

# HALO<sup>TM</sup>

## Report<sup>TM</sup>

### Annual Report on Angel Investments

#### AGGREGATED NATIONAL & REGIONAL DATA

The HALO Report<sup>TM</sup> is a collaborative effort of the Angel Resource Institute<sup>TM</sup> and PitchBook<sup>TM</sup> intended to raise awareness of early stage investment activities highlighting trends that may inform our decisions and impact opportunities for angels and entrepreneurs.



ANGEL RESOURCE INSTITUTE

 PitchBook<sup>®</sup>



## HALO REPORT™ CONTENTS

2021: The year of Stellar Recovery, though short-lived. ..	3
2021 HALO Report Highlights & Trends .....	5
Geographic Analysis of Investor Regions .....	6
Non-US funding to US companies.....	10
Deal Structure and Investment Stage Statistics.....	11
High-level Summary (2021 Seed & Series A).....	12
Three Years' Data: Seed / Series A Metrics.....	13
Characteristics of Seed & Series A Investments.....	14
Industry Analysis.....	15
Industry Segments & Valuation.....	16
Industry Statistics .....	18
Gender & Ethnicity.....	19
Capital Raising Attributes .....	22
Gender Analysis by Industry Segment.....	27
CEO Gender & Ethnicity by Industry.....	28
Super Angels .....	29
How the 2021 Angel Investment Landscape Changed ...	31
National Summary & Regional Statistics.....	33

**HALO Report™ Partners**



**ANGEL RESOURCE INSTITUTE**



### **Report Contacts**

**Gwen C. Edwards**

Angel Resource Institute, Board of Trustees

**ARI Data Team**

[research@angelresource.org](mailto:research@angelresource.org)

For more information about ARI, please visit [angelresource.org](https://angelresource.org)

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# 2021: The year of Stellar Recovery, though short-lived.

## What a Year!

2021 was another history making year for angels and the broader innovation ecosystem in which angels' investments in winning companies ultimately mature. It was a phenomenal year for exits, fueling a contagious enthusiasm.

Many angel groups and individual angels saw their first exits after many years – the often-promised quick hit mantra espoused by ever optimistic entrepreneurs, “we’ll exit in 3-5 years” was beginning to look like an understatement by 50% or more. But after the long pandemic-induced winter of 2020, investment was flowing into the US market across all regions by end of Q1 2021. Zoom and other web enabled video meeting technologies were the catalysts stimulating more investment, without the physical and logistical friction of in-person meetings.

Investors saw their companies exit – more IPOs occurred than ever in recorded history. That euphoria in turn spurred more investment. According to Statista Research Services, there were 951 IPOs in 2021 – almost twice the number of 1999 at 486. And SPAC vehicles enabled more exits for smaller companies as they were rolled into these vehicles for exit purposes. Although analysts cautioned that this “bull run” would not last forever, investors were still willing to pay more for deals, with the market roiling. Many investors with fresh exited capital eagerly rolled their gains into another Qualified Small Business investment for tax advantages.

California continued to have the highest valuations in the country, attracting money to its expensive deals from both outside the region and outside the US, while the South East continued

its aggressive growth trajectory, with investment in what looked like bargains from one coast to the other.

With respect to capital availability, 2021 was record breaking. **The ecosystem saw more angel deployed capital than ever in Seed and Series A deals.** The pandemic moderated prices for new investments in 2020, but this effect vanished by the end of Q1 2021. SAFEs with only a cap were offered and purchased (no discount); for the first time a number of SEC filings sought approval to raise “unlimited” rounds. This obviously hurts investors when likely dilution can’t be calculated. But again, the entrepreneurs were back in the driver’s seat, and with data and science behind so much new and exciting innovation – angels were back in a candy store of places to invest.

### *Data Validation & Methodology, 2021 HALO Report™*

*Angels and angel groups invest alone, together, and with many other types of investors. Unless otherwise noted, the 2021 HALO Report™ data includes funding rounds that have at least one angel group or Super Angel participating and may include other types of investors in those rounds. Note that in 2021 Investment includes the estimate of amount invested as reported by angels and also the amount collectively invested in a deal reported as such in PitchBook. Not all angel groups reporting knew total amount invested in a deal, but did know the amount they invested in such deals. In these cases, Round Size reported by Angels was used as total amount invested in the company. It is important to note that the “Median & Average Funding Round Size” includes investments from Angel groups and non-angel groups including venture capital funds and family offices.*

*Data was sourced directly from angel groups through the Angel Resource Institute's data portal ([www.arihaloreport.com](http://www.arihaloreport.com)), via email, from direct conversations with group leaders or their administrators, and/or via Pitchbook.*

*When required/available, the SEC Form D was reviewed to validate “round size” vs. “equity sold”.*

*Some charts include statistics for data outside of the United States. To maintain readability we included a “z\_” prefix to force presentation of this data to the bottom of the chart or graph when it made sense to do so.*

*This material and report, including (without limitation) the statistical information provided herein, is intended for informational purposes only. The material is based in part on information from third-party sources that are believed to be reliable, but which have not necessarily been independently verified; for this reason, the information is not represented as accurate or complete. The information should not be viewed as tax, investment, legal or other advice, nor is it to be relied upon in making any investment or other decisions. You should obtain relevant and specific professional advice before making any investment decision. Nothing relating to this material should be construed as a solicitation, offer, or recommendation to acquire or dispose of any investment, or to engage in any other transaction.*

## 2021 - A Stellar Year of Recovery (continued)

Everything from new materials for delivering drugs without refrigeration, to drones, to psychedelics, to real meat manufactured (not killed), to high end designer fabrics from recycled plastic, to cyber security and entirely new “chip” industries burgeoning in the US.

And we saw NFTs and cryptocurrencies rise (and now fall). And Web 3.0 and “Deep Networks” generating a new level of piqued interest in pure tech infrastructure. Investment spread quickly from pragmatic applications – tele-medicine and tele-education, grocery delivery and enhanced ecommerce at every turn, back to deeper innovations for broader application.

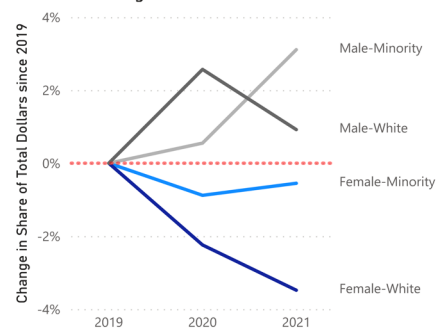
2021 was expressed with more freedom to innovate again, with ample capital flowing to those with bold ideas and plans.

### Our Key Findings

1. Investors in our study put \$4.8B to work in rounds set to receive \$6.4B – a 29% increase over 2020, and 50% increase over 2019! A record year.
2. California fell slightly as a % of total companies funded, yielding to growth in the South East Region – yet again.

3. Female CEOs are simply losing ground - both as a % of total invested dollars and % of transactions, or participation rate. We found a disturbing decrease year over year for past 3 years. This after an improvement in 2020 on a number of metrics giving us hope for continued improvement.
4. Ethnic CEOs overall are increasing their participation rate and % of total dollars invested in the same 3 years; Female Ethnic CEOs’ % are decreasing both in dollars and participation rate.
5. While gender presents a larger equity gap to overcome than ethnicity in aggregate, there are also significant disparities between ethnic groups that we now have the data to appreciate.
6. For the first time, we saw Information Technology as a category on par with Consumer Products and Services in sheer volume of companies transacting for capital.
7. We found more Super Angels this year than in 2020 but found their 50% discount did not hold into 2021. In fact, they paid a premium in some cases, and put more money to work to capture their favorite deals.
8. We again saw more angels investing in new deals, and staying in-region as a % of their total investments; yet in 2021 *each region in the US had deals that attracted money from not only other regions in the country, but from outside the US as well – without exception.* 2021 was a year of hyper recovery, which should put 2022 in better perspective.

Females Losing Share of Total Dollars



*2021 was a year of hyper-recovery. We may want to remember this as we buckle down in 2022 for another period of belt tightening, calling for highly-focused strategic investment choices.*



# 2021 HALO Report Highlights & Trends

*The year of recovery – a stellar year follows the disruption of 2020*

The 2021 Halo Report demonstrates consistency in many levels. Let's start with the number of transactions we include.

Again for 2021 we studied well over 2,100 transactions obtaining sufficient data for quality analysis on 2016 companies: 1732 transactions for Series Seed, (just 68 more than in 2020), and 284 transactions for Series A (almost identical; i.e., 285 transactions for Series A in 2020). There was indeed more Seed activity in 2021.

We used the same methodology as in prior years, pulling all relevant records from Pitchbook that correlated with angel level investments, then augmented this data with data from angel groups. We of course eliminated duplicates from different sources.

We also chose to eliminate a few transactions that were within the same 12-month period, for example when a note converted into an equity round, we focused on the most significant transaction per company per year. We could then most readily correlate these transactions with CEOs and the attributes of the company and industry, without further risk of duplication. We also tended to leave transactions that were "in progress" for the following study period, again to focus on completed transactions. However, we realized that Round Sizes that we track are not always "full", not all equity "sold". And sometimes find that Rounds are further augmented in the next study period. So, this year we took greater care to distinguish between Round Sizes and Dollars Invested.

We continued to ignore transactions that were in Series B and later. We continue to believe there is significant 3rd party data that characterizes the market for Series B level and beyond. Angels and angel groups tracking to their exits will be well served to track this data until their liquidity event. It is indeed important for further

angel returns analyses, such as the ARI Wiltbank Study and others that have been longitudinal in nature and highly referenced.

What is especially noteworthy is that while we have consistency year over year in number of transactions, our 2021 data represents remarkably more capital

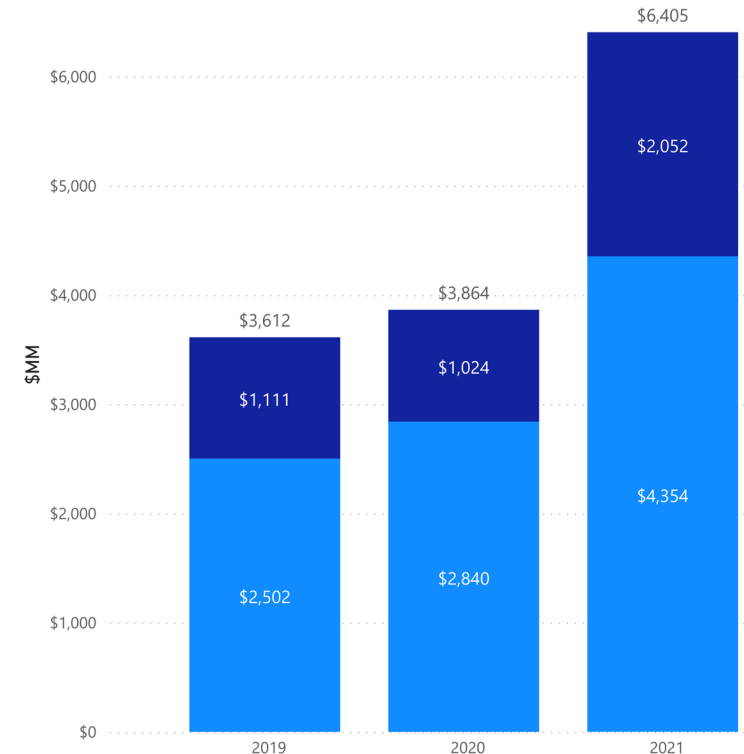
than was invested in 2020, and over 50% more than in 2019.

\$3B invested in Series Seed or earlier with Rounds authorized to expand to \$4.4B, and another \$1.8B invested in Series A. While in 2020 and in 2019, the numbers were significantly lower. We thought 2019 was a banner year (pre pandemic) before we saw 2021.

All the news and fervor angels and entrepreneurs alike experienced in 2021 is born out by this data. It was a remarkable year of recovery.

Total Value of Transactions Analyzed by Year & Stage

Stage ● Seed ● Series A



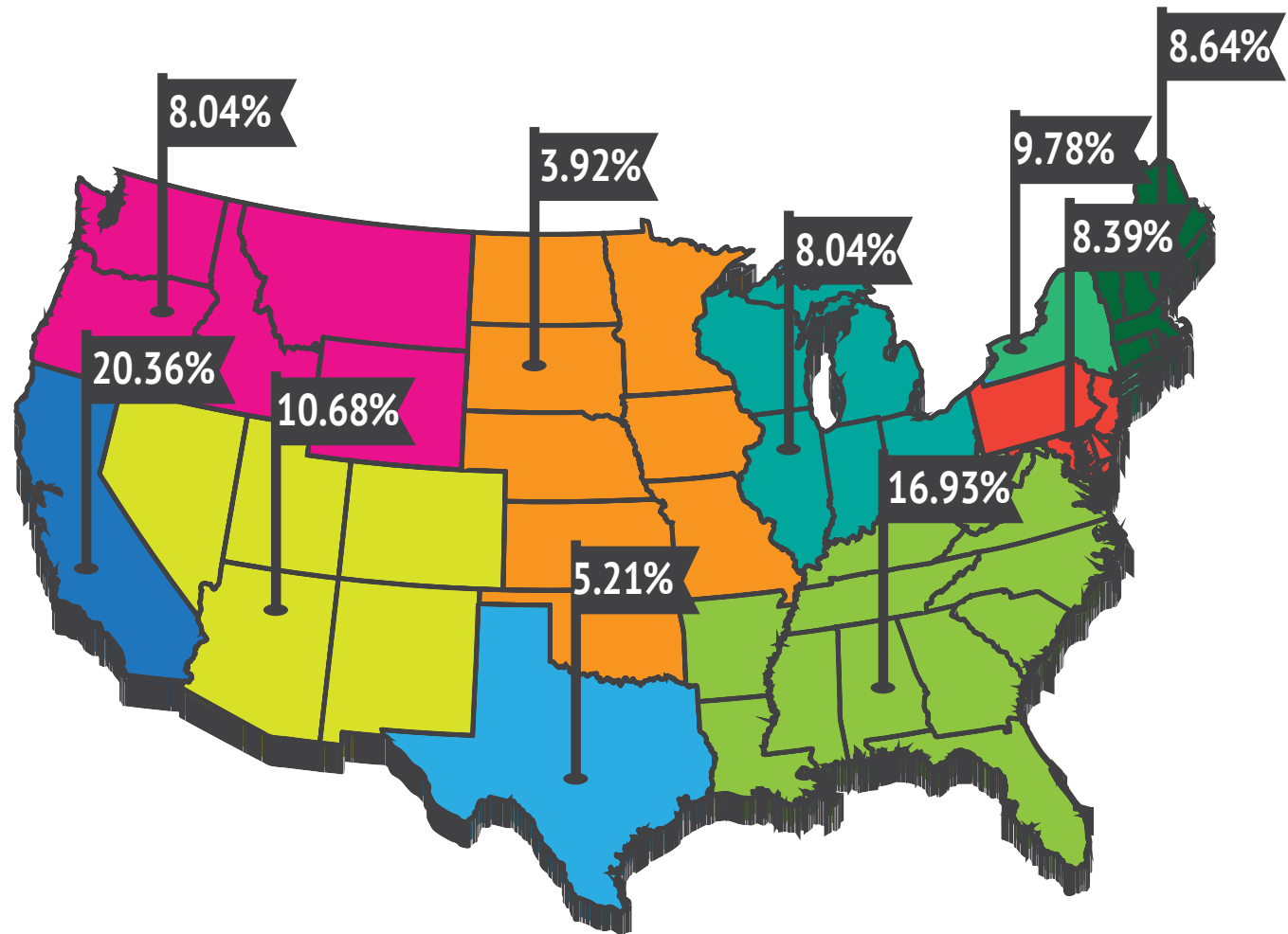
## Geographic Analysis of Investor Regions

### Where are the companies and deals located?

California this year leads the way with 20.36% of all transactions within the US, but saw a slight decrease over 2020 (less than 1%) while the South East continued its aggressive growth by a full percentage point to account for almost 17% of all transactions in the US. Of this, Florida accounts for over a third of the South East region's activity. The South West region, with 10.68% of the country's total, overtook New York this year, while New York, decreased by .5%. The North East increased a full % to 8.64%. with the Mid Atlantic also slightly increasing to 8.4%. The Great Lakes and North West regions tied at 8% a slight decrease, while Texas as a % of total dropped by 2% to 5.22% of companies. The Great Plains held constant at 3.92%.

Clearly the growth in company financing transactions was greatest in the South East, followed by the North East, each with a full % growth year-over-year. Note: Massachusetts accounts for almost 69% of the transactions in the North East region, the dominant state in the Region.

Ranking individual states across the board with more than 5% of the country's total transaction volume yields (1) California (410), (2) New York (197), (3) Massachusetts (120), (4) Florida (115) and (5) Texas (105).

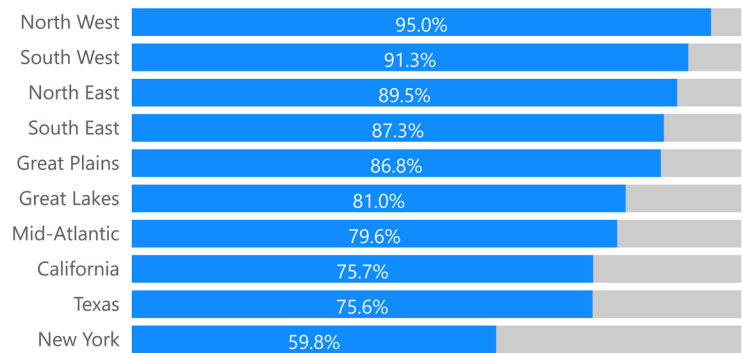


\* Puerto Rico included with South East Region, Hawaii with California, and Alaska with the North West region.

***Was it the pandemic that caused more investments than in prior years to stay within the investor's home region?***

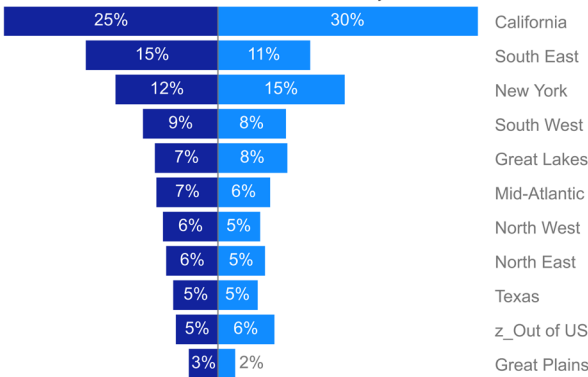
While the pandemic in 2020 may have increased the number of investments staying focused within regions, 2021's numbers reinforced this trend – at least with deal leadership identified with someone within the region in which the Company HQ is located. In 2021, 95% of all companies in the North West region found their lead angel investor from within their region (note that North West also includes companies in Alaska). The chart shows an increased propensity for companies to at least garner someone or a group to lead their round from their home territory. New York continued to be the outlier, still with almost 60% of companies within New York finding their lead investor also in NY, and 40% finding their lead investors outside the region.

