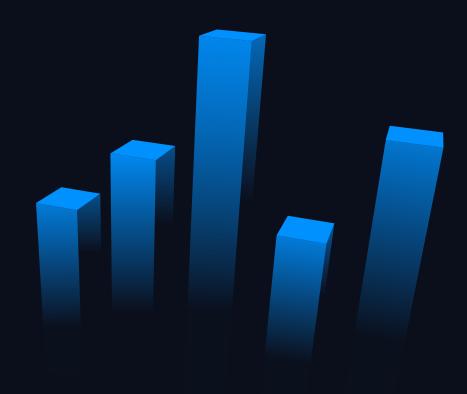


The Robocall Report YEARLY INSIGHTS FOR 2020



ROBOCALL REPORT BRIEFING



ACCORDING TO THE FTC

In 2020, there were 54 billion total spam calls. While that was a 10% decrease from 2019, the impact of spam calls did not diminish. Spam calls were fewer but more targeted – resulting in more financial losses than ever before. According to the FTC, Americans lost over \$3.3 billion to fraud in 2020 compared to 2019's \$1.8 billion. Scammers cashed in on COVID-19 fears by capitalizing on current events and media trends, with COVID-19 fraud losses totaling \$319 million as of January 2021.

2020 was a unique and challenging year for everyone, scammers included. This report examines the key spam call trends of 2020; identifying macro shifts in phone scammer strategies during COVID-19, revealing why political text messages surged during the 2020 Election, and providing a glimpse of the new threats that consumers will face in 2021.

RoboKiller estimates nationwide spam call trends and gathers spam call data with unique accuracy using its proprietary audio-fingerprinting technology. Like the "Shazam" for robocalls, audio-fingerprinting creates an audio footprint of each of the 1.1 million robocalls that RoboKiller intercepts daily. This allows RoboKiller to shut down any robocall scam, regardless of spoofing, and transcribe the audio recordings that can be searched and monitored in our global database.

54,670,045,755

Spam calls received by Americans in 2020

200

Spam calls per person

6,700,000,000

Fewer spam calls from 2019 to 2020, marking a 10% decrease

-50%

Decrease in spam calls as a percentage of total calls from 2019 to 2020

52%

Percentage of RoboKiller survey respondents that will not answer a call from an unfamiliar number

25%

Percentage of all phone calls that were spam in 2020

MOST SPAM-CALLED STATES

2019

Texas: 5.9B

Alabama: 996M

Arkansas: 582M

South Carolina: 938M

Louisiana: 841M

2020

Texas: 6.3B

Alabama: 1B

South Carolina: 1B

Arkansas: 636M

Arizona: 1.4B

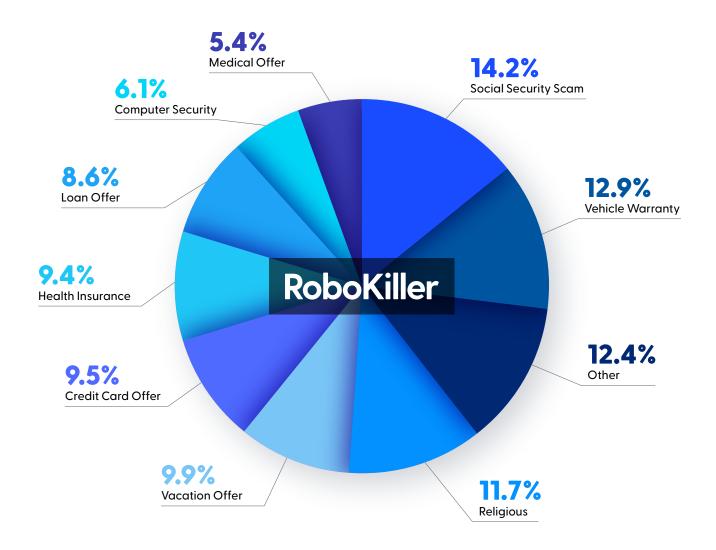
Though total spam calls decreased in 2020, scammers doubled down their efforts in states that have been historically targeted by robocalls. Texas, Arkansas, and South Carolina saw an average year-over-year increase in robocalls of 7% in 2020. Other states like Arizona saw a 27% yearly increase in spam calls, while Louisiana received less robocalls in 2020 at 827 million.

