Angel Resource Institute 2019

HALO Report™

Annual Report on Angel Investments

ANGEL RESOURCE INSTITUTE

PitchBook

AGGREGATED NATIONAL & REGIONAL DATA

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

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2019 HALO Report Highlights & Trends

WHAT ANGELS NEED TO THINK ABOUT WHEN WRITING CHECKS

The 2019 Halo Report is based on an analysis of 2,492 transactions across 2,444 companies – all completed in 2019. We culled and narrowed our focus to those transactions, that were clearly Seed or pre-Series A deals, and Series A. This resulted in a data set of 2,154 transactions: 1,921 transactions that were at various stages of Seed – from first financings to second and sometimes third, but still Seed, and 233 transactions were Series A deals. We identified an additional 94 transactions that were later stage, mostly Series B, but a few C and even D rounds in which angels were still participants. However, consistent with 2018 and prior, we did not include an analysis of these later stage deals (post Series A) other than to track and count their occurrence in our New vs. Follow-on investment metric. It remains interesting to see just how far beyond early investing stage angels continue to fund their companies, when they have the opportunity to do so.

These transactions represented a total of $4.3B invested.

Our focus remains most intently on these 2,154 early stage deals. Our goal is to continue to serve the angel community with relevant data on trends, challenges, and opportunities from as large a set of transactional data as possible.

We continue to thank the many angel groups who provide us their data, and enhance the quality of this study, along with our research partner relationship with Pitchbook.

Total Dollars of Analyzed Transactions
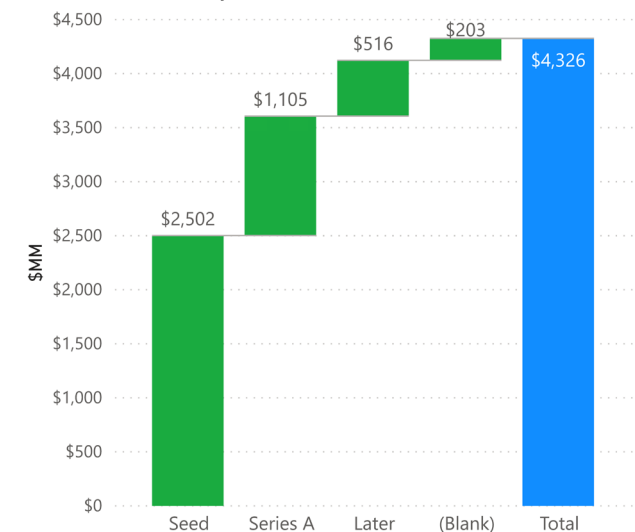
Data Validation & Methodology, 2019 HALO Report ™

Angels and angel groups invest alone, together, and with many other types of investors. Unless otherwise noted, the 2019 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 "Median Angel Group Investment" is the median size of reported investments made by Angel groups in the reported deals. There are many groups that have the capability of making significantly higher investments; however, the 2019 data showed that many of these groups also invested smaller amounts of capital. It is important to note that the "Median 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), via email, from direct conversations with group leaders or their administrators, and/or via Pitchbook.

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.
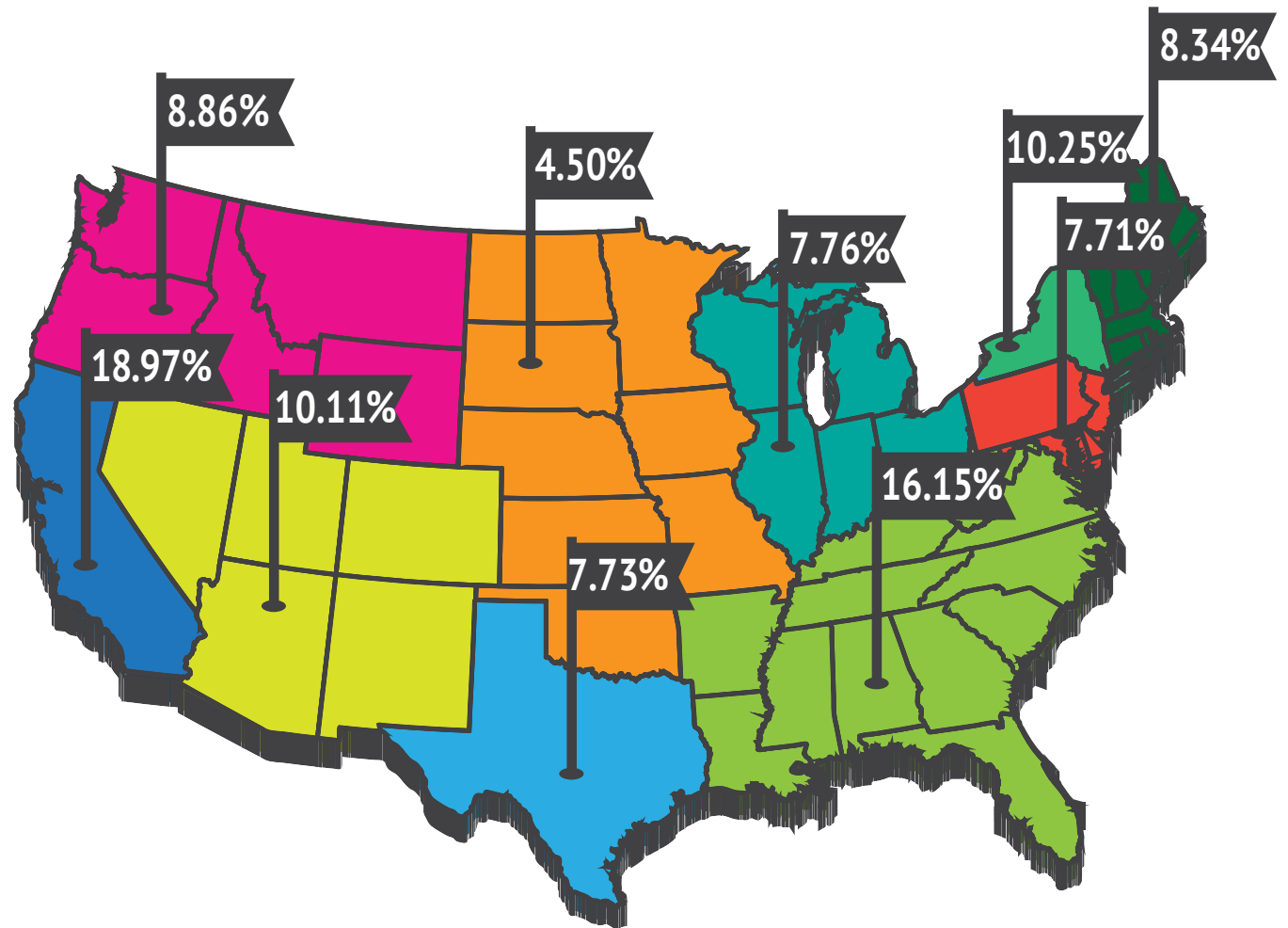
Geographic Analysis

Where are the deals located?

We have location data in 2019 on 2,054 companies (as distinct from transactions). Note: we took great care not to mix these two data sets to ensure we did not double count industry, gender, ethnicity, and other company attributes when tracking transaction data.

What did we find? While the country is vibrant with entrepreneurs, California is still the leader in the sheer number of early stage **companies** who raised angel capital last year, holding steady 2019 over 2018 with just under 19% of the total companies funded within the US.

The second most active region in the US this year was most clearly the South East (16.15%). This is a significant jump from 2018 (12.92%) – a region to watch for growth.
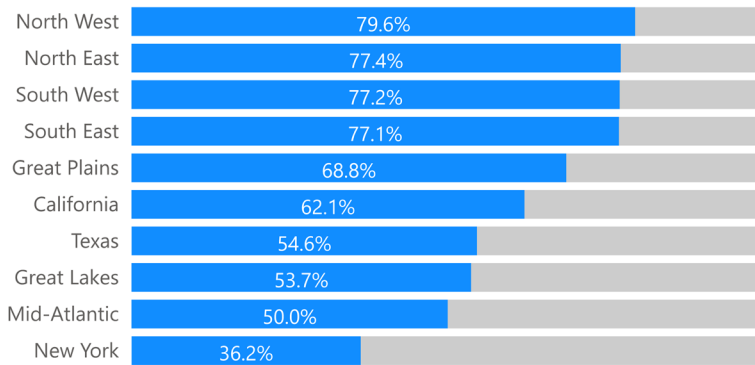
New York moved up to #3 in 2019 from #4 in 2018, with a consistent 10.25% of companies funded. And almost tied with New York, is the South West Region (10.11%), another place to watch for growth.

8.34%

8.86%

4.50%

10.25%

7.71%

7.76%

18.97%

10.11%

16.15%

7.73%

Percent of companies within United States

Percentage Deals In Region

Region	Percentage
North West	79.6%
North East	77.4%
South West	77.2%
South East	77.1%
Great Plains	68.8%
California	62.1%
Texas	54.6%
Great Lakes	53.7%
Mid-Atlantic	50.0%
New York	36.2%

Where does the money come from and where does it go?

Overall, 60% of the transactions were conducted by investors within their home region, and 40 % outside the home region.

These percentages varied by region. For example, the analysis found in California investors focused on their home region 62% of the time and 38% of the time were investing out of region. This was a change from 2018 and may be explained by the rate of growth and opportunity, aka the "bubble", within the California region throughout 2019, which began to slow in Q1 of 2020. But indeed, this was a dramatic swing.

For our 2019 analysis we looked more deeply at **where the investors are located,** as distinct from companies in which investors placed their capital.

We found 1,004 geographic data points of investor location for the 2,492 known transactions. This data pool allows us to make a fairly reliable analysis of ranking in terms of deals and the amount of investment.

Our detailed "In & Out" inspections discovered where money flowed if not local to the investors' region. We appreciate that both angels and entrepreneurs want to follow the money and understand who is attracted to what regions across the country.

The region with highest percentage of transactions within the home region at 79.6% was the North West. The North West continues to be the most likely to invest locally of all the regions. While **New Yorkers continue to aggressively invest outside their home region almost 64% of the time.**
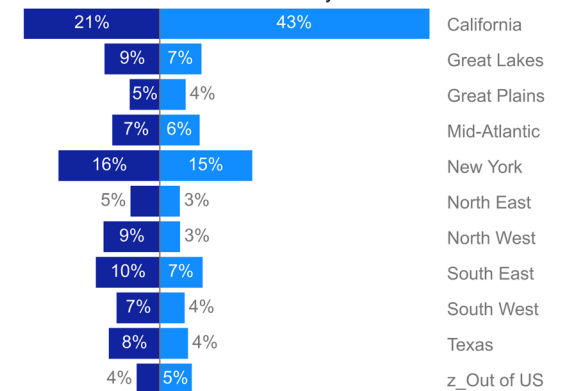
National Comparison of Investor Regions

We also compared investor activity by percentage of deals versus dollars based on the investors' home base. The analysis was based on all Seed and Series A transactions and the total of all their individual group investments.

Note that we excluded Series B and other later investments.

Investors based in California account for 21% of all deals and 43% of all dollars invested in Seed and Series A transactions regardless of company location.

Percent of All Deals vs. Dollars Invested by Investor Location

Investor Location	Deals	Dollars
California	21%	43%
Great Lakes	9%	7%
Great Plains	5%	4%
Mid-Atlantic	7%	6%
New York	16%	15%
North East	5%	3%
North West	9%	3%
South East	10%	7%
South West	7%	4%
Texas	8%	4%
z_Out of US	4%	5%

Where do investors go when they invest outside their region?

California remains a draw for investors, for California-based investors and those from other regions.

Investors chose to invest out of their home region, almost 22% of the time if it was into a company in California.

The second most preferred destination is the Northeast region (13.8% of deals), but still by quite a distance, and after which there is a tight cluster of other regions

The Northeast and California regions receive over 35% of the investments made outside of investors' home base.

As noted on page 5, the regions with the greatest number of transactions outside of region are New York, California, Texas, Great Lakes and Mid-Atlantic. We investigated in particular where these investors go when leaving their region.

New York is an important source of capital for companies outside of NY. They are home to almost 15% of all active investing angels in 2019, yet only 10% of the companies who raised money in 2019 are based in NY. So where do New Yorkers go with 64% of their investments? Not surprisingly, 28.4% of the time they went to their neighboring Northeast region, followed by 23% of the time to California. So **51% of their out of region activity is focused on just 2 regions.** The remaining 12.6% of New York angels' investments went to the Mid-Atlantic region, closely followed by 10.5% each to North West and South East regions.
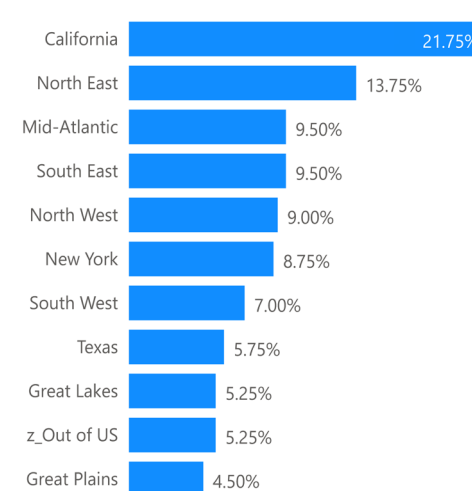
California investors put 17.2% of their outside investments in New York, followed by the Northeast with 12.5%. Unlike New Yorkers, Californian tended to spread investment within a few percentage points across all other regions of the country and also outside the US.

Texas Investors, on the other hand, are distinctly attracted toward California. California receives almost 39% of their out of region deals. The next most likely investment region but by a significant distance was the North West, at 14.3%. Texan angels also went to New York and the Northeast, 12.3 % in both instances.

Great Lakes investors went out of region 46% of the time, with a quarter of those deals in California. Companies in the Mid-Atlantic were next most favored, again by a significant distance, receiving 16% of out of region deals.

Mid-Atlantic investors choose companies in California and the South East region about equally: 25% for each.

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

Region	Percentage
California	21.75%
North East	13.75%
Mid-Atlantic	9.50%
South East	9.50%
North West	9.00%
New York	8.75%
South West	7.00%
Texas	5.75%
Great Lakes	5.25%
z_Out of US	5.25%
Great Plains	4.50%

Out of Region Investment Spread

How to read the charts:

The columnar chart below provides a simple visual representation of the investment spread when outside the Investor's region. The location where investments are made are in the left-most column. Notice the relatively even spread by California investors (1st column) and the uneven spread from investors located in the South West, Texas, and Outside the US regions (the last three columns).

The chart to the right illustrates the relative flow of dollars invested from US-based investors to companies based out of the US.

Investment Dollars made by US Investors to Non-US Companies
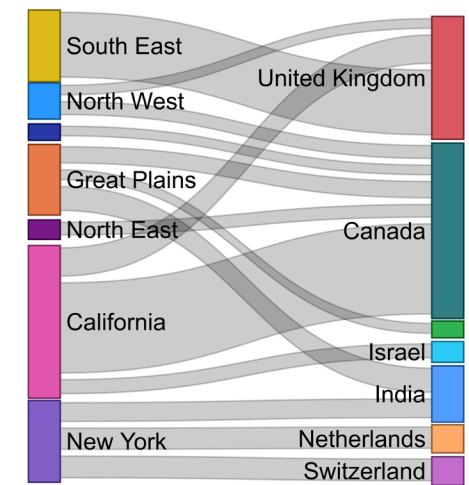
## Percentage of investments made when outside region

Company Region ▲	California	Great Lakes	Great Plains	Mid-Atlantic	New York	North East	North West	South East	South West	Texas	z_Out of US
California		■	■	■	■	■	■	■	■	■	■
Great Lakes	▪		■	■	▪	■			■		▪
Great Plains	▪	■					■			▪	▪
Mid-Atlantic		■	■		■	■		■			▪
New York	■	■	■			■	▪	■		■	■
North East	■	■	■	▪	■			■			■
North West	▪	■	■	■	▪	■		▪	■	■	■
South East	■	■		■	■	▪	■		■	■	■
South West	■	▪	▪	■		■		■		▪	▪
Texas	■	▪		■		▪	■	■	■		■
z_Out of US	▪	▪	■			■	■	▪		▪	
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Non-US funding & investment

We did not seek international transaction data but did find 3% of all deals where US angels invested outside mainland US. The transactions were intensely focused in neighboring Canada (43%) with the same percentage of total dollars. The UK garnered 35% of the remaining investment dollars. (See chart on previous page.)

We also found 2% of all US early stage transactions were funded by angels outside the US. These angels came from a greater variety of countries. While mostly from the UK and EU countries (France, Germany, Hungary: 30%) and Asia (18%), Canada and Israel (11% each), investors were attracted to US companies from many locations.

This graph depicts the countries by the source of capital outside mainland US, and destination within US regions. The numbers show the amount of capital invested was mostly from the UK, Israel, and Hong Kong.

