

Saving On Cellphone Service

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In this guide:

Buying a phone	page 2
Choosing a plan	. page 5
Worksheets	. page 7
Wi-Fi vs cellular data	. page 8
Tips on cutting your costs	.page 10
What is an app?	. page 14
10 things your smartphone can do for you	. page 15
Contact information for major cellphone companies .	page 17
Appendices	.page 17

Introduction

Swimming with the cellphone sharks

In less than a decade, our yearly cellphone costs have risen nearly 60 percent, and the average bill is now close to \$100 a month, according to the Bureau of Labor Statistics. One researcher likened shopping for carrier services to swimming in a shark-infested ocean—and Consumer Reports wrote that the pricing practices of the wireless companies are "so convoluted that you almost need an advanced degree in math to decipher them."

"Let's make one thing clear: You can't beat the house," added New York Times tech reporter Brian X. Chen. "Telecommunications is one of the world's most lucrative industries, and wireless carriers will turn a profit no matter what."

Consumers today are in dire need of trusted resources to help them wade through the confusing marketing and fine print to pick wireless plans that are right for them. CUB, a consumer advocate that has helped Illinois consumers save more than \$20 billion over the last 35 years, has a long history of taking on the sharks. Although we traditionally advocate for utility customers, we receive so many cellphone questions that it inspired us to publish this guide.

In preparing this publication, CUB researched dozens of sources. We have tried to give you the latest information about the wireless market and general pricing information, but remember that the cellphone industry and its offers change



often. Before you call CUB with a question, we recommend that you first check with the cellphone company you have or are considering. (A list of contact numbers for major carriers is at the end of this guide.)

True, it's easy to overpay on cellphone services, but through decades of consumer advocacy we have learned that people who take the time to do research are the ones who save money. We hope this guide is a helpful tool to navigate those shark-infested waters.

Buying a phone

Examples of cellphones



Specialized devices



Kinds of cellphones

Basic phones—flip-phones or candy bar-shaped block phones—are good if all you want to do is make calls and send and receive text messages. These no-frills phones are some of the cheapest on the market and are perfect for some users.

With smartphones, you can (and will) pay a lot more. Some smartphones have extra bells and whistles like voice command, wireless charging, and the ability to unlock the phone with your fingerprint.

Beware of getting upsold: Stick to a phone that has the features you need and nothing more. Most smartphones operate either on Apple's software (iPhones, which sync with Apple services such as iTunes) or Google's software (Android phones, which sync with Google services such as Gmail). If you're shopping for a smartphone, try out both iPhone and Android devices to see what you prefer.

(If you get a smartphone, you will need a data plan: Data plans enable you to access the Internet while out of range of Wi-Fi signal.)

In recent years, mobile carriers have gone far beyond typical phones. You can, for example, get data plans for tablets, or pared-down devices to stay in contact with kids. There are



special phones designed for seniors, with features such as large screens and hearing-aid compatibility. (For a list of such phones, check out the independent review site, **TheSeniorList. com**.)

Your cellphone-buying checklist

When you're shopping for a cellphone that's right for your needs and lifestyle, it's important that you do some research. Here's what you need to think about before you go to the store:

How do I want to use my phone?

Many people just want a basic phone to make emergency calls and contact friends and family. Others want a more complex phone. Smartphones can stream your favorite shows, give handy turn-by-turn directions, make video calls to grandkids, monitor your health by tracking exercise, and set medication reminders. Thinking about how you'll use your phone can help you narrow down what best fits your needs.

What is my comfort level with cellphones?

Maybe you've used smartphones for years and know your way around a Samsung Galaxy like the back of your hand. Or, maybe cellphones are foreign to you. This may be your first or second cellphone purchase, and you need a device that is straightforward and simple to use. You should look for a device that fits your comfort level.

How much do I want to pay for a phone (not including the usage plan)?

You can buy a new basic flip phone for as little as \$50, but a new iPhone with all the bells and whistles can cost as much as \$1,500. You will be given the option of paying for it upfront, or in monthly installments.

Will this be my primary device for internet access?

Many people use their cellphones to check email, connect on social media, pay bills, or browse the internet, especially if they don't have access to a computer or tablet. If you would like to use your device to access the internet, any cellphone you choose should have Wi-Fi or cellular data capabilities.

If you'll use the phone for calling and texting only, then you don't need to worry about internet access.

What special features might I need?

Some phones are fitted with special features. For example, louder volume options are helpful for people who have hearing loss. Larger screen displays and font-size options can reduce eye strain. Consider what struggles you have when using technology—chances are, there's a feature to make your experience better.

Will I use my cellphone to take pictures?

More than 1 trillion digital photos were snapped in 2018. Most cellphones have basic cameras, but if you want to take, send and receive quality photos, make sure to factor your photo bug into your cellphone search.

How much data storage do I need?

Phone storage is measured in gigabytes (GB). It is common to see phones with these storage options: 8GB, 16GB, 32GB, 64GB, 128GB, 256GB.

Below are a few scenarios that should help you select a phone with the appropriate amount of storage space for you.

- 32GB and below: You use your flip phone or basic smartphone mostly to talk and text. You use your phone's internet to browse and check your email. If you have a smartphone, you don't have many apps, and you don't download songs or movies.
- 64GB: You are an active phone user. You occasionally take photos, and you have downloaded a few songs or podcasts for offline listening. You regularly use a few apps, like Candy Crush and Facebook.
- 128GB and above: You live on your phone. You take photos and record videos everywhere and store them on your phone. You play multiple app-based games, are active on social media and regularly download movies and TV shows to watch later.

