

ensured that basic telephone service continues to be both ubiquitously available and universally affordable. Additionally, as technology enhances available telecommunications capabilities, the package of basic services must, likewise, be broadened to meet residents' expanding needs. The obligation and responsibility for maintaining universal service must be equitably shared by all telecommunications providers.

Universal service must, therefore, be defined as a predicate to its maintenance in a system where competition will soon exist, where previously, monopoly providers were the norm. Access to basic telephone service by all residents of Louisiana has been a long-standing objective of the Louisiana Public Service Commission.

In defining "universal service" as it applies to the emerging information superhighway several principles should be kept in mind. Whatever definition is chosen will have a tremendous impact on the nature of what will become a major institution. As the ultimate nature of the institution is unforeseeable, any definition must, therefore, be flexible and broadly worded. It must not be too technical in nature as the technology will quickly be outmoded. It must not be too vague as it must carry great weight with those it affects and must, therefore, be susceptible of ready and useful interpretation.

As several already established industries are involved in the process of forming the new institution, the definition of universal service must not be couched in terms specific to any one industry. Indeed, whatever emerges will likely be an entirely new

telecommunications industry, one so important to our society that it will take on the nature of a substantial institution with its own jargon. The definition, then, must be in plain English, readily applicable to unforeseen circumstances.

Integral to the new institution is its "two-way" nature. Distinctions between providers of services and receivers of the service will disappear. The definition we are striving to create must, therefore, be written not just from the standpoint of industry or government but also from that of the average citizen.

The following proposed definition of universal service moves away from the technical realm and into the realm of principle. It addresses social issues rather than technical ones.

Universal service is the making available, to all persons, a complete set of telecommunications services and tools so as to insure equal access by all, including individuals, private industry, government, and institutions to an integrated, interactive global network that embraces the principles of free enterprise while recognizing the need for appropriate regulation thereby guaranteeing all participants the opportunity of developing new technologies and services in a for-profit environment while at the same time providing, at the lowest possible cost, certain basic services, as may be deemed appropriate by duly elected or appointed regulatory bodies, that offer a wide variety of features

useful to all who actively participate in an "electronic society."

In addressing universal service, the needs of special communities must be considered. The growing percentage of older Americans as a proportion of the population and the passage of the Americans with Disabilities Act has opened our eyes to the wide range of sensory, cognitive, and motor requirements of our citizens. We can no longer talk about "the handicapped" as if they were a small, definable portion of our society with specific, highly specialized needs. "They" are us -- people who have difficulty seeing or hearing or remembering or walking.

Telecommunications systems already provide means for the hearing-impaired to use the telephone. Today, this is typically accomplished through an operator who types messages conveyed by the hearing party. Similarly, when text-based services are made available, telecommunications providers will have to make arrangements for them to be delivered audibly for the visually-impaired. Services which are designed to be accessible in several different ways from the outset offer a choice of interfaces for all customers. Telecommunications providers must continue to take into account the special needs of those with disabilities to enable all citizens to have access to and the ability to communicate on the information superhighway. Additionally, the usability of these telecommunications systems should be continually updated to meet the needs of these users as new technologies are developed. The

goal should be to make communication as effortless as possible for all users.

Now that universal service has been defined, a mechanism must be established to ensure that universal service is, in fact, a reality and remains affordable to all. Traditionally, monopoly LEC's were responsible for providing basic service to all requesting service. Historically, universal service has been supported through a system of subsidies that resulted in the provision of basic local service at rates below cost. Internal subsidies were built into a LEC's overall rate structure whereby revenues received from rates charged in low cost of service areas and above-cost rates for other services, such as supplemental customer features, long distance and access services were used to offset the cost of providing service in high cost, mainly rural, areas. These "implicit" subsidies were supplemented by other "explicit" subsidies, such as the Universal Service Fund and Lifeline Assistance program, which were intended to provide affordable basic local service in high cost areas, and assistance to needy individuals.

With the emergence of competition in low cost areas, LEC's potentially will face a decline in revenues in these areas and therefore, a decline in amounts received used to subsidize high cost areas. Consequently, the cost of providing universal service must equitably be shared by all telecommunications providers.

The adoption and use of a Universal Service Fund, crafted to ensure that all telecommunications providers pay an equitable

amount toward support for high-cost areas is one option to ensure that the cost of basic service remains affordable.

This fund could be financed in a number of ways. One possibility would be to continue the present strategy of using the prices of nonbasic services to generate the revenue. In a multiprovider network of networks, the cost of the subsidies would have to be borne by all providers, perhaps through a fee set by the Public Service Commission.

It should be noted at this point that there are extremely controversial issues in the telecommunications industry regarding the collection and distribution of subsidies, the subsidy level and the impact of those issues on the viability of competitive entities at all levels of the telecommunications marketplace. These issues are being addressed at both national and state levels with input from widely varied sources. The resolution of these issues must necessarily impact the regulatory framework that is ultimately established in Louisiana by which the telecommunications marketplace will function. Accordingly, it is desirable that as much flexibility as possible be maintained in the regulatory framework to facilitate the resolution of these issues as well as other issues that cannot be currently foreseen.

Therefore, the Regulatory Committee recommends the following:

- . Louisiana's past commitment to universal service should be confirmed as a central goal of this state's telecommunications policy. Every Louisiana resident, regardless of income, disability, or

location, should be ensured access to the package of basic telecommunications services.

