

**Insights
On
How
We
Spend
Our
Time**

**Consumer
Connections
Report 2023**

verizon^v

**Human
connection
is what
matters
most.**

**In today's
world,
connectivity
is what makes
that possible.**

INTRODUCTION

Connection is especially important because the United States is a mobile society. We pick up and move residences – a lot – from city to city and state to state. And increasingly, we are wedded to our phones and devices when we are out and about – creating and sharing content, playing games, attending sporting events, and watching videos. This is our reality.

This inaugural edition of Verizon's Consumer Connections Report is designed to add context to these trends by examining the moments that capture the attention of the nation at the macro and local levels.

We expect it to provide a view into how connectivity is influencing and improving the way we live, work and play.

DATA SOURCES AND CONSUMER PRIVACY

Several sources of information were used to develop the insights outlined in the Consumer Connections Report. These sources include aggregate information obtained from third parties and de-identified and aggregate information about traffic on Verizon's connectivity services. In developing this report, we were mindful of the critical importance of privacy and honoring our commitments with respect to the ways in which we handle data.

Section One NFL Football: Connection is Essential

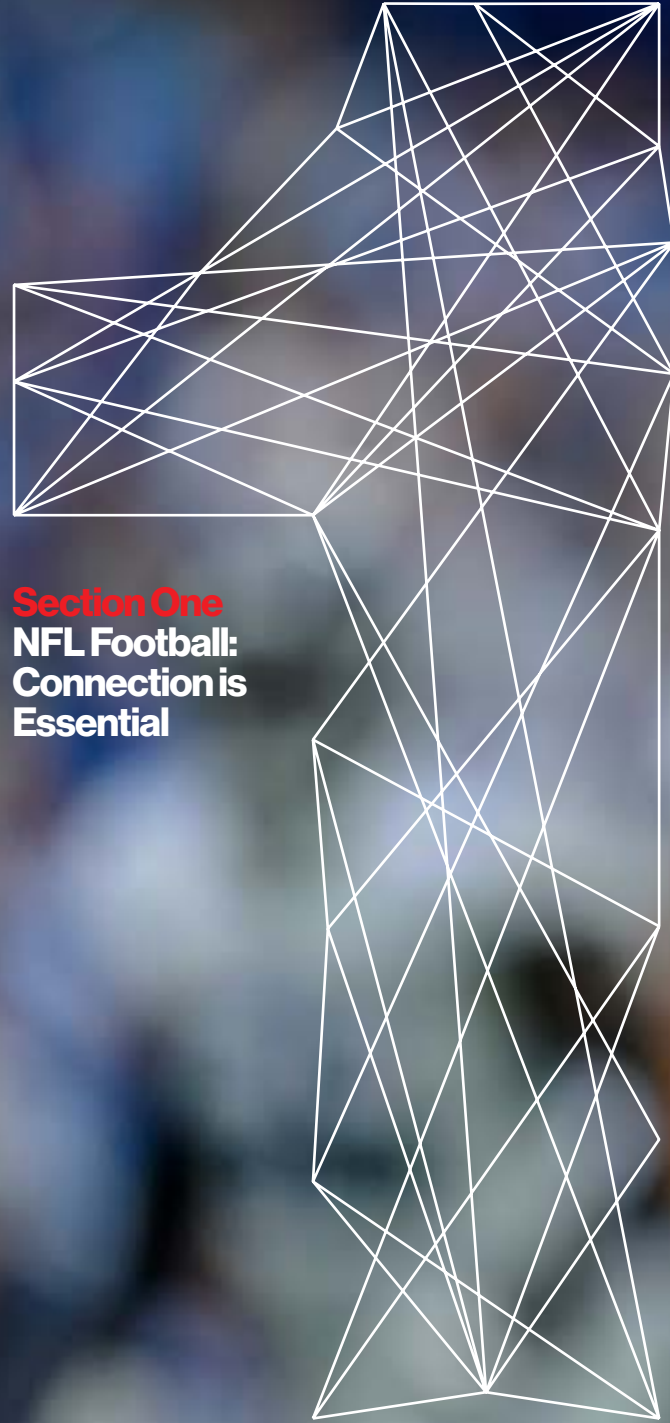
05

Section Two Popular Apps for Consumers

19

Section Three Nation on the Move

31



Section One
NFL Football:
Connection is
Essential



47% increase in data usage per fan from last season

101MB mobile network data usage per fan season average

202MB total data usage per fan

DATA USAGE SURGED

The 2023/24 NFL season saw a powerful year-over-year upsurge in Verizon data usage. Total average mobile network usage across all NFL stadiums for the season was 101MB per person, up 47% compared to the end of the 2022/2023 season.

While total per person average data usage across the NFL averaged 202MB – up 3% from the end of last season – the overall increase in usage illustrates how teams have embraced digital technology in service of the fan experience.

According to NFL Football Operations, “In stadiums, the league encourages clubs to provide a technologically rich gameday experience for fans. This includes showing action and replays on enormous screens, making it easier to use smartphones and other devices by enabling better access... and providing real-time updates on fantasy football statistics and other games.”¹

