services from anyone other than their traditional supplier, the ILEC. According to the survey responses, Oregon LECs were providing local exchange switched services to 1,427,544 Oregon customers. ILECs served 1,351,220 (94.7 percent) of the total, while CLECs served 76,324 customers (5.4 percent). (See Table 4). While still a small percentage of the total, CLEC switched access customers increased by 14 percent during 2004, from 66,925 to 76,324.

(2) The CLEC share of retail lines⁴ was 12.2 percent in 2004 (Figure 3). All Oregon LECs were supplying 2,230,803 local switched telephone lines to retail customers. Of that total, the ILECs were supplying 87.8 percent (1,959,459) of all lines leaving the

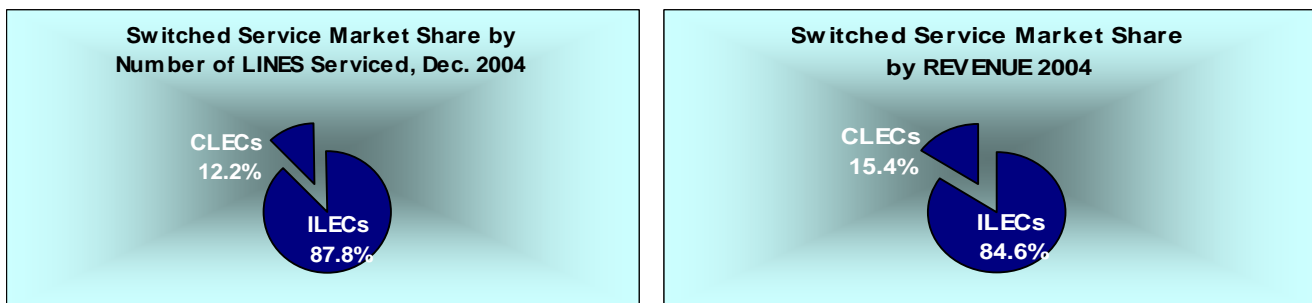
³ The survey defined "customer" as "any person or entity that has a physical location within Oregon, and has applied for, been accepted, and receives service for a price. Included are residential and business end users (i.e., retail customers), as well as other telecommunications carriers (i.e. wholesale customers)."

⁴ The survey defined "local exchange lines" as "voice level transmission paths (64kbps digital or <4kHz analog) that link an end user location with the switching center that provides dial tone. For ISDN, each B channel was counted as one line. For Centrex, each station line was counted as one line."

CLECs with the remaining 271,344 (12.2 percent). The CLECs were supplying an average of 3.6 lines per customer (down from 3.8 in 2003), while ILECs were supplying an average of 1.5 lines per customer (up from 1.3 in 2003).

(3) The CLEC share of retail revenues⁵ was 15.4 percent (Figure 3), up from 14.1 in 2003. In 2004, retail revenues from total switched access services in Oregon were an estimated \$773.4 million annually (up from \$762 million in 2004). Of the total, ILECs received \$654.3 million (down from \$654.7 million in 2004), that was 88 percent of total switched access line revenue, and CLECs captured the remaining \$107.6 million (down from \$132.1 million in 2002), 15.4 percent of total switched revenue. In the year 2004 CLEC revenues decreased by 18.5 percent, from \$132.1 million to \$107.6 million.

Figure 3. Market Shares for Switched Service



The CLECs achieved a slightly higher share of revenues than lines, and a significantly higher share of revenues than customers. This is because the CLECs have concentrated on providing service to business customers. Of all CLEC switched service revenues, 76% was from CLEC business sector in 2004, compared to the ILECs, where business revenue was 35% of total revenue in switched service. The ILECs' average annual switched service revenue per line was \$334. For CLECs, the annual switched service revenue per line was \$439 (see Table 5).

Table 5. Average Switched Service Customers, Lines and Revenues – 2004

2004	CLECs	ILECs
Lines / Customer	3.6	1.5
Revenue / Line / Year	\$439	\$334
Revenue / Customer / Year	\$1,561	\$484

⁵ The survey defined "revenues" as the amount billed "for switched local exchange services, whether billed in advance or arrears. Include regulated and non-regulated, federal and state charges. Include charges for switched lines, local usage, extended area service (EAS), repair and maintenance services, directory listing services, and add-on features such as call waiting, voice messaging, and caller ID. Exclude taxes that your firm billed to customers."

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The 34 ILECs providing local exchange switched service had 94.7 percent of customers, (down from 95.6 percent in 2003), 87.8 percent of switched access lines (up from 86.1 percent) and 84.6 percent of switched service revenues (down from 85.9 percent) (see Table 6). Within the ILECs, the Big Four (CENTURYTEL, QWEST, UNITED/SPRINT and VERIZON) incumbent operators have the major market share of local exchange switched service in Oregon. In 2004, the Big Four had 86.5 percent of total customers (down from 88.3 percent in 2003), 81.7 percent of total exchange lines (up from 80.2 percent in 2003), and 79.2 percent of total switched service revenues (down from 80.7 percent in 2003).

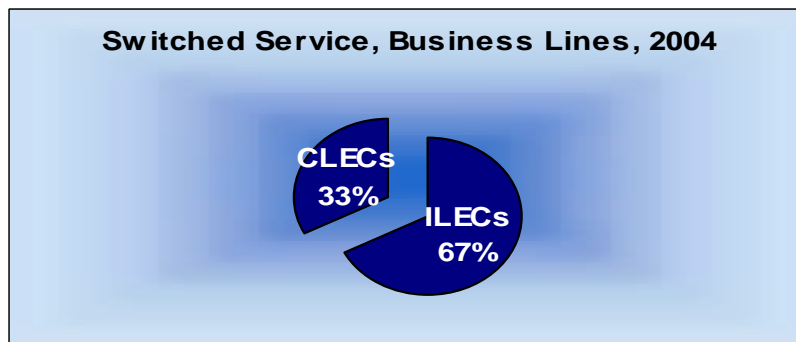
Table 6. Market Shares of ILECs, CLECs and Big 4 ILECs – 2004

CUSTOMERS	ILECs/Total	CLECs/Total	Big-4 ILECs/Total
Residential	96.0%	4.0%	88.0%
Business	85.7%	14.3%	75.2%
Carriers	99.8%	0.2%	99.8%
Total Customers	94.7%	5.3%	86.5%
SWITCHED LINES	ILECs/Total	CLECs/Total	Big-4 ILECs/Total
Residential	96.0%	4.0%	88.1%
Business	67.4%	32.6%	62.4%
Carriers	97.0%	3.0%	97.0%
Total Lines	87.8%	12.2%	81.7%
REVENUES	ILECs/Total	CLECs/Total	Big-4 ILECs/Total
Residential	93.8%	6.2%	86.6%
Business	71.6%	28.4%	67.5%
Carriers	92.5%	7.5%	92.5%
Total Revenues	84.6%	15.4%	79.2%

A. Business Market Share

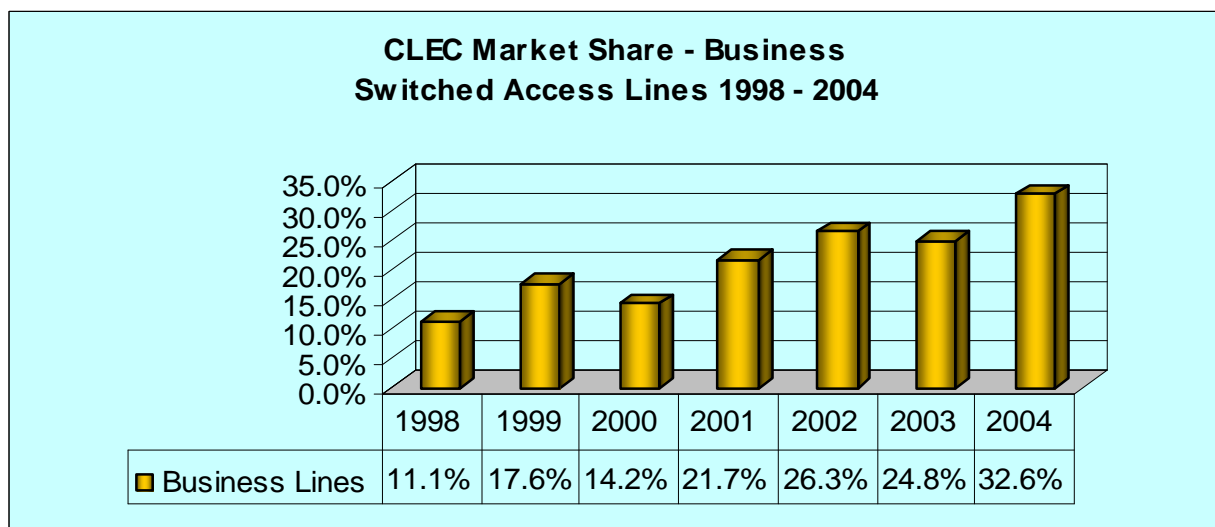
CLECs supplied service to 14.3 percent of business customers in 2004, compared to 5.3 percent of all types of customers. CLECs supplied 32.6 percent (30.5 percent in 2003) of business switched access lines (see Figure 4). This is substantially greater than the 12.2 percent CLEC share of Oregon total lines. Similarly, CLECs had a 28.4 percent (28.7 percent in 2003) share of switched business service revenues, compared to a 15.4 percent (14.1 percent in 2003) of total revenues in the State switched service.

