CTIA's Wireless Metrics Reports

Bobby Franklin

Executive Vice President

CTIA-The Wireless Association®

April 30, 2009

Background on Semi-Annual Survey

CTIA The Wireless Association®

- CTIA's survey began in January 1985 – focusing on operational cellular companies. Expanded in the 1990s to include new Personal Communications Service and Enhanced Specialized Mobile Radio operators.
- A voluntary and confidential survey, it now captures results for companies serving 96% of all estimated wireless subscribers.
- Includes all Tier 1 operators, most Tier 2 operators, and a sampling of Tier 3 operators.
- Now also includes major MVNOs to provide broader snapshot of the prepaid service market.
- Results are used to inform policymakers and to produce benchmarking reports – the comprehensive all-industry "Wireless Industry Indices" report and the special "Tier 3 Operators" report – for responding companies.

Background on CTIA's Reports

– Providing a Review of Reported and Derived Wireless Metrics

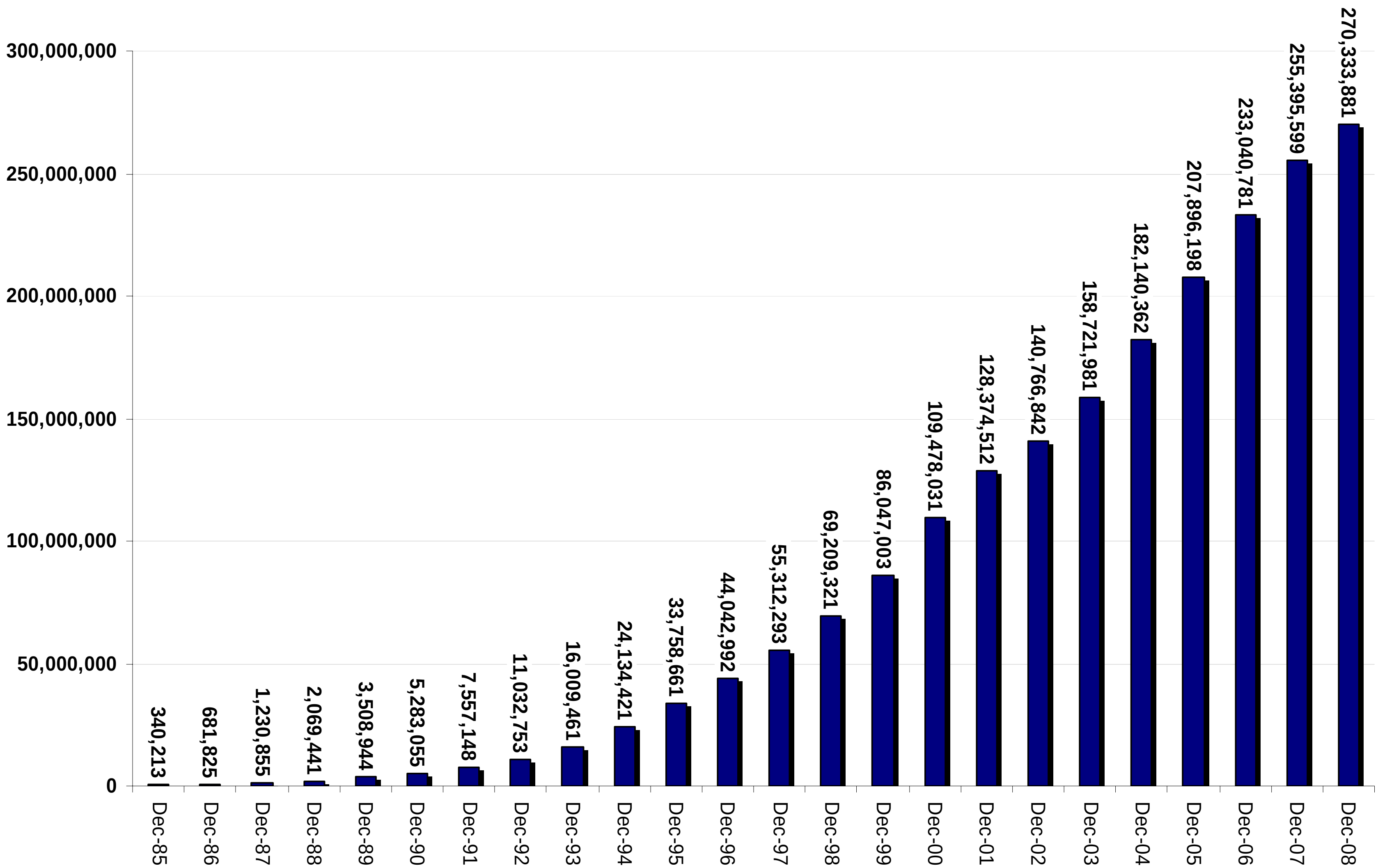
- Subscribership (total, prepaid, gross adds, and retention)
- Revenues (total, roaming, and data – and average bills)
- Investment (incremental investment)
- Employees (total, sales and other employees)
- Facilities (cell sites, base stations, switches)
- Traffic (MOUs, calls, SMS & MMS Message Volumes, Traffic Balance)

The Indices report also includes comparisons of wireless and wireline metrics drawn from other sources – e.g., the Bureau of Labor Statistics (BLS), FCC, and the National Center for Health Statistics (NCHS).

Year-end 2008 Survey Details

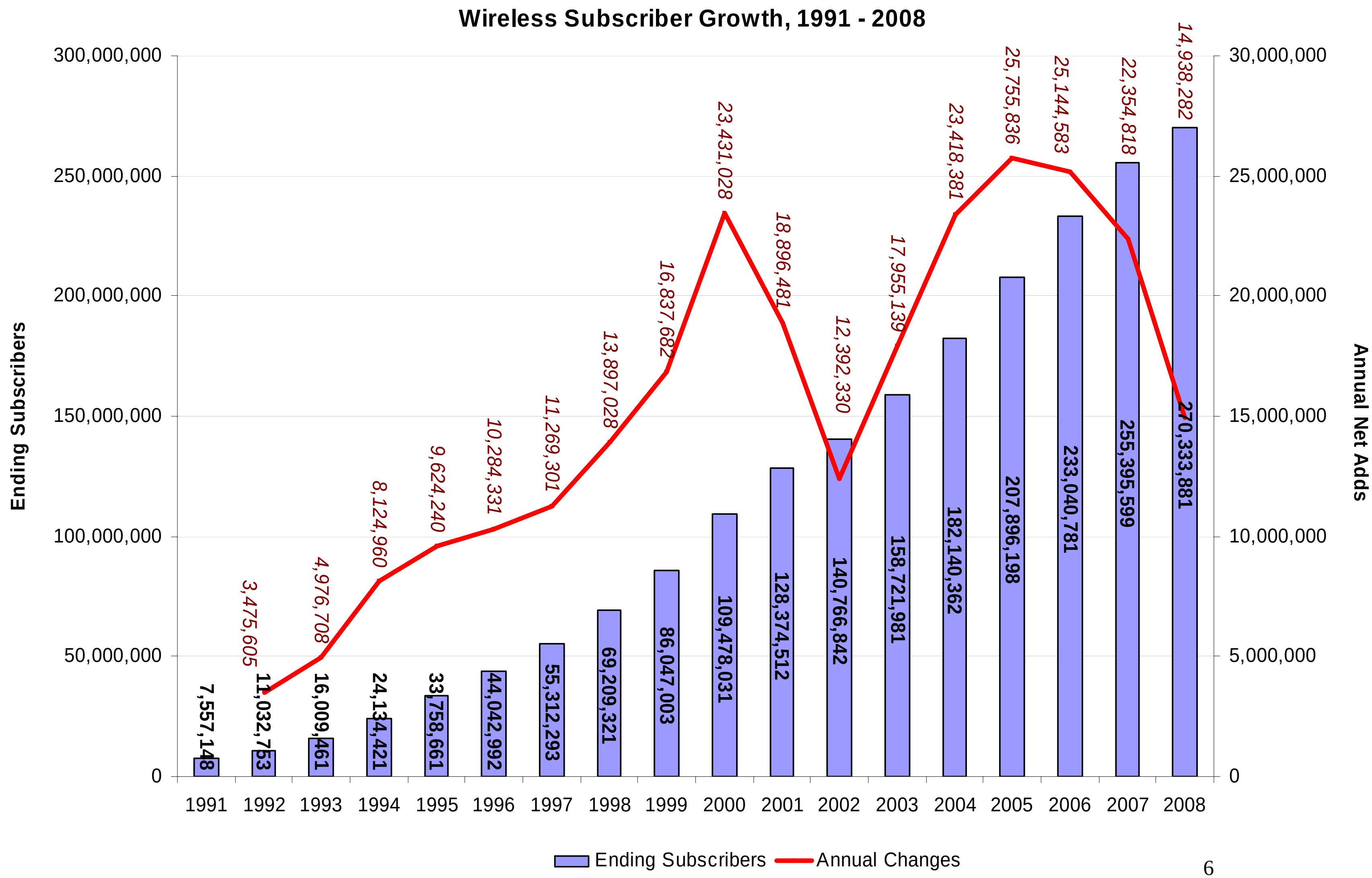
- At year-end 2008, more than 150 wireless companies served more than 270.3 million subscribers in the U.S., a figure that grew almost 15 million between December 2007 and December 2008.
- Participating wireless companies reported serving 259.8 million subscribers at year-end 2008.
- Non-responding companies (publicly-traded and privately-owned) served 10.5 million subscribers at year-end.
- 48.2 million of the 270.3 million total active subscriptions were prepaid or pay-as-you-go subscriptions.

As of Dec. 2008, There Were More Than 270.3 Million Wireless Subscribers in the U.S.



Source: CTIA Semi-Annual Survey

Total Subscribership is Up, *Derived* Net Adds Are Down



Background on Revenue Metrics

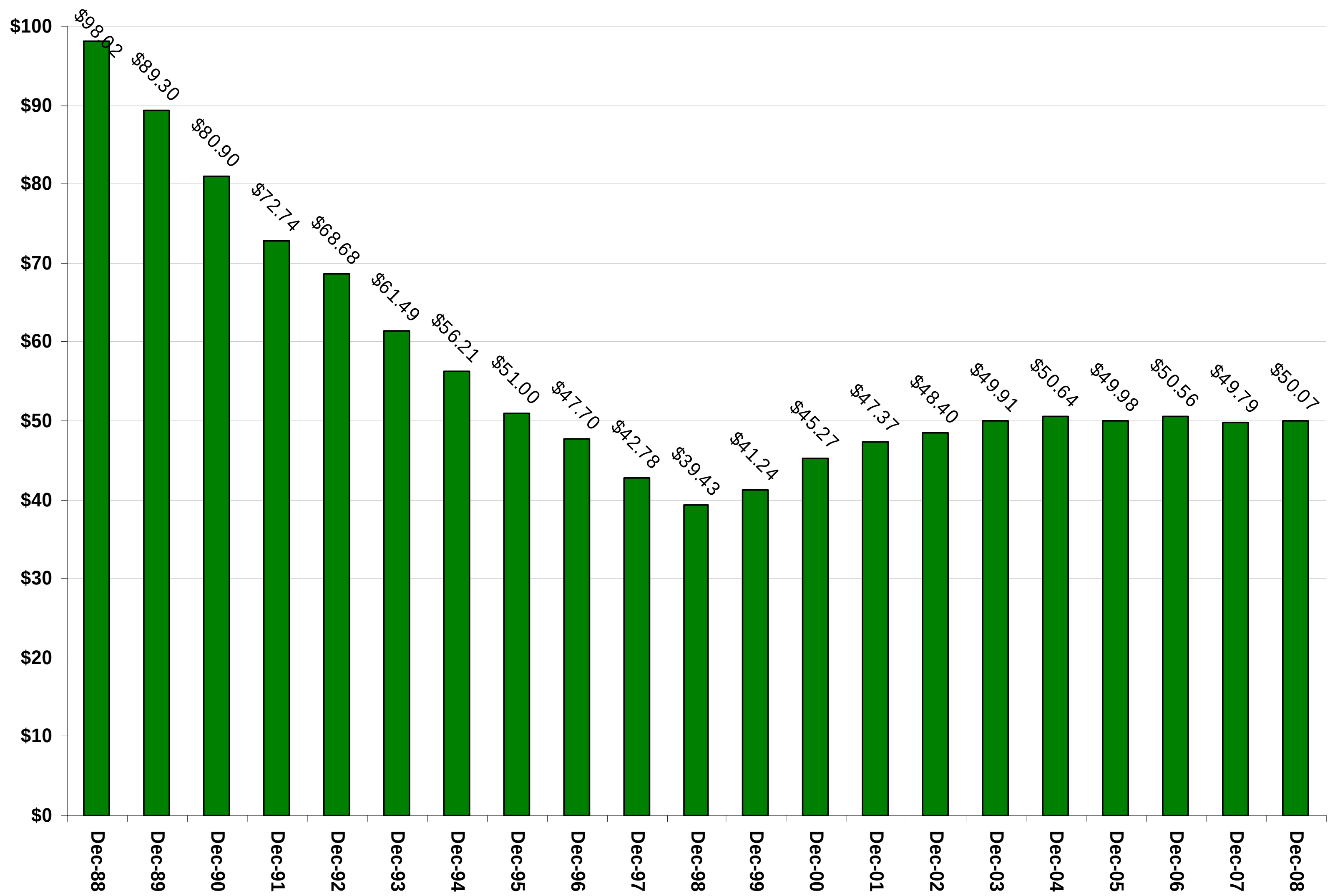
– ARPU, the Average Local Monthly Bill and Data

- CTIA has tracked the average local monthly bill since the late 1980s, and now also calculates ARPU based on differing definitions and components (e.g., including or excluding toll revenues, including or excluding roaming revenues), recognizing different methods may be used by individual carriers. The average local monthly bill remains a standard benchmark across carriers.

