



2020 ANNUAL SURVEY HIGHLIGHTS

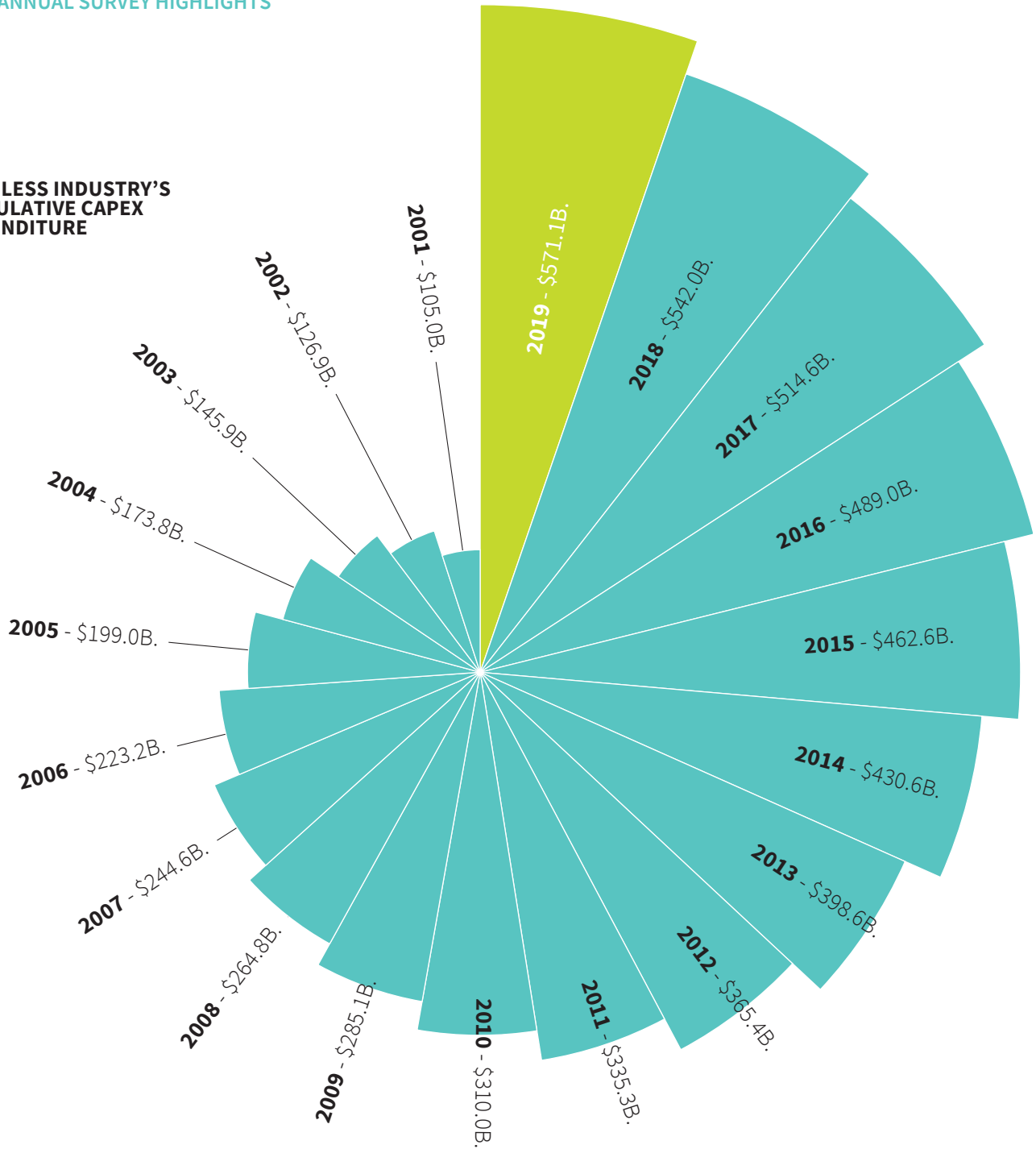




For 35 years and as each generation of wireless became an integral part of our lives and economy, CTIA has been surveying U.S. wireless providers to tell the story of this dynamic industry. 2020's CTIA Annual Survey looks back on a year of growth and groundwork as providers lit up their initial 5G networks while supporting record consumer demand for everything wireless.



