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## BYU FemTech Landscape Analysis

December 8, 2020

# Executive Summary

## Purpose and Scope

- To develop a landscape view of the FemTech marketplace
- To help Happify understand areas of opportunity in the FemTech marketplace

## Data Gathering Methods

- Reviewed 71 companies identified in other FemTech landscapes, excluded 28 that did not meet criteria
- Used the Business Model Canvas to analyze 71 companies
- Created a database of 23 elements of the Business Model Canvas for all 71 companies

## Data Analysis

- Completed three types of analysis:
  - Aggregate market analysis
  - Single factor analysis (by company category)
  - Two factor analysis (and additional partitions)

## Key Insights

- Most of the revenues and investments are focused on:
  - Young women health needs
  - Infertility-related issues
  - Childbirth and child care

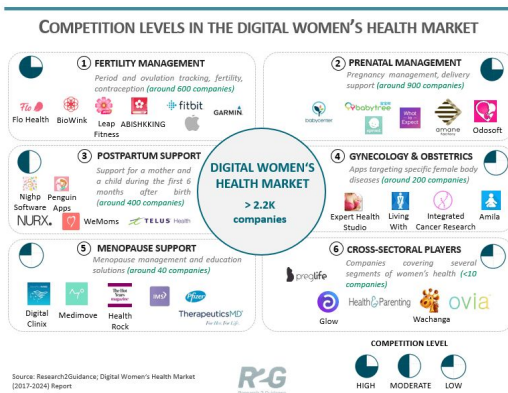
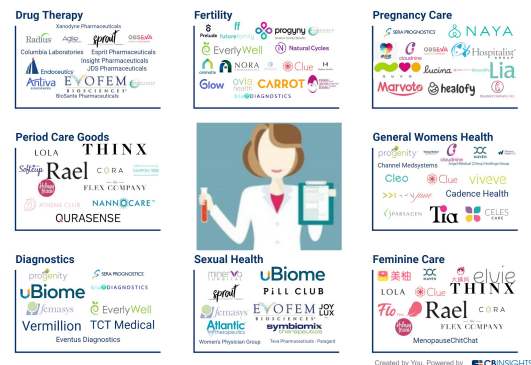
## Conclusions

- The most value is to focus on young women, infertility, and prenatal and postnatal health issues
- 15 companies stood out as having valuable business models

# We started with existing FemTech market maps



## Womens Health Startups - Companies



= 99 companies

Removed 28 that didn't meet requirements for technology or only had FemTech as a peripheral activity

= 71 companies



# Methods, Processes and Analyses

We analyzed a total of 71 feminine technology companies and looked for key indicators of market presence.










Most companies are private, therefore we had to explore many different data sources:

- **Press releases**
- **Company's website**
- **Crunchbase.com**
- **Owler.com**
- **Pitchbook.com**
- **Craft.co**
- **Wikipedia**
- **Other**

As such, we recognize that the data set may contain limitations. However, every effort was made to obtain the most reasonable, accurate, and current estimates for company information. Where unavailable, no assumptions were made so as to maintain the integrity of the other data. When multiple varying estimates were found, we took the higher estimates for our calculations so as to be conservative with the data.

We input the company information into a Google Sheet using the Business Model Canvas as a template. Initial research focused on qualitative information. We then consolidated this information quantitatively into another Google Sheet in order to allow for deeper analysis through the use of Tableau. The final month of our project focused on using Tableau to represent the data visually in a meaningful and digestible way. Our presentation consists primarily of those graphs and analyses.

# We used the Business Model Canvas framework

The Business Model Canvas		Designed for:	Designed by:	Date:	Version:
<b>Key Partners</b>  <p>Who are our Key Partners? Who are our key suppliers? Which Key Resources are we acquiring from partners? Which Key Activities do partners perform?</p> <p><b>RELEVANCE TO PARTNERSHIPS</b> Optimization and economy Reduction of risk and uncertainty Acquisition of particular resources and activities</p>	<b>Key Activities</b>  <p>What Key Activities do our Value Propositions require? Our Distribution Channels? Customer Relationships? Revenue streams?</p> <p><b>COMPETENCES</b> Production Problem Solving Platform/Network</p>	<b>Value Propositions</b>  <p>What value do we deliver to the customer? Which one of our customer's problems are we helping to solve? What bundles of products and services are we offering to each Customer Segment? Which customer needs are we satisfying?</p> <p><b>ENABLING FACTORS</b> Networks Channels Customization "Getting the Job Done" Design Brand/Status Price Cost Reduction Risk Reduction Accessibility Convenience/Usability</p>	<b>Customer Relationships</b>  <p>What type of relationship does each of our Customer Segments expect us to establish and maintain with them? Which ones have we established? How are they integrated with the rest of our business model? How costly are they?</p> <p><b>EXAMPLES</b> Personal assistance Dedicated Personal Assistance Self Service Automated Services Communities Co-creation</p>	<b>Customer Segments</b>  <p>For whom are we creating value? Who are our most important customers?</p> <p><b>Mass Market</b> Niche Market Segmented Cherry-picked Multi-sided Platform</p>	
	<b>Key Resources</b>  <p>What Key Resources do our Value Propositions require? Our Distribution Channels? Customer Relationships? Revenue Streams?</p> <p><b>TYPES OF RESOURCES</b> Physical Intellectual (brand, patents, copyrights, data) Human Financial</p>		<b>Channels</b>  <p>Through which Channels do our Customer Segments want to be reached? How are we reaching them now? How are our Channels integrated? Which ones work best? Which ones are most cost-efficient? How are we integrating them with customer routines?</p> <p><b>CHANNEL PHASES</b> 1. Awareness How do we raise awareness about our company's products and services? 2. Evaluation How do we help customers evaluate our organization's Value Proposition? 3. Purchase How do we allow customers to purchase specific products and services? 4. Delivery How do we deliver a Value Proposition to customers? 5. After sales How do we provide post-purchase customer support?</p>		
<b>Cost Structure</b>  <p>What are the most important costs inherent in our business model? Which Key Resources are most expensive? Which Key Activities are most expensive? Value Drivers (focused on value creation, premium value proposition)</p> <p><b>IN YOUR BUSINESS MODEL</b> Cost structure inherent value structure, low price value proposition, maximum automation, extensive outsourcing Value Drivers (focused on value creation, premium value proposition)</p> <p><b>SAMPLE CHARACTERISTICS</b> Fixed Costs (salaries, rents, utilities) Variable Costs Economies of scale Economies of scope</p>		<b>Revenue Streams</b>  <p>For what value are our customers really willing to pay? For what do they currently pay? How are they currently paying? How would they prefer to pay? How much does each Revenue Stream contribute to overall revenues?</p> <p><b>TYPES</b> Asset sale Usage fee Licensing Licensing/Meeting/Licensing Licensing Endorsement Fee Advertising</p> <p><b>FIXED PRICES</b> Lump sum Product/Feature dependent Customer segment dependent Volume dependent</p> <p><b>STANDARD PRICES</b> Subscription (Recurring) Tiered (Usage-based) Real-time Market</p>			

# But modified it for our specific needs

- Key Partners
  - Commercial partners
  - Suppliers of technology
  - Associations or others
- Key Activities & Resources, Customers, Relationships, Channels & Segments
  - Direct to Consumer (DTC)
  - Payers
  - Providers
  - PBMs
  - Employers
  - Pharma
  - Investors
- Value Propositions
  - Cost reduction
  - Increased convenience
  - Improved confidence
  - Greater compensation
  - Greater connection
- Cost Structure
  - Licensing contracts with others
  - Number of employees
  - Number of VP and above employees
  - Office location
- Revenue Streams
  - Revenue estimates by year
  - Number of downloads or users
  - Star rating in app stores
  - Implied revenue models



# We created a database to record information on all companies

Flo							
Business Model Canvas	Element of Business Model	Flo is a period tracker app that also provides articles for women's health questions					
Key Partners	Commercial partners	<a href="#">Myovant Sciences</a>					
	Suppliers of technology	<a href="#">Northwestern University</a>	<a href="#">Stanford University</a>	<a href="#">Harvard University</a>	<a href="#">Bayer AG</a>	<a href="#">University of Adelaide</a>	<a href="#">Texas Christian University</a>
	Associations or others	<a href="#">Medical Board of 50+ Doctors</a>	<a href="#">European Board and College of Obstetrics and Gynaecology</a>	<a href="#">Society of Endometriosis an</a>	<a href="#">United Nations Population Fund</a>		
Key Activities & Resources, Customers, Relationships, Channels & Segments	Direct to Consumer (DTC)	<a href="#">Period tracker and Ovulation Calendar</a>	<a href="#">Daily Health Insights</a>	<a href="#">Health Assistant</a>	<a href="#">Pregnancy and Post-Pregnancy modes</a>	<a href="#">Secret Chats - Live anonymous Chat Room</a>	
	Payers	N/A					
	Providers	N/A	*mainly period tracker, seems to not have professional level customers.				
	PBMs	N/A					
	Employers	N/A					
	Pharma	N/A					
Value Propositions	Investors	<a href="#">Flint Capital</a>	<a href="#">Mangrove Capital Partners</a>	<a href="#">Founders Fund</a>	<a href="#">Paiita</a>	<a href="#">SDVentures</a>	<a href="#">Elysium Venture Capital</a>
	Cost reduction	<a href="#">Free to use, In app purchases</a>					
	Increased convenience	Chat rooms, links to articles in app.					
	Improved confidence	<a href="#">Medical Board of 50+ Doctors</a>	<a href="#">Academic Research and Partnerships</a>				
	Greater compensation	<a href="#">Live online chat rooms</a>	<a href="#">Apple watch compatible</a>				
Cost Structure	Greater connection						
	Licensing contracts with others	N/A					
	Number of employees		<a href="#">218</a>				
	Number of VP and above employees	Not specified					
Revenue Streams	Office locations	<a href="#">Delaware</a>	<a href="#">Redwood, CA (HQ)</a>				
	Revenue estimates by year	<a href="#">38.9M</a>					
	Number of downloads and our users	<a href="#">60M downloads, 22M Active Monthly Users</a>	<a href="#">Estimated 4.5 million downloads per month</a>				
	Star rating in app stores	<a href="#">Apple App Store: 4.8</a>	<a href="#">Google Store 4.9</a>				
	Implied revenue models	<a href="#">Freemium</a>					

Each canvas is separated into key segments of the business.

Each company in the database has a short summary of what the company does.

Each text cell is embedded with a hyperlink to the source information.

# Database Functionality & Navigation

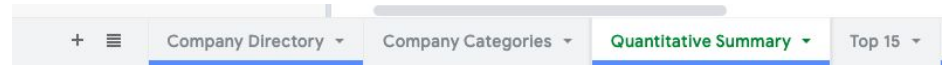
	A
1	<b>Directory</b>
2	<a href="#">180 Health Partners</a>
3	<a href="#">Advanced Maternity Innovations</a>
4	<a href="#">Advantia Health</a>
5	<a href="#">Ask Tia</a>
6	<a href="#">Ava</a>
7	<a href="#">Baby Center</a>
8	<a href="#">Baby Scripts</a>
9	<a href="#">Bellabeat</a>
10	<a href="#">Binto</a>
11	<a href="#">Bloom</a>
12	<a href="#">Bloomlife</a>
13	<a href="#">Carrot</a>
14	<a href="#">Celmatix</a>
15	<a href="#">Clue</a>
16	<a href="#">Conceivable</a>
17	<a href="#">Cyradia Health</a>
18	<a href="#">Damiva</a>
19	<a href="#">Elvie</a>
20	<a href="#">Fertility Focus</a>
21	<a href="#">FertilityIQ</a>
22	<a href="#">Flo</a>
23	<a href="#">Food Period</a>
	<a href="#">+   ≡   Company Directory ▾   Bin</a>

By clicking on an embedded hyperlink in the directory, the user can navigate to a specific company's business model canvas. (The companies are organized in alphabetical order).

The company directory is the first tab on the database.



At the **top right** of each business model canvas, there is a hyperlink to the company directory tab for quick access when navigating between companies



On the bottom of the database, the user can navigate to the quantitative summary table and all other other tabs.



# We classified companies based upon women's health focus

## Fertility/Family Planning

- Clue
- Lilia
- Prelude
- Rinovum
- Celmatix
- Univfy
- Progyny
- Ovia Health
- Pill Club
- Fertility Focus
- Modern Fertility
- Carrot
- Natalist
- WinFertility
- Kegg
- Conceiveable
- Natural Cycles
- Kindbody
- Future Family
- Progenity
- Cyrcadia Health
- Kindara
- Ava
- Flo
- Oova
- Let's Get Checked
- Med Answers
- FertilityIQ
- Mira
- Stork Club
- Woom Fertility

31 total, 43.7%

## Family/Postnatal Care

- Mamava
- The Bump
- Owlet
- Baby Scripts
- Mahmee
- Bloomlife
- Keriton
- Elvie
- iWeeCare
- Smart Beat
- Hatch

11 total, 15.5%

## Menopause

- MenoGeniX
- Gennev

2 total, 2.8%

## General Women's Health

- Goodstart Genetics
- Vagenie
- Bloom
- Food Period
- Jane
- LOLA
- 180 Health Partners
- Binto
- Oula
- Maya
- Prima Temp
- Wildflower Health
- Maven Clinic
- Mobile ODT
- Ask Tia
- Glow
- Bellabeat
- Advantia Health
- Women's Health USA
- Myriad's Women's Health
- Damiva

21 total, 29.6%

## Pregnancy

- Advanced Maternity Innovations
- Baby Center
- Peanut
- Sera
- Prognostics
- Monica Healthcare
- Nuvo

6 total, 8.4%



**Key Insight:** Menopause is the least occupied segment of the market.

# We classified companies based upon tech focus

## Mental Health

- 180 Health Partners
- Bloom

2 total, 2.8%

## Women's Software

- Advantia Health
- Ask Tia
- Baby Center
- Baby Scripts
- Bloomlife
- Celmatix
- Clue
- Conceivable
- Flo
- Gennev
- Glow
- Jane Software, Inc.
- Let's Get Checked
- Mahmee
- Maya
- Mobile ODT
- Ovia Health
- Peanut
- Univfy
- Wildflower Health
- Woom

21 total, 29.6%

## Women's Software & Device

- Advanced Maternity Innovations
- Ava
- Bellabeat
- Cyrcadia Health
- Elvie
- Fertility Focus
- Food Period
- GoodStart Genetics (Invitae)
- Hatch
- iWeeCare
- Kegg
- Keriton
- Kindara
- LOLA
- Mamava
- MenoGeniX
- Mira Care
- Modern Fertility
- Monica Healthcare
- Natural Cycles
- Nuvo
- Oova
- Owlet
- Prima Temp
- Rinovum
- Smart Beat
- Vaginie

27 total, 38%

## Other

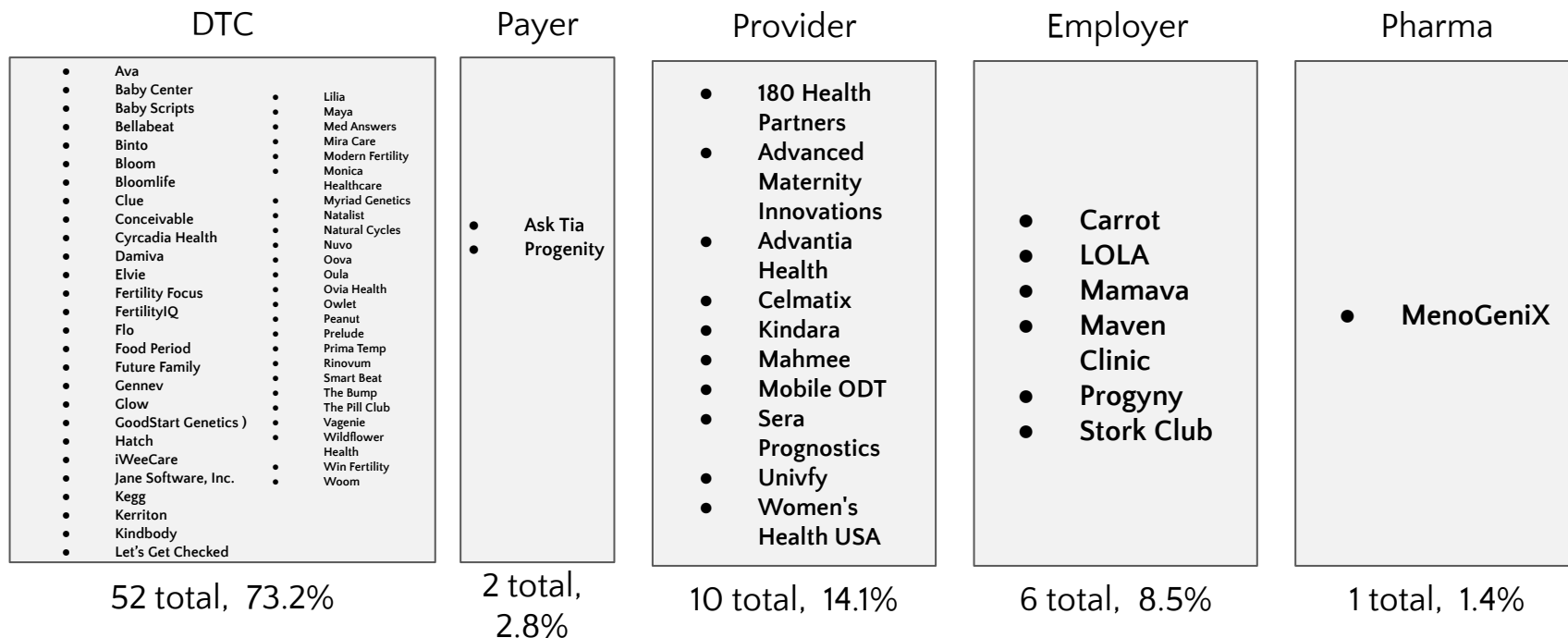
- Binto
- Carrot
- Damiva
- FertilityIQ
- Future Family
- Kindbody
- Lilia
- Maven Clinic
- Med Answers
- Myriad Genetics
- Natalist
- Oula
- Prelude
- Progenity
- Progyny
- Sera Prognostics
- Stork Club
- The Bump
- The Pill Club
- Win Fertility
- Women's Health USA

21 total, 29.6%



**Key Insight:** The mental health segment of the market is the least occupied.

# We classified companies based upon health market



**Key Insight:** DTC is the most saturated segment of the FemTech Market

# Here are the most interesting 15 companies we will highlight

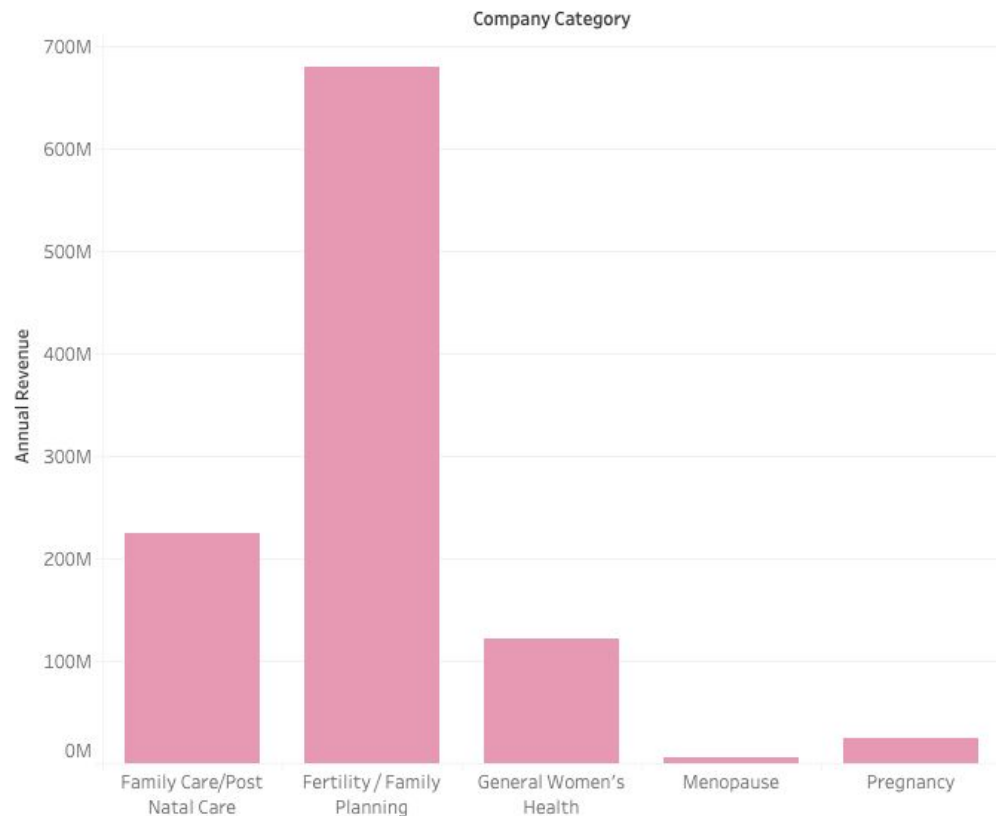
Name	Segment	Description	Market	Annual Revenue	Amount of Funding	Users	Employees
<b>Advantia Health</b>	Women's Software	A channel to OBGYN practices that use technology	Provider	\$18.9M	\$49.7M	N/A	70
<b>Celmatix</b>	Women's Software	Makes and sells a fertilome test (multigene test) to predict how DNA affects reproductive health	Provider	\$22M	\$80.8M	N/A	76
<b>Elvie</b>	Women's Software & Device	Wearable Breast Pump and other devices	DTC	\$11.5M	\$51M	N/A	130
<b>Flo</b>	Women's Software	Flo is a period tracker app that also provides articles for women's health questions	DTC	\$38.9M	\$12.5M	22M	218
<b>Future Family</b>	Other	Fertility Financing	DTC	\$1.2M	\$111.4M	N/A	25
<b>Let's Get Checked</b>	Women's Software	Provides order-based home hormone test kits	DTC	\$100M	\$113M	N/A	350

# Here are the most interesting 15 companies we will highlight

<b>Maven Clinic</b>	Other	Personalized Healthcare for Women and Families	Employer	\$3.5M	\$91.7M	5M	250
<b>Ovia Health</b>	Women's Software	Sells data-driven solutions for fertility, pregnancy, and parenting through apps	DTC	\$3M	\$23.3M	N/A	61
<b>Owlet</b>	Women's Software & Device	Baby vital monitor devices	DTC	\$30.2M	\$48.2M	N/A	124
<b>Prelude</b>	Other	National network of fertility clinics and egg donation centers across the country	DTC	\$35M	\$200M	N/A	51
<b>Progenity</b>	Other	Genetic testing for prenatal care and cancer risk	Payers	\$144M	366.6M	N/A	674
<b>Progyny</b>	Other	Sells fertility plans to employers	Employer	\$229.7M	\$99.5M	2.2M	167
<b>Sera Prognostics</b>	Women's Software	Early prediction through lab tests of premature birth, Preeclampsia, and other pregnancy complications	Provider	\$6M	\$150.3M	N/A	55
<b>The Bump</b>	Other	The Bump Acquired by XO Group, Inc. (the Knot Inc.)	DTC	\$161M	\$19.5M	N/A	613
<b>The Pill Club</b>	Other	Subscription based birth control and contraceptive service	DTC	\$48.6M	\$61.7M	N/A	130

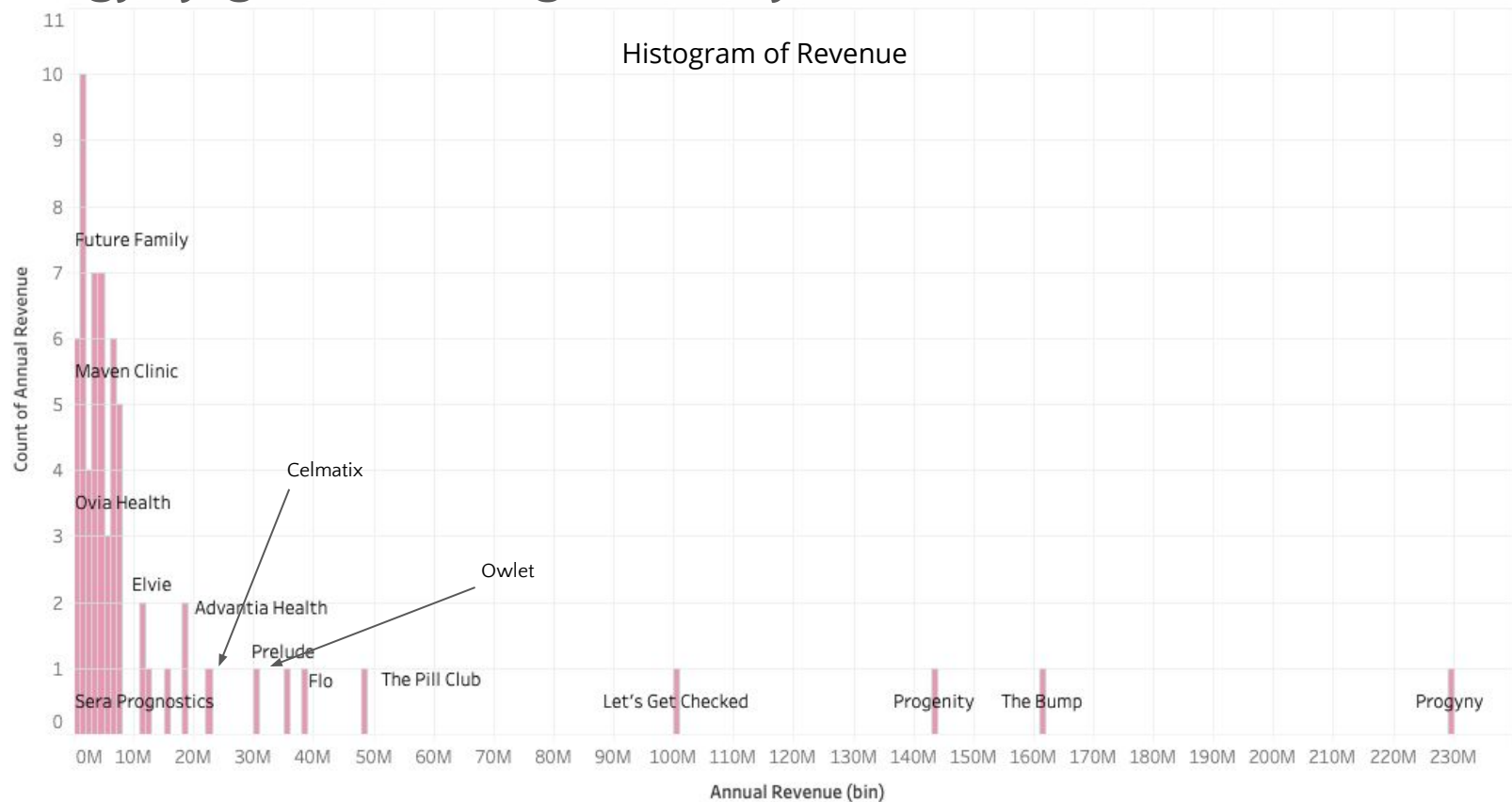
# Most revenues are pre and postnatal

Sum of Annual Revenue vs. Company Category (Aggregate revenue for all companies)