- The percentage that wireless data composes of the average bill or ARPU is also calculated (23% in the last half of 2008).

- CTIA does NOT track price or cost information. CTIA strictly follows the antitrust guidelines for trade association-sponsored surveys.

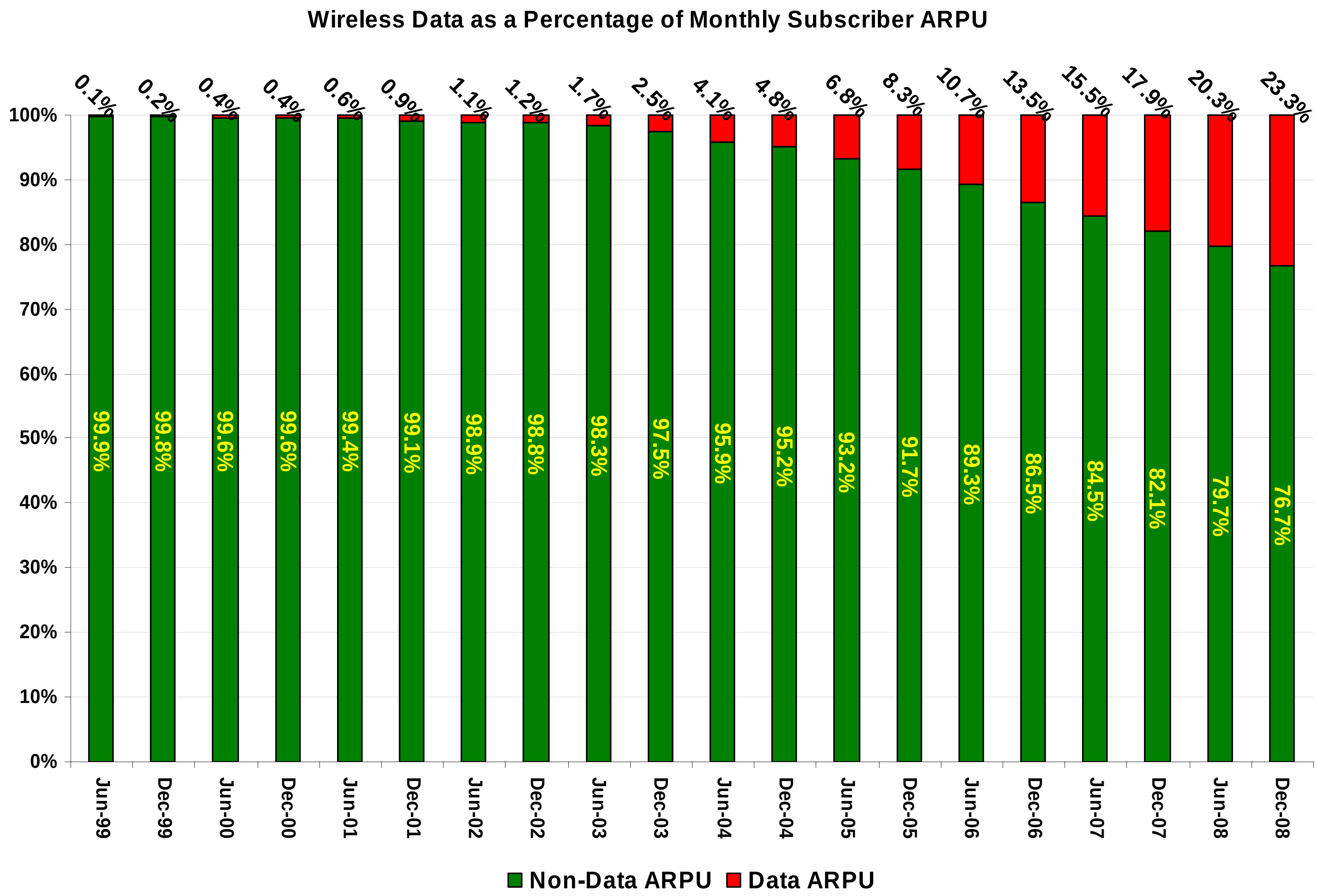
CTIA's Average Local Monthly Bill



The Average Local Monthly Bill is Up 0.6 Percent Year-over-Year

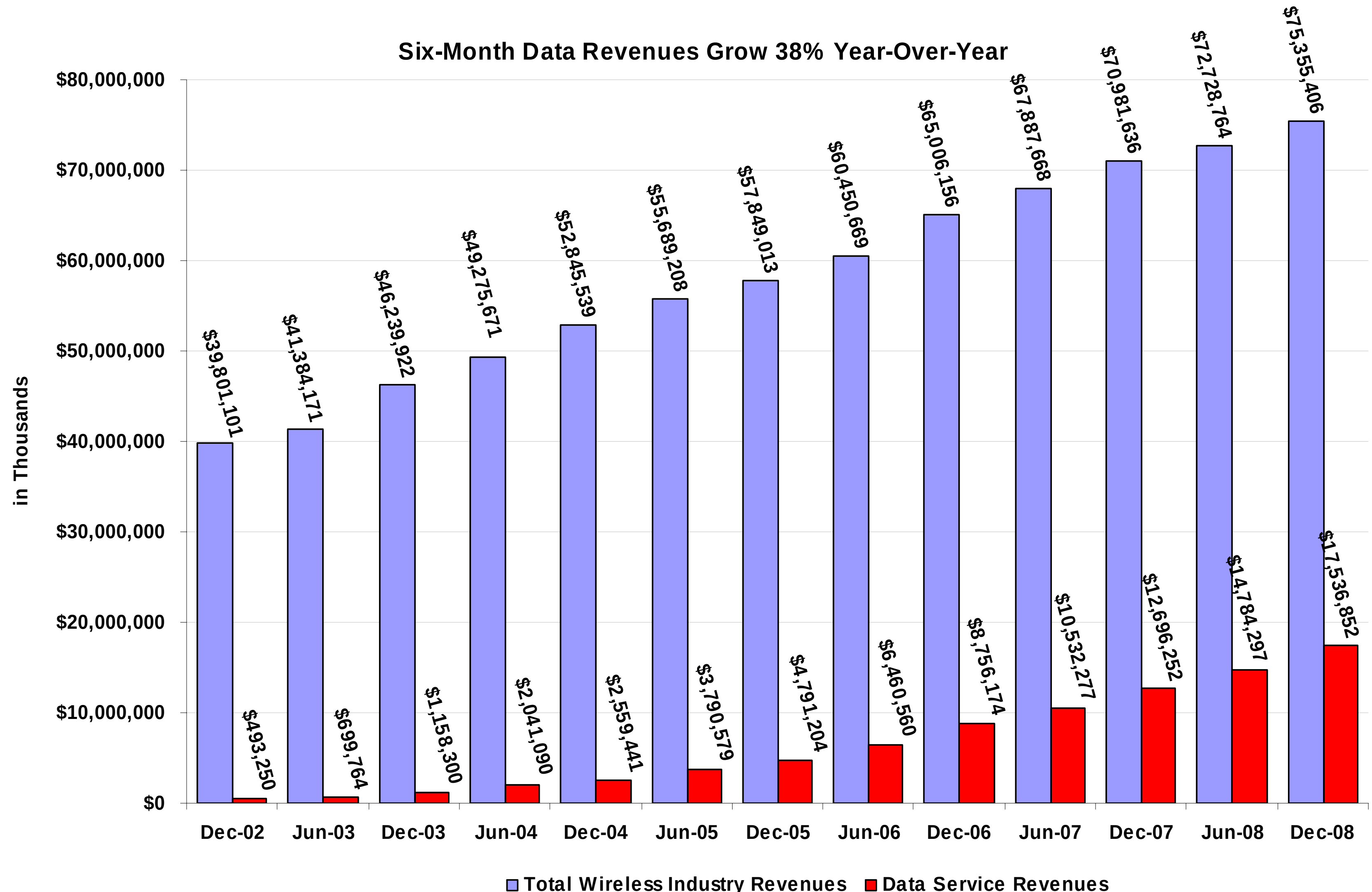
Source: CTIA Semi-Annual Survey

ARPU is Increasingly Composed of Wireless Data



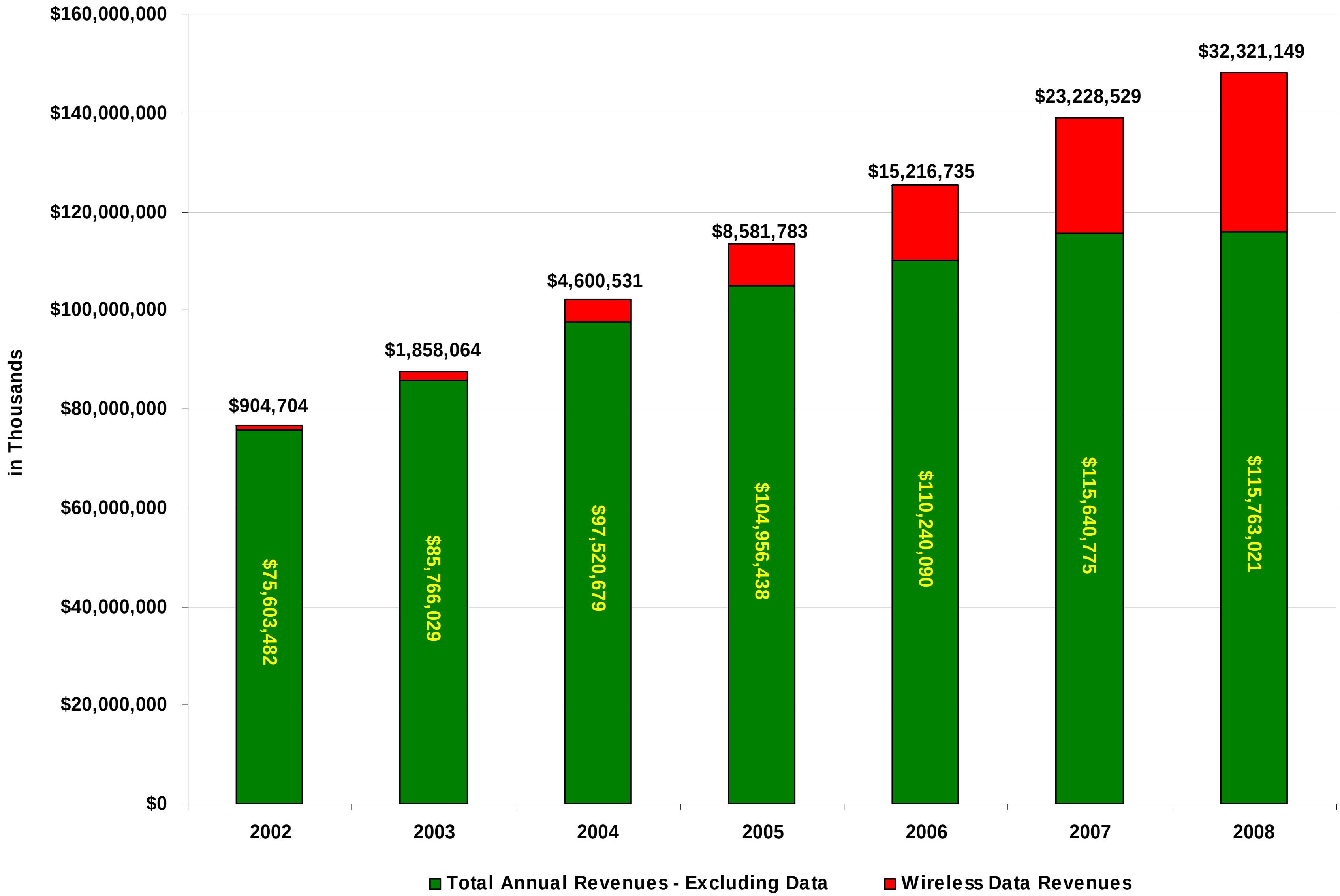
Source: CTIA Semi-Annual Survey

Users Generate Billions in Wireless Service Revenues



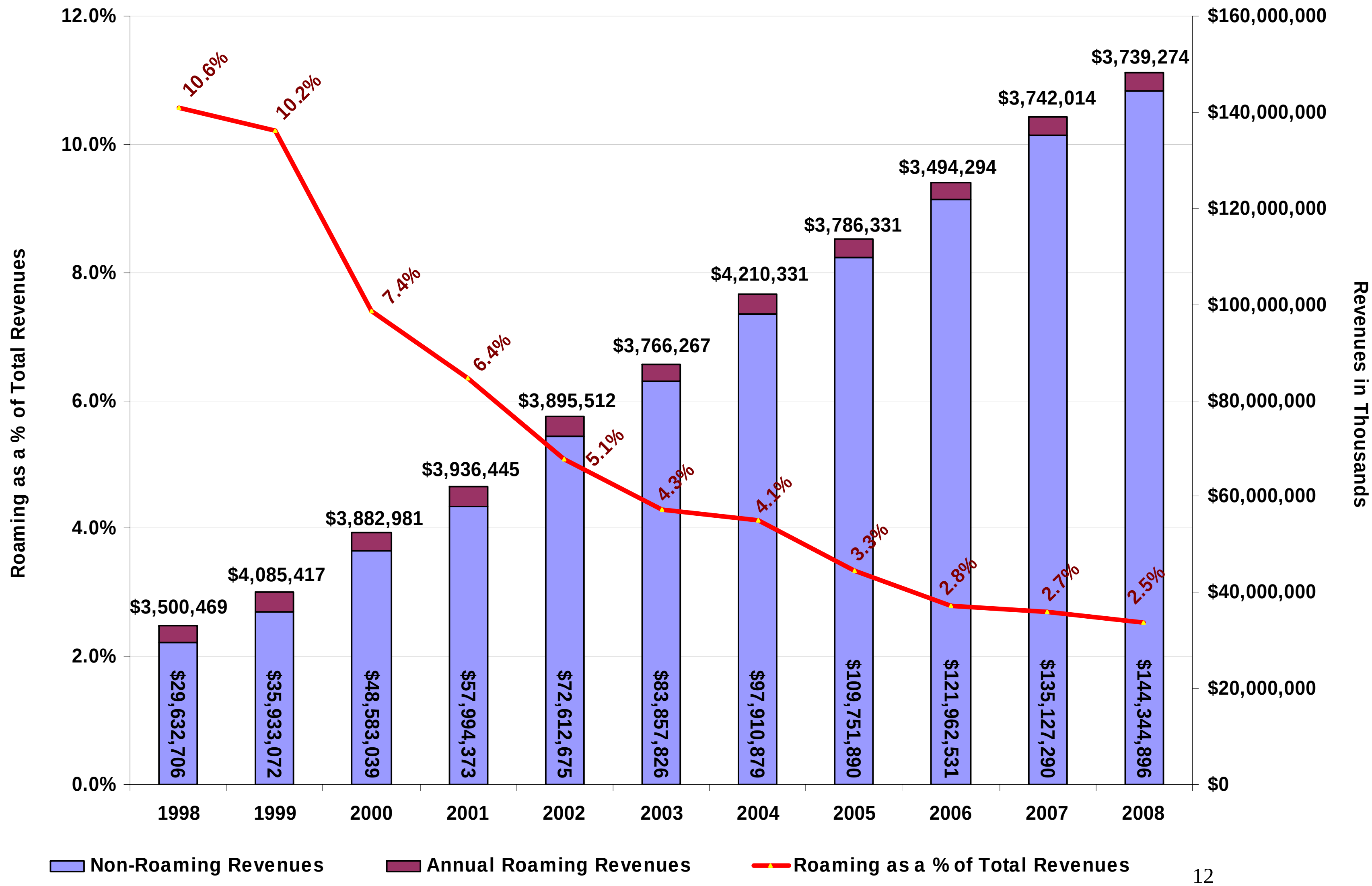
Source: CTIA Semi-Annual Survey

Most Reported Wireless Revenue Growth is in Data



Source: CTIA Semi-Annual Survey

While a Shrinking Percentage is Roaming Revenue



Source: CTIA Semi-Annual Survey

Background on Investment

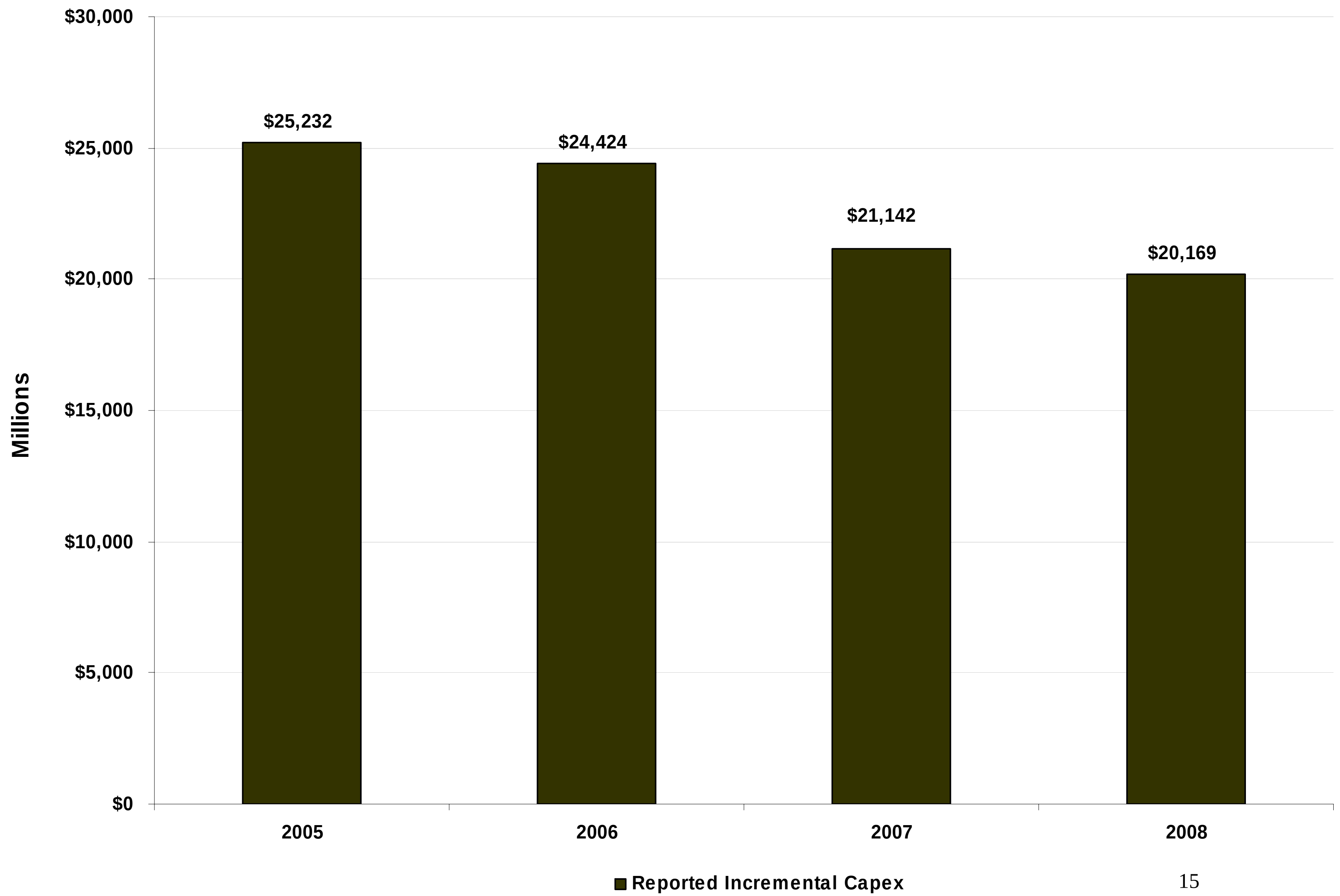
– Comparative Reported Capex and Derived Ratios

- CTIA originally tracked cumulative capital investment in operational systems (including network and non-network investment – e.g., office plant, vehicles, etc.)
