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Politics on Twitter: One-Third of Tweets From U.S. Adults Are Political

Those ages 50 and older produce 78% of all political tweets from U.S. adults

BY *Sam Bestvater, Sono Shah, Gonzalo Rivero and Aaron Smith*

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How we did this

Pew Research Center conducted this study to gain insight into Twitter users' political engagement, attitudes and behaviors on the platform. For this analysis, we surveyed 2,548 U.S. adult Twitter users in May 2021 about their experiences on the site, as well as how they engage with politics outside of Twitter. Everyone who took part in this survey 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 – and indicated that they use Twitter.

In addition to the survey findings, researchers from the Center also examined the actual Twitter profiles of a subset of survey participants who agreed to share their handles for research purposes. First, researchers collected all of the publicly visible tweets posted between May 2020 and May 2021 by these users. Researchers then used a machine learning classifier to identify which of those tweets mentioned politics or political concepts. Second, they collected a random sample of 2,859 accounts followed by at least one of these users – as well as all of the accounts followed by 20 or more respondents – and manually categorized them into different substantive categories based on their profile information. For more information on the different methods used in this analysis, see the report [methodology](#).

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

Politics on Twitter: One-Third of Tweets From U.S. Adults Are Political

Those ages 50 and older produce 78% of all political tweets from U.S. adults

Roughly one-quarter of American adults use Twitter. And when they share their views on the site, quite often they are doing so about politics and political issues. A new Pew Research Center analysis of English-language tweets posted between May 1, 2020, and May 31, 2021, by a representative sample of U.S. adult Twitter users finds that fully one-third (33%) of those tweets are political in nature.

Echoing the Center's findings in its prior studies of tweeting behavior, whether political or otherwise, the vast majority of these political tweets are produced by a minority of users. And certain demographic groups are especially active contributors to the overall volume of political content on Twitter. Most notably, Americans ages 50 and older make up 24% of the U.S. adult Twitter population but produce nearly 80% of all political tweets. And 36% of the tweets produced by the typical (median) U.S. adult Twitter user age 50 or older contain political content, roughly five times the share (7%) for the tweets from the typical 18- to 49-year-old.

More broadly, Americans who tweet the most about politics differ in several ways from those for whom politics is a less central topic of discussion. These "high-volume" political tweeters are significantly more likely than other users to say that they use Twitter to express their own opinions (67% vs. 34%); that they talk about politics with others at least once a week (53% vs. 33%); that they contributed to a political campaign in the last year (46% vs. 21%); or that they participate in politics because they enjoy it, as opposed to viewing it as a civic duty (27% vs. 14%).

At the same time, a larger share of these politically vocal users say the people they follow on Twitter have similar political views to their own (45% vs. 25%). And despite – or perhaps because of – their regular forays into the world of political tweeting, those who tweet the most about politics are actually *less* likely than other users to say that Twitter is an effective way to get people to change their minds about political or social issues. Just 34% of the most active political tweeters feel this way, compared with half of those who tweet less about politics.

Those ages 50 and older produce roughly half of all tweets from U.S. adult Twitter users – and 78% of all political tweets

Number of tweets from U.S. adult Twitter users produced by those ...
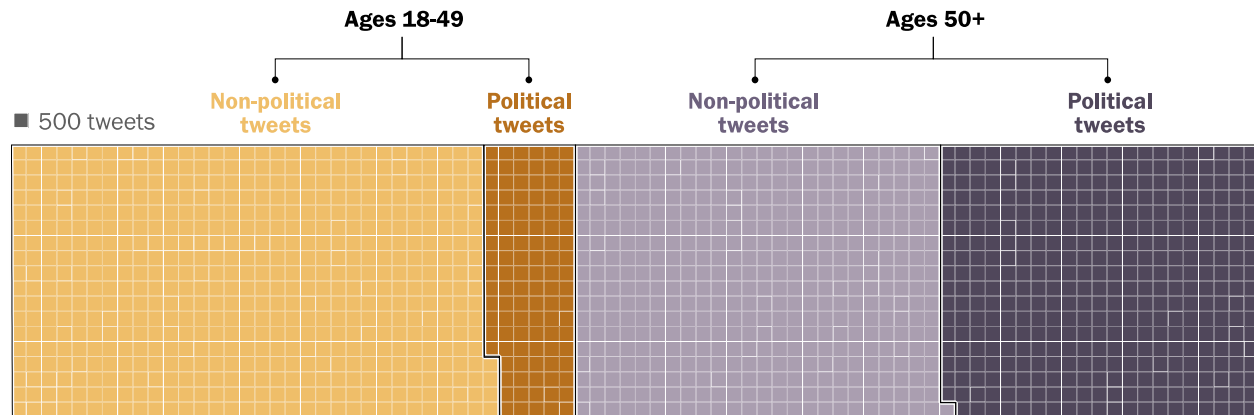
Source: Survey of U.S. adult Twitter users conducted May 17-31, 2021. Data on respondents' Twitter accounts collected using the Twitter API. Includes all public tweets posted between May 1, 2020, and May 31, 2021. Estimates in graphic represent weighted counts of tweets in each category.
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This analysis builds on the Center's previous research on political content on Twitter, which identified relevant content using relatively strict, keyword-based approaches. For instance, our 2019 examination of politics on Twitter focused on discussions of politics at the national level and categorized tweets as political in nature *only* if they "mention[ed] or express[ed] support or opposition toward national politicians or elected officials, political parties, ideological groups or political institutions, or specific political behaviors like voting." This definition excluded mentions of state or local politics and politicians, as well as discussions of policy issues and current events that carry a political valence but do not explicitly reference national political figures or groups.

This new analysis identifies political content with more nuance and subtlety. Researchers at the Center trained a supervised machine learning classifier on an expert-validated collection of tweets that human coders had read and categorized according to whether or not they referenced political officials and activists, social issues, or news and current events. This classifier was then able to learn the textual patterns and terms that lead human readers to recognize a tweet as "about politics" and identify such patterns in tweets that humans had not previously coded. With a broader definition of political content and a more flexible classifier, this analysis more comprehensively reflects the range and diversity of political discussion as it occurs on platforms like Twitter. Not surprisingly given these definitional differences, the current analysis identifies a larger share of tweets as political in nature.

Among the other major findings of this examination of the political characteristics, attitudes and online behaviors of U.S. adults on Twitter:

Retweets and quote tweets are more likely to contain political content than original tweets. This analysis of one year of tweets from a representative sample of U.S. adult Twitter users finds that certain types of tweets are more likely than others to contain political content. Roughly four-in-ten retweets (44%) and quote tweets (42%) from these users were found to pertain to politics. But that share falls to 26% for replies – and to just 8% for original tweets.

**Democrats and Republicans who use Twitter have different political experiences on the site.** A larger share of Democrats than Republicans (including political independents who "lean" toward either party) say they have tweeted about political or social issues in the 30 days preceding the survey (30% vs. 17%). And a larger share of Democrats say that Twitter is very effective at raising public awareness about political or social issues (28% vs. 17%).

Retweets and quote tweets are especially likely to reference politics

% of _____ posted by U.S. adult Twitter users that reference politics
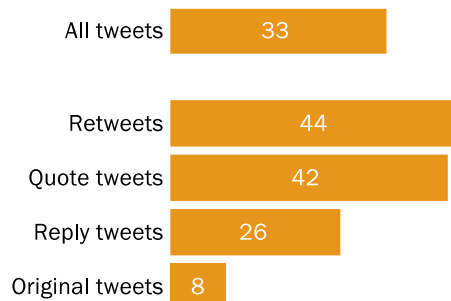
All tweets	33
Retweets	44
Quote tweets	42
Reply tweets	26
Original tweets	8

Source: Survey of U.S. adult Twitter users conducted May 17-31, 2021. Data on respondents' Twitter accounts collected using the Twitter API. Includes all public tweets posted between May 1, 2020, and May 31, 2021.
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Americans from each party also report seeing different types of political content on the site. Democrats who use Twitter are twice as likely as Republicans to say they mostly follow accounts with similar political beliefs to their own (40% vs. 20%) or that they disagree with few or none of the tweets they see (33% vs. 16%).