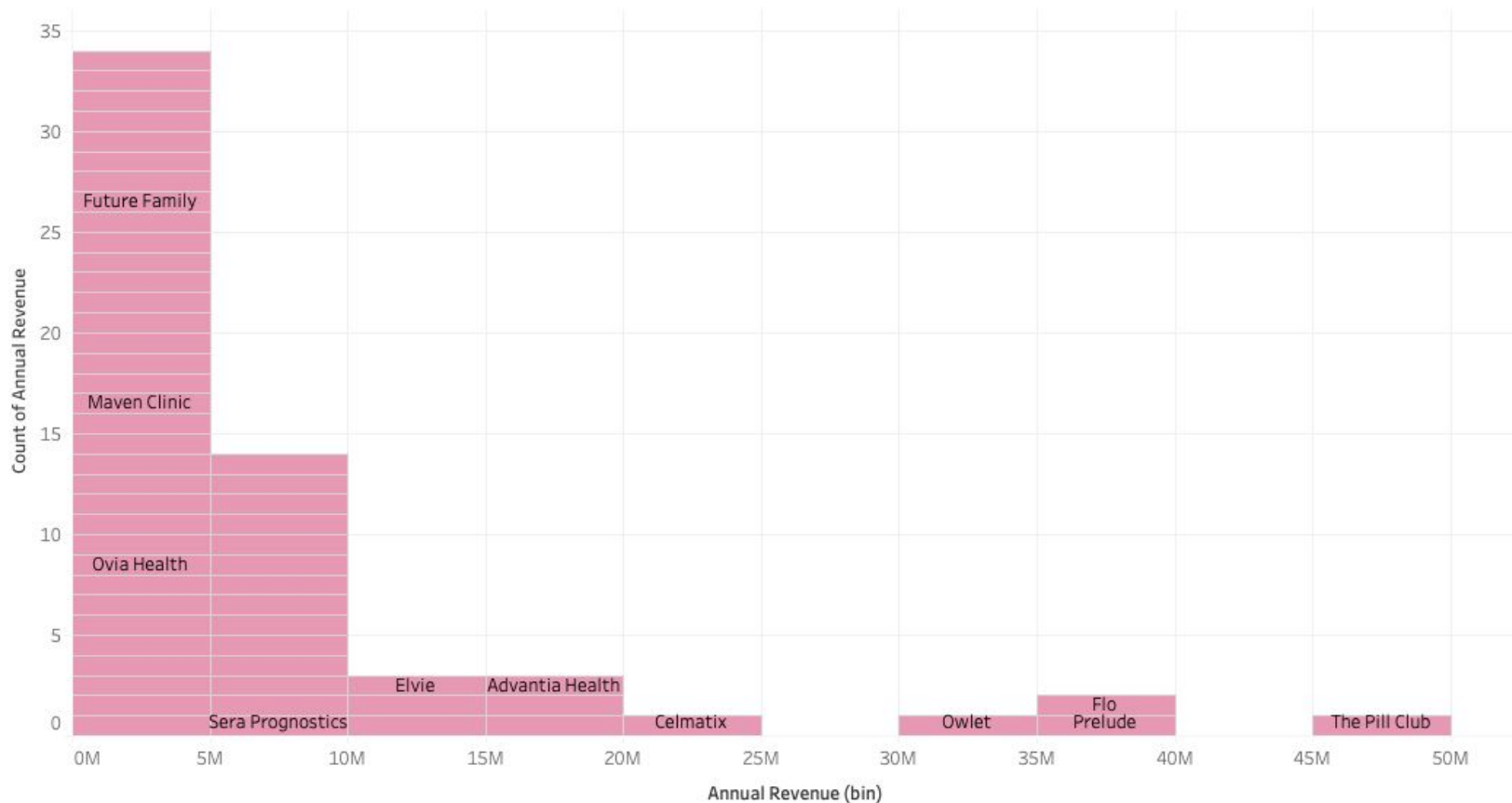




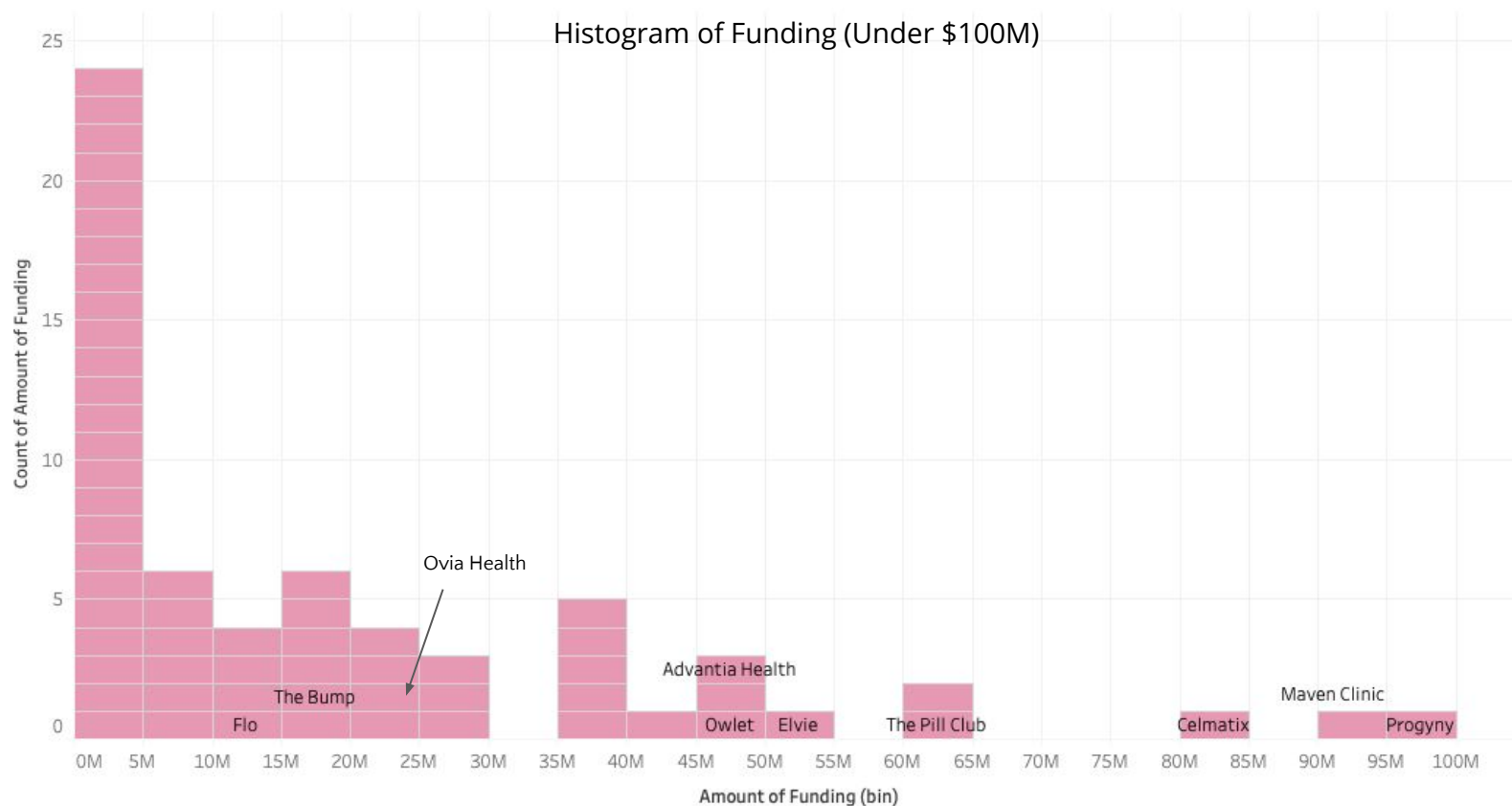
# Progyny generates significantly more revenues



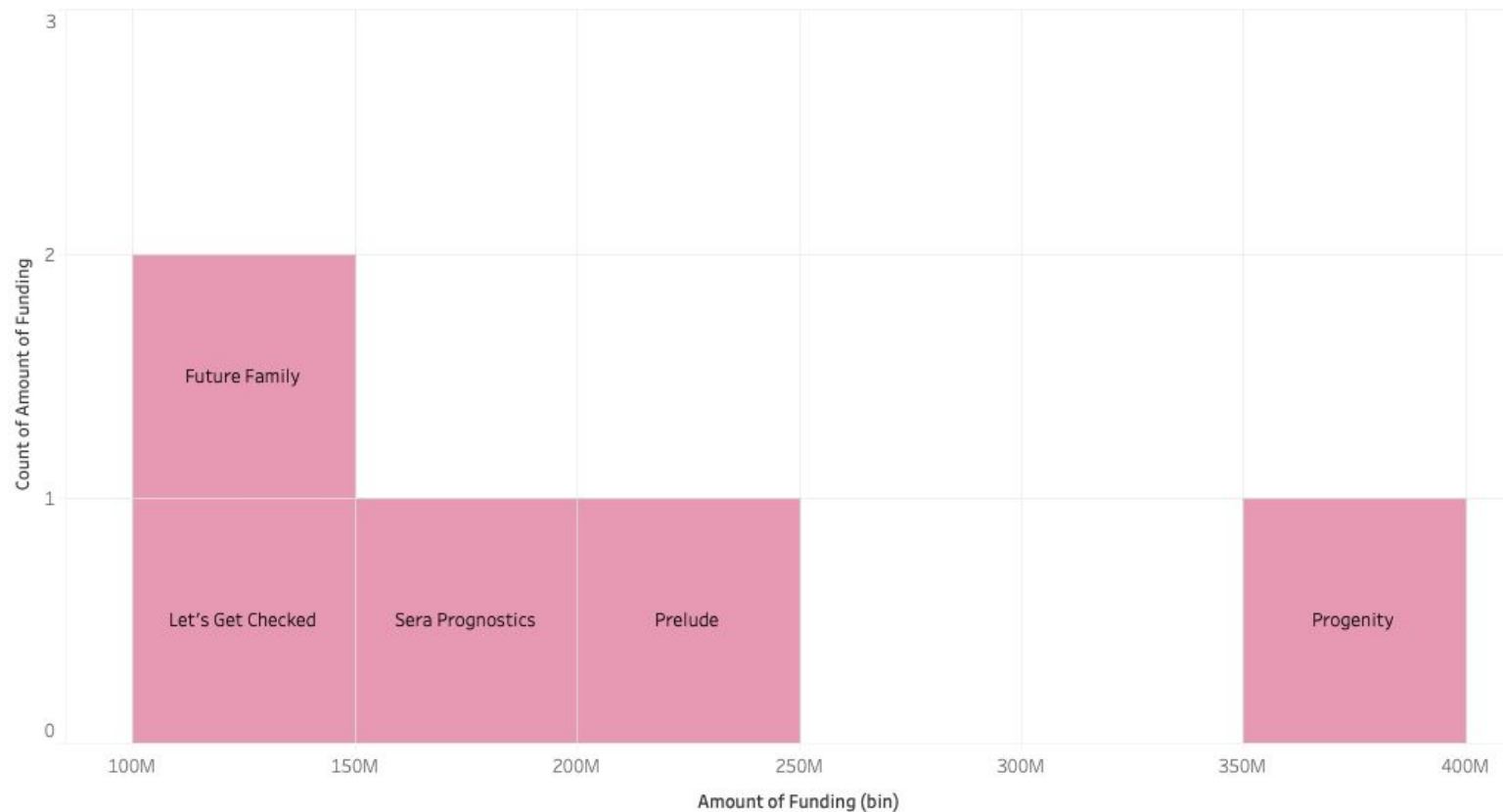
# Histogram of Revenue (Under \$50M)



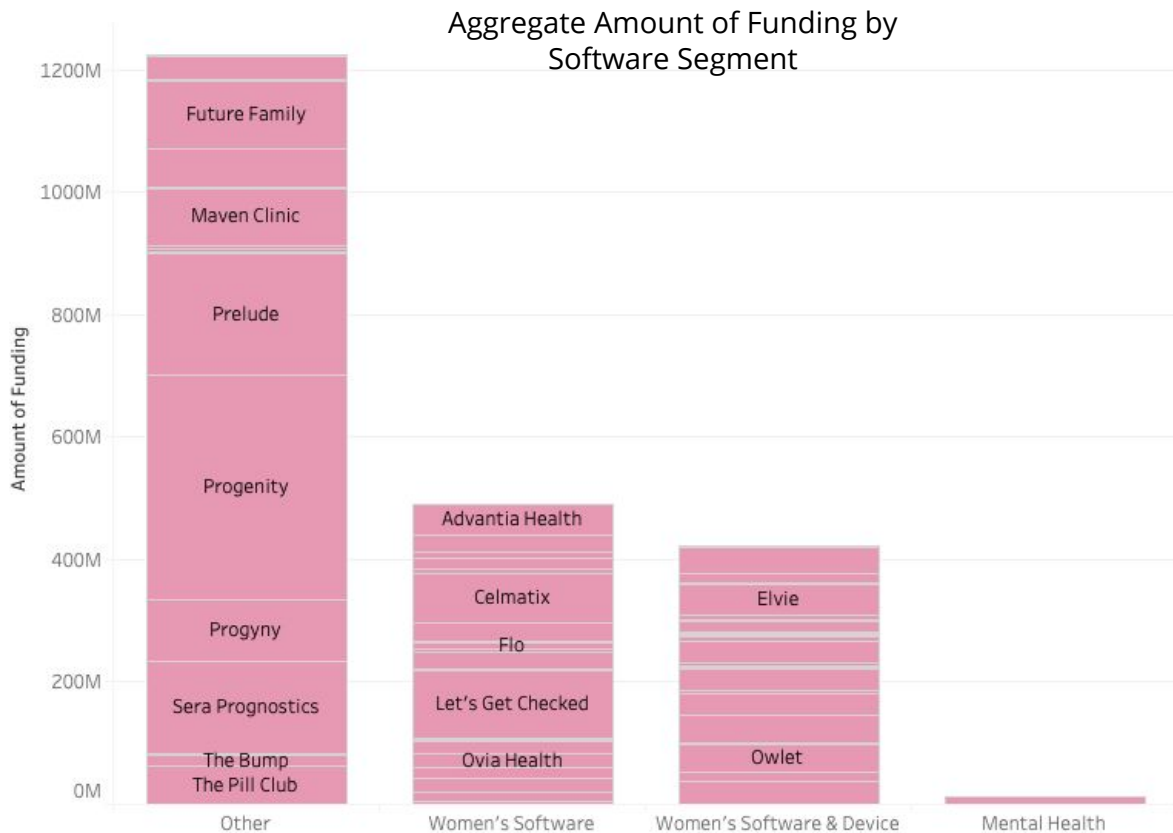
# The leading companies have raised on average \$56.9M



# Histogram of Funding (Over \$100M)

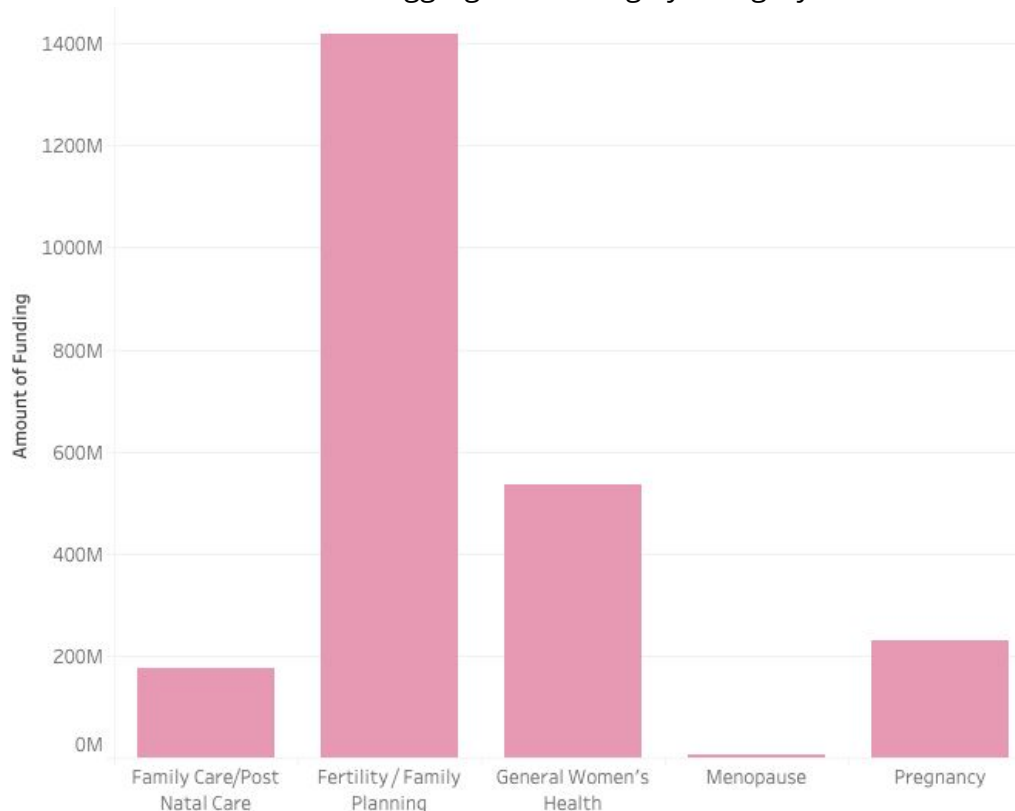


# Beyond-software companies raise the most capital



# Investors show little interest in later-stage women's health

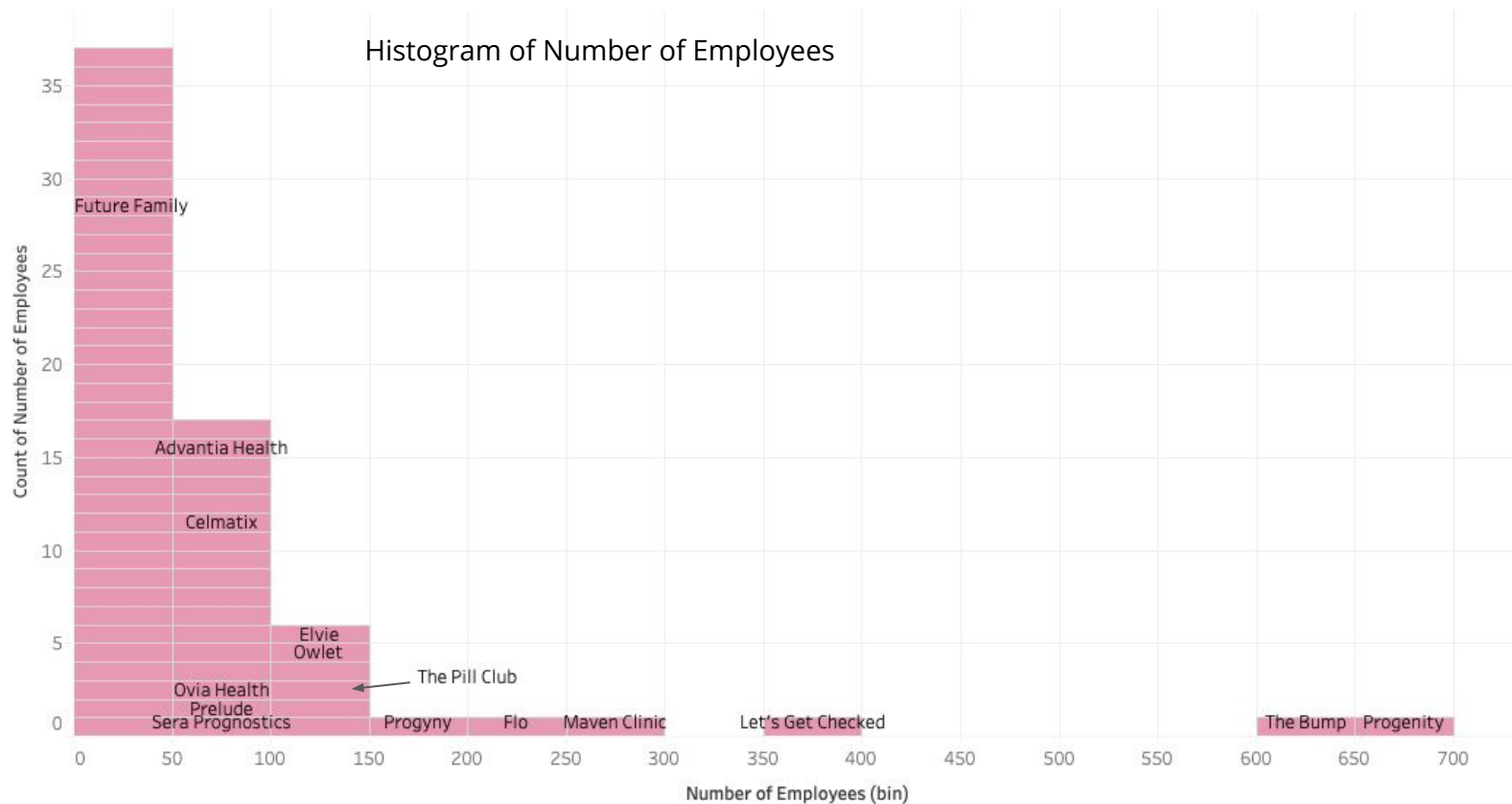
Aggregate Funding by Category



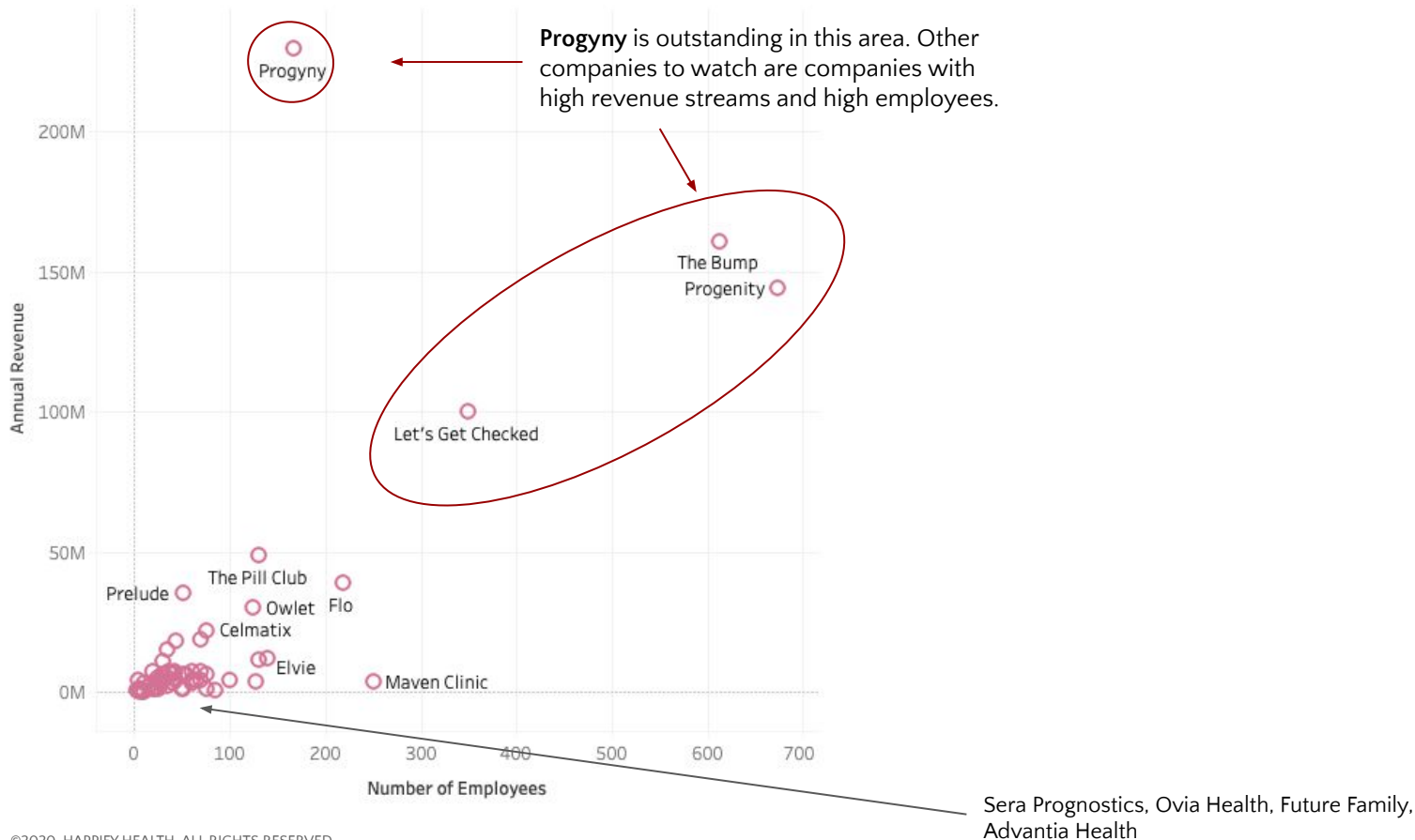
**Key Insight:** Majority of our top companies fall in Fertility/Family Planning, such as Myriad and Progyny.



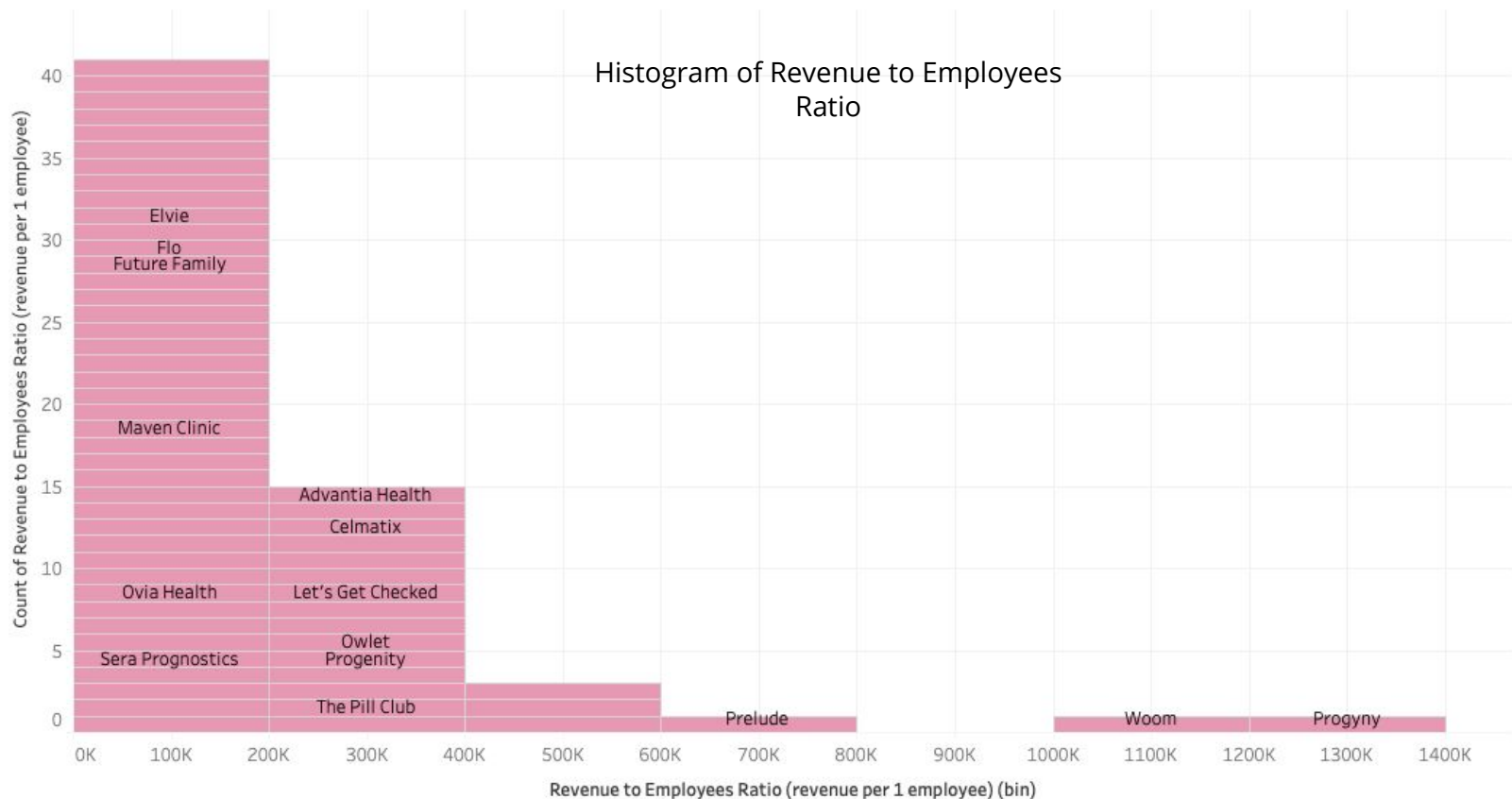
# There are several large organizations, based upon employees



