

**Exits, Investment, *and the* Startup Experience:**  
*the role of acquisitions in the startup ecosystem*

*presented by*



**Engine**



**Startup Genome**

# THE STARTUP ECOSYSTEM NEEDS ACQUISITION AS AN EXIT PATH.

Startup exits and investment are two intimately related and important drivers of the dynamism that is critical to economic growth and innovation in the startup ecosystem. But exits via acquisition are particularly important to startups—especially those located outside of hubs like Silicon Valley. Startup acquisitions promote the building of knowledge, recycling of talent, and flow of capital through the ecosystem. Each of those components are key to building new startups and stimulating the investment needed to grow them to scale.



The overwhelming majority of startup exits everywhere are via acquisition.

Acquisition is the most frequent startup exit in every ecosystem. In large ecosystems like Silicon Valley that have large IPOs, the majority of exit value comes from those IPOs. In smaller ecosystems, acquisitions create nearly all of the exit value. In most parts of the country, acquisition is the only meaningfully available exit path for startups.

Size Matters: **Acquisitions vs. IPO**



Founders say acquisitions are a good thing, and policymakers shouldn't make it harder to be acquired.

*"The acquisition of 21 by Perforce was a success and the right move for us, and I hope policymakers don't make these sorts of transactions more difficult."*  
 ~ Shani Shoham, CEO, 21 Labs (acquired by Perforce)

*"Being acquired is a desirable startup exit path, and restricting it will lead to less capital and less startup competition."*  
 ~ Steven Cox, Founder & CEO, TakeLessons (acquired by Microsoft)

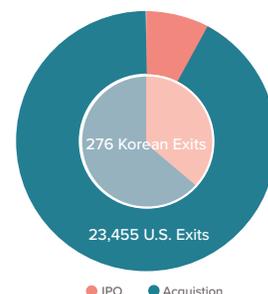
*"being acquired was a really good outcome for Safaba"... and "a transformational professional opportunity and financial outcome for our entire team."*  
 ~ Alon Lavie, Cofounder & CTO, Safaba (acquired by Amazon)

*"Founders should be able to pursue the pathway to exit that is right for them..."*  
 ~ Jewel Burks Solomon, Founder & CEO, Partpic (acquired by Amazon)

## ACQUISITIONS AND IPOs AREN'T INTERCHANGEABLE.

IPOs are out of reach for many companies, extremely rare in most parts of the country, and early IPO regimes in other countries suffer from issues with performance and often aren't true exits for startup founders or investors—the kind that provide returns and deliver dynamic benefits to their local startup ecosystems.

Share of Exits by type, 2011-2021





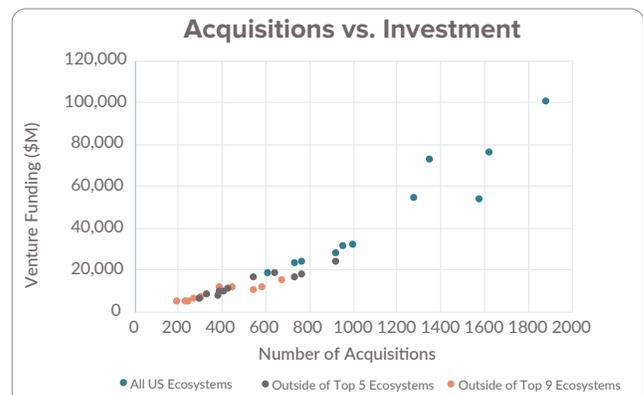
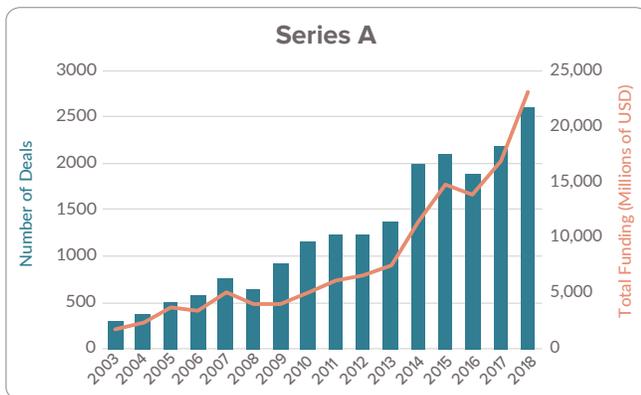
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# INTRODUCTION

The U.S. startup ecosystem is defined by dynamism. Startups are constantly being founded, earning investment, growing, exiting, and—yes—failing in cities and towns all across the country. Startup exits and investment are two intimately related and important drivers of this dynamism critical to economic growth and innovation in the startup ecosystem. Startup exits—both those that are profitable and those that are not—promote the building of knowledge, recycling of talent, and flow of capital through the ecosystem. Each of those components are key to building new startups and stimulating the investment needed to grow them to scale.

Last April, we released a report on the State of the Startup Ecosystem intended to give policymakers an overview of the health of American startups and facilitate detailed benefit-cost analyses for individual policy proposals across a range of issues. Through that report, Engine, together with Startup Genome and the Charles Koch Institute, demonstrated the health and tremendous growth of the ecosystem, the relationship between exits and investment, the especially strong and positive relationship between acquisitions and startup investment, and the particular importance of exits via acquisition in more rural ecosystems.



Over the past year, policy conversations focused on the technology sector have turned into legislative proposals, and new leadership at the antitrust enforcement agencies have begun the process of rewriting the merger guidelines. Effective antitrust enforcement against truly anticompetitive mergers and acquisitions is necessary for a thriving startup ecosystem, but imbalanced competition policy that leads to too many “false positives” is likely to harm the startup ecosystem. Recent policy developments like these could lead to overzealous enforcement and threaten to restrict the ability of startups to exit, particularly if they want to be acquired by a larger firm.

Through this report, Engine and Startup Genome build upon the previous report by further demonstrating the relationship between startup exits, investment, and talent; the particular importance of startup acquisitions in the startup ecosystem; and how these relationships in the U.S. compare to non-U.S. ecosystems. This report also seeks to emphasize the startup experience with acquisitions with data and through a series of startup founders’ firsthand experiences. Taken together, these reports should give policymakers the solid foundation they need to advance policies that will lift up startups and avoid potential pitfalls and unintended consequences.

# GLOSSARY

## Exit

Generally, an exit occurs when a startup investor or founder liquidates some or all of their shares/ ownership in the company. This may come in the form of cash, debt, or equity in another company. Profitable exits return money to investors, founders, and other shareholders (like early employees). Unprofitable exits may return some funds to investors, provide a soft landing to founders and employees in the form of jobs (e.g., at the acquiring firm). Unprofitable exits can also simply involve failure and shutdown.

### Acquisition

An event in which a company obtains a majority—if not all—of the assets of another company and is now in primary control.

### Initial Public Offering (IPO)

The first case of selling shares to the public by a previously private company in order to generate capital. After an IPO, a company would generally no longer be considered a true startup.

### Merger

An agreement between two separate companies to combine together into one entity.

## Runway

Refers to the amount of time a startup can operate before they need to raise additional capital. Often measured in months, runway can be thought of as the amount of time before a startup runs out of money.

## Funding Round

A distinct period where startups seek and receive investment from one or more investors. Usually, startup founders will pitch several dozen investors, generate interest from several, and receive investment from a few. Following pre-seed/seed investments, funding rounds are typically lettered—Series A, B, C, and so on. To reduce noise in the data, Startup Genome combines all seed, pre-seed, angel, and pre-Series A funding rounds to report as seed/angel funding, and removes those rounds that are less than \$125,000.

### Seed

Seed is the earliest round of formal investing, where money is exchanged for equity within the company or convertible debt. It primarily comes from the personal networks of the startup or angel investors, but some venture capital firms will invest at the seed stage as well.

### Angel

Angel investors are individuals or small groups of investors that provide financial capital from their own personal funds.

# GLOSSARY

## **Series A**

A large scale investment round (usually in millions) that occurs after the seed stage of a startup. This financing generally comes from institutional investors like venture capital or private equity firms.

## **Series B+**

After a startup has raised its Series A round, the next investment rounds continue with lettered rounds B, C, D, etc. which are usually successively larger. Series B+ referenced in this report refers to all venture capital rounds from Series B onward. Like Series A, this financing generally comes from either venture capital or private equity firms.

## **Startup**

In this report, a startup is a U.S.-based technology and innovation company founded after 1995. Startups are tech-enabled, high-growth companies with scalable, repeatable business models.

## **Startup Ecosystem**

A network of individuals, startups, and other community stakeholders that utilize their resources and interact with one another to promote innovation within their region. Startup Genome ranks ecosystems using a number of factors including: performance, funding, market reach, talent, connectedness, and knowledge.

## **Ecosystem Value**

A measure of the economic impact of the ecosystem, calculated as the total exit valuation and startup valuations over a 30-month period.

## **Venture Capital**

A form of institutional investment, venture capital is capital pooled together from investors and given to startup companies in exchange for equity within the company. Investors might be high-wealth individuals, foundations, pension funds, endowments, or other institutions, and they are known as limited partners. Their pool of capital constitutes a venture fund, which is managed by the venture capital firm. The general partners at the firm choose the startups to invest in, which are typically technology-based with high-growth potential.

# METHODOLOGY

Data presented in the report were provided by Startup Genome, a world-leading innovation policy advisory and research firm. Through partnerships and extensive survey research, Startup Genome has access to a comprehensive picture of the startup ecosystem. The main datasets integrated and consulted for this report include those from Crunchbase, Dealroom, Pitchbook, and Orb Intelligence, in addition to Startup Genome's original research and data from Forbes 2000, GitHub API, International IP Index, Meetup.com, OECD R&D Spending, Salaries Data from Glassdoor, Salary.com and Pay-Scale; Shanghai Rankings; Times Higher Education Rankings; Top 800 R&D Hospitals, Webometrics; USPTO and WIPO; and World Bank Ease of Doing Business.

In the course of this research, Engine and Startup Genome have conducted several interviews with entrepreneurs, startup founders, venture capitalists, and other investors, both in the U.S. and abroad. These conversations help to provide additional context to the data presented in the report, reflect the local knowledge of individuals operating in startup ecosystems around the globe, and underscore key considerations for policymakers in related policy debates. A selection of these conversations are presented here as brief “startup stories.”

Startups in this report are U.S.-based technology and innovation companies founded after 1995. Startup ecosystems tend to be grouped based upon a geographical location and defined radius. Startup ecosystems are a network of individuals, startups, and other community stakeholders that utilize their resources and interact with one another to promote innovation within their region. Startup Genome ranks ecosystems using a number of factors including performance, funding, market reach, talent, connectedness, and knowledge.

For clarity, individual analyses in the report that include statistical analyses, non-annual data, or adjustments based upon, e.g., growth rate are explained where they are presented rather than this section.