The Buffalo Bills delivered the highest per person usage of Verizon technologies, averaging 473MB per person.

¹<https://operations.nfl.com/gameday/technology/technology-and-the-game/>
² <https://journals.sagepub.com/doi/10.1177/0022242920944388>

TOP 5 GAMES	HOME	AWAY	TOTAL MB/USER
WEEK 4	BILLS	DOLPHINS	951
WEEK 6	BILLS	GIANTS	572
WEEK 16	VIKINGS	LIONS	566
WEEK 17	BILLS	PATRIOTS	564
WEEK 18	DOLPHINS	BILLS	506

Across the NFL as a whole, **45% of stadium attendees used Verizon’s wireless network.** In the matchup of number-one seeds, when the 49ers hosted the Ravens in Week 16, the per user Verizon Technology usage jumped 138% to 441MB per user compared to their season average.

Recent research indicates that when consumers generate content “during an experience,” such as a sporting event, it “increases feelings of immersion and

makes time feel like it is passing more quickly, which in turn enhances enjoyment of the experience.”²

But not always – in perhaps the biggest surprise of the study, the Kansas City Chiefs didn’t show a spike in per-user traffic – even with its most famous fan in attendance.

Verizon partners with many of the NFL stadiums to provide Wi-Fi services in addition to cellular coverage. Total Verizon Technologies references both Wi-Fi (as available) and Cellular usage.

2023/2024 NFL Season Quick Stats

8.4M FANS CONNECTED TO VERIZON'S NETWORKS DURING THE SEASON

6.8M VOICE CALLS MADE DURING GAMES

4,806,831 TOTAL MINUTES OF CALL TIME

1,662TB OF TOTAL DATA USAGE



Fierce rivalries — on the field and in the stands

HOW DO SOME OF THE LEAGUE'S FIERCEST RIVALRIES STACK UP IN THE STANDS?

When looking at big head-to-head regional and divisional contests, we found significant differences between teams and their fans' data usage.

**JETS SEASON AVG:
173 MB/USER**

**GIANTS SEASON AVG:
150 MB/USER**

Head-to-head, Jets and Giants fans used **128MB** of data per user during their clash.

Verizon partners with many of the NFL stadiums to provide Wi-Fi services in addition to cellular coverage. Total Verizon Technologies references both Wi-Fi (as available) and Cellular usage.

RAVENS SEASON AVG:
133 MB/USER

STEELERS SEASON AVG:
120 MB/USER

Head-to-head at Ravens: **108MB**
Head-to-head at Steelers: **110MB**

COWBOYS SEASON AVG:
241 MB/USER

EAGLES SEASON AVG:
124 MB/USER

Head-to-head at Cowboys: **242MB**
Head-to-head at Eagles: **150MB**

Verizon partners with many of the NFL stadiums to provide Wi-Fi services in addition to cellular coverage.
Total Verizon Technologies references both Wi-Fi (as available) and Cellular usage.

