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**Millennials and Technology:
An overview of usage, news consumption,
the future of work, and public policy.**

A summary of key findings from the first-of-its-kind bimonthly survey of racially and ethnically diverse young adults 18-34

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<http://www.genforwardsurvey.com/>

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About GenForward

> *The Survey*

The GenForward Survey is the first of its kind—a nationally representative survey of over 1,750 young adults ages 18-34 conducted bimonthly that pays special attention to how race and ethnicity influence how young adults or Millennials experience and think about the world. Given the importance of race and ethnicity for shaping the diverse perspectives and lived experiences of young people, we believe researchers make a mistake when they present data on young adults in a manner that assumes a monolithic Millennial generation and young adult vote.

Millennials now represent the largest generation of Americans, and they are by far the most racially and ethnically [diverse generation](#)¹ in the country. About 21% of Millennials identify as Latinx, Latina/o or Hispanic, 14% as Black or African American, 7% as Asian American, and 56% as white. They also comprise the largest share of the workforce and eligible voters. Thus, to fully understand how young adults think about politics and public policy, as well as their economic futures and race relations, we apply an intersectional lens and pay attention to characteristics such as race, ethnicity, gender and sexuality.

In this report, we present GenForward survey data collected between January 3rd and January 16th, 2018 on Millennials' usage of technology in areas ranging from work to their social lives as well provide an overview of their opinions on several technology-related policy areas.

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¹ Hyperlinks are used throughout this report as citations. Click on the linked text to view and learn more about each citation.

Key Findings

- > **Smartphones vs. Computers.** While roughly 90% of Millennials across racial and ethnic groups own smartphones, African American (69%) and Latinx (69%) Millennials are less likely to own and use laptop or desktop computers compared to white (87%) and Asian American (83%) Millennials.
- > **Television News.** Majorities of Millennials across racial and ethnic groups report getting most of their political news from online sources. However, meaningful proportions of African American (27%) and Latinx (27%) Millennials access political news via television news compared to whites (13%) and Asian Americans (8%).
- > **How Millennials Access News Online.** A majority of African American (54%) and pluralities of Latinx (44%) and Asian American (43%) Millennials who get their news from the internet do so from social media sites. In contrast, a plurality of white Millennials (40%) go directly to news websites.
- > **Technology will Decrease Jobs.** A plurality of Millennials across race and ethnicity believe advances in technology will decrease the number of jobs available.
- > **Difficulty in Finding Work.** Nearly or roughly half of Latinx (46%), African American (48%), and Asian American Millennials (51%) report being somewhat or very concerned about whether they will be able to find and keep a job as technology progresses, compared to only approximately a third of white Millennials (35%)
- > **Government Help for those Displaced by Technology.** Majorities of Millennials of all racial and ethnic backgrounds agree that the government should have an obligation to take care of people whose jobs are displaced by technology, even if it means raising taxes substantially.
- > **Net Neutrality.** Majorities of all Millennials sampled oppose the repeal of net neutrality and support Congress passing legislation making net neutrality protections into law.
- > **Broadband Inequality.** Twenty-five percent of Latinx Millennials and 21% of African American Millennials do not have or live with anyone that has a

- > subscription to high-speed internet compared to 8% of Asian Americans and 10% of whites.
- > **Broadband as a Utility.** While over 70 percent of Millennials agree that the government should fund the construction of broadband high-speed internet infrastructure, support increased among Latinxs (+11% pts) and whites (+7% pts) when framed specifically for people that do not have access to the internet, particularly rural communities and people of color.
- > **Computer Training in Schools.** Majorities of African Americans (55%), Latinx (53%), whites (55%), and especially Asian Americans (63%) believe that schools should place *more* emphasis on computer programming and coding than they do currently.
- > **Sharing Data with Law Enforcement for Criminal Investigations.** Bare majorities of African American (51%) and white (52%) Millennials believe that companies should share private user data with law enforcement. In contrast, less than half of Asian Americans (47%) and even fewer Latinxs (37%) share this opinion.
- > **Sharing Data with Law Enforcement for Terrorism Investigations.** Majorities of Asian American (53%) and Latinx (55%) Millennials believe that the government should be able to access private data when investigating terrorism. Equivalent proportions of African Americans and whites, however, believe the opposite — companies should be able to withhold private, encrypted information from law enforcement during terrorism investigations.
- > **Concerns over Privacy.** Majorities of Millennials across racial and ethnic groups worry somewhat or a great deal about the government and others having access to their private information. Interestingly, however, white Millennials are somewhat less concerned about privacy (59%) than their Asian American (74%), Latinx (70%), and African American (68%) peers.

I. Introduction

Advancements in digital technologies such as increasing access to the internet and the proliferation of smartphones are, perhaps inarguably, among the defining characteristics of the Millennial experience. Young adults born between the years 1984 and 2000 are the first to grow up with and come of age during this new Digital Revolution, prompting some [observers](#) to refer to Millennials as tech-savvy “digital natives.” Technology in general, and the internet in particular, appears to have transformed Millennials’ approach to [education](#), [work](#), and [political engagement](#).

Some [scholars](#), however, challenge the notion of Millennials being innate, talented users of computer-based technologies and argue that their engagement with technology is actually far [more varied](#) than casual observers assume, despite the growing prevalence and importance of technological features in their daily life. Instead of existing as one technologically homogenous generation, many have warned of a “[digital divide](#)” in [access to technology](#) along demographic cleavages such as [race](#), [class](#), and [gender](#), disproportionately excluding or at least hindering African Americans and Latinx young people from the information economy. Such a view has led to calls from both [technology entrepreneurs](#) and [politicians](#) for more fair and open internet access.

What do Millennials have to say about the role of technology in their lives? What devices do they own? How do they use and engage with technology across domains? Are there significant differences in the realm of technology between Millennials of different racial and ethnic backgrounds? This GenForward report addresses these questions by presenting an overview of Millennials’ relationship with technology in both their professional and personal lives as well as their opinions on several tech-related policies in the United States.

The report begins by providing an outline of which devices Millennials are most likely to own, how access to broadband internet service varies by race and ethnicity, and which tasks they prefer to complete online. We then explore how technology shapes their news consumption, experiences with employment, and their social lives. We end this report with a discussion of Millennial opinions on a number tech-related policy proposals.

Our findings pay special attention to how the behavior and opinions of Millennials differ across these areas by race/ethnicity. We are committed to more fully unpacking the extent to which the lived experiences of different racial and ethnic groups of Millennials are uniquely impacted (and how) by technology.

II. Devices: Ownership and Access

Key Findings:

- > **Smartphones vs. Computers.** While roughly 90% of Millennials across racial and ethnic groups own smartphones, African American (69%) and Latinx (69%) Millennials are less likely to own and use laptop or desktop computers compared to white (87%) and Asian American (83%) Millennials.
- > **Broadband Inequality.** Twenty-five percent of Latinx Millennials and 21% of African American Millennials do not have or live with anyone that has a subscription to high-speed internet compared to 8% of Asian Americans and 10% of whites.
- > **No Online Connections.** Despite the potential for increased free time and social connectedness offered by the advancement of technology, there is substantial variation in whether Millennials feel that technology has positively affected either their free time or their feelings of connection to other people, both romantically and in general.

Knowing which devices Millennials own and use to connect to the internet is a necessary first step to understanding their relationship with technology. Differential access to devices may, in some cases, lead to variation in how one can use technology. For example, you may be able to submit an application for a job using your smartphone but for some it may be easier to do so using a laptop. So, if you do not have access to a laptop it could prevent you from accessing needed job opportunities. Table 1 provides an overview of device ownership among Millennials of different racial and ethnic backgrounds.

As is evident in Table 1, the most popular device Millennials own and use across race and ethnicity are smartphones. Over or near ninety percent of Asian Americans, Latinxs, whites, and African Americans, indicate that they own and use a smartphone.

There is less consistency across Millennials of different racial backgrounds on other devices. Ownership and access to desktop and laptop computers, for example, is lowest among African American (69%) and Latinx (69%) Millennials. Asian American Millennials are fourteen percentage points (83%)—and white Millennials are nearly

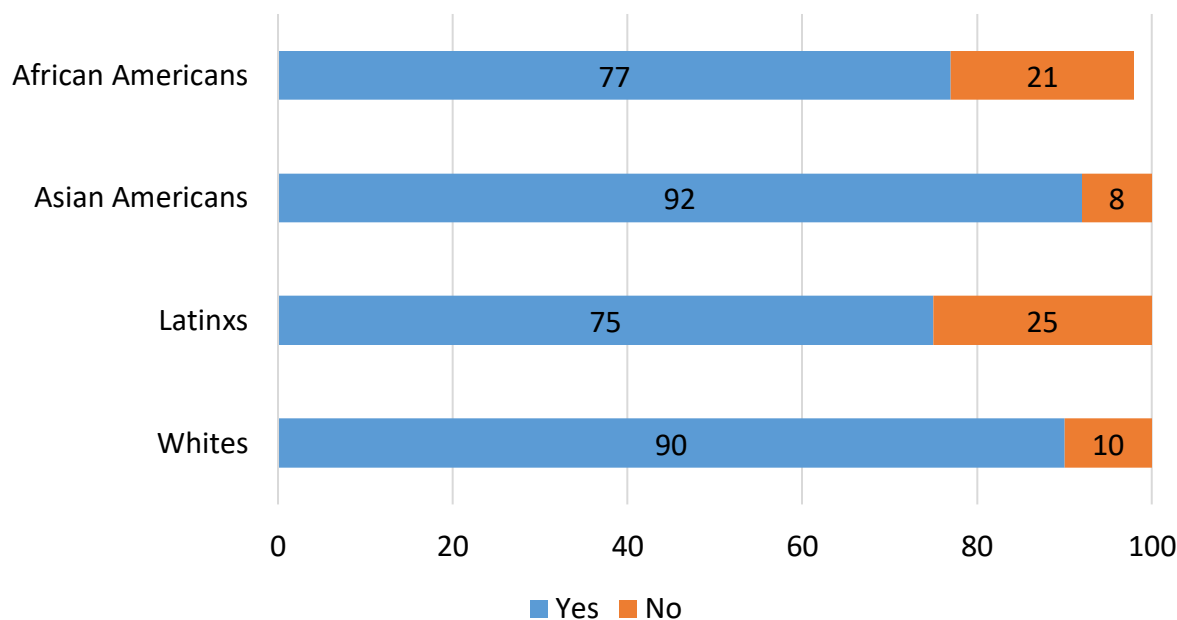
twenty percentage points (87%)—more likely to own or have access to a desktop or laptop computer than their African American and Latinx peers.