- . As the marketplace forces of competition and technology continue to change the telecommunications landscape, the package of services that this state requires to be universally available must be periodically reassessed. When economic and social imperatives signal the time for a review of the state's universal service goals, the Public Service Commission should, if necessary, upgrade the basic telecommunications services package to ensure that it continues to meet our citizen's expanding needs.
- . The goal of lawmakers, regulators and industry participants should be to develop a system that maintains and enhances universal service, while eliminating distortions and inequities. A fair and viable funding mechanism to support universal service must remain available, during and after the transition to competitive telecommunications pricing. That mechanism would require equitable service obligations and/or financial contributions from all providers of telecommunications services. The Public Service Commission should establish and administer the universal service fund mechanism and develops standards/criteria for determining those providers who should be exempted from contributing to the universal fund mechanism.
- . The Public Service Commission should continue to work

with the Department of Rehabilitative Services and the Commission for the Deaf to help those with disabilities acquire necessary customer premises equipment.

**Regulation of Rates:**

The present regulatory environment evolved during the time when telephony and television were distinct industries. Advanced technology is breaking down traditional separations between the transmission of sound (e.g., a telephone conversation), image (e.g., a television program), and computer data (e.g., a text file or a graph), and consequently, between the telephone, television, and information industries. Partnerships, alliances, mergers, and competition involving participants from all of these industries are occurring with increasing frequency. To achieve the multiprovider environment envisioned for Louisiana, it is critical that the "playing field" between all service providers be level and fair. A regulatory structure (paradigm) that treats all participants fairly is required.

I. As part of the process of moving toward more competitive telecommunications markets, and in order to maximize market-based incentives, the Public Service Commission and other regulators across the country have reconsidered rate-of-return regulation and have moved toward "incentive" regulation schemes. Additional alternatives to traditional rate-of-return regulation include social contracts, deregulation, price caps, alternative regulation and a combination of some of the schemes just stated. These regulatory options generally have given telecommunications

providers greater price flexibility for competitive services but have more stringent pricing rules for monopoly services. At the same time, they entail less investment oversight but do not guarantee fixed rates of return on company assets, thus increasing both the risks and rewards of new investment for shareholders.

An alternative regulatory scheme should be considered as significant competition grows in the telecommunications market and as a means to encourage increased private investment in telecommunications. When structuring a new regulatory system, the LPSC must ensure that the risks of investment in new telecommunications services are borne by the shareholders and that ratepayers are not exposed to the investment risks associated with the offering of competitive services. Prices of basic services used by the consumers and those network functions where there is little or no competition but which are needed by competitors should continue to be regulated, and the LPSC should use available mechanisms to ensure that such services are provided efficiently.

The LPSC must also carefully monitor the transition to more fully competitive markets. In particular, they must ensure adequate service availability in all geographic areas, and all carriers must share fairly in the costs necessary to provide and maintain adequate service availability on demand. Under the principle of regulatory parity each competitor would be obliged to equitably provide either facilities or an equivalent financial contribution to the costs of ensuring that essential telecommunications services are available on demand, i.e., carrier-

of-last-resort obligations. No competitive advantage or disadvantage should result from equitably sharing these collective obligations.

To effectively manage the transition to greater competition, methods of regulation must adapt to changing market conditions. Alternative forms of regulation for local exchange companies must be considered along with regulation of competitive services and providers. At the present time, the degree of competition in various telecommunications markets varies widely (e.g., there is significant competition in interexchange toll markets, less in intraLATA toll, and a limited amount in local exchange services). Regulators should be afforded the flexibility to adjust the degree of regulation, particularly of prices, specific services, and providers, to reflect competitive conditions appropriate to the degree of meaningful customer choice in each market. This flexibility should be applied only after full investigation of the competitiveness of each market and should be consistent with the degree of competition found. Limited competition may justify limited flexibility, while greater competition would justify greater flexibility. The framework should vest authority to reregulate, should market dynamics later prove inadequate to protect consumers.

It is particularly important that the level of competition in each market and its resulting effect on consumers be carefully monitored. Ongoing review of market conditions is critical to ensuring that all consumers continue to receive the high-quality,

affordable services they require and that Louisiana's pro-competitive policies do not lead to the development of unregulated monopolies or oligopolies.

The Regulatory Committee, therefore, recommends:

- . The Public Service Commission develop standards, rules and regulations to evaluate the entry of competitors into telecommunications markets once dominated by monopoly local exchange carriers.
- . That the Public Service Commission evaluate marketplace competition and technology to determine the extent to which alternative forms of regulation are warranted.
- . Specific telecommunication providers must be designated as carriers-of-last-resort. The obligations, responsibilities and rights of each of these carriers must be defined in detail by the Public Service Commissions.
- . An alternative form of regulation should be applied to competitive offerings and services based on the evaluation of marketplace competition and technology conducted by the Public Service Commission.
- . As prerequisites to participating in a competitive marketplace, telecommunication providers must meet specific service quality standards. The Public Service Commission should develop service quality standards that address consumer protection, reliability and disaster recovery. As technology changes, these standards must be

re-evaluated.

II. The current regulatory structure differentiating cable television services from telephone services is largely the result of the manner in which cable television developed historically and the legal principals applied to that development. Unlike telephone, cable television is primarily a purveyor of video programming and exercises editorial discretion in a manner similar to broadcasters, as opposed to telephone companies which act strictly as carriers or distributors and have little or no control over content of the information transmitted. The cable industry is presently regulated by the Federal Communications Commission ("FCC") through its implementation of federal legislation and agency orders. The FCC has extended authority over various elements of that regulation to local franchising authorities, typically municipalities and parishes.

At present, most cable systems do not engage in providing services commonly provided by the Regional Bell Operating Companies, the evolution and convergence of technologies which the cable and telephone industries utilize to provide service to their customers will likely create the opportunity for both industries to offer services provided now by the other.

Cable television operators are effectively prohibited from providing public telecommunications services until the Louisiana Public Service Commission develops rules and regulations providing for the entry and operation of competitive and alternate access providers in the local interstate and/or interexchange

telecommunications markets in Louisiana.

To the extent that any cable entity offers intrastate telephone services to the public, it is subject to the Public Service Commission's jurisdiction. To the extent an entity offers only cable service, it will continue to be subject to separate rules. Regulation of cable television will remain under the primary jurisdiction of the FCC, as well as, local governing bodies.

