DRAGONFLY'S STATE OF AIRDROPS REPORT 2025

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DRAGONFLY POLICY TEAM

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View additional resources regarding a full history of regulation by enforcement: Comprehensive Overview of Crypto Regulation by Enforcement (2008–2025)

Introduction

PURPOSE AND OBJECTIVE

Cryptocurrency and blockchain technology are not fleeting tech trends; it is a monumental shift in the global economic landscape, presenting a golden opportunity for the United States ("U.S.") to offer visionary leadership and pioneering governance in this transformative industry. However, instead of embracing this role, the U.S. finds itself entangled in political infighting and efforts that undermine the growth of this new paradigm.

In such an environment, it's hardly surprising that many crypto projects are reluctant to engage with U.S. users, deterred by the ambiguous application of U.S. laws to digital assets. This uncertainty has led to significant financial losses and restricted opportunities for U.S. users to engage in the sector, including participating in airdrops—an innovative method for distributing new tokens and fostering user engagement.

This report aims to provide data-driven insights into the role cryptocurrency airdrops play in accelerating economic growth and illustrating the financial losses incurred due to restrictive U.S. policies. It will address the critical need for a regulatory framework that supports innovation while providing clear guidelines to protect investors and the integrity of the market. Our analysis delves into the tangible economic impact of current regulatory practices, including detailed metrics on the financial implications of geofencing U.S. users from airdrops and the resulting tax revenue losses to the government.

By examining these key factors, alongside a broader analysis of the regulatory landscape in the United States and its impact on the crypto space, we advocate for regulatory changes. These adjustments would enable U.S. citizens and businesses to actively and effectively participate in the global cryptocurrency market, leveraging airdrops to stimulate job creation, drive business growth, and increase tax revenues. The urgency of this research is underscored by the evolving global digital economy and the need for the U.S. to adopt a more competitive and supportive regulatory stance to maintain its leadership role.

TERMINOLOGY

In our analysis, we will use the below terms to mean the following:

- **Active addresses:** Blockchain addresses that have submitted transactions within a certain period.
- **Active mobile wallet users:** Users who utilize a mobile wallet application for transactions and hold crypto-assets, measured on a monthly basis.
- **Active participants in onchain activity:** Individuals or entities engaging in transactions that are verified and recorded on the blockchain within a specified timeframe.
- **Active U.S. users:** The number of users based in the United States who are active on the blockchain.
- **Bots:** Automated programs that perform tasks on the blockchain, which can range from trading to participating in DeFi protocols.
- **Claimers:** Onchain addresses that have claimed tokens from airdrops according to specified blockchain or project criteria.
- **Decentralized exchange ("DEX"):** A peer-to-peer marketplace where transactions occur directly between crypto traders.
- **Ethereum Virtual Machine ("EVM"):** A decentralized computation engine that executes smart contracts across the Ethereum network.
- **Externally owned accounts ("EOAs"):** Blockchain accounts controlled by private keys and not governed by a contract code, typically associated with an individual user's wallet.

- **Initial coin offering ("ICO"):** An event in which a company sells tokens to raise money.
- **Onchain:** Refers to any data verified and recorded on a blockchain network.
- **Offchain:** Refers to any data that was not verified and recorded on a blockchain network.
- **Onchain events:** On EVM-compatible blockchains, onchain events refer to logs produced by smart contracts when certain interactions occur on the blockchain. These logs are stored within transaction receipts, making it possible to retrieve and organize them for efficient analysis. Explorers and analytics platforms use these indexed logs to query and examine blockchain interactions effectively.
- **Smart contracts:** Self-executing program stored on a blockchain, programmed to automatically carry out actions when specific terms and conditions are met.
- **Sybil attack:** A cyberattack on a blockchain that involves using multiple fake identities to gain control of a network.
- **Transacting users:** The number of unique users who engage onchain.
- **U.S. residents/holders in the U.S./U.S.-based users/U.S. users:** These terms are used interchangeably to denote all individuals residing in the U.S. who own or transact in cryptocurrencies.
- **Vampire attack:** A strategy in which one protocol tries to attract users from a competing platform by offering more enticing incentives.

METHODOLOGY

This policy paper employs a dual-pronged approach to analyze airdrop distributions, utilizing both offchain and onchain data sources. By combining these complementary datasets, the analysis aims to provide a thorough evaluation of distribution patterns, token claims, and valuation dynamics across multiple projects in the U.S. Our methodology is designed to test specific hypotheses about the effectiveness and reach of airdrops in the cryptocurrency ecosystem in the U.S. Key questions we aim to answer include the following:

- What percentage of worldwide crypto users are U.S. users?
- How many active U.S. crypto users are affected by geoblocking practices?
- Does geoblocking U.S. claimers lead to significant revenue losses to users and to the U.S. government?

The methodology captures essential metrics such as claim amounts, claimer addresses, token valuations at the time of claims, eligibility criteria, and overall airdrop statistics.

Offchain Data Collection

Offchain data was collected from the official documentation of each respective project to extract critical information regarding eligibility criteria, distribution mechanisms, and timelines for each airdrop. The process involved the following:

1. **Manual Aggregation:** Data from project whitepapers, blogs, and official announcements was manually compiled to ensure accuracy and uniformity across projects.
2. **Validation of Eligibility and Timelines:** Specific attention was given to eligibility criteria and the defined distribution timelines to contextualize onchain activity and match it with the announced goals of the project.

By establishing a foundation of offchain insights, the analysis aligns onchain transactional data with the intended goals and methodologies of each airdrop.

Onchain Data Collection

Onchain data analysis was performed using Dune Analytics, focusing on events emitted by token airdrop claim smart contracts. This process involved several key steps:

1. **Identification of Smart Contract Addresses:** Official project documentation was used to pinpoint the smart contract addresses associated with airdrop claim events. These addresses served as the starting point for querying transactional data.
2. **Querying Emitted Events:** Using Dune's onchain data platform, events emitted by the identified smart contracts were queried. These events captured the following:
    - **Claimer Addresses:** Identifying participants who claimed tokens.
    - **Claimed Amounts:** Quantifying the volume of tokens claimed by each address.
    - **Claim Dates:** Establishing the temporal dynamics of the claim process.
3. **Token Price Valuation:** Token valuations in USD at the time of each claim were derived from Dune's prices in the USD table.[1] This table aggregates DEX swap rates to provide minute-level average token price data, ensuring accurate valuation for each claim event.
4. **Data Aggregation:** All extracted onchain data was compiled into a unified table on Dune Analytics, labeled airdrop.claims.[2] This dataset encompasses claim events for over 40 distinct airdrops (both geoblocked and not geoblocked), providing a centralized resource for further analysis.

Dataset Accessibility and Expansion

To promote transparency and encourage community collaboration, the airdrop.claims table remains publicly accessible on Dune.[3] Other users can query the data and contribute additional airdrops through Dune's dataset creation github repository named Spellbook.[4] This code-available approach facilitates continuous dataset expansion, enabling future policy analysis to benefit from updated and comprehensive data.

See Appendix A for a full breakdown of our analysis and the calculations that led to our key takeaways.

[1] *airdrop.claims*, Dune, https://dune.com/data/airdrop.claims (last visited Jan. 23, 2025).
[2] *Id.*
[3] *Id.*
[4] *duneanalytics/spellbook*, GitHub, https://github.com/duneanalytics/spellbook (last visited Jan. 23, 2025).

Executive Summary

OUR FINDINGS ON AIRDROPS

AIRDROPS ARE STRATEGIC TOOLS FOR BLOCKCHAIN ADOPTION AND VALUE DISTRIBUTION

Airdrops, distributing tokens directly to wallet addresses, often for free, serve as a strategic tool for blockchain projects to enhance user engagement, decentralize token distribution, and reward community loyalty. This analysis explores the impact of airdrops within the blockchain ecosystem, offering insights on how they contribute to the broader goals of value creation and distribution in emerging digital economies.

We analyzed data from over 12 airdrops (11 geoblocked airdrops and 1 non-geoblocked airdrop as a control) that conducted airdrops between 2019 and 2023 to determine the economic impact of having blocked U.S. users from claiming tokens.

Key Findings:

- **Number of U.S. Persons Affected by Geoblocking:** We estimate that between 920 thousand and 5.2 million active U.S. users (5–10% of an estimated 18.4 to 52.3 million cryptocurrency holders in the U.S.) were affected by geoblocking policies in general in 2024. These policies restricted participation in airdrops and limited their usage of certain projects.
- **Percentage of Active Addresses in the U.S. in 2024:** Approximately 22–24% of all active crypto addresses worldwide belonged to U.S. residents.
- **Total Airdrops Value from Our Sample:** In our sample of 11 projects, they have collectively generated a total value of approximately $7.16 billion to date, during which approximately 1.9 million claimers participated worldwide with an average median claim value of around $4.6 thousand per eligible address.
- **Estimated Revenue Lost to U.S. Users from Our Sample:** Of our sample of 11 geoblocked airdrops, the total estimated revenue lost to U.S. users ranges from $1.84 billion to $2.64 billion from 2020–2024.
- **Estimated Revenue Lost to U.S. Users from a Sample from CoinGecko:** Applying our percentage of active addresses in the U.S. to another sample of 21 geoblocked airdrops analyzed by CoinGecko, the total potential revenue lost to U.S. persons could have been between $3.49 billion and $5.02 billion from 2020–2024.[5]
- **Missed Personal Tax Revenue from Geoblocked Airdrops:** Based on our sample of geoblocked projects (used for a lower bound) and that of CoinGecko (used for a higher bound), the estimated federal tax revenue lost due to geoblocked airdrop income between 2020 and 2024 is estimated between $418 million to $1.1 billion, with an additional estimated state tax revenue loss of $107 million to $284 million. In total, this represents an estimated tax revenue loss of $525 million to $1.38 billion. These estimates do not account for additional tax revenue that would have been generated from capital gains taxes upon the eventual sale of these tokens, representing a further source of missed government revenue.
- **Corporate Tax Revenue Lost from Offshore Migration:** The shift of crypto operations offshore has substantially reduced U.S. tax revenues. For instance, Tether, which reported $6.2 billion in profits in 2024 but is incorporated offshore, could have contributed approximately $1.3 billion in federal corporate tax and $316 million in state taxes if it had been fully subject to U.S. taxation. While actual liability would depend on corporate structuring, this is just one company—illustrating the broader tax revenue losses from crypto firms operating offshore.

[5] Dragonfly did not participate in CoinGecko's research and airdrop valuation method.

About Dragonfly

DRAGONFLY

Dragonfly is a prominent global crypto investment firm with assets under management of approximately $3 billion. Since its founding in 2018, Dragonfly has built a reputation as a crypto-native firm and a leader in crypto investing, backed by a team with over a decade of experience building and funding the crypto space. With a portfolio of more than 120 investments, the firm leverages deep industry expertise and thought leadership to shape the future of crypto.

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Report

I. Background on Airdrops

DEFINITION OF AN AIRDROP

What is an airdrop?

A cryptocurrency airdrop is a method of distributing tokens native to a platform to specific wallet addresses without monetary payment. Airdrops are commonly employed by blockchain startups to generate early interest and support for their projects, promote decentralization by expanding token distribution, and reward community participation.[6] Typically, airdrops involve sending small amounts of tokens to the wallets of active users within the project's ecosystem.[7] Airdrops generally reward individuals who stay informed about cryptocurrency developments, participate in social media communities, and meet specific criteria, such as holding particular tokens or completing designated tasks.[8]

How is airdrop eligibility determined?

Blockchain projects use various methodologies through which to conduct airdrops – in most cases combining a few approaches to maximize impact. This tailored approach ensures that the airdrop not only serves to distribute tokens but also supports the project's broader goals such as user acquisition, community building, or market penetration. Projects employ various criteria to determine eligibility for receiving an airdrop, including the following:

> **Past Activity.** The team settles on a list of heuristics based on prior onchain activity to derive claimable amounts per address. Those usually account for past interactions with airdropping protocol. Additionally, it's common for these protocols to reward users for their previous activity on competitor platforms as part of a strategy known as a vampire attack, which aims to lure users away from those competitors.
>
> **Early Contributors.** Airdrops have, in almost all cases, rewarded early users. Participants in airdrops are individually selected to receive tokens based on a variety of factors such as reputation and contributions to the project.[9] This method is a more centralized way of rewarding engagement by early and active users, offering targeted rewards to those who have made significant contributions to the community or project.[10]

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[6] *What is a crypto airdrop?*, Coinbase, https://www.coinbase.com/learn/crypto-basics/what-is-a-crypto-airdrop (last visited Nov. 20, 2024); *The Impact of Airdrops on Decentralized Finance (DeFi)*, Airdrop Alert (Oct. 29, 2024), https://airdropalert.com/blogs/the-impact-of-airdrops-on-decentralized-finance-defi/; *What is a crypto airdrop?*, Fidelity (Jan. 3, 2024), https://www.fidelity.com/learning-center/trading-investing/crypto-airdrop. While a form of "free" token distribution that rewards user behavior, we consider bounty programs to be technically distinct from airdrops. Bounties have clear goals and are distributed to a small number of users while airdrops are used for mass distribution.

[7] Sean Butterfield, *What are Airdrops?*, Crypto Council for Innovation (June 15, 2024), https://cryptoforinnovation.org/what-are-airdrops/.

[8] *What is a crypto airdrop?*, *supra* note 6.

[9] Kane Pepi, *10 Best Crypto Airdrops in 2024*, Cryptonews, https://cryptonews.com/cryptocurrency/crypto-airdrops/ (Nov. 22, 2024).

[10] *Id.*

Snapshots. Existing token holders receive tokens based on their actual token holdings at a specific point in time.[11] A "snapshot" of the blockchain is taken, recording all transactions and balances to determine eligibility for the airdrop.[12]

Forks. A fork is when a blockchain splits into two separate chains, resulting in the distribution of new tokens to users.[13] You are eligible for this airdrop if you hold the original token of the forked chain in most cases. This ensures that the new token is widely distributed among existing holders, providing the newly created chain with an established and broad user base from the start.[14]

Raffles. Some airdrops are combined with a raffle, where participants have the chance to earn a raffle ticket by holding tokens, accumulating points, or simply expressing interest.[15] This is often used when the number of individuals interested in the airdrop exceeds the number of tokens the project plans to distribute. In such cases, a raffle is held, and a limited number of wallets are randomly selected to receive the airdrop, adding an element of chance to the process.[16]

How do eligible users claim their airdrops?

In most cases, the airdrop claim process follows a similar structure. Airdrop claim smart contracts are created by the project team with the list of eligible addresses and associated claimable amounts. Users go to the claim website where they can prove address ownership by connecting their wallets, after which they are able to claim their allocated tokens. In some cases, users can also register using other blockchain addresses, or accounts on offchain platforms such as X, Github, and Discord which may have associated claimable tokens.

Most of the time, users must proactively claim their tokens. In rare cases, a project may not require users to take any proactive steps and instead batch transfer tokens to each recipient, which is usually done if the transaction fees are low. If the airdrop date coincides with the blockchain creation date, tokens may be distributed via airdrop at the blockchain's genesis, thus alleviating the need for transfers.

How is an airdrop technically executed?

Executing an airdrop involves multiple technical processes. First, the process involves defining the airdrop parameters and ensuring all prerequisites are in place. This involves establishing eligibility criteria, determining the total token allocation, specifying the timeline for the airdrop, finalizing the snapshot date, distribution mechanism, and any associated claim requirements to provide a clear framework for subsequent steps. Additionally, an audit of existing wallets and network activity may be conducted to refine the eligibility criteria to align with the project's goals.[17]

To identify eligible participants, a snapshot of the blockchain is taken on the specified date. Utilizing advanced snapshot tools, the system captures the state of wallets meeting the predefined conditions and providing a

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[11] *Understanding Snapshot Airdrops: What You Need to Know*, Blogfarm (Sep. 2, 2024), https://blogs.phil.hhu.de/nag79div/2024/09/02/understanding-snapshot-airdrops-what-you-need-to-know/#:~:text=A%20snapshot%20airdrop%20refers%20to,a%20specific%20point%20in%20time.
[12] *Id.*
[13] Michelle Legge, *Airdrop*, Koinly (Mar. 19, 2024), https://koinly.io/crypto-glossary/airdrop/.
[14] *Id.*
[15] Butterfield, supra note 7.
[16] *Id.*
[17] *A History of Crypto Airdrops*, CoinMarketCap, https://coinmarketcap.com/community/articles/66c6f48d425ecc5e43742e76/ (last visited Nov. 27, 2024).

verifiable ledger of recipients. Data is filtered to exclude ineligible addresses, such as dormant wallets or known bots, ensuring a fair and accurate distribution list.[18]

Simultaneously, the airdrop smart contract is developed to automate the distribution process. These smart contracts play a pivotal role in automating the distribution process by ensuring fairness and transparency while eliminating the need for manual intervention, and efficiently handling tasks, such as managing the list of eligible wallets and allocating the appropriate number of tokens.[19]

Before deployment, the smart contract will undergo a comprehensive third-party security audit to identify and address vulnerabilities, ensuring robustness against potential exploitation. Anti-bot mechanisms, wallet verification protocols, and duplicate claim prevention measures were integrated into the contract for additional security.[20]

With the eligibility list and smart contract ready, new tokens are generated specifically for the airdrop process so that they can be distributed. Tokens are then transferred to a designated distribution wallet under the smart contract's control. This ensures that all tokens intended for the airdrop are securely managed within a traceable environment.[21] Through smart contracts, wallets identified during the snapshot receive their allocated tokens seamlessly. For claim-based distributions, participants are notified through official communication channels, with detailed instructions provided to ensure user-friendly access. Throughout the process, the blockchain provides an immutable record of all transactions, reinforcing transparency and accountability.

EVOLUTION OF AIRDROPS

Initially a mechanism to engage users and distribute tokens, airdrops have since evolved into a more complex tool influenced by user expectations, regulatory interpretations, and market behaviors.

Initial Phase: Mass Giveaways (2014–2019):

The initial airdrops were simple mechanisms for distributing tokens to create an initial market and raise awareness about projects.[22] A prime example was the 2014 Aurora Coin distribution in Iceland, aimed at offering cryptocurrency to all Icelandic citizens as a form of universal access.[23] Users were required to actively claim tokens.[24] The Aurora experiment marked the beginning of airdrops as a digital asset distribution strategy, though it was limited in terms of engaging users in a decentralized ecosystem. Subsequent airdrops in this era involved distributions for platform forking (e.g., Zcash in 2018) and community building (e.g., Stellar's XLM in 2016)—essentially focusing on expanding a userbase quickly and less so on meaningful interactions with a protocol.