## A note on the Macroeconomy

Macroeconomic factors like inflation, geopolitical conflict, and pandemics impact the startup ecosystem—the availability of capital, and the size, type, and frequency of exits are influenced by developments in the economy writ-large. Typically the largest companies in a sector are impacted first (for example, in the public markets), then late-stage startups before trickling down to early stage. From the beginning of 2022 through the end of May, Nasdaq 100 Technology Sector index and the S&P 500 have each lost about a quarter of their value. Large venture capital firms have published memos to guide their portfolio companies through uncertain, down markets.<sup>1</sup> Inflation remains at highs not seen in decades.<sup>2</sup>

Due to their recency, this report does not seek to further unpack these developments. Sometimes sharp pullbacks in startup investment based upon stock market performance quickly reverse and aren't felt at the earliest stages, which is what happened in 2016—but the present downturn is underpinned by additional factors not present then.<sup>3</sup> It is difficult to predict how the current situation will play out, and—because it is still unfolding—it is impossible to put in the context of the data presented in this report. Indeed, preparation of the data for this report began before conditions in the markets turned for the worse earlier this year.

Despite this, the conclusions of the report remain valid and instructive for policymakers. The well-established relationships between exits and investment, importance of acquisitions for the startup ecosystem, and prescient lived experiences of founders endure. With the macroeconomic situation uncertain and potentially threatening to the startup ecosystem, it is especially important to root policy proposals impacting startups in a sound understanding of the ecosystem and the relationship between startup exits—especially via acquisition—and investment in startups.

# EXIT LIFECYCLE: ACQUISITION

Startups that come to be acquired follow many different paths to acquisition, depending on the unique details of their situation. Over half of startup exits via acquisition are profitable—providing return on investment for investors, founders, and other shareholders like early employees.<sup>4</sup> Some startup exits via acquisition are not profitable and typically come after such startups have tried, but were unsuccessful at raising additional capital.<sup>5</sup> These acquisitions return some of the initial investment back to investors, tend to offer a ‘soft landing’ for founders and key talent in the form of roles at the acquiring company, and are preferable to failing worthless. Each startup may have a unique road to acquisition, but startup acquisitions share common elements. Here are some of the key steps in the acquisition process.

## LAUNCHING AND GROWING A COMPANY

As startup founders grow their companies, build their products, attract investment, and go to market, they have in mind long-term goals, or an exit strategy, for their company. Consistently, over half of founders say acquisition is their realistic long-term goal for their startup.<sup>6</sup> The average age at acquisition for startups has steadily been around five years, but a large standard deviation underscores the range of ages and stages at which startups are acquired.

## STRATEGY AND PREPARATION

Startups can seek to be sold, or they can be approached by potential buyers. Some startups are acquired or merge with other startups that are just a bit farther along than they are. Other startups are acquired by large, established firms that might conduct several such transactions in a given time period. Each case presents differences in strategy and negotiating power, but in either case, a startup is well aware of their valuation. Startups looking to sell may also have prepared financial statements and documents outlining their business to share with potential buyers. Institutional investors in a startup—who often have a seat on the board of directors—are likely to have been through the acquisition process several times and can play a critical role in facilitating the transaction.

## SOLICITATION AND NEGOTIATION

After a startup has received an offer, they may solicit others and will negotiate the valuation and potential earnouts based on expected future performance of the company. The startup and acquiring firm will iron out other details to be included in a letter of intent—like the purchase price, how the buyer is going to pay, what happens to employees, and other details depending on the situation.

## LETTER OF INTENT

After the price and key terms of the transaction are sorted out, they will be enumerated in a letter of intent that is signed by both parties. Letters of intent are likely to have both legally binding and non-binding provisions. Almost every letter of intent will include exclusivity provisions—that the startup won’t continue seeking other buyers for some enumerated period of time—and confidentiality ones—that the buyer won’t disclose the confidential information they learn through the due diligence process to others.

## DUE DILIGENCE

Ahead of the final purchase agreement and exchange of assets, the buyer conducts due diligence to ensure that the information they based their offer upon was accurate. The due diligence process is an especially critical period for startups. If there is a material discovery in due diligence that leads the acquirer to walk away from the transaction, that sends a signal to other potential acquirers, which may cause the other offers the startup initially received or could potentially receive to evaporate or be greatly reduced.

## PURCHASE AGREEMENT AND SALE

After the due diligence process has concluded, the startup and acquirer enumerate the terms of the transaction in a purchase agreement, including any adjustments based upon discoveries in due diligence. The purchase agreement is the binding contract memorializing the transaction. Large deals exceeding certain thresholds have to be reported to antitrust authorities prior to consummation of the transaction. Sometimes these filings are submitted earlier in the process, once key terms of the deal have been enumerated in a letter of intent.

## NEXT STEPS

Individual terms and characteristics of each transaction will determine what startup founders do next after their company is acquired. Startup founders are sometimes paid in stock of the acquiring firm which vests over a certain period of time. During this time, the founders often join and work at the acquiring firm. After the vesting period, many leave and join or begin new startups. Startup founders and key employees routinely stay in the startup ecosystem, founding new startups, becoming investors, and mentoring others.

# EXIT LIFECYCLE: IPO

Startups looking to go public have a few avenues to access the public markets including direct listing, special purpose acquisition company (SPAC), or reverse merger. Traditional initial public offerings (IPOs) remain the most popular way for startups to go public, even if each of those options may have merits for individual companies. Key steps in the IPO process, which can take six to 12 months, are explored in this diagram.

## BEGINNING AND GROWING A COMPANY

While startups may be acquired at many different stages and levels of (un)profitability, those going public via IPO are later-stage—older and larger. Indeed, there are substantial regulatory compliance burdens associated with being a public company and it can cost millions of dollars annually. A company also generally needs institutional backing to go public, as illustrated below. As such, startup IPOs are often concentrated in the largest ecosystems. Still, just under a fifth of startup founders say their long-term goal is to go public through an IPO, but few make it there—less than 10 percent of exits in a given year are via IPO.<sup>7</sup>

## SELECT UNDERWRITER(S)

Once a startup has decided to go public, they will select an underwriter—usually an investment bank—to manage the IPO and sell the shares to investors. Startups select underwriters based on the underwriter’s plan for the process, but also upon their existing institutional relationships, reputation, and ability to sell the shares. An IPO can involve one or more underwriters. Having more underwriters helps reach more investors, which is especially common in larger IPOs.

## DUE DILIGENCE AND REGULATORY FILINGS

The startup and its underwriters will conduct due diligence examining every aspect of the company. Barring a material discovery in due diligence, the underwriters will then send the Registration Statement to the Securities and Exchange Commission (SEC). Some startups may be exempted from certain otherwise applicable requirements—if they meet the definition and file as an Emerging Growth Company as set out by the JOBS Act—including certain disclosures and the number of audited financial statements.

## ROADSHOW AND PRICING

The underwriters are responsible for setting a planned price range for the IPO. This process can include distributing a preliminary prospectus which helps assess investor interest. Underwriters and company leaders often go on a “roadshow” (sometimes virtually) across the country (and globe) to market the company to and take orders from prospective investors. Based upon orders from the roadshow, the underwriters will revise the planned price range for the offering.

## ALLOCATION AND TRADING

After the shares have been priced, the underwriters will allocate them to investors. Once allocated, the stock starts trading and the public can buy and sell the shares on a stock exchange. Existing shareholders' private shares (those held by, e.g., founders, employees and private investors like VCs) are also converted and become valued at the public share price.

## POST-IPO

Companies choose to go public to raise capital that will help them further grow their business and to provide an exit for investors and others, who can decide to eventually sell their shares and earn a return. After the company is public, there is typically a lockup agreement that prevents company insiders—including founders, employees, existing (pre-IPO) investors, and others—from selling their shares for a period of time, usually 180 days. Companies that are publicly traded are subject to additional regulation designed for investor protection, and compliance can cost the company several million dollars annually.<sup>8</sup> Companies that have gone public as Emerging Growth Companies are also exempted from some of these requirements for as long as they have EGC status, which can be as long as five years. And there can be other costs to going public, for example additional public scrutiny, less founder control, and pressures from activist investors.

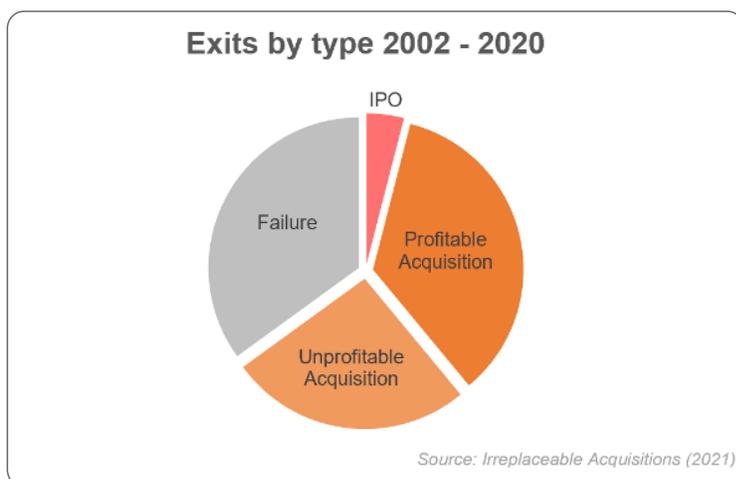
# STARTUP EXITS

## Overview

Broadly, there are three types of startup exits: going public, being acquired, or failing. Exits are a critical moment in the lifecycle of a startup—after an exit the company is likely to no longer be considered a startup: it will either be a public company, be part of the acquiring firm, or cease to exist.

In successful, profitable exits, founders are rewarded for the blood, sweat, and tears they have put into building the company, and investors earn a return. Both exits via acquisition and via IPO can be successful, profitable exits, but they vary in their frequency, relationship to new investment in startups, and accessibility to more-rural and smaller companies.

Overall, IPOs are much more rare than acquisitions. Our earlier report on the State of the Startup Ecosystem found just 10 percent of exits from 2008 to 2018 were via IPO (not including failures).<sup>9</sup> The remaining 90 percent were acquisitions. Another paper found that IPOs made up just four percent of all startup exits between 2002 and Q12020 (including failures and shutdowns). Acquisitions meanwhile accounted for 61 percent of exits. (And 35 percent of the startups in the dataset failed).<sup>10</sup> This (in)frequency of IPOs is consistent with founders' long-term expectations for their startups—in one survey, 58 percent said their long-term goal was to be acquired while 17 percent said IPO.<sup>11</sup>



In addition, IPOs are more concentrated in parts of the country that have larger, more established startup ecosystems and are more weakly associated with investment in new startups when compared to startup acquisitions. As a result, the availability of exit via acquisition is of greater importance to startups and investors outside of top ecosystems like Silicon Valley, New York, Boston, Los Angeles, and Seattle.

Unfortunately, not all exits are profitable—for example, if a startup is acquired for less than the company's previous valuation—but these unprofitable exits are preferable to failing worthless and similarly important to the startup ecosystem. These exits can provide a soft landing to founders and investors of companies that have run out of alternatives—they're out of runway, can't raise additional funds from investors, and are too small or unprofitable to raise funds by going public.<sup>12</sup> Through acquisition, investors are able to recoup some of the original investment, and founders and employees might be given a job at the acquiring firm, allowing them to build their resumes ahead of their next venture.