- CTIA now tracks *incremental* investment in these systems (at all times excluding the cost of spectrum)
- CTIA does not track opex, nor does it track EBITDA.
- The revenue and capex figures CTIA tracks can be used with other data to derive a number of operational metrics or ratios:
  - Incremental capex to revenues
  - Incremental capex per ending subscriber (or incremental sub)
  - Total / local revenue per ending subscriber
  - Subscribers per employee
  - Total revenue per employee
  - “Other” employees to sales employees

Incremental Investment

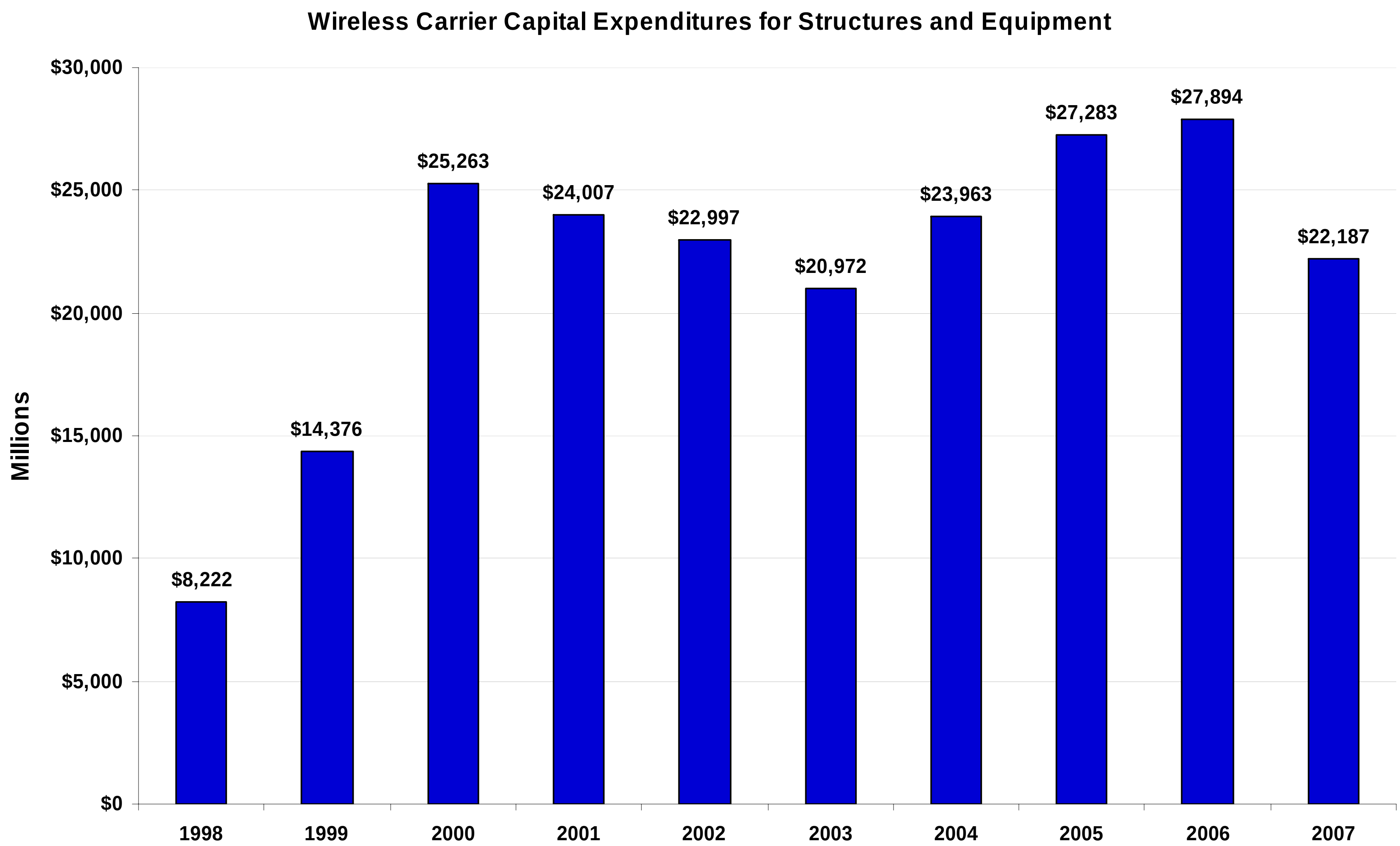
- Total reported incremental investment for 2008 amounted to $20.1 billion, down slightly from 2007.
- In 2007, wireless carriers reported investing more than $21 billion in their operational networks (not including investments in pre-operational 3G and 4G systems).
- Responding wireless licensees together invested an average of $24.5 billion a year in their networks from 2001 to 2006.
- New Incremental data can be summed with previously-reported cumulative data to reach a new cumulative capex figure.