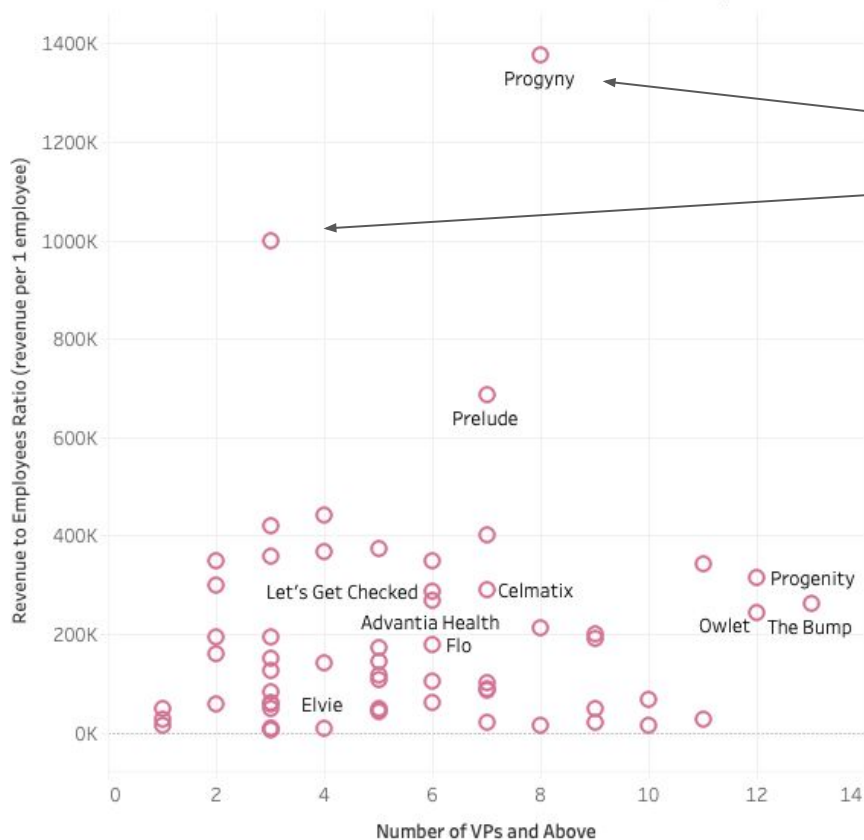
# Number of Employees vs. Revenue



# Progyny has a highly successful revenue model

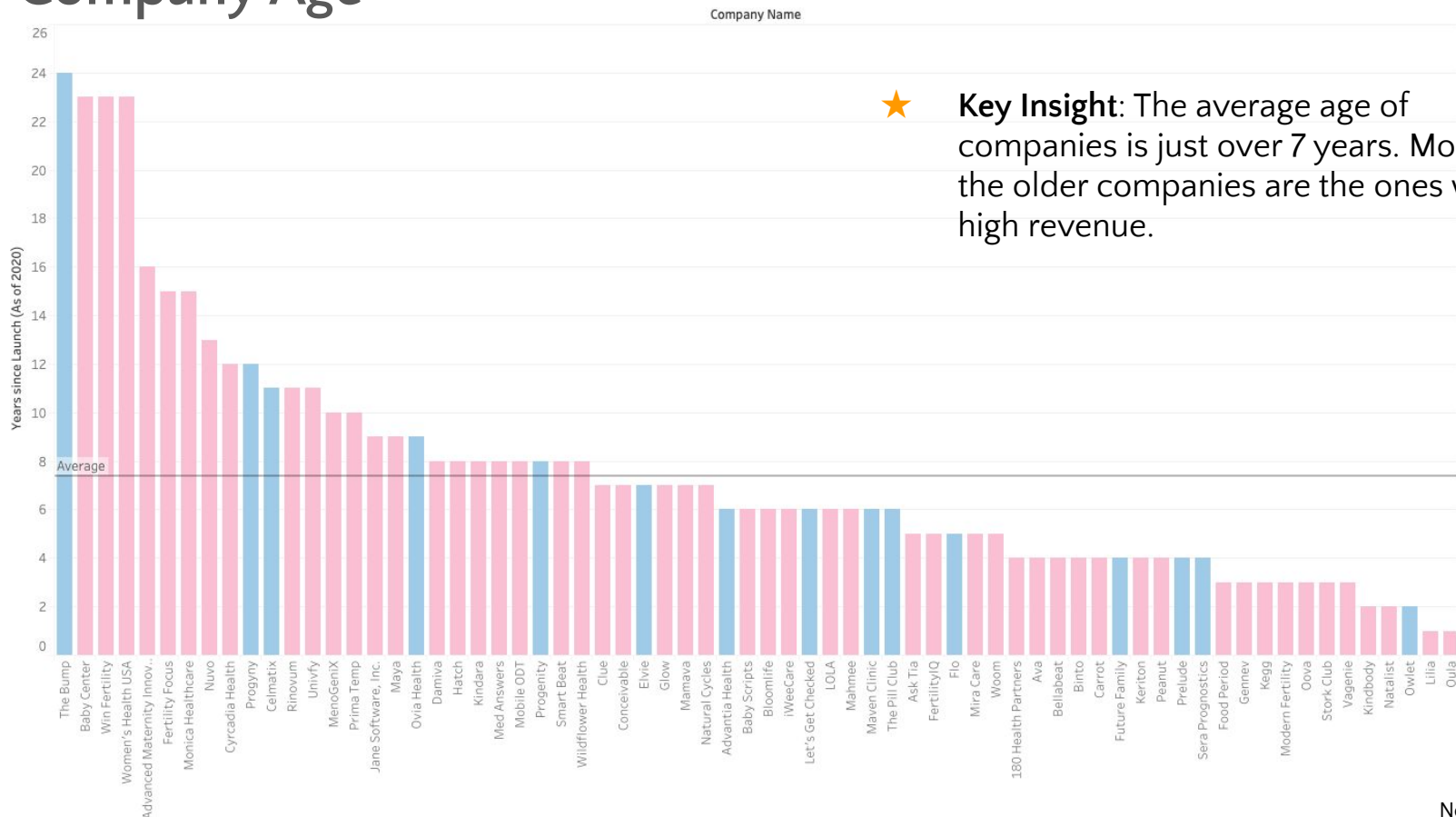


# Number of VPs vs. Average Revenue per Employee



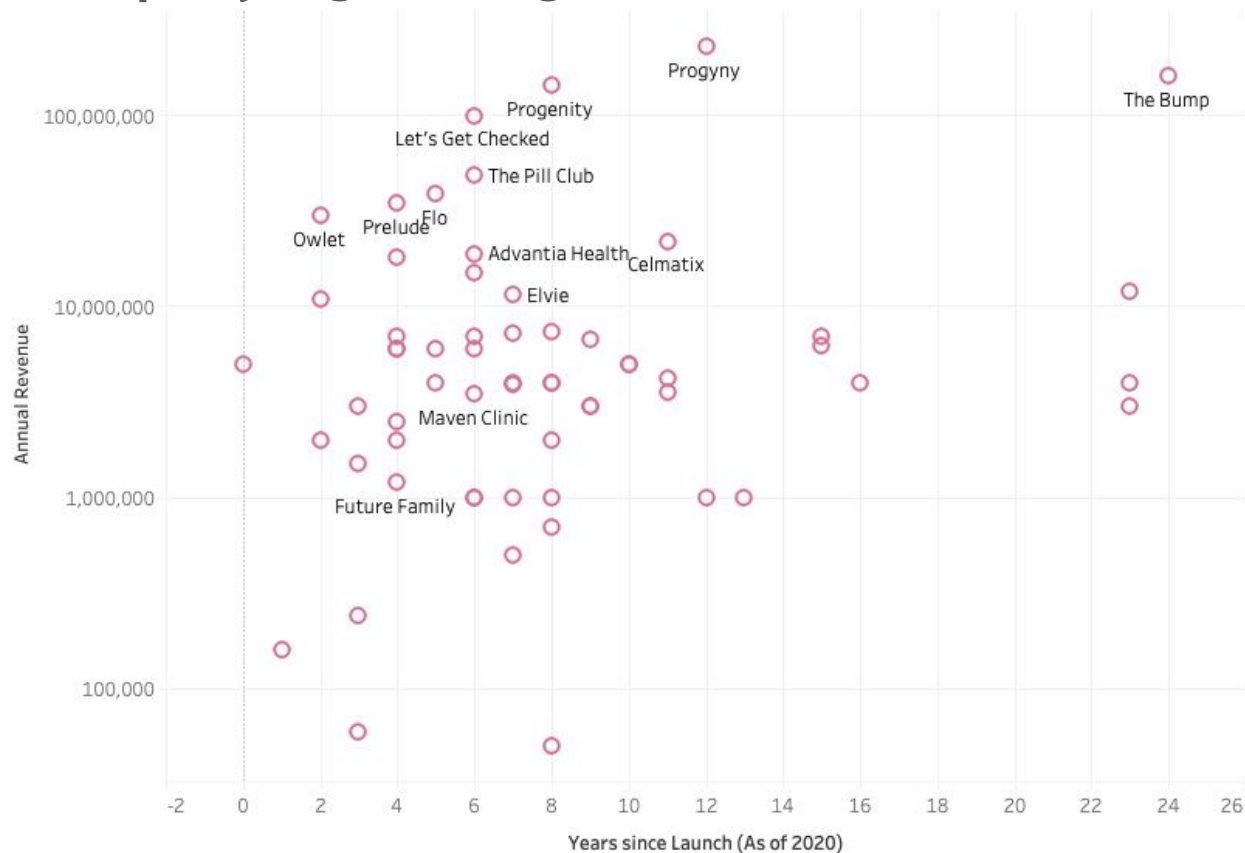
**Progyny & Woom** average around or above \$1M in average revenue per employee with relatively small executive teams.

# Company Age



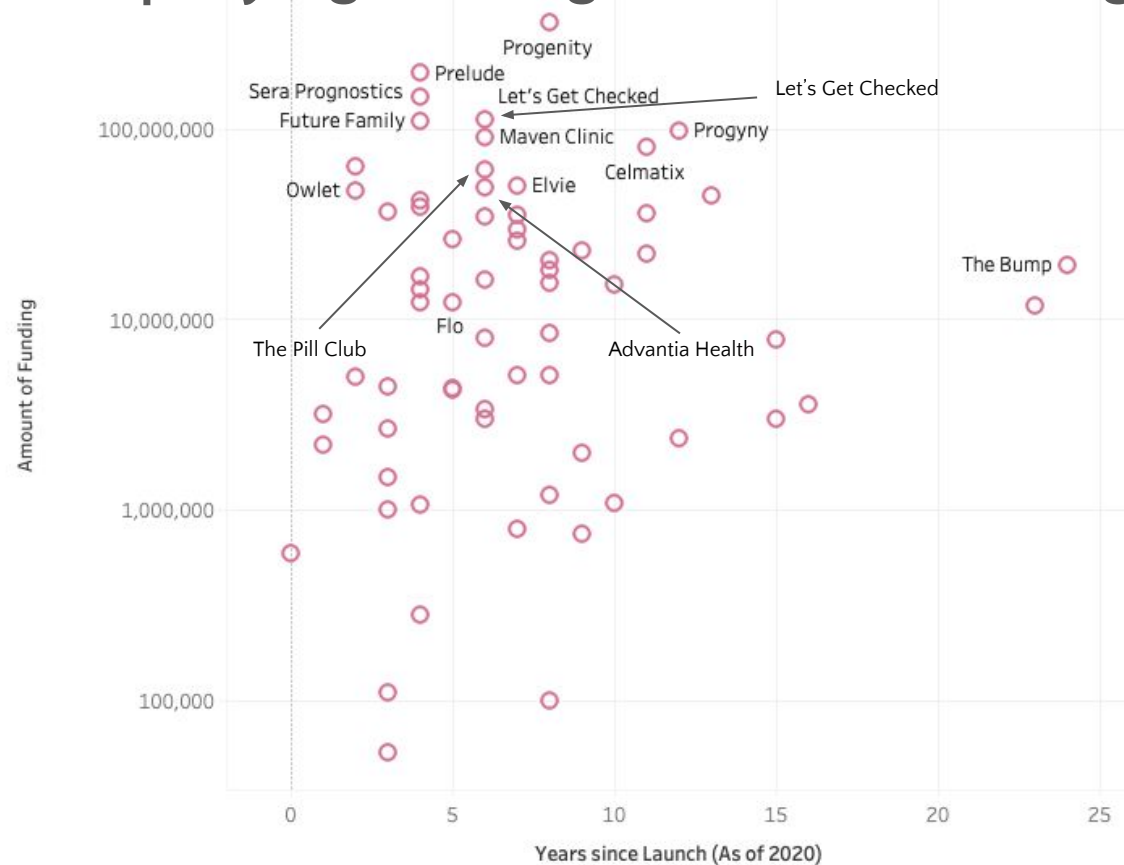
Not shown: Bloom (0)

# Company Age v. Log Annual Revenue





# Company Age vs. Log Amount of Funding

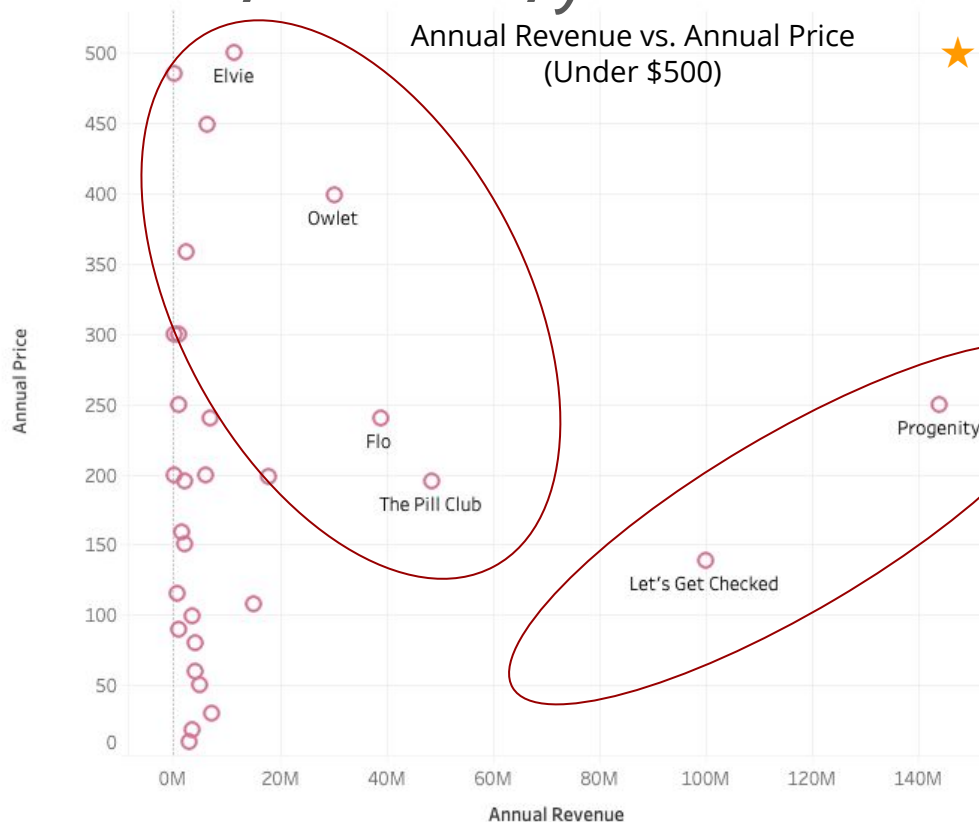


# Most users are paying less than \$500/year

Annual Revenue vs. Log Annual Price

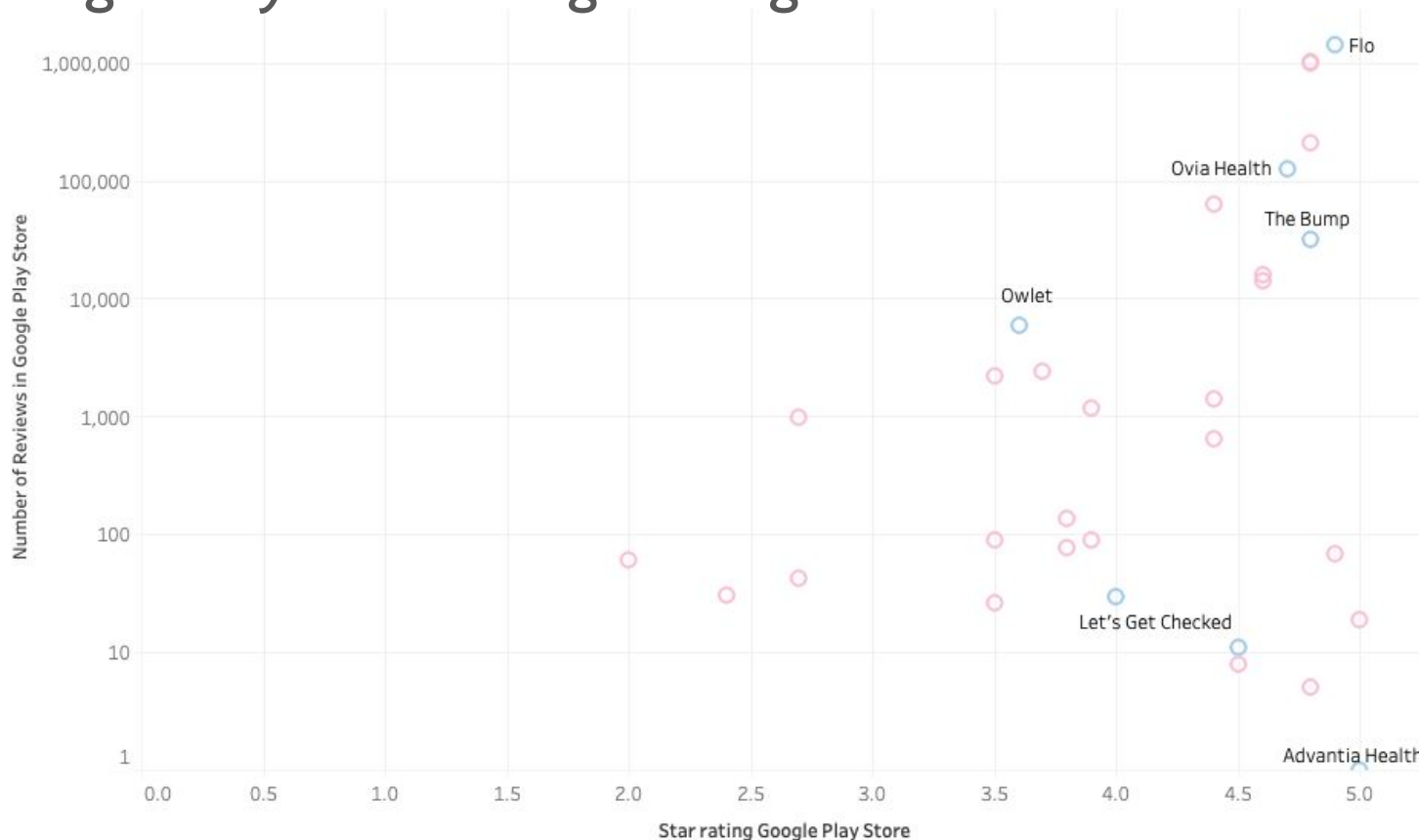


# Many software companies, like Flo, generate high annual revenues/customer/year

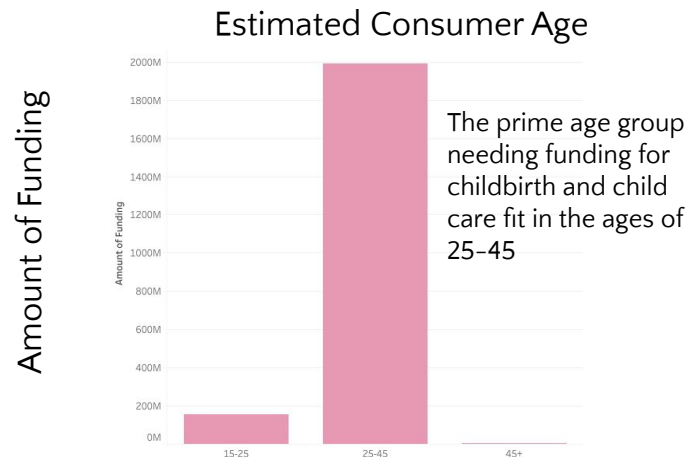
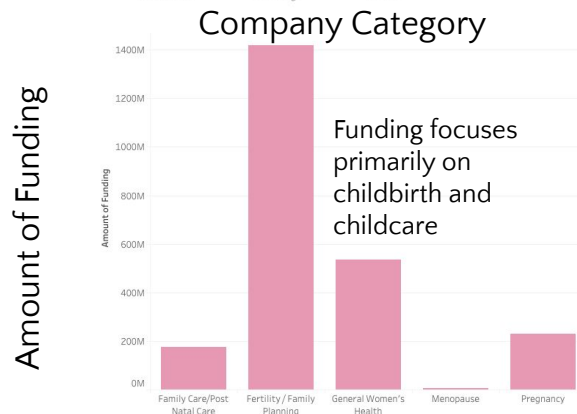
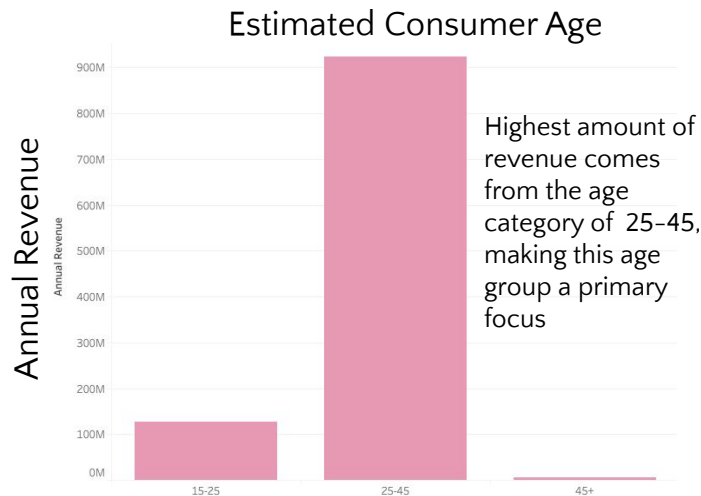
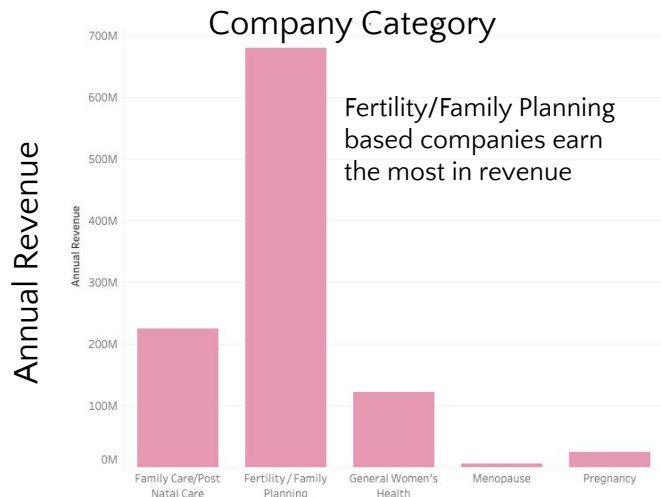


**Key Insight:** Progenity & Let's Get Checked are selling a lot of their services/products and are very profitable.

# Google Play Star Rating vs. Log Number of Reviews



# Conclusion



# Final Recommendations

Name	Segment	Description	Market	Rationale for Strategic Partnership
<b>Advantia Health</b>	Women's Software	A channel to OBGYN practices that use technology	Provider	They are a channel to OBGYN practices
<b>Celmatix</b>	Women's Software	Makes and sells a fertilome test (multigene test) to predict how DNA affects reproductive health	Provider	Could provide their technology through KOPA
<b>Elvie</b>	Women's Software & Device	Wearable Breast Pump and other devices	DTC	Support women who could suffer from post-partum depression
<b>Flo</b>	Women's Software	A period tracker app that also provides articles for women's health questions	DTC	Support women with potential mental health challenges
<b>Future Family</b>	Other	Fertility Financing	DTC	Support women with potential mental health challenges
<b>Let's Get Checked</b>	Women's Software	Provides order-based home hormone test kits	DTC	Could provide their technology through KOPA



# Final Recommendations

<b>Maven Clinic</b>	Other	Personalized Healthcare for Women and Families	Employer	They are a channel of virtual OBGYN practice
<b>Ovia Health</b>	Women's Software	Sells data-driven solutions for fertility, pregnancy, and parenting through apps	DTC	Support women with potential mental health challenges
<b>Owlet</b>	Women's Software & Device	Baby vital monitor devices	DTC	Support women who could suffer from post-partum depression
<b>Prelude</b>	Other	National network of fertility clinics and egg donation centers across the country	DTC	Support women with potential mental health challenges
<b>Progenity</b>	Other	Genetic testing for prenatal care and cancer risk	Payers	Support women with potential mental health challenges
<b>Progyny</b>	Other	Sells fertility plans to employers	Employer	Support women with potential mental health challenges
<b>Sera Prognostics</b>	Women's Software	Early prediction through lab tests of premature birth, Preeclampsia, and other pregnancy complications	Provider	Support women with potential mental health challenges
<b>The Bump</b>	Other	The Bump Acquired by XO Group, Inc. (the Knot Inc.)	DTC	Support women who could suffer from post-partum depression
<b>The Pill Club</b>	Other	Subscription based birth control and contraceptive service	DTC	Support women with potential mental health challenges



# Thank You

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# APPENDIX

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We will be sending all tableau charts and graphs to those participating in the meeting to allow for a more interactive experience.

We will also be sharing the databases that we have worked on so that you have all of the information available that we have collected.





# Purpose & Scope

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# Objective

- Provide a look at the FemTechmarket landscape as a whole – identify key players, strategies, possible partners, market gaps, and opportunities for innovation.
- Gather summary information on individual companies – providing resources and links for Happify to proceed with further detailed research if needed.
- Present a snapshot summary of our findings – summary statistics and companies of interest that may help inform Happify's business process.

# Deliverables

- Provide two key deliverables:
  - Database with Business Model Canvas research on 71 Female Technology companies
  - Presentation of research, analysis, and conclusions
- Categories on the Business Model Canvas included: value propositions, relationships, cost structure, and revenue streams
- Provide recommendations based on research in order to help Happify identify key players in the industry and how they are distributed
- Happify will have access to the database for future use





# Key Insights, Conclusions & Recommendations

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# Key Insights, Conclusions & Recommendations

- The industry is growing extensively world-wide. Out of those companies with a US market presence, 33.8% have offices located in California, 11.3% in New York, and 19.7% are based outside the United States.
- 63% of the 71 companies are between 3–9 years in age since 2020. In the last decade, 76% of the 71 companies began.
- In year 2020, the 71 companies on average have an age of 7.73.
- Empirically-observed, older companies (10+) tend to not be directly focused on the FemTech market. Meaning, they have a product line devoted to it, but not their full product mix. Newer companies heavily concentrate on directing all of their services and products towards the FemTech market.
- The average revenue for companies classified as Fertility/Family Planning solutions is 18% higher than Family Care/Post-Natal Care solutions (which captures an average of 28% of annual revenue).
- Based on the 71 companies, Fertility/Family Planning solutions dominate the revenue streams in the FemTech industry. Out of the total revenue generated by the 71 companies, Fertility/Family Planning solutions capture 64% (Family Care/Post-Natal Care solutions have 21%, General Women's Health solutions have 12%, Pregnancy solutions have 2.5%, and Menopause solutions have 0.5%.
- Those companies that do not have an app and do not qualify as a digital therapeutic have higher average annual revenues and average amounts of funding. Thus, being app-based and/or a digital therapeutic company does not add to annual revenue or amounts of funding.
- Based on the 71 companies, Fertility/Family Planning solutions capture most of the total capital raised. Out of the total amounts of funding generated by the 71 companies, Fertility/Family Planning solutions capture 66% (Family Care/Post-Natal Care solutions have 8%, General Women's Health solutions have 15%, Pregnancy solutions have 10.7%, and Menopause solutions have 0.3%.
- If the amounts of funding are based on averages, the pregnancy segment captures 31% (a 20.18% increase from sum of total funding). This denotes that the pregnancy segment is potentially more funded than our sample size of 71 companies express.
- The companies that did not qualify as a mental health, women's software, or women's software & device company earned more revenue and received more funding than those that did.
- Femtech industry will become a \$25 billion industry by year 2025 (Forbes).