The Regulatory Committee therefore recommends the following:

- . All providers of common carrier telecommunications services, including cable companies offering this telecommunications should operate under rules and regulations of the Louisiana Public Service Commission which should be designated to foster the development of a ubiquitous, modern and affordable telecommunications system within a framework that encourages free enterprise, vigorous competition and innovation.
- . The Louisiana Public Service Commission should develop standards, rules, and regulations to permit the entry of competitors into telecommunications markets presently serviced by monopoly providers.
- . Cable and telephone carriers maintaining monopoly power in particular service markets and/or regions should be restrained by

regulatory oversight from exercising that power to inhibit the growth of new market entrants.

- . The Public Service Commission should evaluate on a case by case basis cable-telephone cross-entry, scrutinize carefully from an antitrust perspective, proposed mergers. Regulatory restrictions on cross-subsidization from (regulated or unregulated) monopoly endeavors to competitive ones, must be in place to ensure the development and continuation of real and fair competition.

## APPENDIX A

Ubiquitous single party Touch Tone availability

Access to local exchange service

Access to interexchange carriers

Technical capability to send and receive local and long distance calls

Interlata equal access

911 service where established by LA. R.S. 45:791 et. seq.

A local calling area sufficiently large to encompass the user's community of interest

Access to digital data transmission capabilities to support up to 150 Kbps as well as voice

SS7 interconnection to the ubiquitous public broadband switched network

Access to advanced services provided in digital or stored program control central offices

Access to Information and NXX services as available

Local directory assistance

Directory listing in residential and/or business directory

Local Operator services

Customer support service including billing

Installation and set up of universal service



Embargoed For Release  
October 12, 1993



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Building The  
Wireless Future

## **Cellular Industry Counts 13 Million Subscribers Rising Revenues, Falling Monthly Bills Reported on Eve of 10th Anniversary**

WASHINGTON, D.C.-- The cellular telephone industry, celebrating its 10th anniversary, announced today that more than two million new subscribers signed up in the first six months of 1993, bringing the total number of customers to more than 13 million.

"It's been just a phenomenal decade," said Thomas E. Wheeler, president of the Cellular Telecommunications Industry Association (CTIA). "Every day, another 11,000 Americans become cellular phone users."

The first commercial cellular phone system began operation in Chicago on October 13, 1983. The symbolic first call was made from a phone in a Chrysler convertible to the grandson of Alexander Graham Bell, inventor of the telephone.

In its semi-annual report on industry growth, CTIA said the number of subscribers in the first six months of 1993 increased 18.4 percent. For the 12 months, from July 1992 through June 1993, the number of cellular subscribers grew by more than four million or 47 percent.

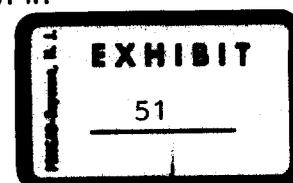
The survey also said the industry set its 16th consecutive record for six-month revenues, with gross service revenues climbing 15 percent over 1992's last half to \$4.8 billion. For the 12 months ended June 30, the industry's total revenues jumped 34.71 percent to \$9 billion, compared to \$6.7 billion for the 12 months ending June 30, 1992.

"The driving force behind cellular's popularity is the affordability, personal convenience and safety, and work productivity it provides customers," Wheeler explained.

The average monthly bill for subscribers dropped to \$67.31 during the first six months of 1993, from \$68.68 per month in December 1992.

The cellular industry's capital investment increased by \$1.5 billion in the first six months of 1993, to a cumulative total of more than \$12.7 billion.

- more-



Cellular carriers have created more than 36,500 jobs in the past ten years. When related service and manufacturing activities are included, approximately 100,000 jobs have been created by the cellular industry. In the first six months of 1993, cellular carriers added 2,153 new employees, according to the CTIA data survey.

Currently, 1,523 cellular systems are providing service in 734 markets across the United States. The number of new cell sites, the basic building blocks of a cellular system, increased 12 percent during the first half of 1993 and now total 11,551. New cells increase capacity, improve voice quality, and lower power needs.

Roaming revenues -- charges to cellular subscribers using their phones while away from their home city -- increased 9.35 percent during the January-June period, to \$587 million. That represents a 34 percent increase over roaming revenues in the first half of 1992.

"Cellular's outstanding record of achievement and performance serve as the launch pad for the wireless future," said Wheeler. "What began as a car phone will lead us into a new era of personal mobile communications in which information -- voice, data, video -- is brought to people where and when they need it."

The Cellular Telecommunications Industry Association is the Washington-based trade association which represents the cellular telephone industry in the United States, Canada and Mexico. More than 95 percent of the cellular customers in North America are served by CTIA-member companies.