Note: Not all phone models will have every storage option. Ask a sales representative what's available, but beware of being upsold. A quick review found that one iPhone model's 128-gigabyte storage option was \$50 more than the 64-gigabyte option.

Free cellphone?

Be wary of offers for "free" cellphones. Most of the time the phone isn't actually free—you're paying for it each month as part of your contract.

These "free" phones are rarely the latest models. Plus, you might have to sign up for a specific plan to qualify for the phone, and that plan may not be the best value.

In some cases, you might not even be buying the phone, but simply leasing it for a few years.

If it's too good to be true, it probably is.

Where to buy a cellphone

A simple way to buy a phone is at a retail outlet for a carrier at the same time you sign up for a plan. But that's not the only way to buy a phone.

You also can buy one from Amazon, Target, Best Buy, or other retailers. If you go that route, make sure you can use the phone with the carrier you have chosen for your cellphone service. Some phones may be tied, or locked, to a certain cellular carrier regardless of where you buy it.

For example, you could purchase an iPhone from Best Buy, but the software installed on the phone still might require that you sign up for service from AT&T.

Other phones are "unlocked," which means they should work with any carrier. The downside to buying an unlocked phone is that your chosen carrier may not guarantee that the voice or data network will work perfectly on your phone.

If you want to independently buy a phone, go to your carrier's webpage, a section usually called "Bring Your Own Device" or "Bring Your Own Phone," to check compatibility.

If you buy your phone through a carrier, you may be able to eventually unlock it and take it to another carrier, once you've paid the full amount.

If you want to go that route, check with your current carrier to see what steps you need to take to unlock the phone. Also, remember that your new carrier may require an activation fee to use your unlocked phone on its network.

In-store questions to ask:

Have you found the cellphone of your dreams? There are a

few more questions to ask at the counter to make sure you're getting the right phone for the right price.

Are you offering any special deals right now? Some companies offer discounts to students, seniors, and veterans. Also ask about discounts for organizational memberships, such as AARP.

If you are purchasing a phone around the end of the year, ask about special holiday discounts or offers. Also, ask if you can trade in your old phone for a discount on the new one.

What kind of payment plan options are available? You can pay the full price of the phone upfront, which has the benefit of being simple and gives you the option to quickly take your phone to other carriers.

Another option is to pay in installments, putting a small amount of money each month toward the cost of the phone on the monthly bill for your service. Some carriers may offer a discounted price for the phone if you choose this option, but you may have to pay interest.

If you like to upgrade your phone frequently, you may choose to lease it.

What is the total cost of the phone including taxes and fees? Sometimes the sticker price on a phone is \$500, and by the time you get to the register, your total is \$650. Larger storage sizes, limited edition colors and other accessories can add up.

Before you swipe your credit card, ask the salesperson to go over the final cost with you to make sure the total is within your pre-planned budget.



Take the phone on a test drive

If you decide to buy a cellphone online, it's worth going into a retailer and handling different phones to help make your decision. Here are some things to look for:

- **Design**: Does it fit well in one hand? Are the buttons big enough to avoid typing mistakes and accidental volume changes? Is it intuitive to use?
- **Screen**: You'll probably spend a lot of time looking at it, so make sure it won't hurt your eyes.
- **Camera**: Do you like the quality of the photos the phone takes?

• Extras that you may care about: Do accessories you already have work well with a phone you're considering? Do you want the option to use headphones with a jack? Do fancy options like fingerprint or face ID work well for you?

Choosing a plan

The largest U.S. mobile carriers (the Big Four) are AT&T, T-Mobile, Verizon and Sprint, but there are many smaller carriers, like Boost, Cricket and GreatCall, that you can choose from. (These companies usually lease cell coverage and data bandwidth from the largest companies and resell it.)

The first step in choosing a plan is to make sure the carrier you're considering has strong coverage in your area. Visit the carrier's website to check if it covers your zip code. If you have trouble finding that information, use Open Signal, a company that analyzes and maps wireless coverage, at

OpenSignal.com/networks.

Another great resource: Friends, neighbors and family. Ask them what carriers they use and how well they work in your area.

Then sit down and review your needs. Most typical smartphone plans will include unlimited calling minutes and texts and limited data usage. However, some plans may include calling and texting limits—especially for phones that don't connect to the internet.

Ask yourself these questions:

- How much are you willing to spend each month?
- How many calling minutes do you expect to use?
- How many texts will you send/receive?
- If you want to browse the internet, send emails, watch videos, etc. through your phone, how much data do you need each month? If you plan to use a lot of data-intensive services on your phone, such as video streaming, ask about the plan's data limits.

With cellphone plans, data is measured in megabytes or gigabytes. (One gigabyte is 1,000 megabytes.) Here are some guidelines to help you determine what kind of user you are:

1 Gigabyte (GB) or less - You use your data connection occassionally, to check driving maps a few times a month, to read an online news article a few times a week or to find a restaurant's phone number. But most of the time you use your phone, you're connected to Wi-Fi.



2 - 5 GB - You love do-it-yourself blogs, so you visit your favorite sites everyday to read new posts. You stream music during your work commute. You upload a dozen photos to Facebook a week, and you send a dozen emails a day. (**Note:** Most smartphone users fall into this category.)

6 - 10 GB - Scrolling on social media takes up most of your free time, and that includes watching an occasional video or two on Facebook. Once or twice a week you video chat with a family member for an hour, and you send photos to them. You usually stream music while cooking dinner.

Unlimited - You are a heavy data user who often doesn't have easy access to Wi-Fi. You stream music for several hours a day, and you frequently scroll through social media and watch videos. You download and upload high-quality photos daily and watch several hours of videos a week. You visit dozens of websites a day.

