

FOR RELEASE SEPTEMBER 1, 2021

# The Internet and the Pandemic

*90% of Americans say the internet has been essential or important to them, many made video calls and 40% used technology in new ways. But while tech was a lifeline for some, others faced struggles*

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**RECOMMENDED CITATION**

Pew Research Center, September 2021, "The Internet and the Pandemic"

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## How we did this

Pew Research Center has a long history of studying technology adoption trends and the impact of digital technology on society. This report focuses on American adults' experiences with and attitudes about their internet and technology use during the COVID-19 outbreak. For this analysis, we surveyed 4,623 U.S. adults from April 12-18, 2021. Everyone who took part is a member of the Center's American Trends Panel (ATP), an online survey panel that is recruited through national, random sampling of residential addresses. This way nearly all U.S. adults have a chance of selection. The survey is weighted to be representative of the U.S. adult population by gender, race, ethnicity, partisan affiliation, education and other categories. Read more about the [ATP's methodology](#).

Chapter 1 of this report includes responses to an open-ended question and the overall report includes a number of quotations to help illustrate themes and add nuance to the survey findings. Quotations may have been lightly edited for grammar, spelling and clarity. The first three themes mentioned in each open-ended response, according to a researcher-developed codebook, were coded into categories for analysis.

Here are the [questions used](#) for this report, along with responses, and its [methodology](#).

# The Internet and the Pandemic

*90% of Americans say the internet has been essential or important to them, many made video calls and 40% used technology in new ways. But while tech was a lifeline for some, others faced struggles*




The [coronavirus](#) has transformed many aspects of Americans' lives. It [shut down](#) schools, businesses and workplaces and forced millions to [stay at home](#) for extended lengths of time. Public health authorities recommended [limits on social contact](#) to try to contain the spread of the virus, and these profoundly altered the way many worked, learned, connected with loved ones, carried out basic daily tasks, celebrated and mourned. For some, technology played a role in this transformation.

Results from a new Pew Research Center survey of U.S. adults conducted April 12-18, 2021, reveal the extent to which people's use of the internet has changed, their views about how helpful technology has been for them and the struggles some have faced.

The vast majority of adults (90%) say the internet has been at least important to them personally during the pandemic, the survey finds. The share who say it has been *essential* – 58% – is up slightly from 53% in April 2020. There have also been upticks in the shares who say the internet has been essential in the past year among those with a bachelor's degree or more formal education, adults under 30, and those 65 and older.


## Technology has been a lifeline for some during the coronavirus outbreak ...

% of U.S. adults who ...


- 90%** say the internet has been **essential** or **important** for them personally during the coronavirus outbreak 
- 81%** say they have **ever\*** talked with others via video calls since the beginning of the coronavirus outbreak in February 2020 
- 40%** say they used digital technology or the internet in any new or different ways compared with before the beginning of the outbreak 

## ... but some have struggled, too


Among the 81% of U.S. adults who have talked with others via video calls since the beginning of the coronavirus outbreak, % who ...

- 40%** say they **often** or **sometimes** feel worn out or fatigued from spending time on video calls 

% of U.S. adults who ...

- 33%** say they have tried to cut back on the amount of time they spend on the internet or their smartphone at some point during the pandemic 

% of U.S. home broadband users who ...

- 26%** say they are worried **a lot** or **some** about paying for their high-speed internet connection at home over the next few months 

\*"Ever" talked with others via video calls includes those who say they did so several times a day, about once a day, a few times a week, about once a week, every few weeks, or less often. Note: Those who did not give an answer or who gave other responses are not shown. Source: Survey of U.S. adults conducted April 12-18, 2021. "The Internet and the Pandemic"

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A large majority of Americans (81%) also say they talked with others via video calls at some point since the pandemic's onset. And for 40% of Americans, digital tools have taken on new relevance: They report they used technology or the internet in ways that were new or different to them. Some also sought upgrades to their service as the pandemic unfolded: 29% of broadband users did something to improve the speed, reliability or quality of their high-speed internet connection at home since the beginning of the outbreak.

Still, tech use has not been an unmitigated boon for everyone. “[Zoom fatigue](#)” was widely speculated to be a problem in the pandemic, and some Americans report related experiences in the new survey: 40% of those who have ever talked with others via video calls since the beginning of the pandemic say they have felt worn out or fatigued often or sometimes by the time they spend on them. Moreover, [changes in screen time](#) occurred for [Americans generally](#) and for [parents of young children](#). The survey finds that a third of all adults say they tried to cut back on time spent on their smartphone or the internet at some point during the pandemic. In addition, 72% of parents of children in grades K-12 say their kids are spending more time on screens compared with before the outbreak.<sup>1</sup>

For many, digital interactions could only do so much as a stand-in for in-person communication. About two-thirds of Americans (68%) say the interactions they would have had in person, but instead had online or over the phone, have generally been useful – but not a replacement for in-person contact. Another 15% say these tools haven't been of much use in their interactions. Still, 17% report that these digital interactions have been just as good as in-person contact.

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<sup>1</sup> Throughout this report, “parents” refers to those who said they were the parent or guardian of any children who were enrolled in elementary, middle or high school and who lived in their household at the time of the survey.

Some types of technology have been more helpful than others for Americans. For example, 44% say text messages or group messaging apps have helped them a lot to stay connected with family and friends, 38% say the same about voice calls and 30% say this about video calls. Smaller shares say social media sites (20%) and email (19%) have helped them in this way.

The survey offers a snapshot of Americans' lives just over one year into the pandemic as they reflected back on what had happened. It is important to note the findings were gathered in April 2021, just before [all U.S. adults became eligible for coronavirus vaccines](#). At the time, some states were [beginning to loosen restrictions](#) on businesses and social encounters. This survey also was fielded before the delta variant [became prominent](#) in the United States, [raising concerns](#) about new and [evolving variants](#).

Here are some of the key takeaways from the survey.

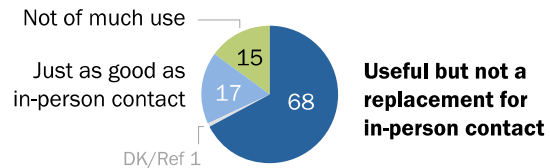
## Americans' tech experiences in the pandemic are linked to digital divides, tech readiness

Some Americans' experiences with technology haven't been smooth or easy during the pandemic. The digital divides related to [internet use](#) and [affordability](#) were highlighted by the pandemic and also emerged in new ways as life moved online.

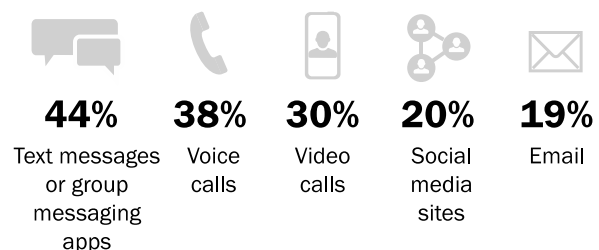
For all Americans relying on screens during the pandemic, [connection quality](#) has been important for school assignments, meetings and virtual social encounters alike. The new survey highlights difficulties for some: Roughly half of those who have a high-speed internet connection at home

## About two-thirds say digital interactions have been useful, but not a replacement for in-person contact

*% of U.S. adults who, when asked about the limits on social contact recommended during the coronavirus outbreak, say that the everyday interactions they normally would have had in person but instead had online or by telephone, have generally been ...*



*% of U.S. adults who say that, since the beginning of the coronavirus outbreak in February 2020, each of the following has helped them, personally, a lot to stay connected with their family and friends*



Note: Those who did not give an answer or who gave other responses are not shown.

Source: Survey of U.S. adults conducted April 12-18, 2021. "The Internet and the Pandemic"

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(48%) say they have problems with the speed, reliability or quality of their home connection often or sometimes.<sup>2</sup>

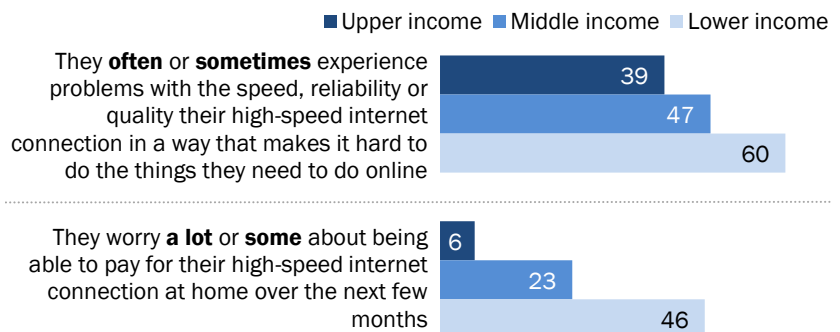
Beyond that, affordability **remained a persistent concern** for a portion of digital tech users as the pandemic continued – about a quarter of home broadband users (26%) and smartphone owners (24%) said in the April 2021 survey that they worried a lot or some about paying their internet and cellphone bills over the next few months.

From parents of children facing the “**homework gap**” to Americans struggling to **afford home internet**, those with lower incomes have been particularly likely to struggle. At the same time, some of those with higher incomes have been affected as well.

Affordability and connection problems have hit broadband users with lower incomes especially hard. Nearly half of broadband users with lower incomes, and about a quarter of those with midrange incomes, say that as of April they were at least somewhat worried about paying their internet bill over the next few months.<sup>3</sup> And home broadband users with lower incomes are roughly 20 points more likely to say they often or sometimes experience problems with their connection than those with relatively high incomes. Still, 55% of those with lower incomes say the internet has been essential to them personally in the pandemic.

### 60% of broadband users with lower incomes often or sometimes have connection problems, and 46% are worried at least some about paying for broadband

% of U.S. home broadband users who say ...



Note: Income tiers are based on adjusted 2019 earnings. Those who did not give an answer or who gave other responses are not shown.

Source: Survey of U.S. adults conducted April 12-18, 2021. “The Internet and the Pandemic”

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<sup>2</sup> People with a high-speed internet connection at home also are referred to as “home broadband users” or “broadband users” throughout this report.

<sup>3</sup> Family incomes are based on 2019 earnings and adjusted for differences in purchasing power by geographic region and for household sizes. Middle income is defined here as two-thirds to double the median annual family income for all panelists on the American Trends Panel. Lower income falls below that range; upper income falls above it.

At the same time, Americans' levels of formal education are associated with their experiences turning to tech during the pandemic.

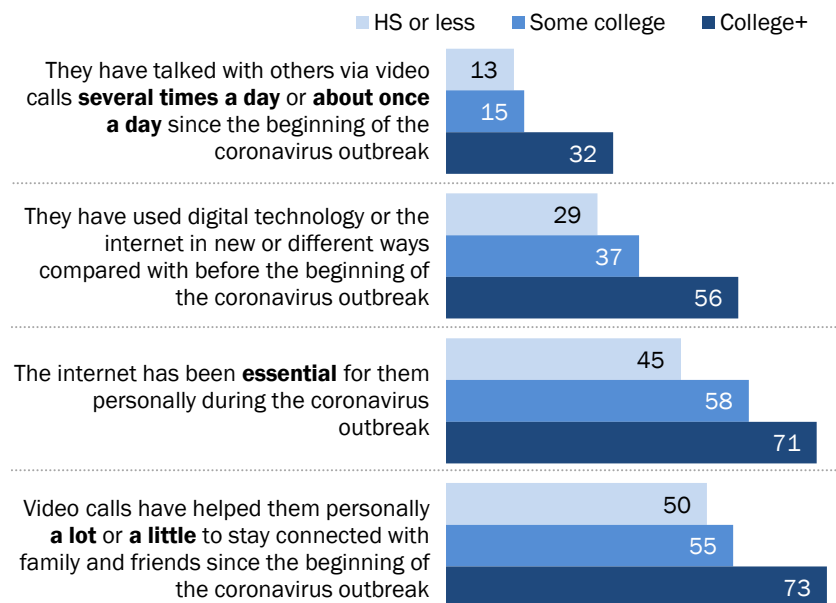
Those with a bachelor's or advanced degree are about twice as likely as those with a high school diploma or less formal education to have used tech in new or different ways during the pandemic. There is also roughly a 20 percentage point gap between these two groups in the shares who have made video calls about once a day or more often and who say these calls have helped at least a little to stay connected with family and friends. And 71% of those with a bachelor's degree or more education say the internet has been essential, compared with 45% of those with a high school diploma or less.

More broadly, not all Americans believe they have key tech skills.

In this survey, about a quarter of adults (26%) say they usually need someone else's help to set up or show them how to use a new computer, smartphone or other electronic device. And one-in-ten report they have little to no confidence in their ability to use these types of devices to do the things they need to do online. This report refers to those who say they experience either or both of these issues as having "lower tech readiness." Some 30% of adults fall in this category. (A full description of how this group was identified can be found in [Chapter 3](#).)

### Adults with a bachelor's, advanced degree more likely than others to make daily video calls, use tech in new ways, consider internet essential amid COVID-19

% of U.S. adults who say ...



Note: Those who did not give an answer or who gave other responses are not shown.

Source: Survey of U.S. adults conducted April 12-18, 2021.

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These struggles are particularly acute for older adults, some of whom have had to [learn new tech skills](#) over the course of the pandemic. Roughly two-thirds of adults 75 and older fall into the group having lower tech readiness – that is, they either have little or no confidence in their ability to use their devices, or generally need help setting up and learning how to use new devices. Some 54% of Americans ages 65 to 74 are also in this group.

Americans with lower tech readiness have had different experiences with technology during the pandemic. While 82% of the Americans with lower tech readiness say the internet has been at least important to them personally during the pandemic, they are less likely than those with higher tech readiness to say the internet has been essential (39% vs. 66%). Some 21% of those with lower tech readiness say digital interactions haven't been of much use in standing in for in-person contact, compared with 12% of those with higher tech readiness.

### 46% of parents with lower incomes whose children faced school closures say their children had at least one problem related to the 'homework gap'

As school moved online for many families, parents and their children experienced profound changes. Fully 93% of parents with K-12 children at home say these children had some online instruction during the pandemic. Among these parents, 62% report that online learning has gone very or somewhat well, and 70% say it has been very or somewhat easy for them to help their children use technology for online instruction. Still, 30% of the parents whose children have had online instruction during the pandemic say it has been very or somewhat difficult for them to help their children use technology or the internet for this.

### 'Tech readiness,' which is tied to people's confident and independent use of devices, varies by age

% of U.S. adults who ...

**26%**

say they **usually need someone else** to set up a new computer, smartphone or other electronic device for them or show them how to use it

**10%**

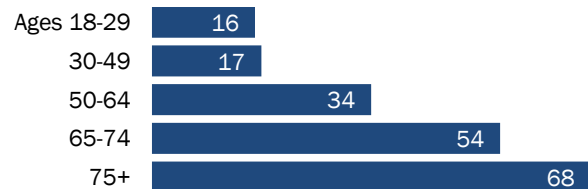
say they are **not at all** or **only a little confident** using computers, smartphones or other electronic devices to do things they need to do online

**30%**

say one (25%) or both (5%) of these things

These adults are considered to have "lower tech readiness"

% of U.S. adults who have "lower tech readiness"



\*Those with lower tech readiness say they are either not at all or only a little confident using their computers, smartphones or other electronic devices to do the things they need to do online, or they usually need someone else to set up or show them how to use a new computer, smartphone or other electronic device when they get it. Note: Those who did not give an answer or who gave other responses are not shown.

Source: Survey of U.S. adults conducted April 12-18, 2021. "The Internet and the Pandemic"

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The survey also shows that children from households with lower incomes who faced school closures in the pandemic have been especially likely to encounter tech-related obstacles in completing their schoolwork – a phenomenon contributing to the “[homework gap](#).”

Overall, about a third (34%) of all parents whose children’s schools closed at some point say their children have encountered at least one of the tech-related issues we asked about amid COVID-19: having to do schoolwork on a cellphone, being unable to complete schoolwork because of lack of computer access at home, or having to use public Wi-Fi to finish schoolwork because there was no reliable connection at home.

This share is higher among parents with lower incomes whose children’s schools closed. Nearly half (46%) say their children have faced at least one of these issues. Some with higher incomes were affected as well – about three-in-ten (31%) of these parents with midrange incomes say their children faced one or more of these issues, as do about one-in-five of these parents with higher household incomes.

## Remote learning has been widespread during the pandemic, but children from lower-income households have been particularly likely to face ‘homework gap’

Among parents with children in grades K-12 ...

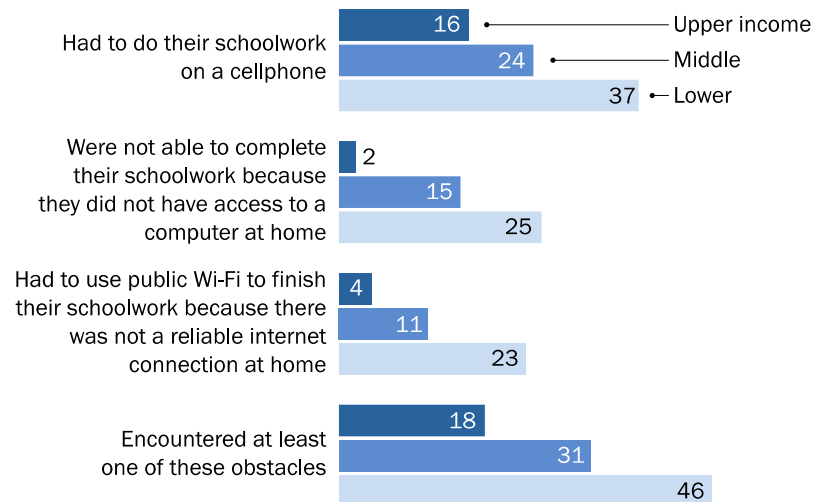
**93%** say their children have had some online instruction since the beginning of the coronavirus outbreak in February 2020

OF THOSE  
93% OF  
PARENTS

**30%**

say it has been **very** or **somewhat difficult** for them to help their children use technology and the internet for online instruction

Among parents with children whose K-12 schools were closed at some point due to the coronavirus outbreak, % who say that, since the beginning of the outbreak in February 2020, their children ever ...



Note: “Parents with children in grades K-12” refers to those who said they were the parent or guardian of any children who were enrolled in elementary, middle or high school and who lived in their household. “Some online instruction” refers to children having had any online instruction – whether this was fully online or a mix of online and in-person – since the beginning of the coronavirus outbreak in February 2020. “Parents with children whose K-12 schools were closed” refers to those who said that their children’s schools closed due to the coronavirus outbreak at any point since the beginning of the outbreak in February 2020. Family income tiers are based on adjusted 2019 earnings. Those who did not give an answer or who gave other responses are not shown.

Source: Survey of U.S. adults conducted April 12-18, 2021.

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Prior Center work has documented this “[homework gap](#)” in other contexts – both [before the coronavirus outbreak](#) and [near the beginning of the pandemic](#). In April 2020, for example, parents with lower incomes were particularly likely to think their children would face these struggles amid the outbreak.

Besides issues related to remote schooling, other changes were afoot in families as the pandemic forced many families to shelter in place. For instance, parents’ estimates of their children’s screen time – and family rules around this – changed in some homes. About seven-in-ten parents with children in kindergarten through 12th grade (72%) say their children were spending more time on screens as of the April survey compared with before the outbreak. Some 39% of parents with school-age children say they have become less strict about screen time rules during the outbreak. About one-in-five (18%) say they have become more strict, while 43% have kept screen time rules about the same.

## More adults now favor the idea that schools should provide digital technology to all students during the pandemic than did in April 2020

Americans’ tech struggles related to digital divides gained attention from [policymakers](#) and [news organizations](#) as the pandemic progressed.

On some policy issues, public attitudes changed over the course of the outbreak – for example, views on what K-12 schools should provide to students shifted. Some 49% now say K-12 schools have a responsibility to provide all students with laptop or tablet computers in order to help them complete their schoolwork during the pandemic, up 12 percentage points from a year ago.

The shares of those who say so have increased for both major political parties over the past year: This view shifted 15 points for Republicans and those who lean toward the GOP, and there was a 9-point increase for Democrats and Democratic leaners.

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## More parents say their screen time rules have become less strict under pandemic than say they’ve become more strict

Among parents with children in grades K-12, % who ...



**72%**

say their children are spending **more time** in front of screens compared with before the beginning of the coronavirus outbreak

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Among parents with children in grades K-12, % who say the following about their rules for the amount of time they allow their children to be in front of screens, *ASIDE* from time they might spend on schoolwork, compared with before the beginning of the coronavirus outbreak

**39%**

say their rules have become **less strict**

**18%**

say their rules have become **more strict**

**43%**

say their rules have stayed **about the same**

Note: “Parents with children in grades K-12” refers to those who said they were the parent or guardian of any children who were enrolled in elementary, middle or high school and who lived in their household. Those who did not give an answer or who gave other responses are not shown.

Source: Survey of U.S. adults conducted April 12-18, 2021. “The Internet and the Pandemic”

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However, when it comes to views of policy solutions for internet access more generally, not much has changed. Some 37% of Americans say that the government has a responsibility to ensure all Americans have high-speed internet access during the outbreak, and the overall share is unchanged from April 2020 – the first time Americans were asked this specific question about the government’s pandemic responsibility to provide internet access.<sup>4</sup>

Democrats are more likely than Republicans to say the government has this responsibility, and within the Republican Party, those with lower incomes are more likely to say this than their counterparts earning more money.

## Video calls and conferencing have been part of everyday life

Americans’ own words provide insight into exactly how their lives changed amid COVID-19. When asked to describe the new or different ways they had used technology, some Americans mention video calls and conferencing facilitating a variety of virtual interactions – including attending events like weddings, family holidays and funerals or transforming where and how they worked.<sup>5</sup> From family calls, shopping for groceries and placing takeout orders online to having telehealth visits with medical professionals or participating in online learning activities, some aspects of life have been virtually transformed:

## Growing shares across political parties say K-12 schools should give all students computers amid COVID-19

% of U.S. adults who ...

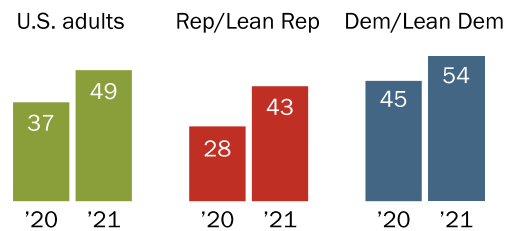
**49%** say that K-12 schools have a responsibility to provide all students with laptop or tablet computers in order to help them complete their schoolwork during the coronavirus outbreak



**37%** say they have this responsibility, but only for students whose families cannot afford it

**13%** say they do not have this responsibility

*% of U.S. adults who say that K-12 schools **have a responsibility to provide all students** with laptop or tablet computers to help them complete their schoolwork during the coronavirus outbreak*



Note: Those who did not give an answer or who gave other responses are not shown.