Building on this prior research, the rest of this report takes a deeper look at exits and investment in startups at an ecosystem level.

## Exits and Investment

Examining exits and early stage investment at an ecosystem level shows, unsurprisingly, that exits fuel investment. The data should emphasize the obvious role exits play in investment, and additionally factor into global policy questions of how companies should be allowed to exit, and whether and to what extent the capital stays in an ecosystem after an exit.<sup>18</sup>

The adjacent heat map looks at the globally-adjusted yearly growth rates of the value of exits and the value of series A investments in a selection of startup ecosystems. To calculate the adjusted growth rate, Startup Genome first calculated adjusted values (with the globally-adjusted value being equal to the difference between the subsequent year unadjusted value and the product of the unadjusted value and global growth rate) before using these adjusted values to calculate the globally-adjusted growth rate. Adjusting the data should diminish the prevalence of some confounding variables like global economic trends, for example. This is important since overall economic trends necessarily impact investment and exit activity.

### Exits in the Investment Model

Much ink has been spilled describing the venture capital (VC) investment model and the role of exits in it.<sup>13</sup> Over the decades, the portfolio of companies that venture investors fund has evolved, but the basic model has remained.<sup>14</sup> And as VC has emerged and emerges in new regions—including those with important societal, structural, and cultural differences—exits (somewhat obviously) continue to play a critical role.<sup>15</sup> It is worth briefly describing the model here.

While certainly not the only type of startup financing—and not necessarily the only type captured here—venture capital is the most prominent form of institutional investment in startups, and very few startups grow very large without it.<sup>16</sup> Generally, venture capital is capital pooled together from investors and given to startup companies in exchange for equity in the company. Investors might be high-wealth individuals, foundations, pension funds, endowments, or other institutions, and they are known as limited partners. Their pool of capital constitutes a venture fund, which is managed by the venture capital firm. The general partners at the firm choose the startups to invest in, which are typically technology-based with high-growth potential. A representative of the VC firm will often sit on the startup’s board to monitor and guide the company and may provide additional funding as it grows. Once the startup successfully exits, capital is returned to investors, a new fund is formed and the cycle begins anew.

Startup exits are critical to the investment cycle in the innovation ecosystem—successful exits provide returns for investors and founders. That fact, or the prospect of it, is what encourages investors to fund startups and can also be part of what encourages founders to launch in the first place. And investors fund new startups with the profits they earn from prior investments, while founders often launch new startups, become investors themselves, or both. This is rational investor behavior most of us can connect to—investing with risk and potential return in mind, and reinvesting returns, is something most of us do with our retirement savings, for instance.<sup>17</sup>

Deal Year	Silicon Valley	
	Exits	Series A
2013	Light Green	Light Green
2014	Light Green	Dark Green
2015	Light Green	Medium Green
2016	Light Green	Light Green
2017	Dark Green	Dark Green
2018	Dark Green	Medium Green
2019	Light Green	Light Green
2020	Light Green	Light Green
2021	Light Green	Light Green

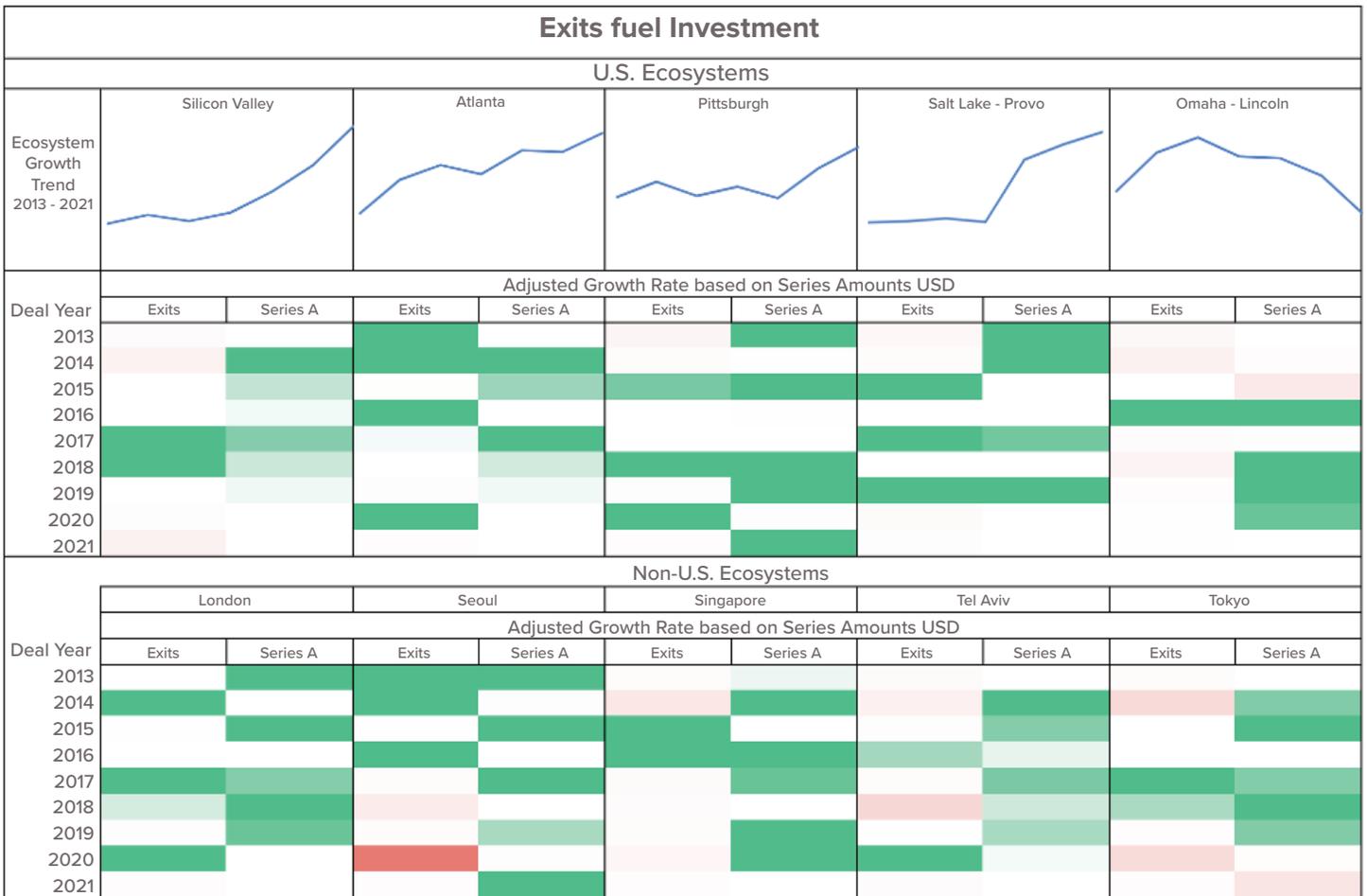
The U.S.-based ecosystems represent a range of size, level of development, geographic location, and predominant industry subsector. Non-U.S. ecosystems represent a selection of global benchmarks. For U.S. ecosystems, trendlines of ecosystem value are presented to lend additional context. Ecosystem value is an economic metric reflecting two and a half years of data ending in the reference year.

Dark-green boxes represent growth rates of 100 to 1000 or more percent. Medium-green boxes represent growth rates of 50 to 100 percent, and light-to-faint-green boxes represent growth rates between zero and 50 percent. Red boxes follow the same pattern, but denote rates of decrease, meaning darker red is more negative.

The heat map below brings into clear view the relationship between exits and investment that has been shown elsewhere.<sup>19</sup> When we see an increase in exits, we see an increase in investment in the same year or an adjacent year (usually both). We see this happen in the world’s largest startup ecosystem (Silicon Valley) and in the smallest presented here (Omaha-Lincoln). We see it in both the domestic ecosystems and the foreign ecosystems.

Of the 14 increases in exits that occur in the selected U.S. ecosystems, 13 are accompanied by an increase in series A in the same year or immediate subsequent year, or about 93 percent of the time. For non-U.S. ecosystems this happens 12 times out of the 13 there is an increase in exits, or about 92 percent of the time.

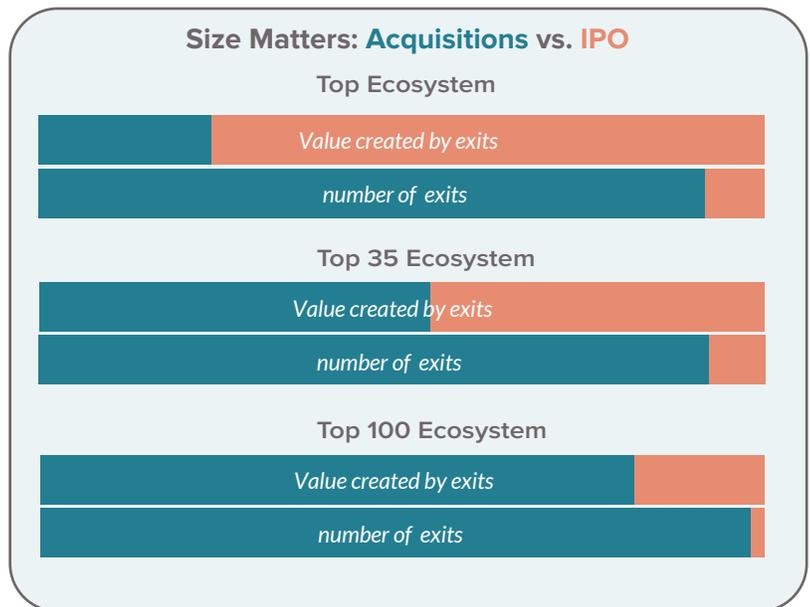
Notably, the chart lets us visualize the impact on investment as described in other scholarship. A 2022 paper describes the initially large impact on startup investment of acquisitions of startups by ‘Big Tech’ companies that then diminishes over time following the exit event.<sup>20</sup> That relationship is visible here, e.g., in Silicon Valley, Atlanta, and elsewhere—look for the dark-green bars that get progressively lighter.



# IPO OR ACQUISITION: KEY DIFFERENCES FOR STARTUPS

While IPOs and acquisitions can both be successful exits that bring positive effects for the ecosystem, it is important to compare the two, given ongoing policy conversations that could result in fewer acquisitions. Looking at what exits happen where is instructive for current policy debates and brings into clear view the importance of acquisitions. In this section, we look at the five U.S. ecosystems included above. Again, they represent ecosystems at different stages of development. Each also varies in geography, demography, proximity to talent pools, and predominant industry subsector. This analysis can also help inform policymakers interested in, e.g., expanding the startup ecosystem and supporting innovation outside of Silicon Valley.