Head-to-head at Bears: **415MB**
Head-to-head at Packers: **75MB**

**BEARS SEASON AVG:
400 MB/USER**
PACKERS SEASON AVG:
165 MB/USER

**CHARGERS SEASON AVG:
265 MB/USER**
RAMS SEASON AVG:
221 MB/USER

Verizon partners with many of the NFL stadiums to provide Wi-Fi services in addition to cellular coverage.
Total Verizon Technologies references both Wi-Fi (as available) and Cellular usage.

Baltimore Ravens Most Streamed “Run the Playlist”

THE RAVENS ARE THE MOST STREAMED PLAYLIST

This season Verizon and UNINTERRUPTED, the athlete empowerment brand founded by LeBron James and Maverick Carter, collaborated with the NFL to explore the connection between NFL franchises, their devoted fan bases and the music that unites them. It features Apple Music playlists curated by players from all 32 teams. Available only on Apple Music, fans enjoyed playlists through the regular NFL season with the Ravens playlist having the most listens throughout the regular season.

Source: Apple Music





Section Two
Popular Apps
for Consumers



47% of consumer mobile traffic was devoted to video in the second half of 2023

129% total mobile network traffic increase over the past five years

CONSUMERS CONNECTING MORE THAN EVER

With the expansion of Verizon's 5G footprint and continued growth of Verizon's Home Internet footprint, consumers are connecting more than ever, in so many ways.

And just as connectivity options improve, we also see time watching video on mobile devices increasing.

VERIZON CONSUMER DATA USAGE

VIDEO	47%
APPLICATIONS	10%
MARKETPLACE	10%
AUDIO	4%
GAMING	3%
SOCIAL	4%
OTHER	22%

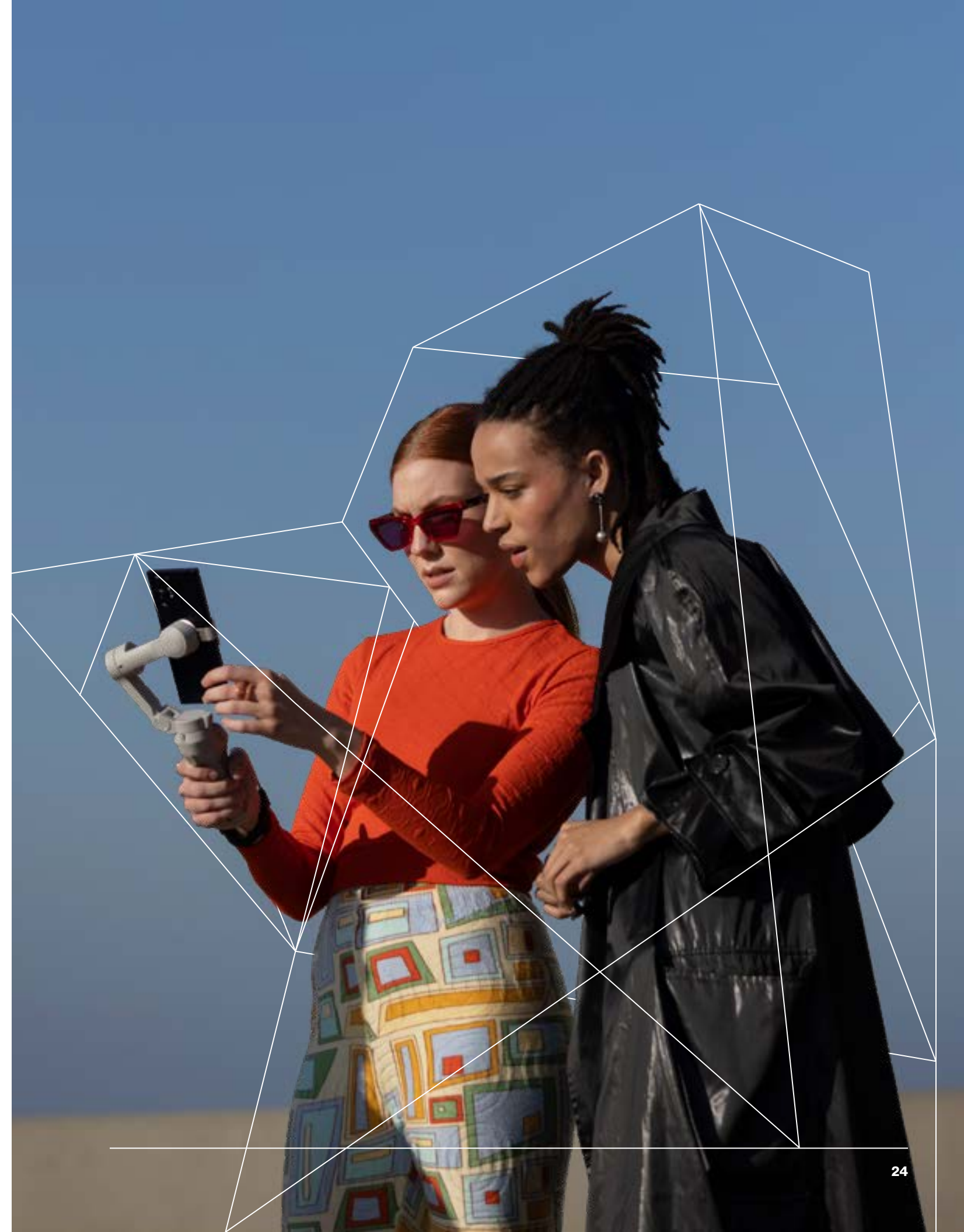
YouTube and TikTok dominate daily time spent and weekly mobile usage