**WIRELESS INDUSTRY'S
CUMULATIVE CAPEX
EXPENDITURE**



\$29.1
B I L L I O N

INVESTED IN 2019,
A FOUR-YEAR HIGH

Investing in America's Wireless Future.

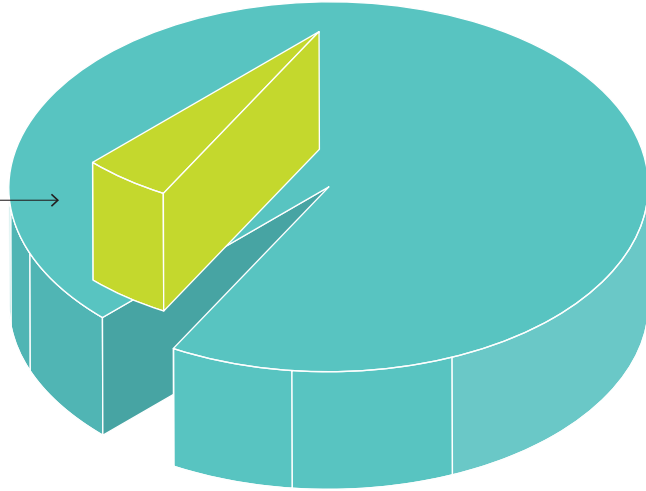
Let's start with the foundation of the wireless industry's work to provide Americans with world-leading mobile connectivity: investment. Providers have invested over \$286B in America's wireless networks since the start of 2010. This year's investment of **\$29.1B** is equal to \$89 per capita. By contrast, China invests \$21.85 per capita.



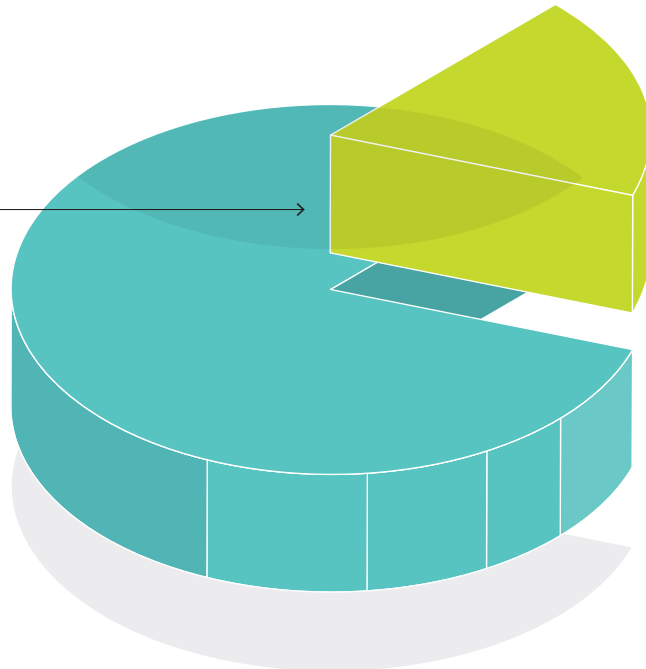
**COMPARING
CAPEX**



The U.S. represents only
4.5% of the world population ...



... while its \$29B in investment accounts for
18% of the world's total mobile capex



60%

**OF AMERICANS ALREADY COVERED
BY INITIAL 5G NETWORKS**

U.S. Wireless Industry is a Capex Leader.