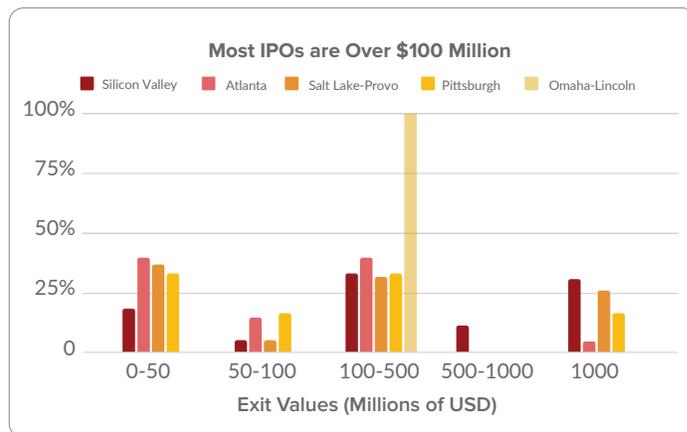
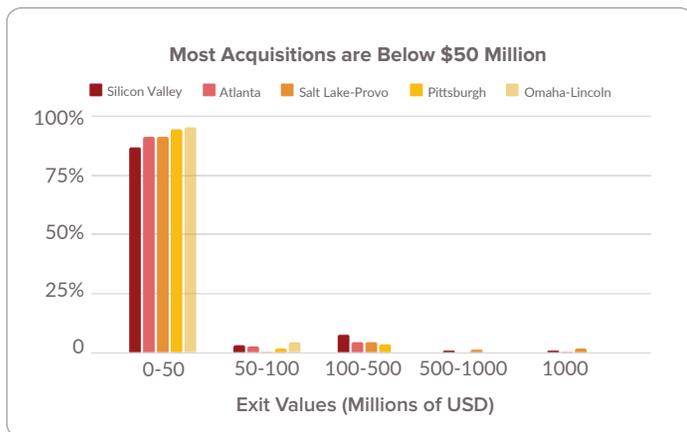
To see the differences in frequency and size of IPOs and acquisitions in each ecosystem, we look at the share of exits by type, the exit value, and overall data on exits. In the largest ecosystem, Silicon Valley, IPOs are responsible for most of the exit value. This diminishes progressively as you move to smaller ecosystems Atlanta, Salt Lake-Provo, Pittsburgh, and Omaha-Lincoln. A similar progression occurs when considering the share of exits by type. IPOs make up a greater share in Silicon Valley which diminishes as you move to Omaha-Lincoln (which only experienced one IPO one of these 10 years). For greatest detail, you can view individual ecosystem charts in the appendix. For the interest of space, a summary chart is presented here with Silicon Valley, the top ecosystem globally, Salt Lake-Provo, a top 35 U.S. ecosystem, and Omaha-Lincoln, a top 100 U.S. ecosystem.



On some level, this shows us what we already knew: IPOs are concentrated in the top ecosystems and tend to be out of reach for startups in smaller ecosystems. But it puts an exclamation point on the importance of exits via acquisition in smaller ecosystems—all of the dynamic benefits to flows of talent and capital that are brought by exit events are meaningfully only available through acquisitions. And this is consistent with the correlation analysis Engine and Startup Genome produced in the earlier report, which showed a strong, positive correlation between acquisitions and investment. As you remove top ecosystems from the data, the relationship between startup exits by acquisition and startup investment gets stronger and more positive.<sup>21</sup>

The data also confirms something else we knew: companies going public tend to be older and have higher valuations. An overwhelming majority of startup acquisitions in each of these ecosystems are below \$50 Million. Meanwhile, the majority of IPOs are over \$100 million. These differences have implications for company success.

Many companies valued below \$50 million cannot conceivably succeed as public companies. A nationwide dataset shows that 40 percent of the companies that have gone public for less than \$50 million have since failed.<sup>22</sup> Reviewing the IPOs under \$50 million included above reveals similar results. A few of the companies are trading on foreign exchanges. Several of those that went public on the NASDAQ or NYSE are now trading over-the-counter, sometimes with a share price in fractions of a cent.



Going public too soon is risky for startups because it makes it harder to raise additional capital needed to scale. Public companies lose control of their share price, and their valuation is no longer likely to be set by those with knowledge of properly valuing startups. This can make an additional raise too expensive, or, especially if the share price is falling (e.g., as discussed above) make the company undesirable to prospective investors.

Institutional backing is likewise important for helping the company to succeed once public.<sup>23</sup> IPO underwriters typically perform sales-functions to sell the shares to investors. And once public, investment banks analyze and recommend (as appropriate) the stock to their clients. For small IPOs, there tend to be fewer underwriters (which are unlikely to be top-tier firms), and the stock is unlikely to be tracked by analysts (or by as many) at investment banks. Both of these diminish the likelihood of success as a public company in terms of share price. And it is important to note the differences in proximity of such key institutions—there are fewer in smaller ecosystems—which is an important factor for both the frequency of IPOs there and the success of the companies that do go public.

Finally, no discussion of U.S.-based IPOs would be complete without discussing the regulatory burdens and additional scrutiny that comes with being a publicly traded company. The Sarbanes-Oxley Act (SOX) sets out the regulatory framework for public companies, and the cost and complexity of compliance can easily exceed \$1 million annually, which can be out of reach for many startups and contribute to fewer companies going public or delaying that move until they are larger and older.<sup>24</sup>

SOX and its consequences for startups and the public markets are instructive for current debates about acquisitions in the startup ecosystem. Sarbanes-Oxley was legislated in response to a series of high-profile accounting scandals. Of course, no member of Congress or the public is or was in favor of corporate fraud in their consideration of Sarbanes-Oxley, but several members of Congress did warn of the consequences of burdening capital formation for small companies like startups through SOX. Then-Rep. Jeff Flake (R-Ariz.) cautioned against proceeding without knowing “what cost we’re going to impose, particularly on small businesses.”<sup>25</sup> Sens. Phil Gramm (R-Texas) and Kit Bond (R-Miss.) respectively voiced concern that the law would “use up the resources” of small companies, and “damag[e] the economic framework for small companies to reach our capital markets.”<sup>26</sup> Given the impacts on IPO frequency, IPO company age, and of compliance costs, those concerns have indeed borne out.

Likewise, today, no policymaker or member of the startup ecosystem is in favor of illegal anticompetitive conduct as they warn of the consequences of burdening startups through poorly crafted competition policies. Creating burdens on startups’ ability to exit, especially via acquisition, “risks similar unintended consequences” as those effected by SOX, as one startup founder put it.<sup>27</sup>

# EXITS AND THE STARTUP EXPERIENCE

Engine strives to be the voice of startups in government, and our work is informed by our network of thousands of startups located in every state and congressional district all across the country. This project is no different. In the course of this research, we spoke with dozens of startup founders to hear about the firsthand experiences of having their company be acquired. They represent companies across a range of ecosystems, deal sizes, and acquirers. Below is a sampling of some of those stories, which should be instructive for how acquisitions fit into the broader startup ecosystem.

## Startup Acquisition Experience: CARLYPSO

Acquired by Carvana • San Carlos, California  
Nicholas Hinrichsen, Cofounder and CEO

**Originally a peer-to-peer platform for buying and selling used cars, Carlypso is an online platform that gives customers access to wholesale inventory and helps throughout the buying process by performing inspections and arranging delivery.**

I came to the U.S. from Germany to go to business school at Stanford, where I met my cofounder, Chris. After we graduated, we started Carlypso—with the goal of building something like an Amazon of used cars. We went through Y Combinator, raised \$10 million in venture capital funding and ran the company for about four years.

Our goal at the outset wasn't necessarily to be acquired, but rather to build as big as we could. We discovered that running a car retailing company is really, really hard and capital intensive—particularly what we were building—because success required vertical integration, essentially being three companies in one: a logistics company, a bank, and a car dealership. We became very good at two of these pieces, i.e. the car dealership and the logistics company. But our inability to provide financing, especially to buyers with low credit scores, led us to sell our business to Carvana. Carvana had inherited the lending business from its parent company Drivetime, and so we decided selling to them seemed like a good option.

Venture investors have an expectation for a high exit multiple. Returning capital to investors was important. At the point of the sale, the intellectual property we had created had become very valuable. The technology, however, wasn't as useful without the team that had built it. Therefore, ensuring the best deal for our team—making sure they had a job that paid well where they could apply what they learned and eventually move on—was 100% aligned with our investors' financial interests. Everyone on our team of about a dozen were able to join Carvana.

Looking back, I wish we could have stayed independent and been the successful company in a position to acquire, but this was the second best possible outcome for us. We couldn't have built what Carvana had inherited.

I worked at Carvana in a few leadership roles for a few years, in addition to advising and investing in startups. In 2020, my co-founder and I left to build a new startup, leveraging our deep knowledge of the industry to help consumers with their auto loans in particular and their consumer loans in general. Since then, we've raised \$41M in venture funding from amongst others Andreessen Horowitz and our strategic partner CUNA Mutual Group. We're on a mission to turn Credit Unions into FinTechs and help consumers with their financial well-being.

# Startup Acquisition Experience: TAKELESSONS

Acquired by Microsoft • San Diego, California  
Steven Cox, Founder and CEO

**TakeLessons is a learning platform where instructors offer teaching services for sale and individuals receive lessons for languages, tutoring, music, and more, either online or in-person.**

I founded TakeLessons in 2006 after noticing a disconnect between people looking to learn and those who could actually teach them. What we recognize today as ecommerce platforms or marketplaces were around—eBay, for example—but connecting buyers and sellers of services was still novel. I started the company out of a spare-bedroom, self-funded, and worked at night with teams in India to build the first version of a product, initially focused around music lessons. We bootstrapped the business for a few years before friends and family funding, and eventually institutional venture capital.

Before being acquired by Microsoft in 2021, we made two acquisitions ourselves to advance the business. One helped us to expand into a new offering—building out our network of instructors at a discount—while the other acquisition added a social aspect to our core offerings around music.

The decision to be acquired was a strategic one, reflective of our understanding of the cycles startups go through. Early on in 2012, business was going well and we started receiving offers from would-be acquirers. While we explored them, we ultimately decided not to pull the trigger—we were just getting started and had a lot of opportunity ahead of us. At various points over the next several years there were times where we would have been open for an acquisition, but there weren't any buyers. So when we experienced the boom in online learning during COVID, we tested the waters and received interest from both strategic buyers and private equity firms, confirming it was a good time to potentially join forces with a strategic buyer.

We were courted by multiple parties, and we were thrilled to be acquired by Microsoft—the second largest company in America. Obviously, key considerations like pricing, terms, and probability of closing were important, but for us, Microsoft's strengths paired well and they had the resources to grow TakeLessons and a shared interest in empowering providers to make a better living doing what they love. Equally important—and I hope this is a priority for every founder—the day after we were acquired, all of our employees had jobs at Microsoft.

The company is in great hands. This has allowed me to step back to a consulting role after spending the several months following the acquisition helping with the transition. I am now taking a breather a bit and thinking deeply about what I want to do next. I've joined the Board of Directors/Advisors for a couple marketplaces and/or ed tech companies, and I've started looking at government policy, social impact, and food tech space. I will certainly remain in the startup ecosystem.

Finally, I've been asked recently about big tech acquisitions that are made just to kill off new technologies. Personally, I haven't seen these "killer acquisitions" where a large company tries to stamp out a small one. It's possible, I suppose, but I find that larger companies are more interested in playing offense than defense.