But some Twitter behaviors cross party lines. Notably, an identical share of Democrats and Republicans on Twitter (17%) say they tweeted about sports in the 30 days preceding the survey.

Political figures make up 20% of the accounts followed by a large number of U.S. adults. Politicians, government figures, public offices, and public officials make up just 1% of all the accounts followed by this representative sample of U.S. adult Twitter users. But these entities are far more prevalent among the most-followed accounts: Fully 20% of the accounts followed by at least 20 individual respondents fall into this category. Media organizations and journalists, as well as policy or advocacy organizations, are also notably more prevalent in the accounts that are widely followed by U.S. adults on Twitter.
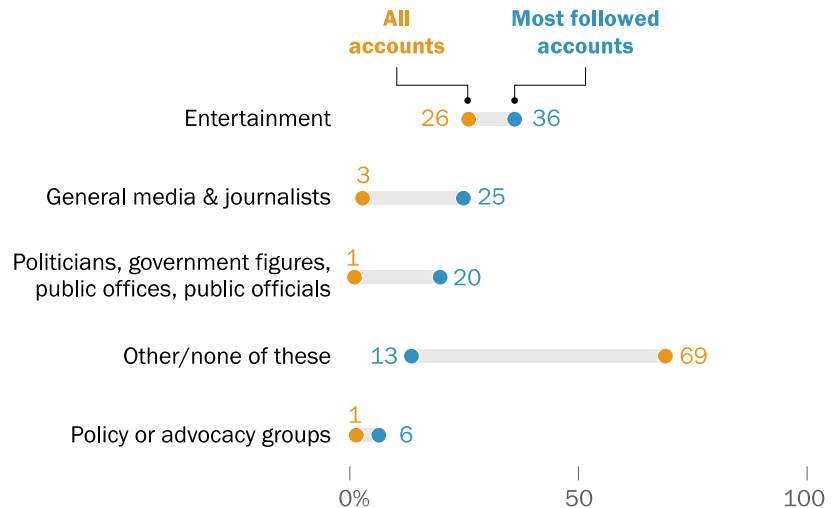
One-in-five accounts followed by a large number of U.S. adults are politicians and government figures

% of accounts followed by U.S. adult Twitter users that fall into the following categories

Note: Accounts were coded into categories based on content listed in profile. Each account was coded into a single category. In instances where more than one category applied, coders applied the politics code, then policy/advocacy, then media/journalists, then entertainment. "All accounts" figures based on a sample of 2,859 accounts followed by any participants in study during the data collection period. "Most-followed" figures are based on 1,256 accounts followed by at least 20 participants at the time of data collection.
Source: Survey of U.S. adult Twitter users conducted May 17-31, 2021. Data on respondents' followed accounts collected from Sept. 12-15, 2021, using Twitter API.
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"Twitter-only" political engagement is relatively rare. The Center's survey asked about a variety of political behaviors that users might take, both on Twitter (such as tweeting about a political or social issue) and off (such as voting or contributing money to a campaign). The vast majority of Twitter users engaged in at least one of these activities in the preceding year. By far the largest share – 58% – engaged both on Twitter and elsewhere, and another 34% took part only in non-Twitter efforts. Just 3% of U.S. adult Twitter users say they took some sort of political or civic action on Twitter in the last year but did not do so outside the platform.

Users say political content makes up a larger share of what they see than of what they post. Some 41% of U.S. adult Twitter users say that a lot of what they see on Twitter is related to political or social issues. But just 12% say a lot of what they themselves post is related to these topics.

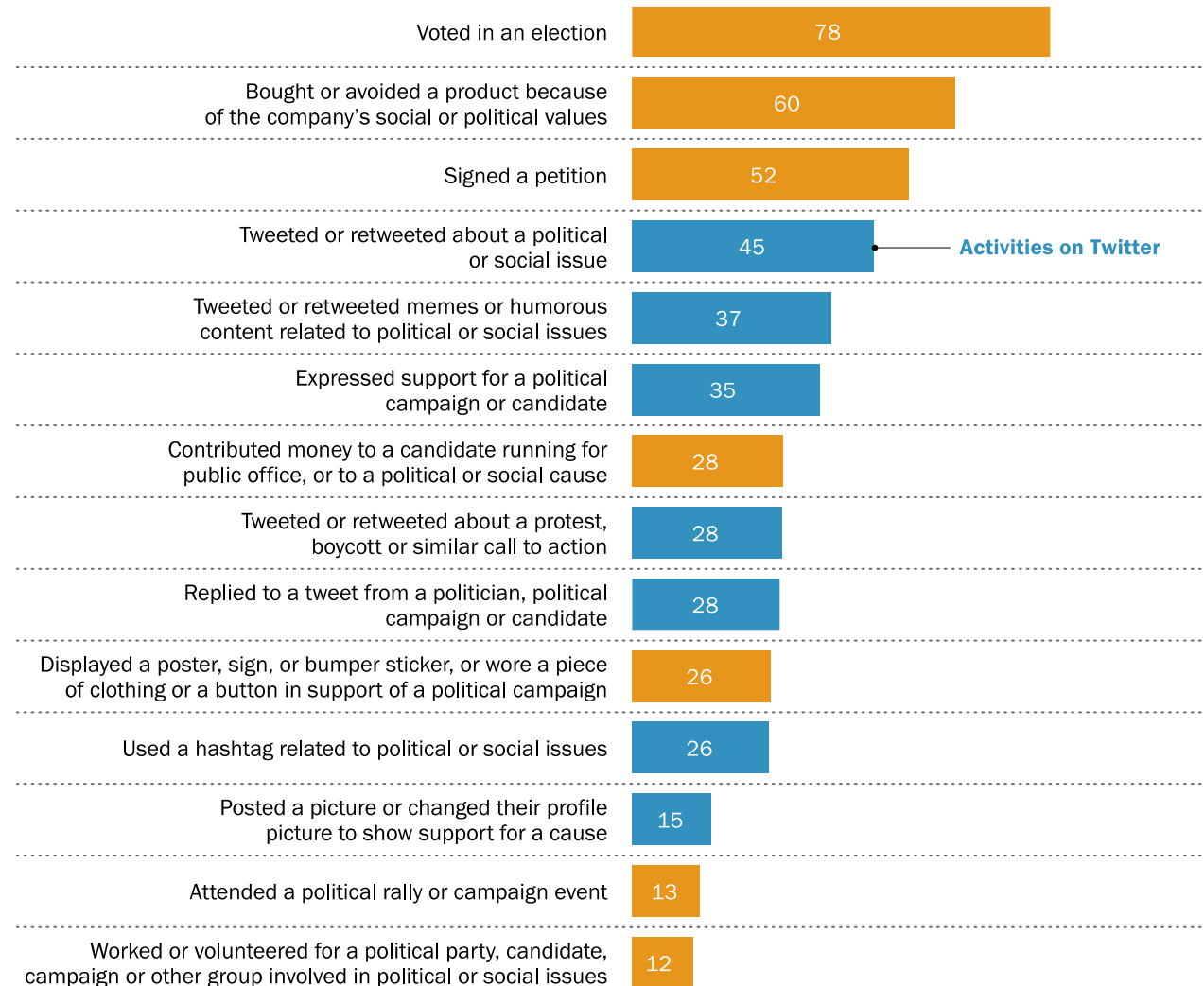# 1. Survey findings on Twitter users' political attitudes and experiences

Twitter users report taking part in a variety of political and civic activities, both on Twitter and elsewhere. Of the 14 civic and political behaviors measured on the survey, a majority of Twitter users report that they voted in an election in the preceding year (78%), or that they bought – or avoided buying – a product because of the company's social or political values (60%). Smaller shares attended a campaign event or rally (13%) or worked or volunteered for a political campaign or party (12%) over the same time frame. This survey was fielded in May 2021, so the preceding year included both the 2020 presidential election and the first year of the coronavirus pandemic.

