



# **Telecom Competition in Ohio**

**Biennial Report of the  
Ohio Telecom Association**

**June 2008**

## Executive Summary

In 2006, the Ohio Telecom Association issued a report that quantified the impact of competition on telecommunications providers throughout the state. This biennial update benchmarks changes to the industry over the past two years. Information was gathered from the Federal Communications Commission, state and national telecom associations, and national research firms.

The 2008 report concludes that telecom competition in Ohio continues to grow. Following are key findings:

- The number of broadband customers has more than doubled since the last study, increasing from 1.8 million in 2006 to 3.9 million in 2008.
- Approximately 95% of homes in Ohio have access to broadband service, available from 86 competitors across the state.
- There are now 8.7 million cell phone users in Ohio, up 24% since 2005. This, the biggest sector of the telecom market, is served by 12 competitors.
- The average Ohioan reports paying \$39 per month for local phone service and calling features. Although basic rates vary across the state, 25% of the total cost is for taxes, surcharges and mandated fees.
- The 42 Incumbent Local Exchange Carriers in Ohio have lost 600,000 lines (11%) over the past two years and 2.1 million lines (30%) since 2001 to competition and alternative technologies.
- The 24 Competitive Local Exchange Carriers in Ohio have acquired 18% of the market-share for local telephone service, up from 15% in 2006. CLECs are present in 97% of Ohio zip codes.
- Local phone service is also offered by cable television companies, such as Time Warner, using a technology known as Voice Over Internet Protocol (VOIP). These companies are *not* classified as ILECs or CLECs and are largely deregulated. There are 15.1 million “cable telephone” customers nationwide.

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## Overview of Telecom Competition in Ohio

There are hundreds of telecom providers across the state vying for local, long distance, wireless, video and Internet customers. Advances in technology have made it possible for these providers to expand beyond their traditional services and into each other's territories. Local telephone companies now transmit television channels over phone lines to compete with cable and satellite. Cable TV companies now provide phone service over their television wires. High-speed Internet is delivered over satellite, cellular, phone, cable and fixed wireless networks.

Ohio consumers can choose from dozens of providers and technologies, including:

- Landline
- Cellular
- Satellite
- Cable
- Voice Over Internet Protocol (VOIP)
- Fixed Wireless
- Web Cams / Video Calling
- Text Messaging
- Email / Instant Messaging

**Table 1 – Telecom Service Providers<sup>1</sup>**

Type of Carrier	Ohio	U.S.
Incumbent Local Exchange Carriers (ILECs)	42	1,311 <sup>1</sup>
Competitive Local Exchange Carriers (CLECs)	24	1,261 <sup>1</sup>
Long Distance Providers	243	300 <sup>1</sup>
Cellular Providers	12	161 <sup>1</sup>
Cable Television Providers	21	565 <sup>2</sup>
Broadband Providers	86	1,360 <sup>1</sup>
End-user VoIP Service Providers	246	246 <sup>1</sup>

The most notable developments since 2006 are the growth of the wireless industry and the roll-out of landline voice services by cable television providers. In the case of wireless, the number of subscribers

<sup>1</sup> Reporting to the FCC.

<sup>2</sup> Estimate of system owners. The cable industry reports individual systems, not company ownership.

has increased 700,000, and wireless revenues have risen 27%. Since rolling out local phone service, cable companies have already acquired 15% of the market share, where available.

### Telecom Revenues

Telecommunications in Ohio is now an annual \$14.9 billion industry with wireless leading the pack among all providers.