Investment Dollars to US mainland
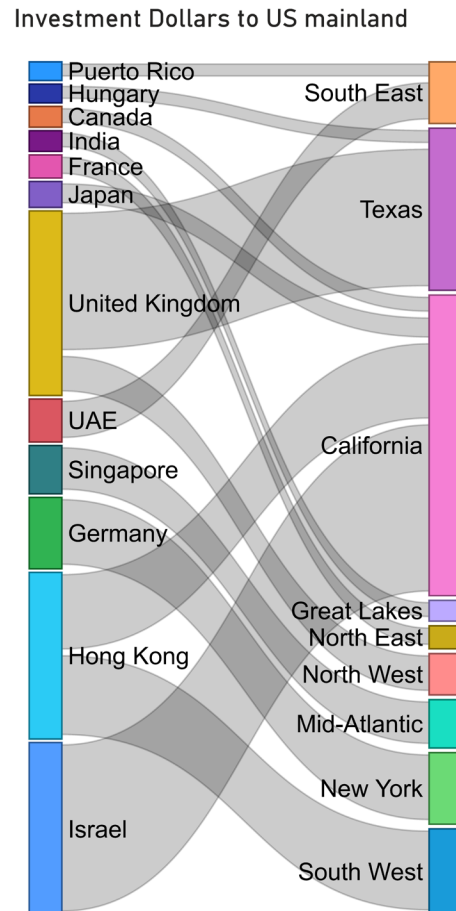
The larger the connection the greater the total dollars invested.

The Top 10 Angel Groups

Houston Angel Network is the #1 most active ARI-reporting angel group. This standing has held for at least 3 years. They remain vibrant across many regions. In second place this year is Golden Seeds – extremely active and growing through chapters in many US regions. The North West region's Alliance of Angels continues to also drive the majority of deal activity for that region as well as holding their national rank. The NY Angels play a similar role in the NY region and are nationally active investors at all stages.

The newly integrated Social Venture Circle (formerly Investor's Circle and Social Venture Network) is very active, reporting impact investments across the country now ranking in the 6th position, closely following Element 8, a group and associated fund focused on clean-tech investments.

Following St. Louis Arch Angels, and Desert Angels who also lead and drive from their respective regions, is Blue Tree Allied Angels, whose activity level tied at the top 10 with Astia Angels – a California based group investing with a Gender Lens throughout the US and beyond.

The top 10 of angels who directly contributed their data are below.

Top Angel Groups Ranked by Number of Deals

# 1	Houston Angel Network
# 2	Golden Seeds
# 3	Alliance of Angels
# 4	New York Angels
# 5	Element 8
# 6	Social Venture Circle
# 7	St. Louis Arch Angels
# 8	Desert Angels
# 9	Irish Angels
# 10	Astia Angels & BlueTree Allied Angels (tied for 10th)

Deal Structure and Investment Stage Statistics

Stage	Common Stock	Convertible Note	Other	Preferred Stock	SAFE
Seed	3.56%	50.75%	0.43%	40.57%	4.69%
Series A	1.78%	11.56%	0.44%	86.22%	

Security (% of Total)

Stage ● Seed ● Series A

Deal Structure

While we continue to see the use of SAFE notes they are a minor percentage of all Seed transactions at 4.7%. The primary structures were 51% Convertible Notes and almost 41% Priced Preferred. SAFE's are not reported in our data as frequently as we hear them discussed amongst early stage entrepreneurs.
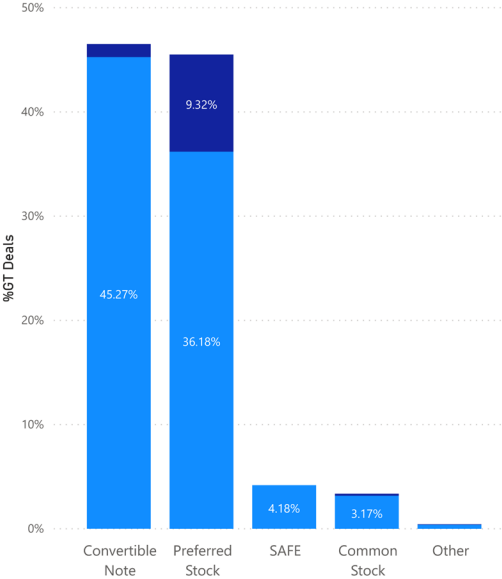
Series A transactions were (as expected) Preferred Stock 86% of the time, with 12% standard Convertible Notes associated with a Series A, typically a bridge to Series A, but distinctly beyond Seed stage.

We did find SAFEs were most frequently used in Mid-Atlantic Region at 12%. The Mid-Atlantic use of SAFEs may be heavily influenced by US Federal DOE, NSF, NIH, and other grant money which does not permit debt as a liability while grant funds are in use, hence early stage companies who do not wish to price their round are opting for SAFE notes.

California was #2 in SAFE usage at 10%, influenced by California incubators and possibly by science companies vying for Federal grant funds.
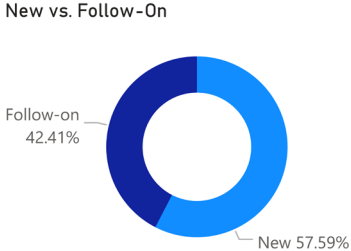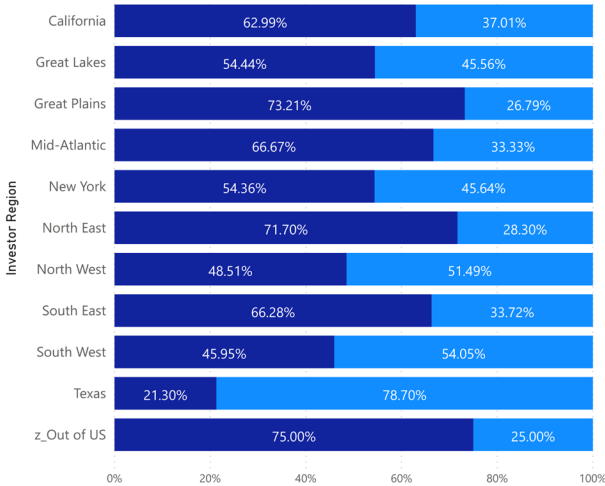
New versus Follow-On

The data for 2019 are very consistent with data for 2018, with 58% NEW and 42% Follow On, 1% fewer New (as % of Total) than in 2018. Consistent with 2018, for this metric, we included our 94 Series B and beyond transactions.

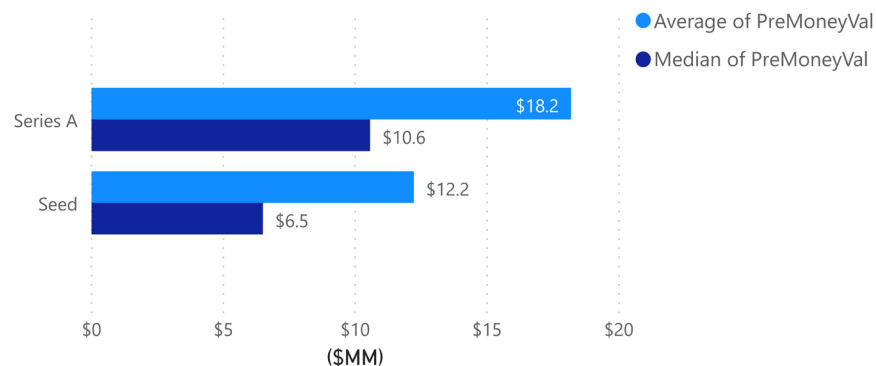Note differences by investor region.

New vs. Follow-On

Follow-on 42.41%
New 57.59%

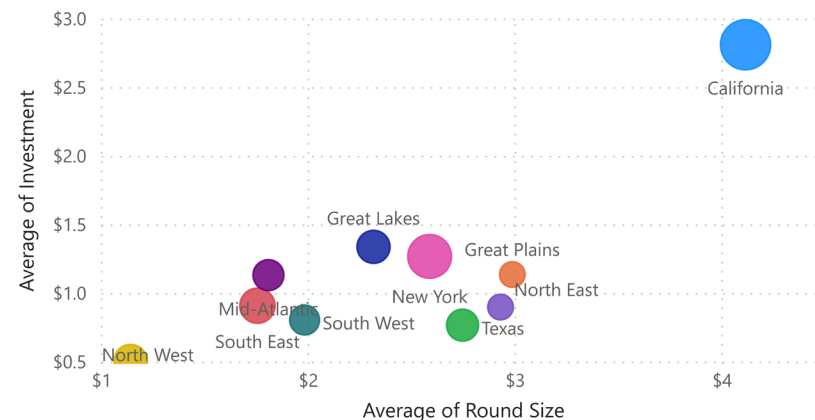**Percent New vs. Follow-on by Investor Region**

● Follow-on ● New

Investor Region	Follow-on	New
California	62.99%	37.01%
Great Lakes	54.44%	45.56%
Great Plains	73.21%	26.79%
Mid-Atlantic	66.67%	33.33%
New York	54.36%	45.64%
North East	71.70%	28.30%
North West	48.51%	51.49%
South East	66.28%	33.72%
South West	45.95%	54.05%
Texas	21.30%	78.70%
z_Out of US	75.00%	25.00%

Overall Financial Statistics (2019 Seed & Series A)

Pre-Money Valuation by Investment Stage

- ● Average of PreMoneyVal
- ● Median of PreMoneyVal

Series A — $18.2 / $10.6

Seed — $12.2 / $6.5

($MM)

California Investors Put Larger Investments in Bigger Pots

Average of Investment (y-axis) vs Average of Round Size (x-axis)

- California
- Great Lakes
- Great Plains
- New York
- North East
- Mid-Atlantic
- South West
- South East
- Texas
- North West
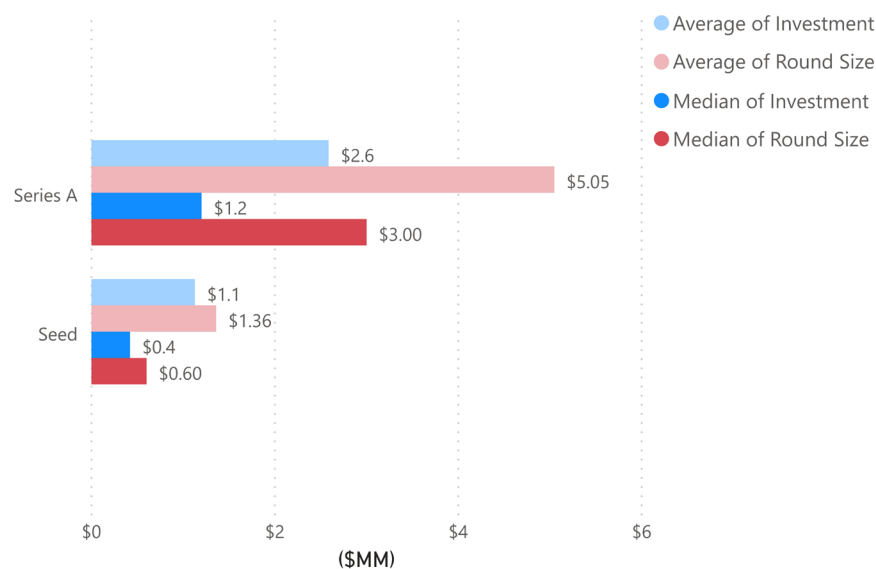
The size of the circle represents total deals by region to indicate relative activity.

Group Investment & Round Size by Investment Stage

- ● Average of Investment
- ● Average of Round Size
- ● Median of Investment
- ● Median of Round Size

Series A — $2.6 / $5.05 / $1.2 / $3.00

Seed — $1.1 / $1.36 / $0.4 / $0.60

($MM)

NY companies received larger individual and overall investments

Average of Investment (y-axis) vs Average of Round Size (x-axis)

- Great Lakes
- New York
- California
- Mid-Atlantic
- North East
- South East
- Texas
- Great Plains
- South West
- North West
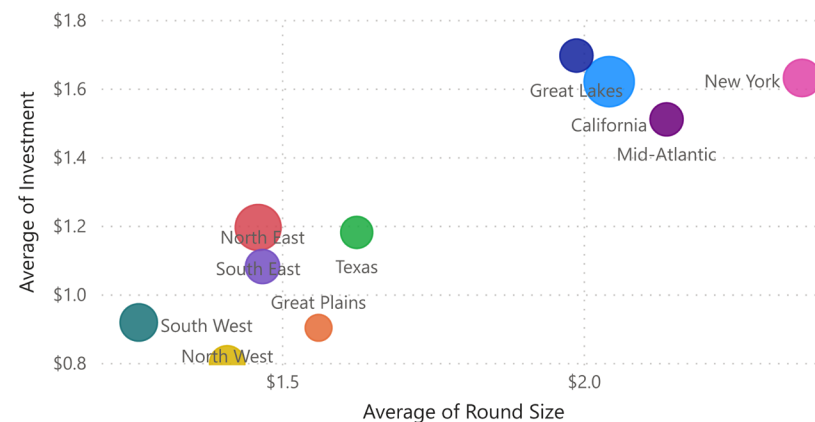
2018 & 2019 Comparison: Seed / Series A Pre-money Valuations

Consistent with 2018, we calculated the 2019 median and average summation of pre-money valuation, round size, and angel group investment size.

We found a significant increase 2019 in pre-money valuations – across all geographical areas and industry segments.
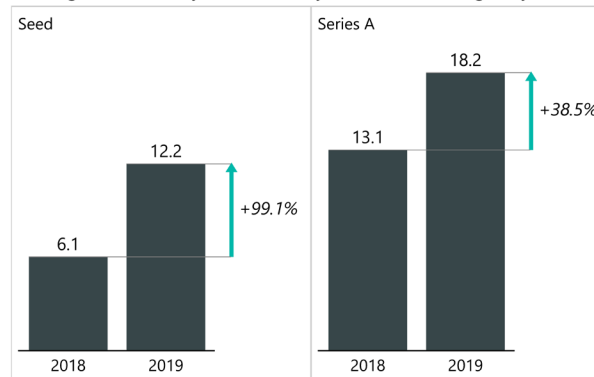
Average **Seed** pre-money valuation was $12.2M, over $6.1M (2018). While a few outliers may be driving these data, the median increases are also significant. For example, the median Seed valuation was $6.5M (2019) vs $5.0M (2018).

Average **Series A** pre-money valuation (2019) was $18.2M versus $13.1M (2018); the Series A median was up only slightly: $10.6M (2019) versus $10.0M (2018).
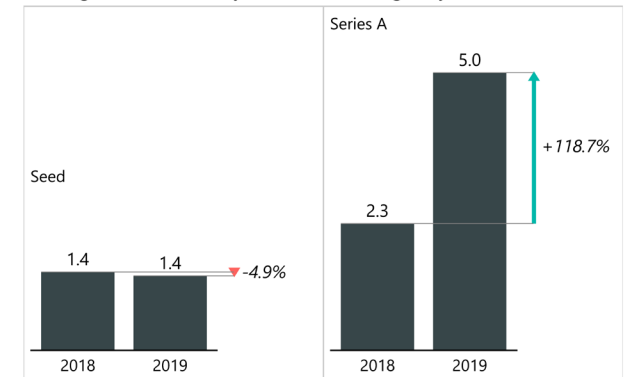
The Series A transactions collected by our analysts (233) are clearly a small subset of all Series A deals in the market. But we think they are representative of deals in which angels were heavily invested. However, the Series A round size of this data set increased significantly, 2019 over 2018.

The average round size was 2X and median was 3X over 2018. The average round size for Seed remained constant with a slight decrease for the median.
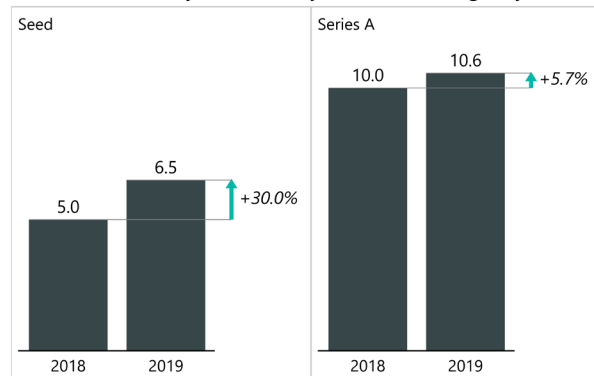
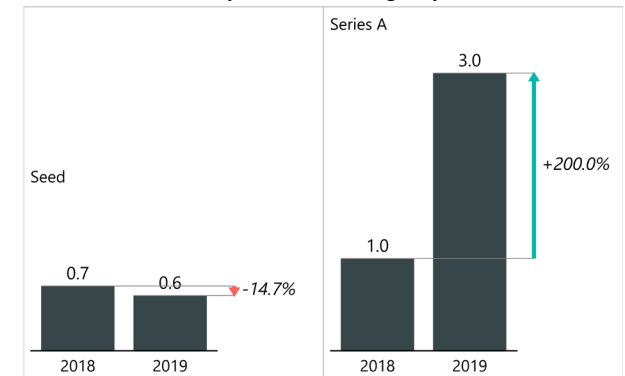### Average Pre-Money Valuation by Investment Stage, by Year

Seed
- 2018: 6.1
- 2019: 12.2 (+99.1%)

Series A
- 2018: 13.1
- 2019: 18.2 (+38.5%)

Median Pre-Money Valuation by Investment Stage, by Year

Seed
- 2018: 5.0
- 2019: 6.5 (+30.0%)

Series A
- 2018: 10.0
- 2019: 10.6 (+5.7%)

Average Round Size by Investment Stage, by Year

Seed
- 2018: 1.4
- 2019: 1.4 (-4.9%)

Series A
- 2018: 2.3
- 2019: 5.0 (+118.7%)

Median Round Size by Investment Stage, by Year

Seed
- 2018: 0.7
- 2019: 0.6 (-14.7%)

Series A
- 2018: 1.0
- 2019: 3.0 (+200.0%)

Industry Analysis

Industry Segments Angels Prefer

The 2019 data revealed a first-time decline in the information technology/software segment as a percentage of total transactions relative to other investment segments (2019/2018) -- 29% of the investments (2019) were in info tech, compared with 38.6% (2018). Yet Information Technology still remains the dominant segment for angels.

