

November 1, 2021

2021 State of Crypto Literacy

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Crypto
Literacy

The state of crypto literacy

There is more activity and optimism about the future of bitcoin and cryptocurrencies than ever. Globally, crypto markets are attracting record levels of investment and interest. In the U.S., bitcoin futures now trade in regulated public markets.

Maybe we will look back and see 2021 as the year that crypto went mainstream. After all, it seems like almost daily, traditional news outlets are covering crypto markets, CEOs from all sectors are sharing their thoughts about the role of digital currencies, and professional athletes are getting in on NFTs.

On the other hand, it might still be early to say that crypto has fully arrived. One emerging trend is that beyond the wild price action, there is still a general lack of understanding of what problems bitcoin and other cryptocurrencies solve, how they work, and why they are so different from traditional financial products and investments.

But the lack of crypto literacy shouldn't be that surprising. In 2009, the same year that Satoshi Nakamoto launched the Bitcoin Network, the Financial Industry Regulatory Authority (FINRA) began publishing a brief 5-question survey. Geared towards U.S. adults, the goal of the survey was to design to be a simple gauge of financial literacy.

The [FINRA survey](#) is still available, and what it shows is that only [34%](#) of Americans can answer at least four of five basic financial literacy questions. Overtime, the survey results show that financial literacy is actually declining.

Why crypto literacy is important

Cryptocurrencies are designed to maximize personal freedom, but also require a higher degree of responsibility. From safeguarding private keys to figuring out which cryptocurrency ecosystems to participate in — there are no centralized gatekeepers or support lines to call when things go wrong. Personal freedom and responsibility require knowledge, and knowledge — especially about complex systems like cryptocurrency — requires basic literacy.

Today, the report's results show that crypto literacy is virtually non-existent. While there is a lot of enthusiasm and excitement about the possibilities enabled by cryptocurrencies, crypto is still not well understood.

Key survey findings

Crypto literacy is low - everywhere

96% in the U.S. and 99% in Mexico and Brazil failed the crypto literacy assessment.

Ownership is the best teacher

Respondents that owned cryptocurrencies were twice as likely to correctly answer crypto literacy questions.

Only 33% of respondents surveyed feel that purchasing crypto is easy

Crypto is failing its mission of financial inclusion

Cryptocurrencies are supposed to democratize access to financial products. According to the survey results, that's not what is actually happening. So far, cryptocurrency ownership, including bitcoin, skews toward young, wealthy, highly educated - and mostly male in the U.S. - investors.

Older generations are being left behind

Like other tech trends, older respondents demonstrated less knowledge about crypto than younger respondents. The U.S. lack of crypto knowledge increased with age, reaching 67% among Baby Boomers.

Mexicans and Brazilians are more likely to buy and sell crypto in the next 6 months

Only 12% of Americans responded they were likely to buy or sell crypto in the next 6 months, compared to 30% of Brazilians and 28% of Mexicans.

Crypto's use case varies by geography and generation

25% of Brazilians and one-third of Mexican respondents would use crypto to pay for goods and services. Just 13% of American respondents advised they would do so. 50% of Americans advised they would utilize crypto as a way to save for the future. Younger generations are nearly three times more likely to use crypto as a means for payments than older generations who see it as more of an investment.

90% of survey respondents lacked understanding of bitcoin's limited supply

Bitcoin's computer code-based issuance schedule is what makes it so unique and different from central banks controlled by politicians. Yet 9 out of 10 survey respondents lacked understanding of the basics of bitcoin supply and demand (like the capped supply of 21 million bitcoin).

Why this report matters

The State of Crypto Literacy Report is based on information gleaned from the first annual Crypto Literacy Survey, which was created in the same spirit as FINRA's financial literacy survey. The goal is to establish a baseline of general crypto literacy, and then see how that baseline changes over time. From now on, November will be Crypto Literacy Month, and new data will be collected and published for the annual survey.

Crypto Literacy Month, the survey, and a new project called cryptoliteracy.org are made possible through a new industry initiative led by Coinme and CoinDesk. The focus of the efforts is to raise crypto awareness and make the future of finance more accessible.

The Crypto Literacy Survey consists of 17 questions, assessing knowledge in cryptocurrency, bitcoin, De-Fi, blockchain, mining, types of wallets, NFTs and general sentiment towards digital currencies. The survey was pulsed by YouGov to a population of 1,000 cryptocurrency or bitcoin-aware internet users in each country, balanced across age, gender, and education level (and race/ethnicity in the U.S.).

Insights from the survey, curated educational programs, and a publicly accessible crypto literacy quiz are available on CryptoLiteracy.org. Consumers around the world are encouraged to benchmark their cryptocurrency literacy by taking the quiz at cryptoliteracy.org. Their scores will be privately emailed to them along with tailored courses, provided by CoinDesk, to close any knowledge gaps on key cryptocurrency concepts.

Crypto literacy is low - everywhere

A lack of crypto literacy doesn't seem to skew geographically. According to the results from the 2021 Crypto Literacy Survey, respondents in the three major geographies surveyed — U.S., Mexico, and Brazil — all scored poorly on a basic crypto knowledge assessment.



Almost 100% universal failure rate

96% in U.S. and 99% in Mexico and Brazil failed the basic assessment

With certain exceptions, cryptocurrencies offer universal access. Unlike traditional financial products, crypto doesn't care about your background, job status, credit history, or net worth.

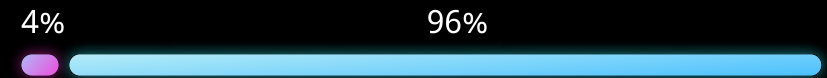
However, there is a clear lack of understanding about how cryptocurrencies work and the general problems they solve. Respondents in the U.S., Brazil, and Mexico all demonstrated a significant lack of crypto literacy.

Quiz performance

Passing grade on quiz (>60% correct)

● Yes ● No

USA



Brazil



Mexico



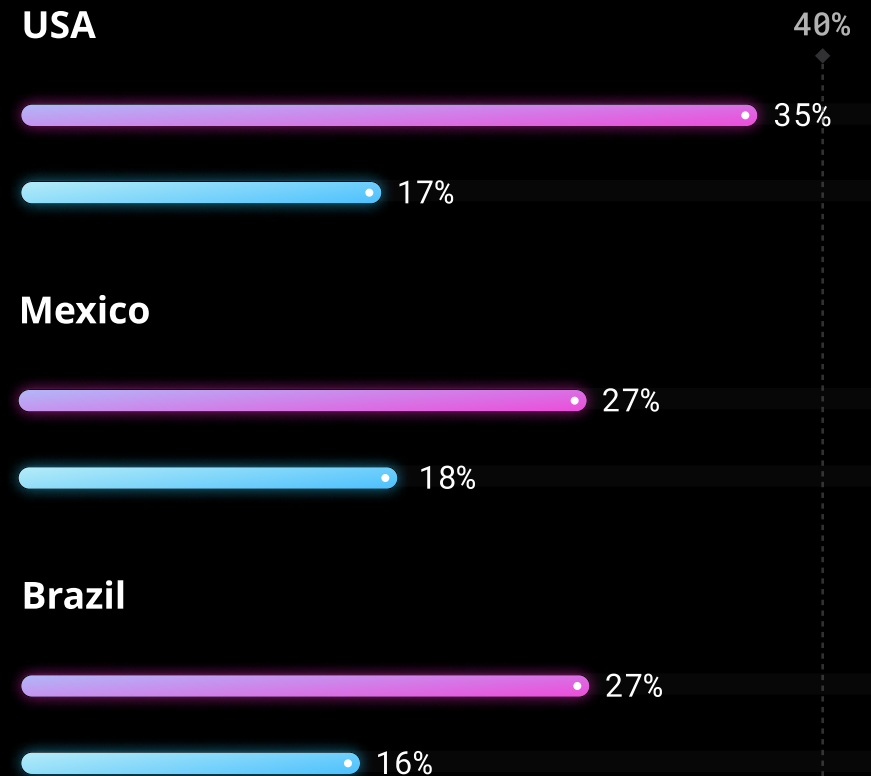
Owning cryptocurrency increases overall literacy

Investing in cryptocurrencies leads to self-directed research

Those who own cryptocurrency are twice as likely to answer survey questions correctly than non-cryptocurrency holders in the U.S. and 50% more likely to answer questions correctly in Brazil and Mexico.