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[18] *Id.*
[19] *Id.*
[20] *Id.*
[21] *Id.*
[22] *Airdrop Design | Past, Present, & Future*, Rabbit Hole, https://rabbithole.mirror.xyz/dR_dP8rEuTTz1YDAieiEOHJaaYVZMUaJAGOvoyi3_c8 (last visited Nov. 27, 2024).
[23] Daniel Cawrey, *Auroracoin Airdrop: Will Iceland Embrace a National Digital Currency?*, CoinDesk (Mar. 24, 2014), https://www.coindesk.com/markets/2014/03/24/auroracoin-airdrop-will-iceland-embrace-a-national-digital-currency/.
[24] *Id.*

Retroactive and Recurring Airdrops (2020–Present):

The airdrop distribution model became a more strategic tool after the Uniswap airdrop in 2020, marking a pivotal moment in the evolution of airdrops.[25] When Uniswap saw itself vampire attacked by SushiSwap, a Uniswap fork with token incentives for users, Uniswap counteracted with its own token and airdrop. Uniswap rewarded users who had previously engaged with the platform with UNI tokens, which granted governance rights within the ecosystem.[26] This successful, retroactive airdrop illustrated the potential of airdrops to foster decentralized governance, positioning them as both a user reward mechanism and a tool for community engagement.[27]

Following Uniswap's success, airdrops have evolved into rewarding users based on usage of the protocol.[28] These variations encouraged behaviors that directly benefited projects, helping build engaged communities. As an example, the 2021 dYdX airdrop rewarded users who had interacted with the dYdX protocol based on certain trading volume achieved within a specific time frame.[29]

Additionally, projects have begun to experiment with phased or recurring airdrops to allow for feedback on the airdrop design. An example of this is Optimism, which launched its fifth airdrop in November 2024. In this airdrop, the project rewarded users that interacted with at least 20 smart contracts on its Superchain between March 15 to September 15, 2024, and then later evolved to also reward users who interacted frequently with applications across a variety of categories on its Superchain.[30]

However, as airdrops became more popular, they began to produce unintended consequences, such as "farming" behavior, which is a way participants can game the system to extract more tokens from an airdrop.[31] Users began anticipating airdrops and engaging with platforms solely to qualify for future token distributions, often through superficial or minimal interactions.[32] The issue with doing so is that airdrop farmers rarely add long-term value because they instantly stop farming and sell upon claim, rarely engaging with the project afterwards. Interestingly, projects have become savvy, sometimes capitalizing on the farming happening on their protocols to inflate their usage metrics. In general over time, farming behavior has diluted the effectiveness of airdrops promoting organic usage, and instead, users have tried to take advantage of those airdrops to extract as much value as possible.[33]

In response to airdrop farming, projects have counteracted by implementing sybil attack detection procedures prior to determining airdrop distribution, in which certain addresses are blacklisted from airdrop claims. However, farming behaviour has evolved as quickly as sybil attack filtering, leading to a constant cat-and-mouse game between projects and airdrop farmers.

While innovative thinking has largely driven the evolution of airdrop design, the legal landscape in the United States has become one of the most significant influences shaping its trajectory. Projects have faced scrutiny from

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[25] *Crypto Airdrops*, Gemini (Feb. 26, 2025), https://www.gemini.com/cryptopedia/airdrop-crypto-giveaway-uniswap.
[26] *Id.*
[27] *Id.*
[28] *Airdrops and Bounties: Hype-Building Tactics for Icons*, Token Minds (Feb. 20, 2024), https://tokenminds.co/blog/nft-marketing/airdrops-and-bounties.
[29] Nathan van der Heyden, *dYdX Airdrops New Governance Token to 64,000 Users*, Crypto Briefing (Aug. 3, 2021), https://cryptobriefing.com/dydx-airdrops-new-governance-token-to-64000-users/.
[30] Benjamin Reed, *Optimism Airdrop Guide: Maximizing Rewards in a Growing Network*, Medium (Nov. 5, 2024), https://medium.com/@04fyme4jv0/optimism-airdrop-guide-maximizing-rewards-in-a-growing-network-4f0b0356fbd4.
[31] *Airdrop Farming*, Delphi Digital, https://members.delphidigital.io/learn/airdrop-farming (last visited Nov. 22, 2024).
[32] *Id.*; *See Airdrop Design | Past, Present, & Future*, *supra* note 22.
[33] *Airdrop Farming*, *supra* note 31.

regulatory bodies, such as the U.S. Securities and Exchange Commission ("SEC") and the Commodity Futures Trading Commission ("CFTC"), prompting careful consideration of how airdrops are structured to avoid triggering legal pitfalls.

To mitigate the risk of triggering SEC or CFTC actions, projects exclude U.S. users[34] or avoid announcing airdrops in advance, thereby reducing any appearance of soliciting investment, which could otherwise be construed as an effort to create a secondary market that indirectly benefits the issuer. This strategy is bolstered by ensuring that no consideration is received from recipients, either directly or indirectly.

In response to the increasing regulatory pressure, some projects have explored alternative token distribution models. These include Lock Drops, where users lock assets within a protocol in exchange for tokens (the longer it is locked up, the more tokens received),[35] and Dutch Auctions, where tokens are gradually released at a descending price, allowing participants to buy at a price aligned with market demand, ensuring a fair and transparent distribution.[36] These models are designed to navigate the complex regulatory environment, though they remain largely untested in legal settings and could still face scrutiny. Most projects continue to rely on established, lower-risk strategies and are cautious about experimenting with novel, legally untested models, as they could lead to regulatory challenges.

Ultimately, the evolution of airdrops demonstrates a balancing act between innovation and compliance. As projects strive to engage users and reward loyal participants, they must also navigate a regulatory landscape that treats many of these strategies as potential securities transactions. This often leads to market distortions and perverse incentives, obscuring the full potential of airdrops and how they could continue to evolve organically.

[34] Press Release, Financial Services Committee, McHenry, Emmer Call for Clarity on Digital Asset Airdrops (Sept. 18, 2024), https://financialservices.house.gov/news/documentsingle.aspx?DocumentID=409377#:~:text=%E2%80%9CGiven%20the%20SEC's%20unwillingness%20to,otherwise%20contributing%20to%20its%20development.

[35] *What are crypto lockdrops and how do they compare to airdrops?*, Coinbase, https://www.coinbase.com/learn/advanced-trading/what-are-crypto-lockdrops-and-how-do-they-compare-to-airdrops (last visited Nov. 25, 2024).

[36] Silvia Zhang, *Dutch Auction: What is it? How does it work in the world of Cryptocurrency?*, Phemex (May 11, 2023), https://phemex.com/blogs/dutch-auction-what-is-it-how-does-it-work-in-the-world-of-cryptocurrency.

II. Current U.S. Regulatory Environment

The cryptocurrency sector in the United States is at a critical juncture, facing intense regulatory scrutiny that risks stifling innovation and driving promising projects offshore. Recent enforcement actions by the SEC and the CFTC underscore a shift towards "regulation by enforcement," where agencies apply penalties and lawsuits on individual projects to create regulatory standards rather than establishing clear, consistent rules. This approach, specifically by the SEC, bypasses formal rulemaking requirements and constitutes a blatant overreach through de facto regulation of a pivotal emerging technology that was neither contemplated nor addressed in the original securities laws of 1933 and 1934.[37]

This strategy has introduced significant uncertainty and risk, creating a chilling effect on innovation and driving numerous crypto projects and companies offshore in search of clearer regulatory frameworks. This climate of uncertainty complicates compliance for startups and established firms alike, forcing many to seek more favorable regulatory environments abroad, and raising questions about the long-term legitimacy and transparency of U.S. regulatory practices in this space.

IS CRYPTO A SECURITY, A COMMODITY, OR SOMETHING ELSE – THE *HOWEY* TEST

The Securities Act of 1933 (the "Securities Act") and the Securities Exchange Act of 1934 (the "Exchange Act") grant the SEC authority to regulate "securities," a term broadly defined in both statutes through a detailed list of categories, including stock, bonds, warrants and "investment contracts."[38] Notably, terms like "token," "cryptocurrency," and "digital asset" do not appear within this definition. As a result, the SEC has sought to classify these assets as "investment contracts" through its application of the four prong *Howey* test.

The *Howey* test, originating from the 1946 Supreme Court case *SEC v. W.J. Howey Co.*, is the primary standard used to determine whether a transaction qualifies as an "investment contract" and thereby subject to U.S. securities laws.[39] For an asset to be considered an investment contract, it must involve: (1) an investment of money, (2) in a common enterprise, (3) with an expectation of profits, (4) derived primarily from the efforts of others.[40] Yet applying *Howey* to crypto assets raises new and complex issues, as the test was originally intended to regulate traditional securities, which are typically centralized and reliant on identifiable entities with obligations to investors.[41]

Crypto assets themselves often lack the fundamental characteristics of securities.[42] For a transaction to qualify as a security under *Howey*, it is the specific transaction's structure and context—such as an ICO, where capital is raised and profits are promised—that matters, rather than the underlying asset itself.[43] In contrast, many tokens in secondary markets do not establish the necessary legal relationship between an identifiable issuer and individual

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[37] *See generally* Unopposed Motion for Leave to File Andreessen Horowitz, Multicoin Capital, Paradigm, Union Square Ventures, and Variant's Amicus Curiae Brief in Support of Plaintiffs' Opposition to Defendants' Motion to Dismiss, Beba LLC v. SEC, 6:24-cv-00153-ADA-DTG (W.D. Tex. Oct. 28, 2024).

[38] *Security*, Legal Info. Inst., https://www.law.cornell.edu/wex/security#:~:text=The%20primary%20definitions%20from%20the,the%20test%20to%20be%20used (last visited Nov. 20, 2024).

[39] SEC v. W.J. Howey Co., 328 U.S. 293 (1946).

[40] *Id.*

[41] Lewis R. Cohen et al., The Ineluctable Modality of Securities Law: Why Fungible Crypto Assets Are Not Securities (2022).

[42] *Id.*

[43] *Id.*

token holder, a critical feature that distinguishes securities from other assets.[44] Moreover, crypto tokens often do not promise or imply profits tied to ongoing management or entrepreneurial efforts. Thus, broadly treating crypto tokens as securities could necessitate an entirely new concept within securities law: "issuer-independent securities," which is currently unsupported by any existing legal precedent.[45]

The regulatory ambiguity surrounding crypto airdrops and token classifications highlights a significant challenge for the crypto industry: the inability to "just come in and register."[46] Existing U.S. securities laws were designed for centralized assets like stocks and bonds, issued by identifiable entities with ongoing obligations to investors, making traditional registration requirements a poor fit for decentralized, utility-focused tokens. These laws do not account for the wide variety of token types—stablecoins, governance tokens, and utility tokens—each serving distinct roles within their ecosystems. For example, utility tokens may grant access to services, while governance tokens allow holders to participate in decentralized decision-making. Unlike traditional securities, these tokens are not typically issued with promises of profit or direct financial return, challenging the assumption that a digital asset is inherently an investment contract and thus a security.

The diversity of distribution models in the crypto space further complicates the regulatory landscape. Unlike traditional assets issued through a single, centralized entity, crypto tokens are distributed through methods such as mining, forking, airdropping, and ICOs, each of which varies significantly in structure and purpose.[47] Mining, for instance, generates tokens as rewards for network participants rather than through a capital-raising investment scheme. Forking splits an existing blockchain to create a new token that is freely distributed to holders, and airdrops involve giving away tokens to expand network adoption rather than to fundraise.[48] These models generally do not meet the "investment of money" and "expectation of profit from the efforts of others" criteria under the *Howey* test, challenging the assumption that tokens are inherently securities based solely on their issuance.

The real issue lies in the nature of the transaction, not the token itself. The *Howey* test, used to determine what constitutes an investment contract, focuses on the circumstances of the transaction—the promises, relationships, and expectations between the parties involved—rather than the asset alone.[49] For example, if a token is sold to finance a project under an investment scheme, it could be treated as a security. But the same token, when later traded freely on a secondary market without any accompanying contractual promises or obligations, does not inherently become a security. This distinction reflects the core legal principle that it's the transaction, not the asset, that defines whether an investment contract exists. Much like the orange grove in the landmark *Howey* case,[50] the asset itself (the token in this case) is not an investment contract simply by virtue of being sold. The circumstances and nature of the transaction determine whether or not the transaction itself qualifies as an investment contract under *Howey*.

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[44] *Id.*

[45] *Id.*

[46] The SEC's insistence that projects "come in and register" ignores the reality that many decentralized projects lack a central issuer or entity capable of fulfilling traditional disclosure and compliance obligations. Tokens often operate as functional components within global, open-source networks, making them incompatible with frameworks built for centralized issuers.

[47] Benjamin Van Adrichem, H*owey Should Be Distributing New Cryptocurrencies: Applying the Howey Test to Mining, Airdropping, Forking, and Initial Coin Offerings*, 20 Colum. Sci. & Tech. L. Rev. 388 (2019).

[48] *Id.*

[49] Cohen, *supra* note 41.

[50] The *Howey* case involved the sale of Florida orange grove land, where buyers weren't just purchasing the land but also relying on Howey's efforts to cultivate oranges and generate profits. This combination of selling a notional asset (land) and offering services to create value constituted a security under U.S. law.

In this context, traditional registration is impractical. Crypto companies often face the dilemma of either attempting to structure products to avoid triggering securities laws, with considerable legal uncertainty and costs, or restricting the U.S. entirely to sidestep regulatory issues. Registering as a security would impose disproportionately high compliance burdens, as the existing framework demands that each token transaction be treated as a securities sale. This requirement is not only unfeasible for lean crypto startups operating decentralized networks but also fails to align with the nature of blockchain ecosystems, where the role of tokens frequently diverges from traditional securities. The current regulatory framework does not account for the fact that the function and distribution of tokens in blockchain ecosystems are highly diverse, often serving as tools within a network rather than investment vehicles. As a result, a clear, updated regulatory approach is essential—one that distinguishes between capital-raising transactions (where securities law may apply), secondary market token transactions, airdrops, mining, etc. – all of which should be treated differently.

As we navigate the intricate landscape of cryptocurrency regulations, it's clear that distinguishing between different types of crypto activities is paramount. This differentiation is particularly crucial when considering airdrops, which have unique characteristics that set them apart from traditional securities offerings.

Airdrops are More Akin to These Paradigms

Crypto airdrops are more akin to (i) loyalty programs or (ii) membership systems rather than traditional securities or stock distributions. Loyalty programs are designed to incentivize customer retention and reward customers for their repeat purchases or ongoing engagement with a brand. Such programs include airline frequent flyer programs or credit card rewards. Membership programs, on the other hand, typically offer exclusive benefits such as access to private events, discounts, or premium features, focusing on creating a sense of belonging and exclusivity for participants. Despite these functional distinctions, the SEC often evaluates airdrops under the "free" stock cases framework,[51] treating them as free stock distributions and subjecting them to securities regulations. This regulatory approach fails to account for the unique nature of airdrops, which are better analogized to mechanisms aimed at fostering engagement and building community rather than serving as equity distributions.

i. Loyalty Programs

Frequent flyer miles and credit card points, like crypto airdrops, are stored value programs that incentivize user loyalty and engagement. Miles and points, redeemable for flights, upgrades, or dining, encourage user loyalty to a specific brand, much like airdrops utilize tokens as a means to reward loyalty or encourage involvement with a platform. Both approaches prioritize engagement and ecosystem growth and neither serve the underlying purpose of providing investment returns.

Companies routinely offer loyalty programs, such as airline miles or credit card points, without triggering the *Howey* test. Notably, the SEC has not pursued enforcement actions against credit card points or airline miles, further underscoring their nature as consumer incentives rather than investment vehicles. Credit card points fall under the purview of the Consumer Financial Protection Bureau ("CFPB") and the Department of Transportation

[51] Gina Conheady & Christian Munoz, *Airdrops: Are Free Tokens Free From Regulation?*, Bloomberg L. (June 4, 2018), https://www.bloomberglaw.com/external/document/X3SPR1KG000000/capital-markets-professional-perspective-airdrops-are-free-token.

("DOT") if applicable to airlines.[52] Consequently, there is a strong argument to be made that airdrops should not be treated differently from these well-established loyalty programs, which companies routinely employ to build loyalty and drive participation.

While tokens differ from points and miles in that they have a secondary market and can be used in governance, it's important to consider that the mere existence of a secondary market does not inherently classify tokens as investments. Much like gift cards, which can also be sold or traded, the transferability of tokens primarily serves to enhance consumer utility and flexibility rather than signify investment intent. Moreover, allowing token holders to participate in governance is akin to membership in a customer advisory board or club with voting rights, which does not convert these tokens into securities but rather facilitates greater user engagement and community input. The core purpose of token airdrops, much like traditional loyalty programs, is to incentivize usage and loyalty to a platform. Regulatory precedents around similar functionalities support this interpretation, underscoring the need to treat airdrops as extensions of consumer loyalty strategies.

Credit cards such as the Chase Sapphire Preferred exemplify this model by offering points that are redeemable within a flexible reward incentive structure, driving repeat usage.[53] In this model, points accrued can be utilized within the Chase ecosystem for a variety of services and products, or they can be transferred to numerous partners.[54] This flexibility allows cardholders to maximize the utility and potential value of their points by choosing from a wide array of redemption options, including different airlines and hotel chains, thus catering to a broader set of preferences and needs. Similarly, Aave's Merit program mirrors a loyalty program by rewarding users with token distributions based on their meaningful contributions to the protocol, such as governance participation or liquidity provisions.[55] These tokens function like points, creating an open-loop incentive structure that encourages ongoing engagement and strengthens user commitment to the platform but at the same time, allowing users to transfer their points to take advantage of a better deal. Despite regulatory frameworks that often conflate airdrops with securities, their true alignment lies closer to loyalty programs, as both distribute value primarily to enhance engagement rather than provide financial returns.

For tokens with stable values, such as stablecoins, the analogy becomes even stronger. Just as loyalty programs reward users with points for referring friends, airdrops similarly incentivize user acquisition and ecosystem participation. These mechanisms are not about speculation but about building a foundation for long-term engagement.

Ultimately, loyalty programs and crypto airdrops share a core principle: using value distribution to deepen user participation, foster community growth, and enhance ecosystem sustainability. Both demonstrate how incentives, when aligned with utility, can drive meaningful engagement without relying on speculative investment dynamics.

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[52] Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 Pub. L. No. 111-203 Stat. 1376. & Kristen E. Larson, *CFPB and DoT host joint hearing on airline and credit card rewards programs; CFPB releases report on credit card rewards complaints*, Ballard Spahr LLP (May 13, 2024), https://www.consumerfinancemonitor.com/2024/05/13/cfpb-and-dot-host-joint-hearing-on-airline-and-credit-card-rewards-programs-cfpb-releases-report-on-credit-card-rewards-complaints/.

[53] *Chase Sapphire Preferred® Credit Card*, Chase, https://creditcards.chase.com/rewards-credit-cards/sapphire/preferred (last visited Jan. 23, 2025).