Consumer Products / Services sector saw significant growth, up from 18.2% (2018) to 25.75%.

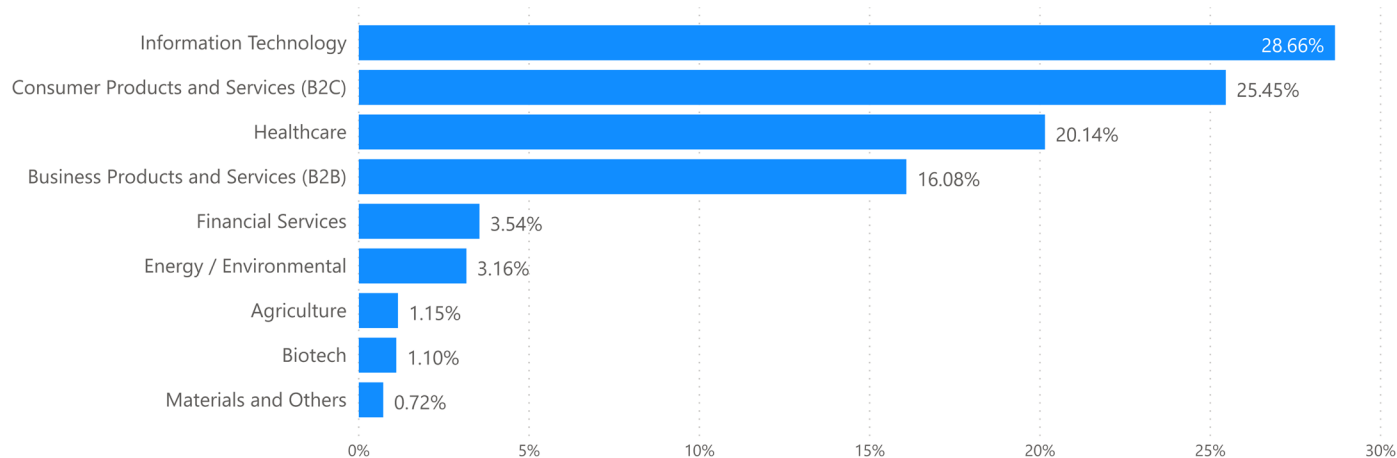If Healthcare and Biotech were combined, they would comprise 21% (2019) of transactions versus 18% (2018). We added Biotech as a discreet sector to track in 2019, but for comparison sake, you can observe that even without Biotech, the Healthcare segment continues to be a major category for angels.

We also noted an increase in Financial Services' Fin Tech in 2019, which was too small in 2018 to warrant its own category. In 2019 companies in this sector participated in 3.55% of all transactions. The Energy sector also rose to over 3% with a few related Environmental companies included.

And for this year, we found enough companies to warrant adding Ag Tech (1.2%) as a separate category and clearly growing.

While Info Tech and Software is still the leading category for angel investing, but by a much smaller margin than in the past, we also acknowledge that Info Tech / Software is often a necessary core component of many other sector investments.

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

| Industry	Percent
Information Technology	28.66%
Consumer Products and Services (B2C)	25.45%
Healthcare	20.14%
Business Products and Services (B2B)	16.08%
Financial Services	3.54%
Energy / Environmental	3.16%
Agriculture	1.15%
Biotech	1.10%
Materials and Others	0.72%

Industry Segment / Valuation

In general, pre-money valuations were higher in 2019 over 2018 across all industry segments.

Average pre-money valuation (2019) for the Info Tech / Software segment was significantly higher at $12.2M, up from $8.7M (2018), an increase of approximately 33%; the median pre-money increase was 14% 2019 over 2018.

The segment receiving the highest pre-money Valuation was Biotech (average = $21.2M and median = $11.3M). Closely following were Financial Services (average = $20.5M and median = $10M). Next was Energy and Environmental Services (average = $19.8M and median = $10M).

Pre-Money Valuation by Most Valued Industries

● Average of PreMoneyVal ● Median of PreMoneyVal
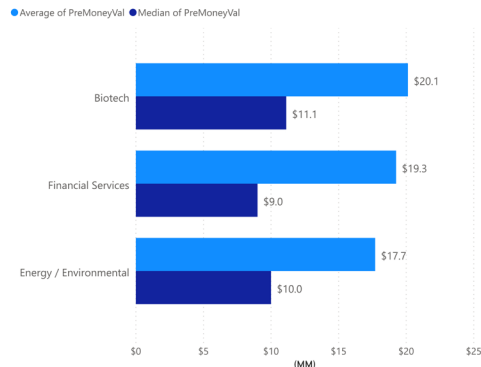
*Emerging market sectors – poised for growth – are the ones attracting highest valuations.*

The fourth-highest segment was Business Products and Services (average = $18.6M and median = $9.0M).

The top two segments by volume of transactions – Info Tech and Consumer Products – had *median* pre-money valuations of $7.0M and $5.0M respectively, while Consumer Products had a slightly higher *average* pre-money of $13.5M versus $12.2M for Info Tech, pointing to some significant outliers among consumer products and services.

Healthcare – *even without Biotech* – is in the top three industry segments by volume of transactions; and was also significantly higher in median pre-money valuation $8M (2019) versus $5m (2018), and an average of $11.6M (2019) versus $8.6M (2018).

If Healthcare and Biotech were considered as a single category / segment, average pre-money valuation would be $13.9M and median $8.5M vs $8.6M and $5.0M for 2018, demonstrating the clear increase in the nature of this segment and valuations.

The only segment (newly identified) with considerably lower valuations than the norm (but without comparison to 2018), is Agriculture /Ag Tech, with both average and median pre-money valuation at $3.9M. This is an interesting segment for angels to watch since it is clearly emerging as demand and opportunity for inno-

Average of Group Investment, Round Size: for Seed, Series A Deals by Industry
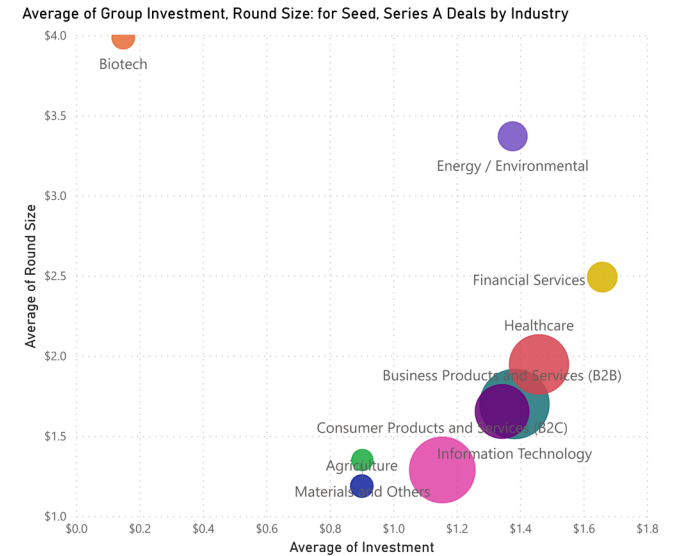
vation in this industry increases. This could be a segment where "well priced" opportunities for investment still exist.
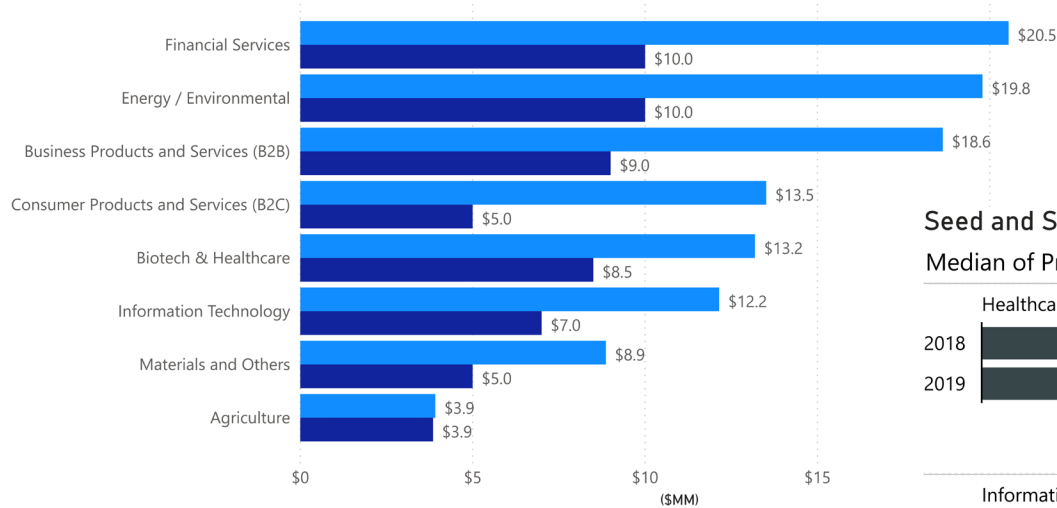
We also did a 2018 and 2019 comparison in sectors where we had sufficient industry data for both years.

See page 14 for details on valuation and volume of transactions.
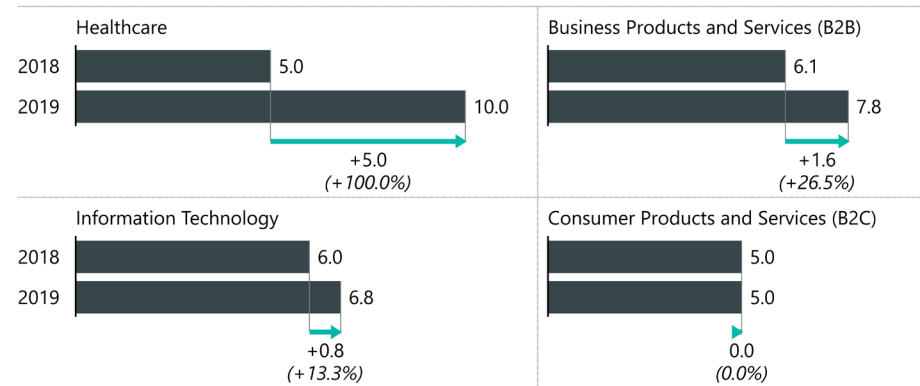
Industry Statistics

Pre-Money Valuation of Seed & Series A Transactions

● Average of PreMoneyVal ● Median of PreMoneyVal

Industry	Average	Median
Financial Services	$20.5	$10.0
Energy / Environmental	$19.8	$10.0
Business Products and Services (B2B)	$18.6	$9.0
Consumer Products and Services (B2C)	$13.5	$5.0
Biotech & Healthcare	$13.2	$8.5
Information Technology	$12.2	$7.0
Materials and Others	$8.9	$5.0
Agriculture	$3.9	$3.9

($MM) $0 $5 $10 $15

Seed and Series A Transactions

Median of Pre-MoneyVal by Industry Sector, Transaction Year

Healthcare

| 2018 | 5.0 |
| 2019 | 10.0 |

+5.0 (+100.0%)

Business Products and Services (B2B)

| 2018 | 6.1 |
| 2019 | 7.8 |

+1.6 (+26.5%)

Information Technology

| 2018 | 6.0 |
| 2019 | 6.8 |

+0.8 (+13.3%)

Consumer Products and Services (B2C)

| 2018 | 5.0 |
| 2019 | 5.0 |

0.0 (0.0%)

How to read this chart:

The color depth is based on the number of transactions per region (top row). Lighter colors indicate few transactions.

Industry (percentage of 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
Agriculture	16.67%	8.33%	12.50%			20.83%	4.17%	25.00%	8.33%	4.17%	
Biotech	17.39%	4.35%	8.70%	13.04%	17.39%	8.70%	4.35%	4.35%	17.39%	4.35%	
Business Products and Services (B2B)	16.67%	8.04%	3.87%	8.63%	8.33%	7.74%	8.93%	19.05%	9.82%	7.44%	1.49%
Consumer Products and Services (B2C)	19.92%	6.02%	3.76%	6.95%	12.22%	7.14%	10.15%	15.60%	10.34%	6.95%	0.94%
Energy / Environmental	18.18%	10.61%	4.55%	4.55%	6.06%	13.64%	12.12%	15.15%	7.58%	6.06%	1.52%
Financial Services	20.27%	6.76%	6.76%	4.05%	17.57%	4.05%	1.35%	17.57%	12.16%	6.76%	2.70%
Healthcare	19.95%	8.79%	7.60%	7.36%	4.99%	10.69%	7.13%	16.15%	10.45%	6.41%	0.48%
Information Technology	20.20%	8.18%	2.50%	8.01%	13.02%	6.84%	9.68%	13.19%	9.68%	5.84%	2.84%
Materials and Others	20.00%	13.33%		6.67%		33.33%	6.67%	6.67%	13.33%		

Gender & Ethnicity

In 2019 Women CEOs comprised approximately 17% of all Seed/Series A CEOs, an increase of over 1% from 2018 when they were 15.8%.

By contrast, CEOs from ethnically diverse backgrounds declined by more than 2% from a high of 18.8% in 2018 to 16.4% in 2019. This decline was almost exclusively among male minority CEO's, 13.3% were minority males in 2019 vs. 15.13% in 2018. Female minority CEOs decreased slightly from 3.65% in 2018 to 3.26% in 2019.

We were extremely proud of the thoroughness of our 2018 report tracking gender and ethnicity across 2,570 deals. We received significant interest and feedback in this area. As a result we took the opportunity to delve more deeply into the data to understand the dynamics as well as the percentage participation in leading early stage companies.

Our findings in 2019 are based on 2,203 transactions (gender) and 2,179, (ethnicity) – again a complete accounting of all known transactions in the Seed and Series A segments. The data below is of the 2,177 data points where we know both both gender and ethnicity of the CEO.

CEO_Ethnicity	Minority		White		Total	
CEO_Gender	#	%total	#	%total	#	%total
Female	71	3.26%	302	13.87%	373	17.13%
Male	285	13.09%	1519	69.77%	1804	82.87%
Total	356	16.35%	1821	83.65%	2177	100.00%

CEOs by Gender & Ethnicity

● Male
● Female

White 13.87%
Minority 3.26%
Minority 13.09%
White 69.77%
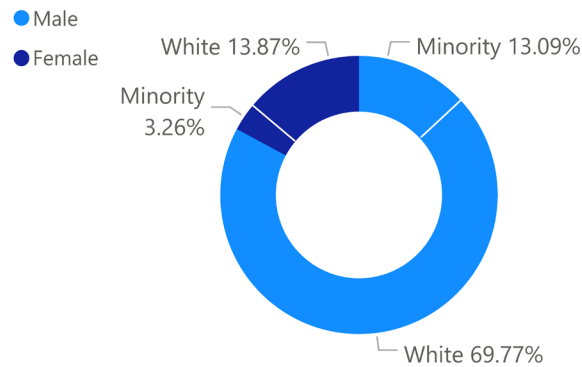
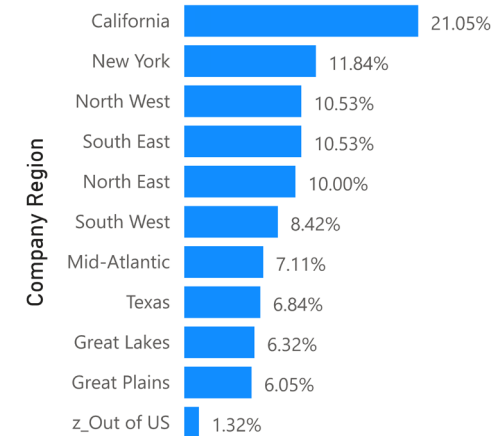## Where are the Female and Minority CEOs located?

In aggregate across the US, 21% of all female CEO's who raised money in 2019 are in California, with NY home to almost 12%.

While almost 28.5% of CEO's with ethnically diverse backgrounds live in California, followed by New York with 13.7%, the South East region closely followed with 12.3%.
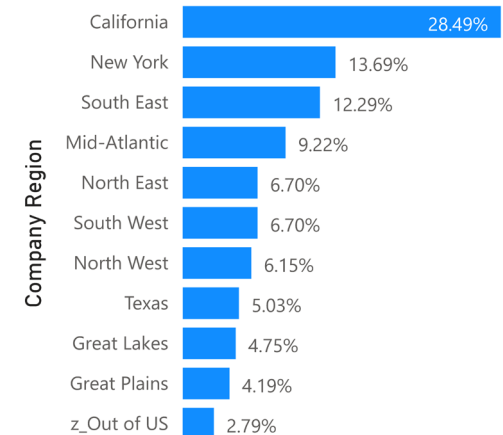
While this first view is a look at the data in aggregate for all CEO's across the country, we also asked which regions have the greatest diversity as a percentage of their CEO's who raised capital in 2019.

