

LOCAL TELECOMMUNICATION COMPETITION SURVEY

YEAR 2010 REPORT

Economic Research and
Financial Analysis Division

Public Utility Commission of Oregon

December 2010

TABLE OF CONTENTS

- EXECUTIVE SUMMARY 1**
- I. PURPOSE OF THE SURVEY 6**
- II. SURVEY PARTICIPANTS AND RESPONSES 6**
- III. SERVICE TYPES 7**
 - 1. ILEC Service Types 7**
 - 2. CLEC Service Types 8**
- IV. SWITCHED SERVICES – MARKET SIZE AND SHARE ANALYSIS 10**
 - 1. Market Size and Shares 10**
 - A. Business Market Share 14**
 - B. Residential Market Share 15**
 - 2. CLEC Provisioning of Switched Service 16**
 - A. Facility-Based CLEC 16**
 - B. UNE-P CLEC 17**
 - 3. Market Trends in Switched Access Services 18**
- V. HIGH SPEED ACCESS SERVICES 25**
 - 1. Market Size and Share 25**
 - A. Private Line Service 25**
 - B. DSL Service 27**
 - C. VoIP Service 27**

2. CLEC Provisioning of Private Line Circuits.....	28
3. Market Trends in Local Private Line and DSL Services.....	28
VI. MARKET SEGMENTS BY REGION AND TYPE OF SERVICE.....	29
1. Market Segments by Region	30
A. Switched Services by Region.....	30
B. Private Line Service by Region	32
C. DSL Service by Region	35
2. Market Segments by Type of Service.....	36
A. Switched Services	36
B. Private Line	37
C. DSL	38
VII. BUSINESS PLANS AND COMPETITION.....	39
1. Capital Expenditures.....	39
2. Competition for Residential Market.....	40
VIII. CONCLUSIONS	43

Executive Summary

The staff of the Public Utility Commission of Oregon (OPUC) sent its survey in January 2010 to the 278 certified local exchange carriers (LECs) 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 regarding the local services they provided in 2009. Staff received survey responses from all 33 ILECs and 196 out of 245 CLECs, for a total response rate of 82 percent.

HIGHLIGHTS

Total Oregon Local Exchange Service Revenue 2009.....	\$828.9 Million
ILEC Revenue - \$Millions / Share	\$653 / 78.8%
CLEC Revenue - \$Millions / Share.....	\$176 / 21.2%
Total Switched Lines at Year-end 2009.....	1,674,481
ILEC Switched Lines / Market Share.....	1,265,459 / 75.6%
CLEC Switched Lines / Market Share	409,022 / 24.4%
Total Residential Switched Lines at Year-end 2009.....	834,090
ILEC Residential Switched Lines / Market Share	773,692/ 92.8%
CLEC Residential Switched Lines / Market Share	60,398 / 7.2%
Total Business Switched Lines at Year-end 2009	679,668
ILEC Business Switched Lines / Market Share	351,768 / 51.8%
CLEC Business Switched Lines / Market Share.....	327,900 / 48.2%
Total Wholesale Switched Lines at Year-end 2009.....	160,723
ILEC Wholesale Switched Lines / Market Share	139,999 / 87.1%
CLEC Wholesale Switched Lines / Market Share.....	20,724 / 12.9%
Change from Prior Year - Total Switched Lines / % Change.....	-96,739 / -5.5%
Change from Prior Year - ILEC Switched Lines / % Change.....	-171,478 / -11.9%
Change from Prior Year - CLEC Switched Lines / % Change	74,748 / 22.4%
UNE-P and UNE-P Equivalent, Lines / % Change from Prior Year ...	203,617 / 207%
CLECs Having Certificates	245
CLECs Doing Business / % of Total CLECs.....	144 / 58.8%

Total Number of Private Line Circuits	22,974
Lower Capacity Circuits / % of Total.....	14,451 / 63%
Higher Capacity Circuits / % of Total.....	8,523 / 37%
Total Number of Digital Subscriber Lines.....	365,735
CLEC Interconnected Voice over Internet Protocol (VoIP) Lines	40,702
All LEC Capital Expenditures - \$Millions / % of Revenue	\$180.6 / 21.8%
ILEC Capital Expenditures - \$Millions / % of Revenue.....	\$109.3 / 16.7%
CLEC Capital Expenditures - \$Millions / % of Revenue.....	\$71.4 / 40.6%

Growth in the number of operating competitive local exchange providers has leveled off over the last several years. Over the last ten years, the number of certified CLECs increased from 101 to 245 and the number of CLECs actually providing services in Oregon increased from 22 to 144.

CLEC Certificate Trends 1998 through 2009



As of December 2009, 144 out of the 245 certified CLECs reported they were actually providing local exchange services (58.8%, up from 55.3% in 2008). Using a widely recognized measure of market share, the percentage of local switched telephone lines, CLEC market share was 24.4 percent in 2009 (up from 19% in 2008). According to the survey responses, competitive entry into Oregon's residential telecommunications

Competition Survey
Year 2010 Final Report

market is still small. CLECs had a 7.2 percent (up from 5.3% in 2008) share of the Oregon residential market in 2009. Most competitive entry is in the business market.

CLECs supplied 48.2 percent of business customers' switched local exchange lines statewide in 2009, which was up from 42.4% in 2008.

Total Oregon LEC switched local exchange lines declined 5.5 percent in 2009, from 1.771 million in 2008 to 1.674 million in 2009. The following table summarizes the Survey response rates and service operation rates in Oregon.

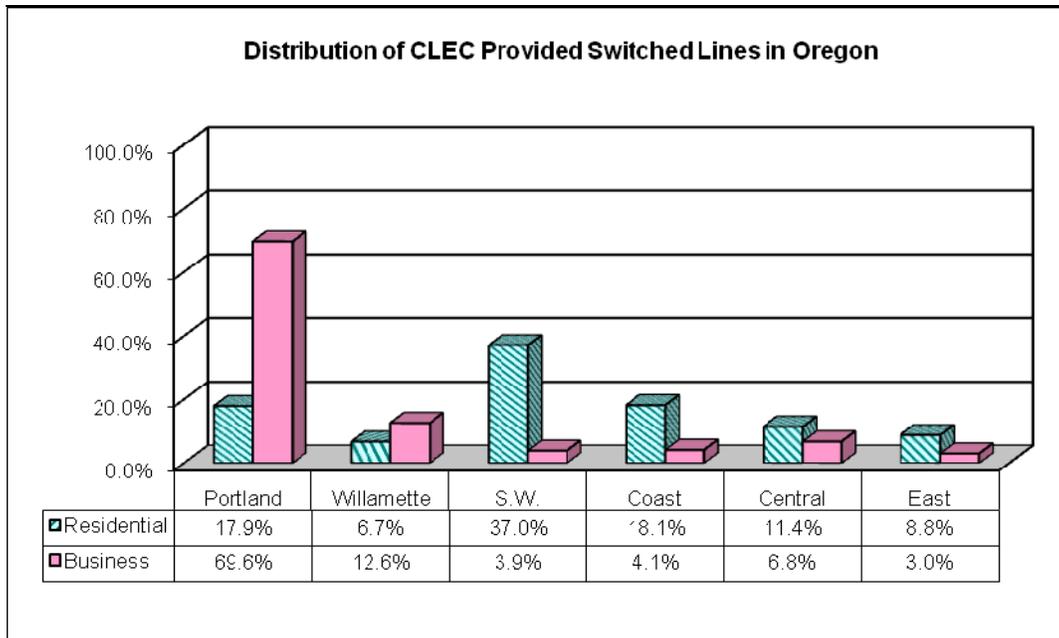
Survey Response Rates and Service Operation Rates

2009	Surveys Sent	Responses	Response Rate %
Total LECs	278	229	82.4%
ILECs	33	33	100.0%
CLECs	245	196	80.0%
	Surveys Sent	Service Provided	Operation Rate %
Total LECs	278	177	63.7%
ILECs	33	33	100.0%
CLECs	245	144	58.8%

Competitive entry into Oregon's telecommunications market varies by region. Eighty percent of CLECs' lines are for business customers. CLECs provided switched line service in Portland (63.1%), and in the Willamette Valley (11.3%). Twenty-six percent of CLEC business lines were in the Coast, Central, Southwest, and East regions.

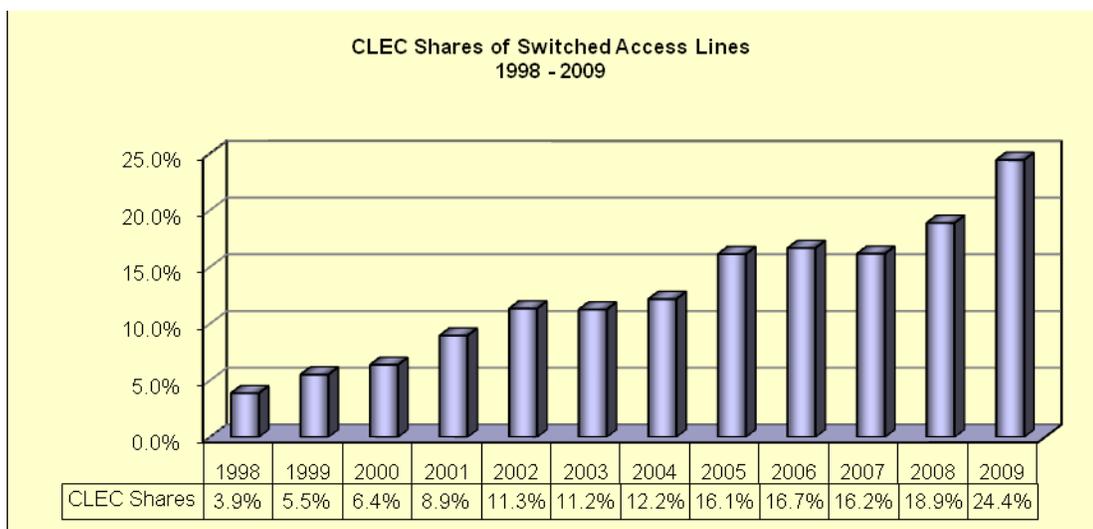
Of the 1.67 million switched access lines served by all local exchange carriers, almost 50 percent were residential lines. CLECs served 7.2 percent (0.6 million) of Oregon's residential lines. Thirty-eight percent of all residential lines were in the Portland area, where CLECs served 3.4 percent.

Distribution of CLECs' Switched Access Lines by Region



Approximately 69.6 percent of CLECs' business lines and 17.9 percent of CLECs' residential lines were in the Portland Metropolitan area. CLECs' switched service revenues were \$122 million in 2009, down from \$138 million in 2008.

CLECs' Share of Switched Access Lines: 1998 – 2009



Competition Survey
Year 2010 Final Report

Switched access lines served by CLECs at the end of 2009 represented 24.4 percent of total switched access lines in Oregon, compared with a national CLEC share of 28.1 percent as of the end of June 2009 (FCC Table 1 - End-User Switched Access Lines Reported). CLECs had 7.2 percent of the residential market in Oregon compared with 7.0 percent nationally. In the business market CLECs' share was 48.2 percent in Oregon compared to 27.2 percent nationally.¹

The number of CLEC lines in Oregon increased by 22.4 percent in 2009, from 334,274 (in 2008) to 409,022. By comparison, total ILEC lines decreased by 11.9 percent in 2009, from 1,436,946 (in 2008) to 1,265,459.

¹ Federal Communications Commission (FCC) September 3, 2010 News Release on "Local Telephone Competition." The statistics released reflect data as of June 30, 2009. Excel Table 7: Residential and Business Presubscribed Switched Access Lines.

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 Public Utility Commission to report on telecommunications issues.

II. Survey Participants and Responses

In January 2010, Commission staff sent a survey to all 278 carriers holding a certificate issued by the Commission to provide local services in Oregon. Of the 278 LECs, 33 are ILECs, and 245 are CLECs. The ILECs consist of 22 telecommunications utilities and 11 cooperatives. These are the traditional local telephone service providers in the state. CLECs compete with the traditional local service providers. The survey asked each LEC to provide information regarding their operations in 2009.

All 33 ILECs responded to the survey. For CLECs, 196 of the 245 (80%) responded. The overall response rate for all LECs was 82.4 percent (Table 1). In 2009, 64 percent (versus 61% in 2008) of all certified carriers were actually providing services, with 100 percent of ILECs and 59 percent (versus 55% in 2008) of CLECs (144 out of 245) providing services. This analysis assumes non-responding CLECs did not provide local service in Oregon in 2009.