When looking at dominant video platform usage we found - of the apps studied - TikTok is far and away the most popular, with US users spending an average of approximately 1 hour 42 minutes per day on the app, compared with approximately 1 hour on YouTube and approximately 39 minutes on Facebook.

Notice how these trends have changed over time.

Third-party data sourced from "Top Apps by Active User" data.ai reports for smartphones in the United States between 2019-2023. The data.ai reports are based on mobile usage data from a global panel of millions of users, proprietary consumer survey data and other data.ai data sets. For more information about data.ai methodology, please see here:

www.verizon.com/about/sites/default/files/data-ai-Report-Methodology.pdf



AVG. US WEEKLY ACTIVE USERS (M)

INDICATES, ON AVERAGE, THE NUMBER OF USERS WHO OPENED THE APP AT LEAST ONCE A WEEK

MOBILE APP	2019	2020	2021	2022	2023
YOUTUBE	181	219	220	216	208
FACEBOOK	156	173	177	174	168
TIKTOK	21	64	93	120	116

Includes iPhones and Android phones.

AVG. WEEKLY GB/US WEEKLY ACTIVE USER

INDICATES, ON AVERAGE, THE AMOUNT OF GIGABYTES USERS CONSUME WEEKLY ON THE APP

MOBILE APP	2019	2020	2021	2022	2023
YOUTUBE	1.89	2.43	2.27	2.17	2.30
TIKTOK	1.08	1.50	1.66	1.78	1.73
FACEBOOK	0.65	0.54	0.49	0.46	0.46

This is Android phone data only.

AVG. DAILY TIME/US WEEKLY ACTIVE USER (HOURS:MINUTES)

INDICATES, ON AVERAGE, THE AMOUNT OF TIME THAT WEEKLY USERS SPEND ON THE APP PER DAY

MOBILE APP	2019	2020	2021	2022	2023
TIKTOK	00:38	01:14	01:38	01:42	01:42
YOUTUBE	00:53	01:11	01:00	00:58	01:00
FACEBOOK	00:38	00:43	00:39	00:37	00:39

Includes iPhones and Android phones.