Regarding policy, policymakers should be thoughtful about limiting mergers and acquisitions by big tech as a way of reigning in the major players. Being acquired is a desirable startup exit path, and restricting it will lead to less capital and less startup competition. Policymakers should also realize that immigration is an important key to startup talent. To compete in a global economy, startups need to hire the best and brightest employees from around the world. The employee-sponsored visa program remains broken, and Congress needs to make it easier for startups and other small businesses to navigate the immigration system. Finally, the protection of the Qualified Small Business Stock (QSBS) incentive is a key driver to allowing entrepreneurs and early employees to be rewarded for taking the risks to start and grow a new business. Without a doubt, the QSBS tax treatment helps the startup ecosystem as an economic engine.

# Startup Acquisition Experience: SAFABA

Acquired by Amazon • Pittsburgh, Pennsylvania  
Alon Lavie, Cofounder and CTO

**Safaba is an automated translation solution for global enterprises' digital content, like websites, customer communications and more.**

I spent most of my career in academia as a professor at Carnegie Mellon University (CMU) in the AI language technology space. In 2009, a cofounder and I started Safaba, which was essentially a spin-out of my research lab activities. Automated translation technology was evolving quickly at that time, mostly in research settings, and we identified an opportunity and need for commercialization. The technology was particularly advantageous for large, global enterprises—including Amazon, who initially approached us as a customer and really liked the product and expertise we offered.

A lot of our technology development was funded by the Small Business Innovation Research grant program and some investment capital from a few different entities. By the end of 2014, we were at the point of raising a series A round when Amazon approached us with an offer, and we ultimately decided to accept. We were a team of 12 at that point—mostly from the CMU research environment—and eight of us went full time into Amazon. At the time, Amazon was the only large tech company without a presence in Pittsburgh and we made clear early in the process that none of us wanted to move to Seattle. I convinced them that there is a lot of value to the talent and connections at the University, so as part of the acquisition they opened a corporate office here in Pittsburgh. I worked there as a senior manager for three and a half years post-acquisition, and the office has grown to 300-400 people, so I definitely pat myself on the back for being the person recognized as bringing Amazon R&D to Pittsburgh.

Focusing on the positives, I think being acquired was a really good outcome for Safaba. Ultimately, it was the right decision for the company, and it wasn't just financially lucrative for my cofounder and I, but it was a transformational professional opportunity and financial outcome for our entire team. The integration of the technology within Amazon went really well. And managing an R&D team in a large company also added another highly valuable chapter of experience to my career that I really appreciate.

Being acquired is not without its challenges, though, especially with a large company like Amazon. Integration from a culture standpoint is really tough and generates a lot of situations for people to become unhappy. We were a small startup with roots in the University research space, and so the transition to a large company like Amazon was difficult in terms of operational structure, rules and how organizations are managed at that scale. When it came to the acquisition negotiation process, we were also on a different playing field in terms of resources and experience, and so that was probably the biggest challenge for us as founders. Even where we did things right—we had done an immaculate job of clearly separating and documenting our IP in the technology transfer process with the University—there was friction with Amazon. We also had a long relationship with a top-tier legal team that we weren't able to leverage because they represented Amazon elsewhere, and Amazon wouldn't give a waiver to allow our legal team to represent us in the transaction.

Ultimately, I'm glad we saw the acquisition through, but I think there's a lot policymakers, startup supporters, and others can do to help empower startups in the acquisition process, particularly when the acquirer is a large company like Amazon. Shared tools and resources seem like a good place to start. Template agreements or standard terms might help founders understand what is standard in a contract, but wouldn't be very valuable if the acquiring companies are able to toss them aside in negotiations. And for startups, high-quality legal and business representation that you trust to negotiate on your behalf is critically important, as is ensuring your proprietary IP is clearly identified and well-documented to avoid the potential for issues in the acquisition process.

Today, I am an adjunct professor at CMU and a senior manager at a bi-national growth-stage scaleup called Unbabel. Unbabel is fundamentally in a similar AI translation technology space as Safaba, providing an AI-based platform for translation of large volumes of multilingual content for large enterprises. I knew the founders long before they actually started the company—the CEO actually got his Ph.D. at CMU. I opened an office for them here in Pittsburgh and largely oversee the AI technology side for the company. As a growth-stage scaleup, Unbabel is another interesting chapter in my career in the translation technology and NLP R&D space that rounds out my experiences outside of academia in terms of both founding and running a small startup and working at a large tech company.

# Startup Aquisition Experience: CLOUDCHERRY

Acquired by Cisco • Salt Lake City, Utah  
Vinod Muthukrishnan, Cofounder and CEO

**CloudCherry is a customer experience software solution that helps companies manage the customer experience journey and increase customer retention.**

Even though there were others in the customer experience market, we decided to create CloudCherry because we saw a gap that could be solved by approaching the problem with a customer perspective lens. Most contact centers are run and evaluated on key performance indicators (KPIs), like average handle time, cost of service or others, but customers don't care about the company's optimized costs, they're more concerned about whether they experienced empathy, attentiveness, and a resolution on their call. None of those components are absolute either. For example, if someone wants to return a broken product, and you give them their money back but are rude about it—you've resolved their issue, but they probably aren't going to buy from you again. So, we built CloudCherry to help companies understand where to invest to improve the customer journey, and we raised funding from corporate and venture investors along the way.

Cisco was one of our investors, since they agreed with our hypothesis that the contact center is really a customer experience business. And so when we began receiving unsolicited acquisition offers from other companies in the space, they made an offer as well. There's a lot that goes into evaluating an acquisition offer. Obviously there's the price, but the terms are very important as well—is it cash or stock? What's the vesting period? Are there clawbacks, performance riders, or other contingencies? In addition, evaluating the company's "acquisition muscle" — their experience and reputation for successfully completing the process and integrating acquired firms is important, too. If you enter exclusivity with one firm and they decide to abandon the deal, it sends a negative signal to all of the others that may make it harder to get acquired in the future.

Ultimately, given all of these considerations and our long relationship with the company, we chose to be acquired by Cisco. That decision was validated by my experience there. The majority of our team joined Cisco and the company put in a lot of work to make sure our culture was safeguarded. For example, at CloudCherry we had an inspiration wall, where each new employee who joined put up a picture of something that inspired them—Cisco let us replicate it there despite the scale it would have to become. They plotted the closest office location to each employee so they wouldn't have to relocate. And we continued to innovate and build our product. For me personally, I ended up becoming Chief Operating Officer for Webex Customer Experience, which was a massive learning experience.

I really enjoyed my time at Cisco—in fact they knew I would never leave to another large company, because if that was the alternative, I'd rather be at Cisco—but my real joy lies in startups. My two options seemed to be: be an investor, which I was already doing, or start a new startup. Ultimately, I decided I wasn't ready to start a new company again (yet), and joined a friends' growth-stage startup, Uniphore, which seems well positioned to IPO one day.

I am also supporting startups as the Co-Chair of the U.S.-India Strategic Partnership Forum. Barriers to immigration is one of the key issues that needs to be solved to bolster the startup ecosystem and both countries' economies. Something like half of unicorn startups have one Indian cofounder, and for every visa awarded to an Indian startup founder, 40 high-paying local jobs are created. Despite this, founders often struggle to come to the U.S. and often end up using job-seeking visas. Such founders are actively being courted by other countries with tailored immigration processes, resources and other incentives. To remain competitive, we need an entrepreneur visa that helps high-skilled individuals who are starting businesses, bringing capital, and creating jobs to do so in the U.S.

# Startup Acquisition Experience: PARTPIC

Acquired by Amazon • Atlanta, Georgia  
Jewel Burks Solomon, Founder and CEO

**Partpic leverages visual recognition technology to help enterprise customers identify industrial parts and save time during maintenance and repairs.**

Earlier in my career, I worked in enterprise sales, including for Google and for an industrial parts company, called McMaster-Carr. While at McMaster-Carr, I thought there must be a better way to organize and identify parts using technology—which led me to found Partpic. Users could take a picture of the part they were looking for and Partpic would match it to the correct replacement. We licensed the technology to companies for their websites to help their customers find the parts they needed.

Starting out, we had bootstrapped before raising a seed round. We were actually in the process of trying to raise another round of funding when we were acquired. We were in talks with Amazon about investing in Partpic when the conversation turned into an acquisition offer. It moved too quickly for me to solicit other company acquisition offers, but the investment offers we had coming in helped to raise the acquisition value.

At the time of the acquisition in 2016, we were about four years old and had a team of 15 employees. All but one joined Amazon after the acquisition as part of the Amazon visual search team in Atlanta. Our team was responsible for integrating and building what became Amazon Part Finder, which was released in 2018, about 18 months after we were acquired. I stayed at Amazon for three years—some of our team is still there, but they have all gone to work on different projects.

The integration process with Amazon was tough. Perhaps it was the transition from being a nimble startup to part of a large enterprise or other corporate culture issues, but we really struggled to get the resources we needed to be successful and launch Part Finder. The executive who was our champion within Amazon left about 9 months after we were acquired, which probably compounded the issues. Post-acquisition integration is really important for acquiring companies to get right for startup founders and their employees to have positive experiences and be successful.

From the outset, I always thought that the exit path for us would be via acquisition, given our product and strategy. However, I think we still had room to grow the company further at the point we actually sold. The biggest impediment for us was access to capital—we were having difficulty with fundraising at the time, and a lot of bias in the system contributed to that. Helping to combat these issues motivates the work I do with underrepresented founders at Collab Capital and Google for Startups. Founders should be able to pursue the pathway to exit that is right for them—whether that be an IPO or being acquired—without facing the biases and burdens that can constrain the choices available to them and their potential for success.

Ultimately, the acquisition gave me an authoritative perspective on the entire startup journey from ideation to successful exit. For the work that I do now at Google for Startups and Collab Capital, I'm able to help startups in a different way because I've experienced every part of the journey. That has allowed me to support startup leaders, especially by equipping founders thinking about selling their startups with the many things I did not know going into the process myself.

# Startup Acquisition Experience: NEPRIS

Acquired by Providence Strategic Growth Fund (PSG Equity) • Austin, Texas  
Sabari Raja, Cofounder & CEO

**Nepris is an education technology platform that enables educators to connect their students with industry professionals to bring real world relevance and career exposure to every student. Through Nepris employers have an opportunity to engage their current workforce with the future workforce, helping bridge the workforce pipeline gap.**

I went to school in India before moving to the U.S. and earning a Master's degree here. Out of school, I went to work for Texas Instruments in their education technology group. Ed tech at the time was very nascent. Working in the space, I got firsthand insight into how technology can impact students' learning and bring equity of access in education. It became evident to me that stakeholders in education, government, nonprofits, and companies were doing a lot to bridge the workforce pipeline gap, but they weren't really leveraging technology to expose students to experiences outside of their immediate network—which especially impacts girls, rural, and minority students. We thought that someone should be making the connection between industry and students earlier—when first graders are learning about rocks, connect them to a geologist, for example—rather than once they're about to look for jobs. That's the basic idea that led my cofounder and I to build Nepris.