Table 1. Survey Response Rates and Service Operation Rates

2009	Surveys Sent	Responses	Response Rate %
Total LECs	278	229	82.4%
ILECs	33	33	100.0%
CLECs	245	196	80.0%
	Surveys Sent	Service Provided	Operation Rate %
Total LECs	278	177	63.7%
ILECs	33	33	100.0%
CLECs	245	144	58.8%

III. Service Types

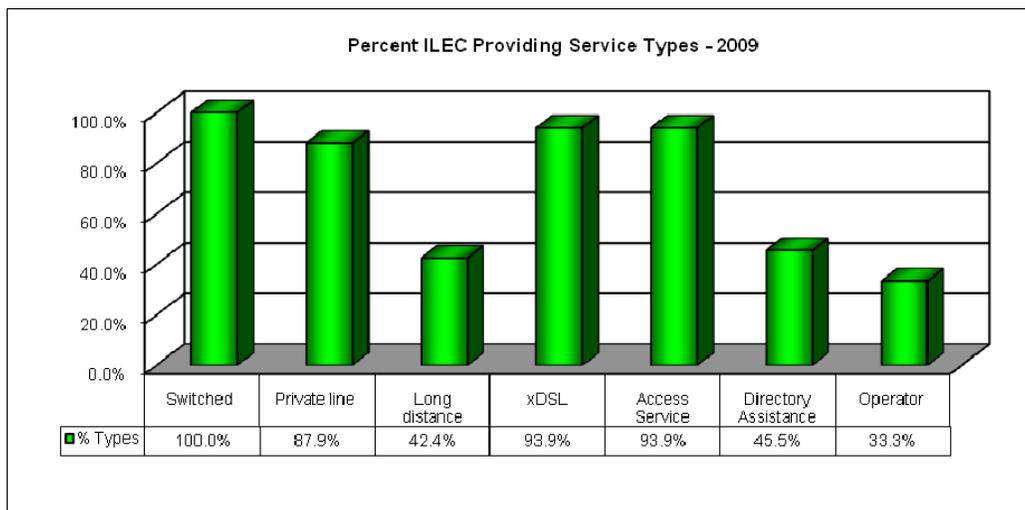
1. ILEC Service Types

All 33 certified ILECs provided local exchange switched services 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 and point-to-point) services include DSL (Digital Subscriber Line) services. ILEC service types and the percentage of ILECs providing each type of service in 2009 are shown in Table 2 and in Figure 1.

Table 2. ILEC Market Coverage by Service Category

Service Types	# of ILECs Providing Service	% of ILECs Providing Service
Local Exchange Switched Service	33	100.0%
Local Exchange Private Line Service:	29	87.9%
Lower Capacity	29	87.9%
Higher Capacity	21	63.6%
Long Distance Service	14	42.4%
xDSL (Digital Subscriber Line)	31	93.9%
Access service	31	93.9%
Directory Assistance	15	45.5%
Operator	11	33.3%
Telecom using Cable TV Facilities	0	0.0%
Telecom using VoIP	0	0.0%
Others	9	27.3%

Figure 1. ILEC Service Types and Distributions



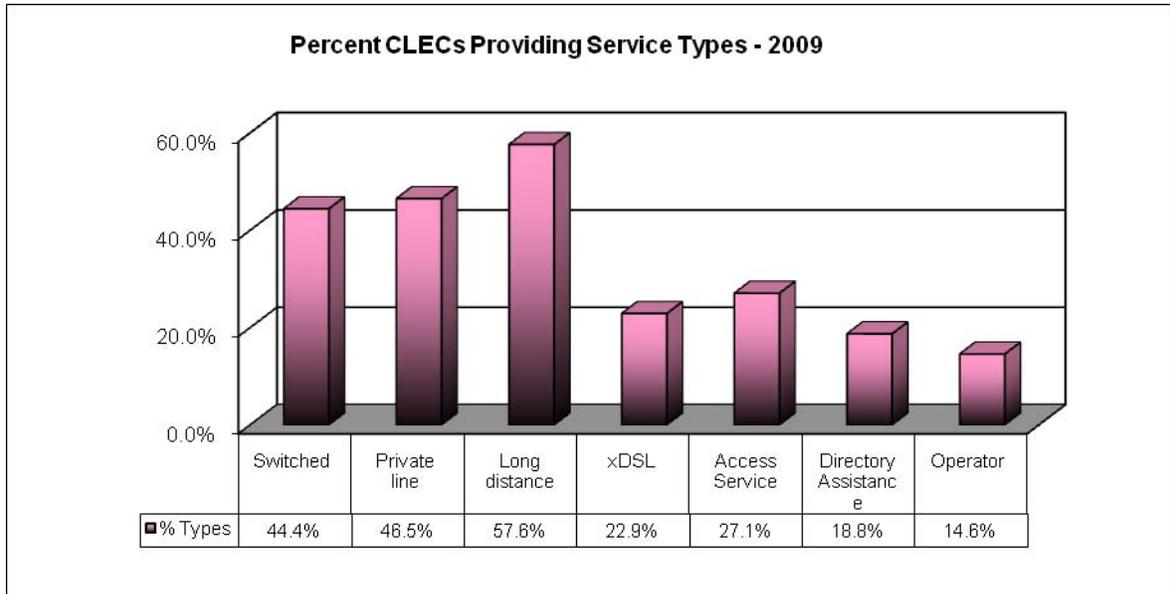
2. CLEC Service Types

As of December 2009, 144 (59%) of the 245 certified CLECs were providing some kind of telecommunications service in Oregon (up from 55% in 2008). This analysis assumes non-responding CLECs did not provide local service in Oregon in 2009. Of the 144 CLECs providing services, 63 provided local exchange service (versus 59 in 2008). Eighty-two CLECs provided long distance service (versus 75 in 2008) and 65 provided inter-exchange private line services. CLEC service types and service distributions are shown in Table 3 and Figure 2 below.

Table 3. CLEC Market Coverage by Service Category

Service Types	# of CLECs Providing Service	% of CLECs Providing Service
Operating CLECs	144	
Local Exchange Switched Service	64	44.4%
Local Exchange Private Line Service:	67	46.5%
Lower Capacity	20	13.9%
Higher Capacity	47	32.6%
Long Distance Service	83	57.6%
xDSL (Digital Subscriber Line)	33	22.9%
Access service	39	27.1%
Directory Assistance	27	18.8%
Operator	21	14.6%
Telecom using Cable TV Facilities	3	2.1%
Telecom using VoIP	24	16.7%
Others	41	28.5%

Figure 2. CLEC Service Types and Distributions



IV. Switched Services – Market Size and Share Analysis

1. Market Size and Shares

In 2009, there were 144 CLECs competing in the local telecommunication services market. CLECs as a group had a market share ranging between 10.7 percent and 24.4 percent, depending on how market share is measured. In this report, market share is measured in three ways: by the number of customers served; by the number of lines provided; and by revenues.

Table 4. 2009 Oregon Switched Service Market Shares

2009	Customers	Lines	Revenue-\$millions
ILECS	860,684	1,265,459	495.7
CLECS	103,625	409,022	122.0
Total	964,309	1,674,481	617.7
%	Customers	Lines	Revenue
ILECS	89.3%	75.6%	80.3%
CLECS	10.7%	24.4%	19.7%
Total	100.0%	100.0%	100.0%

CLECs' share of retail customers² in 2009 was 10.7 percent. According to the survey responses, Oregon LECs provided local exchange switched services to 964,309 Oregon customers. ILECs served 860,684 (89.3%) of the total, while CLECs served 103,625 customers (10.7%). (See Table 4 and Figure 3).

CLECs' share of retail lines³ in 2009 was 24.4 percent (Table 4). Oregon LECs supplied 1,674,481 (down 5.5% from a year earlier) local switched telephone lines to

retail customers. Of that total, ILECs supplied 75.6 percent (1,265,459 or 11.9% less than the prior year) of all lines and CLECs the remaining 409,022 (24.4% of the total and a 22.4% increase from the prior year). CLECs supplied an average of 4.0 lines per customer, which is the same ratio from a year earlier, while ILECs supplied an average of 1.5 lines per customer (and also 1.5 in 2008).

In 2009, retail revenues from total switched access services in Oregon were an estimated \$618 million (down from \$701 million in 2008). ILECs received \$495.7 million (down from \$562.8 million in 2008), or 82.4 percent of total switched access line revenue, and CLECs received the remaining \$122 million (down from \$138 million

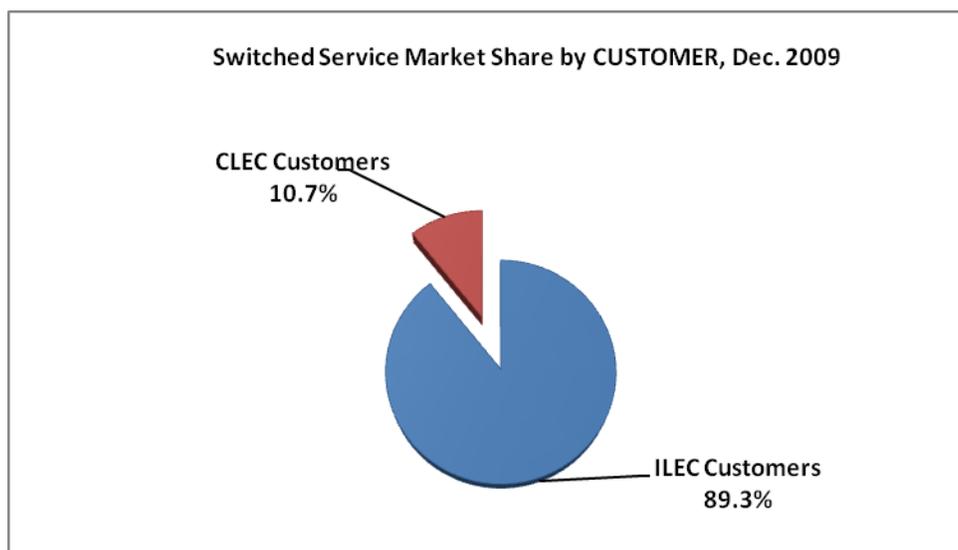
² DEFINITIONS are from INSTRUCTIONS FOR ANNUAL REPORTS (FORM C AND FORM L) at http://www.puc.state.or.us/PUC/telecom/forms/2009/C_L09_Instructions.pdf

Customer – a person or entity that had applied for, been accepted, and was receiving service for a price during the period covered by this report. A customer can have multiple lines; for example, if you send only one bill to a business, governmental agency, or residence, count the bill a one customer.

³ **Local exchange line** – a voice-level transmission path (64 kbps digital or less than 4 kHz analog) linking an end user (retail customer) location with the switching center providing dial tone.

in 2008), or 19.8 percent of total switched access line revenues. CLECs' share of retail revenues⁴ in 2009 was 19.8 percent versus 20 percent in 2008.

Figure 3. Market Shares for Switched Service



CLECs achieved a higher share of lines per customer (with roughly comparable revenues per line) and therefore a significantly higher share of revenues than of customers. This was due to CLECs' focus on business customers. Eighty-one percent of CLECs' switched service revenues were from business customers in 2009. Forty percent of ILECs' switched service revenues were from business customers in 2009.

ILECs' average annual switched service revenue per line was \$392. CLECs' average annual switched service revenue per line was \$369 (see Table 5).

⁴ **Revenues** – the cash inflows or equivalents from your operations during the year.

Exclude loan proceeds, shareholder contributions, and taxes that you billed to customers.

Include regulated and non regulated charges; federal and state charges; federal and Oregon universal service end-user surcharges and distributions; charges for switched lines, local usage, extended area service, repair and maintenance services, directory listing services, and add-on features such as call waiting, voice messaging, and caller identification; and charges for private line circuits and add-on capabilities such as multiplexing, conditioning, and bridging.

Table 5. 2009 Average Switched Service Customers, Lines, and Revenues

2009	CLECs	ILECs
Lines per Customer	3.9	1.5
Annual Revenue per Line	\$369	\$392
Annual Revenue per Customer	\$1,177	\$576

The 33 ILECs providing local exchange switched service had 89.3 percent of customers, (92% in 2008), 75.6 percent of switched access lines (81% in 2008) and 80.3 percent of switched service revenues (80% in 2008) (see Table 4). In 2009, the “big four” ILECs (CenturyTel, Qwest, United, and Verizon) had an 80 percent share of total customers (versus 82% in 2008), 69 percent of total exchange lines (74% in 2008), and 74 percent of total switched service revenues (also 74% in 2008).

Table 6. 2009 Market Shares of ILECs, CLECs, and Big 4 ILECs

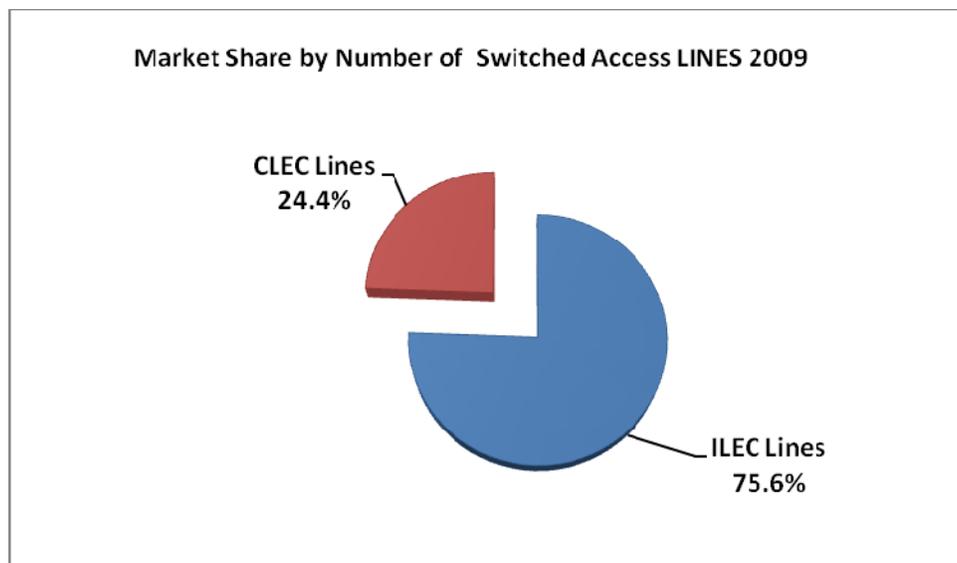
CUSTOMERS	ILECs/Total	CLECs/Total	Big-4 ILECs/Total
Residential	92.7%	7.3%	83.4%
Business	69.0%	31.0%	58.6%
Wholesale	94.5%	5.5%	94.5%
Total Customers	89.3%	10.7%	79.8%
SWITCHED LINES	ILECs/Total	CLECs/Total	Big-4 ILECs/Total
Residential	92.8%	7.2%	83.1%
Business	51.8%	48.2%	47.9%
Wholesale	87.1%	12.9%	87.1%
Total Lines	75.6%	24.4%	69.2%
REVENUES	ILECs/Total	CLECs/Total	Big-4 ILECs/Total
Residential	66.7%	33.3%	83.4%
Business	66.7%	33.3%	63.4%
Wholesale	94.6%	5.4%	89.6%
Total Revenues	80.3%	19.7%	74.2%

A. Business Market Share

CLECs supplied service to 31 percent of business customers in 2009, compared to 10.7 percent of all types of customers. CLECs supplied 48.2 percent (42.4% in 2008) of business switched access lines. This is substantially greater than the 24.4 percent CLEC share of Oregon total lines (see Figure 4). Similarly, CLECs had a 33.3 percent (35.1% in 2008) share of switched business service revenues, compared to 19.7 percent (and 19.7% in 2008) of total switched service revenues.