Table 1: Digital Devices and Ownership Rates among Millennials

	African Americans	Asian Americans	Latinxs	Whites
A cell phone that is a smartphone	88	97	92	93
A cell phone that is NOT a smartphone	5	2	8	5
A tablet device like an iPad, Samsung Galaxy Tab, or Google Nexus	53	58	46	59
A desktop or laptop computer	69	83	69	87
A game console like Xbox, Wii, or PlayStation	52	49	55	61
A smart watch, like an Apple watch	22	26	15	16
A portable gaming device like a Nintendo Switch, PSP, or Sega Genesis game player	15	23	15	24
None of the above	3	1	1	1
<i>N</i>	503	280	504	503

As Figure 1 below shows, a similar divide is evident in subscription to broadband, or high-speed internet, access at home. While a majority of Millennials across race and ethnicity report having access to broadband at home, the proportions of white (90%) and Asian American (92%) Millennials who report having broadband access is roughly fifteen percentage points more than those of African Americans (77%) and Latinxs (75%).

Figure 1: Do you or the people you live with subscribe to broadband (high-speed internet access) at home?



There are also important differences by race and ethnicity on which tasks Millennials choose to do online, as Table 2 details. Of the twelve activities we asked about, only two garner majorities of Millennials across racial and ethnic groups indicating that they do these activities online—banking and watching television shows and movies. A third, buying retail items, comes close but fails to reach a majority among Latinx Millennials (49%). Even within the two most popular tasks of banking and streaming entertainment, however, we see that Asian Americans and whites are much more likely to do their banking online and Asian Americans are more likely to watch TV and movies online than are other groups.

The divide between Asian Americans and whites compared to African American and Latinxs is also apparent in a number of other activities online, including paying one's rent or mortgage, paying credit cards, using transportation services like Uber and Lyft, purchasing tickets for sporting events, and paying someone using an app like Venmo. Asian Americans, more than any of the other groups, execute more everyday activities using digital technologies.

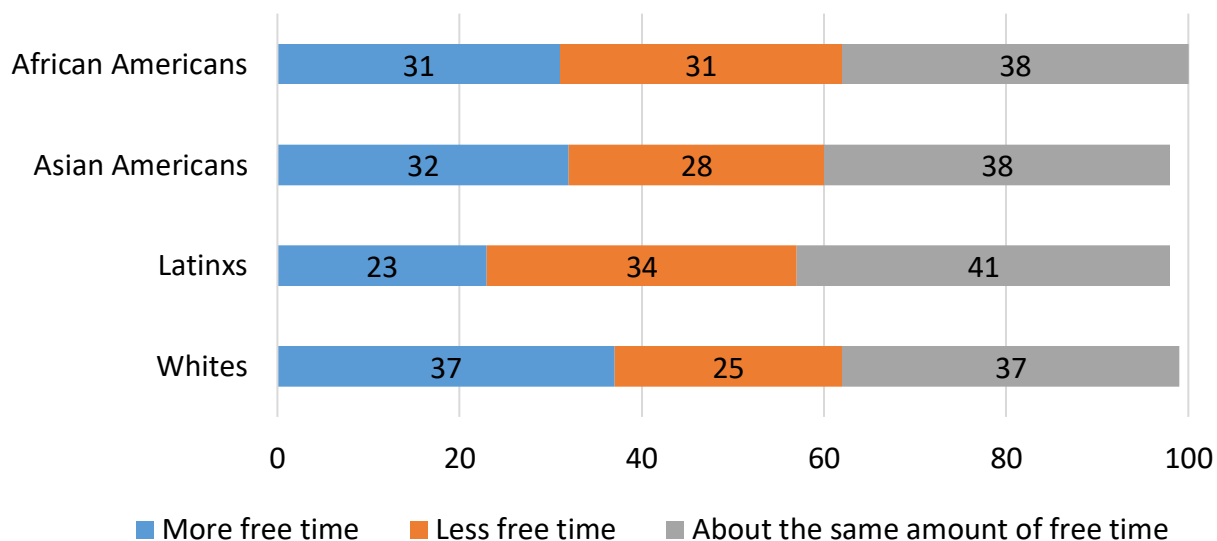
Table 2: Which of the following do you do online? (%)

	African Americans	Asian Americans	Latinxs	Whites
Paying your rent or mortgage	30	44	25	45
Banking	64	81	57	77
Pay credit cards	41	73	44	65
Buying retail items like clothing and appliances	57	68	49	57
Watch television shows and movies	62	85	67	66
Order transportation services like Uber or Lyft	32	53	33	29
Order groceries from a local store and have them delivered to you	10	13	9	6
Hire someone to do a task or household errand	8	2	2	3
Purchase a ticket to a sporting or entertainment event	39	51	38	54
Pay someone using an app like PayPal, Venmo, or Cash App	37	64	38	46
Order food for pickup or delivery	51	58	38	43
Submit a job application or resume	64	71	45	65
None of the above	5	1	8	5
<i>N</i>	503	280	504	503

How has the online environment shaped the social lives and interactions of Millennials? And what do they think of the effects of technology more generally? To answer these questions, we asked a series of questions about how technology has changed the amount of free time Millennials have, their connection to others, and how they use technology in their everyday activities such as dating.

As Figure 2 illustrates, there is no clear finding or position among Millennials on the impact of technology on their free time. Pluralities of African American (38%), Asian American (38%), and Latinx (41%) Millennials think that technology has not really impacted the amount of free time they have. White Millennials are evenly split between thinking technology has resulted in them having more free time (37%) and thinking there it has not made much difference (37%) in their amount of free time. Among Millennials of color who do think that technology has made a difference in their free time, Latinx is the only group where clearly more respondents believe technology has led to less free time.

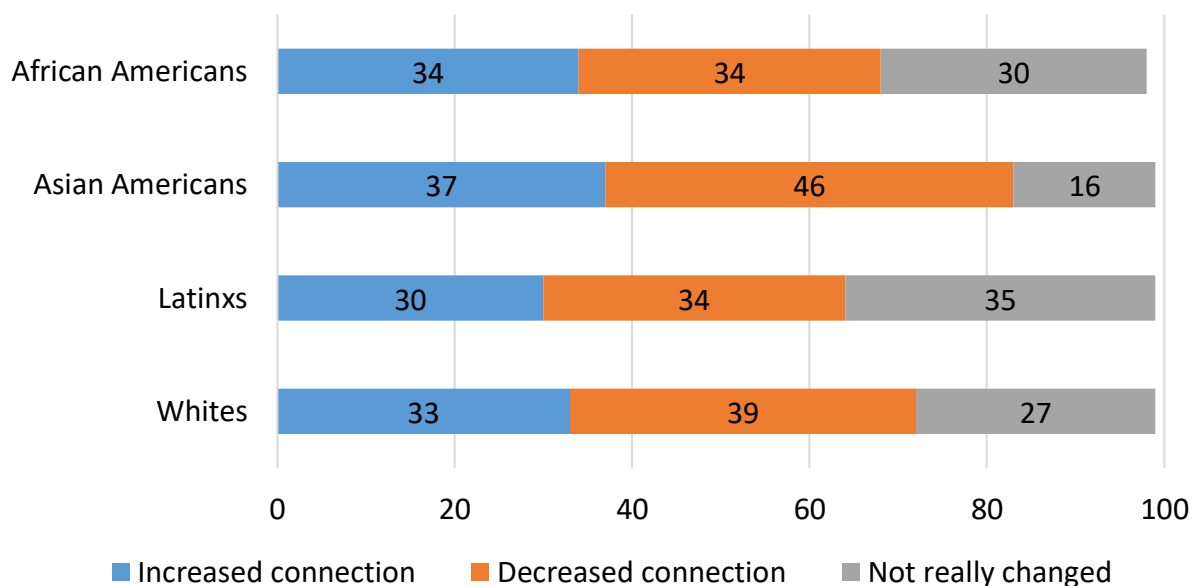
Figure 2: Do you think technology has allowed you to have more free time in your life, less free time, or about the same amount of free time?



Again, we find similar levels of relative ambivalence among Millennials regarding their assessment of whether advances in technology has impacted their feelings of connection to others (Figure 3). The responses of African American and Latinx Millennials, in

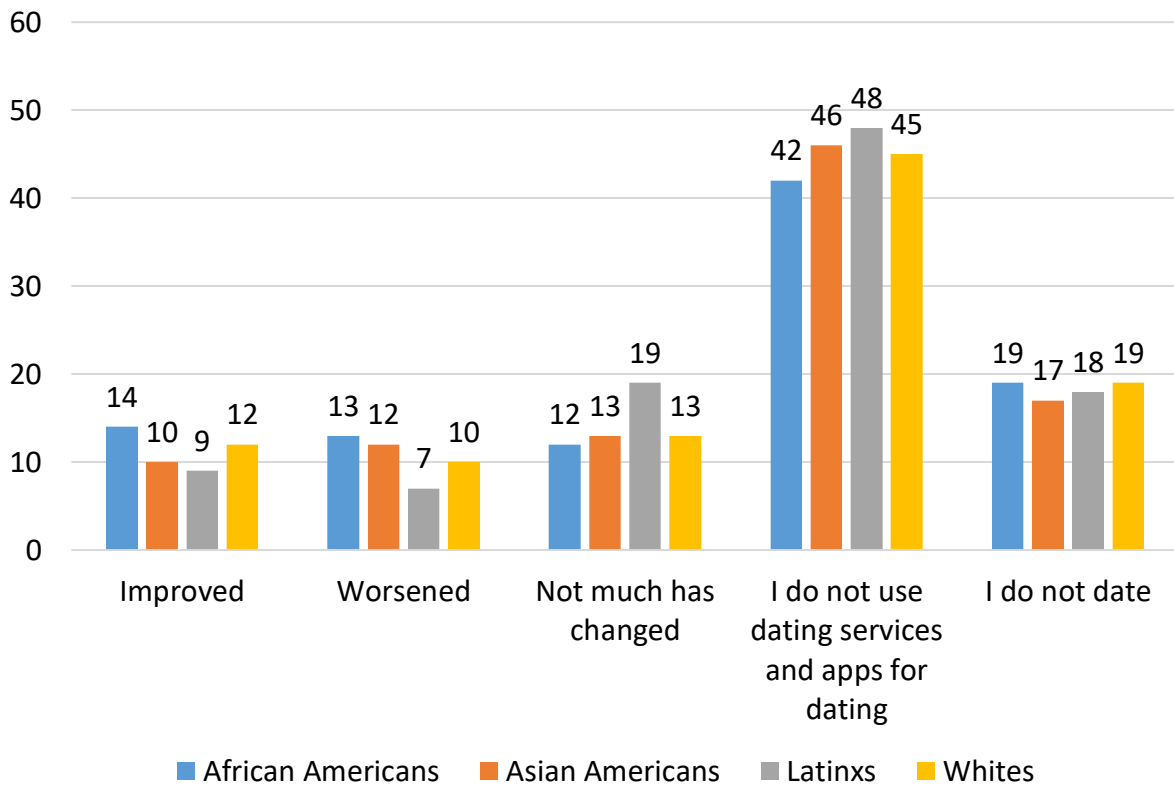
particular, are generally evenly distributed across all the answer categories. Slight pluralities of Asian Americans (46%) and whites (39%), on the other hand, report decreased feelings of connection due to technological advances.