[54] *Chase Transfer Partners: Everything You Need to Know*, Chase, https://www.chase.com/personal/credit-cards/education/basics/chase-transfer-partners-everything-you-need-to-know (last visited Feb. 18, 2025).

[55] Harsh Notariya, *How Aave Plans to Reward Loyalty and Outpace Rivals Through Merit Airdrop*, Be in Crypto (Mar. 20, 2024), https://beincrypto.com/aave-airdrop-program-outpace-competitors/?utm_source=chatgpt.com.

ii. Memberships

Membership programs, whether in traditional industries or digital ecosystems, are designed to foster loyalty and engagement by offering exclusive, utility-driven benefits. For example, NFL fan memberships grant privileges like priority ticket access, discounts on team merchandise, VIP event invitations, and behind-the-scenes content, creating a sense of community and deepening ties to the team's ecosystem.[56] These rewards derive their value from their direct connection to the platform, rather than from external resale opportunities. Notably, the SEC has confirmed that such membership programs, like the LA Fan Club for Rams fans, fall outside the scope of the Securities Act and the Exchange Act.[57] In a no-action letter, the SEC clarified that these memberships are purchased for recreational use and consumption, not as investments with an expectation of profit, further distinguishing them from securities.[58]

Similarly, airdrops in the cryptocurrency space serve a comparable purpose. The Stargate Finance airdrop, for instance, rewarded active participants with free tokens that could be used within its ecosystem.[59] This strategy not only incentivized engagement and loyalty but also supported the growth of new projects within the platform. Both examples highlight the intrinsic value of rewards designed to reinforce participation and commitment within a specific ecosystem, prioritizing utility and community engagement over external financial returns.

WHY AIRDROPS DO NOT QUALIFY AS SECURITIES TRANSACTIONS UNDER *HOWEY*

Airdrops should not be classified as securities transactions. The SEC has adopted the position that airdropped tokens constitute investment contracts—and therefore unregistered securities—a stance reflected in numerous enforcement actions and informal guidance detailed later in this report.[60] However, unlike traditional securities offerings designed for capital-raising, airdrops are usually intended to promote network engagement by distributing tokens for free.[61] Therefore, applying securities laws to airdrops mischaracterizes their purpose and places unnecessary regulatory burdens on many blockchain projects.

Under the *Howey* test, airdrops fail to meet key criteria:

1. **No Investment of Money ("Prong 1"):** A core element of the *Howey* test is an "investment of money" with the intention of generating income or profit, thereby establishing a direct link between the funds invested and the anticipated returns.[62] However, in the case of airdrops, tokens are distributed without any requirement for recipients to provide financial consideration. Minimal actions, such as registering an account, do not constitute a financial investment, aligning airdrops more closely with promotional activities than securities transactions.
2. **Lack of a Common Enterprise ("Prong 2"):** For an arrangement to qualify as a security, it must involve a "common enterprise," which requires a shared financial relationship among participants and a pooling of

[56] Steve Quinlivan, *SEC Confirms Sales of NFL Fan Memberships Fall Outside of Securities Act*, Stinson (June 30, 2017), https://www.dodd-frank.com/2017/06/sec-confirms-sales-of-nfl-fan-memberships-fall-outside-of-securities-act/.
[57] *Id.*
[58] *Response of the Office of Chief Counsel Division of Corporation Finance*, SEC (June 28, 2017), https://www.sec.gov/divisions/corpfin/cf-noaction/2017/la-fan-club-062817-2a1.htm.
[59] $STG Airdrop, *Claim Stargate Finance Airdrops: The Ultimate Guide*, Medium (July 5, 2024), https://medium.com/@nuscliderra1973/claim-stargate-finance-airdrops-the-ultimate-guide-3a97895f8f0c.
[60] SEC, Statement, Statement on "Framework for 'Investment Contract' Analysis of Digital Assets" (Apr. 3, 2019), https://www.sec.gov/about/divisions-offices/division-corporation-finance/framework-investment-contract-analysis-digital-assets; Press Release, SEC, SEC Bars Perpetrator of Initial Coin Offering Fraud (Aug. 14, 2018), https://www.sec.gov/newsroom/press-releases/2018-152.
[61] Adrichem, *supra* note 47.
[62] SEC v. W.J. Howey Co., 328 U.S. 293 (1946).

financial resources among participants. This can manifest as either horizontal commonality—where investors pool their resources into a single venture, tying their fortunes to one another[63]—or vertical commonality—where an investor's financial success is directly linked to the efforts or success of the promoter or issuer.[64] Airdrops, however, distribute tokens independently, with no pooled financial interest or interdependent risk among recipients, thereby lacking the common enterprise element. Regarding horizontal commonality, airdrops distribute tokens directly to individual recipients without requiring any contribution of funds, effort, or resources from the recipients. There is no pooling of assets or shared risk, as each recipient's fortunes remain entirely independent of others. For vertical commonality, there is no investment by the recipient as they don't pay any money so there can't be any dependence upon the promoter given there is no investment in the first place.

3. **No Expectation of Profits ("Prong 3"):** Securities typically imply an expectation of profit derived from the promoter's or a third party's efforts. In contrast, airdropped tokens are often intended for consumptive use within a platform and not investment purposes. Tokens may grant users access to platform-specific features for participation purposes, such as voting on governance proposals or paying for services. While some recipients may choose to sell them, any potential profit stems from market forces rather than the issuer's active promotion, eliminating this criterion of the *Howey* test.
4. **Non-Reliance on Issuer's Efforts ("Prong 4"):** Recipients of airdropped tokens are not reliant on the issuer's actions to increase token value. Unlike securities, which often depend on ongoing management to maintain or increase value, airdropped tokens fluctuate based on external market factors, further distinguishing them from securities. Additionally, any efforts that do arise come solely from the individuals receiving the airdropped tokens, rather than from the platform or project itself.

DIFFERENTIATING PAST PRECEDENTS FROM MODERN DAY AIRDROPS

"Free" Stock Cases of the 1990s/2000s

In the legal debate over whether airdrops qualify as securities, it's essential to distinguish them from the "free" stock cases of the late 1990s and early 2000s during the "Dot.com" bubble. Back then, the SEC targeted internet companies that distributed stock to attract web traffic, deeming these giveaways unlawful "sales" of securities since they weren't registered or exempt.[65] These were free distributions that were done with the clear intent of generating profits for the promoters and done to benefit the issuers financially. These companies were often engaged in deceptive practices, using the allure of free stock to swindle investors into providing personal information or actively promoting the ventures, a practice that was eventually curtailed by stringent SEC enforcement actions.[66] Additionally, the securities were expected to be sold on the secondary market indicating the free securities were investments.

The SEC's analysis determined that these were not genuine giveaways but transactions where stock was exchanged for value.[67] Companies received significant benefits from recipients who effectively served as

[63] Hart v. Pulte Homes of Michigan Corp., 735 F.2d 1001, 1004 (6th Cir. 1984); Salcer v. Merrill Lynch, Pierce, Fenner & Smith, Inc., 682 F.2d 459, 460 (3d Cir. 1982); Milnarik v. M-S Commodities, Inc., 457 F.2d 274, 276 (7th Cir.).

[64] There are two types of vertical commonality: 'broad vertical commonality' and 'strict vertical commonality'. For 'broad vertical commonality', you need to link investors' fortunes to the promoter's *efforts*. *See* Long v. Shultz Cattle Co., Inc., 881 F.2d 129, 140-41 (5th Cir. 1989). For 'strict vertical commonality', you need to establish that investors' fortunes are linked to the promoter's *fortunes*. *See* Brodt v. Bache & Co., Inc., 595 F.2d 459, 461 (9th Cir. 1978).

[65] David A. Westenberg, *SEC Cracks Down on Internet Stock Giveaways*, WilmerHale (Oct. 12, 1999), https://www.wilmerhale.com/en/insights/publications/sec-cracks-down-on-internet-stock-giveaways-october-12-1999.

[66] Bridgett S. Bauer Esq., *Airdrops: "Free" Tokens Are Not Free From Regulatory Compliance*, 28 U. Miami Bus. L. Rev. 311, 346 (2020).

[67] *Id.* at 347.

marketing agents by referring new users or drawing public attention to the companies.[68] This deemed the transactions as "sales" of securities because there was an exchange of value under the Securities Act.[69]

There are several key differences between airdrops of tokens and the "free" stock cases in terms of determining whether there was an exchange of value:

- **No Quid Pro Quo:** With the "free" stock promotions explicitly promising rewards, users referred others in exchange for shares, leading to widespread spam-driven dissemination. In contrast, crypto airdrops often lack such quid pro quo; many recipients are rewarded simply for being active participants, without prior knowledge that their engagement would lead to token distribution. Without a quid pro quo, there can be no exchange of something of value.
- **Lack of Consideration:** In the "free" stock cases, the consideration given by participants included personal data such as email addresses and Social Security numbers, which held inherent value as they could be used for targeted marketing and other monetization strategies by issuers. It's logical that such personal data could be considered "consideration" under securities laws because it provided economic value to the issuers. Contrastingly, in airdrops, the only requirement from participants is a public wallet address. These addresses do not hold the same value because:

    1. **Publicly Available Information**: Public wallet addresses are already accessible on the blockchain, making them readily available to anyone. Their public nature means they do not offer exclusive value to the issuers of the airdrop.
    2. **No Personally Identifiable Information**: Unlike emails or Social Security numbers, public wallet addresses should not be classified as personally identifiable information from a securities law perspective. They do not provide a direct way to identify, contact, or locate an individual, thus reducing their utility for purposes beyond transaction verification on the blockchain.

    Given these characteristics, public wallet addresses do not constitute valuable consideration under securities laws.

- **Independent Utility of Tokens**: Tokens differ significantly from stocks in both function and purpose. While the value of stocks is primarily driven by market performance and corporate management, tokens often possess inherent utility that transcends speculative purposes. For instance, tokens can provide immediate, tangible benefits such as platform access and participation. This utility is integral to the tokens' design and purpose, underscoring that their primary intent is not resale on secondary markets. Consequently, tokens should not be viewed through the same legal lens as stocks, as their primary value and use are fundamentally different.

Thus, while free stocks and airdrops can both be promotional tools used by entities to expand their user base or reward loyalty, the fundamental legal interpretations of these mechanisms differ significantly based on the investment of money and the expectation of profits, which are usually not directly applicable to cryptocurrency airdrops.

Morrison Extraterritoriality: Offshore Transactions Should Not Be Under SEC Purview

The 2010 U.S. Supreme Court ruling in *Morrison v. National Australia Bank* fundamentally redefined the reach of U.S. securities laws, limiting their application to transactions within the United States.[70] The ruling established

[68] *Id.*
[69] *Id.*
[70] Morrison v. National Australia Bank*,* 561 U.S. 247 (2010).

what is commonly referred to as the "transactional test," which limits the extraterritorial reach of U.S. securities laws.[71] Specifically, the Court ruled that Section 10(b) of the Exchange Act applies only to transactions in securities listed on domestic exchanges and domestic transactions in other securities.[72] This precedent is particularly relevant to the practice of distributing cryptocurrency airdrops, which are often global in nature and not confined to U.S. jurisdiction.

Cryptocurrency airdrops typically involve the distribution of digital tokens to a broad array of international recipients, often without any monetary exchange. These distributions do not necessarily involve U.S. markets unless the tokens are subsequently traded on U.S. exchanges. Even then, the original act of airdropping tokens to non-U.S. recipients—where the recipients do not engage in transactions on U.S. soil—falls outside the scope defined by *Morrison*.

Given these factors, imposing U.S. securities laws on offshore airdrops would not only exceed the territorial limitations set forth by *Morrison* but would also mischaracterize the nature of these transactions under the securities law framework. Thus, the argument that offshore airdrops should not be subject to U.S. securities law is both legally supported by the *Morrison* decision and logically consistent with the principles underlying the regulation of securities.

HISTORY OF REGULATION BY ENFORCEMENT AND ITS IMPACT ON AIRDROPS AND THE CRYPTO INDUSTRY

The history of regulation by enforcement in the U.S. crypto industry reveals a patchwork approach to regulation that has created significant confusion and contradictions, particularly around airdrops and token classifications. The following section delves into how the fluctuating enforcement of regulations and shifting interpretations of securities laws have created an uncertain and sometimes contradictory regulatory environment for crypto projects dealing with airdrops.

See here for a Comprehensive Overview of Crypto Regulation by Enforcement (2008–2025).

Pre-2017: *The Dawn of Agency Scrutiny and Enforcements Against Initial Coin Offerings*

Initially, regulatory bodies like the SEC and CFTC took a hands-off approach as the crypto industry began to evolve. It wasn't until the proliferation of ICOs and the increasing visibility of cryptocurrencies that the SEC began to signal its regulatory intentions.

SEC's DAO Report

The SEC's DAO Report in 2017 marked the SEC's first major regulatory action in the crypto space.[73] By applying the *Howey* test to tokens distributed by a decentralized autonomous organization ("DAO"), the SEC underscored that many such tokens could be considered securities.[74] The report served as the SEC's "line in the sand," formally putting the digital asset industry on notice that participants needed to comply with U.S. securities laws, regardless of whether firms were based in the United States or abroad.[75] Instead of providing a clear regulatory framework, the SEC adopted an enforcement-led approach, evaluating token sales on their structure and the

[71] *Id.*
[72] *Id.*
[73] *Report of Investigation Pursuant to Section 21(a) of the Securities Exchange Act of 1934: The DAO*, SEC (July 25, 2017), https://www.sec.gov/files/litigation/investreport/34-81207.pdf.
[74] *Id.*
[75] *Id.*

expectations set for investors. This approach increased regulatory uncertainty, particularly affecting companies using airdrops, as they had to carefully navigate these evolving and unclear standards.

2018 to 2020: The Beginning of Regulation by Enforcement

Tomahawk – "Free" Token Distribution Case

The real turning point for airdrops came with the SEC's action against Tomahawk Exploration LLC in August 2018.[76] In this case, the SEC argued that tokens distributed through a bounty program could violate securities laws if those tokens qualified as securities under the *Howey* test.[77] Tomahawk's "Tomahawkcoins" were given to recipients who provided promotional services, which the SEC viewed as a form of "sale" under Section 5 of the Securities Act, even though no money changed hands and were "free" token distributions.[78] The SEC classified even free token distributions as potentially creating securities if they benefited the issuer in a way that were measurable—such as increased visibility, market interest, or network participation—that could be quantified as a form of value.[79] This case served as a warning that the SEC was closely scrutinizing U.S.-based bounty programs and similar airdrop activities, highlighting the risk that even free distributions could be considered securities offerings if they were tied to promotional efforts expected to increase their value.

SEC's Framework for Investment Contract

Then, in April 2019, in its first direct mention of airdrops, the SEC issued non-binding guidance called the *Framework for 'Investment Contract' Analysis of Digital Assets* (the "Framework").[80] This Framework aimed to clarify how digital assets might be classified as securities under the *Howey* test. However, it left substantial gray areas—such as what exactly constituted "ongoing managerial efforts" (Prong 4) and when a token might shift from a security to a non-security through "sufficient decentralization," failing to address how tokens may initially function as securities but could become non-securities as they achieve greater decentralization or utility.[81]

Specifically for airdrops, the Framework suggested that even "free" token distributions could be treated as securities offerings if they served to promote an ecosystem's economic interests, placing many promotional activities under regulatory scrutiny.[82] Although the framework provided no specific guidance on airdrops, projects promoting the adoption of digital asset networks through airdrops started evaluating whether the actions necessary for third parties to receive and claim the assets could be considered an "investment of money" under the Howey test.[83]

While the Framework offered some useful guidance, it also introduced a complex, fact-specific analysis for issuers and platforms, blurring the line between securities and commodities in the digital asset space.[84] This

[76] SEC Bars Perpetrator of Initial Coin Offering Fraud, *supra* note 60.
[77] *Id.*
[78] *Id.*
[79] *Id.*; *See* Press Release, SEC, SEC Brings First Actions To Halt Unregistered Online Offerings of So-Called "Free Stock" (July 22, 1999), https://www.sec.gov/news/press/pressarchive/1999/99-83.txt. (This case referenced the "free stock cases," where courts ruled that stocks given away for free could still be securities if they conferred benefits to the issuer, such as increasing the shareholder count to qualify for exchange listing).
[80] Statement on Framework for 'Investment Contract' Analysis of Digital Assets, *supra* note 60.
[81] Neil Tiwari, *The Commodification of Cryptocurrency*, 117 Mich. L. Rev. 611 (2018).
[82] *Id.*
[83] *SEC Gives Guidance on Securities Analysis for Digital Assets*, Proskauer (Apr. 25, 2019), https://www.proskauer.com/alert/sec-gives-guidance-on-securities-analysis-for-digital-assets.
[84] Hamdee Khader, *The Inadequacy of Current Digital Asset Statutes and Why A Large Subset of Digital Assets Are Not Securities*, 23.1 UIC Rev. Intell. Prop. L. 359 (2024).

ambiguity led to a rise of enforcement actions, in which legitimate projects faced heightened scrutiny while trying to comply with the SEC's evolving and ambiguous standards.[85]

SEC's Actions Against Kik, Telegram. and Ripple

Although these next cases do not directly involve airdrops, their substantial impact on the broader cryptocurrency market indirectly shaped airdrop strategies. From 2019 to 2020, the SEC significantly shifted its regulatory focus, targeting major platforms by bringing enforcement actions against Kik, Telegram, and Ripple, thereby deepening the attention on a market previously characterized by regulatory ambiguity. In these cases, the SEC successfully halted Telegram's $1.7 billion ICO[86] and Kik's $100 million ICO,[87] arguing that the tokens involved constituted unregistered securities. The courts sided with the SEC, affirming that these token offerings were, in essence, investment contracts and thus subject to federal securities laws. Additionally, both cases underscored the SEC's reach over foreign token sales that could lead to U.S. resales, broadening the applicability of U.S. securities regulations internationally. *Kik* and *Telegram* sent a clear message that token offerings linked to ecosystem developments would likely be classified as securities. The lawsuit against Ripple Labs alleging that its sale of XRP tokens constituted an unregistered securities offering further accentuated these regulatory uncertainties, causing major exchanges to delist XRP and thereby exacerbating market volatility.[88]

The SEC's aggressive actions against Kik, Telegram, and Ripple profoundly influenced the cryptocurrency market, reshaping airdrop strategies significantly. In these enforcement actions the SEC had extensive readiness to classify token offerings as unregistered securities. As the SEC intensified its scrutiny, projects utilizing airdrops had to carefully consider the implications of how and why tokens were distributed to avoid similar legal challenges. The regulatory ambiguity left by the SEC's actions and guidelines meant that airdrops, traditionally seen as a benign method of boosting user engagement and network participation, now required a meticulous assessment of whether any part of the airdrop process could be interpreted as an "investment of money" under the *Howey* test. This included evaluating whether the steps participants took to receive airdrops could be considered an investment of effort that might expect a return, influenced by the ongoing efforts of the token issuers.

