

## Background on CTIA's Semi-Annual Wireless Industry Survey

CTIA-The Wireless Association™'s Semi-annual wireless industry survey develops industry-wide information drawn from operational member and non-member wireless service providers. It has been conducted since January 1985, originally as a cellular-only survey instrument, and now including PCS and ESMR providers. No break-out of results specific to PCS or ESMR is performed at this time.

The information solicited from the service providers includes: cumulative capital investment, direct employment, number of cell sites, total service revenues, roaming revenues as a subset of total service revenues, the average local monthly bill, and the average length of call. The average local monthly bill is developed on a weighted basis, to avoid skewing the figures. It is not an average of averages. No adjustments are made to these figures.

The CTIA survey also develops information on the number of reported wireless service subscribers for the responding systems, and an estimated total subscriber figure (taking into account non-responding systems). Because the CTIA survey is a voluntary survey, it cannot compel responses from wireless carriers. However, the survey has an excellent response rate. For the December 31, 2004, installment of the semi-annual survey, CTIA received responses from companies serving 95.4 percent of wireless subscribers.

Because not all systems do respond, CTIA develops an estimate of total subscribership. The estimated subscriber figure is developed by determining the identity and character of non-responding markets (*i.e.*, RSA/MSA or equivalent-market designation, age of system, market population), and using a surrogate penetration rate applicable to similar, known systems to derive probable subscribership. These numbers are then summed with the reported subscriber numbers to reach the total estimated subscriber figures. No carrier-specific or market-specific information is maintained as a result of the survey. All such information is aggregated by an independent accounting firm to a nationwide level. The underlying source material for the survey is then destroyed per confidentiality agreements.

The following tables and charts reflect selected top-of-the-line data. Complete results of CTIA's semi-annual survey are available for purchase in the comprehensive report, *CTIA's Wireless Industry Indices: 1985 – 2004*, including data on prepaid and toll revenues, subscriber usage, investment, digital subscribership, and other operational indicators and ratios. The report is available for a member price of \$850 and a non-member price of \$1,075. Subsequent copies are available to members at \$475 each and to non-members at \$535 each. Annual subscriptions are available at a member price of \$1,445 and non-member price of \$1,825. The report may be ordered by contacting [research@ctia.org](mailto:research@ctia.org) or by ordering directly from CTIA's eStore at [http://www.ctia.org/store/categoryresults.cfm?category\\_id=15](http://www.ctia.org/store/categoryresults.cfm?category_id=15). Order forms are also available on CTIA's web site, at [http://files.ctia.org/pdf/Indices\\_Order\\_Form.pdf](http://files.ctia.org/pdf/Indices_Order_Form.pdf)

**CTIA-THE WIRELESS ASSOCIATION™'S  
ANNUALIZED WIRELESS INDUSTRY SURVEY RESULTS  
DECEMBER 1985 – DECEMBER 2004**

**Reflecting Domestic U.S. Commercially-Operational Cellular, ESMR and PCS Providers**

<b>Date</b>	<b>Estimated Subscribers</b>	<b>Annualized Total Service Revenues (\$000)</b>	<b>Annualized Roamer Revenues (\$000)</b>	<b>Cell Sites</b>	<b>Employees</b>	<b>Cum Capital Investment (\$000)</b>	<b>Average Local Monthly Bill</b>	<b>Avg. Local Call Length (Min)</b>
1985	340,213	\$482,428	N/A	913	2,727	\$911,167	N/A	N/A
1986	681,825	\$823,052	N/A	1,531	4,334	\$1,436,753	N/A	N/A
1987	1,230,855	\$1,151,519	N/A	2,305	7,147	\$2,234,635	\$96.83	2.33
1988	2,069,441	\$1,959,548	N/A	3,209	11,400	\$3,274,105	\$98.02	2.26
1989	3,508,944	\$3,340,595	\$294,567	4,169	15,927	\$4,480,142	\$89.30	2.48
1990	5,283,055	\$4,548,820	\$456,010	5,616	21,382	\$6,281,596	\$80.90	2.20
1991	7,557,148	\$5,708,522	\$703,651	7,847	26,327	\$8,671,544	\$72.74	2.38
1992	11,032,753	\$7,822,726	\$ 973,871	10,307	34,348	\$11,262,070	\$68.68	2.58
1993	16,009,461	\$10,892,175	\$1,361,613	12,824	39,810	\$13,956,366	\$61.49	2.41
1994	24,134,421	\$14,229,922	\$1,830,782	17,920	53,902	\$18,938,678	\$56.21	2.24
1995	33,785,661	\$19,081,239	\$2,542,570	22,663	68,165	\$24,080,467	\$51.00	2.15
1996	44,042,992	\$23,634,971	\$2,780,935	30,045	84,161	\$32,573,522	\$47.70	2.32
1997	55,312,293	\$27,485,633	\$2,974,205	51,600	109,387	\$46,057,910	\$42.78	2.31
1998	69,209,321	\$33,133,175	\$3,500,469	65,887	134,754	\$60,542,774	\$39.43	2.39
1999	86,047,003	\$40,018,489	\$4,085,417	81,698	155,817	\$71,264,865	\$41.24	2.38
2000	109,478,031	\$52,466,020	\$3,882,981	104,288	184,449	\$89,624,387	\$45.27	2.56
2001	128,374,512	\$65,316,235	\$3,752,826	127,540	203,580	\$105,030,101	\$47.37	2.74
2002	140,766,842	\$76,508,187	\$3,895,512	139,338	192,410	\$126,922,347	\$48.40	2.73
2003	158,721,981	\$87,624,093	\$3,766,267	162,986	205,629	\$145,866,914	\$49.91	3.07
2004	182,140,362	\$102,121,210	\$4,210,331	175,725	226,016	\$173,793,507	\$50.64	3.05