An Aggregate View:

Where Female CEOs Reside

Company Region	
California	21.05%
New York	11.84%
North West	10.53%
South East	10.53%
North East	10.00%
South West	8.42%
Mid-Atlantic	7.11%
Texas	6.84%
Great Lakes	6.32%
Great Plains	6.05%
z_Out of US	1.32%

Where Minority CEOs Reside

Company Region	
California	28.49%
New York	13.69%
South East	12.29%
Mid-Atlantic	9.22%
North East	6.70%
South West	6.70%
North West	6.15%
Texas	5.03%
Great Lakes	4.75%
Great Plains	4.19%
z_Out of US	2.79%

Gender & Ethnicity - Regional Comparisons

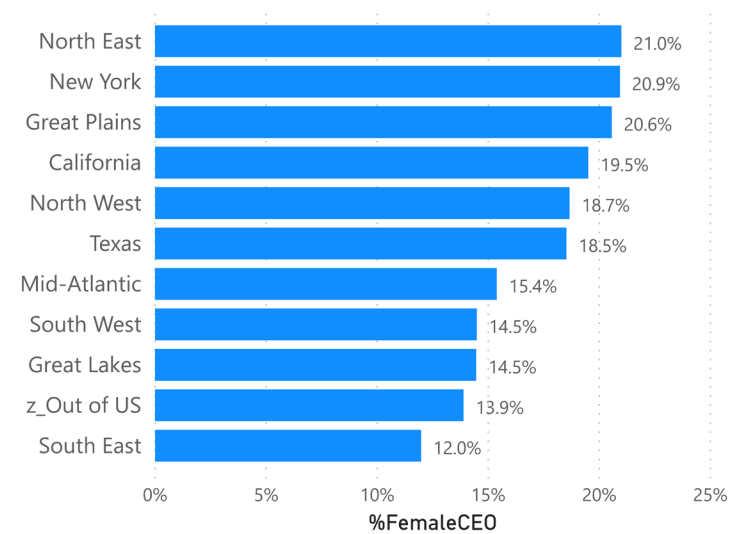**Gender & Ethnicity Comparison by Region**

What regions have the greatest number of ethnically diverse CEO's who raised capital in 2019?

Excluding CEO's outside the US, we again find that the state with the most ethnically diverse CEO's as a percentage of all CEO's in their region is California, over 25.5%. NY had 23% of its CEO's from ethnically diverse backgrounds and the Mid-Atlantic region had 19%. Other regions in the country are less diverse with respect to their CEO's, from the North West with only 9.6% to the Northeast at 13.5%.

Gender diversity is more evenly distributed within regions of the country. You will find the greatest percentage of CEO's that are women (as a percentage of total CEO's in that region) in the Northeast and NY almost fractionally tied at 21% and 20.9% and again with the Great Plains also a fraction of a percent behind NY; 20.6% of their CEO's raising money in 2019 were women. California was a full percentage point behind the rest at 19.5% of all of their CEO's, followed by the North West and Texas, and almost tied again by a fraction of a % at 18.7 and 18.5 respectively. Other regions were between 12% and 15.4%.

*When we step back and think about the most diverse regions considering both ethnicity and gender, **NY ranks high on the list of both metrics,** almost tied with the Northeast on the representation of women, and second only to California on ethnic diversity. California is the clear leader on ethnic diversity and in the top 4 closely aligned regions (within 1.5% of each other) on gender diversity.*

Company Regions Ranked by % Female CEOs

Region	%FemaleCEO
North East	21.0%
New York	20.9%
Great Plains	20.6%
California	19.5%
North West	18.7%
Texas	18.5%
Mid-Atlantic	15.4%
South West	14.5%
Great Lakes	14.5%
z_Out of US	13.9%
South East	12.0%

Company Regions Ranked by % Minority CEOs

| Region	%MnrtyCEO
z_Out of US	28.6%
California	25.5%
New York	23.0%
Mid-Atlantic	19.0%
North East	13.5%
South East	13.3%
Great Plains	13.2%
Texas	12.8%
South West	11.0%
Great Lakes	10.2%
North West	9.6%
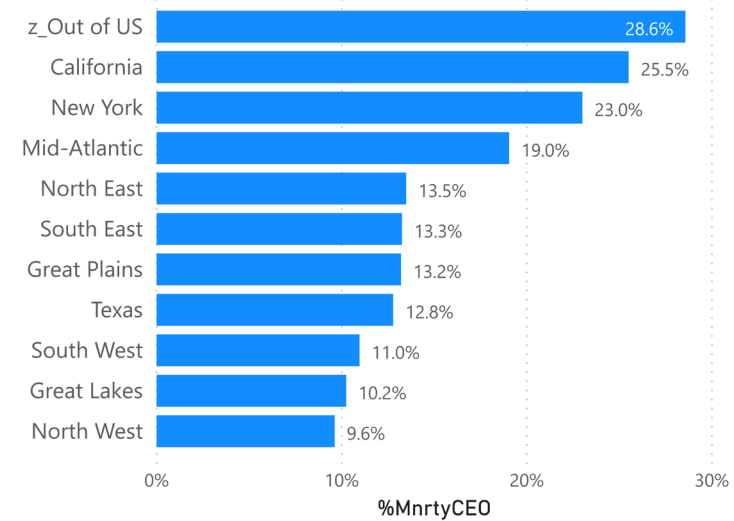
Capital Raising Attributes

Gender & Ethnicity Capital Raising Attributes

This year we used our Gender and Ethnicity data to analyze round size, amount raised, pre- and post-money valuations. We were struck by some significant disparities – most starkly along gender lines. What did we find?

Among Seed deals in 2019, male CEO's had higher valuations than their female counterparts by 71.3%. While we could brush this off as anecdotal, with a total of only 232 complete data sets with all the parameters required for this analysis, we decided it

Big Gap: Average Seed Pre-Money Val by Gender

CEO_Gender	Avg Pre-MV	Deals
Female	$8.2	69
Male	$14.0	163
Total	**$12.3**	**232**
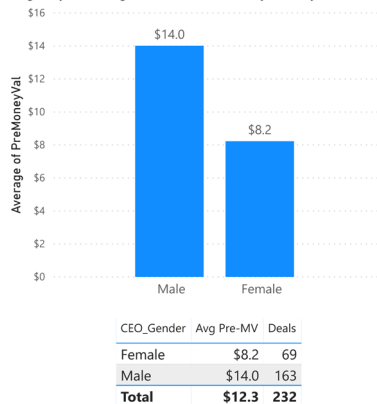
warranted combining our data from 2018 with that of 2019 – for almost twice the number of data sets where all variables are required – gender, ethnicity, pre-money valuation and round size. After all, we were now investigating gender disparity, not absolute value by year.

We also decided to look at gender by industry preference. If female entrepreneurs had a propensity to found and lead consumer products and services companies, (34.4% of all companies led by women were in this sector), and if this sector is not typically as highly valued, perhaps the choice of industry could explain this gap. This gave us another reason to go back to our 2018 data set. While we had this data in 2018, we did not analyze it specifically for these attributes, but simply focused on building a robust set of data across all transactions reported by Gender and Ethnicity. So with 2018 and 2019 data combined we could further separate Seed from Series A to ensure comparable data as

much as possible.

With this focus and more data, we still found significant disparities. In fact, **we found in the combined data set that average pre-money valuations for Seed Rounds of companies led by men were 73% higher than those with female counterparts**. Adding more data reinforced the disparity. The median PMV was still 20% higher for male CEO's. Also, amongst Seed investments women raised less capital (round size) than men by almost 49%.

We were compelled to delve more deeply into the characteristics of gender and ethnicity in the area of capital raising.

Ironically we did not find significant disparities when we investigated whether there was a difference by gender / ethnicity in the amount of equity sold across transactions. For this analysis our focus remained on Seed stage where our N was greater than in Series A.

Capital Raising Attributes by Gender & Ethnicity (Seed, 2019)

Gender	Female				Male				**Overall**			
Ethnicity	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	1.96	1.50	$11.5	$6.5	1.41	1.25	$11.0	$5.5	**1.60**	**1.42**	**$11.2**	**$6.5**
White	1.36	1.27	$6.3	$5.2	2.67	1.20	$14.8	$7.1	**2.35**	**1.20**	**$12.7**	**$6.0**
Overall	**1.51**	**1.50**	**$7.6**	**$5.5**	**2.45**	**1.20**	**$14.2**	**$7.0**	**2.20**	**1.20**	**$12.4**	**$6.0**

We found women gave up more equity than men-- but not by much (16.7% versus 15.5%). We found minority CEOs sold far less equity than white CEO, 11.6% versus 16.7%, which is significant.

Was this a function of pre-money valuation differences? Were women and ethnic minorities raising less money because valuations were not as high?

Pre-money Investigation

For this analysis we focused on Seed to not let Series A data or outliers increase valuations.

When we studied the table below we found many insights. For example, there was greater disparity on the basis of Gender than Ethnicity. On Ethnicity, consider that while the average round size of ethnic CEO's was 22% lower than their white counterparts, the median round

size for ethnic CEO's was 13.4% higher than for white CEOs. Also, while average pre-money valuations for minority CEO's was 9.5% lower, the median pre-money valuation was 18.2% higher for minority CEO's. (Minority women represent 20% of the total minority CEO population, and their attainment level on round size and valuation is improving the overall minority data set, which is not the case among the white population of CEO's.)

Looking just at gender and including the highly performing ethnic female CEO's , we still found that companies led by men have a higher average pre-money valuation -- by almost 50% -- than those led by women. Even the median valuation is 20% higher for male-led companies. Clearly we have a significant gender disparity on valuation and round size.

It is of note that the discrepancy with respect

to raising capital seems to be as great between gender as ethnicity. For example, when you study the table below you will see that when we look at white CEOs we find the average pre-money valuation between white men and white women to be as stark as pre-money valuation between male CEOs (white and minority).

Combining 2018 and 2019, we found white male CEOs raised 83% more capital than did white women on average, with a median round size of 20% higher. For pre-money valuation, combining 2018 and 2019 data, we find white male CEO's have higher average pre-money valuations 113% higher the white female CEO's, and a 20% higher median pre-money valuation.

While the number of minority females is small, it appears that the discrepancy between minority men and women is interestingly less significant by gender. In fact, the performance

Capital Raising Attributes by Gender & Ethnicity (Seed, 2018 & 2019 combined)

Gender	Female				Male				Overall			
Ethnicity	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	1.94	1.50	$9.2	$6.5	1.31	1.00	$9.5	$5.5	**1.58**	**1.35**	**$9.3**	**$6.5**
White	1.26	1.00	$5.7	$5.0	2.31	1.20	$12.0	$6.0	**2.03**	**1.19**	**$10.3**	**$5.5**
Overall	**1.46**	**1.20**	**$6.7**	**$5.0**	**2.15**	**1.20**	**$11.6**	**$6.0**	**1.94**	**1.20**	**$10.1**	**$5.5**

of minority women CEOs is consistently higher than white women CEOs on all four metrics calculated. And indeed minority female CEO's enhance both the metrics for minority CEO's and female CEOs at large.

Here's how ethnicity is impacted. While white female CEO's reduce the high round sizes and pre-money valuations of the total of white CEOs, ethnic female CEO's increase the performance of ethnic CEO's at large. If we were just to look at white male CEO's vs minority male CEO's, we find the white male CEO's with average pre-money valuations 27% higher; and the difference in median valuation is 9% higher for white male CEO-led companies. The adjacent graphs illustrate the disparity along both gender and ethnicity by round size and pre-money valuation.

It appears that women CEOs at the Seed stage in particular are raising less money than their male counterparts with which to achieve their goals, and with far lower valuations.

While we have fewer Series A deals to analyze, it is encouraging to see women-led Series A companies that angels are still backing, with significantly higher average and median round sizes and higher pre-money valuations both average and median.

We would like to conclude that women who demonstrate value at the Seed stage and who are noted already for being capital efficient raise less capital at the Seed stage and at lower valuations but go on to see a significant increase and are rewarded at the Series A level.

We look forward to tracking this data over time.

Round Size by Gender & Ethnicity (Seed, 2018 & 2019 combined)

● Female ● Male

White	Female 1.26, Male 2.31
Minority	Female 1.94, Male 1.31

Average of Round Size
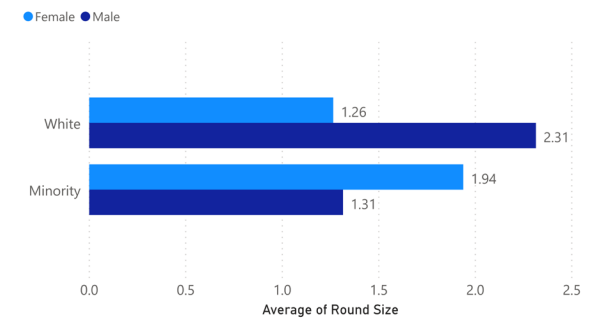
Pre-money Valuation Gender & Ethnicity (Seed, 2018 & 2019 combined)

● Female ● Male

White	Female $5.7, Male $12.0
Minority	Female $9.2, Male $9.5

Average of Pre-MoneyVal
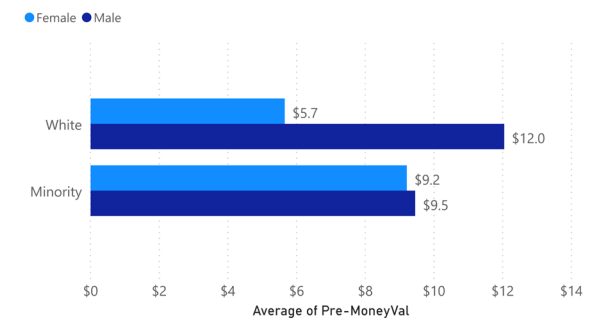
Gender Analysis by Industry Segment

In an effort to understand the gender gap at the Seed Stage, we performed a deeper analysis with respect to gender and Industry segment to ensure that the identified gap at the Seed stage between male and female pre-money valuations was NOT simply a function of women gravitating to a less-valued industry segment. That is, was there an inherent bias based on the type of company women chose to lead?

We also sorted the industry data by ethnicity, to see if there were any interesting differences in choice of industry segment – again looking for anything to explain the difference in pre-money valuations. While we found distinct preferences by gender, the sort by ethnicity only revealed a tendency for ethnic minorities to lead Information Technology companies. In fact 1/3rd of all ethnic CEO's were leading Information Technology companies. There were fewer ethnic CEO's in business products and services but nothing to explain a significantly lower pre-money valuation for ethnic CEO's.

While women CEOs are found predominantly in Consumer Product and Services (35%) and Info Tech (23%), ethnic women are predominately in IT and B2C. Men are in the opposite situation

with Info Tech (31%) and Consumer Products (25%).

Consumer Products have a lower median pre-money valuation than Info Tech ($5M versus $6.8M). However, Info Tech has a lower average pre-money than Consumer Products ($11.2M and $15M).

See data visualizations on this page highlighting interesting distinctions. While the *N* is small for ethnic women, it is noteworthy they choose Consumer Products and Services far less than their white counterparts and are emerging in the sciences: IT, Healthcare, and Biotech.

Count of CEO Demographics by Industry

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

This shows where the demographics shift by industry.

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

CEO_Gender Industry	Female %	AVG Pre-MV	MED Pre-MV	Male %	AVG Pre-MV	MED Pre-MV	Total %	AVG Pre-MV	MED Pre-MV
Agriculture	0.63%			1.30%	$3.9	$3.9	1.19%	$3.9	$3.9
Biotech	1.89%	$15.0	$15.0	0.46%	$8.4	$10.0	0.70%	$10.3	$10.0
Business Products and Services (B2B)	11.99%	$6.0	$6.3	16.66%	$15.4	$8.5	15.86%	$13.2	$7.5
Consumer Products and Services (B2C)	35.33%	$7.4	$5.0	24.72%	$19.8	$5.0	26.54%	$15.0	$5.0
Energy / Environmental	3.15%	$9.8	$6.5	3.06%	$13.3	$12.8	3.07%	$11.3	$7.5
Financial Services	3.47%	$12.6	$10.0	3.32%	$9.7	$6.0	3.34%	$11.0	$8.0
Healthcare	19.56%	$9.0	$5.7	19.13%	$13.0	$8.0	19.20%	$11.5	$7.3
Information Technology	23.03%	$7.3	$6.0	30.71%	$12.0	$7.0	29.40%	$11.2	$6.8
Materials and Others	0.95%	$0.6	$0.6	0.65%	$5.0	$5.0	0.70%	$2.8	$2.8
Total	**100.00%**	**$8.2**	**$6.0**	**100.00%**	**$14.0**	**$7.5**	**100.00%**	**$12.3**	**$6.5**

Unfortunately while women migrate to Consumer Products and Services, with lower average pre-money Valuations, women within that segment still received average pre-money valuations 52% lower than their male counterparts. The median pre-money valuation did not differ at all between men and women – $5.0M for each. This data points to the many outliers among men driving up the average.