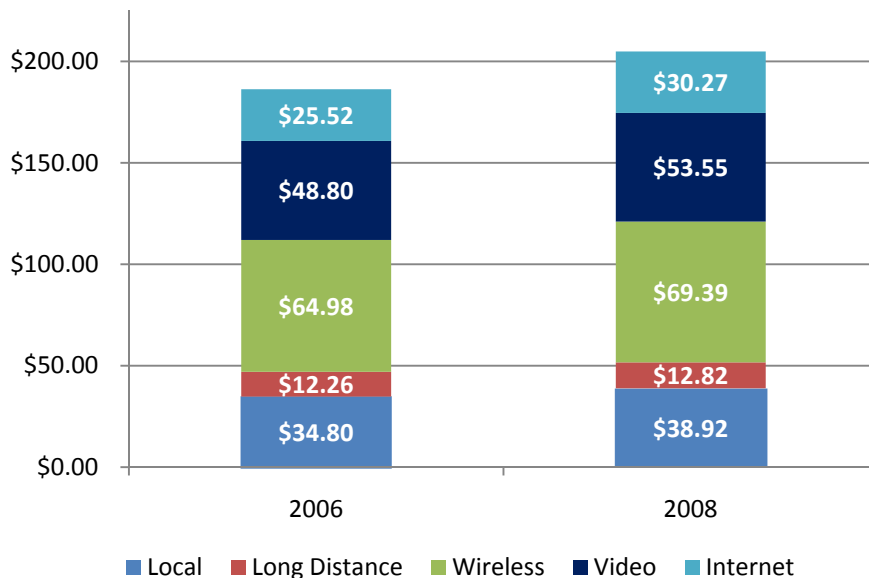
**Table 2 – Annual Revenues**

SERVICE	YE2005	YE2007
Local Voice (ILEC and CLEC)	\$3.2 Billion	\$3.3 Billion
Long Distance	\$2.5 Billion	\$2.5 Billion
Mobile Wireless	\$3.3 Billion	\$4.2 Billion
Subscription Video	\$2.1 Billion	\$2.4 Billion
Internet and Broadband	\$1.5 Billion	\$2.5 Billion
<b>TOTAL</b>	<b>\$12.6 Billion</b>	<b>\$14.9 Billion</b>

*Total telecom revenues have increased 18% over the past two years.*

Year after year, customers are spending more on telecommunications. The average monthly bill for those with all services is now \$204.95

**Chart 1 – Consumer Spending**



*Since 2006, household spending on all telecommunications services has increased 10%, from \$186 to \$205 per month.*

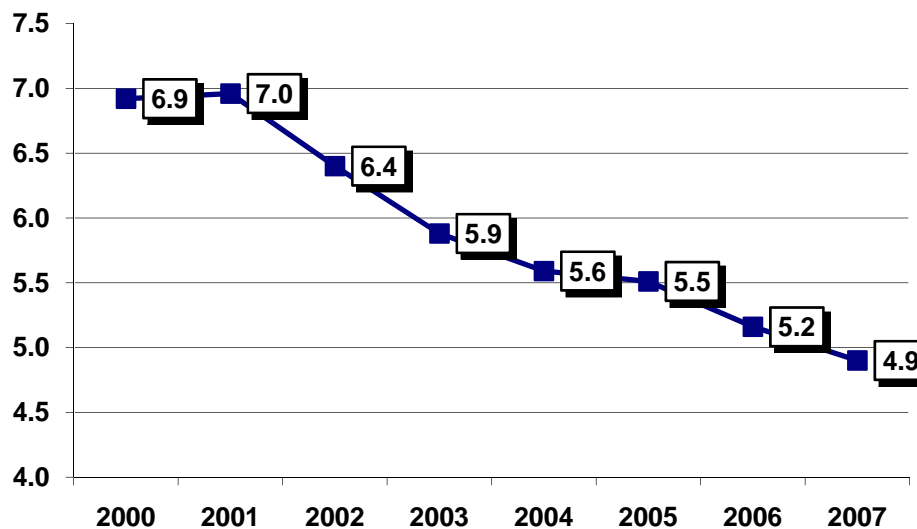
Cellular and subscription video account for the majority of monthly spending. The average consumer's cell phone bill is more than local and long distance combined. Internet spending has increased, due to the 2.1 million new broadband customers since 2006.

## Local Telephone Companies

Telephone companies, also known as Incumbent Local Exchange Carriers (ILECs) or telcos, provide local phone service to defined geographic areas. In Ohio, there are 42 ILECs. They are regulated by the Federal Communications Commission (FCC) and the Public Utilities Commission of Ohio (PUCO).