Third-party data sourced from "Top Apps by Active User" data.ai reports for smartphones in the United States between 2019-2023. The data.ai reports are based on mobile usage data from a global panel of millions of users, proprietary consumer survey data and other data.ai data sets. For more information about data.ai methodology, please see here:

www.verizon.com/about/sites/default/files/data-ai-Report-Methodology.pdf

Roblox posts fastest growth rate in users and highest average time spent per day per user

When compared to popular games Candy Crush Saga, Candy Crush Soda Saga, Minecraft, Pokémon GO and Wordscapes, Roblox came in on top as of 2023:

46M Average US Weekly Active Users

Indicates, on average, the number of users who opened the app at least once a week. Includes iPhones and Android phones.

1.03 Average Weekly GB/US Weekly Active User

Indicates, on average, the amount of gigabytes users consume weekly on the app. This is Android phone data only.

00:34 Average Daily Time/US Weekly Active User (Hours:Minutes)

Indicates, on average, the amount of time that weekly users spend on the app per day. Includes iPhones and Android phones.

Third-party data sourced from "Top Apps by Active User" data.ai reports for smartphones in the United States between 2019-2023. The data.ai reports are based on mobile usage data from a global panel of millions of users, proprietary consumer survey data and other data.ai data sets. For more information about data.ai methodology, please see here:

www.verizon.com/about/sites/default/files/data-ai-Report-Methodology.pdf



Verizon Home Internet: Growing Triple Digits

The increase in mobile usage doesn't mean home internet usage is down. In fact, it's the opposite. Home Internet subscribers on Verizon's 5G and LTE Home grew to nearly 1.9 million consumers at the end of 2023, a year-over-year increase of 111%.

Metropolitan areas growing at 1.2 times versus rural areas.

3 in 4 new Verizon Home Internet customers switched from cable to 5G Home.

Across all Verizon Home Internet technologies, consumers used an average of 621GB in 2023.

10 connected devices online per household on average.

Metropolitan is defined as urban and suburban.

2023 TOTAL USAGE IN PETABYTES

FIOS	51,630 PB
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5G HOME/LTE HOME INTERNET	8,504 PB
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2023 PER USER MONTHLY USAGE

FIOS	640 GB
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5G HOME/LTE HOME INTERNET	524 GB
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2023 PER USER RURAL VS. METROPOLITAN FWA USAGE

RURAL	484 GB
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METROPOLITAN	537 GB
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Section Three
Nation on the Move



Americans are a nation of movers

According to the United States Census Bureau, “It is estimated that a person in the United States can expect to move 11.7 times in their lifetime based upon the current age structure and average rates, and allowing for no more than one move per single year.”¹

After a review of state-to-state population flows over the past five years, an eventful period in the United States during which the nation experienced a pandemic, a wave of high unemployment and economic uncertainty, we found that moving across state lines peaked in 2021

(up 6.8% and 6.2% from 2019 and 2020, respectively) and returned to pre-COVID levels in 2022. While COVID-era trends have softened, moving in 2023 was down more than pre-COVID levels (down 18.9% and 24.0% from 2019 and the peak in 2021, respectively), likely tied to the economy, interest rates and reduced flexibility caused by return to office.

The states with the most movement are California, Florida and Texas.