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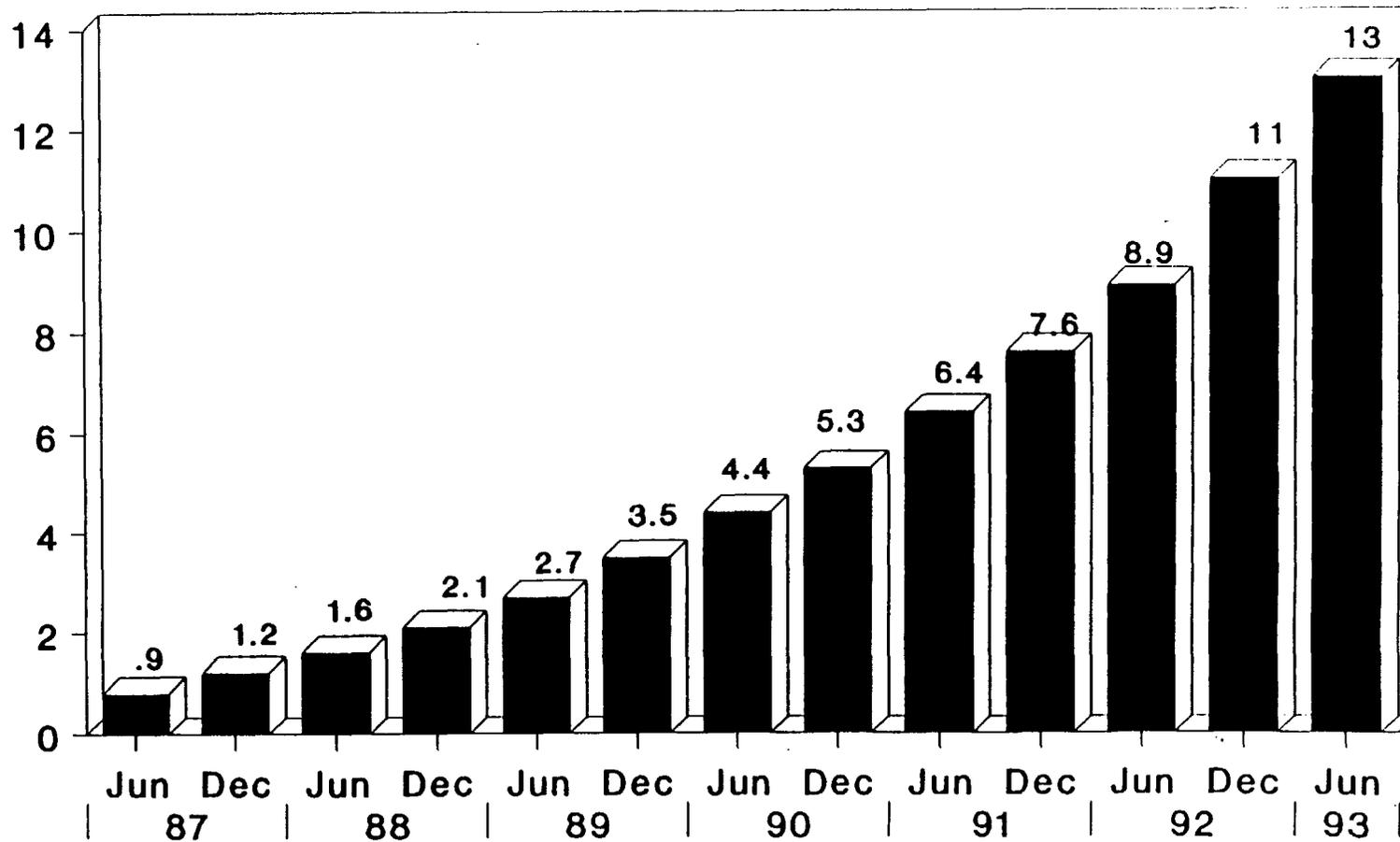
## CELLULAR TELECOMMUNICATIONS INDUSTRY ASSOCIATION MID-YEAR DATA SURVEY

Date	Subscribers	Six-Month Revenues	Roamer Services	Cell Sites	Employees	Cumulative Capital Investment	No. of Systems	Average Monthly Bill	Average Call Length (in minutes)
6/85	203,600	\$176,231,000		599	1,697	\$588,751,000	65		
12/85	340,213	\$306,197,000		913	2,727	\$911,167,000	102		
6/86	500,000	\$360,197,000		1,194	3,556	\$1,140,163,000	129		
12/86	681,825	\$462,467,000		1,531	4,334	\$1,436,753,000	166		
6/87	883,778	\$479,514,000		1,732	5,656	\$1,724,348,000	206		
12/87	1,230,855	\$672,005,000		2,305	7,147	\$2,234,635,000	312	\$96.83	2.33
6/88	1,608,697	\$886,075,000		2,789	9,154	\$2,589,589,000	420	\$95.00	2.25
12/88	2,069,441	\$1,073,473,000	\$89,331,000	3,209	11,400	\$3,274,105,000	517	\$98.02	2.26
6/89	2,691,793	\$1,406,463,000	\$121,368,000	3,577	13,719	\$3,675,473,000	559	\$85.52	2.35
12/89	3,508,944	\$1,934,132,000	\$173,199,000	4,169	15,927	\$4,480,141,752	584	\$89.30	2.48
6/90	4,368,686	\$2,126,362,000	\$192,350,000	4,768	18,973	\$5,211,765,025	592	\$83.94	2.32
12/90	5,283,055	\$2,422,458,000	\$263,660,000	5,616	21,382	\$6,281,596,000	751	\$80.90	2.20
6/91	6,390,053	\$2,653,505,000	\$302,329,000	6,685	25,545	\$7,429,739,000	1,029	\$74.56	2.37
12/91	7,557,148	\$3,055,017,000	\$401,325,000	7,847	26,327	\$8,671,544,000	1,252	\$72.74	2.38
6/92	8,892,535	\$3,633,285,000	\$436,725,000	8,901	30,595	\$9,276,139,000	1,483	\$68.51	2.38
12/92	11,032,753	\$4,189,441,000	\$537,146,000	10,307	34,348	\$11,262,070,000	1,506	\$68.68	2.58
6/93	13,067,318	\$4,819,259,000	\$587,347,000	11,551	36,501	\$12,775,967,000	1,523	\$67.31	2.38