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**CTIA'S SEMI-ANNUAL WIRELESS INDUSTRY SURVEY RESULTS**  
**June 1985 - December 2004**

<b>Date</b>	<b>Estimated Subscribers</b>	<b>Total Six- Month Revenues (\$000)</b>	<b>Roamer Service Revenues (\$000)</b>	<b>Cell Sites</b>	<b>Employees</b>	<b>Cum Capital Investment (\$000)</b>	<b>Average Local Monthly Bill</b>	<b>Avg. Local Call Length (Min)</b>	<b>Avg. Roam Call Length</b>
Jan-85	91,600	\$178,085	N/A	346	1,404	\$354,760	N/A	N/A	N/A
Jun-85	203,600	\$176,231	N/A	599	1,697	\$588,751	N/A	N/A	N/A
Dec-85	340,213	\$306,197	N/A	913	2,727	\$911,167	N/A	N/A	N/A
Jun-86	500,000	\$360,585	N/A	1,194	3,556	\$1,140,163	N/A	N/A	N/A
Dec-86	681,825	\$462,467	N/A	1,531	4,334	\$1,436,753	N/A	N/A	N/A
Jun-87	883,778	\$479,514	N/A	1,732	5,656	\$1,724,348	N/A	N/A	N/A
Dec-87	1,230,855	\$672,005	N/A	2,305	7,147	\$2,234,635	\$96.83	N/A	N/A
Jun-88	1,608,697	\$886,075	N/A	2,789	9,154	\$2,589,589	\$95.00	N/A	N/A
Dec-88	2,069,441	\$1,073,473	\$89,331	3,209	11,400	\$3,274,105	\$98.02	N/A	N/A
Jun-89	2,691,793	\$1,406,463	\$121,368	3,577	13,719	\$3,675,473	\$85.52	N/A	N/A
Dec-89	3,508,944	\$1,934,132	\$173,199	4,169	15,927	\$4,480,142	\$89.30	N/A	N/A
Jun-90	4,368,686	\$2,126,362	\$192,350	4,768	18,973	\$5,211,765	\$83.94	N/A	N/A
Dec-90	5,283,055	\$2,422,458	\$263,660	5,616	21,382	\$6,281,596	\$80.90	N/A	N/A
Jun-91	6,380,053	\$2,653,505	\$302,329	6,685	25,545	\$7,429,739	\$74.56	N/A	N/A
Dec-91	7,557,148	\$3,055,017	\$401,325	7,847	26,327	\$8,671,544	\$72.74	N/A	N/A
Jun-92	8,892,535	\$3,633,285	\$436,725	8,901	30,595	\$9,276,139	\$68.51	N/A	N/A
Dec-92	11,032,753	\$4,189,441	\$537,146	10,307	34,348	\$11,262,070	\$68.68	N/A	N/A
Jun-93	13,067,318	\$4,819,259	\$587,347	11,551	36,501	\$12,775,967	\$67.31	2.38	3.38
Dec-93	16,009,461	\$6,075,916	\$774,266	12,824	39,810	\$13,956,366	\$61.49	2.41	3.26
Jun-94	19,283,306	\$6,519,031	\$778,116	14,740	45,622	\$16,107,921	\$58.65	2.36	2.89