Source: Survey of U.S. adults conducted April 12-18, 2021. “The Internet and the Pandemic”

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<sup>4</sup> A separate [Center study](#) also fielded in April 2021 asked Americans what the government is responsible for on a number of topics, but did not mention the coronavirus outbreak. Some 43% of Americans said in that survey that the federal government has a responsibility to provide high-speed internet for all Americans. This was a significant increase from 2019, the last time the Center had asked that more general question, when 28% said the same.

<sup>5</sup> Quotations in this report may have been lightly edited for grammar, spelling and clarity.

*“I’ve gone from not even knowing remote programs like Zoom even existed, to using them nearly every day.” – Man, 54*

*“[I’ve been] handling ... deaths of family and friends remotely, attending and sharing classical music concerts and recitals with other professionals, viewing [my] own church services and Bible classes, shopping. ... Basically, [the internet has been] a lifeline.”  
– Woman, 69*

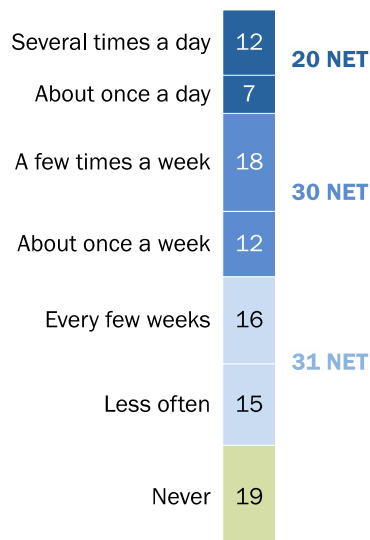
*“I ... use Zoom for church youth activities. [I] use Zoom for meetings. I order groceries and takeout food online. We arranged for a ‘digital reception’ for my daughter’s wedding as well as live streaming the event.” – Woman, 44*

When asked about video calls specifically, half of Americans report they have talked with others in this way at least once a week since the beginning of the outbreak; one-in-five have used these platforms daily. But how often people have experienced this type of digital connectedness varies by age. For example, about a quarter of adults ages 18 to 49 (27%) say they have connected with others on video calls about once a day or more often, compared with 16% of those 50 to 64 and just 7% of those 65 and older.

Even as video technology became a part of life for users, many [accounts of burnout](#) surfaced and some speculated that “Zoom fatigue” was setting in as Americans grew weary of this type of screen time. The survey finds that some 40% of those who participated in video calls since the beginning of the pandemic – a third of all Americans – say they feel worn out or fatigued

### Among those who have used video calls during the outbreak, 40% feel fatigued or worn out at least sometimes from time spent on these calls

% of U.S. adults who say they have talked with others via video calls \_\_\_ since the beginning of the coronavirus outbreak in February 2020



Among the **81%** who say they have **ever** talked with others via video calls since the beginning of the outbreak:

**13%** say they **often** feel worn out or fatigued from spending time on video calls

**27%** say they **sometimes** feel this way

Note: Figures may not add to subtotals due to rounding. Those who did not give an answer or who gave other responses are not shown.

Source: Survey of U.S. adults conducted April 12-18, 2021.

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often or sometimes from the time they spend on video calls. About three-quarters of those who have been on these calls several times a day in the pandemic say this.

Fatigue is not limited to frequent users, however: For example, about a third (34%) of those who have made video calls about once a week say they feel worn out at least sometimes.

These are among the main findings from the survey. Other key results include:

**Some Americans' personal lives and social relationships have changed during the pandemic:** Some 36% of Americans say their own personal lives changed in a major way as a result of the coronavirus outbreak. Another 47% say their personal lives changed, but only a little bit. About half (52%) of those who say major change has occurred in their personal lives due to the pandemic also say they have used tech in new ways, compared with about four-in-ten (38%) of those whose personal lives changed a little bit and roughly one-in-five (19%) of those who say their personal lives stayed about the same.

Even as tech helped some to stay connected, a quarter of Americans say they feel less close to close family members now compared with before the pandemic, and about four-in-ten (38%) say the same about friends they know well. Roughly half (53%) say this about casual acquaintances.

**The majority of those who tried to sign up for vaccine appointments in the first part of the year went online to do so:** Despite early problems with [vaccine rollout](#) and [online registration systems](#), in the April survey tech problems did *not* appear to be major struggles for most adults who had tried to sign up online for COVID-19 vaccines. The survey explored Americans' experiences getting these vaccine appointments and reveals that in April 57% of adults had tried to sign themselves up and 25% had tried to sign someone else up. Fully 78% of those who tried to sign themselves up and 87% of those who tried to sign others up were online registrants.

When it comes to difficulties with the online vaccine signup process, 29% of those who had tried to sign up online – 13% of all Americans – say it was very or somewhat difficult to sign themselves up for vaccines at that time. Among five reasons for this that the survey asked about, the most common *major* reason was lack of available appointments, rather than tech-related problems. Adults 65 and older who tried to sign themselves up for the vaccine online were the most likely age group to experience at least some difficulty when they tried to get a vaccine appointment.

**Tech struggles and usefulness alike vary by race and ethnicity.** Americans' experiences also have varied across racial and ethnic groups. For example, Black Americans are more likely

than White or Hispanic adults to meet the criteria for having “lower tech readiness.”<sup>6</sup> Among broadband users, Black and Hispanic adults were also more likely than White adults to be worried about paying their bills for their high-speed internet access at home as of April, though the share of Hispanic Americans who say this declined sharply since April 2020. And a majority of Black and Hispanic broadband users say they at least sometimes have experienced problems with their internet connection.

Still, Black adults and Hispanic adults are more likely than White adults to say various technologies – text messages, voice calls, video calls, social media sites and email – have helped them a lot to stay connected with family and friends amid the pandemic.

**Tech has helped some adults under 30 to connect with friends, but tech fatigue also set in for some.** Only about one-in-five adults ages 18 to 29 say they feel closer to friends they know well compared with before the pandemic. This share is twice as high as that among adults 50 and older. Adults under 30 are also more likely than any other age group to say social media sites have helped a lot in staying connected with family and friends (30% say so), and about four-in-ten of those ages 18 to 29 say this about video calls.

Screen time affected some negatively, however. About six-in-ten adults under 30 (57%) who have ever made video calls in the pandemic say they at least sometimes feel worn out or fatigued from spending time on video calls, and about half (49%) of young adults say they have tried to cut back on time spent on the internet or their smartphone.

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<sup>6</sup> There were not enough Asian American respondents in the sample to be broken out into a separate analysis. As always, their responses are incorporated into the general population figures throughout this report.

## 1. How the internet and technology shaped Americans' personal experiences amid COVID-19

As the pandemic unfolded in spring 2020, many Americans saw their lives swiftly reshaped by [stay-at-home orders](#), [school closures](#) and the onset of [remote work](#). From video calls with [isolating or sick family members](#) to [holiday celebrations by video call](#) amid [canceled travel plans](#), social distancing recommendations altered major life events and elements of daily life alike.

Technology bridged physical distance as restrictions continued. [Religious services](#), [doctor appointments](#) and [essential errands](#) moved online. At the same time, organizations implementing remote work and Americans spending more time online worried about “[Zoom fatigue](#)” and tech burnout.

Relationships also evolved during this uprooting of typical routines. Pandemic “pods” helped some Americans [maintain connection](#), but they [complicated relationships](#) and family dynamics at the same time. In some cases, friendships [relied on technology](#) to stay afloat. And others needed to find new ways to connect amid [growing isolation](#).

With this broader societal context in mind, this chapter explores the ways in which Americans' lives changed in the pandemic – and the ways that technology was a part of several transitions. Results from the April 2021 Pew Research Center survey show that even as a majority of Americans considered the internet essential to them personally during the pandemic and four-in-ten used tech in new ways, some feel worn out or fatigued from video calls and a quarter feel less close to close family members than before the coronavirus outbreak. The following sections explore these findings.

### **58% of adults say the internet has been essential during the pandemic, and for some groups, its importance grew over the past year**

The share of Americans who describe the internet as essential for them during the pandemic has risen slightly over the past year. As of April 2021, 58% of U.S. adults say this, [compared with 53%](#) in an April 2020 Center survey.

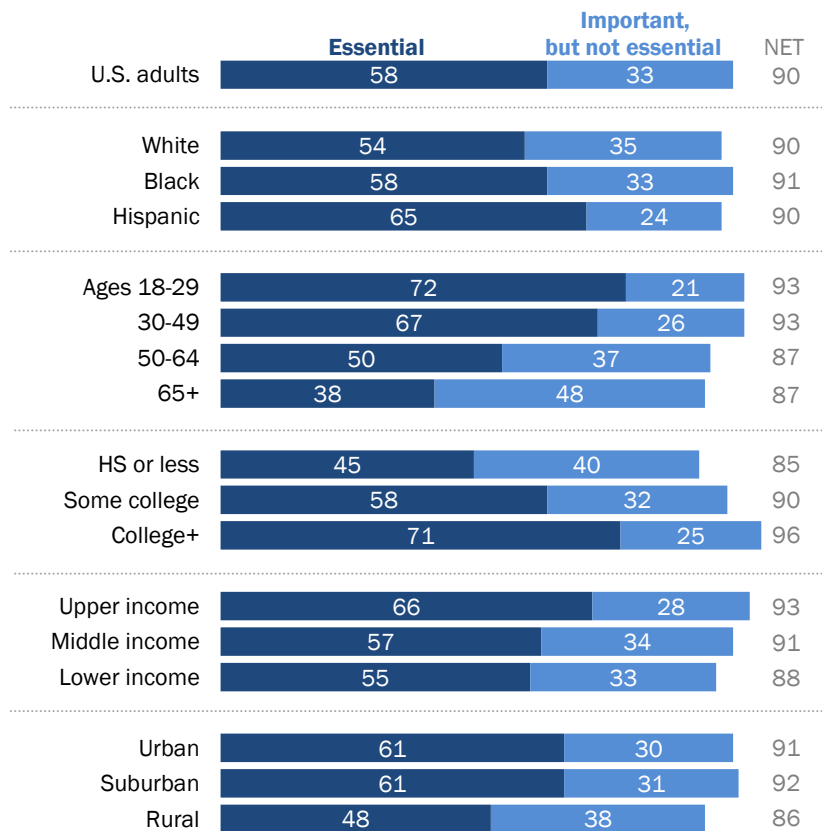


Americans varied in their reliance on the internet and some of the key differences relate to age, race and ethnicity, educational attainment, income and community type. For example, roughly seven-in-ten adults ages 18 to 49 (69%) say the internet has been essential to them personally, compared with half of those ages 50 to 64 and about four-in-ten Americans 65 and older.

Additionally, about six-in-ten of those living in urban or suburban areas (61% each) say the internet has been essential to them, compared with a smaller share of those living in rural locales (48%) who say the same. While at least half of adults across major racial and ethnic groups say this connectivity has been essential, Hispanic adults (65%) are more likely to say so than White adults (54%). Some 58% of Black Americans say the internet has been essential in this way.

### As of April 2021, nine-in-ten Americans say the internet has been essential or important to them personally during the coronavirus outbreak

*% of U.S. adults who say the internet has been \_\_\_ for them personally during the coronavirus outbreak*



Note: Figures may not add to subtotals due to rounding. Family income tiers are based on adjusted 2019 earnings. White and Black adults include those who report being only one race and are not Hispanic. Hispanics are of any race. Those who did not give an answer or who gave other responses are not shown.

Source: Survey of U.S. adults conducted April 12-18, 2021.

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Several of the groups that are less likely to say the internet has been essential also have lower rates of home broadband adoption and smartphone access, according to [other Center research](#). For example, [digital divides have persisted](#) in recent years even as Americans with lower incomes have made gains in tech adoption. And as of 2021, a quarter of U.S. adults 65 and older [say they do not use the internet](#).

For some groups, the importance of the internet has grown over the past year – especially when it comes to age and educational attainment. The share of adults ages 18 to 29 who say it has been essential during the pandemic rose 10 percentage points between April 2020 and April 2021. Similarly, roughly four-in-ten adults 65 and older (38%) now say the internet has been essential to them, compared with about three-in-ten who said so in April 2020.

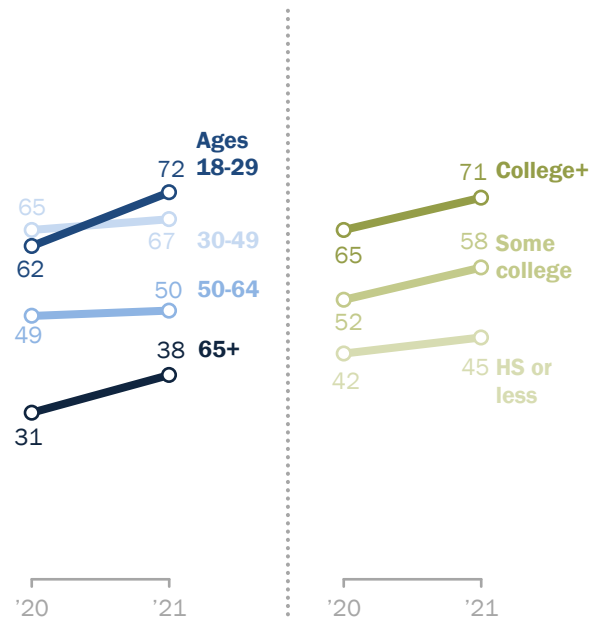
Americans with higher levels of educational attainment are more likely today than a year ago to say the internet has been essential to them during the pandemic. For example, 71% of those with a bachelor’s or advanced degree say this, up from 65% in 2020. This uptick also appears for those with some college experience, while sentiments among those with a high school education or less have remained stable.

Looking at older Americans specifically, adults ages 65 and older with a bachelor’s degree or more education are more likely now to say the internet has been essential to them personally (50% say so) compared with a year ago (39%) – an 11 percentage point increase. By contrast, among those 65 and older who have less education, the shares saying it has been essential are similar between the two time points (27% in 2020 and 32% in 2021).

Adults ages 50 to 64 with a bachelor’s or advanced degree are also more likely now to say the internet has been personally essential (a 7-point increase since 2020), while there has been no change for those in that age group with less formal education.

## Uptick in shares of adults ages 18 to 29, 65 and older who say the internet has been essential amid COVID-19

% of U.S. adults who say the internet has been *essential* for them personally during the coronavirus outbreak



Note: Those who did not give an answer or who gave other responses are not shown.

Source: Survey of U.S. adults conducted April 12-18, 2021. "The Internet and the Pandemic"

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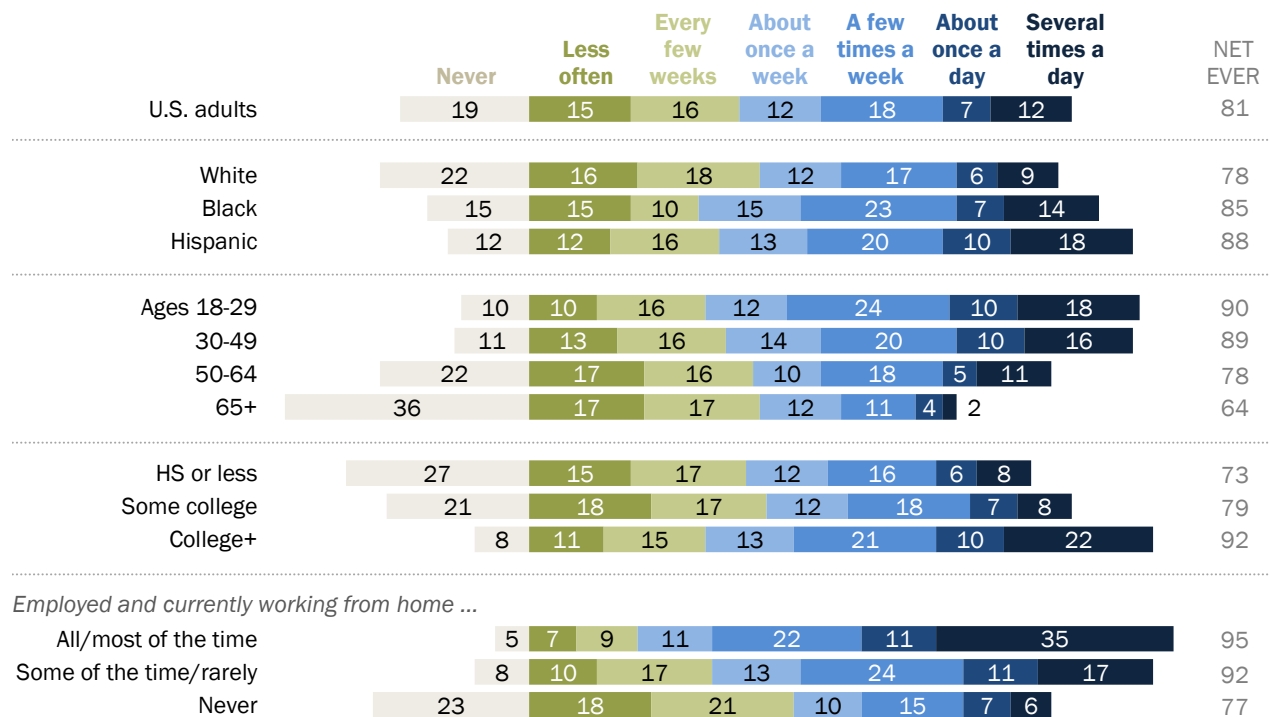
## 81% of Americans have used video calling and conferencing during the pandemic

As Americans increasingly lived their lives from home, video calling and conferencing platforms became a venue for everything from [celebrating holidays with family and friends](#) to conducting remote meetings or [visiting doctors](#).

Roughly eight-in-ten Americans (81%) say they have talked with others via video calls since the beginning of the pandemic. One-in-five have done so about once a day or more often, including 12% who say they are on video calls several times a day. Another three-in-ten have done this about once a week (12%) or a few times a week (18%), and a similar share use video calls every few weeks (16%) or less often (15%).

### 81% of Americans have ever talked with others via video calls during the pandemic

*% of U.S. adults who say they have talked with others via video calls \_\_\_ since the beginning of the coronavirus outbreak in February 2020*



Note: "Employed" refers to those who say they are currently employed full or part time. Figures may not add to subtotals due to rounding. White and Black adults include those who report being only one race and are not Hispanic. Hispanics are of any race. Those who did not give an answer are not shown.

Source: Survey of U.S. adults conducted April 12-18, 2021.

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While there are [many ways](#) people can spend their time on video calls, the survey finds that working from home is particularly associated with this type of screen time.

In this survey, 17% of Americans say they were employed full or part time and working from home all or most of the time as of April.<sup>7</sup> Among them, 46% say they have used video calling about daily or several times a day during the pandemic. Another 12% of the full adult population was employed full or part time and working from home some of the time or rarely at the time of the survey. Among that group, 28% say they have used video calling about daily or more. And among the 28% of U.S. adults who were working but never from home, 13% say they are on daily or more frequent video calls.

Aside from work-from-home status, how often people use video calls varies by several other demographics. Black and Hispanic adults are more likely to have used video calling than White adults. Hispanic adults are more likely than White Americans to have done so several times a day or about daily. Meanwhile, while about two-thirds of adults 65 and older have made video calls in the pandemic, *daily* use is more common among younger adults. About a quarter of those 18 to 29 (28%) and 30 to 49 (26%) say they have done this about daily or more often, compared with 16% of those 50 to 64 and 7% of adults 65 and older.

Frequency of video calling varies by education as well. About a third of adults with at least a bachelor's degree say they have done this at least once a day, compared with smaller shares of those with less formal education.

## **In their own words, Americans describe how they have used technology or the internet in new or different ways during the pandemic**

As the severity of the pandemic grew, some Americans were faced with performing everything from their social interactions to their work or schooling online. Four-in-ten Americans say they used digital technology or the internet in new or different ways compared with before the outbreak began. Still, an even larger share – 59% – say their tech use has not changed in this way.

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<sup>7</sup> In October 2020, a [separate Center study](#) also asked about work and video calling. The estimates in this report should not be interpreted as changing over time due to the different sets of individuals asked the question in the two surveys and because the questions in each survey had different wording.

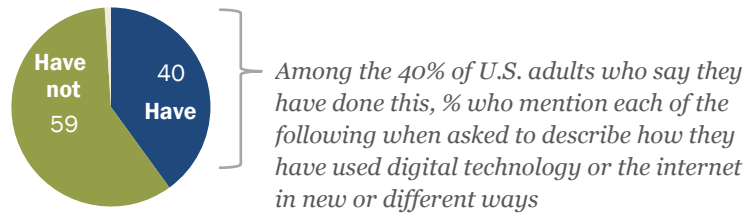
As is the case with [digital divides in internet use](#) and [tech adoption](#) in general, those with more formal education and higher incomes are more likely to have had new or different experiences with tech in the pandemic. For example, 56% of those with at least a bachelor’s degree say they have used technology in ways new or different to them, compared with 37% of those with some college experience and 29% of those with a high school diploma or less. Similarly, 46% of those with higher household incomes say so, compared with a smaller share of those with lower (38%) or middle incomes (40%).

Women are also more likely than men to say they have used digital technology or the internet in new and different ways (43% vs. 36%), as are adults under 50 (46%) compared with those who are 50 and older (33%).