Percentage Deals In Region



While California **companies** mostly found their lead investor within California, consider the role investors from different states and regions play:

Percent of All Deals vs. Dollars Invested by Investor Location



Investors domiciled in California are responsible for leading 25% of all transactions in the country, and for 31% of all dollars invested in US companies - even if that company is not based in California. And the investors located in the South East account for 15% of all transactions (an increase by 4% from 2020) and 11% of all dollars. New York continues to leverage its financial strength with 15% of all dollars invested in the country's companies and 12% of all transactions.

**With respect to deals and dollars, California, New York and the rising South East form a dynamic trio.**

### Where do US investors go when they invest outside their region?

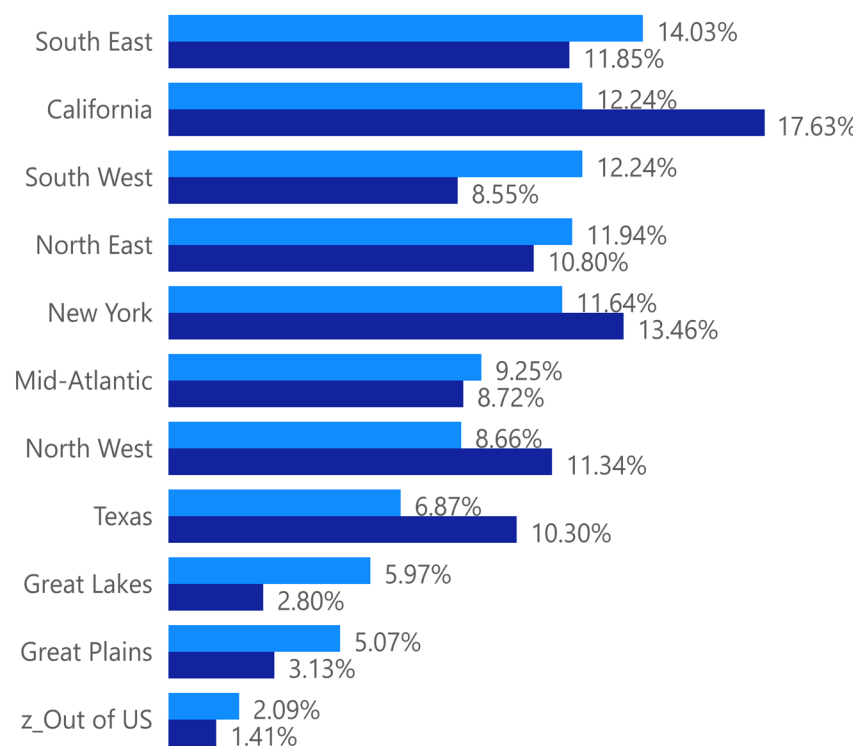
2021 found companies in the South East exceeding California as the most popular region to attract investors from other regions into their transactions in sheer number of deals, while California companies still drew the greatest amount of capital from investors outside their regions measured in total dollars invested. In 2020, the South East even drew more capital than California from out of region investors. We know the South East region of the US is continuing to play a key role in the growth of the country's ecosystem.

When investing outside the US, California-based investors controlled 83% of the foreign investments we tracked. Together with investors from two other regions, nearly half of the non-US investments (45%) were made to companies in Canada.

The graph on the right presents the flow of investment dollars from investors in US regions to companies located outside the US.

### Where Out of Region Investments Go (overall)

● %GT Deals ● %GT Sum of Investment



### Another perspective on the flow of capital between Regions.

In this chart, the rows represent the home base of the investor and shows where they place their capital when they invest money outside of their home region. This data shows us, for example, that investors in the North West (including Alaska) who most prefer to stay within their region (of all investors) limited their investing almost exclusively to California and the Great Lakes when leaving their region. While investors in California, the South East, New York, Mid Atlantic and the South West found investment opportunities that attracted their dollars in almost every region of the country.

**Investors from outside the US**, while drawn more to California, New York, and the South East, **also made investments in every single region of the country- without exception.**

#### How to read the chart:

This columnar chart provides a simple representation of the investment spread when outside the Investor's home region. The location where investments are received are in the left-most column with the source of investment along the top. Notice the relatively even spread by California investors (1<sup>st</sup> column) and the uneven spread from investors located in the Great Plains region.

Investment Distribution when made outside investor region, by Investor Region

Investor Region	California	Great Lakes	Great Plains	Mid-Atlanti	New York	North East	North West	South East	South West	Texas	z_Out of US	Total
												100.0%
California												100.0%
Great Lakes												100.0%
Great Plains												100.0%
Mid-Atlantic												100.0%
New York												100.0%
North East												100.0%
North West												100.0%
South East												100.0%
South West												100.0%
Texas												100.0%
z_Out of US												100.0%

## Non-US funding to US companies

While the HALO report is primarily about US Angel investment, we captured 77 deals for a total of \$234.4M that included investment in US companies from Non-US investors. It's clear when tracing the source capital for these transactions that Canada is California's most significant friend – accounting for almost \$40M of investment into their California companies. South Korea followed with \$25M, then India, China, Japan, and Australia. The UK was a small portion relative to Canada and the Pacific Rim. A few dollars came into California from Brazil, Sweden and Russia.

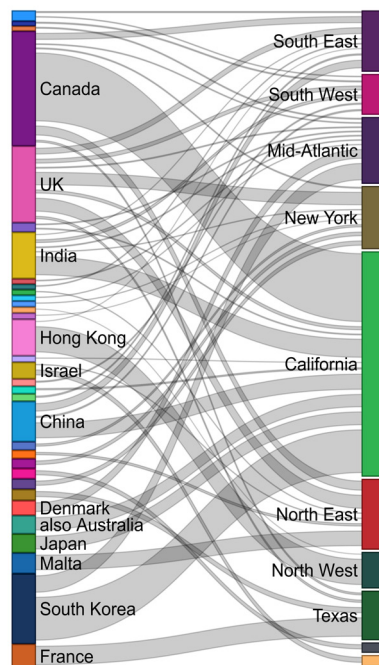
Unsurprisingly, Hong Kong placed \$15.1M into the North West region, while somewhat surprising was a deal in Texas funded with \$11.2M from France. And South Korea invested \$10M into the Mid Atlantic region. We found the Mid Atlantic also attracted investment from Denmark; the Great Plains, from Luxembourg.

While our own angels appear to increasingly spend more capital in their own regions relative to their total spend, these regions are also attracting capital from outside the US which is not insignificant.

Stage	Deals
Seed	61
Series A	16
<b>Total</b>	<b>77</b>

Countries not listed are Asia, Bahamas, Belgium, Brazil, Cayman Islands, Denmark, Dubai, Estonia, Kazakhstan, Luxembourg, Mexico, Netherlands, Russia, Sweden, Switzerland, UAE, Vietnam.

Investment Dollars to US Regions



The larger the connection the greater the total dollars invested.

## Top 10 Participating Angel Groups

This year Keiretsu Forum's participation again put them in the top position nationwide. They are extremely active with deals in almost every state of the United States. They also participate globally. We did not include their Out of US deals in the ranking, but their global footprint is noteworthy. Astia Angels now with offices and investors outside the US, is still very relevant to the US market, managing both their network and fund. Golden Seeds continues to grow its membership and fund activity, along with number of investor locations, with active chapters in 7 states, and now placing second in level of activity across the country.

Sacramento Angels are most notably on the rise. Perhaps thought of as a regional group, located in the California State Capital, their activity level is sizable, and broadening. They even invested in a Singapore based Ag Tech company to many accolades.

Other regional groups are contending with national groups for activity levels, such as Desert Angels (Arizona), Blue Tree Allied Angels (PA), Charlottesville Angels (VA), Alliance of Angels (WA ) and Sea Change (exclusively WA invested). NY Angels continues to invest actively – inside and outside their regions as well.

### Top 10 Angel Groups Ranked by Number of Deals

- # 1 Keiretsu Forum
- # 2 Golden Seeds
- # 3 Sacramento Angels
- # 4 Desert Angels & Astia Angels (tied)
- # 6 Blue Tree Allied Angels
- # 7 Alliance of Angels
- # 8 Sea Change Angels
- # 9 Charlottesville Angels
- #10 New York Angels



# Deal Structure and Investment Stage Statistics

## Deal Structure

The usage of SAFE notes slightly increased to 7.93% of all Seed stage deal structures in 2021, up from 6.70% in 2020. As entrepreneurs drove terms coming out of the pandemic, this entrepreneur friendly instrument was much more prevalent. Similarly, 43% were standard convertible notes, with almost as many priced rounds.

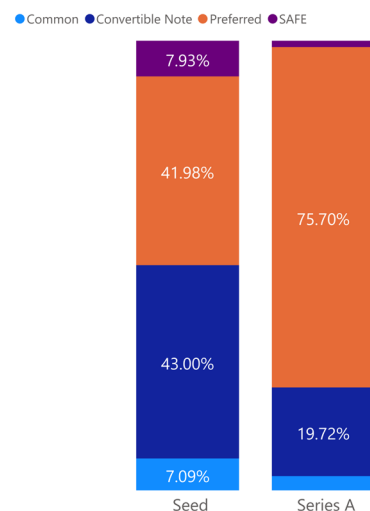
Regarding SAFE notes, they are most popular in California. **27% of all SAFE notes are in California deals, but even within the region as a percent of their total, over 9% are SAFE's**, followed by Mid-Atlantic region (see more Region Details in this report).

Common stock was more prevalent than expected, but most of these deals are in LLCs where they may be several early stage angels joining a team of entrepreneurs with member units. Also we found LLCs of professional MDs, forming and funding new ventures and acting as angels themselves with angel friends, and Common

Security (% of Investment Stage)

Stage	Common	Convertible Note	Preferred	SAFE
Seed	7.09%	43.00%	41.98%	7.93%
Series A	3.17%	19.72%	75.70%	1.41%

Composition of Security Type by Investment Stage

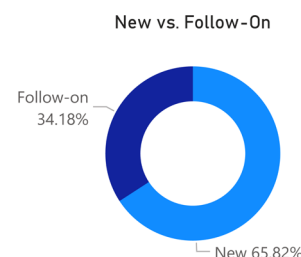


stock ownership. This is counter intuitive to professional angel training and efforts to ensure rights over Common. We may want to track LLCs as a deal structure going forward, since we assume these are in the minority, but in our data appear more prevalent than expected. We are also aware of investors who use the LLC structure in the early year(s) to take advantage of the tax losses, and then convert to C corps at the right time in the life cycle of the company.

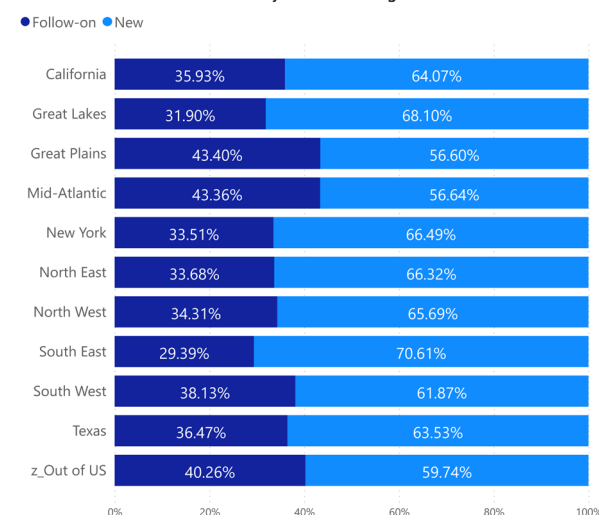
## New versus Follow-On

2021 continued to show an increase in percentage of New Investments relative to Follow On Investments. We also observe that since we are tracking only the Seed and Series A, we may be distorting the data relative to % of totals. Angels are clearly also investing in Series B and beyond, so readers who are angels should take this into account, knowing that this data is all pre- Series B.

Nevertheless, we see, consistent with our



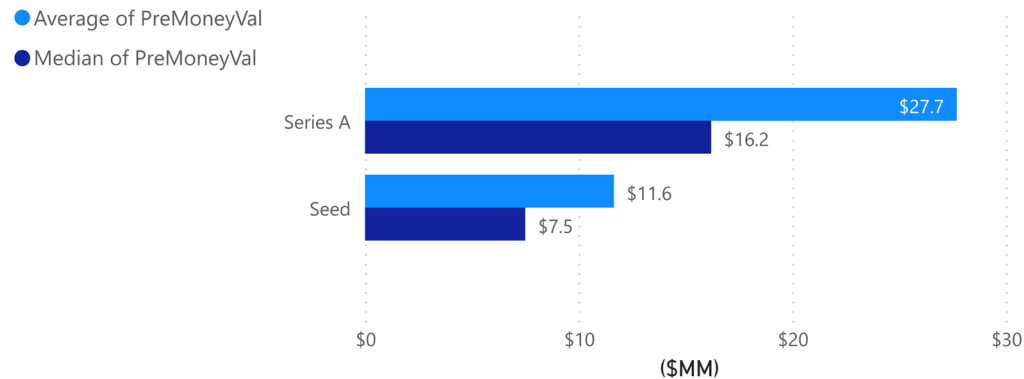
Percent New vs. Follow-on by Investor Region



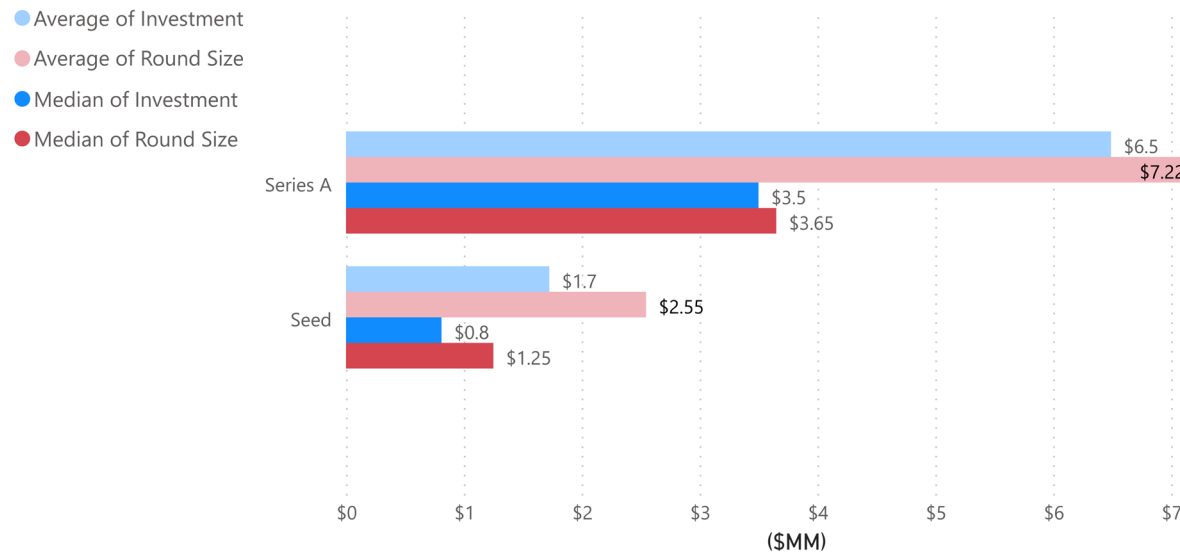
regional growth, that over 70% of transactions in the South East region were new investments! We hope this bodes well for the region as well as other increased new investments as a % of total throughout the country in 2021. The year saw a significant level of new activity.

# High-level Summary (2021 Seed & Series A)

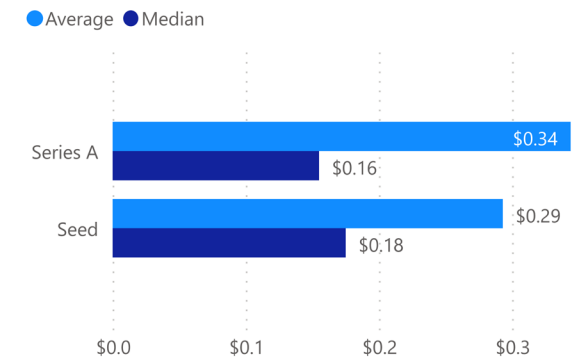
Pre-Money Valuation by Investment Stage



Investment & Round Size by Investment Stage



Angel Group Investment Amount (\$mil)





# Three Years' Data: Seed / Series A Metrics

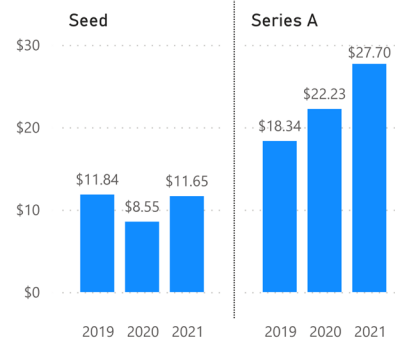
While we saw a dip in 2020, the year of the Pandemic, especially in Series Seed PMVs, Pre-Money-Valuation came back to 2019 levels in 2021 for Seed deals, with significantly higher Median PMVs. Series A rounds just continued their steady climb, unabated by the pandemic.

Average Round Sizes also increased for both Seed and Series A in 2021, with a slight decrease in the Median round size. Following trend lines there were a few outliers pulling the median up in 2020.

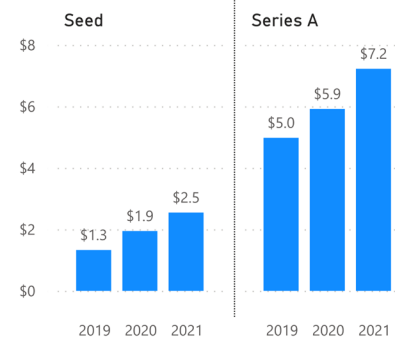
## 2021 was a banner year

Just over 50% more capital was infused in 2021 than in 2019, and at higher valuations. 2021 momentum rolled into 2022, and now we are hitting the pause button. But this data shows just how much inflation year over year in our industry's valuations, and round sizes. Start ups continue to take more capital at earlier stages at higher prices.