## CTIA's SEMI-ANNUAL WIRELESS INDUSTRY SURVEY RESULTS

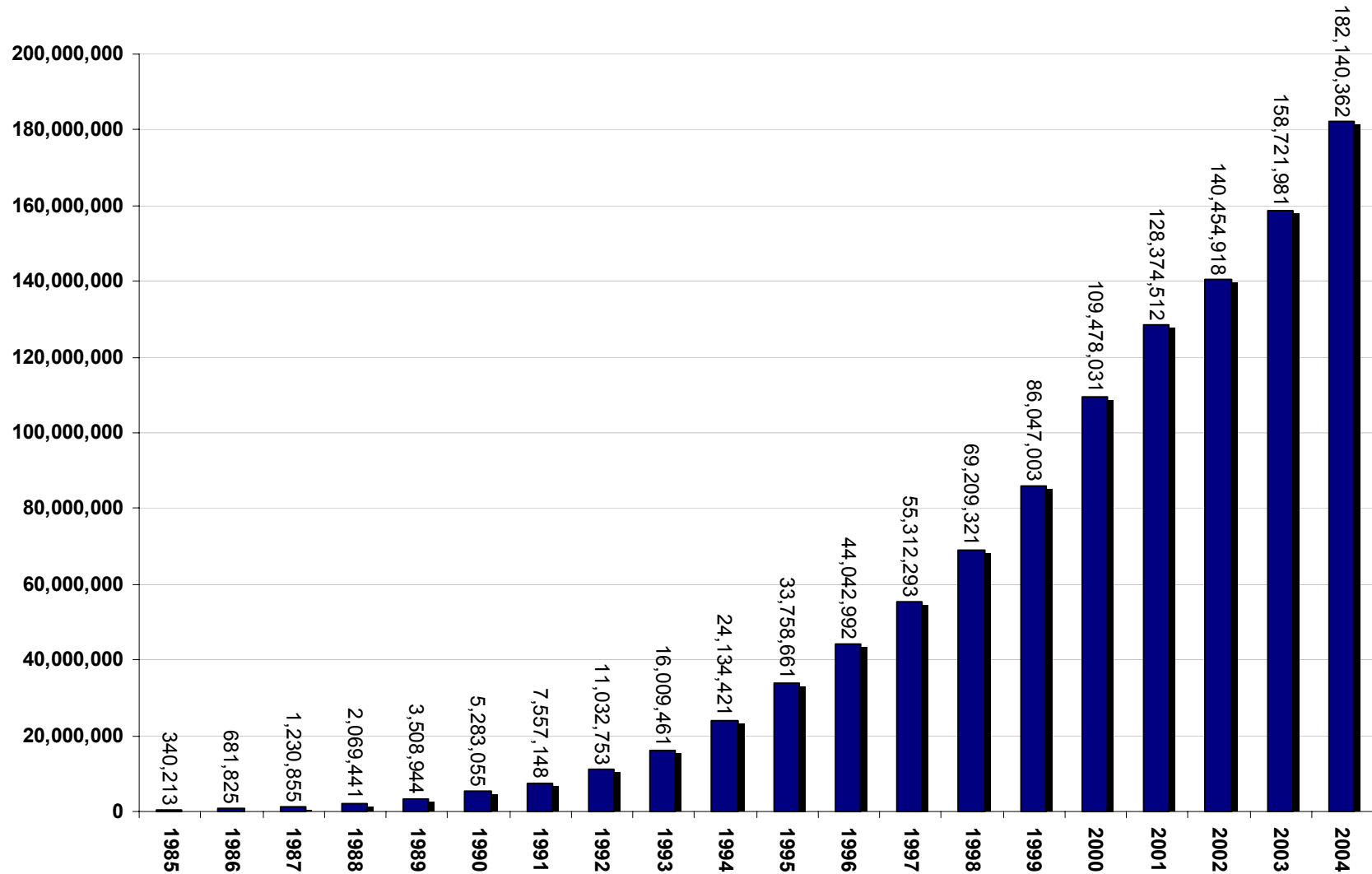
June 1985 - December 2004

<b>Date</b>	<b>Estimated Subscribers</b>	<b>Total Six- Month Revenues (\$000)</b>	<b>Roamer Service Revenues (\$000)</b>	<b>Cell Sites</b>	<b>Employees</b>	<b>Cum Capital Investment (\$000)</b>	<b>Average Local Monthly Bill</b>	<b>Avg. Local Call Length (Min)</b>	<b>Avg. Roam Call Length</b>
Dec-94	24,134,421	\$7,710,891	\$1,052,666	17,920	53,902	\$18,938,678	\$56.21	2.24	2.85
Jun-95	28,154,414	\$8,749,625	\$1,120,337	19,844	60,689	\$21,721,711	\$52.45	2.27	2.74
Dec-95	33,758,661	\$10,330,614	\$1,422,233	22,663	68,165	\$24,080,467	\$51.00	2.15	2.79
Jun-96	38,195,466	\$11,194,247	\$1,314,943	24,802	73,365	\$26,707,046	\$48.84	2.24	2.8
Dec-96	44,042,992	\$12,440,724	\$1,465,992	30,045	84,161	\$32,573,522	\$47.70	2.32	3.14
Jun-97	48,705,553	\$13,134,551	\$1,392,440	38,650	97,039	\$37,454,294	\$43.86	2.25	2.95
Dec-97	55,312,293	\$14,351,082	\$1,581,765	51,600	109,387	\$46,057,910	\$42.78	2.31	2.94
Jun-98	60,831,431	\$15,286,660	\$1,584,891	57,674	113,111	\$50,178,812	\$39.88	2.34	2.65
Dec-98	69,209,321	\$17,846,515	\$1,915,578	65,887	134,754	\$60,542,774	\$39.43	2.39	3.11
Jun-99	76,284,753	\$19,368,304	\$1,922,416	74,157	141,929	\$66,782,827	\$40.24	2.40	2.96
Dec-99	86,047,003	\$20,650,185	\$2,163,001	81,698	155,817	\$71,264,865	\$41.24	2.38	3.11
Jun-00	97,035,925	\$24,645,365	\$1,971,625	95,733	159,645	\$76,652,358	\$45.15	2.48	3.19
Dec-00	109,478,031	\$27,820,655	\$1,911,356	104,288	184,449	\$89,624,387	\$45.27	2.56	3.23
Jun-01	118,397,734	\$30,905,721	\$1,727,058	114,059	186,317	\$99,728,695	\$45.56	2.62	3.01
Dec-01	128,374,512	\$34,410,513	\$2,205,768	127,540	203,580	\$105,030,101	\$47.37	2.74	2.94
Jun-02	134,561,370	\$36,707,086	\$1,846,267	131,350	186,956	\$118,418,677	\$47.42	2.60	3.07
Dec-02	140,766,842	\$39,801,101	\$2,049,245	139,338	192,410	\$126,922,347	\$48.40	2.73	3.11
Jun-03	148,065,824	\$41,384,171	\$1,825,243	147,719	187,169	\$134,147,049	\$49.46	2.63	3.15
Dec-03	158,721,981	\$46,239,922	\$1,941,024	162,986	205,629	\$145,866,914	\$49.91	3.07	3.45
Jun-04	169,467,393	\$49,275,671	\$2,015,799	174,368	212,186	\$156,700,380	\$49.49	3.06	3.45
Dec-04	182,140,362	\$52,845,539	\$2,194,532	175,725	226,016	\$173,793,507	\$50.64	3.05	2.80