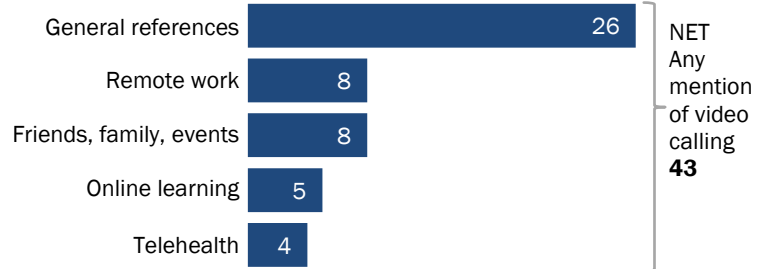
When asked to describe what these new and different ways are, 43% mention encountering at least one form of video calls or conferences new to them in the pandemic. From weddings

### When asked to describe in their own words how they’ve used technology in new or different ways, about four-in-ten mention video calls

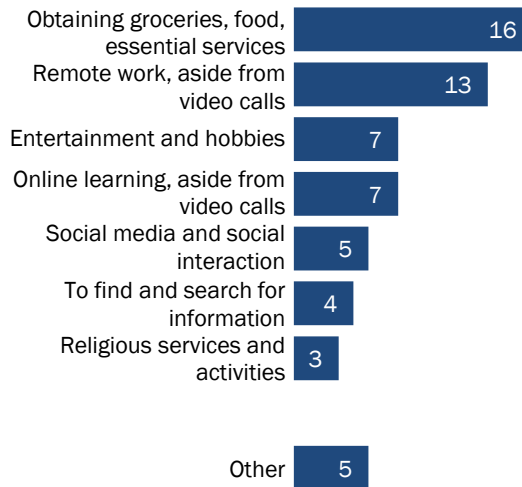
*% of U.S. adults who say that, compared with before the beginning of the coronavirus outbreak in February 2020, they \_\_\_ used digital technology or the internet in any new or different ways*



*% who mention **video calling** in the context of:*



*% who mention:*



Note: Open-ended responses have been coded into categories. Figures may add up to more than 100% and may not add to subtotals because multiple responses were allowed. The 18% who were shown the open-ended question but did not give an answer are not shown. Source: Survey of U.S. adults conducted April 12-18, 2021. “The Internet and the Pandemic”

to funerals, church meetings to calls with family, some of these adults report their lives moved largely onto video platforms:

*“We now hold bi-weekly family meetings on Zoom to make sure we are all doing okay. Before we just had individual phone calls with family members. We used Vimeo for my mother’s funeral so people could watch her funeral mass. She died of COVID-19. I used Zoom for work meetings.” – Woman, 57*

*“[I have had] Zoom meetings [and] Microsoft Teams meetings. [I’ve had] increased FaceTime family meetings. [I had] job interviews via the internet.” – Man, 46*

*“[I have been] teaching writing classes over Zoom [and I] dated someone over FaceTime for 3 months. [I] attended various online events.” – Woman, 24*

While about a quarter of Americans who have used tech in new ways mention video calls generally, roughly one-in-ten (8%) referenced the remote work aspect of video conferencing specifically:

*“Most of my work-related meetings are no longer in-person, but on Zoom or Teams. Instead of attending professional conferences in person, all of them are now virtual meetings. It took a bit to get comfortable with such drastic change.” – Man, 63*

A similar share (8%) talk about using video calling to connect with family and friends, or attend social events or “video holidays”:

*“It has opened me up to using video chat to connect with physically distanced friends. I have people that I used to only see on Facebook or in person two times a year but now we do a group video chat once a month and I am closer to them than ever.” – Woman, 39*

Smaller shares discuss the move to online learning and the use of video platforms (5%) or using video calls for telehealth (4%):

*“[I] had to learn how to use Google Classroom to help my son with his hybrid learning. I also did my first tele-visit with my GP doctor and I am disabled so it turns out I’ll be able to continue to use that technology once the pandemic is over to make it easier! ... Not to mention, I’ve attended various social gatherings that, due to my disability, I wouldn’t have been able to attend under normal circumstances!” – Man, 28*

Aside from video calls, 16% of Americans said they have used technology or the internet to obtain groceries, food or other essentials, or to perform services like banking or document signing:

*“Shopping (especially groceries and home supplies) online through various different places, permanently eliminating the need to physically go to the grocery store for most shopping activities.” – Man, 42*

*“Ordering groceries, ordering tags for my car, doctor’s appointments, paying insurance premiums, paying bills and keeping in touch with family and friends.” – Woman, 78*

In addition to those who mention remote work and online learning in the context of video calls, another 13% mention using technology in new ways for remote work and another 7% for online learning:

*“Before the outbreak, I was the typical pen and paper type of middle school math teacher. After the outbreak, I have become a much more proficient virtual math teacher who has embraced many new platforms [that] have made my job easier. I have recently become fully vaccinated and returned to the brick and mortar school environment, but will maintain many of the new skills which I learned virtually.” – Man, 62*

*“We needed to get the internet for our granddaughter to be able to get her education while she’s home during the pandemic.” – Woman, 53*

Others specifically note how they are now relying on the strength or quality of their connection in a new way:

*“I upgraded my internet (was just using a hotspot previously) and for my work, I am connected all day through the workday. If the internet goes down, my ability to work at home decreases significantly. Before the work from home started, if I lost the ability to connect to the internet, it only affected me in terms of annoyance at not being able to surf the net.” – Woman, 50*

Finally, other Americans have used social media and other technology for entertainment (7%), to keep up social interaction, especially on social media (5%), to find and search for information (4%), or attend online religious services or activities (3%). And their use of these digital technologies has sometimes changed over the course of the pandemic.

*“I never really used Twitter before. Now I follow some important public health figures and medical doctors who are working for the CDC, etc., so I can be informed on what is going on with COVID-19 and treatment options.” – Woman, 53*

*“Pre-COVID-19 and even well into the pandemic, I was using the internet/my smartphone to spend countless hours on social media. Somewhere in there I deleted most of the social media apps from my phone and have been using it to read e-books and plan creative projects, mostly home improvements.” – Woman, 34*

*“I now attend church services online rather than in person, which I had not done before the outbreak.” – Man, 36*

## **68% of Americans say digital interactions have been useful – but not a replacement for in-person connection**

In late March 2020, as stay-at home orders upended American life, a [Center survey](#) asked U.S. adults to speculate on whether digital interactions – that is, everyday interactions that might have to be done online or by telephone because of recommended limits on social contact during the coronavirus outbreak – would be suitable replacement for in-person contact. At the time, about a quarter of Americans said digital encounters would be just as good (27%), and 8% believed that they wouldn’t be of much help. Some 64% said they would be useful, but not a replacement.



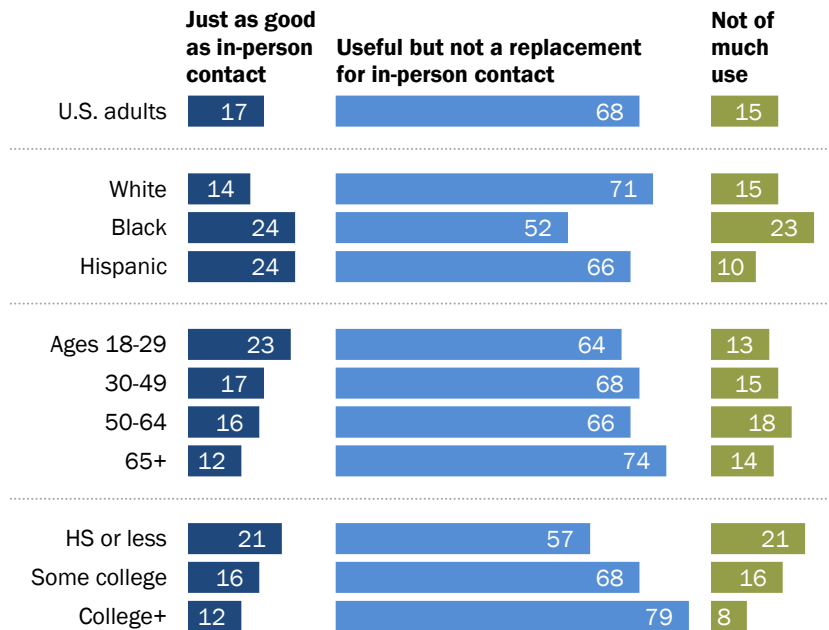
In this new survey, Americans were asked to assess how digital encounters used to replace social contact have actually gone. When asked to think about everyday interactions that happened online or by telephone rather than in person, 17% say that these have been just as good as in-person contact. In line with Americans' own expectations a year ago, the majority of Americans – 68% – say that interactions that have moved online or to the phone have been useful, but not a replacement for in-person. Some 15% say these interactions haven't been of much use.

Considering the more recent findings about people's experiences, relatively small shares across demographic groups say these types of digital interactions have been just as good as in-person contact. Still, there are some small differences by race and ethnicity, age and formal educational attainment in this respect. Adults ages 18 to 29 were more skeptical than older adults in March 2020 – 21% said these interactions would be just as good as in-person contact, compared with a somewhat larger share (29%) of Americans 65 and older. In the new survey, some 23% of adults ages 18 to 29 say these interactions have been just as good as in-person contact, while a *smaller* share (12%) of those 65 and older who feel this way about the utility of their digital interactions.

In March 2020, Black adults were more likely than White adults to think digital interactions would be just as good as in-person contact. Black and Hispanic adults are also more likely than White

## 17% of Americans say digital interactions have been just as good as in-person contact; about two-thirds say these have been useful but not a replacement

*% of U.S. adults who, when asked about the limits on social contact recommended during the coronavirus outbreak, say that the everyday interactions they normally would have had in person but instead had online or by telephone have generally been ...*



Note: White and Black adults include those who report being only one race and are not Hispanic. Hispanics are of any race. Those who did not give an answer are not shown.  
Source: Survey of U.S. adults conducted April 12-18, 2021.  
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adults to say these interactions have been just as good in the new survey. At the same time, about another quarter of Black adults say that these digital interactions have not been of much use. Smaller shares of White and Hispanic adults say the same.

Both then and now, how useful Americans say these interactions have been also varies by educational attainment.

## A quarter of Americans feel less close to close family members than before pandemic; about four-in-ten say the same about friends they know well

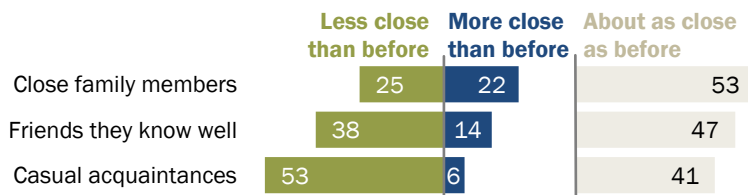
[Some accounts of the pandemic](#) have lamented the potential loss of casual friendships and acquaintances as COVID-19 narrowed people's social circles and family structures into smaller [bubbles](#). At the same time, some [living with friends or family members](#) may have faced increased time spent together as stay-at-home orders were imposed to combat COVID-19. Others [living alone](#) faced possible challenges of staying in touch with those close to them.

The new survey reveals that some people feel their social relationships and their connections to those in their personal networks have been in flux during the pandemic. About half of Americans (53%) say they feel less close to casual acquaintances compared with before the beginning of the coronavirus outbreak in February 2020. Some 38% say the same about friends they know well. And a quarter of Americans say they now feel less close to close family members.

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### As of April, 25% of Americans say they feel less close to close family members compared with before the pandemic, and 53% say this about acquaintances

*% of U.S. adults who say that, compared with before the beginning of the coronavirus outbreak in February 2020, they now generally feel \_\_\_ to each of the following*



Note: Those who did not give an answer are not shown.  
Source: Survey of U.S. adults conducted April 12-18, 2021.  
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At the same time, about one fifth of adults (22%) say they feel *more close* to close family members than they did before the pandemic. Smaller shares say this about friends they know well and casual acquaintances.

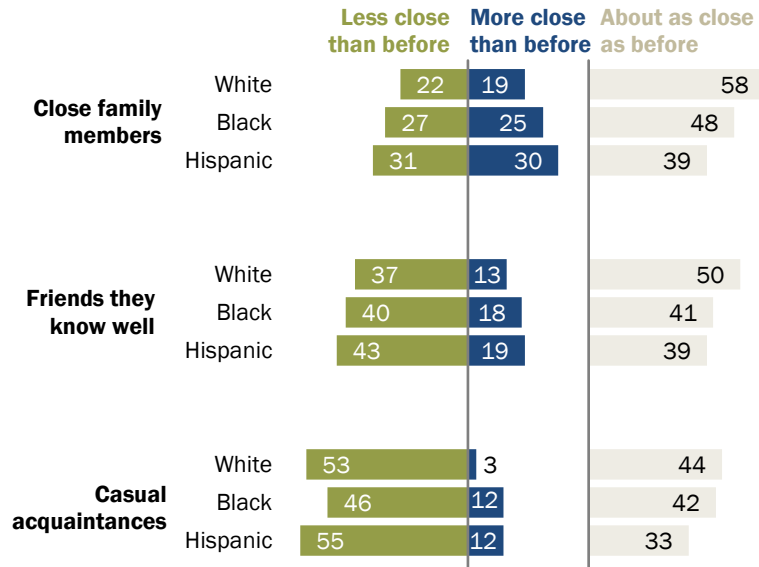
And despite the pandemic upheaval, about half say their relationships with close family members (53%) and friends they know well (47%) have stayed about as close as before, while roughly four-in-ten (41%) say this about casual acquaintances.

Some groups are more likely to report change in the closeness of their relationships than others. Hispanic and Black adults are less likely than White adults to say the closeness of their relationships with close family and friends has stayed about the same compared with before the beginning of the pandemic.

When it comes to close family members, similar shares of Hispanic adults say these relationships feel closer than before (30%) and less close than before (31%). Compared with White adults, they are also more likely to say they feel closer to close family, and friends they know well.

## White adults more likely than Black, Hispanic adults to report no change in the closeness of their family ties and friendships during the pandemic

*% of U.S. adults who say that, compared with before the beginning of the coronavirus outbreak in February 2020, they now generally feel \_\_\_ to each of the following*



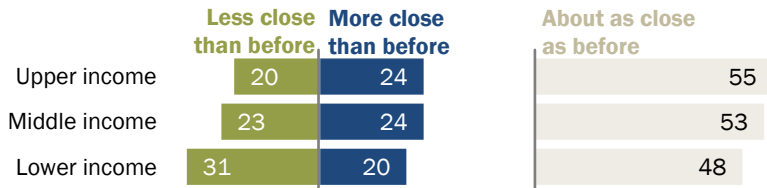
Note: White and Black adults include those who report being only one race and are not Hispanic. Hispanics are of any race. Those who did not give an answer are not shown.  
Source: Survey of U.S. adults conducted April 12-18, 2021.  
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Americans with lower incomes are also more likely than others to say they feel less close to close family members compared with before the beginning of the coronavirus outbreak. About three-in-ten of those with lower incomes say so. At the same time, a fifth of Americans with lower incomes say they feel more close to close family, and 48% say they feel about as close to these family members as before the pandemic.

**Americans with lower incomes particularly likely to say they feel less close to family members now than before the pandemic**

*% of U.S. adults who say that, compared with before the beginning of the coronavirus outbreak in February 2020, they now generally feel \_\_\_ to close family members*



Note: Family income tiers are based on adjusted 2019 earnings. Those who did not give an answer are not shown.

Source: Survey of U.S. adults conducted April 12-18, 2021.

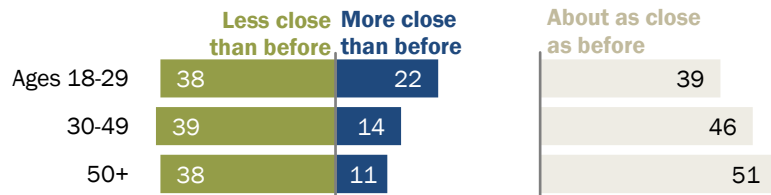
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There is little difference in how Americans in various age groups describe the pandemic's impact on closeness of their family relationships. But when it comes to friends they know well, young adults ages 18 to 29 are more likely to say they now feel closer to these friends than those in any other age group. Still, only about a fifth (22%) of young adults say so.

**Adults ages 18 to 29 twice as likely as those 50 and older to say they feel closer with their friends than before the pandemic**

*% of U.S. adults who say that, compared with before the beginning of the coronavirus outbreak in February 2020, they now generally feel \_\_\_ to friends they know well*



Note: Those who did not give an answer are not shown.

Source: Survey of U.S. adults conducted April 12-18, 2021.

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Finally, small shares of adults across gender, racial and ethnic, age and income groups

say they feel closer to casual acquaintances than they did before – no more than about one-in-ten across any of these groups. In each case, far larger shares say they feel less close now.

Women are slightly more likely than men to say they feel less close to acquaintances, as are Americans with lower incomes compared with those in the upper-income tier. Those who live in

urban (57%) or suburban (54%) areas are more likely to say their relationships with casual acquaintances are less close now, compared with those who live in rural areas (46%).

## Majorities say texts or group messaging apps, voice and video calls have helped them at least a little to stay connected to family and friends

For some, technology became a way to stay in touch with others whom they could not visit in person since the pandemic began. About seven-in-ten Americans say text messages or group messaging apps have helped them personally to stay connected with their family and friends at least a little. Roughly six-in-ten or more say the same about voice (65%) and video calls (59%). Smaller shares say this about social media sites or email.

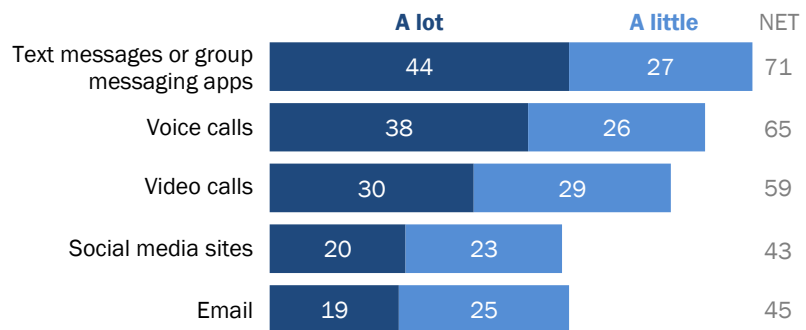
Americans' reliance on technology early in the pandemic was apparent in several ways, from [using](#)

[technology to communicate with others](#) to [hosting virtual gatherings](#). Over a year into the pandemic, results from the new survey show that key communications platforms have been more likely to be helpful for some groups than others.

For each of the five technologies asked about in the survey, Black and Hispanic adults are more likely than White adults to say these technologies have helped them a lot to stay connected. For example, 58% of Hispanic adults say that text messages or group messaging apps have helped them a lot, personally, to stay connected with their family and friends. Some 49% of Black adults and a smaller share (39%) of White adults say the same. Voice calls have helped about half of Black and Hispanic adults a lot to stay in touch, compared with a third of White adults. Similar patterns hold for video calls, social media sites and email.

### 71% of adults say text messages or group messaging apps have helped them at least a little to stay connected with family, friends during the pandemic

*% of U.S. adults who say that, since the beginning of the coronavirus outbreak in February 2020, each of the following has helped them, personally, \_\_\_ to stay connected with their family and friends*



Note: Figures may not add to subtotals due to rounding. Those who did not give an answer or who gave other responses are not shown.

Source: Survey of U.S. adults conducted April 12-18, 2021.

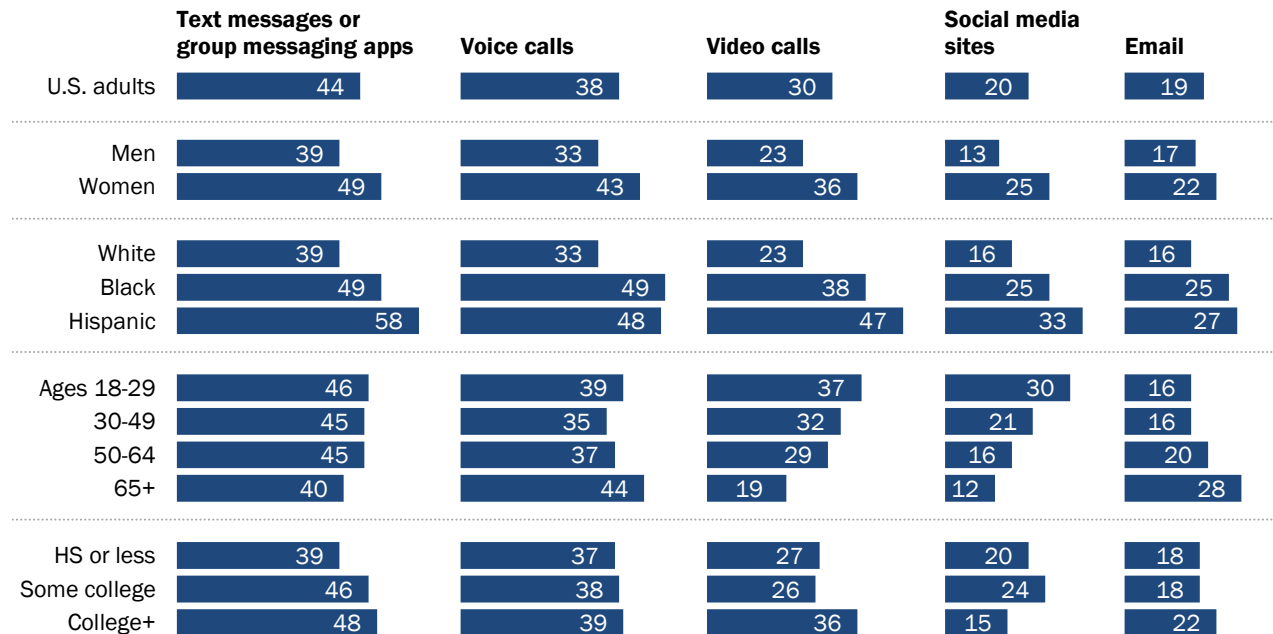
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There are also differences by gender, with women being more likely than men to say that each of these technologies have helped them a lot to stay connected to friends and family.

### Women, Black and Hispanic adults are particularly likely to say certain technologies have helped them a lot to stay connected with family, friends amid the pandemic

% of U.S. adults who say that, since the beginning of the coronavirus outbreak in February 2020, each of the following has helped them, personally, **a lot** to stay connected with their family and friends



Note: White and Black adults include those who report being only one race and are not Hispanic. Hispanics are of any race. Those who did not give an answer or who gave other responses are not shown.

Source: Survey of U.S. adults conducted April 12-18, 2021.

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Adults ages 18 to 29 are more likely than those 65 and older to say video calls and social media sites have helped a lot in staying connected with family and friends.

The reverse is true for email: Some 28% of Americans 65 and older say that this has helped them a lot to stay in touch, compared with smaller shares of younger Americans. Those 65 and older are also more likely than those 30 to 64 to say voice calls have helped a lot.

Other technologies – for example, text messages or group messaging apps – have been similarly helpful for Americans across age groups. Across age groups, four-in-ten or more Americans say these have helped a lot with staying in touch.

## 36% of Americans say their personal lives changed in a major way

As context for this exploration of how people's technology use and experiences were affected by the pandemic, the survey also asked Americans about the overall impact of the pandemic on their personal lives.

Some 36% of Americans say their own personal life has changed in a major way as a result of the coronavirus outbreak. Another 47% say their personal life has changed, but only a little bit. And 16% say that it has stayed about the same as it was before the outbreak.

Women are somewhat more likely than men to say life has changed in a major way (39% vs. 33%), as are those with a bachelor's or advanced degree (40%) compared with those with some college (35%) or a high school diploma or less formal education (34%). And Americans living in urban (41%) and suburban areas (37%) are more likely to say this than those living in rural areas (30%).