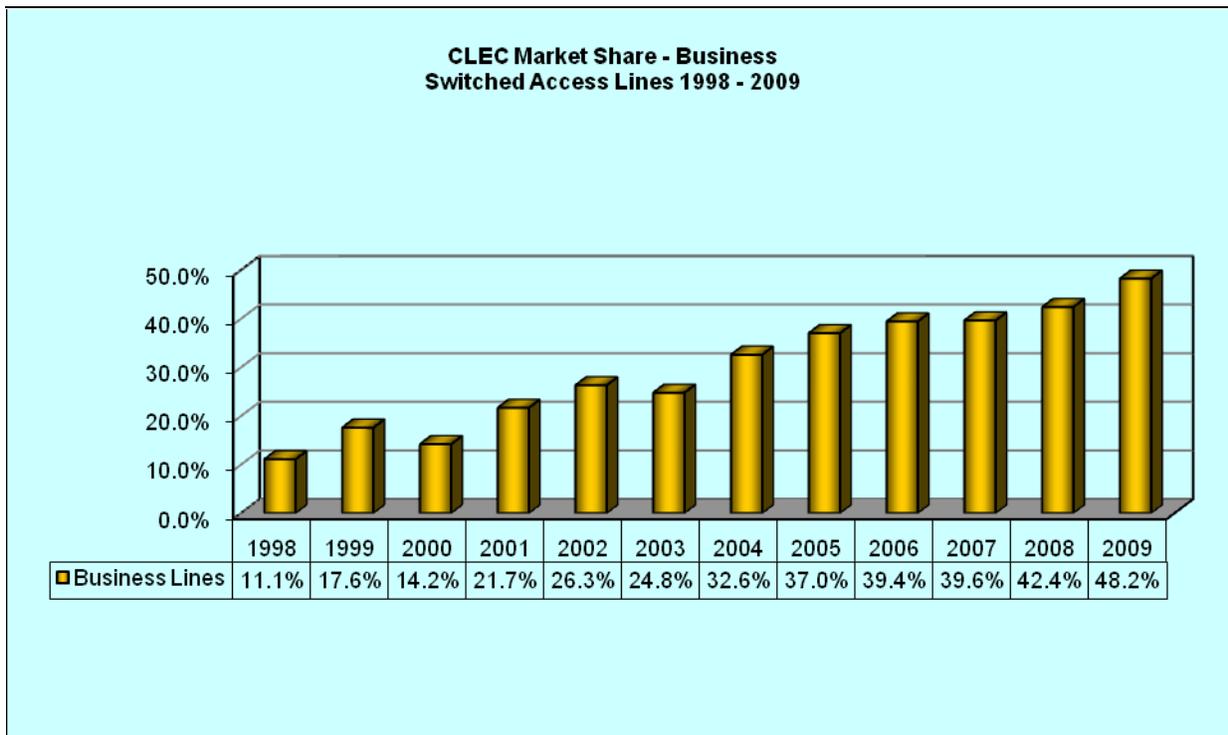
CLECs had 19.7 percent of Oregon's total switched access service revenues and ILECs had 80.3 percent. The 2009 CLEC annual revenue per business line was \$302. ILECs' average was \$564 per business line.

Figure 4. Business Market Share as Measured by Lines Served



CLECs' market share of switched access lines for business has steadily increased over the past 11 years; growing from 11 percent in 1998 to 48 percent in 2009 (see Figure 5).

Figure 5. CLEC Business Line Market Share Growth



B. Residential Market Share

Table 7. 2009 Residential Switched Services Market Shares

Residential	Customers	Lines	Revenues \$millions
ILECs	758,298	773,692	257.4
CLECs	59,603	60,398	20.8
Total	817,901	834,090	278.2
ILECs/Total	92.7%	92.8%	92.5%
CLECs/Total	7.3%	7.2%	7.5%

CLECs' share of residential customers was 7.3 percent in 2009 (see Table 7). According to the survey, Oregon LECs provided local exchange switched services to 817,901 Oregon residential customers. ILECs served 758,298 residential customers or 92.7 percent of the total, while CLECs served 59,603 residential customers.

CLECs' share of residential lines was 7.2 percent in 2009. Oregon ILECs supplied a total of 834,090 local switched telephone lines to residential customers. ILECs supplied 92.8 percent or 773,692 residential lines, and CLECs provided 60,398 residential lines.

ILECs served 92.8 percent of the residential line market in 2009 (versus 94.7 percent in 2008). The "big four" ILECs (CenturyTel, Qwest, United, and Verizon) provided 83.1 percent of total residential lines, compared to 85.1 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 provide service to an individual home than to typically more geographically concentrated businesses. About 15 percent of total CLEC lines were for CLEC residential customers, while 61 percent of total ILEC lines served ILEC residential customers. Most CLEC operations are focused on the more profitable business market.

Overall residential revenues from local exchange switched service in Oregon in 2009 were an estimated \$278.2 million as compared with \$320.4 million in 2008. Average residential monthly revenue per line was \$28.70 for CLECs and \$27.72 for ILECs.

2. CLEC Provisioning of Switched Service

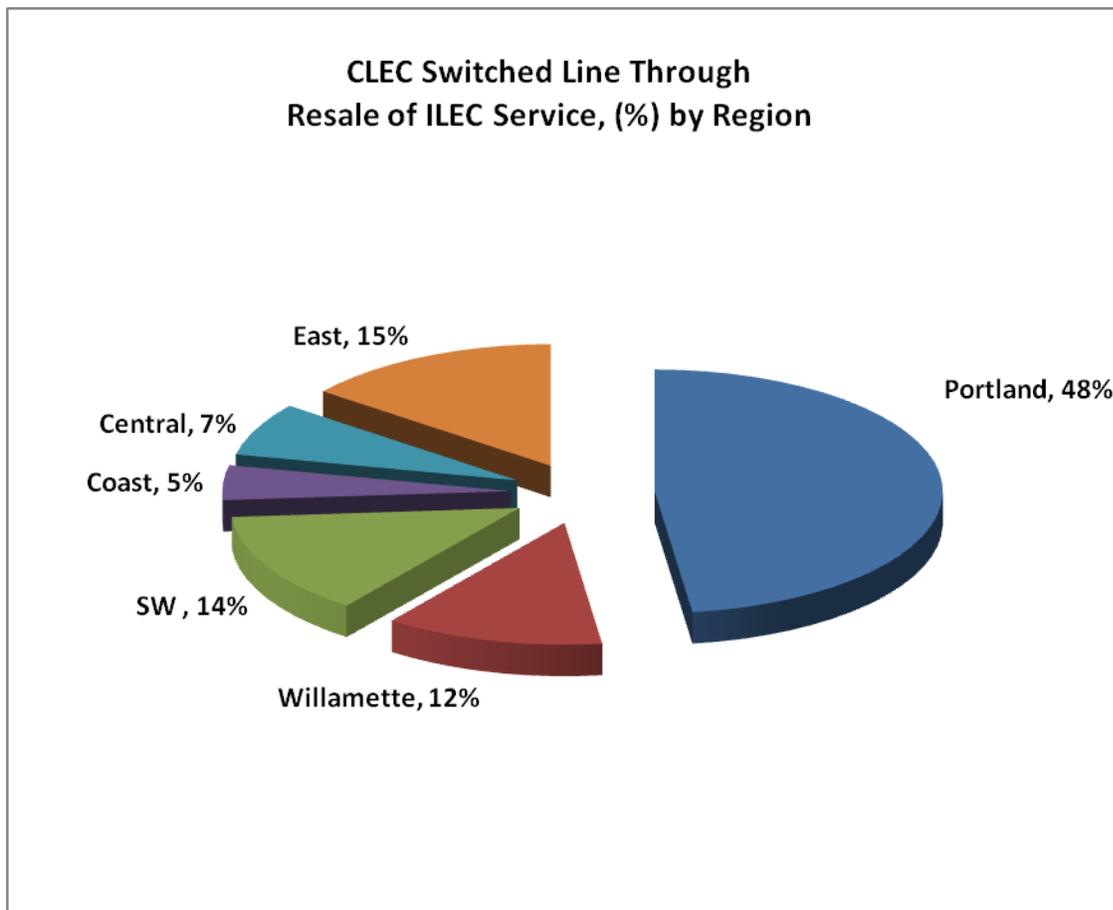
Thirty-nine of the 64 CLECs (61%) provided local switched service in December 2009 by reselling ILEC services. A CLEC reseller buys complete retail services from ILECs, and then resells those services under the CLECs' own name to customers.

A. Facility-Based CLEC

Approximately 41 percent (26 of 64) of the CLECs providing local switched service are fully or partially facility-based providers. These fully or partially facility-based CLECs provided 409,022 switched access lines in 2009, which was 80.6 percent of CLECs' total lines. There were 26 CLEC facilities-based providers identified in the survey. However, not all of these lines were provisioned using facilities owned and operated by CLECs. A facilities-based CLEC typically owns and operates some telecommunications facilities and also resells services obtained from one or more ILECs.

Over 48 percent of resold ILEC service occurred in the Portland area, and 15 percent of resold CLEC service occurred in the East Area (see Figure 6).

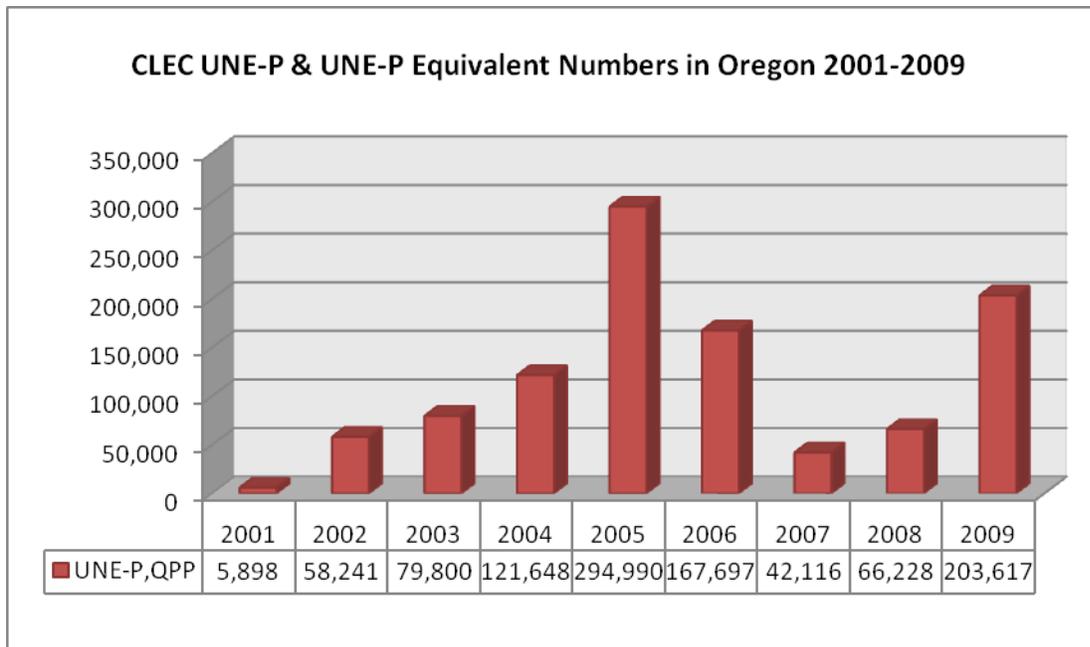
Figure 6. Market Concentration – CLECs’ Resale of ILECs’ Lines in 2009



B. UNE-P CLEC

Seventeen CLECs reported providing switched access lines by purchasing Unbundled Network Elements Platform (UNE-P) or Qwest’s Platform Plus (QPP) which is the company’s UNE-P equivalent. The UNE-P and UNE-P equivalent numbers were 203,617 (lines) in December 2009, versus 66,228 in 2008 and 42,116 in 2007. Figure 7 below indicates that as Federal Communications Commission’s (FCC) policy changed, total UNE-P plus QPP numbers changed correspondingly.