Average % of quiz questions answered correctly

Own cryptocurrency ● Yes ● No



Mexican respondents report more familiarity with crypto

Despite the familiarity with crypto concepts, the scores from Mexico were only moderately better

U.S. and Brazilian respondents report low familiarity with cryptocurrency and bitcoin — less than 20% in both countries know more than a little. Mexicans were twice as likely to rate themselves more knowledgeable about bitcoin and cryptocurrency than Americans and Brazilians, but scored only moderately more knowledgeable on the quiz.

Familiarity with cryptocurrency

- Never Heard
- Know the name only
- Very little
- A little
- Moderate amount
- A lot

USA



Brazil



Mexico

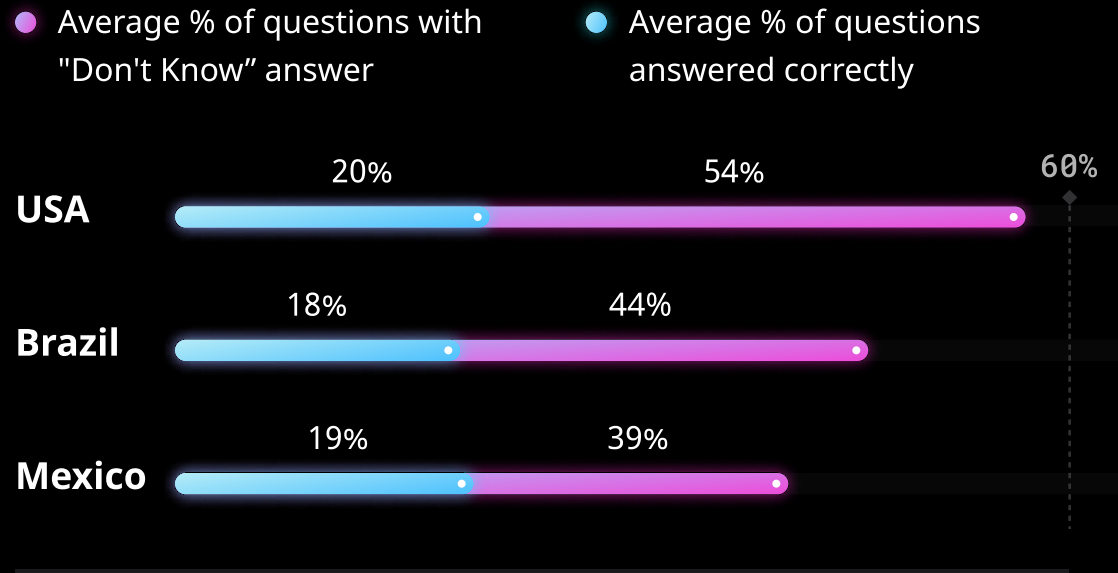


When “don’t know” is the right answer

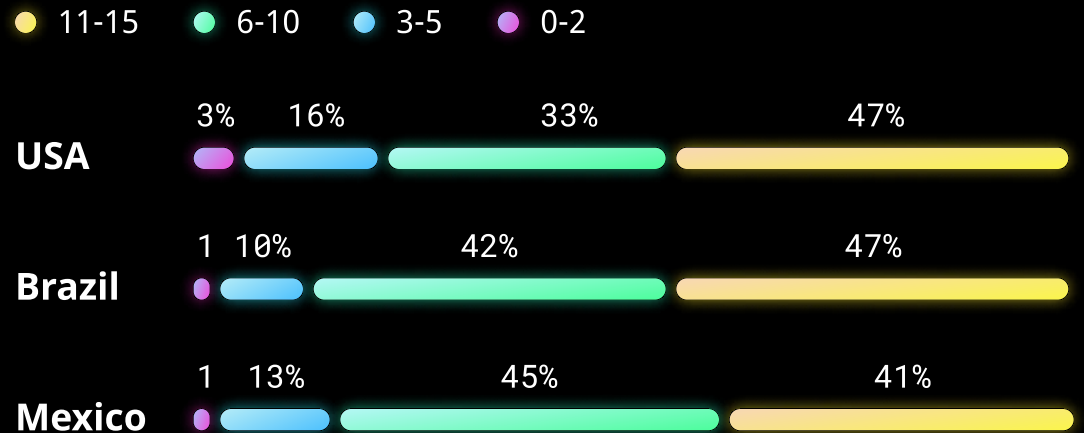
U.S. respondents scored the highest overall in the accuracy of quiz questions

While 54% of Americans responded to quiz questions with the response “don’t know”, they scored the highest in overall question accuracy. Brazil and Mexico had fewer respondents with “don’t know” to questions, but the accuracy of answers was not as high as the U.S.

Overall average % of questions answered correctly



Number of quiz questions answered correctly



It's a generational thing

Baby Boomers fared the worst when it comes to crypto literacy

The lack of knowledge about cryptocurrency increases with age, reaching up to 67% among U.S. Baby Boomers. Gen X,Y, and Z performed consistently across countries.

Average % of quiz questions answered correctly

● Gen Z ● Gen Y ● Gen X ● Baby Boom



Average % of quiz questions answered with "Don't know"

● Gen Z ● Gen Y ● Gen X ● Baby Boom



Crypto knowledge gaps

A majority of respondents in all three countries reported a familiarity with cryptocurrencies, if in name only, while as many as 20% self-reported a moderate amount. The survey results revealed a different reality. Most people lack even a basic understanding of the most core cryptocurrency concepts.



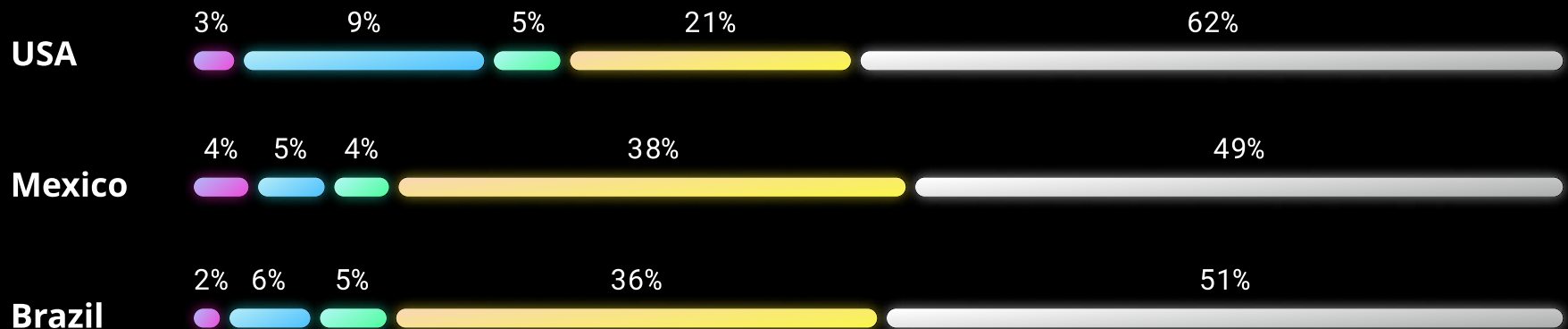
About bitcoin's fixed supply

9 out of 10 survey respondents lacked a basic understanding of bitcoin's limited supply of 21 million

One of bitcoin's key components, and one thing that makes it so different from traditional financial systems, is that the supply is programmed into the computer code that provides the architecture for the entire system. Since inception, bitcoin investors have known that the bitcoin supply will be limited to 21 million bitcoin, the last of which will be created sometime around the year 2140. This schedule does two things: it means bitcoin is a deflationary asset with a limited supply, and it proves that the rules of the economic system are open and accessible. The economic underpinning of the network is one of the core characteristics that makes bitcoin so innovative, and potentially so valuable. Nonetheless, there is still a lack of understanding about bitcoin's supply and demand.