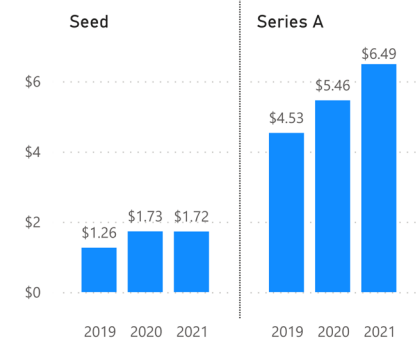
Average Pre-Money Val by Year and Stage



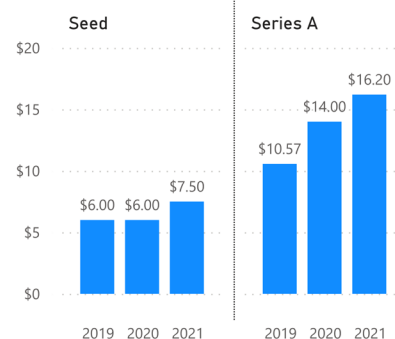
Average Round Size by Year and Stage



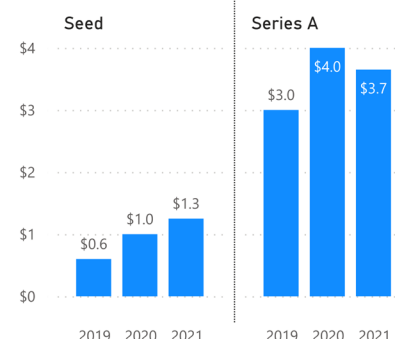
Average Investment by Year and Stage



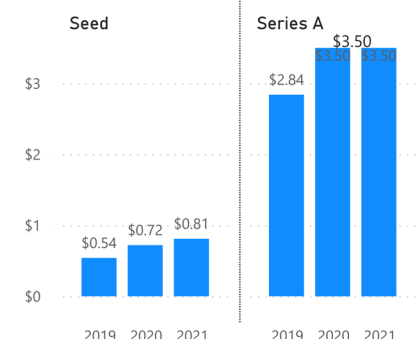
Median Pre-Money Val by Year and Stage



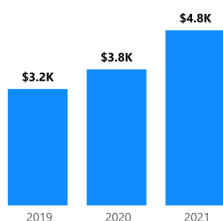
Median Round Size by Year and Stage



Median Investment by Year and Stage



Total Dollars Seed & Series A by Year (in millions)



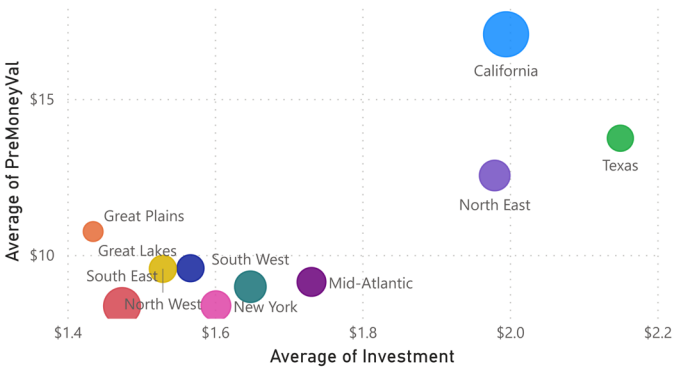
Perhaps the pause in 2022 will lead to a significant correction. **We will track this shift**, and hope this data serves as a reminder of just how far valuations have come.

# Characteristics of Seed & Series A Investments

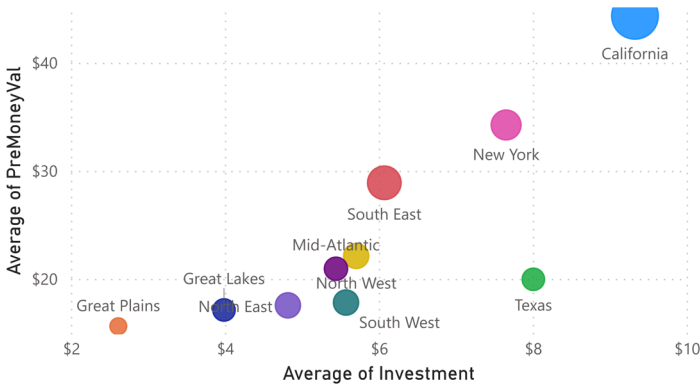
**Seed Transactions:** Companies located in California received the highest valuations; companies located in Texas received the largest amounts of capital in their deals. Investors from California drove the largest investment amounts and at highest valuations; investors from New York and Texas drove more modest valuations and still healthy amounts of investment per deal.

**Series A Transactions:** Companies in California received highest valuations and investment amounts at Series A, followed by companies in NY. While Investors from California also drove highest valuations along with NY and the Great Lakes, with the latter making the largest Series A investments per deal.

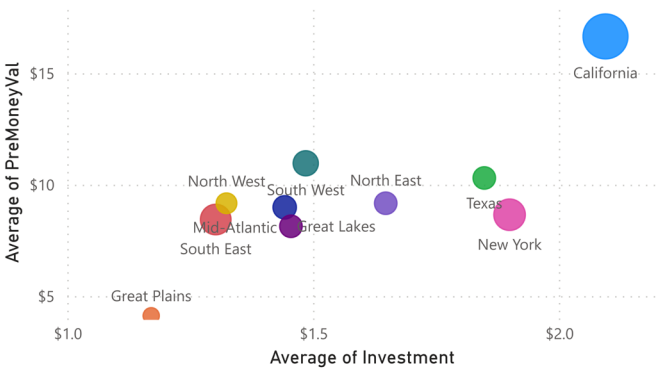
Average of Investment, Average of PreMoneyVal and Sum of Investment by Company Region



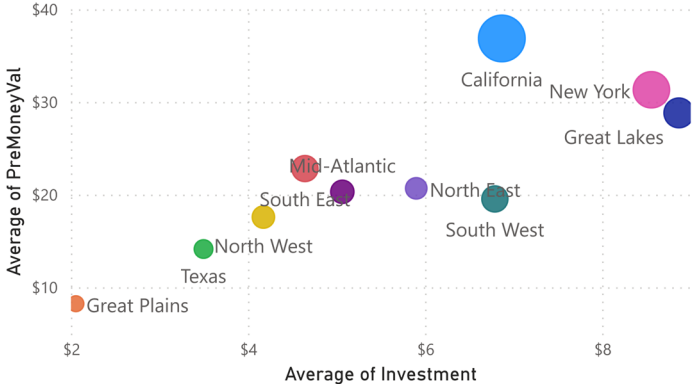
Average of Investment, Average of PreMoneyVal and Sum of Investment by Company Region



Average of Investment, Average of PreMoneyVal and Sum of Investment by Investor Region



Average of Investment, Average of PreMoneyVal, Sum of Investment by Investor Region



The size of the circle represents the number of transactions (volume).

# Industry Analysis

## Industry Sectors Angels Prefer

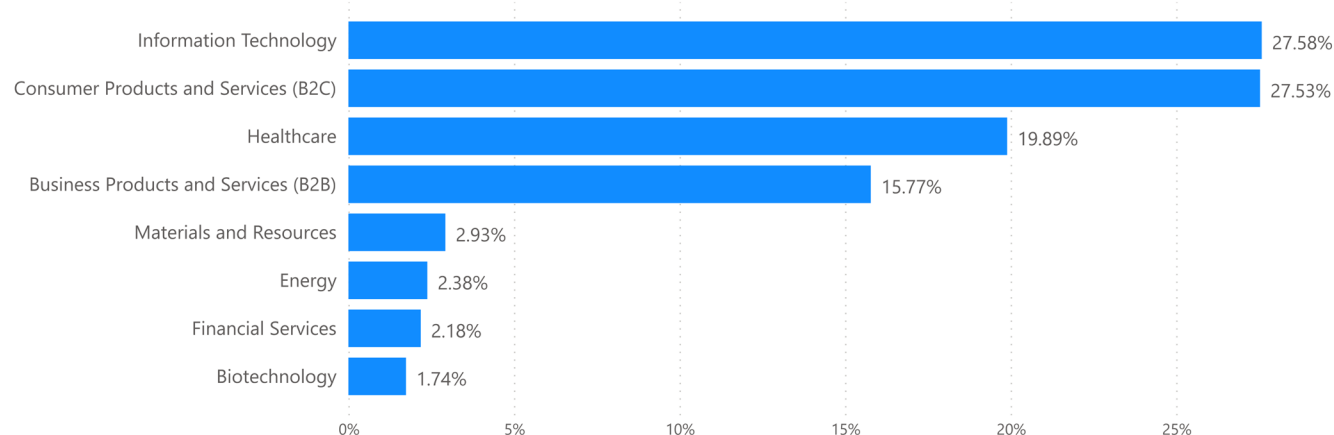
This year investments in Consumer Products and Services by angels rivaled in sheer volume the number of investments in the Information Technology/ Software sector. Each of these sectors now accounts for 27% of all transactions for angels. IT investments in volume declined to 27% in 2020, and held constant in 2021, while Consumer Products and Services, just under 25% of total in 2020 rose to equal the IT sector – a first for early-stage angel investing since we’ve tracked this data – since 2010 or earlier. Software and associated IT, including AI, has long been the dominant sector for angels, so this is indeed noteworthy. Healthcare continues to

be the 3rd most prevalent industry category for angels, with Business Products and Services almost exactly the same as in 2020. Materials and Resources also increased in 2021 to almost 3% of total.

To understand these categories further, we dove into the second and third subcategories of Industry segment to get a different view. We did find for example, within Information and Technology, 85% of companies in the category are still software (including AI) with average PMVs of \$13.7M and while only 5% of the total IT companies are hardware companies, the hardware companies do drive PMV in the category with PMVs close to \$25M. 3 companies in the

category were semiconductor companies, with very high PMVs – \$38M. Also, a deeper look into Healthcare showed us that over 25% are of the companies in this growing category are Pharma, the same percentage as are Medical Device companies. And within Materials and Resources, we have Agriculture representing over 50% of the companies in this category. There is much more we can do to analyze these transactions, give the size of the database.

2021 Seed/Series A Deals by Industry - percent of all transactions



# Industry Segments & Valuation

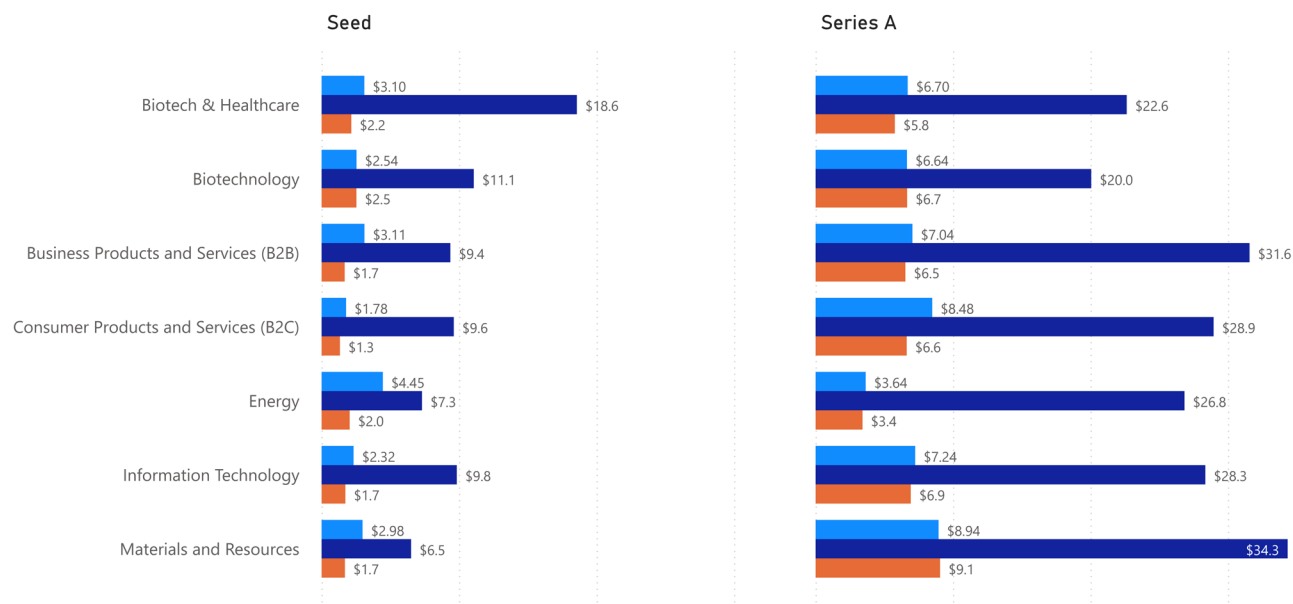
Pre-Money Valuations shifted in 2021

– with another very notable change between IT and Consumer Products and Services. Historically, the latter category has lower valuations than any of the other categories, year after year; but in 2020, Consumer Products and Services commanded valuations that equaled Business Products and Services and started to get close to Information Technology valuations. We find this shift remarkable and will dig more deeply to understand the drivers of this shift. Were there similar outliers in B2C or in IT? As a result of the flat trend in valuation for B2B, a decline in IT, and flattening in Health Care, the Health Care Sector in 2021 became the highest in PMV (of the major categories), while the same as in 2020. More granular data on median and average PMV by industry sector just for 2021 illustrates these trends in more detail.

The industry sectors commanding the highest average valuations are Financial Services, Energy, and Materials and Resources. Although in our large volume traditional categories, we now can rank Health Care (even without Bio Tech) as the commanding the highest average PMV, followed by Business Products and Services, Biotech, Information Technology, and Consumer Products and Services.

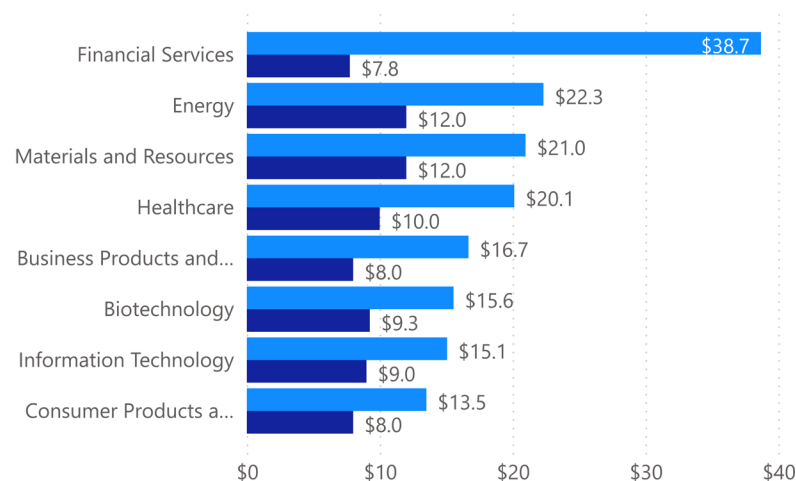
Average of Round Size, Average of PreMoneyVal, Average of Investment and Deals by Industry (groups) and Stage

● Average of Round Size ● Average of PreMoneyVal ● Average of Investment



Pre-Money Valuation of Seed & Series A Transactions

● Average of PreMoneyVal ● Median of PreMoneyVal

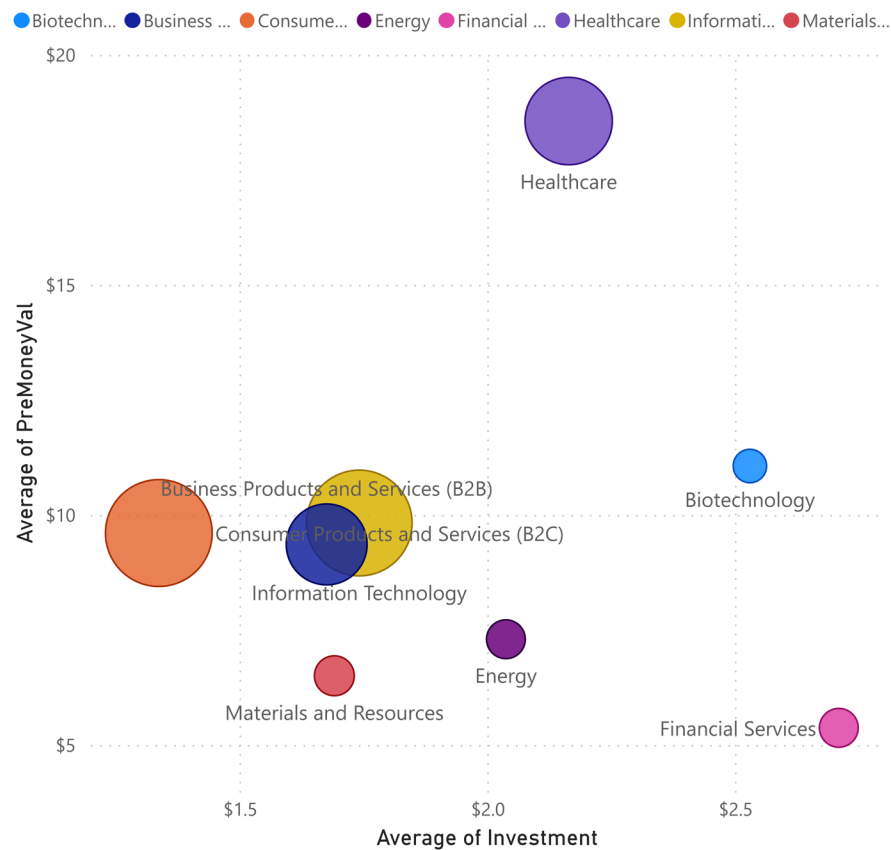


# Industry Investments & PMV by Investment Stage

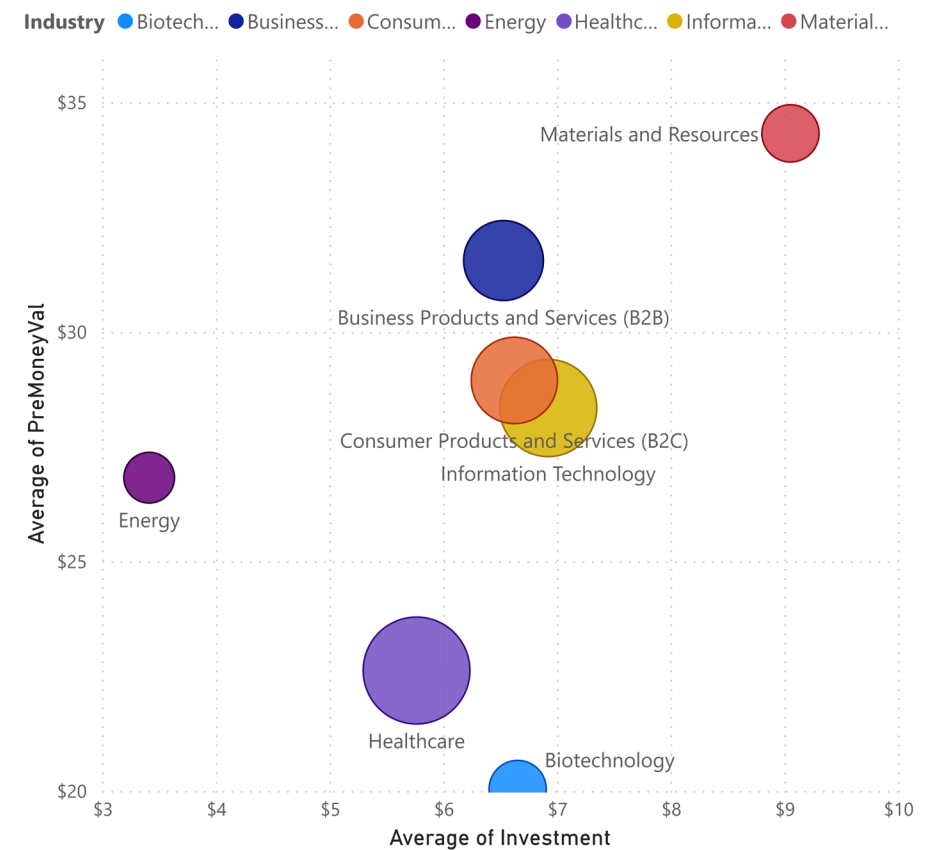
Healthcare has the highest PMV by far at the **Seed** stage, with Biotech and Financial Services the largest investments per deal.