When it comes to Twitter-specific activities, just under half of U.S. adult Twitter users (45%) report that they have tweeted about social or political issues in the last year. And around a third of users have used the platform in the last year to post humorous content or memes that touch on political issues (37%) or to express support for a political campaign or candidate (35%).

All told, 61% of U.S. adults on Twitter took part in at least one of the seven different Twitter-specific political activities included in the survey. But just 3% say they engaged in one or more Twitter-specific actions but none of the other activities included in the survey; 58% say they engaged in actions both on Twitter and elsewhere. Meanwhile, 34% of users say they took part in civic or political activities somewhere other than Twitter, but not on the site itself.

U.S. adult Twitter users engage in a range of civic and political behaviors, both on Twitter and elsewhere

% of U.S. adult Twitter users who have _____ in the last year

Activity	%
Voted in an election	78
Bought or avoided a product because of the company's social or political values	60
Signed a petition	52
Tweeted or retweeted about a political or social issue	45 — **Activities on Twitter**
Tweeted or retweeted memes or humorous content related to political or social issues	37
Expressed support for a political campaign or candidate	35
Contributed money to a candidate running for public office, or to a political or social cause	28
Tweeted or retweeted about a protest, boycott or similar call to action	28
Replied to a tweet from a politician, political campaign or candidate	28
Displayed a poster, sign, or bumper sticker, or wore a piece of clothing or a button in support of a political campaign	26
Used a hashtag related to political or social issues	26
Posted a picture or changed their profile picture to show support for a cause	15
Attended a political rally or campaign event	13
Worked or volunteered for a political party, candidate, campaign or other group involved in political or social issues	12

Source: Survey of U.S. adult Twitter users conducted May 17-31, 2021.
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Democrats on Twitter are more likely than Republicans to have recently tweeted about politics, pop culture, and hobbies – but not sports

When asked about the different types of content they might post about on the site, around one-quarter of U.S. adult Twitter users say they have tweeted or retweeted about political or social issues (26%); music, movies or pop culture (23%); or their hobbies (23%) in the past 30 days, with another 17% saying they have posted about sports during that same time frame. Half of these users say they have *ever* posted about pop culture or their hobbies, while 47% have ever posted about politics and 40% say they have ever posted about sports.

A significantly larger share of Democrats than Republicans say they have tweeted or retweeted about politics in the last 30 days (30% vs. 17%), with an especially large share of liberal Democrats (37%) saying they have done so. Democrats are also more likely than Republicans to say they have recently tweeted about pop culture or about their hobbies. But identical shares of Democrats and Republicans (17%) indicate they have tweeted about sports in the last 30 days.

Identical shares of Democrats and Republicans on Twitter have recently tweeted about sports

% of U.S. adult Twitter users who say they have tweeted or retweeted about _____ in the last 30 days

Source: Survey of U.S. adult Twitter users conducted May 17-31, 2021.
"Politics on Twitter: One-Third of Tweets From U.S. Adults Are Political"
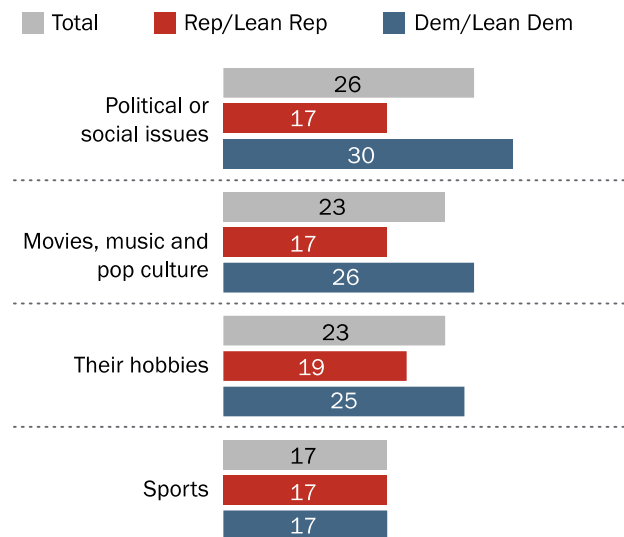
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Users say political content makes up a larger share of what they see than of what they post

Some 41% of Twitter users report that a lot of what they see on Twitter is related to political or social issues. Another 36% say that some of what they see on the site relates to politics, and just 6% say that none of their feed is political in nature.

It is less common for these users to report engaging with political content in other ways. For instance, fewer than half of users say that a lot (19%) or some (25%) of what they like or retweet is related to politics, and 32% say none of their likes or retweets are political.

And an even smaller share of users say politics makes up a sizable share of what they themselves post on Twitter. Of the 53% of users who say they have ever tweeted about political issues, 23% say that a lot of what they tweet about is related to politics. That works out to just 12% of all U.S. adult Twitter users who say that they post a lot of content that they would categorize as political.

Larger share of Twitter users see a lot of political content than post a lot of political content

% of U.S. adult Twitter users who say this much of what they ____ on Twitter is related to political or social issues

	A lot	Some	A little	None
See	41	36	16	6
Like or retweet	19	25	24	32
Tweet or post	12	16	21	52
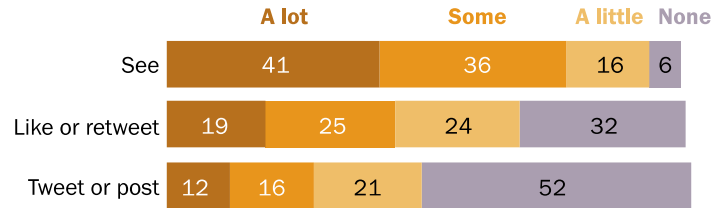
Note: Question about tweeting behavior was asked of those who have ever posted about political or social issues and has been recalculated to be based on all Twitter users. Other responses not shown. Totals may add to more than 100% due to rounding.
Source: Survey of U.S. adult Twitter users conducted May 17-31, 2021.
"Politics on Twitter: One-Third of Tweets From U.S. Adults Are Political"
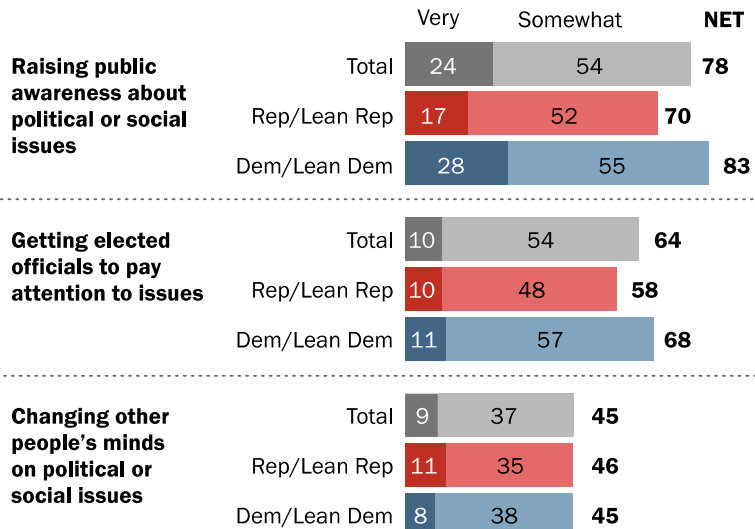
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Twitter users see the platform as more effective at raising awareness than at changing minds

As is true of [public attitudes toward social media](#) more broadly, Twitter users generally see the platform as an effective way to raise public awareness about political or social issues. Some 24% of Twitter users say the platform is a very effective way of doing this, and another 54% find it somewhat effective. Roughly one-third of liberal Democrats (32%) and 18- to-29-year-olds who use Twitter (33%) see the platform as very effective at raising public awareness about political and social issues.