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# Estimated Subscribers

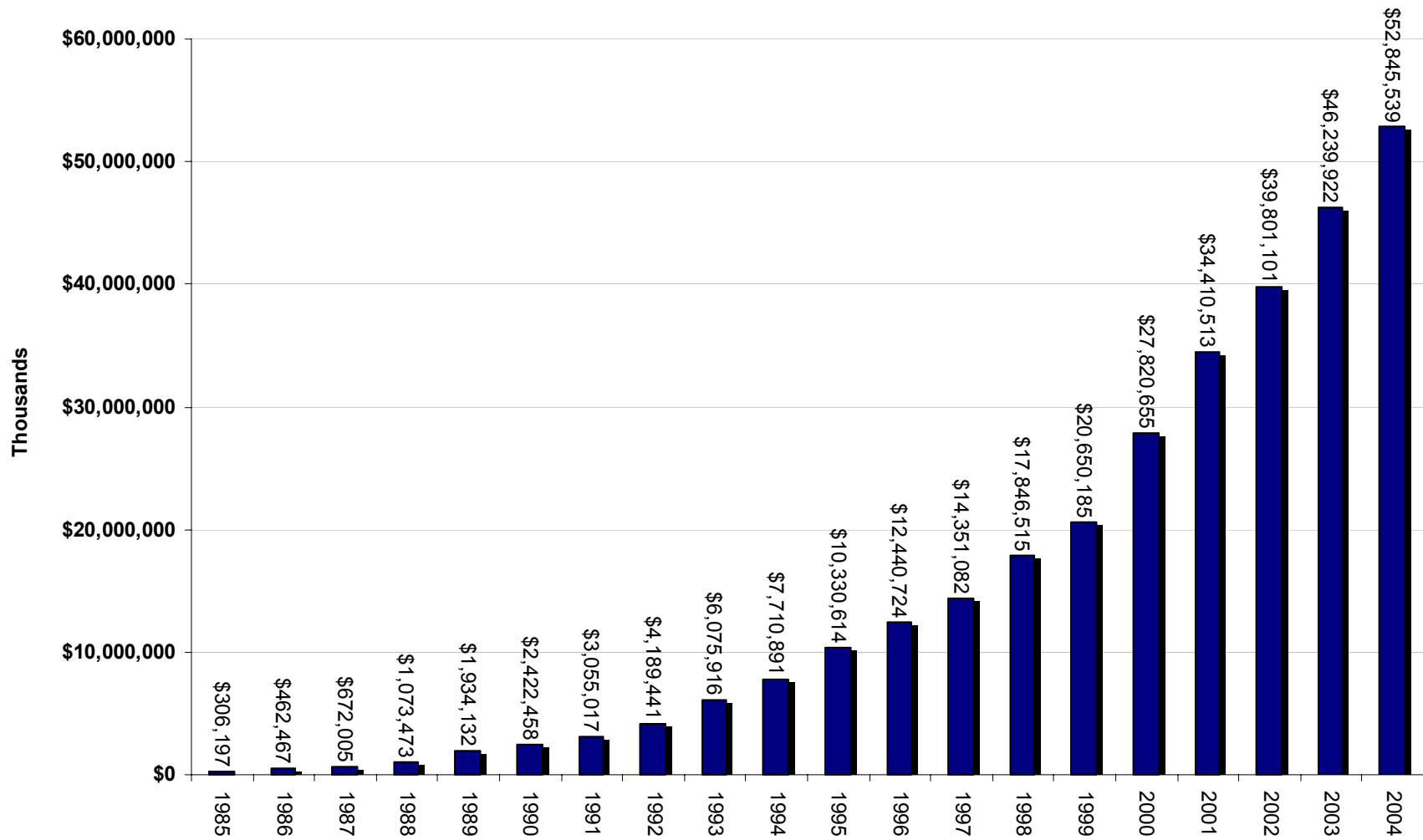


**Year-End 2004 Estimated Wireless Subscribers**  
**Second Highest Growth Year Ever: Up 23.4 Million from 2003**

Source: CTIA

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## Total Six-Month Service Revenues (000s)