# Key Insights, Conclusions & Recommendations

- **Top-tier companies** to watch for: Progyny, Progenity, Prelude, Let's Get Checked, The Bump, Sera Prognostics
  - These companies are in the ~\$100M category of either revenue or funding
  - These companies have been around for some time and have proven profitable
- **Mid-tier companies** to watch for: Flo, The Pill Club, Owlet, Woom, Advantia Health, Celmatix
  - These companies are in the mid-to-high tens of millions range in either funding or revenue
  - These companies have not been around for long. They are usually <10 year old
  - These companies are the most likely to become more profitable in the near future
- **Low-tier companies:** Almost all remaining companies
  - These companies are in their infant years
  - They have minimal funding and minimal revenue



# Data Gathering Methods & Process

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# Quantitative Summary

- Number of VPs and Above
- Number of Employees
- Annual Revenue
- Annual Price
- Amount of Funding
- Investors
- Revenue to Employees Ratio
- Users/Patients
- Star Rating App Store
- Star Rating Google Play Store
- Downloads in App Stores
- Number of Reviews in Google Play Store
- Number of Reviews in App store
- Company Category
- Market Segment (DTC, Employer etc...)
- (Estimated) Target Consumer Age (15–25 , 25–45, 45+)
- Does the Company Sell a Device?
- Is the Company App – Based?
- EMR/EHR Connection
- Digital Therapeutic
- Software Segment (Mental health, Women's software, etc...)
- City
- State
- Country
- Number of Office Locations
- Number of Partners
- Number of Suppliers
- Date of Launch
- Years since Launch (As of 2020)

# Companies Analyzed:

- |                            |                       |                     |                      |
|----------------------------|-----------------------|---------------------|----------------------|
| • 180 Health Partners      | • FertilityIQ         | • LOLA              | • Peanut             |
| • Advanced Health Partners | • Flo                 | • Mahmee            | • Prelude            |
| • Advantia Health          | • Food Period         | • Mamava            | • Prima Temp         |
| • Ask Tia                  | • Future Family       | • Maven Clinic      | • Progenity          |
| • Ava                      | • Gennev              | • Maya              | • Progyny            |
| • Baby Center              | • Glow                | • Med Answers       | • Rinovum            |
| • Baby Scripts             | • Goodstart           | • MenoGeniX         | • Sera Prognostics   |
| • Bellabeat                | • Genetics (Invitae)  | • Mira Care         | • Smart Beat         |
| • Binto                    | • Hatch               | • Moble ODT         | • Stork Club         |
| • Bloom                    | • IWeeCare            | • Modern Fertility  | • The Bump           |
| • Bloomlife                | • Jane Software, Inc. | • Monica Healthcare | • The Pill Club      |
| • Carrot                   | • Kegg                | • Myriad Genetics   | • Univfy             |
| • Celmatix                 | • Keriton             | • Natalist          | • Vagenie            |
| • Clue                     | • Kindara             | • Natural Cycles    | • Wildflower Health  |
| • Conceivable              | • Kindbody            | • Nuvo              | • Win Fertility      |
| • Cyrcadia Health          | • Let's Get           | • Oova              | • Women's Health USA |
| • Damiva                   | • Checked             | • Oula              | • Woom               |
| • Elvie                    | • Lilia               | • Ovia Health       |                      |
| • Fertility Focus          |                       | • Owlet             |                      |

\*While we analyzed Myriad & Goodstart Genetics, we did not include them in the data visualizations because they were outliers in every factor. For more detailed information on them, please navigate to their tabs within the Google Sheets database.

# Companies Excluded:

- Lucida
- Joy Lux
- Perifit
- Pr3vent
- Birdi Solutions
- Quanovate
- iPeriod
- Phosphorus
- Nurx
- Recombine
- Apricity
- CocoonCam
- Willow
- Lucy
- KanDy
- Madorra
- Endoceutics
- Well.ca
- Fervent
- Transpara Health
- Asana Rebel
- OBMedical
- Marvoto
- Cancercare
- Health & Parenting
- CoFertility
- Unity
- Ovusense

# Methods, Processes and Analyses

We analyzed a total of 71 feminine technology companies and looked for key indicators of market presence.

Most companies are private, therefore we had to explore many different data sources:

- **Press releases**
- **Company's website**
- **Crunchbase.com**
- **Owler.com**
- **Pitchbook.com**
- **Craft.co**
- **Wikipedia**
- **Other**

As such, we recognize that the data set may contain limitations, however, every effort was made to obtain the most reasonable, accurate, and current estimates for company information. Where unavailable, no assumptions were made so as to maintain the integrity of the other data. When multiple varying estimates were found, we took the higher estimates for our calculations so as to be conservative with the data.

We input the company information into a Google Sheet using the Business Model Canvas as a template. Initial research focused on qualitative information. We then consolidated this information quantitatively into another Google Sheet in order to allow for deeper analysis through the use of Tableau. The final month of our project focused on using Tableau to represent the data visually in a meaningful and digestible way. Our presentation consists primarily of those graphs and analyses.





# Data Analysis

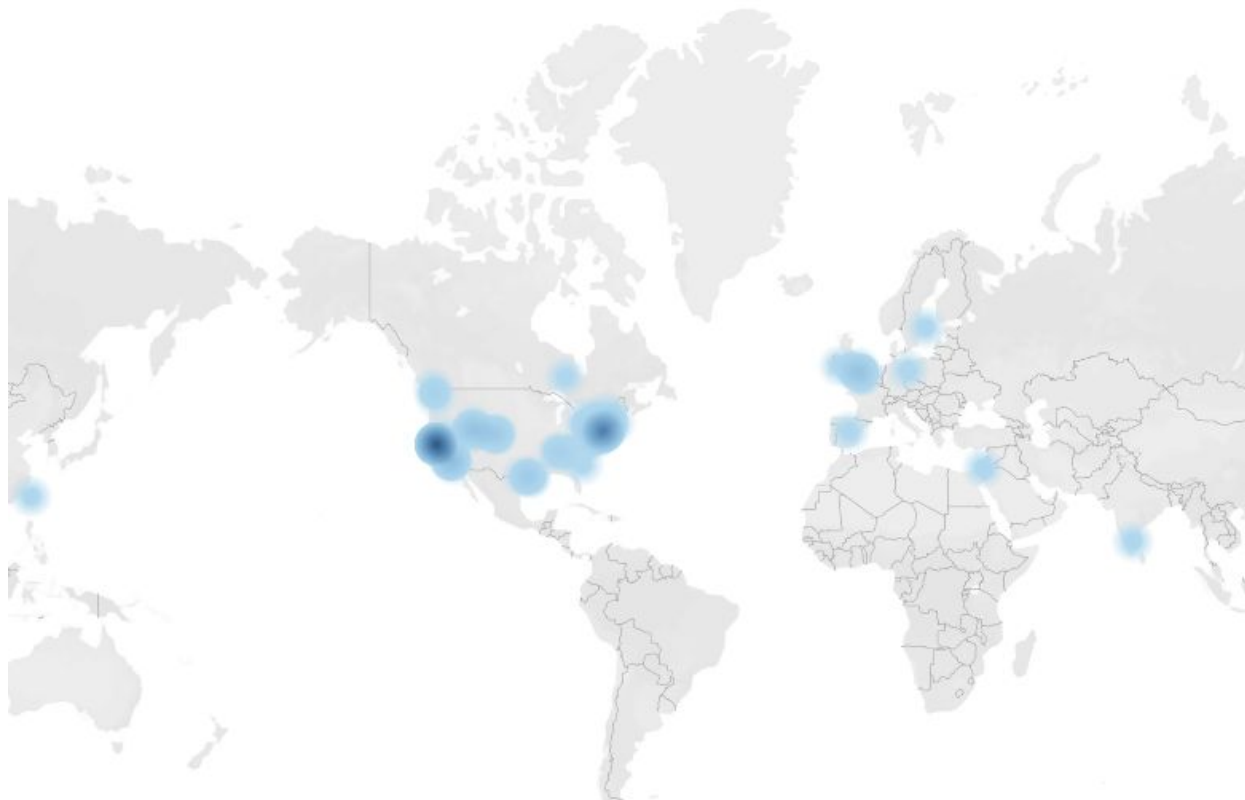
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## Company Headquarters and Additional Offices Distribution

The heat map shows the distribution of company Headquarters and additional offices.

Specifically:

- 33.8% are located in California
- 11.3% are based in New York



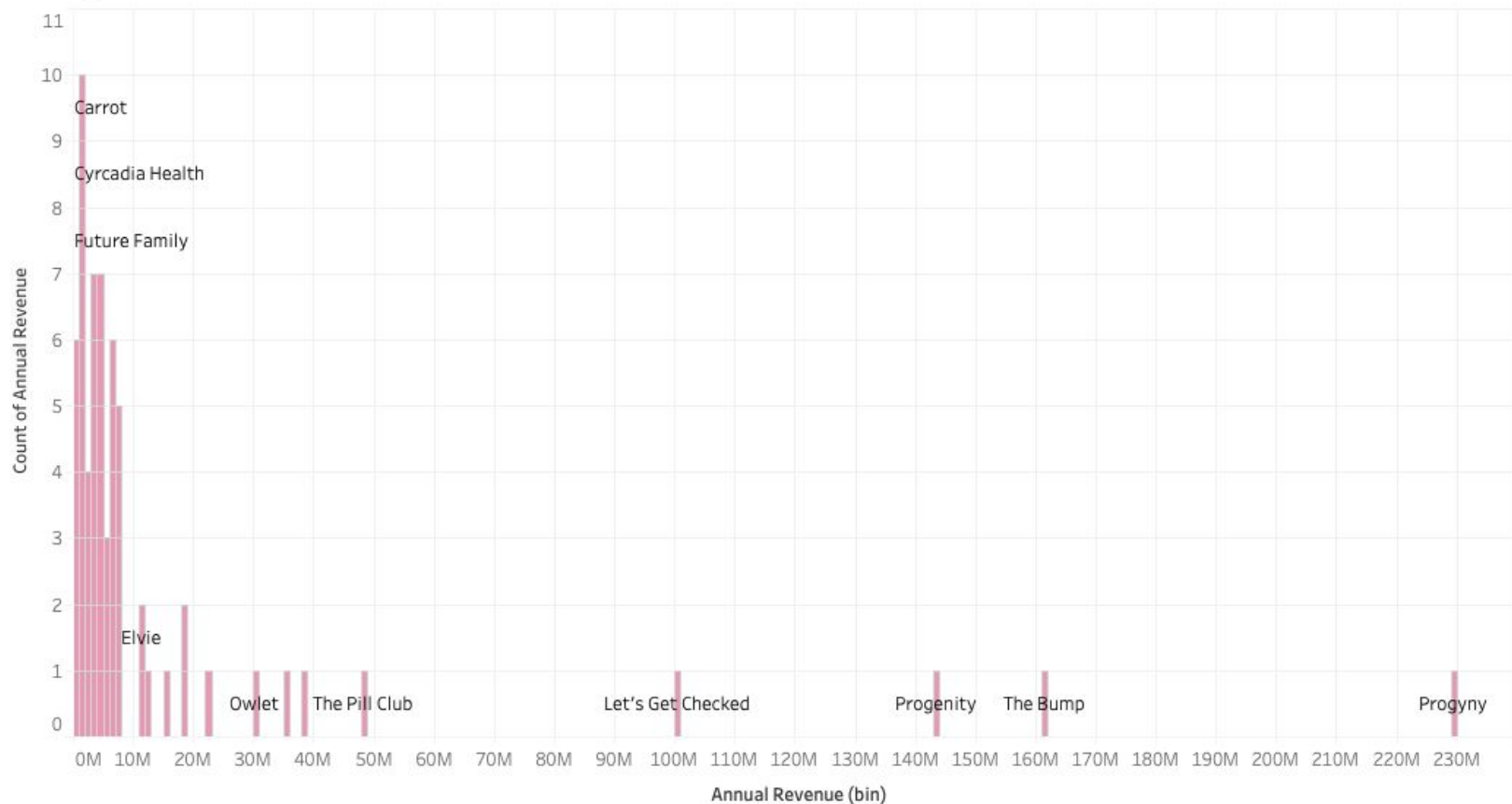




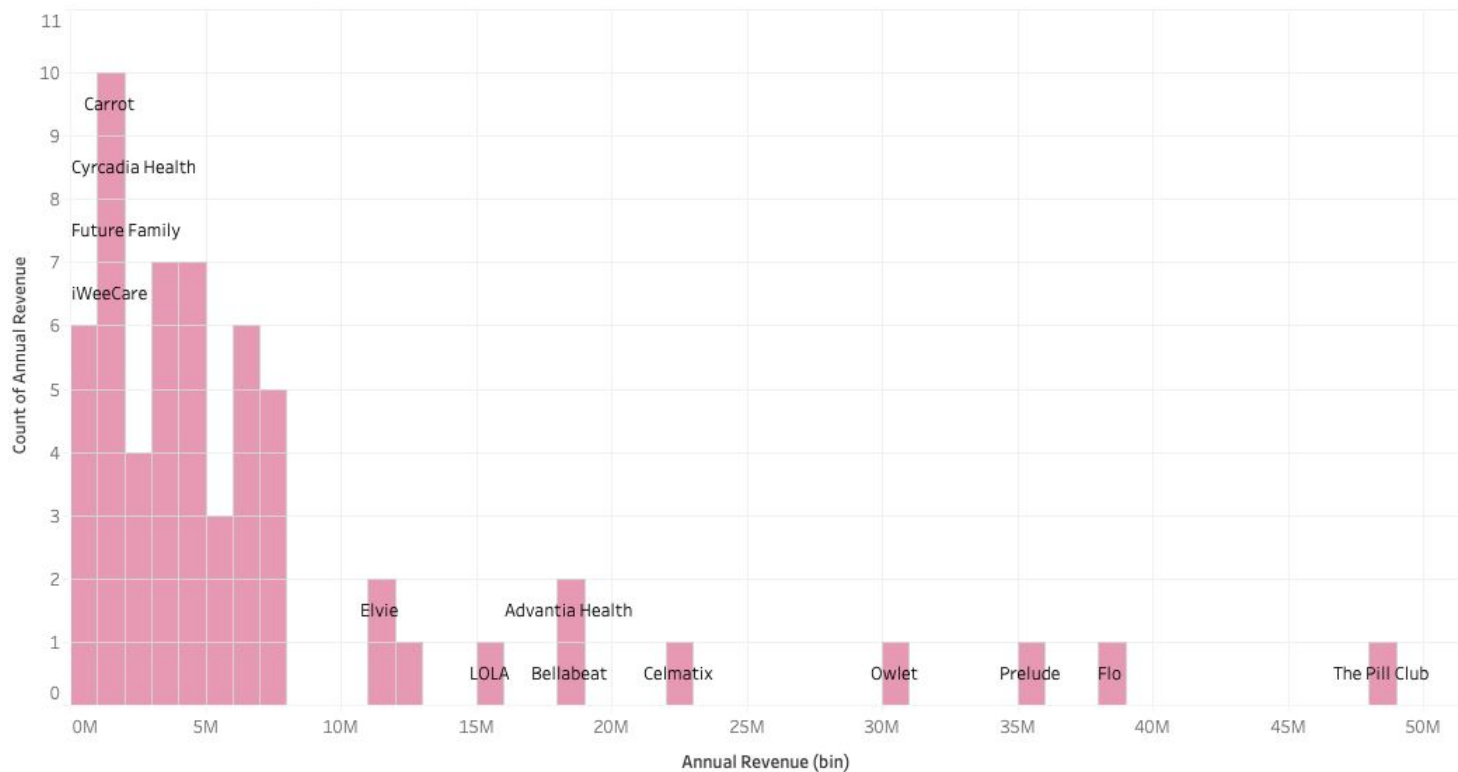
# Revenue

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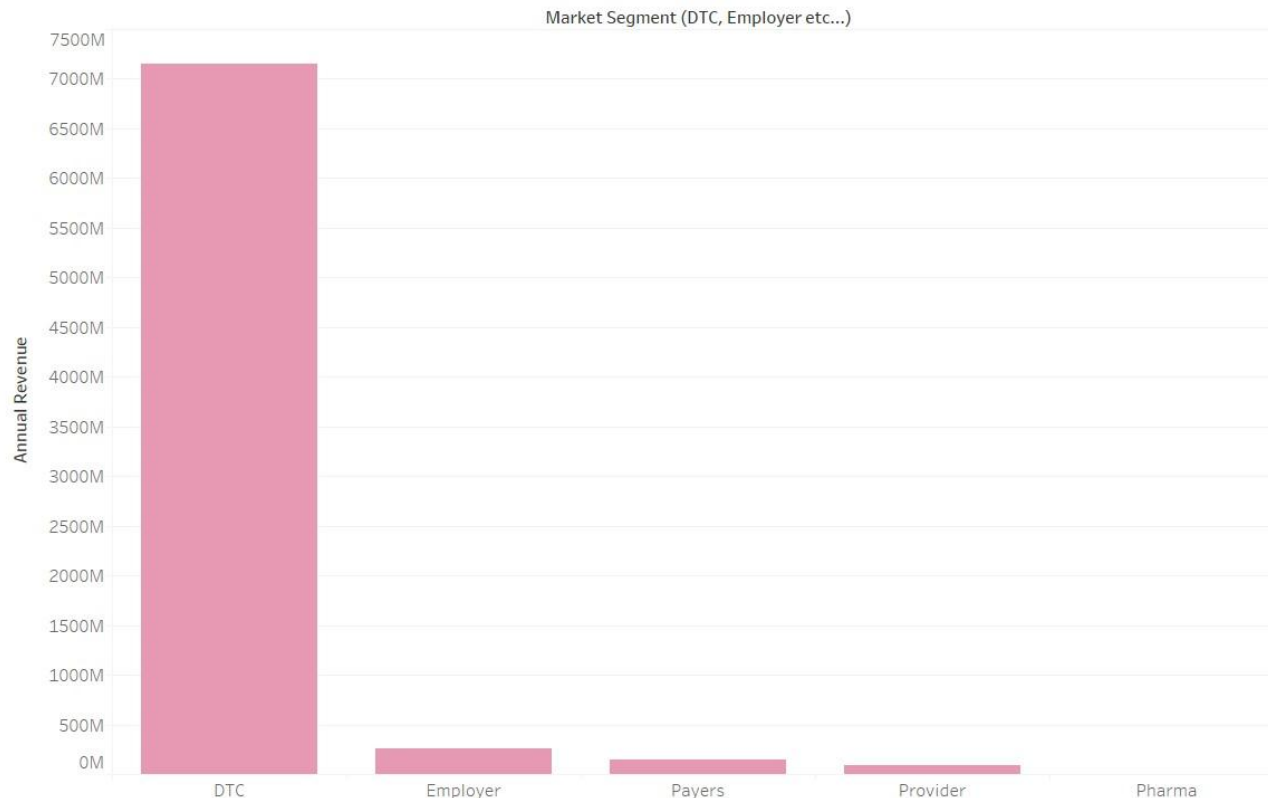
# Histogram of Revenue



# Histogram of Revenue (Under \$50 Million)

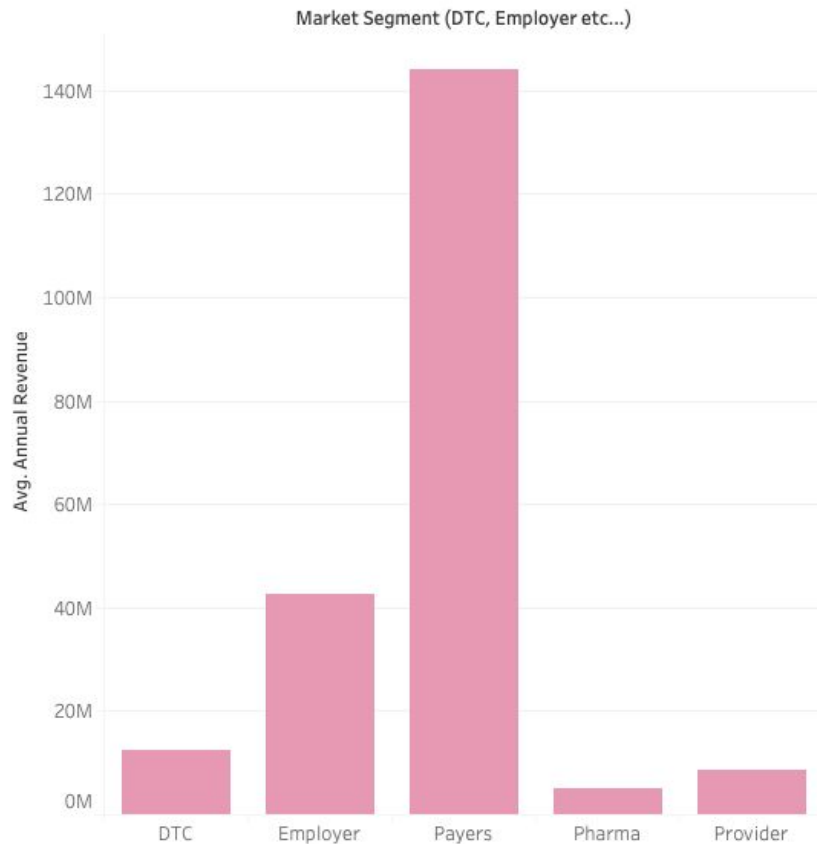


# Sum of Annual Revenue vs. Market Segment



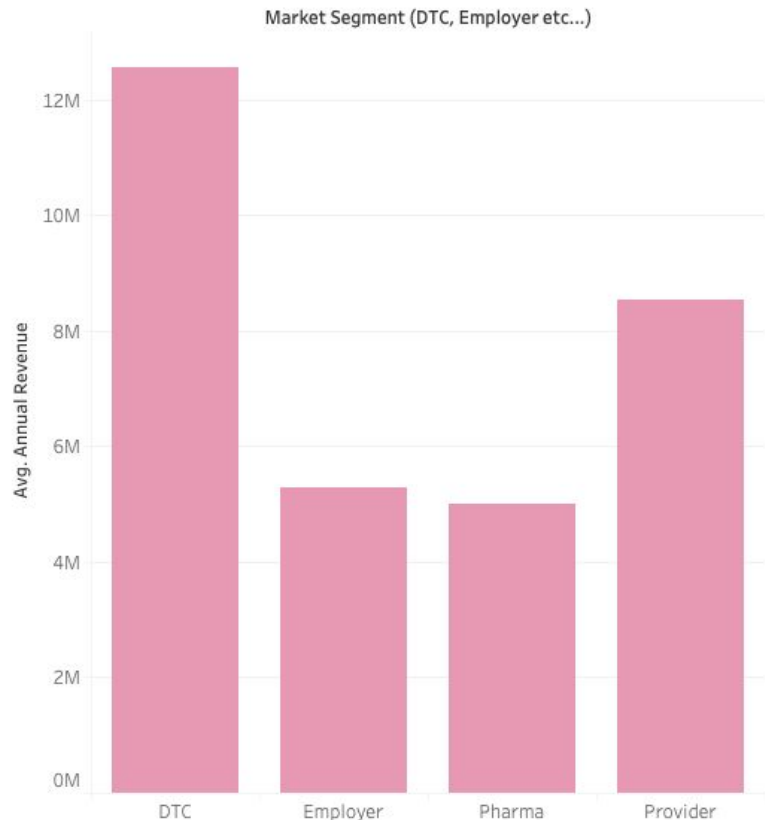
**Key Insight:** While there is a lot of revenue held in the DTC segment, it is very saturated.

# Average Annual Revenue vs. Market Segment



★ **Key Insight:** Payer-focused companies yield the highest revenue. However, The payer segment is skewed by Progenity, a high-revenue payer-focused company.

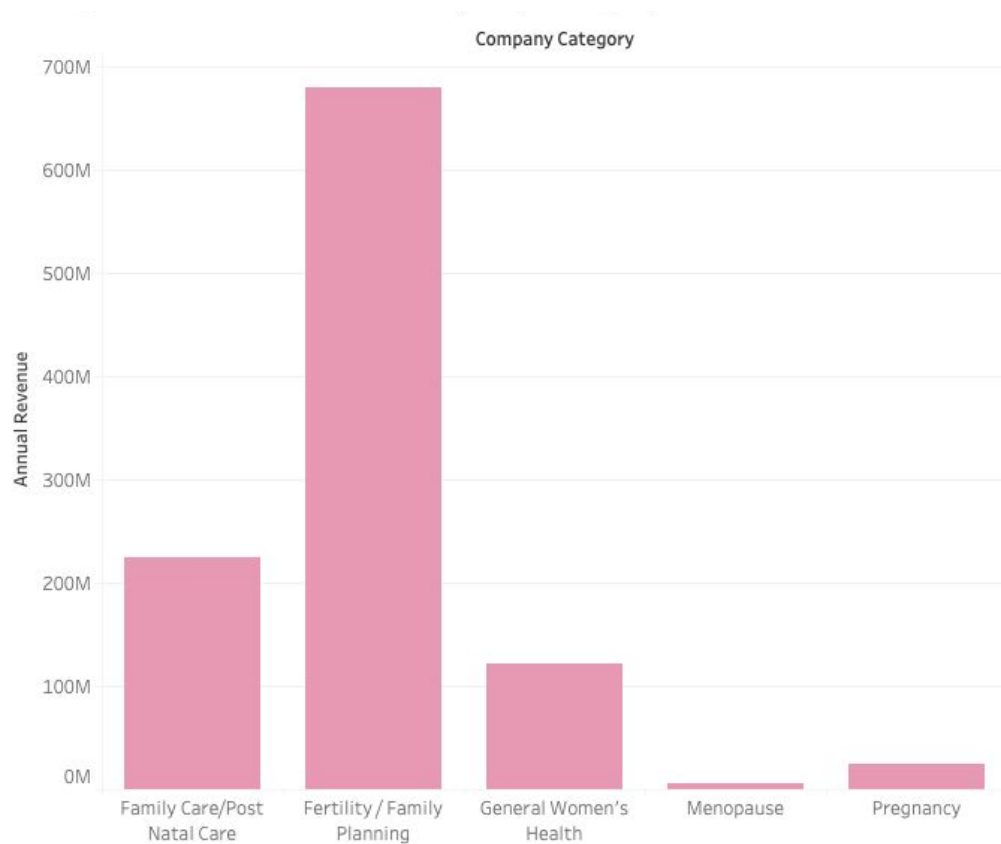
# Average Annual Revenue vs. Market Segment (Progenity & Progyny Excluded)



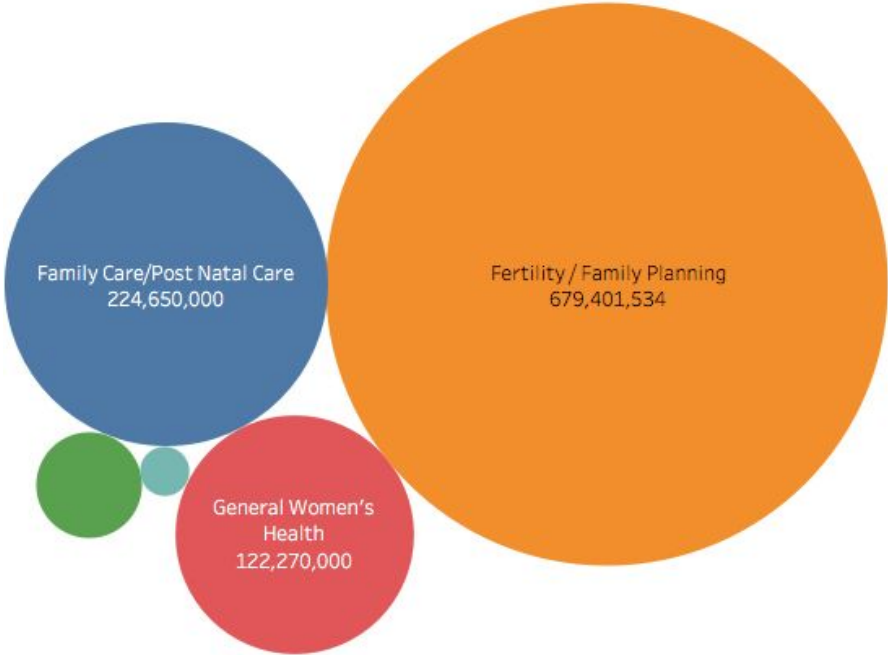
★ **Key Insight:** Without Progenity or Progyny, DTC and provider-focused companies yield the highest revenue.