Thus, the aftermath of the SEC's high-profile cases muddied the waters for airdrops by expanding what could potentially be deemed a security. This regulatory environment pressured airdrop strategies to evolve in more cautious and legally nuanced ways, such as blocking U.S. user's eligibility to participate in airdrops. Projects had to navigate these murky waters, adapting their airdrop strategies to minimize legal risks while trying to achieve their promotional and network growth objectives under the looming shadow of potential SEC enforcement.

2021 to 2022: Adapting to Ambiguity and Direct Attacks to Airdrops

Blocking U.S. Users and the Use of VPNs

By 2021, the regulatory environment for crypto tightened as the CFTC and the SEC escalated legal actions against unregistered offshore exchanges offering crypto derivatives. Both agencies signaled that, under U.S. law,

[85] Tiwari, *supra* note 81.

[86] Press Release, SEC, SEC Halts Alleged $1.7 Billion Unregistered Digital Token Offering (Oct. 11, 2019) https://www.sec.gov/newsroom/press-releases/2019-212.

[87] Press Release, SEC, SEC Charges Issuer With Conducting $100 Million Unregistered ICO (June 4, 2019), https://www.sec.gov/newsroom/press-releases/2019-87#:~:text=The%20Securities%20and%20Exchange%20Commission,by%20the%20U.S.%20securities%20laws.

[88] Press Release, SEC, SEC Charges Ripple and Two Executives with Conducting $1.3 Billion Unregistered Securities Offering (Dec. 22, 2020), https://www.sec.gov/newsroom/press-releases/2020-338.

trading on these platforms was illegal for American-based users due to the heightened risks and lack of investor protections.[89] Under mounting regulatory pressure, major offshore exchanges like FTX and Binance announced measures to bar U.S. traders, including mandatory Know Your Customer ("KYC") checks, IP address blocking, and geolocation filters designed to prevent Americans from accessing their sites.[90]

However, despite these restrictions, many U.S. traders continued to trade on platforms like FTX and Binance by bypassing these barriers.[91] Left with no other option, American traders began to use virtual private networks ("VPNs") to mask their locations and, in some cases, provided misleading information during KYC verification. Minimal verification requirements on some platforms—such as a simple email address and a self-reported country—created exploitable loopholes. However, such workarounds did not go unnoticed by regulators.

This period also marked a shift in how airdrops were conducted. Following Uniswap's significant token distribution on September 16, 2020[92]—the last of the major un-geoblocked airdrops—subsequent projects began increasingly to employ geoblocking tactics to exclude U.S. participants. This move towards compliance is illustrated by airdrops like 1inch on December 25, 2020,[93] dYdX on September 8, 2021,[94] and ENS on November 9, 2021.[95] These instances illustrate how crypto projects were evolving their strategies to navigate complex international regulations and remain compliant with U.S. securities laws, emphasizing legal safety in a fluctuating regulatory landscape.

Gary Gensler Sworn in as Chairman of the SEC

The tension between U.S. regulatory agencies and crypto companies escalated significantly when Gary Gensler was sworn in as SEC Chairman on April 19, 2021.[96] Previously known for his positive outlook on cryptocurrency during his tenure at MIT,[97] Gensler shifted his stance dramatically upon assuming office.[98] He began describing the crypto industry as the "Wild West," advocating for stricter oversight and frequently warning that many tokens might be classified as unregistered securities.[99] By 2022, Gensler's approach had hardened further, asserting that "the vast majority" of the nearly 10,000 tokens in the market were likely securities.[100] Disappointed by the slow legislative response from Congress, Gensler aggressively pursued a "regulation-by-enforcement" strategy,

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[89] Alexander Osipovich, *U.S. Crypto Traders Evade Offshore Exchange Bans*, WSJ (July 30, 2021), https://www.wsj.com/articles/u-s-crypto-traders-evade-offshore-exchange-bans-11627637401.

[90] *Id.*

[91] Geotagging Crypto Derivatives Traders with NLP, Inca Digit., https://inca.digital/intelligence/geotagging-crypto-traders/ (last visited Nov. 22, 2024).

[92] Kodzilla, *LIST | A Look at the Top 10 Biggest Airdrops in Crypto History*, BitKE (Sept. 29, 2024), https://bitcoinke.io/2024/09/the-top-10-biggest-airdrops-in-crypto-history/.

[93] 1inch Airdrop, dropsearn, https://dropsearn.com/events/1inch-airdrop/ (last visited Feb. 18, 2025).

[94] Kodzilla, *supra* note 92.

[95] Zoltan Vardai, *What is ENS (Ethereum Name Service) and how does it work?*, forkast (Dec. 9, 2021), https://forkast.news/what-is-ens-ethereum-name-service-how-does-it-work/#:~:text=The%20ENS%20DAO%20has%20also,of%20the%20future%20crypto%20space.

[96] Press Release, SEC, Gary Gensler Sworn in as Member of the SEC (Apr. 17, 2021), https://www.sec.gov/newsroom/press-releases/2021-65.

[97] Sam Lyman, *The Story Behind Gary Gensler's SEC Strategy*, Forbes (June 18, 2023), https://www.forbes.com/sites/digital-assets/2023/06/18/the-story-behind-gary-genslers-sec-strategy/.

[98] Sam Lyman, *From Ally To Adversary: The 3 Stages Of Gary Gensler's Crypto Evolution*, Forbes (July 3, 2020), https://www.forbes.com/sites/digital-assets/2023/07/02/from-ally-to-adversary-the-3-stages-of-gary-genslers-crypto-evolution/.

[99] *Id.*

[100] *Id.*

issuing Wells Notices and initiating lawsuits against major exchanges like Binance and Coinbase, which sent shock waves throughout the industry.[101]

Hydrogen – Airdrop Case

In *SEC v. Hydrogen Technology Corp.* (September 2022), the SEC argued that token distributions via airdrops, bounty programs, and employee compensation, could qualify as unregistered securities offerings, broadening the reach of securities laws to include non-monetary distributions.[102] Specifically, the SEC argued that these methods created an "investment of money" (Prong 1 under the *Howey* test) because airdrop recipients often had to claim tokens actively, sometimes paying gas fees, which implied a financial commitment.[103] This evolving interpretation suggested that traditional notions of "free" airdrops were outdated, with the SEC viewing them as free claims requiring active user participation and potential financial outlay. Ambiguities in the complaint's drafting raised questions about whether the SEC actually differentiated between bounty programs and airdrops, leaving the industry even more uncertain about what standards to follow.

Additionally, the SEC considered promotional activities or "shilling" around token distributions as indicators that these tokens were offered with an "expectation of profit," thereby classifying them as securities.[104] This action underscored the SEC's position that labeling token distributions as "airdrops" or "bounties" did not exempt them from securities regulations.

2023 to Present: Focus on Big Actors

By 2023, the SEC had set a record for crypto-related enforcement actions, expanding its focus beyond centralized exchanges to include decentralized organizations and protocols. With the February 2023 action against Terraform Labs and Do Kwon, the SEC made it clear that the agency was broadening its reach to stablecoins and other crypto products not traditionally viewed as securities.[105] This shift signaled the agency's intent to dominate the industry as the prime enforcement mechanism, driving it to pursue some of the industry's largest players including Coinbase and Binance.[106]

SEC Action Against Justin Sun, Tron, and BitTorrent – Airdrop Case

In March of 2023, the SEC charged Justin Sun and three of his wholly-owned companies, Tron Foundation Limited, BitTorrent Foundation Ltd., and Rainberry Inc. (formerly BitTorrent), for the unregistered offer and sale of crypto asset securities Tronix (TRX) and BitTorrent (BTT).[107] The defendants conducted numerous airdrop campaigns to distribute BTT to TRX holders and participants in various online activities. These campaigns promoted the BitTorrent and TRX ecosystems, increasing demand and trading volume for TRX and introducing BTT to a wide audience. Currently, this case is still pending in the U.S. District Court for the Southern District of New York.

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[101] *Id.*

[102] Press Release, SEC, SEC Charges The Hydrogen Technology Corp. and its Former CEO for Market Manipulation of Crypto Asset Securities (Sept. 28, 2022), https://www.sec.gov/newsroom/press-releases/2022-175.

[103] Jury Trial Demanded, SEC v. Hydrogen Technology Corp. 1:22-cv-08284-LAK (S.D.N.Y. Sept. 29, 2022).

[104] *Id.*

[105] Press Release, SEC, SEC Charges Terraform and CEO Do Kwon with Defrauding Investors in Crypto Schemes (Feb. 16, 2023), https://www.sec.gov/newsroom/press-releases/2023-32.

[106] Hannah Lang, US SEC crackdown on Coinbase, Binance puts crypto exchanges on notice, Reuters (June 8, 2023), https://www.reuters.com/business/finance/us-sec-coinbase-binance-crackdown-puts-crypto-exchanges-notice-2023-06-08/.

[107] Press Release, SEC, SEC Charges Crypto Entrepreneur Justin Sun and His Companies for Fraud and Other Securities Law Violations (Mar. 22, 2023), https://www.sec.gov/newsroom/press-releases/2023-59.

In April 2024, the SEC amended its complaint to assert jurisdiction over Justin Sun and his associated activities within the United States.[108] This amendment emphasized Sun's extensive U.S. travels and his promotional activities for Tron, BitTorrent, and Rainberry, including live streams from a San Francisco office. These details highlighted the SEC's commitment to regulating foreign digital asset operations involving U.S. residents or territory, even with minimal connection. Originating from foreign offerings, this case underscored the SEC's strict enforcement against foreign entities with U.S. ties and served as a warning to airdrop projects to carefully evaluate compliance strategies, including blocking U.S. users.

Fleeing the U.S.

Due to the onslaught of enforcement actions, lawsuits, and overall uncertainty in the industry, from around March to August 2023, news reports began to appear about crypto projects expressing concern and wanting to move offshore.[109] Companies expressed frustration with what they perceived as unclear and restrictive regulatory guidance in the U.S., making it challenging to operate domestically. Although companies expressed a desire for a clearer regulatory environment, none was provided as more enforcement action poured in.

The Ripple Labs Decision and Terraform Labs Decision – A Contradiction of Court Rulings

As a vindication of what the crypto community has long argued, on July 13, 2023, Judge Analisa Torres of the U.S. District Court for the Southern District of New York delivered one of crypto's most significant legal victories. In a ruling on a motion to dismiss in the *Ripple* case, Judge Torres distinguished between institutional sales and programmatic sales, finding that programmatic sales by retail investors did not qualify as a securities offering.[110] She reasoned that buyers could not have reasonably expected that XRP sales would be used to enhance the XRP ecosystem and drive up its price, thus failing to satisfy the third and fourth prongs of the *Howey* test.[111] Additionally, this decision laid the groundwork for an argument differentiating primary and secondary market sales, which impacts the securities liability faced by exchanges and platforms.

However, less than a month later, on July 31, 2023, in the same District Court, Judge Jed S. Rakoff took a starkly different stance from Judge Torres on the distinction between institutional and programmatic sales, denying Terraform Labs' motion to dismiss because he classified all transactions as securities offerings.[112] Despite the cases having strikingly similar facts, the rulings diverged dramatically, highlighting the extreme uncertainty and lack of clarity not only in how U.S. federal regulatory agencies classify crypto transactions but also in how federal courts classify them.

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[108] Stephan Graves, SEC Amends Justin Sun Lawsuit to Cite His Extensive Travel in US, DECRYPT (Apr. 19, 2024), https://decrypt.co/227144/sec-amends-justin-sun-lawsuit-to-cite-his-extensive-travel-in-us.

[109] Jeff Wilser, *US Crypto Firms Eye Overseas Move Amid Regulatory Uncertainty*, https://www.coindesk.com/consensus-magazine/2023/03/27/crypto-leaving-us/; Tom Wilson & Elizabeth Howcroft, *Crypto firms will develop 'offshore' without clear US rules, Coinbase chief says*, REUTERS (Apr. 18, 2023), https://www.reuters.com/technology/coinbase-ceo-crypto-firms-will-develop-offshore-without-clear-regulations-2023-04-18/; David Yaffe-Bellany, *Crypto Firms Start Looking Abroad as U.S. Cracks Down*, NY TIMES (June 7, 2023), https://www.nytimes.com/2023/06/07/technology/crypto-firms-start-looking-abroad-as-us-cracks-down.html; Isabelle Castro Margaroli, *Crypto Firms Moving Overseas, Taking Talent With Them*, FINTECH NEXUS (Aug. 1, 2023), https://www.fintechnexus.com/crypto-firms-moving-overseas-taking-talent-with-them/.

[110] Order, SEC v. Ripple Labs Inc., 1:20-cv-10832-AT-SN (S.D.N.Y July 13, 2023); *SDNY Rules Ripple's XRP Token Was – and Was Not – a Security*, COOLEY (July 27, 2023), https://www.cooley.com/news/insight/2023/2023-07-27-sdny-rules-ripples-xrp-token-was-and-was-not-a-security#:~:text=The%20court%20found%20that%20the%20%E2%80%9CProgrammatic%20Sales%E2%80%9D%20did%20not%20satisfy,in%20the%20price%20of%20XRP.

[111] SEC v. Ripple Labs Inc., 1:20-cv-10832-AT-SN (S.D.N.Y July 13, 2023).

[112] SEC v. Terraform Labs Pte Ltd., 1:23-CV-1346 (JSR) (S.D.N.Y. May 15, 2023).

CFTC Actions Against Opyn, ZeroEx, and Deridex – Efforts to Block U.S. Persons Under Attack

In September 2023, the CFTC simultaneously filed and settled charges against DeFi platforms like Opyn, ZeroEx, and Deridex, which faced charges related to unlawful derivatives trading.[113] The CFTC's enforcement actions against DeFi platforms highlighted the agency's intent to apply its established regulatory framework for derivatives and margin transactions to the decentralized finance sector. These actions underscored the CFTC's stance that merely blocking U.S.-based IP addresses was inadequate to exclude U.S. users from DeFi protocols. However, the agency has yet to clarify what measures would be sufficient, leaving DeFi platforms in a precarious and uncertain position and exacerbating the confusion for projects planning airdrops on how to comply effectively.

Beba LLC and DeFi Education Fund v. SEC – An Airdrops Project on the Offensive

Given the SEC's lack of clarity on airdrops and its ongoing enforcement actions against various platforms, companies have been prompted to go on the offensive, proactively addressing regulatory uncertainties on their own terms. Beba LLC ("Beba"), a small apparel company based in Waco, Texas, that sells handmade luggage and accessories through its online store, has partnered with the DeFi Education Fund ("DEF"), a nonpartisan research and advocacy group based in Washington, D.C., to file a pre-enforcement lawsuit against the SEC. The lawsuit seeks protection from the court ahead of a planned airdrop by Beba of its $BEBA token, aiming to clarify regulatory uncertainties surrounding the initiative.[114]

Beba created the $BEBA token, distributing it via free airdrops without any monetary consideration. However, it has postponed its second planned airdrop due to the precarious nature of the SEC's regulation by enforcement approach and the overall lack of clear guidance on what tokens and actions fall under the SEC's purview. The plaintiffs are seeking declaratory and injunctive relief, arguing that the SEC's regulatory stance on digital assets exceeds its statutory authority and violates the Administrative Procedure Act ("APA") since the agency adopted a comprehensive crypto policy without engaging in an official rulemaking process.[115] Specifically, it seeks a declaration that the airdrop of $BEBA tokens is not a securities transaction and that $BEBA tokens themselves are not investment contracts. This clarification would provide Beba with legal certainty, allowing them to proceed with their business operations without the looming threat of enforcement actions.

Although the SEC contends that "no action has been brought against Beba, and if the day comes, Beba will be afforded the opportunity to defend itself,"[116] this statement appears disconnected from reality. Small companies have been forced to shut down under the weight of the SEC's unexpected and heavy-handed enforcement actions, which often catch businesses like Beba off guard and leave them unable to recover. Thus, this lawsuit also aims to challenge the SEC's overreach and to confirm that its enforcement strategy and interpretation of digital asset regulations have gone beyond its legal authority. Therefore, by targeting the SEC through an APA violation claim, this lawsuit has the potential to deliver much-needed clarity on the SEC's role in airdrops and, more broadly, its position within the digital asset industry. Currently, this case is still ongoing in the United States District Court for the Western District of Texas.

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[113] Press Release, CFTC, CFTC Issues Orders Against Operators of Three DeFi Protocols for Offering Illegal Digital Asset Derivatives Trading (Sept. 7, 2023), https://www.cftc.gov/PressRoom/PressReleases/8774-23.

[114] Veronica Irwin, *DeFi Education Fund Attacks SEC's 'Regulation by Enforcement' in Beba Lawsuit*, UnChained (Oct. 28, 2024), https://unchainedcrypto.com/defi-education-fund-attacks-secs-regulation-by-enforcement-in-beba-lawsuit/.

[115] Sergio Goschenko, *Beba and Defi Education Fund Sue the SEC Over Its Airdrop Policies*, Bitcoin.comNews (Mar. 26, 2024), https://news.bitcoin.com/beba-and-defi-education-fund-sue-the-sec-over-its-airdrop-policies/.

[116] Brief of Andreessen Horowitz, Multicoin Capital, Paradigm, Union Square Ventures, and Variant as *Amici Curiae* in Support of Plaintiffs' Opposition to Defendants' Motion to Dismiss, Beba LLC v. SEC, 6:24-cv-00153-ADA-DTG (W.D. Tex. Oct. 28, 2024).