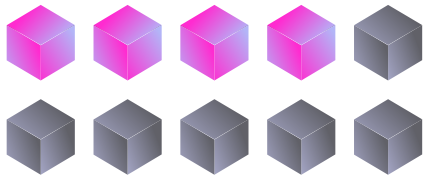
Maximum supply of bitcoin responses

● 15 million ● 21 million ● 50 million ● Infinite ● Don't know



Bitcoin's larger market dynamics

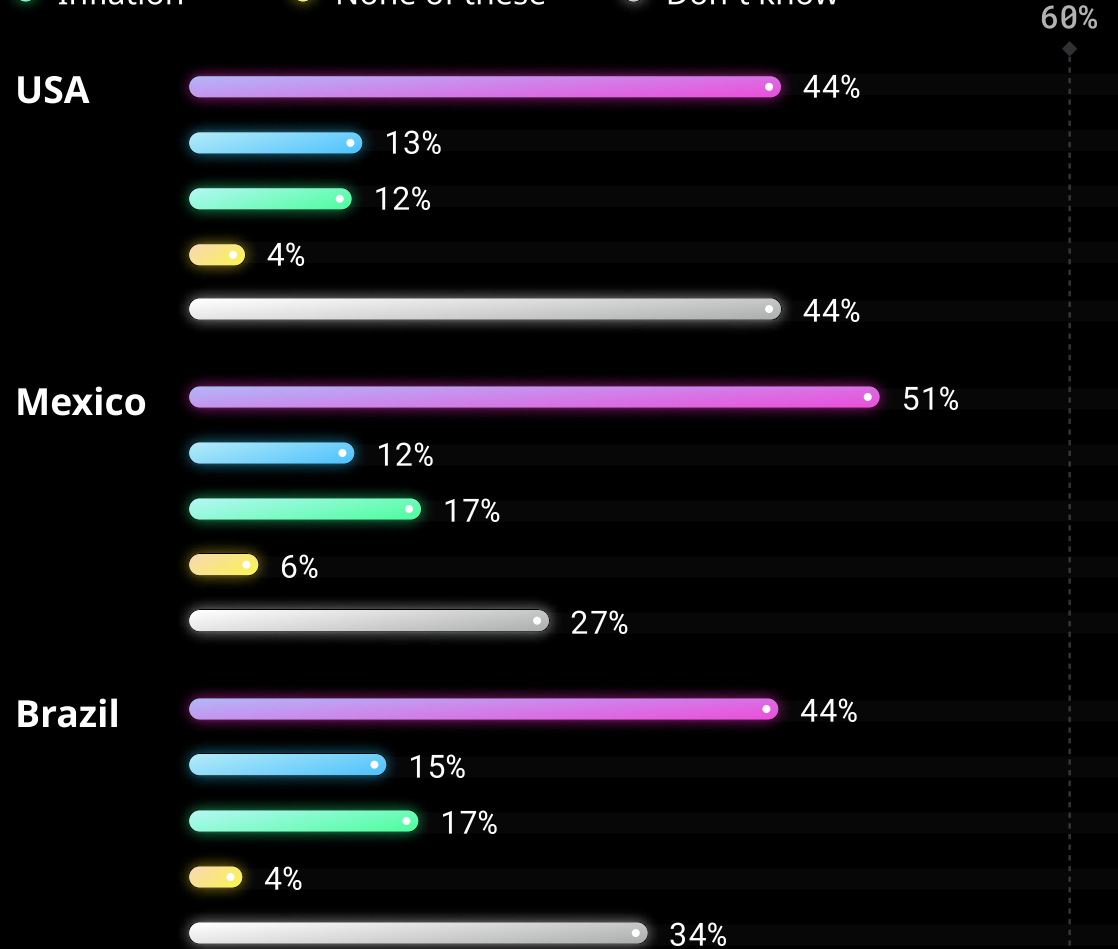
Only 4 out of 10 survey respondents have a clear understanding of the factors that determine bitcoin's price



Sometimes understanding the market potential of bitcoin is best understood through simple supply and demand. As global demand for bitcoin heats up, its available supply on the market shrinks, resulting in upward price movement.

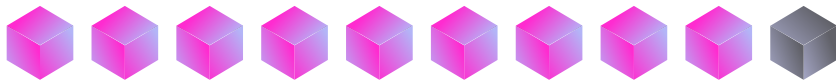
What determines the price of bitcoin?

- Balance of supply and demand
- Social media influence
- Inflation
- None of these
- Don't know



It's like crypto, but without the volatility

9 out of 10 respondents do not understand stablecoins

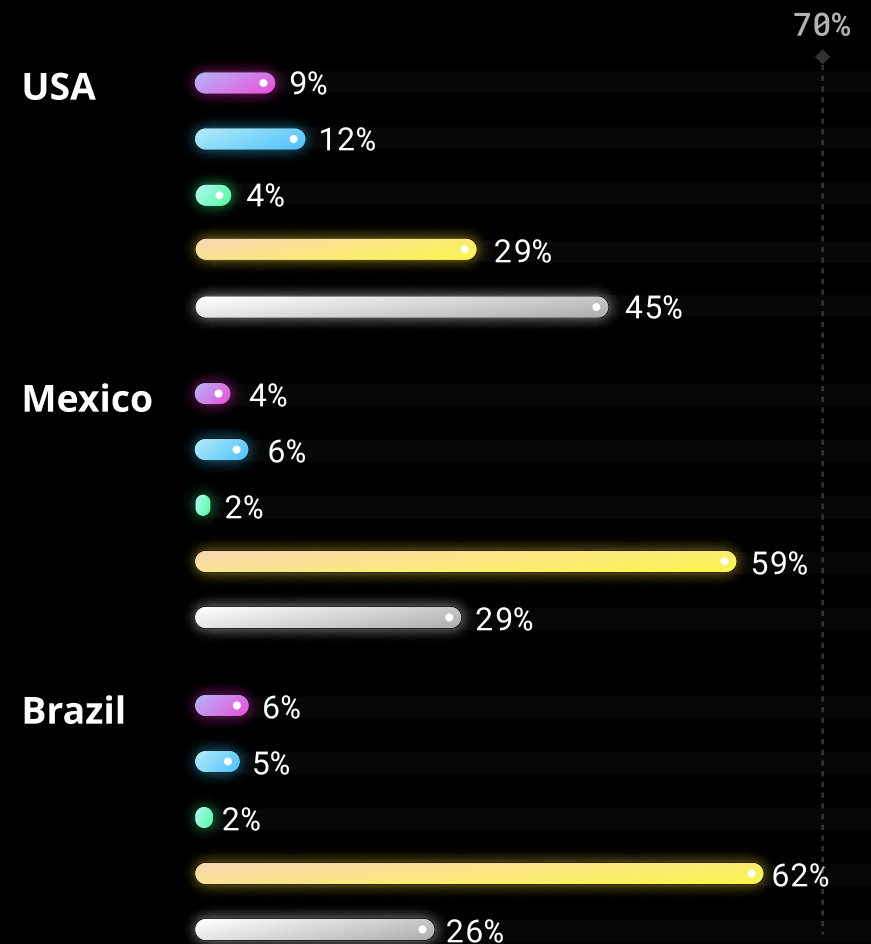


Stablecoins are like a physical anchor in an otherwise digital world. They are designed to maintain a price peg to an underlying asset (usually the dollar or a fiat currency). Stablecoins provide utility for cryptocurrency traders and others who need to move money between cryptocurrencies and traditional fiat currencies.

Over the past five years, stablecoins have become an increasingly important part of the wider cryptocurrency ecosystem. During that time, they have drawn the attention of financial regulators, but largely escaped attention from regular retail investors. A reason? Mainly because compared to the price action of other cryptocurrencies, they are relatively boring.

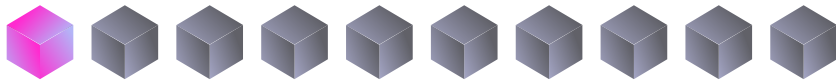
What is the name for digital currencies that link their value to an underlying asset?