Twitter users are somewhat less confident about whether the

Larger share of Democrats on Twitter see the platform as effective at raising awareness about issues

% of U.S. adult Twitter users who say the platform is very/somewhat effective at ...

		Very	Somewhat	NET
Raising public awareness about political or social issues	Total	24	54	78
	Rep/Lean Rep	17	52	70
	Dem/Lean Dem	28	55	83
Getting elected officials to pay attention to issues	Total	10	54	64
	Rep/Lean Rep	10	48	58
	Dem/Lean Dem	11	57	68
Changing other people's minds on political or social issues	Total	9	37	45
	Rep/Lean Rep	11	35	46
	Dem/Lean Dem	8	38	45

Note: Other responses not shown.
Source: Survey of U.S. adult Twitter users conducted May 17-31, 2021.
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platform is effective at getting elected officials – as opposed to the public at large – to pay attention to issues. Around two-thirds of users think it is at least somewhat effective at this, but just 10% think it is *very* effective A larger share of Twitter users who are Black say the platform is very effective at raising awareness among public officials (20%) relative to White (8%) or Hispanic (10%) users.

And an even smaller share of users say Twitter is effective at encouraging other people to actually change their minds about political or social issues. Some 22% of users think it is very *in*effective at this, roughly double the share who think it is very effective (9%). As with raising awareness among public officials, Black users see Twitter as a relatively effective way of changing minds. A majority of Black users (64%) find it at least somewhat effective in this regard, compared with 40% of White users and 46% of Hispanics.

U.S. adults on Twitter follow accounts and encounter posts that contain a mix of political beliefs

When asked how many of the tweets they see contain political views or opinions they disagree with, a majority of Twitter users (57%) say they disagree with some of them. Around one quarter (28%) say they disagree with very few or none of them, while the remaining 14% disagree with almost all or most of the political views they see on the site.

One-third of Democrats on Twitter say they disagree with few or none of the political tweets they see

*% of U.S. adult Twitter users who say _____ of the tweets they see contain political views or opinions they **disagree** with*
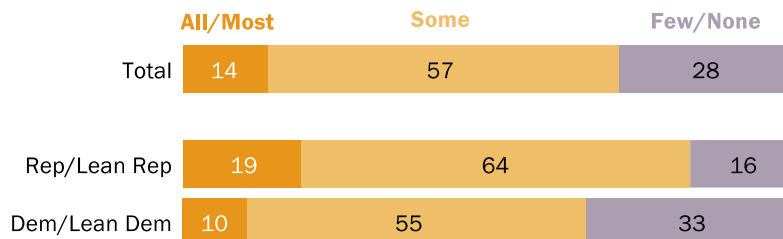
	All/Most	Some	Few/None
Total	14	57	28
Rep/Lean Rep	19	64	16
Dem/Lean Dem	10	55	33

Note: Other responses not shown
Source: Survey of U.S. adult Twitter users conducted May 17-31, 2021.
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Republican Twitter users are around twice as likely as Democrats to say they disagree with all or most of the political views they see on the site (19% vs. 10%). Conversely, Democrats are roughly twice as likely as Republicans to say they disagree with few or none of the political tweets they encounter (33% vs. 16%).

When asked a similar question about the political leanings of the accounts they follow, the largest share of U.S. adults on Twitter say they follow mostly accounts with a mix of political beliefs (39%) or whose political beliefs they aren't sure of (21%). By contrast, among those users who say they follow at least some politicians or government figures, a majority (58%) indicate that these figures tend to have political views that are similar to their own.[1]

As was true of the tweets they encounter, Democrats who use Twitter are more likely than Republicans to say the accounts they follow – whether accounts in general, or political and government figures specifically – have similar political beliefs to their own.

Larger share of Democrats than Republicans on Twitter follow people, politicians with similar political views to their own

% of U.S. adult Twitter users who say the _____ they follow have mostly …

People or accounts

	Similar political beliefs to them	Different political beliefs from them	A mix of political beliefs	Not sure about their political beliefs
Total	33	6	39	21
Rep/Lean Rep	20	9	48	23
Dem/Lean Dem	40	4	36	20

Politicians or government figures

	Similar political beliefs to them	Different political beliefs from them	A mix of political beliefs
Total	58	7	34
Rep/Lean Rep	49	3	45
Dem/Lean Dem	62	8	29

Note: Findings for politicians and government figures based on the 63% of users who say they follow these types of accounts. Respondents were not given the option to say they are not sure of the political beliefs of the politicians and government figures they follow. Other responses not shown.
Source: Survey of U.S. adult Twitter users conducted May 17-31, 2021.
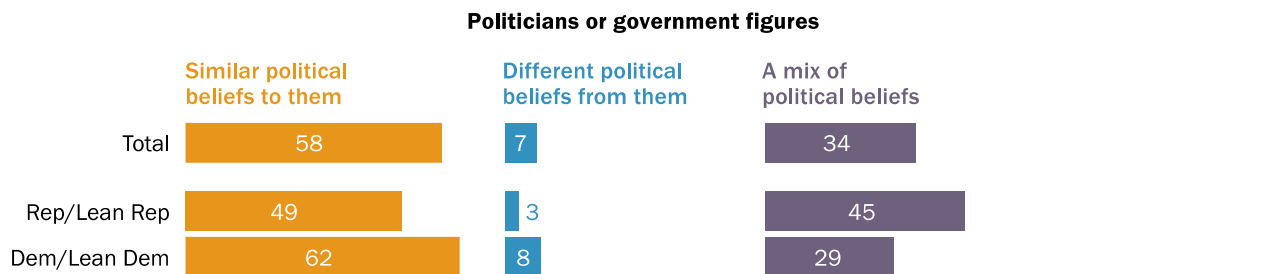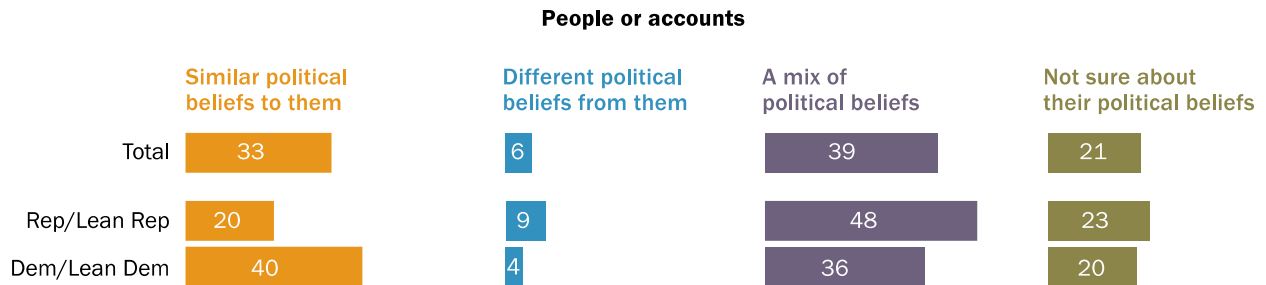"Politics on Twitter: One-Third of Tweets From U.S. Adults Are Political"

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[1] Because of the explicitly political nature of these accounts, respondents were not given the option to say they were not sure about the political beliefs of the politicians and government figures they follow.