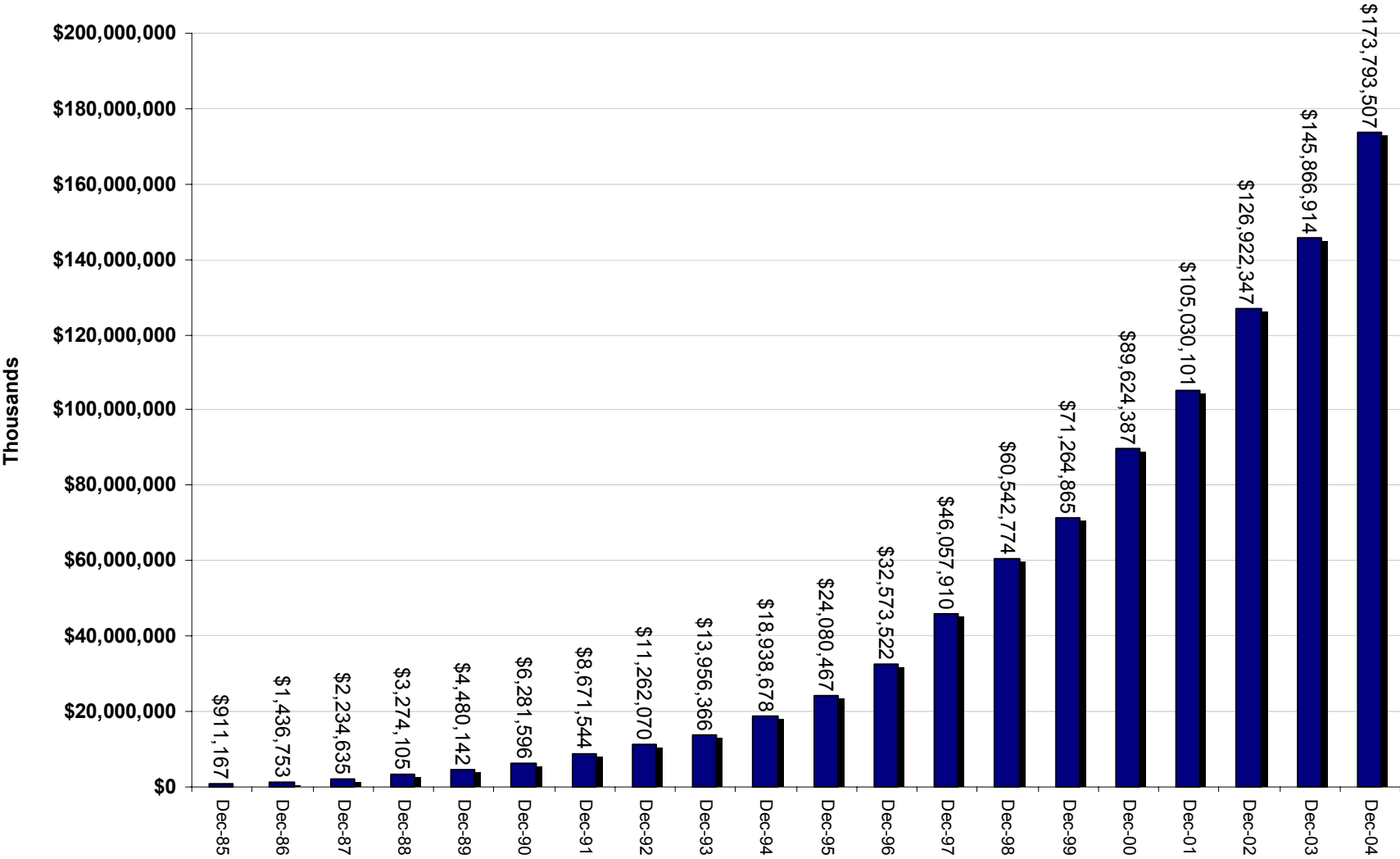


**Total Wireless Service Revenues Reach Almost \$53 billion for Last Six Months of 2004  
- Total Annual Revenues Reach More Than \$102 Billion for 2004**

Source: CTIA

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### Cumulative Capital Investment (000s)