Traditional home telephone service is in decline, rapidly being replaced by wireless, VoIP and Internet communications. Since peaking in 2001, Ohio ILECs have lost 2.1 million lines.

**Chart 2 – ILEC Lines in Ohio (in Millions)**



According to a recent study by the Organization for the Promotion and Advancement of Small Telecommunications Companies, (OPASTCO), ILECs are losing lines at a rate of 6% per year. Continuing at this rate, ILECs will lose an additional 20% of their lines by 2011.

Ohio ILECs were formed long before the Internet, wireless and video revolutions. Many have been around for more than 100 years. The larger phone companies are familiar names and provide phone service to major cities. The smaller telcos are less known and were formed to provide phone service in rural areas and small towns.

### Large Incumbent LECs in Ohio

AT&T Ohio	CenturyTel	Verizon
Cincinnati Bell	Embarq	Windstream

### Ohio ILEC Stats

42 ILECs in Ohio.

7 large, regional telcos.

35 small, mostly rural, independent telcos.

\$3.3 billion in annual revenues.

Customers report spending \$39 a month on local phone service, 25% of which is for taxes, surcharges and mandated fees.

30% of lines have been lost to competition and alternative technologies over the past 7 years.

Telcos are diversifying with video and broadband to survive landline losses.

70% of telcos are also video providers.

97% are Internet and broadband providers.

ILECs are regulated by the Public Utilities Commission of Ohio and the Federal Communications Commission.

## Small ILECs in Ohio

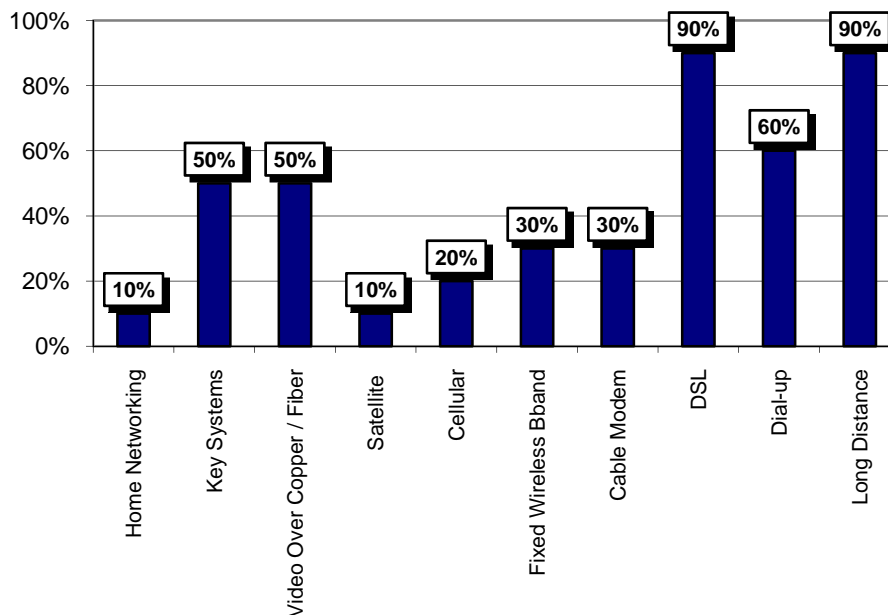
The 35 small ILECs serve approximately 5% of the population throughout rural areas and small towns in Ohio. Also known as the “independents,” these ILECs range in size from 500 to 30,000 access lines.

**Small Incumbent ILEC's in Ohio**

Arcadia (TDS)	Arthur Mutual	Ayersville
Bascom Mutual	Benton Ridge	Buckland
Champaign	Columbus Grove (FairPoint)	Conneaut
Continental (TDS)	Doylestown	Farmers Mutual
Fort Jennings	Frontier	Germantown (FairPoint)
Glandorf	Horizon Chillicothe	Kalida
Little Miami (TDS)	McClure	Middle Point Home
Minford	New Knoxville	Nova
Oakwood (TDS)	Orwell (FairPoint)	Ottoville Mutual
Pattersonville	Ridgeville	Sherwood Mutual
Sycamore	Telephone Service	Vanlue (TDS)
Vaughnsville	Wabash Mutual	