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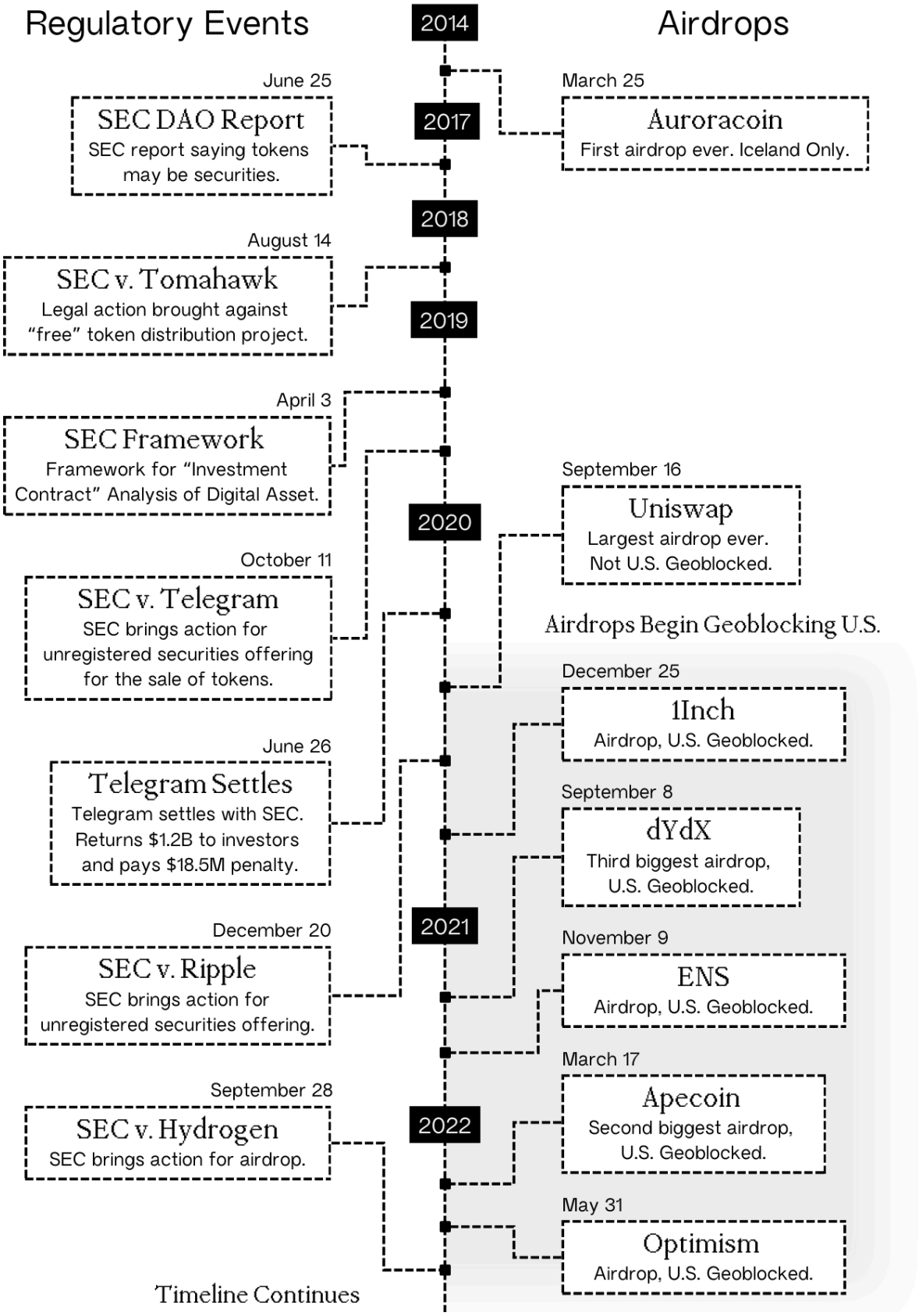
The compliance landscape for crypto in the U.S. has become so muddled and confusing that it has become nearly impossible for entrepreneurs to navigate effectively. In a September 17, 2024 letter, a bipartisan group of Congress members, led by Representative Tom Emmer, urged the agency to abandon its reliance on "regulation by enforcement" and highlighted concerns about the SEC's stance on airdrops, noting that the agency has failed to clarify how airdrops—often used for distribution in decentralized networks—should be treated under securities law, leaving projects and investors in a state of regulatory uncertainty.[117]

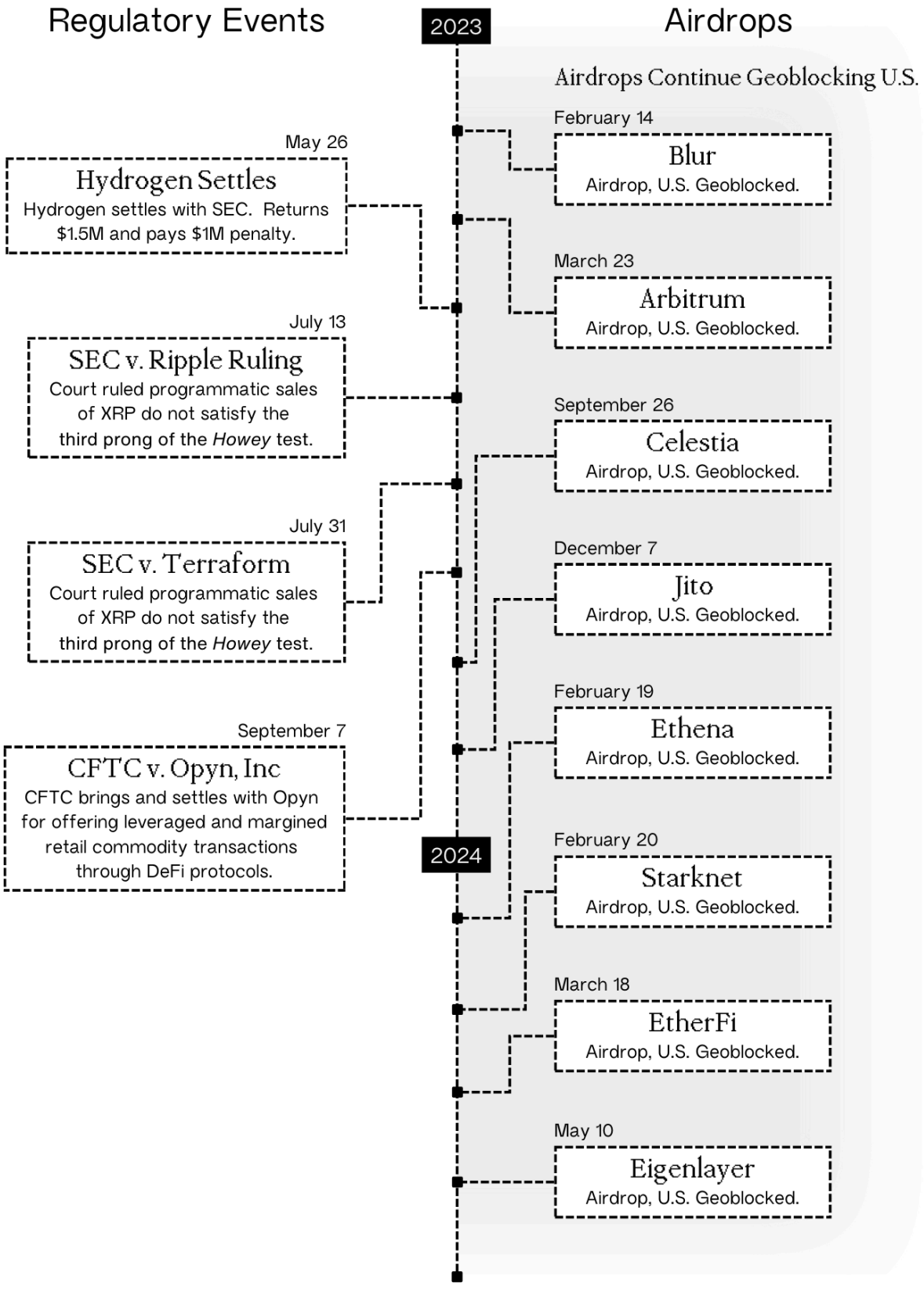
For the U.S. to retain its position as a global leader in technology and innovation, a shift toward proactive, well-defined, and balanced regulatory policies is urgently needed. Only with such clarity can we foster a thriving, compliant, and innovative crypto ecosystem that benefits both U.S. markets and consumers.

[117] Letter from Tom Emmer, Congressman, to Gary Gensler, Chair, SEC (Sept. 17, 2024), https://emmer.house.gov/_cache/files/5/0/50176829-99c6-40ec-87dd-96421f659fd0/58E2521AD98881EC6DB7696DEC1C2A6C.congressionalletter.sec.9.17.24.pdf.

Timeline Reflecting Airdrops Vis-a-Vis Enforcement Actions



Timeline Reflecting Airdrops Vis-a-Vis Enforcement Actions [continued]



PROJECTS ARE BLOCKING U.S. PERSONS

In addition to looking to reduce their U.S. nexus, many crypto projects are proactively blocking U.S. users from accessing their platforms using various means in an attempt to placate U.S. regulators. Since crypto products are often decentralized and permissionless, achieving full compliance with regulations designed for traditional, centralized businesses can be technically challenging and financially burdensome.[118]

Methodologies

Due to this environment, crypto projects have been forced to use various methodologies to restrict U.S. users.

- **Geoblocking or Geofencing:** Geoblocking involves creating virtual boundaries (fences) around specific geographical areas so that users in such locations cannot access services or online content.[119] A website can use various means to detect your location. It could use your internet protocol ("IP") address to detect your general location, examine which country handles your domain name system ("DNS") service, ascertain your payment data location, or even the language used for online purchases.[120]
    - **IP Address Blocking or IP Blocking**: IP blocking is a geoblocking technique that restricts access to an online platform based on the user's specific IP address. Every internet device has its own unique IP address so a network can log such addresses. When that person with the blocked IP address goes to access a platform in the future, that platform's security system (firewall) can then block access.[121]
- **VPN Blocking**: A VPN allows you to encrypt your internet connection so that your traffic and IP address remain unknown.[122] It's used to maintain your privacy and security. VPN servers often assign the same IP address to multiple users to enhance privacy, but this shared usage can lead to detection by websites and services monitoring for high traffic or diverse activity from a single IP. As such, sites may block the address to restrict access.[123] As a precautionary measure VPN blocking is often employed with geoblocking.
- **KYC Processes**: Platforms may also have KYC checks and compliance programs, which help detect illicit financing and money laundering. Additionally, some projects require users to confirm their non-U.S. status by signing a message with their wallet. Such processes also can be used to verify and block U.S. persons from platforms by checking user identities.[124]

Agencies Haven't Made it Clear What Actions are Sufficient to Block U.S. Users

While many projects try to make a genuine effort to block U.S. users, regulatory agencies like the SEC and CFTC have not provided clear guidance on what constitutes adequate measures to block U.S. users. The ambiguity

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[118] Jake Chervinsky & Daniel Barabander, *A Practical Guide to Geofencing*, VARIANT (Sept. 30, 2024), https://variant.fund/articles/practical-guide-to-geofencing/.

[119] Ema Pennell, *Geoblocking: what is it, how does it work, and why is it used?*, SURSHARK (Oct. 9, 2024), https://surfshark.com/blog/geo-blocking#:~:text=Geoblocking%20blocks%20users%20from%20accessing,re%20connecting%20from%20has%20banned.

[120] Monika Grigutytė, *What is geo-blocking, and how does it work?*, NORDVPN (Mar. 12, 2024), https://nordvpn.com/blog/what-is-geoblocking/.

[121] Adam Volle, *IP address blocking*, BRITANNICA (Oct. 21, 2022), https://www.britannica.com/technology/IP-address-blocking.

[122] Aleksander Furgal, *What does a VPN hide? And what does it not hide?*, SURSHARK (Nov. 20, 2024), https://surfshark.com/blog/what-does-a-vpn-hide.

[123] Aurelija Einorytė, VPN bans: How they work and who's behind them, NORDVPN (Feb. 21, 2024), https://nordvpn.com/blog/vpn-ban/.

[124] *What is the end to end KYC process?*, ONFIDO, https://onfido.com/blog/what-is-the-end-to-end-kyc-process/ (last visited Nov. 22, 2024).

surrounding compliance leaves projects guessing about what is enough for them to do. This creates a cycle of self-censorship where projects choose to limit their reach to avoid the risk of legal repercussions, leading to a diminished presence of U.S. firms in the global crypto market.

For example, the CFTC issued enforcement actions against the DeFi platform, Opyn, for offering illegal leveraged and margined retail commodity products in digital assets through their platforms.[125] However, despite Opyn's efforts to geoblock U.S. users, the CFTC deemed the measure insufficient without providing clarity as to what would constitute adequate compliance.[126] CFTC Commissioner Summer K. Mersinger notably criticized the agency in her dissenting statement on the enforcement action:

> "However, absent a transparent notice-and-comment process to set the rules, the Commission creates an impossible environment for those who want to comply with the law, forcing them to either shut down or shut out U.S. participants."[127]

Operational Challenges and Costs of Compliance

While the regulatory environment has pushed crypto projects to adopt various restrictive measures to avoid U.S. enforcement actions,[128] these requirements not only present significant operational challenges but also increase costs and legal risks for companies. Many teams must choose between developing custom geoblocking solutions in-house or relying on third-party providers like Vercel.[129] While third-party services are more efficient and often cost-effective, they increase reliance on external providers for data accuracy and reliability, which can lead to compliance risks and system vulnerabilities.

For example, anecdotally, one project we spoke with encountered a major compliance scare when third-party geoblocking data falsely indicated access from restricted regions, raising concerns over the effectiveness and accuracy of the third-party solution. Although the issue was later identified as an error, it underscored the operational risk and uncertainty inherent in relying on external data providers for compliance. The responsibility for any violations ultimately remains with the project, not the third-party provider,[130] meaning that enforcement actions could still target the crypto company for access violations, even if a third-party service caused the issue.

This requirement for strict compliance not only increases the operational complexity and cost but also creates substantial legal exposure as projects are strictly liable for any sanctions or unregistered securities law violations. Strict liability in such cases means that companies could face significant financial and reputational consequences even for unintentional compliance failures. This heightened compliance burden and risk deters innovation and complicates efforts to safely expand the crypto ecosystem within the U.S., further illustrating the adverse effects of regulation by enforcement on the industry as a whole.

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[125] Press Release, CFTC, CFTC Issues Orders Against Operators of Three DeFi Protocols for Offering Illegal Digital Asset Derivatives Trading (Sept. 7, 2023), https://www.cftc.gov/PressRoom/PressReleases/8774-23.

[126] *Id.*

[127] Public Statement & Remark, CFTC, Dissenting Statement of Commissioner Summer K. Mersinger Regarding Enforcement Actions Against: 1) Opyn, Inc.; 2) Deridex, Inc.; and 3) ZeroEx, Inc. (Sept. 7, 2023), https://www.cftc.gov/PressRoom/SpeechesTestimony/mersingerstatement090723.

[128] Kurt Robson, *Crypto Founders Are Abandoning the US Market—Here's Why Geofencing Is on the Rise*, CCN (Oct. 1, 2024), https://www.ccn.com/news/crypto/crypto-founders-abandoning-us-heres-why-geofencing/#:~:text=As%20the%20legal%20landscape%20around,in%20regions%20with%20unclear%20regulations.

[129] *WAF IP Blocking*, Vercel, https://vercel.com/docs/security/vercel-waf/ip-blocking (July 26, 2024).

[130] *Compliance for the Insurance Industry*, U.S. Dep't of the Treasury https://ofac.treasury.gov/faqs/65 (Nov. 13, 2024); 50 USC § 1705(b).

In addition to excluding U.S. users, projects are advised not to encourage VPN use, as this could be interpreted as an attempt to circumvent U.S. regulations. Projects that explicitly instruct U.S. users to use VPNs risk attracting SEC scrutiny, as seen in cases where organizations faced penalties for perceived circumvention of regulatory controls. By clearly stating that airdrops are not available to U.S. persons and making a good faith effort to actually restrict U.S. persons, projects strengthen their argument that the distribution does not fall under U.S. jurisdiction.

REGULATION BY ENFORCEMENT VIOLATES THE ADMINISTRATIVE PROCEDURES ACT

The use of regulation by enforcement by agencies, especially concerning airdrops, conflicts with the principles of the APA, which mandates a structured and transparent rulemaking process.[131] Relying on litigation, rather than establishing formal rules, the SEC enforces securities laws in unpredictable and often retroactive ways.[132] This creates an unstable regulatory environment, as seen in the SEC's high-profile case against Ripple Labs, where the SEC alleged that Ripple's XRP token—a utility token for international payments—constituted a security, even though XRP holders lacked financial ties to Ripple and many were unaware of the company's connection to the underlying token.[133]

Under the APA, federal agencies must follow clear procedures when developing new regulations, including public notice of proposed rules and a period for public comment.[134] These procedural requirements are designed to ensure democratic accountability, allowing input from both the public and industry experts, and thorough deliberation before rules are finalized, thereby ensuring that the policies are clear, predictable, and fair.[135] For example, in the *Ripple* case, the lack of prior, publicly accessible rules around the SEC's crypto securities policy led to significant uncertainty.[136] Ripple had operated for almost a decade under the assumption that XRP did not qualify as a security, as it shared structural similarities with Bitcoin and Ether, both of which the SEC had previously indicated were *not* securities due to their decentralized structures.[137] By pursuing enforcement actions without establishing clear, preexisting guidelines, the SEC left Ripple and numerous other token projects to navigate an unpredictable regulatory landscape.[138]

Moreover, enforcement-based regulation erodes procedural fairness by setting unpredictable standards through isolated cases rather than through a consistent, public rulemaking process. This arbitrary approach harms agency credibility and diminishes industry trust. Without clear, prospective rules, smaller companies and developers may face greater compliance burdens, disproportionately impacting their ability to operate. Selective prosecution not only lacks transparency but also appears arbitrary, especially when Bitcoin and Ether were permitted to operate free from such regulatory scrutiny.[139] This approach allows agencies to "pick winners and losers," disadvantaging smaller and newer projects that entered the market without clear rules and benefiting first-movers with regulatory certainty.[140]

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[131] Administrative Procedure Act, Pub. L. No. 79–404, 60 Stat. 237 (1946).
[132] Chris Brummer et al., *Regulation by Enforcement*, 96 S. Cal. L. rev. 1297 (2024).
[133] Curt Levey, *Blog Post Regulation By Enforcement Is Stifling Cryptocurrency*, The Federalist Soc'y (Apr. 29, 2021), https://fedsoc.org/commentary/fedsoc-blog/regulation-by-enforcement-is-stifling-cryptocurrency.
[134] Brummer, *supra* note 132.
[135] *Id.*
[136] Levey, *supra* note 133.
[137] *Id.*
[138] *Id.*
[139] James J. Park, *When Are Tokens Securities? Some Questions from the Perplexed*, UCLA Lowell Milken Inst. Pol'y Rep. (2018).
[140] *Id.*

III. Economic Impact

As the cryptocurrency landscape continues to evolve, understanding the scale of U.S. participation and the financial implications of restrictive policies is critical for informing future regulatory decisions. We aim to quantify the impact of geoblocking policies on cryptocurrency airdrops for U.S. residents and to assess the broader economic consequences of these policies. Our analysis estimates the number of cryptocurrency holders in the U.S., evaluates their participation in airdrops, and delineates the potential economic and tax revenue losses incurred due to geoblocking.

To drive the economic impact, we compiled a sample of 11 projects of geoblocked airdrops and 1 non-geoblocked airdrop for our control. We carefully selected these airdrops for their significance within the crypto ecosystem and because all of them are on the Ethereum blockchain, ensuring a notable, streamlined and efficient data collection process. Those also happen to be some of crypto's most successful projects. We first estimated the number of U.S. persons affected by geoblocking policies in regards to crypto. Then, we calculated the number of active wallet addresses controlled by U.S. persons. Next, we determined the number of claimers for our sample, the total revenue, and the median value per claimer for that airdrop. Using those figures, we estimated the total revenue lost to U.S. residents and to the U.S. government from potential tax revenue due to geoblocked airdrops from our sample and another sample from CoinGecko.