Texas was the number one state targeted by robocalls

- **6.3 billion** calls hit Americans in Texas
- **265 calls** per person
- Vehicle Warranty calls were most common

MOST PREVALENT SPAM CALL CATEGORIES

TOP PHONE SCAM CATEGORIES IN 2020



Social Security topped scam categories in 2020 at 14% replacing 2019's top category of Credit Card Offers. The shift could be explained by the events of 2020 that caused more Americans to rely on unemployment, stimulus payments, and other government programs.

2020 UNWANTED MESSAGES MILESTONES

March 2020

Spam calls decrease gradually as COVID-19 cases increase around the world.

May 2020

Countries start to reopen, spam calls return to normal levels, and spam texts emerge with a 15% increase from April to May.

July 2020

Spam calls continue to trend upward to their normal volume of almost 5 billion per month, while political text messages rise to 925 million for the month.

September 2020

Political misinformation about voting and candidates is spread through text messages and robocalls.

November 2020

"Stay Safe, Stay Home" robocall bombards Americans and creates fear on Election Day.

April 2020

Global quarantine orders drive a 50% monthly decrease in average monthly robocalls while more targeted COVID-19 scams emerge.

June 2020

Robocalls and text messages from both political parties explode to 3 billion from January - June of 2020.

August 2020

Political text messages continue to gain momentum and political robocalls decrease from both Republican and Democractic parties.

October 2020

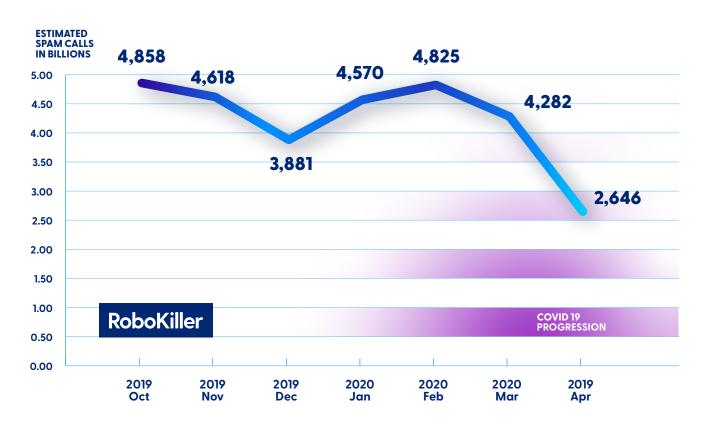
Americans received 13.9 billion political messages from January to October 2020. Some targeted misinformation reached a small portion of Americans via political robocalls and texts.

December 2020

Election-related spam text messages continue as Georgia runoff takes place. Total robocalls in America total 54 billion by the end of 2020.

LESS SPAM WITH GREATER FINANCIAL LOSS. WHY?

Global pandemic provides temporary robocall relief
Temporary 50% decrease in average monthly robocalls in April 2020 compared to June 2020.



WHAT?

COVID-19 and global quarantine shutdowns reduced spam calls significantly. Between January - April 2020, average monthly spam call volume decreased by roughly 10%. The decline began in March of 2020 at a 10% average decrease in total monthly robocalls. In April 2020, RoboKiller identified the largest monthly decrease to only 2.7 billion total monthly spam calls - a 35% decrease from March.

WHY?

The spam call decrease from January to April 2020 aligns with the quarantine and shelter-in-place orders of early COVID-19. These shutdowns severely limited access to the technology needed for scammers to make large volumes of calls.

SPAM TEXTS EMERGED AS A REAL THREAT DURING COVID-19

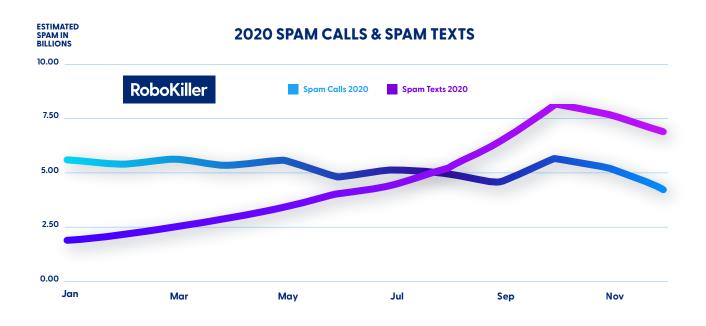
Spam texts totals grew an average of 16% month-over-month as spam calls declined.