# Cellular Subscribers

June '87 -- June '93

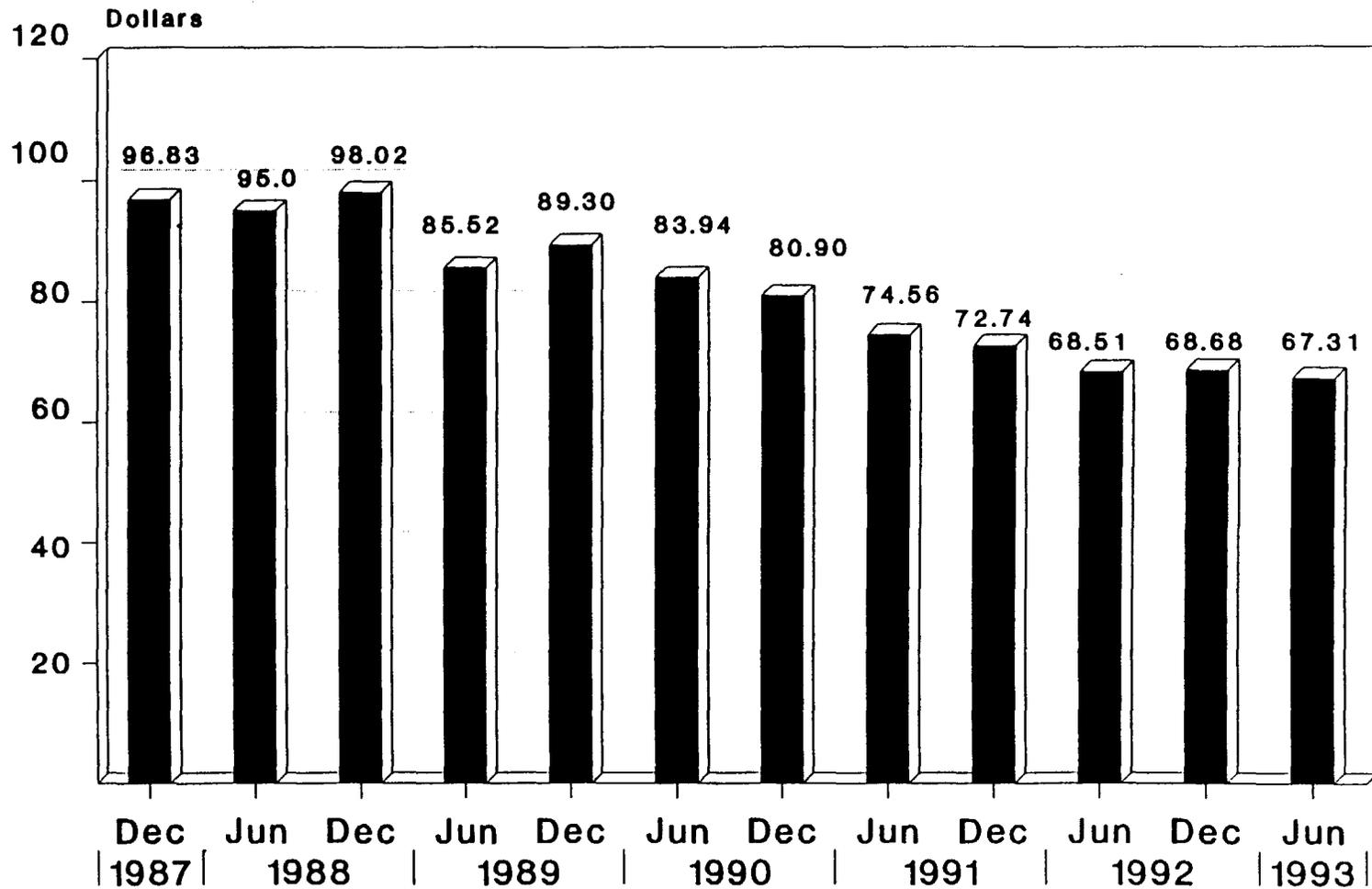
Millions



Source: CTIA

# AVERAGE MONTHLY CELLULAR BILL

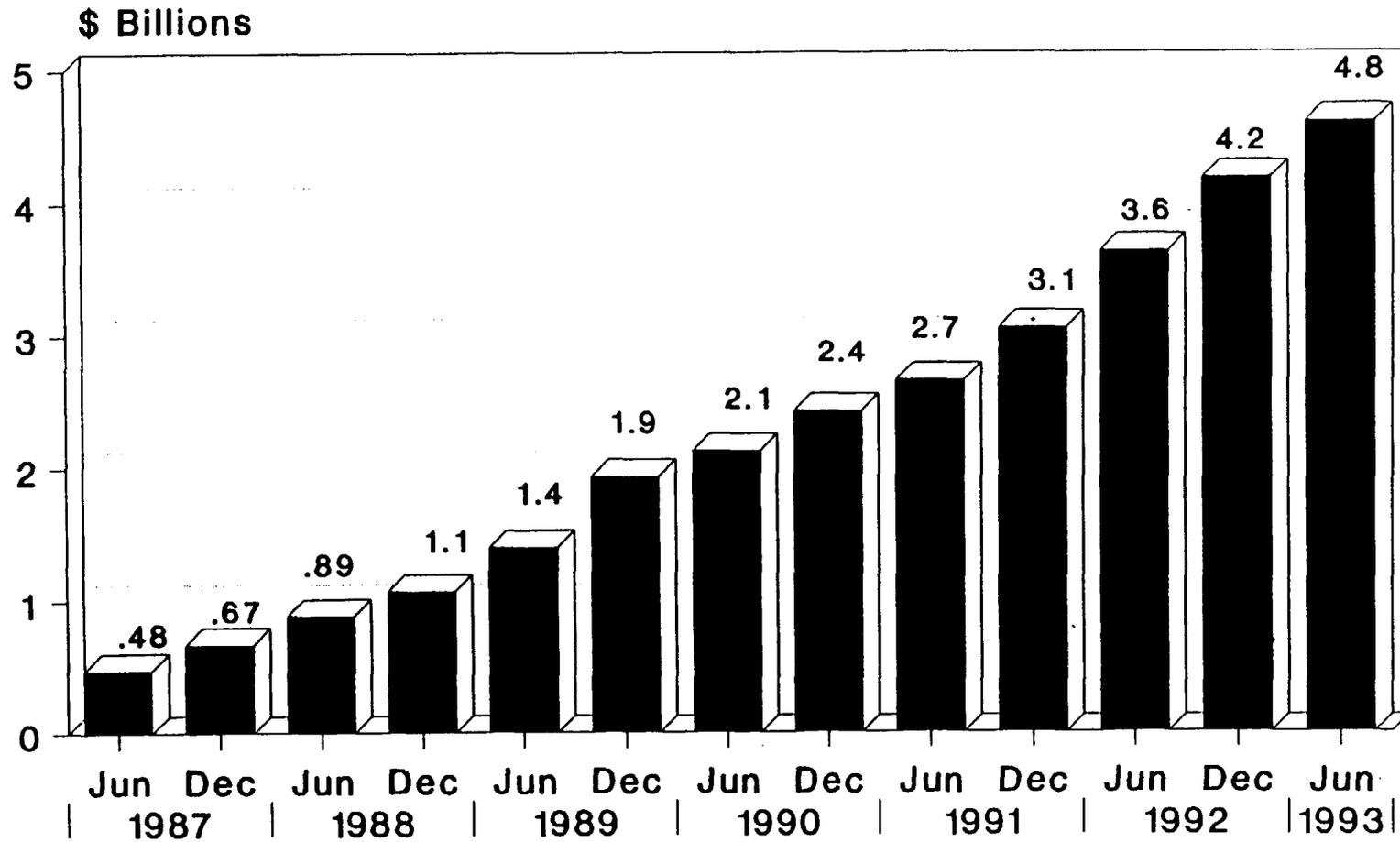