¹<https://www.census.gov/topics/population/migration/guidance/calculating-migration-expectancy.html>

MASS MOVING PEAKED IN 2021

The top five states with the largest population outflows over the past five years, ranked according to the number of Verizon accounts who started out the year in a state, then left for a different state during the year:

RANK	2019	2020	2021	2022	2023
1	CA	CA	CA	CA	CA
2	FL	NY	NY	FL	FL
3	NY	FL	FL	NY	NY
4	TX	TX	TX	TX	TX
5	VA	VA	VA	VA	VA

WARM CLIMATES CONTINUE TO ATTRACT THE MOST MOVERS

The pandemic didn’t change popular “destination” states, as attractive climates continue to be a large influence. The top five states with the largest population inflows over the past five years, ranked according to the number of Verizon accounts that ended the year in the state and were not in the state at the beginning of the year:

RANK	2019	2020	2021	2022	2023
1	FL	FL	FL	FL	FL
2	TX	TX	TX	TX	TX
3	CA	CA	NC	NC	CA
4	NC	NC	CA	CA	NC
5	AZ	AZ	AZ	AZ	AZ

People are seeking **lower costs** and **more space**

The net state-to-state moves that ranked most popular in 2023 show that people are leaving New York and California for warmer climates, lower costs of living and more space.

Moreover, New York State declined as a top contributor to California, dropping from the number one origin state for people in the US moving to California in 2019 and 2020 to number four in 2022. As of 2023, the states that account for the most moves to California are Arizona, Texas and Washington.

For the past five years, the state of California saw approximately twice the amount of Verizon accounts move out of state vs. moving in.

Most popular net state-to-state moves out of California include CA to AZ and CA to TX.

Most popular net state-to-state moves out of New York include NY to FL, NY to NJ and NY to NC.



THE CITIES THAT CONNECT THE MOST

Evaluating city-level data usage reveals that monthly mobile smartphone usage has grown from an average of 11.5GB per line to 15.5GB over a nearly two year period (January 2022 to November 2023), a 34% increase.

Out of the top 100 cities, El Paso, TX has the most monthly usage at 24.1GB per line, compared to Rochester, NY at 10.1GB per line.

Seattle has the highest traffic growth rate at 55%, although overall data usage is low.

HIGHEST PER USER TRAFFIC CITIES

	MONTHLY PER-USER DATA TRAFFIC (GB)
EL PASO, TX	24.1
SHREVEPORT, LA	21.4
BATON ROUGE, LA	20.9
BAKERSFIELD, CA	20.9
MOBILE, AL	20.2

LOWEST PER USER TRAFFIC CITIES

	MONTHLY PER-USER DATA TRAFFIC (GB)
SPRINGFIELD, MA	11.5
ALBANY, NY	11.3
HARTFORD, CT	11.1
BOSTON, MA	11.1
ROCHESTER, NY	10.1

HIGHEST YEAR-OVER-YEAR PER USER GROWTH CITIES

	PERCENTAGE GROWTH 1/22 - 11/23
SEATTLE, WA	55%
OMAHA, NE	53%
DENVER, CO	50%
PHILADELPHIA, PA	50%
W. PALM BEACH, FL	50%

LOWEST YEAR OVER-YEAR PER USER GROWTH CITIES

	PERCENTAGE GROWTH 1/22 - 11/23
MOBILE, AL	25%
CHARLESTON, SC	24%
TOLEDO, OH	23%
ROCHESTER, NY	23%
AUSTIN, TX	19%



This report contains many data points, but it's important to remember that behind every number is a human being – communicating, working and enjoying themselves. Connecting. This data provides a glimpse into how we're living our lives today.

Future installments will revisit this data to help illustrate the forces that are shaping our society, both at work and at play.

OUR COMMITMENT TO PRIVACY

Verizon delivers the promise of the digital world to our customers. Our services transform how people, businesses and things connect with each other every day. We have a responsibility to protect the privacy of customer information in delivering those services. And our goal is to earn our customers' trust through every privacy decision we make. Throughout our research, our privacy commitment remained at the forefront.

The data sources used to deliver the Consumer Connections Report included third-party information from data.ai and Apple Music, and de-identified and aggregate information about customer traffic on Verizon's connectivity services. The information used to analyze population movement was based on state-level billing address changes and did not include geolocation information.

You can learn more about our privacy practices by visiting our Privacy Center at [verizon.com/privacy](https://www.verizon.com/privacy).