- U.S. Dollar
- Stablecoin
- Dogecoin
- Bitcoin
- Don't know



Crypto requires user fees

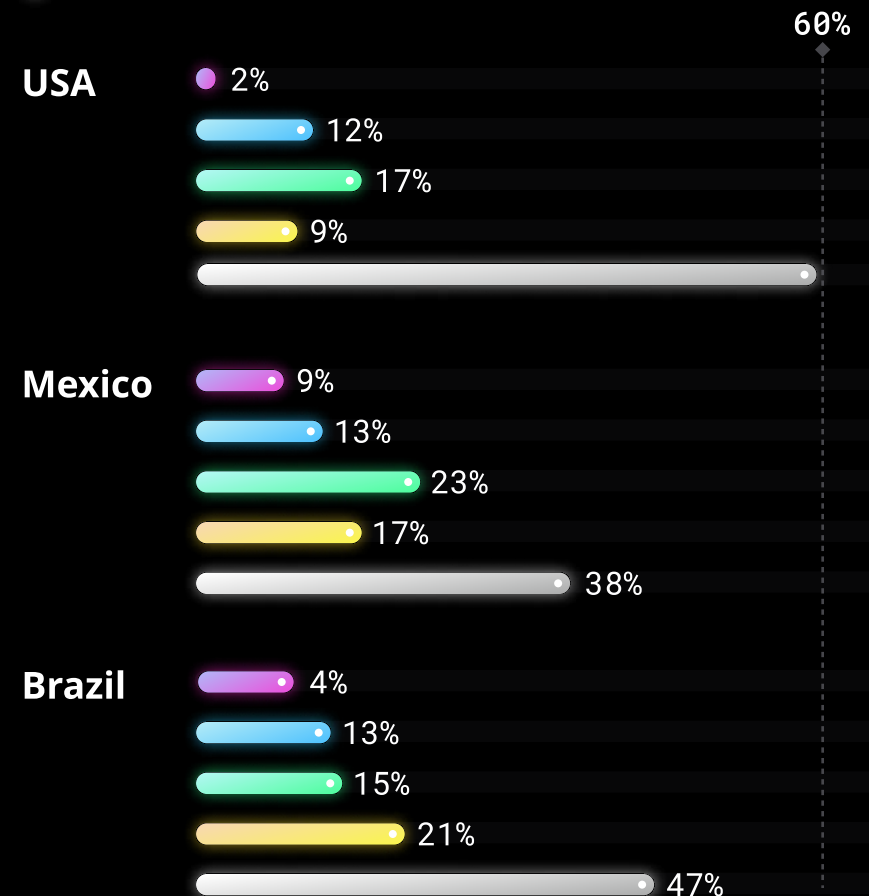
Only 1 in 10 respondents comprehend how bitcoin transactions and network fees work



Bitcoin is not a corporation, bank, payment processor, or any other traditional entity. Instead, it's an independent network run by a system of distributed nodes. What happens in the background of a bitcoin transaction is complex, and transactions generate fees to incentivize their processing (there are a number of factors, including network congestion that impact the actual fee).

Who processes bitcoin transactions and charges network fees?

- The International Monetary Fund (IMF)
- Network contributors known as miners
- Centralized exchanges like Coinbase
- Any wallet that holds bitcoin
- Don't know



Decentralized what now?

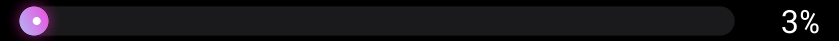
Only 3% of respondents in all countries answered the question on DeFi correctly

Decentralized finance (DeFi) can get fuzzy really quick. Only 3% of survey respondents answered the question correctly while 37% got the question partially correct. 55% couldn't even wager a guess to the definition of DeFi.

Part of the reason is that traditional financial systems and structures are not well understood and are not incredibly innovative (especially when printing more money is acceptable global monetary policy). Even within the crypto industry, the idea of what decentralized finance (DeFi) is and what kinds of DeFi products are available continues to change almost daily.

Only 3% of all respondents correctly answered the DeFi question

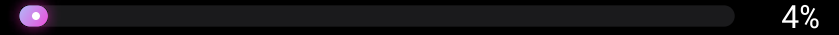
Correct



Partially correct



Incorrect

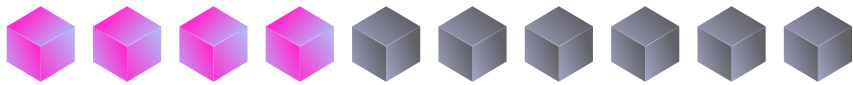


Don't know



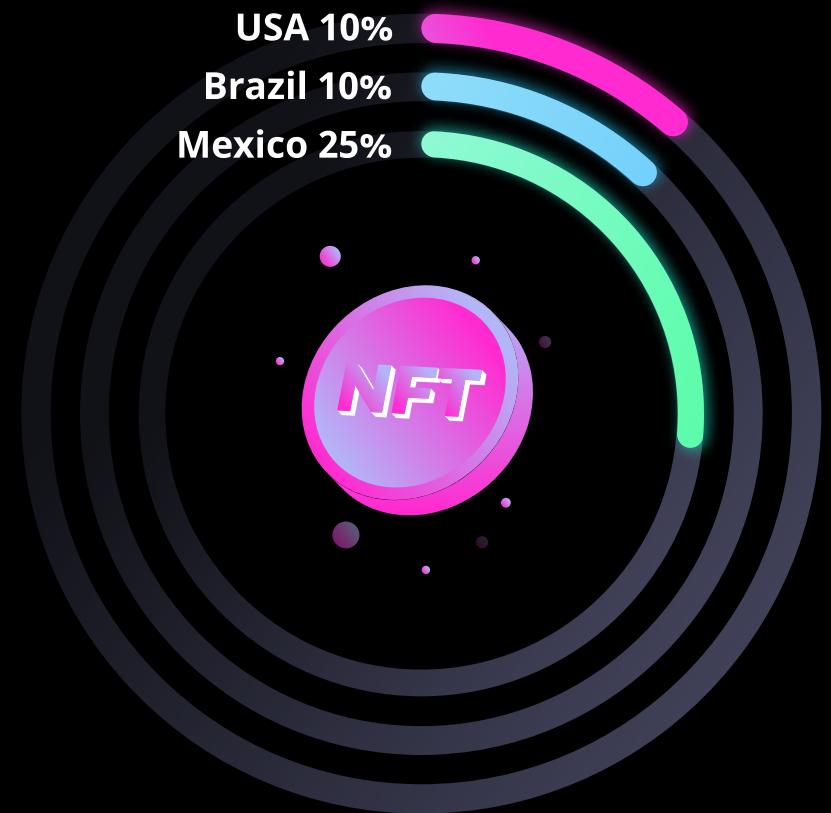
What the hell's an NFT?

6 in 10 respondents don't know what a non-fungible token (NFT) is



Even though SNL made a valiant attempt at explaining NFTs to the world in a viral video, Eminem rap-style, the definition didn't quite stick. Only 6 in 10 respondents of the survey know what a non-fungible token is. Knowledge is higher in Mexico, where 1 in 4 identify the correct response compared to 1 in 10 in other countries.

% of respondents who know what a non-fungible token is



Crypto ownership and investment insights

Bitcoin was originally created to enable peer-to-peer cash-like payments over the internet without the need for a trusted third party like a bank or payment provider. Bitcoin was launched following the global financial crisis of 2008. Trust in Wall Street and the banking system was at an all-time low.

Right in the origin story, bitcoin and the other cryptocurrencies that eventually followed were supposed to be used as tools of financial inclusion and freedom. Open, permissionless environments were supposed to replace the terms and conditions of the banks.

But, contrary to crypto's mission of financial inclusion, respondent data shows that ownership of cryptocurrencies primarily benefits white, wealthy, educated men.