WHAT?

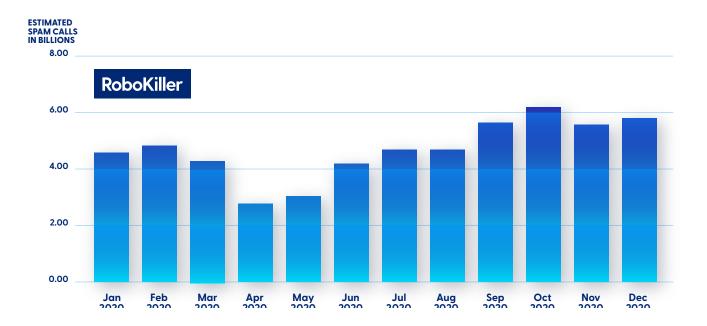
While robocalls were on the decline from January to April of 2020, spam texts quickly took their place as the new platform for phone scammers. Americans received a total of 9.4 billion spam texts between January to April 2020 - an average monthly growth rate of over 16%.

WHY?

With Americans answering fewer phone calls from unknown numbers in 2020, scammers quickly took to spam texting as a less interruptive, but effective way of stealing from people over the phone. Scammers doubled down on text spam after discovering that COVID-19 related text scams were highly effective. Since April 2020, monthly spam texts totals have risen by an average of 12% **per month** as scammers refine their text scams to remain relevant and grow their earnings.



LIFTING OF QUARANTINES SAW REBOUNDS IN SPAM CALL VOLUME



WHAT?

RoboKiller identified an increase of 50% in spam calls from April to June 2020 with the lifting of global quarantine orders. <u>By September 2020</u>, spam calls were back to a normal volume of 5 billion per month.

WHY?

Despite an earlier correlation to increases in world COVID-19 cases and decreases in spam calls, RoboKiller did not observe a second decrease in spam calls as many countries went back into quarantine in November 2020.

THE RESULT? HISTORIC LOSSES TO PHONE FRAUD IN 2020



^{*}Data pulled from <u>FTC Consumer Sentinel Report</u> (2017 - 2019). 2020 has been estimated by RoboKiller based on year over year trends.

According to the FTC, consumers lost **\$319 million** to COVID-19 fraud with a median loss of **\$311**. Sources of these scams originated from a wide range of sources including robocall and text messages, emails, and social media posts. The top scam reports were about online shopping, vacation offers, diet products, and credit card offers.

RoboKiller's

COVID-19 Protection

41,000,000

Spam calls blocked by RoboKiller during March 2020 - May 2020

1,600,000

Spam texts blocked by RoboKiller during March 2020 - May 2020

153

Featured media placements educating and informing the public about COVID-19 threats

٦

New, free app TextKiller to help Americans stop spam texts



POLITICAL MESSAGES WERE PROMINENT IN 2020 PRESIDENTIAL CAMPAIGN TACTICS

The 2020 Presidential Election made headlines in more ways than one. RoboKiller published the first-ever live reporting of national insights into political messaging, revealing political robocall and text messaging trends that had not been seen before.

The discovery of these robocall and texting trends provided helpful insight into key political fundraising and polling initiatives leading up to the 2020 Presidential Election.