Reported Incremental Capex in Operational Systems



Source: CTIA Semi-Annual Survey

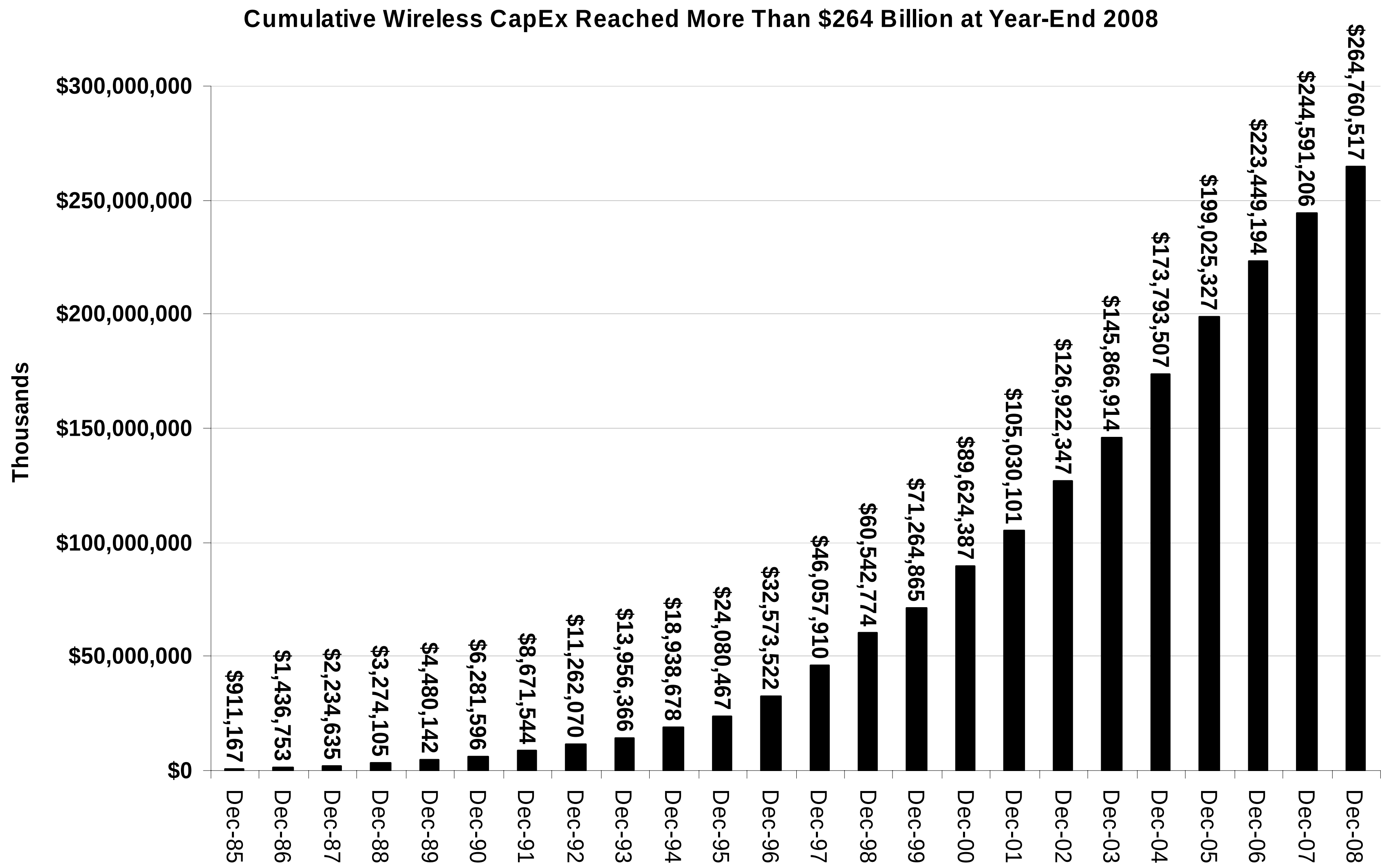
Total Annual Wireless Capex



Source: U.S. Census – Annual Census of Expenditures

Derived Cumulative Wireless Investment

CTIA
The Wireless Association®



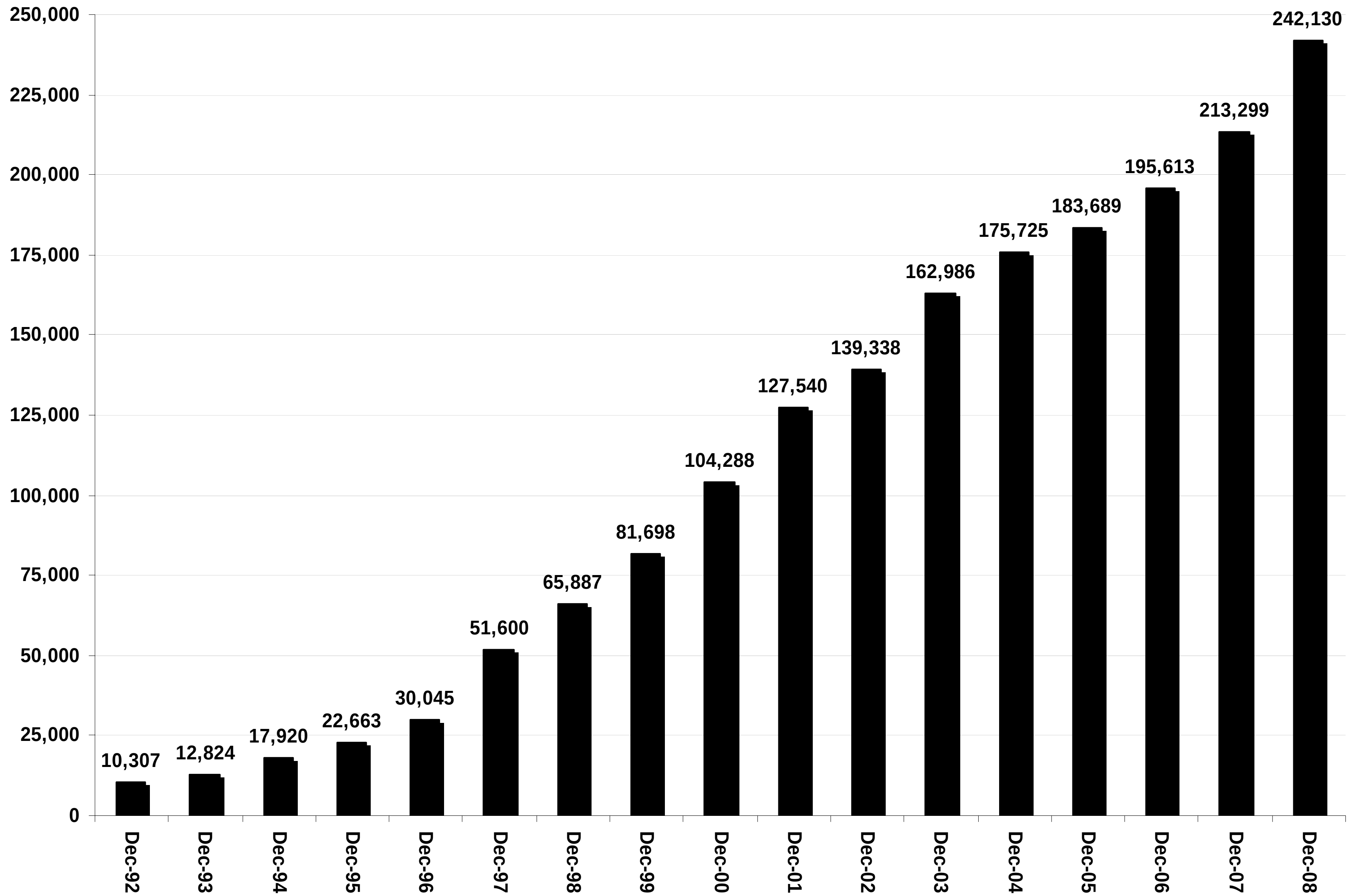
Source: CTIA Semi-Annual Survey

Background on Facility Metrics

– Cell Sites, Base Stations and Switches

- CTIA's survey asks for cell sites, base stations, and switches; it does not ask for other facilities (e.g., backhaul, power supply, or "towers").
- CTIA's survey does not distinguish between technology types (CDMA, GSM, HSPA, iDEN) or generations of technology.
- CTIA's survey does not include a collocation offset.
- CTIA requests aggregate data about operational units only – not pre-operational facilities. Ratios can be derived for:
  - Subscribers per cell site
  - Capex per cell site
  - Base stations per cell site
  - Cell sites per switch