About half of those who say their personal lives have changed in a major way (52%) say they have used technology in new ways during the pandemic, compared with 38% of those who say their personal lives have changed a little bit and 19% of those who say life stayed about the same. At the same time, roughly seven-in-ten Americans reporting major changes in life (73%) or with more modest levels of change (69%) say digital interactions have been useful, but not a replacement for in-person interactions, compared with a smaller share among those who say their personal lives stayed about the same (52%).

Those who say their lives stayed about the same are also more likely than others to say interactions they have had online or by phone instead of in person haven't been of much use: 26% of these adults think these virtual interactions haven't been useful, compared with smaller shares of those who say their personal lives changed a little bit (14%) or in a major way (11%).

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### About a third of Americans say their personal lives changed in a major way as a result of the pandemic

*% of U.S. adults who say their own personal life has \_\_\_ as a result of the coronavirus outbreak*



Note: Those who did not give an answer are not shown.  
Source: Survey of U.S. adults conducted April 12-18, 2021.  
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At the same time, those who say their lives have changed in a major way are more likely to say each of the five technologies asked about in the survey helped a lot to keep them connected, compared with those who say their lives have changed a little or stayed about the same.

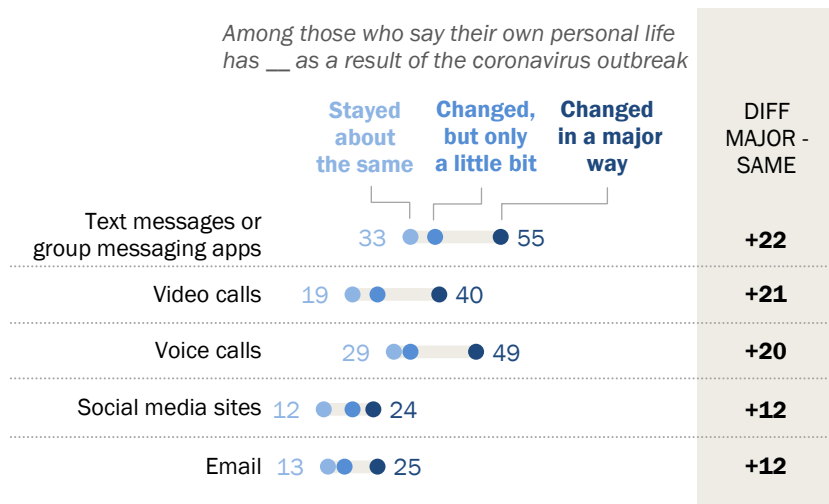
Among those who said their personal lives have changed in a major way, the shares who say text messages or group messaging apps, video calls or voice calls have helped a lot are roughly 20 points higher compared with those who say their lives stayed about the same. About half or more of those who say their personal lives have changed in a major way say text messages or group messaging apps (55%) or voice calls (49%) helped them a lot to stay connected with family and friends, and 40% say the same about video calls.

Those who say their lives have changed in a major way are also more likely to say they now feel less close to close family members (35%) than those whose lives changed only a little (22%) or stayed about the same (9%). And about half (53%) of those with major change in this aspect of their life say their relationships with friends they know well are now less close.

The diminishing closeness of casual relationships is especially prominent for those whose personal lives COVID-19 changed profoundly – roughly seven-in-ten (69%) of adults with major change say that they now generally feel less close to casual acquaintances. By comparison, about a quarter (26%) of those whose personal lives stayed about the same say they feel less close to these acquaintances now.

### About half or more of those whose personal lives changed in a major way say texts, messaging apps, voice calls have helped a lot for staying connected

*% of U.S. adults who say that, since the beginning of the coronavirus outbreak in February 2020, each of the following helped them, personally, a lot to stay connected with their family and friends*



Note: All differences shown in the DIFF column are statistically significant. The difference values shown are based on subtracting the rounded values in the chart. Those who did not give an answer or who gave other responses are not shown.

Source: Survey of U.S. adults conducted April 12-18, 2021.

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## 40% of those who have used video calling during the pandemic feel worn out from such calls at least sometimes

As some Americans intensified their tech use and tried new online activities, there was a possibility that some might become “worn out” by this screen time – leading to a phenomenon commonly known as “Zoom fatigue” in the context of [personal](#) and [work-related](#) video calls. Some [accounts of the pandemic](#) also raised the question of whether Americans would try to purposefully “unplug” or otherwise manage their screen time, as many children and adults alike spent more time on their devices.

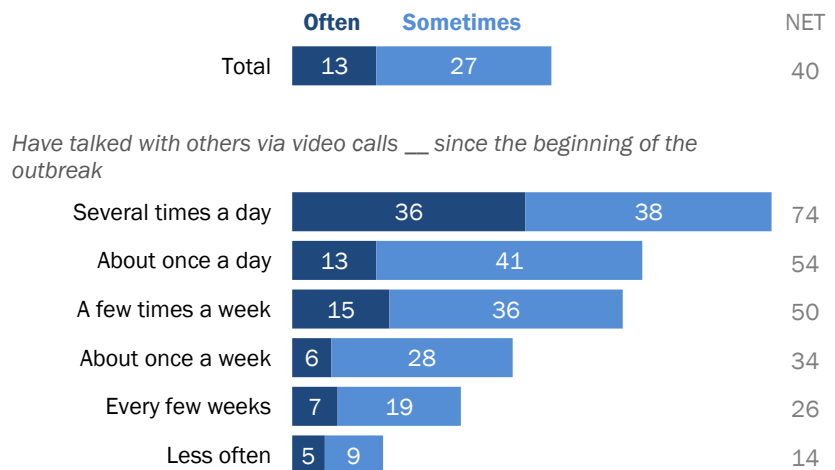
Overall, among those who have used video calling during the pandemic, four-in-ten say they have often (13%) or sometimes (27%) felt worn out or fatigued from spending time on these calls. Looking at the population overall, one-third of all adults say that they feel worn out or fatigued from video calls often (11%) or sometimes (22%).

Reported fatigue increases with greater time spent on video calls. Fully 74% of those who have used video calling several times a day during the pandemic say this is the case at least sometimes, including 36% who say they feel worn out or fatigued often. About half or more of those who are on calls less often than this, but at least a few times a week, say the same.

But even a portion of those who rarely use video calling report fatigue. About a quarter of those who have talked with others via video calls only every few weeks during the pandemic say they feel worn out at least sometimes.

### About three-quarters of those who have been on video calls several times a day in the pandemic say they feel worn out or fatigued from this at least sometimes

Among the 81% of U.S. adults who have talked with others via video calls since the beginning of the coronavirus outbreak, % who say they \_\_\_ feel worn out or fatigued from spending time on video calls



Note: Figures may not add to subtotals due to rounding. Those who did not give an answer or who gave other responses are not shown.

Source: Survey of U.S. adults conducted April 12-18, 2021.  
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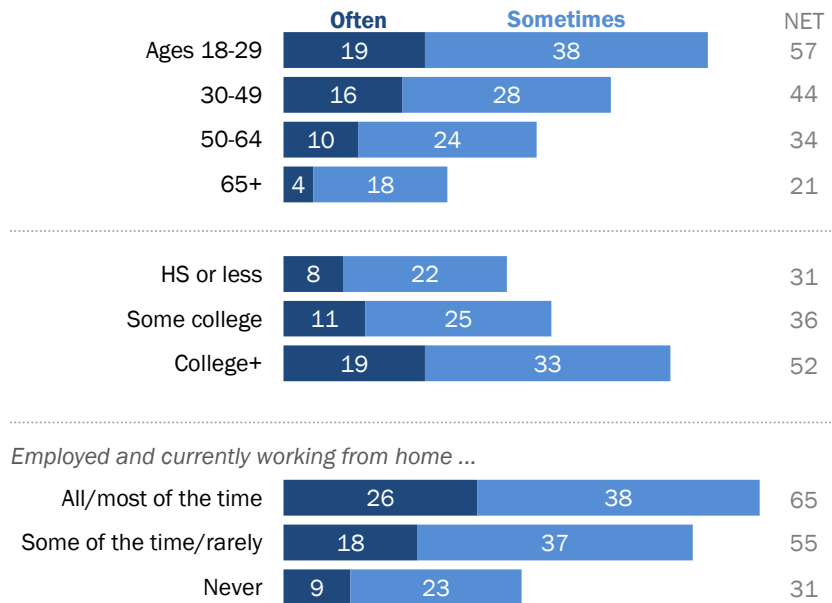
The new survey shows that among those who've made video calls in the pandemic, there are differences in reported video call fatigue by age, formal educational attainment, and work-from-home status.

Among those who have made video calls, about six-in-ten of those ages 18 to 29 say they feel worn out or fatigued from these calls at least sometimes. By comparison, 21% of those 65 and older say so. And about half of those with a bachelor's or advanced degree report feeling this way at least sometimes, compared with 31% of those with a high school diploma or less.

Among pandemic video call users who work from home all or most of the time, some 65% say they feel worn out or fatigued at least sometimes from the time they spend on video calls. (A [separate Center study](#) conducted in October 2020 that used a different definition of remote work and call fatigue found that about four-in-ten teleworkers who used video conferencing often were worn out by the time spent on them, compared with 63% of that group who said they were generally fine with the amount of time spent on video calls.)

**Young adults under 30 who have made video calls in the pandemic more likely than older users to say they are worn out, fatigued from spending time on calls**

*Among the 81% of U.S. adults who have talked with others via video calls since the beginning of the coronavirus outbreak, % who say they \_\_\_ feel worn out or fatigued from spending time on video calls*



Note: "Employed" refers to those who say they are currently employed full or part time. Figures may not add to subtotals due to rounding. Those who did not give an answer or who gave other responses are not shown.  
 Source: Survey of U.S. adults conducted April 12-18, 2021.  
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As many daily activities moved online, Americans' reactions to increased screen time were not just limited to issues related to video calling. A third of adults also say in this survey that they have tried to cut back on the amount of time they were spending with screens – specifically on the internet or their smartphone – since the beginning of the coronavirus outbreak.

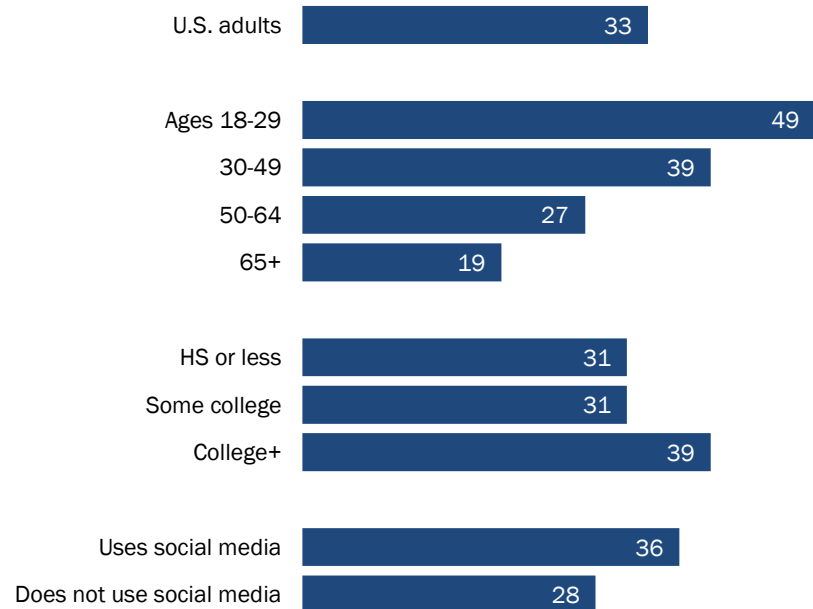
Fully 49% of adults ages 18 to 29 have tried to cut back on their screen time, compared with roughly four-in-ten of those ages 30 to 49. Smaller but notable shares of those 50 to 64 (27%) and 65 and older (19%) say they've tried cutting down.

And Americans who use social media are more likely to say they've tried to cut back on screen time than those who don't – an 8 percentage point gap.

Screen time issues also became [paramount for families and children](#) during the pandemic. The [next chapter](#) of this report discusses parents' views on their children's screen time, alongside other findings on the experiences of parents and children during the pandemic.

### About half of adults under 30 have tried to cut back on the amount of time they spend on the internet or their smartphone during the pandemic

*% of U.S. adults who say they have tried to cut back on the amount of time they spend on the internet or their smartphone since the beginning of the coronavirus outbreak in February 2020*



Note: Those who did not give an answer are not shown.

Source: Survey of U.S. adults conducted April 12-18, 2021.  
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## 2. Parents, their children and school during the pandemic

The COVID-19 pandemic disrupted the lives of families with school-age children in a major way. The coronavirus forced [widespread school closings](#) across the United States, and many parents had to work with their children to [adjust to online learning](#).

This survey finds that 93% of parents with children in grades K-12 say their children have had some online instruction since the beginning of the coronavirus outbreak in February 2020. Majorities of these parents say they generally have had positive experiences when it comes to their children's online learning.

Among parents whose children have had some online instruction during the pandemic, 62% say online instruction has gone very or somewhat well and 70% say they have had a very or somewhat easy experience helping their children use technology and the internet for online instruction.

Still, 30% of parents whose children have had any online instruction since the beginning of the coronavirus outbreak say they have had a very or somewhat difficult time helping their children use technology and the internet for this purpose. Certain groups of these parents are particularly likely to say they have had a difficult time helping their children with online learning. For example, 36% of mothers of children who learned online say they had a very or somewhat

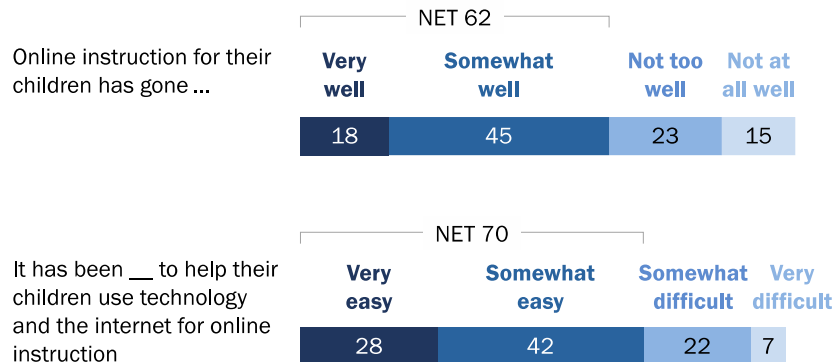
### Majority of parents whose children have learned online during the pandemic say their online instruction has gone well

Among parents with children in grades K-12 ...



**93%** say their children have had **some online instruction** since the beginning of the coronavirus outbreak in February 2020

Among this 93%, percent who say the following



Note: "Parents with children in grades K-12" refers to those who said they were the parent or guardian of any children who were enrolled in elementary, middle or high school and who lived in their household. "Some online instruction" refers to children having had any online instruction – whether this was fully online or a mix of online and in-person – since the beginning of the coronavirus outbreak in February 2020. Figures may not add to subtotals due to rounding. Those who did not give an answer are not shown.

Source: Survey of U.S. adults conducted April 12-18, 2021.

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difficult time helping their children with technology and the internet for online instruction, compared with 21% of fathers.

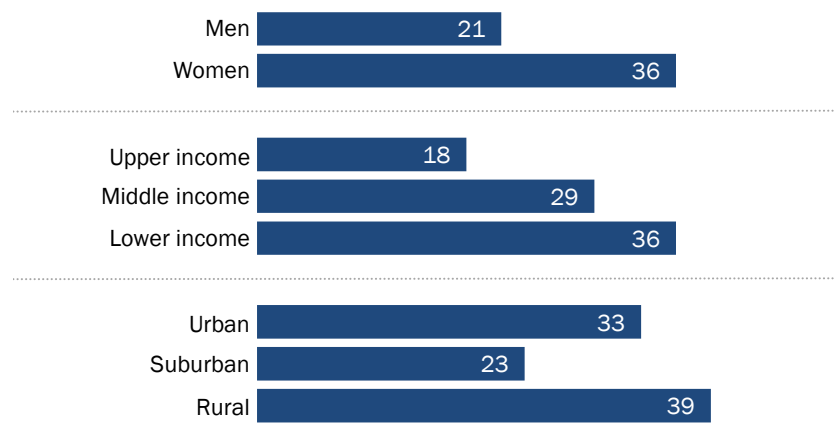
This challenge is also prevalent for parents in certain types of communities – 39% of rural residents and 33% of urban residents say they have had at least some difficulty, compared with 23% of suburban residents. And those with lower and middle incomes are more likely than those with higher incomes to report this difficulty.

Among broadband users, connection quality also plays a role in parents' experience in helping their children with online learning.

Some 34% of parents who say they often or sometimes experience internet problems also say they have a relatively difficult time helping their children with technology and the internet for online instruction, compared with 22% of parents who never or rarely have internet problems.

### Mothers, parents with lower incomes more likely than fathers and those with higher incomes to have trouble helping their children with tech for online learning

Among parents whose K-12 children have had some online instruction since the beginning of the coronavirus outbreak, % who say it has been **very** or **somewhat difficult** to help their children use technology and the internet for online instruction



#### Among home broadband users



Note: "Parents with K-12 children" refers to those who said they were the parent or guardian of any children who were enrolled in elementary, middle or high school and who lived in their household. "Some online instruction" refers to children having had any online instruction – whether this was fully online or a mix of online and in-person – since the beginning of the coronavirus outbreak in February 2020. "Have internet problems" refers to experiencing any problems with the speed, reliability or quality of their high-speed internet connection at home in a way that makes it hard to do the things they need to do online. Family income tiers are based on adjusted 2019 earnings. Those who did not give an answer are not shown.

Source: Survey of U.S. adults conducted April 12-18, 2021.

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## Parents with lower incomes more likely than parents with higher incomes to say their children had technology-related difficulties with schoolwork

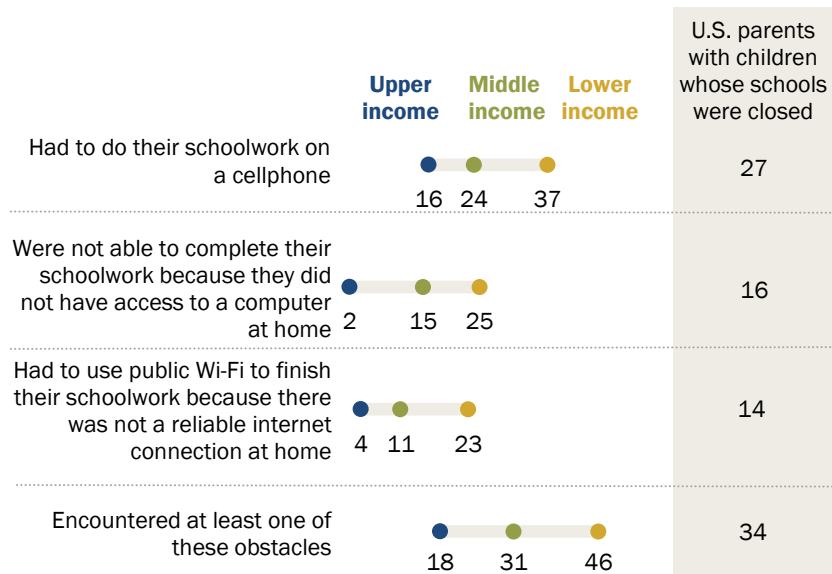
This survey, which follows up on findings reported near the [beginning of the pandemic](#) about the problems parents thought their children might face, shows that some parents report that their children have faced technology-related difficulties while completing school assignments since the coronavirus outbreak began.

The April 2021 survey shows that roughly a quarter (27%) of parents with children whose schools were closed at some point during the pandemic say their children had to do their schoolwork on a cellphone. Smaller shares of these parents say their children were unable to complete schoolwork because they did not have access to a computer at home (16%) or had to use public Wi-Fi to finish their schoolwork because there was not a reliable internet connection at home (14%). And roughly a third (34%) of parents whose children’s schools were closed at some point say their children encountered at least one of these three challenges in trying to complete their schoolwork.

The shares among these parents with children whose schools closed at some point vary based on household income and show that parents with lower incomes were more likely to report their children had these tech-related problems. For instance, 25% of parents with lower

### Parents with lower incomes more likely than parents with higher incomes to say their children have faced tech-related schoolwork challenges in the pandemic

Among parents with children whose K-12 schools were closed at some point due to the coronavirus outbreak, % who say that, since the beginning of the outbreak in February 2020, their children ever ...



Note: “Parents with children whose (K-12) schools were closed” refers to those who said they were the parent or guardian of any children who were enrolled in elementary, middle or high school and who lived in their household; and who said that their children’s schools closed due to the coronavirus outbreak at any point since the beginning of the outbreak in February 2020. Family income tiers are based on adjusted 2019 earnings. Those who did not give an answer are not shown.  
 Source: Survey of U.S. adults conducted April 12-18, 2021.  
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incomes say their children with closed schools could not complete their schoolwork because of a lack of computer access. This share is 23 percentage points higher than for parents who have higher incomes (2%). Parents with lower incomes are also far more likely than those in the upper-income tier to say their children encountered at least one of these obstacles during the pandemic (46% vs. 18%). And 9% of these parents in lower-income households say their children experienced all three of these obstacles.

In a survey near the beginning of the pandemic last year, the Center [asked parents](#) about whether they anticipated these problems for their children. In April 2020, 29% of parents with children whose schools were closed at that time said it was very or somewhat likely that in completing schoolwork at home during the coronavirus outbreak, their children would have to do their schoolwork on a cellphone. About one-in-five of the same set of parents said this about children having to use public Wi-Fi to finish their schoolwork because of a lack of a reliable internet connection at home or being unable to complete their schoolwork because they did not have access to a computer at home. And 38% of these parents said their children would be very or somewhat likely to encounter at least one of these tech-related obstacles for schoolwork.