We raised two seed rounds before raising our Series A in 2020. While COVID presented challenges, it also presented a lot of opportunities for us. Things were going well—we had plenty of runway, were near profitability, and were growing at 100 percent year over year. But the edtech space had grown up, too—rather than being something niche there were now dozens of competitors to keep pace with. We thought that acquisitions might be a way to accelerate our growth. That wasn't something we were equipped to do as founders, so we ran a process with Vista Point Advisors, through which we had our choice of private equity firms and ended up choosing Providence Strategic Growth Fund (PSG).

As first-time entrepreneurs, we initially had a very stereotypical view of PE—PE buys failing companies and picks them apart, so you don't want to be acquired by PE, you want a strategic buyer, we thought. After talking with founders that had been through the process, we realized that the right PE firm actually might be a better fit for us. With a strategic buyer, you have to slot in that company's products somewhere, you might be locked in for a time, and how well the integration process goes—both cultural and technical—really depends on the company. While we had interest from strategic buyers and PE firms, for our goals of continued growth, a PE buyer that had experience and a good playbook for growth through acquisitions seemed like a better fit. For us, that was PSG. And they had recently acquired a company called Virtual Job Shadow whose strengths paired really well with ours. We merged with Virtual Job Shadow earlier this year and became Pathful. I've since transitioned my duties to a new CEO and become a board member and Chief Strategy Officer where I coordinate our growth strategy.

As you found a company, you have pretty realistic expectations—you know not every company is headed down the IPO path. Overall, very few education technology companies are public companies. Going from one to five million dollars in revenue was tough. Going from five to 10 million was even tougher. Taking it from 10 to 100 million—at minimum where you need to be to think about IPO—is a completely different ballgame. And unlike the early stages where it's exciting and you're innovating everyday, it is very operational. A lot of founders aren't suited to that challenge, get fatigued, or both. So for most founders, growth through acquisition is the realistic and feasible path.

One thing that is really helpful to the startup ecosystem is Qualified Small Business Stock tax treatment (QSBS)—and so few people know about it. I didn't learn about it until we were going through the acquisition process. Then the Build Back Better bill came out with retroactive changes to QSBS that meant we would've missed the favorable treatment by two weeks. Thankfully those changes did not pass, and with the tax savings as a result of QSBS, I was able to invest in six seed-stage startups just this year. Angel investors are really important for early-stage funding and QSBS plays a big role in keeping capital in the ecosystem and helping angels fund more companies to grow the ecosystem. I am excited that I have the opportunity now to continue paying it forward in supporting early stage entrepreneurs.

# Startup Acquisition Experience: 21LABS

Acquired by Perforce Software • Campbell, California  
Shani Shoham, CEO

**21Labs is an autonomous testing and analytics platform that lets mobile app developers and engineering teams accelerate their release cycle and perfect the user experience for Android and iOS applications.**

Throughout my career, I have worked for and founded various technology companies and venture capital funds. One company I worked for provided the infrastructure for test automation, but you still needed engineers to write the scripts and manage them. That led to low test coverage and increased cost of testing. Using the knowledge I had gained and what I saw as a gap in the market, I started 21 Labs to further automate the process of UI testing and functional testing of mobile applications.

We integrated and partnered with companies like Perforce, Sauce Labs and others to provide the infrastructure to our customers. These partners also reached out to us for joint GTM activities and introduced us to their customers. It made the acquisition the next step in the natural progression.

I stayed at Perforce to help with integration, but once that was settled and my contractual obligations were up, it was time for me to move on to the next thing. Earlier this year I left Perforce to become the Chief Revenue Officer at a new startup that is focused on software development, testing, demo and deployment environments to help speed software release cycles.

The acquisition of 21 by Perforce was a success and the right move for us, and I hope policymakers don't make these sorts of transactions more difficult. However, one issue that we ran into with 21 is talent. There simply is not enough skilled labor—developers—to be able to recruit and retain the talent we need. As a startup, we couldn't really compete with the compensation packages that large established companies were offering, especially in the Bay Area. While we would have loved to help build the local economy through employment too, we ended up relying on developers from Eastern Europe to grow 21. Part of the answer to this talent problem has to be making it easier for immigrants to come to the U.S.

# EXITS AND TALENT

Talent—knowledge and experience—is at least as essential to startup success as the capital needed to seed and grow companies. And critical talent includes the startup founder, with her vision and experiences; expertise and perspective they hire or bring on through cofounders and early employees; and mentors, advisors, and board members that help guide the company. The role know-how and prior experience plays in startup success is not to be understated—new companies with outside mentors succeed at twice the rate of those without.<sup>28</sup> Many such mentors have lived the full range of the startup experience—from launch to raising capital to scaling to exit, sometimes several times over.

Startup exits play a critical role in the development and mobility of talent through the startup ecosystem. If individuals remain at one firm their entire career, dynamic benefits to the economy—leveraging their experiences to grow new ventures—won't accrue and ecosystem building becomes harder. In this way, exits via acquisition are particularly important since key talent are more likely to remain at a company after an IPO (rather than start or join a new company) and likely to seek the certainty of salaried income (sometimes outside the startup ecosystem) following failure and shutdown.<sup>29</sup>

When a startup is acquired, its employees almost always initially stay on at the acquiring firm.<sup>30</sup> Indeed, the startup's key talent—founders, engineers, and those in other leadership roles—are often subject to vesting periods (if paid in stock) or other contract terms that require them to stay at the company for a certain period of time, usually anywhere from six months to three years. During this time, they help integrate the startup's technology into the acquiring firm and experience new processes around running a large enterprise. And working at the acquiring firm can be “a welcome break from the nonstop pace of running a startup,” as one acquired founder told us.

At some point following that breather, the cycle begins anew. Founders usually leave the large company and join or launch new startups<sup>31</sup>—critically, taking the knowledge and experience with them. The prior exit experience is looked upon favorably by investors—who see both a founder with a demonstrated ability to scale and a likely eventual positive return on their investment—helping repeat founders to raise capital for their new ventures. And it is needed to help new entrepreneurs succeed. As one founder put it, “we need more people that have done this before” to help develop the ecosystem. Cycles of talent helps the local startup ecosystem to grow,<sup>32</sup> advances innovation, and creates quality jobs—positive outcomes in which the exit via acquisition was a crucial component.

However, some policymakers worry about the role of acquisitions and talent—especially when startups are acquired principally for their teams rather than their technology—colloquially called ‘acquihires.’<sup>33</sup> Concerns about these transactions generally fall into two categories: their competitive effects and the impact on the availability of talent. Both are misguided. In most cases, such exits are the best option for the startup, which has tried, but was unable to raise additional capital.<sup>34</sup> Rather than being anticompetitive, the acquisition offers the startup's founders and employees a soft landing (and, as discussed, launching pad for their next act). Indeed, one founder of an AI startup “acquired” (along with their entire team) by Google called the exit “the right decision for us.” The founder has since left to join a new startup as an executive. And empirical research shows that talent brought on by acquisition leaves (to young small firms, i.e., startups) at much higher rates than their conventionally hired counterparts.<sup>35</sup> Acquisitions, then, help, rather than harm, economic dynamism.

# WHAT WE CAN LEARN FROM IPO REGIMES ABROAD

Acquisitions play a critical role in the startup ecosystem—particularly in places outside of the largest hubs—as shown through both the data and firsthand experiences of startup founders in this report. However, some policymakers are considering changes that would impede founders’ ability to sell their companies or even prohibit acquisitions of startups altogether. They envision that companies will merely go public instead,<sup>36</sup> which risks harming the startup ecosystem and startups’ ability to innovate and earn investment.

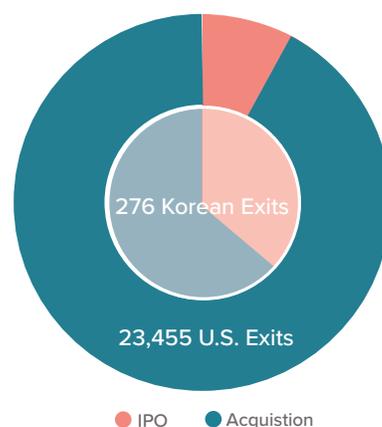
To further underscore the importance of acquisition activity in healthy startup ecosystems, this section leverages cultural, legal, and structural differences found abroad that lead those countries to rely more heavily on IPOs. Both South Korea and Australia have few large acquirers, like those that exist in the U.S., and have systems that allow companies to go public “early” at a low market capitalization. These early IPOs are not exits in the traditional sense, if at all—they are often fundraising events where existing shareholders (like founders, employees, and investors) are subject to long lock-up periods, and market dynamics make it difficult for them to get liquid. As a result, capital and talent don’t cycle through the ecosystems there. The countries’ experiences highlight the importance of acquisitions to dynamic, healthy startup ecosystems, and the folly of standing up early IPO regimes as a perfect alternative to healthy acquisition activity.

## South Korea

Cultural and market factors make South Korea a somewhat insulated market with little acquisition activity, which makes it a useful case study on the importance of exits to startup investment and ecosystem growth. While there are still more exits via acquisitions than IPOs on the whole, acquisitions are not popular in the country. In addition to regulatory headwinds,<sup>37</sup> Korean entrepreneurs regard their companies “like family” and avoid selling, especially to large companies—which would be akin to “selling your soul,” as one Korean investor indicated to us. In addition, many Korean software companies sell to consumers or government, and usually remain national, rather than scaling globally—both limiting growth and potential desirability to foreign would-be acquirers. For investors (and founders), this makes it difficult to exit or get liquid.

In part to solve liquidity issues, the government has created an early IPO process. The startup and small-entity oriented stock exchange in Korea is the KOSDAQ (Korean Securities Dealers Automated Quotations), formed in the late 1990s.<sup>38</sup> In the mid 2010s, listing rules were relaxed to allow a special exemption for technology companies to IPO on the exchange. To qualify, companies must meet certain technology requirements but are exempted from some typical revenue and profit requirements required by the exchanges. The technology requirements meant that software companies were not able to use the exemption—but biotechnology companies were. In mid-2019 the exemption was expanded to allow software companies to undergo early IPOs as well.<sup>39</sup>

Share of Exits by type, 2011-2021



The difference in potential exit opportunities between software and biotechnology startups is reflected in investment—Korean venture investors are likely to invest 50 to 100 times more in biotechnology startups than in software startups. And the overall lack of opportunities to exit leads some investors to seek other methods of getting liquid. For example, investors may sell their shares to other investors (or back to the founder, in the worst case), usually for a loss. If an investor holds redeemable shares, which trigger a sale at a certain return

(usually two and a half to five percent), they can earn a very low return—but this too is regarded as failure from an investor perspective. Share structures (and lack of acquisitions) further limit the ability of investors to force an exit event to recoup their investment or earn a return.