Figure 4. Business Market Share, Measured by Line Numbers



The CLEC share of business revenues was higher than their share of business lines. For CLECs, in 2004, the annual revenue per business line was \$430. For ILECs, the average was \$526 per line. CLECs' market share of switched access lines for business has increased steadily during the past six years; the share was 9.6 percent in 1999, and 32.6 percent in 2004 (see Figure 5).

Figure 5. CLEC Business Line Market Share Growth



B. Residential Market Share

Table 7. Switched Service RESIDENTIAL Market Shares, 2004

Switched Service RESIDENTIAL Market Shares			
Residential	Customers	Lines	Revenues \$millions
ILECs	1,175,710	1,278,522	374.2
CLECs	49,560	53,478	24.6
Total	1,225,270	1,332,000	398.8
ILECs/Total	96.0%	96.0%	93.8%
CLECs/Total	4.0%	4.0%	6.2%

(1) The CLEC share of residential customers was 4 percent in 2004 (see Table 7), compared to 2.6 percent a year earlier. According to the survey, Oregon LECs were providing local exchange switched services to 1,225,270 Oregon residential customers. ILECs served 1,175,710 (96 percent) of the total, while 49,560 customers were served by CLECs.

(2) The CLEC share of residential exchange lines was 4 percent in 2004, compared to 2.8 percent a year earlier. Oregon LECs were supplying a total of 1,332,000 local switched telephone lines to residential customers. ILECs were supplying 96 percent or 1,278,522 lines, and the CLECs provided 53,478 residential lines.

In 2004, ILECs served 96 percent of the residential market; the number was slightly higher than a year earlier. The Big-4 ILECs served 88 percent of residential market lines, compared to 89.5 percent a year earlier. On average, typical residential local phone service is less profitable than typical business service because it costs more on a per line basis to wire an individual home than it does to wire typically more tightly clustered business buildings. Not more than 20 percent of total CLEC lines serve residential customers, while 65 percent of ILEC lines serve residential customers. A greater percentage of CLEC operations focus on the more profitable business sector.

(3) Overall residential revenues from local exchange switched service in Oregon in 2004 were an estimated \$399 million; it was about \$401 million in 2001. Residential monthly average revenue was \$38.3 per line for CLECs, \$24.4 per line for ILECs.

2. CLEC Provisioning of Switched Service

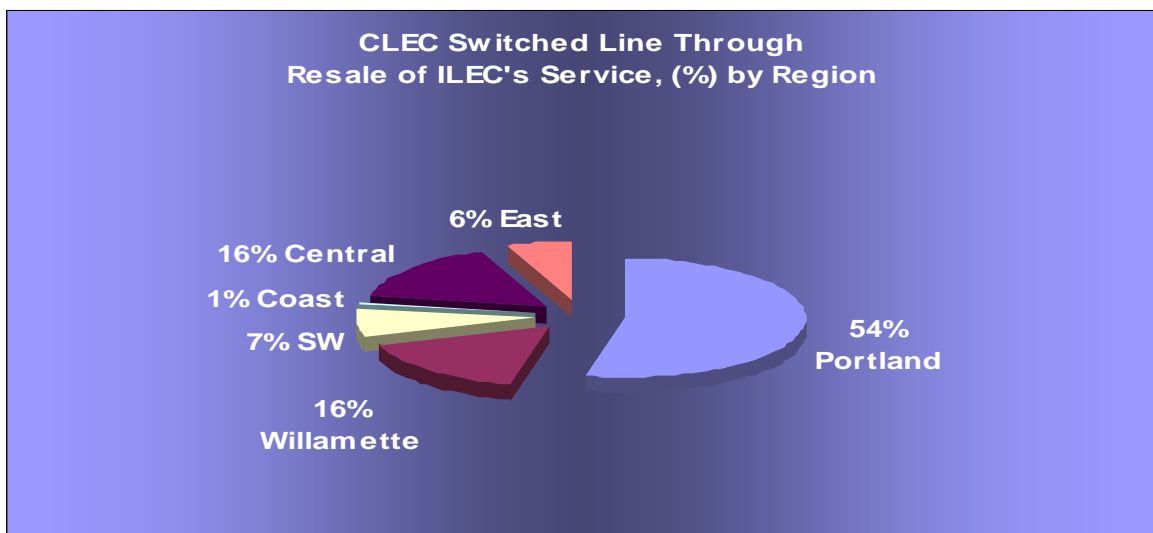
In December 2004, 25 of the 44 CLECs (57 percent) providing local switched service were ILEC-service-resellers. A CLEC reseller buys complete retail services from ILECs, and then resells those services under the CLEC's own name to consumers.

Also, about 36 percent (16/44) of CLECs are fully or partially facility based providers. These fully or partially facility based CLECs provided 165,225 switched access lines, which was 61 percent of total CLECs' lines, and 7.4 percent (8.2 percent in 2003) of all ILECs' switched access lines.

Twenty-one CLECs reported providing switched access lines or private line services by purchasing unbundled network elements platform (UNE-P) (a UNE-P is a combination of UNEs). The UNE-P number was 96,055 lines in December 2004.

Over 54 percent of resold ILEC service occurred in the Portland area. Sixteen percent of resold CLEC service occurred in the Willamette Area (see Figure 6).

Figure 6. Market Concentration – CLEC Resale of ILEC's Lines in 2004



3. Market Trends in Switched Access Services

CLECs reported 271,344 (or 12.2 percent of all ILECs) of 2,230,803 statewide local switched access lines in service at the end of 2004. This represents a 5.8 percent growth in CLEC switched lines during 2004 after a data correction by CLECs on 2003's data. By comparison, the number of lines served by ILECs decreased by 3.2 percent during the preceding year, from 2,024,882 to 1,959,459 lines.

Figure 7. Change of ILEC Market Share in Switched Services, 1998 to 2004

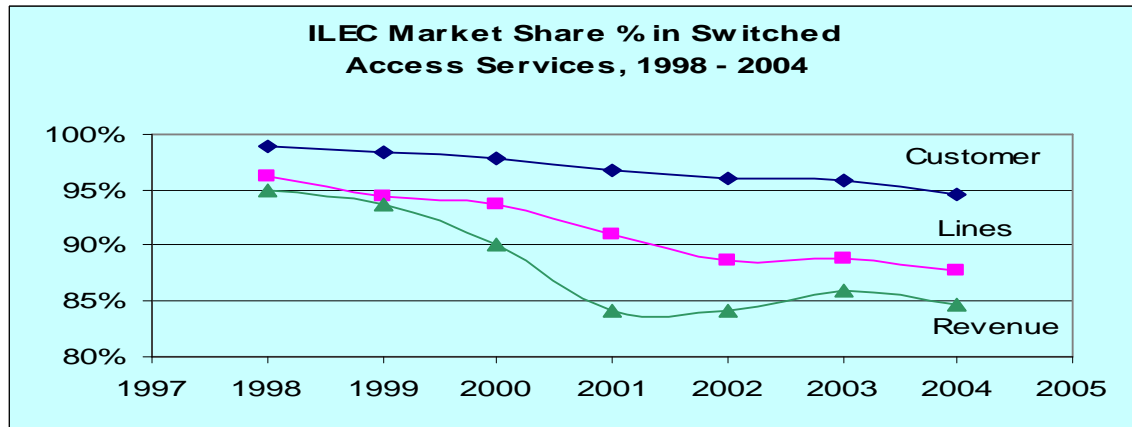


Figure 7 shows the market share of ILEC switched service is on a downward trend. The ILECs share of customers, lines, and revenues have all gone down over the past six years.

CLEC annual retail revenue from the residential market was \$24.6 million in 2004 compared to \$13.9 million in 2003. ILEC residential revenue was \$374.2 million, down from \$387.6 million in 2003. CLEC revenue from the business market was \$90.3 million, which about the same as the year before. ILEC business revenue increased 2 percent to \$228 million from \$223 million.

Table 8 and Figure 8 show that the increase in CLEC switched access lines has slowed over the past three years. Growth in the number of CLEC switched lines has averaged 21.3 percent over the 1998-2004 period, however. The number of ILEC switched access lines is now below 2.0 million lines for the first time since the 1990s.

Table 8. Trends in Switched Access Lines, 1998 to 2004

Oregon Switched Access Lines				
Date	ILEC Lines	CLEC Lines	Total	Share
Dec-98	2,116,322	85,146	2,201,468	3.9%
Dec-99	2,078,678	121,277	2,199,955	5.5%
Dec-00	2,257,594	153,578	2,411,172	6.4%
Dec-01	2,238,640	219,990	2,458,630	8.9%
Dec-02	2,115,892	270,494	2,386,386	11.3%
Dec-03	2,024,882	256,571	2,281,453	11.2%
Dec-04	1,959,459	271,344	2,230,803	12.2%