On the one hand, you can choose packages that offer unlimited data, calling and text messages—but those are expensive and you may not need a full-service plan.

On the other hand, if you choose a cheaper plan you could get hit with big "overage charges" if you go over whatever limits are imposed.

Your plan choices

Shoppers have two basic plan choices: prepaid plans, in which you pay in advance for usage, and postpaid plans that have a more traditional billing structure and charge you for usage after the fact.

Prepaid plans

If you need a cellphone simply for basic communications needs, or if your credit is a barrier to signing a contract, a basic (and inexpensive) phone paired with a prepaid calling plan might work for you.

With prepaid plans, you avoid contracts, overage charges and credit checks, but the downsides include limited features and the possibility that your minutes will expire.

Prepaid monthly. Typically, prepaid customers pay a set monthly fee for a specific amount of data/minutes/texts that expire after about 30 days. If you hit your prepaid usage limit before the end of the 30-day cycle, your service shuts off. In that case, you can pay for more usage, or wait until your pay period renews.

Such plans typically have automated monthly billing, but consumers can usually stop payments at any time without penalties.

Pay-as-you-go. With these plans, the consumer "refills" the phone as necessary. Unlike prepaid monthly plans, the talk, text and data you purchase on a pay-as-you-go offer lasts much longer than 30 days—sometimes up to a year—and can be used anytime until they expire.

Pay-as-you-go does not have automated billing: You refill your phone at your discretion.

Pay-by-the-day. Users with this plan pay a basic fee to keep the phone line active. Then, on days when they intend to use the phone, they would pay an additional charge — typically around \$1 to \$5 a day — to use it on an unlimited basis.

Such plans aren't common and won't be available from every carrier.

Postpaid and contract plans

These plans are more common and tend to be more expensive. If you want a more traditional plan, a general rule of thumb is to avoid contracts when shopping for service plans and cellphones.

Individual postpaid. Typically, consumers choose a service plan that includes talk, text and data. At the end of each month, the carrier totals the usage and sends a bill.

The minimum payment will always be the bundle price you signed up for (plus taxes and fees) even if your usage was less than a typical month. If you go over your preset limits, you could be charged extra for the overages, and that can be costly.

For example, let's say your plan charges \$40 a month for 2 GB of data (and unlimited talk and text). If during a month you use only 1.5 GB of data, you still pay \$40. If the next month you use 2.7 GB of data, you pay \$40, plus a set overage fee—let's say \$15— for the 0.7 GB overage.

Individual contracts. Two-year contracts used to be typical with any plan. You were locked in with the carrier for two years, unless you wanted to pay the penalty fees for exiting the contract early.

Most companies have now shifted away from contracts, but if you purchase a phone (not a service plan) from your carrier, you often have the option of paying for the phone in a 24-month payment plan, which is essentially a two-year contract.

Group or family plans. Combining cell service for multiple people on a group plan or family plan can potentially save a lot of money: A standalone plan may cost you around \$75 a month, but to add another line on a shared plan usually only costs an additional \$10 to \$20 a month.

If your family plan doesn't include unlimited services, make sure you understand how your data, talk and text allotment is shared among users. A shared data plan means that all lines share your data allowance—meaning there's a risk one user could use up most of the data. (Using Wi-Fi whenever possible can help prevent this problem.)

Or you could go with a per-line allotment: That means the data is shared equally by each line in the family plan.

Free services to help you make your choice

Once you have a general idea of what you need, try using free comparison services.

One word of caution: Most likely these free services get some form of compensation from carriers. The most reliable ones are transparent about this fact, and they can still be helpful tools for finding the right plan.

These services are updated regularly, but plans change frequently so always confirm with the carrier to make sure any plan you're interested in is still being offered.

Examples of such services include:

- Wirefly.com
- Whistleout.com
- Nerdwallet.com

Discounts

Some carriers offer discounts (up to \$10 a month) to customers who sign up for automatic payments. Companies may offer senior discounts (typically, for customers 55 and older), and some of them offer reductions for students, military personnel, veterans, and employees of large companies that have negotiated a lower price for their employees.

For more information on senior discounts:

AT&T Senior Nation: 1-800-331-0500 (611 from your AT&T wireless phone)

T-Mobile: t-mobile.com/cell-phone-plans/unlimited-55-senior-discount-plans

Verizon: verizonwireless.com/plans/55plus/

Sprint: sprint.com/en/shop/plans/55-unlimited.html

Lifeline

Lifeline is the Federal Communication Commission's program to lower the monthly cost of phone or internet (not both, unfortunately).

You can get Lifeline if your income is 135% or less than the federal poverty guideline, or if you participate in any of the following programs:

- Supplemental Nutrition Assistance Program (SNAP), formerly known as Food Stamps
- Medicaid
- Supplemental Security Income (SSI)
- Federal Public Housing Assistance (FPHA)
- Veterans Pension and Survivors Benefit
- Tribal Programs (and you live on federallyrecognized Tribal lands)

You are only allowed to get one Lifeline discount per household. Find a provider that serves your region of Illinois at **lifelinesupport.org**.