December '87 -- June '93



Source: CTIA

# Cellular Service Revenues

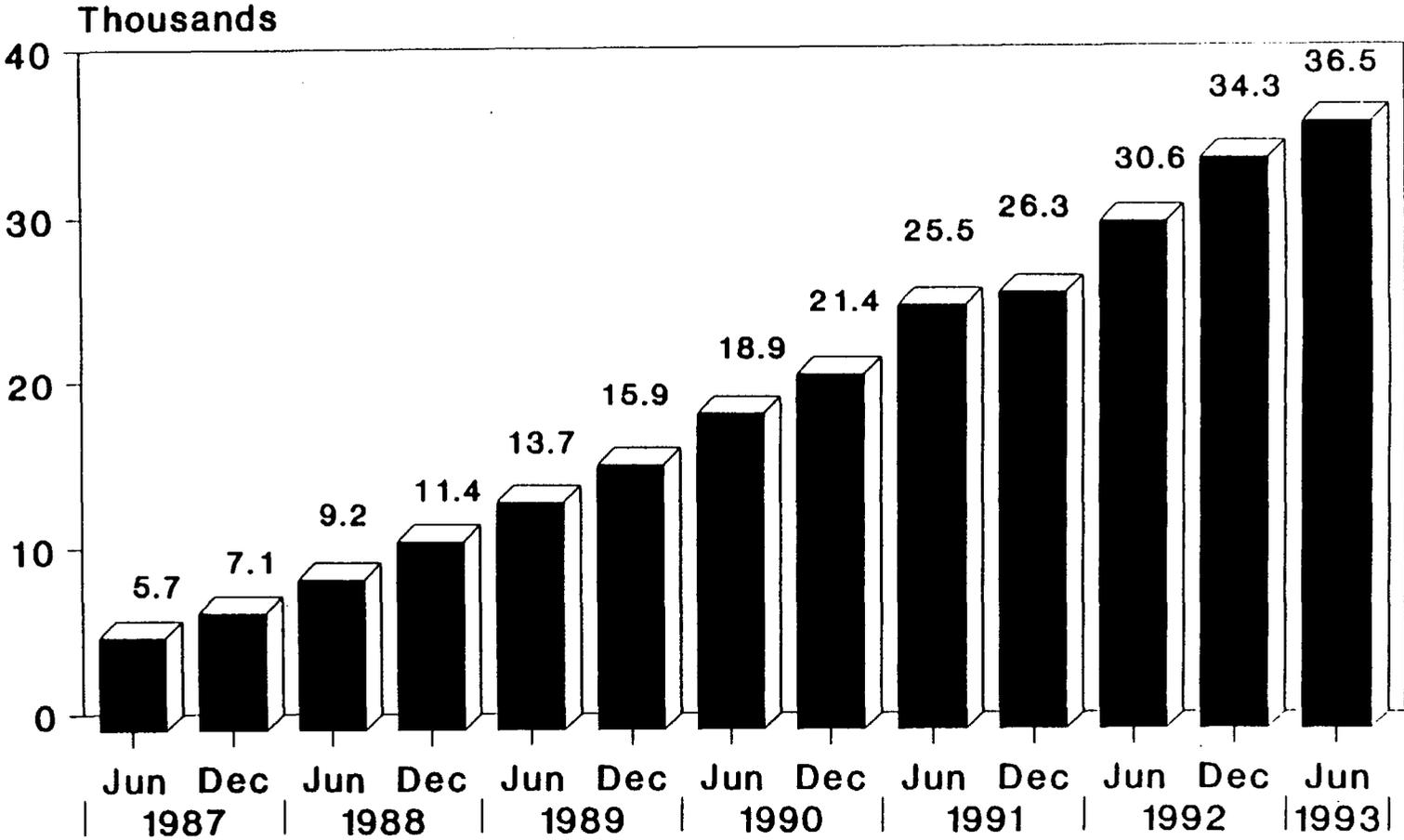
## June '87 -- June '93



Source: CTIA