Financial Services is an outlier in **Series A** with \$7.8M average Investment and \$78M average PMV; we exclude that industry here to better see the valuations by industry in Series A.

Seed Deals: Average of Deal Investment, PMV by Industry



Series A Deals: Average of Deal Investment, PMV by Industry



# Industry Statistics

Can we see concentrations of industry sectors by region? In this “heat map”, color depth is based on the number of transactions per region (top row). Lighter colors indicate fewer transactions. Percentages are by row (left to right).

Note the locations of the companies in these industries: Biotech, with almost 18% concentrated in California, also rose in the South West, from 10.5% in 2020 to 14.7% in 2021, sharing that same percentage with the Mid Atlantic and North East regions.

The South East region continues to rival California. Only 2% points behind California’s share of both Business Products and Services companies and Consumer Products and Services, South East exceeds California’s share of Financial Services by over 4%. More noteworthy, is that almost 23% of all financial services companies identified are in the South East, exceeding NY by 2%. New York is second in the sector at 20.45%.

The Health Care industry is most concentrated with California 20.2% of the companies in the region; the South East holds the second largest concentration of Health Care Companies at 16%. Consider that the South East includes Florida, Atlanta, North Carolina and Tennessee with health care centers in each of these states, and it makes sense to see this rise in % of the health care industry.

Information Technology also remains concentrated in California with 21.5% with the South East holding the second largest concentration of IT companies at 16.3%.

The largest concentration of Materials and Resource companies was split between California and the South West. And the Energy sector “popped” with activity in the South West.

## How to read this chart:

The color depth is based on the number of transactions per region (top row). Lighter colors indicate few transactions. Percentages are by row (left to right).

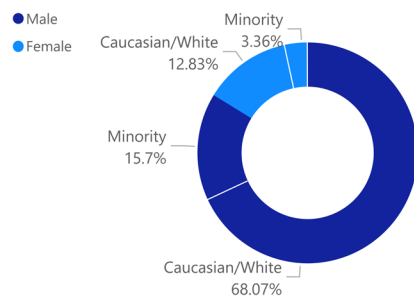
Industry (percentage of Seed & Series A transactions within company location)

Industry	California	Great Lakes	Great Plains	Mid-Atlantic	New York	North East	North West	South East	South West	Texas	z_Out of US	Total
Biotechnology	17.65%	11.76%		14.71%	2.94%	14.71%	8.82%	5.88%	14.71%	8.82%		100.00%
Business Products and Services (B2B)	21.38%	7.23%	4.09%	6.29%	8.18%	9.12%	10.06%	19.18%	9.12%	5.35%		100.00%
Consumer Products and Services (B2C)	19.82%	8.11%	2.70%	7.03%	12.43%	8.47%	6.85%	17.84%	11.17%	5.05%	0.54%	100.00%
Energy	10.42%	6.25%	4.17%	2.08%	4.17%	8.33%	14.58%	14.58%	25.00%	8.33%	2.08%	100.00%
Financial Services	18.18%	6.82%	4.55%	13.64%	20.45%	2.27%	2.27%	22.73%	2.27%	2.27%	4.55%	100.00%
Healthcare	20.20%	7.48%	4.99%	12.47%	6.48%	12.97%	6.23%	15.96%	7.23%	5.49%	0.50%	100.00%
Information Technology	21.62%	8.83%	3.60%	7.57%	10.27%	5.59%	8.65%	16.58%	12.43%	4.14%	0.72%	100.00%
Materials and Resources	13.56%	5.08%	8.47%	8.47%	8.47%	8.47%	11.86%	10.17%	13.56%	10.17%	1.69%	100.00%

# Gender & Ethnicity

In 2021, Female CEOs in the study were just over 16.% of the total, over 17% in 2019. The percentage of ethnically diverse CEOs increased slightly, almost 3% among male CEOs, 2021 over 2020, and only a fraction of a percent increase among ethnic female CEOs. Ethnic CEOs in total accounted for more than 19% of companies raising capital in 2021, a fraction of a % increase from 2018, setting a new record of participation.

CEOs by Gender & Ethnicity



## A more detailed look at the make up of gender and ethnicity reveals interesting data.

We can see that of our ethnically diverse CEOs, almost 35% are of South East Asian / Indian backgrounds. Another 29.5% are of Asian ethnicity. Combined we have 65% of the ethnically diverse CEOs of Asian / South East Asian ancestry. Black and LatinX CEOs almost equally share the balance.

But with these distinctions, we can now look for the Female Minority CEOs to learn more about them. For example, of the White population of CEOs 16% are female. Yet within the ethnic populations of CEOs, 21% of Asian CEOs are women (24 of 113); yet South East Asian / Indian women constitute only 9% of their population of South East Asian CEOs (12 of 132). This is an interesting discrepancy, and may point to why we see South East Indian Women seeking to support and back strong women founders, even forming their own angel investment group(s), while deeply appreciating the TIE network of investors and entrepreneurs.

The highest portion of female CEOs in any specific ethnic group is Black / African American where 28.5% of the Black / AA CEOs who raised capital in 2021 are women. Are Black / African American women used to taking the reins? Yes the number of data points is small, but the potential noteworthy.

Angel groups long focused on backing women led companies, know the data –as more women become angels, more women get access to capital and continue to see more investors of color overtly declaring their intentions: “open for business”.

Also, as we will see data that points to a funding gap in dollars as a % of total invested in all CEOs, PMV and round size with greater gender disparity than ethnic disparity. This points to the opportunity for women focused funds to intentionally embrace investors of color. See Capital Raising Attributes.

CEO_Ethnicity (groups) 2	Asian		Caucasian/White		Latino/a		NA/Black/AA		SE Asian/PI/Indian		Total	
CEO_Gender	#	%	#	%	#	%	#	%	#	%	#	%
Female	24	21.24%	257	15.92%	12	18.46%	20	28.57%	13	9.77%	326	16.37%
Male	89	78.76%	1357	84.08%	53	81.54%	50	71.43%	120	90.23%	1666	83.63%
<b>Total</b>	<b>113</b>	<b>100.00%</b>	<b>1614</b>	<b>100.00%</b>	<b>65</b>	<b>100.00%</b>	<b>70</b>	<b>100.00%</b>	<b>133</b>	<b>100.00%</b>	<b>1992</b>	<b>100.00%</b>



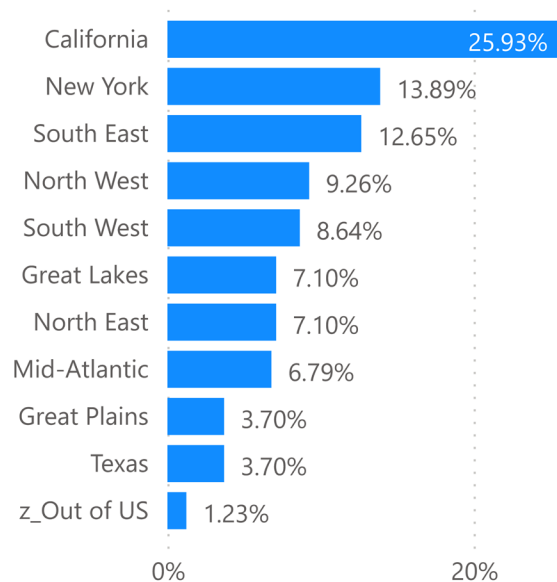
# Gender & Ethnicity - Nationwide

## Where the CEOs are located by Gender & Ethnicity

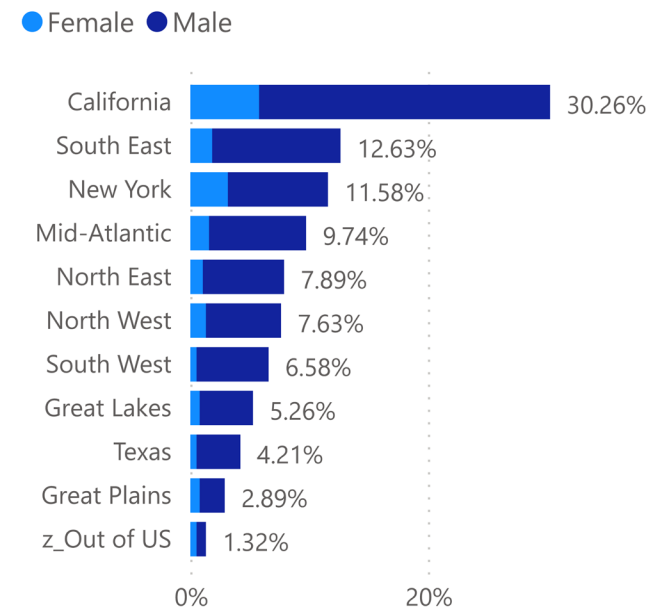
The exact same % of Female CEOs resides in California almost 26% as did in 2020. The regional shift in 2021 over 2020 saw New York and the South East trade places for second highest concentration of female CEOs, New York with almost 14% in 2021, (vs. 11% in 2020), and the South East with 12.65%, still an increase from 2020 at 11.4%.

An even higher % of Ethnically diverse CEOs reside in California than last year – 30.26%, with the South East home to 12.63%, and New York following with 11.58%.

### Where Female CEOs Reside



### Where Minority CEOs Reside





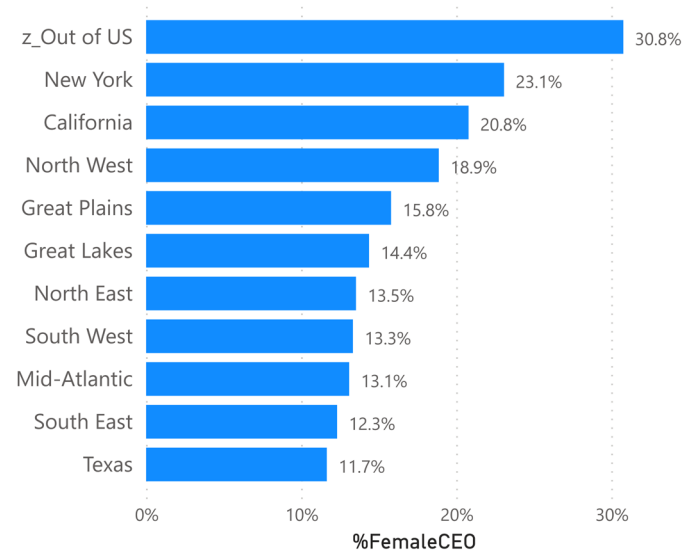
# Gender & Ethnicity - Regional Comparisons

## Where the CEOs are located *within* each Region

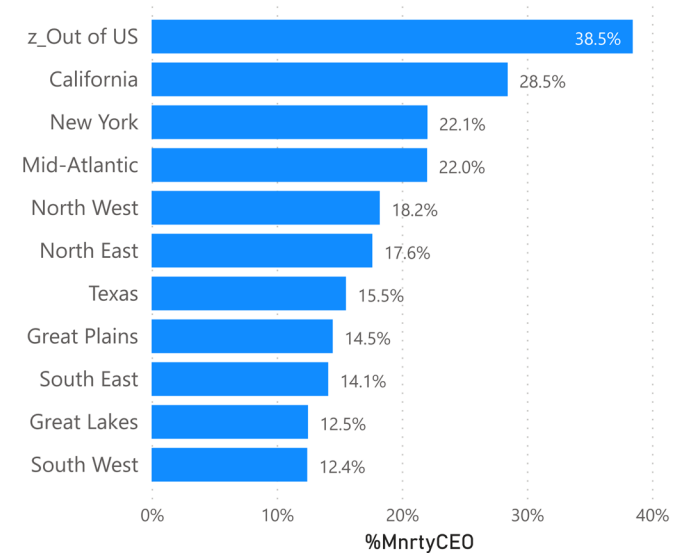
Another view is the breakdown of Gender and Ethnicity as a % of CEOs within each region ( vs a % of all CEOs nationally). In this context, New York again has the highest % of female CEOs within their region, with California second place, and the North West following.

And with the same lens, California has the highest % of Ethnically Diverse CEOs by far at 28.5% a notable increase from 21.8% in 2020; with New York and the Mid Atlantic region, now each with 22%. And regions with less diversity in 2020 showed significant increases in 2021 – 12.4% in the South West, up from 8.1% in 2020.

Company Regions Ranked by % Female CEOs



Company Regions Ranked by % Minority CEOs



# Capital Raising Attributes

## - Seed Deals Only

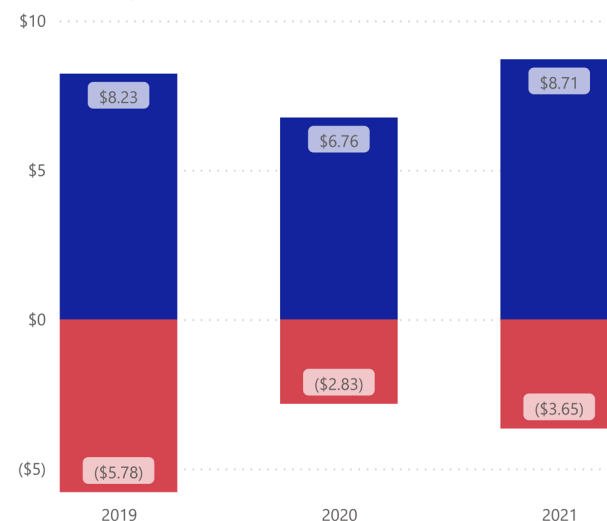
### Is the Gender Gap Shrinking?

Definitely not! The year of the pandemic was especially tough on Series Seed Companies. In fact we found the gap on the basis of Gender indeed shrunk 2020 over 2019. We assumed it might be because the year was so tough, that valuations and round sizes decreased for all entrepreneurs regardless of gender. As capital became more ample in 2021, the gap between male and female CEOs simply persisted.

There is almost a 30% gap in the average PMV of female-led companies vs male-led ones. This is still a major improvement over the gap in 2019. And the Median PMV is close to par. We therefore know that the outliers are highly valued male led companies driving these numbers. But at this level, on a per deal basis, women leave \$3.65M of value on the table.

How much PMV are Female CEOs giving away?

● Subtracted portion of Male CEO PMV ● AVG PMV - Female CEO



*This table aggregates 3 years' worth of data to mitigate concern for the N. There are 893 total seed deals represented in this table.*

*The next page breaks out these 3 years in detail.*

### Capital Raising Attributes by Gender & Ethnicity (Seed, 2019-2021 combined)

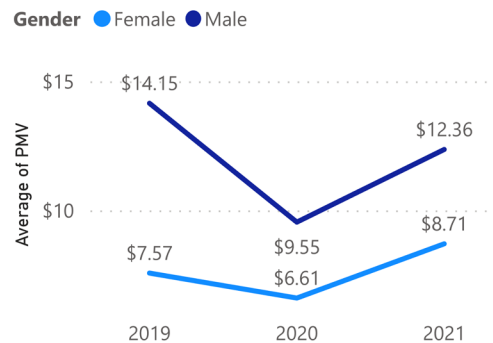
Gender Ethnicity (groups)	Female				Male				Overall			
	AVG RS	MED RS	AVG Pre-MV	MED PreMV	AVG RS	MED RS	AVG Pre-MV	MED PreMV	AVG RS	MED RS	AVG Pre-MV	MED PreMV
Minority	\$1.6	\$1.0	\$8.03	\$5.42	\$2.2	\$1.5	\$9.75	\$7.50	\$2.0	\$1.4	\$9.36	\$7.00
Non-Minority	\$1.8	\$1.5	\$7.58	\$6.00	\$2.6	\$1.6	\$12.50	\$7.00	\$2.4	\$1.5	\$11.33	\$6.50
<b>Overall</b>	<b>\$1.8</b>	<b>\$1.5</b>	<b>\$7.67</b>	<b>\$6.00</b>	<b>\$2.5</b>	<b>\$1.5</b>	<b>\$11.94</b>	<b>\$7.00</b>	<b>\$2.4</b>	<b>\$1.5</b>	<b>\$10.93</b>	<b>\$6.52</b>

# Capital Raising Attributes by Gender (Pre- and Post-2020)

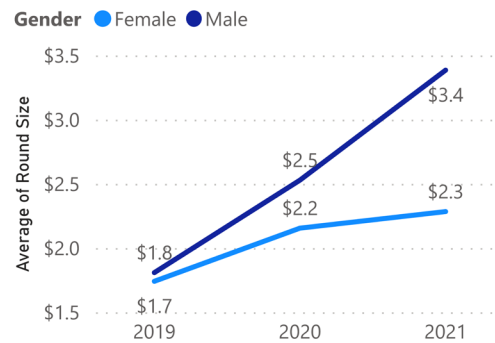
This set of graphs illustrates the gender disparity on most metrics in 2019, the shrinking gap in 2020, and the expansion of the gender gap again in 2021.

This is Seed stage data only, where we have greatest number of data points (893 over 3 years).