Your Device Buying Worksheet							
 My budget for a cellphone is: I want to use a cellphone for: 							
□ Eme □ Text □ Text	 Emergencies only. Texting/calling friends and family regularly (at least once a day). Texting/calling AND using the Internet. 						
 Features that are important to me: Camera Organizer functions (calendar, alarm clock, calculator) Screen size Button size Hearing-aid friendly Headphone jack Enhanced phone security (fingerprint, facial ID) Hands-free capability (i.e., Bluetooth) Memory / storage (for storing photos or your favorite shows, for example) 							
	Your Cellphone Plan Wor	ksheet					
• My monthly	<pre>v budget for a cellphone plan is:</pre>	_					
• I want to u	se a cellphone for: ng/calling only. ng/calling AND using the Internet.						
• I need this	number of lines:						
 Does the carrier I'm considering have good cellphone reception at home and places I frequent? Yes No I anticipate this amount of usage for my phone: 							
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Calling Minutes	this amount of usage for my phone: Monthly 0-300 minutes (10 minutes or less per day). 0.101-600 minutes (10-30 minutes per day).						
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Calling Minutes	this amount of usage for my phone: Monthly 0-300 minutes (10 minutes or less per day). 301-600 minutes (10-30 minutes per day). Unlimited. 100 or less (about 3 per day). 101-600 minutes (3-20 per day). Unlimited.	Note: Most plans now include unlimited calls and texts.					
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Wi-Fi vs. cellular data

When you have a smartphone, there are two ways to connect to the internet: through Wi-Fi or through your cellular data plan.

Smartphones and tablets connect to **Wi-Fi** through a wireless router, such as the one you may have installed at home (for a monthly fee) or a public one at your local library that allows patrons free internet access.

Wi-Fi only works within the range of its router (typically about 150 feet). When you pay for a router and Wi-Fi service, the connection allows you to access the internet on your phone at any time while you're at home for no additional charge.

Your **cellular data** gives you access to the same content as Wi-Fi (web browsing, music, movies, apps, etc.). However, data connects you to the internet via your mobile carrier's network, so any data use is subject to the data plan you set up with your carrier.

Where Wi-Fi only works within the range of a Wi-Fi router, your data plan allows you to access the internet anywhere within range of a network signal, which is practically everywhere in the U.S., depending on your carrier.

Is my information safe?

Nothing is 100 percent safe, but the internet connection

through your data plan (if you subscribe to one) is generally secure. Information being sent via data is encrypted, making it safer than public Wi-Fi.

There are two types of Wi-Fi connections: secured and unsecured. A **secured** network requires users to provide a password or register an account before connecting to it. (Private Wi-Fi connections—what most customers pay for at home—are password-protected and are secure if set up properly.)

An **unsecured** network—most public Wi-Fi connections can be used without a password. If you use an unsecured network (at a coffee shop, for example), it should be fine for general use like reading online news articles or playing games. However, don't access any private information, such as credit card info over an unsecured network.

Connect to a Wi-Fi network on an iPhone

- Go to Settings, then press Wi-Fi.
- Turn on Wi-Fi by pressing the sliding button. (If it turns green, you have turned on Wi-Fi and your device is ready to connect to a network.) Your iPhone will automatically search for available Wi-Fi networks.
- Tap the name of the Wi-Fi network that you want to join.



An example of a coverage map from Verizon. The red areas show good cell coverage, and the white areas show territory with little or no cell coverage. Be sure to check that a carrier you're considering has good coverage in all places you frequent.

- If the network is secure, you will have to enter a password to connect to it. (Secure Wi-Fi networks are password-protected and have by their names). Enter the password, then tap Join. If you can't tap Join, the password you entered is incorrect.
- When you successfully enter the password, you will see next to the network and in the upper-left corner of the phone or the upper-right corner on an iPhone X and newer. Your phone is connected to Wi-Fi.

Note: Once you connect to a network, your phone "remembers" the network, so you won't have to type in the password again. It will automatically connect when your phone's Wi-Fi is turned on and in range of the Wi-Fi router.

Connect to a Wi-Fi network on an Android

- Open your phone's Settings app ⁽¹⁾
- Tap Network & Internet, then select Wi-Fi.
- Turn on Use Wi-Fi.
- Tap a listed network.
- If the network is public, "Connected" appears under the network name. Your phone is now connected to the Wi-Fi network.
- If the network is secured, you'll see . Enter the password.
- If the password is correct, "Connected" appears under the network name. Your phone is now connected to the Wi-Fi network.

Note: Once you connect to a network, your Android "saves" it. When your phone is near the Wi-Fi router, and your phone's Wi-Fi is turned on, your phone will automatically connect to the network.

How do I know if I'm connected to Wi-Fi?

You can tell if you are using Wi-Fi if you see the Wi-Fi icon. Different phones display it differently, but the icon will generally look something like this: The way appear with fewer bars filled in if the signal is weak.

You can find the Wi-Fi icon in the notification bar at the top of your smartphone:



If Wi-Fi is **not** connected, you may not see any Wi-Fi icon at all, or you may see an icon like these:



Open Wi-Fi networks are available

The phone is connected to WiFi, but there is no internet connection

If you see a Wi-Fi icon not pictured here, consult your phone's manual.

	? Use Wi-Fi when:		((1)) Use cellular data when:
 You're si engaging You dow media co You're a place wi You're a place wi You're a place wi You re tached t You have your mode 	treaming movies and music to your phone or g in other data-heavy activities. wnload anything. Downloading, especially multi- ontent, like apps and videos, can eat up data. It home using your own Wi-Fi or at friend's ith access to their private internet. Home has a strong Wi-Fi signal. traveling internationally. Huge fees may be at- to international data use. e a limited cellular data plan and may exceed onthly limit.	• ``	You're on the go—navigating in a vehicle, out in a new city, or in public places like parks where Wi-Fi isn't available. You're accessing sensitive information (checking bank- ing info, making online credit card payments). The Wi-Fi connection is slow, weak, or unavailable.