Roughly one-third of U.S. adult Twitter users see news articles about political or social issues almost every time they use the site

Twitter users say they see a variety of different types of political content there. Most prominently, 31% say they see news articles about political or social issues almost every time they use the site. And about half that share says they encounter political memes (16%) or humorous videos that reference political or social issues (15%) with similar frequency. And a majority of users say they see each of these types of content at least sometimes.

More than one-in-ten Twitter users see political memes and parody videos almost every time they use the site

% of U.S. adult Twitter users who say they see _____ on the site ...

	Almost every time	Sometimes
News articles about social or political issues	31	47
Political memes	16	53
Funny or parody videos that reference political or social issues	15	51
Petitions to raise awareness or encourage political or social change	12	49
Campaign advertisements	9	40

Note: Other responses not shown.
Source: Survey of U.S. adult Twitter users conducted May 17-31, 2021.
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2. The political content in users' tweets and the accounts they follow

In addition to surveying users about their experiences on Twitter, researchers from the Center also examined the actual on-site behaviors of a subset of users from this representative panel of U.S. adults who provided their Twitter handles for research purposes. This analysis involved two separate data collections and analyses.

First, researchers collected every public tweet posted by these users between May 1, 2020, and May 31, 2021. In total, this collection resulted in a total of 959,254 tweets (of any kind) from 942 users. Researchers then used a custom-trained machine learning classifier to estimate which of those nearly 1 million tweets were related to political content, such as officials and activists, social issues, or news and current events.

Second, researchers collected profile information for all of the accounts followed by our panel and then manually categorized a sample of all the accounts followed by these users (2,859 accounts in total) as well as every account followed by 20 or more users (1,256 in total) into different account types.

One-third of posts from U.S. adults are estimated to be about politics

This analysis finds that a sizable share of the content posted by U.S. adult Twitter users is broadly political in nature. Of the nearly 1 million tweets examined in this analysis, 33% are estimated to include some form of political content. It also finds that political posting is fairly widespread across the Twitter population, as 65% of U.S. adults on Twitter posted or retweeted at least once about politics over the year under observation.

At the same time, political posting is an infrequent practice for most users. The typical (median) U.S. adult Twitter user posted just three posts containing political content over the course of the year – or approximately one political tweet every four months.

This seeming contradiction – that a majority of American Twitter users have tweeted about politics, and political content makes up one-third of all tweets from this group, but most users only tweet about politics occasionally – is explained by the fact that most Americans on Twitter tweet rarely, if ever, about any topic.

Conversely, a relatively small share of users tweet quite frequently. And as is the case of tweeting behavior more broadly, a minority of U.S. adult Twitter users produce the vast majority of political

tweets. The Center's analysis finds that a quarter of U.S. adults on Twitter produce 99% of all political tweets from this group.

Certain groups make an outsize contribution to the political discussion on Twitter

In the same way that a relatively small share of users produce a majority of political tweets from U.S. adults, certain demographic groups produce a larger share of political content on Twitter than others. Groups such as college graduates, Democrats and Democratic leaners, those ages 50 and older, and women each produce 70% or more of all tweets from U.S. adults mentioning politics or political issues.
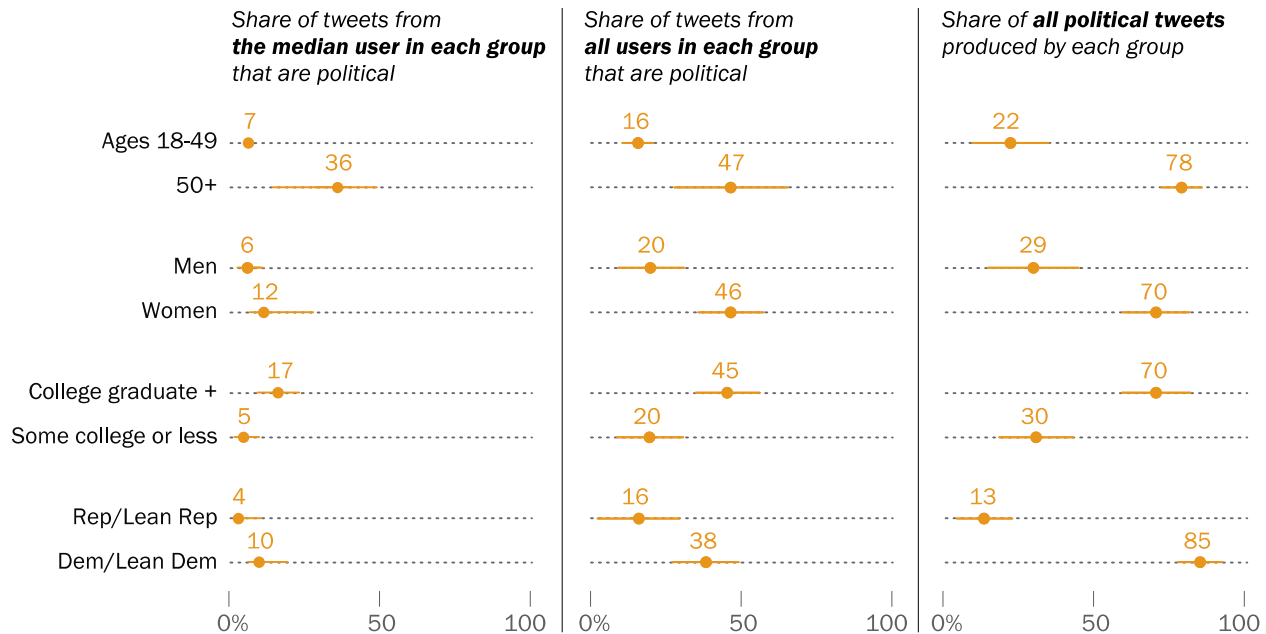
In several cases, these groups that produce a majority of political tweets make up a large share of the U.S. adult Twitter population. For instance, the population of U.S. adults on Twitter contains a larger share of Democrats than Republicans. As a result, Democrats produce a larger share of political tweets than Republicans – even though political content makes up a comparable share of the tweets posted by a *typical* Democrat and a *typical* Republican.

In other cases, these groups simply produce a large number of tweets about any topic, whether those tweets are political or not. For instance, previous research from the Center has found that two-thirds of the most active tweeters among U.S. adults are women.

But neither of these is the case for those ages 50 and older, who contribute 78% of all political tweets from U.S. adults. These older users make up around one-quarter of all U.S. adult Twitter users, and produce roughly half (55%) of all tweets. But at the level of the average user, older adults are much more likely to tweet about politics than their younger counterparts. Political content makes up 36% of all tweets from the typical (median) U.S. adult Twitter user age 50 and older. That is roughly five times the share for the median 18- to 49-year-old, whose tweets are composed of just 7% political content.

Older users produce roughly eight-in-ten tweets from U.S. adults on Twitter mentioning politics

Among U.S. adult Twitter users …

	Share of tweets from **the median user in each group** *that are political*	*Share of tweets from* **all users in each group** *that are political*	*Share of* **all political tweets** *produced by each group*
Ages 18-49	7	16	22
50+	36	47	78
Men	6	20	29
Women	12	46	70
College graduate +	17	45	70
Some college or less	5	20	30
Rep/Lean Rep	4	16	13
Dem/Lean Dem	10	38	85

Source: Survey of U.S. adult Twitter users conducted May 17-31, 2021. Data on respondents' Twitter accounts collected using the Twitter API. Includes all public tweets posted between May 1, 2020 and May 31, 2021. Respondents with accounts set to private were excluded from analysis. Tweets mentioning politics were identified using a machine learning model trained using expert-validated labels.
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Characteristics of the most active political tweeters

The most active political tweeters – defined in this analysis as those who posted more than 10 political tweets during the yearlong study period[2] – are largely similar to other Twitter users in many of their basic demographic characteristics, such as educational attainment or party affiliation. However, there are prominent differences related to age: highly active political tweeters contain a larger share of users ages 50 and older (34%) compared with those who tweet less about politics (23%).