See Appendix A for a full breakdown of our analysis employed to derive our findings.

OUR FINDINGS

U.S. Participation Rates

Of an estimated **18.4 to 52.3 million cryptocurrency holders in the U.S.**, there are between **920 thousand and 5.2 million monthly active U.S.-based users affected by geoblocking policies** in general in 2024, which includes airdrops and more limited participation in project usage.

Percentage of Active Addresses per Region of the World in 2024

Table 1: Estimated Percentage of U.S. Active Addresses of the World in 2024

Column A **Datapoint**	*Column B* **Percentage of Active Addresses Found in North & South America**[141]	*Column C* **Percentage of Active Crypto Developers in the U.S.**[142]	*Column D* **Percentage of Active Crypto U.S. Addresses Out of Total Worldwide**[143]	*Column E* **Adjustment to Reflect U.S. Percentage Geoblocked**
2015	*31%*	*45%*	*31%–45%*	*44.9%–81.8%*
2016	*21%*	*38%*	*21%–38%*	*26.6%–61.3%*
2017	*24%*	*35%*	*24%–35%*	*31.6%–53.8%*
2018	*17%*	*33%*	*17%–33%*	*20.5%–49.3%*
2019	*13%*	*31%*	*13%–31%*	*14.9%–44.9%*
2020	13%	30%	13%–30%	14.9%–42.5%
2021	15%	31%	15%–31%	17.6%–44.3%
2022	23%	27%	23%–27%	29.9%–37%
2023	24%	24%	24%	31.57%
2024	22%	24%	22%–24%	28.2%–31.6%

As of **2024**, we estimate that **22–24% of all active crypto addresses** worldwide belonged to **U.S. residents**.

Our **sample of 11 projects** generated a **total value of approximately $7.16 billion** to date, during which approximately **1.9 million claimers participated worldwide** with an **average median claim value of around $4.6 thousand per eligible address**.

See the below table for a breakdown by project name.

[141] *Id.*

[142] *2024 Crypto Developer Report*, DEVELOPER REPORT, https://www.developerreport.com/developer-report?s=about-electric-capital (last visited Feb. 18, 2025).

[143] Arrived at this range of active users by taking the minimum and maximum of Column B and Column C in Table 1.

Table 2: Sample Group Airdrop Claim Data (As of January 28, 2025)[144]

Project Name	Geoblocked	Airdrop Date	Total Lifetime Claimed Dollar Value	Total Number of Claimers Worldwide	Median Claim Value per Eligible Address
Uniswap*	No	2020-09-16	$670,104,171	221,288	$1,660
1inch	Yes	2020-12-25	$218,694,309	43,867	$1,654
Blur	Yes	2023-02-14	$265,174,361	124,631	$216
EigenLayer	Yes	2024-05-10	$645,390,084	232,366	$441
EtherFi	Yes	2024-03-18	$168,916,075	87,239	$637
Arbitrum	Yes	2023-03-23	$1,394,397,547	583,137	$1,787
Ethena	Yes	2024-02-19	$263,016,409	46,081	$72
Optimism	Yes	2022-05-31	$97,545,754	160,603	$388
ApeCoin	Yes	2022-03-17	$1,727,906,315	15,068	$38,760
DYDX	Yes	2021-09-08	$1,298,499,297	47,610	$2,576
ENS	Yes	2021-11-09	$838,394,931	102,821	$6,424
LayerZero	Yes	2024-06-20	$192,156,964	741,986	$130
			$7,156,572,098 Total	**1,857,901 Total**[145]	**$4,562 Average Median Claim per Eligible Address**

**Control Group*

Estimated Total Loss of Revenue to U.S. Residents

The economic repercussions of geoblocking on U.S. users are profound, with significant revenue losses that affect both the individual claimers and the broader economic landscape. Our findings indicate the following revenue lost to U.S. claimers for our sample of geoblocked airdrops:

[144] *@hildobby/Past Airdrops Value*, Dune, https://dune.com/queries/3942217 (last visited Feb. 18, 2025).
[145] *@hildobby/Total Airdrop Claimers*, Dune, https://dune.com/queries/4715321 (last visited Jan. 23, 2025).

Table 3: Sample Group Estimated Value Lost to Geoblocked U.S. Residents

Column A **Project Name**	*Column B* **Airdrop Date**	*Column C* **Total Lifetime Claimed Dollar Value**	*Column D* **Adjustment to Reflect U.S. Percentage Geoblocked**	*Column E* **Lower Bound Estimate of Revenue Lost to Geoblocked U.S. Residents** *(in millions)*	*Column F* **Upper Bound Estimate of Revenue Lost to Geoblocked U.S. Residents** *(in millions)*
1inch	2020-12-25	$265,174,361	14.9%–42.5%	$32.6	$92.9
Blur	2023-02-14	$265,174,361	31.6%	$83.8	$83.8
EigenLayer	2024-05-10	$645,390,084	28.2%–31.6%	$182	$203.9
EtherFi	2024-03-18	$168,916,075	28.2%–31.6%	$47.6	$53.4
Arbitrum	2023-03-23	$1,394,397,547	31.6%	$440.6	$440.6
Ethena	2024-02-19	$263,016,409	28.2%–31.6%	$74.2	$83.1
Optimism	2022-05-31	$97,545,754	29.9%–37%	$29.2	$36.1
ApeCoin	2022-03-17	$1,727,906,315	29.9%–37%	$516.6	$639.3
DYDX	2021-09-08	$1,298,499,297	17.6%–44.3%	$228.6	$575.2
ENS	2021-11-09	$838,394,931	17.6%–44.3%	$147.6	$371.4
LayerZero	2024-06-20	$192,156,964	28.2%–31.6%	$236.4	$264.9
Total				**$1.84 Billion**	**$2.64 Billion**

The figures above in Column E and F were rounded for legibility purposes.

Based on the airdrop data in the table above, **U.S. residents** are estimated to have **missed out** on between **$1.84 billion and $2.64 billion in potential revenue** over the period from 2020 through 2024 from our sample group.

According to a report from CoinGecko that analyzed a wide range of 50 airdrops (though not a complete list), around $26.6 billion globally has been distributed through geoblocked and non-geoblocked airdrops to claimers (of the projects it reviewed – see Table 4 in the Appendix).[146] Using CoinGecko's estimated total value distributed to claimers through its sample and our calculations for U.S. persons affected by geoblocking, the **total potential revenue lost to U.S. persons could be between $3.49 billion and $5.02 billion from CoinGecko's sample of 21 projects.**

[146] Nicholas Boey, *50 Biggest Crypto Airdrops: $26.6B In 'Free Money'*, CoinGecko (Sept. 25, 2024), https://www.coingecko.com/research/publications/biggest-crypto-airdrops.

Estimated Tax Revenue Lost Due to Airdrop Restrictions

Based on an estimated $1.9 billion (the lower bound of our sample estimate) to $5.02 billion (the higher bound of CoinGecko estimate) in lost airdrop income over the period from 2020 through 2024, the corresponding **federal tax revenue loss, calculated using individual tax rates,** is projected to range from **$418 million to $1.1 billion**, with an additional **state tax revenue loss** of approximately **$107 million to $284 million**.[147] In **total**, this represents an estimated **tax revenue loss of $525 million to $1.38 billion**.

Loss of Corporate Tax Revenue Due to Offshore Migration

Regulatory uncertainty has driven a significant portion of the cryptocurrency industry offshore, leading to a measurable decline in U.S.-based crypto developers and corporate operations. A clear example is Tether, the issuer of the USDT stablecoin, which is incorporated in the British Virgin Islands. In 2024, Tether reported a profit of $6.2 billion,[148] surpassing even traditional financial giants like BlackRock. If Tether were headquartered in the U.S. and subject to full U.S. taxation, this profit would be subject to the 21% federal corporate tax, amounting to an estimated $1.3 billion in federal tax revenue. Additionally, incorporating an average state corporate tax rate of 5.1%, an estimated $316 million in state taxes would be generated.

Combined, the **potential tax revenue loss from Tether's offshore status** alone could total approximately **$1.6 billion annually**. Beyond corporate taxes, the absence of these high-revenue firms in the U.S. also results in lost income tax revenue from employees, payroll taxes, and local business taxes tied to corporate operations, further compounding the economic impact. Given that Tether is just one major player in the crypto ecosystem, the cumulative impact of multiple high-revenue firms operating offshore would likely be a huge revenue source for the U.S. government.

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As we can see, the continued application of regulatory policies that restrict access to airdrops and contribute to the offshoring of cryptocurrency innovation has led to a substantial erosion of the U.S. tax base. Establishing a clear and structured regulatory framework would mitigate these losses by incentivizing blockchain companies to operate domestically, thereby fostering both economic growth and tax revenue generation within the United States.

ADVERSE EFFECTS TO REGULATION BY ENFORCEMENT ON AIRDROPS AND CRYPTO IN GENERAL

"Regulation by enforcement" has led to numerous unintended and harmful consequences for the crypto industry and beyond, including fragmented and inconsistent regulatory standards, negative externalities, market distortions, lost tax revenue, missed economic opportunities, and a weakened overall economic impact on the U.S. economy. This approach has led to notable inefficiencies within the regulatory landscape, hindering the economic potential and growth that a thriving digital asset industry could otherwise bring to the broader economy.

[147] The federal tax revenue loss is calculated using a 22% weighted average ordinary individual income tax rate, resulting in a projected loss ranging from $418 million ($1.9B × 22%) to $1.1 billion ($5.02 billion × 22%). The state tax revenue loss is estimated using a 5.65% weighted average state individual tax rate, yielding a range of approximately $107 million ($1.9 billion × 5.65%) to $284 million ($5.02 billion × 5.65%).

[148] Angus Berwick & Ben Foldy, *The Shadow Dollar That's Fueling the Financial Underworld*, WSJ (Sept. 10, 2024), https://www.wsj.com/finance/currencies/tether-crypto-us-dollar-sanctions-52f85459?utm.

Lost Economic Opportunities and Censorship

Forcing crypto projects to exclude U.S. users is de facto censorship, as it deprives Americans of access to financial innovation and new technologies that could enhance financial inclusion, autonomy, and personal wealth. This restriction limits the choices available to U.S. residents, placing them at a disadvantage compared to users in more crypto-friendly jurisdictions. It also hinders the U.S. from benefiting from the economic opportunities, jobs, and technological advancements that these projects could bring. Between 2018 and the end of 2023, the U.S. lost 14% in developer share.[149] Moreover, non-U.S. digital asset companies are significantly more likely to issue tokens compared to their U.S. counterparts, making them more likely to compensate employees with digital assets rather than traditional fiat currency—an attractive benefit that draws talent away from U.S. companies.[150] Therefore, by isolating U.S. users from the global crypto ecosystem, regulators are actively stifling domestic innovation and driving talented developers and companies to operate abroad, weakening the U.S.'s competitive position in the digital economy.

Lost Revenue to the Economy and Tax Revenue Affects Secondary Economic Activities

Driving crypto companies out of the U.S. and walling off U.S. users, including from airdrops, results in lost revenue not only from direct taxes but also from the secondary economic activities generated by a dynamic tech sector—such as jobs, investments, and infrastructure development. For example, Consensys, the blockchain development firm behind the widely-used MetaMask crypto wallet, announced in October 2024 a 20% workforce reduction due to the legal costs incurred from ongoing regulatory battles with U.S. authorities.[151] This economic loss puts the U.S. at a disadvantage in the global race to capitalize on blockchain and digital asset technology, risking a long-term reduction in the country's competitiveness in the digital economy.

Destroying the Value Proposition of Crypto

The current regulatory framework, designed for traditional markets, relies on centralized intermediaries like brokers and custodians. However, blockchain technology operates without these middlemen, enabling direct, peer-to-peer transactions that are secure, transparent, and efficient. By imposing centralized requirements on decentralized systems, regulators risk forcing re-centralization, which not only undermines the unique benefits of cryptocurrency—such as user control, efficiency, and financial inclusion—but also stifles innovation and hinders the transformative potential of crypto. Forcing intermediary roles into blockchain models not only adds unnecessary costs but also erodes the foundational value of decentralization thereby preventing decentralization's full potential. To support the blockchain ecosystem, regulatory agencies should update their frameworks, removing intermediary requirements incompatible with decentralized technology. This approach would allow the U.S. to protect consumers while fostering innovation and empowering individuals through an open, accessible financial system.

[149] *Asia Leads in Crypto Developers While the U.S. Continues to Lose Ground*, Dev. Rep. (Oct. 31, 2024), https://www.developerreport.com/developer-report-geography.

[150] Brief of Amici Curiae Blockchain Association and the Crypto Council for Innovation, Beba LLC v. SEC, 6:24-cv-00153-ADA-DTG (W.D. Tex. Oct. 28, 2024).

[151] Mandy Williams, *Is It Really a Bull Market? These Crypto Companies Laid Off Employees In a Week*, CryptoPotato, https://cryptopotato.com/is-it-really-a-bull-market-these-crypto-companies-laid-off-employees-in-a-week/ (Nov. 3, 2024, 5:53 PM).

COMPANIES ARE MOVING OFFSHORE OR CLOSING THEIR OPERATIONS ENTIRELY

As the regulatory burden intensifies, a significant number of cryptocurrency firms are opting to relocate their operations overseas. The United States is rapidly losing its competitive edge, as countries like the United Kingdom, Singapore, European Union, and the United Arab Emirates, provide the regulatory clarity that U.S. companies desperately need.[152] The result has been an exodus of crypto projects from the U.S., driven by the fear of unexpected enforcement actions in an environment where the rules remain unclear.

Some companies have completely exited the United States, such as:

> **Bittrex:** It shut down its U.S. operations, attributing its decision to "regulatory uncertainty" and the increasing frequency of enforcement actions, particularly from the SEC, which made it "no longer feasible" to conduct business in the U.S.[153]
> **Nexo:** It phased out U.S. products and services after 18 months of unproductive dialogue with U.S. regulators.[154]
> **Revolut:** A U.K.-based fintech firm halted cryptocurrency services for U.S. customers, citing the evolving regulatory landscape and ongoing uncertainties in the U.S. crypto market.[155]

Other companies are preparing for the worst (i.e. no regulatory clarity and continued regulation by enforcement) and beginning to set up operations offshore or pivot away from U.S. consumers. Such companies include the following:

> **Coinbase:** The largest U.S.-based crypto exchange, has opened operations in Bermuda to capitalize on a more favorable regulatory climate.[156]
> **Ripple Labs:** It has been engaged in a protracted legal battle with the SEC for years. As of September 2023, 85% of the open employee positions were for offshore people, and by the end of 2023, U.S. employees dropped from 60% to 50% of the workforce.[157]

Some companies have been forced to shut down entirely under the weight of SEC scrutiny, unable to withstand the challenges posed by such a powerful regulatory agency:

> **Beaxy:** After the SEC charged the company and its founder, Artak Hamazaspyan with operating an unregistered exchange and brokerage in March of 2023, the exchange posted on its website that it was suspending its operations because of the uncertain regulatory environment surrounding the business.[158]

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[152] Yaffe-Bellany, *supra* note 109.
[153] Yueqi Yang, *Crypto Exchange Bittrex to Exit US Due to Regulatory Challenges*, Bloomberg L. (Mar. 31, 2023), https://www.bloomberglaw.com/product/blaw/bloomberglawnews/bloomberg-law-news/XRB31C8000000.
[154] Elizabeth Howcroft, *Crypto lender Nexo to quit United States*, Reuters (Dec. 5, 2022), https://www.reuters.com/technology/crypto-lender-nexo-quit-united-states-2022-12-05/.
[155] Ben Weiss, *$33 billion startup Revolut cites 'evolving regulatory environment' in decision to end crypto service to U.S. customers*, yahoo!finance (Aug. 4, 2023), https://finance.yahoo.com/news/33-billion-startup-revolut-cites-145042470.html.
[156] Yaffe-Bellany, *supra* note 109.
[157] Weilun Soon, *Crypto Companies Are Looking Outside the U.S. for Growth*, WSJ (Sept. 21, 2023), https://www.wsj.com/finance/currencies/crypto-firms-are-looking-outside-the-u-s-for-growth-b289a9c1.
[158] Jesse Hamilton & Helene Braun, *Crypto Exchange Beaxy Shut Down After SEC Lawsuit*, CoinDesk (Mar. 29, 2023), https://www.coindesk.com/policy/2023/03/29/crypto-exchange-beaxy-shut-down-after-sec-lawsuit/.

WHY AIRDROPS ARE VITAL TO THE CRYPTO ECOSYSTEM

Airdrops are an important strategic tool to create excitement and build awareness around a project. Airdrops are a distribution mechanism to support tokenomics (i.e. the overall design for how tokens are created, distributed, and used within a blockchain, influencing their value and incentivizing participation in the network) and get tokens into users' hands.[159] By doing so, it promotes decentralization and distributed governance by distributing tokens to a large swath of users.[160] A currency's success depends on widespread adoption, which requires significant efforts to encourage usage.[161] Airdrops create a mutually beneficial relationship: projects gain visibility and user engagement as part of their marketing efforts, while users receive tokens in exchange for their participation. This approach is essential for the ecosystem, as it helps users discover new blockchain and crypto projects.

This is not a new marketing tactic. In the video game Counter Strike: Global Offensive ("CS:GO"), the game transitioned from a paid game to a free-to-play model,[162] accompanied by the introduction of cosmetic item drops, in-game rewards that players receive, typically for free, which change the appearance of characters or weapons, creating a more engaging and rewarding experience for players.[163] These items weren't just about aesthetics—they served multiple purposes. Players had an added incentive to keep playing, knowing they could earn skins and other cosmetic items over time. This system turned casual players into long-term participants by introducing a sense of progression and reward beyond just winning matches. Additionally, over time, the value of certain cosmetic items increased, leading to a thriving virtual economy where players could trade or sell skins. This secondary market[164] kept players engaged beyond just gameplay, as they began treating skins as digital collectibles. Like airdrops in crypto, this strategy created a self-sustaining cycle of engagement and awareness, allowing users to experience the product's value firsthand. In crypto, airdrops achieve a similar effect by distributing free tokens to early adopters, creating a foundation of loyal users who are more likely to promote a project. This structure not only fosters community support but also helps new projects differentiate themselves and attract attention in the competitive crypto space.