As you can see on the graph, women also received much lower pre-money valuations in Business Products and Services. The average pre-money valuation for women is $7.7M, while for men the same metric is $21.4M, that's a 178% difference. The median pre-money valuation for men is $10M, 66% higher than the same metric for women at $6.0M.

It is also significant that in info tech, the second highest category for women CEO participation, women-led companies had average valuations closer to that of their male counterparts, within 9.7% , and median valuations are even closer with men a 7.3% difference. But the sheer participation rate in consumer products and services is clearly impacting the overall average pre-money valuation data for women.

The Healthcare segment is also where women are close to parity with men. The median pre-money valuation is actually 12.5% higher for women CEO's than for men, while the average pre-money valuation is still 17% lower for women, but again averages do highlight the outliers in any data set.

Women-led companies are doing very well in Energy / Environmental Services and in Financial Services, but in small numbers. Again the emerging high value sectors should afford more opportunity for women to excel.

We look forward to tracking this data at the Seed and Series A levels.

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

● Female ● Male

Industry	Female	Male
Agriculture		$3.9
Biotech	$15.0	$8.4
Business Products and Services (...	$6.0	$15.4
Consumer Products and Service...	$7.4	$19.8
Energy / Environmental	$9.8	$13.3
Financial Services	$12.6	$9.7
Healthcare	$9.0	$13.0
Information Technology	$7.3	$12.0
Materials and Others	$0.6	$5.0

Average Pre-Money Val ($MM)
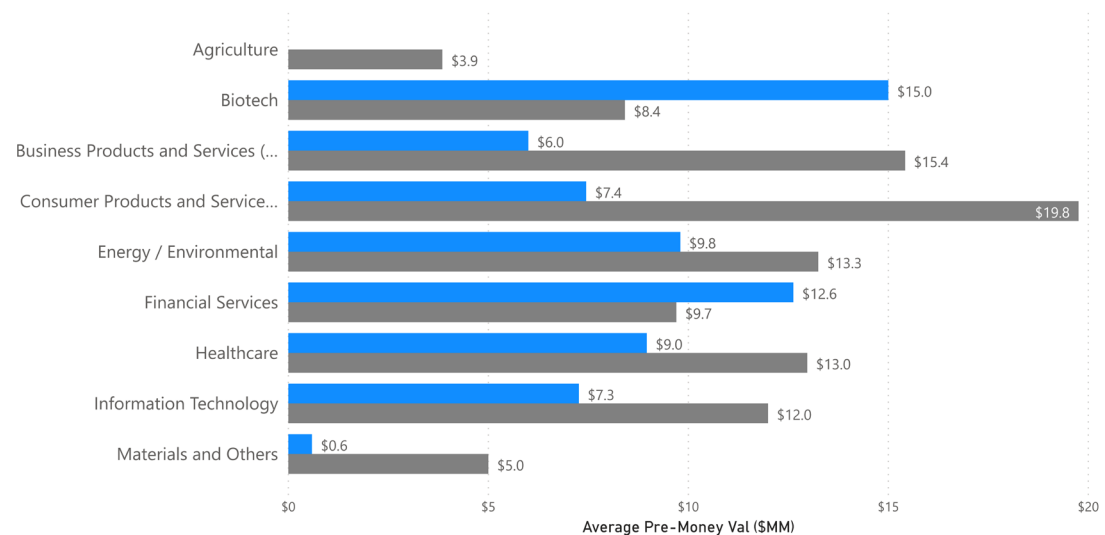
Super Angels

We began to notice early in 2019 there were some interesting deals led by individual Super Angels. Super Angels are named individual investors outside of groups investing in their own name or family office. This caught our attention, and caused us to take the time to decipher these opportunities.

If Super Angels were an angel group, they would have been the most active angel group in the country – leading at least 130 deals. They are a significant influence on the landscape, and we can appreciate the benefits for angel groups and entrepreneurs alike to learn much more about who is in their community with the capacity to drive deals from seed through Series A singlehandedly. We can trace how opportunities for angels are increasingly shaped by recently "exited" CEO's - freshly exited operating executives with not only the capital, but the operating experience and networks to make a significant difference in the trajectory of a new company. Sometimes these Super Angels are disguised as a "venture fund" of 1 or 2 in their family office and other times they are named and investing as individuals from their personal assets. Other super angels are building funds, e.g. Jason Calacanis and his Launch Fund. Is this an angel fund? Is it an angel highly influencing the trajectory of the opportunities he culls? Or is it both?

We are beginning to discern that access to networks is critical, not just access to other angel groups. Understanding the network effect that

Super Angels can have on an ecosystem is an untapped opportunity for angels and family offices. How can angel groups balance their desire to fuel entrepreneurs in their community, who steadfastly apply, pitch, and work through their process, with the knowledge that there is another layer of deal making going on – often in that same community? We found, for example, Super Angels are in every region and almost every state in the US – not just in Silicon Valley.

Deals by Company Location
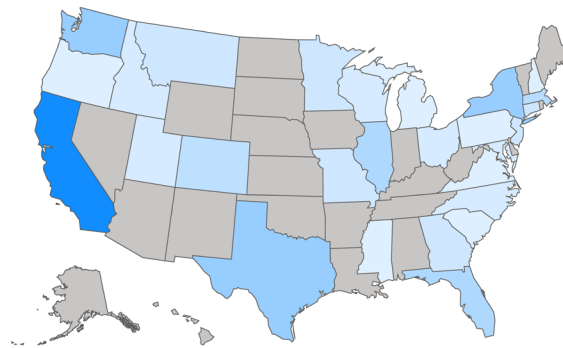
We also found Super Angels outside the US, willing to invest in US companies, as well as US-based angels looking globally for great opportunities. In fact we followed the trail of how some US Super Angels fund companies outside the US with the ability to provide more capital if these early high potential companies come to the US for market growth.

Highly networked Super Angels have the capacity to scout for "best and brightest" globally, then offer larger Series Seed and Series A capital once a company establishes in the US, poised for US market growth.

48 (36.92%)
82 (63.08%)
● Follow-on
● New
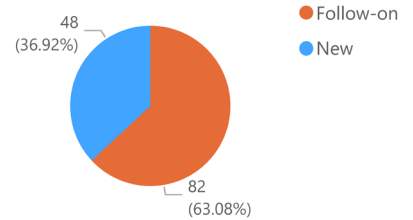
We also found companies screened by super angel influencers, specifically in London and Tel Aviv, with angel money from the EU, but with a plan to have those companies shaped by renowned individual US angels eager to see the rest of the world benefit, e.g. Reid Hoffman and Entrepreneurs First.

All Deals by Region

Investor Region	Deals	% Deals
California	26	20.00%
New York	20	15.38%
Great Lakes	16	12.31%
North West	14	10.77%
South East	14	10.77%
Texas	11	8.46%
z_Out of US	9	6.92%
Mid-Atlantic	8	6.15%
Great Plains	6	4.62%
North East	3	2.31%
South West	3	2.31%
Total	**130**	**100.00%**

Super Angel Characterization

This study identified 130 Super Angels, leading 130 deals for 129 companies. Of these, 9 Super Angels reside outside the US and invested from the UK, the EU, Singapore, Israel and India.

The US Super Angels investments are concentrated in California and New York, accounting for 21.5% and 16.5% of Seed and Series A **transactions** in these regions respectively. Another 12% are in Great Lakes, and 11% in North West.

It's important for entrepreneurs to be aware, that while Super Angels at the **Seed** stage invest outside their region 47% of the time, they are more likely to stay in region for the **Series A** deals, only going out of their regions 37% of the time. This data confirms the pattern we observed when Super Angels scout globally as well as just outside their region within the US.

The location of US Super Angels are as follows: 22% are based in California, 19% in New York, 9.5% in Texas, 8.6% in Washington, 7.6% in IL, 5% in PA, 4% in MI, 3% in FL, GA, 2% in CO, DC, MA, MT, NC, WY, and 1% ID, LA, MN, NB, NJ, OH, OK, UT.

Super Angels invest in CEOs that are varied in gender and ethnicity: 17% are diverse ethnicities, and 13.6% are women, of which almost a third are minority women. This pattern is consistent across Seed and Series A investments.

Stage Industry Sector	Later Deals	% Deals	Seed Deals	% Deals	Series A Deals	% Deals	Unknown Deals	% Deals	Total Deals	% Deals
Agriculture			1	0.77%					1	0.77%
Business Products and Services (B2B)	1	0.77%	17	13.08%	2	1.54%	2	1.54%	22	16.92%
Consumer Products and Services (B2C)	2	1.54%	29	22.31%	4	3.08%			35	26.92%
Financial Services			2	1.54%					2	1.54%
Healthcare	1	0.77%	9	6.92%	6	4.62%			16	12.31%
Information Technology	2	1.54%	44	33.85%	6	4.62%	1	0.77%	53	40.77%
Materials and Resources			1	0.77%					1	0.77%
Total	**6**	**4.62%**	**103**	**79.23%**	**18**	**13.85%**	**3**	**2.31%**	**130**	**100.00%**

Similar to other angels, most of their investments – 79.2% -- were Seed Investments, with 13.9% Series A, and 5% B or later. They clearly also placed additional funding beyond their initial investment: 63% of their investments were Follow-on, and only 37% were new financings.

Median pre-money valuation for Series A was $12.5M, but their median Seed valuation was $5.0M, less than the metrics for all Angel Groups.

Stage	Deals ▼	Median of Investment	Median of Round Size	Median of PreMoneyVal
Seed	103	$1.0	$1.08	$5.0
Series A	18	$2.7	$2.75	$12.5
Later	6	$1.3	$1.00	$4.0
Unknown	3			
Total	**130**	**$1.2**	**$1.21**	**$5.0**

So what industry segments are preferred by Super Angels? The heaviest concentration is Info Tech – with 41% of deals in this sector versus 29% concentration by all angel groups.

For Super Angels Consumer Products and Services were 27%, Business Products and Services, 17%, with Healthcare just over 12%.

CEOs by Gender & Ethnicity

- Male
- Female

White 9.4%
Minority 4.27%
Minority 12.82%
White 73.5%
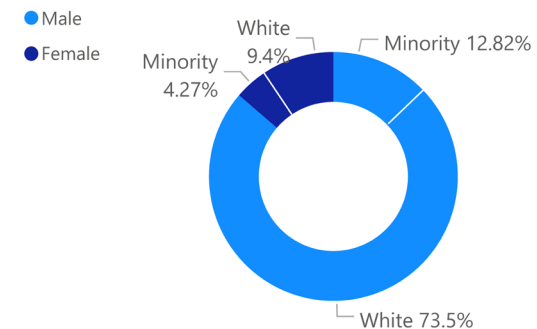
The Landscape for Angels Is Changing

Micro Funds, Billion Dollar Sidecar Funds for Incubators, Platform enablers, and Frontier Funds of Top Tier VC's

Can we correlate the most highly-networked and the best deals? A Silicon Valley angel recently remarked over lunch something the rest of us took to heart, "Just because you live here doesn't mean you have access to the best deals." How do you balance being inundated with pitches, setting up screens, and sometimes buffers, with networking to find the best deals?

In this spirit, we scoured our third party data sources, especially Pitchbook, and found transactions categorized as "angel deals" as clearly deals funded by early stage venture capital. With no angels found in those deals, we excluded these from our study.

However, it is helpful to observe that within our respective ecosystems there are increasingly early stage venture funds with "risk money" – or frontier funds of large well-known venture funds – with the freedom from their LP's to invest $100K or more in high potential early stage deals.

Some of this behavior is on steroids with major incubators and side car funds. For example, Y Combinator's major set of programs operate with a fresh $1B side fund. Investing in the fund provides premier access to these most promis-ing companies, *often closing their deal before the well-known Demo Day showcase.* In March 2019, Tech Crunch reported that *several Y combinator companies dropped out of "Demo Day" because they had already garnered their financing behind the scenes* – not from angels, but venture funds!

We also found about 1% of the "angel stage" deals in Pitchbook were clearly deals funded by early stage funds that actually excluded angels. We therefore excluded these from our study.

"Only the Paranoid Survive", Andy Grove remarked – and wrote a book on the subject.

Still, we anticipate opportunities for angels and angel groups to get to know micro funds as well as the leaders of larger institutional funds who have the freedom to be a company's first capital – bypassing the "angel" stage for an entrepreneur. Networking proactively as well as through more traditional processes will help angels weave their way into these deals. We found a number of these to investigate further. We think they will be worth highlighting as we learn how to stay abreast of these opportunities to expand and include family offices and micro funds. An angel group or a collection of friends can strive to get to know these small venture funds and invite them to join their groups for access to reciprocal deal flow.

Access to deal flow is key to finding high quality opportunities. We are now gaining visibility into deal flow around Super Angels, Micro Funds, and "Frontier" Funds of institutional VC's. Most angels are eager to ensure they do more than just capitalize the first round. Following the path of those eager and willing to complete Angel Stage deals, and take them to the next level and beyond, will help angels follow the money for both deals and follow-on capital.

The big factors are:
- New platforms that ease access to angels and syndicate deals,
- More freshly-minted high net worth individuals ("exited entrepreneurs"), and
- Venture funds with billion dollar assets and their scouts on the hunt looking to be the right entrepreneur's first professional money.

About a third of the deals we identified as missed by angels were in California. Other spots were in New York, Massachusetts, Oregon, Pennsylvania, Texas, Utah and Washington. The deals from Y Combinator and many other places were never on our radar.

We will continue to study the landscape and appreciate the important role that angels do play in providing access to capital for so many entrepreneurs throughout the country.

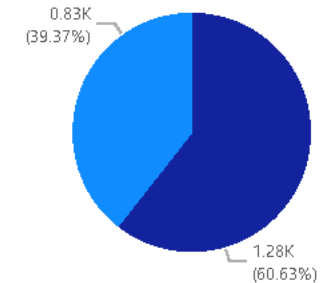# National Summary Statistics

Industries Angels Like

- Average of PreMoneyVal
- Median of PreMoneyVal
- % All Deals

Deal Structure (% Deals)

Convertible Note
46.52%

Preferred Stock
45.51%

Common Stock & Other & SAFE
7.98%
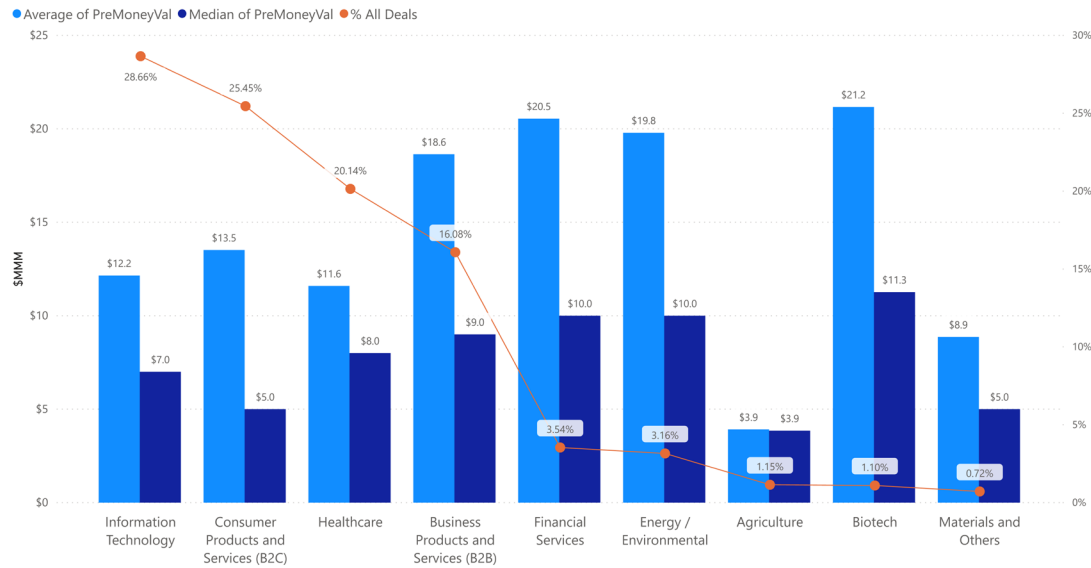
Deals by Investment Stage
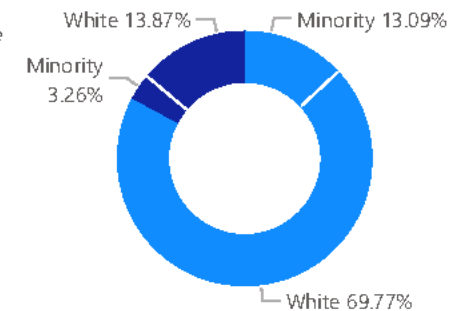
- New
- Follow-on

0.83K (39.37%)
1.28K (60.63%)