Figure 8. Competitive Growth, CLEC Switched Lines

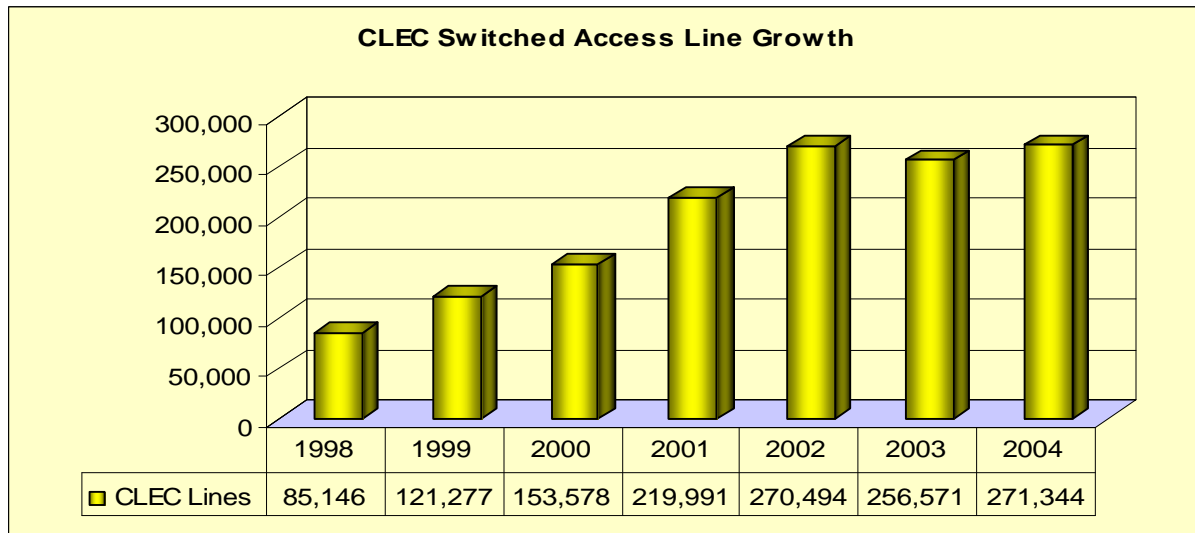
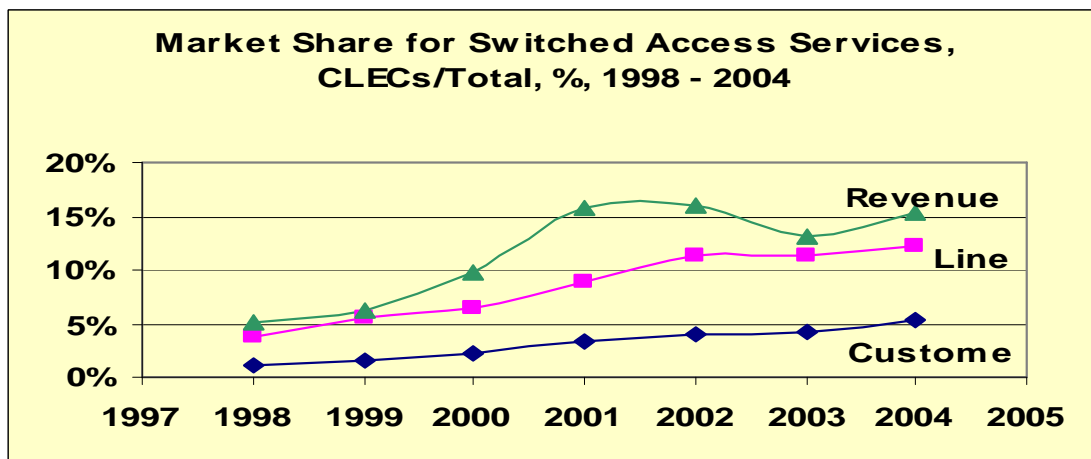


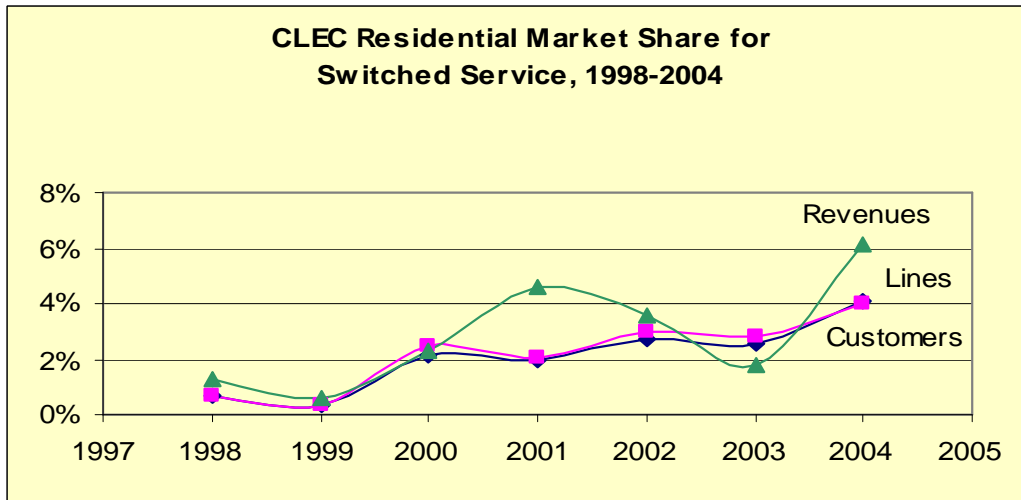
Figure 9 shows market growth for CLECs. The market share of CLECs switched service revenue was 15.4 percent in 2004 compares to 5 percent market share in 1998. In the same period, CLEC switched line market share increased to 12.2 percent, up from 3.9 percent. CLEC switched customers increased to 5.3 percent, up from 1.0 percent. The annual increase for CLEC switched access lines in the last six years has ranged from 5 percent to 43 percent. The average annual increase is 21 percent.

Figure 9. CLEC Growth in Switched Access Services – 1998 to 2004



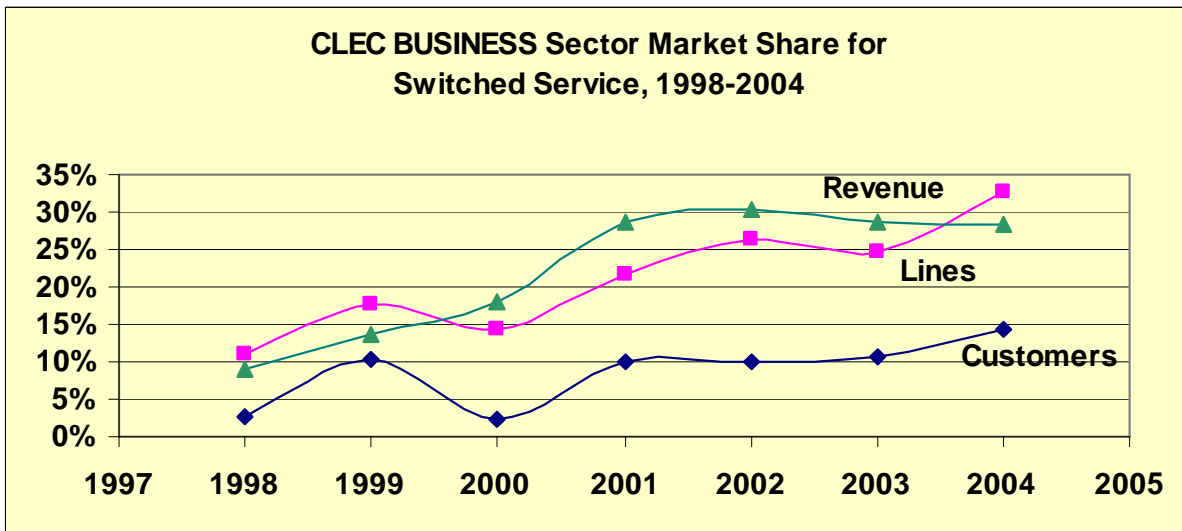
CLECs' share of residential switched service revenue increased to 6.2 percent in 2004 compares to 1.3% in 1998. Over the same period, CLEC's market share for both residential switched service lines and customers increased to 4.0 percent from 0.7 percent (Figure 10).

Figure 10. CLEC Residential Market Share for Switched Service, 1998 to 2004



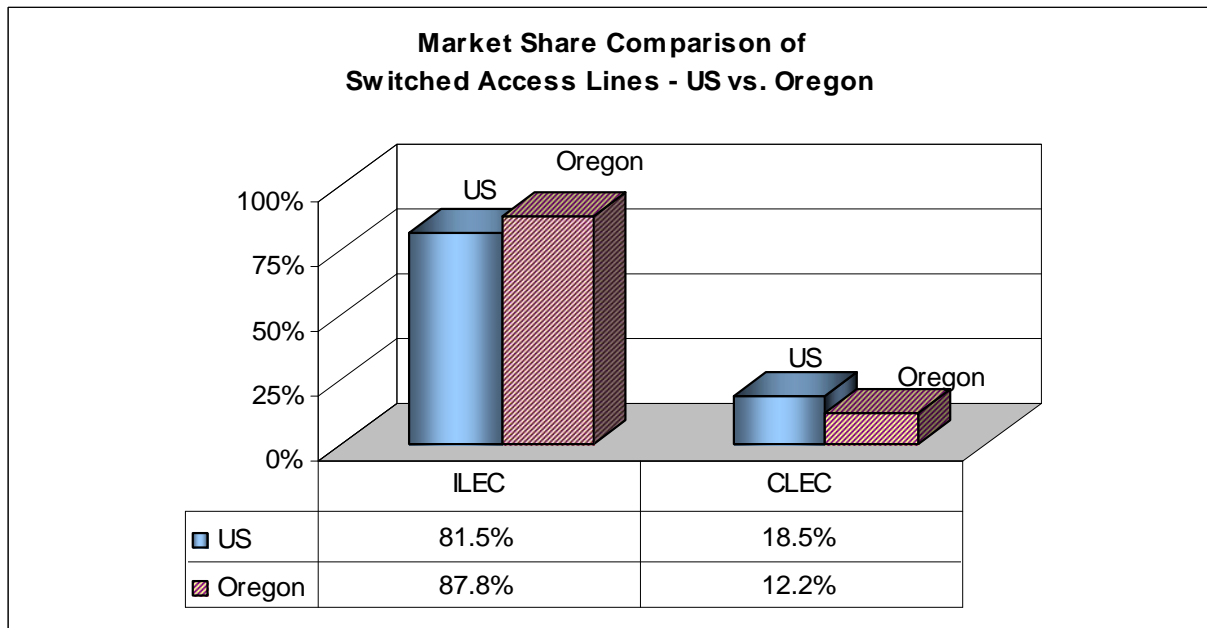
CLECs' share of business switched service revenue increased to 28.4 percent in 2004 from 8.9 percent in 1998. In the same period, CLEC business lines for switched service market share increased to 32.6 percent from 11.1 percent, CLECs' share of business customers increased to 14.3 percent from 2.8 percent. (See Figure 11)

Figure 11. CLEC Business Market Share for Switched Service, 1998-2004



According to FCC News (July 8, 2005), at the end of 2004, US end-use customers obtained local telephone service by utilizing approximately 145.1 million incumbent local exchange carrier (ILEC) switched access lines (81.5% of total ILEC and CLEC lines), 32.9 million competitive local exchange carrier (CLEC) switched access lines (18.5% of total). Compared to national figures for the same time period and the same category, Oregon CLEC share is six (6) percentage points lower than national level (see Figure 12).