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[2] This threshold is roughly three times the median number of yearly political tweets for U.S. adults on Twitter. The findings reported here are generally robust to a variety of different cutoff points.

These highly active political tweeters are more likely than other U.S. adults on Twitter to participate in a variety of political and civic activities at higher rates, both on Twitter and offline. Compared with those who
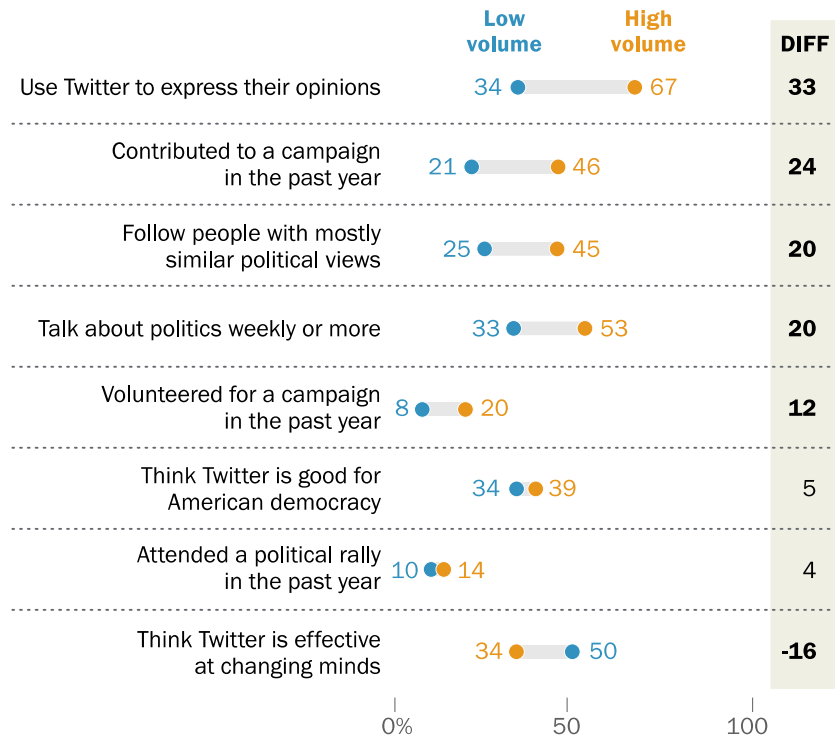
tweet less about politics, a larger share say they have contributed financially to a political campaign or cause (46% vs. 21%) or have volunteered for a campaign or cause (20% vs. 8%). Additionally, larger shares say they primarily use Twitter to express their opinions, discuss politics with others at least weekly, or get news on Twitter.

At the same time, higher- and lower-volume political tweeters do *not* differ when it comes to some views about Twitter as a vehicle for political engagement. Similar shares of each group say Twitter is mostly a good thing for

The most active political tweeters are more politically engaged, but don't think Twitter changes minds

% of U.S. adult Twitter users who say they _____, by volume of political tweeting

	Low volume	High volume	DIFF
Use Twitter to express their opinions	34	67	**33**
Contributed to a campaign in the past year	21	46	**24**
Follow people with mostly similar political views	25	45	**20**
Talk about politics weekly or more	33	53	**20**
Volunteered for a campaign in the past year	8	20	**12**
Think Twitter is good for American democracy	34	39	5
Attended a political rally in the past year	10	14	4
Think Twitter is effective at changing minds	50	34	**-16**

Source: Survey of U.S. adult Twitter users conducted May 17-31, 2021. Data on respondents' Twitter accounts collected using the Twitter API. Includes all public tweets posted between May 1, 2020, and May 31, 2021
Note: "High-volume" political tweeters defined as those who produced more than 10 public political tweets between May 2020 and May 2021. Statistically significant differences in **bold.** Respondents with accounts set to private were excluded from analysis. Tweets mentioning politics were identified using a machine learning model trained using expert-validated labels.
"Politics on Twitter: One-Third of Tweets From U.S. Adults Are Political"

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American democracy, or that the platform is at least somewhat effective at raising public awareness of political and social issues. And those who tweet about politics the most are actually *less* likely to think that Twitter is at least somewhat effective at changing people's minds about political or social issues: 34% say this, compared with half (50%) of those who tweet less about politics.

Politicians and government figures are rare among all accounts followed by U.S. adults on Twitter, but much more common among the most-followed accounts

Twitter users follow a vast array of accounts: The 899 users in this sample collectively followed 502,475 accounts at the time of analysis.[3] Very few of these accounts belong to people or entities directly related to politics or news media. Just 1% of these accounts belong to politicians, government figures or public offices, an identical share belong to policy or advocacy organizations, and another 3% belong to media outlets or journalists. Of the four categories researchers coded for this analysis, the largest share of accounts (26%) belong to the entertainment category.

But the bulk of these accounts (69%) belong to none of the categories coded by the Center. These accounts encompass a wide range of personal and professional affiliations and often defy easy categorization. But they generally are followed by a relatively small number of other accounts, and few are verified by Twitter.

However, political figures make up a much larger share of the accounts followed by large numbers of U.S. adult Twitter users. Among accounts followed by at least 20 Twitter users in our sample, 20% are governmental or political in nature and another 25% are media outlets or journalists. These popular accounts also contain a larger share of policy or advocacy groups (6%) than the broader sample of accounts. As is true of accounts as a whole, entertainment is the most common category – accounting 36% of this group. But just 13% of accounts in this group *do not* fall into one of these four categories.

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[3] At the time of data collection, 16 accounts belonging to survey respondents were active and valid but did not follow any other accounts. These 16 accounts are included in the other parts of the analysis for this report, but since they did not follow any accounts during this time period, they are not included here.

Acknowledgments

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 ATP panel Wave 85 conducted May 17 to May 31, 2021. The sample is comprised of panelists who indicated on the survey that they use Twitter. A total of 2,548 panelists responded out of 2,643 who were sampled, for a response rate of 96%. 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 less than 1%. The margin of sampling error for the full sample of 2,548 respondents is plus or minus 3.4 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. Invitations were sent to a random, address-based sample of households selected

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	2,181
Aug. 27 to Oct. 4, 2015	Landline/ cell RDD	6,004	2,976	1,241
April 25 to June 4, 2017	Landline/ cell RDD	3,905	1,628	620
Aug. 8 to Oct. 31, 2018	ABS	9,396	8,778	5,893
Aug. 19 to Nov. 30, 2019	ABS	5,900	4,720	2,323
June 1 to July 19, 2020; Feb. 10 to March 31, 2021	ABS	3,197	2,812	2,442
Total		**38,211**	**26,252**	**14,700**

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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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 18,493 adults were invited to join the ATP, of whom 16,310 (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 26,252 individuals who have ever joined the ATP, 14,700 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.[4] 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 Twitter users ages 18 and older, living in the U.S., including Alaska and Hawaii. The sample consisted of 2,643 panelists who indicated that they use Twitter on the Wave 85 survey conducted on the ATP in March 2021.

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 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.

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[4] AAPOR Task Force on Address-based Sampling. 2016. "AAPOR Report: Address-based Sampling."

Data collection protocol

The data collection field period for this survey was May 17 to May 31, 2021. Postcard notifications were mailed to all ATP panelists with a known residential address on May 17, 2021.

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 May 17, 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 May 18, 2021.

All panelists with an email address received an email invitation and up to four 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 four SMS reminders.

