PARTS 1 - 6

GOOGLE CONSUMER SURVEY OF GME OWNERSHIP AMONG U.S. RETAIL INVESTORS

U/GET-IT-GOT

Using Randomized, Representative Surveying Data to Model $GME Ownership Among the U.S. Adult Population - June 17, 2021

PLEASE DON'T LAUNCH YOUR OWN SURVEY FOR THE U.S. USING GCS ... A LOT OF PEOPLE ARE DOING THIS AND IT MAY OVER-SATURATE THE PLATFORM AND START IMPACTING RESULTS.

None of this is financial advice. I am not a financial advisor. My personal approach to investing in GameStop is to buy using a cash account at a reputable broker, to only invest what I am comfortable losing, and to strictly use a Buy and Hold approach. I also try to be a loyal customer of GameStop, making GS my preferred retailer for any product they might sell.

I have a bit of a revisions to this post impacting the 400MM number.

*****I've conservatively revised the number from the survey to account for coupled housholds (married or cohabiting). Details in edit #4 below (and at end).****

Net revision, using new assumptions:

Survey results suggest minimum of 127.57MM shares for U.S. adults. I realize it's a big revision, but here's how I got there.

This revision (which accounts for couple-led households, as explained below) is very conservative as it does not count scenarios where both partners own GME, or situations where households are led by roommates. In other words, a roommate would likely not say they own shares based on their roommates ownership, whereas a husband or wife conceivably could). This also assumes every non-owner in a couple would answer affirmatively to ownership (I removed half of all individuals in coupled households from the sample size, even though some might answer no if it is their partner would owns shares, but not them. So this revision is the most conservative approach I can take to this consideration.

Edit #4: IMPORTANT UPDATE

So **I just thought of something. I'm using 209MM adults, but it is possible for someone in a couple to get this question, and answer yes for the couple. So 209MM needs to come down, probably by half of the total coupled-households in the U.S. This is very conservative since I know there are probably plenty of households where both spouses own GME, and they are discounted completely.**

About 150MM people live in a coupled-household in the U.S., and 59 million live alone. So instead of 209MM, a better number to use is 75MM (half coupled HH) + 59 million singe=134.24MM.

This would also affect the ownership %, which should be cut in half. So use 2.665%.

2.665% of 134.24MM is 3,577,496 owners x avg. shares of 35.66=127.57MM shares for U.S. adults (ignoring married households where both spouses own shares, and completely ignores anything about 101).

TL;DR is at the end, but for anyone who is interested, here's the scenic route …

A little more than a week ago, I created a Reddit post that suggested at LEAST 125 million shares of $GME were owned:

https://www.reddit.com/r/Superstonk/comments/nueo4y/evidence_supports_at_least_125000000_gme_shares

The post was an aggregate of the most current, publicly available data, including institutional ownership, ETFs/mutual funds, insider ownership, etc. I also included U.S.-based household ownership, but I had to use some estimated numbers but for the simple fact that these numbers simply don't exist publicly (namely % of ownership among the population and average shares held).

Even though I took a strictly conservative approach to these estimates (individual ownership), and even though the complete removal of this number still left an ownership level of greater than 100 million shares, I strongly suspected the U.S. individual investor number was wildly off. In other words, this number wasn't good enough for the people who read and commented on my post, and, quite frankly, this number wasn't good enough for me either. Therefore, I decided to build a very basic research project to better model the ownership of $GME shares among the U.S. adult population.

My Thesis:

More than 75 million GameStop shares are owned by individual investors in the U.S. alone.

My Methodology:

To prove this thesis, I opted to model individual investor ownership among the U.S. adult population by conducting a randomized, representative survey using Google Consumer Surveys (GCS). The U.S. adult population (209 million strong) is widely believed to be the largest block of individual retail investors. Therefore, the premise of this research is that if data can conclusively demonstrating ownership of 75 million shares or more within this single cohort, it would constitute proof of more than 75 million shares owned among the whole of the world.

More about Google Consumer Surveying: https://marketingplatform.google.com/about/surveys/

What is Representative, Randomized sampling and why does it make sense for this project?

Representative sampling allows researchers to understand the behaviors and/or characteristics of a population by identifying the behaviors and/or characteristics of a subset of the population. In the case of this research, this was done through a randomized, internet-based survey that asked a very simple question about the status of $GME share ownership.

Results from this survey to draw conclusions about the behaviors and characteristics of a wider group, in this case, the whole of the U.S. adult population. In combination with randomized sampling, it's possible to understand things about a population of millions by surveying only hundreds or thousands of individuals.

Representative, randomized sample is especially valuable to simply, binary data (do own, don't own), as well as grouping (how many shares owned). Given this, and the affordability of GCS as a surveying tool ($.10/sample), this approach was sensible.

GSC also makes crowd-sourcing of additional data easy and accessible to everyone (more on this in the Criticisms and Biases section).

More about Representative and Random Sampling:

https://www.investopedia.com/ask/answers/042915/whats-difference-between-representative-sample-and-random-

The Results of the Survey:

GameStop Ownership

Status

Complete ⓘ

Sampling

Audience:
Users on websites in the Google Surveys Publisher Network

Age:
All Ages

Location:
United States

Sampling Method:
Representative

Gender:
All Genders

Language:
English

Respondents

300 collected / 300 targeted ⓘ

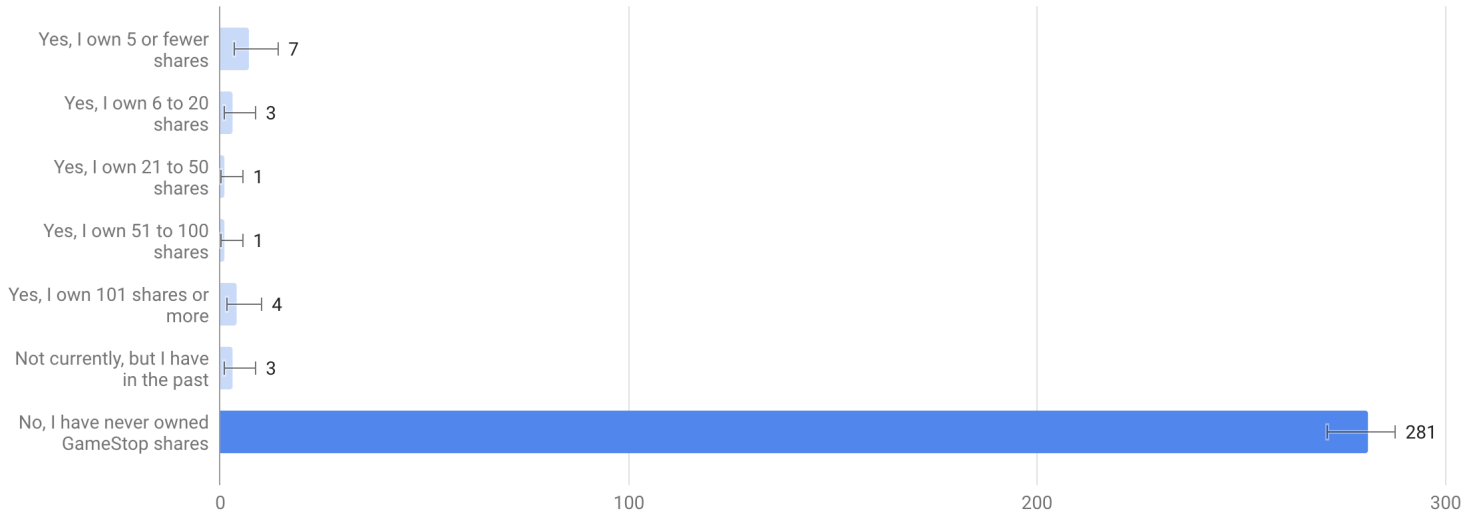**Frequency**

Once

Start date

Jun 9, 2021

End date

Jun 17, 2021

GameStop Ownership

Do you own shares in the company GameStop ($GME)?

300 respondents ⓘ

Bias Table

Group	Target Population	Sample	Sample Bias ⓘ
Male	48.7%	52.5%	3.7%
Female	51.3%	47.5%	-3.7%
18-24	11.7%	12.0%	0.3%
25-34	17.9%	12.0%	-5.8%
35-44	16.5%	18.0%	1.5%
45-54	15.7%	16.4%	0.7%
55-64	16.1%	21.3%	5.2%
65+	22.1%	20.2%	-1.9%

Midwest	20.5%	25.8%		5.2%
Northeast	17.2%	13.7%	-3.5%	
South	38.3%	32.4%	-5.9%	
West	24.0%	28.1%		4.1%

RMSE Score ⓘ 3.9%

RMSE Score

Root mean square error (RMSE) is a weighted average of the difference between the predicted population sample (CPS) and the actual sample (Google). The lower the number, the smaller the overall sample bias.

What do these results mean?

Among the 300 survey responses received (U.S. adult population-based), results suggest:

• 5.33% of respondents indicated they currently own shares of GameStop

• 1% of respondents indicated they don't currently own shares of GameStop, but have in the past

• 93.66% of respondents indicated they have never owned shares of GameStop

When extrapolating these numbers to the wider U.S. adult population of 209 million, the inference is:

• 11.15 million U.S. adults currently own shares of GameStop

• 3 million U.S. adults owned shares of GameStop at some point in the past, but not currently

• 195.76 million U.S. adults have never owned shares of GameStop

Ownership was only one component of the survey. Participants were also asked to indicate their level of ownership by selecting from one of five buckets of shares owned (5 or fewer, 6 to 20, 21 to 50, 51 to 100, 101+). Using a midrange for the first four buckets (2.5, 13, 35, 75), and using an ultra-conservative cap of 101 for the fifth bucket* (important details about this in the Criticisms and Biases section), we can arrive at an average number of shares held among individual U.S. adult population shareholders:

(17.5+39+35+75+404) shares/16 owners = 35.66 average shares owned*

To extrapolate these results to the wider U.S. adult population (209 million) … the survey data suggests there are 11.15 million $GME owners among the U.S. adult pop. with an average of 35.66 shares per owner. By

multiplying the number of owners by the average number of shares owned, indications are that at least 397.61 million shares of GameStop are held by U.S. adults. Given the inherent biases in the study's design (discussed below), I present the above number with a high level of confidence.

Let me repeat that one more time ... indications of this research are that at least 397.61 million shares of GameStop are held by U.S. adults. This is a lowball estimate, and you'll see why below.

Criticisms and Biases

It is very difficult to design a study without bias, especially when working with limited time, resources, and funds. Bias can occur at any stage of a research project, including how the study is designed, written, conducted, etc. This research is not without room for criticism, and it definitely includes bias (by design in some cases).

All this said, it's important to recognize how biases can impact the outcome of a research project or even a particular survey. Below are several biases and criticisms I observe with this research. In reviewing and considering this work, if you discover any others, please drop a comment and let me know.