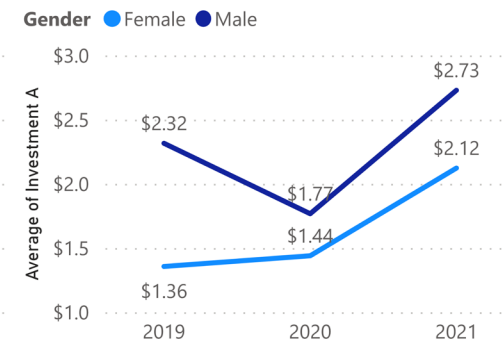
Capital Raising Attributes by Gender  
(Seed PMV AVG, 2019-2021)



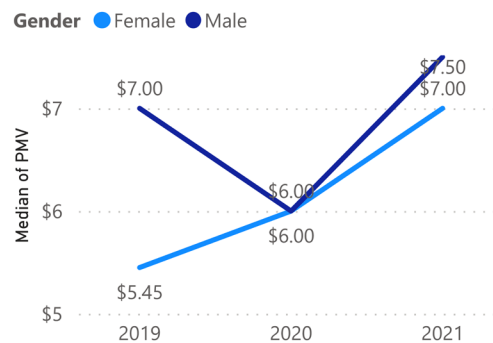
Capital Raising Attributes by Gender  
(Seed Round Size AVG, 2019-2021)



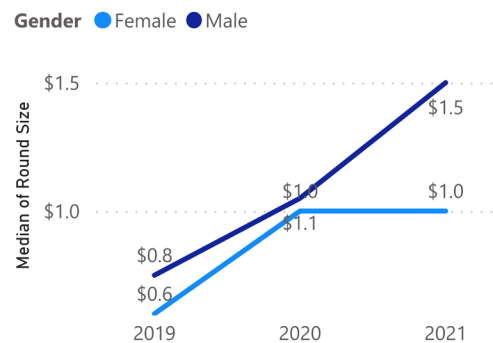
Capital Raising Attributes by Gender  
(Seed Investment AVG, 2019-2021)



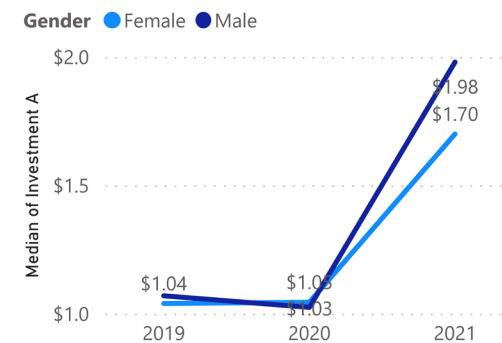
Capital Raising Attributes by Gender  
(Seed PMV MED, 2019-2021)



Capital Raising Attributes by Gender  
(Seed Round Size MED, 2019-2021)



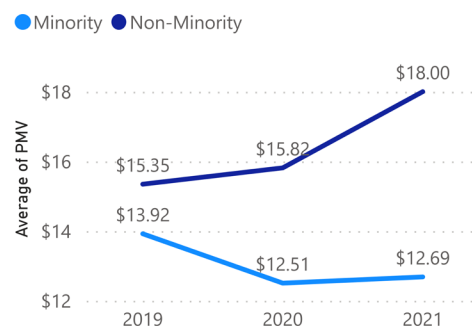
Capital Raising Attributes by Gender  
(Seed Investment MED, 2019-2021)



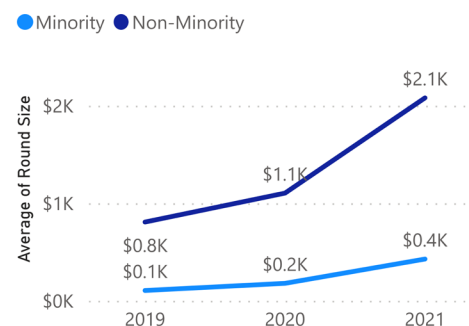
# Capital Raising Attributes by Ethnicity (Pre-, Post-2020)

As with Gender, the gap in Median PMV for ethnic CEOs disappeared in 2020 -- **although female CEOs still had a \$2M lower PMV than all ethnic CEOs** -- but in 2021 *the PMV gap for Ethnic CEOs also widened.*

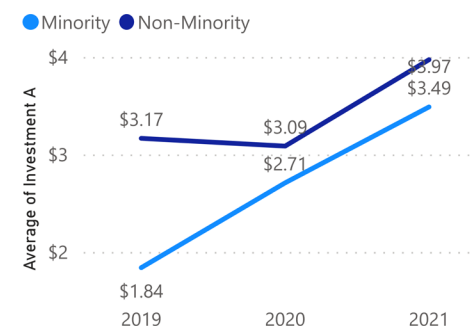
Capital Raising Attributes by Ethnicity (Seed, 2019-2021 combined)



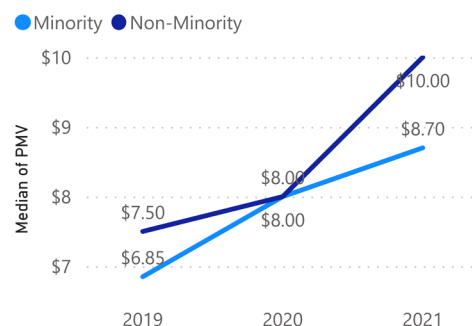
Capital Raising Attributes by Ethnicity (Seed, 2019-2021 combined)



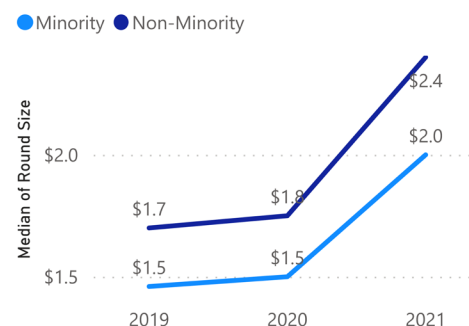
Capital Raising Attributes by Ethnicity (Seed, 2019-2021 combined)



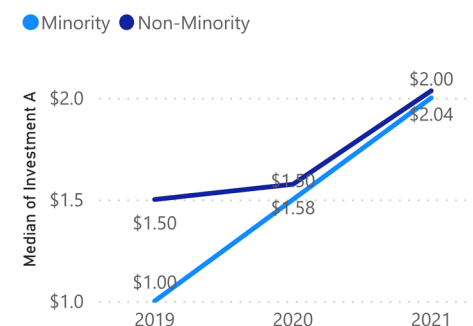
Capital Raising Attributes by Ethnicity (Seed, 2019-2021 combined)



Capital Raising Attributes by Ethnicity (Seed, 2019-2021 combined)



Capital Raising Attributes by Ethnicity (Seed, 2019-2021 combined)

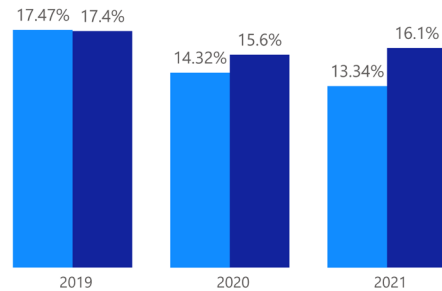


# Gender and Ethnicity Share of Total Dollars & Deals: Trends

Female CEOs share of dollars invested decrease by over 4% in 2019 to 2021 and Female CEOs participation rate also decreased in the last 3 years. This is a disturbing trend.

Share of Investments and Deals - Female CEOs

● Inv \$ ● Inv #

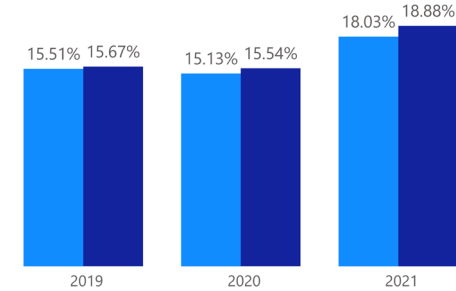


Year	Investment Share - Female CEOs	Investment in Female CEOs	Transactions Share - Female CEOs	Transactions with Female CEOs
2019	17.5%	\$549.3	17.38%	341
2020	14.3%	\$534.9	15.64%	296
2021	13.3%	\$644.1	16.14%	325
<b>Total</b>	<b>14.8%</b>	<b>\$1,728.3</b>	<b>16.39%</b>	<b>962</b>

Ethnically diverse CEOs increased BOTH their share of total dollars invested over 3 years and their rate of participation as % of total transactions.

Minorities' Share of Investments and Deals

● Inv \$ ● Inv #



Year	Investment Share - Minority CEOs	Investment in Minority CEOs	Transactions Share - Minority CEOs	Transactions with Minority CEOs
2019	15.2%	485.04	15.2%	305
2020	14.8%	556.28	14.8%	288
2021	18.0%	870.30	18.8%	380
<b>Total</b>	<b>16.3%</b>	<b>1,911.62</b>	<b>16.3%</b>	<b>973</b>

# Ethnically Diverse CEOs Increased Total Dollar Share

*Ethically Diverse CEOs Increased Total Dollars, Share of Dollars, and Participation Rate in 2021 and over 3 years*

The data shows that ethnic males significantly gained share, White males slightly increased their share, and **all females lost share of total investment dollars**.

Interestingly the data shows that the small increase in dollars for female CEOs can almost all be attributed to the % increase in the capital raised by Ethnic Female CEOs, 52% more capital in 2021 as they raised in 2020.

We hope the increase in dollars presents equal opportunities for growth, to demonstrate value, and attract more investment capital, surely at valuations and round sizes that reach parity.

See below tables of all 2021 Seed deals for more detail on ethnic groups and gender.

Total Investments in CEOs

Ethnicity Group - Gender Transaction Year	Minority-Female			Minority-Male			Non-Minority-Female			Non-Minority-Male			Total		
	Investment	%YRttl	% Deals	Investment	%YRttl	% Deals	Investment	%YRttl	% Deals	Investment	%YRttl	% Deals	Investment	%YRttl	% Deals
2019	\$91.29	2.92%	3.77%	\$392.53	12.55%	11.03%	\$451.87	14.45%	17.94%	\$2,191.33	70.08%	67.26%	\$3,127.01	100.00%	100.00%
2020	\$74.96	2.04%	2.88%	\$481.32	13.10%	12.56%	\$448.92	12.21%	13.20%	\$2,670.29	72.65%	71.36%	\$3,675.48	100.00%	100.00%
2021	\$114.41	2.37%	3.35%	\$755.89	15.66%	15.56%	\$529.71	10.97%	12.84%	\$3,428.12	71.00%	68.25%	\$4,828.14	100.00%	100.00%
<b>Total</b>	<b>\$280.66</b>	<b>2.41%</b>	<b>3.23%</b>	<b>\$1,629.73</b>	<b>14.01%</b>	<b>14.58%</b>	<b>\$1,430.49</b>	<b>12.30%</b>	<b>13.08%</b>	<b>\$8,289.75</b>	<b>71.28%</b>	<b>69.10%</b>	<b>\$11,630.63</b>	<b>100.00%</b>	<b>100.00%</b>

Capital Raising Attributes by CEO Gender & Ethnicity (Seed, 2021)

Gender Ethnicity-Industry (groups)	Female				Male				Overall			
	AVG RS	MED RS	AVG Pre-MV	MED PreMV	AVG RS	MED RS	AVG Pre-MV	MED PreMV	AVG RS	MED RS	AVG Pre-MV	MED PreMV
Asian	\$1.8	\$1.1	\$7.33	\$6.90	\$2.4	\$1.5	\$7.38	\$5.00	\$2.3	\$1.5	\$7.37	\$6.00
Black/AA	\$1.2	\$0.8	\$6.70	\$3.28	\$1.5	\$0.8	\$6.58	\$5.98	\$1.4	\$0.8	\$6.62	\$4.98
Caucasian/White	\$2.4	\$2.0	\$8.97	\$7.00	\$3.0	\$2.0	\$13.12	\$7.50	\$2.9	\$2.0	\$12.27	\$7.10
Latino/a	\$1.4	\$1.5	\$5.45	\$5.34	\$2.9	\$2.0	\$7.29	\$6.00	\$2.5	\$1.8	\$6.73	\$5.67
SE Asian/Indian/PI	\$2.4	\$2.5	\$11.67	\$10.00	\$2.6	\$1.5	\$13.44	\$10.00	\$2.6	\$1.8	\$13.29	\$10.00
<b>Overall</b>	<b>\$2.2</b>	<b>\$2.0</b>	<b>\$8.71</b>	<b>\$7.00</b>	<b>\$2.9</b>	<b>\$2.0</b>	<b>\$12.36</b>	<b>\$7.50</b>	<b>\$2.8</b>	<b>\$2.0</b>	<b>\$11.64</b>	<b>\$7.50</b>

# Gender Analysis by Industry Segment

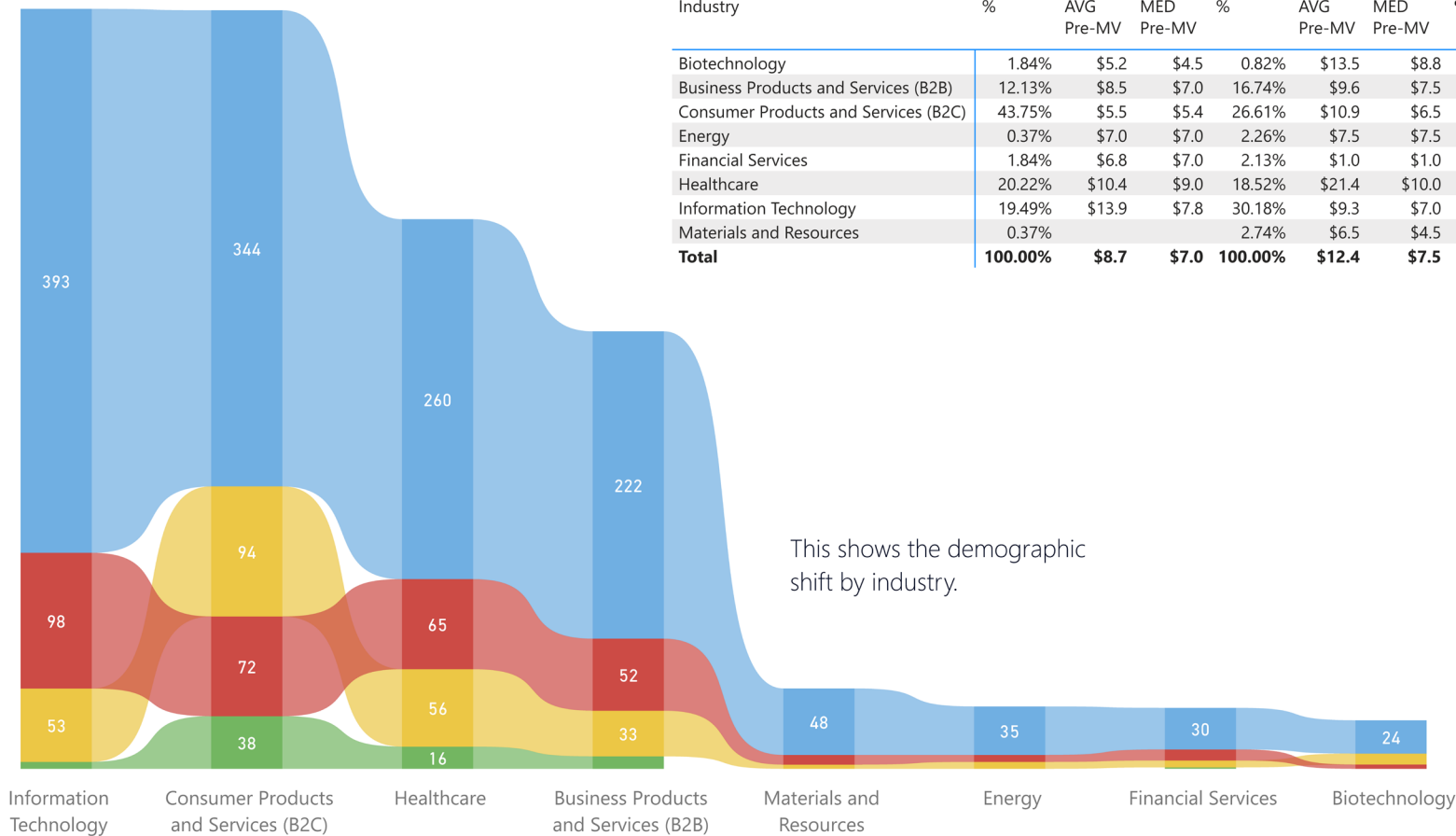
Female CEOs are still heavily focused on Consumer Products and Services, up to almost 44% of all Female CEOs. Yet in this sector, Female CEOs also fall behind their male counterparts on valuation data – median and average. Meanwhile, the industry sector with greatest gender

parity appears to be Business Products and Services. The difference in Healthcare, and even Biotechnology, promising for women in 2020, appears to now be following the same trend line with a significant gender gap in valuation in 2021.

But the IT sector saw women commanding significantly higher valuations this year, both on average and median PMV. This is worthy of a deeper dive into these IT companies to showcase the star performers.

Count of CEO Demographics by Industry

Female-Minority Female-White Male-Minority Male-White



Pre-Money Val by Industry & Gender (Seed deals only)

CEO_Gender Industry	Female			Male			Total %	AVG Pre-MV	MED Pre-MV
	%	AVG Pre-MV	MED Pre-MV	%	AVG Pre-MV	MED Pre-MV			
Biotechnology	1.84%	\$5.2	\$4.5	0.82%	\$13.5	\$8.8	0.98%	\$11.1	\$6.5
Business Products and Services (B2B)	12.13%	\$8.5	\$7.0	16.74%	\$9.6	\$7.5	16.01%	\$9.4	\$7.5
Consumer Products and Services (B2C)	43.75%	\$5.5	\$5.4	26.61%	\$10.9	\$6.5	29.31%	\$9.6	\$6.0
Energy	0.37%	\$7.0	\$7.0	2.26%	\$7.5	\$7.5	1.97%	\$7.3	\$7.0
Financial Services	1.84%	\$6.8	\$7.0	2.13%	\$1.0	\$1.0	2.08%	\$5.4	\$6.0
Healthcare	20.22%	\$10.4	\$9.0	18.52%	\$21.4	\$10.0	18.79%	\$18.6	\$10.0
Information Technology	19.49%	\$13.9	\$7.8	30.18%	\$9.3	\$7.0	28.50%	\$9.8	\$7.0
Materials and Resources	0.37%			2.74%	\$6.5	\$4.5	2.37%	\$6.5	\$4.5
Total	100.00%	\$8.7	\$7.0	100.00%	\$12.4	\$7.5	100.00%	\$11.6	\$7.5

This shows the demographic shift by industry.

# CEO Gender & Ethnicity by Industry

We can see IT is an industry often chosen by ethnically diverse CEOs.

In 2021 we see Asian CEOs concentrated in Healthcare, IT, with a jump in B2C, while SE Asian / Indian CEOs chose IT 32% of the time. Followed by Healthcare, and an equal split between B2B and B2C. And while 42% of Black / African American entrepreneurs are leading Consumer Product and Service companies, 29.4% have chosen IT – one of the highest valued sectors. The LatinX population of CEOs is more evenly distributed this year across IT, Consumer, Business products and Services and Healthcare, as is the White population. The table presents the details.