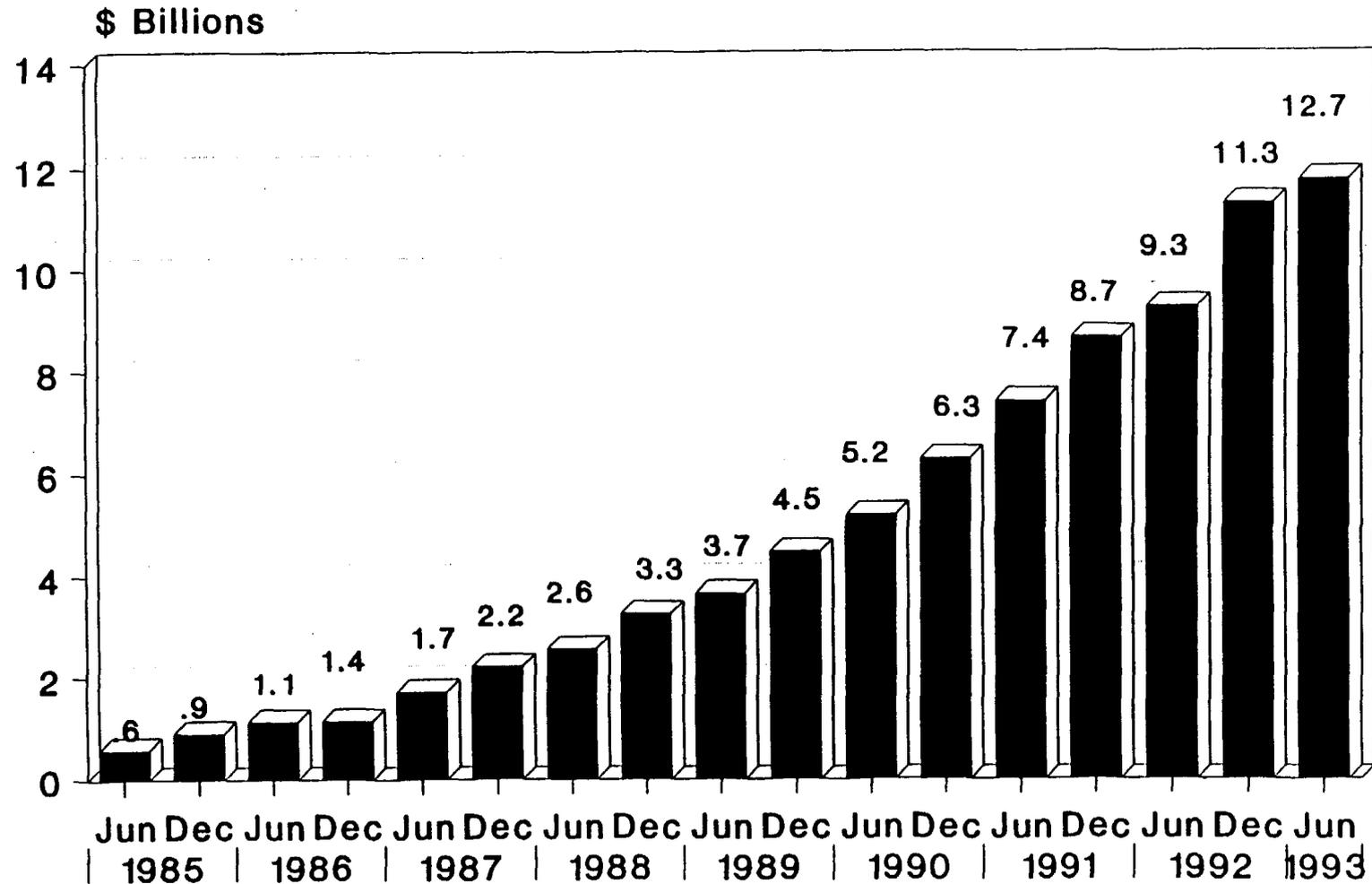
# Cellular Employees

June '87 -- June '93



Source: CTIA

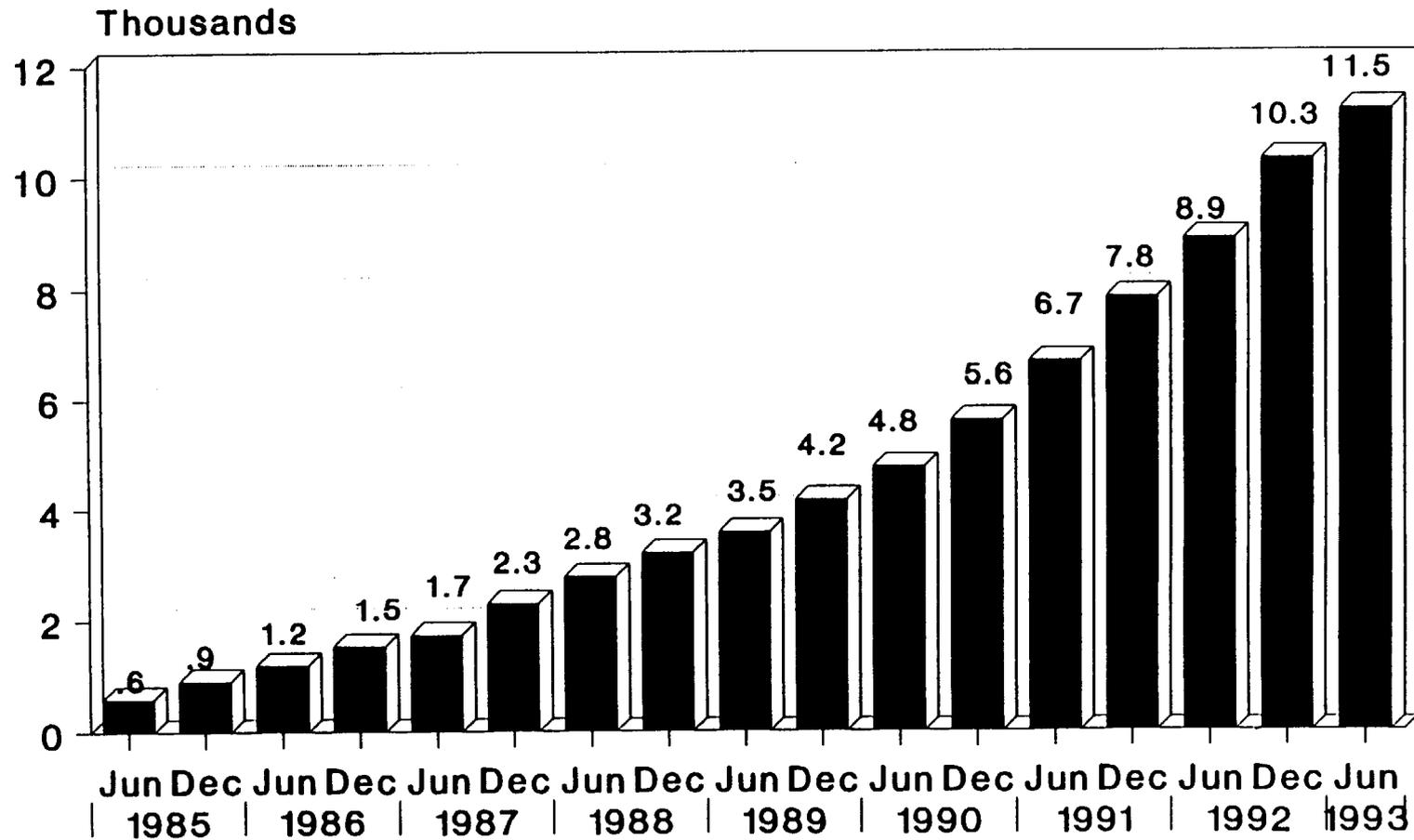
# Cumulative Capital Investment June '85 -- June '93