\*\*Progenity is the only payer-focused company for which we have reliable revenue information

# Sum of Annual Revenue vs. Company Category



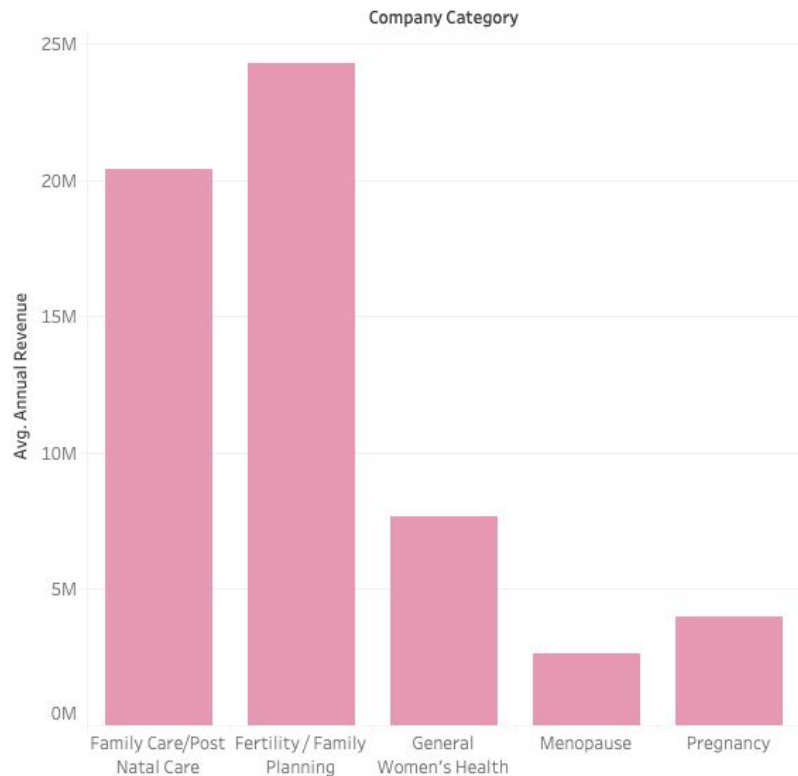
# Sum of Annual Revenue v. Company Category





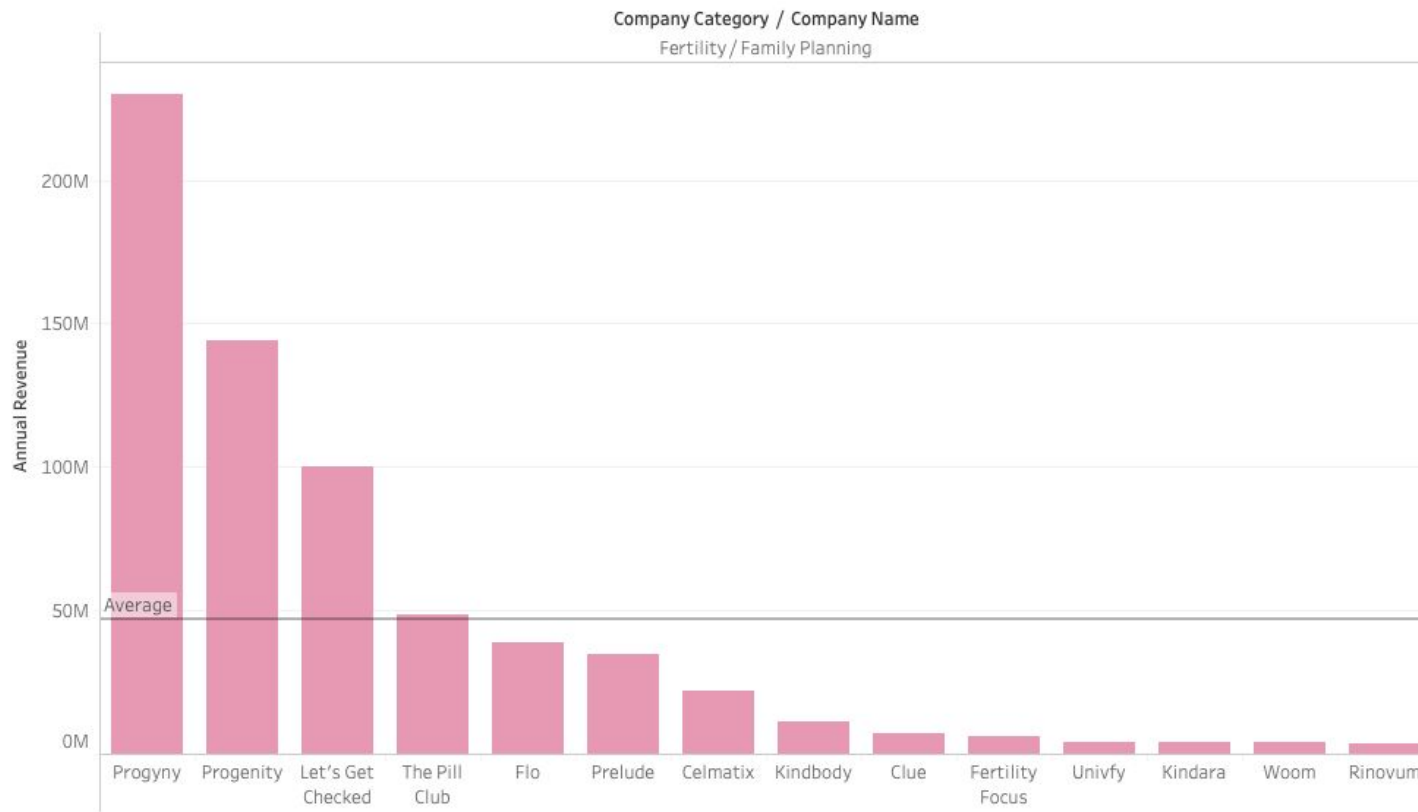
# Average Annual Revenue vs. Company Category

Average Annual Revenue by Company Category

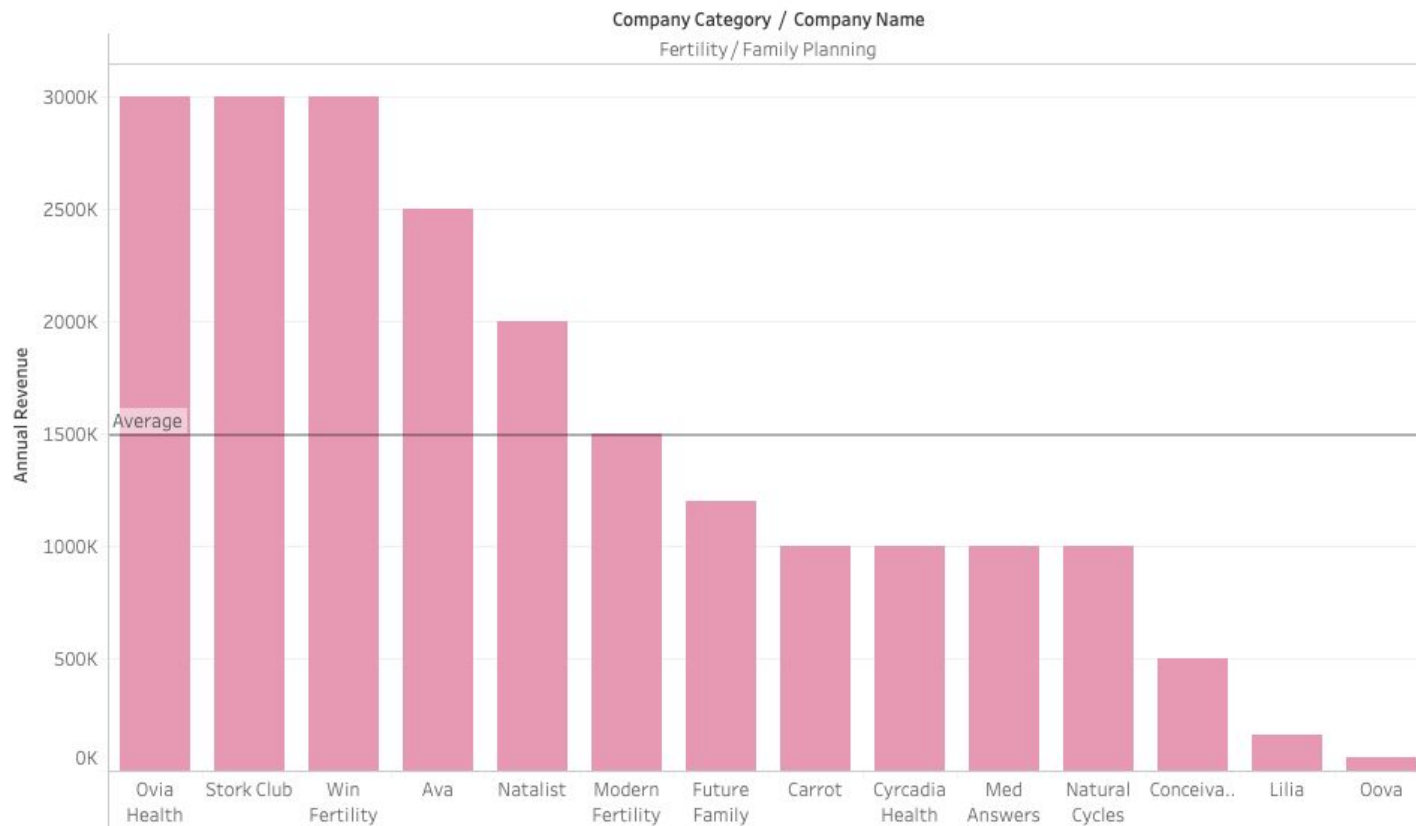


★ On average, fertility & family planning-focused companies have higher revenue, but we also have a larger sample of fertility-focused companies that we analyzed than other categories such as menopause.

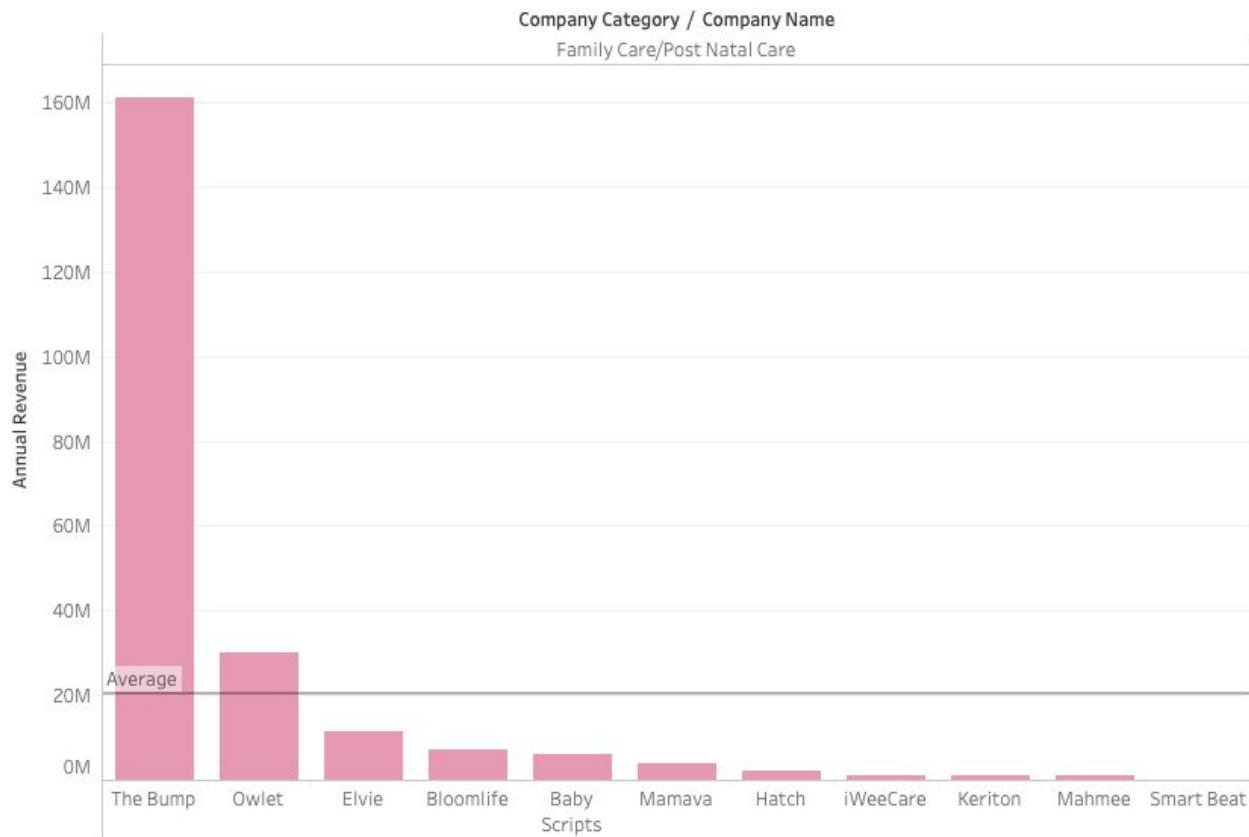
# Annual Revenue vs. Fertility Segment Companies (Top Half)



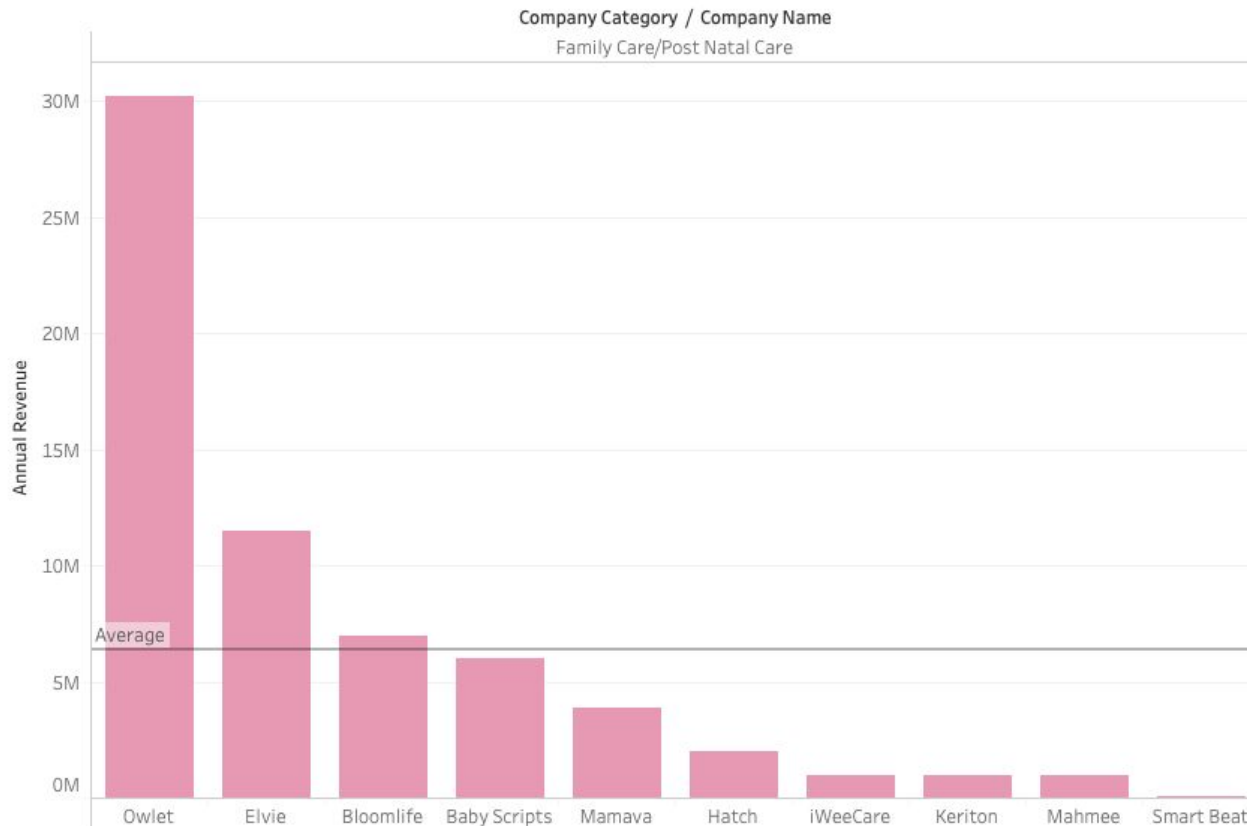
# Annual Revenue vs. Fertility Segment Companies (Bottom Half)



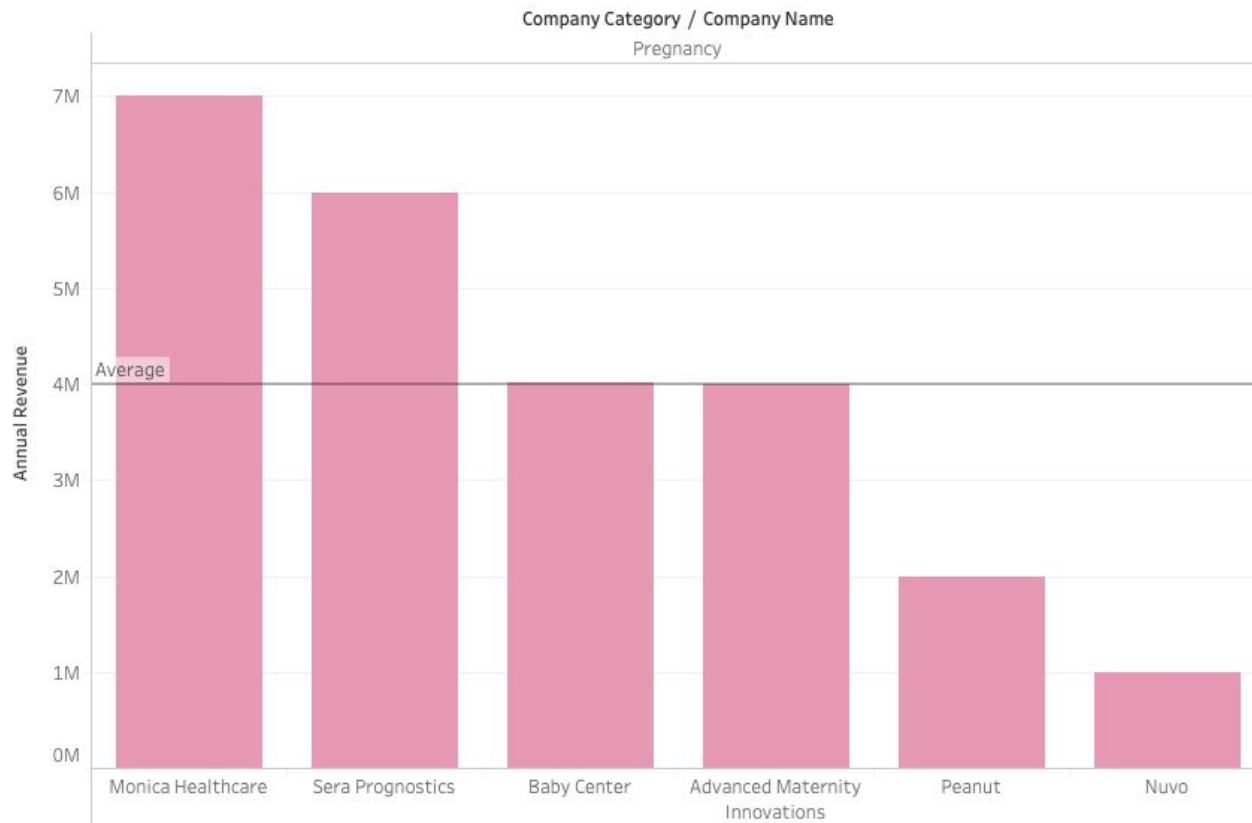
# Annual Revenue vs. Family Care Segment Companies



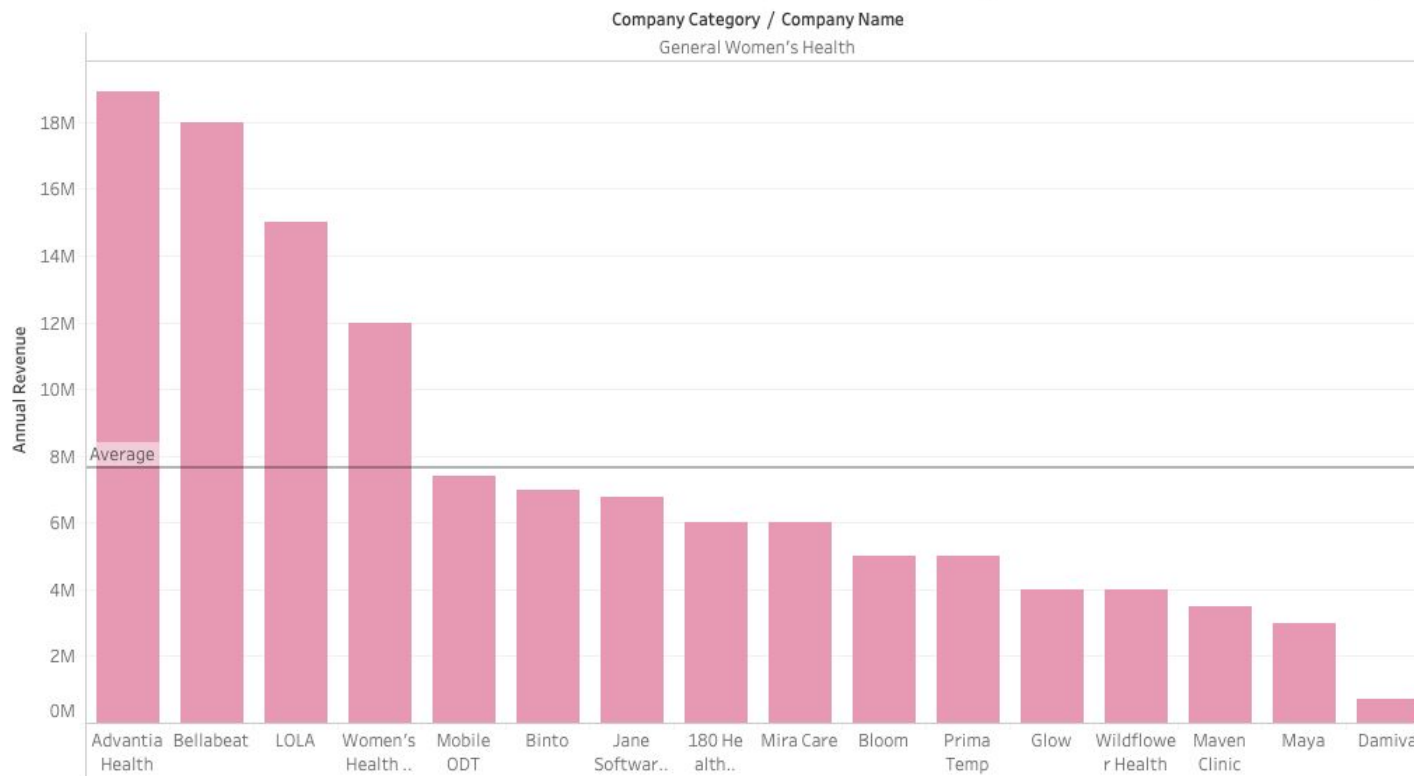
# Annual Revenue vs. Family Care Segment Companies (Excluding The Bump)



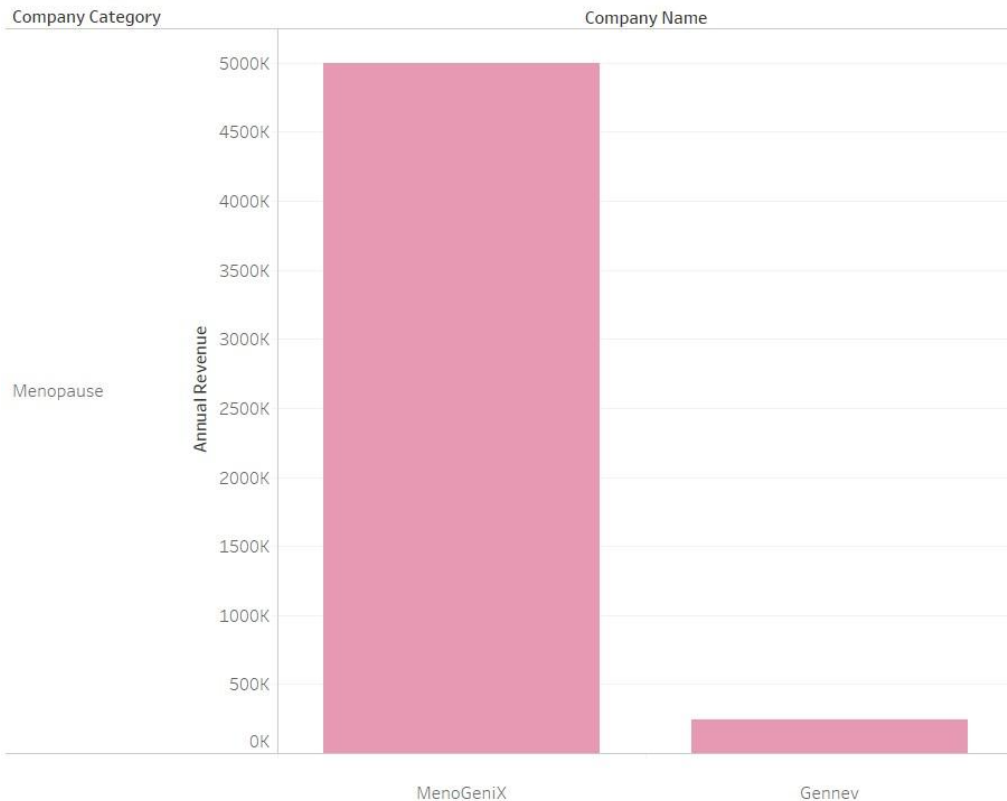
# Annual Revenue vs. Pregnancy Segment Companies