Figure 3: Do you think the advancement of technology has increased your feelings of connection with others, decreased your feelings of connection with others, or not really changed?



Indeed, it seems that many Millennials are not turning to technology to look for connection, at least not in the realm of dating via online services and apps like Bumble and Grindr. As depicted in Figure 4, most Millennials across race and ethnicity indicated they do not use online dating services or apps. Among the minority that do, relatively equivalent proportions of Millennials report that their dating experiences have improved and worsened due to the existence of online dating services and apps.

Figure 4: Has the existence of online dating services and apps, such as OKCupid, Bumble, Grindr, and Tinder improved or worsened your dating experiences?



Despite the potential for increased free time and social connectedness offered by the advancement of technology, there is substantial variation in whether Millennials feel that technology has positively affected either their free time or their feelings of connection to other people, both romantically and in general.

III. News Consumption

Key Findings:

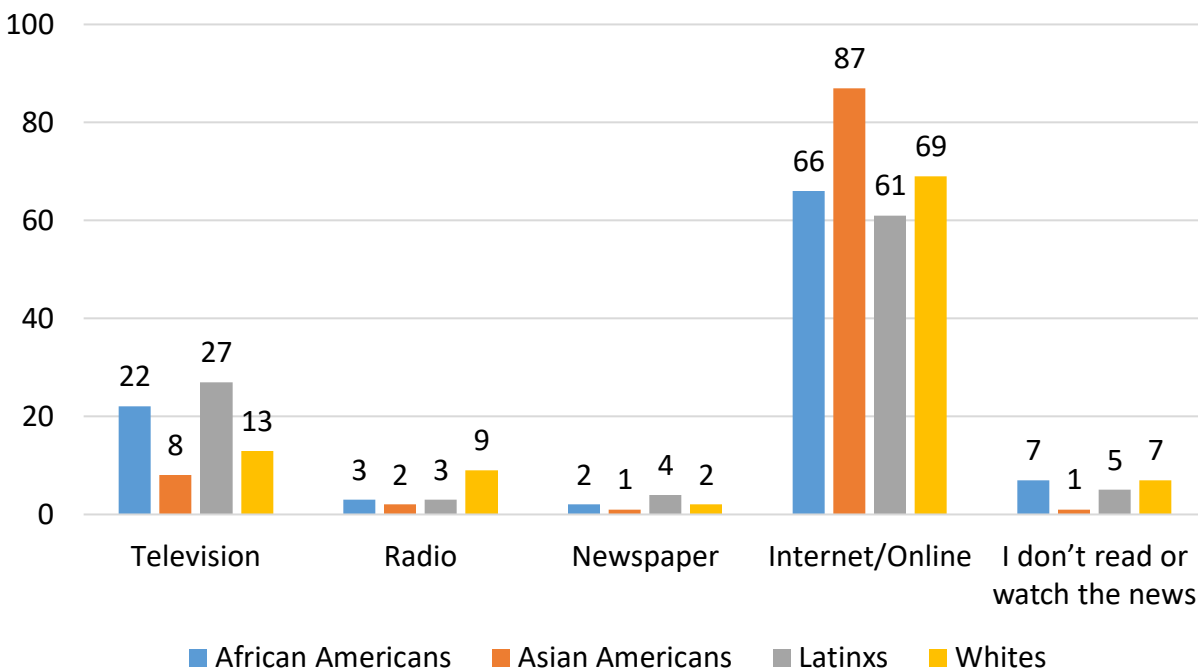
- > **Television News.** Majorities of Millennials across racial and ethnic groups report getting most of their political news from online sources. However, meaningful proportions of African American (27%) and Latinx (27%) Millennials access political news via television news compared to whites (13%) and Asian Americans (8%).
- > **How Millennials Access News Online.** A majority of African American (54%) and pluralities of Latinx (44%) and Asian American (43%) Millennials who get their news from the internet do so from social media sites. In contrast, a plurality of white Millennials (40%) go directly to news websites.
- > **Facebook the News Provider for most Millennials.** Among Millennials of all racial and ethnic backgrounds, Facebook stands out as the primary source of news among social media sites.

Perhaps one of the most consequential ways technology has impacted society is through its effect on the availability of information, particularly news, leading to concerns surrounding both the proliferation of news sources and the accuracy of news stories. Former president Barack Obama has [cautioned](#) that one of the most dangerous threats to American democracy is the balkanization of news media, facilitated and accelerated by the internet, into partisan echo chambers that reinforce one's existing political beliefs without ever having to listen to engage arguments from different political positions.

Interest in the accuracy of online media has garnered extra attention in the wake of the 2016 presidential election after [reports](#) of widespread efforts to manipulate public opinion via fictitious bot-generated news stories that were then shared and disseminated through polarized social networks.

Given the presumed centrality of [technology](#) to the Millennial experience, we sought to investigate how Millennials navigate this online news environment. Figure 5 confirms the findings of [other studies](#) and demonstrates that compared to television, radio, and newspaper sources, the internet is the dominant source of news for Millennials.

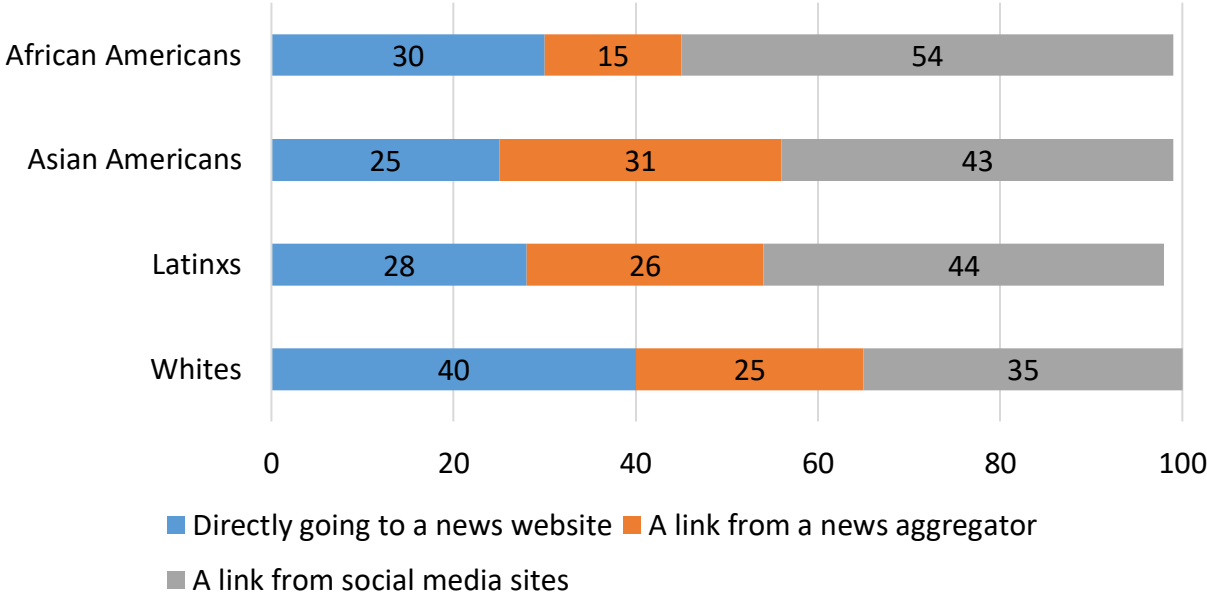
Figure 5: How do you access or get most of your news?



Over sixty percent of African Americans, Latinxs, and whites — and nearly ninety percent of Asian Americans — report getting their news from internet sources. Television is a distant second-place news source for Millennials, with roughly a quarter of African American (22%) and Latinx (27%) Millennials and smaller percentages of whites (13%) and Asian Americans (8%) relying on television for their news. These patterns suggest that while the Internet is the primary news sources for Millennials, broadcast news is still an important vehicle for information for some young adults.

Among the majority of Millennials that do get their news from the internet, there is important variation by race and ethnicity in how they use the internet to access the news. As shown in Figure 6, over fifty percent of African Americans (54%) report getting news via links on social media sites like Facebook and Twitter, a significantly higher rate than whites (35%), Asian Americans (43%), and Latinxs (44%). Indeed, Millennials of color in our sample — that is, African Americans (30%), Latinxs (28%), and Asian Americans (25%) — are the least likely to get online news by going directly to a news website. Whites, on the other hand, are the most likely (40%) to go directly to news websites.

Figure 6: Do you mostly get news by directly going to a news website, clicking on a link from a news aggregator like Reddit and Google News, or clicking a link on social media sites like Facebook and Twitter?



Given that social media plays an important role in the media diets of many Millennials and that there is a diversity of social media options, we asked respondents to review a list of social networking services and identify those on the list from which they had received news in the previous seven days leading up to the survey. Their responses are listed in Table 3.

Table 3: In the past 7 days, have you read news or news headlines on any of the following sites?