Figure 12. Market Share Comparison of Switched Access Lines - US vs. Oregon



V. High Speed Access Services

1. Market Size and Share

A. Private Line Service

Local exchange private lines are dedicated circuits that customers use to transmit information between two or more pre-selected locations within a telephone exchange. Local private line services vary in capacity. The survey distinguished between lower capacity circuits (speeds less than 1.544 Mbps) and higher capacity circuits (speeds at 1.544 Mbps or greater).

Total revenue from private line services made up 4.7 percent of total service revenues, xDSL was 5.9%, and switched services provided 89.4 percent.

Twenty-five CLECs reported they provide local exchange private line services. These CLECs share of the private line market ranged from 5.7 percent for customers to 61.5 percent for high capacity circuits (see Table 9). The percentage depends on how market share is measured and whether the focus is on lower or higher capacity private line circuits. The survey measured CLEC market share in three ways: (1) customers, (2) circuits, and (3) revenues.

Table 9. Local Private Line Services

2004	All LECs	CLECs	ILECs	CLECs %
Customers	19,281	1,106	18,175	5.7%
Total Circuits	46,659	16,428	30,231	35.2%
Lower Capacity	25,853	3,629	22,224	14.0%
Higher Capacity	20,806	12,799	8,007	61.5%
Revenues Year - \$000	\$40,518	\$18,329	\$22,190	45.2%
Revenue\$ / Circuit - Year	\$868	\$1,116	\$734	

(1) The CLEC market share of local private line customers⁶ was 5.7 percent. According to the survey, there were a total of 1,106 local exchange private line retail customers.⁷ The ILECs provided service to 18,175 customers, 94.3 percent of the total.

⁶ The survey defined private line "**customers**" as "persons or entities that had applied for, been accepted, and were receiving local exchange private line services for a price during the month. Customers include end users (i.e., retail customers) and other telecommunications carriers (i.e., wholesale customers)."

⁷ Note that survey results may overstate the CLECs' share of local private line customers, since local private line customers may buy private line services from more than one carrier at a time. As a result, a CLEC and an ILEC may report the same customer.

(2) The CLEC market share of all private line circuits⁸ was 35.2 percent. The CLEC market share of lower capacity circuits was 14 percent, while the CLEC market share for higher capacity circuits was 61.5 percent. Total private line circuits, including lower and higher capacity circuits, numbered 46,659 in 2004.

Table 10. Private Line Revenues, 2004

2004	Total	ILECs	CLECs
Shares	100.0%	54.8%	45.2%
\$ Million/year	\$40.5	\$22.2	\$18.3

(3) The CLECs' share of total private line service revenues⁹ was 45.2 percent (see Table 10). Retail revenues from private line services were an estimated \$40.5 million annually.¹⁰ Of the total estimated annual revenues, ILECs received \$22.2 million (54.8 percent), and CLECs the remaining \$18.3 million (45.2 percent). The CLECs' share of revenues was greater than the CLECs' share of circuits and customers. CLECs have focused on higher capacity private line services.

B. xDSL Service

Starting with this year's survey the calculation of private line service was separated from Digital Subscriber Lines (DSL) service. Total number of xDSL in Oregon in 2004 was 184,246. Ninety-three percent of DSL was provided by ILECs and 7 percent was provided by CLECs (See Figure 13). Revenues from xDSL were \$50.8 million in 2004.

Figure 13. Oregon Digital Subscriber Lines (DSL)



⁸ The survey defined "**circuits**" as circuit terminations a firm provides and bills to its customers. If a firm provides a circuit that connects two customer locations, and bills the customer for both ends of the circuit, two terminations were counted. The capacity of a circuit is determined by the capacity your firm delivers to the customer at the point of termination, even though the customer may further subdivide that capacity using its own multiplexing or other equipment.

⁹ The survey defined private line "**revenues**" as the amount a firm billed in December 2004 for local exchange private line services, whether billed in advance or arrears. This included regulated and non-regulated, federal and state charges. Exclude taxes that your firm billed to customers."

¹⁰ Annual revenues are calculated as revenues reported for December 2004 times 12.

2. CLEC Provisioning of Circuits

Sixteen facilities-based providers supplied 6,329 (65 percent) of the 9,746 CLECs local exchange private line circuits identified in the survey. However, this does not mean that all of these circuits were provisioned using facilities the CLECs own and operate. Often, a facilities-based carrier owns and operates some telecommunications equipment, but also provides service by resale.

Ten CLECs provided private line services by reselling ILEC services. Seven CLEC provided private line service by reselling other CLEC services. Most of this resale was to business customers in the Portland metropolitan and Willamette Valley areas.

3. Market Trends in Local Private Line and DSL Services

Technological change is the driving force in the telecommunications industry. Many different technologies and types of networks can provide voice telephone service, with new ones arriving seemingly every year. The relatively narrow bandwidth of traditional modems is being replaced by much faster alternatives such as cable modems, digital subscriber lines (DSL), T-1 lines, satellites, fixed or mobile wireless, and fiber optic cable. DSL is a technology that combines two way voice and data transmissions at very high speeds over normal telephone lines. xDSL refers to all types of digital subscriber lines.

The percentage of Oregon consumers (residential and business) having high-speed digital access was 11.9 percent as measured by revenue. Oregon's 11.9 percent for high-speed access services consists of 10.6 percent private line service and DSL services, plus 1.3 percent cable TV network in switched services.

VI. Market Segments by Region and Type of Service

The survey identified six geographic regions within Oregon. The regions are based on clusters of ILEC local exchange serving areas (see Figure 14). The regions are: (1) Portland Metropolitan,¹¹ (2) Willamette Valley,¹² (3) Southwest Interior,¹³ (4) Coast,¹⁴ (5) Central,¹⁵ and (6) East.¹⁶

¹¹ "**Portland Metropolitan**" region consists of the following exchanges: Aurora, Beaver Creek, Beaverton, Burlington, Canby, Carlton, Charbonneau, Colton, Corbett, Estacada, Forest Grove, Gresham, Hillsboro, Hoodland, Lake Oswego, Molalla, Newberg, North Plains, Oak Grove/Milwaukie, Oregon City, Portland, Redland, Sandy, Scappoose, Scholls, Sherwood, Stafford, Sunnyside, Tigard, Vernonia, Woodburn/Hubbard, Yamhill.

¹² "**Willamette Valley**" region consists of the following exchanges: Albany, Alsea, Amity, Aumsville/Turner, Bellfountain, Blodgett, Blue River, Brownsville, Clatskanie, Corvallis, Cottage Grove, Creswell, Dallas, Dayton, Deadwood, Detroit, Drain, Eugene/Springfield, Falls City, Gervais, Government Camp, Grand Island, Grand Ronde, Halsey, Harlan, Harrisburg, Horton, Independence/Monmouth, Jefferson, Junction City, Leaburg, Lebanon, Lobster Valley, Lowell, Lyons, Marcola, McMinnville, Mill City, Monitor, Monroe, Mt. Angel, Murphy/Provolt, Oakridge, Philomath, Ripplebrook, Salem, Scio, Shedd, Sheridan, Silverton, St. Helens, Rainier, St. Paul, Stayton, Summit, Sweet Home, Triangle Lake, Veneta, Willamina.