The Impact of Bias

The impact of bias on data, particularly in representative surveying, can result in one of two things: overrepresentation or underrepresentation. Sometimes it's possible to understand the impact. In fact, sometimes it's possible (and good research design) to intentionally build in specific bias in order to produce conservative results. This is particularly useful in trying to prove out the thesis of this particular research, that is, determining whether ownership of GameStop shares is above or below 75 million shares.

As an example of the impact of design bias, if I want to know how many people in the U.S. play Fortnight using a representative survey, and I have a sample of 100 people, but 80 of them are ages 65+, I have a strong age bias as this isn't representative of the total population. Furthermore, the results will likely be skewed to the downside since the ages 65+ cohort is less likely to play Fortnite than an ages 18-24 cohort.

Specific Criticisms and Biases

There are several criticisms and biases to be highlighted regarding this research. Let's go through them one at a time:

-- Google Consumer Surveys Platform

GCS is usually used for determining consumer preferences … things like do you prefer this or that product, this or that packaging design, etc. GCS is incentivized, meaning survey participants are rewarded for completing a survey (in this case, access to premium content and Google Play credit. This creates the potential for participants to "no brain" their responses, which has the potential to skew results, or generate inaccurate results.

In the case of this research, I believe the potential for this impact is minimal. For one thing, "no-braining" usually results in an abnormally high number of top-of-the-box responses. In looking at the distribution of the responses received, this doesn't seem to be the case. Distribution is sensible. One might reasonably expect 7 individuals to own 5 or fewer shares in a population of 16 total owners.

-- Sample Size (Yes, more Is better … and there's a plan for that!)

A lot of people might be surprised by how few samples are required to accurately model even the largest of populations. In fact, there is not much of a difference in margin of error between 1,000 samples and 10,000 samples when modeling a population of 100 million or more. It should be highlighted that this is not scientific research, and we're not necessarily seeking a high level of precision in the data. A margin of error of 4-6% is certainly acceptable given the "tip of the iceberg" nature of the research, and the aims of the original thesis.
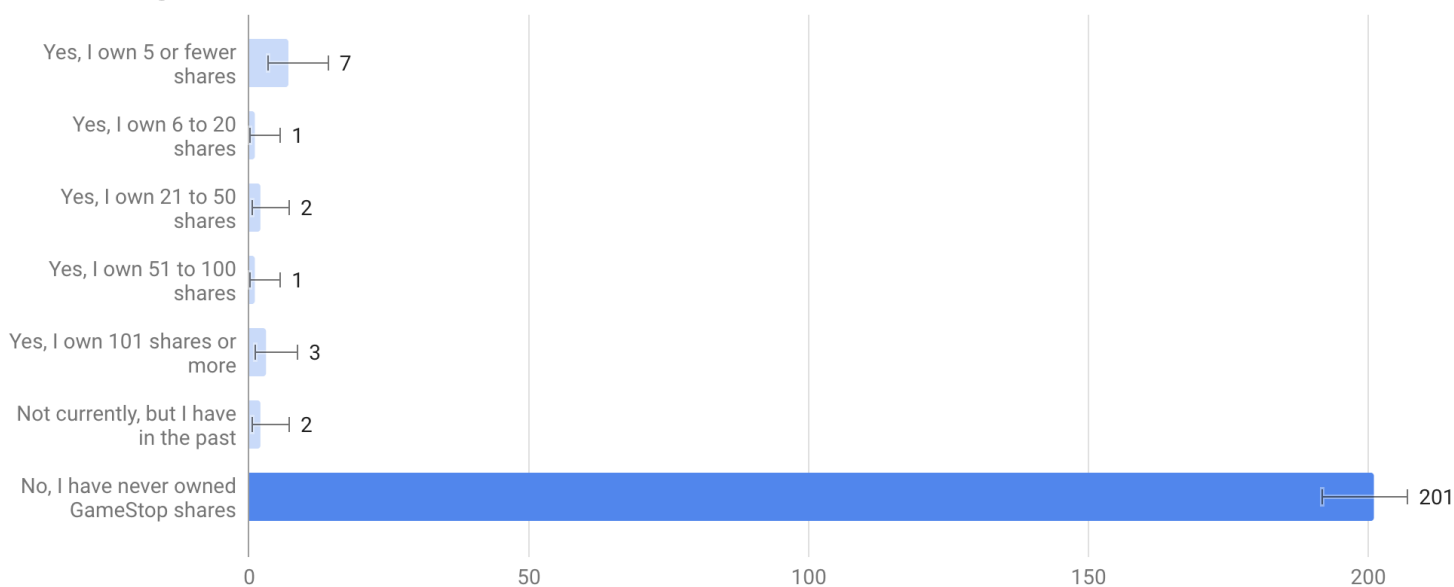
That said, this research includes the participation of 300 individuals. Assuming a confidence level of 95% (meaning 95 of 100 survey respondents will provide a truthful and accurate response), this research has a margin of error of 5.66%.

But it is never my intent that this be the final data set. In fact, I've already launched a separate survey, targeting another 400 samples. Below is a snapshot of this second survey in progress. As you can see, the results are strikingly similar to the results of the previous 300 samples. Ownership is clocking in at 6.45% (compared to initial results of 5.33%) and average shares owned of 34.18 (compared to initial results of 35.66). I will combine these results with the original 300 and update this post once this second survey completes (I'd guess 3-5 days from now).

GameStop Ownership #2
Do you own shares in the company GameStop ($GME)?
217 respondents ⓘ

Response	Count
Yes, I own 5 or fewer shares	7
Yes, I own 6 to 20 shares	1
Yes, I own 21 to 50 shares	2
Yes, I own 51 to 100 shares	1
Yes, I own 101 shares or more	3
Not currently, but I have in the past	2
No, I have never owned GameStop shares	201

Round 2 In Progress ... Here are the first 217 of 400 responses being collected now.

Furthermore, I encourage anyone who is interested in this project to consider conducting their own surveying using GCS. It only requires a Google account and a credit card. Each sample is $.10, so $10 per 100 samples. Not only will this provide individuals with the data to validate my results, but individuals can also choose to send their data my way. I can validate it against mine, and if it checks out, I can then add to the 700 responses I will soon have in hand, thus increasing the overall dataset (and lowering an already low margin of error). If this is something you are interested in doing, please first reach out to me and I will coordinate interested parties as we don't want to overwhelm the GCS platform with GameStop surveys.

In all honesty, the existing dataset provides me with a very high level of confidence that hundreds of millions of shares are owned by U.S. investors (to say nothing of foreign investors, institutional investors, etc.). While I feel n=700 is an appropriate sample size for this type of research, I imagine 1,200-1,500 samples would satisfy even the most bearish

critic (assuming they understand how surveying and statistical analysis works).

-- Sample Bias (Age)

This was briefly touched on earlier, but as seen below, there is some bias in terms of age. This bias likely has resulted in an underestimation of ownership since the age group over-represented (55-64) is less likely to own shares in GameStop than the group underrepresented (ages 25-34). I suspect the impact of this bias is moderate. But again, this bias is likely to result in the "shares owned" conclusions to be a smidge lower than it would be if there was no age bias in the survey's sample group.

Bias Table

Group	Target Population	Sample	Sample Bias ⓘ
Male	48.7%	52.5%	3.7%
Female	51.3%	47.5%	-3.7%
18-24	11.7%	12.0%	0.3%
25-34	17.9%	12.0%	-5.8%
35-44	16.5%	18.0%	1.5%
45-54	15.7%	16.4%	0.7%
55-64	16.1%	21.3%	5.2%
65+	22.1%	20.2%	-1.9%
Midwest	20.5%	25.8%	5.2%
Northeast	17.2%	13.7%	-3.5%
South	38.3%	32.4%	-5.9%
West	24.0%	28.1%	4.1%

RMSE Score ⓘ 3.9%

-- Sample Bias (Gender)

Like the example above, there is a slight overrepresentation of males compared to females in the survey's sample group. Males are more likely to own shares in GameStop than females, so this is likely to result in an overestimation of ownership. Again, I suspect the impact of this bias to be minimal as the bias (see Bias Table above) is only +/- 3.7%.

-- Collection Method Bias (Google Consumer Survey)

In order to participate in a GCS, a person needs to be online. Although the vast majority is online, this is still a

consideration as we can assume individuals with no access to the internet are less likely to be individual shareholders in any company, let alone $GME. Given how ubiquitous internet access is among the U.S. population, I'd assume the impact of this bias is completely negligible, but I point this one out only as a matter of thoroughness.

-- Question Bias

This is a big one! If you notice, I cap the question of ownership share count at 101+. This is entirely intentional (remember, "tip of the iceberg" design). This also means the average number of shares held is a lowball number (perhaps big time). In the 300 samples, there were 4 individuals who indicated they owned 101+ shares of GameStop. Consider this ... if just one of these individuals owned twice the capped shares, so 202 (let's just assume the only 3 owned exactly 101 shares), the average share calculation moves from 35.66 avg. shares owned to 41.97 avg. shares owned. Now imagine if one of these four individuals might own 2,000 shares. All this is to say, regardless of how many they own, the average shares owned calculation doesn't factor in anything beyond 101 shares, meaning the **average shares owned is definitely a lowball number (and could be greatly low-balled)**. So definitely know that the numbers I am showing here are "at minimum" numbers.

Obviously, the above biases can result in either overestimating ownership or underestimating ownership. The table below shows what the implied effect is of each of the above biases:

Biases	Impact	Strength of Impact
Age	Underestimation of ownership	Moderate
Gender	Overestimatin of ownership	Moderate
Collection Method	Overestimation of ownership	Negligible
Question Design (101+ Cap)	Underestimation of ownership	Significant

What to Expect in the Comments

When I first started gathering this information, I posted an early result (I think about the first 98 responses). I did this for a couple of reasons … first, I was excited by the results and what they implied, and I wanted to share them with others. Second, I wanted to understand what some of the criticisms might be. Of course, the sample size was a big one. Again, I don't think most people realize how effective a sample of only a few hundred is in modeling even a large population. That said, I accept this criticism … the plan was always to conduct more surveying myself, and also invite others to do the say (crowdsourcing, yeah).

There was also a bit of criticism of my holding the methodologies close to the chest. I did this because I did want to risk a flood of other $GME surveys hitting the GCS platform and potentially skewing my results. So there were several questions about the design and rigors of this research, and I hope I've answered those questions here.

But aside from these very valid and reasonable comments and questions, there was some clear shilling going on. I've

made several posts as these results have come in, and I've had several private messages in which people are requesting that I give up conducting this research. The arguments I've heard are varied, from there is no value to what I am doing to this sort of research proves nothing. I've even heard the argument that I'll be giving away valuable information to short hedge funds. To these criticisms I say this … yes, there is value to this research … this is quantitative data that provides a high level of confidence. In fact, if the trends hold in the data across a sample size of 1,000+, I feel 100% comfortable calling these results conclusive. In fact, I feel pretty confident of this sort of a statement already — but would always welcome more data.

At any rate, if you have a criticism to make of this project, please do so. But be clear about what is wrong and suggest how it might be improved (I know, more samples). Please refrain from comments like, "This means nothing," or "This doesn't prove anything." Those sorts of statements are, well ... both shilly and silly.