Tips on cutting your costs

Are you paying for unnecessary extras?

Make sure you're not paying for any services you don't need or use. For example...

Avoid directory assistance. If you have a smartphone, use the internet to look up information rather than paying for directory assistance.

Skip insurance. Some customers swear by insurance, but in most cases you can skip the service and its typical \$10 monthly fee. Do the math to see if the cost of insurance over the life of the phone would end up being more than just replacing a lost phone, especially if the phone itself is on the cheaper side.

A better purchase could be a durable phone case, which costs about \$30 and will go a long way toward protecting your phone from damage that could render it unusable.

Be careful about apps. If you're not careful, apps can drive up your costs, with fees to download the app or to use features within it. To prevent accidentally authorizing charges with a slip of a finger, adjust your settings to require you to re-enter your password before you purchase an app.

Use the freebies. BillShrink, the cellphone cost-cutting service, estimates that consumers make 65 percent of their calls to the same five numbers. If your plan offers free calls to some type of "calling circle" (e.g. Verizon's Friends & Family or T-Mobile's myFaves), make sure you include your most frequently dialed and incoming numbers.

Are you paying for too much data?

Unlimited data plans are pricey—a quick review found offers with fees ranging from \$70 to \$95 a month. But limited plans—offering data caps of 500 megabytes (MB) to 60 gigabytes (GB) or more—aren't so cheap either. Going over your data limit is expensive, if you get hit with overage charges, or at least annoying if your provider penalizes you by slowing, or "throttling," your internet.

These tips can help you conserve data and maybe even allow you to downgrade to a less expensive plan. **Note**: This section includes general instructions for iPhone and Android operating systems. We strive to get the most upto-date instructions. But if your device requires more specific or updated steps, please contact your carrier or phone manufacturer.

I. Don't let app updates eat your data

It's good to automatically update your apps, but not when it eats up your wireless plan's data. Here's how to control that:

iPhone:

- 1. Go to settings 🛞 .
- 2. Go to iTunes & App Stores 🙏
- 3. Toggle off "App Updates." (See below for a screenshot.)

Android:

1. Open the Play Store 🥕 .

2. Open the menu by tapping on the three horizontal lines at the top left.

3. Scroll down and tap Settings. (See below for screen-shots.)

- 4. Tap Auto-update apps.
- 5. Choose Auto-update apps over Wi-Fi only.

iPhone:



Android:





2. Stay on top of your data usage

There are multiple things you can do to track and even rein in your data usage:

On an iPhone: You can check the data that you are using by going to "Settings" and then "Cellular" or "Mobile data."

(See screenshots to the right.)

Disappointingly, these numbers do not reset each billing period, so you'll have to remember to do it yourself, by tapping "Reset Statistics" at the bottom of the "Cellular" or "Mobile data" screen.

On an Android (4.0 or later): You can check your data usage and set alerts and limits. You can also turn off data usage for specific apps. The instructions might be different for various phones.

Generally, go to Settings (). Under "Wireless & Networks" or "Connections," tap on "Data usage" or "Mobile data." (See screenshots to the right.)

Check with your carrier: You can login to your carrier's website to check your account details.

Ask your wireless company if it offers free apps or other data alert services that will warn you if you're about to go over your data limit.

Also, with major carriers you can punch in special numbers to determine your data usage for the current billing cycle.

- For AT&T dial on your handset *DATA# (*3282#).
- For Sprint text "USAGE" to 1311.
- For T-Mobile dial on your handset #WEB# (#932#).
- For Verizon, dial on your handset #DATA (#3282).

Use a third-party app: For example, My Data Manager is a free app for Android and iPhone devices that will send you alerts as you approach your data limit and help you identify certain apps (or family members) that are data hogs.

For more information go to MyDataManagerApp.com.

3. Use Wi-Fi as much as possible

Remember, there are two ways your smartphone connects to the internet—through your wireless company's data plan or a Wi-Fi connection. Downloading apps and streaming video and music can put a big dent in your data plan.

But Wi-Fi is a smartphone user's ally: It allows you to use the Internet without counting against your paid data plan's limit.

At home, you can subscribe to a Wi-Fi connection through your Internet provider, and, of course, public places, such as coffee shops, offer it for free. (See pages 8-9 for information on how to connect to Wi-Fi.)

Remember that a public Wi-Fi connection may not be as secure as your home connection, so avoid banking or other sensitive financial business until you're on secure Wi-Fi or your data plan.

iPhone:

•		•	
1:05	.al ≎ ∎.	.ııl AT&T 중 3:33 PM <a>Settings Cellular	ନ
ettings		Cellular Data	
Airplane Mode		Cellular Data Options	Roaming
Wi-Fi CUB	WIFI_APF_5G >	Personal Hotspot	
Bluetooth	On >	Turn off cellular data to restrict al including email, web browsing, an	l data to Wi-Fi, Id push notificat
Cellular	>	AT&T	
		Wi-Fi Calling	
Notifications	>	Calls on Other Devices	
Sounds & Haptics	>	Carrier Services	
Do Not Disturb	>	SIM PIN	
Screen Time	>		
General	>	CELLULAR DATA	
Control Center	>	Current Period	
		Current Period Roaming	С

(Why is the image on the right dark? That's because this screenshot was taken from a phone in "dark mode." It's just a way some people choose to view the screens on their phone. So don't panic if your phone screen doesn't look dark!)

Android:



4. Surf wisely

Downloading an image-heavy webpage can suck up a lot of data, but light or text-only Internet browsers can help reduce your data usage. One example is Opera Mini, a free browser for both the iPhone and Android operating systems.