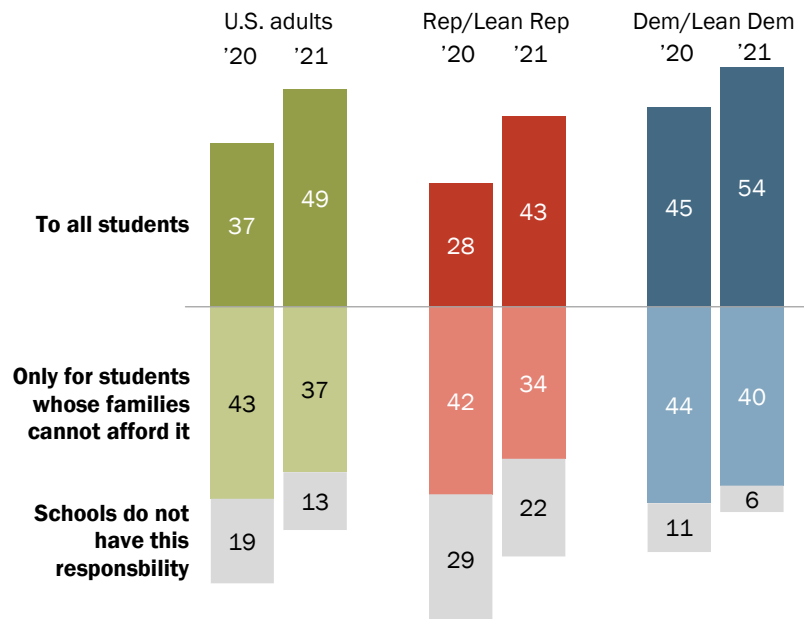
## Growing share of adults say schools should provide technology to all students in order to complete schoolwork during the pandemic

Since the pandemic began, public attitudes have shifted and become more supportive of the idea that schools have a responsibility to provide all students with laptop or tablet computers to help them complete schoolwork during the pandemic.

The new survey finds that 49% of U.S. adults say that K-12 schools have a responsibility to provide all students with laptop or tablet computers in order to help them complete their schoolwork at home during the COVID-19 outbreak – a 12 percentage point increase from April 2020. At the same time, the share of Americans who say otherwise has decreased since last year. The portions who say schools only have a responsibility for students whose families cannot afford technology and that schools do not have this responsibility each fell by 6 points.

### Roughly half of adults say schools have responsibility to provide technology to all students during pandemic

*% of U.S. adults who think K-12 schools have a responsibility to provide laptop or tablet computers \_\_\_ to help them complete schoolwork at home during the coronavirus outbreak*



Note: Those who did not give an answer are not shown.  
Source: Survey of U.S. adults conducted April 12-18, 2021.  
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While larger shares of both parties now say K-12 schools have a responsibility to provide computers to all students in order to help them complete schoolwork at home, there is a 15-point change among Republicans: 43% of Republicans now say K-12 schools have this responsibility, compared with 28% last April. In the new survey, 22% of Republicans also say schools do not have this responsibility at all, compared with 6% of Democrats. And Democrats are still more likely than Republicans to say K-12 schools have a responsibility to provide computers to all students to help them complete schoolwork at home.

Adults with lower incomes are also more likely than those who have middle or higher incomes to say K-12 schools should provide technology to all students. And adults in lower-income households who say this have seen a 10-point increase since 2020.

## Majority of parents of K-12 children say their kids are spending more time in front of screens; 39% say they have become less strict about screen time

As many parents settled at home and adjusted to online learning for their children, a majority observed changing screen time patterns for their children.

Compared with before the beginning of the coronavirus outbreak, 72% of parents with children in school say their children are spending more time in front of screens. By contrast, 7% of these parents say their children are spending less time in front of screens now, and 20% say they spend about the same amount of time as before the pandemic.

For some, these pandemic realities played a role in new rules about screen time. Even as a majority of parents with children in grades K-12 say their children are spending more time in front of screens, a share of parents with children in school also say they have become less strict about screen time control. Some 39% of these parents say they have become less strict with their rules about the amount of time they allow their children to be in front of screens – aside from time they might spend on schoolwork – compared with before the beginning of the pandemic. A smaller share of parents with children in grades K-12 say they have become more strict (18%) with these rules. And 43% say their rules have stayed about the same.

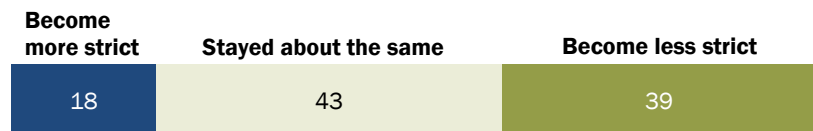
### Roughly seven-in-ten parents say their children are spending more time in front of screens than they did before pandemic began ...

Among parents with children in grades K-12, % who say their children are spending \_\_\_ in front of screens compared with before the beginning of the coronavirus outbreak



### ... and 39% of parents say they have become less strict about their rules to control their children's screen time

Among parents with children in grades K-12, % who say their rules about the amount of time they allow their children to be in front of screens, ASIDE from time they might spend on schoolwork, have \_\_\_ compared with before the beginning of the coronavirus outbreak



Note: "Parents with children in grades K-12" refers to those who said they were the parent or guardian of any children who were enrolled in elementary, middle or high school and who lived in their household. Those who did not give an answer are not shown.

Source: Survey of U.S. adults conducted April 12-18, 2021. "The Internet and the Pandemic"

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There is some variation in how parents with children in grades K-12 have changed their screen time rules based on where they live. Suburban parents (45%) are more likely than rural (34%) or urban parents (33%) to say they have become less strict about the amount of non-schoolwork time they allow their children to be in front of screens compared with before the pandemic.

### 3. Navigating technological challenges

With increased demands placed on home internet connections and the nation’s internet infrastructure during the pandemic, the **quality** and **affordability** of home internet connections became a focus for users on several fronts. About half of U.S. broadband users say they have struggled with their connections, and roughly three-in-ten upgraded their connections during the pandemic. Some broadband users worry about the ongoing expense of connectivity. And at a time when the internet became a platform for social, workplace, educational and commercial activity, portions of Americans also report they have difficulty independently and effectively using tech devices. This chapter covers some of the challenges people faced with connectivity and the adjustments they made during the COVID-19 outbreak.

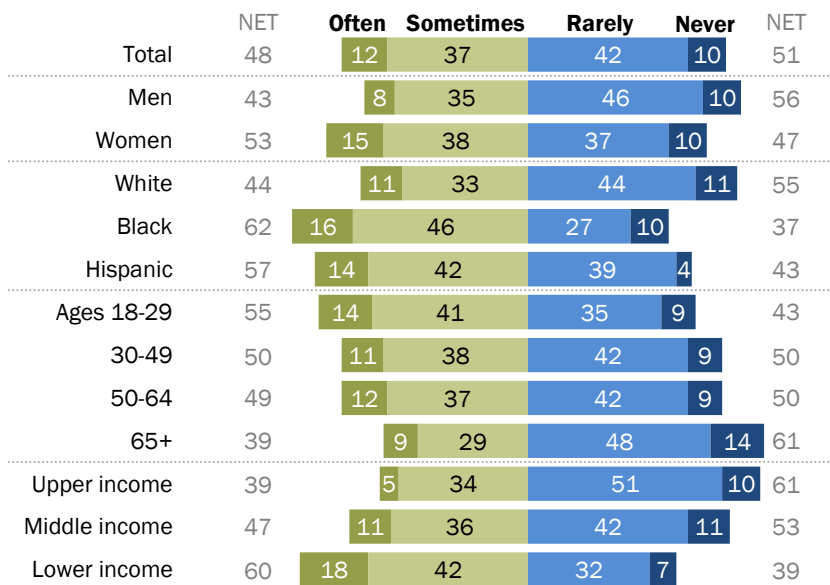
#### About half of broadband users report experiencing connection issues

Roughly half of broadband users report they often (12%) or sometimes (37%) experience problems with the speed, reliability or quality of their high-speed internet connections at home that make it hard to do the things they need to do online. Some 51% report they rarely or never have such issues.

These connectivity issues are felt more acutely for certain users – particularly those with lower incomes, Black adults and Hispanic adults. Black and Hispanic broadband users are more likely than White users to say they experience problems with the speed, reliability or quality of their high-speed

#### Majority of U.S. broadband users with lower incomes report at least sometimes experiencing problems with their internet connection

*% of home broadband users who say they \_\_\_ experience problems with the speed, reliability or quality of their high-speed internet connection at home in a way that makes it hard to do the things they need to do online*



Note: Figures may not add to subtotals due to rounding. White and Black adults include those who report being only one race and are not Hispanic. Hispanics are of any race. Family income tiers are based on adjusted 2019 earnings. Those who did not give an answer are not shown.

Source: Survey of U.S. adults conducted April 12-18, 2021. “The Internet and the Pandemic”

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internet connection at home in a way that makes it hard to do things online. And there are sizable gaps based on income. About four-in-ten broadband users in the upper-income tier report connection issues, while 60% of users with lower household incomes say the same.

Age is also a factor: 51% of broadband users ages 18 to 64 report often or sometimes having connection issues that make it difficult to do online tasks, compared with 39% of those ages 65 and older.

## Some home broadband users improved their connectivity during the pandemic

Since the start of the pandemic in February 2020, 29% of broadband users say they have done something to improve the speed, reliability or quality of their high-speed internet connection at home.

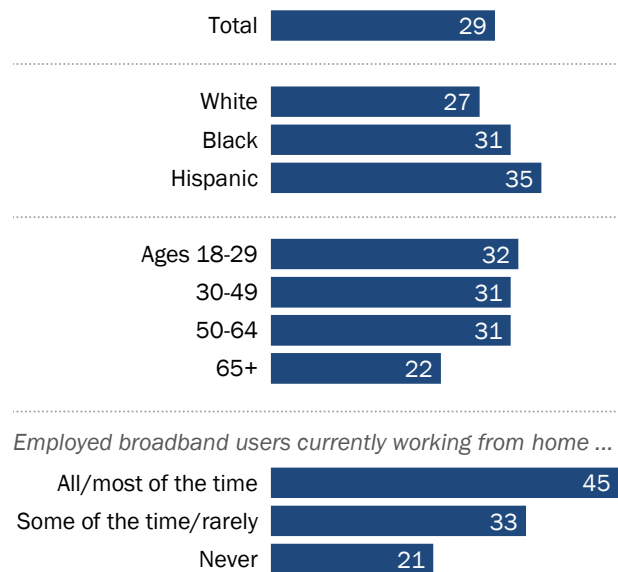
While a majority of broadband users across demographic groups did not change anything about their home internet during the pandemic, several groups stood out as being more likely to have upgraded their connection in some way.

Some 35% of Hispanic broadband users report having done something to improve the speed, reliability or quality of their high-speed internet connection at home at some point during the pandemic, compared with 27% of White broadband users. (Black broadband users do not significantly differ from White or Hispanic users in having upgraded their connection.) At the same time, users ages 18 to 64 were more likely than those ages 65 and up to say they had upgraded their home internet during this time.

Beyond differences by age or race and ethnicity, users' experiences with upgrading their broadband connection also differ by telework

### 29% of home broadband users have done something to improve their internet since the start of the pandemic

*% of home broadband users who say they have done something to improve the speed, reliability or quality of their high-speed internet connection at home since the beginning of the coronavirus outbreak in February 2020*



Note: "Employed" refers to those who say they are currently employed full or part time. White and Black adults include those who report being only one race and are not Hispanic. Hispanics are of any race. Those who did not give an answer are not shown. Source: Survey of U.S. adults conducted April 12-18, 2021. "The Internet and the Pandemic"

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status. Broadband users who work from home all or most of the time are about twice as likely as employed users who never work from home to have tried to improve their home internet connection, while a third of those who work from home some of the time or rarely say the same.

Approximately two-thirds (64%) of broadband users who have upgraded their internet say they at least sometimes experience connection issues. By comparison, 42% of users who have not upgraded their connection say they experience connection issues at least sometimes.

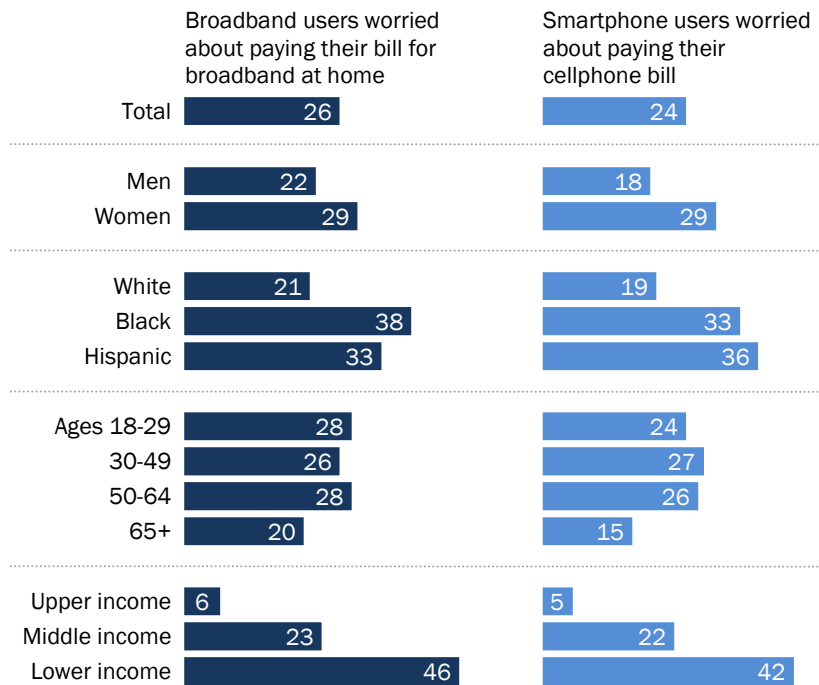
## Roughly a quarter of tech users are worried about paying their home broadband, cellphone bills

While majorities of Americans use [home broadband](#) and [smartphones](#), the cost of their bills can be prohibitive for some users. About a quarter of home broadband users (26%) say they are at least somewhat worried about affording a high-speed internet connection at home over the next few months, while a similar share of smartphone users (24%) express the same concern over their cellphone bill.

Americans with lower incomes are especially likely to express concern about broadband and cellphone bills. Some 46% of broadband users with lower household incomes say they worry a lot or some about being able to pay for their high-speed internet connection over the coming months, compared with 23% of those with incomes in the middle and just 6% of those

### Tech users with lower incomes are more likely to be worried about paying their digital tech bills

*% of home broadband and smartphone users who say they worry a lot or some about paying their bills over the next few months for ...*



Note: White and Black adults include those who report being only one race and are not Hispanic. Hispanics are of any race. Family income tiers are based on adjusted 2019 earnings. Those who did not give an answer or who gave other responses are not shown. Source: Survey of U.S. adults conducted April 12-18, 2021.

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in the high-income tier. Among smartphone owners, 42% of those who have lower incomes say they worry at least some about paying their cellphone bills, compared with 22% of those who are middle-income and just 5% of users in the upper-income tier.

There are also some differences by age. Broadband and smartphone users ages 18 to 64 are more likely than those ages 65 and older to say they worry about being able to pay their internet or cellphone bills.

The share of Hispanic users who say they are worried about paying for their tech-related bills has declined sharply in the past year. In April 2021, 33% of Hispanic broadband users said they were worried about being able to pay for their home internet services, down from 54% in [April 2020](#) when many [stay-at-home orders](#) began in the U.S. Similarly, the share of Hispanic smartphone owners expressing worry about paying their bills declined by 20 percentage points (from 56% in 2020 to 36% in 2021).

Other Center reports have found that financial challenges have been exacerbated by the pandemic. In April 2020, about half of Americans said the coronavirus posed a [major threat to their personal finances](#), and, as of August 2020, 42% of Americans said that someone in their household had [lost their job or experienced a pay cut](#) because of the outbreak. Previous Center studies have also found that cost concerns can be a [key reason](#) why some Americans do not subscribe to high-speed internet at home.

## **Majorities of Americans do not think it is the responsibility of the federal government to ensure broadband access to all during the pandemic**

During the pandemic, there have been debates about [the digital divide](#) and whether the government should ensure online access to all Americans. The [Biden administration](#) has pushed to expand access to high-speed internet through internet subsidies for Americans with lower incomes in recent months. In addition, a [bipartisan infrastructure spending plan](#) includes \$65 billion aimed at getting all Americans affordable broadband access.

But while government efforts are underway to address these digital divides, a majority of Americans (62%) say in this survey that it is *not* the responsibility of the federal government to ensure that all Americans have a high-speed internet connection at home. Some 70% also say it is not the responsibility of the government to ensure cellphone service to all Americans. About four-in-ten or fewer believe the government should bear this responsibility. For example, 37% of Americans say that the government has a responsibility to ensure all Americans have high-speed internet access during the outbreak. This overall share is unchanged from April 2020 – the first

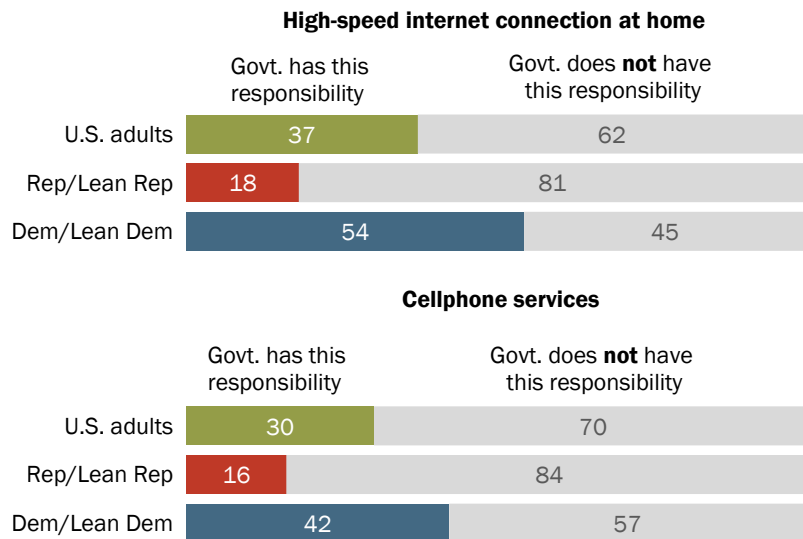


time Americans were asked this specific question about the government’s responsibility during the pandemic to provide high-speed internet access.<sup>8</sup>

Democrats and independents who lean toward the Democratic Party are more likely than their Republican and Republican-leaning counterparts to believe that the government should have a role in ensuring these services. Some 54% of Democrats say the federal government has a responsibility to ensure that all Americans have a high-speed internet connection at home during the COVID-19 outbreak, while just 18% of Republicans hold this view. Democrats are also more than twice as likely as Republicans to believe the federal government has a responsibility to provide cellphone service for all Americans amid the outbreak (42% vs. 16%).

### Democrats are more likely than Republicans to think the government should be responsible for ensuring home broadband, cellphone services amid COVID-19

*% of U.S. adults who say the federal government has or does not have the responsibility to ensure all Americans have \_\_\_ during the coronavirus outbreak*



Note: Those who did not give an answer are not shown.

Source: Survey of U.S. adults conducted April 12-18, 2021. "The Internet and the Pandemic"

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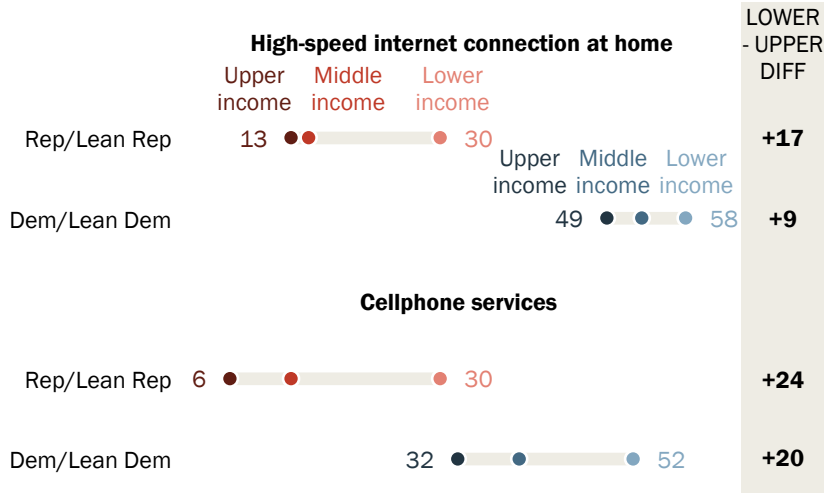
While a similar partisan pattern was seen in April 2020 when the Center last surveyed on this topic, the shares of Republicans saying the government has a responsibility during the pandemic to ensure high-speed internet access (a 4 percentage point dip) and cellphone services (5-point dip) have declined slightly over the past year.

<sup>8</sup> A separate [Center study](#) also fielded in April 2021 asked Americans what the government is responsible for on a number of topics, but did not mention the coronavirus outbreak. Some 43% of Americans said in that survey that the federal government has a responsibility to provide high-speed internet for all Americans. This was a significant increase from 2019, the last time the Center had asked that more general question, when 28% said the same.

On these issues, there are differences within the Republican Party by income. Among Republicans and Republican leaners, 30% of those with lower incomes say the federal government has a responsibility to ensure that all Americans have a high-speed internet connection at home during this pandemic, compared with 15% of those in the middle-income tier and 13% of those who are in the upper-income tier. When asked about their views about ensuring cellphone services, 30% of Republicans with lower incomes say that the government bears this responsibility, while smaller shares of middle- and upper-income Republicans say this (13% and 6%, respectively). Similar differences by income are seen among Democrats.

### Republicans with lower incomes are more likely than their more affluent counterparts to say the federal government should ensure broadband, cell service

% of U.S. adults who say the federal government *has the responsibility* to ensure all Americans have \_\_\_ during the coronavirus outbreak



Note: All differences shown in the DIFF column are statistically significant. The difference values shown are based on subtracting the rounded values in the chart. Family income tiers are based on adjusted 2019 earnings. Those who did not give an answer are not shown. Source: Survey of U.S. adults conducted April 12-18, 2021. "The Internet and the Pandemic"

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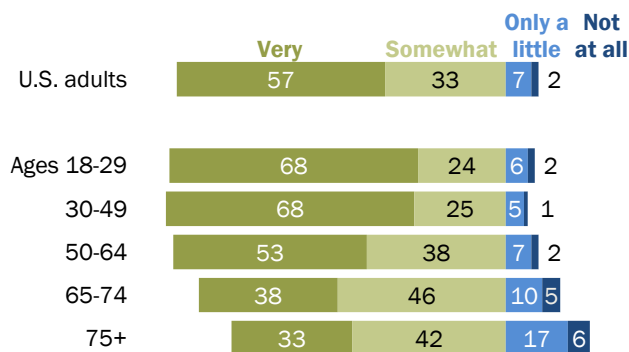
Broadband users who express concern about paying their high-speed internet bills in the coming months are more likely than those who are less worried about those bills to back the idea that the federal government should ensure high-speed internet access during the coronavirus outbreak (49% vs. 33%). Similarly, smartphone users who say they worry about affording their cellphone bills for the next few months are more likely than those who are less worried about their phone bills to say that they think the federal government has a responsibility to ensure that all Americans have cellphone service during the coronavirus (41% vs. 26%).