Figure 7. CLEC UNE-P and UNE-P Equivalent Numbers in Oregon 2001-2009



3. Market Trends in Switched Access Services

CLECs reported 409,022 (or 24.4 percent of all LECs) of 1,674,481 statewide local switched access lines in service at the end of 2009. This represents a 22.4 percent increase in CLEC switched lines during 2009. In comparison, the number of lines served by ILECs decreased by 11.9 percent during the preceding year, from 1,436,946 to 1,265,459 lines (see Table 8 below).

Table 8. Trends in Switched Access Lines, 1998 to 2009

Date	ILEC Lines	CLEC Lines	Total	CLEC 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%
Dec-05	1,803,832	346,923	2,150,755	16.1%
Dec-06	1,652,900	330,407	1,983,307	16.7%
Dec-07	1,605,911	309,674	1,915,585	16.2%
Dec-08	1,436,946	334,274	1,771,220	18.9%
Dec-09	1,265,459	409,022	1,674,481	24.4%

Figure 8. ILECs' Switched Access Services Market Share: 1998 to 2009

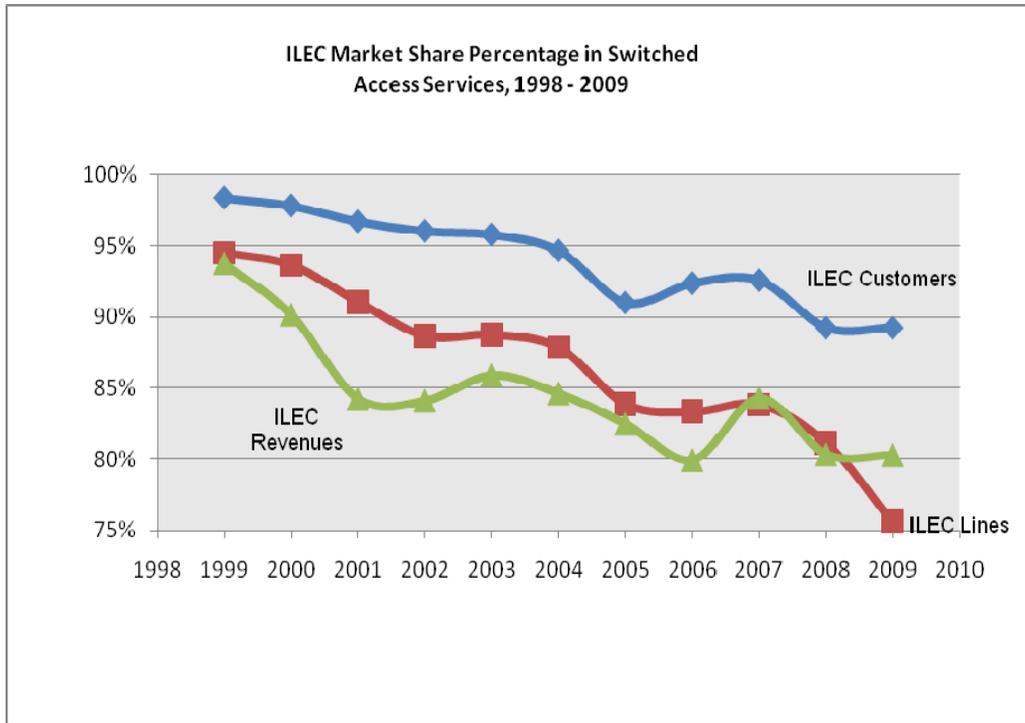


Figure 8 shows the downward trend for ILECs' share of switched access services.

ILEC residential revenue decreased 14.9 percent to \$257 million from \$302 million in 2008. ILEC business revenue decreased 8.6 percent to \$198.5 million from \$217 million.

CLEC revenue from the residential market was \$20.8 million in 2009, up from \$17.9 million in 2008. CLEC revenue from the business market was \$98.9 million, which was down 15.7 percent from \$117.4 million in 2008.

Figure 9. CLEC Switched Access Lines

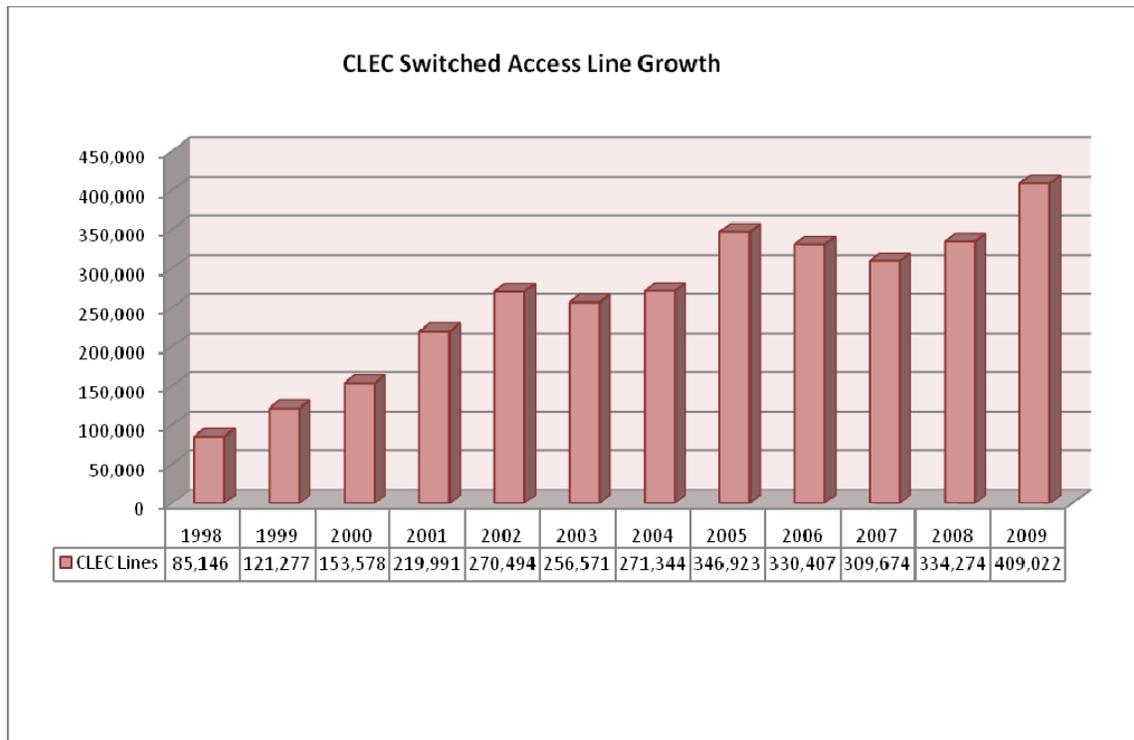
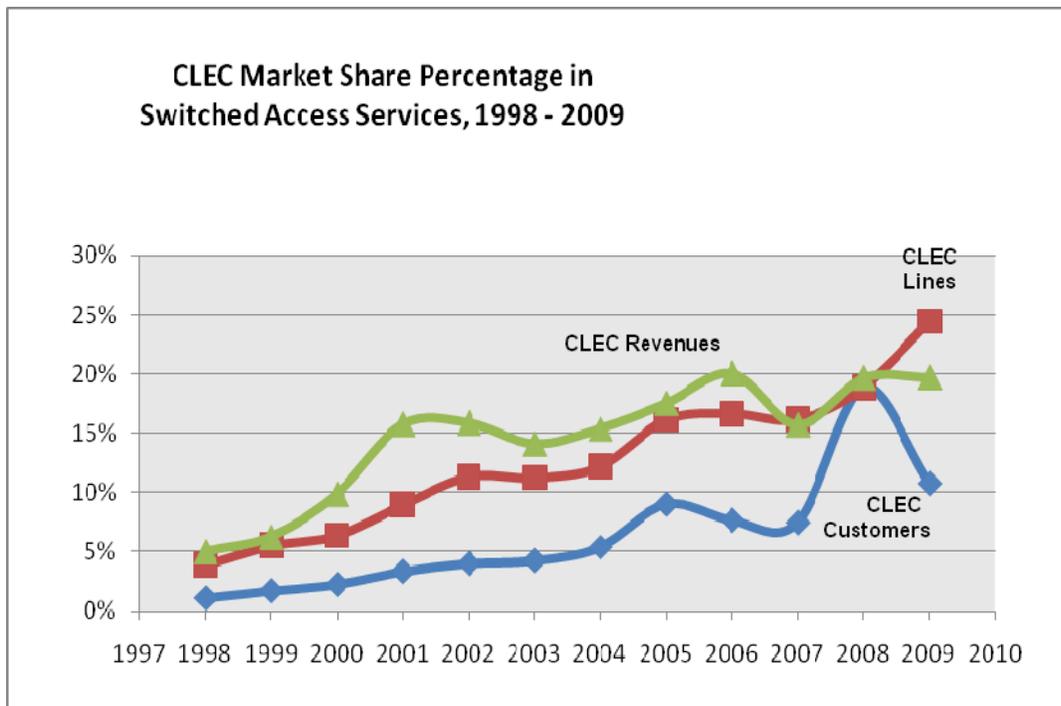


Table 8 and Figure 9 show that CLECs' switched access lines continued to increase in 2009. Annual growth in CLEC switched lines averaged 15 percent over the 1998-2009 period, from 85,146 lines in 1998 to 409,022 lines in 2009. During the same period, the number of ILEC switched access lines declined by an average of 4.6 percent per year, from 2.1 million lines in 1998 to 1.26 million lines in 2009. The total number of switched access lines has declined by 23.9 percent since 1998. This decline is presumably due to the increased use of cell phones, the replacement of second lines with DSL service, and the use of cable service for Internet access.

Figure 10 below shows CLECs' market share growth. CLECs' share of switched service revenue was 19.7 percent in 2009 compared to a 5 percent market share in 1998. The CLEC share of switched lines increased to 24.4 percent in 2009, up from 3.9 percent in 1998. CLECs' share of customers was 10.7 percent in 2009 versus 1.0 percent in 1998.

Figure 10. CLECs' Market Shares in Switched Access Services: 1998 to 2009



For residential market, CLECs' share of residential switched service revenue increased 16.1 percent in 2009 over the prior year.

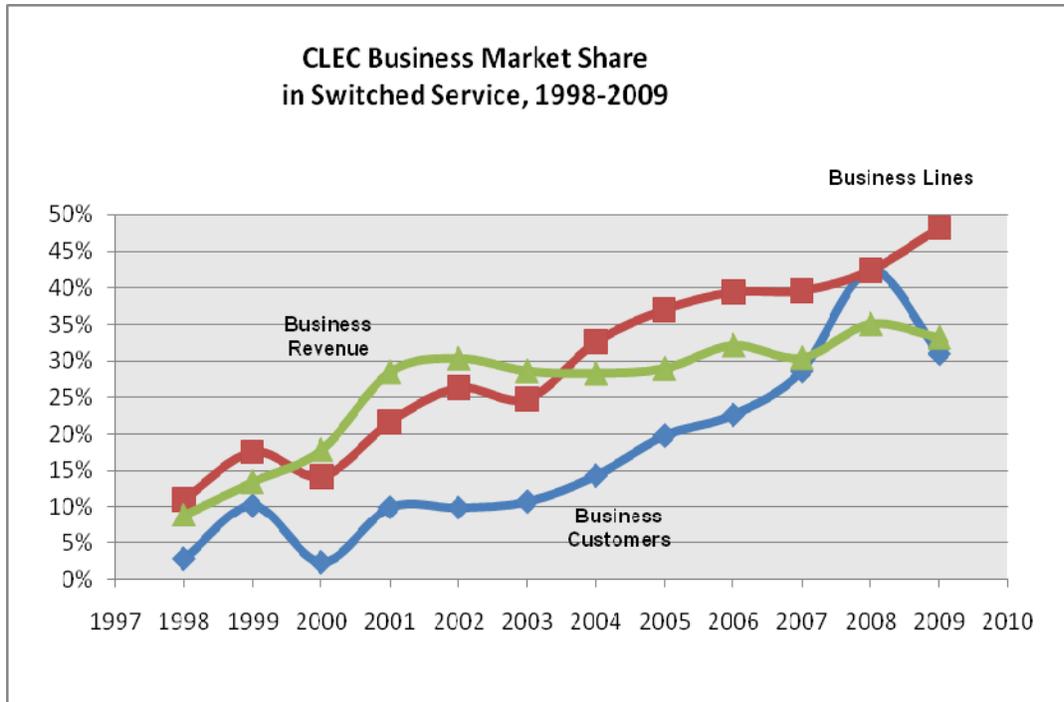
CLECs' share of residential switched service revenue was 7.5 percent in 2009, compared to 1.3 percent in 1998. Over the same period, CLECs' market share for both residential lines and customers increased to 7.3 percent from 0.7 percent (see Figure 11).