In Conclusion

There is obviously a lot of different ways to slice this data (want to know which age group was mostly likely to paperhand at some point in the past, etc.), and I may dive deeper at some point. In the meantime, I welcome any constructive criticism, as well as inquiries from anyone interested in contributing their own data set.

In case there are any questions about my background, I routinely design and conduct consumer-based research as a part of my job. I have created hundreds of surveys and surveyed hundreds of thousands of individuals over my career. But this one has been a lot of fun, and I'm happy to be able to finally have some hard data to back up the claim that there are more owned than Outstanding when it comes to $GME. We all already knew this to be true, but now we have some hard data to back it up. And as we hopefully grow this dataset, no one will be able to deny the truth.

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Too Long; Didn't Read (TL:DR) —

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Extrapolating results from a randomized, representative consumer survey of 300 U.S. adults infers a minimum of 397.6 million shares of GameStop are owned by the wider U.S. adult population. Total Outstanding Shares of $GME is roughly 75 million.

I created a randomized, representative survey using Google Consumer Surveys, collecting 300 responses to model $GME ownership among the U.S. adult population. I intentionally designed the survey to produce extremely conservative results, anticipating the best approach was to design something that intentionally underestimated ownership. I call this the "tip of the iceberg" approach. In other words, if research results can show ownership of more than 75 million shares among only a single group, surely the ownership among all groups greatly exceeds the total available shares of GameStop (about 75 million).

Among the 300 (U.S. adult population-based) survey responses received, indications are:

Do you own shares in the company GameStop ($GME)?
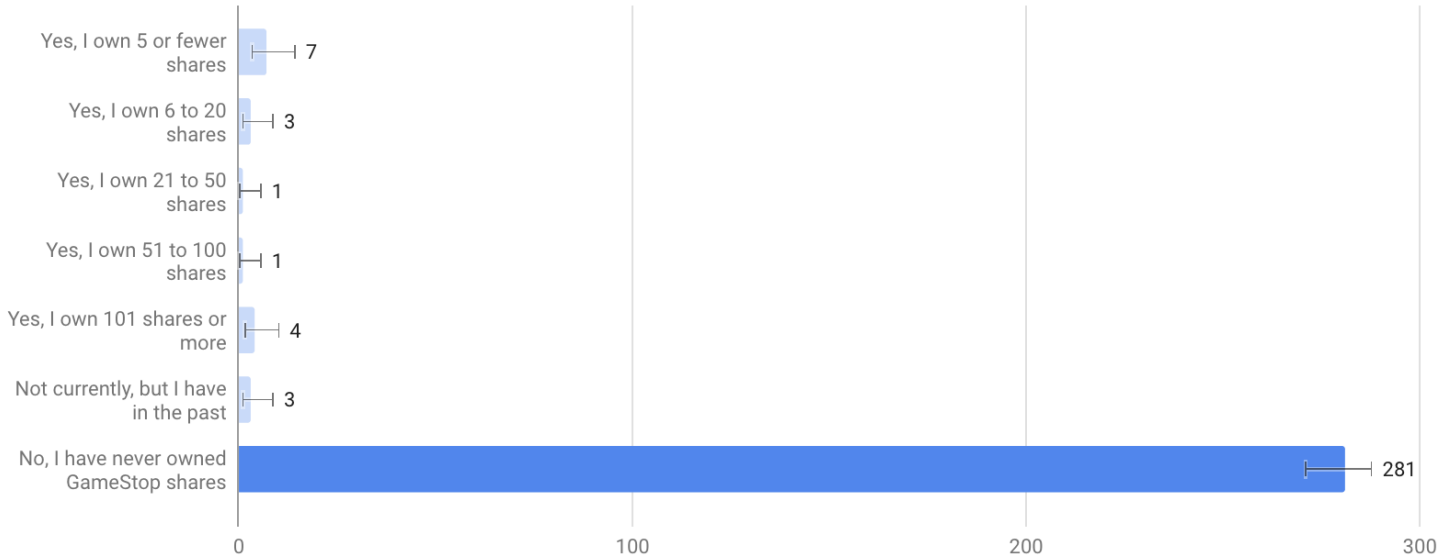
300 respondents ⓘ

5.33% of respondents indicated they currently own shares of GameStop

1% of respondents indicated they don't currently own shares of GameStop, but have in the past

93.66% of respondents indicated they have never owned shares of GameStop

When extrapolating these numbers to the wider U.S. adult population of 209 million, we arrive at these numbers:

11.15 million U.S. adults currently own shares of GameStop

3 million U.S. adults owned shares of GameStop at some point in the past, but not currently

195.76 million U.S. adults have never owned shares of GameStop

Ownership was only one component of the survey. Participants were also asked to indicate their level of ownership by selecting from one of five buckets of shares owned (5 or fewer, 6 to 20, 21 to 50, 51 to 100, 101+). Using a midrange for the first four buckets (2.5, 13, 35, 75), and using an ultra-conservative cap of 101 for the fifth bucket* (important details about this in the Criticisms and Biases section), we can arrive at an average number of shares held among individual U.S. adult population shareholders:

(17.5+39+35+75+404) shares/16 owners = 35.66 average shares owned*

*Due to the intentional cap of the fifth bucket at 101, this average is undoubted far below the actual number. In other words, if someone who selected 101+ actually holds 280 shares, only the first 101 shares are being factored into the above average. Accordingly, it's easy to see how the above average is strongly biased toward an underestimation of shares held.

To recap, the survey data suggests there are 11.15 million $GME owners among the U.S. adult population with an average of 35.66 shares per individual. Therefore, we can multiply the number of owners by the average number of shares owned, and we can confidently model that a least 397.61 million shares of GameStop are held by U.S. adults.

Again — extrapolating the provided survey results, data strongly suggest a minimum of 397.6 million shares of GameStop are owned by U.S. adults. Total Outstanding shares of $GME is roughly 75 million.

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Edit #1: I've had someone reach out via PM and let me know they are running a 1,500 sample on Google Consumer Survey with this survey. I still have one running to finish up my 400. So there will soon be a sample size of 2,200. Until at least my 400 sample completes (maybe a few days), I don't know that any additional GCSs running will be of great benefit (don't want to overrun the platform). But if you are interested in queuing up, just let me know. Someone in the comments mentioned data from other platforms, and I think that's smart. But like GCS, wouldn't want to overrun a platform.

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Edit #2: I've had a couple of people reaching out to ask if they can see the results. Here's the link for the survey that's currently collecting, as well as the initial survey, if anyone is interested:
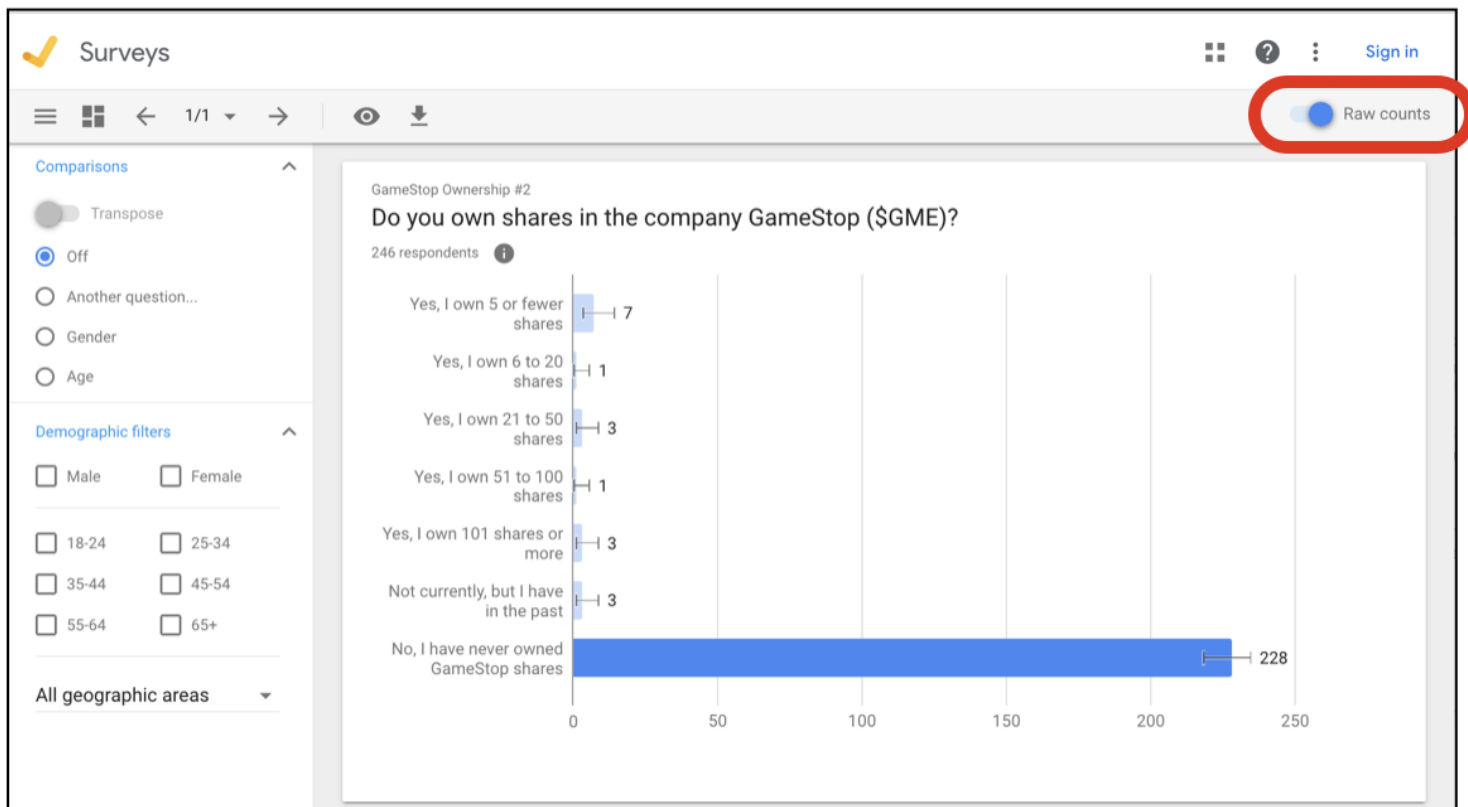
First survey:

https://surveys.google.com/reporting/survey?survey=sv2uhkuhypyl6olmiokx2zzkma

Currently running survey:

https://surveys.google.com/reporting/survey?survey=gei6t23feekehqpuxr5woosr5a

Just make sure you view the unweighted (raw) results. Simply click on the survey, then click the Raw Slider:

We only want the Raw counts ... we're not concerned with weighted results for this specific research.

I also had several people reach out with idea of running this survey in different countries, or for a different stock ($AMC specifically). I think both of these ideas are good, although I am probably tapped on the resources I'm putting toward this (honestly, I've already seen all I need to see -- this is conclusive evidence in my mind). As I mentioned in my note back to this particular individual, it will be important to adjust the buckets logically for another stock according to its total outstanding shares as compared to GME (i.e., AMC has something like 8X the outstanding shares as $GME, so the first questions should be 40 or few shares, and of course, all other share buckets would have to be adjusted accordingly).