Percentage Deals In Region

Region	%
California	62.1%
Great Lakes	53.7%
Great Plains	68.8%
Mid-Atlantic	50.0%
New York	36.2%
North East	77.4%
North West	79.6%
South East	77.1%
South West	77.2%
Texas	54.6%
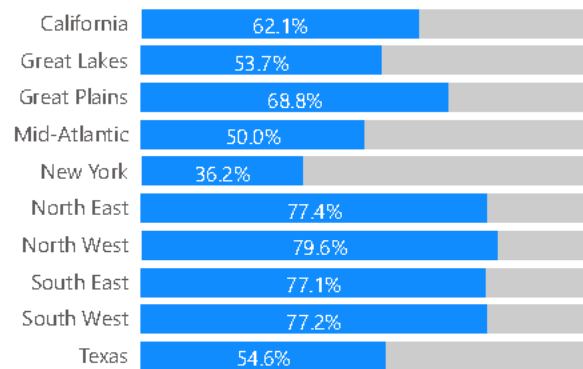
Historical In/Out Ratio

- %in
- %out
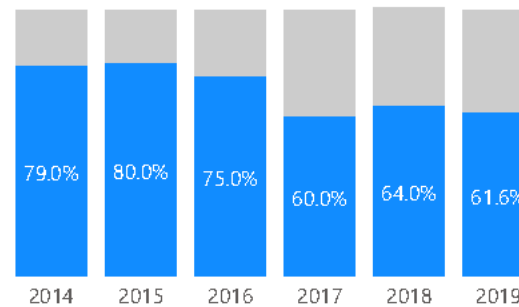
Year	%in
2014	79.0%
2015	80.0%
2016	75.0%
2017	60.0%
2018	64.0%
2019	61.6%

CEOs by Gender & Ethnicity

- Male
- Female

White 13.87%
Minority 13.09%
Minority 3.26%
White 69.77%

2019

CALIFORNIA

Pre-Money Valuation by Investment Stage

- Avg PreMoneyVal
- Med PreMoneyVal

Stage	Value
Series A	$16.2
Series A	$15.0
Seed	$11.5
Seed	$8.0

($MM)

Group Investment & Round Size by Investment Stage

- Avg Investment
- Avg Round Size
- Med Investment
- Med Round Size

Stage	Value
Series A (Avg Investment)	$3.9
Series A (Avg Round Size)	$6.12
Series A (Med Investment)	$2.2
Series A (Med Round Size)	$4.11
Seed (Avg Investment)	$1.3
Seed (Avg Round Size)	$1.45
Seed (Med Round Size)	$0.70

($MM)
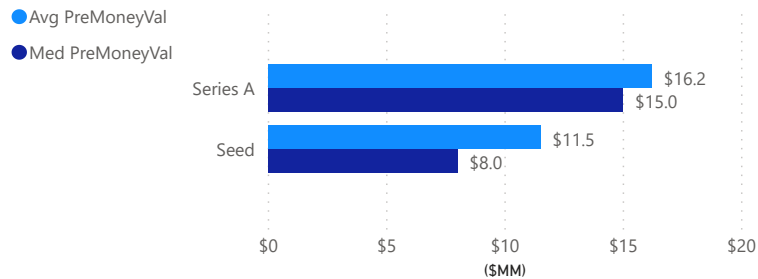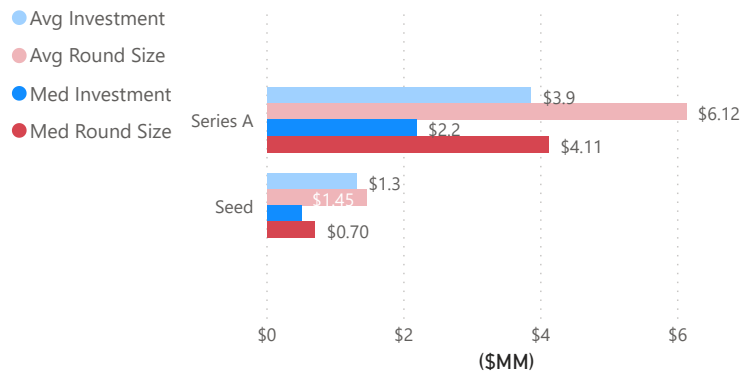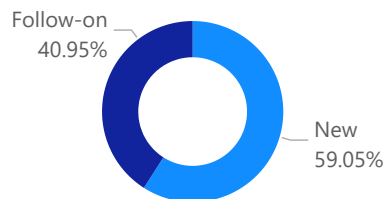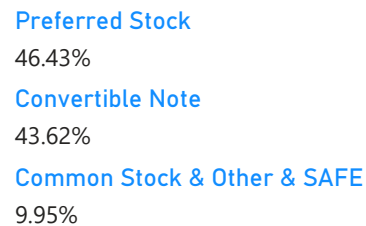
Regional Industry (% deals)

Industry	% Deals
Information Technology	30.20%
Consumer Products and Services (B2C)	26.24%
Biotech & Healthcare	21.29%
Business Products and Services (B2B)	13.86%
Financial Services	3.71%
Energy / Environmental	2.97%
Agriculture	0.99%
Materials and Others	0.74%
Total	**100.00%**

Most Active Angels

Super Angels
Astia
Golden Seeds
Houston Angels Network
Sacramento Angels
New York Angels
HBS Angels
Band of Angels
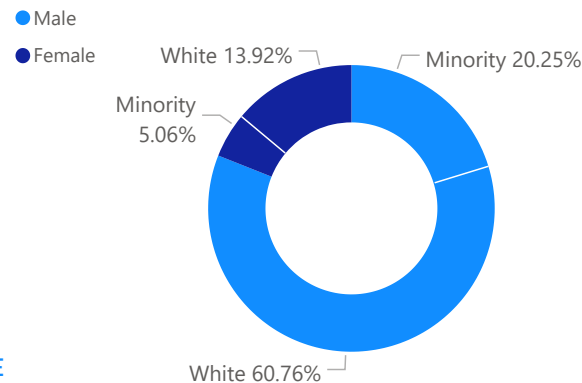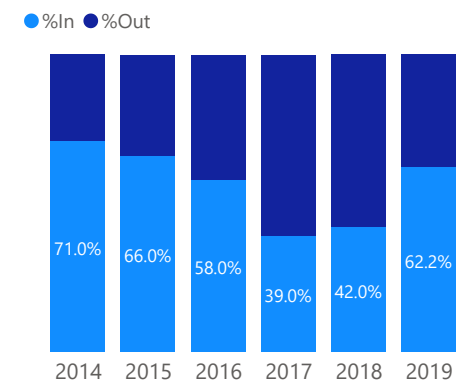
New vs. Follow-on

Follow-on 40.95%
New 59.05%

Deal Structure (% Deals)

Preferred Stock
46.43%

Convertible Note
43.62%

Common Stock & Other & SAFE
9.95%

CEOs by Gender & Ethnicity

- Male
- Female

White 13.92%
Minority 20.25%
Minority 5.06%
White 60.76%

Percent Deals In Region

- %In
- %Out

Year	%In
2014	71.0%
2015	66.0%
2016	58.0%
2017	39.0%
2018	42.0%
2019	62.2%

Pre-Money Valuation by Investment Stage

● Avg PreMoneyVal
● Med PreMoneyVal

Seed: $28.8 / $5.5
Series A: $8.8 / $6.5

($MM)

Group Investment & Round Size by Investment Stage

● Avg Investment
● Avg Round Size
● Med Investment
● Med Round Size

Series A: $2.8, $4.83, $0.7, $1.68
Seed: $1.6, $1.74, $0.3

($MM)

New vs. Follow-on

Follow-on 41.1%
New 58.9%

Deal Structure (% Deals)

Convertible Note
49.37%

Preferred Stock
46.20%

Common Stock & Other & SAFE
4.43%
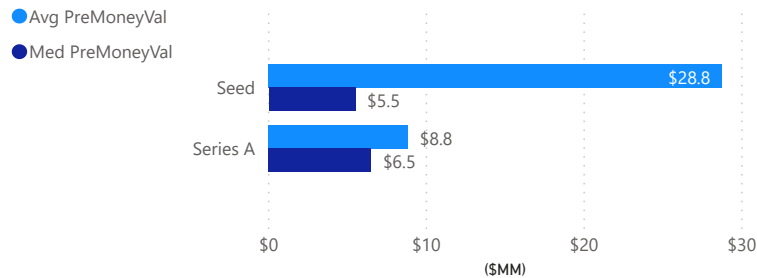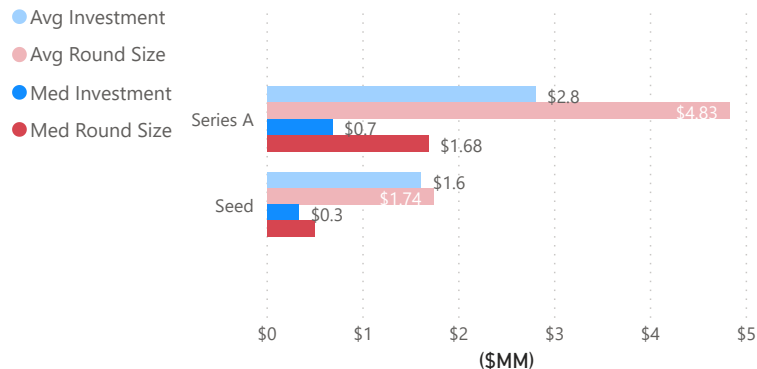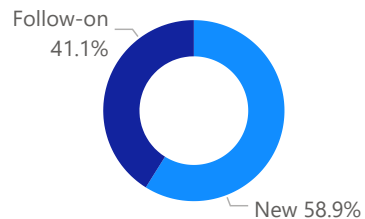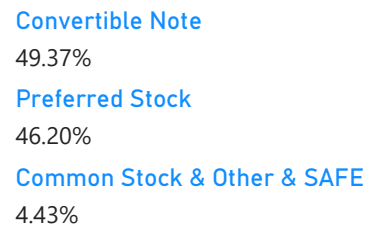
Regional Industry (% deals)

Industry	% Deals
Information Technology	30.25%
Biotech & Healthcare	23.46%
Consumer Products and Services (B2C)	19.75%
Business Products and Services (B2B)	16.67%
Energy / Environmental	4.32%
Financial Services	3.09%
Agriculture	1.23%
Materials and Others	1.23%
Total	**100.00%**

CEOs by Gender & Ethnicity

● Male
● Female

White 11.45%
Minority 7.23%
Minority 3.01%
White 78.31%

Most Active Angels

Irish Angels

Michigan Angel Fund

Super Angels

Drummond Road Capital

Central Illinois Angels
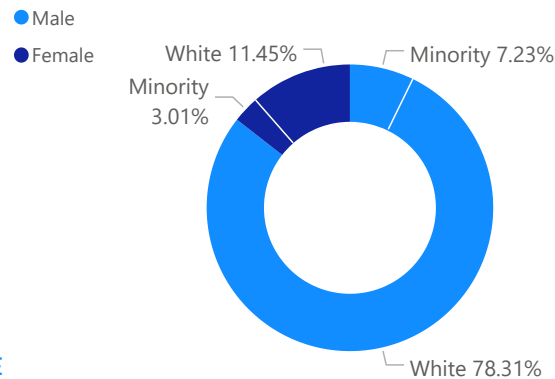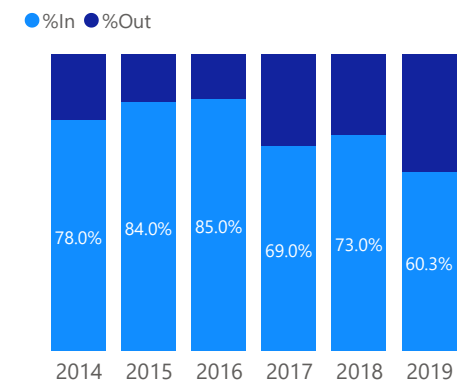
Percent Deals In Region

● %In ● %Out

2014	2015	2016	2017	2018	2019
78.0%	84.0%	85.0%	69.0%	73.0%	60.3%

Pre-Money Valuation by Investment Stage

● Avg PreMoneyVal
● Med PreMoneyVal

Stage	Value
Series A	$10.3
Series A	$9.9
Seed	$5.6
Seed	$2.8

($MM)

Group Investment & Round Size by Investment Stage

● Avg Investment
● Avg Round Size
● Med Investment
● Med Round Size

Stage	Value
Series A	$1.1
Series A	$4.12
Series A	$0.9
Series A	$1.93
Seed	$0.9
Seed	$1.26
Seed	$0.4

($MM)

New vs. Follow-on

Follow-on 42.22%
New 57.78...

Deal Structure (% Deals)

Preferred Stock
46.24%

Convertible Note
45.16%

Common Stock & Other & SAFE
8.60%
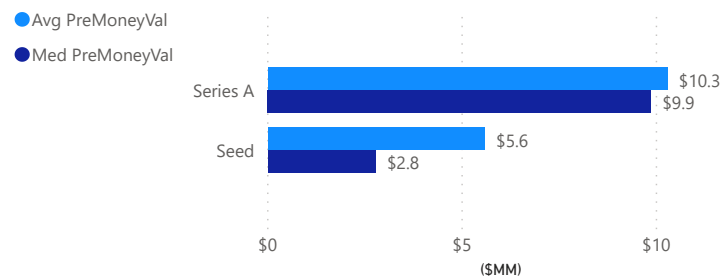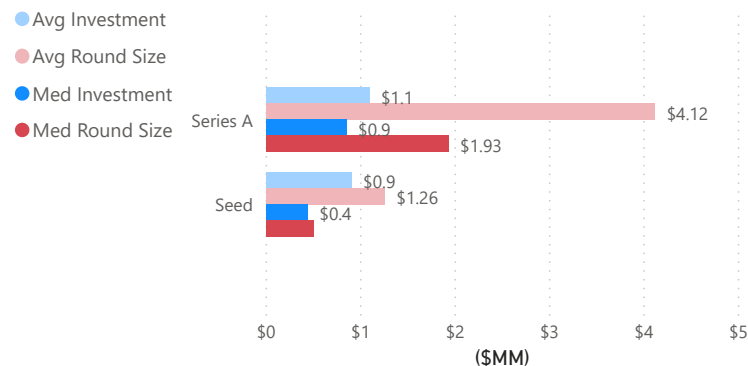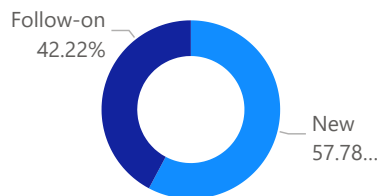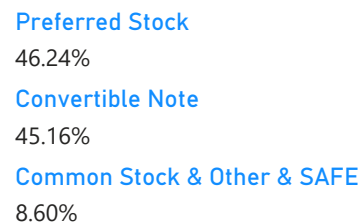
Regional Industry (% deals)

Industry	% Deals
Biotech & Healthcare	36.26%
Consumer Products and Services (B2C)	21.98%
Information Technology	16.48%
Business Products and Services (B2B)	14.29%
Financial Services	5.49%
Energy / Environmental	3.30%
Agriculture	2.20%
Total	**100.00%**

CEOs by Gender & Ethnicity

● Male
● Female

White 17.92%
Minority 10.38%
Mino... 2.83%
White 68.87%

Most Active Angels

St. Louis Arch Angels

Sofia Angel Fund

Super Angels

AVP Seed Fund

Houston Angel Network
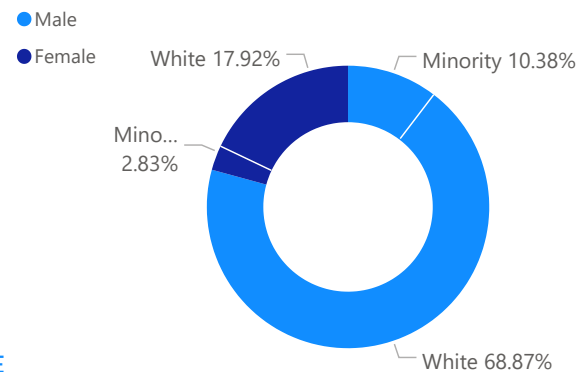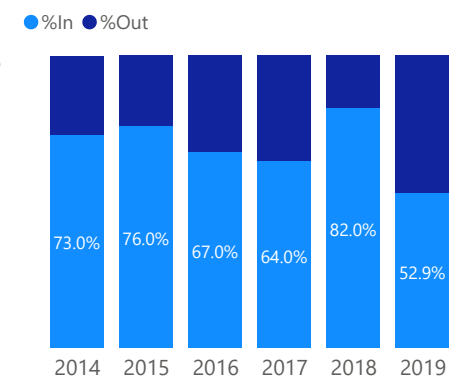
Percent Deals In Region

● %In ● %Out

Year	%In
2014	73.0%
2015	76.0%
2016	67.0%
2017	64.0%
2018	82.0%
2019	52.9%

Pre-Money Valuation by Investment Stage

- Avg PreMoneyVal
- Med PreMoneyVal

Series A: $9.0 / $8.3
Seed: $8.6 / $9.0

($MM)