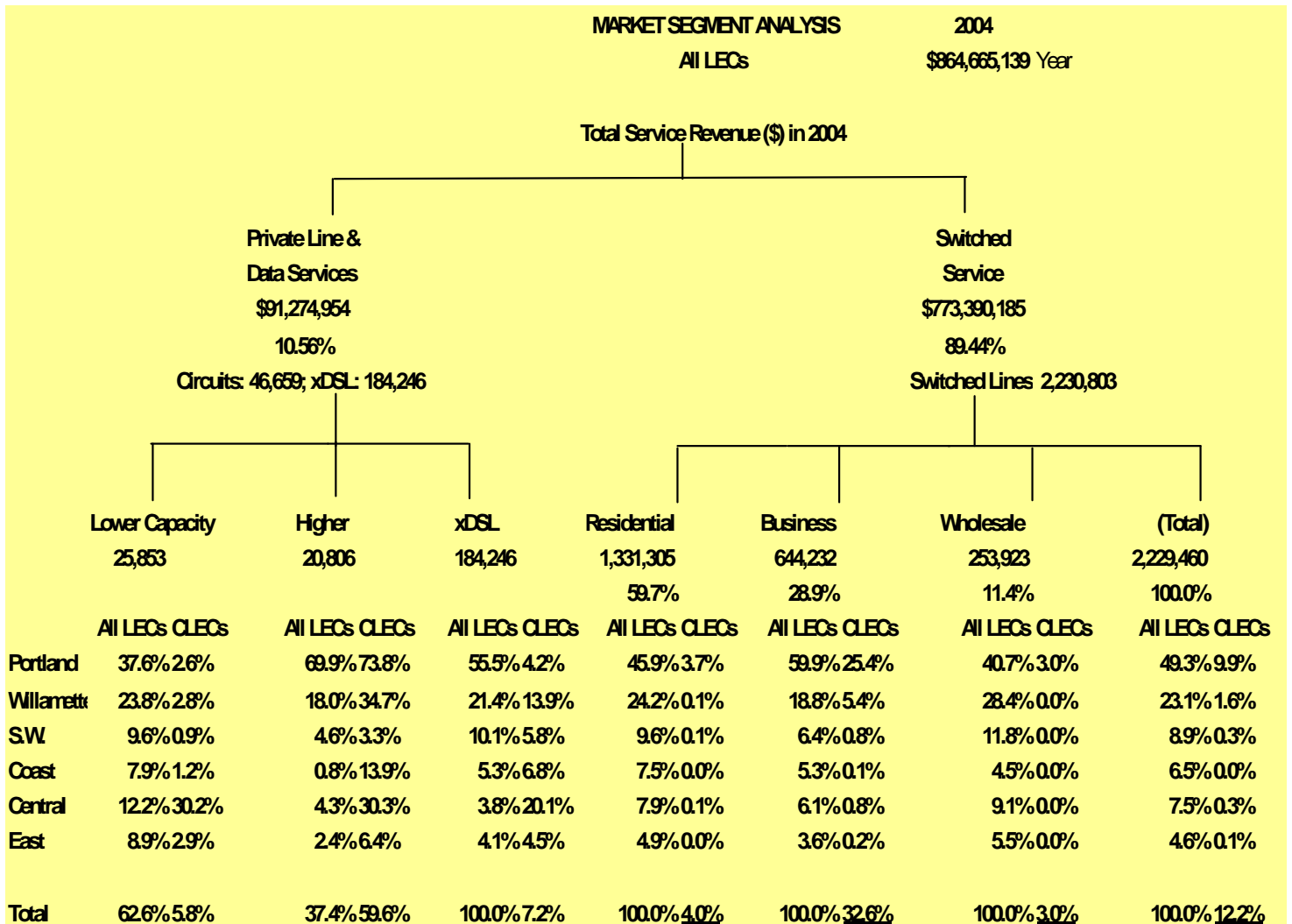
¹³ "**Southwest Interior**" region consists of the following exchanges: Ashland, Azalea, Butte Falls, Camas Valley, Canyonville, Cave Junction, Central Point, Crater Lake, Days Creek, Diamond Lake, Elkton, Fish Lake, Glendale, Glide, Gold Hill, Grants Pass, Jacksonville, Medford, Myrtle Creek, North Umpqua, Oakland/Sutherlin, O'Brien, Phoenix/Talent, Prospect, Riddle, Selma, Shady Cove, Rogue River, Roseburg, White City, Wolf Creek, Yoncalla.

¹⁴ "**Coast**" region consists of the following exchanges: Ash Valley, Astoria, Bandon, Bay City, Beaver, Brookings, Cannon Beach, Chitwood, Cloverdale, Coos Bay/North Bend, Coquille, Depoe Bay, Florence, Garibaldi, Gleneden Beach, Gold Beach, Jewell, Knappa, Lakeside, Langlois, Lincoln City, Mapleton, Myrtle Point, Nehalem, Newport, Pacific City, Port Orford, Powers, Reedsport, Rockaway, Scottsburg, Seaside, Siletz, South Beach, Tidewater, Tillamook, Toledo, Waldport, Warrenton, Westport, Yachats.

¹⁵ "**Central**" region consists of the following exchanges: Antelope, Arlington, Bend, Bonanza, Camp Sherman, Cascade Locks, Chemult, Chiloquin, Condon, Culver, Dufur, Fort Klamath, Fossil, Gilchrist, Grass Valley, Hood River, Klamath Falls, Lakeview, La Pine, Madras, Malin, Maupin, Merrill, Mitchell, Moro, Mosier, Mt. Hood Meadows, Odell, Paisley, Parkdale, Paulina, Pine Grove, Prineville, Redmond, Rocky Point, Rufus, Silver Lake, Sprague River, Sisters, The Dalles, Tygh Valley, Wamic, Wasco.

¹⁶ "**East**" region consists of the following exchanges: Adrian, Athena/Weston, Baker, Bates, Boardman, Burns, Cove, Dayville, Durkee, Echo, Elgin, Enterprise, Flora/Troy, Haines, Halfway, Harney, Helix, Heppner, Hereford/Unity, Hermiston, Huntington, Imbler, Ione, John Day, Jordan Valley, Joseph, La Grande, Lexington, Long Creek, Lostine, Meacham, Medical Springs, Milton -Freewater, Monument, Mt. Vernon, North Powder, Nyssa, Ontario, Oregon Slope, Pendleton, Pilot Rock, Prairie City, Richland, Ridgeview, Seneca, Spray, Stanfield, Starkey, Sumpter, Ukiah, Umatilla, Union, Vale, Walla Walla (Stateline), Wallowa.

Figure 14. Local Exchange Carriers Market Segments and Shares

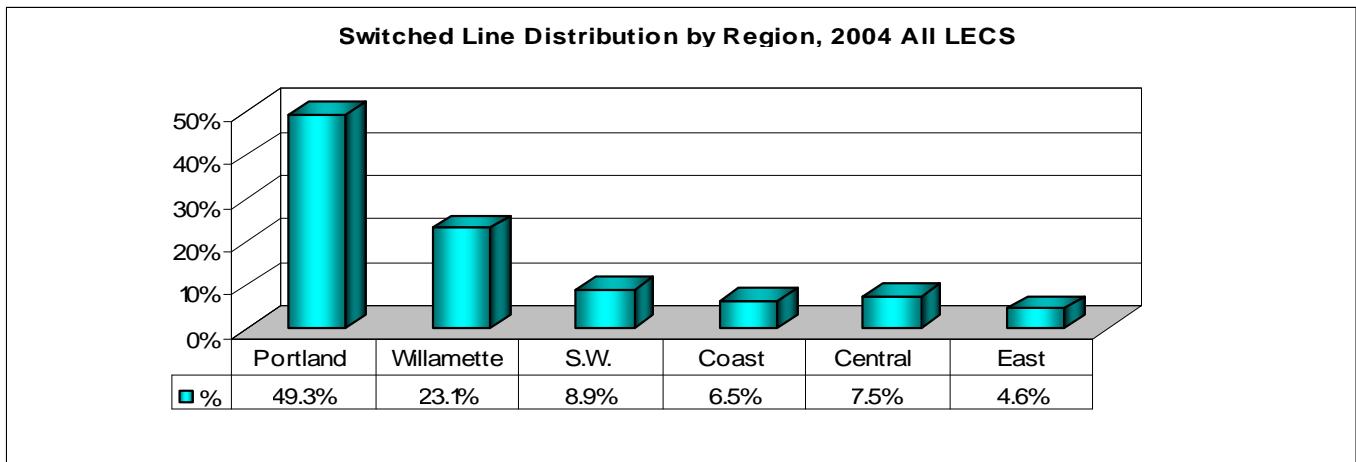


1. Market Segments by Regions

A. Switched Services by Region

The survey asked each LEC to report the number of switched local exchange lines it was supplying to customers in each region. Both ILECs and CLECs reported customers in all six regions. The Portland Metropolitan Region, the most populous area in the state, continues to be the largest regional market. It accounted for 49.3 percent (see Figure 15) of all retail local exchange switched lines in the state. Second was the Willamette Valley Region, with 23.1 percent of the lines. The other four regions accounted for less than a third of the state's lines: Southwest Interior (8.9 percent), Central (7.5 percent), Coast (6.5 percent), and East (4.6 percent).

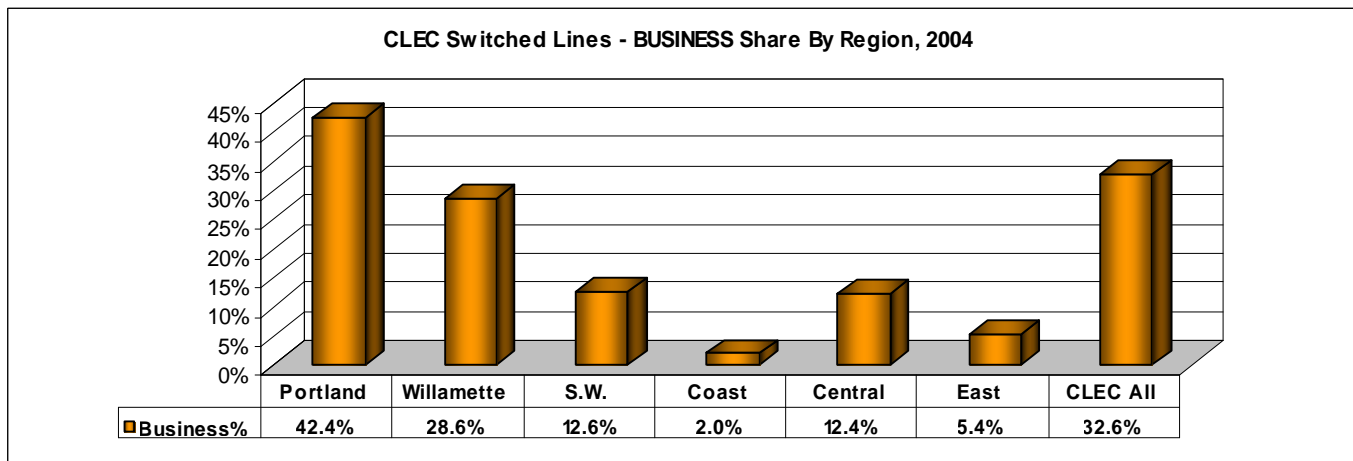
Figure 15. Oregon All LEC Switched Lines by Region



Survey responses indicate that CLECs were providing competitive local switched service in all six regions of the state. Competitive entry is highest in the Portland Metropolitan Region. Statewide, CLECs had a 12.2 percent share of switched local exchange lines. Ninety-one percent of the CLECs' lines are in the Portland Metropolitan Region, followed by the Willamette Valley with 3.1 percent, then Southwest Interior (1.5 percent), Central (2.8 percent), East (0.9 percent) and the Coast (0.6 percent).