While our total N of deals with Ethnic CEOs is 379, or 19% of the total, we see interesting trends that show Ethnic CEOs concentrating in areas of high value to investors. We also have 2 years' worth of this data for further analysis.

Industry Segment by Ethnicity

CEO Ethnicity (groups) 2 Industry	Asian		Black/AA/NA		Caucasian/White		Latino/a		SE Asian/Indian/PI	
	#	%M	#	%M	#	%M	#	%M	#	%M
Biotechnology	1	0.89%	1	1.45%	32	1.98%	1	1.54%		
Business Products and Services (B2B)	15	13.39%	7	10.14%	255	15.81%	13	20.00%	26	19.55%
Consumer Products and Services (B2C)	37	33.04%	30	43.48%	438	27.15%	17	26.15%	26	19.55%
Energy	1	0.89%	2	2.90%	40	2.48%	1	1.54%	1	0.75%
Financial Services	4	3.57%	2	2.90%	35	2.17%	2	3.08%	1	0.75%
Healthcare	29	25.89%	6	8.70%	316	19.59%	13	20.00%	33	24.81%
Information Technology	24	21.43%	20	28.99%	446	27.65%	16	24.62%	43	32.33%
Materials and Resources	1	0.89%	1	1.45%	51	3.16%	2	3.08%	3	2.26%
<b>Total</b>	<b>112</b>	<b>100.00%</b>	<b>69</b>	<b>100.00%</b>	<b>1613</b>	<b>100.00%</b>	<b>65</b>	<b>100.00%</b>	<b>133</b>	<b>100.00%</b>

Note: We grouped 2 Pacific Islanders in B2C with SE Asian/Indian for this chart.



# Super Angels

We relished our discovery of the Super Angels and are pleased to see the consistency in the number as a % of total angel deals tracked. This year, we found 140 transactions led by Super Angels, just slightly more than last year (131 in 2020), or consistently about 8% of the total deals. At least one of these Super Angels can be found in every region. This year, interestingly, the concentration was less intense in California dropping from 34% to 26%, while the concentration in NY increased from 8.8% to over 17%. The % of Super Angels in the South East also rose from 10.4% to 16.5%. One can see a triangle of concentrated wealth emerging. However, those with immense domain knowledge and deep connections in any industry are participating with their network of friends. In fact we began to see diverse geographies of Super Angels in ways that show us how friends and networks of trust cross state/regional boundaries, and even national boundaries.

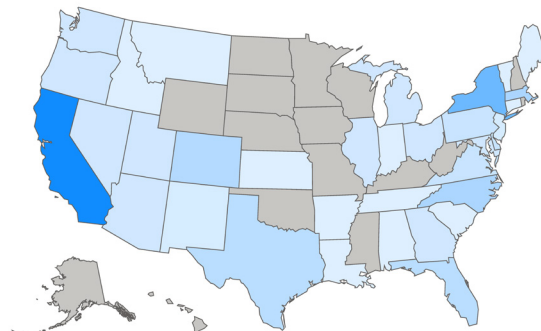
They stayed in region for over 57% of their Seed deals and almost 59% for their Series A. We know this is what can drive companies to locate to the regions with intense funding activity. We see the correlation.

They were also consistent with angels at large in their CEO profiles by gender and ethnicity – investing in non ethnic CEOs consistent with the population of CEOs, with slightly fewer Caucasian female CEOs than the population at large. But 4% of their deals backed ethnic female CEOs.

We basically didn't see any notable difference in the Gender/Ethnicity choices of Super Angels vs other angels or reporting angel groups.

We did see a notable concentration among Super Angels as for all angels in both Consumer Products and Services (32%) and IT (over 36%). The concentration with B2B was a distant 3rd, under 16%, with Health Care at 10%. This trend continues to fit the profile where we see very

Deals by Company Location



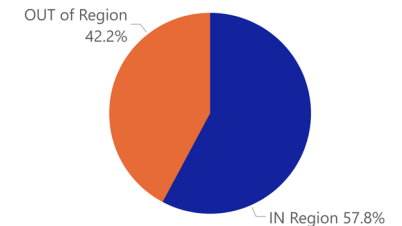
successful tech founders/ exited entrepreneurs investing in like-minded tech startups, in software/IT, and others who know CPG or can lend their name and networks to build brands. It is interesting that as a % of total there is a higher % of Super Angels concentrated in IT than the angel population at large.

Super Angels did have a slightly greater propensity to invest in new deals in 2021 – almost 70%

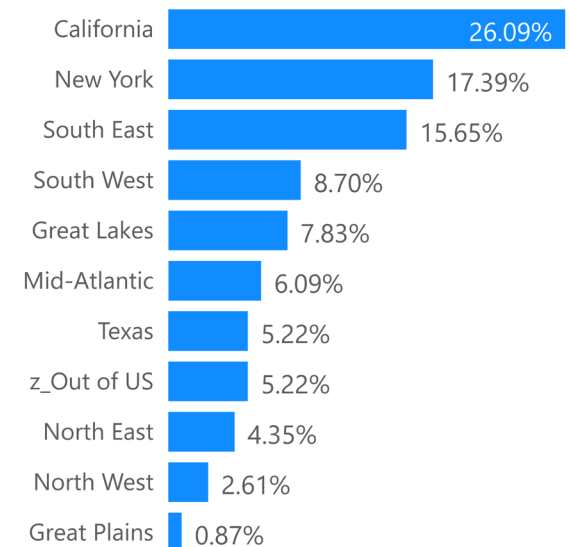
of their investments were part of first financings. With 30% follow on investments.

Note that this early Super Angel financing gives companies that receive their capital a network difficult to break into once they are beyond their Seed round. These companies “join the club”, where membership is available only to known investor friends.

Super Angels In-Out Ratio for Seed/Series A Deals



Location of Super Angels



## The Super Angel Discount Disappeared in 2021

Last year we found the “50% discount” where Super Angels were paying 50% less in valuation than “other angels”, a discount we know entrepreneurs are often willing to pay for the right domain knowledge and immediate access to key customers and other investors. But now we wonder if that phenomena was also partly driven by the pandemic. How consistent will this “discount” be in frothy years?

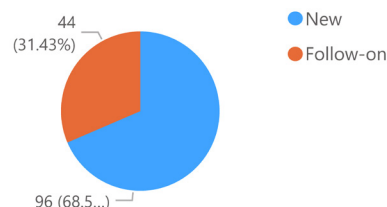
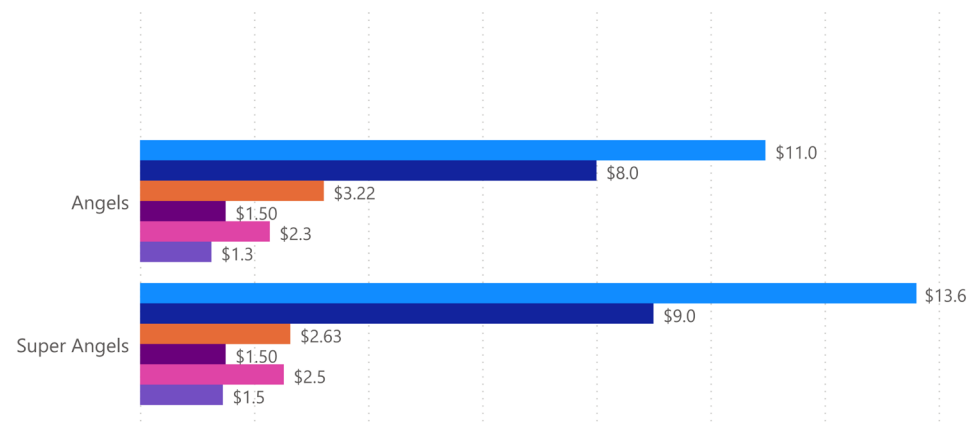
In 2021 the Super Angel discount disappeared. Super Angel’s Seed deals were priced higher than Angels at large, by 23% based on Average PMV comparison, and their Median PMV was 12% higher. They also, on average invested more in each deal.

We’re not sure if there was feeding frenzy activity at play here, especially in Q4 of 2021 with ample capital looking for the best deals. 2022 will be telling in this regard, as pressures to reduce expenses, and manage through at least several quarters of tightened capital markets is already very apparent.

We will soon see if our “discount” data was unique to one year, or a trend, especially in years of economic downturn in which we have entered for a second time in 3 years.

### Super Angels' Discount (Series Seed only)

- Average of PreMoneyVal
- Median of PreMoneyVal
- Average of Round Size
- Median of Round Size
- Average of Investment
- Median of Investment



Stage Industry Sector	Seed		Series A		Total	
	Deals	% Deals	Deals	% Deals	Deals	% Deals
Business Products and Services (B2B)	18	12.86%	4	2.86%	22	15.71%
Consumer Products and Services (B2C)	41	29.29%	4	2.86%	45	32.14%
Financial Services	2	1.43%	1	0.71%	3	2.14%
Health Care - bio - Consumer Products and Services (B2C)	1	0.71%			1	0.71%
Healthcare	14	10.00%			14	10.00%
Information Technology	51	36.43%			51	36.43%
Materials and Resources	4	2.86%			4	2.86%
<b>Total</b>	<b>131</b>	<b>93.57%</b>	<b>9</b>	<b>6.43%</b>	<b>140</b>	<b>100.00%</b>

# How the 2021 Angel Investment Landscape Changed

The Great Migration which started in 2020 appears to be taking hold on the geo location of entrepreneurs, their employees, and investors alike. While tech workers (and other white collar workers) were free to work from anywhere in 2020 our anecdotal data from companies and investors is that more entrepreneurs are still opting to be close to an airport, a university setting, other like-minded entrepreneurs, and access to capital. The continued shift appears to be moving away from the intensity of “Silicon Valley or bust” to other urban locations. Miami, Austin, and Raleigh-Durham are pulling entrepreneurs away from Silicon Valley, while one high profile set of founders boasted about Nashville (proudly announced they left NYC because they could). **And innovators like Toggle, in the middle of Iowa, not Silicon Valley, innovating freight management nationwide, with block chain adopted by Iowa’s state legislature.**

Investors are dispersed with intense regional activity in places like Sacramento (while in California, it is not Silicon Valley), Arizona, Pennsylvania and Virginia. New Jersey is building new momentum with economic

“cash at time of investment” incentives for investors from any state.

If anything, 2021 further cemented our comfort with changes in how we learn, receive health care, shop, and arrange space in our homes. So, when 2021’s massive capital was added to our new adaptive habits and comfort working anywhere, we found a new playing field for even deeper innovation. Instead of just investing in “what could survive Covid”, 2021 saw us funding deep innovation again-- the seeds have been planted for a post-Covid-19 economy. With careful management down-rounds may not be a given, with all the new tools of 2020 to do more with less as needed.

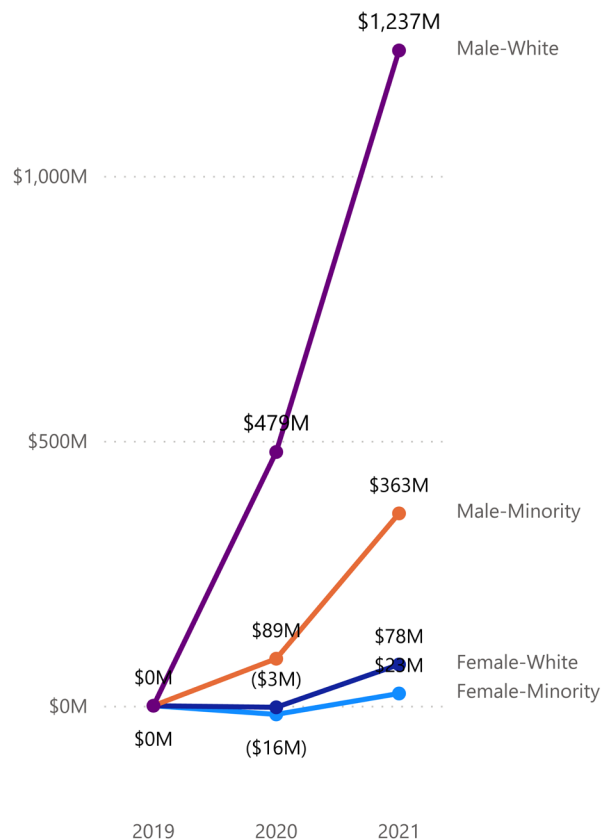
*While money is tightening in 2022, there are still creative options for entrepreneurs who push the envelope to go beyond traditional equity, from angel to VC.*

We continue to be encouraged by the creative financing options to minimize the need for heavy equity investing. We found Hardware companies redefined as Software Enabled Hardware, with Hardware as a Service

business models (and a new approach from Silicon Valley Bank to finance contracted revenue). Lighter Capital moved to expand their offers from just SaaS to other software-based companies with contracted revenue. We also found so many companies in our Pitchbook data that raised money from new types of sources like Clear Co (Canadian revenue-based financing company acting – Clear Angels), that we realize a new category is required in our research to capture these options’ rate of success. These models are gender and ethnicity agnostic by design, and not surprisingly end up funding almost equal numbers of female and male CEOs – a pure metric and algorithmic process.

## How the 2021 Angel Investment Landscape Changed (continued)

Change in Total Dollars Received by Gender/Ethnicity by Year



2021 also saw more capital continue to flow to entrepreneurs of color. And we saw even more initiatives serving women and entrepreneurs of color. We found the Pharrell Williams initiative, Black Ambition, for Black and LatinX entrepreneurs. We discovered \$1M prize winner Livegistics in our research, and then more Black Ambition contestants who followed the rigor angels want to see. There are increasingly more ways to “hunt” for good deals with tools, networks, and research, contests, and new incubators.

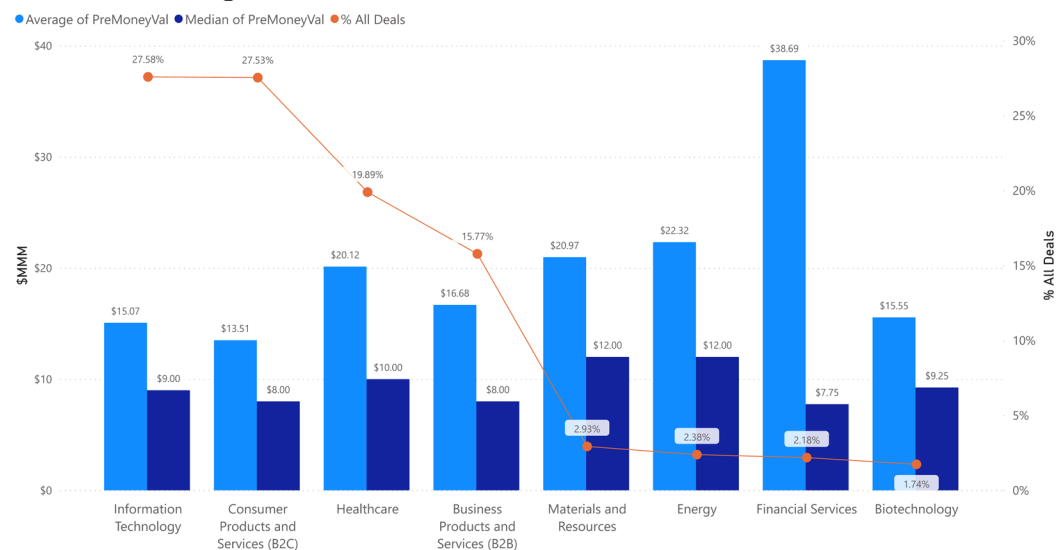
**We would hope that more angels commit more capital to funding women.** From an increasingly rich fabric of entrepreneurs, more dispersed across the country, with more options for financing, and always hope, we wrapped up 2021 on a high note, but one with pensive overtones for women.

For a dose of inspiration, **we salute the youngest CEO in our research to date, a young man who started Spergo at age 12.** Now 15, he continues to inspire young people to find opportunity. Apparently a legend in Philadelphia, he raised \$300K and had \$1M in revenue in just 3 years. In 2021 he expanded to two more regions. A problem solver, determined to find a better path. This is just one of the stories behind “data points” that remind us why we do this work.

The landscape has changed. In 2022, angels and entrepreneurs are already making tough decisions. But with many excellent companies seeded in 2020 and 2021 the landscape for angels and the ecosystem remains positive, even while in a new storm.