	African Americans	Asian Americans	Latinxs	Whites
Facebook	64	74	62	67
Twitter	30	28	21	22
LinkedIn	10	13	4	12
Instagram	34	28	25	17
Tumblr	5	2	4	5
YouTube	41	40	30	24
Reddit	5	29	10	17
Snapchat	23	16	18	18
WhatsApp	3	14	6	4
Other	13	13	11	11
None of the above	13	5	16	13
<i>N</i>	503	280	504	503

Among Millennials of all racial and ethnic backgrounds, Facebook stands out as the primary source of news among social media sites. Over 60% of African Americans, Latinxs, and whites, and 74% of Asian Americans report reading news or news headlines from Facebook in the seven days prior to taking the survey. Various other social media sources, particularly YouTube, Instagram, and Twitter, also connect Millennials to news stories and headlines.

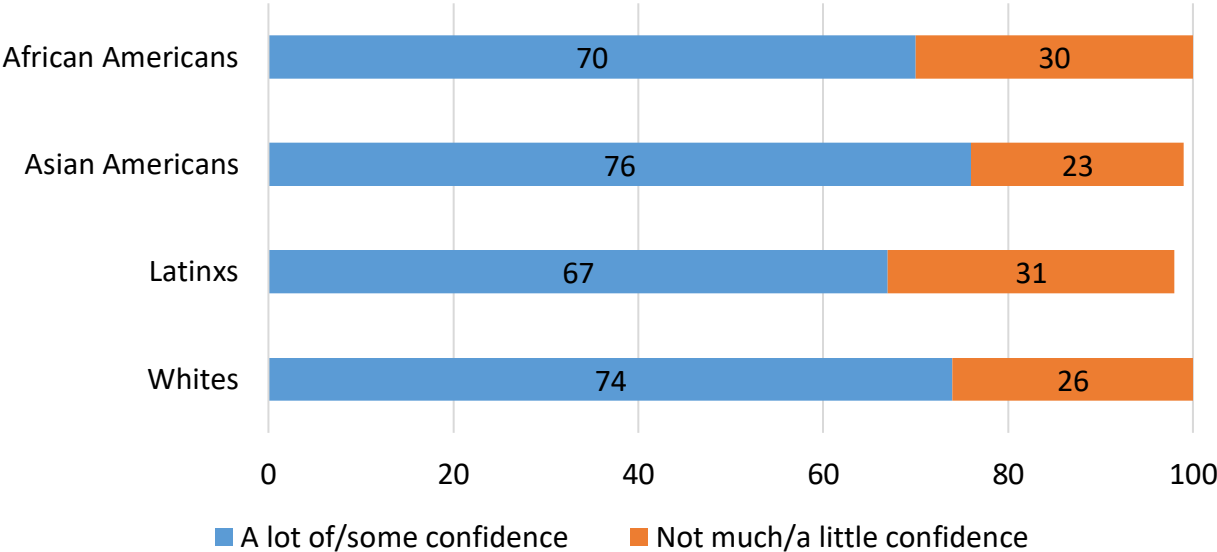
Table 4 indicates that when asked about which news source they trust the most, Millennials are more likely to say they trust political information from television sources such as nightly news programs or cable news shows like CNN. Indeed, online newspapers or news from social media sites garner about half as much trust as television sources, especially among African American, Latinx, and white Millennials. Asian American Millennials stand out from their peers in this regard since they are most likely to trust traditional print newspapers like the New York Times and Wall Street Journal.

Table 4: Which source of political information do you trust the most?

	African Americans	Asian Americans	Latinxs	Whites
Television nightly news programs	30	12	27	21
Print newspapers, such as the New York Times and Wall Street Journal	7	32	20	19
Radio programs that claim to be unbiased such as those on National Public Radio	11	13	9	18
Explicitly conservative radio programs such as Rush Limbaugh	1	1	1	2
Explicitly liberal radio programs such as Democracy Now!	3	*	1	1
Online newspapers, such as Politico and Drudge	5	15	4	7
News obtained from social networking sites	11	5	10	8
Cable news shows that claim to be unbiased such as those on CNN or Public Broadcasting Station	18	17	10	15
Explicitly liberal cable news shows such as those on MSNBC	3	1	2	1
Explicitly conservative cable news shows such as those on Fox	6	4	8	6
N	503	280	504	503

Regardless of differences in trust across media sources, majorities of Millennials across race and ethnicity are at least somewhat confident in their ability to discern whether news and information they find online is trustworthy (Figure 7). Perhaps this is not surprising considering that many people tend to [overestimate](#) their abilities in this domain. It is important to note, however, that substantial proportions—roughly twenty to thirty percent—of Millennials in every and racial and ethnic group express not having much or only a little confidence in their ability to tell whether online news is trustworthy.

Figure 7: How much confidence do you have in your ability to tell whether news and information you find online is trustworthy?



IV. Employment & the Future of Work

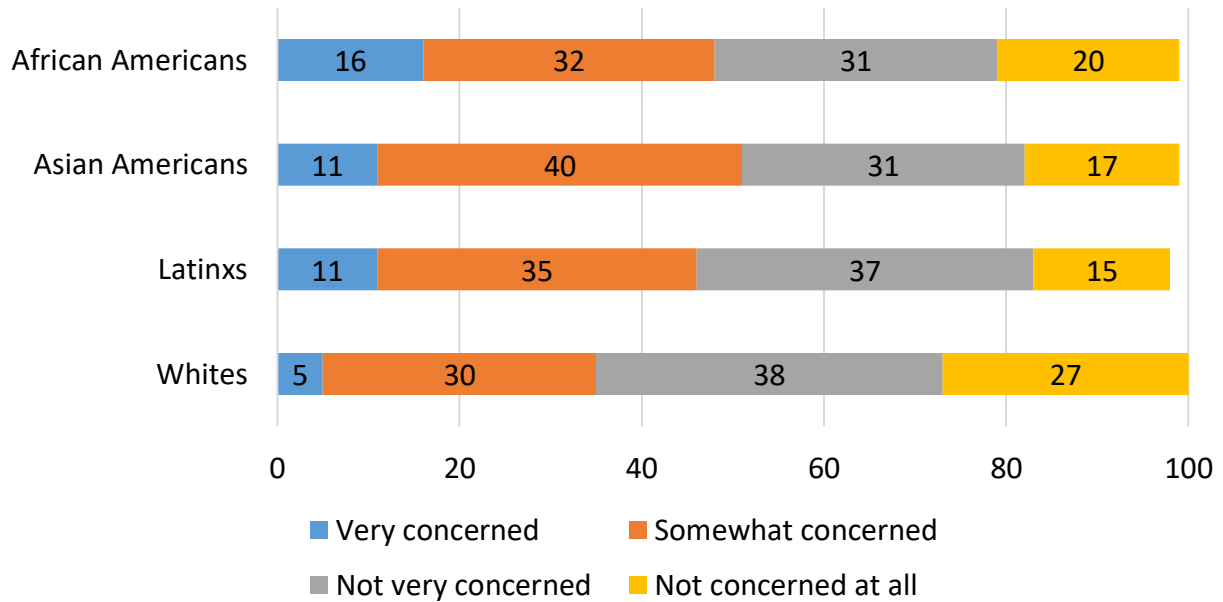
Key Findings:

- > **Technology will Decrease Jobs.** A plurality of Millennials across race and ethnicity believe advances in technology will decrease the number of jobs available.
- > **Difficulty in Finding Work.** Nearly or roughly half of Latinx (46%), African American (48%), and Asian American Millennials (51%) report being somewhat or very concerned about whether they will be able to find and keep a job as technology progresses, compared to only approximately a third of white Millennials (35%)
- > **Government Help for those Displaced by Technology.** Majorities of Millennials of all racial and ethnic backgrounds agree that the government should have an obligation to take care of people whose jobs are displaced by technology.
- > **Increasing Taxes to Help the Displaced.** Majorities of Millennials of all racial and ethnic backgrounds agree that the government should have an obligation to take care of people whose jobs are displaced by technology, even if it means raising taxes substantially.

Technological advancements have led to rapid globalization and automation, both of which have significantly impacted the American economy and labor market. Millennials, many of whom have experienced economic hardship and limited employment opportunities as a result of the Great Recession, are somewhat unsure of their employment prospects as technology progresses. This is particularly true for Millennials of color as detailed below.

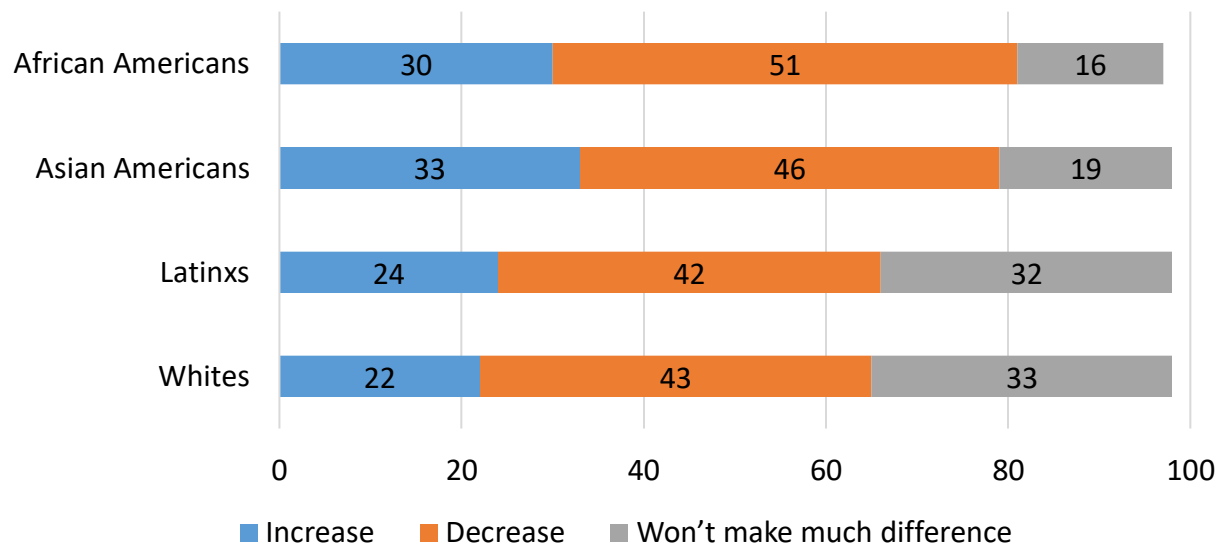
As Figure 8 illustrates, nearly or roughly half of Latinx (46%), African American (48%), and Asian American Millennials (51%) report being somewhat or very concerned about whether they will be able to find and keep a job as technology progresses. Nearly two-thirds (65%) of white Millennials, however, say they are not very or at all concerned about finding and keeping a job in their line of work as technology progresses. This is roughly 14 and 13 percentage points less than Latinxs and African Americans, respectively. Thus, white Millennials are the least concerned about their employment prospects being negatively impacted by continued advancements in technology.