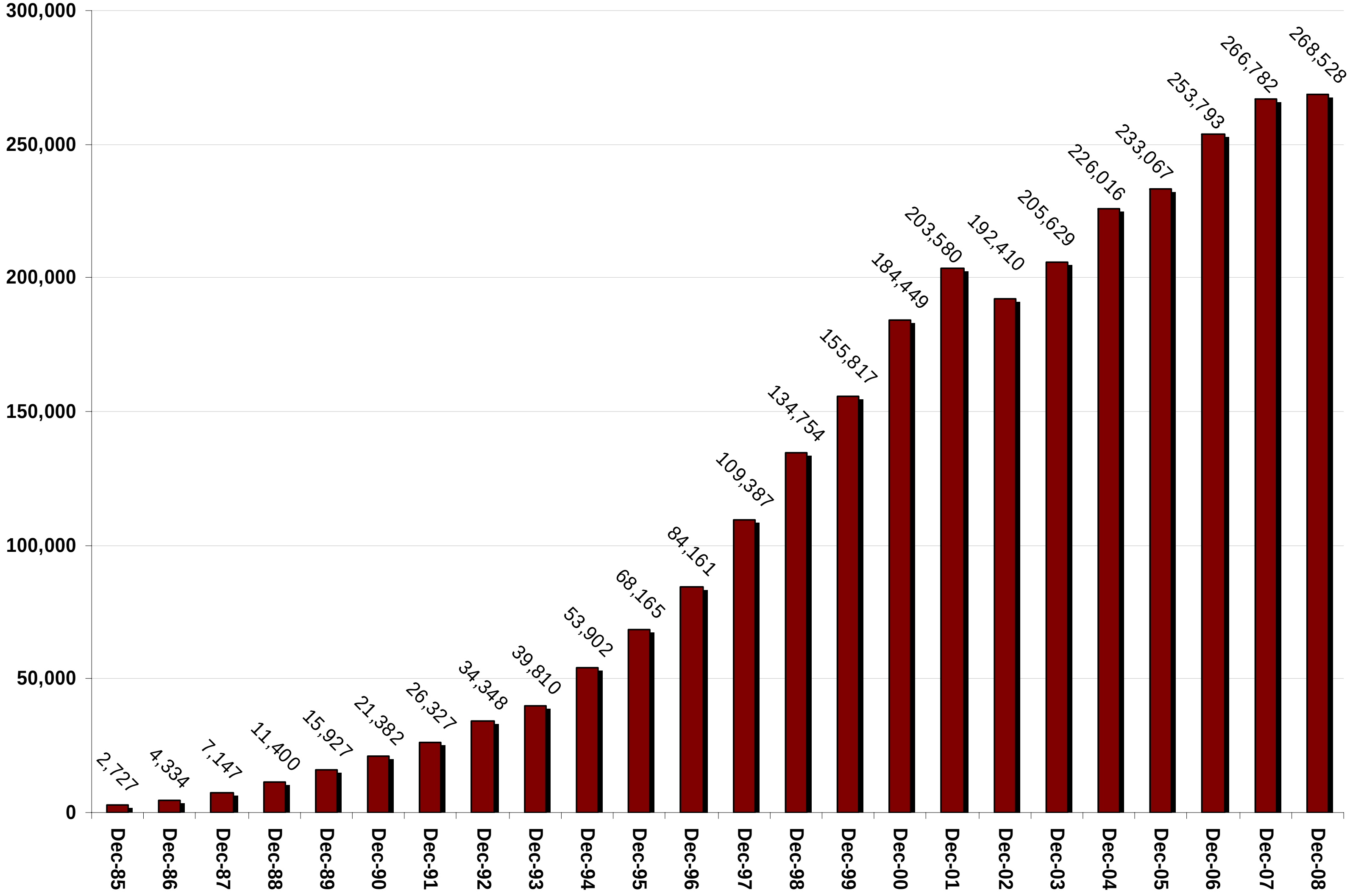
The Number of Operational Cell Sites



Cell Sites in Service are Up 13.5 Percent Year-over-Year

Source: CTIA Semi-Annual Survey

Direct Carrier Employees



Direct Wireless Carrier Employment Grows 0.7% Year-over-Year
Direct Employment Exceeds 268,000 at Year-End 2008

Source: CTIA Semi-Annual Survey

Background on Traffic Metrics

– MOUs, Calls and Messages

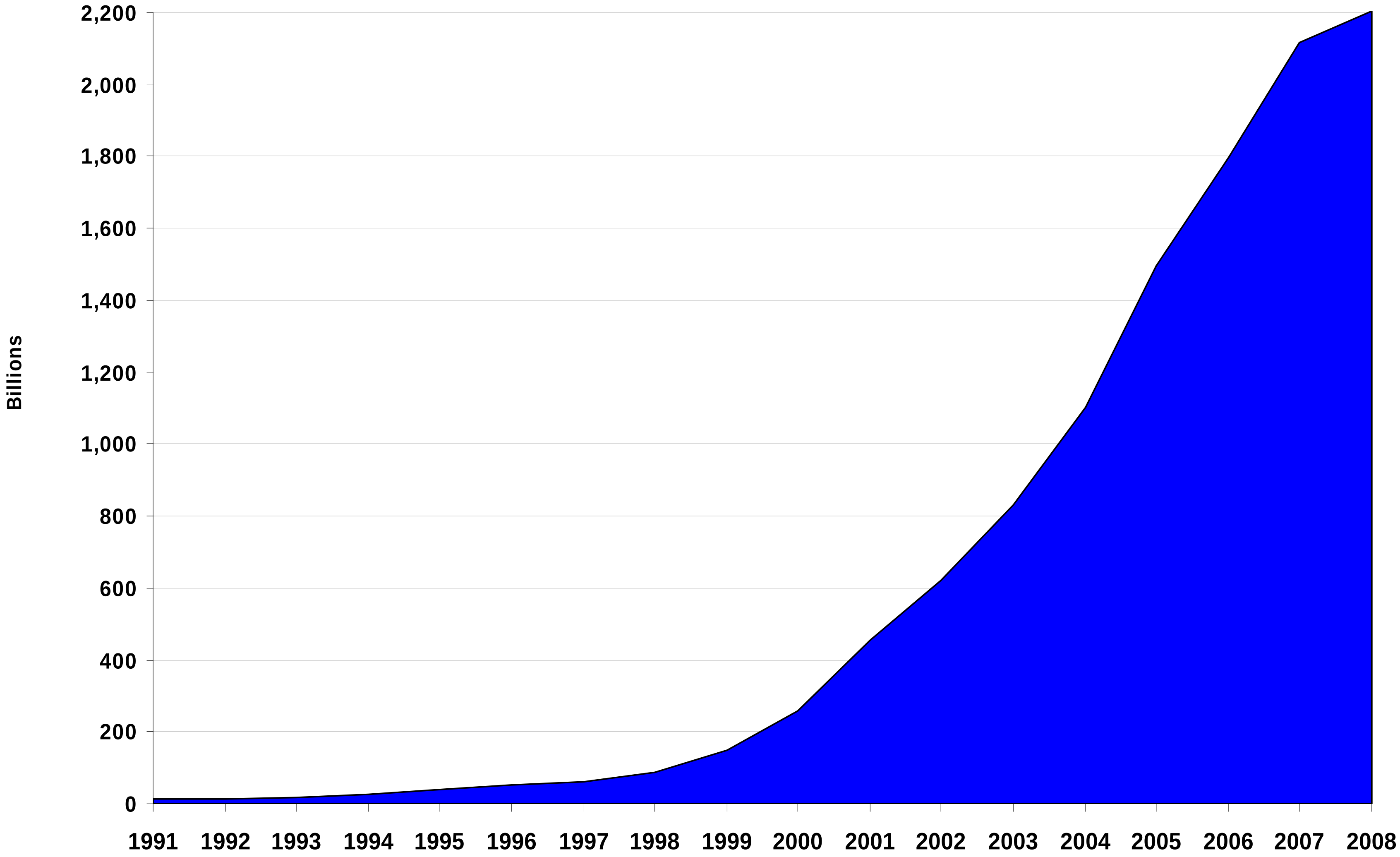
- Since 1991, the survey has tracked billable MOUs and calls. This has allowed calculation of average length of calls (local, roaming, and more recently prepaid) and average monthly MOU volumes per subscriber over time.

- More recently, traffic *balance* information has been requested (wireless-to-landline, landline-to-wireless, wireless-to-wireless).

- MMS and SMS / Text message volumes are now requested in the “wireless data” supplement to the traditional survey.

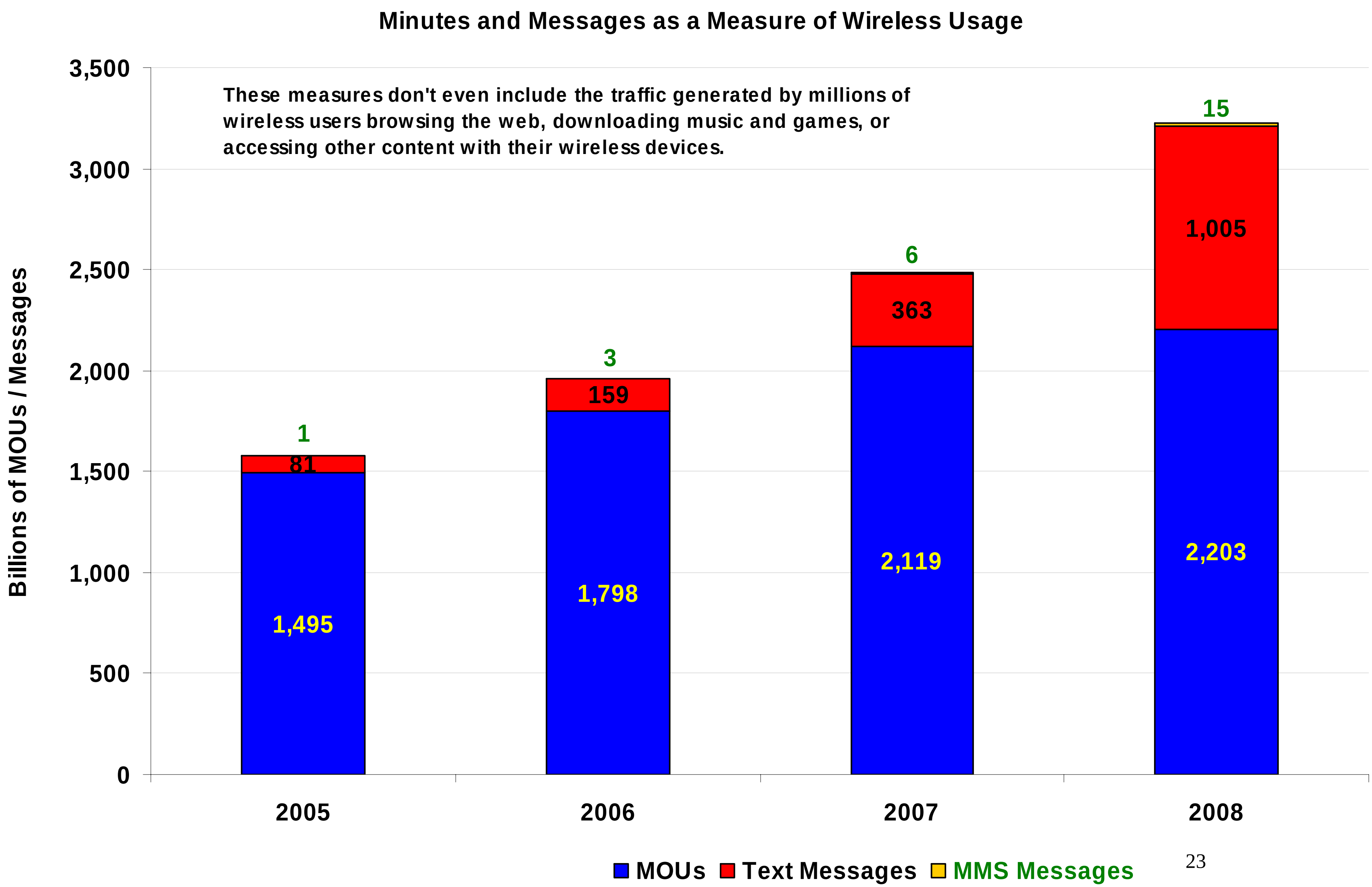
- Data can be presented in six-month and annual increments, or attributed to an average monthly level.