# Annual Revenue by General Women's Health Segment Companies

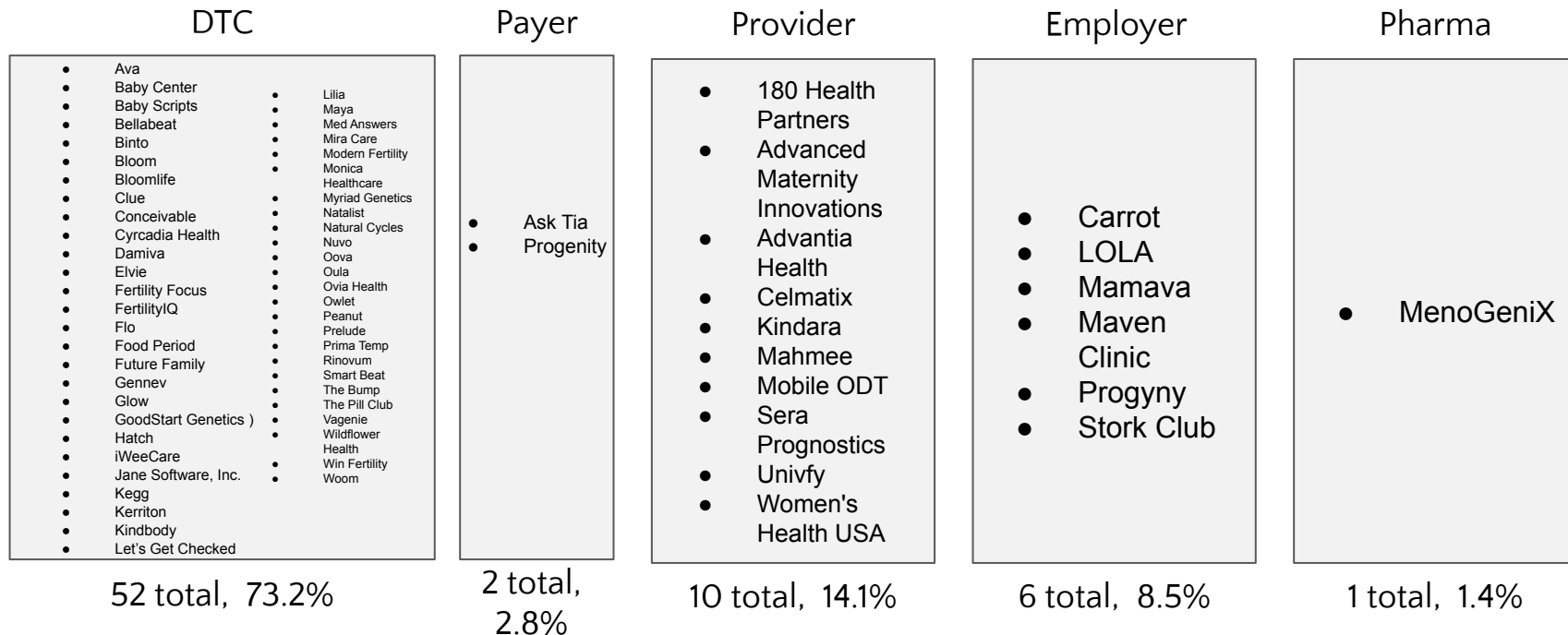


# Average Annual Revenue vs. Menopause Segment Companies



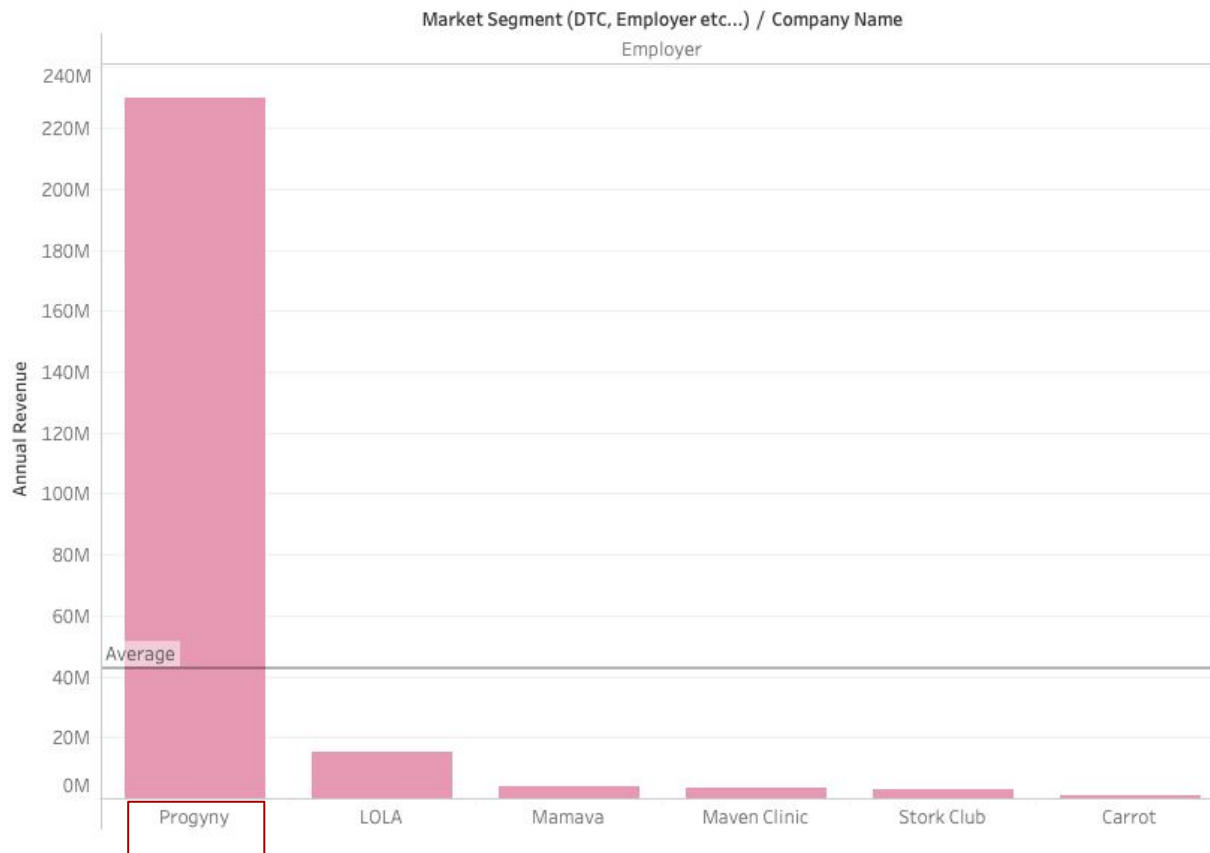


# Market Segment

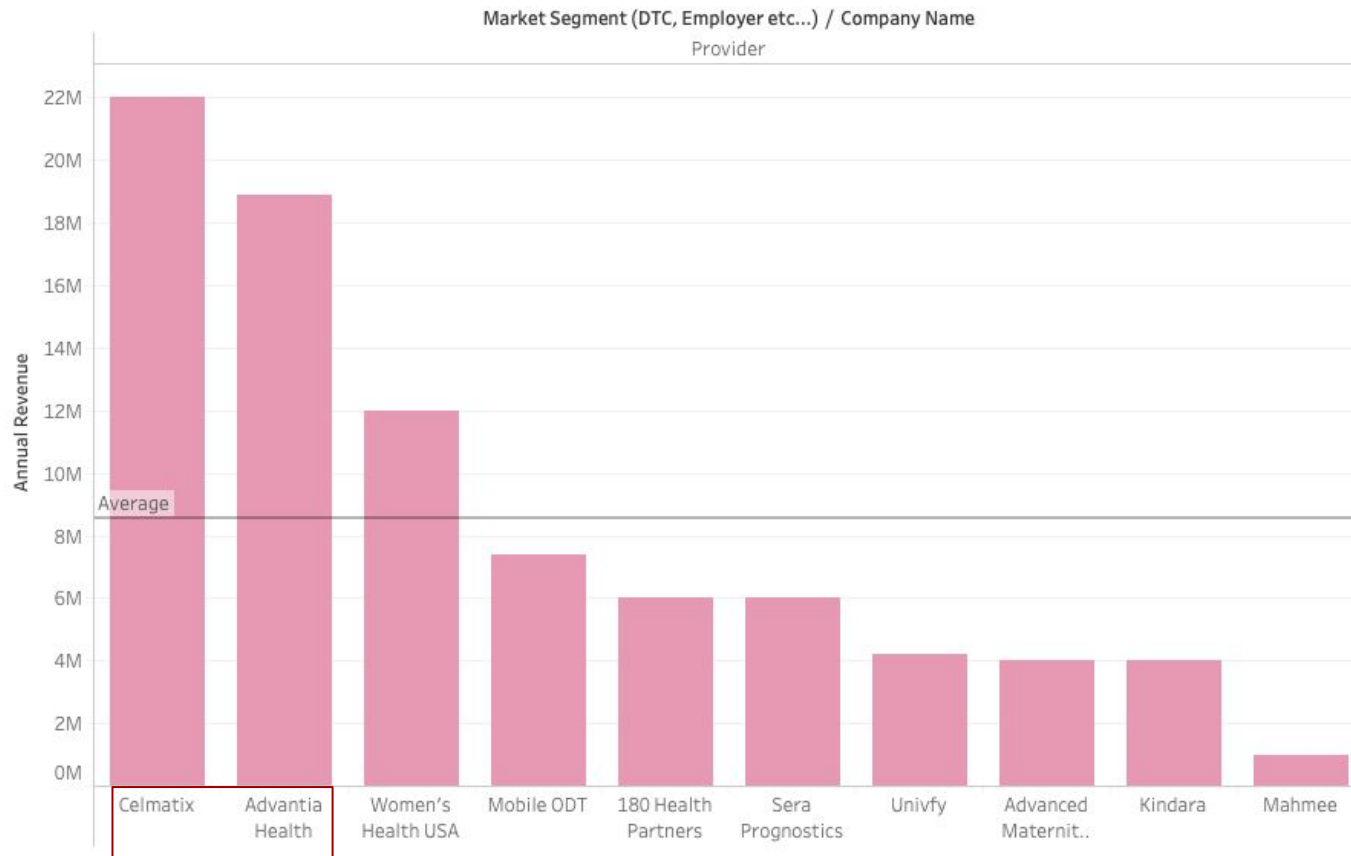


**Key Insight:** DTC is the most saturated segment of the FemTech Market

# Annual Revenue by Employer Companies



# Annual Revenue by Provider Companies



# Software Segment

## Mental Health

- 180 Health Partners
- Bloom

2 total, 2.8%

## Women's Software

- Advantia Health
- Ask Tia
- Baby Center
- Baby Scripts
- Bloomlife
- Celmatix
- Clue
- Conceivable
- Flo
- Gennev
- Glow
- Jane Software, Inc.
- Let's Get Checked
- Mahmee
- Maya
- Mobile ODT
- Ovia Health
- Peanut
- Univfy
- Wildflower Health
- Woom

21 total, 29.6%

## Women's Software & Device

- Advanced Maternity Innovations
- Ava
- Bellabeat
- Cyrcadia Health
- Elvie
- Fertility Focus
- Food Period
- GoodStart Genetics (Invitae)
- Hatch
- iWeeCare
- Kegg
- Keriton
- Kindara
- LOLA
- Mamava
- MenoGeniX
- Mira Care
- Modern Fertility
- Monica Healthcare
- Natural Cycles
- Nuvo
- Oova
- Owlet
- Prima Temp
- Rinovum
- Smart Beat
- Vagenie

27 total, 38%

## Other

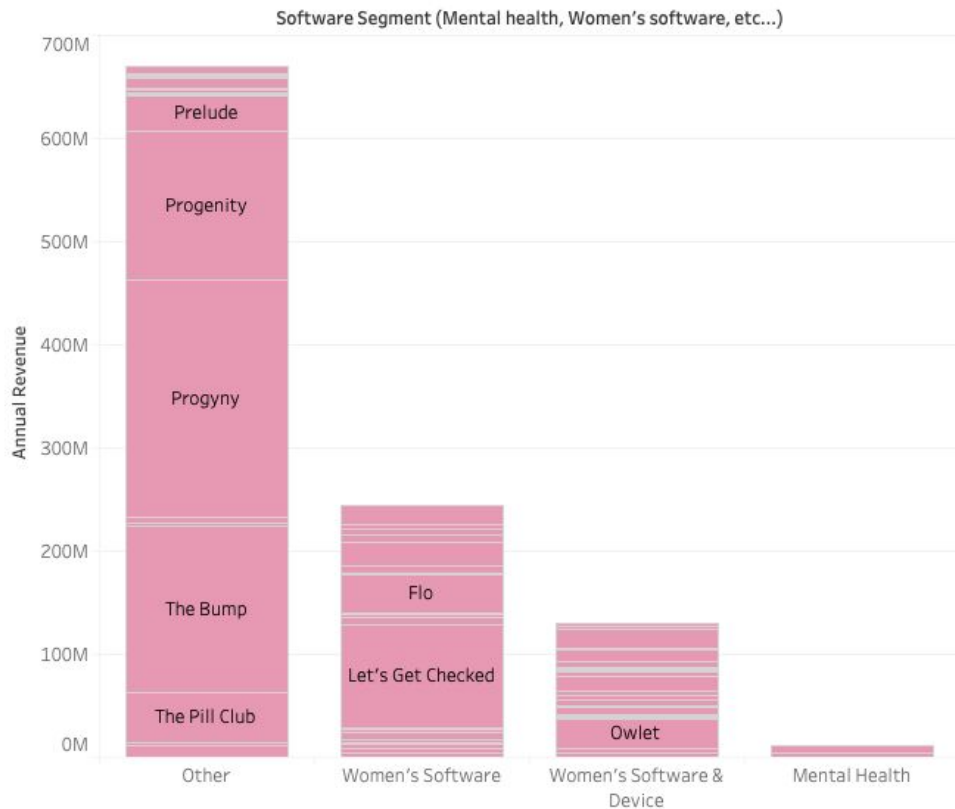
- Binto
- Carrot
- Damiva
- FertilityIQ
- Future Family
- Kindbody
- Lilia
- Maven Clinic
- Med Answers
- Myriad Genetics
- Natalist
- Oula
- Prelude
- Progenity
- Progyny
- Sera Prognostics
- Stork Club
- The Bump
- The Pill Club
- Win Fertility
- Women's Health USA

21 total, 29.6%

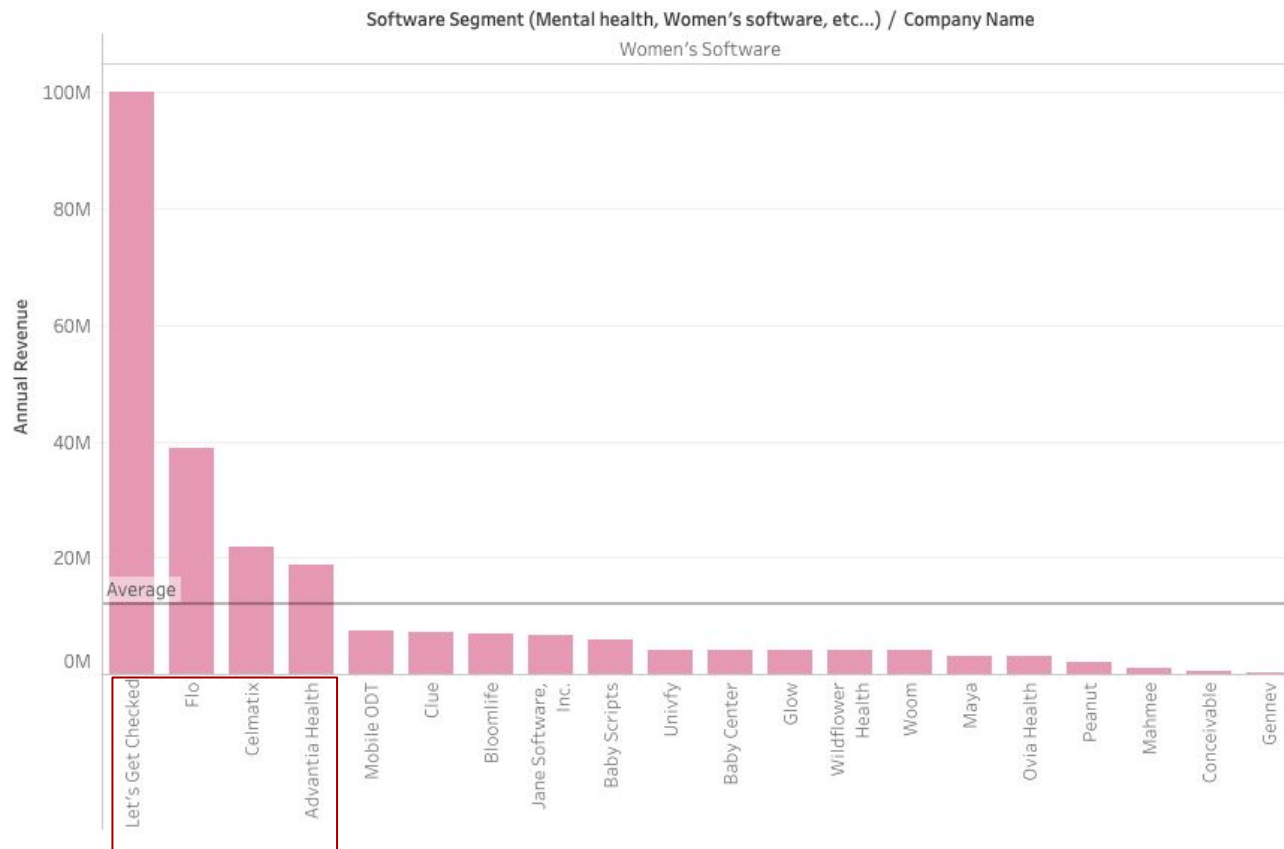


**Key Insight:** The mental health segment of the market is the least occupied.

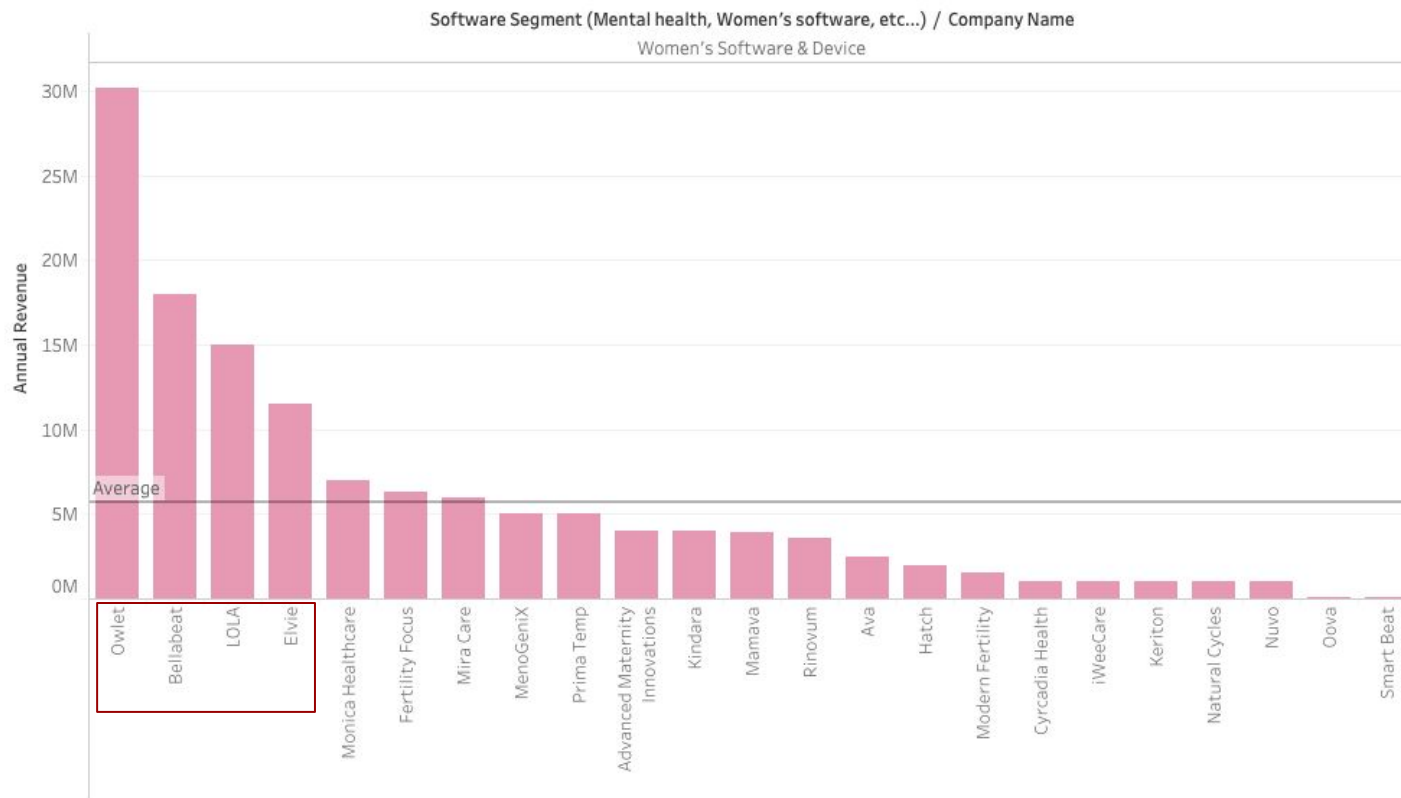
# Sum of Annual Revenue by Software Segment



# Annual Revenue by Women's Software Companies

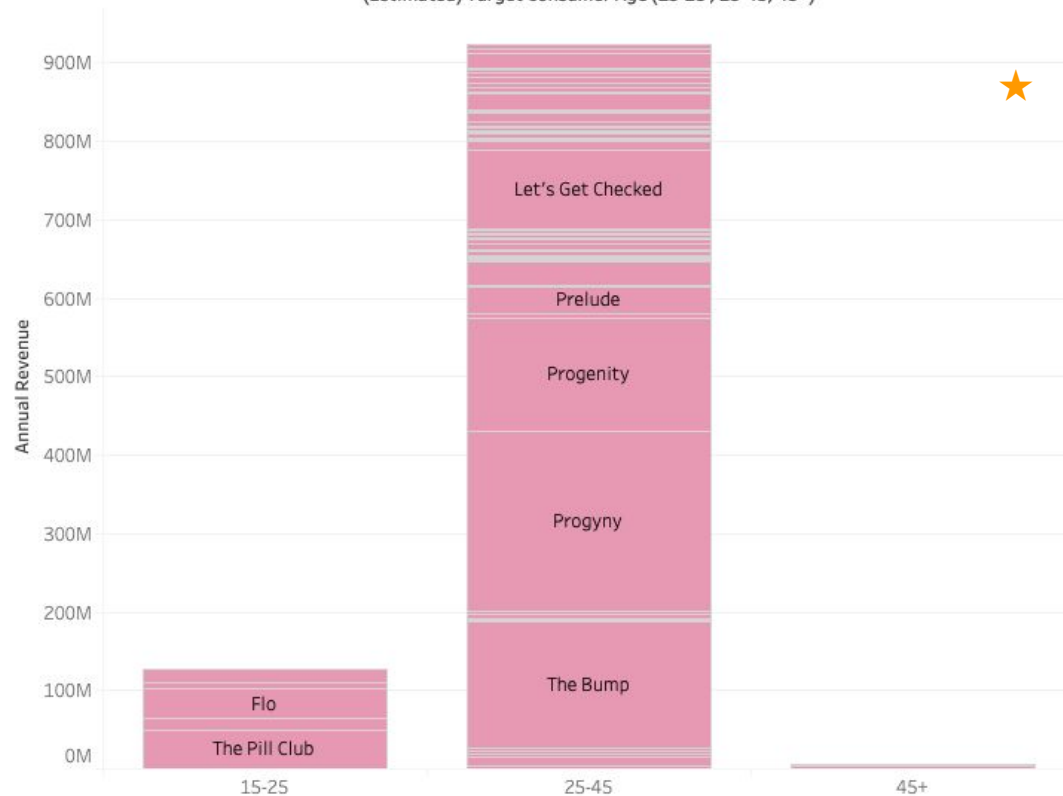


# Annual Revenue by Women's Software & Device Companies



# Sum of Annual Revenue by Target Consumer Age

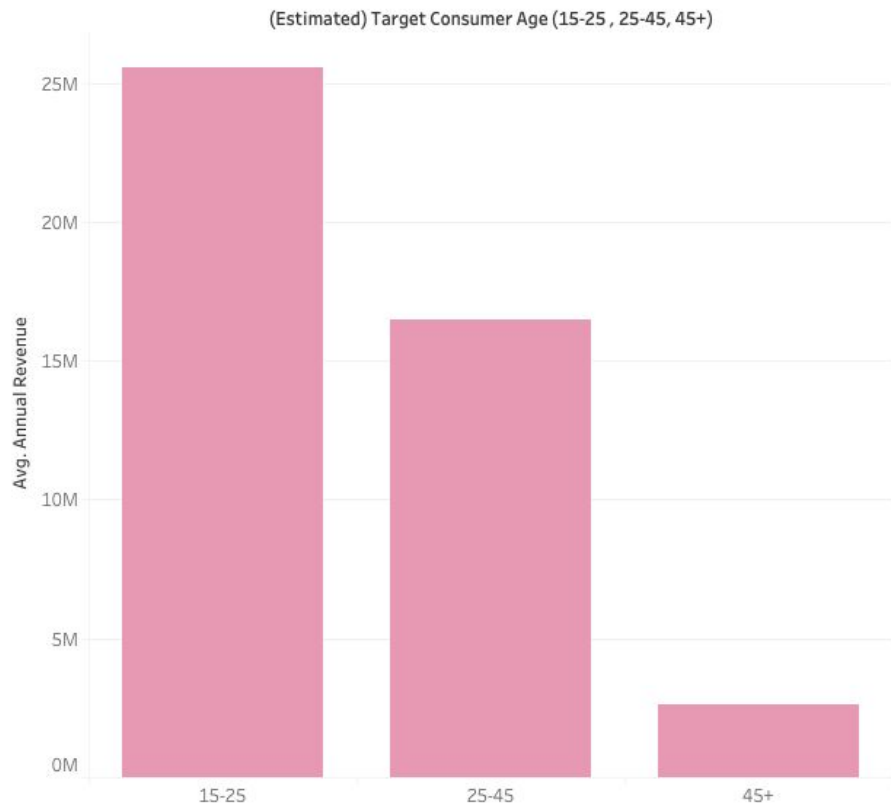
(Estimated) Target Consumer Age (15-25, 25-45, 45+)



While many of these FemTech start-ups market to 15–25 year olds, the most money being made is in this 25–45 year old segment. There were not many companies that we estimated to be focused on the 45+ audience, and thus we do not have a large enough sample to come to concrete conclusions about that market.

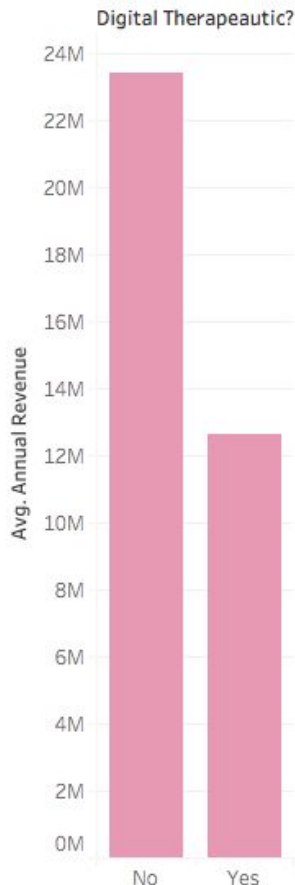


# Average Annual Revenue by Target Consumer Age

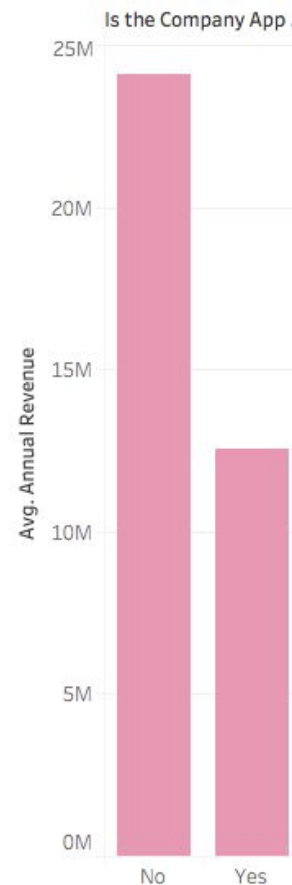


★ Due to the large amount of infant size companies in the 25-45 year old market, the average was brought down, but there are more large companies within that space.

# Average Annual Revenue by Digital Therapeutic/App Based



**Key Insight:** Those without an app and do not qualify as a digital therapeutic have, on average, higher annual revenues.