Considering the business sector separately, CLECs have 32.6 percent (up from 30.5 percent in 2003) share of business lines in the State. In the Portland Metro Region CLECs have a 42.4% share (see Figure 16), which represents 77.8% of the CLEC business lines in the state.

Figure 16. CLEC Switched Lines – Business Service by Region

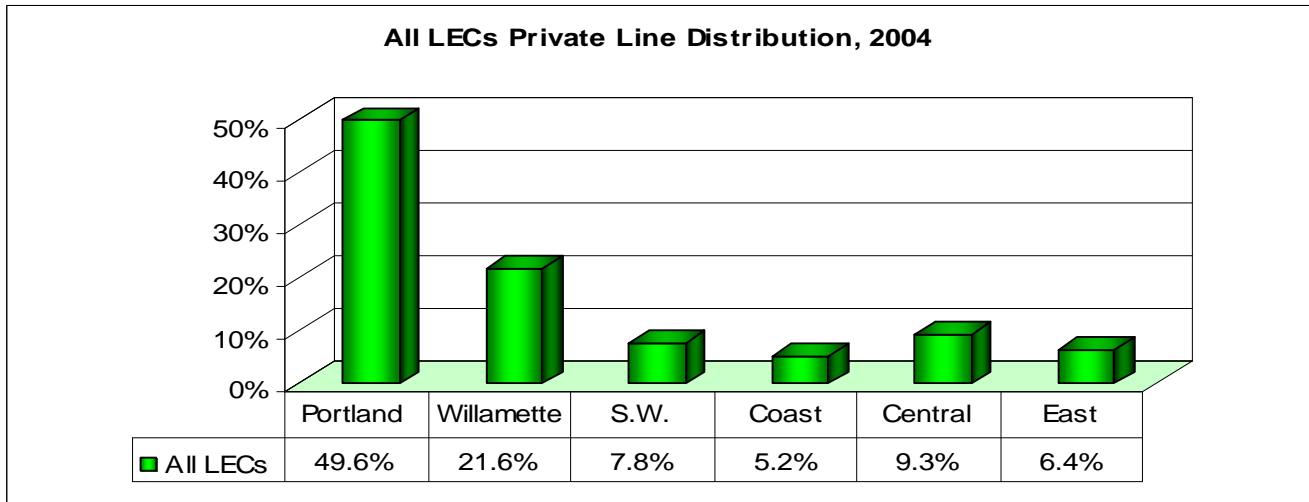


Statewide, the CLEC share of RESIDENTIAL lines was 4.0 percent. Ninety-one percent of the CLEC residential lines are in the Portland Metropolitan Region.

B. Private Line Service by Region

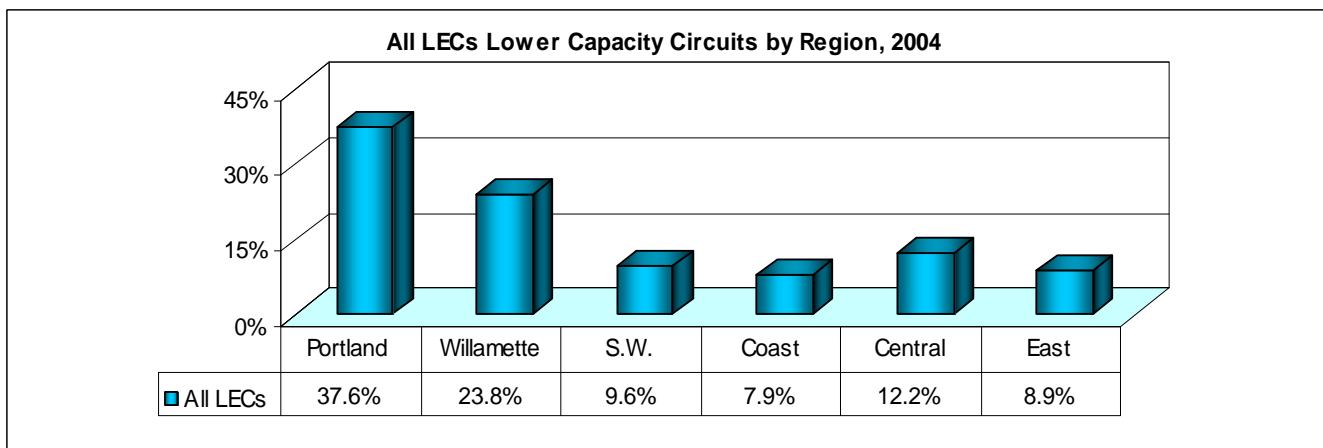
The Portland Metropolitan Region is the largest regional private line market, with 49.6 percent (see Figure 17) of all retail private line circuits in the state. The second largest was the Willamette Valley, with 21.6 percent of circuits. The other four regions together accounted for about 28.7 percent of the state's circuits: Coast (5.2 percent), Southwest Interior (7.8 percent), Central (9.3 percent), and East (6.4 percent).

Figure 17. Oregon Private Line Service by Region - Dec. 2004



Lower Capacity Circuits: Of the state's 46,659 local exchange private line circuits, most (55 percent) were in the lower capacity category. The Portland Metropolitan Region was the largest market for lower capacity circuits, with 37.6 percent (see Figure 18) of the lower capacity circuits in the state. The second largest market was the Willamette Valley with 23.8 percent of lower capacity circuits, followed by Central (12.2 percent), Southwest Interior (9.6 percent), East (8.9 percent), and Coast (7.9 percent).

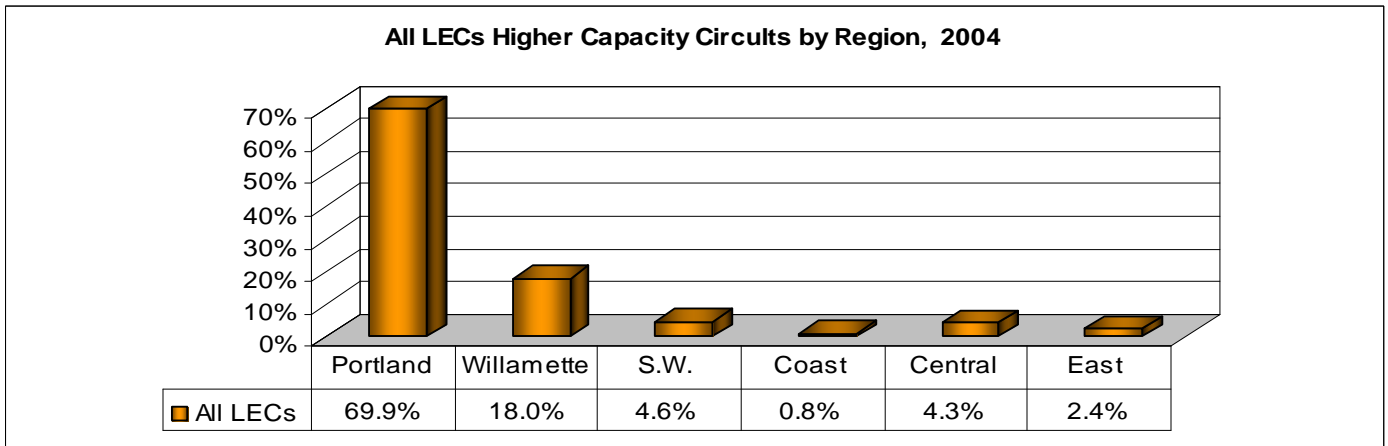
Figure 18. Oregon Lower Capacity Circuits Distribution by Regions - Dec. 2004



The CLECs' share of lower capacity circuits was 14 percent statewide. Of the CLEC lower capacity circuits, 30 percent are located in Central Oregon Region.