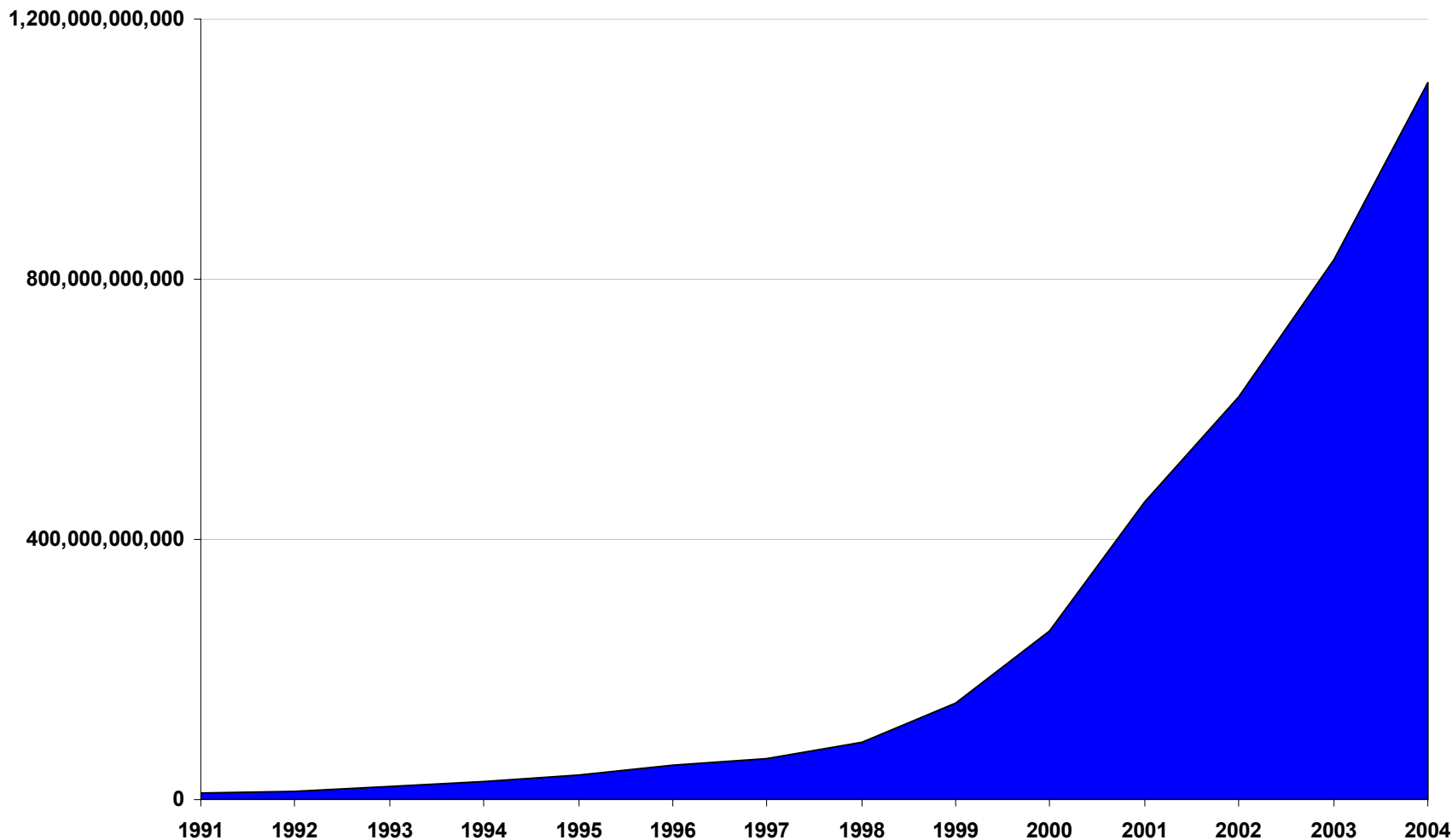


**Cumulative Capital Investment Reaches Almost \$174 Billion at Year-End 2004 – Most Recent Year Is More Than First Ten Years of Wireless Investment**

Source: CTIA

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## Reported Wireless Minutes of Use Exceed One Trillion in 2004