In 2008 Wireless Consumers Used 2.2 Trillion Minutes



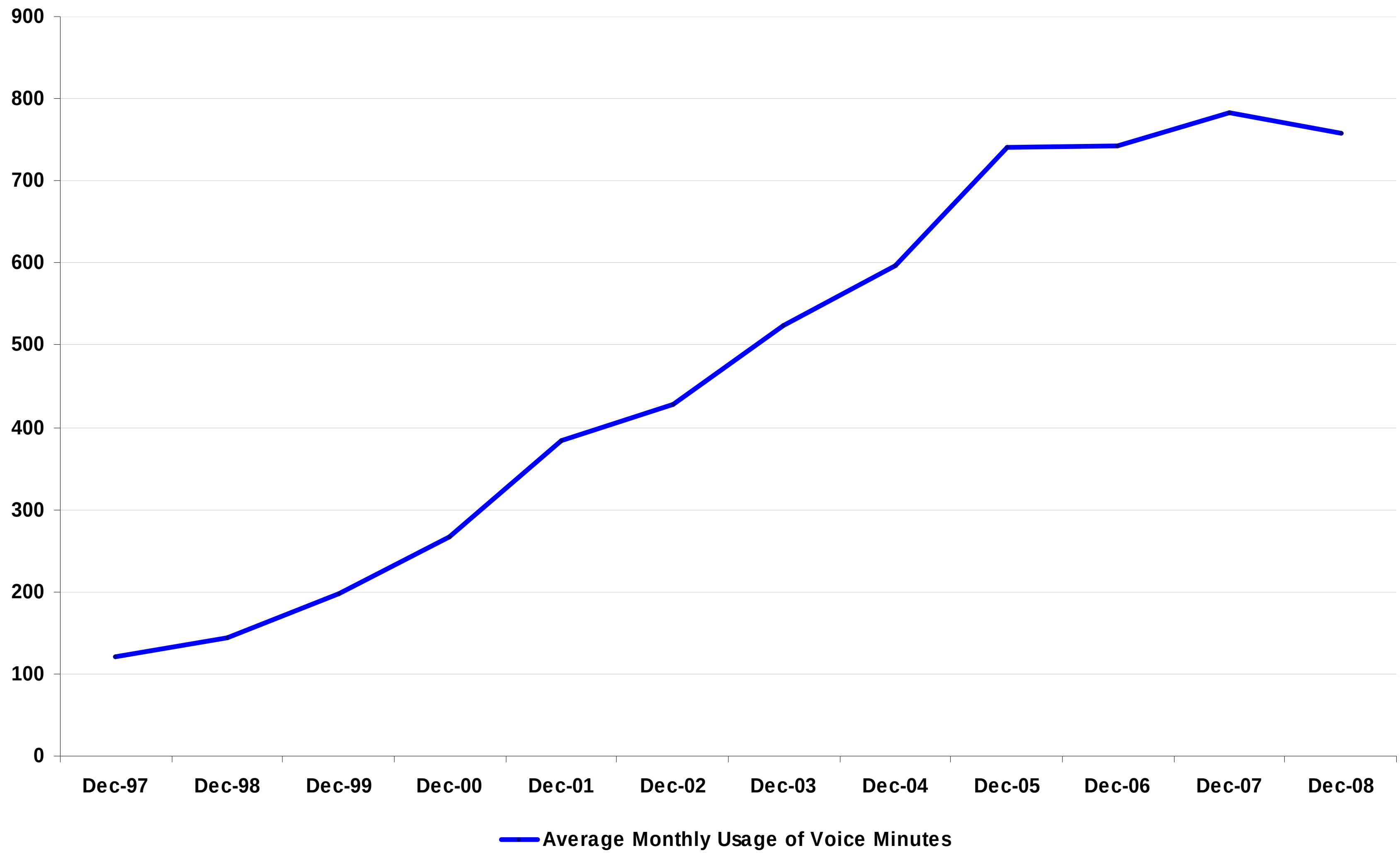
Source: CTIA Semi-Annual Survey

And Billions of Text and MMS Messages, and More



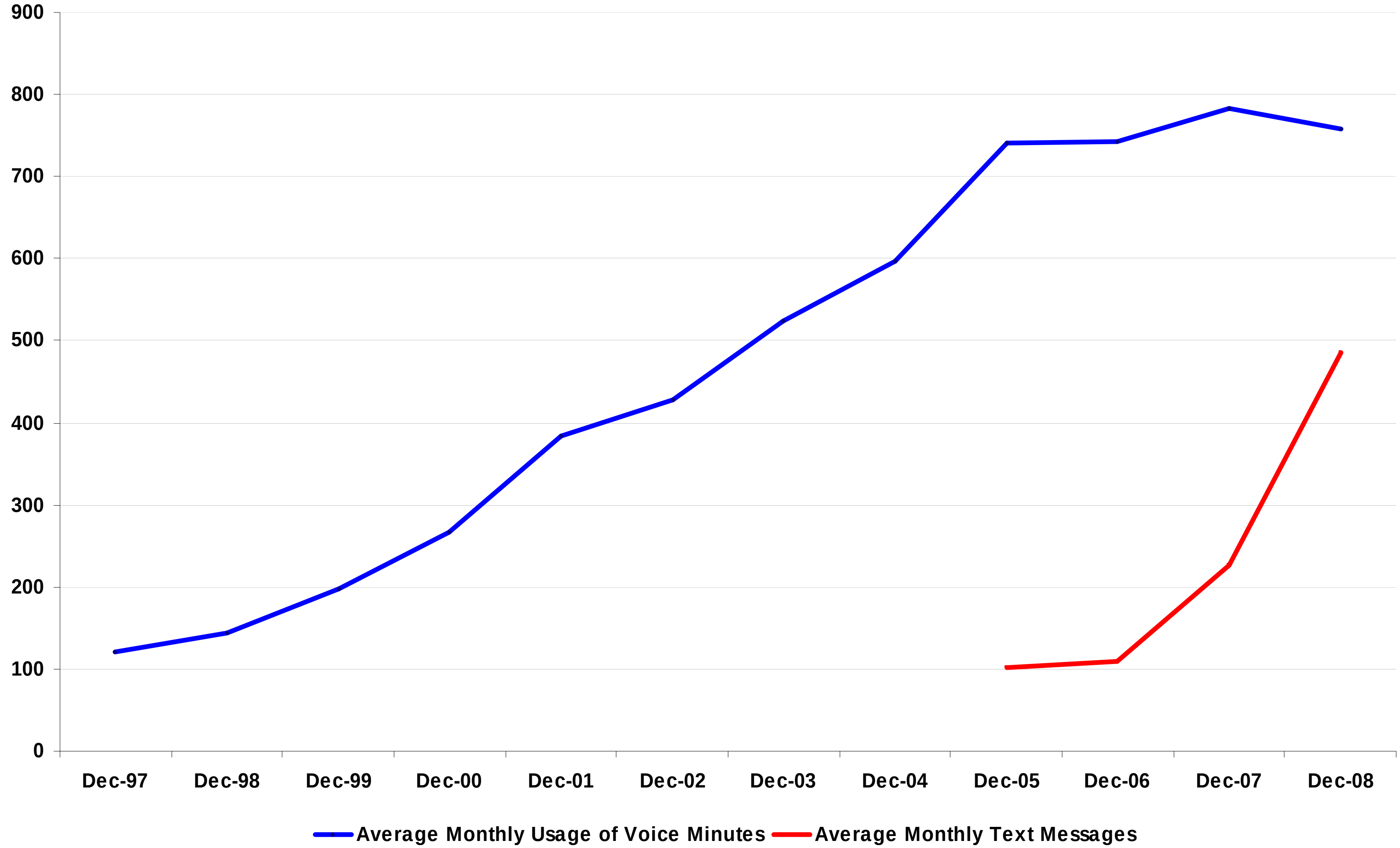
Source: CTIA Semi-Annual Survey

Average Monthly Minutes per Subscriber Trended



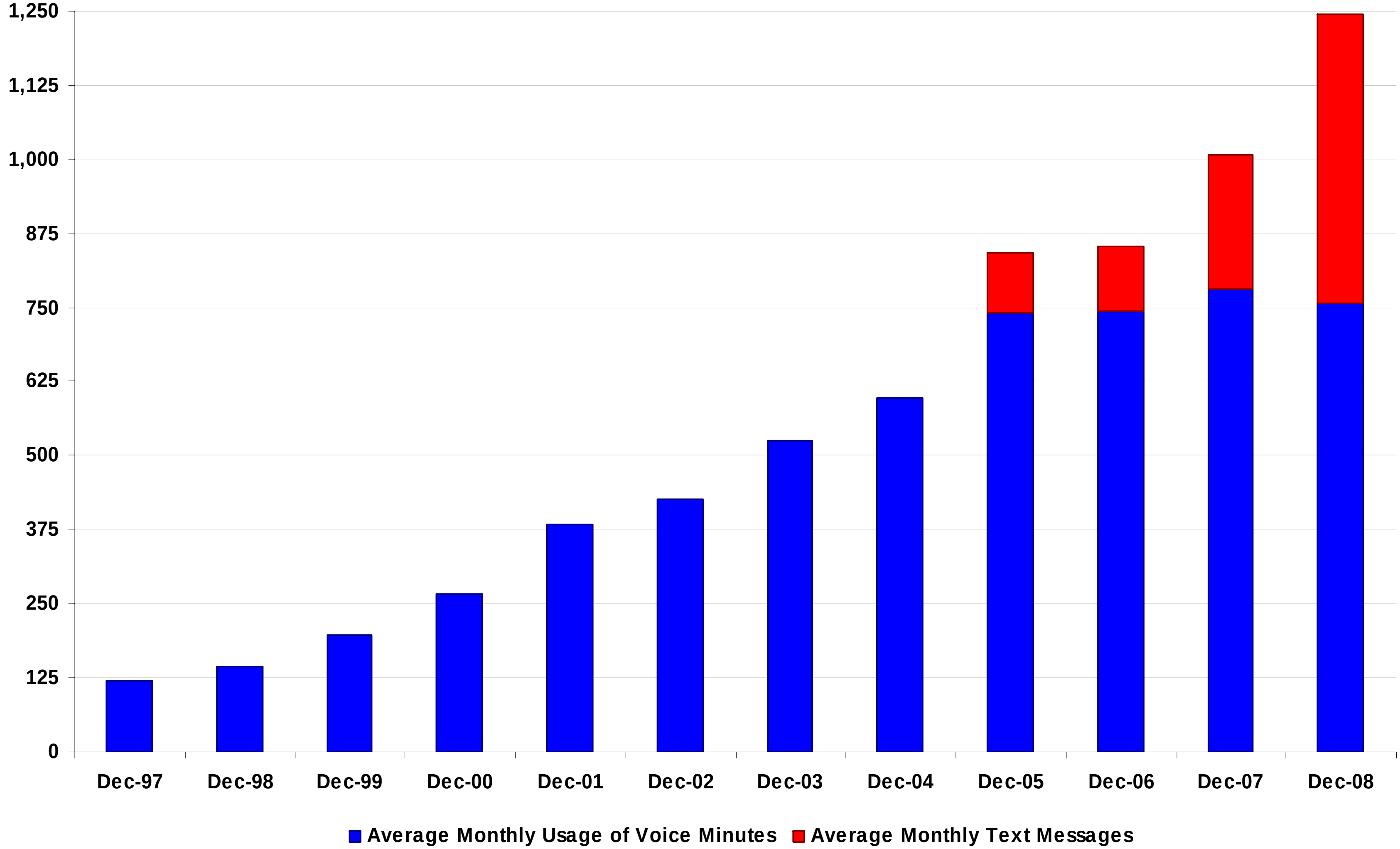
Source: CTIA Semi-Annual Survey

Average Monthly Minutes *and* Text Messages Per Subscriber Trended



Source: CTIA Semi-Annual Survey

Another Way of Looking at Combined Average Messages per Subscriber per Month (MOUs and Texts)