If you use Google Chrome to surf the web, tap on the threedot menu at the top right. Choose "Settings" and turn on "Data saver." That will automatically compress pages you download and save you data.



5. Use location services wisely

An application's "location service" may ask to use your phone's GPS so it can tailor information based on your location. But some apps may continue to track your movements even if they're not in use.

Save data by disabling the location service for applications—probably all of them except map or weather apps that don't need to know where you are located.

On an iPhone (see screenshot below):

- 1. Go to Settings.
- 2. Privacy.
- 3. Location Services.
- 4. Scroll down and find the app.
- 5. Tap the app and select an option:

Never: Prevents access to Location Services.

While Using the App: Allows access to Location Services only when the app or one of its features is visible on screen. With this setting, you might see your status bar turn blue with a message that an app is actively using your location.

Always: Allows access to your location even when the app is in the background.

iPhone:





On an Android (see screenshot below):

- 1. Settings 🔘 .
- 2. Tap on General.
- 3. Scroll down to Apps.

4. Tap on apps, then scroll to find the app for which you want to adjust location settings.

5. Look at Permissions. If "Your location" appears underneath, tap on it and then toggle off location permissions for that app.

6. Keep social media from sucking up your data

Don't let Facebook automatically play videos without clicking on them.

1. On your Facebook app (both Androids and iPhones), tap the triple-line on your screen (upper right or lower right). Tap "Settings" or "Settings & Privacy."

2. Select "Account Settings" or "Settings," and then tap "Videos and Photos."

3. Tap "Autoplay," and choose one of two options: "On Wi-Fi Connections Only" or "Never Autoplay Videos."

Android:

© 0	0 42° ₽ 0 ℃ ♥ .il ■ 12:08 PM	
Setti Netwo	ings Q :	
5	Date & time	Starbucks version 5.12
٦	Storage	Force stop Uninstall
G	Battery & power saving	103 MB used in Internal storage
٢	Memory	15.60 MB used since Aug 13 Permissions
:0	Apps	Your location
	Backup & reset Back up data such as personal data and settings, or copy them from old device to new device	Open by default Some defaults set
ī	About phone	Battery No battery use since last full charge

7.Turn off Wi-Fi Assist

Beware of a feature called Wi-Fi Assist, which automatically switches to your paid data plan when your Wi-Fi signal is poor. Although it seems convenient, it's difficult to know what the service defines as a "poor" signal, and it could be a big drain on your data.

Unlike with Android phones, the service is ON by default with iPhones. Consider turning it off.

iPhone:

- 1. Tap Settings 🛞 , and then Cellular.
- 2. Scroll down.
- 3. Tap the slider to turn Wi-Fi Assist off.

8. Limit "background app refresh"

Applications that need frequent updates (e.g. breaking news apps) use data in the background to constantly refresh and retrieve new information, even if they're not open. But this "background app refresh" setting could eat up a lot of data. You can turn it off completely or limit it.

iPhone:

1. Tap Settings (), and then General.

- 2. Tap Background App Refresh.
- 3. Choose whether to turn it off, or only refresh on Wi-Fi.

(Also, there's a menu beneath this that allows you to turn it off for individual apps.)

On an Android:

1. Go to Settings (), and then Apps.

2. Select an app, and tap "Mobile data."

3. Where it says "Allow background data usage," switch it to off.

9. Be data-wise on trips

Don't wait to download maps when you're on the road and using your paid data plan. Instead, use Wi-Fi to download the maps ahead of time. Google Maps allows you to save and store maps for offline use.



Don't get ripped off with international calling

Most carriers and service plans only operate domestically, meaning, if you plan to travel overseas, you need to take some additional steps to ensure a) that your phone will work and b) that you won't get hit with an eye-popping international phone bill.

Check with your carrier. Get up-to-date info about its international cellphone-use policies, and ask if your contract includes any international calling, texts, or data.

If your current plan doesn't fit your needs, you have a few options:

Purchase an international phone plan. These plans allow you to use your phone overseas without incurring expensive fees. If you plan to use your phone heavily while you're overseas, you should sign up for an international plan.

Ask your carrier what options are available. Some international plans charge by the day, others by the month, and still others charge per minute/per text. Make sure international roaming is enabled on your phone to use your plan.

Beware—international phone plans can get expensive quickly, but they're usually much cheaper than the "pay as you go" rates for international use.

Rent or buy a local SIM card. You can use all of your phone's features, such as phone calls, text messages and cellular data, by swapping out your current SIM card for

one that's native to the country you're visiting.

Prior to departure, you can buy a card online or upon arrival at the airport or a local carrier. If you buy it when you arrive, an employee can help you choose the right data plan and install the card for you.

Note: This is often cheaper than getting an international phone plan. With this option, check with your carrier to ensure that your phone is unlocked, allowing you to use a different carrier's SIM card.

Turn your phone on "airplane mode." That prevents your cellphone from sending or receiving calls and texts via your cellular carrier. It disables cell data and GPS, and unless you choose to turn them on, it also disables Wi-Fi and Bluetooth.

Instead of calling and texting as you normally would over a cell tower, you can use any number of Wi-Fi messaging apps, including WhatsApp, FaceTime, Skype, Google Voice, or Facebook Messenger. By using these apps while connected to Wi-Fi in Airplane Mode, you can avoid paying expensive international calling. This option is free as long as the Wi-Fi is free.

You can also rent or buy a portable Wi-Fi device. About the size of a deck of cards, the device broadcasts a Wi-Fi signal so your phone can connect. Such devices can usually be rented at airports or from service providers.