Source: CTIA

# Total Number of Cell Sites

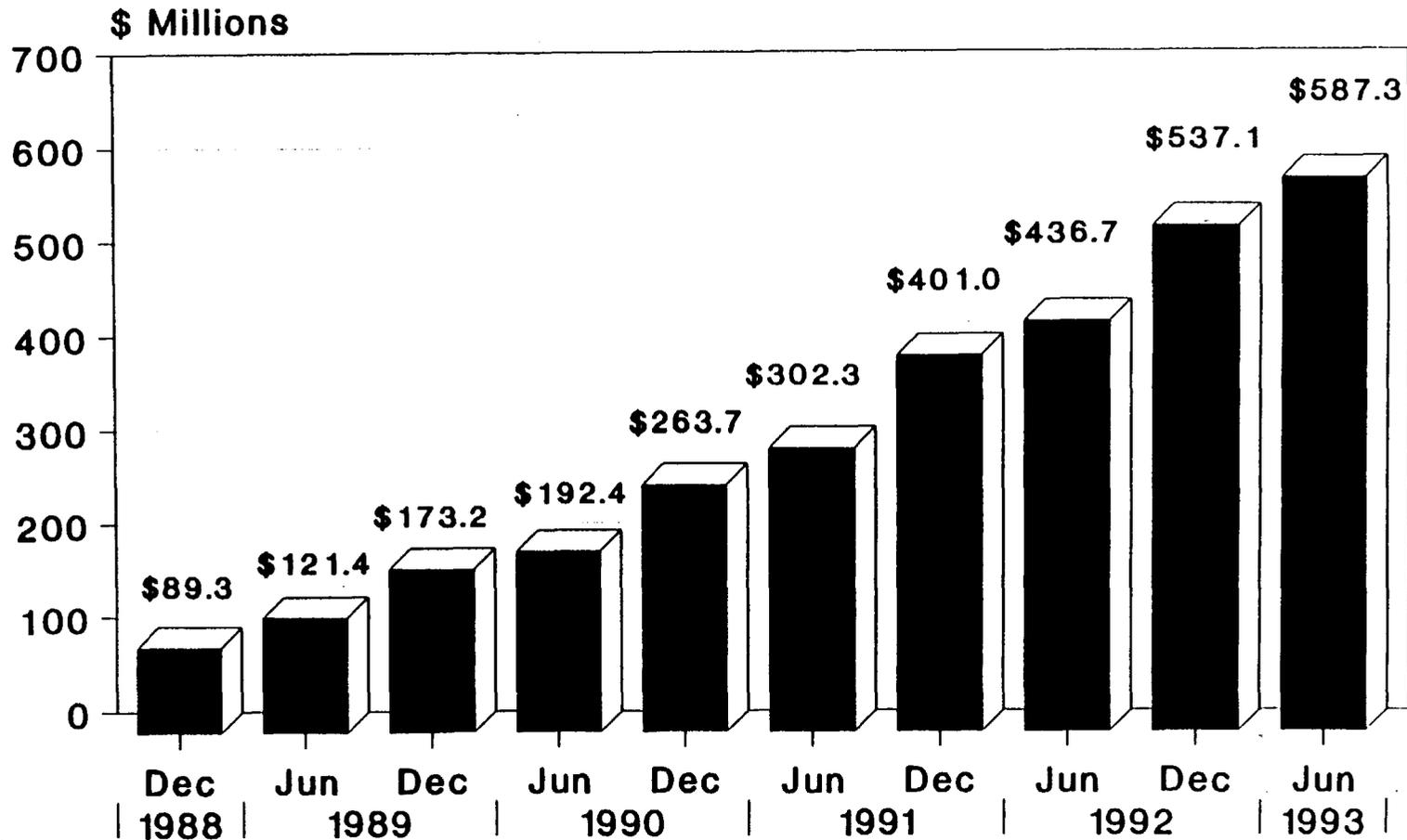
## June '85 -- June '93



Source: CTIA

# Cellular Roamer Revenues

## December '88 -- June '93



Source: CTIA