With the demand for local phone service declining, the small ILECs are diversifying to compete as wireless, video and broadband providers. A recent survey by the Ohio Small Local Exchange Carriers Association reports the percentage of the small ILECs offering other telecom services:

**Chart 3 – ILEC Lines of Business**



### Ohio Small ILEC Stats

*35 Small ILECs in Ohio.*

*Serve primarily rural areas and small towns throughout Ohio.*

*Spend \$550 per year per access line on network maintenance and upgrades.*

*Total annual infrastructure investment is \$135 million.*

*The average independent serves 1,300 access lines (excludes Horizon Telcom, with 30,000 lines.)*

*Average annual revenues are \$1.3 million (again, excluding Horizon).*

*Three of the small telcos have formed CLECs (see next section) and have expanded their service areas, as a business diversification strategy.*

*The small independent ILECs are also regulated by the Public Utilities Commission of Ohio and the Federal Communications Commission.*

## CLEC Competition

Competitive Local Exchange Carriers (CLECs) are phone companies that were formed after the 1996 Telecom Act to provide local telephone service in competition with an incumbent provider.

Ninety-seven percent (97%) of all zip codes in Ohio are served by at least one CLEC, up from 94% in 2006. One-third of Ohio zip codes have 10 or more CLECs present.

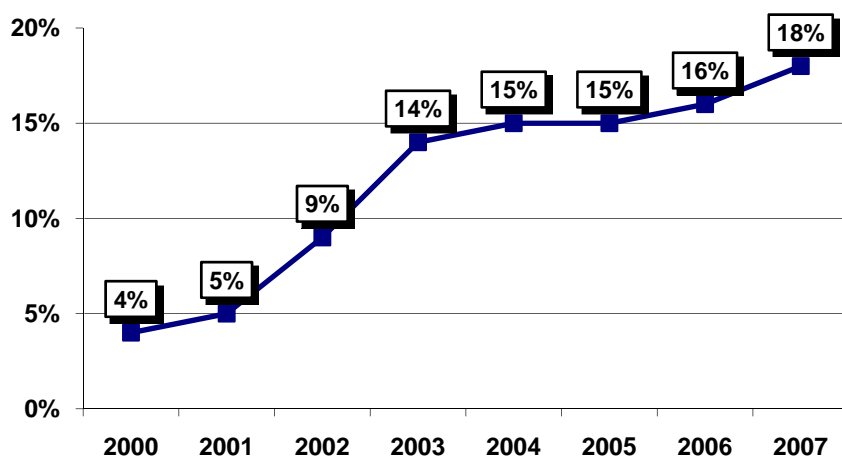
Unlike ILECs, CLECs are not required to provide universal service to a community and can target only the customers they want to acquire. As a result, the average CLEC is composed of 80% business customers and only 20% residential customers, an almost direct inverse of ILECs, which are *required* to make service available to all residents and businesses within their service areas.

**Table 3 – ILEC vs. CLEC Customer Composition**

	Residential	Business
ILEC	75%	25%
CLEC	20%	80%

In Ohio, CLECs have grown from 15% market share in 2005 to 18% in 2007. This is trending with the national average of CLECs serving 18% of all access lines across the United States.

**Chart 4 – Growth of CLEC Market Share in Ohio**



**Table 4 – End-user Access Lines in Ohio**

Year	ILEC Lines	CLEC Lines	Total	CLEC Share
Dec 2005	5,519,782	981,363	6,501,145	15%
Jun 2007	4,973,233	1,068,758	6,041,991	18%

### Ohio CLEC Stats

*Over 1 million CLEC customers.*

*CLECs in 97% of all Ohio zip codes.*

*18% market share.*

*20% of CLEC lines are provisioned by cable television companies.*

*CLEC market share continues to grow, increasing by 20% in the last two years.*

*ILECs have lost 23% of lines to CLECs and other competitors.*

*Ohio CLEC market share is trending with national averages.*

*24 CLECs, including Time Warner and Comcast.*

*The average CLEC is 80% business customers and 20% residential customers – an inverse of the typical ILEC.*

*There is no requirement to provide universal service. CLECs can cherry-pick the high-dollar customers and bypass the rest of a community.*

## Wireless Competition

Mobile wireless (cellular) is an annual \$4.2 billion industry in Ohio – \$138 billion nationwide. There are an estimated 8.7 million wireless users in Ohio and more than 250 million users across the United States with 22 million new subscribers added in 2007 alone.