14 Billion Political Texts

9.8 Billion Republican

4.6 Billion Democrat

434 Million Political Robocalls

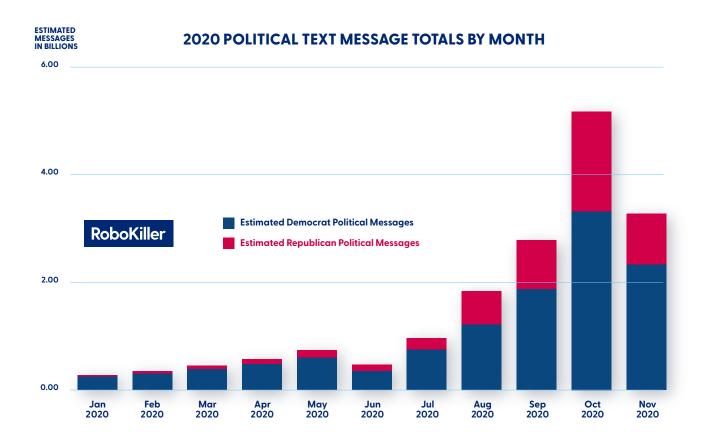
314 Million Republican

120 Million Democrat

2020 MONTHLY POLITICAL MESSAGE TOTALS			RoboKiller
Month	Estimated Republican Political Messages	Estimated Democrat Political Messages	Total Political Messages
January 2020	374,885,909	34,987,178	409,873,087
February 2020	383,025,241	49,767,676	432,792,917
March 2020	412,155,736	71,154,444	483,310,180
April 2020	506,475,515	108,418,448	614,893,963
May 2020	649,220,525	145,781,086	795,001,611
June 2020	401,360,541	140,562,722	541,923,263
July 2020	805,728,333	245,441,700	1,051,170,033
August 2020	1,284,472,295	648,665,087	1,933,137,382
September 2020	1,922,723,291	930,025,978	2,852,749,269
October 2020	3,389,282,538	1,879,976,097	5,269,258,635
November 2020	2,337,872,180	953,263,446	3,291,135,626

WHAT?

While political text messaging is not a new campaign tactic, in 2020, it became a more prominent method to reach voters. In the first half of 2020, RoboKiller observed growing volumes of political messages. This accelerated tremendously in the latter portion of the year, reaching a peak of 5 billion messages sent in October 2020 and representing an over 10x increase in volume since the start of the year.



WHY?

Though we are not political pundits, we believe political text messaging increased for two reasons. First, COVID-19 hamstrung traditional campaigning methods like door-knocking and in-person events, ultimately increasing the importance of a digital campaign strategy. Second, new technology called peer-to-peer texting gained popularity – allowing Super PACs, organizations, and campaigns (local, state, and national) to send mass texts to voters without breaking FCC opt-in consent laws.

POLITICAL MISINFORMATION DID REACH AMERICANS

Unsurprisingly, <u>misinformation</u> did make its way to political messages during the 2020 Presidential Election. However, to RoboKiller's knowledge, the spread of misinformation was not as widespread as it was on other platforms such as social media. Political robocalls and text messages identified by RoboKiller that contained inaccurate information were highly targeted to specific regions and demographics and sent in smaller volumes than we expected.

We believe that our partnerships with carriers, journalists, and government officials helped to inform the public about potential <u>misinformation</u> via robocalls and text messages. Further, it's possible these efforts dissuaded others who may have been considering using political messaging as a platform to spread misinformation during an important time in our country.

POLITICAL MESSAGING IN 2020: A TIMELINE

June 2020

Political messaging increases in volume

October 2020

Biden misinformation Text unleashed

November 3rd

Americans hit with "Stay Safe, Stay Home" robocall

November 9th

Republican efforts to fundraise for election recounts continued after the election was called for the Democratic party.

September 2020

<u>Political messages continue to increase, while</u> <u>political robocalls decrease</u>

November 2nd

Misinformation text hits Michigan

November 5th

<u>Call to action encourages intimidation of those counting votes in Pennsylvania</u>

December 2020

Political text messages continue as Georgia runoffs take place

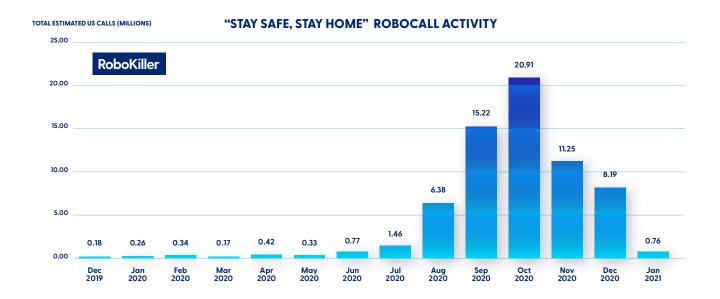
"STAY SAFE, STAY HOME" ROBOCALL

On election day and the days leading up to it, one eerie robocall caught the attention of many voters nationwide. The 13 second "Stay Safe" robocall urged Americans to "stay safe, stay home" in a computer-generated voice.