This non-stop investment cycle differentiates our industry—and pays real dividends as providers continue building the next generation of wireless. By the end of year, three nationwide 5G networks will be available across the U.S. Our investment also fuels our growth and economic contribution as an industry. Today, the U.S. wireless industry is now larger than the insurance, hotels and restaurants, and transportation industries.

U.S. 
+4.3%



**CHANGE IN AVERAGE
MOBILE DOWNLOAD
SPEED OVER
COUNTRY'S FIRST
EIGHT WEEKS OF
SHUTDOWN**

SOURCE: OOKLA® SPEEDTEST®

- INCREASE
- 0% TO -10%
- IN EXCESS OF -10%

U.K.
-1.3%

PERU
-12.2%

SPAIN
-6.9%

FRANCE
-6.0%

RUSSIA
-5.1%

CHINA
-23.5%

PHILIPPINES
-26.2%

AUSTRALIA
-8.4%

INDIA
-3.5%

ITALY
-14.5%

24.3%
INCREASE IN U.S. VOICE TRAFFIC

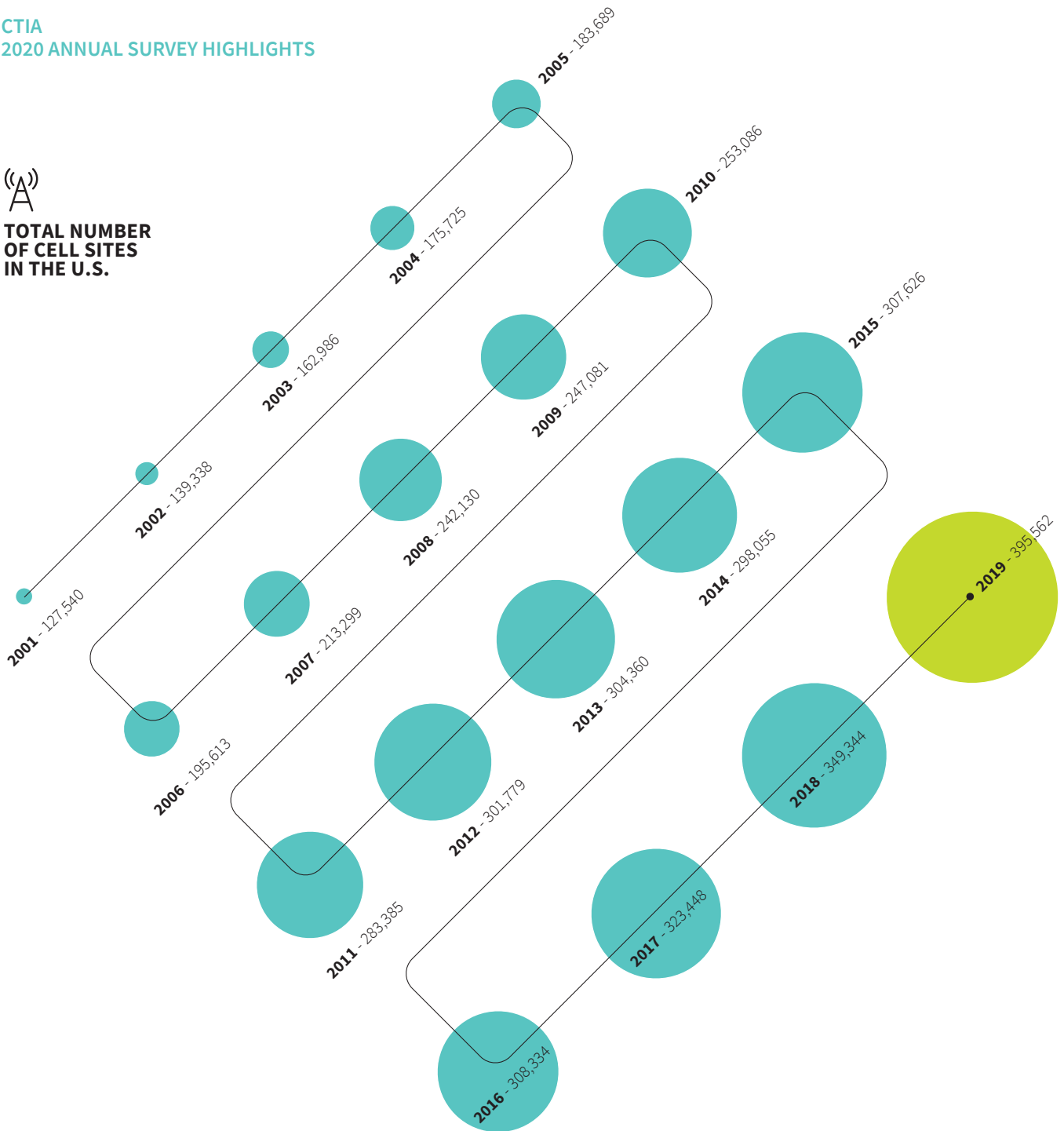
19.6%
INCREASE IN U.S. DATA TRAFFIC

Handling COVID-Driven Wireless Increases.

Wireless investment also meant providers were prepared to handle the unprecedented, nearly overnight surges in mobile voice and data use due to COVID-19. COVID-19 presented the ultimate test for wireless performance and America's networks passed with flying colors.



TOTAL NUMBER
OF CELL SITES
IN THE U.S.



46k

2019 GROWTH IN CELL SITES IS MORE
THAN 2015-2018 COMBINED GROWTH

Building the Backbone of Wireless Networks.

Much of this investment has been in 5G-ready cell sites and antennas. There are now 395,562 active sites across the country, many of which support multiple base stations. Thanks to new federal and state policies that streamline their zoning and permitting, the industry built more cell sites last year than the previous three years combined.