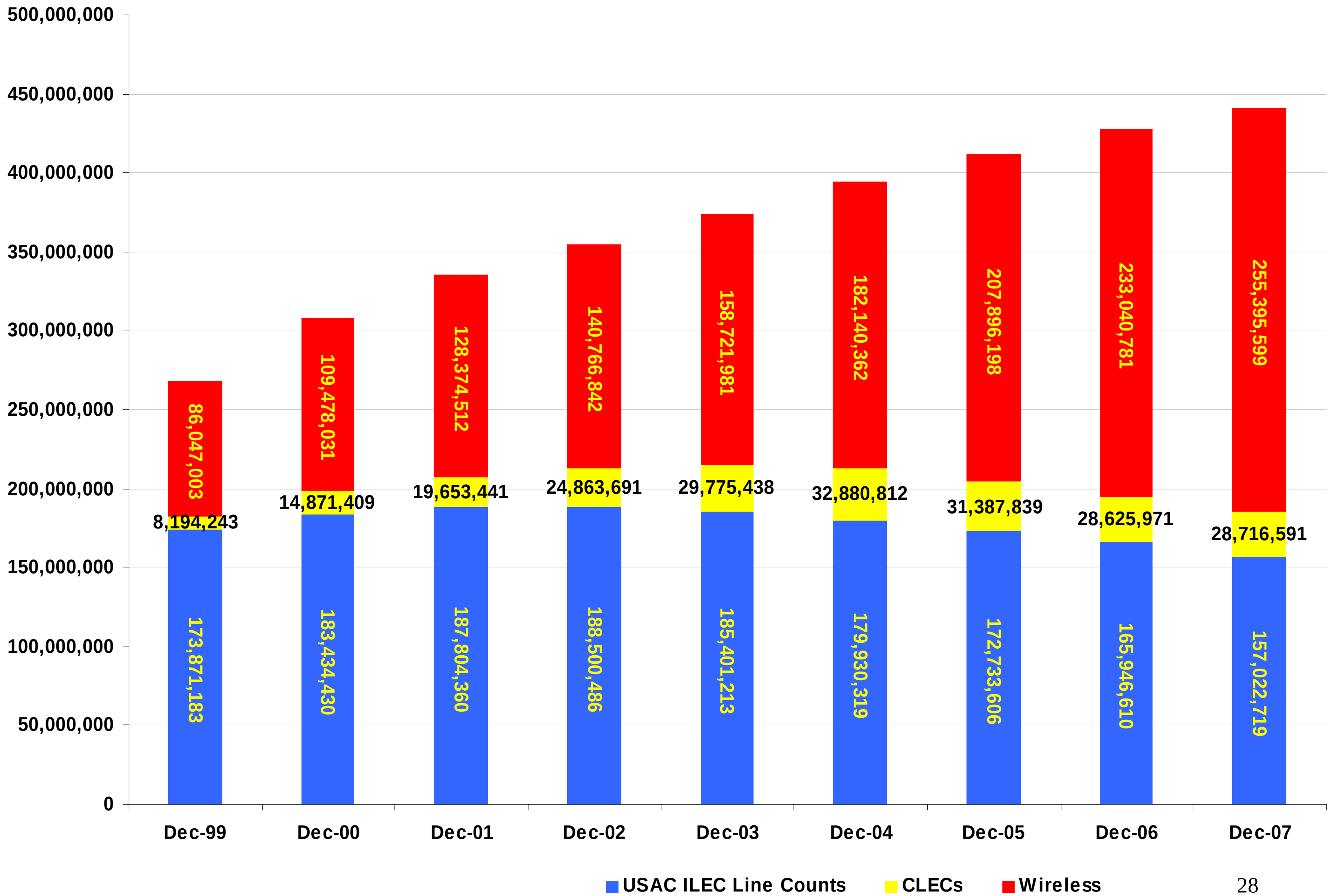
Source: CTIA Semi-Annual Survey

Background on Wireless-Wireline Comparisons

- The Indices report includes data on the wireline industry drawn from multiple reports, including FCC, Universal Service Administrative Company (USAC), and Bureau of Labor Statistics (BLS) data on:
  - Number of ILEC access lines (end user and special access)
  - Number of CLEC lines
  - ILEC revenues
  - Index trends

- The report draws upon multiple sources to provide the supplemental information to help put the wireless industry's performance into context.

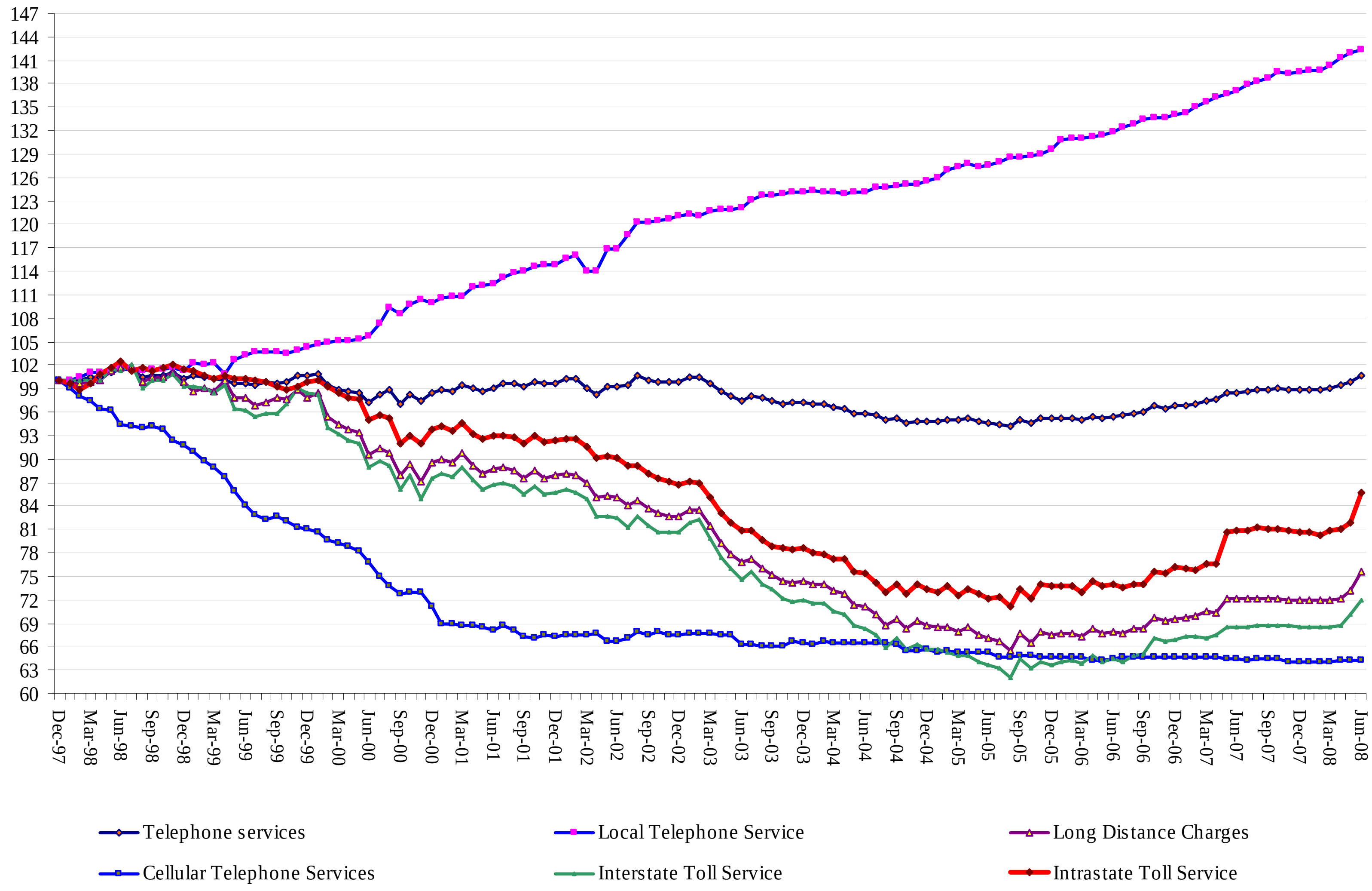
National Wireless, ILEC and CLEC Subscriber Trends – Through December 2007



Sources: CTIA Semi-Annual Survey, FCC Local Competition Report, USAC FCC Filings

National Data Shows Competitive Markets Associated with Most Dramatic Price Index Declines

(Consumer Price Index Category Titles per Bureau of Labor Statistics)



Source: Bureau of Labor Statistics

Comparative Household Telecom Expenditures

(Averages for only those Households Billed for Service)

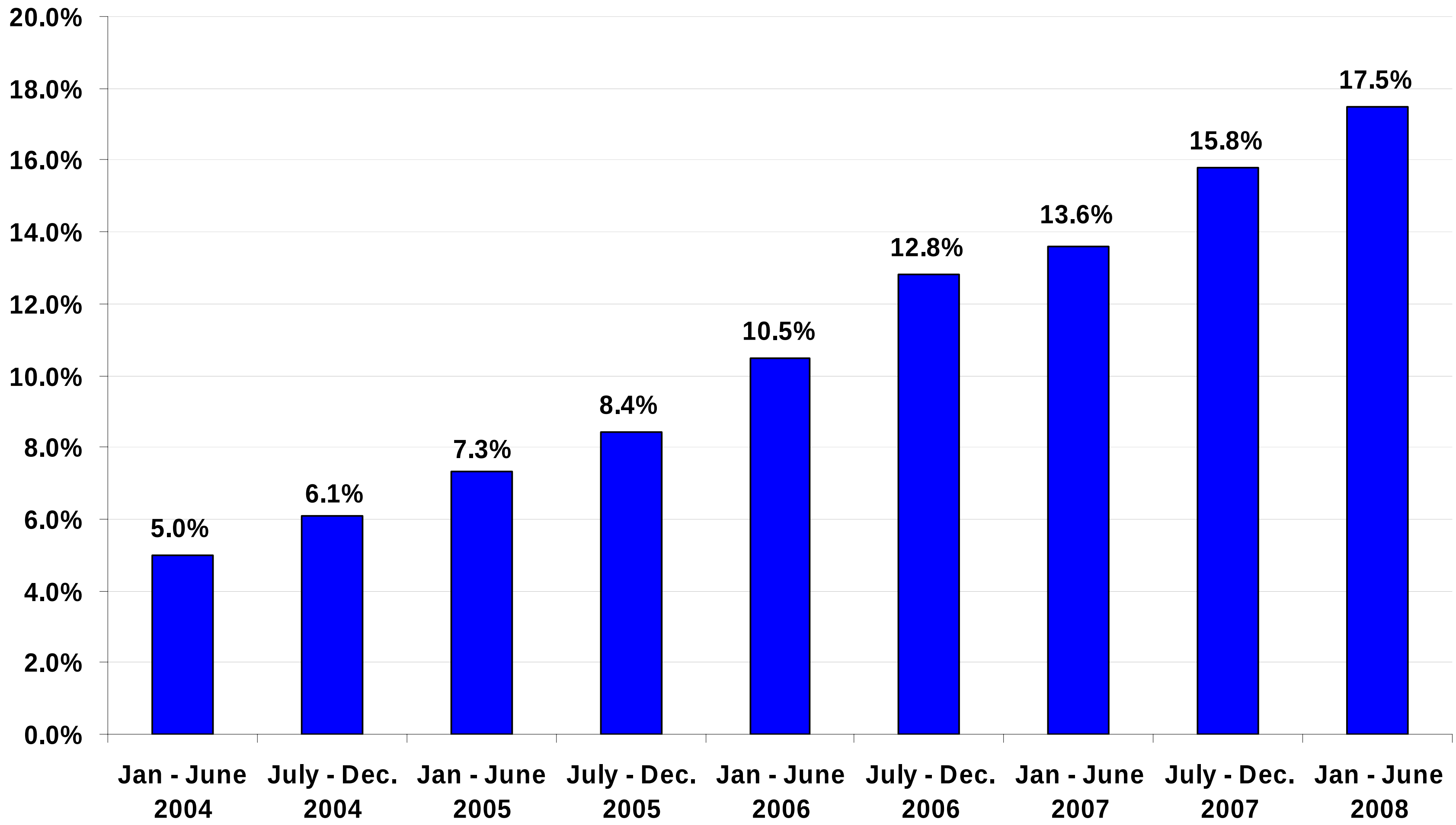
Year	Wireline Providers	Wireless Providers	Total
1995	$54	$46	$100
1996	56	45	101
1997	60	40	100
1998	61	41	102
1999	59	42	101
2000	59	46	105
2001	57	51	108
2002	55	56	111
2003	53	62	115
2004	49	67	116
2005	49	74	122
2006	48	78	126
2007	48	85	133

Note: **Average monthly household expenditures are estimates based on sample data.** All households in the sample have wireline telephone service. Households in Alaska and Hawaii are excluded from the analysis. No effort was made to distinguish bundled prices from a la carte prices. For households taking bundled local and long distance from the same provider, the entire bill is generally considered local.

Source: Calculated by Industry Analysis and Technology Division staff using survey data from TNS Telecoms *ReQuest Market Monitor™, Bill Harvesting®.*

Source: FCC Trends in Telephone Service report, Aug. 2008

Wireless-Only Households in the U.S.