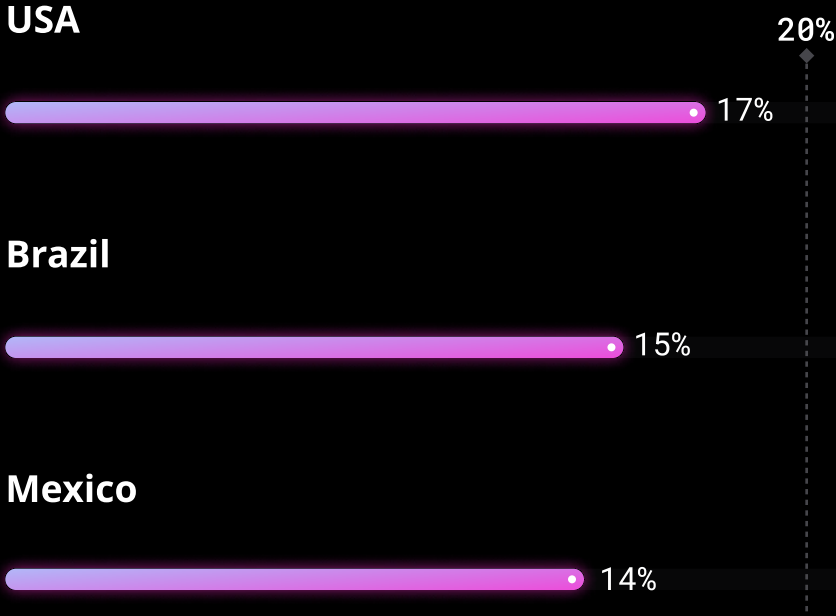


Who owns all of the crypto?

Percentage of crypto owners by country

Among survey respondents aware of bitcoin or cryptocurrency, 17% in the U.S., 15% in Brazil and 14% in Mexico own crypto.

Percentage of respondents that own crypto

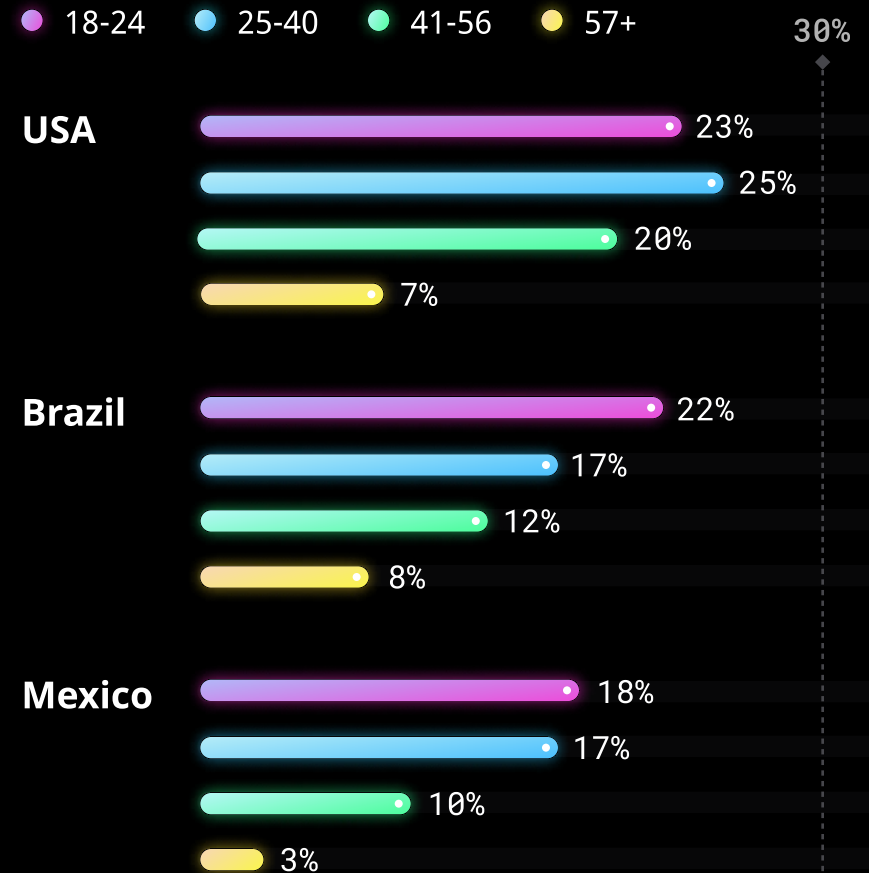


Age of crypto ownership varies by country

Millennials over-represent crypto ownership in the U.S. while Gen Z leads crypto ownership in Brazil. In Mexico the two groups overshadow those aged 40+

Crypto ownership by age changes across geographies, but not dramatically so. In the U.S. the leading crypto ownership age bracket is 25-40 (25%), while in Brazil and Mexico, the leading crypto owner age bracket is 18-24 (22% and 28% respectively).

Crypto ownership by age



How crypto ownership stacks up by income level

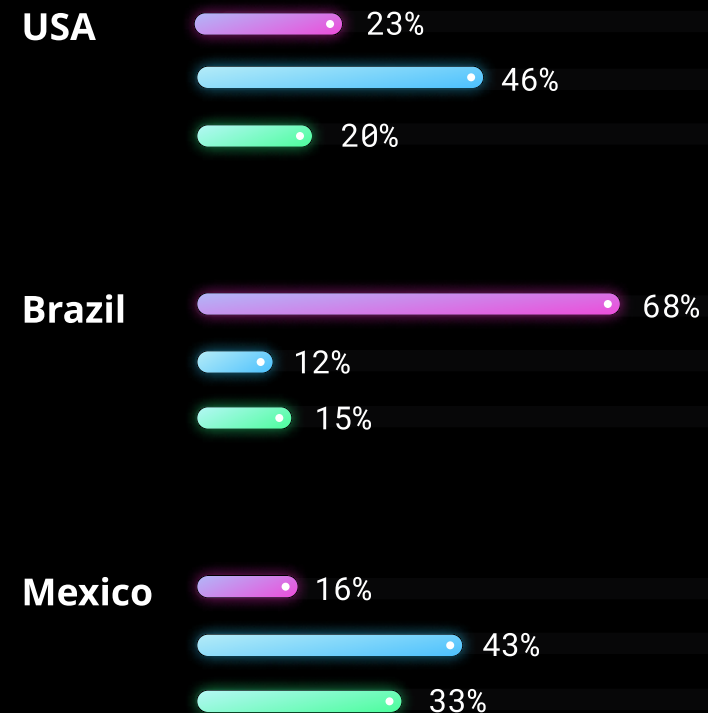
In every country surveyed, the most wealthy individuals are more likely to own crypto with the U.S. having the most balanced mix of ownership across income levels

In Mexico and the U.S., crypto ownership skews toward the highest income brackets (76% and 66% of those with middle - high income brackets respectively). In the U.S., crypto ownership is a little bit more distributed among income brackets. Of U.S. respondents, 23% of people making less than \$40,000 own crypto, compared to 46% for people making between \$40,000 and \$119,999.

Crypto ownership by income

● Low (under \$40k) ● Middle (\$40k - \$119,999k)

● High (\$120k+)



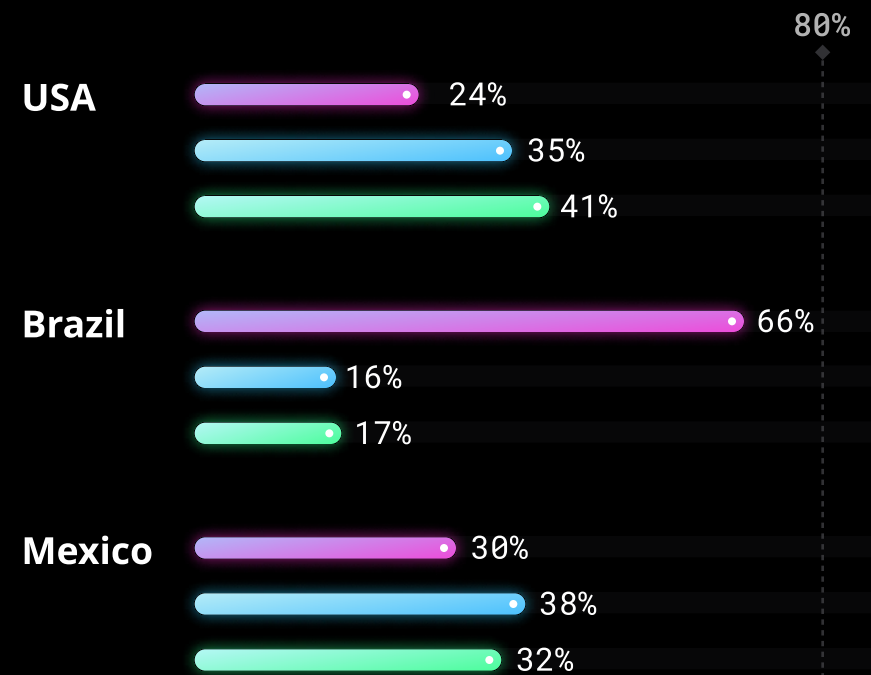
Cryptocurrency owners by education level

Crypto owners in Mexico are better educated than the population as a whole (70% hold more than a high school degree, compared to 57% generally)

Cryptocurrency ownership is somewhat distributed across education levels and geographies. Interestingly, in the U.S., the largest ownership group (41%) reports holding a college graduate or post graduate degree. In Brazil, the leading ownership group is people with high school or less education, and in Mexico, ownership is more evenly distributed among education levels.