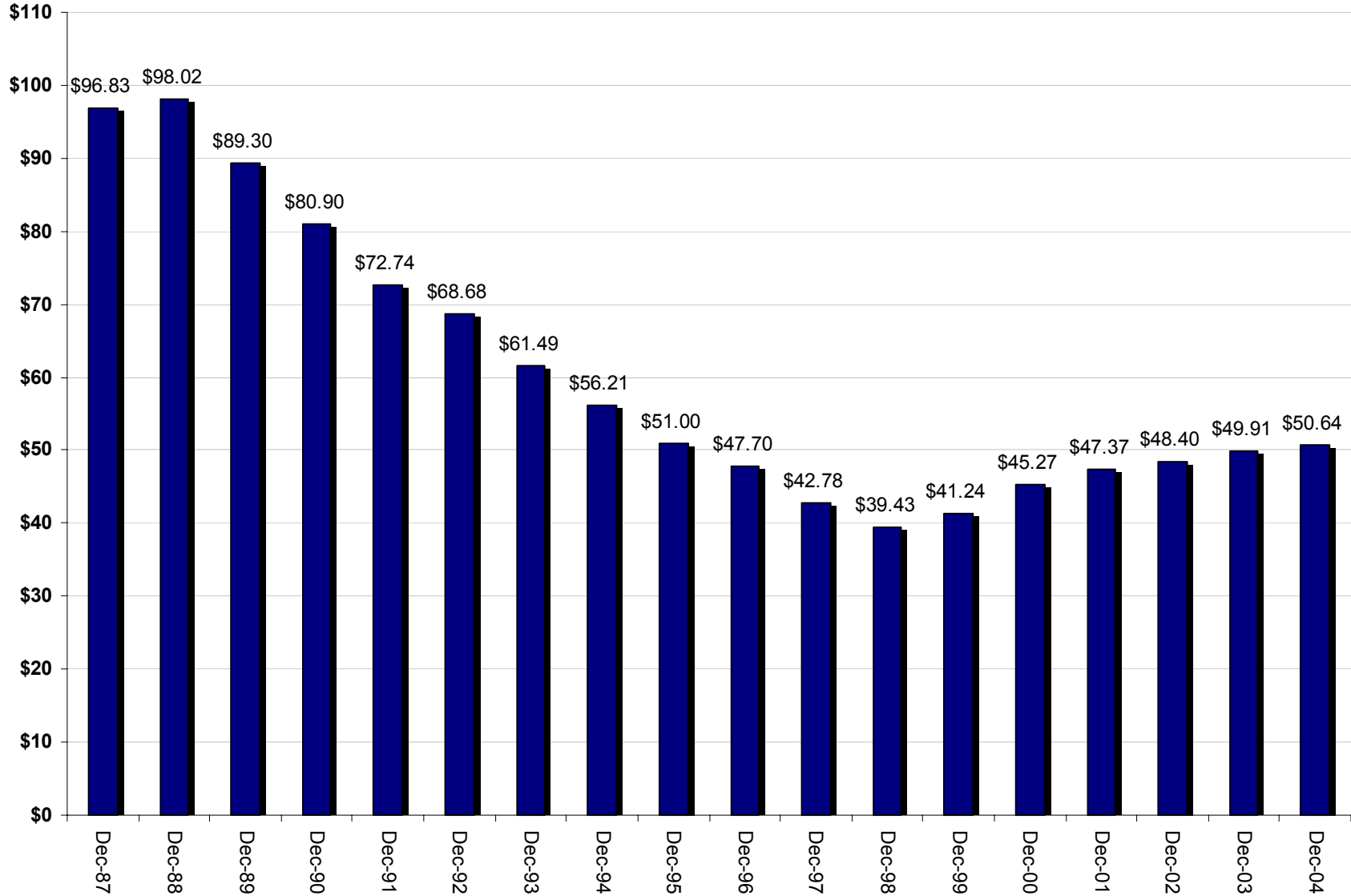


## Reported Wireless Minutes of Use Grow 32.7 Percent Year-over-Year

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Source: CTIA

## Average Local Monthly Bill

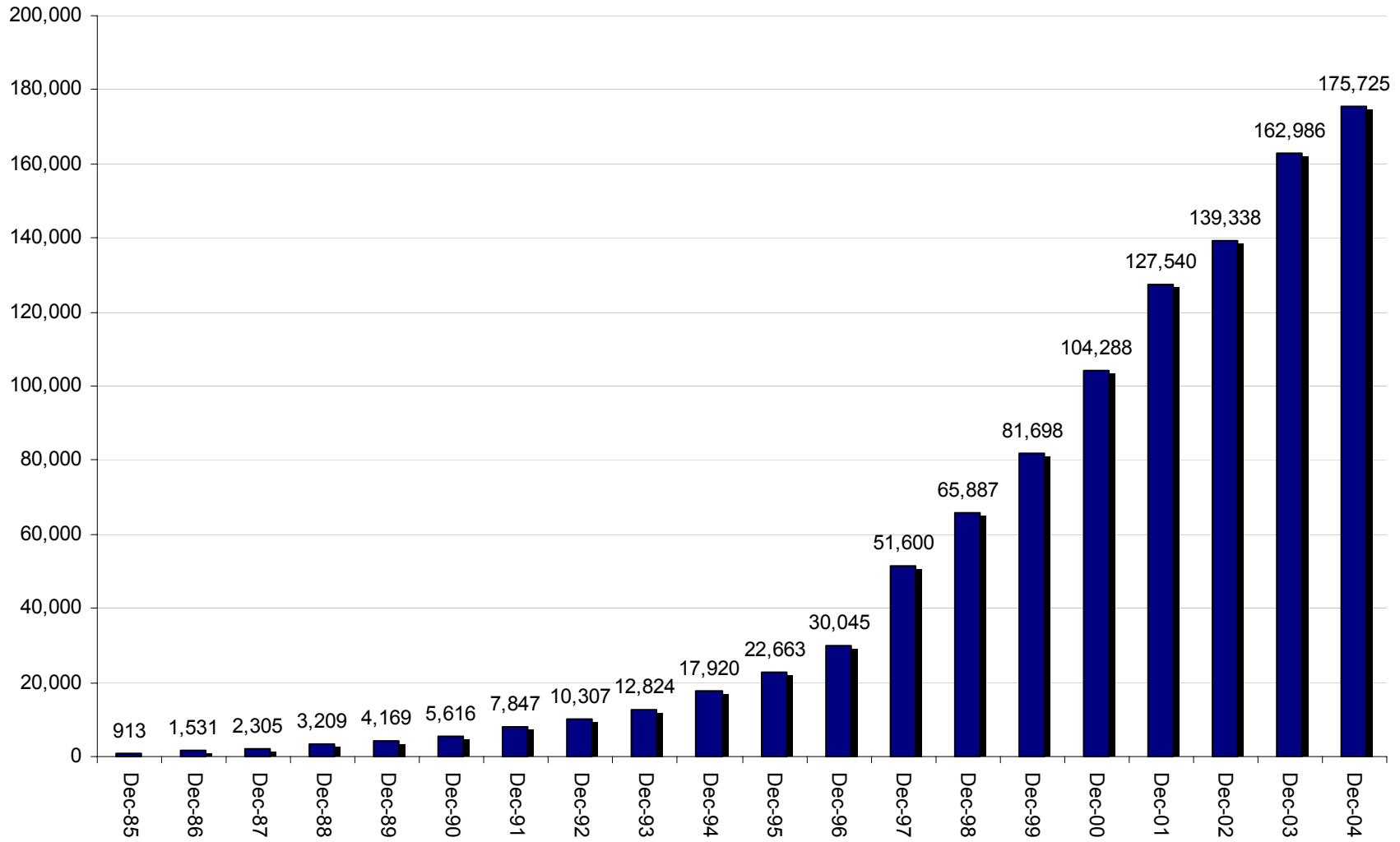


**Average Local Monthly Bill Grows 1.5 Percent Year-over-Year  
- Average Customer Usage Grows 15 Percent**

Source : CTIA

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# Cell Sites