One other thing ... someone reached out and had launched this survey in Canada and it was rejected because it was a financial question. Google has a review process for these surveys, and I haven't run into any issues here in the U.S., so the laws may be different according to country/region. If you try to launch a survey in a country other than the U.S. and it is rejected, I'd appreciate it if you could drop me a line, as I am curious about this.

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Edit #3: u/dlegal has started a survey of 500 for the Canadian population. The survey isn't complete yet, but here's the public link: https://surveys.google.com/reporting/survey?hl=en-US&survey=4dluebb6uk2lrdhatugzmxhoia

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Edit #4: IMPORTANT UPDATE

I did just think of something. I'm using 209MM adults, but it is possible for someone in a couple to get this question, and answer yes for the couple. So 209MM needs to come down, probably by half of the total coupled-households in the U.S. This is very conservative since I know there are probably plenty of households where both spouses own GME, and they are discounted completely.

About 150MM people live in a coupled-household in the U.S., and 59 million live alone. So instead of 209MM, a better number to use is 75MM (half coupled HH) + 59 million singe=134.24MM.

This would also affect the ownership %, which should be cut in half. So use 2.665%.

2.665% of 134.24MM is 3,577,496 owners x avg. shares 35.66=127.57MM shares for U.S. adults (ignoring married households where both spouses own shares, and completely ignores anything about 101).

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Edit #5: Numbers For Netherlands from u/Fast_Sandwich6034

https://surveys.google.com/reporting/question?hl=en-US&survey=w2wr6hjmiac53nv7sxyowta3hy&question=1&raw=true&transpose=false&tab=chart&synonyms=true

Using an adult population of 13.3MM, reduced to 8.8MM (to account for coupled households) * ownership of 7.5%, reduced to 5% (coupled-households) = 440,000 GME owners * average shares of 22.3=

9.8MM shares owned (minimum) for Dutch retail investors.

If I have made any maths mistakes, please let me know.

Also, there does look to be a strong under representation of 65+ in the sample, so the number above is likely higher than it should be (by maybe 10-20%) since 65+ is less likely to own $GME generally.
So maybe revise down to 7.7MM to be conservative.

Google Consumer Survey Follow-Up: ***193.7 Million Shares Held By U.S. Retail Investors; N=700*** - July 7, 2021

Due Diligence

Hello Everyone,

This pertains to $GME ownership among the U.S. adult population. If you'd like to know what this post is all about, please take a moment to hit up the original post below. It contains tons of info like **methodology, links to result, surveys for other countries, research bias details, sample size calculators, other resources, and lots more:**

https://www.reddit.com/r/Superstonk/comments/o2cnd4/using_randomized_representative_surveying_data_to/?utm_source=share&utm_medium=web2x&context=3

So ... my follow on survey completed over the weekend, providing another 400 samples for a total of 700. I haven't checked, but at 700 I imagine the margin of error is around 3%. That said, I just wanted to provide this quick update with this larger sample as I know folks were curious.

FYI, as this is a randomized sample from a massive pool of participants, combining these sample in such a way is totally kosher.

Here's how things shook out:

Table 1

	Survey 1 (N=300)	Survey 2 (N=400)	Combined (N=700)	Total Shares (#*~)	
Owners	16	24	40		
Owner % (Owners/N)	5.33%	6%	5.71%		
Shares Held				**Total Shares (#*~)**	
5 of fewer (~2.5)	7	10	17	42.5	
6 to 20 (~13)	3	1	4	52	
21 to 50 (~35)	1	4	5	175	
51 to 100 (~75)	1	3	4	300	
101 or more (~101)**	4	6	10	1010	
Have in past (~0)	3	7	10	0	
				1579.5	
			Average Shares Held (Total/Owners)	**39.5 shares**	
Extrapolating to U.S. Pop.					
Total U.S. Adult Pop.	209MM				
Couple Adjusted (See Edit #4 in Original Post)	134MM		About Couple Adjusted. This is to account for a couple both claiming ownership of the stock when it might only be held by one or the other. This is an intentionally conservative approach, as it discounts situations were both individuals in a couple might have separate accounts w/ GME, and may even own GME together in a third account.		
% Pop. Ownership		5.71%			
Couple Adjusted (See Edit #4 in Original Post)	(reduced by 2.05%)	3.66%	To better understand why the adjustment, imagine you survey 100 people, 30 couples and 40 singles. Imagine all the couple own GME together in a joint account, and all the single people also own GME too. So 100% say yes to survey. If we use that number, we'd be double counting. We'd have 100% ownership, when it should really be reduced by the % of half the # in couples/total (in this case, 30%), otherwise we'd be double counting shares.		
3.66% of 134MM	4.904MM GME Holders				
Total Shares Held (Avg. Shares Held*Holders)	**193.7MM Shares Held by U.S. Adult Population**				

It must be noted that this is a *VERY CONSERVATIVE ESTIMATE* as it totally penalizes (in fact, completely discounts) shares held above 101. In other words, any shares held beyond XX are NOT AT ALL factored into the above number.

~If I've made any math error in the above, I assure you it wasn't intentional, but I'd appreciate it if you could kindly point out my mistake so I can correct.~

I should mention that when I posted the initial results, someone reached out and said they started a survey to gather 1,500 samples. I reached out to this person a short while ago via PM, but haven't heard back yet. That said, since my 400 just recently completed, I imagine their 1,500 survey is still running strong. But I will update this post, should I hear back from them.

******If you have any questions or comments about sample size or methodology, I do ask that you please visit the OP first. Not on;y is there a ton of details in the post, there were also more than 600 comments on the thread with lots of great ideas, insights, suggestions, and just some very good discussion.******

Finally, this: None of what I am saying is financial advice, and I encourage everyone to do their own research when it comes to $GME, the stock market, and investing in general.

My personal advice: Never invest more than you can afford to lose. And as an aside ... if you have a guest in your home and they ask for some of your mayo, don't be a dick. Please share your mayo.
....
Edit #1: I guess I should post the survey result links here, huh? Sorry, there they are for anyone who wants to slice and dice the data:

Survey #1 (N=300): https://surveys.google.com/reporting/question?hl=en-US&survey=sv2uhkuhypyl6olmiokx2zzkma&question=1&raw=true&transpose=false&tab=chart&synonyms=true

Survey #2 (N=400): https://surveys.google.com/reporting/question?hl=en-US&survey=gei6t23feekehqpuxr5woosr5a&question=1&raw=true&transpose=false&tab=chart&synonyms=true

....
Edit #2: I heard back from the person who was running **the 1,500 sample size**, and it's almost complete (1,356/1,500). Below is a quick calc. of the current results, and the link to the survey for anyone who wants to play around and slice/dice the data. Google has a pretty good interface for breaking out demographics, etc.

So, without further ado ... this larger sample size results in:

Ownership: 5.6%

Avg. Shares: 32.5

As you can see, these results pretty closely align with the initial 700 sample (5.71% ownership and 39.5 share avg.) ... this larger sample size supports all the above results. The average share count has a little more flex than I'd like to see, but again, I've intentionally capped the count at 101 to guarantee a very conservative number here.

Here's a link to the survey (I'm not sure if the owner wants to be named, but I am asking ... if they are okay with that, I will update once I hear back):

https://surveys.google.com/reporting/question?hl=en-US&survey=emu6442dcciv66jbwetrmxrea4&question=1&raw=true&transpose=false&tab=chart&synonyms=true

Final Update of Google Consumer Survey *** N=2,200***; At LEAST 164MM $GME Shares in Hands of U.S. Retail; ***My Best Guesstimate For Total Shares Owned Globally — 531MM*** - July 17, 2021

Due Diligence

Hi Everyone,

I'll try to keep this brief since most of you already know what this is all about. And of course, I'm not a financial advisor and nothing you are reading here is financial advice.

If you do not know what this is all about, your nearest rabbit hole can be found here: https://www.reddit.com/r/Superstonk/comments/of9pys/google_consumer_survey_followup_1937_million/?utm_source=share&utm_medium=web2x&context=3

The TL;DR: I used Google Consumer Survey to survey the U.S. population about their GameStop ownership. I used randomized, representative surveying which allows a researcher to extrapolate results to a broad population. In the case of GameStop ownership, this allows us to model some very interesting numbers that are tough to get at otherwise.

If you have any questions about methodology, sample size, survey biases ... anything along these lines, I invite you to check out this post with extensive discussion about all of these things: https://www.reddit.com/r/Superstonk/comments/o2cnd4/using_randomized_representative_surveying_data_to/?utm_source=share&utm_medium=web2x&context=3

Also, to be a transparent in the process as possible, you can look at the results for yourself here.NOTE: There are actually some very interesting tools that allow you to slice and dice the data if you want to know things like ownership by age, gender, etc.:

https://surveys.google.com/reporting/question?hl=en-US&survey=sv2uhkuhypyl6olmiokx2zzkma&question=1&raw=true&transpose=false&tab=chart&synonyms=true

https://surveys.google.com/reporting/question?hl=en-US&survey=gei6t23feekehqpuxr5woosr5a&question=1&raw=true&transpose=false&tab=chart&synonyms=true

https://surveys.google.com/reporting/question?hl=en-US&survey=emu6442dcciv66jbwetrmxrea4&question=1&raw=true&transpose=false&tab=chart&synonyms=true

So here we go ...

The big data set of 1,500 has finished! This gives us a whooping total of 2,200 samples for this research across three surveys. **Huge props to the individual who set up and paid for the 1,500 sample size! They wanted to remain anonymous, but they are a massive contributor to our collective search for the truth! Big kudos!**

Before I start, and since I know this question will come up ... yes, we can combine these three samples so long as we understand they took place during different times (which is important because market dynamics change [sometimes dramatically] over time). Furthermore, these samples were collected randomly and from a massive pool (tens of millions), and since a person can't be served the survey more than once in any instance, we can confidently combine these results

knowing there's very little, if any, impact on the overall conclusions we can draw from this data.