Figure 8: How concerned are you that you will be able to find and keep a job in your line of work as technology progresses?



Despite the differences exhibited across race and ethnicity on whether technology will personally affect their own job prospects, a plurality of Millennials across racial and ethnic groups believe that advances in technology will lead to a decrease in the number of jobs in the U.S. (Figure 9).

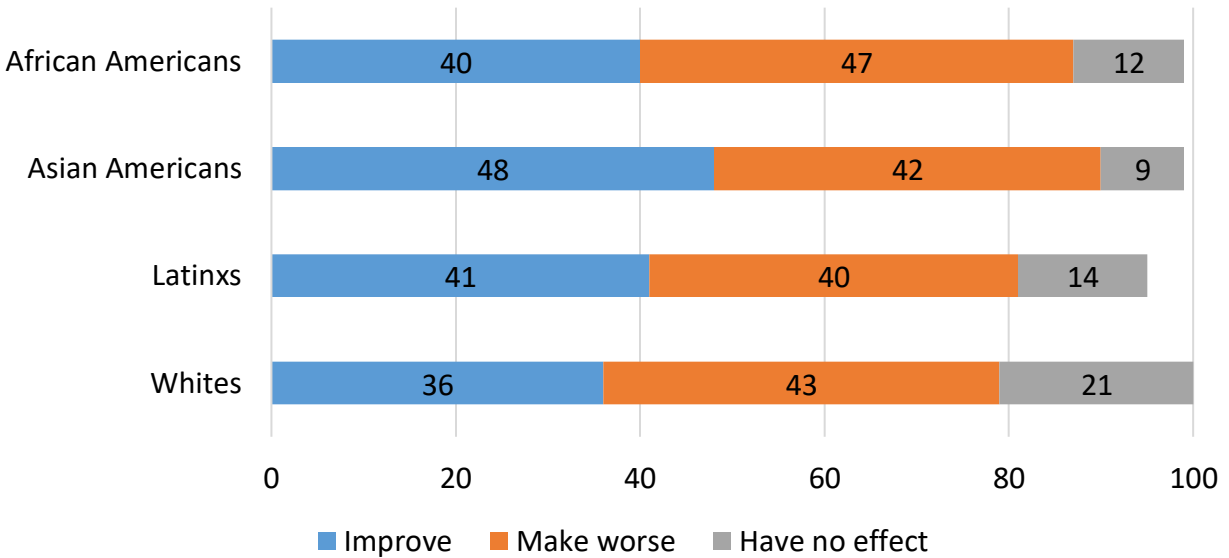
Figure 9: Over the next few years in the U.S., do you think advances in technology will increase or decrease the number of jobs, or won't it make much difference?



In Figure 10 we broaden the scope of our question about the impact of technology on employment and ask if technological advances will improve or worsen the economic prospects of the average worker. As shown in the figure, there is an interesting race/ethnicity split with African American and white Millennials more likely to say that technological advances will worsen the economic prospects of the average worker and Asian American and Latinx Millennials more likely to say technology will improve the economic condition of the average worker.

Overall, Asian Americans are the most optimistic that advances in technology will improve the economic prospects of workers (48% for improve) while African Americans are the most pessimistic (47% for worsen) about the effects of technology on workers. While a plurality of whites indicate that technology will make the economic prospects of workers worse, perhaps most interesting is that 21%, or roughly one in five white Millennials, think that advances in technology will have no effect, a larger proportion than any other group.

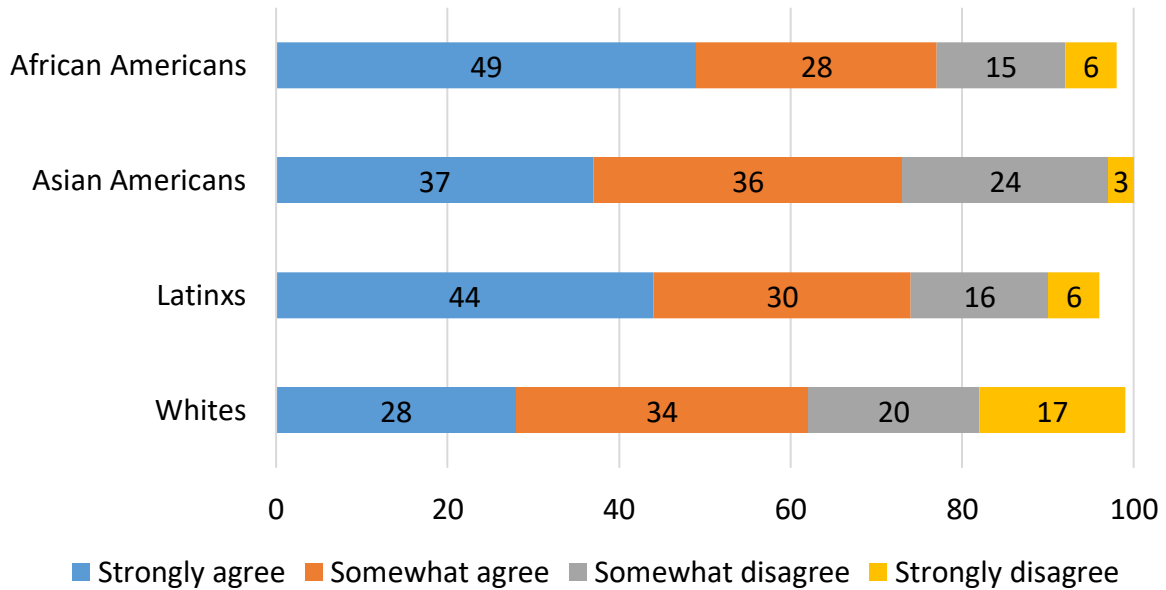
Figure 10: Over the next few years in the U.S., do you think advances in technology will IMPROVE or WORSEN the economic prospects of the average worker?



To further explore how Millennials believe the government should respond to the threat posed to the economic prospects of workers by technology, we ran an embedded experiment in our survey. Through a process of randomization, half of our respondents were asked whether the government should have an obligation to take care of people whose jobs have been displaced by robots and computers while the other half of our respondents were asked the same question with the added caveat that such government assistance should happen even if it means “raising taxes substantially.” Figures 11 and 12 present our findings.

As shown in Figure 11, majorities of Millennials strongly or somewhat agree that the government should have an obligation to take care of people whose jobs are displaced by robots. Nevertheless, there is some variation in agreement by race and ethnicity. Latinx (78%) and African American (77%) Millennials report the highest levels of general agreement while agreement among Asian American (73%) and particularly white (62%) Millennials is somewhat lower.

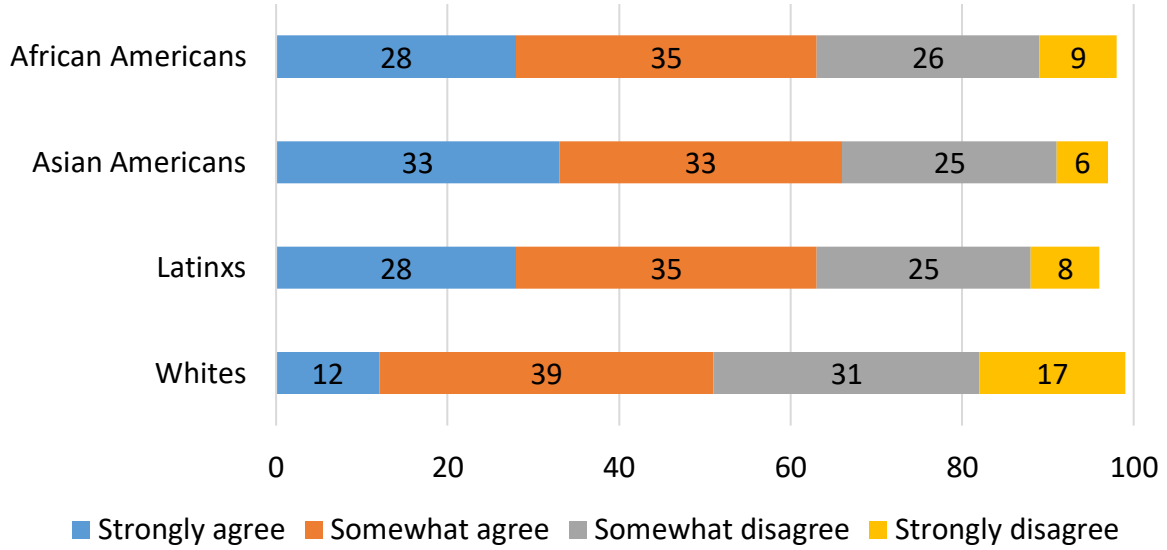
Figure 11: The government should have an obligation to take care of people whose jobs are displaced by robots and computers.



Overall, in Figure 12, we see somewhat less support for the idea that the government should take care of workers who have been displaced by technology if it means raising taxes substantially, compared to the numbers in Figure 11. The percentage of Millennials in each racial and ethnic group that strongly or somewhat agree that the government should take care of people whose jobs have been displaced by technology drops by roughly 10 to 15 percentage points when informed that doing so would mean raising taxes.

Nevertheless, a majority of respondents across all racial and ethnic groups believe that the government should have an obligation to take care of displaced workers even if it requires substantial tax increases. This is true for over 60% of African American (63%), Latinx (63%), and Asian American (66%) Millennials as well as just over fifty percent of white Millennials (51%).

Figure 12: The government should have an obligation to take care of people whose jobs are displaced by robots and computers, even if that meant raising taxes substantially.



V. Policy Preferences

Key Findings:

- > **Net Neutrality.** Majorities of all Millennials sampled oppose the repeal of net neutrality and support Congress passing legislation making net neutrality protections into law.
- > **Broadband as a Utility.** While over 70 percent of Millennials agree that the government should fund the construction of broadband high-speed internet infrastructure, support increased among Latinxs (+11% pts) and whites (+7% pts) when framed specifically for people that do not have access to the internet, particularly rural communities and people of color.
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- > **Sharing Data with Law Enforcement for Terrorism Investigations.** Majorities of Asian American (53%) and Latinx (55%) Millennials believe that the government should be able to access private data when investigating terrorism. Equivalent proportions of African Americans and whites, however, believe the opposite — companies should be able to withhold private, encrypted information from law enforcement during terrorism investigations.
- > **Concerns over Privacy.** Majorities of Millennials across racial and ethnic groups worry somewhat or a great deal about the government and others having access to their private information. Interestingly, however, white Millennials are somewhat less concerned about privacy (59%) than their Asian American (74%), Latinx (70%), and African American (68%) peers.