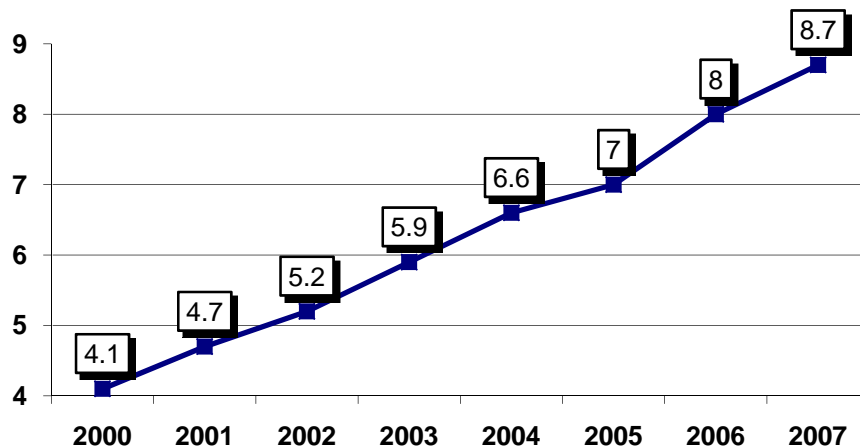
Wireless is bigger than landline – both in Ohio and the U.S. – in terms of number of users, minutes-of-use, customer spending and total company revenues. Nationally, there were over 2 trillion minutes of use on the wireless network in 2007, up 18% from 2006.

Wireless data services are also driving up cellular revenues. According to CTIA (the leading national cellular telephone association), revenues from data services were up 53% over 2006, coming in at \$23 billion for 2007. Over 1.5 billion text messages are sent every day in the U.S.

The number of wireless subscribers is growing as well. According to the FCC, the addition of 28.8 million subscribers nationally in 2006 was the largest absolute yearly increase in the number of subscribers ever.

Currently, 76% of *all* Ohio residents have a wireless phone compared to 84% nationwide.

Chart 5 – Wireless Subscribers in Ohio (in Millions)



Further evidence of the competitive impact of wireless services:

- According to the latest FCC report on wireless, one in four adults aged 18-24 years lived in households with only wireless telephones, and nearly 30 percent of adults aged 25-29 years lived in wireless-only households.