Crypto ownership by education

- HS or less
- Some college
- College grad / post grad



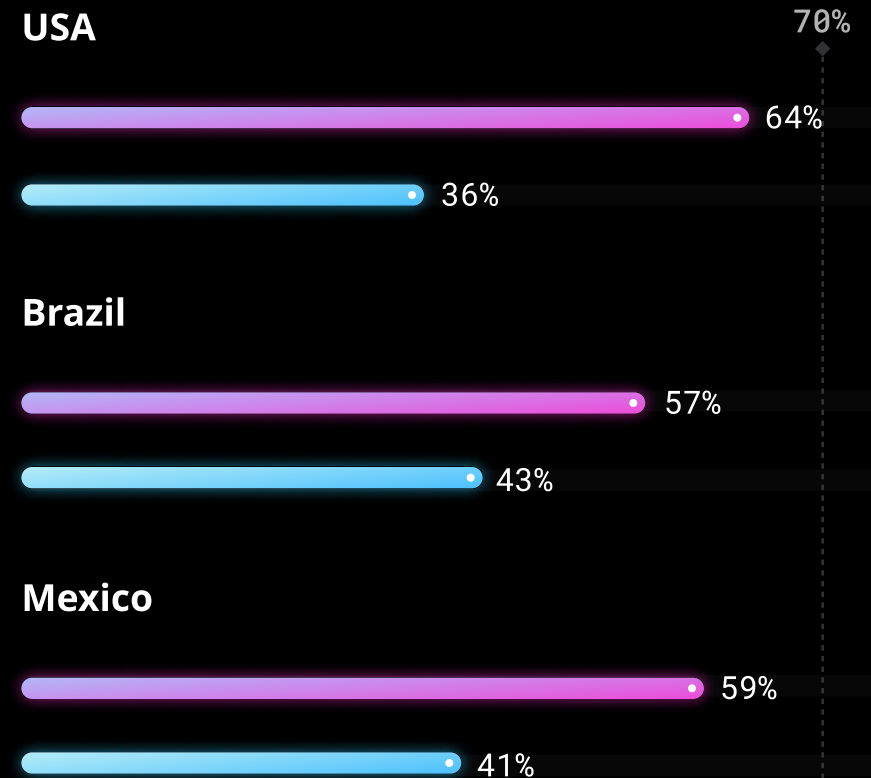
Men dominate crypto ownership over women in all three countries

Men dominate cryptocurrency ownership in the U.S. nearly 2:1, while ratios are slightly more balanced in Mexico and Brazil

In the U.S. men own crypto at nearly double the rate of women. In Brazil and Mexico, the ratios are a bit more balanced but men still over-represent ownership of cryptocurrencies.

Crypto ownership by gender

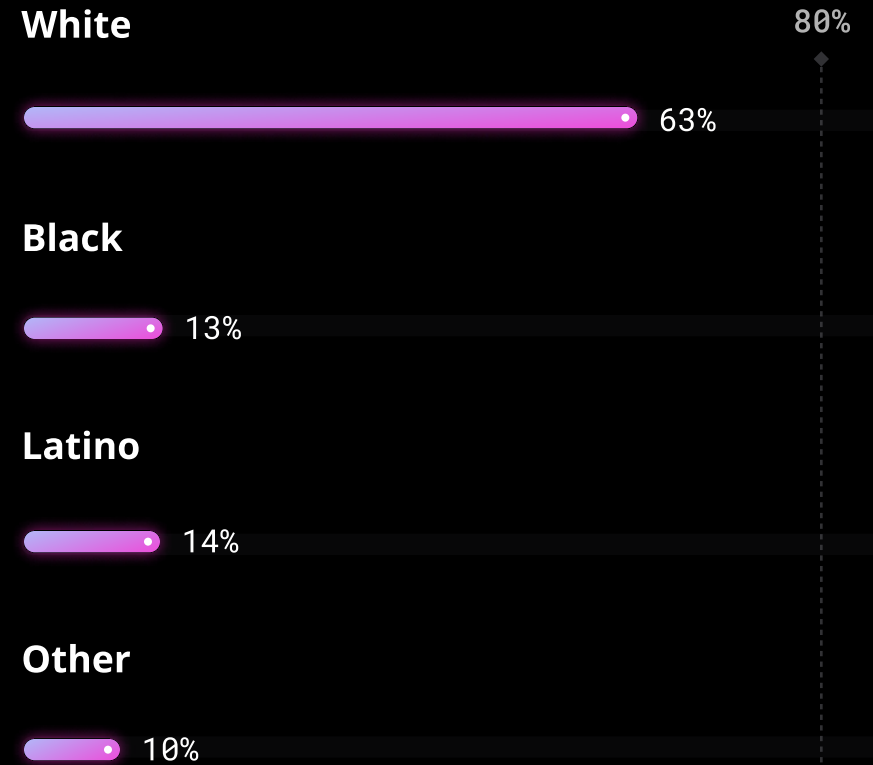
● Male ● Female



Crypto ownership by race in the U.S.

Whites primarily own crypto in the U.S.

Crypto ownership by race in the U.S.



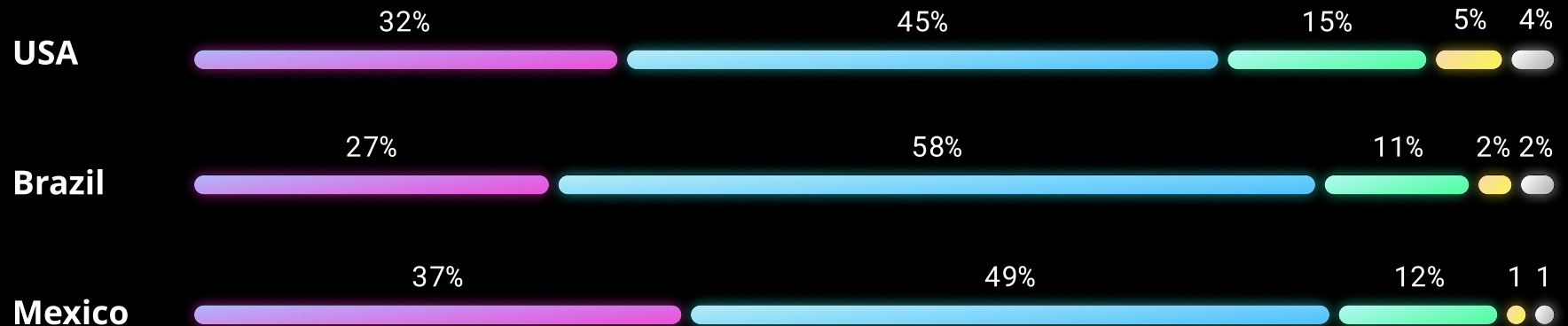
Crypto portfolio diversity

The majority of cryptocurrency investors in each country hold between one and five unique cryptocurrencies with U.S. respondents most likely to hold six or more in their portfolio

The dominant portfolio size across geographies is between two and five cryptocurrencies. The second largest group is people who own just a single cryptocurrency.