## Older Americans are particularly likely to express concern about their ability to independently and effectively use technological devices

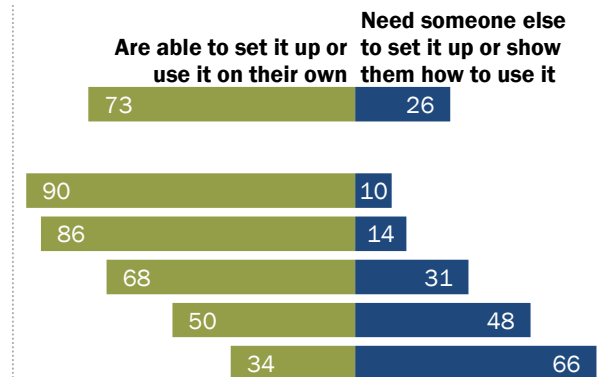
Another challenge Americans may face in navigating the digital landscape is how comfortable they are using technology, especially new kinds of tech tools. Some 26% of U.S. adults report that when they get a new computer, smartphone or other electronic device, they usually need someone else to set it up or show them how to use it. Some 10% say they are not at all or only a little confident using computers, smartphones or other electronic devices to do the things they need to do online.

### A majority of adults 75 and older report needing help from others to set up or show them how to use new devices when they get them

*% of U.S. adults who say they are \_\_\_ confident using computers, smartphones or other electronic devices to do the things they need to do online*



*% of U.S. adults who say when they get a new computer, smartphone or other electronic device, they usually ...*



Note: Those who did not give an answer are not shown.  
Source: Survey of U.S. adults conducted April 12-18, 2021.  
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Adults 75 and older stand out as particularly likely to say they need help with new devices: 66% of those in this group say that when they get a new computer, smartphone, or other electronic device, they usually need help to set up, compared with 48% of those ages 65 to 74, 31% of those 50 to 64 and just 12% of adults under 50. While majorities across age groups say they are confident in their ability to use devices to do the things they need to do online, adults 65 and older are less likely than their younger counterparts to say they are confident.

These two challenges are interrelated. For example, 77% of Americans who are at least somewhat confident they can use technological devices effectively report that they can set up or use new devices on their own. Similarly, about six-in-ten adults who are not confident in their abilities to

use their devices effectively (57%) say they need someone else to set up or show them how to use new devices.

## 30% of adults have lower ‘tech readiness’; they have had different experiences with the internet than others during the pandemic

As some Americans [suddenly shifted](#) to deeper reliance on technology during the pandemic, new questions related to [digital divides](#) surfaced around ability to use the technology. Would all Americans – especially those, like older adults, who are less likely to be tech-savvy – be able to navigate an [increasingly virtual world](#) confidently, independently and successfully?

The April survey reveals how a subset of Americans who may have been less prepared to effectively use technology navigated the digital environment of the pandemic. As discussed above, 26% of adults say they usually need someone else to set up a new digital device or show them how to use it, and 10% say they are not at all or only a little confident using digital devices to do the things they need to do online. In total, some 30% of Americans say *either* of these things, and 5% say both. Throughout this chapter the 30% meeting at least one of the two criteria are referred to as having “lower tech readiness.”

### Determining tech readiness

The terms “**lower tech readiness**” and “**higher tech readiness**” are used throughout this chapter to describe two groups who may face different challenges in using technology. Americans were asked two questions relating to the concept. One was: “Overall, how confident, if at all, do you feel using computers, smartphones, or other electronic devices to do the things you need to do online?”

The other asked people to choose the answer that best describes them: “When I get a new computer, smartphone, or other electronic device, I usually need someone else to set it up or show me how to use it” or “I usually am able to set it up and learn how to use it on my own.”

“**Lower tech readiness**” describes people who say **either** they are not at all or only a little confident using their digital devices to do the things they need to do online, **or** they usually need someone else to set up or show them how to use new devices. Some 30% of U.S. adults are characterized in this way.

“**Higher tech readiness**” describes a person who says **both** they are very or somewhat confident using their digital devices to do the things they need to do online **and** they are usually able to set up and learn how to use a new device on their own. Some 69% of U.S. adults fall in this group.

It is important to keep in mind that there are many factors that may contribute to “tech readiness.” The Center has previously studied the digital divides stemming from differences in [access to the internet](#) and [device ownership](#), Americans’ [problems connecting](#) to the internet and their [knowledge of digital topics](#). Another Center study investigated five potential elements of “[digital readiness](#)” in 2016.<sup>9</sup>

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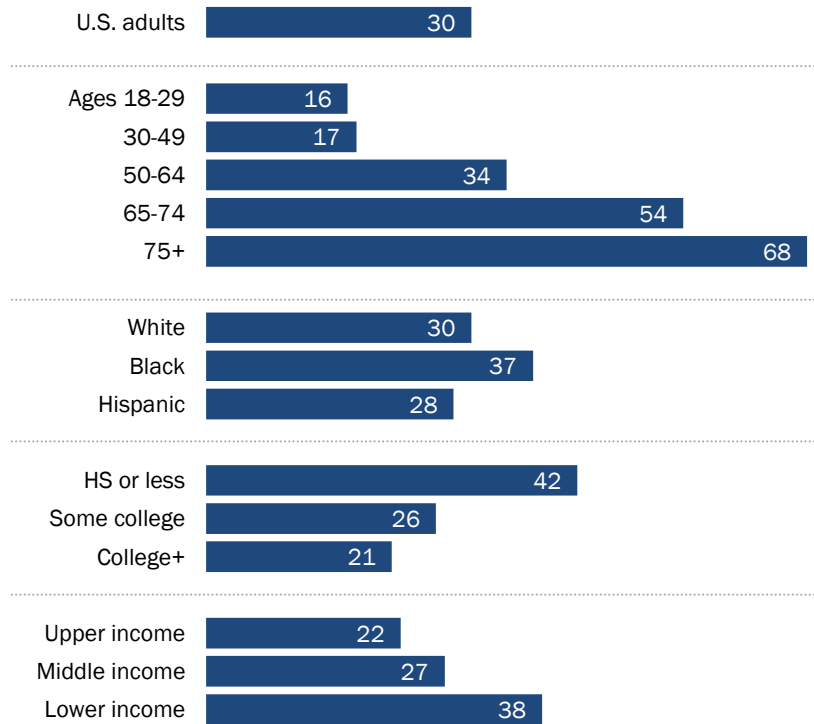
<sup>9</sup> The 2016 study examined five aspects of Americans’ “digital readiness”: Their confidence in using computers, their facility with getting new technology to work, their use of digital tools for learning, their ability to determine the trustworthiness of online information, and their familiarity with certain tech-related terms. The present effort uses a different definition of readiness and should not be directly compared to the earlier study.

In the April 2021 survey, older adults stand out in their lower tech readiness. Roughly two-thirds of Americans 75 and older fall into this category by meeting either criteria – and about a fifth of adults 75 and older (22%) meet *both* of the criteria.

Beyond age, there are other differences in who has lower tech readiness. Those with lower incomes and less formal education are more likely to fall in this group than are those with higher incomes and more formal education. And Black adults are somewhat more likely than White or Hispanic adults to fall into this lower-readiness category.

### 30% of Americans have lower tech readiness, which varies by age, educational attainment and income

% of U.S. adults who *have lower tech readiness*\*



\*Those with lower tech readiness say they either are not at all or only a little confident using their computers, smartphones or other electronic devices to do the things they need to do online, or they usually need someone else to set up or show them how to use a new computer, smartphone or other electronic device when they get it.

Note: White and Black adults include those who report being only one race and are not Hispanic. Hispanics are of any race. Family income tiers are based on adjusted 2019 earnings. Those who did not give an answer are not shown.

Source: Survey of U.S. adults conducted April 12-18, 2021.

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**A note on tech readiness estimates**

Americans' abilities and confidence in using technology are challenging concepts to measure with today's survey tools. Like most of the Center's public opinion polls, this survey was conducted online. In general, online surveys tend to [overestimate technology use](#) because they contain too few adults who use the internet infrequently or not at all relative to the actual population.

This survey has several features designed to guard against this inherent tendency to overrepresent more tech-savvy adults. When respondents for this survey (fielded on the [American Trends Panel](#) or ATP) were recruited, both online and offline adults were provided a path to participate. Pew Research Center provides adults without home internet a tablet, data plan and IT support free of charge so that they can participate in the ATP. This issue is also addressed in the survey weights. Weighting helps to make a survey nationally representative with respect to key variables like age, gender, race, education and so forth. In addition to demographics, this survey's weights make the sample more representative with respect to frequency of internet use. Our internet frequency benchmarks come from the Center's [National Public Opinion Reference Survey](#), which allows people to respond offline through the mail. This weighting adjustment reduces the influence of high-frequency internet users and increases the influence of low-frequency users.

Features like these distinguish Pew Research Center surveys from other surveys that simply ignore the offline population. But despite these steps, the estimates in this survey may still overrepresent adults with higher levels of ability and confidence in using technology. For example, the report's finding that 30% of U.S. adults have "lower tech readiness" should be viewed as a lower bound on the actual population figure that might be measured with a study using additional modes, such as face-to-face interviewing. In short, while this report presents what we believe to be sound, reasonably accurate data, it is important to keep in mind the limitations of even rigorous online surveys for measuring these particular constructs.

These readiness groups have different views of how personally important the internet has been amid the pandemic: The share of Americans with lower tech readiness who say the internet has been essential to them is 27 percentage points lower than for those with higher tech readiness.

Across age groups, those with lower tech readiness are less likely than others to deem the internet personally essential during the pandemic. The gap is especially pronounced for those ages 18 to 49 (47% lower vs. 73% higher) and 50 to 64 (39% vs. 56%), while it is 12 points for those 65 and older (33% vs. 45%).<sup>10</sup>

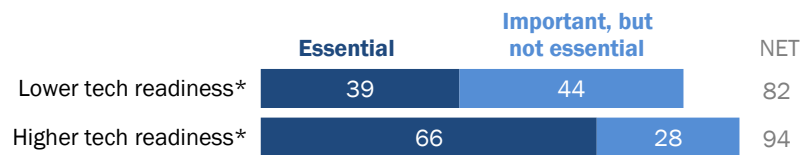
Still, the vast majority of those reporting lower tech readiness say the internet has been at least important for them personally in the pandemic. Fully 82% of those with lower tech readiness and 94% of those with higher tech readiness say this. Even among those 65 and older who have lower tech readiness, 82% say the internet has been at least important to them during the pandemic.

Americans with lower tech readiness are also about

twice as likely as others to say they have never talked with others via video calls during the pandemic (30% vs. 14%). For those 65 and older, tech readiness relates to use of video calling in a particularly notable way. The share of Americans 65 and older with lower readiness who have used video calling in the pandemic is 21 points lower than the share of those with higher readiness (55% vs. 76%). There is a smaller but significant gap for those ages 50 to 64 (9 points). But tech readiness matters little for this among those ages 18 to 49.

### Adults with lower tech readiness are less likely than others to say the internet has been essential amid COVID-19

*% of U.S. adults who say the internet has been \_\_\_ for them personally during the coronavirus outbreak*



\*Those with lower tech readiness say they either are not at all or only a little confident using their computers, smartphones or other electronic devices to do the things they need to do online, or they usually need someone else to set up or show them how to use a new computer, smartphone or other electronic device when they get it. Those with higher readiness say they are both very or somewhat confident, and can usually set up and learn how to use devices on their own.

Note: Figures may not add to subtotals due to rounding. Those who did not give an answer or who gave other responses are not shown.

Source: Survey of U.S. adults conducted April 12-18, 2021.

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<sup>10</sup> There were not enough respondents ages 18 to 29, ages 30 to 49, or 75+ with each level of tech readiness in the sample to be broken out separately. Thus, age categories are collapsed for this analysis.



## Those with lower tech readiness are about twice as likely to have never talked with others via video calls amid COVID-19, compared with those more tech-ready

% of U.S. adults who say they have talked with others via video calls \_\_\_ since the beginning of the coronavirus outbreak in February 2020

	Never	Less often	Every few weeks	About once a week	A few times a week	About once a day	Several times a day	NET EVER
Lower tech readiness*	30	16	15	13	13	7	6	69
Higher tech readiness*	14	14	17	12	20	8	15	86

\*Those with lower tech readiness say they either are not at all or only a little confident using their computers, smartphones or other electronic devices to do the things they need to do online, or they usually need someone else to set up or show them how to use a new computer, smartphone or other electronic device when they get it. Those with higher readiness say they are both very or somewhat confident, and can usually set up and learn how to use devices on their own.

Note: Figures may not add to subtotals due to rounding. Those who did not give an answer are not shown.

Source: Survey of U.S. adults conducted April 12-18, 2021.

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Additionally, those with lower tech readiness are more likely than others to say their digital interactions online or by phone have not been of much use. About a fifth of those who have lower tech readiness say so, compared with 12% of those who are higher in this domain. When asked about using tech in new or different ways during the pandemic, those with lower tech readiness are less likely than others to say they've done so (34% vs. 43%).

The role of tech readiness also is evident when it comes to the communication platforms people have used and how helpful they have been. Those with lower tech readiness are *more* likely than others to say that email has helped a lot in staying in touch with family and friends (24% vs. 17%). They are *less* likely than others to say the same about text messages or messaging apps (39% vs. 46%) or video calls (25% vs. 31%).

## Americans with lower tech readiness are more likely than those more tech-ready to say digital interactions haven't been of much use amid COVID-19

*% of U.S. adults who, when asked about the limits on social contact recommended during the coronavirus outbreak, say that the everyday interactions they normally would have had in person, but instead had online or by telephone, have generally been ...*

	Not of much use	Useful but not a replacement for in-person contact	Just as good as in-person contact
Lower tech readiness*	21	62	17
Higher tech readiness*	12	71	16

\*Those with lower tech readiness say they either are not at all or only a little confident using their computers, smartphones or other electronic devices to do the things they need to do online, or they usually need someone else to set up or show them how to use a new computer, smartphone or other electronic device when they get it. Those with higher readiness say they are both very or somewhat confident, and can usually set up and learn how to use devices on their own.

Note: Those who did not give an answer are not shown.

Source: Survey of U.S. adults conducted April 12-18, 2021.

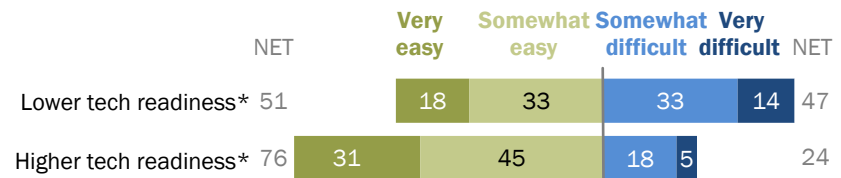
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Finally, parents with lower tech readiness are more likely to report difficulty helping their children with remote learning. Among parents whose K-12 children have had any online instruction in the pandemic, roughly half (47%) of those with lower tech readiness say it has been at least somewhat difficult to help their children use technology and the internet for this purpose. This share is about twice as large as that among parents of K-12 children with any online instruction who have higher tech readiness (24%).

### 47% of parents with lower tech readiness have found it at least somewhat difficult to help their children with tech for online instruction

*Among parents whose K-12 children have had some online instruction since the beginning of the coronavirus outbreak, % who say it has been \_\_\_ for them to help their children to use technology and the internet for online instruction*



\*Those with lower tech readiness say they either are not at all or only a little confident using their computers, smartphones or other electronic devices to do the things they need to do online, or they usually need someone else to set up or show them how to use a new computer, smartphone or other electronic device when they get it. Those with higher readiness say they are both very or somewhat confident, and can usually set up and learn how to use devices on their own.

Note: "Parents with K-12 children" refers to those who said they were the parent or guardian of any children who were enrolled in elementary, middle or high school and who lived in their household. "Some online instruction" refers to children having had any online instruction – whether this was fully online or a mix of online and in-person – since the beginning of the coronavirus outbreak in February 2020. Figures may not add to subtotals due to rounding. Those who did not give an answer are not shown.

Source: Survey of U.S. adults conducted April 12-18, 2021.

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## 4. The role of technology in COVID-19 vaccine registration

In the early months of 2021, COVID-19 [vaccines began to roll out](#) and the public was thrust into a vaccine registration system that was sometimes characterized in the media as [confusing](#) and [competitive](#).

In order to better understand people's experiences during this time, the survey fielded in mid-April asked about Americans' attempts to obtain a vaccine appointment for themselves and others – including the challenges they may have faced along the way. It is important to note that the situation surrounding vaccine registration is evolving and changing continually. This chapter is merely a snapshot of the landscape of vaccine registration as of when the survey was fielded in mid-April 2021. [Registration rates](#) and [challenges](#) have changed since April due to these [ever-changing circumstances](#).

The survey shows that by April 2021 many of those who wanted to get vaccinated were finding it at least somewhat easy to get an appointment online. And when asked about five potential reasons they had difficulty, relatively few of those who were experiencing challenges at that time said that technology- or system-related struggles were major reasons for this difficulty. Instead, people said their problems with vaccine registration primarily arose from a lack of available appointments in their area at the time they were trying to sign up.

### Vaccination registration terminology

Several terms are used in this chapter to describe people based on whether or not they had tried to sign themselves up for a COVID-19 vaccination appointment as of April:

**Vaccine registrant** refers to a person who had tried to sign themselves up for a vaccine appointment. Some 57% of U.S. adults said they had done so in the April survey.

- **Online vaccine registrant** is used to describe a person who tried to sign themselves up for a vaccine appointment online. Some 45% of U.S. adults said they had done so as of the time this survey was fielded in April 2021.
- **Offline vaccine registrant** is used to refer to a person who tried to sign themselves up for a vaccine appointment in a way that was not online. Some 12% of U.S. adults said they had done so as of the time this survey was fielded in April 2021.

**Vaccine non-registrant** refers to a person who did not try to sign themselves up for the COVID-19 vaccine as of April. Some 42% of U.S. adults said they had not done so as of the time this survey was fielded in April 2021.

The survey found that by mid-April roughly six-in-ten American adults (57%) had tried to register or sign themselves up for the vaccine, and a quarter had done so for someone else.<sup>11</sup>

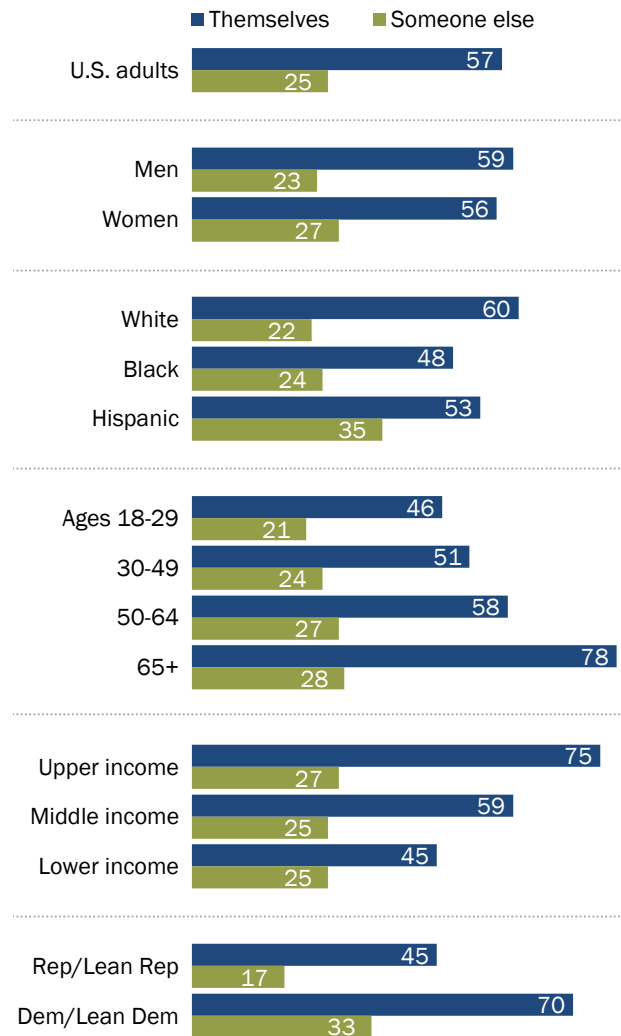
About eight-in-ten adults ages 65 and older said they had already signed themselves up for the vaccine, compared with 58% of those ages 50 to 64 and somewhat smaller shares of adults under the age of 50. This pattern largely parallels the [age restrictions](#) that were a part of the vaccine rollout and which prioritized vaccinating older Americans before other age groups. Adults 65 and older were also slightly more likely to have signed up someone else for the vaccine than adults 18 to 29 (28% vs. 21%). Those 30 to 64 did not significantly differ from either of their oldest and youngest counterparts in having signed up others for the vaccine.

Adults with higher incomes were also more likely to say they had registered themselves for the vaccine than their less affluent counterparts in April 2021.

White adults were more likely to say they had signed themselves up for the vaccine than Black adults. At the same time, Hispanic adults were more likely than their White or Black counterparts to have signed someone else up for the vaccine. Some 35% of Hispanic adults said they had signed someone else up by mid-April, while about a quarter Black or White Americans said the same.

## As of April, 57% of Americans reported having signed themselves up to receive a COVID-19 vaccine

*% of U.S. adults who say they had tried to register or sign \_\_\_ up to receive a COVID-19 vaccine as of April*



Note: White and Black adults include those who report being only one race and are not Hispanic. Hispanics are of any race. Family income tiers are based on adjusted 2019 earnings. Those who did not give an answer are not shown.

Source: Survey of U.S. adults conducted April 12-18, 2021. "The Internet and the Pandemic"

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<sup>11</sup> In February 2021, a separate Center study found that 69% of American adults [intended to get vaccinated](#) against COVID-19 (or had done so already).

Like other [COVID-19 issues](#), the vaccine rollout had become [highly politicized](#) by last spring. This was also the case when it came to the vaccine signup process. Seven-in-ten Democrats said they had signed themselves up for the vaccine by April 2021, while 45% of Republicans said they had signed up. Similarly, Democrats were more likely than Republicans to have signed someone else up to vaccinated.

## Vaccine appointments were predominantly scheduled online

Among those who had signed themselves or others up for the vaccine by mid-April, about eight-in-ten or more said they tried to do so online. In total, 45% of American adults had signed themselves up online, while 22% had done so for someone else.

While majorities across demographic groups who tried to sign themselves or others up turned to the internet to make vaccine appointments, there were some differences across groups.