Furthermore, airdrops are a way to return value to users. By incentivizing early adoption and boosting user engagement, airdrops provide the liquidity needed for protocols to launch, grow, and further develop their platforms.[165] However, challenges arise when blockchain projects restrict users from the United States to avoid regulatory scrutiny, thereby significantly limiting the pool of participants and reducing overall user engagement. Given that the U.S. is one of the top five largest crypto markets globally,[166] excluding American users poses a considerable obstacle for blockchain projects that rely on airdrops to drive success. Furthermore, excluding U.S. users is detrimental to the individuals themselves. In 2023, the top 50 crypto airdrops distributed over $4.5 billion

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[159] Neel Daftary, *Do Airdrops Hurt More Than They Help?*, DELPHI DIGITAL (July 2, 2024), https://members.delphidigital.io/reports/do-airdrops-hurt-more-than-they-help#layerzero-a142.

[160] *Id.*

[161] Muhammad Farrukh Shahzad et al., *Cryptocurrency awareness, acceptance, and adoption: the role of trust as a cornerstone*, HUMANITIES & SOC. SCI. COMMC'N (Jan. 2, 2024), https://www.nature.com/articles/s41599-023-02528-7#auth-Muhammad_Farrukh-Shahzad-Aff1.

[162] Rebekah Valentine, *Counter-Strike: Global Offensive goes free-to-play*, GAMES INDUSTRY.BIZ (Dec. 10, 2018), https://www.gamesindustry.biz/counter-strike-global-offensive-goes-free-to-play.

[163] Skins, COUNTERSTRIKE.FANDOM, https://counterstrike.fandom.com/wiki/Skins#:~:text=The%20Arms%20Deal%20Collection%2C%20the,cosmetic%2C%20holding%20no%20gameplay%20function (last visited Feb. 18, 2025).

[164] Market, DMARKET, https://dmarket.com/ingame-items/item-list/csgo-skins.

[165] Roomy Khan, *Airdrops: Marketing Genius Fueling The Crypto Renaissance*, FORBES (Mar. 13, 2024), https://www.forbes.com/sites/roomykhan/2024/03/13/airdrops-marketing-genius-fueling-the-crypto-renaissance/.

[166] Marcus Lu, *Countries With the Highest Rates of Crypto Ownership*, VISUAL CAPITALIST (May 7, 2024), https://www.visualcapitalist.com/countries-with-the-highest-rates-of-crypto-ownership/#google_vignette.

worth of tokens.[167] By excluding U.S. users, Americans are denied the opportunity to participate in such a high-growth market. Thus, this exclusion not only hinders platform's growth by limiting the effectiveness of its airdrop strategy but also hinders access to Americans trying to engage in the crypto space.

[167] *Decoding Top 10 Airdrops in History*, TRANSAK (Jan. 24, 2024), https://transak.com/blog/decoding-top-airdrops-in-history & Boey, *supra* note 146.

IV. Recommendations

SAFE HARBOR FOR AIRDROPS FOR NON-FUNDRAISING USE CASES

Airdrops, in many instances, differ fundamentally from traditional fundraising mechanisms such as initial public offerings ("IPOs") or ICOs. Rather than being used to raise capital, airdrops are often employed to generate a "flywheel effect," building momentum and attracting a user base for a new technology or ecosystem. The goal of airdrops is to encourage community participation, engagement and early adoption rather than financial gain. Given these unique characteristics, there is an opportunity to establish a safe harbor for airdrops based on network effects.

We propose a regulatory safe harbor specifically tailored for airdrops that are not intended as fundraising tools. This safe harbor would support projects where the airdrop serves distinct purposes such as:

- **Decentralizing Governance**: Airdrops should distribute tokens across a broad range of addresses to encourage decentralization and prevent concentrated control over the network.
- **Consumptive Use – Not Investment**: Mirroring the SEC's approach in instances like TurnKey Jet[168] and Pocket Full of Quarters,[169] tokens that are intended for consumptive use rather than investment would be eligible. Examples include tokens redeemable for specific services like air charter or video game-related purchases.
- **Marketing / Attention Economy / User Acquisition Strategy**: Tokens designed with a functional use case that promotes building a network effect or requires real-world testing (e.g., test nets) would also qualify.

Additionally, the safe harbor would include the following criteria:

1. **Issuer Disclosure**: Issuers must provide clear, comprehensive information about the tokenomics (e.g., supply, distribution), governance mechanisms, potential risks for recipients, and any restrictions on token use or lock-ups.
2. **Lock-Up for Insiders**: To address potential issues of frontrunning or insider trading, insiders must adhere to a three-month lock-up period.
3. **Consideration**: Tokens should be distributed in exchange for non-monetary contributions, such as services rendered, participation in network activities, or eligibility based on prior holdings. Direct financial transactions for tokens would disqualify the airdrop from safe harbor consideration.
4. **Prohibition of Fraud and Market Manipulation**: Airdrops would be subject to strict rules against fraudulent activities and market manipulation.
5. **No Cap on User Numbers and Airdrop Value**: To ensure broad access and equitable participation, there should be no imposed limits on the number of users or the total value of the airdropped tokens.
6. **Functional Protocol Post-Token Launch**: The underlying platform and token must be operational and functional at the time of the token launch to ensure viability and utility.

[168] SEC, TurnKey Jet, Inc., Response of the Division of Corporation Finance (Apr. 3, 2019), https://www.sec.gov/divisions/corpfin/cf-noaction/2019/turnkey-jet-040219-2a1.htm.
[169] SEC, Pocketful of Quarters, Inc., Response of the Division of Corporation Finance (July 25, 2019), https://www.sec.gov/corpfin/pocketful-quarters-inc-072519-2a1.

By framing airdrops as a modern iteration of crowdfunding, regulators can create a safe harbor that encourages innovation while addressing risks. This adapted approach would recognize the unique role airdrops play in fostering decentralized networks and promoting equitable participation, steering clear of over-regulation that stifles growth.

We're not alone in recommending a safe harbor. LeXpunk has proposed a "Safe Harbor X" framework that exempts qualifying distributions of autonomous cryptotokens from SEC registration requirements under specific conditions.[170] This approach emphasized transparency, requiring detailed disclosures about token economics, governance mechanisms, and transaction history, while mandating a 12-month lock-up period for tokens held by the initial development team.[171]

By focusing on free token distributions for participation and development, rather than capital-raising, the proposal aims to foster innovation within clear regulatory boundaries. Such frameworks demonstrate how temporary and targeted exemptions can balance the need for oversight with the flexibility necessary to encourage technological progress.

EXPAND RULE 701 TO APPLY TO PARTICIPANTS IN A PLATFORM

Rule 701 of the Securities Act is an exemption that allows private companies not subject to specific public reporting requirements to issue securities as compensation to employees, consultants, and advisors.[172] Traditionally, this rule has been vital for startups and private companies that wish to compensate their service providers with options, restricted stock, and other equity instruments without undergoing the extensive disclosures typically required for public offerings.

One alternative recommendation to our safe harbor is the expansion of Rule 701 to include tokens, particularly those distributed via airdrops or as compensation for service provision by platform workers. This adaptation would address the changing nature of work and compensation in the technology-driven marketplace.

The SEC has already explored the potential for Rule 701's expansion to cover "platform workers" — individuals who provide services available through a technology-based platform or system—in proposed rulemaking in 2020.[173]

The extension of Rule 701 to cover tokens would allow companies to legally distribute these digital assets as part of compensation packages to those who contribute to the creation of the protocol from outside the development company i.e. those who may not necessarily fit into the traditional employee or consultant categories as currently defined under Rule 701. This would facilitate broader and more equitable participation in the growth and success of technology platforms, aligning the interests of platform participants with those of the company.

SAFE HARBOR TO GRANDFATHER IN PRIOR AIRDROPS

Given the evolving nature of regulatory landscapes, projects that have already conducted airdrops to U.S. persons often face legal uncertainties that could threaten their continued operation and innovation. To address this, Congress should consider establishing a safe harbor that retroactively applies to prior airdrops. This

[170] *lex-node/SafeHarbor-X*, GitHub, https://github.com/lex-node/SafeHarbor-X/, (last visited Jan. 23, 2025).
[171] *Id.*
[172] Securities Act of 1933, Rule 701, 17 C.F.R. § 230.701
[173] Securities Act of 1933, Rule 701, 17 C.F.R. § 230.70; Press Release, SEC, SEC Proposes Amendments to Modernize Framework for Securities Offerings and Sales to Workers (Nov. 24, 2020), https://www.sec.gov/newsroom/press-releases/2020-294.

provision would allow projects that have previously distributed digital assets through airdrops to U.S. persons to regularize their status without the risk of enforcement actions, provided they meet certain conditions.

Under this safe harbor, projects would need to demonstrate compliance with a set of basic disclosure and operational standards retroactively. These might include providing historical transaction data, demonstrating the utility of the tokens within their ecosystems, and disclosing the measures taken to ensure compliance with Anti Money Laundering ("AML") and Combating the Financing of Terrorism ("CFT") regulations. This temporary protection would last for a specified period, during which these projects could align with current regulatory expectations without fearing retrospective penalties. Moreover, the SEC has broad statutory authority to exempt securities transactions from registration, which makes no distinction between proactive or retroactive exemptions.[174]

ALIGN TAX TREATMENT OF AIRDROPS WITH CREDIT CARD REWARDS

As mentioned previously, airdrops are similar to credit card reward points, where the benefits, typically in the form of tokens, are provided to users to incentivize their loyalty and participation within a specific ecosystem. A useful comparison can also be made to non-cash promotional gift cards, which businesses distribute for free to encourage consumer engagement.

Like credit card rewards, which are not taxed upon receipt but rather when they are converted into cash or equivalent (if they are converted at all), and like promotional gift cards that do not generate taxable income upon receipt, airdrops should similarly be considered non-taxable until the holder disposes of them for cash or other benefits that are readily marketable. This is because the tokens received in airdrops often have restricted liquidity due to the nascent state of the token, lack of a trading platform, or legal and technical restrictions on their transferability. Furthermore, crypto assets can be highly volatile, meaning that taxing airdropped tokens upon receipt could result in tax obligations based on temporary or inflated valuations—creating the risk that recipients owe taxes on assets that may have lost significant value by the time they are actually sold. Deferring taxation until tokens are sold would also eliminate differing interpretations of when dominion and control is established for purposes of taxation upon receipt, ensuring a more consistent and administrable approach.

The IRS has established precedents regarding similar situations in non-crypto contexts. For instance, IRS rulings have determined that the value of rebates and similar rewards received from credit card purchases do not constitute gross income when received, as they are considered a reduction in the purchase price of goods and services, not an increase in wealth.[175] Applying this reasoning to crypto airdrops, tokens received should not be taxable at the time of receipt, given their nature as part of a promotional effort to enhance platform engagement rather than as a straightforward financial benefit.

Regulatory guidance should clarify that tokens received from airdrops are not considered taxable income upon receipt. Instead, taxation should occur when these tokens are sold or exchanged for another asset, at which point they become liquid and gain an easily quantifiable market value. This approach not only aligns with the treatment of other similar non-crypto reward systems, such as credit card points and promotional gift cards, but also recognizes the fundamental nature of airdrops as tools for community engagement and loyalty rather than direct monetary gain. Moreover, this would create a uniform and predictable framework, preventing unnecessary disputes over when dominion and control is established and ensuring fair treatment across all taxpayers.

[174] 15 U.S.C. § 77z–3.
[175] Rev. Rul. 76-96, 1976-1 C.B. 23, as modified by Rev. Rul. 2005-28, 2005-1 C.B. 997.

Incorporating these considerations into policy could significantly clarify the tax obligations associated with airdrops and align them more closely with existing financial practices surrounding loyalty rewards and promotional incentives, including gift cards.

LEGAL EXPERIMENTATION DURING THE "ELECTION RESET"

During political transitions, especially during election cycles, there is a unique opportunity for regulatory innovation. This "election reset" period can serve as a testing ground for new regulatory approaches, allowing both agencies and industries to explore flexible, temporary frameworks that can inform longer-term policy. Specifically, agencies could embrace legal experimentation by implementing temporary sandboxes, no-action letters, or safe harbors designed to allow innovative companies to operate under lighter regulatory burdens.

It makes sense to implement a regulatory sandbox to craft sensible regulations around airdrops presently. We recommend deploying a "Sustainable Sandbox" framework, which upgrades traditional regulatory frameworks by (i) simplifying participant enrollment, (ii) collecting data to inform regulatory reforms, and (iii) ensuring smooth transitions to long-term safe harbor or no-action letter status.[176] That way, regulators can effectively support innovation while ensuring appropriate oversight and regulatory clarity.

This approach would enable regulators and industry players to collaborate in a controlled environment, offering businesses a chance to test novel products and services while providing agencies with valuable data on their impact to assess the effectiveness of potential rules. SEC Commissioner Hester Peirce has proposed several safe harbors and sandboxes over her term as a potential way to pave the way for more nuanced and effective long-term regulations.[177]

By leveraging the election reset for regulatory experimentation, industries and regulators can gain clarity to navigate the evolving landscape. This open experimentation will identify outdated rules, help craft policies that promote progress, and create balanced, forward-looking regulation aligned with rapidly changing technological and economic realities.

CONGRESS SHOULD ACT AND TALK TO THE INDUSTRY

Proactively modernizing regulations could position the U.S. as a global leader in crypto policy, encouraging responsible innovation while protecting consumers. The United States, despite leading in crypto adoption among developed nations, lacks a coherent regulatory framework for digital assets, especially in the DeFi space. Current financial regulations are designed around centralized intermediaries—entities that blockchain technology, by design, often seeks to eliminate. Applying these legacy rules to decentralized systems can stifle innovation and may reintroduce centralized elements, undermining the benefits of decentralization and limiting the transformative potential of crypto.

To foster innovation, U.S. regulatory agencies should prioritize competition and clarity. The SEC, in particular, should provide clear guidelines on when digital assets are considered securities, moving away from a strategy of "regulation by enforcement" and "regulation by intimidation." Formal rulemaking would help crypto startups and

[176] Jessica Furr & Joshua Durham, Building a "Sustainable Sandbox" for Crypto, The LawVerse (Jan. 20, 2024), https://www.thelawverse.com/p/the-mad-science-of-regulatory-innovation.

[177] *See* Speech, Hester M. Peirce, Commissioner, Running on Empty: A Proposal to Fill the Gap Between Regulation and Decentralization, (Feb. 6, 2020), https://www.sec.gov/newsroom/speeches-statements/peirce-remarks-blockress-2020-02-06; and *see* Statement, Hester M. Peirce, Commissioner, Token Safe Harbor Proposal 2.0, (Apr. 13, 2021), https://www.sec.gov/newsroom/speeches-statements/peirce-statement-token-safe-harbor-proposal-20.

users understand compliance expectations without fear of arbitrary enforcement actions against them. Additionally, all relevant agencies should embrace transparency in their regulatory processes to build credibility and provide stable, long-term guidance for crypto projects. This regulatory clarity is essential for maintaining U.S. leadership in technology and preventing innovation from moving offshore.

V. Conclusion

Cryptocurrency airdrops offer significant potential to drive innovation, decentralization, and community engagement in the blockchain ecosystem. By distributing tokens to users and contributors without financial consideration, airdrops create powerful network effects that foster adoption and enhanced governance. However, the current regulatory landscape in the United States, with its focus on enforcement and lack of tailored frameworks, has created significant challenges for projects seeking to utilize this mechanism effectively.

The key findings of our report highlight substantial economic losses due to current U.S. regulatory approaches. An estimated 920 thousand to 5.2 million active U.S. residents in 2024 have been barred from participating in airdrops because of geoblocking policies, leading to an estimated loss of $1.9 billion to $2.64 billion in potential revenue for these users. Using the sample of 21 geoblocked airdrops from a Coingecko report, the total potential lost revenue to U.S. persons could in fact be closer to $3.49 billion and $5.02 billion. Furthermore, the federal tax revenue loss from these geoblocked airdrops ranges between $418 million and $1.1 billion, with an additional $107 million to $284 million in state tax revenue foregone.[178] These figures do not account for further tax revenue that could have been generated from the capital gains taxes upon the eventual sale of these tokens.

However, the current regulatory uncertainty and enforcement-centric approach in the U.S. hinder the potential of these mechanisms. Treating airdrops as securities under the *Howey* test mischaracterizes their purpose and function, conflating them with traditional investment vehicles. This misalignment creates operational inefficiencies, escalates compliance costs, and drives blockchain innovation offshore, undermining the U.S.'s leadership in the rapidly evolving digital economy.

The loss extends beyond individual tax revenue; the broader economic impact of regulatory-driven offshore migration has resulted in significant corporate tax revenue losses. For instance, the U.S. share of global crypto developers has declined from 38% in 2015 to just 19% in 2024, indicating a substantial shift of industry operations abroad. Notably, Tether, which reported $6.2 billion in profits in 2024 and is incorporated offshore, is not subject to U.S. corporate taxes. If headquartered in the U.S. and subject to full domestic taxation, Tether alone could have contributed approximately $1.3 billion in federal corporate tax and $316 million in state taxes, highlighting the scale of lost revenue from companies choosing to operate outside of the U.S. Beyond corporate taxes, this offshore shift also results in lost income tax revenue from employees, payroll taxes, and local business taxes tied to corporate operations, further compounding the economic impact.

To unlock the full potential of airdrops while safeguarding user and market integrity, we call for regulatory clarity and tailored frameworks. By embracing such regulatory modernization, the U.S. can cultivate a thriving blockchain ecosystem that drives technological advancement, economic growth, and global competitiveness.

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[178] The estimated tax revenue loss range reflects the lower bound derived from our sample of geoblocked projects and the upper bound from CoinGecko's broader dataset.

Appendix

Appendix A: Data Sources and Calculations for Economic Impact

To accurately quantify the economic impact of geoblocking U.S. residents from participating in airdrops, we employ several methodologies. This approach is necessary for two main reasons:

1. Blockchain technology, while highly transparent, does not provide a reliable means to identify the residency of individuals controlling specific addresses. This makes it challenging to definitively ascertain which participants are U.S. citizens.
2. A single user may control multiple addresses on the blockchain. Therefore, distinguishing between individual users and the number of addresses they manage is crucial.

Given these challenges, we used different methods to estimate the number of affected U.S. residents and onchain addresses.

To streamline our analysis, we focused on blockchains utilizing the EVM architecture, including Ethereum itself and a select few Layer 2 solutions that settle on Ethereum. This approach allows for a more manageable analysis due to the uniformity of the EVM structure across different platforms. Ethereum was chosen as the primary blockchain for study because it hosts the highest dollar value of airdrops during the studied period, making it the most significant in terms of economic impact for our report.

To drive the economic impact, we compiled a sample of 11 projects of geoblocked airdrops and 1 non-geoblocked airdrop for our control. We first estimated the number of U.S. persons affected by geoblocking policies in regards to crypto. Then, we calculated the number of active wallet addresses controlled by U.S. persons. Next, we determined the number of claimers for our sample, the total revenue, and the median value per claimer for that airdrop. Finally, using those figures, we estimated the total revenue lost to U.S. residents and to the U.S. government from potential tax revenue due to geoblocked airdrops.