**Figure 11. CLEC Residential Market Shares for Switched Access Services:
1998 to 2009**



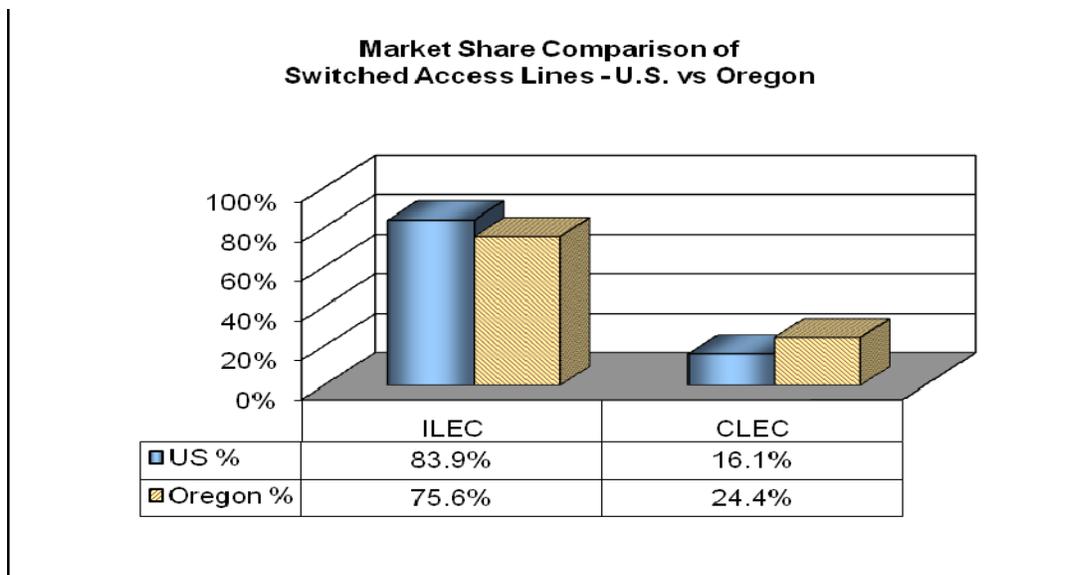
CLECs' share of business switched service revenue increased to 33.3 percent in 2009, from 8.9 percent 11 years ago in 1998. In the same period, CLECs' share of business lines increased to 48.2 percent from 11.1 percent. CLECs' share of business customers increased to 31 percent from 2.8 percent over the same period (see Figure 12).

Figure 12. CLEC Business Market Shares for Switched Access Service: 1998 to 2009



According to *FCC News* (September 3, 2010), as of June 30, 2009, U.S. end-use customers obtained local telephone service by utilizing approximately 111.8 million ILEC switched access lines (83.9% of total LEC lines) and 21.5 million CLEC switched access lines (16.1% of total). In comparison, Oregon ILECs provided 75.6 percent of total switched access lines and Oregon CLECs provided 24.4 percent; Oregon's values are similar to those for the U.S. (see Figure 13).

Figure 13. Market Share Comparison of Switched Access Lines – U.S. vs. Oregon



V. High Speed Access Services

1. Market Size and Share

A. Private Line Service

Local exchange private lines are dedicated circuits customers use to transmit information between two or more pre-selected locations within the geography served by a telephone exchange. Local private line services are available in a range of capacities or bandwidths. The survey distinguishes between lower capacity circuits (bandwidth less than 1.544 Megabits per second) and higher capacity circuits (bandwidth of 1.544 Mbps or greater).

Revenue from private line services was 7.8 percent of total 2009 service revenues, with 17.7 percent from DSL and 74.5 percent from switched services.

Forty-three CLECs reported they provide local exchange private line services. CLECs' private line market shares ranged from 24.3 percent for private line circuits to 55.7 percent for private line revenue (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 CLECs' market share in three ways: customers, circuits, and revenues.

Table 9. Local Exchange Private Line Services

2009	All LECs	CLECs	ILECs	CLECs' Share
Private Line Customers	8,185	3,014	5,171	36.8%
Total Private Line Circuits	22,974	5,572	17,402	24.3%
Lower Capacity	14,451	456	13,995	3.2%
Higher Capacity	8,523	5,116	3,407	60.0%
Annual Revenues (\$000)	\$64,702	\$36,009	\$28,694	55.7%
Annual Revenue \$ per Circuit	\$2,816	\$6,462	\$1,649	

CLECs' share of local private line customers⁵ was 36.8 percent, or 3,014 customers,⁶ while ILECs provided service to 5,171 customers, or 63.2 percent of the total.

CLECs' market share of all private line circuits⁷ was 24.3 percent. CLECs' market share of lower capacity circuits was 3.2 percent, while their market share for higher capacity circuits was 60 percent. Total private line circuits, including lower and higher capacity circuits, numbered 22,974 in 2009.

⁵ **Customer** – a person or entity that had applied for, been accepted, and was receiving service for a price during the period covered by this report. A customer can have multiple lines; for example, if you send only one bill to a business, governmental agency, or residence, the entity counts as one customer.

⁶ Note that survey results may overstate 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 entity as a private line customer.

⁷ **Circuit** – a termination you provide and bill to your customers for private line service. If you provide a circuit that connects two customer locations, and bill the customer for both ends of the circuit, this counts as two terminations. The capacity of a circuit should be determined by the capacity you deliver to the customer at the point of termination, even though the customer may further subdivide that capacity using its own multiplexing or other equipment.

Table 10. Private Line Service Revenues: 2009

2009	Total	ILECs	CLECs
Shares	100.0%	44.3%	55.7%
\$ Million	\$64.7	\$28.7	\$36.0

CLECs' share of total local private line service revenues⁸ was 55.7 percent (see Table 10). Total revenues from local private line services in 2009 were an estimated \$64.7 million. Of the total estimated annual revenues, ILECs received \$28.7 million (44.3%) and CLECs \$36 million (55.7%). CLECs' share of revenues was greater than their share of customers, indicating that CLECs' customers spend more than the average customer.

B. DSL Service

Digital subscriber line (DSL) is a service which uses a technology that combines two-way voice and data transmissions at very high speeds over normal telephone lines. The total number of DSL in Oregon was 365,735 in 2009 and 378,118 in 2008. Ninety-one (91%) percent of DSL was provided by ILECs and 9 percent was provided by CLECs (see Figure 14). DSL revenues were \$146 million in 2009, up 7.6 percent from 2008.

C. VoIP Service

Interconnected Voice over Internet Protocol (VoIP) Service is a service that enables real-time, two-way voice communications; requires a broadband connection from the user's location; requires Internet-protocol compatible customer premises equipment; and permits users generally to receive calls that originate on the public switched telephone network and to terminate calls to the public switched telephone network.

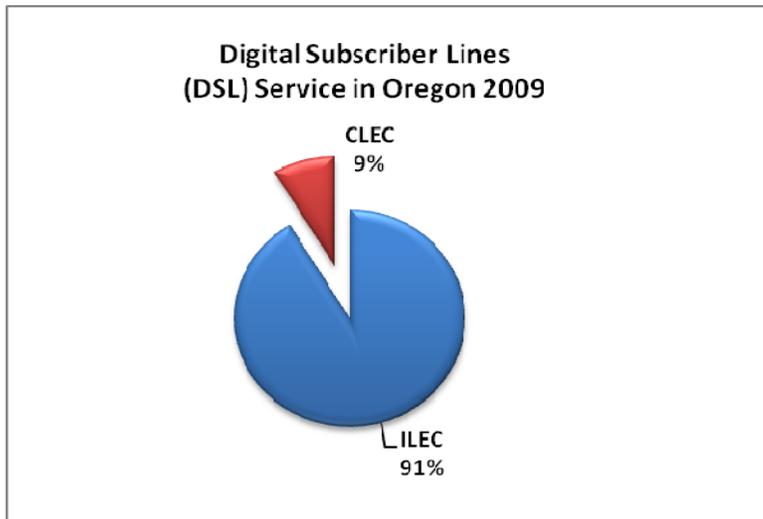
⁸ **Revenues** – the cash inflows or equivalents from your operations during the year.

Excluded are loan proceeds, shareholder contributions, and taxes that you billed to customers.

Included are regulated and nonregulated charges; federal and state charges; federal and Oregon universal service end-user surcharges and distributions; charges for switched lines, local usage, extended area service, repair and maintenance services, directory listing services, and add-on features such as call waiting, voice messaging, and caller identification; and charges for private line circuits and add-on capabilities such as multiplexing, conditioning, and bridging.

Oregon's total number of VoIP lines in 2009 was 40,702, all of which were provided by CLECs.

Figure 14. Oregon Digital Subscriber Lines (DSL)



2. CLEC Provisioning of Private Line Circuits

Twenty-seven (27) CLECs provided private line services by reselling ILEC services. Sixteen (16) CLECs provided private line service by reselling services of other CLECs. Most of this resale activity 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 seeming to arrive every year. Customers have replaced the relatively narrow bandwidth available using traditional modems and conventional telephone lines for data connectivity alternatives having much greater bandwidth, such as cable modems and cable facilities, digital subscriber lines (DSL), T-1 lines,⁹ satellite data service, fixed or mobile wireless facilities, and services having transmission paths entirely over fiber optic cable.

⁹ T-1 (also known as Digital Service 1, or DS1) is a private line service having a theoretical bandwidth of 1.544 Megabits per second.

The percentage of Oregon (residential and business) having high-speed digital access was 25.5 percent as measured by revenue. Oregon's 25.5 percent of revenue from

high-speed access services consists of 7.8 percent private line service and 17.7 percent DSL services.

VI. Market Segments by Region and Type of Service

The survey divided Oregon into six geographic regions. The regions are based on clusters of ILEC local exchange serving areas (see Figure 15). The regions are: Portland Metropolitan,¹⁰ Willamette Valley,¹¹ Southwest Interior,¹² Coast,¹³ Central,¹⁴ and East.¹⁵

¹⁰ The "**Portland Metropolitan**" region consists of the following exchanges: Aurora, Beavercreek, 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, and Yamhill.

¹¹ The "**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, Lewisburg, Lebanon, Lobster Valley, Lowell, Lyons, Marcola, McMinnville, Mill City, Monitor, Monroe, Mt. Angel, Murphy-Provolt, Oakridge, Philomath, Rainier, Salem, Scio, Shedd, Sheridan, Silverton, St. Helens, St. Paul, Stayton, Summit, Sweet Home, Triangle Lake, Veneta, and Willamina.

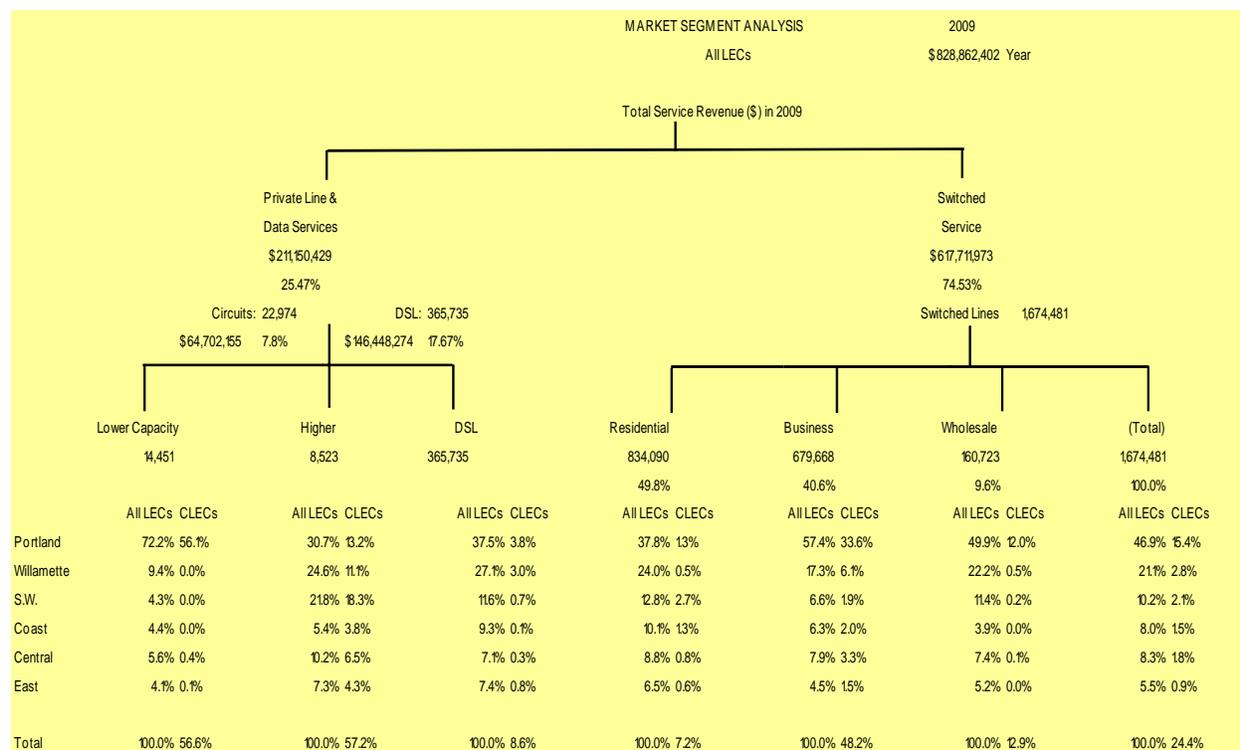
¹² The "**Southwest Interior**" region consists of the following exchanges: Ashland, Azalea, Butte Falls, Camas Valley, Canyonville, Cave Junction, Central Point, Crater Lake, Days Creek, Diamond Lake, Elkton, Fish Lake, Glendale, Glide, Gold Hill, Grants Pass, Jacksonville, Medford, Myrtle Creek, North Umpqua, Oakland-Sutherland, O'Brien, Phoenix-Talent, Prospect, Riddle, Rogue River, Roseburg, Selma, Shady Cove, White City, Wolf Creek, and Yoncalla.