### Ohio Wireless Stats

*8.7 million users.*

*24% increase in subscribers over the past two years.*

*\$4.2 billion in annual revenues.*

*Average \$69 monthly consumer expenditure.*

*Average 883 minutes per month per user.*

*There are now 3.7 million more wireless subscribers than landline.*

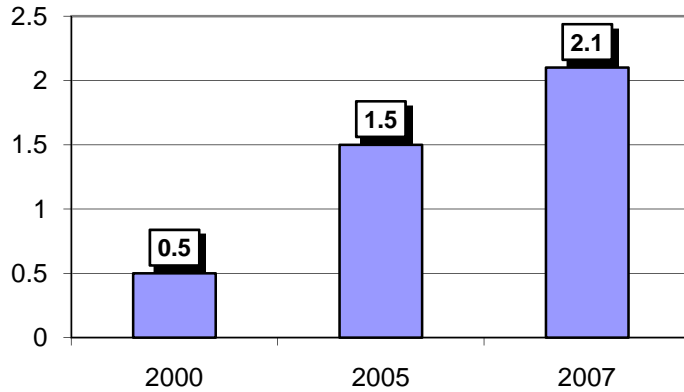
*6 billion minutes per month in Ohio.*

*76% of all Ohio residents have a wireless phone.*

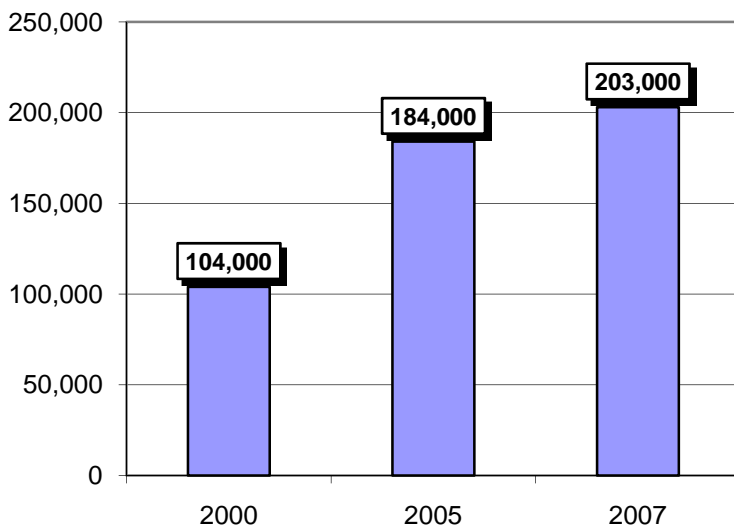
- Wireless replacement of landlines is increasing rapidly. An estimated 18% of homes no longer have landline service and are wireless only – a three-fold increase since 2004.
- Wireless data is also a growth business, with revenues up 53% since last year. There are now 1.5 billion text messages sent daily in the United States.
- Nationwide, minutes of use have increased 40% over the past two years, totaling 2.1 trillion minutes in 2007. Much of the increase is attributed to a more extensive wireless network. There are now approximately 213,000 cell towers nationwide – 29,000 new towers have been built since 2005.

*18% of homes are wireless only, a three-fold increase since 2004.*

**Chart 6 – Minutes of Use (in trillions)**



**Chart 7 – Cell Towers**



*213,000 towers nationwide as of June 2008*

## VoIP Competition

Another classification of telephone service is Voice Over Internet Protocol (VoIP). Until 2004, Vonage had the lion's share of residential VoIP customers, but in 2005, the market lead was overtaken by cable TV companies. There are now 15.7 million cable telephone customers in the U.S.

In 2006, the world's largest VoIP provider, Skype, with over 100 million subscribers worldwide, was acquired by eBay. That was also the year Microsoft and Apple and Internet giants Google, Yahoo and AOL entered the VoIP market. VoIP has quickly become one of the most competitive sectors of telecom.

VoIP gives customers with a broadband connection unlimited local and long distance calling by converting voice into data packets and sending them over the data network. VoIP does not utilize the traditional public switched network on the outbound call, but it has *connectivity* with the PSTN to make and receive calls to and from any telephone number.

Although many policy-makers have attempted to define VoIP as a telecommunications service, subject to state and federal regulation, VoIP providers have been successful at positioning it as an information service – no different than accessing a web site. As a result, VoIP has the capabilities of traditional telecom – phone calls, long distance, calling features – without the corresponding regulatory requirements.

**Table 5 – Summary of Telecom Regulatory Requirements**

	<b>VoIP</b>	<b>ILEC</b>
Telecom Taxes	Exempt	Applies
Universal Service Fund Support	None	Available
Local Loop Facilities	None	Regulated
Quality of Service	Market Driven	Regulated
Disconnection for non-payment	At will	Regulated
Billing rules	None	Regulated
State Jurisdiction	None	Regulated
Federal Jurisdiction	None	Regulated
Equal access to LD carriers	None	Regulated
911 Access	Required	Required
Tariff	None	Required
Social Programs	None	Required
Support of TDD, etc. programs	None	Required

***According to the Yankee Group, VoIP adoption grew more than 125% in 2006, reaching more than 9 million subscribers.***