Group Investment & Round Size by Investment Stage

- Avg Investment
- Avg Round Size
- Med Investment
- Med Round Size

Seed: $1.6 / $1.74 / $0.7 / $0.83
Series A: $1.3 / $4.91 / $0.3 / $2.90

($MM)
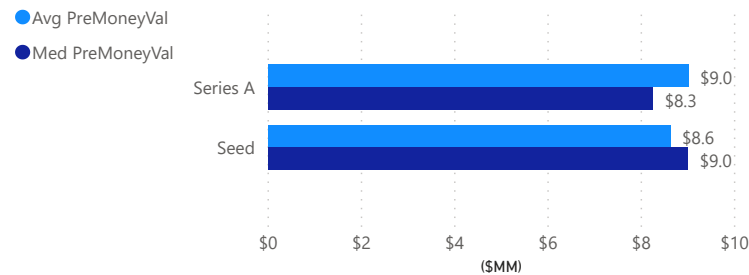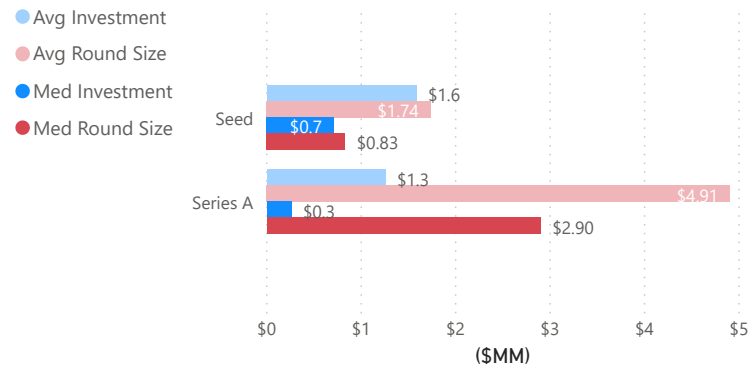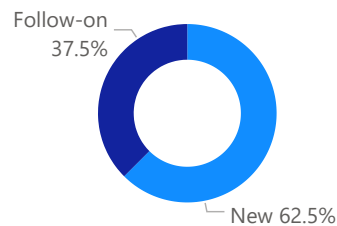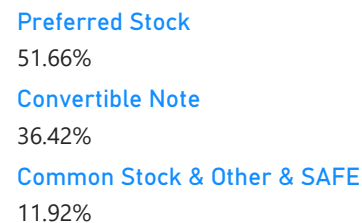
Regional Industry (% deals)

Industry	% Deals
Information Technology	30.72%
Consumer Products and Services (B2C)	24.18%
Biotech & Healthcare	21.57%
Business Products and Services (B2B)	18.95%
Energy / Environmental	1.96%
Financial Services	1.96%
Materials and Others	0.65%
Total	**100.00%**

Most Active Angels

Blue Tree Allied Angels

Super Angels

Social Venture Circle

Irish Angels

New vs. Follow-on

Follow-on 37.5%

New 62.5%

Deal Structure (% Deals)

Preferred Stock
51.66%

Convertible Note
36.42%

Common Stock & Other & SAFE
11.92%

CEOs by Gender & Ethnicity

- Male
- Female

White 12.5%
Minority 16.07%
Minority 2.98%
White 68.45%

Percent Deals In Region

- %In
- %Out

2014: 59.0%
2015: 62.0%
2016: 62.0%
2017: 70.0%
2018: 84.0%
2019: 46.3%
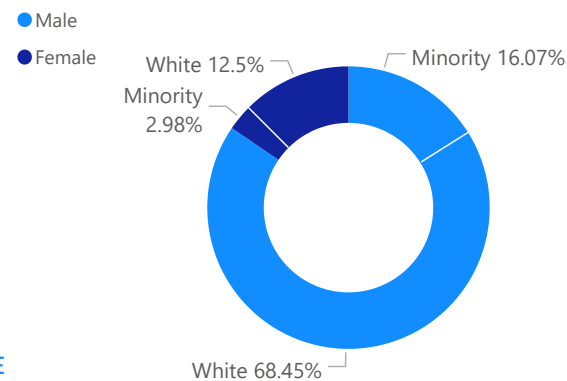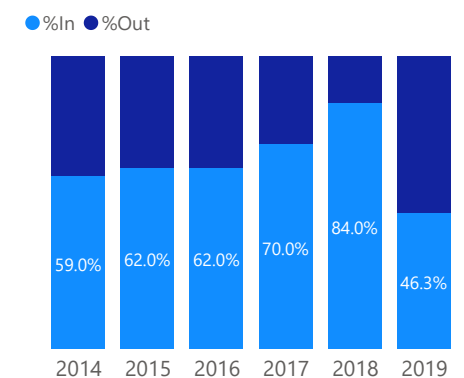
2019

NEW YORK

Pre-Money Valuation by Investment Stage
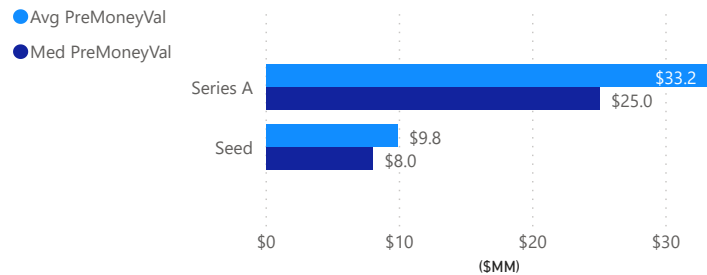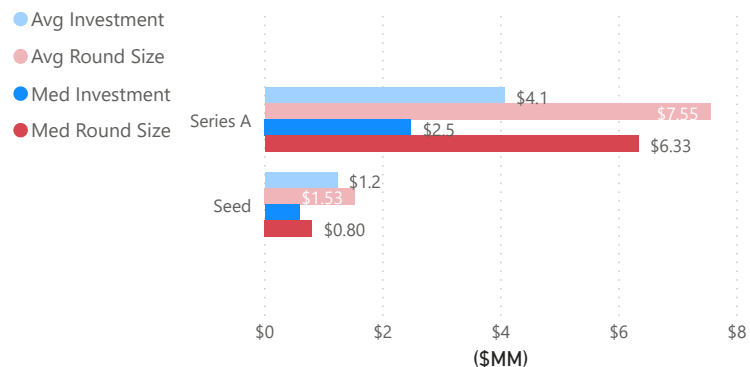
- Avg PreMoneyVal
- Med PreMoneyVal

Series A: $33.2 / $25.0
Seed: $9.8 / $8.0

($MM)

Group Investment & Round Size by Investment Stage

- Avg Investment
- Avg Round Size
- Med Investment
- Med Round Size

Series A: $4.1 / $7.55 / $2.5 / $6.33
Seed: $1.2 / $1.53 / $0.80

($MM)
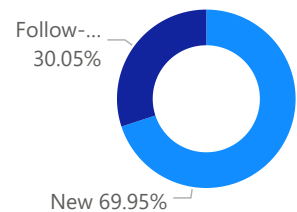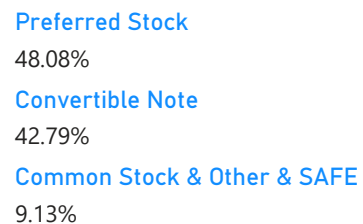
Regional Industry (% deals)

Industry	% Deals
Information Technology	36.62%
Consumer Products and Services (B2C)	30.52%
Business Products and Services (B2B)	13.15%
Biotech & Healthcare	11.74%
Financial Services	6.10%
Energy / Environmental	1.88%
Total	**100.00%**

Most Active Angels

New York Angels

Golden Seeds

Super Angels

HBS Angels

Mid Atlantic Bio Angels

Social Venture Circle

New vs. Follow-on

Follow-... 30.05%

New 69.95%

Deal Structure (% Deals)

Preferred Stock
48.08%

Convertible Note
42.79%

Common Stock & Other & SAFE
9.13%

CEOs by Gender & Ethnicity

- Male
- Female

White 14.08%
Minority 16.43%
Minority 6.57%
White 62.91%

Percent Deals In Region

- %In
- %Out

2014	2015	2016	2017	2018	2019
62.0%	58.0%	71.0%	51.0%	32.0%	37.9%

HALO Report™
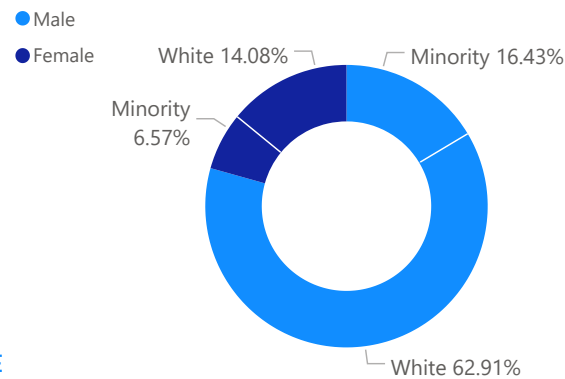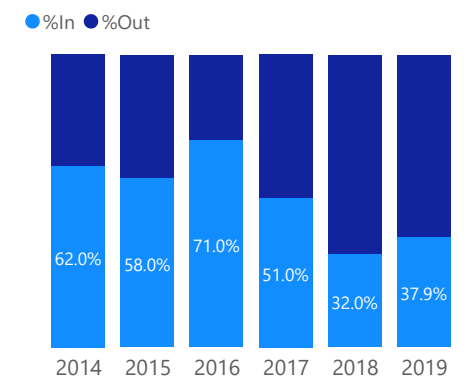
2019

NORTHEAST

Pre-Money Valuation by Investment Stage
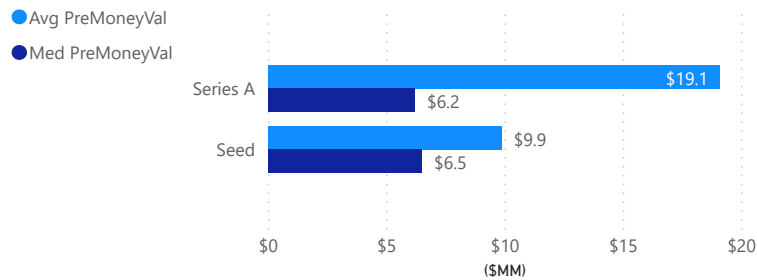
● Avg PreMoneyVal
● Med PreMoneyVal

Stage	Value
Series A (Avg)	$19.1
Series A (Med)	$6.2
Seed (Avg)	$9.9
Seed (Med)	$6.5

($MM)

Group Investment & Round Size by Investment Stage

● Avg Investment
● Avg Round Size
● Med Investment
● Med Round Size

Stage	Value
Series A (Avg Investment)	$1.3
Series A (Avg Round Size)	$3.02
Series A (Med Investment)	$0.9
Series A (Med Round Size)	$2.50
Seed (Avg Investment)	$1.1
Seed (Avg Round Size)	$1.30
Seed (Med Investment)	$0.5
Seed (Med Round Size)	$0.65

($MM)

New vs. Follow-on

Follow-on 45.25%
New 54.7...

Deal Structure (% Deals)

Preferred Stock
47.93%

Convertible Note
45.56%

Common Stock & Other & SAFE
6.51%
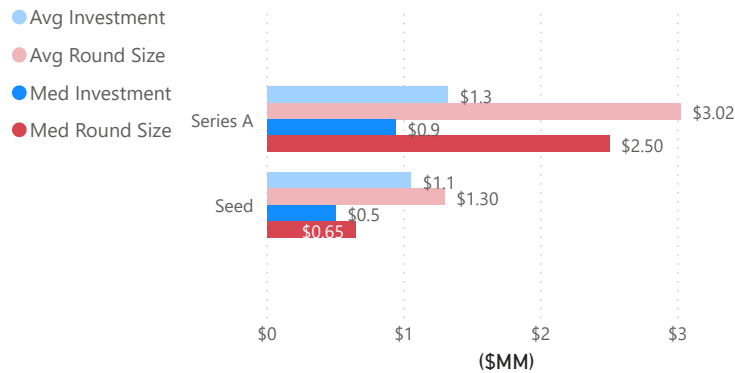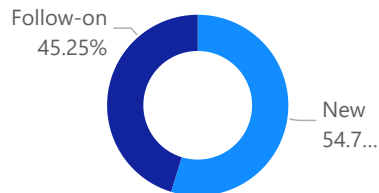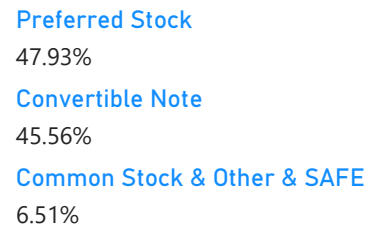
Regional Industry (% deals)

Industry	% Deals
Biotech & Healthcare	27.01%
Information Technology	23.56%
Consumer Products and Services (B2C)	21.84%
Business Products and Services (B2B)	14.94%
Energy / Environmental	5.17%
Agriculture	2.87%
Materials and Others	2.87%
Financial Services	1.72%
Total	**100.00%**

CEOs by Gender & Ethnicity

● Male
● Female

White 17.42%
Minority 10.11%
Mino... 3.37%
White 69.1%

Most Active Angels

Maine Angels

Golden Seeds

Super Angels
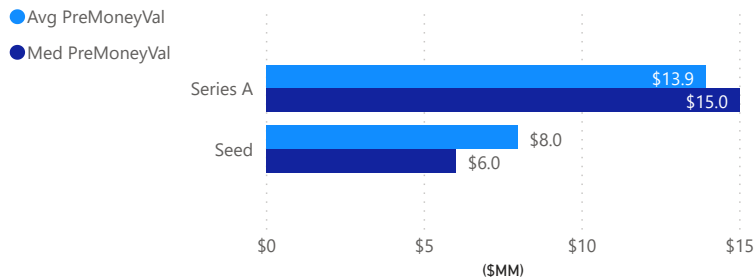
Hub Ventures

NY Angels

Social Venture Circle

Percent Deals In Region

● %In ● %Out

Year	%In
2014	83.0%
2015	89.0%
2016	93.0%
2017	77.0%
2018	90.0%
2019	69.7%
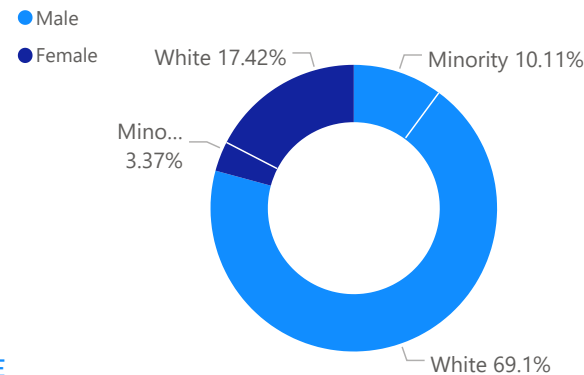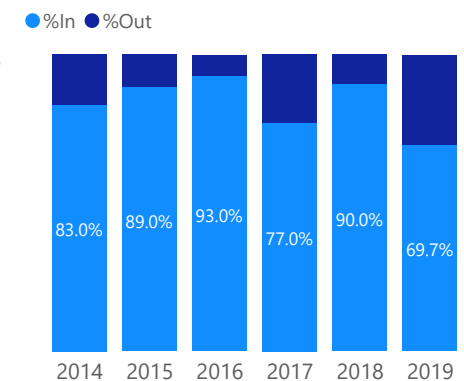
2019   NORTHWEST

Pre-Money Valuation by Investment Stage

● Avg PreMoneyVal
● Med PreMoneyVal

Series A: $13.9 / $15.0
Seed: $8.0 / $6.0

($MM)

Group Investment & Round Size by Investment Stage

● Avg Investment
● Avg Round Size
● Med Investment
● Med Round Size

Series A: $1.6 / $4.88 / $0.9 / $6.38
Seed: $0.7 / $1.11 / $0.36

($MM)

New vs. Follow-on

Follow-on 38.46%
New 61.54%

Deal Structure (% Deals)

Convertible Note
56.91%

Preferred Stock
35.36%

Common Stock & Other & SAFE
7.73%
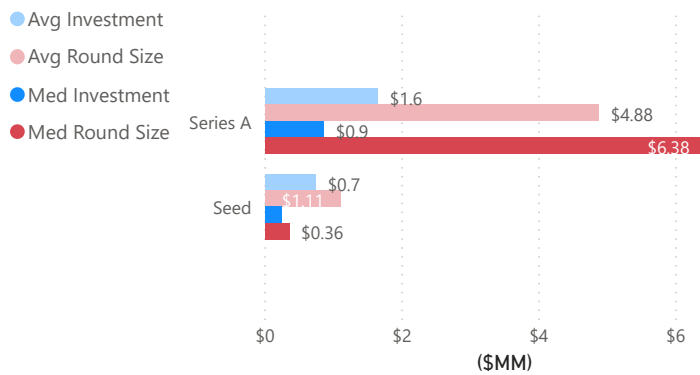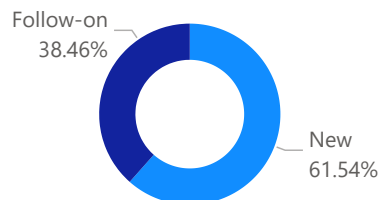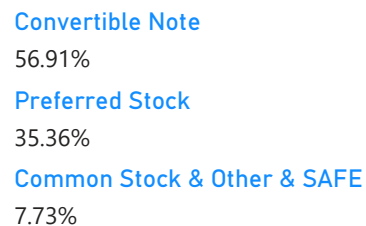
Regional Industry (% deals)

Industry	% Deals
Information Technology	31.52%
Consumer Products and Services (B2C)	29.35%
Biotech & Healthcare	16.85%
Business Products and Services (B2B)	16.30%
Energy / Environmental	4.35%
Agriculture	0.54%
Financial Services	0.54%
Materials and Others	0.54%
Total	**100.00%**