CALCULATIONS: AFFECTED U.S. RESIDENTS

The first step of our analysis involved determining how many U.S. residents are impacted by geoblocking policies related to cryptocurrencies.

Various organizations have published findings on the number of U.S. residents that own cryptocurrencies.

a. The Federal Reserve has projected that out of all adult U.S. residents, 12% used, bought or held crypto in 2021, 11% in 2022 and 7% in 2023.[179] Based on population numbers from the Census,[180] this would equal 31.2 million U.S. adults residents in 2021, 28.7 million in 2022 and 18.4 million in 2023.

[179] *Economic Well-Being of U.S. Households in 2023*, Fed. Reserve (May, 2024), https://www.federalreserve.gov/publications/files/2023-report-economic-well-being-us-households-202405.pdf.
[180] *National Population by Characteristics: 2020-2024*, U.S. Census Bureau (Dec., 2024), https://www.census.gov/data/tables/time-series/demo/popest/2020s-national-detail.html.

b. Morning Consult estimates that 20% of U.S. residents, or about 52.3 million people, held some type of cryptocurrency in 2023.[181]
c. Triple-A claims that 48.8 million U.S. adult residents owned cryptocurrencies in 2023, which is 14.36% of the adult U.S. population.[182]

Using the above-referenced data points, we inferred that there are an estimated 18.4 to 52.3 million cryptocurrency holders in the U.S.

While those sources allow us to estimate a range of total cryptocurrency holders located in the U.S., not all cryptocurrency users use crypto in the same manner; therefore, we were only looking for active participants in onchain activity, a subset of total U.S. cryptocurrency holders.

In an October 2024 report, a16z estimated 30–60 million real monthly transacting users worldwide and 27 million monthly active mobile wallet users.[183] With its estimated 617 million global crypto owners, a16z concluded that 5%–10% of global crypto holders are monthly active users.[184] Applying this same percentage to the U.S., we estimate the range of monthly active U.S. crypto users by multiplying 5%–10% by the estimated number of U.S. crypto holders (18.4 to 52.3 million).

Using the above-referenced formulation, there are between 920 thousand and 5.2 million monthly active U.S.-based users affected by geoblocking policies in general in 2024.[185]

CALCULATIONS: PERCENTAGE OF ACTIVE ADDRESSES CONTROLLED BY U.S. RESIDENTS

Next, we needed to ascertain how many wallet addresses onchain were held by U.S. persons as one person might control a number of different wallets. To determine the number of addresses controlled by U.S. residents, we used Electric Capital's 2024 Developer Report ("Electric's Report").[186] We also augmented the available data with some onchain analysis of our own in an open source query using Dune.[187] In this query, the goal was to gather all Ethereum transactions and look at the time at which each transaction appeared on the blockchain to estimate from where each onchain address is controlled. Thereby, four major regions of the world were determined based on timezones. Those include North and South America, Europe and Africa, and West Asia and East Asia. Each of those was assigned a time range in Universal Time Coordinated ("UTC"), which corresponds to daytime hours in those regions.

For North and South America, this time range was 2pm UTC to 12am UTC; for Europe and Africa, it was 7am UTC to 5pm UTC. For West Asia, the time range was 3am UTC to 1pm UTC, and for East Asia it was 11pm UTC to

[181] *Cryptocurrency Perception Study*, Morning Consult (Feb. 24, 2023), https://assets.ctfassets.net/c5bd0wqjc7v0/WvuOkBwNXZsqhd6EWtkEL/7f94f8b6fbb222f3faf4d0346e473012/Morning_Consult_Cryptocurrency_Perception_Study_Feb2023_Memo__1_.pdf?utm_source=chatgpt.com.
[182] Shawn Munir & Sam Kazemian, *How Many Americans Own Crypto?* (2025 Statistics), coinweb (Oct. 27, 2023), https://coinweb.com/trends/how-many-americans-own-crypto/.
[183] Daren Matsuoka, Robert Hackett, & Eddy Lazzarin, State of Crypto Report 2024: New data on swing states, stablecoins, AI, builder energy, and more, a16zcrypto (Oct. 16, 2024), https://a16zcrypto.com/posts/article/state-of-crypto-report-2024/.
[184] *Id.*
[185] It is worth noting that geoblocking practices aren't universally applied across projects. For instance, different projects may restrict users in certain countries or provide varying degrees of access depending on the region. Nevertheless, geoblocking typically occurs at the front-end level of a website.
[186] *2024 Crypto Developer Report*, *supra* note 142.
[187] *@hildobby/Ethereum Address Likely Owner Location per Year*, Dune, https://dune.com/queries/4600487 (last visited Jan. 23, 2025).

9am UTC. If over 75% of an address's transactions were found to be in one of those ranges, it was assigned the corresponding region. Using those parameters, we can extrapolate the percentage of active addresses per region of the world per year to estimate it for the U.S. In order to keep a higher confidence interval, only addresses with 100+ transactions were reviewed.

It is worth noting that this analysis factors in all EOAs. There are various types of EOAs, some of which are controlled by human users, some by larger entities, and some of which are bots. To clarify our approach, we've assumed that the distribution of bot-controlled wallets is consistent worldwide, including within the U.S. This assumption allows us to maintain the same bot percentage globally as we calculate the impact of geoblocking policies without making special adjustments for bot activity in our figures.

Electric's Report[188] and our proprietary Dune analysis[189] provided slightly different metrics. The former focused on the percentage of active crypto developers located in the United States while the latter estimated the percentage of active addresses located in the United States. Assuming that the percentage of active addresses in the United States was in a similar range to those of the Electric Report and our Dune analysis, we then used both sources to derive the upper and lower bounds estimates of active addresses found in the United States. These two metrics were chosen as they are the closest available data points relevant to our analysis. Given the scarcity of directly applicable data, we are assuming that the numbers provided by these two sources were similarly reflective of the broader metrics of interest, thereby using both inputs to define a range for our estimated output.

Given that potentially eligible addresses controlled by U.S. residents were geoblocked, we needed to calculate an adjustment factor or correction factor (i.e. a multiplier or percentage added to or subtracted from initial estimates to correct for distortions caused by the exclusion or inclusion of certain data points, such as geoblocked addresses in this context) (the "Geoblocking Adjustment Factor"). We used the below formula to calculate the inverse proportion of non-geoblocked addresses, helping to determine how many additional U.S. addresses would be included if there were no restrictions.

$$y = \frac{1}{1-x} - 1$$

x = the percentage of potentially eligible addresses controlled by U.S. residents.
y = estimated number of addresses controlled by U.S. residents
$\frac{1}{1-x}$ = Geoblocking Adjustment Factor
(1 is subtracted to account for only U.S. residents)

This results in the following numbers found in Table 1.

As of 2024, we estimate that 22–24% of all active crypto addresses worldwide belonged to U.S. residents.

Using the data from Table 1, we applied our estimates for active U.S. addresses to calculate the total value lost to U.S. residents due to geoblocked airdrops in the next section.

[188] *2024 Crypto Developer Report*, *supra* note 142.
[189] *@hildobby/Ethereum Address Likely Owner Location per Year*, *supra* note 187.

CALCULATIONS: AIRDROP CLAIM DATA: VALUE AND NUMBER OF CLAIMERS

To find the number of claimers for each airdrop, we looked into onchain claiming activity of several past notable cryptocurrency airdrops. Those included in no particular order: Uniswap, 1inch, Blur, Eigenlayer, EtherFi, Arbitrum, Ethena, Optimism, ApeCoin, DYDX, Ethereum Name Service, and LayerZero. These airdrops all occurred on the Ethereum blockchain and some of Ethereum's largest Layer 2s. Uniswap was here as a baseline comparison since it's the only one from the list that did not have U.S. residents geoblocked. This sample group was chosen because it included notable projects as well as notable liquidity events in the cryptocurrency economy. We used Dune in order to obtain the amount of tokens airdropped and the total number of claimers.[190] These figures were obtained by tracking onchain events from airdrop smart contracts. The dollar value of each claim event was also calculated at claim time based on aggregated DEX's historical prices. With some of those airdrops' claims still open, these numbers could evolve going forward. But based on past airdrop claim patterns, with all of those being open for 8+ months, the vast majority of what will be claimed has been claimed with only some negligible claims remaining. These are the resulting numbers found in Table 2.

Our sample of 11 projects generated a total value of approximately $7.16 billion thus far, during which approximately 1.86 million claimers participated worldwide with an average median claim value around $4.8 thousand per eligible address.

Using the dollar value of those claimed airdrops, we can now apply these amounts to U.S. residents by incorporating the data from Table 1.

CALCULATIONS: ESTIMATED TOTAL LOSS OF REVENUE TO U.S. RESIDENTS

Using the percentage of active addresses controlled by U.S. residents alongside airdrop claims data from both sections above, we have estimated the amount of money lost to U.S. residents due to geoblocking restrictions.[191] Table 3 presents the estimated losses within our sample group.[192]

Based on the airdrop data in table 3, U.S. residents are estimated to have missed out on between $1.84 billion and $2.64 billion in potential revenue from 2020–2024 from our sample group.

It is worth noting that the list of airdrops analyzed above is only a select few notable ones. According to a report from CoinGecko, which analyzed a wide range of airdrops (though not a complete list), approximately $26.6 billion in total has been distributed through airdrops to claimers.[193] However, 29 of those did not have geoblocking restrictions.

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[190] *@hildobby/Past Airdrops Value*, *supra* note 144.

[191] We multiplied (i) the applicable "Adjustment to Reflect U.S. Percentage Geoblocked" per Column E of Table 1, applying the applicable year for each airdrop date, which was incorporated into column D in Table 3, by (ii) the Total Lifetime Claimed Dollar Value in column C in Table 3. The upper and lower bound ranges from that calculation are reflected in columns E and F of Table 3.

[192] *@hildobby/Past Airdrops Value*, *supra* note 144.

[193] Boey, *supra* note 146. This included 50 geoblocked and non-geoblocked airdrops.

Table 4: CoinGecko's Sample Group Estimated Value Lost to Geoblocked U.S. Residents[194]

Project	**Geoblocked U.S. Residents**	**Total Lifetime Claimed Dollar Value**[195] *(in millions)*	**Total Lifetime Claimed Dollar Value Filtered for Geoblocking Projects** *(in millions)*
Uniswap	No	$6,432.6	0
Apecoin	Yes	$3,544.3	$3,544.3
dYdX	Yes	$2,009.9	$2,009.9
Arbitrum	Yes	$1,969.3	$1,969.3
Ethereum Name Service	Yes	$1,878.6	$1,878.6
Internet Computer	No	$1,737.4	0
Bonk	No	$1,325.4	0
Celestia	Yes	$728.4	$728.4
LooksRare	No	$712.3	0
1inch Network (Airdrop 1)	Yes	$670.9	$670.9
Optimism (Airdrop 1)	Yes	$666.5	$666.5
Blur (Airdrop 1)	Yes	$446.2	$446.2
Aptos	No	$432	0
Loot	No	$387.8	0
Blur (Airdrop 2)	Yes	$371.8	$371.8
Jito	Yes	$311.6	$311.6
Gitcoin	No	$283.8	0
ParaSwap	Yes	$232.6	$232.6
Tornado Cash	No	$204.1	0
CoW Protocol	No	$193.5	0
WorldCoin	Yes	$181.9	$181.9
Aidoge	No	$174.9	0
The Graph	Yes	$172.3	$172.3
Memecoin	No	$146.6	0

[194] CoinGeckos numbers are a separate set of data from ours. This table does not combine their numbers with ours. Certain projects have been analyzed by CoinGecko and Dragonfly separately and the resulting numbers are different due to different valuation methodologies.
[195] Boey, *supra* note 146.

HashFlow	No	$144.3	0
ZigZag	No	$139.8	0
Instadapp	No	$138.6	0
Ribbon Finance	No	$132.4	0
Pyth Finance	Yes	$124.5	$124.5
1inch Network (Airdrop 2)	Yes	$111.8	$111.8
Botto	No	$111.7	0
Dogechain	No	$95.5	0
Galxe	Yes	$62.4	$62.4
Optimism (Airdrop 3)	Yes	$60.2	$60.2
Bank (Airdrop 1)	No	$46.8	0
Space ID	No	$44.4	0
Sweat	No	$38.9	0
Optimism (Airdrop 2)	Yes	$36.4	$36.4
CyberConnect	No	$28.4	0
Arkham	Yes	$19	$19
Maverick Protocol	No	$15.7	0
Notional Finance	No	$14.8	0
Unlock Protocol	No	$14.8	0
Forefront	No	$14.8	0
Bank (Airdrop 2)	No	$13.6	0
Hop Protocol	No	$12.5	0
Index Cooperative	Yes	$6.7	$6.7
Spectra	No	$3.2	0
Snowswap	No	$2.3	0
DappRadar	Yes	$0.5	$0.5
Total		**$26.6 Billion**	**$13.6 Billion**

The figures above were rounded for legibility purposes.

We took CoinGecko's figures and filtered them for only geoblocked airdrops. That resulted in 21 geoblocking airdrops, which resulted in losses to U.S. residents of a total of $13.6 billion. That is 90% more than the $7.16 billion of airdropped value analyzed in this report. It is important to note that while we valued total lifetime claimed dollar value based on token prices at time of claim, CoinGecko chose to use ATH token prices, hence why CoinGecko's total lifetime claimed dollar value is higher than ours. Therefore, we used a 1.90 multiplier to align our lower valuation figures with CoinGecko's higher estimates to account for the 90% difference.

Using CoinGecko's estimated total value distributed to claimers through airdrops and our calculations for U.S. persons affected by geoblocking, the total potential revenue lost to U.S. persons could be between $3.49 billion and $5.02 billion between 2020 and 2024.[196]

CALCULATIONS: ESTIMATED TAX REVENUE LOST DUE TO AIRDROP RESTRICTIONS

The United States has a graduated income tax system where ordinary income is taxed at rates ranging from 10% to 37%, and long-term capital gains are taxed at rates of 0%, 15%, or 20%, depending on the taxpayer's income.[197] Under current tax law and the Internal Revenue Service ("IRS") guidance, airdrops are generally treated as ordinary income upon receipt and taxed accordingly.[198] For the purposes of this analysis, we assume an average effective federal tax rate of 22%, reflecting a reasonable estimate based on distribution across income brackets.

Additionally, state tax rates vary significantly, with some states imposing no personal income tax while others maintain top marginal rates exceeding 10%. To account for this variation, we utilize a weighted average state income tax rate of 5.65%, derived from population-adjusted state tax rates.[199]

Based on an estimated range of $1.9 billion to $5.02 billion in lost airdrop income from our sample group and the CoinGecko report, over the period from 2020 through 2024, the corresponding federal tax revenue loss is projected to range from $418 million to $1.1 billion, with an additional state tax revenue loss of approximately $107 million to $284 million.[200]

These estimates do not account for capital gains taxation, which would apply upon subsequent disposal of the tokens and represent an additional source of tax revenue.

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[196] 1.90 times $1.9 billion gives the lower bound of $3.49 billion and 1.90 times $2.64 billion gives us the upper bound of $5.02 billion. It is worth noting that while we looked at prices at claim time, CoinGecko chose to use ATH token prices, which led to much higher total claimed values.

[197] *Federal income tax rates and brackets*, IRS (Jan. 14, 2025), https://www.irs.gov/filing/federal-income-tax-rates-and-brackets.

[198] I.R.S. Rev. Rul. 2019-24 (October 9, 2019). The IRS ruled that cryptocurrency received via an airdrop is considered taxable ordinary income when the recipient has control and dominion over the tokens.

[199] The weighted average state income tax rate of 5.65% is calculated using state tax rate data from the Tax Foundation and population figures from the U.S. Census Bureau. The methodology involves multiplying each state's top marginal tax rate by its share of the total U.S. population and summing the results to determine a national weighted average. For state tax rates, *see* Andrey Yushkov, *State Individual Income Tax Rates and Brackets, 2024*, Tax Foundation (Feb. 20, 2024), https://taxfoundation.org/data/all/state/state-income-tax-rates-2024; *see also* State Population Totals and Components of Change: 2020-2024, U.S. Census Bureau (Feb. 20, 2024), https://www.census.gov/data/tables/time-series/demo/popest/2020s-state-total.html.

[200] The estimated $1.9 billion to $5.02 billion in lost airdrop income is based on sample data from observed distributions and the impact of regulatory restrictions on U.S. recipients. The federal tax revenue loss is calculated using a 22% weighted average ordinary income tax rate, resulting in a projected loss ranging from $418 million ($2B × 22%) to $1.1 billion ($5.02 billion × 22%). The state tax revenue loss is estimated using a 5.65% weighted average state tax rate, yielding a range of approximately $107 million ($1.9 billion × 5.65%) to $284 million ($5.02 billion × 5.65%). These estimates exclude potential capital gains taxes upon disposal of the tokens, which would represent an additional source of lost tax revenue.

CALCULATIONS: LOSS OF CORPORATE TAX REVENUE DUE TO OFFSHORE MIGRATION

Regulatory uncertainty has driven a significant portion of the cryptocurrency industry offshore, leading to a measurable decline in U.S.-based crypto developers and corporate operations. According to the Electric Report,[201] the U.S. share of global crypto developers has fallen from 38% in 2015 to 19% in 2024, signaling a substantial migration of talent and economic activity. While it is difficult to quantify the precise loss in corporate tax revenue due to the offshore shift, the trend suggests a significant decline in potential tax contributions from high-revenue crypto firms.

A clear example is Tether, the issuer of the USDT stablecoin, which is incorporated in the British Virgin Islands. In 2024, Tether reported a profit of $6.2 billion[202], surpassing even traditional financial giants like BlackRock. If Tether were headquartered in the U.S., this profit would be subject to the 21% federal corporate tax, amounting to an estimated $1.3 billion in federal tax revenue. Additionally, incorporating an average state corporate tax rate of 5.1%, an estimated $316 million in state taxes would be generated.

Combined, the potential tax revenue loss from Tether's offshore status alone could total approximately $1.6 billion annually. Given that Tether is just one major player in the crypto ecosystem, the cumulative impact of multiple high-revenue firms operating offshore would likely be a huge revenue source for the U.S. government

These figures highlight the broader economic consequences of U.S. regulatory policies that drive crypto companies abroad. The continued application of regulatory policies that restrict access to airdrops and contribute to the offshoring of cryptocurrency innovation has led to a substantial erosion of the U.S. tax base. Establishing a clear and structured regulatory framework would mitigate these losses by incentivizing blockchain companies to operate domestically, thereby fostering both economic growth and tax revenue generation within the United States.

[201] *2024 Crypto Developer Report*, *supra* note 142.
[202] Angus Berwick & Ben Foldy, *supra* note 148.

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