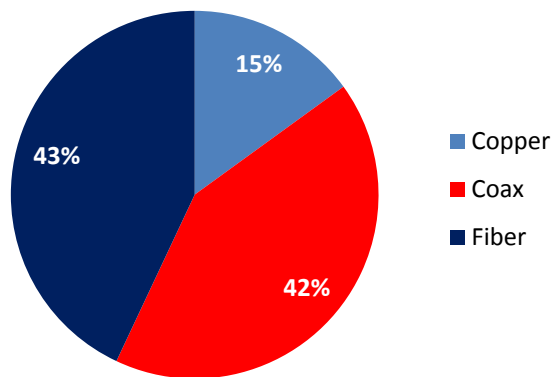
***Unlike ILECs, VoIP providers are not subject to most FCC or PUCO regulations.***

## Subscription Video Competition

The lines between phone companies and cable television companies are blurring. Nationally, the growth of telephone subscribers served by cable television companies increased 59% in 2007. According to the National Cable Television Association, as of December 2007, there were an estimated 15.1 million cable *telephone* customers.

More than 70% of the phone companies in Ohio now offer subscription video service, several of the small telcos as owners of the cable television companies in their communities. Some of the larger telcos are now sales agents for DirecTV and Dish Network, having struck bundling deals with the satellite industry.

**Chart 8 – Telco Video Delivery**



Despite their entry in the market, telcos newly offering video have not had the same success at acquiring video market share as the cable companies have had acquiring telephone market share.

**Table 6 – Video Competition**

Provider	2005	2007
Cable	69%	68%
Satellite	28%	29%
Telcos / Other	3%	3%

There are 21 cable television companies in Ohio, compared to 42 telcos. The country's four largest – Comcast, Time Warner, Cox and Charter – are all present in Ohio. There are only two Direct Broadcast Satellite (DBS) providers, DirecTV and Dish Network, accounting for almost 30% of the video market share.

### Ohio Video Stats

*\$2.4 billion in annual revenues.*

*85% of homes are video subscribers.*

*3.8 million residential customers.*

*Cable has 68% of video market share.*

*Satellite has 29% of video market share.*

*Telcos and others have 3% video market share.*

*Average \$54 monthly consumer expenditure.*

*10% increase in customer spending over the past two years.*

*Increasing revenue with premium packages, digital video recording, video on demand, and HDTV.*

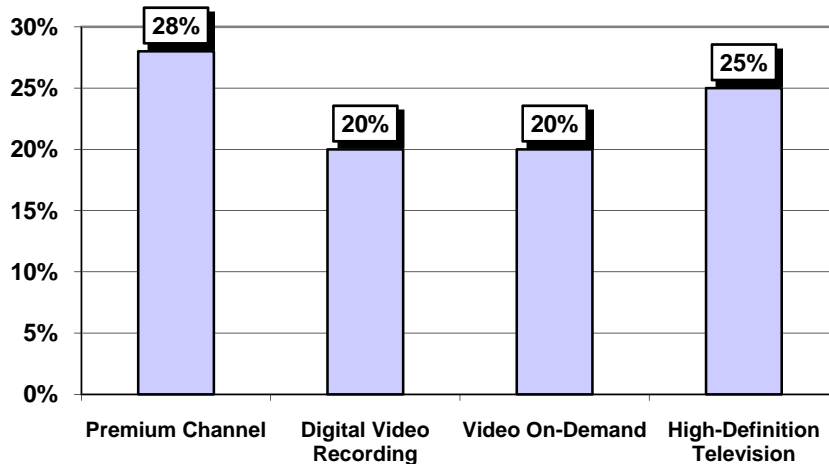
*15.1 million cable telephone customers nationwide.*

*35% increase in cable telephone customers over the past two years.*

## Video Revenues

Subscription video is a growth industry. New content and digital services are driving up average revenue per user (ARPU). Digital video recording, video on-demand and high-definition television can add an additional \$25 per month to the consumer's video bill.

**Chart 9 – Homes Subscribing to the Service, Where Available**



*30% of all U. S. households have at least one HDTV.*

*32 companies have received video service authorization and are now approved to compete as video providers in Ohio.*

## Franchising Changes

On June 25, 2007, Governor Ted Strickland signed Senate Bill 117, which created the one-stop, statewide video-service authorization (VSA) process. Previously, companies had to negotiate local franchises with each municipality or township.