So here's how things shook out:

Forget the Float … U.S. Apes Own Outstanding at Least Two Times Over

	Collected June 9-17	Collected June 14-July 2	Collected June 18-July 17		
	Survey 1 (N=300)	Survey 2 (N=400)	Survey 3 (N=1,500)	Combined (N=2,200)	
Owners	16	24	83	123	
Owner % (Owners/N)	5.33%	6%	5.53%	5.59%	
Shares Held				**Total Shares (#*~)**	
5 of fewer (~2.5)	7 (43.8%)	10 (41.6%)	43 (51.8%)	60 (48.8%)	150
6 to 20 (~13)	3	1	9	13	169
21 to 50 (~35)	1	4	9	14	490
51 to 100 (~75)	1	3	6	10	750
101 or more (~101)**	4 (25%)	6 (25%)	16 (19.3%)	26 (21%)	2626
Have in past (~0)	3	7	33	43	0
Paperhand %	1%	1.75%	2.2%	1.95%	4185 Total
			Average Shares Held (Total/Owners)	**34.02 shares**	
Extrapolating to U.S. Pop.					
Total U.S. Adult Pop.	209MM				
Couple Adjusted (See Edit #4 in Original Post)	134MM	**About Couple Adjusted.** This is to account for a couple both claiming ownership of the stock when it might only be held by one or the other. This is an intentionally conservative approach, as it discounts situations were both individuals in a couple might have separate accounts w/ GME, and may even own GME together in a third account.			
% Pop. Ownership	5.59%	To better understand why the adjustment, imagine you survey 100 people, 30 couples and 40 singles. Imagine all the couple own GME together in a joint account, and all the single people also own GME too. So 100% say yes to survey. If we use that number, we'd be double counting. We'd have 100% ownership, when it should really be reduced by the % of half the # in couples/total (in this case, 30%), otherwise we'd be double counting shares.			
Couple Adjusted (See Edit #4 in Original Post)	3.59% (reduced by 2%)				
3.59% of 134MM	4.811MM GME Holders				
Total Shares Held (Avg. Shares Held*Holders)	**163.66MM Shares Held by U.S. Adult Population**				

**It must be noted that this is a _VERY CONSERVATIVE ESTIMATE_ as it totally penalizes (in fact, completely discounts) shares held above 101. In other words, any shares held beyond XX are NOT AT ALL factored into the above number.

So the first thing you're going to notice is the drop. The prior readout came in at 194MM, and this is down to 164MM, a drop of 15%. For this type of research, that's a big number. But the thing two things to consider are this:

1 -- There is a margin of error in all this ... probably 2-3% based on the current sample size.

2 -- More importantly, there are market dynamics at play here, which is why I included the charts.

We must also consider the wider context of this research (in terms of market dynamics), and I think the image below is worth considering.

Certainly there are a lot of diamond-handed apes out there, but there are still market dynamics at play. This was a bearish time to survey, and results bore that out as the % of paperhands increased, ownership % fell, and even avg. shares tanked.

So I don't think the drop is an indictment of the methodology or the platform. In fact, the drop makes a lot of sense. In other words, imagine if we surveyed again as we come out of this cup that's forming. Of course we'd expect these number to fluctuate up, and it wouldn't be surprising if the increases were tens of millions of shares.

I think the other thing to consider is the overall economy. The further U.S. retail investors get away from there last big round of stimulus, the more likely people are putting their resources elsewhere, or even selling to cover shortfalls due to inflation, reduced benefits, etc.

Something New For This Final Update

In the past, I have struck strictly to the data in hand. If you've read my earlier posts, you'll see I've deliberately designed this research to be ULTRA conservative. In other words, I intentionally took a "Tip of the Iceberg" approach. I completely remove half of all coupled individuals to ensure shares would never be double counted. I capped the response buckets

at 101 shares owned, essentially Thanos snapping every share held beyond 101. I took the most extreme approach I could to support the idea that the extrapolated number would be a bare minimum.

Well, I'm curious about the total number of shares. I'm done surveying. So now it's time to make same guesstimates and worry less about being conservative, and worry more about trying to come up with a precise figure.

**********Before the comments flood in, please note that everything beyond this point is based only in part on hard data, but also involves some best guess on my part. If you're not interested in best guess, just stick to the content above because what's below is speculative.**************

So to come up with this Guesstimate at the total number of GameStop shares in existence, we have to first address two critical biases ... the 101+ penalty and the couple household penalty.

Okay, so 101+ and coupled households. If I were trying to be more precise, here's what I'd do with these two.

First, the 101+ folks:

Accounting For the 101+ Shareholders

	Original				Best Guesstimate	
	Combined (N=2,200)				**Combined (N=2,200)**	
Owners	123			Owners	123	
Owner % (Owners/N)	5.59%			Owner % (Owners/N)	5.59%	
Shares Held		**Total Shares (#*~)**	**Shares Held**			**Total Shares (#*~)**
5 of fewer (~2.5)	60	150	5 of fewer (~2.5)	60		150
6 to 20 (~13)	13	169	6 to 20 (~13)	13		169
21 to 50 (~35)	14	490	21 to 50 (~35)	14		490
51 to 100 (~75)	10	750	51 to 100 (~75)	10		750
101 or more (~101)**	26	2626	101-200 (~150)	17		2550
	Total	**4185**	201-300+ (~250)	6		1500
	Average Shares Held (Total/ Owners)	**34.02 shares**	301-1,000 (~650)	2		1,300
			1,000+ (~1,000)	1		1000
				Total		**7909**
				Average Shares Held (Total/ Owners)		**64.3 shares**

Yeah, that's right. The average ... double it! Well, almost.

This might still be conservative, but it's almost certainly more precise. I mean, think about it ... if I had a room of a 123 random GME holders from all around the U.S., what are the chances of there being being 1 person with oh, I don't know, 4,000 shares? Even this one person showing up half the time would increase this average still a bit further. So there are still some things we just don't know, but we know we don't know them, which is good. So again, I have to cap this (1,000). Conservative? Maybe. Maybe not. It is what it is, and it gives us an average of 64.3 shares to work with.

For coupled households ... my instincts tells me there are plenty of households were both individuals in the couple own GME. What percent? I don't know, but 20-30% seems reasonable. I also believe there are couples who might respond as if an individual (i.e. a husband answers no because the shares are in his spouse's 401K, or a wife says yes, but responds indicating only the shares in her brokerage account, even though she in and her spouse own shares together in a separate account). There are a lot of different scenarios here, but the model I've been using take the most conservative approach by lopping the coupled households in half. So instead of that draconian of an approach, let's reduce the penalty down to 80% versus the full 100% penalty.

When we do this, and we use the new average share calculation, we get something like this for our Guesstimate-based U.S. adult population extrapolation:

Adjusting Coupled Household Penalty From 100% to 80%

Extrapolating to U.S. Pop.			**"Best Guesstimate"**		
Total U.S. Adult Pop.	209MM		**Average Shares Held (Total/Owners)**	**64.3 shares**	
Couple Re-Adjusted (80% Penalty v. 100%)	149MM				
% Pop. Ownership	5.59%				
Couple Re-Adjusted (80% Penalty v. 100%)	3.99% (reduced by 1.6%)				
3.99% of 149MM	5.945MM GME Holders				
Total Shares Held (Avg. Shares Held*Holders)		**382.27MM Shares Held by U.S. Adult Population**			

And then, we can use the above and start adding in everything else, like foreign retail investors, insiders, institutions, etc.

	In millions	
U.S. Retail	382	
Non-U.S. Retail	84	Assumes 82% U.S./18% Non-U.S.
Insiders	14	Yahoo Data
Large Institutions	30	Yahoo Data
Small Institutions	5	Guesstimate
ETFs/Mutual Funds	16	etf.com and fintel.io
Best Guesstimate	531 Million GME Shares in the Marketplace	
Have I missed anything?		

EDIT (July 19) -- I did just see a Bloomberg terminal readout and it has U.S. ownership at 89%, so the above Non-U.S. Retail number is probably quite a bit larger than it should be. If Bloomberg is accurate, and the above number I'm using for U.S. Retail is accurate, Non-U.S. Retail would probably be closer to 44-45MM, not 84MM. So my revised global total would be closer to 487MM total GME shares worldwide. Still a ton of shares, but to keep myself honest and be as accurate as possible, that Non-U.S. number needs to come down a little. I'm just too lazy to redo the image. [End Edit]

So to answer my big, red "Have I missed anything?" question ... there is one bucket totally missing (Family Firms), and also, I have no idea how accurate the Small Institutions number is since they don;t really report anywhere (that I know of). Also, it's always possible for even the big firms to report confidentially. So there that. I'm a little sketchy on the ETF numbers too after watching Charlie's Vids: https://www.youtube.com/channel/UCIDaSv47u-Y8uXfbkmEGaxw

What about anything else? Shorts? Options obligations?

Anyway, 521MM shares of GameStop is my best guess at this moment for universal ownership of $GME. Furthermore, I'm 99.99% certain retail (especially global retail) owns way, way more than what's being reported as the total Outstanding shares of GameStop. It's encouraging that the paper-handing has been so low overall, even during the toughest downturn since March.

What do I think this all means?

For a long time I've stuck to the data and kept my wider opinions to myself. But I'm ready to share what I think this all means, and it means nothing has changed. It means we're looking at the exact same picture we've been looking at all along. So long as retail continues to buy and hodl (even just hodl at this point, although I'm still buying), this is the scene:

Running and escaping are not the same thing. There literally is no escape from this based on the fact the market is a zero sum game.

The price of GameStop will continue to rise and fall. But as DFV pointed out, only up. From a TA standpoint, this has been exactly correct. What I see is a stock forming a massive bowl and building a massive amount of energy. A caldera perhaps.

In my mind, this whole saga can only end in one of a very few ways:

A Slow Burn

Think Tesla. GameStop keeps getting stronger. The rollercoaster keeps rolling, ever higher highs and higher lows on the monthly. A year or two from now, we're much higher than we are now, and the shorts still haven't closed.

A Fast Burn

Think Overstock. GameStop initiates some sort of scenario that necessitate a recall, or perhaps a novel dividend scheme

that forces shorts, FTDs, and synthetics to all close. The squeeze is squoze in the way many of us envision it, with dramatic increases and rapid liquidations.

New DTCC Rules Do Their Thing

Slowly then all at once, the dominoes start to fall. Maybe it starts with a family firm, or a small hedge fund. This might play out over days, weeks, or months ... but basically, this would be a cascade of margin calls and liquidations, getting ever larger until the banks can no longer hide it.

Federal Indictments

We do know there is an SEC investigation, but what if the FBI is already involved. If there is criminal behavior behind all this, there could be a negotiated deal of some sort, particularly if a large market maker is brought down by charges. I'm not sure what precedent exists for this scenario, but court proceedings, etc. would change things dramatically I assume.

At any rate, I know my strategy. It's to add shares using cash as I can afford them. It's to hodl. It's to shop at GameStop if and when I can. It's to share the GameStop story with whomever might be interested to hear about it. And it's to wait, knowing I'm holding shares of a company that I believe to be undervalued, even without the potential for a squeeze.

In a nutshell:

Google Survey Update GME Ownership W/ $AAPL Control Data (N=501) - Aug. 3, 2021

I had every intention of being all done with this very fun project, and then ...

So some glorious, generous ape (who would like to remain anonymous) went ahead and funded/launched another GCS survey, duplicating my methodology but swapping out $GME for $AAPL.

In other words, we finally have a control, and what is shows is **AMAZING!**

Before we get into the tasty bits, let me start by saying none of this is financial advice. Please do your own due diligence, question everything, and never invest more than you can afford to lose. My personal advice (again, not financial advice, but what I am doing) ... I'm buying shares of $GME, hodling shares of $GME, and shopping at GameStop every chance I get.

If this project is totally new to you, I suggest checking out the two links below.

The first link is my initial Google Consumer Survey post, and it contains tons of information about my methodology, research biases, sample size analysis, etc.