As the boundaries of technological achievements expand and technology continues to more fully and seamlessly integrate into our daily routines — from the proliferation of smartphones and our reliance on them to voice-recognition AI systems like Amazon’s Alexa and Apple’s Siri to the race to mass produce driverless cars — politicians and citizens alike must grapple with important policy questions having to do with the limits of and equal access to technology.² Where do Millennials — the “digital natives” that were raised with technology — stand on some of these tech-related issue areas?

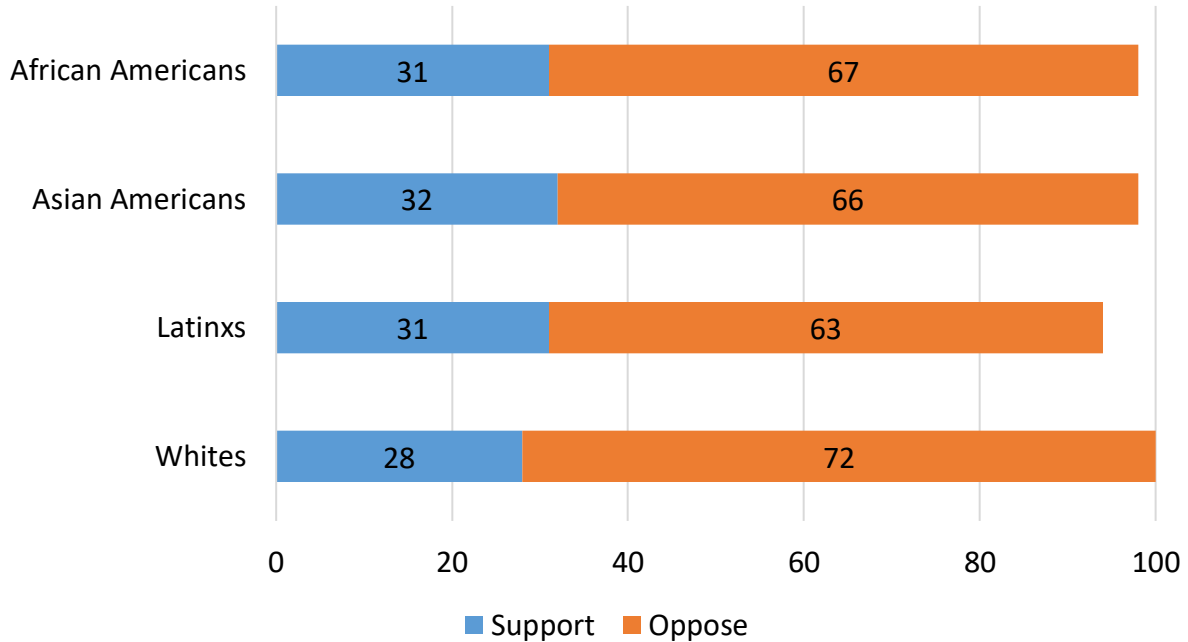
In December of 2017, approximately one month before our survey was fielded, the Federal Communications Commission (FCC) voted to repeal [net neutrality](#), otherwise known as the equal treatment of all internet traffic and content. Under net neutrality, Internet Service Providers (ISPs) were not allowed to block, slow down, throttle, or otherwise filter user access to websites or services. After the repeal, ISPs can now theoretically charge different rates for different levels of internet access and speed, leading some to fear the potential for even more inequality between the affluent that can afford top-quality broadband internet access and those that cannot.

Given the changes to net neutrality and the political attention it has received, we asked Millennials their opinions on the repeal of net neutrality. The distribution of their responses is shown in Figure 13.

There is remarkable consistency in opposition to **the repeal of net neutrality** among Millennials across racial and ethnic groups — over sixty percent of African Americans, Asian Americans, Latinxs, and over seventy percent of whites oppose the repeal. Less than a third of Millennials of the four racial and ethnic backgrounds included here support the repeal of net neutrality.

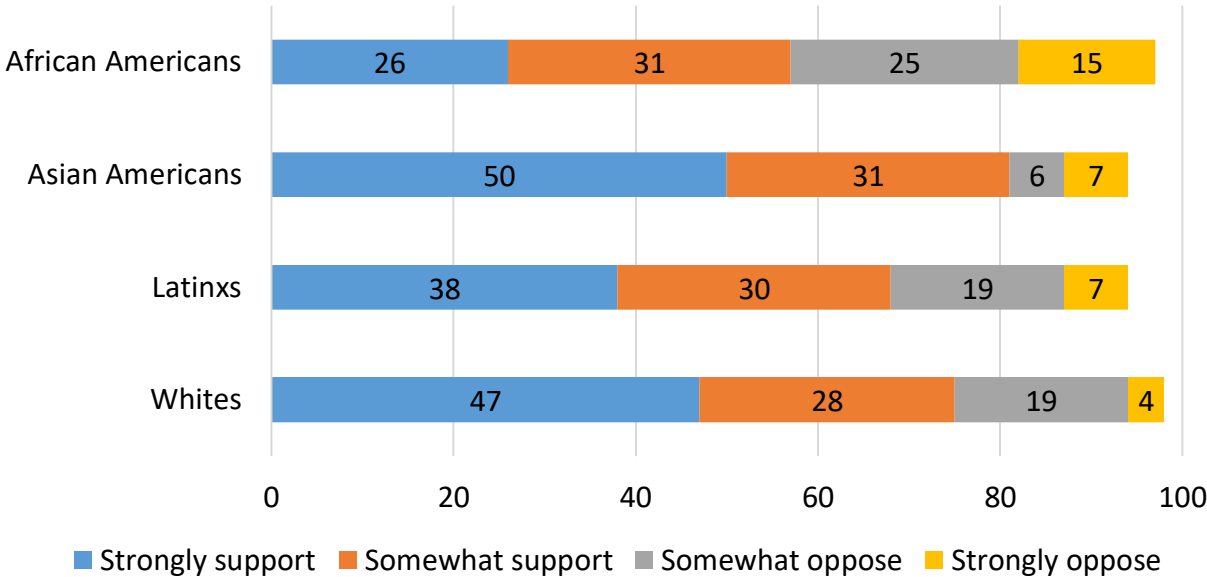
² How to best program the behavior of driverless cars in the event of an accident in order to minimize fatalities, for example, presents a thorny [moral dilemma](#) that programmers, researchers, and policymakers are struggling to work through.

Figure 13: Do you support or oppose the repeal of net neutrality?



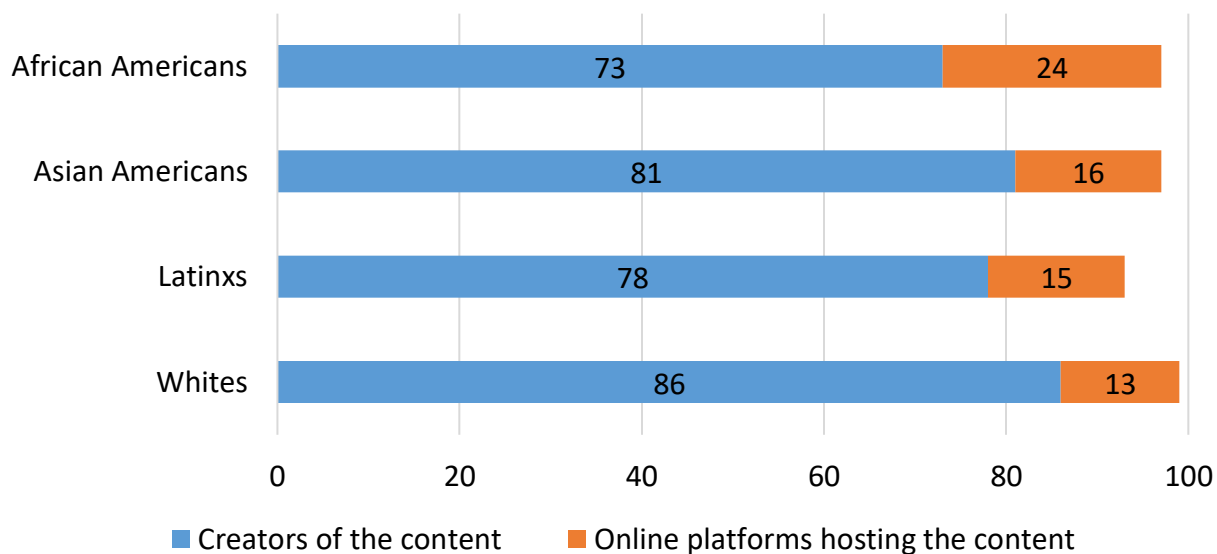
Indeed, strong majorities of Millennials would strongly or somewhat support legislation by Congress that would codify net neutrality protections into law (Figure 14). Asian American (81%) Millennials exhibit the largest support for such legislation, followed by white (75%), Latinx (68%), and African American (57%) Millennials.

Figure 14: Would you support or oppose legislation that makes net neutrality protections into law?



In addition to support for net neutrality, Millennials overwhelmingly believe that content creators, that is the individuals that post original content online, as opposed to platforms that host content, such as YouTube, should own the rights to posted content (Figure 15). While support for content creators retaining the rights to their material is most evident among whites (86%), strong majorities of Asian Americans (81%), Latinxs (78%), and African Americans (73%) also believe that creators should own the rights to online content over platform hosts.

Figure 15: Who do you believe should own the rights to online content—the creator of the content or the platform hosting the content (YouTube, Hulu, Facebook)?



As shown earlier in Figures 11 and 12, and again in Figure 14, Millennials are largely supportive of government intervention on issues relating to technology. We see this also in Figure 16 where we again used the design of a survey experiment to assess how millennials feel about the government’s role in building out broadband internet access. In this case, half of our sample were randomly selected to receive a question asking if the government should fund the building of broadband infrastructure in every community as they do with basic utilities like water and electricity.