While the early IPO process is designed to fix some of these issues with liquidity and provide technology startups with access to the public markets, performance is poor and plagued with practical issues. In an early IPO, companies aren't generally able to raise much capital to fuel additional growth—usually just 10 to 20 percent of their valuation. Investors, founders and other existing shareholders are subject to lock-up periods where they are unable to sell their shares for a certain period of time following the IPO. In some cases, for the largest shareholder (usually the founder), this period is one year. The long lag does disincent insiders from overhyping the stock, but often investors sell their shares right away after they are permitted to do so regardless, with predictable results.<sup>40</sup> The share price drops significantly and is unlikely to ever recover—especially since (as a result of the early IPO process) there is no institution (such as an investment bank) analyzing and recommending the stock to their clients.

Expectedly, performance of early IPO companies in South Korea is generally poor, with share prices falling once investors realize the company cannot stand on the fundamentals—an analysis of Korean IPOs from 2013 to 2021 showed that stocks with opening share prices that were 95 percent higher than their IPO prices fell by 44 percent a year later.<sup>41</sup> This should spell a cautionary tale for policymakers envisioning that an early IPO system could replace a vibrant merger and acquisition market without consequences for startup investment.

## Australia

Australia has a few distinct characteristics that make it instructive for investment and the startup ecosystem. The country has few large domestic potential acquirers, its stock exchange rules allow early stage companies to list on their stock exchange ASX (though they have been tightened in recent years) and it has few large domestic VC firms capable of writing late-stage growth checks (series B, C, D+).

Beyond consequences for investment, the lack of several large domestic acquirers in Australia stymies the flow of talent and knowledge-building in the ecosystem there. And both factors create headwinds for overall ecosystem growth. In Australia, Atlassian is the predominant large potential acquirer, but Australian startups are also frequently acquired by large (mostly American) foreign companies. This disrupts typical cycles of talent in the ecosystem because key employees are dispersed, potentially overseas, or might not join the acquiring firm. Domestic acquisitions, where employees remain in the ecosystem, by contrast, enable important talent development. Employees of the acquired startup learn systems and processes at the acquiring firm and hone skills necessary for running and growing large enterprises. When they leave to launch new startups or invest in and advise fellow entrepreneurs, they bring those skills and experiences with them.

Though it has grown meaningfully over the past decade, the VC industry in Australia historically has not been large enough to fund lots of growth-and late-stage startups. Though some particularly successful Australian startups could (and still do) draw interest and investment from U.S. and European VCs, Australian startups often go public sooner and at lower valuations than American startups.

Australian startups going public early is not an exit—rather, it is to raise additional capital. The amount raised is historically comparable to raising series A, though now more comparable to series B or C, both as VC availability has improved and listing requirements have been tightened.<sup>42</sup>

Even if founders or investors wanted to take money off the table after going public, it would be very difficult and not without consequence. Company insiders are subject to long lock-up periods where they cannot sell shares,

sometimes two years—this is an investor protection that is designed to disincent overhyping the company's stock price.<sup>43</sup> And when they are able to sell, trying to sell down their stock holdings sends a signal to public investors who are left wondering if you know something they do not, and why you're taking money meant for growth off the table.

Regardless of location, being a public company invites compliance costs and investor scrutiny, but when startups go public before they reasonably should, as in Australia in the early 2010s, it invites additional headwinds. Listing without deep institutional backing, e.g., of an investment bank, means their analysts aren't scrutinizing your stock and recommending it to their clients. And being public as an early or growth stage startup means you don't control your share price. Since public, retail investors do not know how to value startups, startup valuations can become dislocated from where experienced startup investors would value the company. This can make it difficult to raise additional capital needed to keep growing, and the startup with once-great potential becomes a zombie with enough resources to keep existing but few options to raise capital needed to grow.

Companies that have IPOed early in Australia have generally performed poorly (this is true in the U.S. context as well)<sup>44</sup> and have experienced large swings in valuation—with one enterprise software startup's share price going from a few cents to \$2 back to a few cents.<sup>45</sup> To counteract this, the ASX has tightened the exchanges listing rules.<sup>46</sup> Taken together, the comparative experience of the Australian and U.S. startup ecosystems highlights the important role of acquisitions—as an exit path, for promoting investment, for recycling talent—in a healthy vibrant startup ecosystem.

# IMPLICATIONS FOR TODAY'S POLICY DEBATES

This report has walked through the role of exits in the startup ecosystem—the incentives they provide for founders to launch companies and the incentives for investors to fund them; the preeminence of acquisition as an exit path for startups, especially in smaller startup ecosystems; the development and flows of talent in the ecosystem they enable; and the firsthand experiences of startup founders that have had their companies acquired. Each of these factors has bearing on today's burning policy debates about competition in the technology sector, particularly those around the role of startup acquisitions. Policy proposals by agencies and in Congress alike threaten to lessen the availability of acquisition as an exit path for startups.

Startups care about acquisitions as an exit path because it helps them to raise capital for investors—and helps reduce the risk of starting a company. IPO is another exit path that many entrepreneurs hope for, but they know it is not an interchangeable alternative with acquisition—different factors lead up to each type of exit. And going public early can go poorly, whether considering the experiences of early IPO systems found abroad or those that go public at low values in the U.S. As a result, IPO doesn't meaningfully offer to 'fill the gap' if the availability of being acquired is indeed reduced through policy change or chilled by enforcement actions based on novel legal theories.<sup>47</sup>

No one is in favor of anticompetitive conduct, least of all startups, who can be particularly vulnerable as small entities with generally few resources. But arbitrary policies that either target only a few large firms based on size or sow uncertainty to broadly discourage acquisition activity threaten to run counter to their stated goals of helping startups.

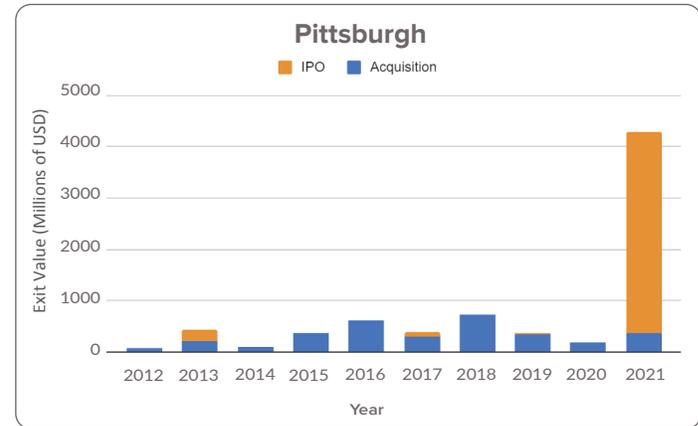
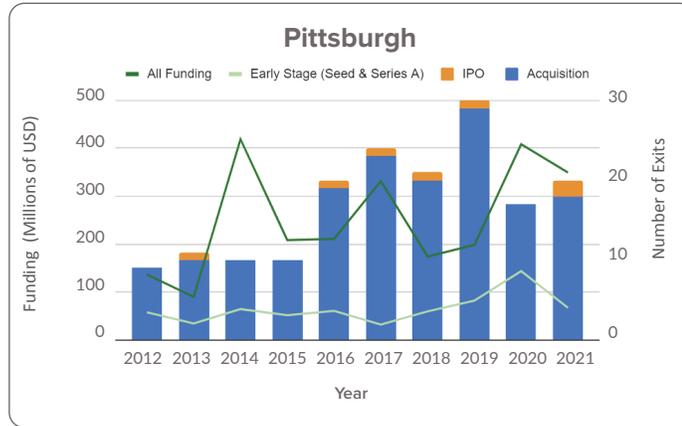
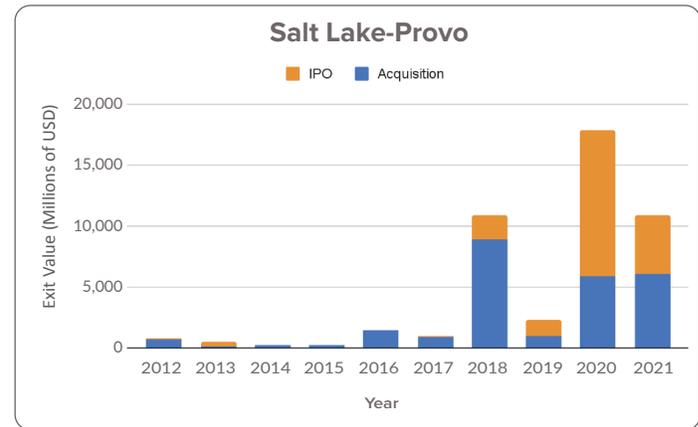
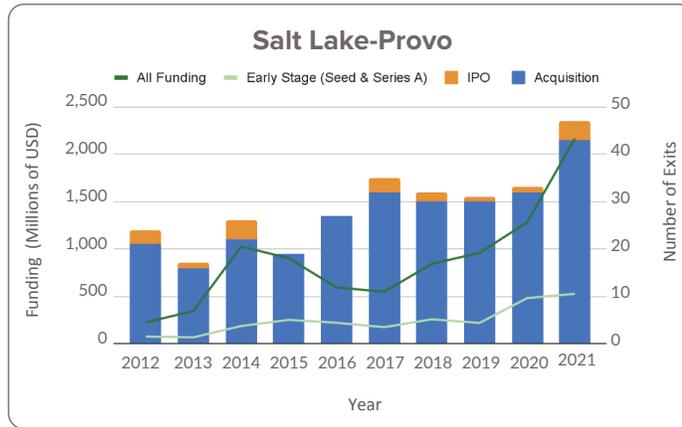
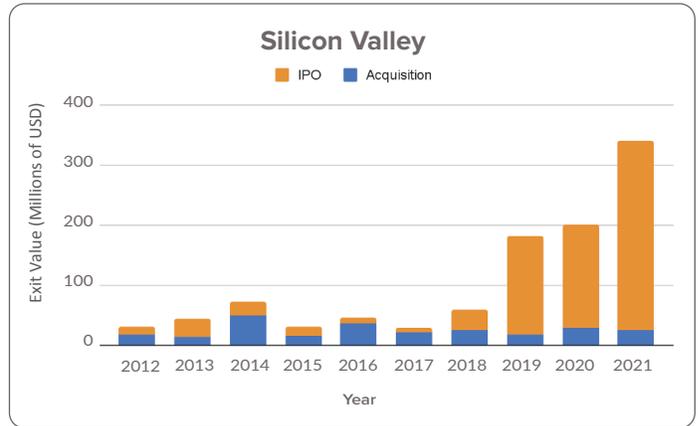
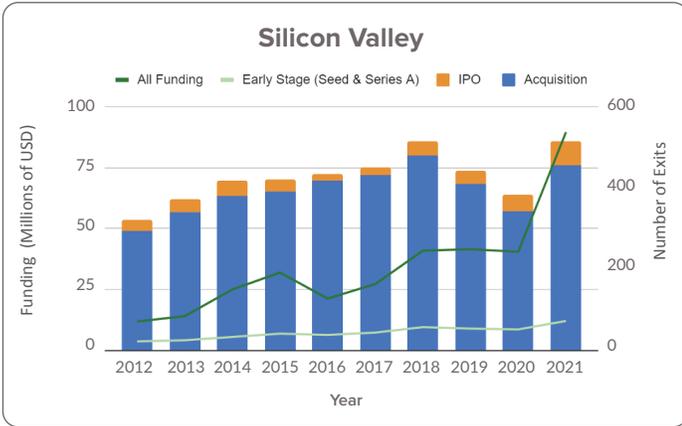
For example, bills introduced in both chambers of Congress would target around five large technology companies, based on market capitalization and other metrics, with the goal of preventing them from acquiring startups.<sup>48</sup> Disallowing some companies (and disincenting others) from acquiring startups takes would-be acquirers off the table, leading to lower acquisition prices and reduces incentives to invest in startups. This has been shown in studies of the bills: they would both reduce investment—by over 12 percent—and reduce exit values—by over 21 percent.<sup>49</sup> Indeed, as one founder who had their company acquired told us: “we had a few other offers from later-stage startups, and I think them knowing Google was at the table really helped,” but in the end, “Google's offer was the highest, and it made the most sense for us.”