The second link was my most recent (and, I thought, final) post on this project. It also contains what was, at the time, my best guess at how many $GME shares I thought were in circulation in total. Although after seeing these AAPL results, my new guesstimate would be much higher.

Initial research post (with tons and tons of detail): https://www.reddit.com/r/Superstonk/comments/o2cnd4/using_randomized_representative_surveying_data_to/?utm_source=share&utm_medium=web2x&context=3

Most recent update (with N=2,200
results): https://www.reddit.com/r/Superstonk/comments/omdafo/final_update_of_google_consumer_survey_n2200_at/?utm_source=share&utm_medium=web2x&context=3

For anyone new and too lazy to be bothered with the above links, here's the skinny (TL;DR) ... I used Google Consumer Surveys to model $GME ownership among a sample of 2,200 U.S. adults using a randomized, representative survey. With these results, I was able to extrapolate ownership across the whole of the U.S. While this isn't a scientific study per se, and it certainly has its shortcomings, I have discovered this to be the best shot we apes have at understanding the minimum number of shares held by retail investors.

VERY IMPORTANT -- PLEASE READ CAREFULLY

This research is intentionally designed to provide an underestimation of shares held. This research is not about providing the precise number of shares held, but is instead about establishing a minimum threshold for shares held. The thesis for this project is that U.S. retail investors hold more than the Outstanding shares of $GME, so more than 73MMish shares.

Two specific elements of the research's ensure this is the case:

1) Survey response buckets of shares held (see survey links) were intentionally capped at 101 shares ... in other words, if someone responded to the survey and they have 600 shares, 499 of those shares would be completely excluded from these results; only the first 101 of their shares would be counted.

2) Coupled households have received a 50% penalty for all shares held ... the reason for this is to ensure shares are never double-counted, which is good, but at the same time this approach completely discounts coupled households where both individuals might hold shares in separate accounts, and it assumes all shares held in coupled households are held jointly.

The result: the derived number of shares held is most certainly a fraction of the true number which is okay, because again, the premise of this research was simply to show that U.S. retail owns more than the 73MM outstanding shares of GME.

So without further ado, here are the updated results with the $AAPL control, as well as links to the actual surveys.

Shares Held	$GME (N=2,200)		$AAPL (N=501)			
Owners	123		45			
Owner % (Owners/N)	5.59%		8.98%			
Shares Held	**Count**	**Total Shares (#*~)**	**Count**	**Total Shares (#*~)**		
5 of fewer (~2.5)	60 (48.8%)	150	17 (37.8%)	42.5		
6 to 20 (~13)	13	169	3	39		
21 to 50 (~35)	14	490	4	140		
51 to 100 (~75)	10	750	8	600		
101 or more (~101)**	26 (21%)	2626	13 (28.9%)	1313		
Have in past (~0)	*43*	*0*	18	0		
Total Shares		**4185**		**2134.5**		
Paperhand %		1.95%		3.59%		
Average Shares Held (Total/ Owners)	**34.02 shares**		**47.43 shares**			
	Extrapolating to U.S. Pop.					
	Total U.S. Adult Pop. **209MM**					
	Couple Adjusted (See Note) **134MM**				About Couple Adjusted. This is to account for a couple both claiming ownership of the stock when it might only be held by one or the other. This is an intentionally conservative approach, as it discounts situations were both individuals in a couple might have separate accounts w/ GME, and may even own GME together in a third account.	
% Pop. Ownership	5.59%		8.98%			
Couple Adjusted (See note)	3.59% (reduced by 2%)		5.77% (reduced by 3.21%)		To better understand why the adjustment, imagine you survey 100 people, 30 couples and 40 singles. Imagine all the couple own GME together in a joint account, and all the single people also own GME too. So 100% say yes to survey. If we use that number, we'd be double counting. We'd have 100% ownership, when it should really be reduced by the % of half the # in couples/total (in this case, 30%), otherwise we'd be double counting shares.	
Adjusted % Pop. Ownership of 134MM	4.811MM GME Holders		7.732MM AAPL Holders			
Total Shares Held (Avg. Shares Held*Holders) U.S. Adult Pop.	**163.66MM Shares GME**		**366.72MM Shares AAPL**			

It must be noted that this is a _VERY CONSERVATIVE ESTIMATE_ as it totally penalizes (in fact, completely discounts) shares held above 101. In other words, any shares held beyond XX are NOT AT ALL factored into the above number. This estimate also complete removes half of all coupled individuals (75MM individuals) and any shares they may hold individually.

If I have made any mistakes in the above maths, please let me know. I assure you any errors are not intentional, but I'd definitely welcome the opportunity to correct.

$GME Survey Links

Survey #1: https://surveys.google.com/reporting/question?hl=en-US&survey=sv2uhkuhypyl6olmiokx2zzkma&question=1&raw=true&transpose=false&tab=chart&synonyms=true

Survey #2: https://surveys.google.com/reporting/question?hl=en-US&survey=gei6t23feekehqpuxr5woosr5a&question=1&raw=true&transpose=false&tab=chart&synonyms=true

Survey #3: https://surveys.google.com/reporting/question?hl=en-US&survey=emu6442dcciv66jbwetrmxrea4&question=1&raw=true&transpose=false&tab=chart&synonyms=true

$AAPL Survey Link: https://surveys.google.com/reporting/question?hl=en&survey=wp5w7doz32utrdf24xk3wxuqwa&question=1&raw=true&transpose=false&tab=chart&synonyms=true

So what does this new $AAPL control data tell us?

Well, for one thing, it clearly demonstrates what a massive underestimation this methodology produces. It's certain U.S. retail investors own way more than 367 million shares of Apple. In other words, this methodology is doing exactly what is was designed to do ... show just the tip of the iceberg.

While I had a very tough time discovering exactly how many shares of Apple U.S. retail investors might own, I can tell you it's a hell of a lot more than 367 million shares. Apple has about 16.5 Billion shares outstanding, and even with 11.7 Billion shares held by institutional investors (per fintel.io), and another 1.1 Billion shares in ETFs (per etf.com), that still leaves about 3.7 Billion shares. Let's assume only half of these shares reside within U.S. hands, so that's 1.85 Billion. And let's assume half of these are with Insiders, family funds, or small institutions that don't report. So we are left with a paltry 925 million shares of Apple, compared to 16.5 Billion Outstanding. Even after we hack and slash our way here, it looks like this methodology, the very same methodology we used for GameStop, is producing an estimate that is at best only 40% of the actual.

Throughout the comments in my previous posts, people were clamoring for a control. Well, now we have one, and it seems to strongly support what I have thought all along ... hard data (really the only hard data we have) continues to suggest there is an epic buttload of $GME shares way, way beyond the number authorized by GameStop. And not just a few shares, but tens of millions, and likely hundreds of millions.

So remember ... no matter how much they say the squeeze has squoze, no matter how much they tell you the shorts have closed, no matter how many times they tell you you're wrong, it's just like Max Fischer claiming to get a handjob from Dirk Calloway's mom in the back of a Jaguar. It's nothing but ...

Stay buckled up, and HODL!

Fresh Google Consumer Survey Results*** - Sept. 23, 2021

Due Diligence

TL;DR -- Retail investors own a shit ton of GameStop shares. In fact, it looks like they own WAY more than the total number of Outstanding Shares.

Hey All,

So I have some interesting results from another set of Google Consumer Survey (GCS) which I've been running over the past week or so.

Anyone not familiar with my GCS efforts can learn all about it in my previous posts, complete with results and a detailed breakdown of the methodology, surveying platform, etc.

The most recent result with AAPL control data:
https://www.reddit.com/r/Superstonk/comments/oxjv1n/google_survey_update_gme_ownership_w_aapl_control/?utm_source=share&utm_medium=web2x&context=3

Post w/ the complete dataset of the first round of surveying (include N=2,200 results):
https://www.reddit.com/r/Superstonk/comments/omdafo/final_update_of_google_consumer_survey_n2200_at/?utm_source=share&utm_medium=web2x&context=3

First GCS post with tons of info on methodology, survey design, GCS platform, etc.
https://www.reddit.com/r/Superstonk/comments/o2cnd4/using_randomized_representative_surveying_data_to/?utm_source=share&utm_medium=web2x&context=3

....

So this time around, I took a different approach from past efforts. The previous survey design took a highly conservative "tip of the iceberg" approach. I deliberately maximized every conservative aspect of the survey's design and approach to results analysis. I took a draconian approach to penalizing coupled households, and I capped ownership at 101 shares, which obviously had a massive impact on average shares held. Sure, there are plenty of retail investors with XX, but there is also a massive amount with XXX+. So this time around I restructured the response buckets as follows:

Original Response Options	New Response Options
5 Shares Or Fewer	1 to 50 Shares
6 to 20 Shares	51 to 100 Shares
21 to 50 Shares	101 to 250 Shares
51 to 100 Shares	251 to 500 Shares
101+ Shares	501 to 2,000 Shares
Don't Own Currently, But Have In The Past	2,001 Shares or More
None	None

Not only did I restructure the response options, I also took an entirely different approach to the question, revising from an individual question to a household question. Here is the difference between how the question was posed:

Original Survey Question:"Do you own shares in the company GameStop ($GME)?"

New HH Survey Question:"Approximately how many shares of the company GameStop ($GME) are owned by your household (including you, spouse, roommates, dependents, etc.)?"

So obviously, this should spark much larger results, especially considering the availability of larger buckets.

I should also mention this latest round of surveying was conducted over three different surveys... we'll call them Survey 1, Survey 1.5, and Survey 2.

So I initially launched Survey 1 as a multiple choice because I wanted to get the extra bucket that could be had with the inclusion of "None of the above," but after I had got deep into the survey (243/300), Google caught on and paused the survey. You can find that survey here:
https://surveys.google.com/reporting/survey?survey=t34lwqwcrhhf7g2b2wopmgykdi

Note that this was a multichoice, and two respondents provided two answers in a single survey ... those results have been struck from the analysis.