Click here to listent to the: "Stay Home" Robocall

Records found in RoboKiller's database first identified this robocall in December 2019, with volume starting to increase in August of 2020. As the robocall received more national media attention, RoboKiller observed a large increase in the number of these calls placed. On November 3rd, RoboKiller estimated the "stay safe" robocall was made over **3.7 million** times.



WHY WE BELIEVE THIS TO BE THE CASE:

Given the short duration and concerning, attention-grabbing message of the robocall, we believe this call was originally designed to "prospect" active phone numbers - a tactic commonly used with phone scammers to identify active phone numbers. However, given the large increase in volume of this robocall on election day, we do believe that the robocall took on a life of its own following the widespread media attention it received. We believe this is evidence that scammers closely follow the US and global media cycles and craft their scams accordingly.

POLITICAL MESSAGES: WHAT'S NEXT?

Political texting became a widely adopted national campaign strategy in 2020. Unless more regulations are enacted to limit political text messages, we believe we will continue to see an increase in their usage for future local, state, and national elections. We believe regulations that enforce restrictions on peer-to-peer texting technology and require disclosures about how campaigns choose and target their recipients could help ensure political messages do not become a nuisance to many Americans.

RoboKiller employs an unbiased, anonymous machine-learning based approach to understand political message trends. The estimates above are based on RoboKiller's proprietary data and user feedback and are for information purposes only. Robocall trends, text trends, and featured data are not a representation of any single political party, person, or organization's campaign efforts.

THE YEAR OF ROBOCALLS: 2020

A NEW WEAPON OF CHOICE: SPAM TEXTS

As unknown calls continued to go unanswered due to the rise in spam calls, a new tactic entered the game in 2020: spam texts. Spam text totals in the United States reached a major milestone when a whopping 6.8 billion spam text messages exceeded spam call volume by 1.8 billion messages in December 2020.

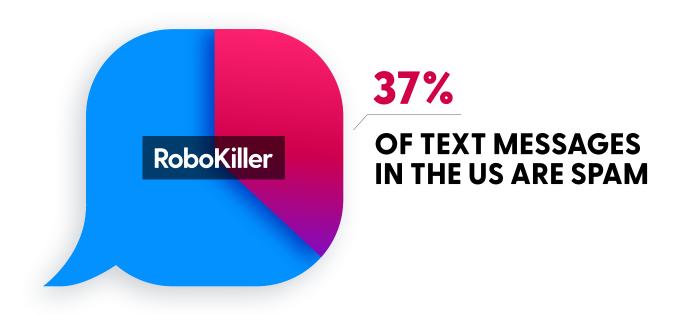
55.4 BILLION

Spam texts in 2020

264

Spam texts per person

Why the shift from robocalls to texts? Thanks to robocalls, consumers are no longer answering their phone calls. The result? Scammers have shifted their tactics to spam text messages because they are more personal, less disruptive than phone calls, and could have a higher engagement rate.



Spam texts will lead the next wave of unwanted spam, and much like with the rise of robocalls in 2018 – we are just scratching the surface of how bad it can get. While tech moguls like <u>Apple</u> have attempted to stem the flow of spam texts by filtering them, it is not enough.

To combat spam text messages, RoboKiller continues to heavily invest in texting capabilities. Other text blocking technology rely entirely on manual user feedback, RoboKiller also analyzes the metadata of text messages from unknown numbers to determine if a text is spam. This means users' benefit from best-in-class protection without sacrificing privacy or missing an important text.

The investment in our core spam text blocking technology not only resulted in improved effectiveness of RoboKiller's spam text blocking, but also the release of TextKiller. Originally designed to protect consumers from COVID-19 fraud, we anticipate that this app will also be a key force in stopping the expected increase in spam texts over the next 12 months.