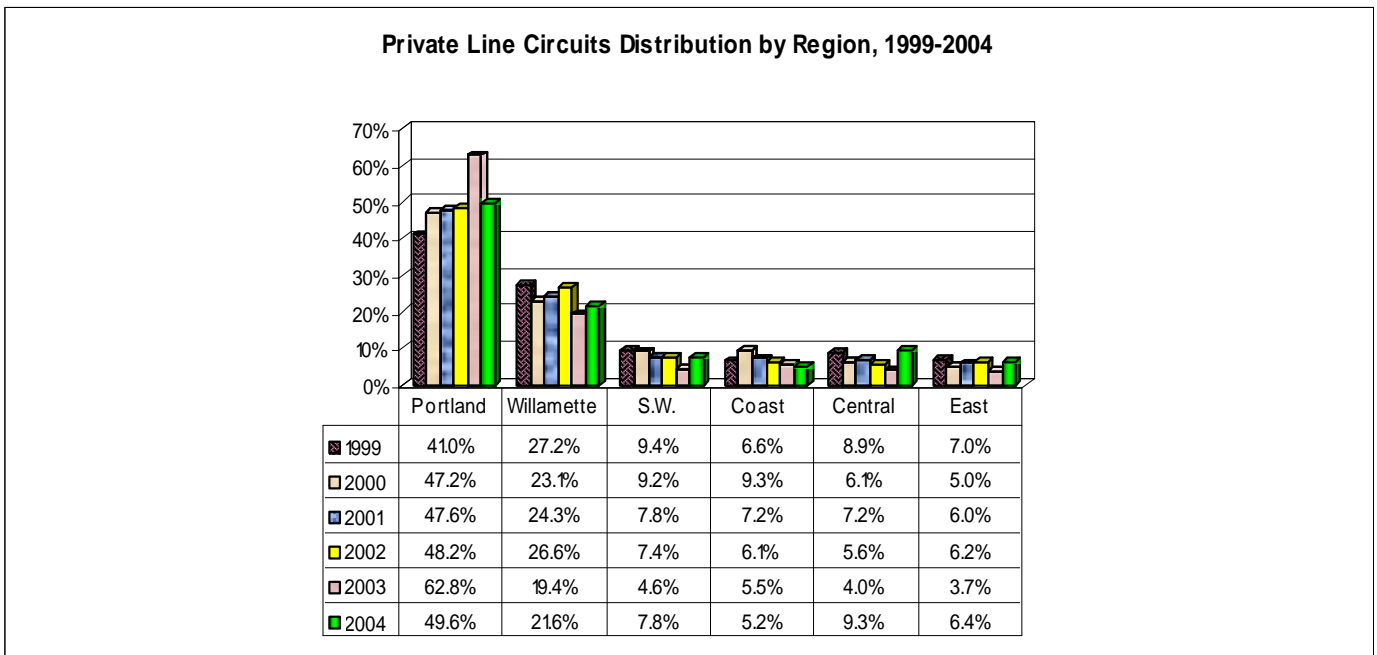
Higher capacity circuits accounted for 45 percent of the state's total private line circuits. In December 2004, the market for higher capacity circuits was concentrated in the Portland Metropolitan Region, with 70 percent (see Figure 19). The remaining five regions have 30 percent of higher capacity circuits.

Figure 19. Oregon Higher Capacity Circuits Distribution by Regions - Dec. 2004



CLECs' share of higher capacity circuits was 61.5 percent statewide. The regional distribution of private lines has not changed much over the last several years as indicated in Figure 20. Of all private line circuits, 49.6% were in the Portland Metro Region in 2004.

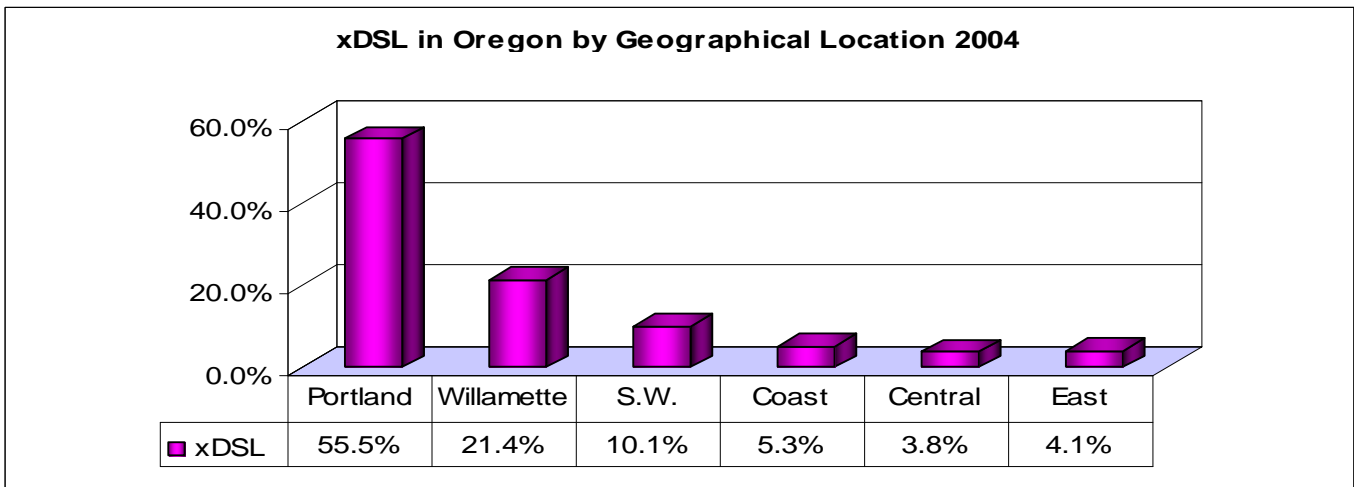
Figure 20. Private Line Circuits Distribution, 1999 to 2004



C. xDSL Service by Region

During the year 2004, xDSL (refers to all types of digital subscriber lines) service provided 184,246 lines and \$50.8 million revenue. Of all xDSL, 55.5% was in Portland Metropolitan Region (see Figure 20), followed by Willamette Valley (21.4%), Southwest Interior (10.1%), Coast (5.4%), East (4.1%), and Central (3.8%).

Figure 21. xDSL in Oregon by Geographical Location 2004

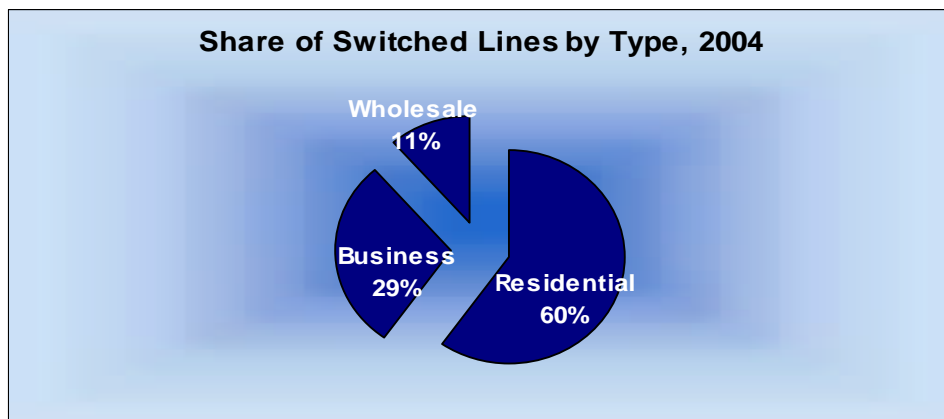


2. Market Segments by Types

A. Switched Services

The survey grouped customers into three segments: business, residential, and carrier. 60 percent of switched service lines were from residential services, 29 percent were from business, and 11 percent were from wholesale (see Figure 22).

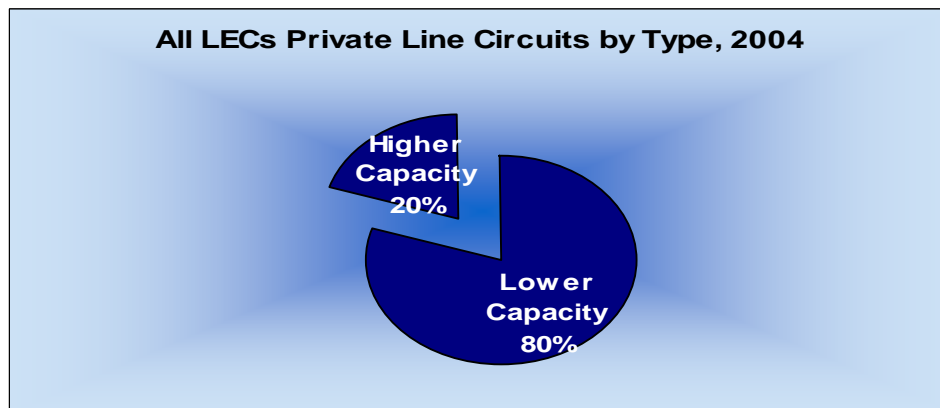
Figure 22. Oregon Switched Service Lines by Types



B. Private Line

A private line is a dedicated, non-switched link from one or more customer-specified locations to one or more customer-specified locations. A circuit is a complete electrical path providing one- or two-way communication between two points comprised of associated send and receive channels. Capacity is determined by the highest data transmission rate in either direction. Figure 23 shows that 80 percent of private line circuits were lower capacity, and that 20 percent were higher capacity.

Figure 23. Oregon Private Line Circuits by Types



C. xDSL

xDSL service provided 184,246 residential and business lines and accounted for \$50.8 million of revenue. The DSL revenue per month was \$23/line.

VII. Business Plans and Competition

1. Capital Expenditures

Capital Expenditure is the money spent to acquire or upgrade physical assets such as switches and fiber optic cable. The survey asked for information on investment in capital assets (plant and equipment). Capital expenditures for local exchange service allocated to Oregon were estimated at \$120 million, which was 14 percent of total revenue (\$865 million). (See Table 11)

Of the 214 certified CLECs, 105 reported some level of capital expenditures in 2004, with 75 percent having made capital outlays of less than \$10,000. Estimated total CLEC capital expenditures were \$41 million. CLECs' capital investment represented 28.7 percent of CLECs' revenue (\$142 million).