So that led me to launching Survey 1.5 as a single response survey. You can find that survey here:
https://surveys.google.com/reporting/survey?survey=khowqghah6vyvrhmaj2gi5gq6y

Finally, there is Survey 2. So I had shared the link to the first survey while it was in process, and someone pointed out that results would be better served with a randomized answer order. I originally locked the response order to ascending to improve the experience, but what this person was pointing out was totally true in terms of surveying best practices. I didn't think it would make much of a difference, but it kept bugging me, so I relaunched the survey with randomized answer order. It turns out it didn't make much of a difference, which acted as a proof point for the accuracy of the results, and it also added another N=300 to the sample size. So it's all good. This survey can be found here:
https://surveys.google.com/reporting/survey?survey=i7msp7adtnetykt3pybb6qrbju
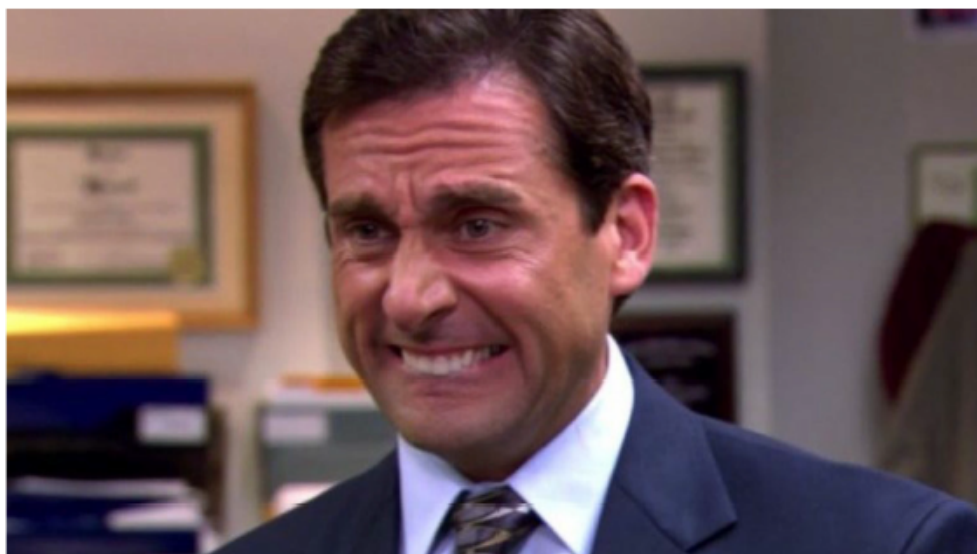
So the results ...

Before I go there, I must say I was quite shocked but what the results showed. Of course, given the massively conservative approach I've taken in the past, I expected a bump. But these household results are showing WAY more than a bump. In fact, I'm left thinking one of three things:

1) I somehow fucked up ... either in my analysis and/or design approach ... please, any wrinkly, mathematician, statistician apes ... PLEASE CHECK MY WORK ... maybe the HH approach does work, maybe I should be dividing the result

2) My previous approach was way more conservative than I thought and there are way more XXXX+ holders than I ever could have imagined

3) Hedgies knew we'd be doing more surveying on GCS platform, so they hired a bunch of clowns to troll the platform for $GME related survey and inflate the results

I should say I almost didn't post these results because they were so out of whack with previous results that I didn't want this post to be perceived as FUD. But in the end, I decided censorship wasn't the way ... the data is what the data is ... so here we go ...

Q. Approximately how many shares of the company GameStop ($GME) are owned by your household (including you, spouse, roommates, dependents, etc.)?

	Survey 1		Survey 1.5		Survey 2		Combined Results	
	Raw	Percent	Raw	Percent	Raw	Percent	Raw	Percent
N=	241		304		301		846	
1 to 50 Shares	20	8.3%	22	7.2%	26	8.6%	68	8.0%
51 to 100 Shares	1	0.4%	4	1.3%	1	0.3%	6	0.7%
101 to 250 Shares	2	0.8%	6	2.0%	6	2.0%	14	1.7%
251 to 500 Shares	0	0.0%	3	1.0%	3	1.0%	6	0.7%
501 to 2,000 Shares	3	1.2%	1	0.3%	5	1.7%	9	1.1%
2,001 Shares or More	3	1.2%	11	3.6%	5	1.7%	19	2.2%
None	212	88.0%	257	84.5%	255	84.7%	724	85.6%
Total Ownership % Among U.S. Households	**12.0%**		**15.5%**		**15.3%**		**14.4%**	

Average Shares Held (Using Lowest Bound)

1	20	20	22	22	26	26	68	68
51	1	51	4	204	1	51	6	306
101	2	202	6	606	6	606	14	1414
251	0	0	3	753	3	753	6	1506
501	3	1503	1	501	5	2505	9	4509
2001	3	6003	11	22011	5	10005	19	38019
**Holders	Shares**	29	7779	47	24097	46	13946	122	45822
Average Shares/HH	**268**		**513**		**303**		**376**	

Total U.S. Households	U.S. Household Owning GameStop Shares (14.4%)	Total Shares Owned By U.S. Households (18.9MM X 376)
131 Million	**18.9 Million**	**7.1 Billion Shares**

Yeah, 7.1B shares. Honestly, I don't see how it's even possible. Even in January during the sneeze, daily volume was only in the low XXXMM range. If this number is anywhere near reality, it would mean U.S. came into the January sneeze already hold billions of shares, and almost all volume since January (maybe 20MM-25MM/week) has been strictly buy and hold. Even that doesn't come anywhere near 7.1B shares ... or, it would imply that the volumes we see on the lit exchanges are total bullocks, and apes are buying hundreds of millions of shares every week. With all the DRSing going on, I suppose we'll find out at some point.

I also took another approach, assuming #3 above was the case ... that is, since GCS results have come out, SHF fucks have hired a bunch of clowns to join the GCS platform to look for and fuck with these surveys. If that's the case, let's throw out all the 2001 Shares or More results. Here's what that looks like:

Q. Approximately how many shares of the company GameStop ($GME) are owned by your household (including you, spouse, roommates, dependents, etc.)?

	Survey 1		Survey 1.5		Survey 2		Combined Results	
	Raw	Percent	Raw	Percent	Raw	Percent	Raw	Percent
N=	~~241~~ 238		~~304~~ 293		~~301~~ 296		~~846~~ 827	
1 to 50 Shares	20	8.4%	22	7.5%	26	8.8%	68	8.2%
51 to 100 Shares	1	0.4%	4	1.3%	1	0.3%	6	0.7%
101 to 250 Shares	2	0.8%	6	2.0%	6	2.0%	14	1.7%
251 to 500 Shares	0	0.0%	3	1.0%	3	1.0%	6	0.7%
501 to 2,000 Shares	3	1.3%	1	0.3%	5	1.7%	9	1.1%
~~2,001 Shares or More~~	~~3~~	~~1.2%~~	~~11~~	~~3.6%~~	~~5~~	~~1.7%~~	~~19~~	~~2.2%~~
None	212	89.1%	257	87.7%	255	86.1%	724	87.5%
Total Ownership % Among U.S. Households	**10.9%**		**12.3%**		**13.9%**		**12.5%**	

Average Shares Held (Using Lowest Bound)

	Survey 1		Survey 1.5		Survey 2		Combined Results	
1	20	20	22	22	26	26	68	68
51	1	51	4	204	1	51	6	306
101	2	202	6	606	6	606	14	1414
251	0	0	3	753	3	753	6	1506
501	3	1503	1	501	5	2505	9	4509
~~2001~~	~~3~~	~~6003~~	~~11~~	~~22011~~	~~5~~	~~10005~~	~~19~~	~~38019~~
Holders | Shares	26	1776	36	2086	41	3941	103	7803
Average Shares/HH	**68**		**58**		**96**		**76**	

Total U.S. Households	U.S. Household Owning GameStop Shares (12.5%)	Total Shares Owned By U.S. Households (16.4MM X 76)
131 Million	**16.4 Million**	**1.2 Billion Shares**

So this is a lot more reasonable, and actually in-line with what I've seen pitched by others. It is still way about previous GCS results, but that is expected. In fact, the AAPL control results should that the previous survey design was probably only revealing a fraction of actual ownership ... perhaps as little as 20% of the actual. So multiply the previous GCS result (163MM) by 5X and it looks like 815MM shares.

Anyway, the data is what the data is, but I'm really hoping someones reaches out to me and says, "Hey you big dummy! ... you really needed to divide the result by 3 because of XYZ." And I suppose there will be some who will say, "Yep, those results look about right." As for me, I've got to take these results with a massive grain of salt. Previous results looked right and made sense ... but this ... this leaves me scratching my head.

Of course, none of this information constitutes financial advice, and I'm not a financial advisor. Regardless of these GCS results, I remain convinced that retail owns WAY more share than Outstanding, and my personal approach remains the same:

Fresh Google Consumer Surveying Suggests 830MM+ Shares Held; 95+ share avg.; 8.5 Million+ Investors --- U.S. NUMBERS ONLY - March 5, 2022

Possible DD

I won't belabor this, but I ran a fresh Google Consumer Survey question to understand where GameStop U.S. ownership was at currently. I adjusted the buckets upward from the previous surveying to reflect the fact that most $GME hodlers have only been adding to their position in the past 12+ months. Even with this change aside, results are exactly as I expected ... the number of shares held by U.S. retail investors continues to grow and grow.

In June 2021, it looked like U.S. retail investors owned about 164MM shares (very conservatively). Today, it looks like U.S. retail investors own five times as much, at 830MM shares. Bear in mind the previous survey capped ownership at 101 shares, whereas this new survey expands the cap to 301. Naturally, this plays a MAJOR role in expanding the average shares held (which has grown from 34 in June 2021 to 95 today). If anything, this just illustrates how truly conservative was the prior approach.

If you have any questions about method and the GCS platform, check out this post with links to all previous surveying work, and links with tons of 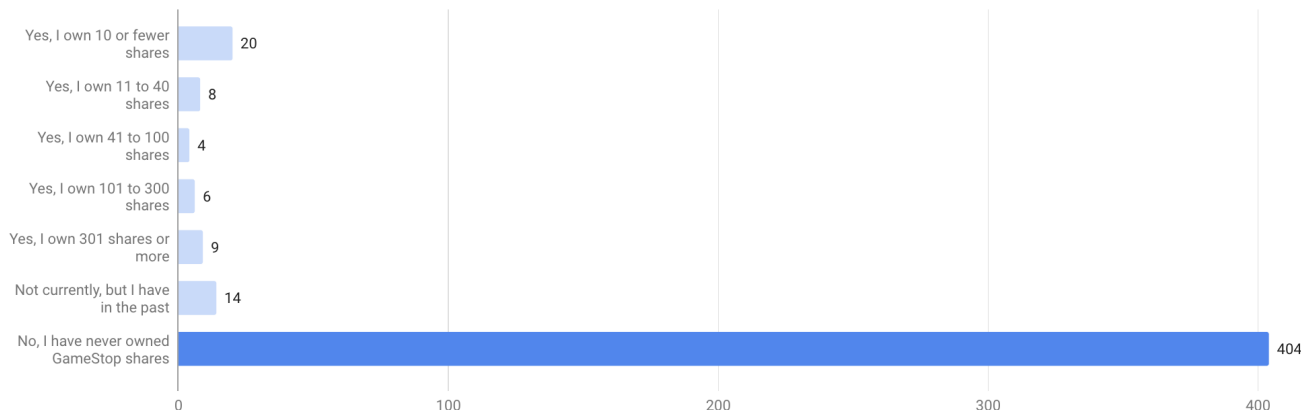details on the who, what , where, and why: https://www.reddit.com/r/Superstonk/comments/pulqsx/the_all_things_survey_post_or_anything_modeling/?utm_source=share&utm_medium=web2x&context=3

Here's the link to the live survey (currently at 465/500): https://surveys.google.com/reporting/survey?survey=zbm3mwl4rxtth4evxfkwcfwzey

March 2022 GameStop Ownership
Do you own shares in the company GameStop ($GME)?
465 respondents

Response	Count
Yes, I own 10 or fewer shares	20
Yes, I own 11 to 40 shares	8
Yes, I own 41 to 100 shares	4
Yes, I own 101 to 300 shares	6
Yes, I own 301 shares or more	9
Not currently, but I have in the past	14
No, I have never owned GameStop shares	404

And here's a quick breakdown of what the numbers mean when extrapolated over the wider U.S. population:

	$GME (N=465)	
Owners	47	
Owner % (Owners/N)	10.1%	
Shares Held	**Count**	**Total Shares (#*~)**
10 or fewer (~5)	20	100
11 to 40 (~25)	8	200
41 to 100 (~70)	4	280
101 to 300 (~200)	6	1200
301 or more (~301)**	9	2709
Have in past (~0)	*14*	*0*
Total Shares		**4489**
Paperhand %		3.01%
Average Shares Held (Total/Owners)	**95.51 shares**	

Extrapolating to U.S. Pop.