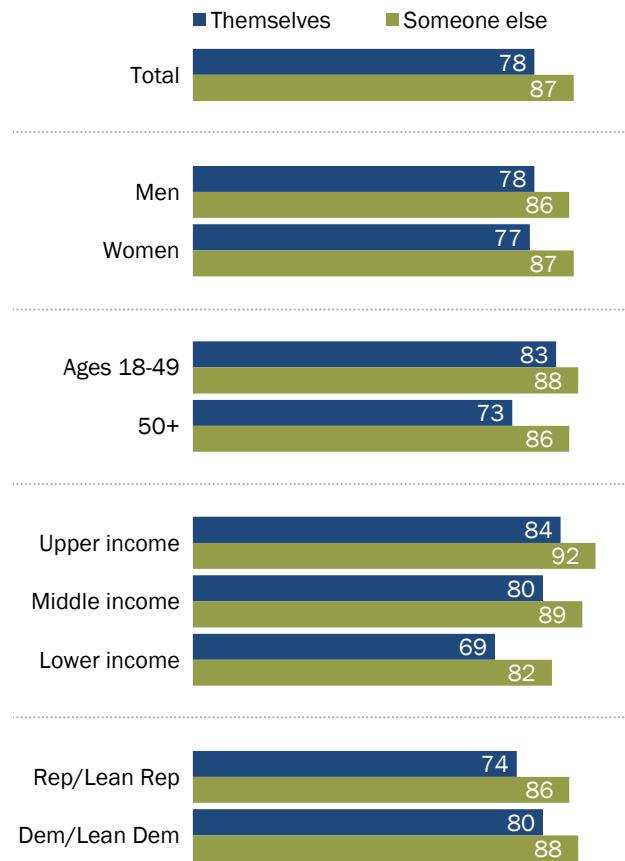
The share of adult vaccine registrants under 50 who said they tried to sign themselves up online was 10 percentage points higher than for registrants 50 and older. In addition, a modest difference in using the internet for vaccine registration was seen between Democrats and Republicans who signed themselves up for the vaccine. Eight-in-ten Democratic vaccine registrants say they used online systems, compared with roughly three-quarters of their Republican counterparts.

While about seven-in-ten vaccine registrants with lower household incomes said in April that they had tried to sign up online, eight-in-ten or more middle- and upper-income registrants said they tried to do this.

Some 62% of Black vaccine registrants had tried to sign themselves up online, while about three-quarters or more of White or Hispanic registrants had tried to do this (79% and 76%, respectively).

### As of April, most of those seeking vaccines had gone online to make appointments for themselves or others

Among those who say they had tried to register or sign \_\_\_ up to receive a COVID-19 vaccine as of April, % who say they tried to do so **online**



Note: Family income tiers are based on adjusted 2019 earnings. Those who did not give an answer are not shown.  
Source: Survey of U.S. adults conducted April 12-18, 2021. "The Internet and the Pandemic"

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Few demographic differences are present for having signed someone else up online. People with lower incomes who tried to sign someone else up for the vaccine were 10 points less likely than those with higher incomes who tried to sign someone else up to have done so online.

## About three-in-ten online vaccine registrants report they experienced difficulty signing up

[Online systems](#) for vaccine registration stirred [media coverage](#) as [problems arose](#).

The Center explored the issues online vaccine registrants faced by asking the 45% of Americans who had tried to register themselves online for vaccination about their experiences.

In mid-April, 29% of those who had tried to sign themselves up for the vaccine online said signing up online was at least somewhat difficult, while 71% said doing so had been at least

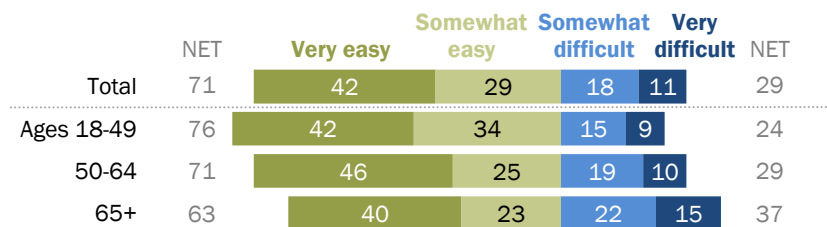
somewhat easy. In all, that comes to 13% of Americans who said they had experienced difficulty signing up for vaccines online as of mid-April.

Beyond that, as the vaccine rollout began, concerns were raised in the media regarding seniors' capability to sign up for the [vaccine online](#) – be it due to a lack of internet access or digital literacy. The survey shows that 37% of online vaccine registrants 65 and older reported experiencing at least some difficulty, making them more likely than their younger counterparts to report experiencing difficulties. Still, a majority of online vaccine registrants 65 and older said signing up was at least somewhat easy to do.

Tech readiness is also related to how difficult people found trying to sign themselves up online to be. Online vaccine registrants who struggle either with using new devices independently or who do not feel confident using devices effectively – that is, they have lower tech readiness, as described in [Chapter 3](#) – are more likely to report experiencing difficulty (37%) than those who have higher

### Majorities of online vaccine registrants across age groups said in April that signing up for a vaccine appointment online was at least somewhat easy

Among the 45% of U.S. adults who say they had tried to register or sign themselves up **online** to receive a COVID-19 vaccine as of April, % who say it was \_\_\_ to do



Note: Figures may not add to subtotals due to rounding. Those who did not give an answer are not shown.

Source: Survey of U.S. adults conducted April 12-18, 2021. "The Internet and the Pandemic"

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tech readiness (25%). Still majorities in both groups reported signing up online with at least some ease (63% and 75%, respectively).

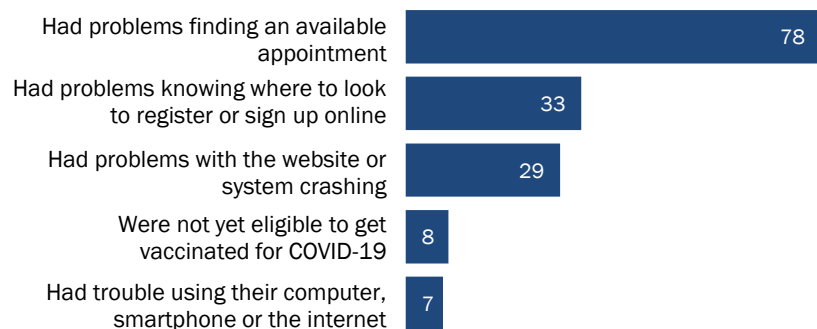
When asked about five potential reasons for why signing up for the vaccine online had been difficult, about eight-in-ten online vaccine registrants who reported difficulties said a major reason why they had difficulty was that they had problems finding an available appointment. This share was more than twice as large as the second most common reason cited.

Roughly three-in-ten of those who tried to sign themselves up for the COVID-19 vaccine online and said it was at least somewhat difficult to do said their lack of knowledge about where to sign up online (33%) and problems with the online system crashing (29%) were major reasons why they faced difficulties. Smaller shares said not yet being eligible to receive the vaccine or difficulty using technology were major reasons.

Many of these challenges are less likely to be issues now for those seeking to get vaccinated. While the demand for [vaccine appointments](#) outpaced the [supply of vaccines](#) in the [early months of 2021](#), many [vaccination sites](#) have started [predominantly doing walk-in](#) appointments for anyone interested in a vaccine, while other [vaccination sites have closed](#) due to [lack of demand](#). And as of the time of writing, Americans [ages 12 and older are eligible](#) to receive the vaccines if they so choose. In addition, new challenges may arise as Americans seek booster shots under [new recommendations](#) from the Centers for Disease Control and Prevention.

### Appointment availability was the top challenge reported in April for online vaccine registration

Among the 13% of U.S. adults who said in April that they had a somewhat or very difficult time trying to register or sign themselves up online to receive a COVID-19 vaccine, % who say a **major reason** they had difficulty was that they ...



Note: Those who did not give an answer or who gave other responses are not shown. Source: Survey of U.S. adults conducted April 12-18, 2021.

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As of mid-April, about a fifth of Americans who had tried to sign themselves up for the COVID-19 vaccine online reported they needed help from someone else at some point in doing so. That amounts to 8% of all adults.

There were some differences by household income: 30% of online vaccine registrants with lower incomes said they needed such help, compared with 17% of those with middle incomes and 9% of those in the upper income category. By contrast, there were no statistical differences in needing help between adult online registrants under 50 years old (17%), those ages 50 to 64 (16%) and those 65 and older (21%).

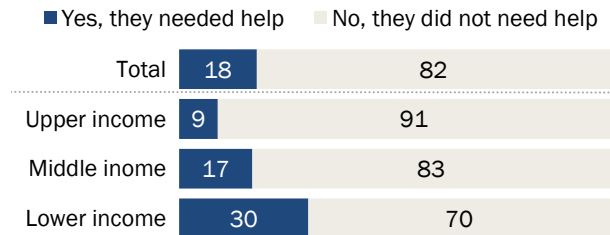
Online vaccine registrants who said it was at least somewhat difficult to register for the vaccine were more likely than those who had an easy time to say they needed someone else to help them (31% vs. 13%).

Similarly, tech readiness is associated with needing help. Some 35% of online vaccine registrants with lower tech readiness said they needed help from others, while 12% of those with higher tech readiness said the same.

Similar to those who tried to sign themselves up for the vaccine, 71% of people who had tried to sign up someone else for a vaccine appointment online said that when thinking about the person they did this for most recently, it was at least somewhat easy to do.

### 18% of online vaccine registrants say they needed someone else's help to sign up online for the vaccine

Among the 45% of U.S. adults who say they had tried to register or sign themselves up online to receive a COVID-19 vaccine as of April, % who say \_\_\_ from someone else at some point in trying to do so



Note: Family income tiers are based on adjusted 2019 earnings. Those who did not give an answer are not shown. Source: Survey of U.S. adults conducted April 12-18, 2021. "The Internet and the Pandemic"

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### About seven-in-ten people who signed up someone else up for the vaccine online said it was easy to do

Among the 22% of U.S. adults who say they had tried to register or sign someone else up online to receive a COVID-19 vaccine as of April, % who say when thinking about the person they did this for **most recently**, it was \_\_\_ to do



Note: Figures may not add to subtotals due to rounding. Those who did not give an answer are not shown. Source: Survey of U.S. adults conducted April 12-18, 2021. "The Internet and the Pandemic"

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## Vaccine registrants who didn't sign up online cited success using other systems as a major reason for not signing up online

While most vaccine registrants turned to the internet to sign up for the vaccine as of mid-April, 21% of vaccine registrants said they tried to sign up in a different way. For the purposes of this study, this group is referred to as “offline vaccine registrants” and they make up 12% of all U.S. adults. When asked why they did not try to sign up online, the vast majority of these offline registrants said a major reason was that they were able to sign up in another way.

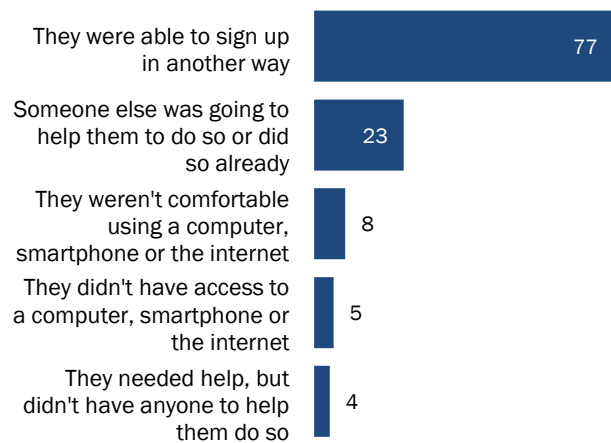
About a quarter of offline vaccine registrants said that someone else helping them to register was a major reason why they did not try to sign up online, while 4% said they needed help to sign up online but didn't have anyone to help them do so.

Roughly one-in-ten or fewer reported they did not feel comfortable using digital technologies (8%) or that they lacked access to digital technologies (5%).<sup>12</sup>

Looking beyond the experiences of people who had been seeking to get vaccinated, the Center also probed the experiences of Americans who had not yet tried to get the COVID-19 vaccine as of mid-April.

### Most common reason some vaccine registrants did not try to sign up online was success in using other methods

Among the 12% of U.S. adults who say they had tried to sign themselves up to receive a COVID-19 vaccine in a way that was not online as of April, % who say a **major reason** they had not tried to register or sign up online is that ...



Note: Those who did not give an answer or who gave other responses are not shown.

Source: Survey of U.S. adults conducted April 12-18, 2021. “The Internet and the Pandemic”

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<sup>12</sup> See [Chapter 3](#) for a discussion of the considerations needed in measuring Americans' competence and abilities related to technology.

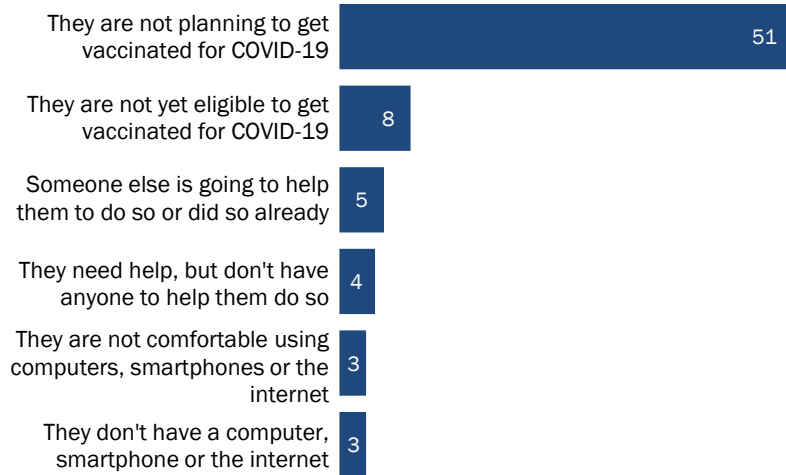
Overall, 42% of American adults in mid-April reported that they had not yet tried to get a vaccination appointment. When asked about five potential reasons why they hadn't tried to get an appointment, the most commonly cited major reason was that they did not plan to get vaccinated, with 51% of vaccine non-registrants saying this was a major reason why they had not sought a vaccine appointment (or 21% of all Americans). All other reasons we queried were cited as major reasons at much lower levels.

Partisans differed in the reasons they cited as major ones when asked why they had not yet pursued trying to sign up for a COVID-19 vaccine back in April. Roughly two-thirds of Republican vaccine non-registrants said not planning to be vaccinated for COVID-19 was a major reason why they hadn't tried to sign up, while half as many Democratic vaccine non-registrants – 33% – said the same.

The pandemic is constantly evolving and changing; these findings are just a snapshot of the attitudes expressed in April. Prior Center work has found [vaccine intentions](#) were growing as the vaccine rollout progressed.

## In April, 51% of Americans who hadn't yet tried to sign up for a vaccine appointment said they weren't planning on getting vaccinated for COVID-19

*Among the 42% of Americans who say they had not tried to sign themselves up for the COVID-19 vaccine as of April, % who say a **major reason** they had not tried to do so is that ...*



Note: Those who did not give an answer or who gave other responses are not shown.  
Source: Survey of U.S. adults conducted April 12-18, 2021.  
"The Internet and the Pandemic"

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## Acknowledgments

This report is a collaborative effort based on the input and analysis of the following individuals. Find related reports online at [pewresearch.org/internet](http://pewresearch.org/internet).

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In addition, the project benefited greatly from the guidance of Pew Research Center's methodology team: Courtney Kennedy, Andrew Mercer, Nick Bertoni, Dorene Asare-Marfo, Nick Hatley, Ashley Amaya and Arnold Lau, as well as from feedback from the following Pew Research Center staff: Aaron Smith, Juliana Menasce Horowitz, Jocelyn Kiley, Carroll Doherty, Cary Funk and Alec Tyson.

## Methodology

### The American Trends Panel survey methodology

#### Overview

The American Trends Panel (ATP), created by Pew Research Center, is a nationally representative panel of randomly selected U.S. adults. Panelists participate via self-administered web surveys. Panelists who do not have internet access at home are provided with a tablet and wireless internet connection. Interviews are conducted in both English and Spanish. The panel is being managed by Ipsos.

Data in this report is drawn from the panel wave conducted April 12 to April 18, 2021, and includes an oversample of panelists who responded to ATP Wave 63 and had children 11 or younger at the time. A total of 4,623 panelists responded out of 5,269 who were sampled, for a response rate of 88%. This does not include two panelists who were removed from the data due to extremely high rates of refusal or straightlining. The cumulative response rate accounting for nonresponse to the recruitment surveys and attrition is 4%. The break-off rate among panelists who logged on to the survey and completed at least one item is 1%. The margin of sampling error for the full sample of 4,623 respondents is plus or minus 2.2 percentage points.

#### Panel recruitment

The ATP was created in 2014, with the first cohort of panelists invited to join the panel at the end of a large, national, landline and cellphone random-digit-dial survey that was conducted in both English and Spanish. Two additional recruitments were conducted using the same method in 2015 and 2017, respectively. Across these three surveys, a total of 19,718 adults were invited to join the ATP, of whom 9,942 (50%) agreed to participate.

In August 2018, the ATP switched from telephone to address-based recruitment.

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#### American Trends Panel recruitment surveys

Recruitment dates	Mode	Invited	Joined	Active panelists remaining
Jan. 23 to March 16, 2014	Landline/ cell RDD	9,809	5,338	2,183
Aug. 27 to Oct. 4, 2015	Landline/ cell RDD	6,004	2,976	1,243
April 25 to June 4, 2017	Landline/ cell RDD	3,905	1,628	620
Aug. 8 to Oct. 31, 2018	ABS/web	9,396	8,778	5,895
Aug. 19 to Nov. 30, 2019	ABS/web	5,900	4,720	2,326
June 1 to July 19, 2020	ABS/web	1,865	1,636	1,269
	<b>Total</b>	<b>36,879</b>	<b>25,076</b>	<b>13,536</b>

Note: Approximately once per year, panelists who have not participated in multiple consecutive waves or who did not complete an annual profiling survey are removed from the panel. Panelists also become inactive if they ask to be removed from the panel.

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Invitations were sent to a random, address-based sample of households selected from the U.S. Postal Service's Delivery Sequence File. Two additional recruitments were conducted using the same method in 2019 and 2020, respectively. Across these three address-based recruitments, a total of 17,161 adults were invited to join the ATP, of whom 15,134 (88%) agreed to join the panel and completed an initial profile survey. In each household, the adult with the next birthday was asked to go online to complete a survey, at the end of which they were invited to join the panel. Of the 25,076 individuals who have ever joined the ATP, 13,536 remained active panelists and continued to receive survey invitations at the time this survey was conducted.

The U.S. Postal Service's Delivery Sequence File has been estimated to cover as much as 98% of the population, although some studies suggest that the coverage could be in the low 90% range.<sup>13</sup> The American Trends Panel never uses breakout routers or chains that direct respondents to additional surveys.

### **Sample design**

The overall target population for this survey was non-institutionalized persons ages 18 and older, living in the U.S., including Alaska and Hawaii.

This study featured a stratified random sample from the ATP. The sample was allocated according to the following strata, in order: parents of children 11 or younger who responded to the Wave 63 Kids and Screens survey, tablet households, U.S.-born Hispanics, foreign-born Hispanic adults, high school education or less, foreign-born Asian adults, not registered to vote, people ages 18 to 34, uses internet weekly or less, non-Hispanic Black adults, nonvolunteers and all other categories not already falling into any of the above.

Panelists who responded to the Wave 63 Kids and Screens survey and had children 11 or younger at the time were sampled with certainty. The remaining strata were sampled at rates designed to ensure that the share of respondents in each stratum is proportional to its share of the U.S. adult population to the greatest extent possible. Respondent weights are adjusted to account for differential probabilities of selection as described in the Weighting section below.

### **Questionnaire development and testing**

The questionnaire was developed by Pew Research Center in consultation with Ipsos. The web program was rigorously tested on both PC and mobile devices by the Ipsos project management team and Pew Research Center researchers. The Ipsos project management team also populated

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<sup>13</sup> AAPOR Task Force on Address-based Sampling. 2016. "[AAPOR Report: Address-based Sampling](#)."

test data which was analyzed in SPSS to ensure the logic and randomizations were working as intended before launching the survey.

### **Incentives**

All respondents were offered a post-paid incentive for their participation. Respondents could choose to receive the post-paid incentive in the form of a check or a gift code to Amazon.com or could choose to decline the incentive. Incentive amounts ranged from \$5 to \$20 depending on whether the respondent belongs to a part of the population that is harder or easier to reach. Differential incentive amounts were designed to increase panel survey participation among groups that traditionally have low survey response propensities.

### **Data collection protocol**

The data collection field period for this survey was April 12 to April 18, 2021. Postcard notifications were mailed to all ATP panelists with a known residential address on April 13, 2021.

On April 12 and April 13, invitations were sent out in two separate launches: Soft Launch and Full Launch. Sixty panelists were included in the soft launch, which began with an initial invitation sent on April 12, 2021. The ATP panelists chosen for the initial soft launch were known responders who had completed previous ATP surveys within one day of receiving their invitation. All remaining English- and Spanish-speaking panelists were included in the full launch and were sent an invitation on April 13, 2021.

All panelists with an email address received an email invitation and up to two email reminders if they did not respond to the survey. All ATP panelists that consented to SMS messages received an SMS invitation and up to two SMS reminders.

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#### **Invitation and reminder dates**

	<b>Soft Launch</b>	<b>Full Launch</b>
Initial invitation	April 12, 2021	April 13, 2021
First reminder	April 15, 2021	April 15, 2021
Final reminder	April 17, 2021	April 17, 2021

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### **Data quality checks**

To ensure high-quality data, the Center's researchers performed data quality checks to identify any respondents showing clear patterns of satisficing. This includes checking for very high rates of



leaving questions blank, as well as always selecting the first or last answer presented. As a result of this checking, two ATP respondents were removed from the survey dataset prior to weighting and analysis.

## Weighting

The ATP data was weighted in a multistep process that accounts for multiple stages of sampling and nonresponse that occur at different points in the survey process. First, each panelist begins with a base weight that reflects their probability of selection for their initial recruitment survey (and the probability of being invited to participate in the panel in cases where only a subsample of respondents were invited). The base weights for panelists recruited in different years are scaled to be proportionate to the effective sample size for all active panelists in their cohort.

To correct for nonresponse to the initial recruitment surveys and gradual panel attrition, the base weights for all active panelists are calibrated to align with the population benchmarks identified in the accompanying table to create a full-panel weight.

For ATP waves in which only a subsample of panelists are invited to participate, a wave-specific base weight is created by adjusting the full-panel weights for subsampled panelists to account for any differential probabilities of selection for the particular panel wave. For waves in which all active panelists are invited to participate, the wave-specific base weight is identical to the full-panel weight.