Of the 34 Certified ILECs, all 34 reported having made some capital expenditures in 2004, with 74 percent having capital spending ranging from \$100,000 to \$10 million. Estimated total ILEC capital expenditures were \$80 million. ILECs' capital investment represented 11 percent of ILECs' revenue (\$723 million).

Table 11. Capital Expenditures for Local Exchange Service In 2004

Capital Expenditures	ILECs	CLECs	All ILECs
Less than \$10,000	1	79	80
\$10,000-50,000	2	7	9
\$50,001-100,000	3	2	5
\$100,001-1,000,000	18	11	29
\$1,000,001-10,000,000	7	5	12
More than \$10,000,000	3	1	4
# of LECs had Capital Expenses	34	105	139
Estimated Expenses (\$ million)	\$80	\$41	\$120
Revenues (\$ million)	\$723	\$142	\$865
Investment / Revenue (%)	11.0%	28.7%	13.9%

2. Competition for Residential Market

The survey asked all local exchange carriers, "What do you believe are the reasons that you do not have a bigger share of Oregon's residential market (check all that apply)?"

Out of 34 ILECs, 11 companies noted that cell phone usage has decreased the demand for wireline and second-line services (see Table 12), and 11 ILECs were restrained by geographical location, which made residential competition difficult or expensive.

Out of 107 responding CLECs, 23 said they could not compete on price; 19 thought they could not compete on facilities; 14 believed that the incumbent local exchange carrier has name familiarity. Since CLECs' operations focus principally on business customers, only 6 companies responded that cell phone usage has decreased the demand for residential wire line and second-line services; and 18 CLECs considered that geographic location made residential competition difficult or expensive. The percentage of responding CLECs identifying each of the above reasons for not having a higher share of the residential market has remaining about the same over the last three year period the question has been asked.

Table 12. Residential Market Competition

Reasons	# of ILECs	# of CLECs
Cannot compete on price	1	23
Cannot compete on facilities	0	19
ILEC has name familiarity	0	14
Do not have enough capacity	0	10
Cell phone decreased the wireline demand	11	6
Hard to compete due to location	11	18
Other (explain):	14	58

Of the 58 CLECs who checked the option "other", most focused their service on business customers or did not provide residential local exchange service in 2004. However, some of these 58 CLECs who checked the "other" option, provided reasons why they did not have a bigger share of Oregon's residential market. The respondents' comments are as follows:

- Too much regulatory paperwork required by cities for franchises. Small companies like ours do not have adequate staffing and profit margin to make residential competition worthwhile.
- Constantly changing FCC and PUC Rules, makes it very difficult for a small CLEC like us to price any reasonable residential package for the consumers.
- Providing UNE-P services by utilizing a reseller agreement.
- Competition from QWEST, competition from Charter Communications.
- ILEC benefits from volume pricing based on total US coverage and sales.
- The increase in the price of UNE-P services will increase our costs to the point of not being able to offer a competitive price.

VIII. Conclusion

In 2004, Oregon's local telecommunications market was an \$865 million industry, comprised of 2.23 million switched lines, 46,659 private line circuits and 184,246 DSL. Industry wide revenues increased \$39 million from 2003. For switched access line service, revenues and the number of lines served stayed about the same compared to a year ago. The private line service was separated from xDSL and had 46,659 circuits. There were 184,246 Digital Subscriber Lines serving residential and business customers accounting for \$50.8 million in revenue. The revenue per DSL per month was \$23.

The local telecommunications markets remain dominated by the incumbent providers, with competitors accounting for 12.2 percent of local exchange switched access lines. CLECs' share of exchange lines in the residential market was 4 percent in 2004. There does not appear to be sufficient incentives for CLECs to compete with ILECs on a broad scale in the local residential market. CLECs had captured 33 percent (up from 31 percent) of the business lines by the end of 2004, indicating the larger margins available in that market sector.

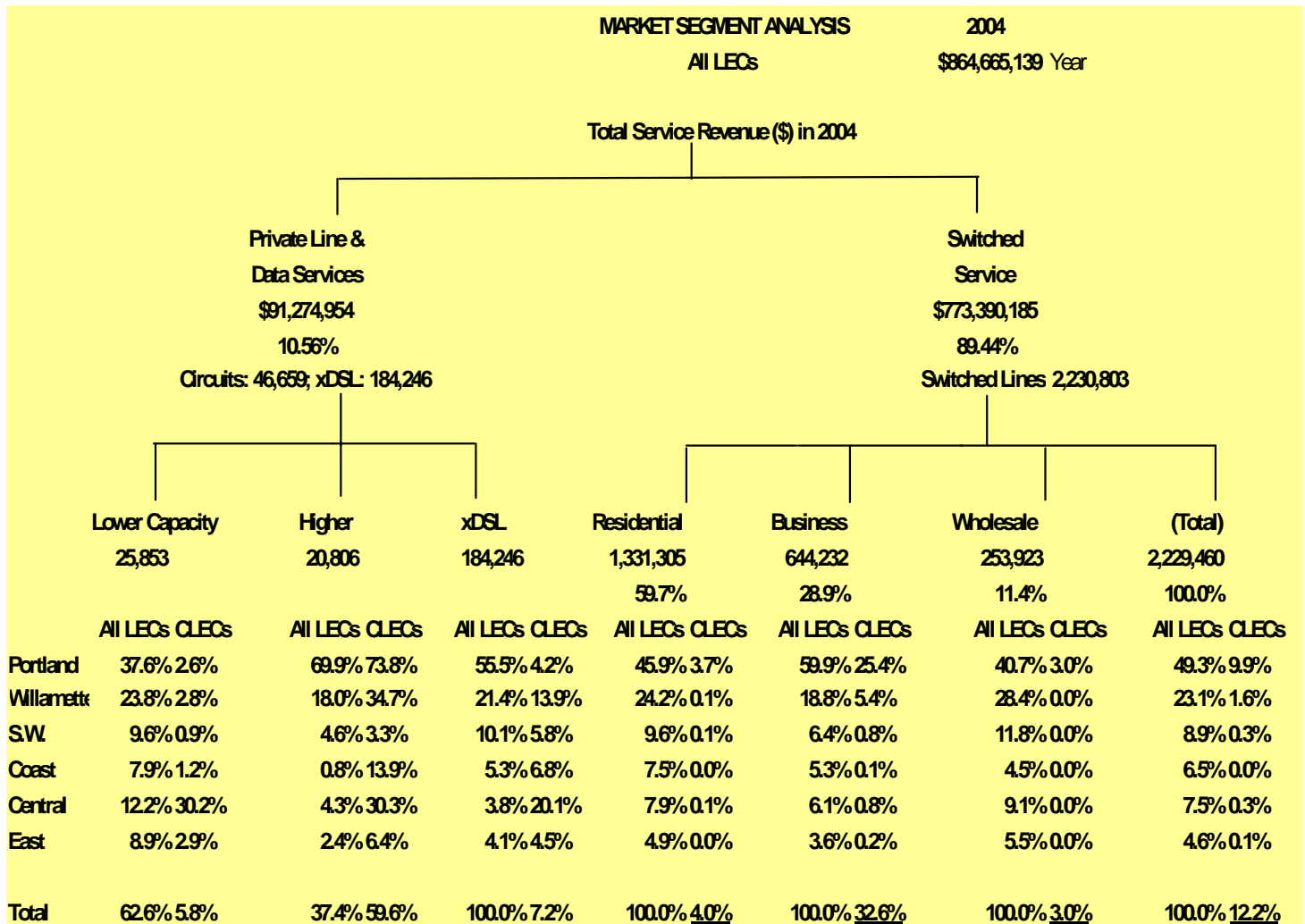
High-speed digital access accounted for 11.8 percent of total LEC revenue in 2004. This was an increase from 8.7 percent in 2003. The 11.8 percent revenue figure for high-speed access services consists of 4.7 percent from private line services, 5.9 percent DSL- Digital Subscriber Line, and 1.3 percent cable TV network in switched services.

Capital expenditures in support of local exchange service in Oregon in 2004 were estimated at \$120 million, which was 14 percent of total revenue (\$865 million). Capital investment by ILECs represented 11 percent of revenue, while CLECs spent 29 percent of revenue on capital investment. This indicates the focus of CLECs to become increasingly facilities-based providers.

For the residential local exchange market, 23 CLECs said they could not compete with the ILECs on price; 19 thought they could not compete on facilities; 14 believed that the incumbent carrier's name familiarity was a barrier; 10 answered that they did not have enough capacity, 6 responded that cell phone usage has decreased the demand for residential wire line and second-line services; and 18 considered that geographic location made residential competition difficult or expensive.

Out of 34 ILECs, 11 noted that increased cell phone usage has decreased the demand for wire line and second-line services, and 11 ILECs were restrained by the geographical location, which made residential competition difficult or expensive.

Figure 13. Local Exchange Carriers Market Segments and Shares



While the CLECs had a small percentage of the overall market, they achieved a significant presence in specific market segments. CLECs provided 33 percent (up from 31 percent in 2003) of switched business lines. The predominant form of CLEC competitive entry was resale. Highest CLEC market concentration as of December 2004 was in the Portland Metropolitan Region, where CLECs provide 42.4 percent of the business lines.

For switched services CLEC revenue from the Business market increased by 1 percent from 2003 to 2004, from \$89.6 million to \$90.3 million. ILEC business revenue also increased in 2004, by 2 percent, from \$223 million to \$228 million.

Revenue from Private Line Services was \$40.5 million in 2004. The ILECs had 55% and the CLECs had 45%.

DSL service revenue was \$50.8 million in 2004. The ILECs had 91%, while CLEC had 9%.