Source: National Center for Health Statistics (NCHS) January-June 2008 National Health Interview Survey

Wireless-Only Households Across the States

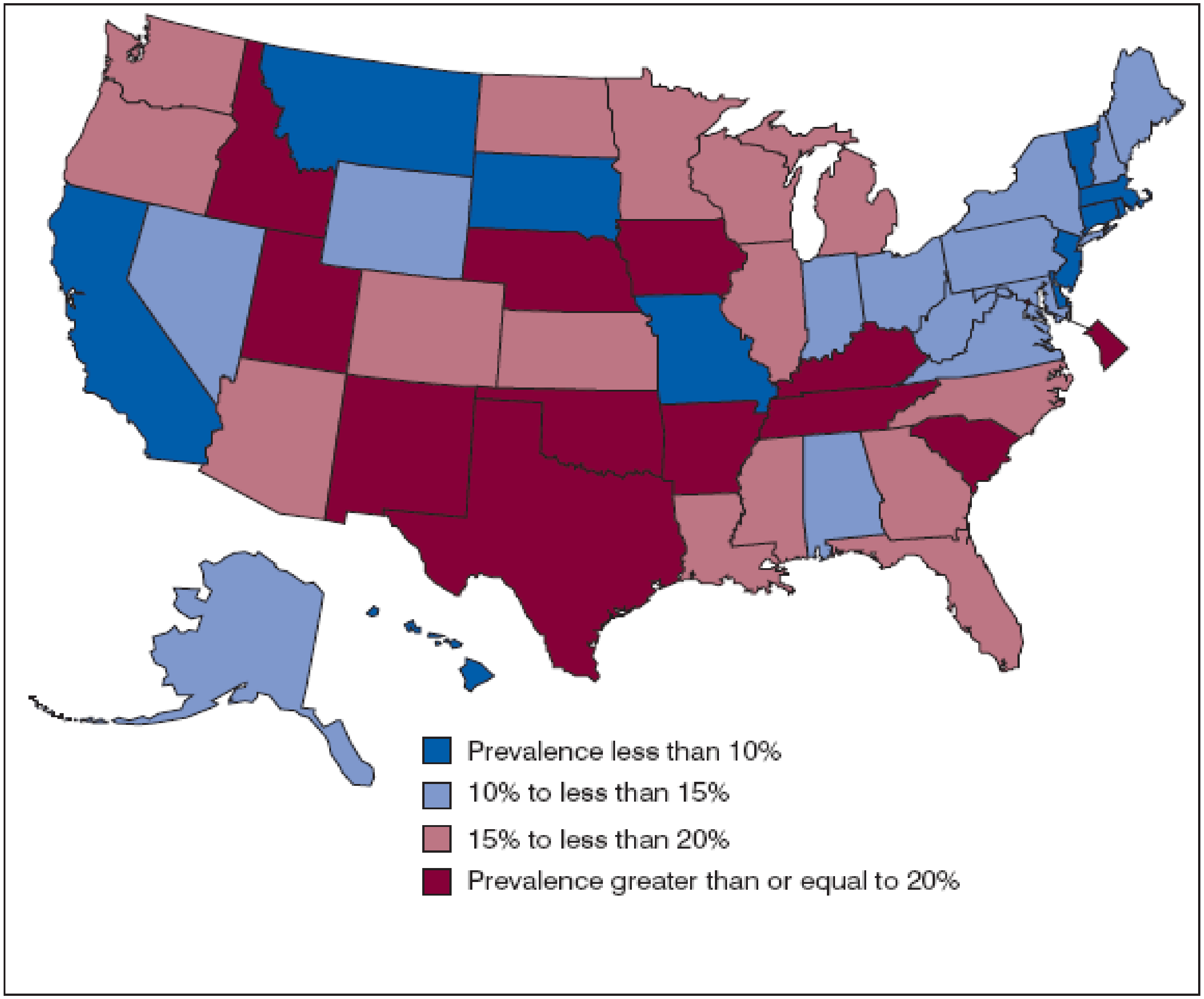
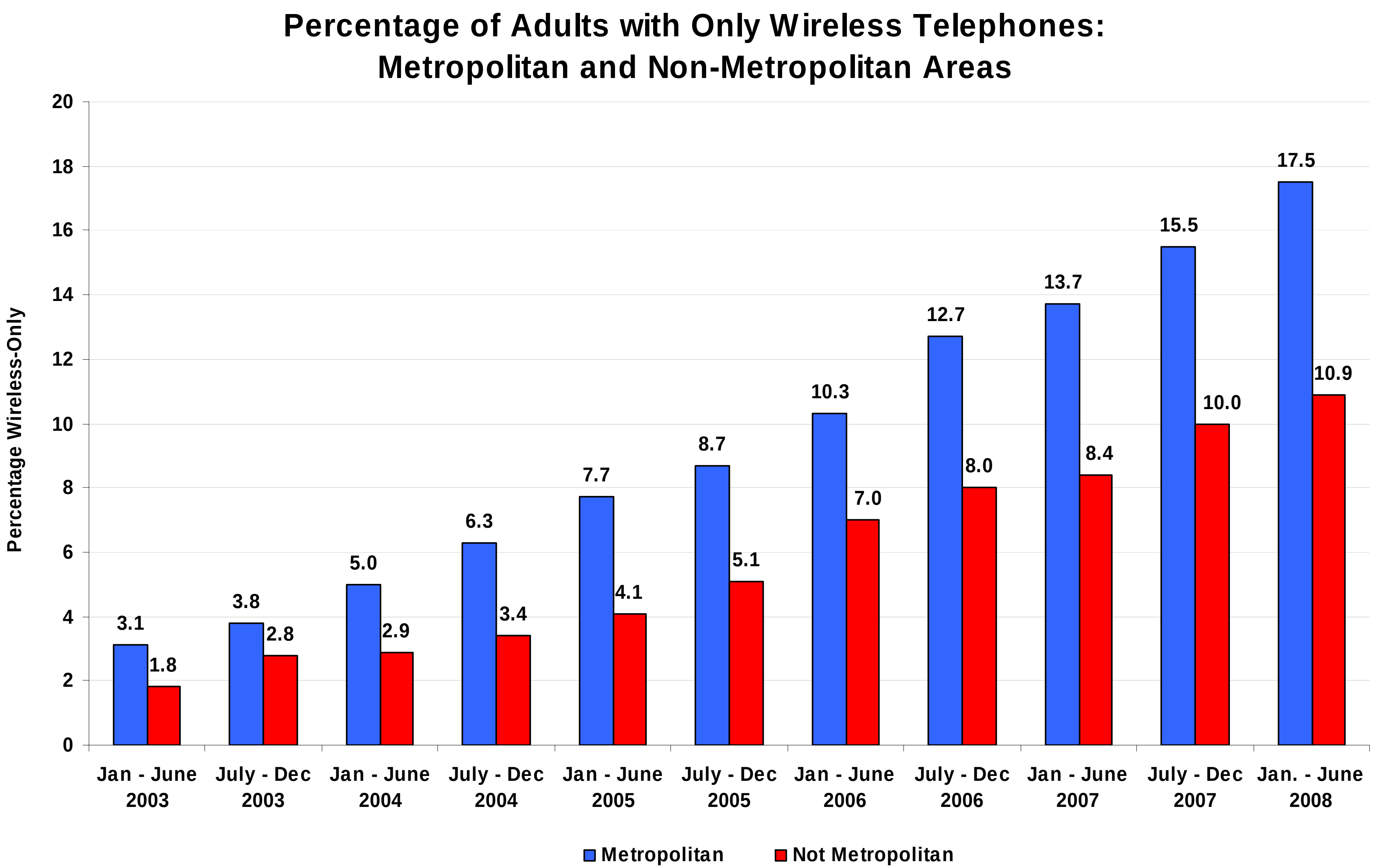


Figure 1. State-level comparisons of the percentage of wireless-only households, modeled estimates: United States, 2007

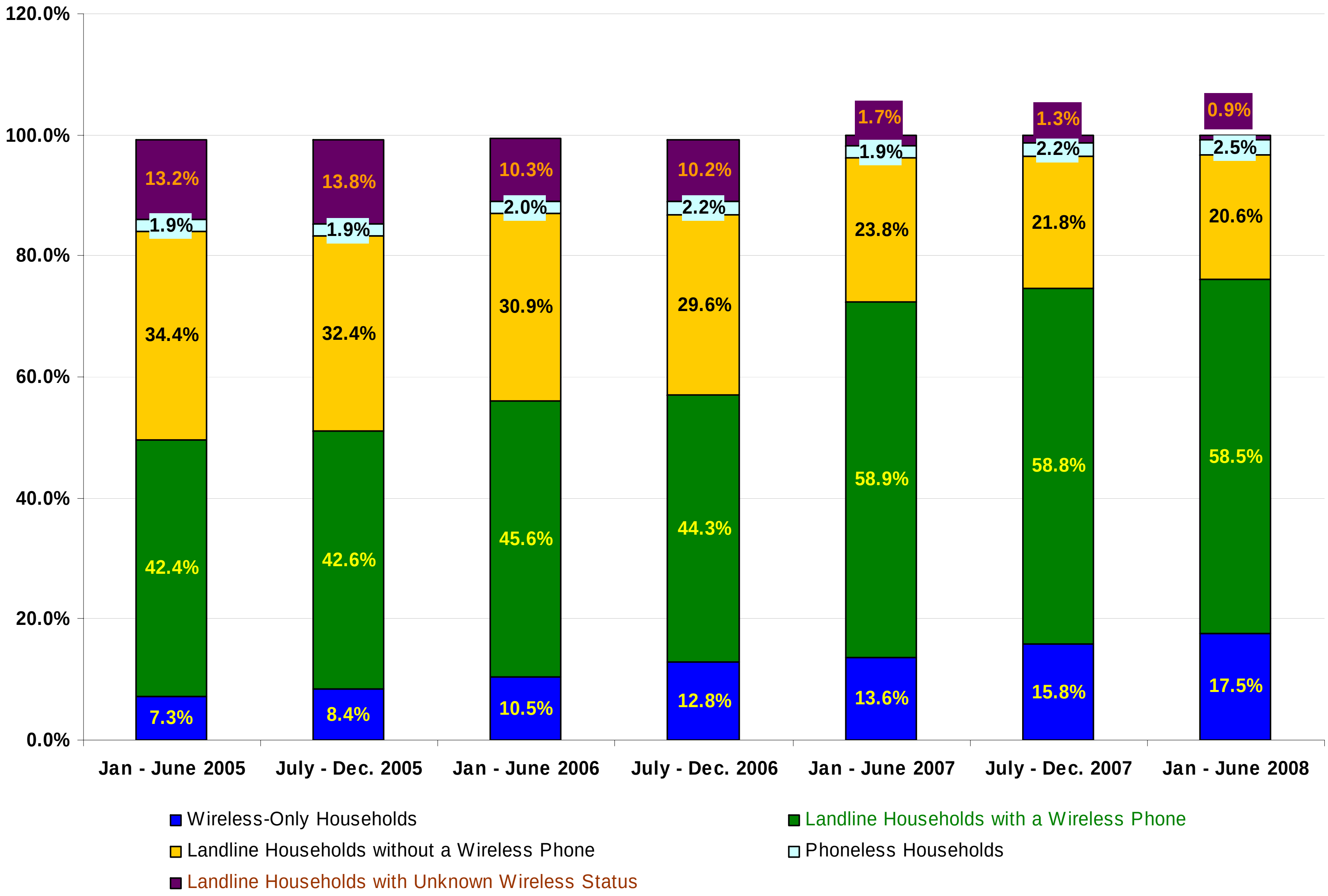
Source: NCHS, "Wireless Substitution: State-level Estimates From the National Health Interview Survey, January–December 2007"

Wireless-Only Adults In Urban and Non-Urban Areas



Source: NCHS, “Wireless Substitution: Early Release of Estimates from the National Health Interview Survey, Jan. – June 2008”

76 % of Households Have Wireless Today



Source: NCHS, "Wireless Substitution: Early Release of Estimates from the National Health Interview Survey, Jan. – June 2008"

A Taste of Additional Metrics

- CTIA's reports provide the facts and the context for understanding the state of the wireless industry, and the basis for benchmarks of wireless performance.
- These benchmarks include such additional metrics and ratios as the following all-industry figures:
  - Six-Month Capex as a % of Revenues: 14.0 % as of 2H2008
  - Six-Month Revenues per Employee: $280,623 as of 2H2008
  - Subscribers per Employee: 967 to 1 as of 2H2008
  - Subscribers per Cell Site: 1,073 to 1 as of 2H2008
  - Incremental Capex per Ending Subscriber: $40.71 as of 2H2008

These and similar metrics and ratios appear in the Tier 3 operators' report.

Thank you.

Questions?