# National Summary & Regional Statistics

## Industries Angels Like



## Deal Structure (% Deals)

Convertible Note

56.43%

Preferred Equity

24.34%

SAFE

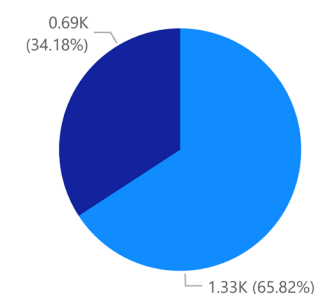
9.94%

Common

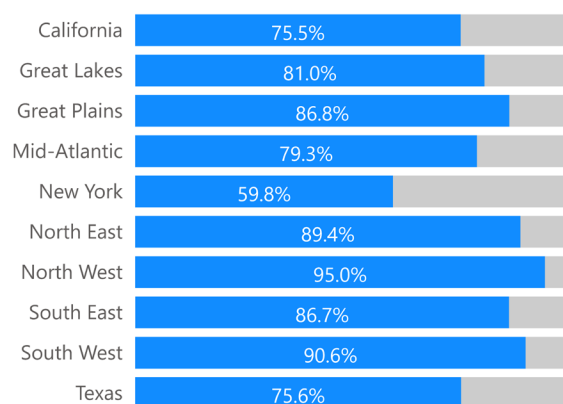
9.28%

## Deals by Investment Stage

● New ● Follow-on

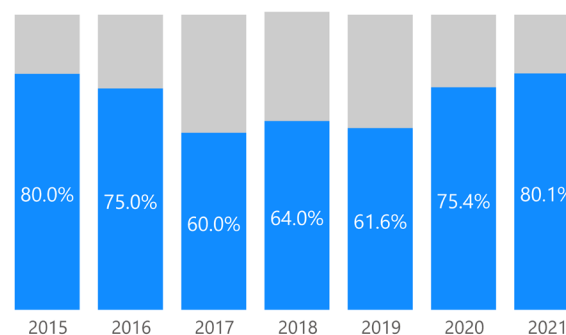


## Percentage Deals In Region



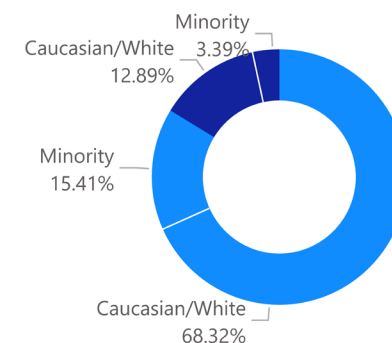
## Historical In/Out Ratio

● %in ● %out



## CEOs by Gender & Ethnicity

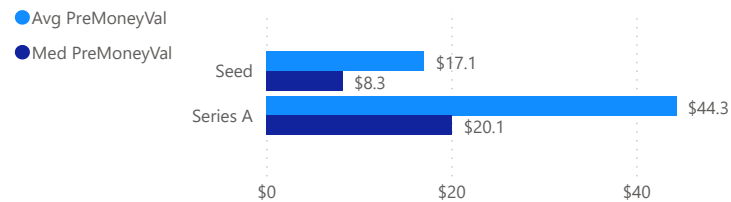
● Male ● Female



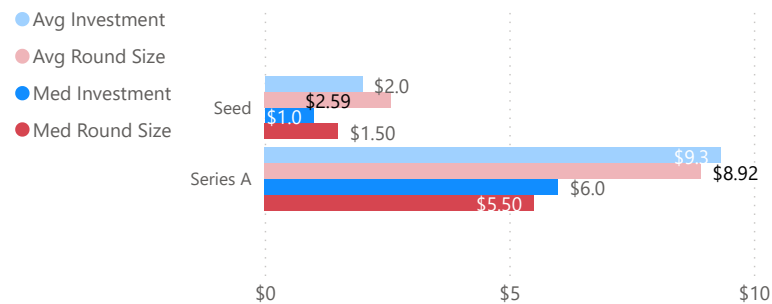
## 2021

## CALIFORNIA

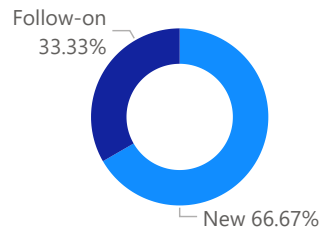
### Pre-Money Valuation (MM) by Investment Stage



### Investment & Round Size (MM) by Investment Stage



### New vs. Follow-on



### Deal Structure (% Deals)

Preferred 52.91%

Convertible Note 32.15%

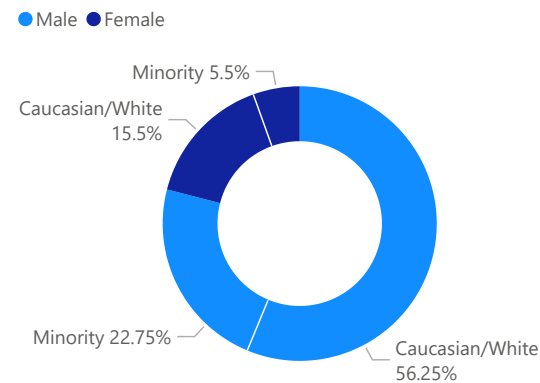
SAFE 9.37%

Common 5.57%

### Regional Industry (% deals)

Industry	% Deals
Information Technology	29.56%
Consumer Products and Services (B2C)	27.09%
Healthcare	19.95%
Business Products and Services (B2B)	16.75%
Financial Services	1.97%
Materials and Resources	1.97%
Biotechnology	1.48%
Energy	1.23%
<b>Total</b>	<b>100.00%</b>

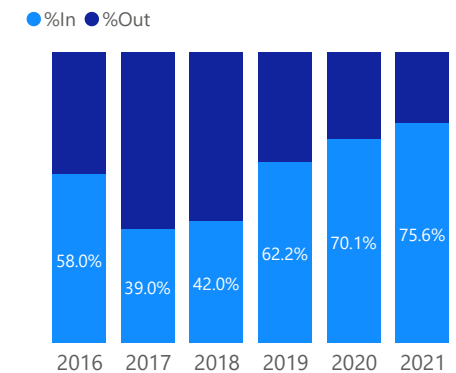
### CEOs by Gender & Ethnicity



### Most Active Angels

- #1 Sacramento Angels
- #2 Keiretsu Forum
- #3 Golden Seeds
- #4 Astia Angels
- #5 TIE Angels

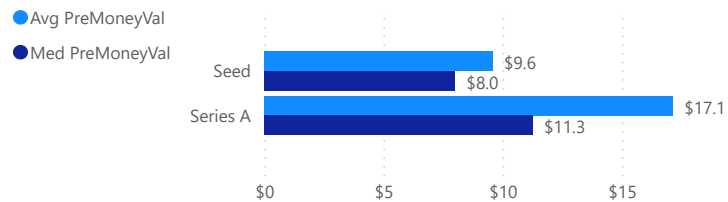
### Percent Deals In Region



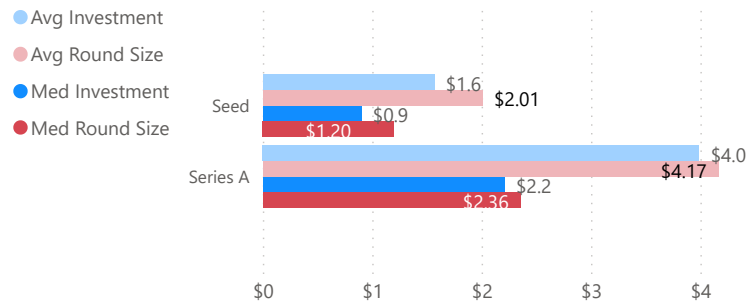
## 2021

## GREAT LAKES

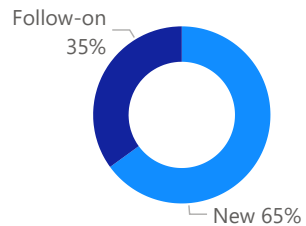
### Pre-Money Valuation (MM) by Investment Stage



### Investment & Round Size (MM) by Investment Stage



### New vs. Follow-on



### Deal Structure (% Deals)

**Preferred**  
43.51%

**Convertible Note**  
37.01%

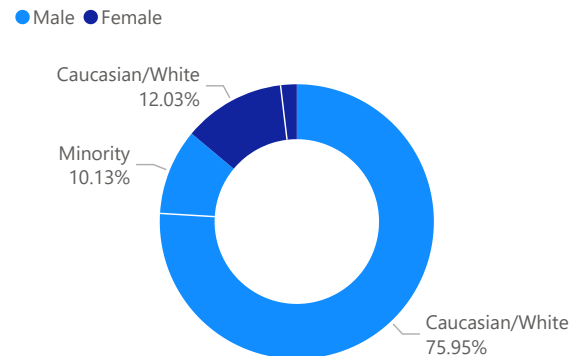
**Common**  
11.04%

**SAFE**  
8.44%

### Regional Industry (% deals)

Industry	% Deals
Information Technology	30.63%
Consumer Products and Services (B2C)	28.13%
Healthcare	18.75%
Business Products and Services (B2B)	14.38%
Biotechnology	2.50%
Energy	1.88%
Financial Services	1.88%
Materials and Resources	1.88%
<b>Total</b>	<b>100.00%</b>

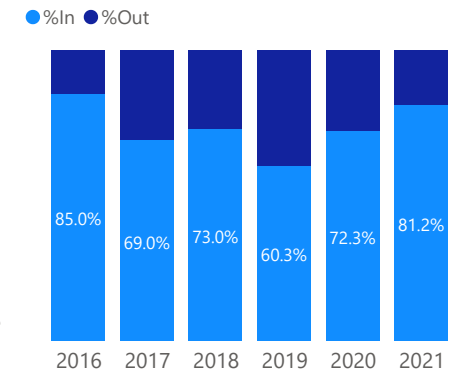
### CEOs by Gender & Ethnicity



### Most Active Angels

- #1 Keiretsu Forum
- #2 Belle Impact
- #3 Central Illinois

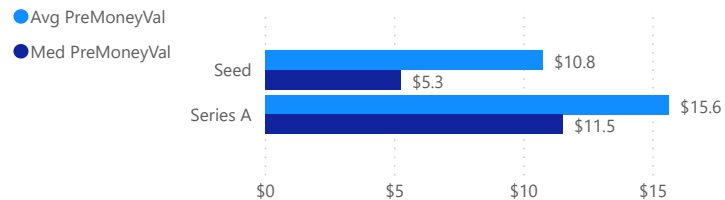
### Percent Deals In Region



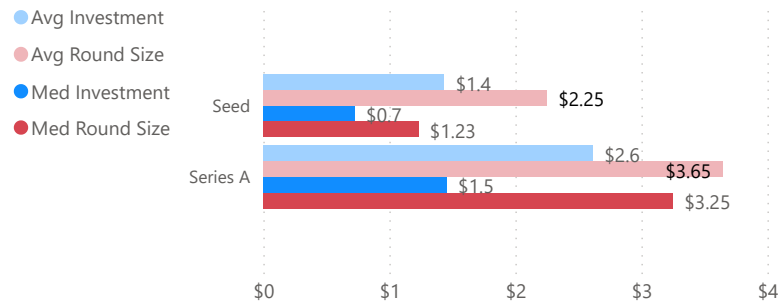
## 2021

## GREAT PLAINS

### Pre-Money Valuation (MM) by Investment Stage



### Investment & Round Size (MM) by Investment Stage



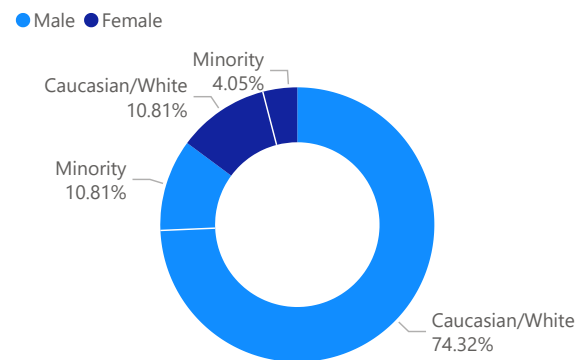
### Regional Industry (% deals)

Industry	% Deals
Healthcare	25.97%
Information Technology	25.97%
Consumer Products and Services (B2C)	19.48%
Business Products and Services (B2B)	16.88%
Materials and Resources	6.49%
Energy	2.60%
Financial Services	2.60%
<b>Total</b>	<b>100.00%</b>

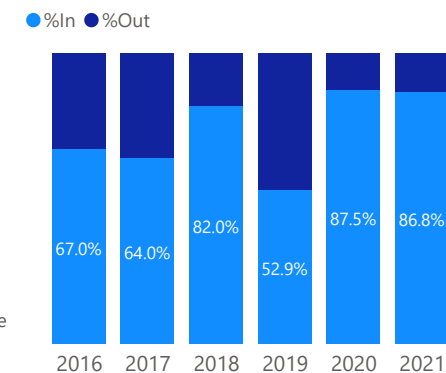
### Most Active Angels

- #1 Keiretsu Forum
- #2 Sofia Angel Fund

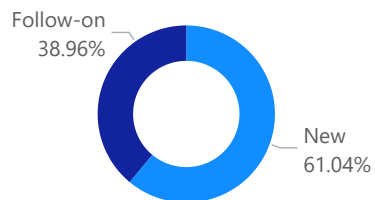
### CEOs by Gender & Ethnicity



### Percent Deals In Region



### New vs. Follow-on



### Deal Structure (% Deals)

#### Convertible Note

51.32%

#### Preferred

42.11%

#### Common

3.95%

#### SAFE

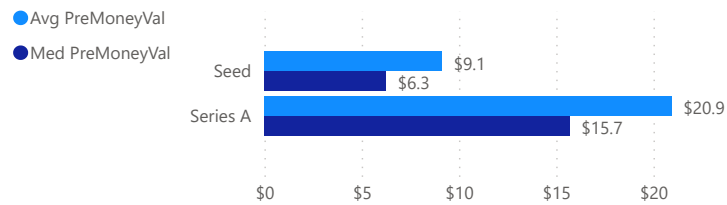
2.63%



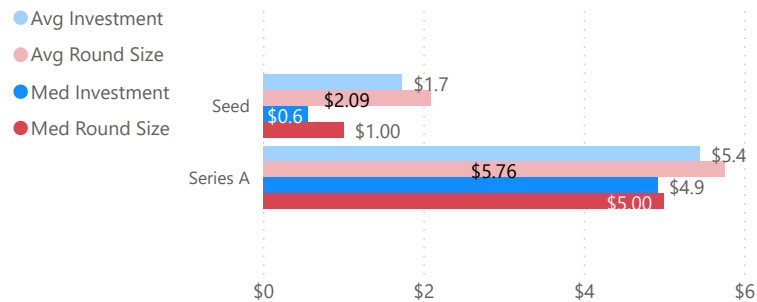
## 2021

## MID-ATLANTIC

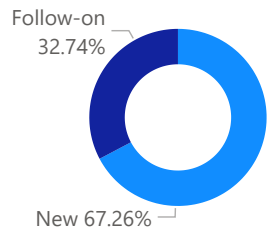
### Pre-Money Valuation (MM) by Investment Stage



### Investment & Round Size (MM) by Investment Stage



### New vs. Follow-on



### Deal Structure (% Deals)

Preferred 44.38%

Convertible Note 39.38%

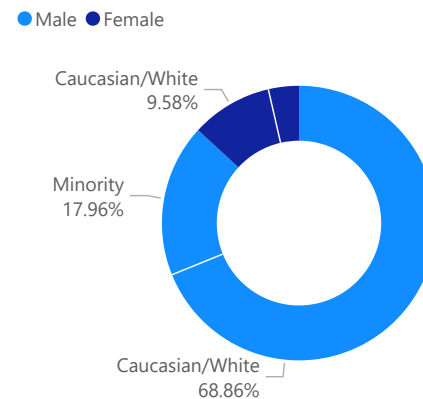
SAFE 8.75%

Common 7.50%

### Regional Industry (% deals)

Industry	% Deals
Healthcare	29.76%
Information Technology	25.00%
Consumer Products and Services (B2C)	23.21%
Business Products and Services (B2B)	11.90%
Financial Services	3.57%
Biotechnology	2.98%
Materials and Resources	2.98%
Energy	0.60%
<b>Total</b>	<b>100.00%</b>

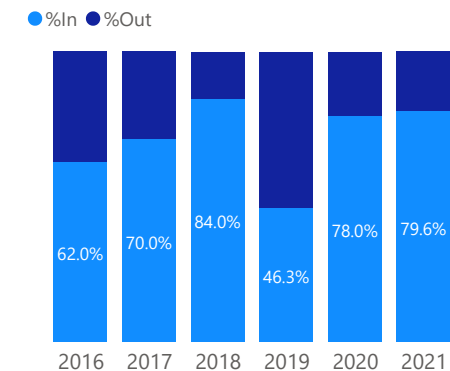
### CEOs by Gender & Ethnicity



### Most Active Angels

- #1 Keiretsu Forum
- #2 Blue Tree Allied Angels

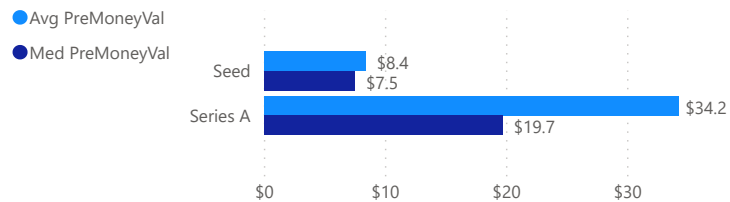
### Percent Deals In Region



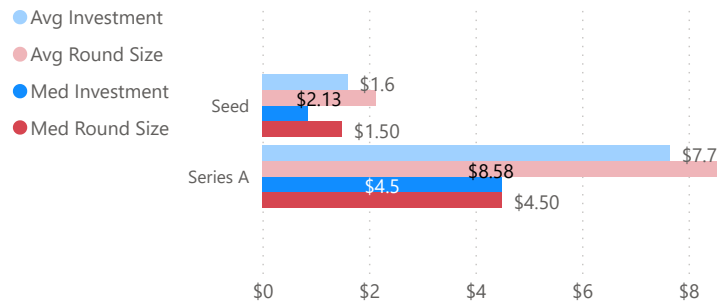
## 2021

## NEW YORK

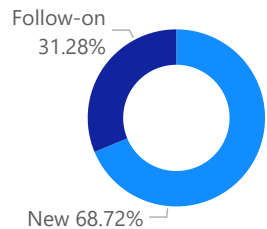
### Pre-Money Valuation (MM) by Investment Stage



### Investment & Round Size (MM) by Investment Stage



### New vs. Follow-on



### Deal Structure (% Deals)

Preferred 47.62%

Convertible Note 39.68%

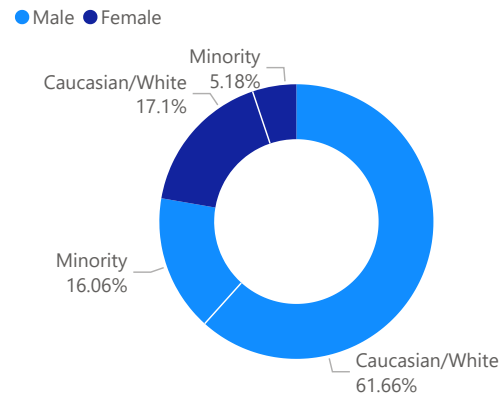
SAFE 6.88%

Common 5.82%

### Regional Industry (% deals)

Industry	% Deals
Consumer Products and Services (B2C)	35.38%
Information Technology	29.23%
Business Products and Services (B2B)	13.33%
Healthcare	13.33%
Financial Services	4.62%
Materials and Resources	2.56%
Energy	1.03%
Biotechnology	0.51%
<b>Total</b>	<b>100.00%</b>

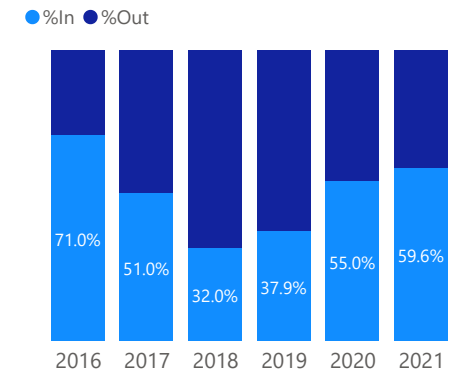
### CEOs by Gender & Ethnicity



### Most Active Angels

- #1 Golden Seeds
- #2 New York Angels
- #3 Astia Angels
- #4 Keiretsu Forum

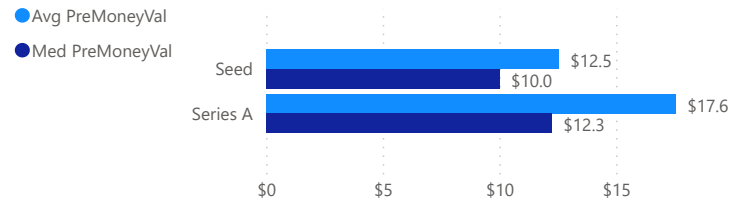
### Percent Deals In Region



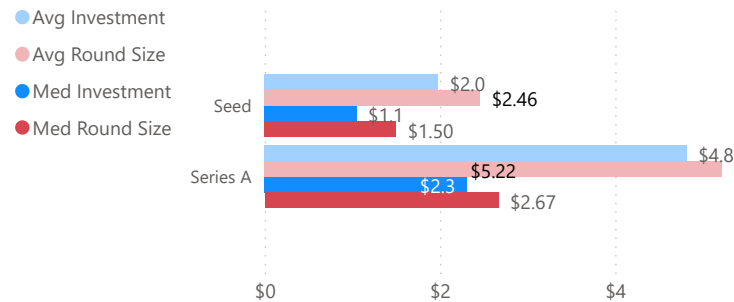
## 2021

## NORTHEAST

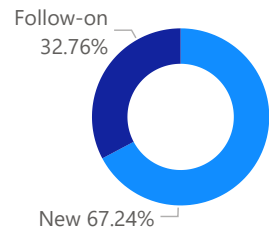
### Pre-Money Valuation (MM) by Investment Stage