In the final weighting step, the wave-specific base weights for panelists who completed the survey are again calibrated to match the population benchmarks specified above. Due to oversampling, an

## Weighting dimensions

Variable	Benchmark source
Age x Gender	2019 American Community Survey
Education x Gender	
Education x Age	
Race/Ethnicity x Education	
Born inside vs. outside the U.S. among Hispanics and Asian Americans	
Years lived in the U.S.	
Presence of children aged 0-12 in household	
Census region x Metro/Non-metro	2019 CPS March Supplement
Volunteerism	2017 CPS Volunteering & Civic Life Supplement
Voter registration	2016 CPS Voting and Registration Supplement
Party affiliation	2020 National Public Opinion Reference Survey
Frequency of internet use	
Religious affiliation	

Note: Estimates from the ACS are based on non-institutionalized adults. The 2016 CPS was used for voter registration targets for this wave in order to obtain voter registration numbers from a presidential election year. Voter registration is calculated using procedures from Hur, Achen (2013) and rescaled to include the total U.S. adult population. The 2020 National Public Opinion Reference Survey featured 1,862 online completions and 2,247 mail survey completions.

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additional raking parameter was added for this survey to adjust the sample based on whether or not one or more children between the ages of 0 to 12 live in the respondent's household. These weights are trimmed (typically at about the 1st and 99th percentiles) to reduce the loss in precision stemming from variance in the weights. Sampling errors and test of statistical significance take into account the effect of weighting.

The following table shows the unweighted sample sizes and the error attributable to sampling that would be expected at the 95% level of confidence for different groups in the survey.

<b>Group</b>	<b>Unweighted sample size</b>	<b>Weighted percentage</b>	<b>Plus or minus ...</b>
Total sample	4,623		2.2 percentage points
Ages 18-29	473		6.7 percentage points
30-49	2,156		3.6 percentage points
50-64	1,113		4.1 percentage points
65+	858		4.3 percentage points
Lower income	1,129		4.6 percentage points
Middle income	2,242		3.1 percentage points
Upper income	1,077		4.2 percentage points
Parent of children in grades K-12	1,801		4.2 percentage points
Not a parent of children in grades K-12	2,805		2.6 percentage points
Rep/Lean Rep	1,899	43	3.3 percentage points
Dem/Lean Dem	2,603	52	3.0 percentage points

Note: This survey includes an [oversample](#) of parents who responded to Wave 63 and had children 11 or younger at the time. Unweighted sample sizes do not account for the sample design or weighting and do not describe a group's contribution to weighted estimates. See the [Sample design](#) and [Weighting](#) sections above for details.

Sample sizes and sampling errors for other subgroups are available upon request. In addition to sampling error, one should bear in mind that question wording and practical difficulties in conducting surveys can introduce error or bias into the findings of opinion polls.

## Dispositions and response rates

Final dispositions	AAPOR code	Total
Completed interview	1.1	4,623
Logged onto survey; broke-off	2.12	53
Logged onto survey; did not complete any items	2.1121	38
Never logged on (implicit refusal)	2.11	552
Survey completed after close of the field period	2.27	1
Completed interview but was removed for data quality		2
Screened out		0
<b>Total panelists in the survey</b>		<b>5,269</b>
Completed interviews	I	4,623
Partial interviews	P	0
Refusals	R	643
Non-contact	NC	3
Other	O	0
Unknown household	UH	0
Unknown other	UO	0
Not eligible	NE	0
<b>Total</b>		<b>5,269</b>
AAPOR RR1 = I / (I+P+R+NC+O+UH+UO)		88%

Cumulative response rate	Total
Weighted response rate to recruitment surveys	11%
% of recruitment survey respondents who agreed to join the panel, among those invited	73%
% of those agreeing to join who were active panelists at start of Wave 88	57%
Response rate to Wave 88 survey	88%
<b>Cumulative response rate</b>	<b>4%</b>

## Defining income tiers

To create upper-, middle- and lower-income tiers, respondents' 2019 family incomes were adjusted for differences in purchasing power by geographic region and for household size. "Middle-income" adults live in families with annual incomes that are two-thirds to double the median family income in the panel (after incomes have been adjusted for the local cost of living and for household size). The middle-income range for the American Trends Panel is about \$38,900 to \$116,800 annually for an average family of three. Lower-income families have incomes

less than roughly \$38,900, and upper-income families have incomes greater than roughly \$116,800 (all figures expressed in 2019 dollars).

Based on these adjustments, among respondents who provided their income and household size, 31% are lower income, 45% are middle income and 19% fall into the upper-income tier. An additional 5% either didn't offer a response to the income question or the household size question.

For more information about how the income tiers were determined, please see [here](#).

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## Topline questionnaire

**2021 PEW RESEARCH CENTER'S AMERICAN TRENDS PANEL  
WAVE 88 APRIL 2021  
FINAL TOPLINE  
APRIL 12-18, 2021  
N=4,623**

**THE QUESTIONS PRESENTED BELOW ARE PART OF A LARGER SURVEY CONDUCTED ON THE AMERICAN TRENDS PANEL. OTHER QUESTIONS ON THIS SURVEY HAVE BEEN PREVIOUSLY RELEASED OR HELD FOR FUTURE RELEASE.**

**NOTE: ALL NUMBERS ARE PERCENTAGES UNLESS OTHERWISE NOTED. THE PERCENTAGES LESS THAN 0.5% ARE REPLACED BY AN ASTERISK (\*). ROWS/COLUMNS MAY NOT TOTAL 100% DUE TO ROUNDING.**

U.S. adults	<b>Sample size</b> 4,623	<b>Margin of error at 95% confidence level</b> +/- 2.2 percentage points
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**DISPLAY TO ALL:**

First, we have some questions about your life in general these days.

**ASK ALL:**

COVINTESS How important, if at all, has the internet been for YOU PERSONALLY during the coronavirus outbreak?

Apr 12-18, <u>2021</u>		Apr 7-12, <u>2020</u>
58	Essential	53
33	Important, but not essential	34
7	Not too important	10
2	Not at all important	3
*	No answer	*

**ASK ALL:**

E\_COVIDMOD Which of the following best describes your current employment situation?

Apr 12-18, <u>2021</u>		Jan 19-24, <u>2021</u>
45	Employed full-time	44
12	Employed part-time	12
23	Retired	18
3	Furloughed or temporarily laid off	3
18	Not employed	22
*	No answer	1

**ASK IF CURRENTLY EMPLOYED (E\_COVIDMOD=1,2) [N=2,855]:**WFHCURR Are you currently working from home...<sup>14</sup>

Apr 12-18, <u>2021</u>	
22	All of the time
7	Most of the time
10	Some of the time
11	Rarely
49	Never
*	No answer

**ASK ALL:**

COVIDCHG As a result of the coronavirus outbreak, has your own personal life...

Apr 12-18, <u>2021</u>		Feb 16-21, <u>2021</u>	Mar 19-24, <u>2020</u>
36	Changed in a major way	41	44
47	Changed, but only a little bit	43	44
16	Stayed about the same as it was before the outbreak	15	12
*	No answer	*	*

**ASK ALL:**CLOSENESS Compared with before the beginning of the coronavirus outbreak in February 2020, how close do you now generally feel to... **[RANDOMIZE ITEMS] [RANDOMIZE RESPONSE OPTIONS 1 AND 2, WITH OPTION 3 ALWAYS LAST]**

	<u>More close than before</u>	<u>Less close than before</u>	<u>About as close as before</u>	<u>No answer</u>
a. Close family members Apr 12-18, 2021	22	25	53	*
b. Friends you know well Apr 12-18, 2021	14	38	47	*
c. Casual acquaintances Apr 12-18, 2021	6	53	41	*

<sup>14</sup> WFHCURR was also asked in Wave 77, but in that wave was only asked of those who were currently employed full- or part-time, had only one job or considered one of their multiple jobs their primary job, and said that for the most part, the responsibilities of their job could be done from home.

**ASK IF INTERNET USER (XTABLET=2) [N=4,475]:**

BBHOME1 Do you subscribe to dial-up internet service at home or do you subscribe to a higher-speed broadband service such as DSL, cable, or fiber optic service?

Apr 12-18, <u>2021</u>		Apr 7-12, <u>2020</u>
3	Dial-up access	4
91	Higher-speed broadband service	87
5	I do not have home internet service	7
1	No answer	1

**BBHOME1 BASED ON ALL RESPONDENTS:**

BBHOME1 Do you subscribe to dial-up internet service at home or do you subscribe to a higher-speed broadband service such as DSL, cable, or fiber optic service?<sup>15</sup>

Apr 12-18, <u>2021</u>		Apr 7-12, <u>2020</u>
3	Dial-up access	4
86	Higher-speed broadband service	85
10	I do not have home internet service	10
*	No answer	1

**ASK ALL:**

SMARTPHONE Do you have a smartphone?

Apr 12-18, <u>2021</u>		Apr 7-12, <u>2020</u>	Jun 3-17, <u>2019</u>
91	Yes, I have a smartphone	90	87
9	No, I do not have a smartphone	10	12
*	No answer	*	*

**ASK ALL:**

COVIDIGGOV Do you think the federal government has a responsibility to ensure that all Americans have each of the following during the coronavirus outbreak? **[RANDOMIZE ITEMS]**

	Yes, the federal government has <u>this responsibility</u>	No, the federal government does not have this <u>responsibility</u>	<u>No answer</u>
a. High-speed internet connection at home			
Apr 12-18, 2021	37	62	1
Apr 7-12, 2020	37	62	1
b. Cellphone services			
Apr 12-18, 2021	30	70	1
Apr 7-12, 2020	34	65	1

<sup>15</sup> All non-internet users (XTABLET=1) are coded as "I do not have home internet service" for the purposes of this table.

**ASK ALL:**

COVIDSCHL1 Do you think K-12 schools have a responsibility to provide students with laptop or tablet computers in order to help them complete their schoolwork at home during the coronavirus outbreak?

Apr 12-18, <u>2021</u>		Apr 7-12, <u>2020</u>
49	Yes, schools have this responsibility to all students	37
37	Yes, schools have this responsibility, but only for students whose families cannot afford it	43
13	No, schools do not have this responsibility	19
1	No answer	1

**ASK ALL:**

DIGCONF Overall, how confident, if at all, do you feel using computers, smartphones, or other electronic devices to do the things you need to do online?<sup>16</sup>

Apr 12-18, <u>2021</u>		Oct 29-Nov 10, <u>2019</u>
57	Very confident	58
33	Somewhat confident	31
7	Only a little confident	7
2	Not at all confident	3
1	No answer	*

**DISPLAY TO ALL:**

Thinking more about your experiences during the coronavirus outbreak...

**ASK ALL:**

TECHCHG Compared with before the beginning of the coronavirus outbreak in February 2020, have you used digital technology or the internet in any new or different ways?

Apr 12-18, <u>2021</u>	
40	Yes, have done this
59	No, have not done this
1	No answer

<sup>16</sup> In W57, the question was as follows: "Overall, how confident do you feel using computers, smartphones, or other electronic devices to do the things you need to do online?"



**ASK IF HAS USED DIGITAL TECHNOLOGY OR THE INTERNET IN ANY NEW OR DIFFERENT WAYS (TECHCHG=1) [N=2,204]:**

TECHCHG2 Please explain how you have used digital technology or the internet in new or different ways compared with before the beginning of the coronavirus outbreak. [OPEN-END RESPONSE, CODED ANSWERS SHOWN BELOW]

Apr 12-18,  
2021

26	Video calls/conferencing: Generic mentions
16	Obtaining groceries, food or products or using essential services
13	Remote work and employment, aside from explicit mentions of video calls/conferencing
8	Video calls/conferencing: Remote work and employment
8	Video calls/conferencing: Friends and family, holidays and events
7	Entertainment, streaming, video platforms, hobbies
7	Online learning, aside from explicit mentions of video calls/conferencing
5	Video calls/conferencing: Online learning
5	Social media and social interaction
4	As a way to find and search for information
4	Video calls/conferencing: Telehealth
3	Religious services/activities
5	Other
18	No answer

**ASK ALL:  
TECHHELP**

Which of the following best describes you, even if neither is exactly right?

When I get a new computer, smartphone, or other electronic device, I usually...  
**[RANDOMIZE RESPONSE OPTIONS]**

Apr 12-18,  
2021

26	Need someone else to set it up or show me how to use it
73	Am able to set it up and learn how to use it on my own
1	No answer

**ASK ALL:**

**VIDEOCALL** Since the beginning of the coronavirus outbreak in February 2020, how often, if at all, have you talked with others via VIDEO calls?

Apr 12-18,	
<u>2021</u>	
12	Several times a day
7	About once a day
18	A few times a week
12	About once a week
16	Every few weeks
15	Less often
19	Never
*	No answer

**ASK IF HAS USED VIDEO CALLING (VIDEOCALL=1-6) [N=3,947]:**

**CALLFATIG** How often, if at all, do you feel worn out or fatigued from spending time on video calls?

Apr 12-18,	
<u>2021</u>	
13	Often
27	Sometimes
28	Rarely
31	Never
*	No answer

**ASK ALL:**

**LIMITTECH** Since the beginning of the coronavirus outbreak in February 2020, have you at any point tried to cut back on the amount of time you spend on the internet or your smartphone?

Apr 12-18,	
<u>2021</u>	
33	Yes, have done this
66	No, have not done this
1	No answer

**ASK IF BROADBAND USER (BBHOME1=2) [N=3,998]:**

CONNECT How often, if at all, do you experience problems with the speed, reliability or quality of your high-speed internet connection at home in a way that makes it hard to do the things you need to do online?

Apr 12-18,  
2021

12	Often
37	Sometimes
42	Rarely
10	Never
*	No answer

**ASK IF BROADBAND USER (BBHOME1=2) [N=3,998]:**

UPGRADE Since the beginning of the coronavirus outbreak in February 2020, have you done anything to improve the speed, reliability or quality of your high-speed internet connection at home?

Apr 12-18,  
2021

29	Yes, have done this
70	No, have not done this
1	No answer

**ASK IF BROADBAND USER (BBHOME1=2) OR HAS A SMARTPHONE (SMARTPHONE=1):**

COVPAYTECH How much, if at all, do you worry about being able to pay for each of the following over the next few months? **[RANDOMIZE ITEMS]**

	<u>A lot</u>	<u>Some</u>	<u>Not too much</u>	<u>Not at all</u>	<u>No answer</u>
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**ASK IF BROADBAND USER (BBHOME1=2) [N=4,151]:**

a. High-speed internet connection at home

Apr 12-18, 2021	8	18	25	49	*
Apr 7-12, 2020	9	19	28	44	*

**ASK IF HAS A SMARTPHONE (SMARTPHONE=1) [N=4,325]:**

b. Your cellphone bill

Apr 12-18, 2021	9	15	26	50	*
Apr 7-12, 2020	11	18	27	43	*

**ASK ALL:**

VAXTRY1 Have you tried to register or sign yourself up to receive a COVID-19 vaccine?

Apr 12-18,  
2021

57	Yes, I have done this
42	No, I have not done this
1	No answer

**ASK IF TRIED TO REGISTER OR SIGN UP (VAXTRY1=1) [N=2,908]:**

VAXTRY2 Have you tried to register or sign yourself up ONLINE to receive a COVID-19 vaccine?

Apr 12-18,

2021

78

Yes, I tried to do so online

21

No, I tried to do so in another way

1

No answer

**VAXNOTTRY BASED ON DID NOT TRY TO REGISTER OR SIGN UP AT ALL (VAXTRY1=2)  
[N=1,689]:**

VAXNOTTRY Please indicate if any of the following is a reason you have not tried to register or sign yourself up to receive a COVID-19 vaccine. **[RANDOMIZE ITEMS]**

	<u>A major reason</u>	<u>A minor reason</u>	<u>Not a reason</u>	<u>No answer</u>
a. I don't have access to a computer, smartphone, or the internet Apr 12-18, 2021	2	4	93	1
b. I'm not comfortable using computers, smartphones, or the internet Apr 12-18, 2021	3	7	89	1
c. Someone else is going to help me do so or has done so already Apr 12-18, 2021	5	6	88	2
d. I need help, but don't have anyone to help me do so Apr 12-18, 2021	4	5	90	1
e. I'm not yet eligible to get vaccinated for COVID-19 Apr 12-18, 2021	8	8	83	1
f. I'm not planning to get vaccinated for COVID-19 Apr 12-18, 2021	51	16	32	1

**VAXNOTTRY BASED ON TRIED TO REGISTER OR SIGN UP IN ANOTHER WAY (VAXTRY2=2)  
[N=538]:**

VAXNOTTRY Please indicate if any of the following is a reason you have not tried to register or sign yourself up to receive a COVID-19 vaccine ONLINE. **[RANDOMIZE ITEMS]**

	<u>A major reason</u>	<u>A minor reason</u>	<u>Not a reason</u>	<u>No answer</u>
a. I don't have access to a computer, smartphone, or the internet Apr 12-18, 2021	5	6	88	1
b. I'm not comfortable using computers, smartphones, or the internet Apr 12-18, 2021	8	9	81	2
c. Someone else is going to help me do so or has done so already Apr 12-18, 2021	23	3	73	1
d. I need help, but don't have anyone to help me do so Apr 12-18, 2021	4	8	87	1

**NO ITEMS e-f**

g. I was able to sign up in another way Apr 12-18, 2021	77	7	15	1
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**ASK IF TRIED TO REGISTER OR SIGN UP ONLINE (VAXTRY2=1) [N=2,349]:**

VAXDIFF1 How easy or difficult was it to try to register or sign yourself up ONLINE to receive a COVID-19 vaccine?

Apr 12-18, <u>2021</u>	
42	Very easy
29	Somewhat easy
18	Somewhat difficult
11	Very difficult
*	No answer

**ASK IF VERY OR SOMEWHAT DIFFICULT TO REGISTER OR SIGN UP ONLINE (VAXDIFF1=3,4)  
[N=649]:**

VAXDIFF2 Please indicate if any of the following is a reason why you had difficulty trying to register or sign yourself up ONLINE to receive a COVID-19 vaccine. **[RANDOMIZE ITEMS]**

	<u>A major reason</u>	<u>A minor reason</u>	<u>Not a reason</u>	<u>No answer</u>
a. I had trouble using my computer, smartphone or the internet Apr 12-18, 2021	7	9	83	1
b. I'm not yet eligible to get vaccinated for COVID-19 Apr 12-18, 2021	8	12	78	1
c. I had problems knowing where to look to register or sign up online Apr 12-18, 2021	33	29	36	2
d. I had problems with the website or system crashing Apr 12-18, 2021	29	22	48	1
e. I had problems finding an available appointment Apr 12-18, 2021	78	10	11	1

**ASK IF TRIED TO REGISTER OR SIGN UP ONLINE (VAXTRY2=1) [N=2,349]:**

VAXNEEDHELP At any point in trying to register or sign yourself up ONLINE to receive a COVID-19 vaccine, did you need help from someone else?

Apr 12-18, <u>2021</u>	
18	Yes, I needed help
82	No, I did not need help
*	No answer

**ASK ALL:**

VAXTRY3 Have you tried to register or sign SOMEONE ELSE up to receive a COVID-19 vaccine?

Apr 12-18, <u>2021</u>	
25	Yes, I have done this
74	No, I have not done this
1	No answer

**ASK IF TRIED TO REGISTER OR SIGN SOMEONE ELSE UP (VAXTRY3=1) [N=1,265]:**

VAXTRY4 Have you tried to register or sign SOMEONE ELSE up ONLINE to receive a COVID-19 vaccine?

Apr 12-18,

2021

87	Yes, I tried to do so online
13	No, I tried to do so in another way
*	No answer

**DISPLAY IF TRIED TO REGISTER OR SIGN SOMEONE ELSE UP ONLINE (VAXTRY4=1) [N=1,124]:**

Thinking about the person you've done this for MOST RECENTLY...

**ASK IF TRIED TO REGISTER OR SIGN SOMEONE ELSE UP ONLINE (VAXTRY4=1) [N=1,124]:**

VAXDIFF3 How easy or difficult was it to try to register or sign this person up ONLINE to receive a COVID-19 vaccine?

Apr 12-18,

2021

36	Very easy
35	Somewhat easy
18	Somewhat difficult
11	Very difficult
*	No answer

**DISPLAY TO ALL:**

On a different topic...

**ASK ALL:**

TECHREPLACE Thinking about the limits on social contact that experts have recommended during the coronavirus outbreak, have the everyday interactions that you would have had in person, and instead had online or by telephone, generally been...

Apr 12-18,

2021

17	Just as good as in-person contact
68	Useful but not a replacement for in-person contact
15	Not of much use
1	No answer

**ASK IF INTERNET USER (XTABLET=2) [N=4,475]:**

SNSUSE Do you ever use social media sites like Facebook, Twitter, or Instagram?

Apr 12-18,

2021

76	Yes, I use social media sites
24	No, I do not use social media sites
*	No answer



**ASK ALL:**

TECHVALUE

Since the beginning of the coronavirus outbreak in February 2020, how much has each of the following helped you, personally, stay connected with your family and friends?

**[RANDOMIZE ITEMS]**

		Helped a <u>lot</u>	Helped a <u>little</u>	Hasn't made much <u>difference</u>	No <u>answer</u>
<b>ASK IF USES SOCIAL MEDIA (SNSUSE=1) [N=3,488]:</b>					
a.	Social media sites				
	Apr 12-18, 2021	27	32	40	*
<b>ASK ALL:</b>					
b.	Text messages or group messaging apps				
	Apr 12-18, 2021	44	27	29	1
<b>ASK ALL:</b>					
c.	Video calls				
	Apr 12-18, 2021	30	29	40	1
<b>ASK ALL:</b>					
d.	Voice calls				
	Apr 12-18, 2021	38	26	35	*
<b>ASK IF INTERNET USER (XTABLET=2) [N=4,475]:</b>					
e.	Email				
	Apr 12-18, 2021	20	26	53	*

**ASK ALL:**

PARTY In politics today, do you consider yourself a:

**ASK IF INDEP/SOMETHING ELSE (PARTY=3 or 4) OR MISSING:**

PARTYLN

As of today do you lean more to...<sup>17</sup>

<u>Republican</u>	<u>Democrat</u>	<u>Independent</u>	Something <u>else</u>	No <u>answer</u>	Lean <u>Rep</u>	Lean <u>Dem</u>
24	31	30	14	1	19	21

<sup>17</sup> PARTY and PARTYLN asked in a prior survey.