CEOs by Gender & Ethnicity
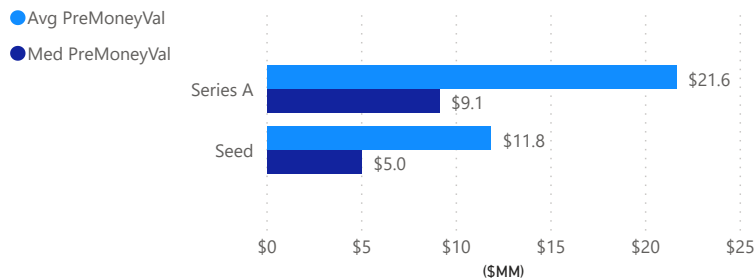
● Male
● Female

White 18.75%
Minority 9.62%
White 71.63%
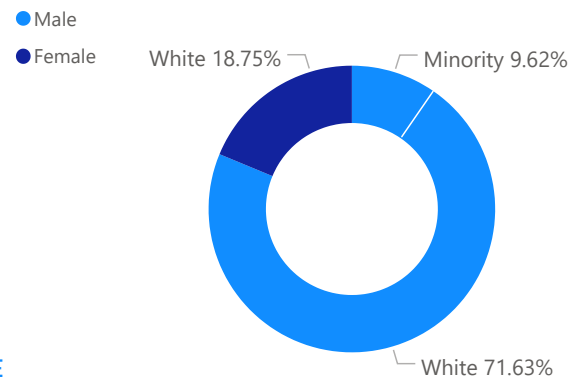
Most Active Angels

Alliance of Angels

Element 8

Super Angels

Sea Change Fund
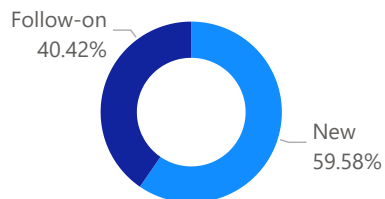
Golden Seeds

Kieretsu Capital

Percent Deals In Region
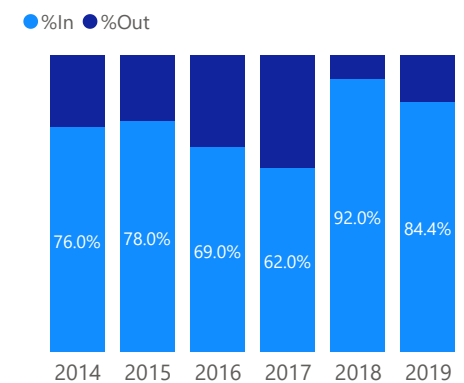
● %In ● %Out

2014: 76.0%
2015: 78.0%
2016: 69.0%
2017: 62.0%
2018: 92.0%
2019: 84.4%

2019

SOUTHEAST

Pre-Money Valuation by Investment Stage

● Avg PreMoneyVal
● Med PreMoneyVal

Series A — $21.6, $9.1
Seed — $11.8, $5.0

($MM)
$0 $5 $10 $15 $20 $25

Group Investment & Round Size by Investment Stage

● Avg Investment
● Avg Round Size
● Med Investment
● Med Round Size

Series A — Avg Investment $2.3, Avg Round Size $4.17, Med Investment $1.4, Med Round Size $2.58
Seed — Avg Investment $1.1, Avg Round Size $1.20, Med Round Size $0.55

($MM)
$0 $1 $2 $3 $4 $5

New vs. Follow-on

Follow-on 40.42%
New 59.58%

Deal Structure (% Deals)

Preferred Stock
46.79%

Convertible Note
45.87%

Common Stock & Other & SAFE
7.34%
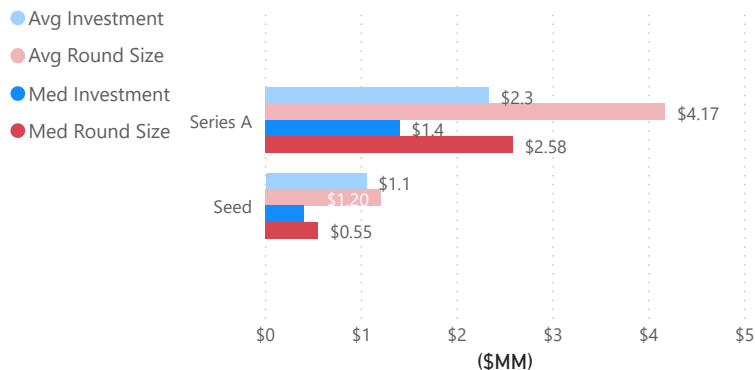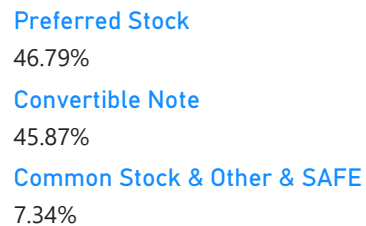
Regional Industry (% deals)

Industry	% Deals
Consumer Products and Services (B2C)	25.54%
Information Technology	24.31%
Biotech & Healthcare	21.23%
Business Products and Services (B2B)	19.69%
Financial Services	4.00%
Energy / Environmental	3.08%
Agriculture	1.85%
Materials and Others	0.31%
Total	**100.00%**

CEOs by Gender & Ethnicity

● Male
● Female

White 10.27%
Minority 1.81%
Minority 11.18%
White 76.74%
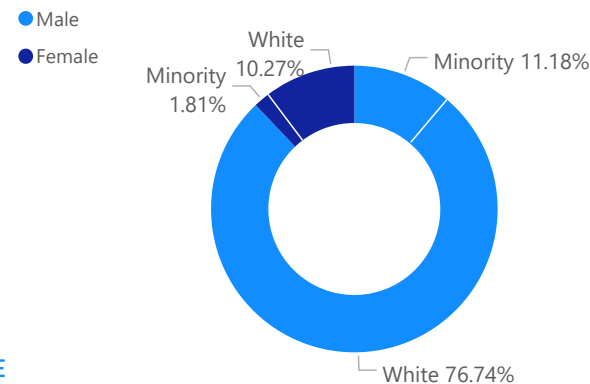
Most Active Angels

757 Angels

Super Angels

Charlottesville Angels

Tamiami Fund

Social Venture Circle

The Launch Place

Percent Deals In Region
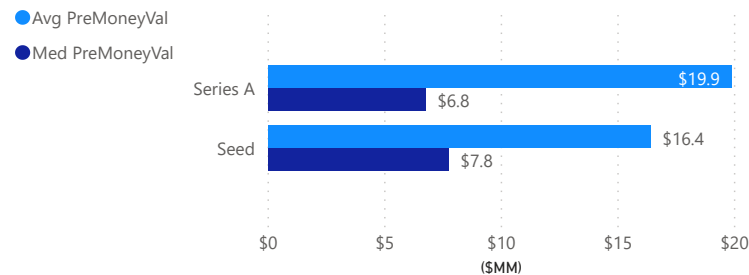
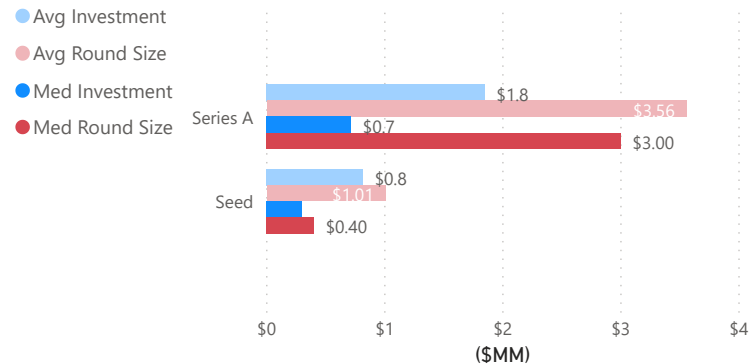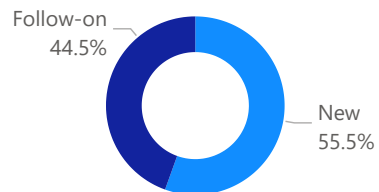● %In ● %Out

2014 — 80.0%
2015 — 79.0%
2016 — 83.0%
2017 — 56.0%
2018 — 65.0%
2019 — 83.6%
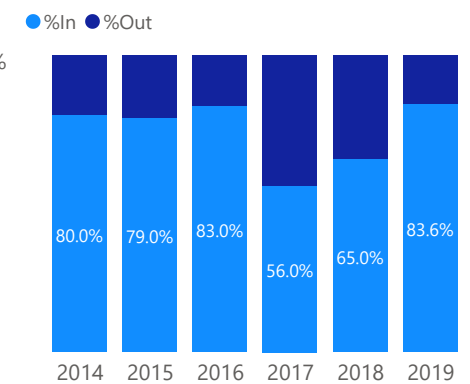
2019

SOUTHWEST

Pre-Money Valuation by Investment Stage

- Avg PreMoneyVal
- Med PreMoneyVal

Stage	Avg	Med
Series A	$19.9	$6.8
Seed	$16.4	$7.8

($MM)

Group Investment & Round Size by Investment Stage

- Avg Investment
- Avg Round Size
- Med Investment
- Med Round Size

Stage	Med Investment	Avg Investment	Med Round Size	Avg Round Size
Series A	$0.7	$1.8	$3.00	$3.56
Seed	$0.8 (Avg Inv)		$0.40	$1.01

($MM)
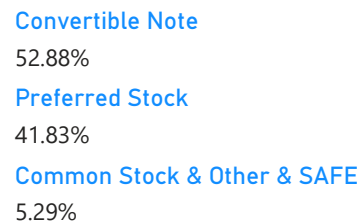
Regional Industry (% deals)

Industry	% Deals
Information Technology	27.36%
Consumer Products and Services (B2C)	25.94%
Biotech & Healthcare	22.64%
Business Products and Services (B2B)	15.57%
Financial Services	4.25%
Energy / Environmental	2.36%
Agriculture	0.94%
Materials and Others	0.94%
Total	**100.00%**
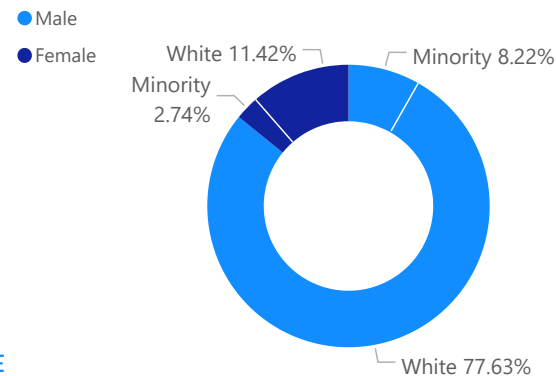
Most Active Angels

Desert Angels

Super Angels

Social Venture Circle

Innosphere
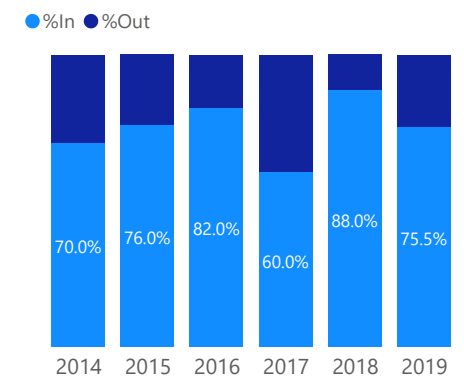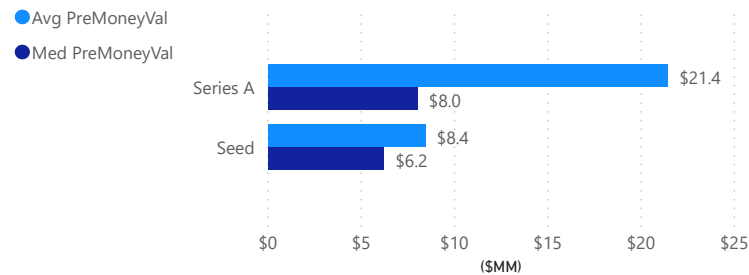
New vs. Follow-on

Follow-on 44.5%

New 55.5%

Deal Structure (% Deals)

Convertible Note
52.88%

Preferred Stock
41.83%

Common Stock & Other & SAFE
5.29%

CEOs by Gender & Ethnicity

- Male
- Female

White 11.42%

Minority 2.74%

Minority 8.22%

White 77.63%

Percent Deals In Region

- %In
- %Out

Year	%In
2014	70.0%
2015	76.0%
2016	82.0%
2017	60.0%
2018	88.0%
2019	75.5%

Pre-Money Valuation by Investment Stage

● Avg PreMoneyVal
● Med PreMoneyVal

Series A $21.4
          $8.0
Seed $8.4
          $6.2

($MM)
$0 $5 $10 $15 $20 $25

Group Investment & Round Size by Investment Stage

● Avg Investment
● Avg Round Size
● Med Investment
● Med Round Size

Series A $2.5
          $4.55
          $1.5
          $3.97
Seed $1.2
          $1.24
          $0.4
          $0.47

($MM)
$0 $1 $2 $3 $4 $5
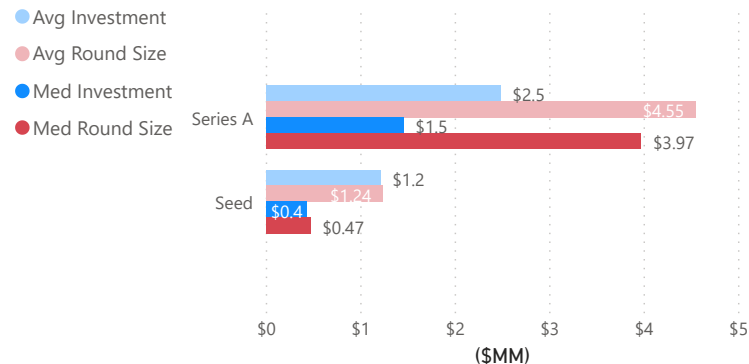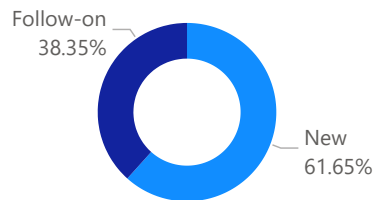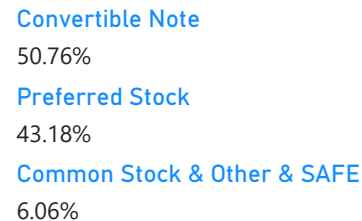
Regional Industry (% deals)

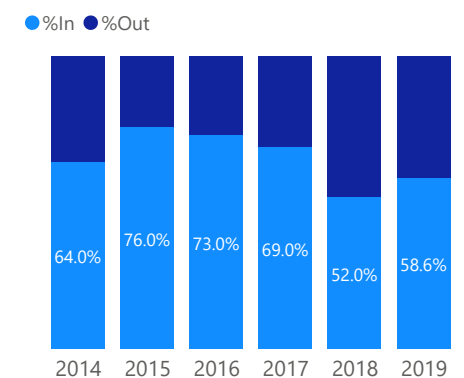| Industry	% Deals
Consumer Products and Services (B2C)	27.61%
Information Technology	26.12%
Biotech & Healthcare	20.15%
Business Products and Services (B2B)	18.66%
Financial Services	3.73%
Energy / Environmental	2.99%
Agriculture	0.75%
Total	**100.00%**

Most Active Angels

Houston Angel Network
Super Angels
Golden Seeds
Austin Technology Ventures
Capital Factory

New vs. Follow-on

Follow-on 38.35%
New 61.65%

Deal Structure (% Deals)

Convertible Note
50.76%

Preferred Stock
43.18%

Common Stock & Other & SAFE
6.06%

CEOs by Gender & Ethnicity

● Male
● Female

White 15.79%
Minority 9.77%
Minor... 3.01%
White 71.43%

Percent Deals In Region

● %In   ● %Out

2014	2015	2016	2017	2018	2019
64.0%	76.0%	73.0%	69.0%	52.0%	58.6%
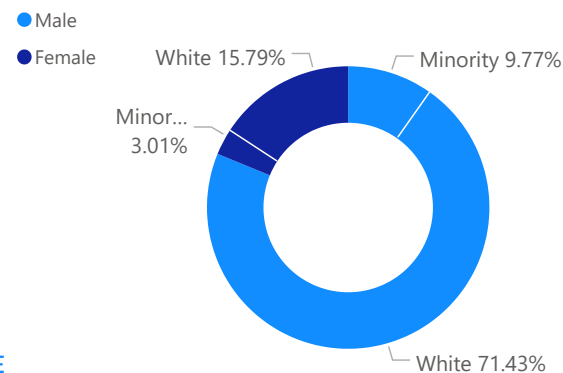
THE HALO REPORT™

The **2019 HALO Report** provides early-stage investors and entrepreneurs with the most comprehensive data and associated analysis, resulting in an enhanced understanding of how startups are funded.

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.

We did not place an arbitrary ceiling on round size in an effort to track larger follow –on rounds in which angel participation is present.

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And to Zack Self whose enthusiastic support encouraged the ARI team 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.

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