	Total U.S. Adult Pop. **209MM* (w/ internet access)**	
	Couple Adjusted (See Note) **134MM**	
% Pop. Ownership	10.1%	**About Couple Adjusted.** This is to account for a couple both claiming ownership of the stock when it might only be held by one or the other. This is an intentionally conservative approach, as it discounts situations were both individuals in a couple might have separate accounts w/ GME, and may even own GME together in a third account.
Couple Adjusted (See note)	6.55% (reduced by 3.55%)	
Adjusted % Pop. Ownership of 134MM	8.777MM GME Holders	
Total Shares Held (Avg. Shares Held*Holders) U.S. Adult Pop.	**838.29MM Shares GME**	To better understand why the adjustment, imagine you survey 100 people, 30 couples and 40 singles. Imagine all the couple own GME together in a joint account, and all the single people also own GME too. So 100% say yes to survey. If we use that number, we'd be double counting. We'd have 100% ownership, when it should really be reduced by the % of half the # in couples/total (in this case, 30%), otherwise we'd be double counting shares.

**It must be noted that this is a _VERY CONSERVATIVE ESTIMATE_ as it totally penalizes (in fact, completely discounts) shares held above 301. In other words, any shares held beyond 301 are NOT AT ALL factored into the above number. This estimate also complete removes half of all coupled individuals (75MM individuals) and any shares they may hold individually.

For all you new comers and naysayers, before you start laying into me on how these numbers seem impossible, consider these two facts:

1. Just one single U.S. brokerage, Fidelity, serves 40MM individual investors:

BY THE NUMBERS

When you do well, we do well. As a privately held company, we use our investor mindset to make sound judgements for the long term for our customers and our business.

40 MILLION
individual investors

$11.1 TRILLION
assets under administration**

$4.2 TRILLION
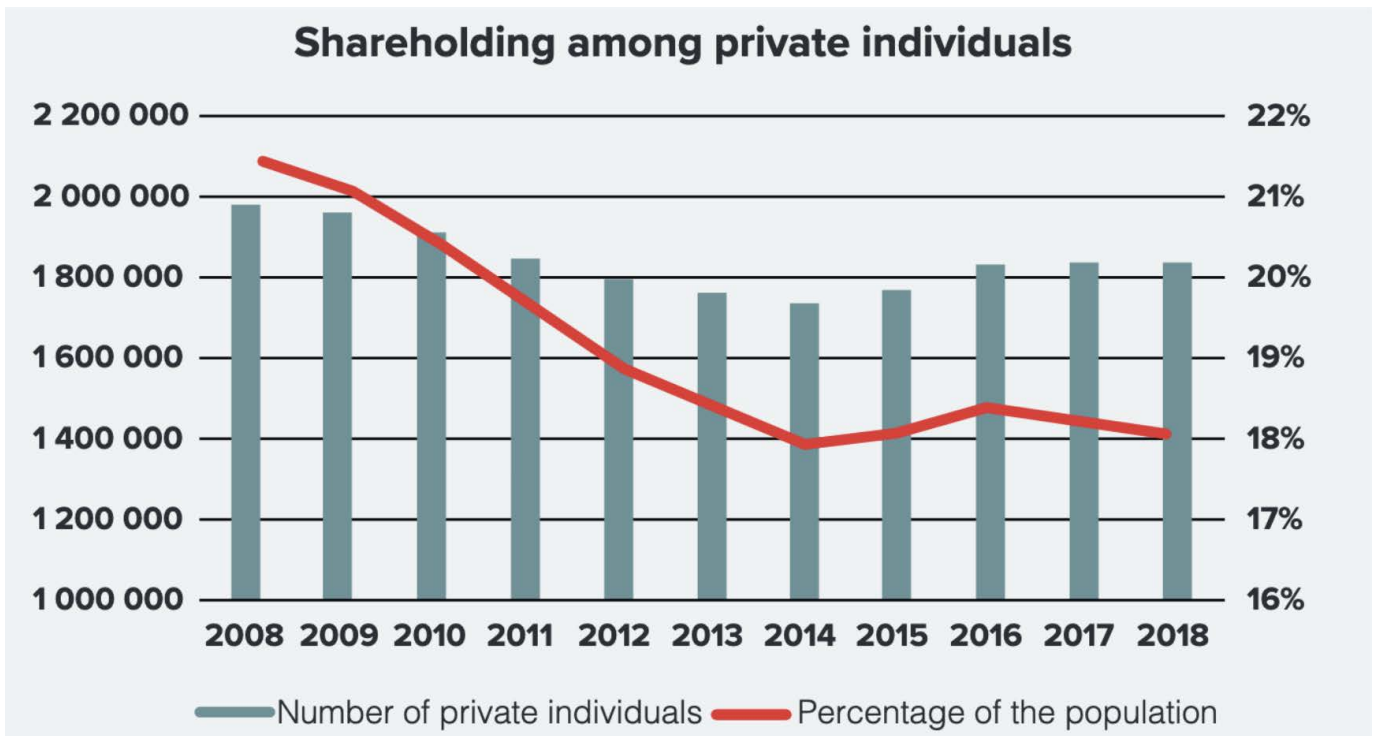total discretionary assets***

2.4 MILLION
daily average trades****

As of September 30, 2021

2) One single broker in Sweden, Avanza, actually published the number of GameStop hodlers (21K) and number of shares held (511K). This comes out to 24.3 shares per holder. Now bear in mind that Sweden is 1/33 the size of the U.S. in population (10.2MM versus 332MM). Not only that, but Americans are more than twice as likely as Swedes to own stocks, as illustrated below.

https://www.reddit.com/r/Superstonk/comments/sueah3/we_are_all_swedish_today_245m_shares_exist/?utm_source=share&utm_medium=web2x&context=3
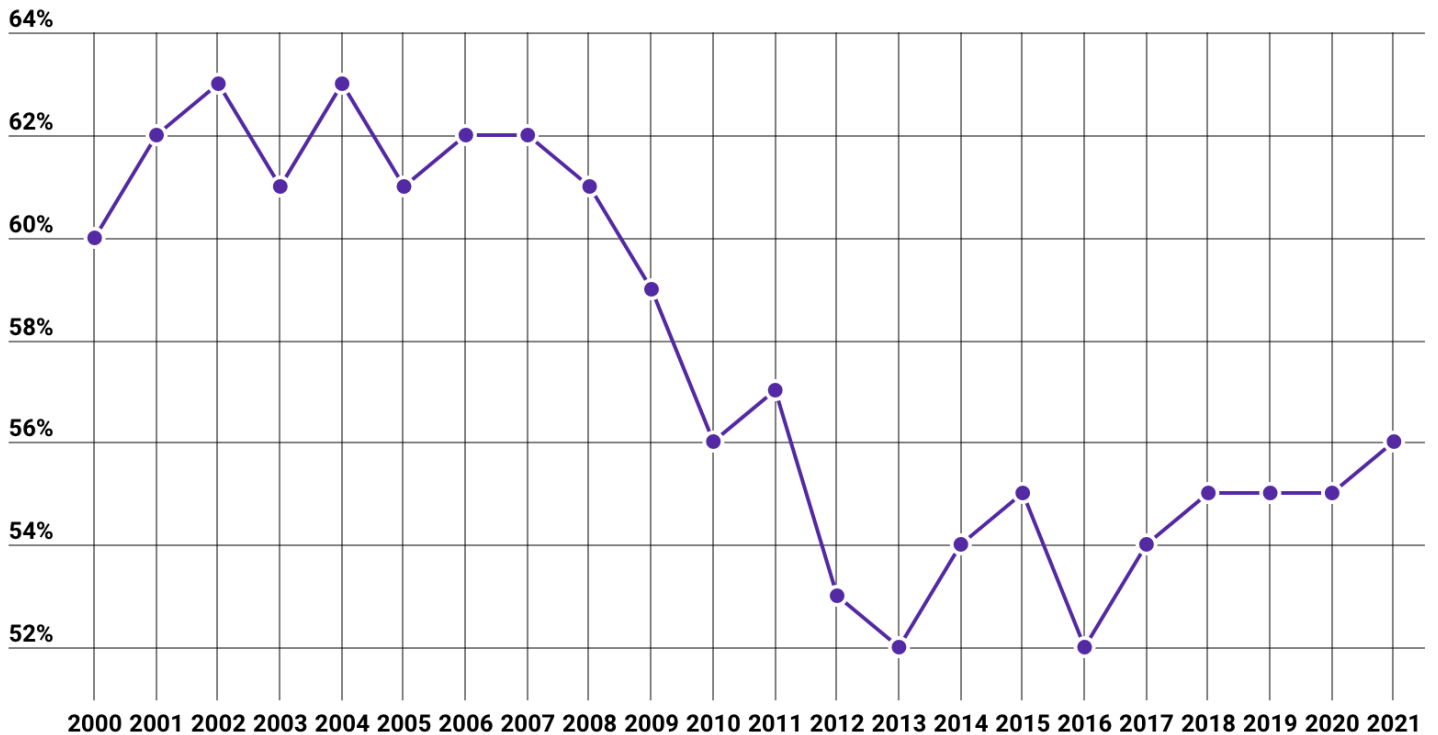
For Swedes:

Shareholding among private individuals

— Number of private individuals   — Percentage of the population

As of 2018, about 18% of Swedes own stocks:

https://www.euroclear.com/dam/ESw/Brochures/Documents_in_English/The_Shareholding_in_Sweden_2018.pdf

For Americans:

American adults that own stock

Data source: Gallup (2021).

As of 2021, about 56% of U.S. adults owned stocks: https://www.fool.com/research/how-many-americans-own-stock/

Yes, the above compares U.S. adults to all age groups in Sweden, but even correcting for this, that leaves about 25% of Swedish adults owning stock, compared to 56% of their American counterparts.

In other words, about 120MM American adults own stock ... so is it a stretch to think that ~9MM of these might own at least some GameStop shares?

We'll get an even better picture of the situation when GameStop once again (hopefully) shares DRS numbers in their Q4 10-Q, but I think it's pretty clear ... Hedgies R Fuk.