### Investment & Round Size (MM) by Investment Stage



### New vs. Follow-on



### Deal Structure (% Deals)

**Preferred**  
51.79%

**Convertible Note**  
36.31%

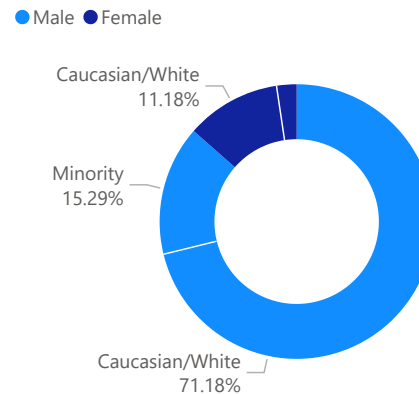
**Common**  
5.95%

**SAFE**  
5.95%

### Regional Industry (% deals)

Industry	% Deals
Healthcare	29.89%
Consumer Products and Services (B2C)	27.01%
Information Technology	17.82%
Business Products and Services (B2B)	16.67%
Biotechnology	2.87%
Materials and Resources	2.87%
Energy	2.30%
Financial Services	0.57%
<b>Total</b>	<b>100.00%</b>

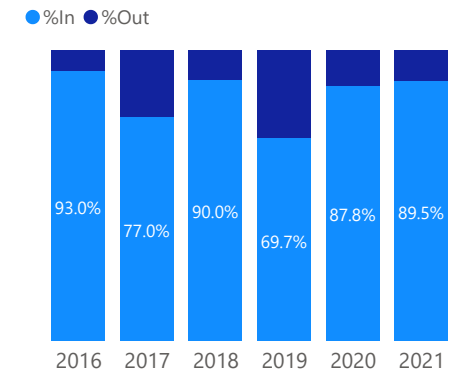
### CEOs by Gender & Ethnicity



### Most Active Angels

#1 Keiretsu Forum  
#2 Golden Seeds

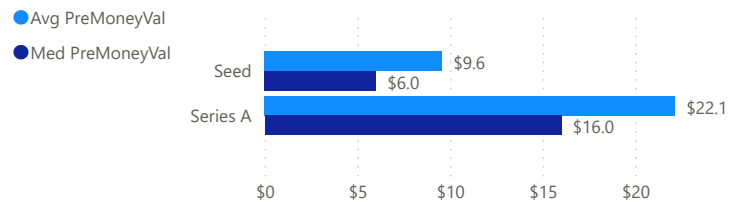
### Percent Deals In Region



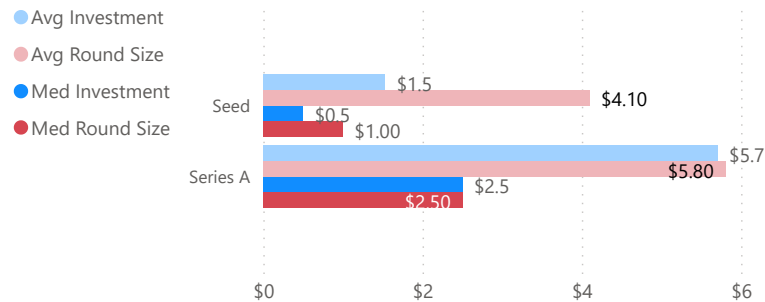
## 2021

## NORTHWEST

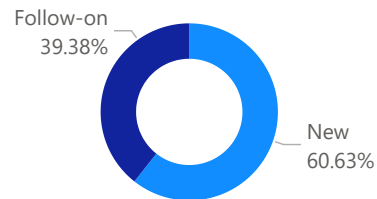
### Pre-Money Valuation (MM) by Investment Stage



### Investment & Round Size (MM) by Investment Stage



### New vs. Follow-on



### Deal Structure (% Deals)

Convertible Note

50.00%

Preferred

38.13%

SAFE

6.88%

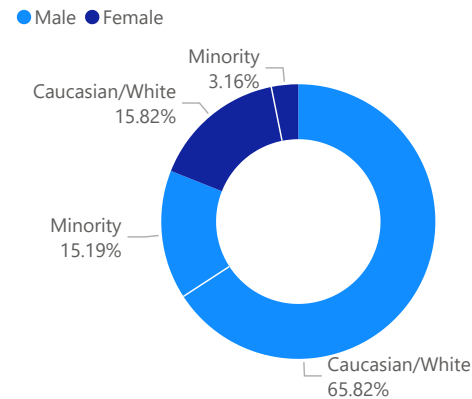
Common

5.00%

### Regional Industry (% deals)

Industry	% Deals
Information Technology	29.81%
Consumer Products and Services (B2C)	23.60%
Business Products and Services (B2B)	19.88%
Healthcare	15.53%
Energy	4.35%
Materials and Resources	4.35%
Biotechnology	1.86%
Financial Services	0.62%
<b>Total</b>	<b>100.00%</b>

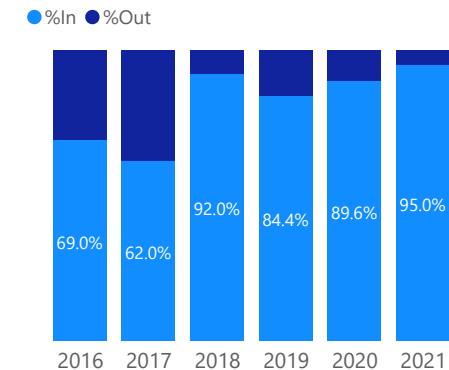
### CEOs by Gender & Ethnicity



### Most Active Angels

- #1 Keiretsu Forum
- #2 Alliance of Angels
- #3 Sea Change Angels

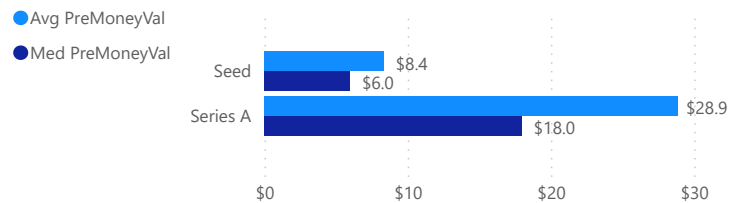
### Percent Deals In Region



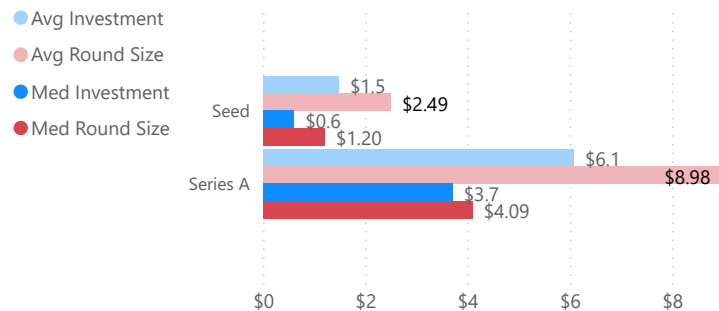
## 2021

## SOUTHEAST

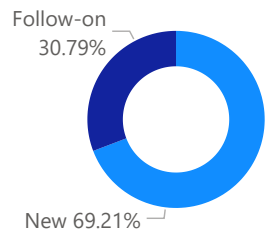
### Pre-Money Valuation (MM) by Investment Stage



### Investment & Round Size (MM) by Investment Stage



### New vs. Follow-on



### Deal Structure (% Deals)

Convertible Note

44.65%

Preferred

43.12%

SAFE

6.42%

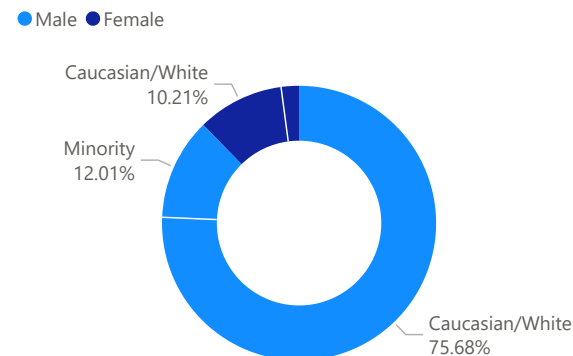
Common

5.81%

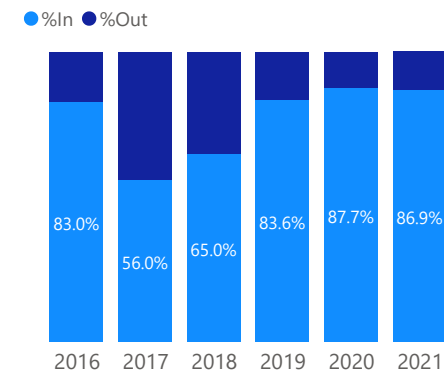
### Regional Industry (% deals)

Industry	% Deals
Consumer Products and Services (B2C)	29.03%
Information Technology	26.98%
Healthcare	18.77%
Business Products and Services (B2B)	17.89%
Financial Services	2.93%
Energy	2.05%
Materials and Resources	1.76%
Biotechnology	0.59%
<b>Total</b>	<b>100.00%</b>

### CEOs by Gender & Ethnicity



### Percent Deals In Region



### Most Active Angels

#1 Charlottesville Angels

#2 Keiretsu Forum

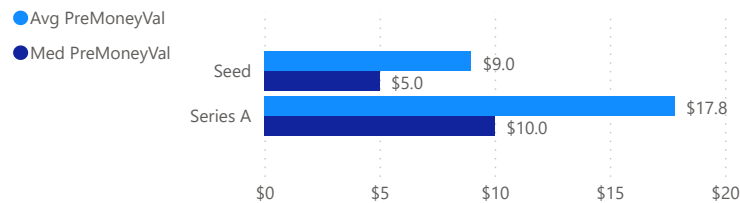
#3 New Dominion

#4 Tamiami Angels & Jump Fund

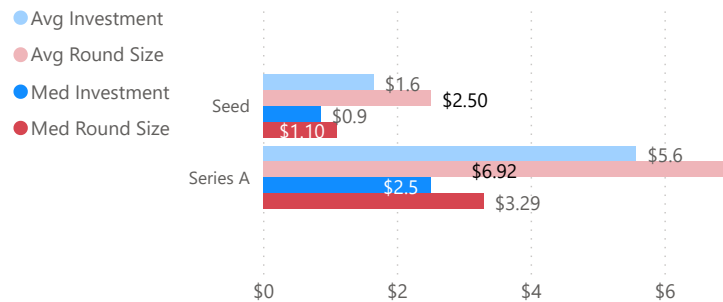
## 2021

## SOUTHWEST

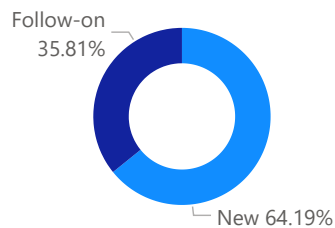
### Pre-Money Valuation (MM) by Investment Stage



### Investment & Round Size (MM) by Investment Stage



### New vs. Follow-on



### Deal Structure (% Deals)

Preferred 47.29%

Convertible Note 39.90%

Common 9.36%

SAFE 3.45%

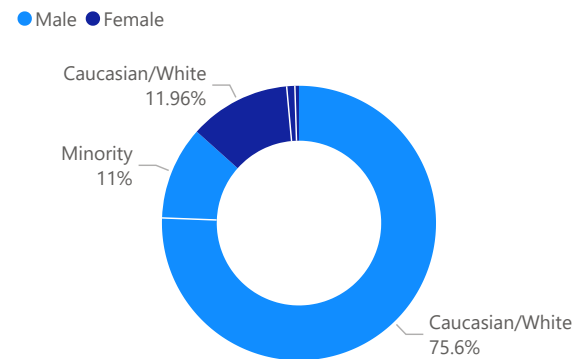
### Regional Industry (% deals)

Industry	% Deals
Information Technology	32.09%
Consumer Products and Services (B2C)	28.84%
Business Products and Services (B2B)	13.49%
Healthcare	13.49%
Energy	5.58%
Materials and Resources	3.72%
Biotechnology	2.33%
Financial Services	0.47%
<b>Total</b>	<b>100.00%</b>

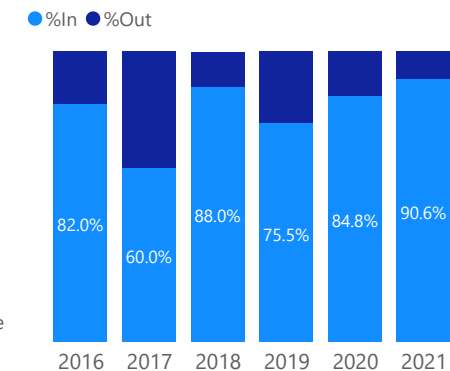
### Most Active Angels

- #1 Dessert Angels
- #2 Keiretsu Forum

### CEOs by Gender & Ethnicity



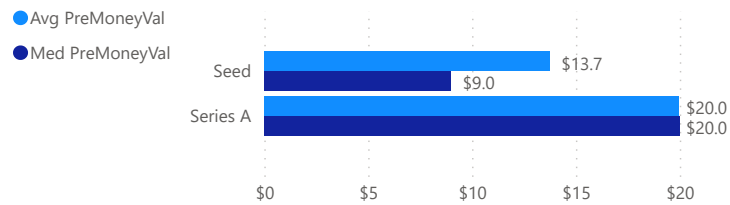
### Percent Deals In Region



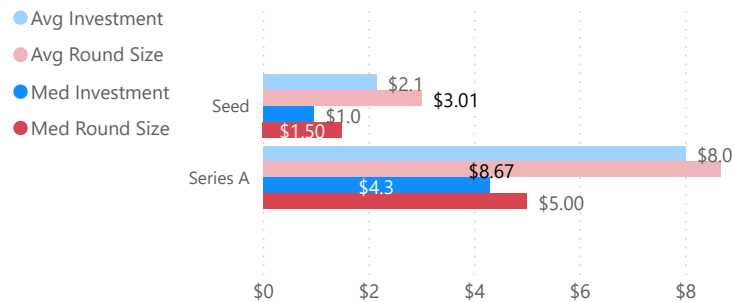
## 2021

## TEXAS

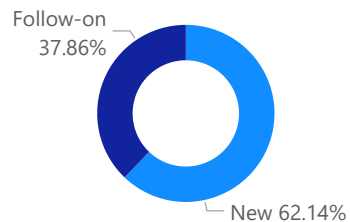
### Pre-Money Valuation (MM) by Investment Stage



### Investment & Round Size (MM) by Investment Stage



### New vs. Follow-on



### Deal Structure (% Deals)

Preferred 50.98%

Convertible Note 38.24%

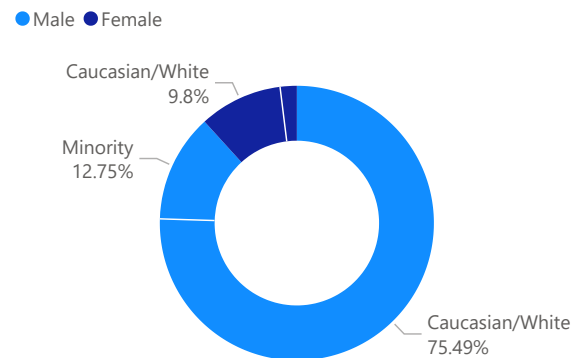
SAFE 5.88%

Common 4.90%

### Regional Industry (% deals)

Industry	% Deals
Consumer Products and Services (B2C)	26.92%
Information Technology	22.12%
Healthcare	21.15%
Business Products and Services (B2B)	16.35%
Materials and Resources	5.77%
Energy	3.85%
Biotechnology	2.88%
Financial Services	0.96%
<b>Total</b>	<b>100.00%</b>

### CEOs by Gender & Ethnicity

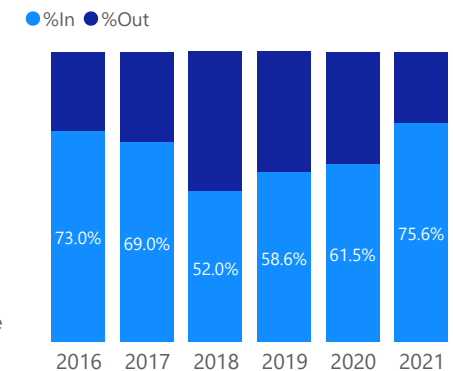


### Most Active Angels

#1 Keiretsu Forum

#2 Houston Angels

### Percent Deals In Region



# THE HALO REPORT™

The **2021 HALO Report** provides early-stage investors and entrepreneurs with comprehensive data and associated analysis from both third party sources and Angels themselves, resulting in an enhanced understanding of how Angels invest, startups are funded, and the ecosystem's demographic shifts.

## About the HALO Report

The HALO Report provides analysis and trends on the US angel community. Angels, and angel groups, invest alone, together and with many other types of investors. The HALO Report data focuses on early stage investments primarily Seed Stage and those Series A deals that include significant angel participation.

### Angel Resource Institute™ (ARI)

The Angel Resource Institute (ARI) is a 501(c)(3) charitable organization devoted to education, mentoring and research in the field of angel investing. ARI was founded by the Ewing Marion Kauffman Foundation in 2005 to serve the research and educational needs of the angel community. The programs of ARI include educational workshops and seminars, research projects and reports, and information about angel investing for the general public. ARI also provides customized educational programs for corporations, angel

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And to Zack Self and extended team whose enthusiastic support encouraged ARI to go deeper than in years past. A data scientist turned entrepreneur with a passion for the industry, Zack's ongoing support with both technical and creative insights, immense patience, and "can do" attitude, was constant inspiration. [www.zackself.com](http://www.zackself.com).



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**HALO** Report™

**2021 AGGREGATED NATIONAL & REGIONAL DATA**

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