ROBOCALLS ARE STILL AROUND, STILL A THREAT

10%

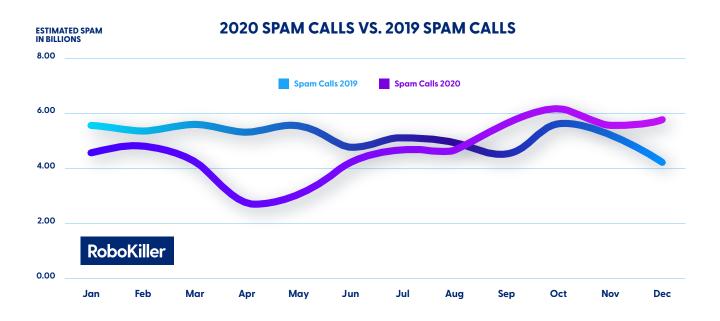
DECREASE FROM 2019 TO 2020

25%

OF TOTAL CALLS WERE SPAM

While a global pandemic caused a temporary decline in robocalls during the first half of 2020 calls returned to normal levels by September 2020. Though spam calls were down, they were still more of a threat as scammers changed their tactics to be highly targeted and Americans still suffered severe financial losses.

Though Americans enjoyed 6.7 billion fewer spam calls in 2020, we can all expect unwanted calls to be a persistent problem in 2021. Spam call increases in the latter half of 2020 show that spammers are eager to cover lost ground in 2020 and recover financial losses incurred during COVID-19.



THE FINANCIAL IMPACT OF ROBOCALLS

In 2020, there were 2.2 million fraud reports, 31% reported the contact method was a phone call, and 27% reported the contact method was a text. Of those reports, Americans who lost money to phone call scams reported a median loss of \$1,170, and those contacted via text reported a median loss of \$800, according to the FTC.

In 2020, the top digital fraud categories were:

- Imposter Scams led to 498,278 fraud reports with a median loss of \$850.
- Online Shopping led to 352,805 fraud reports with a median loss of \$100.
- Internet Services led to 123,749 fraud reports with a median loss of \$210.
- Prizes, Sweepstakes, and Lotteries led to 116,205 fraud reports with a median loss of \$1,000.
- Telephone and Mobile Services led to 81,221 fraud reports with a median loss of \$225.

Fraud Losses by Age (Median Loss per person)



Losses from phone and text scams are not a given. They can be prevented, and RoboKiller works to prevent them – for those who use and don't use our service. Using machine learning, real-time caller identification, and Answer Bots, RoboKiller gets revenge on spammers by successfully blocking their spam attempts and even wasting their time.

ROBOKILLER DIDN'T TAKE A SINGLE DAY OFF IN 2020

Despite a 10% decline from 2019 to 2020, spam calls are still a threat. RoboKiller continues to protect Americans from the everyday threat of robocalls.

516M

Calls blocked since 2017

104M

Minutes wasted by Answer Bots in 2020

\$1.7M

Drained from spammers by RoboKiller Answer Bots in 2020

\$37.7M

Prevented consumer losses to fraud in 2020

\$137M

Total lifetime prevented consumer losses to fraud

RoboKiller wasted **104 million minutes** of scammers' time in 2020, which resulted in **\$37.7 million** prevented consumer financial losses to phone scams.

Spammers lost **\$1.7 million to RoboKiller Answer Bots**, meaning our Answer Bots kept them on the phone, wasting their time and money – so they didn't waste yours.

In September 2020, RoboKiller worked with Quartz Media to stop a dangerous phone scam targeting the elderly and their retirement funds. Key data provided by RoboKiller helped US regulators to shut down the scam that had defrauded 1,600 investors of \$185 million. RoboKiller will continue to partner with the government, carriers, and media outlets to protect Americans from dangerous scams.

AND WE WON'T STOP IN 2021

RoboKiller and TextKiller will continue to invest in robust spam text blocking technology to stop dangerous scams from reaching consumers. They will continue to advocate against phone fraud, help shut down scam operations, ensure integrity in political campaign messaging, and rally more collaborators to join anti-spam efforts in 2021.