**MOBILE
DATA DOWNLOAD
(MEGABYTES)**



96x

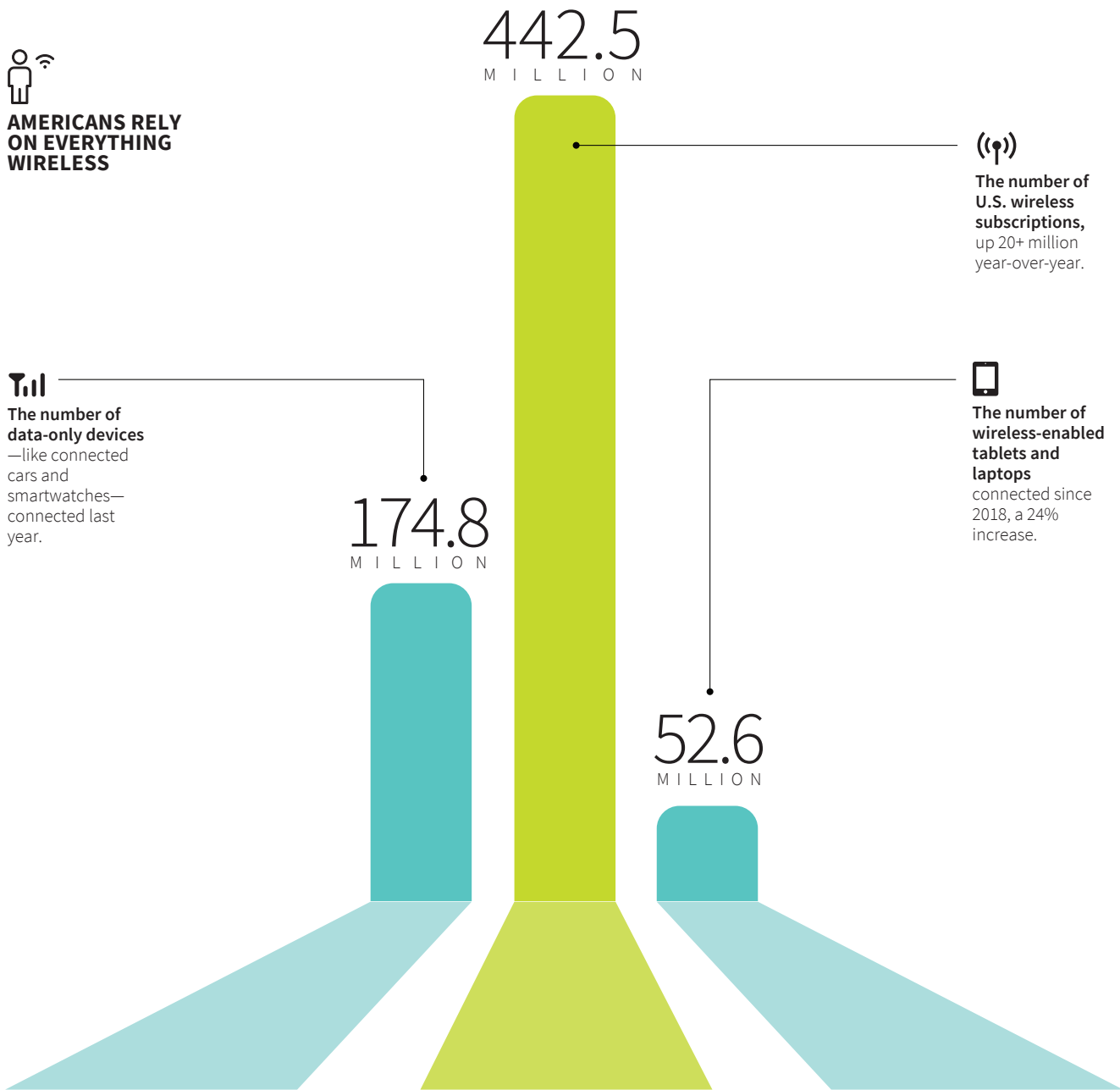
**MORE DATA USED IN 2019
THAN 2010**

Demand for Mobile Data Continues to Grow

Investment in network capacity means the wireless industry is ready to meet growing demand for mobile data. Last year, subscribers used more than 37.06 trillion MBs of data - 30% growth year over year. The additional 8.5 trillion MBs added in the last year is 43% more than the industry's first four years of data traffic combined.



**AMERICANS RELY
ON EVERYTHING
WIRELESS**



The number of U.S. wireless subscriptions, up 20+ million year-over-year.



The number of data-only devices—like connected cars and smartwatches—connected last year.



The number of wireless-enabled tablets and laptops connected since 2018, a 24% increase.

1.3

**AVERAGE NUMBER OF DEVICES
AMERICANS HAVE PER PERSON**

More of Everything Wireless.

Americans continue to connect more wireless devices, with notable increases in laptops, tablets, and data-only devices, as Internet of Things products grow in availability and adoption.



**AMERICA'S
WIRELESS
CONSUMPTION**



The number of text messages exchanged in 2019—up 52 billion from the year prior. That means that during the time it takes to listen to Taylor Swift's new album, Americans exchange 251.7M text messages.



The amount of data consumed last year. With all this data, the population of Chicago could watch "The Last Dance" 1,660 times each.



The number of minutes customers spent talking on their cellphone—up nearly 30% from last year. With 3.1 trillion minutes, you could post 12.4 trillion Blinding Lights Challenge dance videos.

9.2 GIGABYTES

DATA THE AVERAGE SMARTPHONE USER CONSUMES MONTHLY

Wireless Use is up Across All Metrics.

Americans continue to use their wireless devices more and more—with the increase in data consumption outpacing the number of new devices added. Last year, the average smartphone user consumed 6.6 GB per month. This year that number is up to 9.2 GB per month. And it's not just data use that's up—voice minutes and text messages also increased year-over-year.

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