Invitation and reminder dates

	Soft launch	Full launch
Initial invitation	May 17, 2021	May 18, 2021
1st reminder	May 21, 2021	May 21, 2021
2nd reminder	May 24, 2021	May 24, 2021
3rd reminder	May 26, 2021	May 26, 2021
Final reminder	May 28, 2021	May 28, 2021

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, one ATP respondent was 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

Weighting dimensions

Variable	Benchmark source
Age x Gender	Twitter users from ATP Wave 85
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.	
Census region x Metro/Non-metro	
Volunteerism	
Voter registration	
Party affiliation	
Frequency of Internet use	
Religious affiliation	

Note: These dimensions were also used to construct the Wave 85 weight. See the Wave 85 methodology statement for more details.

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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. 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.

For this wave, the sample was weighted to align with benchmarks that were estimated among all Twitter users who responded to Wave 85.

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.

Group	Unweighted sample size	Plus or minus ...
Total sample	2,548	3.4 percentage points
18-29	398	7.7 percentage points
30-49	1,097	4.8 percentage points
50-64	757	5.4 percentage points
65+	287	7.8 percentage points
Dem/Lean Dem	1,800	4.1 percentage points
Rep/Lean Rep	715	6.1 percentage points

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	2,548
Logged onto survey; broke-off	2.12	14
Logged onto survey; did not complete any items	2.1121	8
Never logged on (implicit refusal)	2.11	72
Survey completed after close of the field period	2.27	0
Completed interview but was removed for data quality		1
Screened out		0
Total panelists in the survey		**2,643**
Completed interviews	I	2,548
Partial interviews	P	0
Refusals	R	95
Non-contact	NC	0
Other	O	0
Unknown household	UH	0
Unknown other	UO	0
Not eligible	NE	0
Total		**2,643**
AAPOR RR1 = I / (I+P+R+NC+O+UH+UO)		96%

Cumulative response rate	Total
Weighted response rate to recruitment surveys	12%
% of recruitment survey respondents who agreed to join the panel, among those invited	69%
% of those agreeing to join who were active panelists at start of Wave W90	56%
Response rate to Wave W90 survey	96%
Cumulative response rate	**4%**

Analysis of Twitter behavioral data

The analysis of Twitter users' behaviors and activities on the site is based on a subsample of 1,026 respondents to the main survey who had previously agreed to share their Twitter handle for research purposes and provided a valid handle. Researchers from the Center used these handles to collect information about their on-site behaviors using the Twitter API.

The handles for these respondents were initially collected in a previous wave of the ATP fielded March 8 to March 14, 2021. These respondents were then included in the subsequent survey of all Twitter users that the main analysis in this report is based on.

Of the 2,548 adults who completed this survey, 1,099 (43%) had previously agreed to provide their Twitter handle. After the survey was fielded, researchers reviewed each account individually and removed any accounts that were suspended, invalid, or that belonged to institutions, products or international entities. The analysis of Twitter behavioral data in this report is based on the 1,026 respondents who both completed the survey and provided a valid, active handle.

This final sample of 1,026 U.S. adult Twitter users with valid, active handles was weighted using an iterative technique that matches gender, age, race, place of birth among Hispanics and Asian Americans, years lived in the U.S., education, region, party identification, volunteerism, voter registration, and metropolitan area to American Trends Panel March 2021 (Wave 85) survey respondents who indicated in that survey that they use Twitter. The margin of error for the full sample is plus or minus 6 percentage points.

Collecting tweets from survey respondents

The findings in this report that examine users' patterns of political posting and engagement are based on tweets produced by respondents whose accounts were set to public during the time period of May 1, 2020, to May 31, 2021. All tweets posted by these public accounts during this timeframe were collected using the Twitter API, resulting in a total of 959,254 original tweets, replies, quote tweets, and retweets from 942 users.

Identifying political tweets from our sample of users

To identify which tweets featured political content, researchers from the Center used a custom-trained machine learning classifier. This model was fine-tuned on a training set of 6,413 tweets that had been hand coded according to whether or not they referred to political content such as officials and activists, social issues, or news and current events.

To increase the model's generalizability, the training data used was posted by users not in the American Trends Panel. This training set was selected by randomly sampling tweets from the Twitter Powertrack historical search API, filtered to posts originating from within the United States during the period between May 2020 and May 2021. These 6,413 sampled tweets were then labeled by a team of seven annotators (Krippendorff's alpha = 0.76) for the presence or absence of recognizable political content, using the following codebook:

> Political content on Twitter is varied, and can be about officials and activists, social issues, or news and current events.
>
> Looking at the tweet displayed here, would you categorize it as POLITICAL or NOT POLTICAL content?
>
> Pick what you think is the best option, even if you're not entirely sure.

Where multiple coders disagreed on the appropriate label for a tweet, the ultimate label was decided using a modified [Dawid-Skene aggregation model](.)[5]

Using this training set, researchers then fine-tuned a machine learning model, based on the [DistilRoBERTa architecture in the Transformers library for Python](.). While the training data came from outside the American Trends Panel, the trained model was validated against a test set of 1,082 tweets sampled from the 959,254 tweets that were posted by the respondents who volunteered a handle for this study. The tweets in this test set were each coded for political content by three human annotators (Krippendorff's alpha = 0.82), with labels decided by majority rule in the case of disagreement. Evaluated against this test set, the trained model achieved an accuracy score of 0.88 and an F1 score of 0.91.

Once trained, this model was used to categorize all remaining uncoded tweets for the presence or absence of political content. The study excluded non-English tweets.

Classifying the accounts our panelists follow

The analysis of the account's respondents follow is based on a snapshot of the following relationships for 899 Twitter accounts belonging to survey respondents who volunteered a handle for research, whose handle was valid and active as of the study period, and who followed at least

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[5] The aggregation model used is a modification of the classic Dawid-Skene model, as implemented in Amazon SageMaker Ground Truth.

one account between Sept. 12, 2021, to Sept. 15, 2021. This list yielded a total of 502,475 accounts that our respondents followed at that time.

Researchers drew a random sample of 2,859 accounts stratified by the number of ATP respondents that follow them. Next, researchers identified 1,256 accounts followed by 20 or more ATP respondents. Researchers used a script to take screenshots of each sampled account's Twitter profile. These profile screenshots were coded by six researchers after achieving an average pairwise agreement of 0.92 and Krippendorff's alpha of 0.84 on a separate validation sample of 100 account screenshots. The screenshots of the accounts that were followed by 20 or more respondents were taken on May 3, 2022. This second set of screenshots was coded by four of the six researchers.

To categorize the accounts into substantive groups researchers developed a codebook consisting of five distinct categories. Coders were instructed to only use the information in the screenshot of the account when choosing a category. In cases in which an account fit multiple categories, coders were instructed to choose the first category that applied (in the order in which they are listed below).

The codebook included categories for the following types of accounts:

- **Politicians, government figures, public offices, public officials (includes, federal, state, local agencies)**
    - o Definition: Accounts belonging to politicians, government figures (e.g. Secretary of Transportation, Director of Health and Human Services), public offices (e.g. the White House, the Department of Justice), public officials, federal/state/local agencies.
    - o Note: Coders were allowed to consider former affiliations for this category if present, but not any others.
- **Policy or advocacy**
    - o Definition: This includes organizations that take positions on policy areas or issue areas as well as individuals who hold leadership positions in those organizations
- **General media and journalists**
    - o Definition: This includes news organizations, as well as individuals that indicate they say they are primarily a journalist, or they say they work for a news organization.
- **Entertainment**

- Definition: This includes accounts that belong to people or organizations that work, cover, or are a dedicated fan of any of the following areas: music, sports, movies, TV, architecture, visual arts, literary arts, performing arts, and fashion, food
  - Can include: books, games, fashion, photography, fine arts, architecture, poetry, dance, theater, stand-up comedy
- **Other/none of the above**
  - Definition: This would include accounts that do not fit in any of the ones listed above

Question wording and respondent consent language for collection of Twitter handles

Respondents were asked to provide their Twitter handles for research purposes using the following language:

> In many of our surveys, we ask about how people like you use social media. But there's a lot we cannot learn unless you allow us to connect information about your public Twitter behavior to your answers.
>
> No matter how often you use Twitter, would you be willing to share your Twitter handle to help us with this research?
>
> - 1   Yes
> - 2   No
>
> This project will ONLY collect information that an ordinary user would see when they visit your profile. We will treat this data just like we treat your survey responses and will NEVER share anything that can be linked back to you.
>
> *How we will use your Twitter handle*
>
> If you provide us with your Twitter handle, we will only be able to collect what an ordinary user would see when visiting your profile. The specific information we will have access to depends on the privacy settings of your Twitter account.
>
> If your account is set to PUBLIC, we will be able to see the accounts you follow; the accounts that follow you; the text of any tweets you have posted; and basic information in your profile, such as your description and the age of your account. We will NOT have access to any private messages you have sent or received.