THE YEAR OF ROBOCALLS: 2020 2021 PROJECTIONS

2021 PHONE SPAM PROJECTIONS

70 Billion

PROJECTED SPAM CALLS

90 Billion

PROJECTED SPAM TEXTS

ROBOCALLERS WILL GET SMARTER

Spam call increases in the latter half of 2020 prove robocalls aren't going anywhere. Scammers are returning with smarter, more frequent phone scam tactics in attempts to recover revenues lost early in the year. In 2021, RoboKiller believes Americans can expect a year over year increase in spam calls - with highly relevant phone scams that follow the US news cycle.

STIR/SHAKEN AND GOVERNMENT REGULATIONS

The Pallone-Thune TRACED Act was signed into law in 2019 to help protect consumers from spam calls. One important requirement for this law is that voice service providers (VoIP) must implement STIR/SHAKEN, which uses digital fingerprinting to authenticate calls, determine their legitimacy, and inform use cases such as labeling potential spam calls as "scam likely".

Carriers of a certain size will be working within regulations to enact STIR/SHAKEN by June 2021 in an attempt to prevent caller ID spoofing, while smaller carriers have exemptions lasting an until 2023 and, in some cases, beyond. Without a unified front from all carriers, STIR/SHAKEN cannot be completely effective.

This is important because when government regulations, carrier efforts, and third-party apps converge, it works. But, it's important for those efforts to continue. While spam calls are lower than in years past, they are still dangerous, especially in terms of the damage they cause.

POLITICAL MESSAGES MAY NOT GO AWAY

Political messaging played a noteworthy role in elections at the national and state level in 2020. As methods of political messaging such as peer-to-peer texting become more widely adopted, Americans can continue to see political messaging playing an even larger role in elections nationwide in years to come.

SPAM TEXTS WILL BE OUR NEXT BIG PROBLEM

RoboKiller anticipates spam texts will continue in 2021 and become more prevalent. Based on 2020 trends, RoboKiller predicts Americans could receive roughly 90 billion spam text messages in 2021 - 60% yearly increase from 2020. Why? Sending text messages is cheap, fast, and boasts an average message open rate of over 90%.

HOW AMERICANS CAN STOP UNWANTED MESSAGES IN 2021?



What can Americans do to prevent and stop the unwanted messages they receive on their smartphone?



SPAM CALLS

- Be wary of calls and texts from unknown phone numbers. Avoid answering suspicious calls and text messages when possible.
- If you answer a spam call, do not engage by pressing one, replying STOP, or asking to be removed from the lists. Never give personal information or financial information over the phone.
- Register for the Do Not Call list, and always report suspicious scam calls and text messages to the FCC or your carrier. This won't stop the spam calls but can help with peace of mind.
- Download a spam call and text blocker app to prevent future scams, such as RoboKiller.



SPAM TEXTS

- Beware of text messages containing URLs with misspelled words or a mix of numbers and letters. URLs that seem odd can potentially install malware on your device.
- Refrain from providing any personal information to unknown text messages.
- Avoid interacting with any requested prompts sent via unknown text messages.
- Download a text blocking app, like RoboKiller or TextKiller, to equip your phone with the latest, protective technology.



POLITICAL MESSAGES

- Reply "STOP" or ask to be removed from the campaign's list
- Contact the campaign directly and ask to be removed.
- Report unwanted political messages to the FCC if requests to unsubscribe are ineffective.
- Download a call blocking app such as RoboKiller to stop a large percentage of political messages, rather than blocking phone numbers manually.

MEET ROBOKILLER

RoboKiller

Eliminate 99% of spam calls

It's the solution best-equipped to stop the present state of spam calls. RoboKiller uses machine-learning, audio-fingerprinting, call screening technologies, and its own army of Answer Bots to go beyond Caller ID.

RoboKiller identifies who is calling and why before the phone even rings, and it eliminates 99% of unwanted and dangerous calls while allowing legitimate calls to ring through. It even assigns a confidence score to each call.

RoboKiller automatically blocks known scammers for all customers using its global database of over **175 million unique scammer numbers** – with new scams added to the database every minute.



In 2020, RoboKiller's Answer Bot task force intercepted over **101 million calls** and wasted over **95 million minutes of spammers' time.**