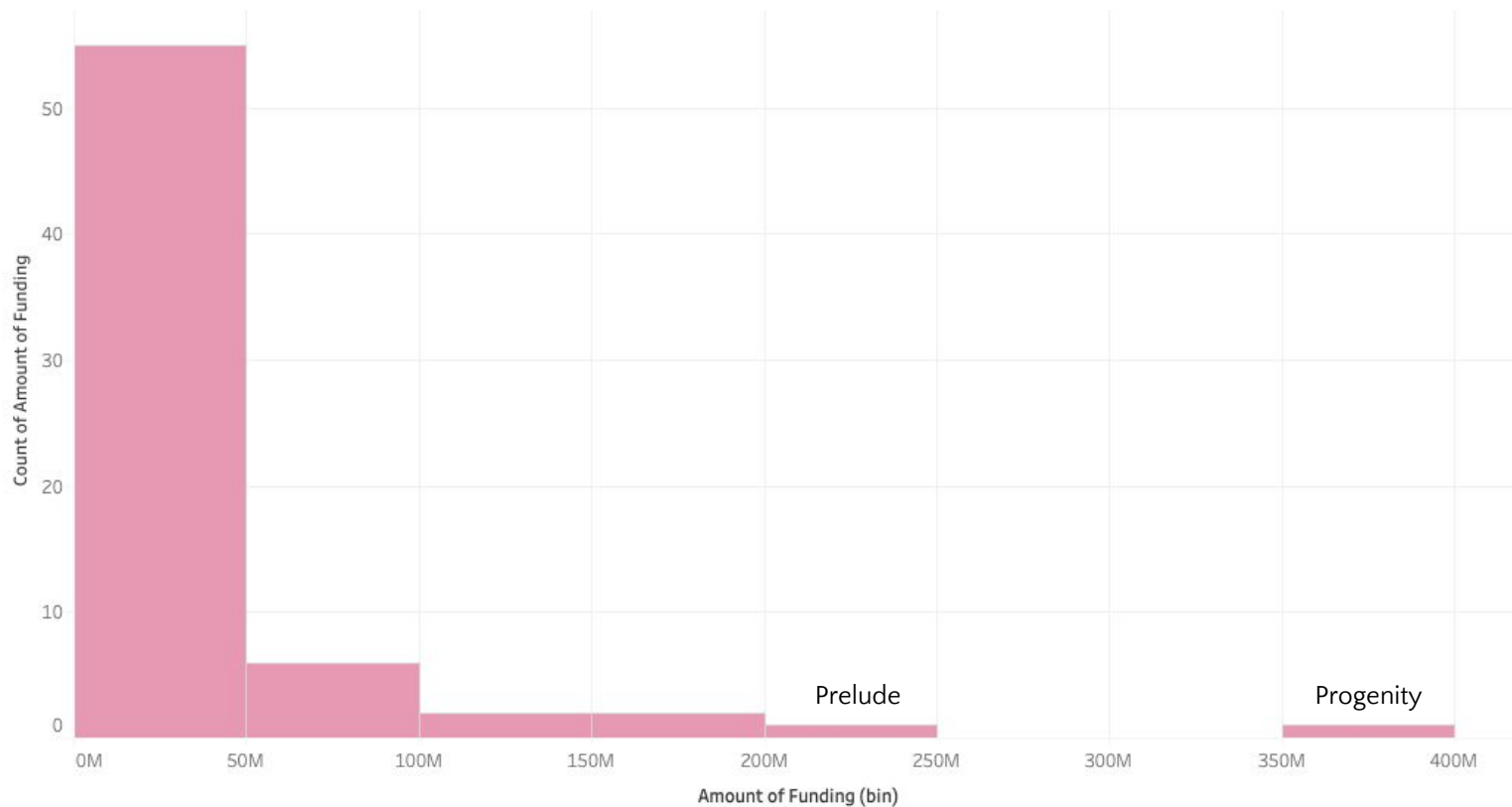




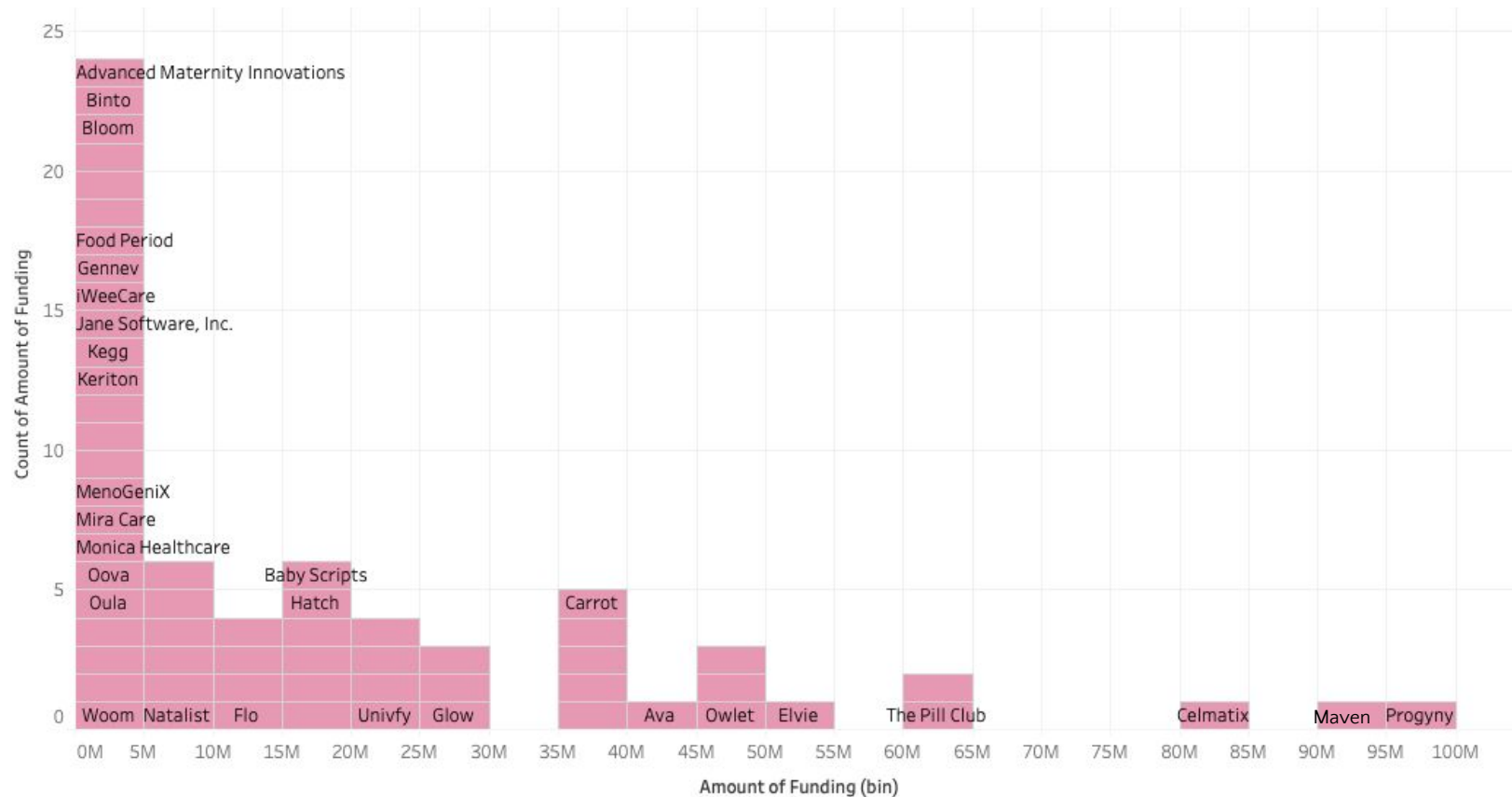
# Funding

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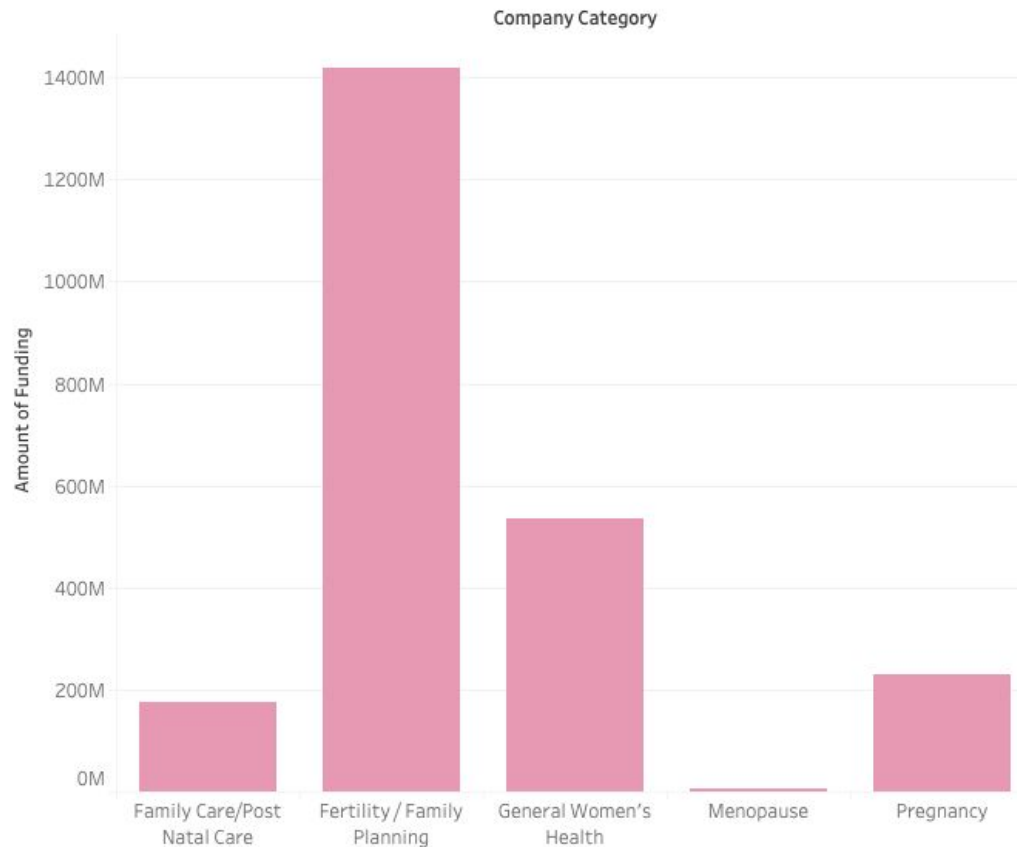
# Histogram of Funding



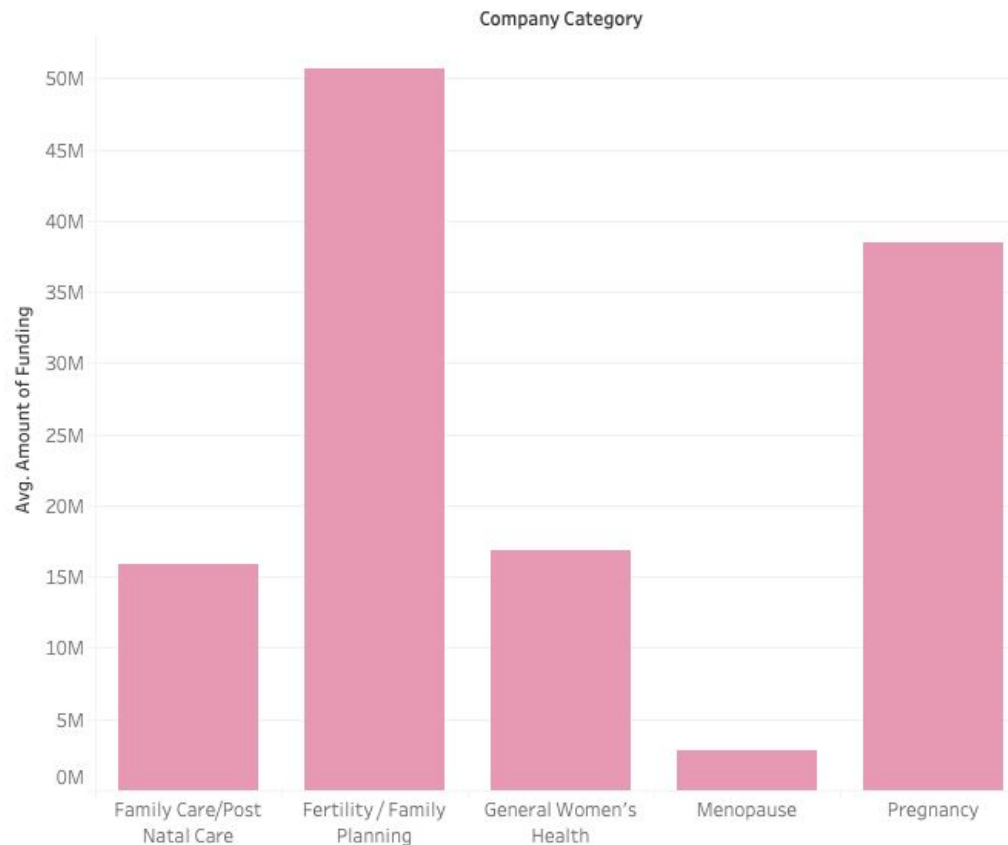
# Histogram of Funding (Under \$100M)



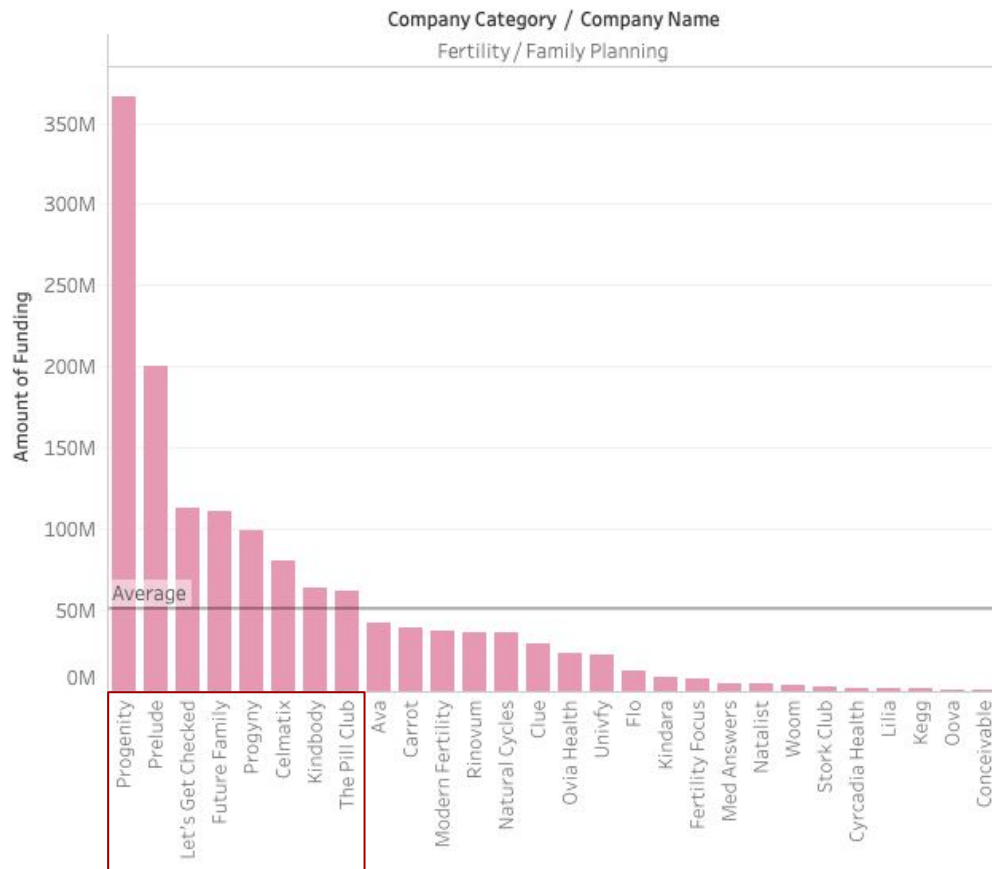
# Category vs. Sum of Amount of Funding



# Category vs. Average of Amount of Funding

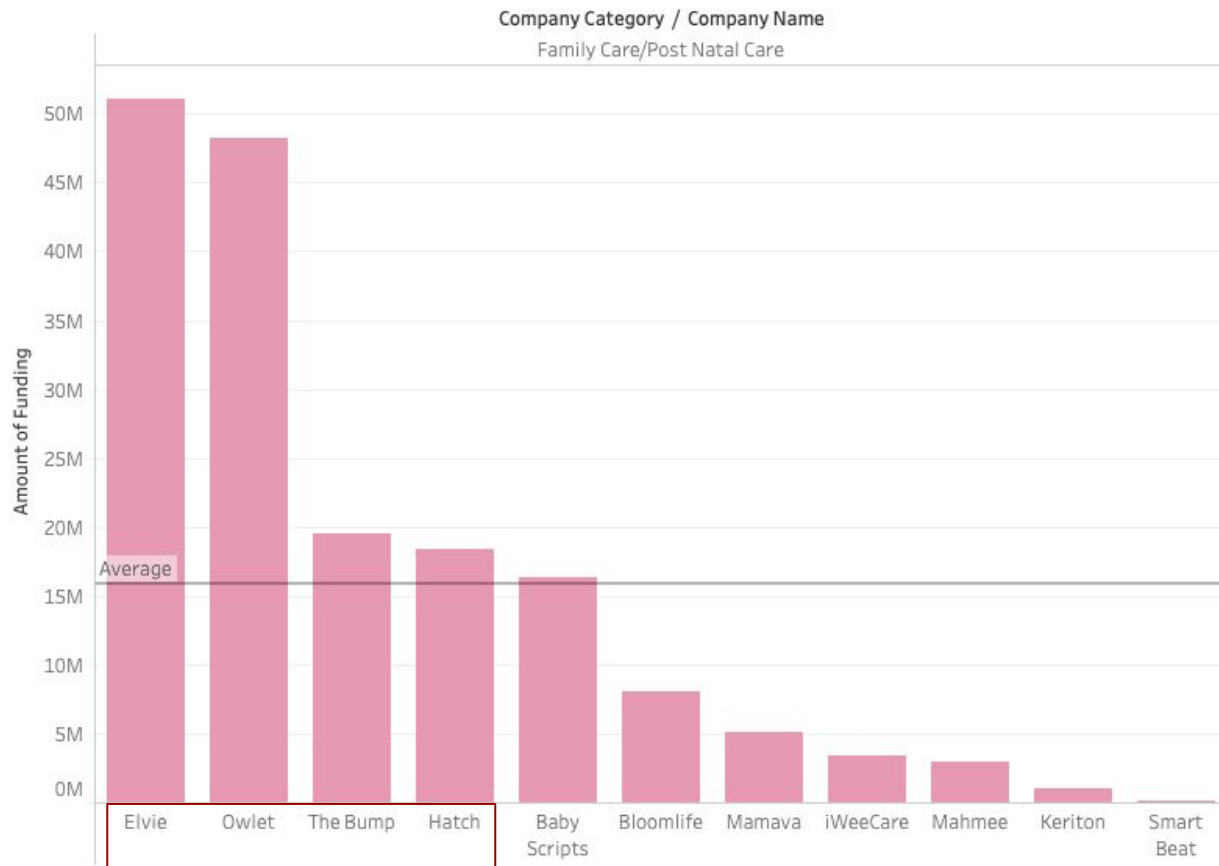


# Fertility Companies vs. Amount of Funding

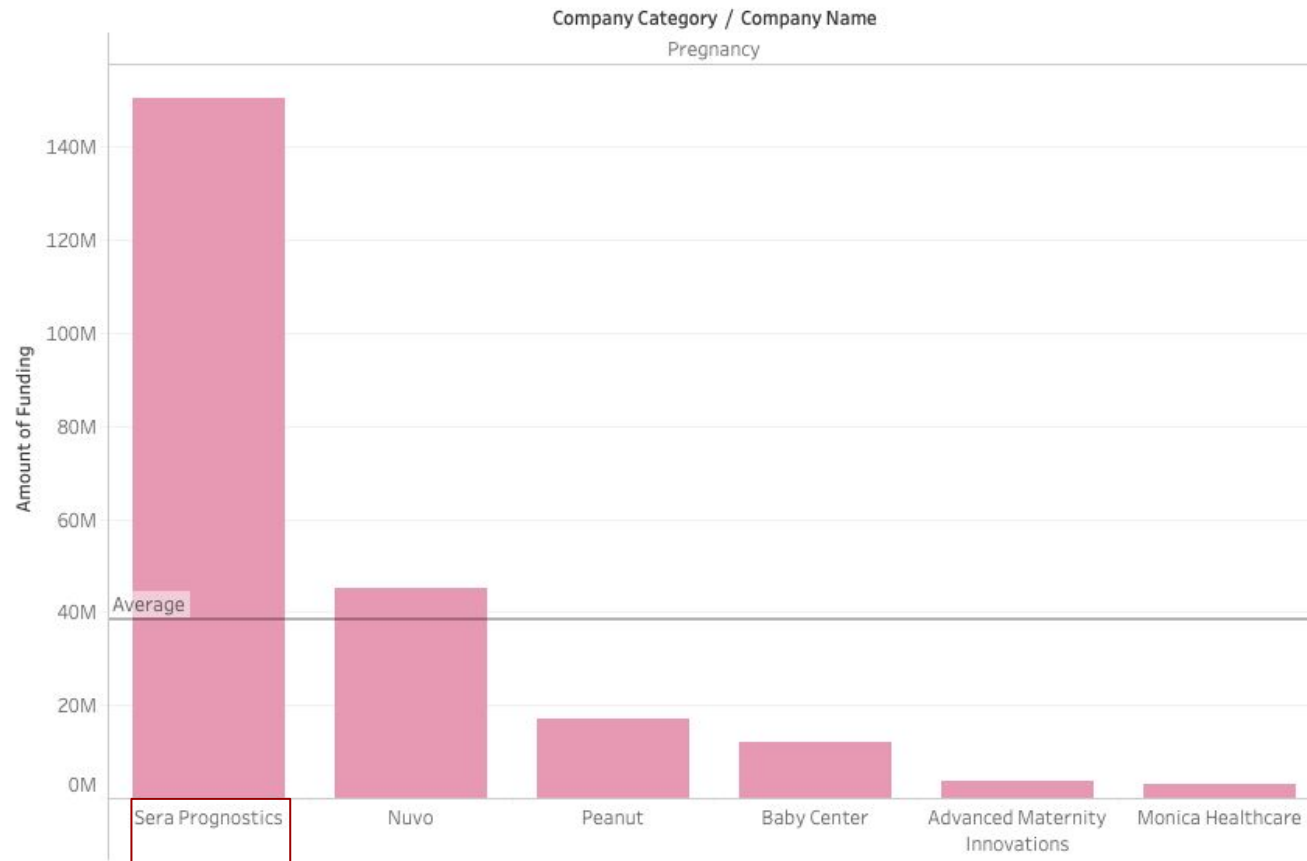




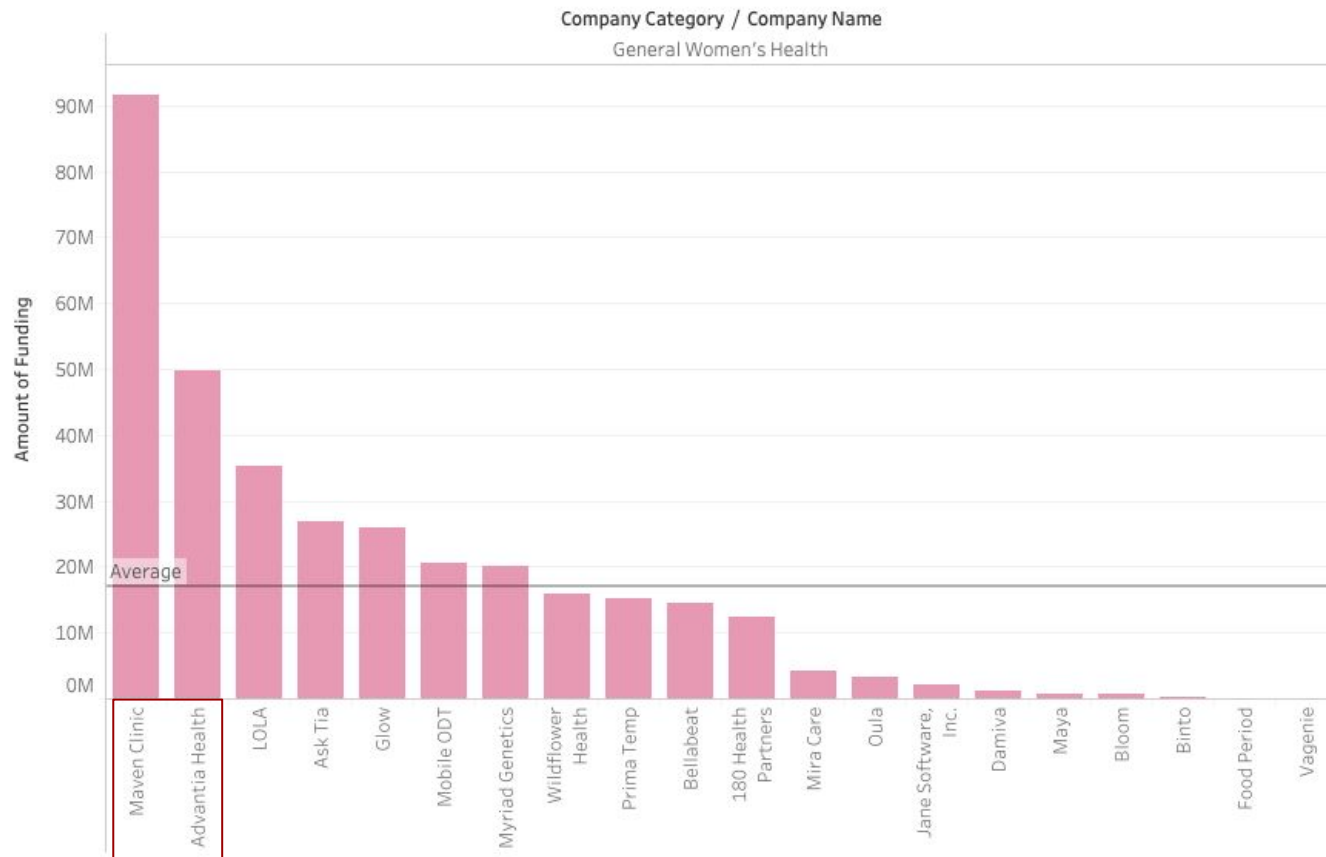
# Family Care Companies vs. Amount of Funding



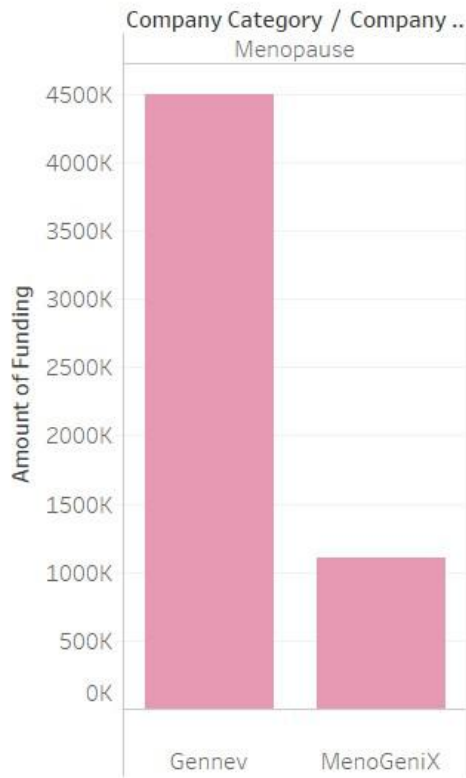
# Pregnancy Companies vs. Amount of Funding



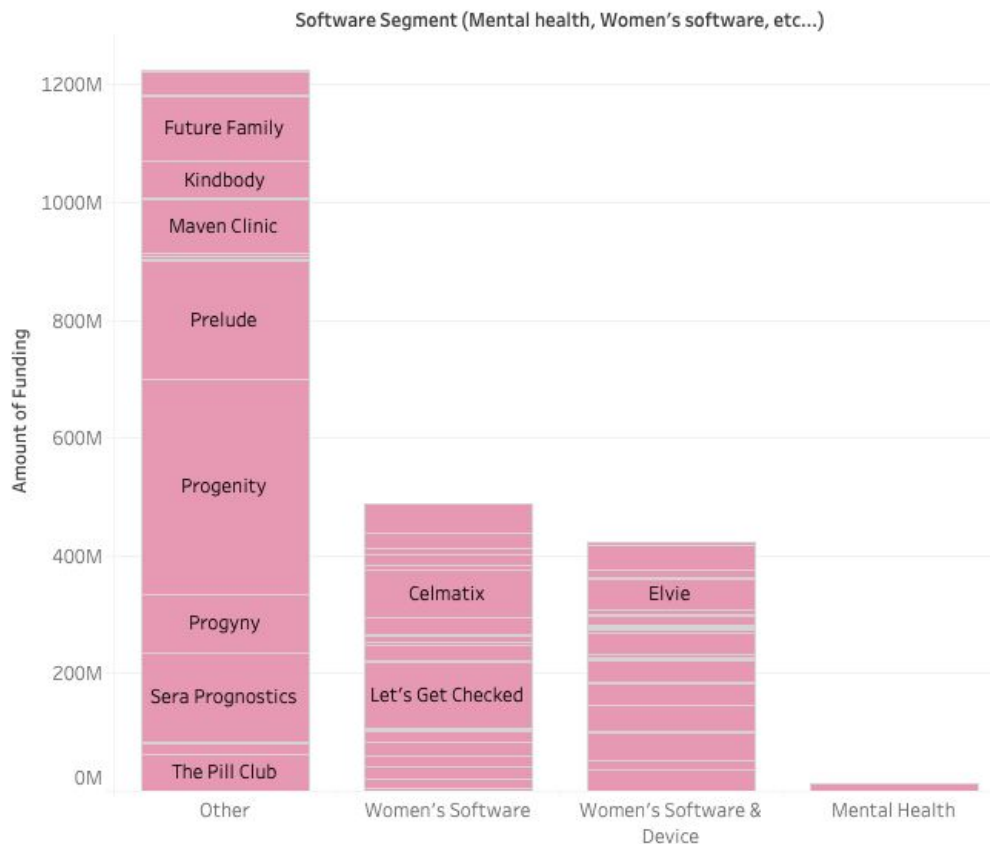
# General Women's Health Companies vs. Amount of Funding