Number of cryptocurrencies owned

● 1 ● 2-5 ● 6-10 ● 11-20 ● 20+



Waiting for the right market conditions

Mexico and Brazil lead in the intent to purchase or sell crypto in the next six months

Whether they are waiting to buy the rumor and trade the news or just waiting on some other variable, survey data shows that there is future demand for cryptocurrencies. When asked if they intend to buy or sell cryptocurrencies in the next six months, 30% of respondents from Brazil answered “yes” while 28% of survey participants in Mexico answered “yes.” Only 12% of Americans surveyed intend to buy or sell.

% of respondents who intend to buy or sell crypto in the next 6 months



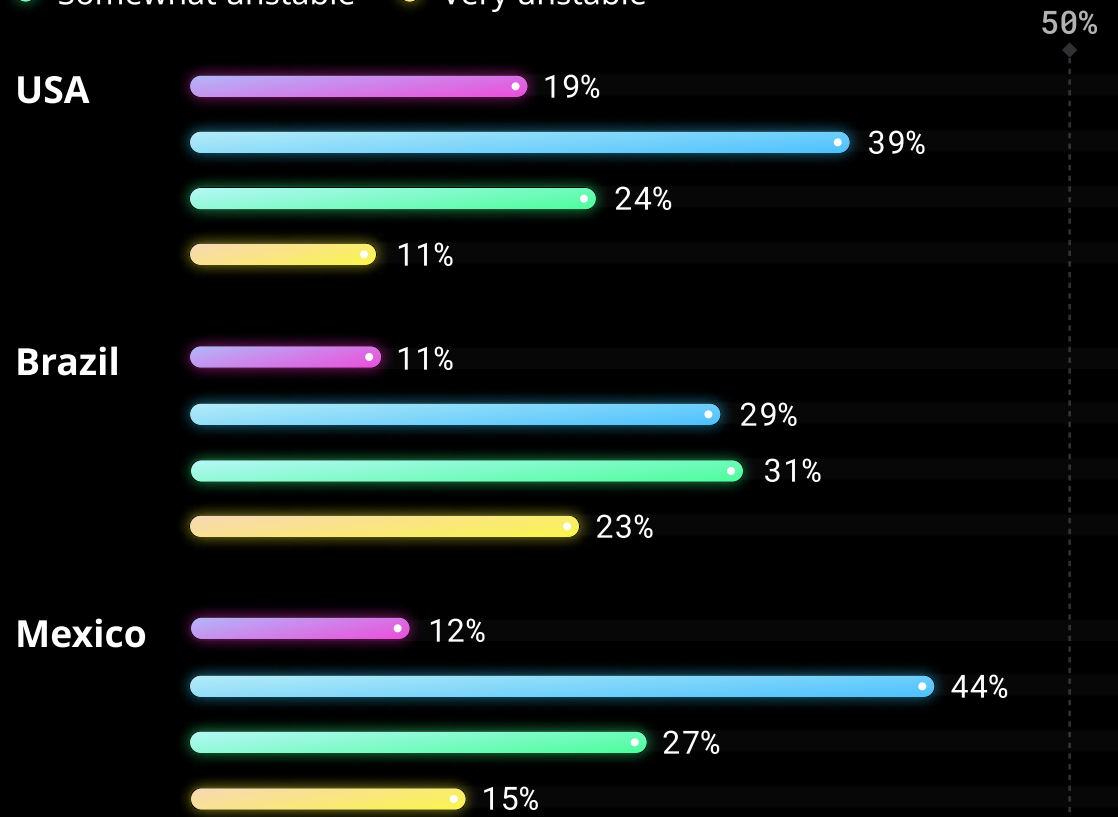
Looking for a currency safe haven

Brazilians perceive their currency to be unstable

One of the biggest use cases for bitcoin is as a digital store of value. Another big use case is that bitcoin provides a hedge against unfavorable macro economic conditions, such as inflation. When asked about the perception of their national fiat currencies, respondents in Brazil in particular expressed concerns about the stability of the Brazilian real.

Sentiments on currency stability

- Very stable
- Somewhat stable
- Somewhat unstable
- Very unstable

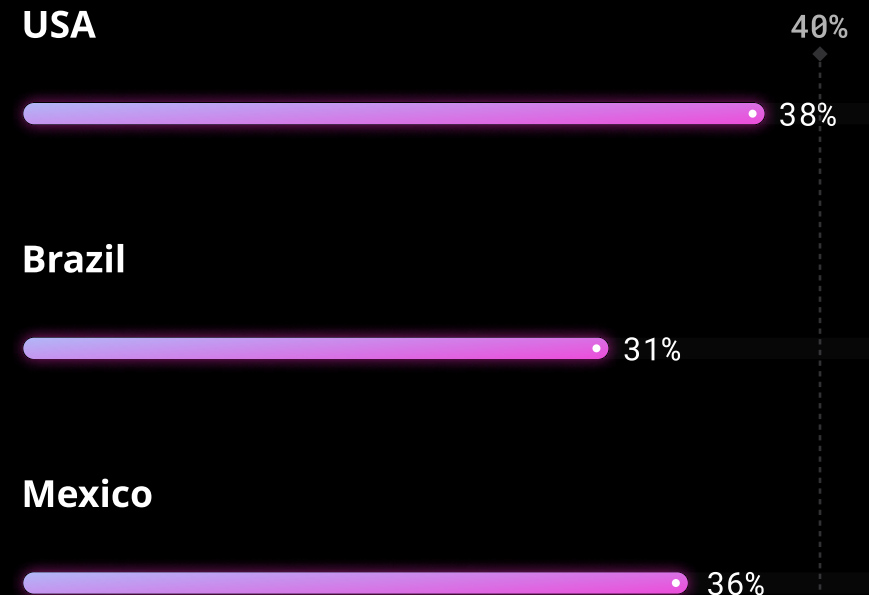


Crypto complexities

Roughly one-third of all respondents feel that purchasing crypto is easy

One major critique of the cryptocurrencies and cryptocurrency products is that they don't feel intuitive or easy-to-use. Respondents agreed, with just one-third of survey respondents reporting that purchasing crypto is easy. Brazilian respondents are most likely to think it is hard.

% of respondents who feel purchasing crypto is easy



What to do with a hypothetical \$100

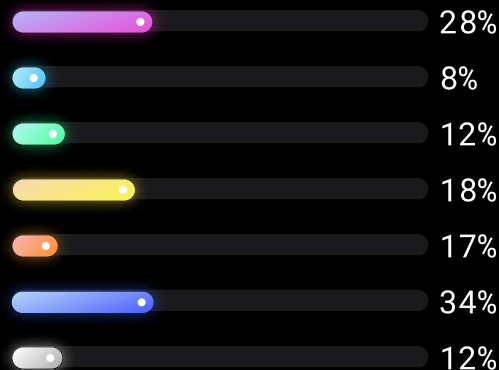
Mexican and Brazilian respondents are more likely than those in the U.S. to invest a hypothetical \$100 in crypto

When presented with the chance to invest a hypothetical \$100, Mexicans are most likely to invest a hypothetical \$100 in crypto. Brazilians would be equally likely to choose crypto and stocks. But when asked the same question, U.S. respondents would put the hypothetical \$100 investment into a savings account or the stock market ahead of crypto.

Hypothetical use of \$100

- Stocks
- Bonds
- Money market funds
- Cryptocurrencies like bitcoin
- Gold
- Saving account
- None of these

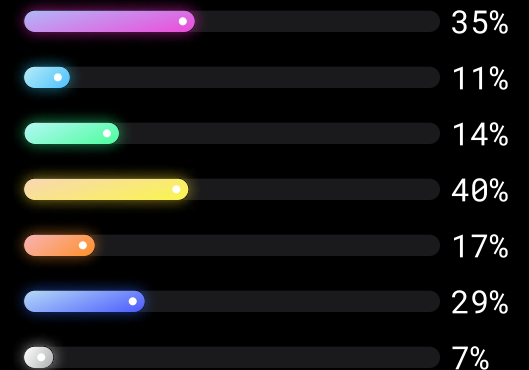
USA



Brazil



Mexico



Crypto use cases

One of the most interesting things about cryptocurrencies is that they can be used for all kinds of things. Even the same cryptocurrency, like bitcoin, can have more than one use case or application.