¹³ The "**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, and Yachats.

¹⁴ The "**Central**" region consists of the following exchanges: Antelope, Arlington, Bend, Bonanza, Bly, 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, Odell, Paisley, Parkdale, Paulina, Pine Grove, Prineville, Redmond, Rocky Point, Rufus, Silver Lake, Sprague River, Sisters, The Dalles, Tygh Valley, Wamic, and Wasco.

¹⁵ The "**East**" region consists of the following exchanges: Adrian, Athena-Weston, Baker, Bates, Boardman, Burns, Cove, Dayville, Durkee, Echo, Elgin, Enterprise, Flora-Troy, Granite, Haines, Halfway, Harney, Harper, Helix, Heppner, Hereford-Unity, Hermiston, Huntington, Imbler, Lone, John Day, Jordan Valley, Joseph, Juntura, La Grande, Lexington, Long Creek, Lostine, Meacham,

Figure 15. Local Exchange Carriers Market Segments and Shares



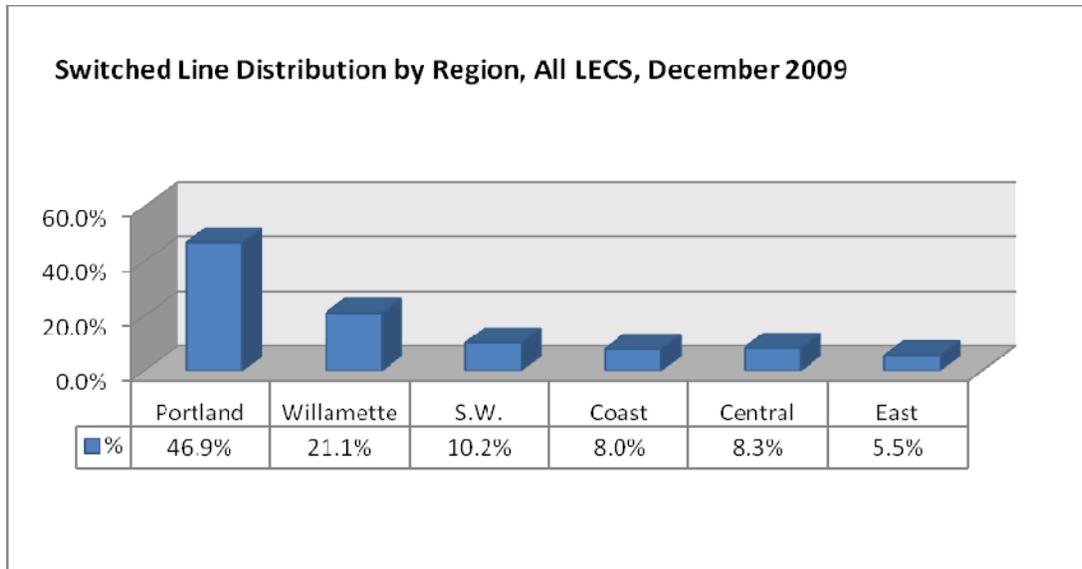
1. Market Segments by Region

A. Switched Services by Region

The survey asked each LEC to report the number of switched local exchange lines it supplied to customers in each region. Both ILECs and CLECs reported customers in all six regions. The Portland Metropolitan region, the most populous area of the state, continues to be the largest regional market. The Portland Metropolitan region accounted for 46.9 percent (see Figure 16) of all retail local exchange switched lines in the state. Second was the Willamette Valley region, with 21.1 percent of the lines. The other four regions collectively accounted for less than a third of the state's lines: Southwest Interior (10.2%), Central (8.3%), Coast (8.0%), and East (5.5%).

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), and Wallowa.

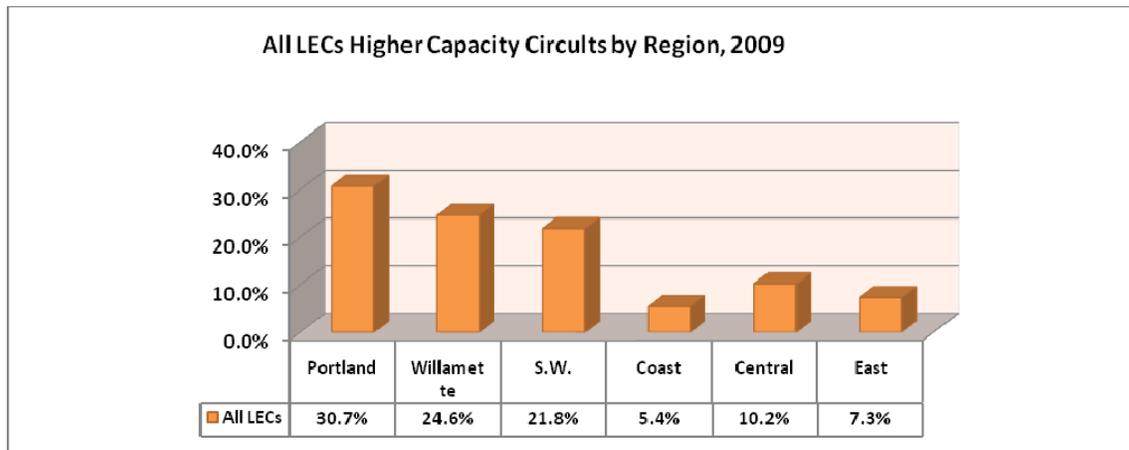
Figure 16. Oregon LECs' Switched Lines by Region



Survey responses indicate that CLECs provided competitive local switched service in all six regions of the state. Competitive entry is highest in the Portland Metropolitan region. Statewide, CLECs had a 24.4 percent share of switched local exchange lines. For the Residential market, CLECs had 7.2 percent of lines in the state in 2009, and 37 percent of CLEC residential lines were in the Portland Metro region.

In the Business market, CLECs had 48.2 percent of lines in the state, and 30.7 percent of all CLEC business switched lines were in the Portland Metro region (see Figure 17).

Figure 17. Distribution of CLEC Business Lines by Region

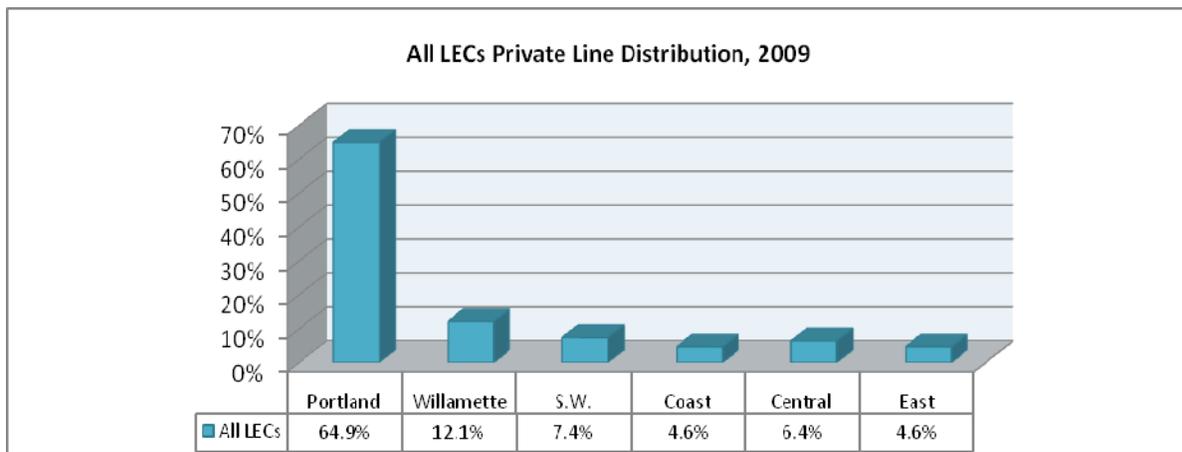


B. Private Line Service by Region

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.

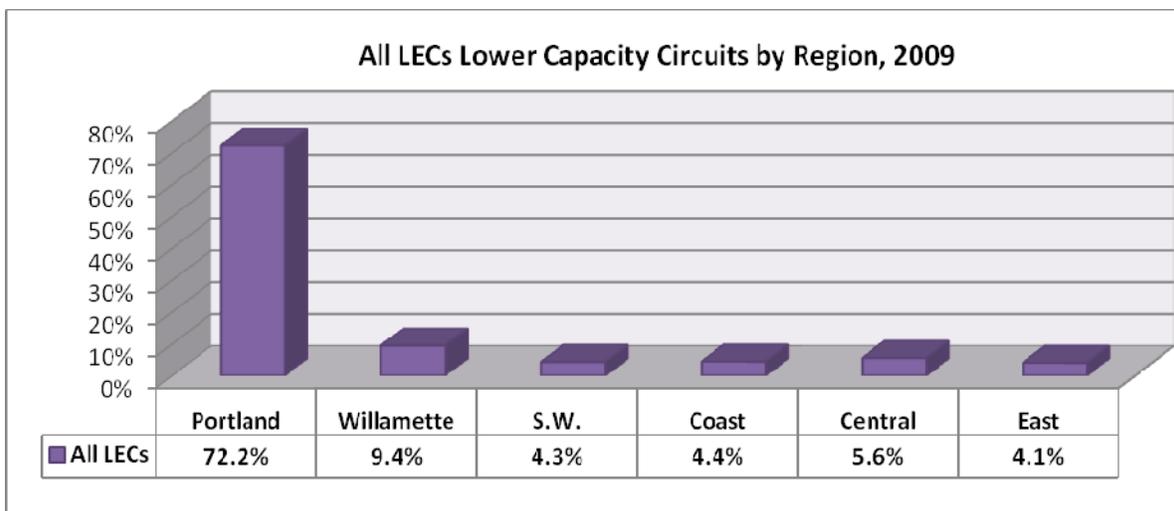
The Portland Metropolitan region is the largest regional private line market, with 64.9 percent (see Figure 18) of all retail private line circuits in the state. The second largest region was the Willamette Valley, with 12.1 percent of private line circuits. The other four regions collectively accounted for 23 percent of the state's private line circuits: Central (6.4%), Southwest Interior (7.4%), East (4.6%), and Coast (4.6%).

Figure 18. Oregon Private Line Service by Region: 2009



Of the state's 22,974 local exchange private line circuits, the majority (62.9 percent) were in the lower capacity category. The Portland Metropolitan region was the largest market for lower capacity circuits, with 72.2 percent (see Figure 19) of the lower capacity private line circuits in the state. The second largest market was the Willamette Valley region with 9.4 percent of lower capacity private line circuits, followed by the Central (5.6%), Coast (4.4%), Southwest Interior (4.3%), and East (4.1%) regions.

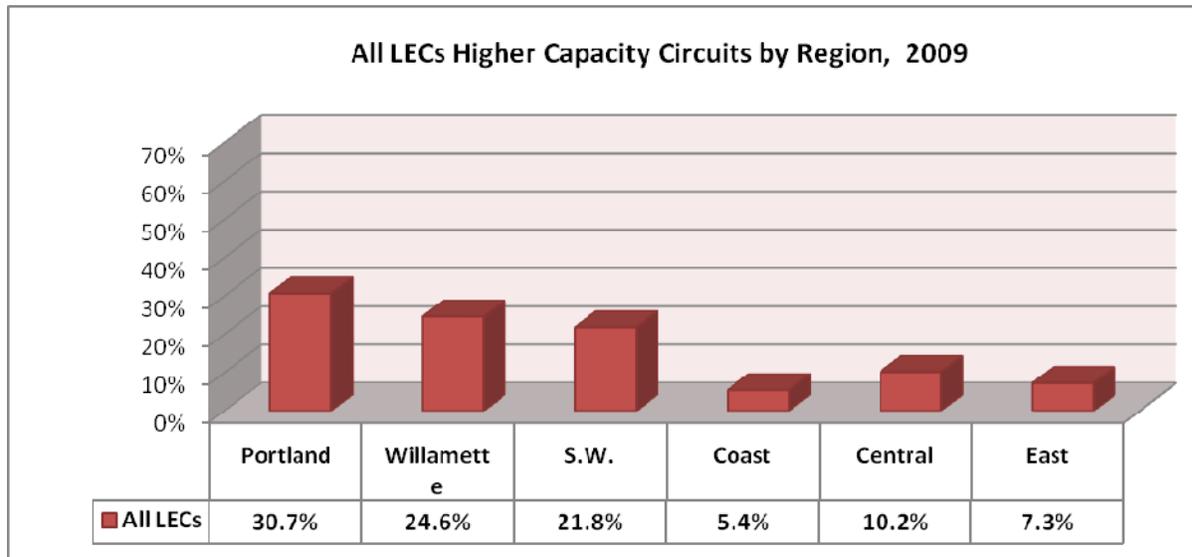
Figure 19. Lower Capacity Private Line Circuits by Region: 2009



Higher capacity private line circuits accounted for 37.1 percent of the state's total private line circuits. In December 2009, the market for higher capacity private line circuits was

largest in the Portland Metropolitan region, with 30.7 percent of the state’s total (see Figure 20). The second largest market was the Willamette Valley region with 24.6 percent of higher capacity private line circuits, followed by the Southwest Interior (21.8%), Central (10.2%), East (7.3%), and Coast (5.4%) regions.