We then asked the remaining half of respondents (the other randomly designated half) the same question but with the addition of the following language at the beginning of the question: “Given the importance of the internet and the fact that some people don’t have access to the internet, such as rural communities and people of color...” Interestingly, when this language is added, we observe in Figure 17 an increase in support for the building out of broadband by the government among white and Latinx Millennials by seven and eleven percentage points, respectively. Somewhat surprisingly, support among African Americans drops by roughly seven percentage points, though much of that loss is from the “somewhat agree” category and a large majority is still supportive of the construction of government-funded broadband infrastructure

Figure 16: Do you agree or disagree that the government should fund the building of broadband (high-speed internet access) infrastructure in every community to ensure that all have access to the internet, as they do with utilities like water and electricity?

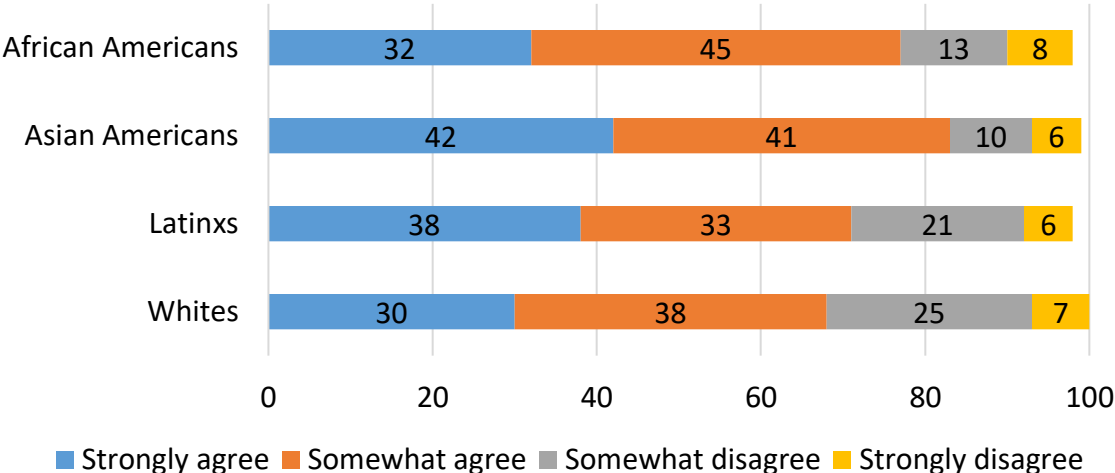
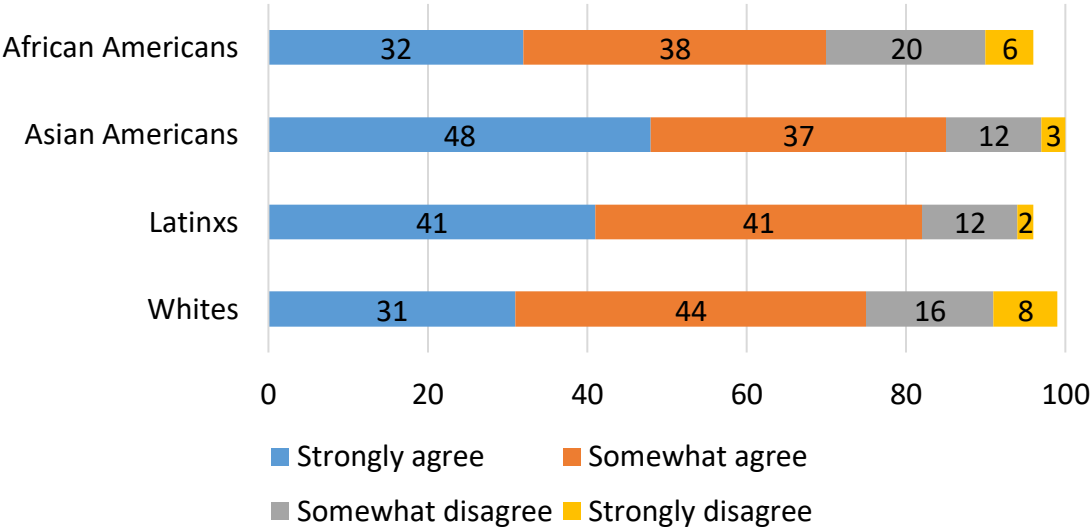
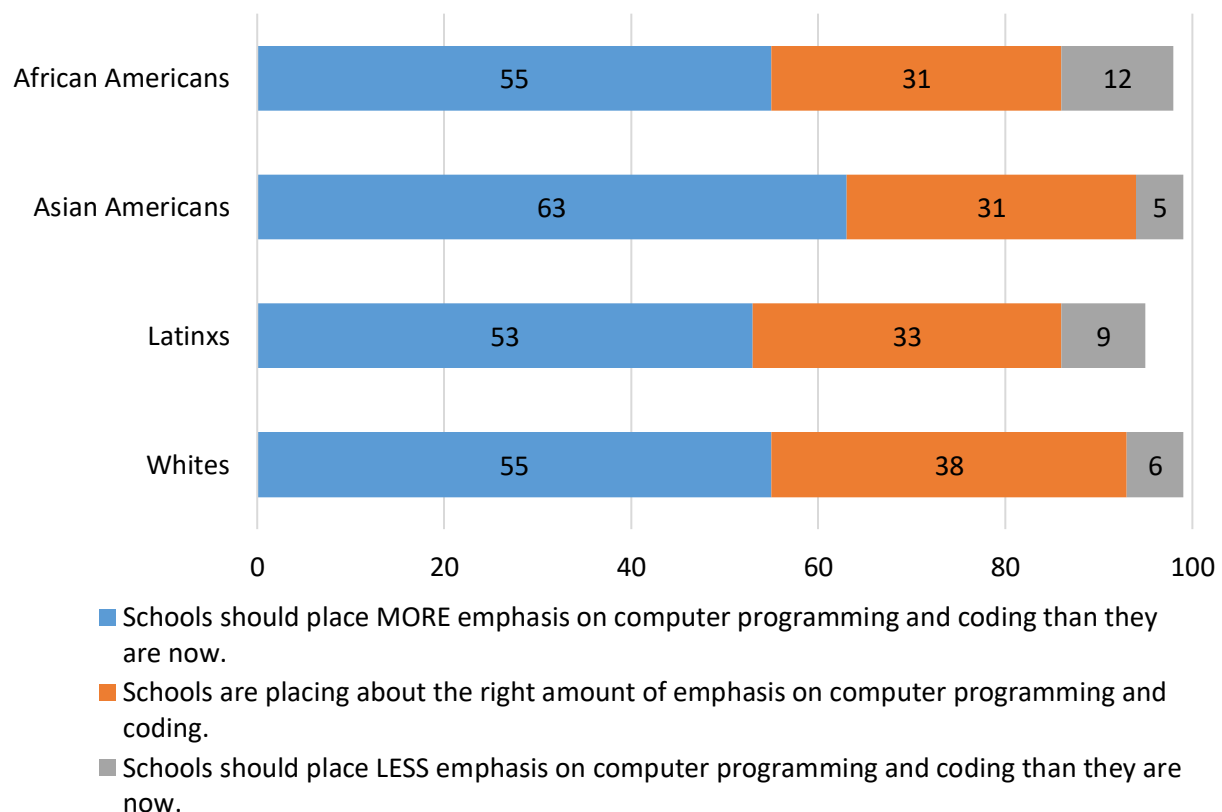


Figure 17: Given the importance of the internet and the fact that some people don't have access to the internet, such as rural communities and people of color, do you agree or disagree that the government should fund the building of broadband (high-speed internet access) infrastructure in every community to ensure that all have access to the internet, as they do with utilities like water and electricity?



Millennials do not only believe that the government should provide access to and protection of equal internet access, they also recognize the importance of working with and understanding digital technology, as exemplified by their support of increasing training in computer programming in school (Figure 18). Majorities of African Americans (55%), Latinx (53%), whites (55%), and especially Asian Americans (63%) believe that schools should place *more* emphasis on computer programming and coding than they do currently. Indeed, relatively small numbers of Millennials—less than twelve percent in any racial and ethnic group—believe that there should be *less* emphasis on programming and coding in school curriculums.

Figure 18: Which of the following options best describes your view about students receiving training in computer programming in school?



Despite the relative agreement on a number of tech-related policies, Millennials exhibit some important differences by race and ethnicity when asked about whether companies

should share private, encrypted user data with law enforcement officials during investigations (Figure 19).

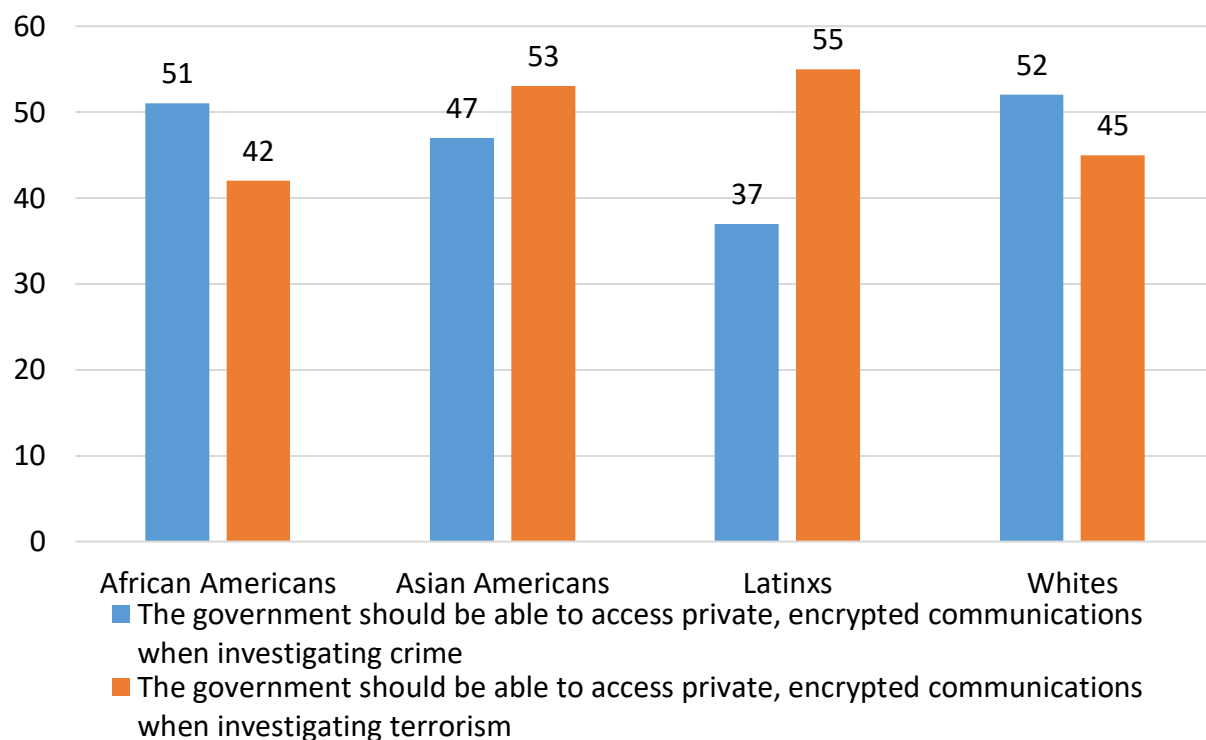
The issue of user privacy in investigations has received significant attention in recent years after the Supreme Court [ruled](#) that law enforcement could not search mobile phones without a search warrant and Apple famously [denied](#) the Federal Bureau of Investigations' (FBI) request for a "backdoor" to access the user data of the suspects involved in the San Bernardino shooting that occurred in December 2015. Concerns over privacy continue to grow as restrictive immigration measures have resulted in an [increase](#) in reports of illegal phone searches by Border Patrol agents.