What is an app?

The word "app" is an abbreviation for "application." It refers to a piece of software on a mobile device. Programs you can download onto your mobile devices, such as weather trackers, games, exercise logs, social media, and e-readers, are all apps.

To browse and download apps, go to the "store" on your phone: Apple's App Store on iPhones and the Google Play Store on Android phones. There are also third party platforms, such as the Amazon App Store.

Warning: An app may be free to download, but it may not be free to use, or at least free to use all of its features. The app stores may label such apps as "in-app purchases" in the price section.

These apps are sometimes called "freemium," where the user is encouraged to pay money for a membership after a trial period or to unlock extras or bonus content. These charges may be small, but they add up quickly on your bill.

How do you download an app?

On an iPhone:

Use the App Store to find, purchase, and download apps on your Apple device.

The App Store icon looks like this: 🙏

If you're in the App Store on your device and see the download button near an app, you've already bought or downloaded that app. If you tap or click the download button, the app downloads to your device again, but you are not charged again.

How to buy apps on your iPhone:

Tap the App Store app on your Home screen.

Browse or search for the app that you want to download, then tap the app.

Tap the price or tap "Get." You might need to sign in with your Apple ID, and if the app costs anything, the credit card associated with your Apple ID will be charged.

On an Android:

You can install apps, games, and digital content on your device from the Google Play Store:

1. Open the Google Play Store app or go to play.google. com.

2. Search for the app you want, select it.

3. Tap Install (for free items) or the item's price.

4. Follow the onscreen instructions to complete the transaction and get the content.

There is an app for probably anything you could want to do. Here are some examples of just a few categories:



For paid items, you can choose your payment method with the down arrow.

If it is your first time making a purchase, your payment method will be added to your Google Account.

Note: Some applications will not be available on all devices.

10 things your smartphone can do for you



Snap photos

Not all cellphone cameras were created equal—some have better quality/capabilities than others. If you're shopping for a phone, verify that the one you are selecting has the camera you're looking for.

Some local stores offer kiosks to print your pictures straight from your phone.

There also are websites such as Shutterfly, Nations Photo Lab, and Amazon Photo Lab that allow you to upload your photos from your phone and create prints, calendars, photo books, coffee mugs and such (at an additional cost).

With the correct photo paper, you can print out your photos at home. This may require you to download an additional app on your phone or program on your computer.

Make a video call

Video calling allows you to see who you are calling on live video. Depending on what phone you have, it may have a video calling app built in. If your phone doesn't already have that app or if you prefer to use another, you may download a video calling app such as Skype, WhatsApp, and Facebook Messenger. For most apps, there is no charge for video calling, but if you're using data to place or answer the call, that will come out of your data allowance.

For iPhone: FaceTime

With FaceTime, you can video call

Get a ride

Popular apps to order a ride or a taxi include Uber, Lyft, Via, and Curb.

There are also car-sharing apps like ZipCar and Getaround.



Navigate and book

Most cellphones have GPS (which stands for Global Positioning System, \bigcirc) capability and a "map app" built in, so downloading an alternative app is not necessary.

Airlines, hotels and third-party booking websites have apps to help you book, track your flight, check in, keep track of frequent flyer/stay member points, look up reservations and more.



any Apple device with a camera. Remember, you will need Wi-Fi or cellular data to use this app.

To make a FaceTime call, you will need the person's phone number or email address registered with Apple.

For Android: Google Duo 🗔

Google Duo allows you to make video calls to anyone in your contacts with the Google Duo app. All calls, including international ones, are made through your mobile data plan or a Wi-Fi connection. If you use your mobile data, charges may apply.



Play music

Your smartphone might have a music app pre-downloaded, or you may have to download an app such as Pandora, Spotify, or SoundCloud. (Some music apps are free, some require subscriptions, and some have both a free version and a paid version.)

Music apps typically allow you to search their library and download music to your phone to play at your convenience.

Music can be played directly on your phone without additional accessories, but most people like to purchase headphones, or an additional accessory, such as speakers, to play music. With Bluetooth (*) compatibility, some phones can also hook up to your TV to play music.



Scheduling at your fingertips

Many smartphones have a calendar to help track events. There are apps you can download, such as Any.do, Google Calendar, and Cozi, where you can set up alerts to help you remember important events.

Some phones allow you to create separate calendars, like a family calendar, friend calendar, or work calendar, and "share" them.



Make a to-do list

Most phones have a built-in notetaking app to keep shopping lists, reminders, and key notes for projects.

If your phone doesn't have a notetaking app built in, some apps to download are: Evernote, OneNote, DropBox Paper, Wunderlist, Microsoft To-Do, Google Tasks, and Remember the Milk.

	Φ :
GROCERY	
LIST	
🚯 🚯 🕲 🐵	
2 boxes of eggs	
Sweet potatos	
Garlic	
Butter	
fomato paste	
Apple cider vinegar	

Calculate Phones come with a builtin calculator (and flashlight and alarm clock).



Get food

There are apps for food delivery, catering, quick and easy pick up, and grocery shopping. Popular apps include GrubHub, DoorDash, Postmates, Ritual, Seamless, Starbucks, Dunkin' Donuts, Instacart, and Peapod.

Shop online

Shop major retail stores from your phone with their own dedicated apps, browse items from individual sellers through apps from eBay or Etsy, and search for coupons and deals using apps like Ibotta and RetailMeNot.





Saving on Cellphone Service

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Contact information for major cellphone companies

What's the difference between a mobile carrier and a mobile virtual network operator (MVNO)?