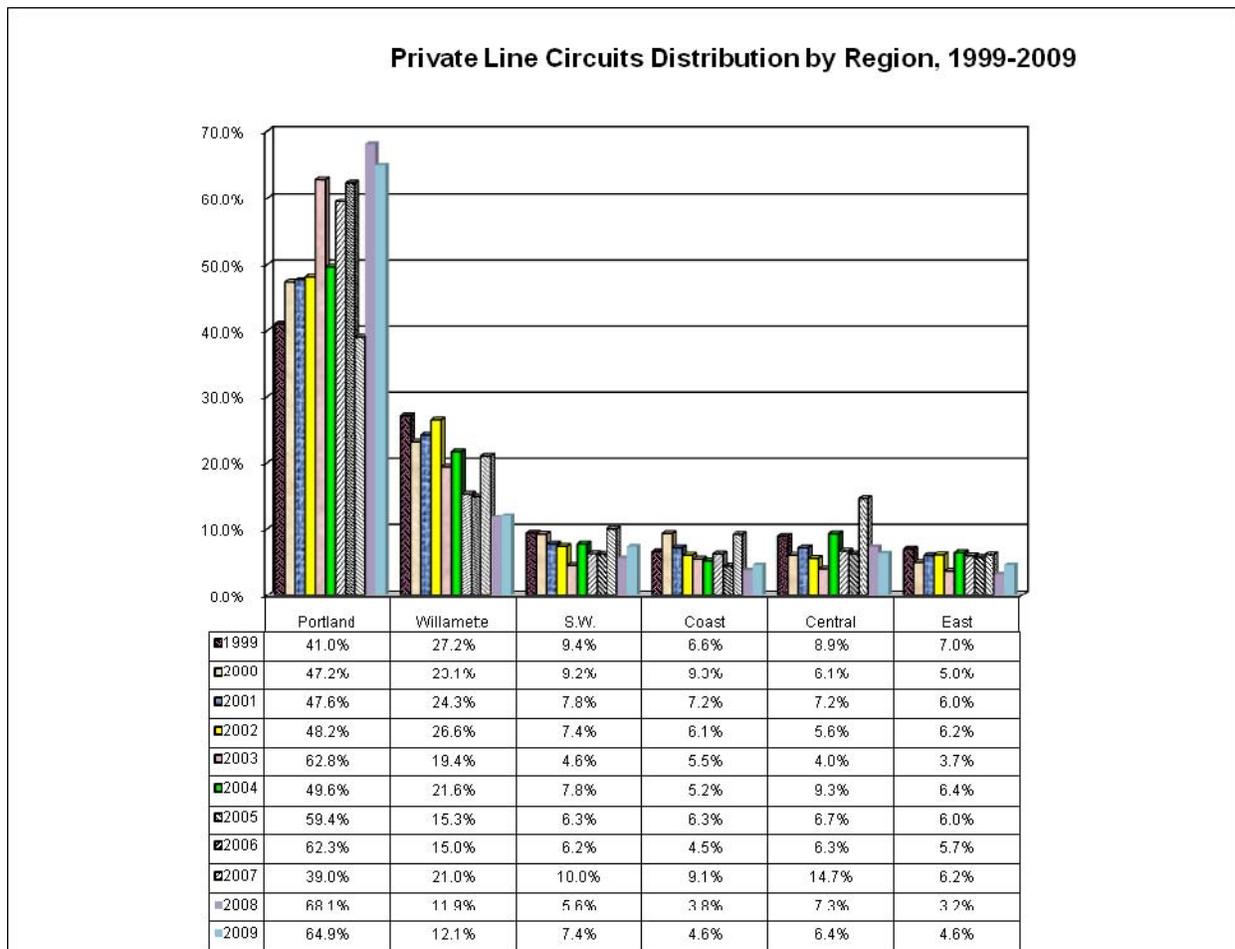
Figure 20. Oregon Higher Capacity Circuits by Region: 2009



CLECs' share of lower capacity circuits was 3.2 percent statewide. CLECs' share of higher capacity private line circuits was 60 percent statewide.

The regional distribution of private lines has fluctuated over the last several years as indicated in Figure 21. The Portland Metro region’s share of the state’s total private line circuits was 65 percent in 2009.

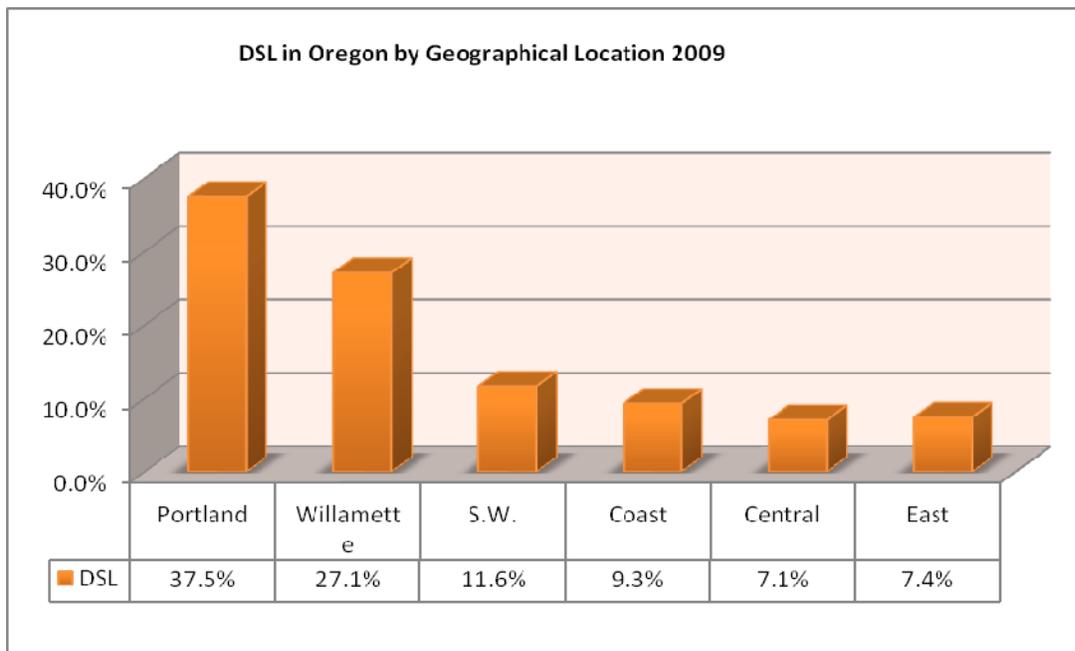
Figure 21. Private Line Circuits Distribution: 1999 through 2009



C. DSL Service by Region

DSL (here referring to all types of digital subscriber lines) service was provided by 365,735 lines in 2009 and generated \$146.4 million in revenue. Of all DSL, 37.5 percent was in the Portland Metropolitan region (see Figure 22), followed by the Willamette Valley (27.1%), Southwest Interior (11.6%), Coast (9.3%), East (7.4%), and Central (7.1%) regions.

Figure 22. Oregon DSL by Region

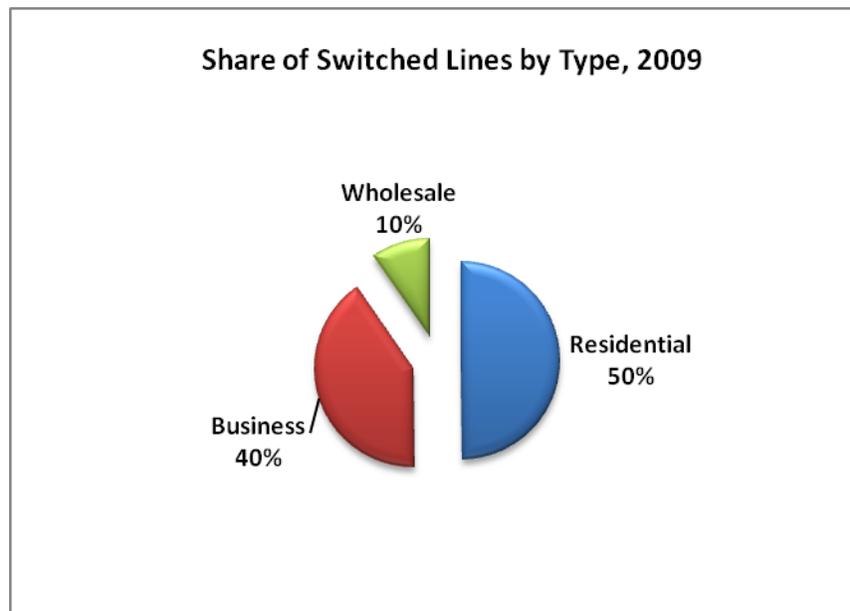


2. Customer Markets by Type of Service

A. Switched Services

The survey grouped customers into three markets: residential, business, and wholesale. Fifty percent of switched service lines were in the residential market, 40 percent were in the business market, and 10 percent were wholesale (see Figure 23).

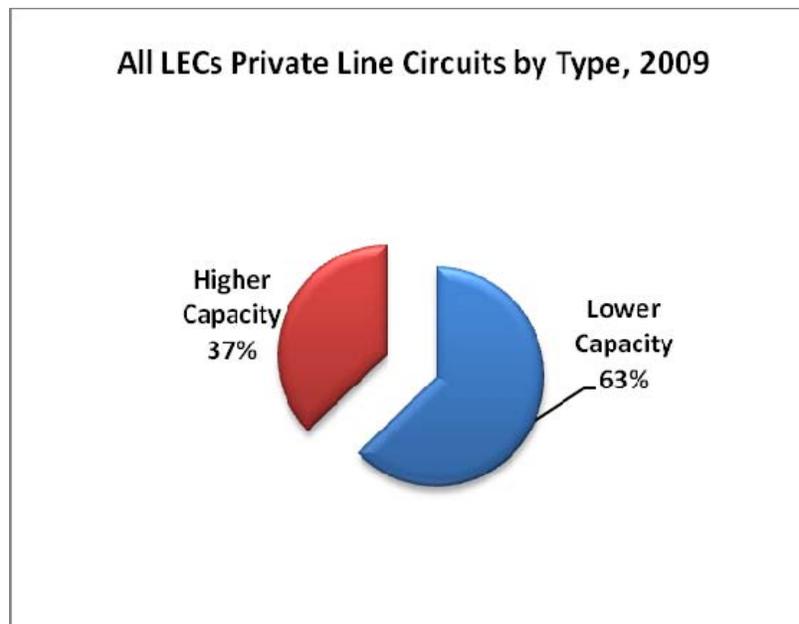
Figure 23. Switched Service Lines by Market



B. Private Line

Figure 24 shows that 63 percent of private line circuits were of lower capacity, and that 37 percent were of higher capacity.

Figure 24. Oregon Private Line Circuits by Types



C. DSL

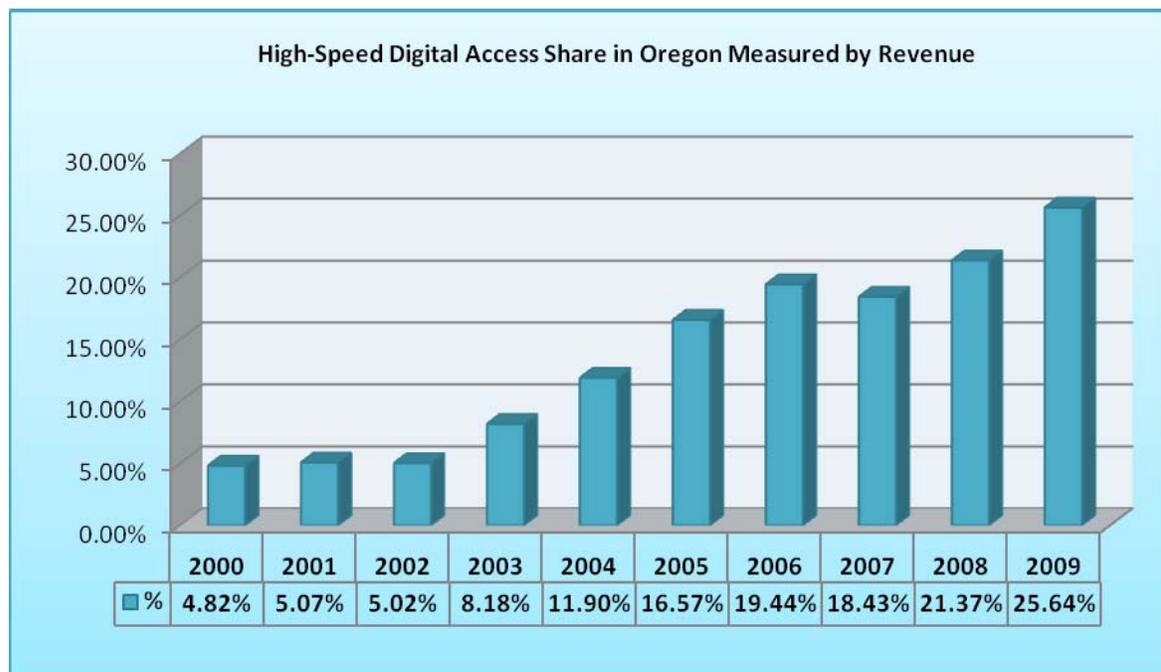
DSL service was provided on 365,735 residential and business lines and accounted for \$146.4 million of revenue in 2009. Average DSL revenue per month was \$33.37 per line.