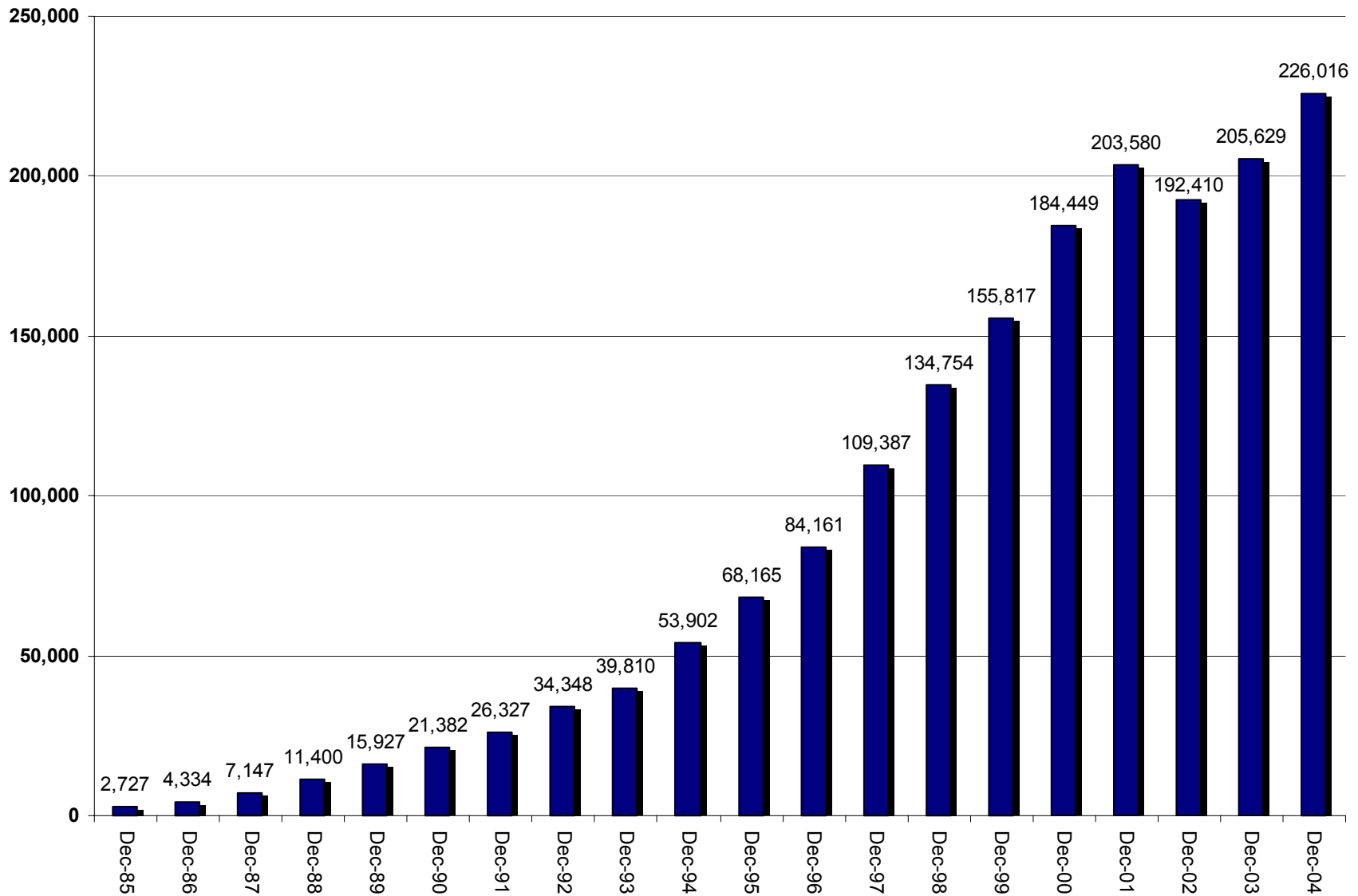


**Operational Cell Sites Grow 7.8 Percent Year-over-Year**

Source: CTIA

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## Direct Carrier Employees



**Direct Wireless Carrier Employment Grows 10 Percent Year-over-Year  
Direct Employment Exceeds 226,000 at Year-End 2004**

Source: CTIA

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