The bills would exempt smaller deals under \$50 million from the restrictions imposed on mergers and acquisitions,<sup>50</sup> but this too is arbitrary. While most acquisitions are indeed for amounts below \$50 million, exempting those deals could create incentives to acquire companies earlier. For those worried about acquisitions of startups in themselves stifling potential competition, exempting small deals would appear to have the opposite of the stated intent.

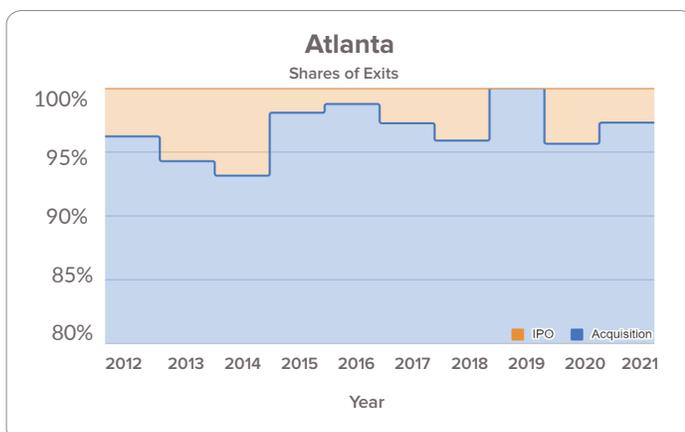
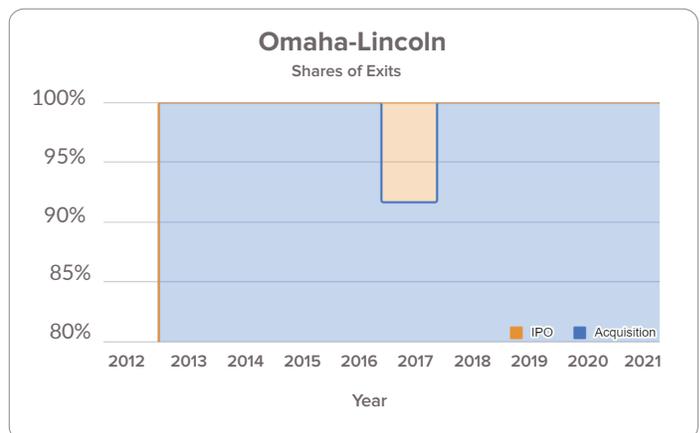
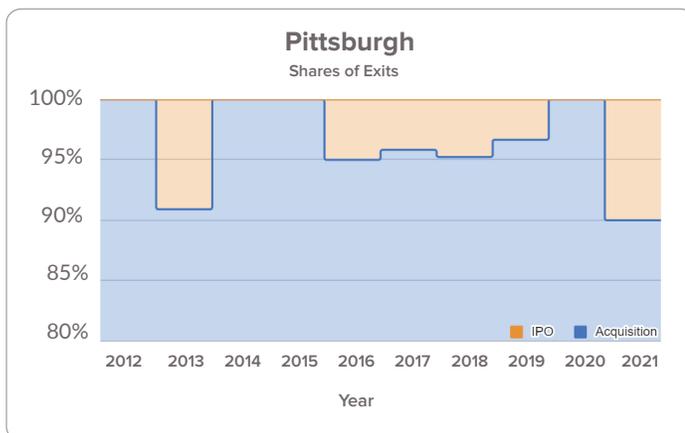
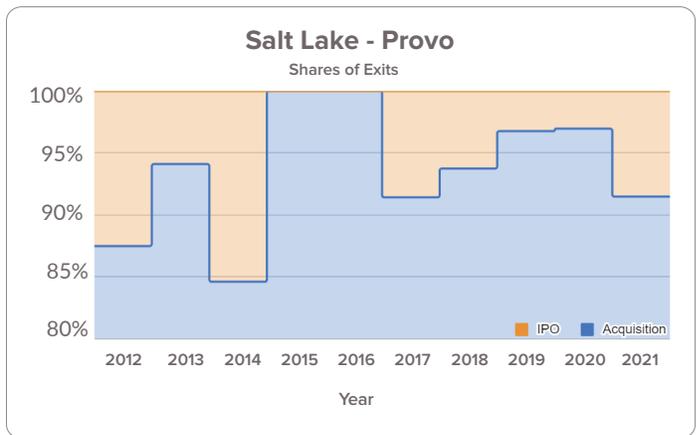
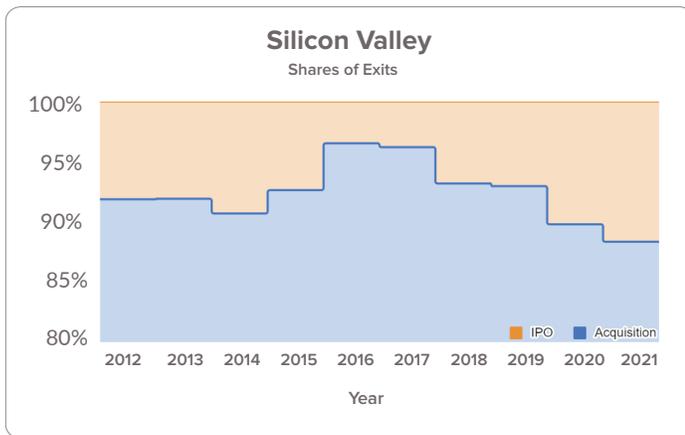
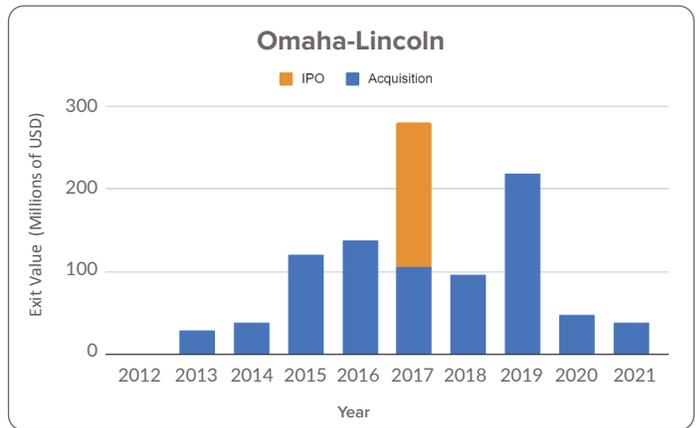
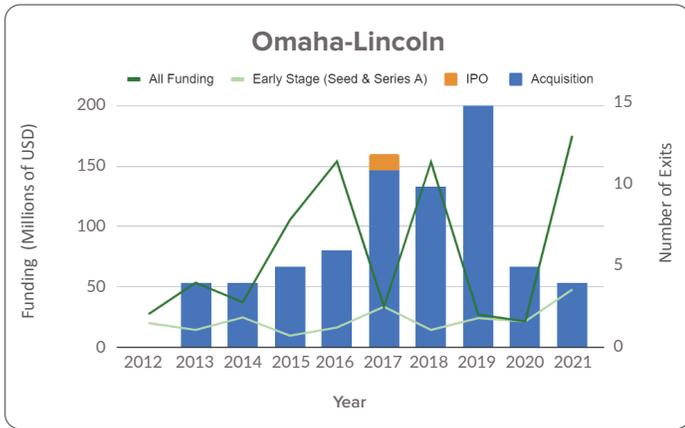
Instead, precise enforcement and individualized scrutiny based on clear, communicated principles is a better approach for the startup ecosystem. Such an approach can ensure that remedies are tailored and do not inflict harms to competition that would outweigh benefits from actions addressing the problematic conduct.

To help startups compete, policymakers can start by addressing their everyday needs. Engine publishes a weekly profile of a startup founder from across the U.S. discussing the policy issues impacting them, and founders routinely bring up a number of ways that policymakers could reduce the obstacles they face.<sup>51</sup> To increase the availability of investment, policymakers can enact reforms that increase the pool of potential startup investors and ensure that government grants and resources are available to early-stage startups.<sup>52</sup> To reduce the costs of critical talent needed to grow startups, policymakers can enact immigration reforms and invest in STEM education to increase the talent pool in the U.S.<sup>53</sup> To mitigate the costs of scaling nationally, policymakers should enact a single federal standard for privacy and work to reduce complex tax burdens.<sup>54</sup> To mitigate meritless litigation, policymakers should take steps to ensure patent quality and defend intermediary liability limitations.<sup>55</sup> Rather than break the investment model that has led to the development and growth of the startup ecosystem, policymakers should start here, because for startups, all policy is competition policy.

# APPENDIX



# APPENDIX



# ENDNOTES

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7. See *Startup Outlook*, *supra* note 6; see also *Startup Ecosystem*, *supra* note 3 (noting that these figures do not include startups that end in failure).
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9. See *Startup Ecosystem*, *supra* note 3.
10. See *Irreplaceable Acquisitions*, *supra* note 4, at 5.
11. *2020 Startup Outlook Report*, Silicon Valley Bank 5 (2020), [https://www.svb.com/globalassets/library/uploadedfiles/content/trends\\_and\\_insights/reports/startup\\_outlook\\_report/suo\\_global\\_report\\_2020-final.pdf](https://www.svb.com/globalassets/library/uploadedfiles/content/trends_and_insights/reports/startup_outlook_report/suo_global_report_2020-final.pdf).
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22. *See Irreplaceable Acquisitions*, *supra* note 4.
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30. *See generally supra* Exits and the Startup Experience (the founders in these stories all worked at the acquiring firm, for varying lengths of time).
31. This was the case with most of the founders we spoke with. *See also, Acquihired*, *supra* note 29.
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44. *Irreplaceable Acquisitions*, *supra* note 4, at 7-8.
45. *See Early Stage Tech Startups*, *supra* note 42.
46. *Id.*

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Engine was created in 2011 by a collection of startup CEOs, early-stage venture investors, and technology policy experts who believe that innovation and entrepreneurship are driven by small startups, competing in open, competitive markets where they can challenge dominant incumbents. We believe that entrepreneurship and innovation have stood at the core of what helps build great societies and economies, and such entrepreneurship and invention has historically been driven by small startups. Working with our ever-growing network of entrepreneurs, startups, venture capitalists, technologists, and technology policy experts across the United States, Engine ensures that the voice of the startup community is heard by policymakers at all levels of government. When startups speak, policymakers listen.



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