Mobile carriers, or mobile network operators

The Big Four—AT&T, Verizon, T-Mobile, Sprint—are companies that own and operate wireless infrastructure (cell towers) in the regions where they offer service.

AT&T Call for new service - 888.333.6651

Call for customer service - 800-331-0500

Online - www.att.com/support/contact-us/wireless

Verizon Call - 800-922-0204

Online - www.verizonwireless.com/support/contact-us/

T-Mobile Call - 800-937-8997

Online - www.t-mobile.com/contact-us

Sprint Call - 888-211-4727

Online - www.sprint.com/en/support.html

Mobile virtual network operators (MVNO)

MVNOs are wireless companies that use the towers of one of the Big Four carriers to provide service to their customers. MNVOs are typically cheaper than mobile carriers. Below are a few examples: Examples include:

Cricket Wireless Call - 800-274-2538

Online - www.cricketwireless.com/support

Metro by T-Mobile Call - 888-863-8768

Online - www.metrobyt-mobile.com/content/metro/en/mobile/metro/support/support.contact.contact.html

Straight Talk Wireless Call - 877-430-2355

Online - www.straighttalk.com/wps/portal/home/help

Virgin Mobile Call - 888-322-1122

Online - https://support.virginmobileusa.com

Xfinity Mobile Call - 888-936-4968

Online - https://www.xfinity.com/mobile/support

Appendix: Smartphone notifications

Please note that not all phones will necessarily use the same icons; this is a general guide to what you may see on your phone.

✦	Airplane mode is enabled. Enabling airplane mode prevents your phone from sending or receiving calls and text messages. It also disables data, Wi-Fi, Bluetooth, GPS and location-based services.
\cap	Headphones are plugged into your phone.
	Phone is currently connected to a mobile network. The more bars filled in, the stronger the signal.
	Alarm is set. This symbol means you have at least one alarm set on your phone. At the programmed time, the alarm will sound.
0 (Do Not Disturb mode is enabled. It prevents noti- fications, alerts and calls from making any noise, vibration or lighting up the phone screen when the screen is locked.
ı[]ı	Phone is set to vibrate instead of ring.



Appendix: How do I ... ?

These instructions may be slightly different depending on the phone model you have.

Turn Voice Input On/Off-Android

The voice input feature enables hands-free keyboard use by tapping the microphone located on the onscreen keyboard. (**Note:** On some devices, this feature cannot be turned off.)

Dictate text on iPhone

Need a quick way to write an email or text, or do an internet search on your phone? You can dictate the text on your phone.

1. Tap Settings 🛞

2. General.

3. Turn on Enable Dictation.

To dictate text:

Tap 🔳 on the onscreen keyboard, then speak.

When you finish, tap

While dictating text, say the punctuation or formatting.

For example, saying:

"Dear Mary COMMA the check is in the mail EXCLAMA-TION MARK"

appears on the screen as

Dear Mary, the check is in the mail!

Punctuation and formatting commands include:

"quote" and "end quote" to insert quote marks

"new paragraph" to start a new paragraph

"new line" to start a new line

"cap" to capitalize the next word

"caps on" and "caps off" to control capitalization

Find your phone's model and serial numbers

At some point, you may need to locate your phone's model or serial number. You can find the information on your phone easily by following a few steps.

On an iPhone:

On your phone, follow the path Settings > General > About.

At the top of the About page, you should find your phone's latest software version, the model name, model number, and the serial number.

If you scroll further down the About page, you should find information about your phone's storage space and how much space is available.

On an Android:

On your phone, follow the path Settings > System > About or About Phone.

Here, you should find the phone's software version and the model name or number. If you are looking for your phone's serial number, continue on the path from About Phone > Status. On the Status page, you should find the serial number.

NOTE: These paths may be slightly different depending on the phone model you have.

9:41		● ◆ II.
〈 General	About	
Name		John's iPhone >
Software Version		12.2
Model Name		iPhone XS
Model Number		NTAH2LL/A
Serial Number		X01X23Y4XYXY

🖬 🖪 45°	* 1	$\overline{\mathbb{O}}$	•	465	96%	10:12 AM
← Status						
Battery level 96%						
SIM status						
IMEI information						
IP address						
Wi-Fi MAC address						
Bluetooth address						
Device serial number	, 					
Up time 58:26:27						



Update your phone

Every so often, you may see a notification pop up on your phone that looks like this:



These notifications are alerting you of a software update.

Your phone's software is made up of the programs and operating information that tell your phone how to work, and a software update is a new, improved, or fixed software that replaces older versions of the same software. Updates are used to fix any software problems that were not detected before the product was released to the public, such as holes in the software's security.

If you don't allow software updates, your personal information may be compromised or your device will not run properly. Updates are provided by the software publisher free of charge.

If you see a software notification like this, you should "Install Now" or "Download." Some updates require your phone to be plugged in and connected to Wi-Fi to install, so if it's not convenient for you, select "later".

To go back and update later, follow these steps:

On an iPhone:

Follow the path Settings > General > Software Update. If you have an update, you will be able to select "Download and Install." Follow the remaining prompts to successfully update.

On an Android:

Follow the path Settings > About Phone. Then, select "Check for Updates." If an update is available, an "Update" button will appear. Tap it. Select "Install." Your phone will reboot and update.

Note: Updating may take time to download and then install. Depending on several factors, including the size of the update and the strength of your Wi-Fi connection, an update can take anywhere from under 10 minutes to over an hour to complete.

Appendix: Sources

You can find links to all sources CUB used to write this blog on our website at https://www.citizensutilityboard.org/ blog/2019/11/21/cellphone-guide-sources/.