Total High-Speed Digital Access in Oregon

High-speed digital access accounted for 25.5 percent of total LEC revenue in 2009. This was an increase from 21.4 percent in 2008. The 25.5 percent revenue figure for high-speed access services consists of 7.8 percent from private line services, and 17.7 percent from DSL.

High-speed digital access used to be a dream for many Oregonians. Approximately 4.8 percent of Oregon customers (residential and business) had Internet access in 2000 at a higher bandwidth than that available using a conventional modem over traditional telephone lines. This was comparable to the nationwide penetration of less than 5 percent in late 2000. The market share of high-speed digital access was low at the time because of its limited availability in Oregon. Nine years later, high-speed digital access penetration in Oregon exceeded 25 percent (see Figure 25 below).

Figure 25. Trend of High-Speed Digital Access in Oregon



VII. Business Plans and Competition

1. Capital Expenditures

Capital expenditures are funds 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 in 2009 associated with providing local exchange service in Oregon were estimated at \$180.6 million, which equates to 21.8 percent of total revenue (\$828.9 million) (see Table 11).

Of the 245 certified CLECs, 178 reported some level of capital expenditures in 2009, with 79.8 percent (142 of 178) having made capital expenditures totaling less than \$10,000. Total 2009 CLEC capital expenditures were \$71.4 million. CLECs' total 2009 capital investment represented 40.6 percent of CLECs' revenue (\$175.8 million).

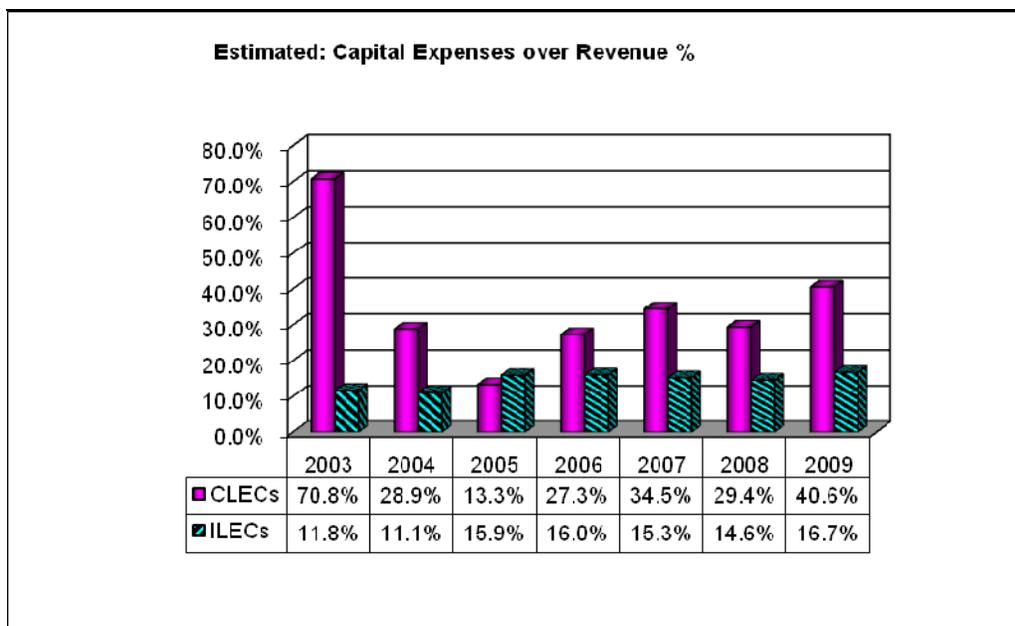
Each of the 33 certified ILECs reported capital expenditures in 2009. Total ILEC capital expenditures were \$109.3 million, which equates to 16.7 percent of ILECs' 2009 revenue (\$652.9 million).

Table 11. 2009 Capital Expenditures for Local Exchange Service

Capital Expenditures	ILECs	CLECs	All LECs
Less than \$10,000	1	142	143
\$10,000-50,000	3	5	8
\$50,001-100,000	2	3	5
\$100,001-1,000,000	11	16	27
\$1,000,001-10,000,000	13	11	24
More than \$10,000,000	3	1	4
# of LECs making Capital Expenditures	33	178	211
Estimated Expenditures (\$millions)	\$109.3	\$71.4	\$180.6
Revenues (\$millions)	\$652.9	\$176.0	\$828.9
Investment as % of Revenue	16.7%	40.6%	21.8%

Figure 26 shows estimated capital expenditures as a percent of revenues. For example, CLECs' 2003 Oregon capital expenditures for local exchange service (i.e., not associated with the provisioning of other services such as wireless or long distance) equated to 70.8 percent of Oregon revenues. For ILECs this value was 11.8 percent. In 2005, CLECs' expenditure to revenue rate dropped to 13.3 percent, and ILECs' rate increased to 15.9 percent. For 2009, CLECs' rate increased to 40.6 percent, while the rate for ILECs was similar to the 15 to 16 percent rate of the four prior years.

Figure 26. Estimated Capital Expenditures as a Percent of Revenue



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)?" Sixteen of 33 ILECs (48%) noted that cell phone usage has reduced the demand for wireline (including second-line) services (see Table 12), and eleven ILECs said the lower residential customer density made residential competition difficult or expensive.

Thirty-five of the 196 responding CLECs said they could not compete on price (compared to 40 saying this in 2008), 34 said they could not compete on facilities, 18 said that the incumbent local exchange carrier has name familiarity, and 21 said that they did not have enough capacity. Since CLECs' operations focus principally on business customers, only 25 of 196 CLECs (12.8%) responded that cell phone usage has decreased the demand for residential wireline services, and 24 CLECs considered 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 remained about the same over the seven year period this question has been asked.

Table 12. Residential Market Competition: 2009

Reasons	# of ILECs	# of CLECs
Cannot compete on price	3	35
Cannot compete on facilities	0	34
ILEC has name familiarity	0	18
Do not have enough capacity	0	21
Cell phone decreased the wireline demand	16	25
Hard to compete due to location	11	24
Other (explain):	15	102

Of the 102 CLECs who checked the "other" option, most stated they focused their activity on business customers or did not provide residential local exchange service in 2009. However, some of these 102 CLECs provided other reasons why they did not have a larger share of Oregon's residential market. Comments of these respondents included the following:

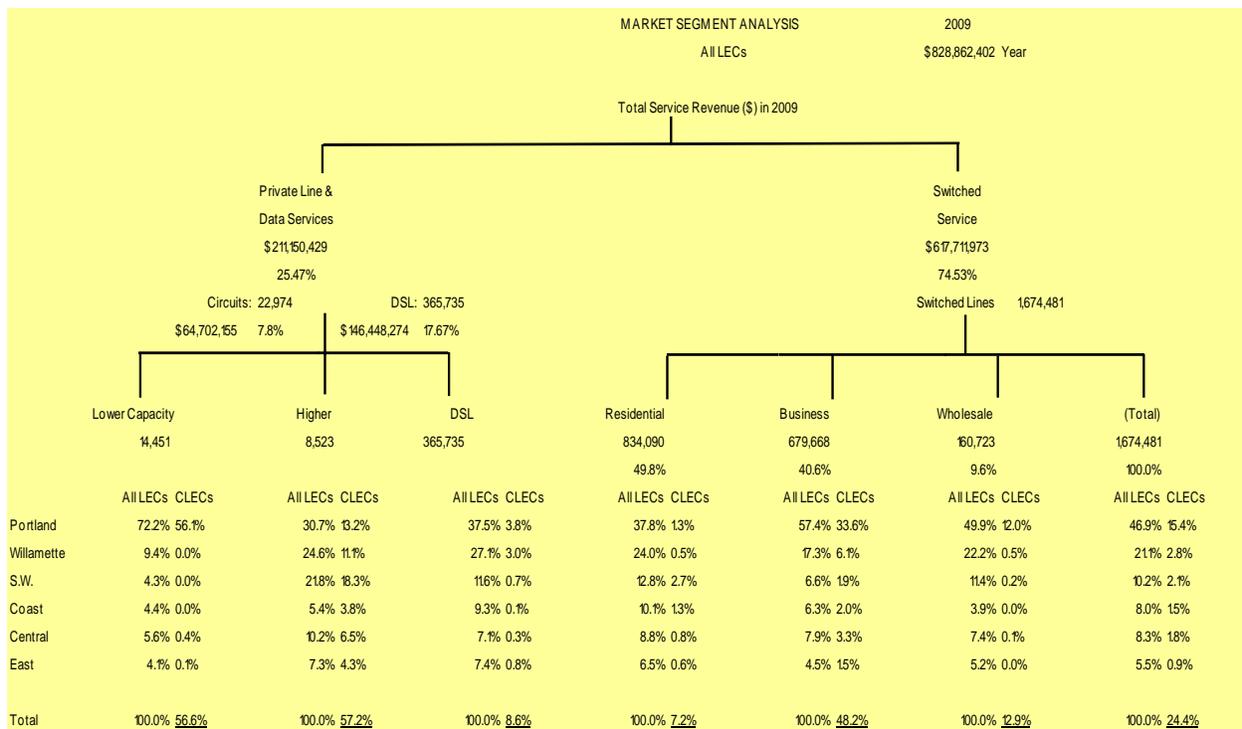
- Does not provide residential local exchange service due to “Complex Franchise Requirements and Excessive Property Taxation.”
- Does not provide residential local exchange service due to “High cost to support our residential customers.”
- Does not provide residential local exchange service because “UNE rates for DS0's are above ILEC retail phone rates.”
- Does not provide residential local exchange service because “Bundling of DSL, Voice, and TV. Price structure from ILEC can't be competed with directly (because of) the way it's back-end loaded.”
- Does not provide residential local exchange service because “Qwest is able to undercut us.”
- Does not provide residential local exchange service because the company’s “current business plan is to continue serving Oregon business customers with high speed broadband/data service.”

- Not interested in serving Oregon's residential market; only interested in broadband service within the City.
- Company "Ceased provision of local services because UNE-P price increases adversely affected our ability to have a competitive offering."
- Company's "has no plans to offer services in the residential market."
- Company "does not market to Residential Customers."
- Company provides bundled calling plans on a leased facilities-based platform.
- Company is not pursuing the residential market in Oregon at this time.
- Business plan focuses on business customers and small carriers.

VIII. Conclusions

Oregon's local telecommunications market in 2009 was an \$828.9 million industry, comprised of 1.67 million switched lines, 22,974 private line circuits, and 365,735 DSL. Industry-wide revenues in Oregon declined \$62 million from those of 2008. The number of switched lines served is now lower than when this survey was first taken in 1998, reflecting the competitive impact from the cellular phone, cable, and high-speed internet access services (see Figure 27 below).

Figure 27. Local Exchange Carriers' Market Segments and Shares



Competitive entry shows a relatively flat trend over the last few years and Oregon's local telecommunications markets remain dominated by the incumbent providers, with competitors accounting for 24.4 percent of local exchange switched access lines. CLECs' share of exchange lines in the residential market was 7.2 percent in 2009.

There does not appear to be sufficient incentives for CLECs to compete with ILECs on a broad scale in the local residential market. CLECs provided 48.2 percent (up from 42.4% the year before) of business lines in 2009, indicating the larger margins potentially available in that market.

Competition Survey Year 2010 Final Report

High-speed digital access accounted for 25.5 percent of total LEC revenue in 2009. This was an increase from 21.4 percent in 2008. The 25.5 percent revenue figure for high-speed access services consists of 7.8 percent from private line services, and 17.7 percent from DSL.

Capital expenditures in support of providing local exchange service in Oregon in 2009 were estimated at \$180.6 million, which equated to 21.8 percent of total revenue (\$828.9 million). Capital investment by ILECs equated to 16.7 percent of ILEC revenues, while CLECs invested an amount equivalent to 40.6 percent of CLEC revenues.

In the residential local exchange market, 35 CLECs said they could not compete with the ILECs on price; 34 thought they could not compete on facilities; 18 believed that the incumbent carrier's name familiarity was a barrier; 21 answered that they did not have enough capacity; 25 responded that cell phone usage has decreased the demand for residential wireline and second-line services; and 24 considered that geographic location made residential competition difficult or expensive.

Sixteen of the 33 ILECs noted that increased cell phone usage has decreased the demand for wireline and second-line services, and 11 ILECs were restrained by their geographic location, which made providing residential competition difficult or expensive.

While CLECs had a small percentage of the overall market, they achieved a significant presence in specific market segments. CLECs provided 48.2 percent of switched business lines. The predominant form of CLEC competitive entry was resale. The greatest 2009 CLEC market concentration was in the Portland Metropolitan region, where CLECs provided 69.6 percent of business lines.

CLECs have a 7.2 percent share of the Residential market. CLECs' share of residential lines has increased from 0.7 percent in 1998 to 7.2 percent in 2009.

Finally, revenues from DSL service increased by 7.6 percent in 2009. The number of DSL was 365,735, about 3 percent less than the level of the previous year.

Note that new technologies have a significant impact on telecommunications markets. They facilitate the introduction of products and services with significantly improved or new features into the market. These new products and services often replace traditional telephony products and services.