However, there are important differences in the types of investigations that law enforcement officials conduct. We attempted to isolate differences in opinion on two important yet different categories of investigations—criminal and terrorism. Half of our respondents were randomly selected to answer a question asking about their views on companies sharing private, encrypted user data during *criminal* investigations and the remaining half of the sample were asked about their views with respect to *terrorism* investigations.

When it comes to criminal investigations, bare majorities of African American (51%) and white (52%) Millennials believe that companies should share private user data with law enforcement. In contrast, less than half of Asian Americans (47%) and even fewer Latinxs (37%) share this opinion.

The inverse is true for terrorism investigations. Majorities of Asian American (53%) and Latinx (55%) Millennials believe that the government should be able to access private data when investigating terrorism. Equivalent proportions of African Americans and whites, however, believe the opposite—companies should be able to withhold private, encrypted information from law enforcement during terrorism investigations.

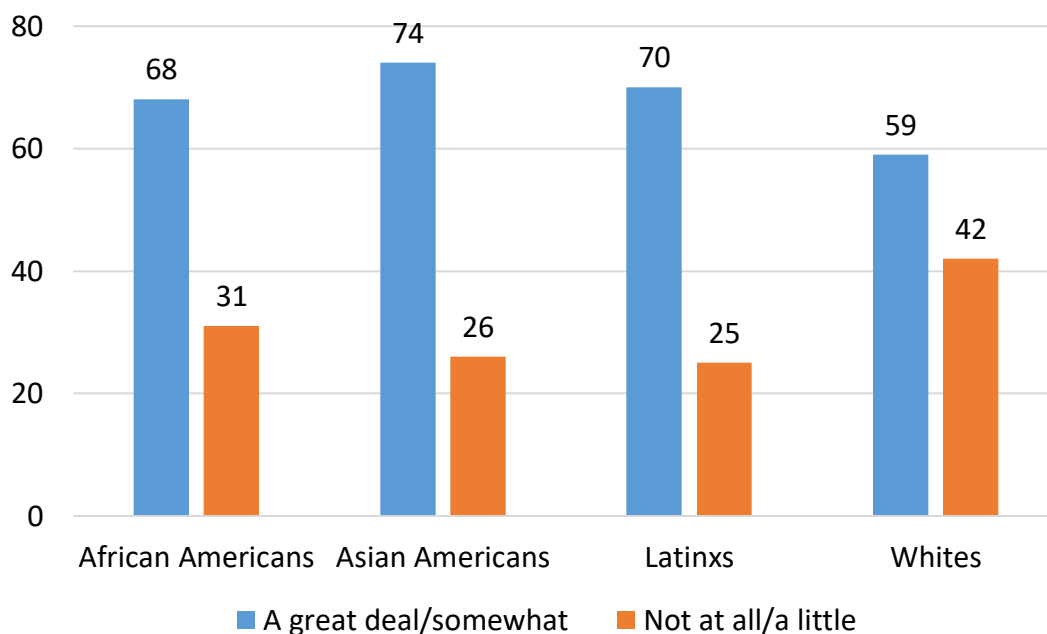
Figure 19: Views on companies sharing private, encrypted user data with law enforcement during *criminal or terrorism* investigations.



The rise of online services that capture and rely on an enormous amount of data from each user, not to mention the fact that data from several sources can often be [linked](#) and individuals tend to leave unique [digital traces](#) akin to fingerprints, have raised questions of individual privacy with little existing precedent. Even outside the realm of criminal or terror investigations, privacy is a significant concern for Millennials.

Indeed, as Figure 20 illustrates, majorities of Millennials across racial and ethnic groups worry somewhat or a great deal about the government and others having access to their private information. Interestingly, however, white Millennials are somewhat less concerned about privacy (59%) than their Asian American (74%), Latinx (70%), and African American (68%) peers.

Figure 20: To what degree are you worried about the government and others having access to your private information?



As more people, and especially Millennials, use online services for tasks ranging from banking and bill payment to movie streaming and socializing with peers, the risk and potential impact of data breaches like the Equifax credit hack that compromised the private information of over 145 million people, increases tremendously. How policymakers and others respond to the new digital environment is more important than ever before. Having a clearer picture of how Millennials engage with this environment, as well as their views and concerns on different aspects of it, is a necessary component of crafting adequate policy.

VII. Conclusion

Technology's impact on the lives of Millennials has been a topic of much interest and discussion among journalists, scholars, and policymakers. This report has offered an overview of not only how Millennials engage with and use technology in their personal and professional lives but also how technology impacts their media habits, their job prospects in the future as well as what they think about a number of technology-related policies, ranging from net neutrality and the construction of broadband infrastructure to the extent to which technology is emphasized in school curricula and the sharing of private user data.

Advancements in technology have touched the lives of all Millennials similarly in some ways, and their opinions on technology policies sometimes reflect those similarities. However, there are other important differences between racial and ethnic groups, especially on issues of access and on tasks that Millennials complete online. Asian American and white Millennials are much more likely to own desktop or laptop computers and have access to broadband subscriptions at home than African Americans or Latinxs. They are also more likely use the internet for paying their rent or mortgage, paying credit card balances, using transportation services like Uber and Lyft, purchasing tickets for sporting events, and paying someone using an app like Venmo.

Despite these and other differences outlined in this report, there is significant consistency in the policy preferences of Millennials regardless of race and ethnicity. Millennials are generally supportive of net neutrality, the codification of net neutrality into law by Congress, reserving the rights of online content to the content creators, the building of broadband infrastructure and treatment of internet access like a utility, as well as greater emphasis on programming and coding in school curricula.

VII. Survey Methodology

The GenForward survey is a project founded and directed by Professor Cathy J. Cohen at the University of Chicago. Interviews for this survey were conducted with a representative sample from GenForwardSM, a nationally representative survey panel of adults ages 18-34 recruited and administered by NORC at the University of Chicago. This survey on technology was funded in part by the Comcast Corporation.

A total of 1,844 interviews were conducted between January 3rd and January 16th, 2018 with adults ages 18-34 representing the 50 states and the District of Columbia, including completed interviews with 503 African American young adults, 280 Asian American young adults, 504 Latinx young adults, 503 white young adults, and 54 young adults with other racial and ethnic backgrounds. The survey was offered in English and Spanish and via telephone and web modes.

The GenForward survey was built from two sample sources: 62.5 percent of the completed interviews are sourced from NORC's AmeriSpeak® Panel. AmeriSpeak is a probability-based panel that also uses address-based sample but sourced from the NORC National Frame with enhanced sample coverage. During the initial recruitment phase of the AmeriSpeak panel, randomly selected U.S. households were sampled with a known, non-zero probability of selection and then contacted by U.S. mail, email, telephone, and field interviewers (face-to-face).

Just over 37 percent of the completed interviews are sourced from Professor Cohen's Black Youth Project (BYP) panel of young adults recruited by NORC. The BYP sample is from a probability-based household panel that uses an address-based sample from a registered voter database of the entire U.S. Households were selected using stratified random sampling to support over-sampling of households with African Americans, Latino/as, and Asian Americans ages 18-34. NORC contacted sampled households by U.S. mail and by telephone, inviting them to register and participate in public opinion surveys twice a month. Panelists on both the BYP and AmeriSpeak panels are invited to register for the panel via the web or by telephone to participate in public opinion surveys.

Of the 1,844 completed interviews in the GenForward June survey, 94 percent were completed by web and roughly 6 percent by telephone. The survey completion rate is 26.3 percent. The weighted household panel recruitment rate is 21.3 percent and the weighted household panel retention rate is 88.9 percent, for a cumulative AAPOR

Response Rate 3 of 5.0 percent. The overall margin of sampling error is +/- 3.95 percentage points at the 95 percent confidence level, including the design effect. Among subgroups, the margin of sampling error at the 95 percent confidence level is +/- 6.57 percentage points for African Americans, +/- 8.68 percentage points for Asian Americans, +/- 7.41 percentage points for Latinxs, and +/- 5.55 percentage points for whites.

To encourage cooperation, respondents were offered incentives for completing the survey that ranged from the cash-equivalent of \$3 to the cash-equivalent of \$10.

The interviews from the two probability-based sample sources were combined for statistical weighting and analysis. The combined panel samples provide sample coverage of approximately 97% of the U.S. household population. Those excluded from the sample include people with P.O. Box only addresses, some addresses not listed in the USPS Delivery Sequence File, and some newly constructed dwellings. The statistical weights incorporate the appropriate probability of selection for the BYP and

AmeriSpeak samples, nonresponse adjustments, and also, raking ratio adjustments to population benchmarks for 18-34-year-old adults. A post stratification process is used to adjust for any survey nonresponse as well as any non-coverage or under- and over-sampling resulting from the study-specific sample design. The post stratification process was done separately for each racial/ethnic group and involved the following variables: age, gender, education, and census region. The weighted data, which reflect the U.S. population of adults ages 18-34, and the 18-34-year-old populations for African Americans, Latino/as, Asian Americans, and non-Latino/a whites, were used for all analyses.