When asked, survey responses seemed to be very forward looking. Many respondents across geographies view cryptocurrencies as a way to save for the future. Saving for the future can mean a lot of different things depending on where you live, but in some ways, cryptocurrencies provide a new mechanism for forward-looking people to be optimistic.



What is crypto's greatest value proposition?

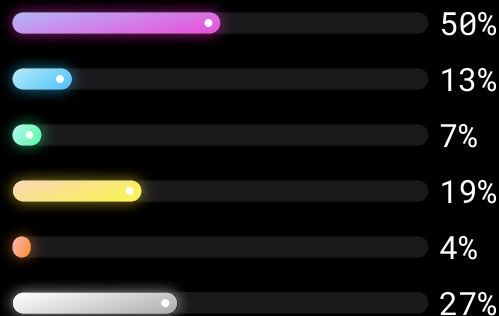
Brazilians invest in crypto to obtain financial freedom, Mexico and America invest primarily to save for the future

The world agrees that buying and holding cryptocurrency today is one way to prepare for the future. 55% of Brazilian respondents see a hypothetical crypto purchase as a step toward obtaining financial freedom while half or more in Mexico and the U.S. see it as a way to save for the future.

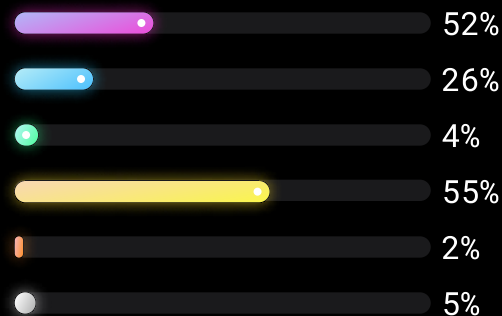
Hypothetical use of cryptocurrency

- To save for the future
- To purchase goods and services
- To send to friends or family
- To obtain financial independence
- Other
- None of these

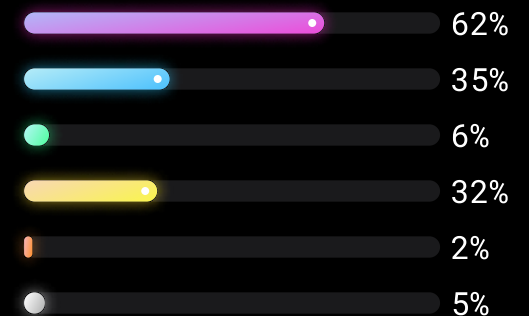
USA



Brazil



Mexico

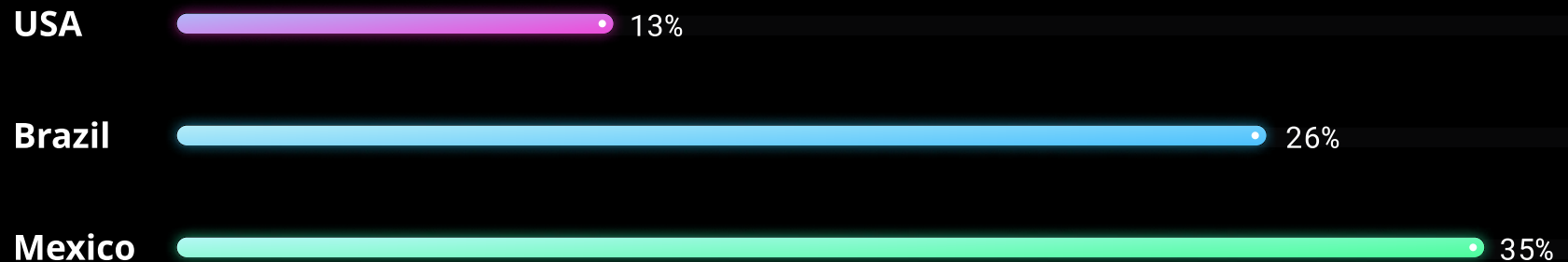


Crypto as means of everyday purchases

Mexicans are most likely to use crypto to purchase goods and services

One-third of Mexican respondents are likely to use crypto to purchase or acquire goods and services, significantly more than in the U.S. Beyond future-proofing, significant portions of respondents use crypto to make purchases in Brazil (26%) and Mexico (35%). In the U.S., only 13% of respondents say they buy goods or services with crypto.

% of survey respondents who would use cryptocurrency to purchase goods and services



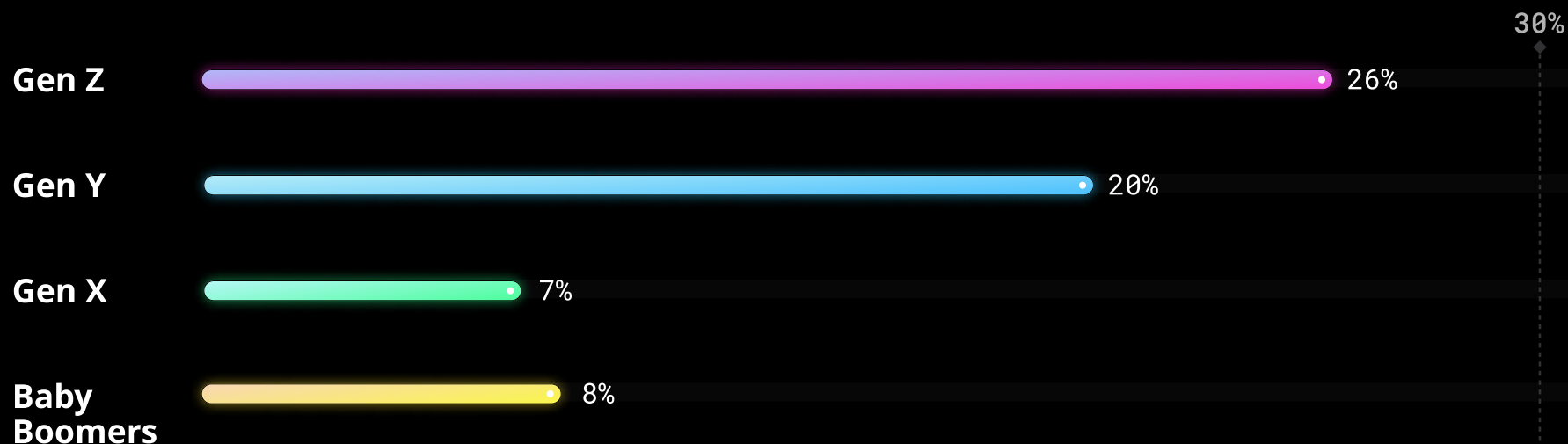
40%

Crypto utility changes with age

Millennial and Gen Z Americans are more likely than older U.S. Americans to view crypto as a means for purchasing goods and services

Crypto's payment use case changes with age for U.S. respondents. Only 3% of Baby Boomer survey participants see crypto as a means of payment, while 26% of Gen Z survey participants see crypto's value as a means of payment.

U.S. survey respondents by generation who would use crypto to purchase goods or services



About the Crypto Literacy Survey

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The survey was pulsed by YouGov to a population of 1,000 cryptocurrency or bitcoin-aware internet users in each country, balanced across age, gender, and education level (and race/ethnicity in the U.S.). Insights from the survey, curated educational programs, and a publicly accessible crypto literacy quiz are available on [CryptoLiteracy.org](https://cryptoliteracy.org). In addition, Crypto Literacy Month 2021 will feature a weekly highlight of course offerings from the Crypto Explainer+ series, developed by CoinDesk.

About CryptoLiteracy.org

CryptoLiteracy.org is a website and industry initiative promoting broad consumer education of digital currencies. Led by Coinme and CoinDesk, the website is the home of the Crypto Literacy Quiz, where people can assess their crypto knowledge, identify the gaps in their comprehension, and challenge their family and friends' awareness of digital currencies. The initiative is part of the annual Crypto Literacy Month, held each November, featuring insights from a global survey of crypto awareness and educational curriculum curated by CoinDesk's Crypto Explainer+ series. Download the report with the latest insights, take the quiz, and learn more about cryptocurrencies by visiting [CryptoLiteracy.org](https://cryptoliteracy.org).

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