If your account is set to PRIVATE, we will be able to see how many accounts you follow or how many times you have tweeted – but will NOT be able to see any private messages you have sent or received; the actual content of your tweets; or the names of the accounts you follow or that follow you.

We expect that this research will be concluded in approximately 18 months. At that point we will ask you again whether or not you would like to provide your handle. If you provided your Twitter handle to us previously, that is why you are seeing this question again.

If at any point you wish to opt out of research related to your Twitter account, contact info@americantrendspanel.org. For more information about our privacy practices, please see our Privacy Policy.

**2021 PEW RESEARCH CENTER'S AMERICAN TRENDS PANEL
WAVE 90 MAY 2021
TOPLINE
MAY 17-31, 2021
N=2,548**

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.

	Sample size	Margin of error at 95% confidence level
U.S. adult Twitter users	2,548	+/- 3.4 percentage points

[OTHER QUESTIONS NOT SHOWN]

ASK ALL:
CIVENG_GEN   Here's a list of activities some people do and others do not. Please indicate if you have done each of the following activities over the past year. **[RANDOMIZE ITEMS]**

		Yes, I have done this in the past year	No, I have not done this in the past year	No answer
a.	Attended a political rally or campaign event			
	May 17-31, 2021	13	87	*
b.	Contributed money to a candidate running for public office, or to a political or social cause			
	May 17-31, 2021	28	71	1
c.	Displayed a poster, sign, or bumper-sticker, or wore a piece of clothing or a button in support of a political campaign			
	May 17-31, 2021	26	73	1
d.	Worked or volunteered for a political party, candidate, campaign or other group involved in political or social issues			
	May 17-31, 2021	12	88	*
e.	Signed a petition			
	May 17-31, 2021	52	48	*
f.	Bought or avoided a product because of the company's social or political values			
	May 17-31, 2021	60	39	*

g.   Voted in an election

May 17-31, 2021	78	22	*

ASK ALL:
HOBBYISM   Which of the following comes closest to describing you? **[RANDOMIZE RESPONSES 1 & 2, 3 ALWAYS LAST]**

May 17-31,
   2021
   53   I participate in politics because it is my civic duty
   18   I participate in politics because I enjoy it
   29   I do not participate in politics
    *   No answer

ASK ALL:
SOCEFF1_TW   In general, how effective, if at all, do you think Twitter is as a way to do each of the following? **[RANDOMIZE ITEMS]**

	Very effective	Somewhat effective	Somewhat ineffective	Very ineffective	No answer
a. Getting elected officials to pay attention to issues					
May 17-31, 2021	10	54	23	13	*
b. Changing other people's minds about political or social issues					
May 17-31, 2021	9	37	32	22	1
c. Raising public awareness about political or social issues					
May 17-31, 2021	24	54	16	6	*

ASK ALL:
TWEETABOUT   Have you ever tweeted or retweeted about any of the following topics? **[RANDOMIZE ITEMS]**

	Yes, in the last 30 days	Yes, but not in the last 30 days	No, I have not	No answer
a. Political or social issues				
May 17-31, 2021	26	27	47	1
b. Movies, music or pop culture				
May 17-31, 2021	23	26	50	1
c. Your hobbies				
May 17-31, 2021	23	26	50	1
d. Sports				
May 17-31, 2021	17	23	60	1

ASKIF EVER POSTED ABOUT POLITICAL OR SOCIAL ISSUES (TWEETABOUTa=1,2) [N=1,401]:
TWPOST2MOD How much of what you tweet or post about is related to political or social issues?

May 17-31,
<u>2021</u>
23	A lot
30	Some
39	A little
8	None
*	No answer

ASK ALL:
TWSEE1   Regardless of how often you seek it out, how much of what you SEE on Twitter is related to political or social issues?

May 17-31,
<u>2021</u>
41	A lot
36	Some
16	A little
6	None
1	No answer

ASK ALL:
TWLIKERTW   How much of what you LIKE OR RETWEET on Twitter is related to political or social issues?

May 17-31,
<u>2021</u>
19	A lot
25	Some
24	A little
32	None
1	No answer

ASK ALL:
QBELIEFGEN   As far as you know, do most of the people or accounts you follow on Twitter have…
[RANDOMIZE ORDER OF 1 & 2, KEEP 3 AND 4 LAST IN ORDER]

May 17-31,
<u>2021</u>
33	Similar political beliefs to you
6	Different political beliefs from you
39	A mix of political beliefs
21	I'm not sure about their political beliefs
1	No answer

ASK IF FOLLOW POLITICIANS OR GOVERNMENT FIGURES (WHOFOLLOWD=1,2) [N=1,834]:
QBELIEFPOL   Now thinking specifically about the politicians or government figures you follow, do most of them have… **[USE SAME ORDER OF 1 & 2 AS IN QBELIEFGEN, KEEP 3 LAST]**

May 17-31,
<u>2021</u>
58	Similar political beliefs to you
7	Different political beliefs from you

34	A mix of political beliefs
2	No answer

ASK ALL:
ENCTRDIS   How many of the posts that you see on Twitter contain political views or opinions you disagree with?

May 17-31,
  2021
3	Almost all of them
11	Most of them
57	Some of them
23	Very few of them
5	None of them
1	No answer

ASK ALL:
TWSEE2   How often do you see the following types of content on Twitter? **[RANDOMIZE ITEMS]**

		Almost every time	Sometimes	Rarely	Never	No answer
a.	News articles about social or political issues					
	May 17-31, 2021	31	47	14	7	1
b.	Funny or parody videos that reference political or social issues					
	May 17-31, 2021	15	51	23	10	1
c.	Petitions to raise awareness or encourage political or social change					
	May 17-31, 2021	12	49	25	12	1
d.	Political memes					
	May 17-31, 2021	16	53	21	10	1
e.	Campaign advertisements					
	May 17-31, 2021	9	40	36	14	1

ASK ALL:
CIVENG_TW   Here's a list of activities some people do on social media, and others do not. Please indicate if you have done each of the following activities on TWITTER over the past year.
[RANDOMIZE ITEMS]

		Yes, I have done this in the last year	No, I have not done this in the last year	No answer
a.	Expressed your support for a political campaign or candidate			
	May 17-31, 2021	35	64	1
b.	Replied to a tweet from a politician, political campaign or candidate			
	May 17-31, 2021	28	71	1
c.	Posted a picture or changed your profile picture to show your support for a cause			
	May 17-31, 2021	15	84	2
d.	Used a hashtag related to political or social issues			
	May 17-31, 2021	26	73	1
e.	Tweeted or retweeted about a political or social issue			
	May 17-31, 2021	45	53	1
f.	Tweeted or retweeted about a protest, boycott or similar call to action			
	May 17-31, 2021	28	70	2
g.	Tweeted or retweeted memes or humorous content related to political or social issues			
	May 17-31, 2021	37	61	1