The law authorizes the Director of the Department of Commerce to administer the program and investigate allegations of violations or failures to comply with the law. To date, 32 telecommunications companies have applied for and received approval to provide video services in Ohio.

Statewide VSA is expected to accelerate infrastructure investment to deliver more video and broadband services to Ohioans. For example, AT&T has announced plans for a \$500 million investment in video deployment.

## Barriers to Video Competition

Discriminatory pricing and availability of video programming and content to small providers is a competitive impediment to video market entry. New entrant video providers find that nearly 100% of their operating revenues are spent on video content fees and that content rates increase an average of 15% per year.

*One of the greatest barriers to effective video competition is content pricing.*

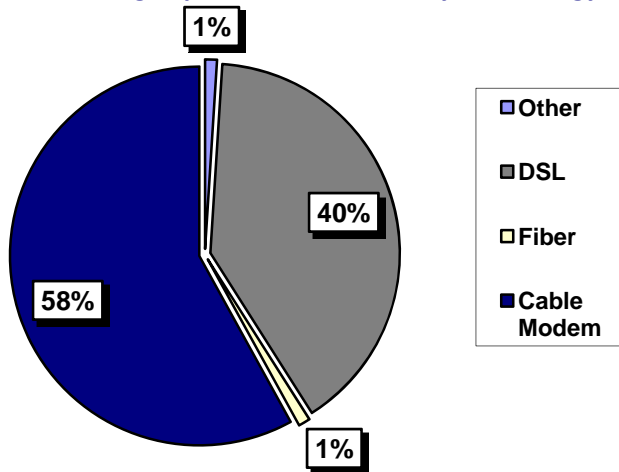
*Small ILECs do not have the leverage of a large customer base and end up paying much higher rates for content than incumbent cable companies.*

## Broadband Competition

Internet access is becoming as common as the telephone. High-speed connections can now be found in 54% of households, compared to 33% just two years ago, resulting in 2.4 million residential broadband customers. There are an additional 1.5 million business customers.

According to the FCC, 95% of Ohio homes have access to high-speed Internet service. Cable companies have a competitive advantage over telcos in residential broadband market-share.

**Chart 10 – High-speed Market Share by Technology in Ohio**



**Table 7 – High-speed Residential Counts in Ohio**

DSL	967,992
Fiber to the Home	15,876
Cable Modem	1,405,888
Other	13,537
<b>TOTAL</b>	<b>2,403,293</b>

The “other” category is satellite, fixed terrestrial wireless, broadband through power lines, wireless high speed Internet, and other non-DSL landline broadband services.

In Ohio, the total number of broadband customers (residential and business) has increased by three million over the past four years.

**Table 8 – Growth of High Speed Lines in Ohio (includes business)**

2003	2004	2005	2006	2007
977,886	1,347,040	1,889,878	3,186,537	3,956,535

### Ohio Internet and Broadband Stats

*An estimated \$2.5 billion annual industry.*

*Broadband already in 54% of Ohio homes.*

*95% of homes can receive broadband.*

*86 broadband providers in Ohio.*

*3.9 million high-speed customers.*

*Cable providers have 58% of broadband market-share.*

*DSL has 40% of broadband market-share.*

*Less than 1% of customers are served by Fiber-to-the-Home.*

*Alternative technologies, such as fixed wireless, have <1% of broadband market-share.*

*3 million new customers in the past four years, a four-fold increase.*

*\$38 monthly consumer expenditure; \$75 business expenditure.*

## Sources

Data was collected from the websites and various research reports of the following organizations:

- CTIA (formerly the Cellular Telecommunications Industry Association)
- Cronin Communications (a national telecom research and consulting firm)
- Federal Communications Commission
- National Cable and Telecommunications Association
- National Exchange Carriers Association
- National Rural Telecommunications Cooperative
- Ohio Telecom Association
- Public Utilities Commission of Ohio
- Wall Street Journal
- Yankee Group