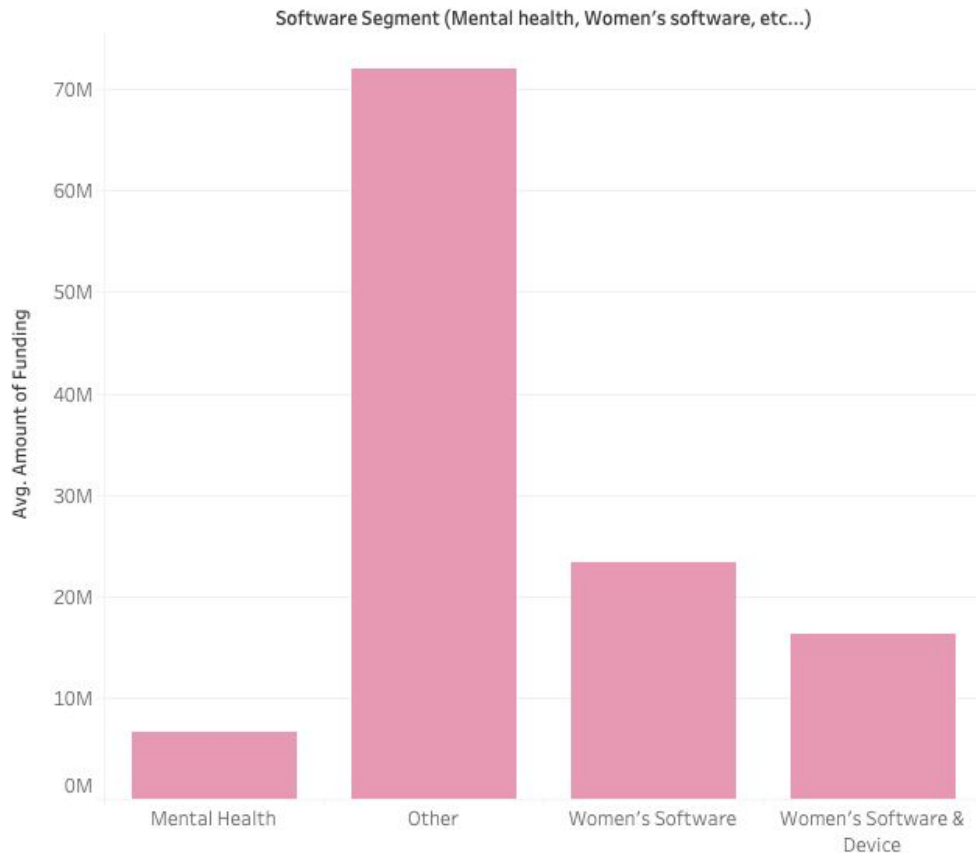
# Menopause Companies vs. Amount of Funding



# Sum of Amount of Funding by Software Segment



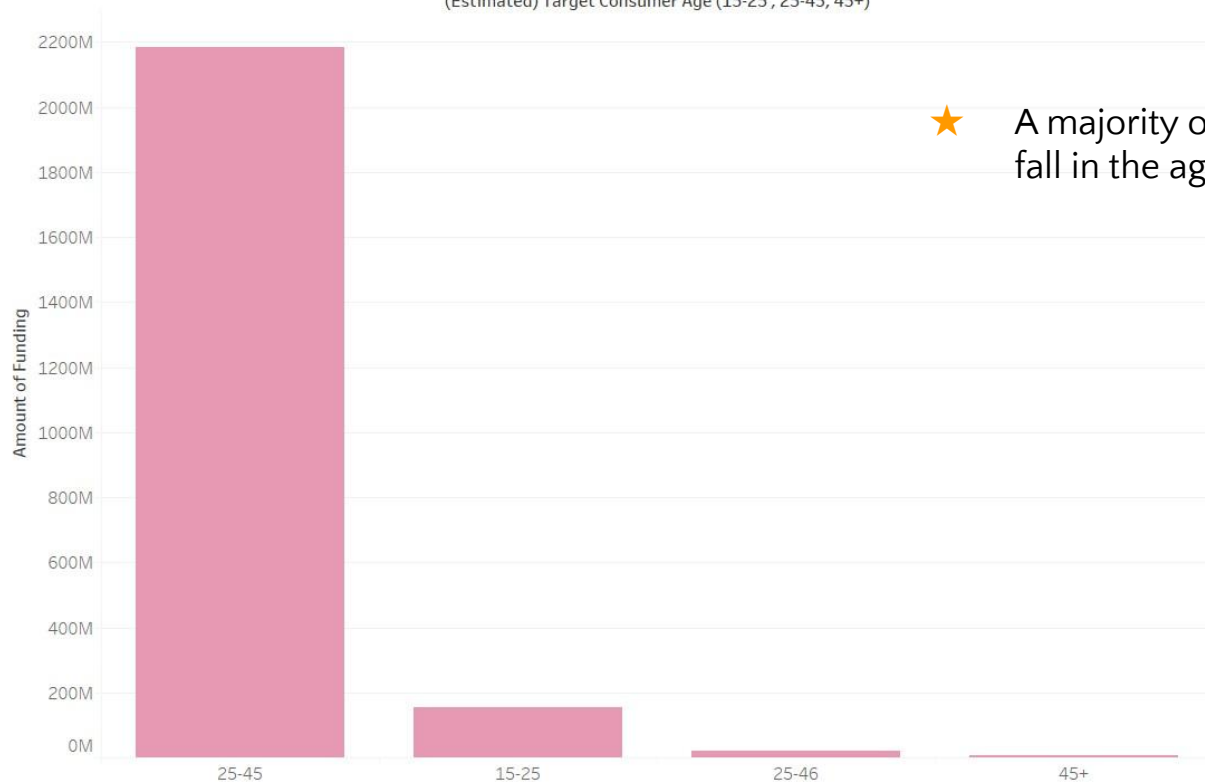
# Average Amount of Funding by Software Segment



- ★ Some of the main companies in the “other” segment are: Progyny, Prelude, Progenity, Maven, The Pill Club
  - Many of these “other” companies consist of employer benefit or patient referring platforms

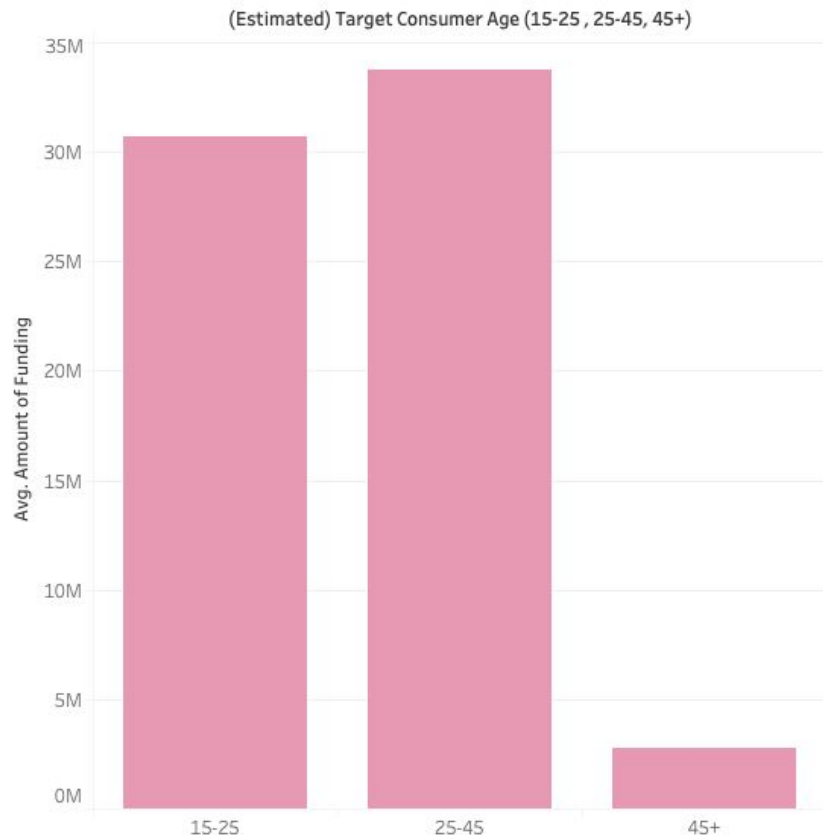
# Sum of Amount of Funding by Target Consumer Age

(Estimated) Target Consumer Age (15-25 , 25-45, 45+)



A majority of the companies fall in the age category 25-45

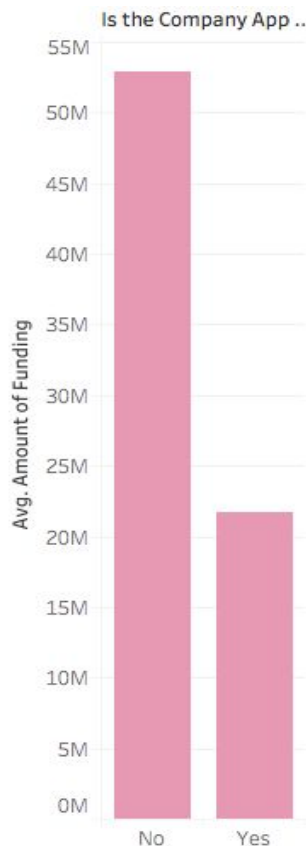
# Average Amount of Funding by Target Consumer Age



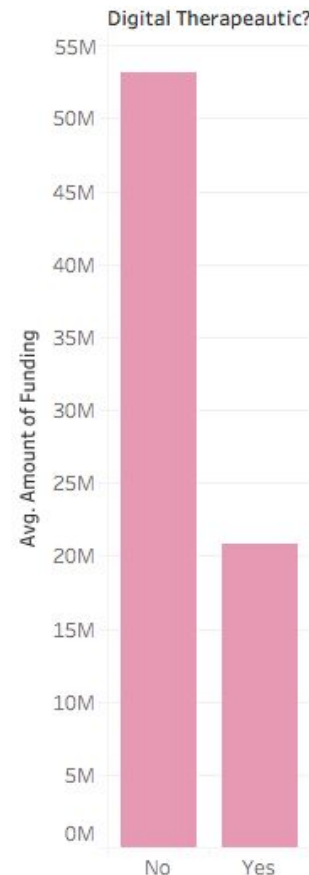
★ Companies that focus on the 25-45 year old age tend to be slightly larger in size



# Average Amount of Funding by App based/Digital Therapeutic



★ **Key Insight:** Those without an app and do not qualify as a digital therapeutic have, on average, higher amounts of funding.



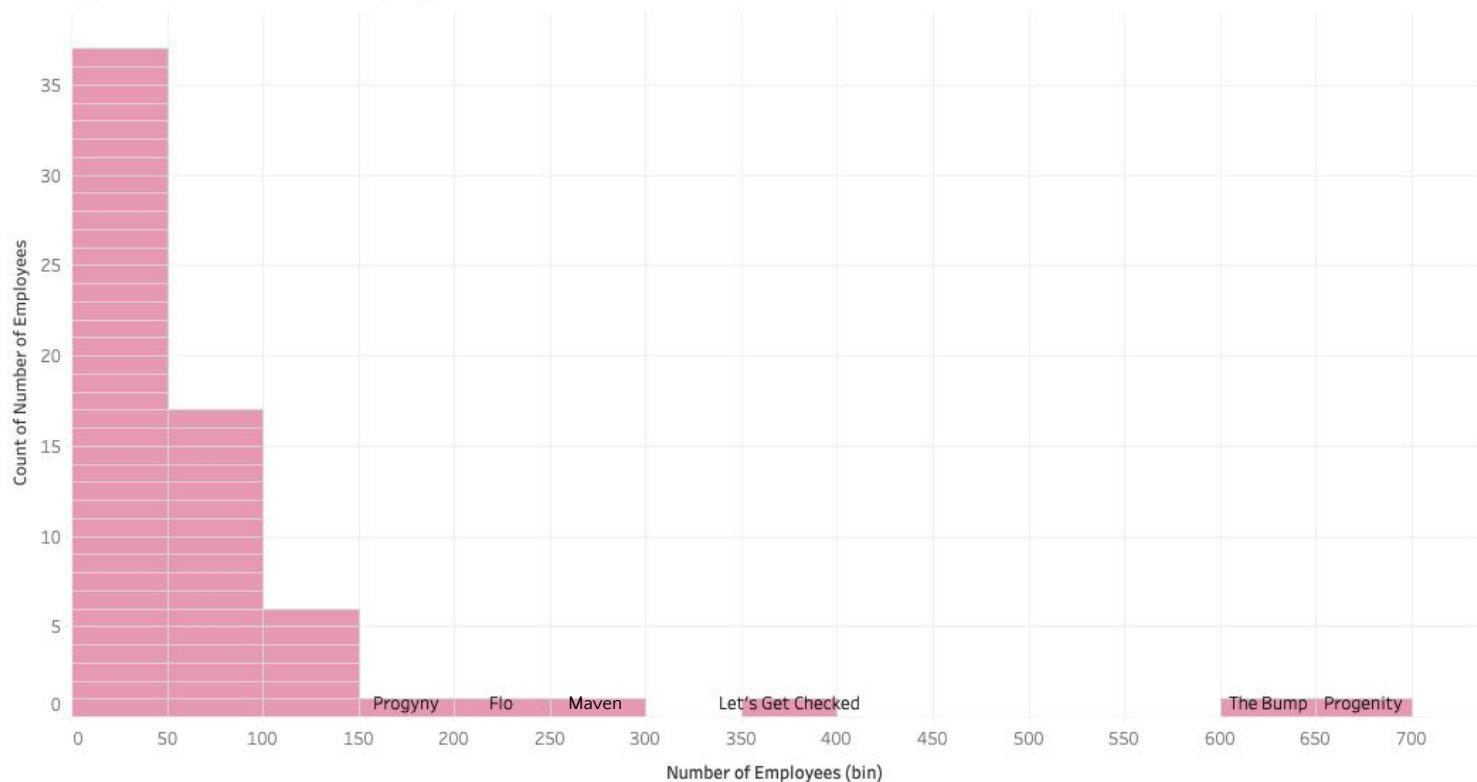


# Number of Employees

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# Histogram of Number of Employees

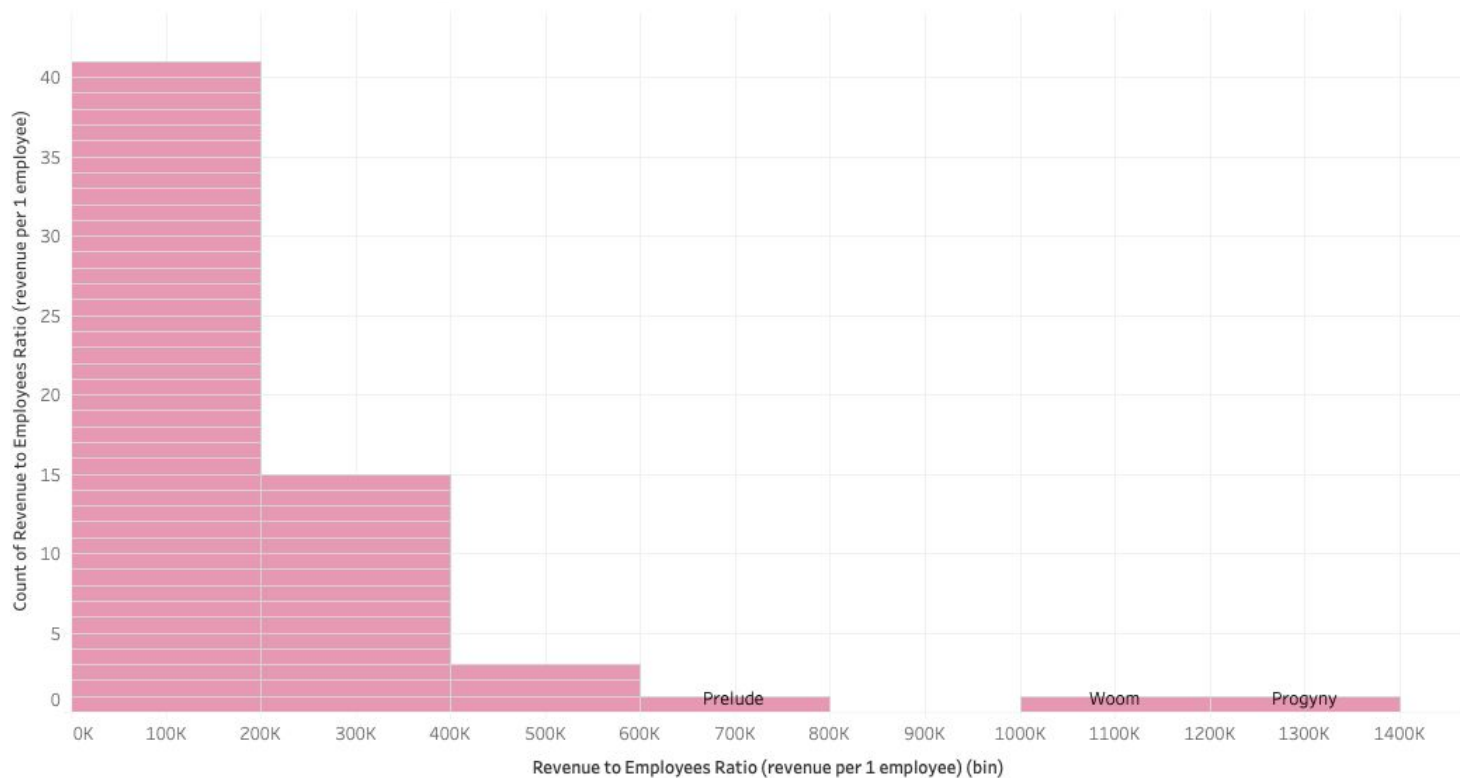
Histogram of Number of Employees



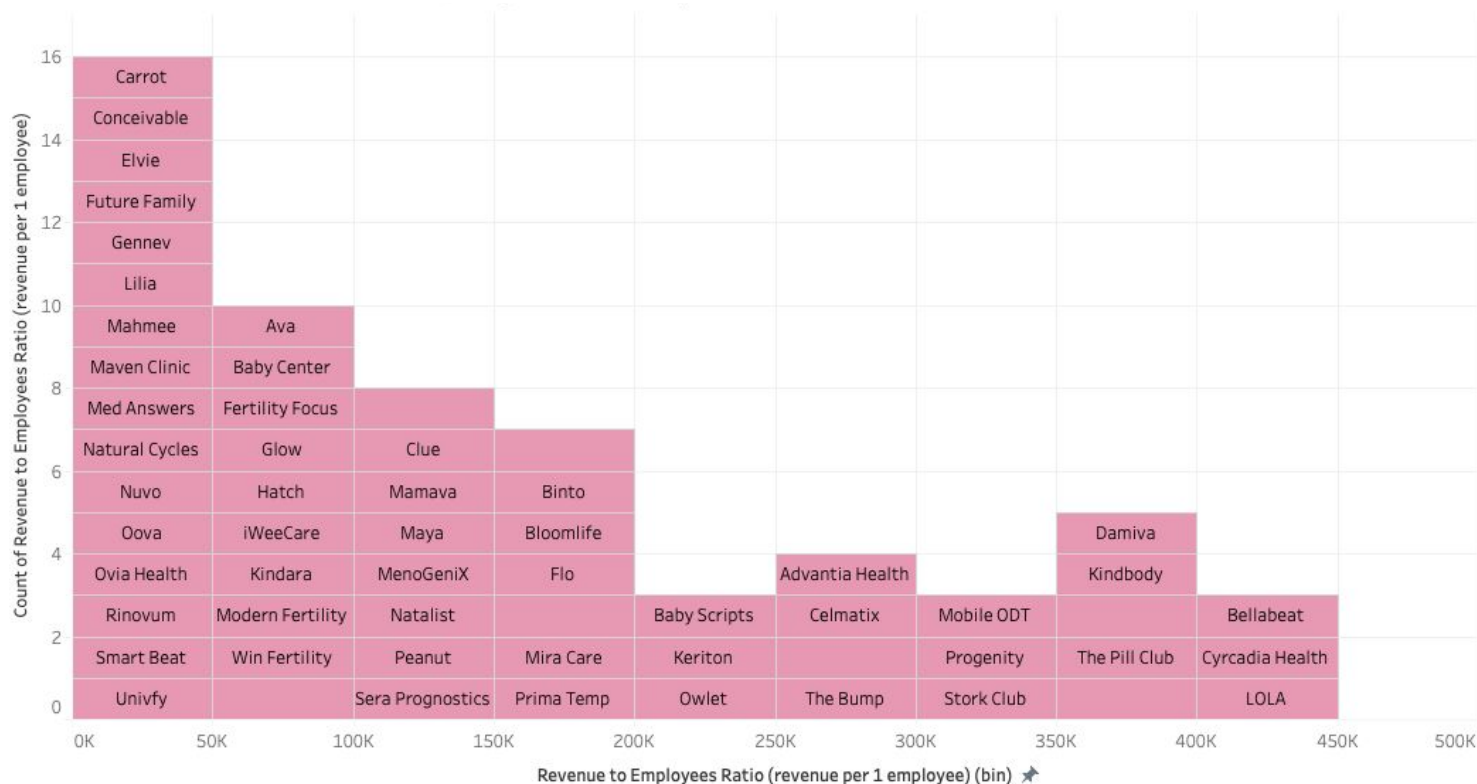
# Histogram of Number of Employees (Under 100)



# Histogram of Revenue Per Employee



# Histogram of Revenue Per Employee (Under \$500K)



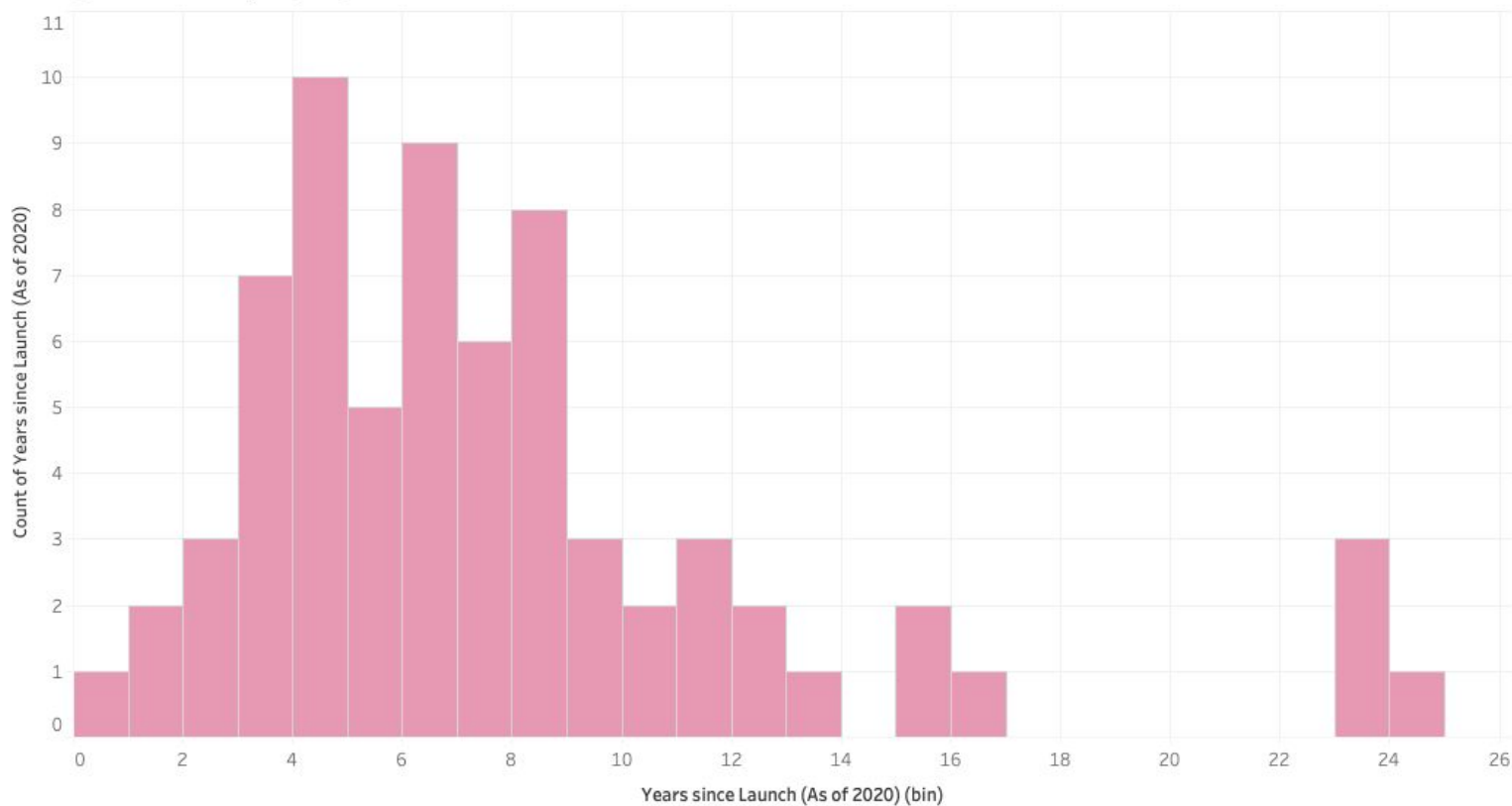




# Company Age

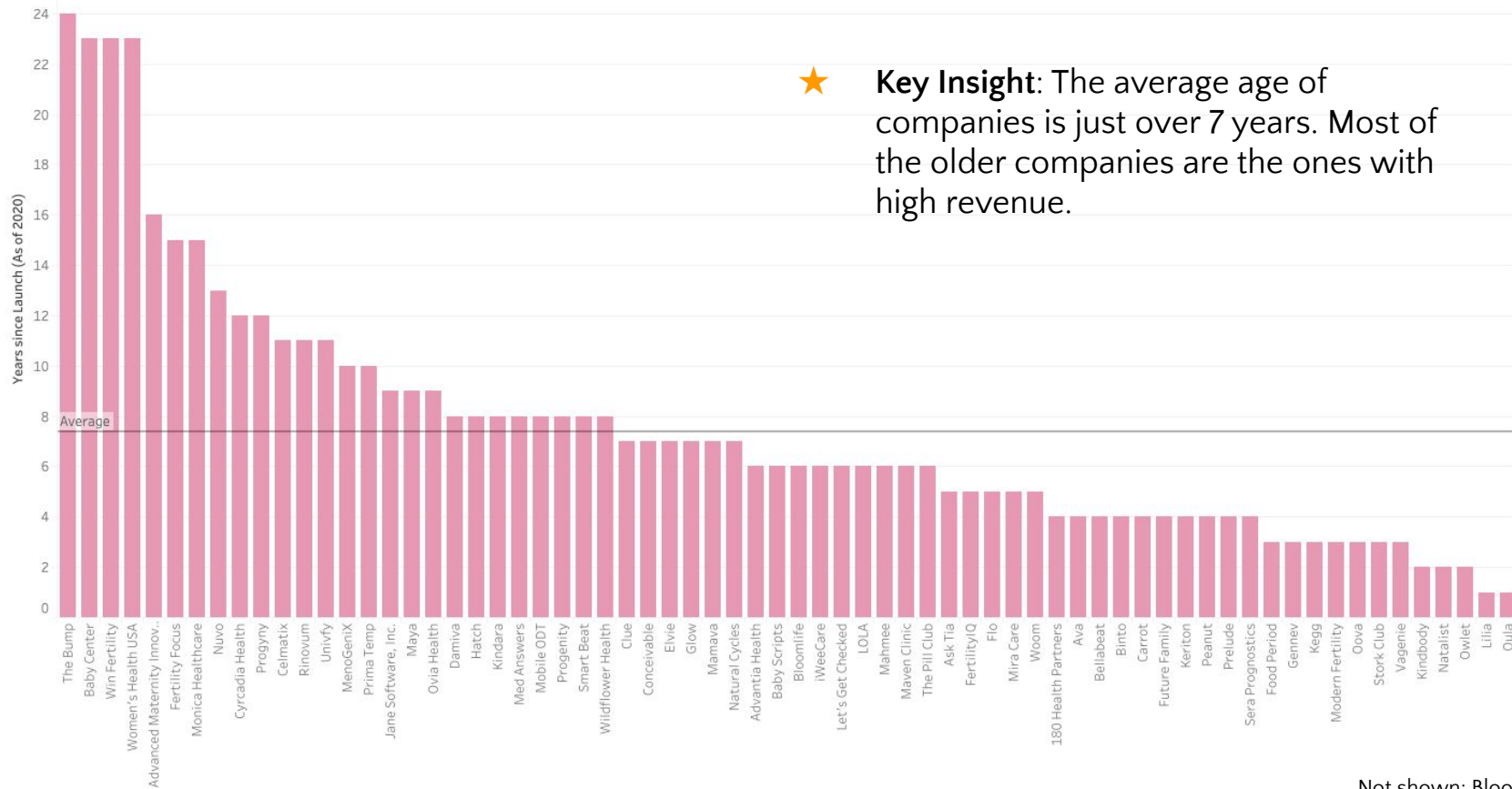
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# Histogram of Company Age in Years



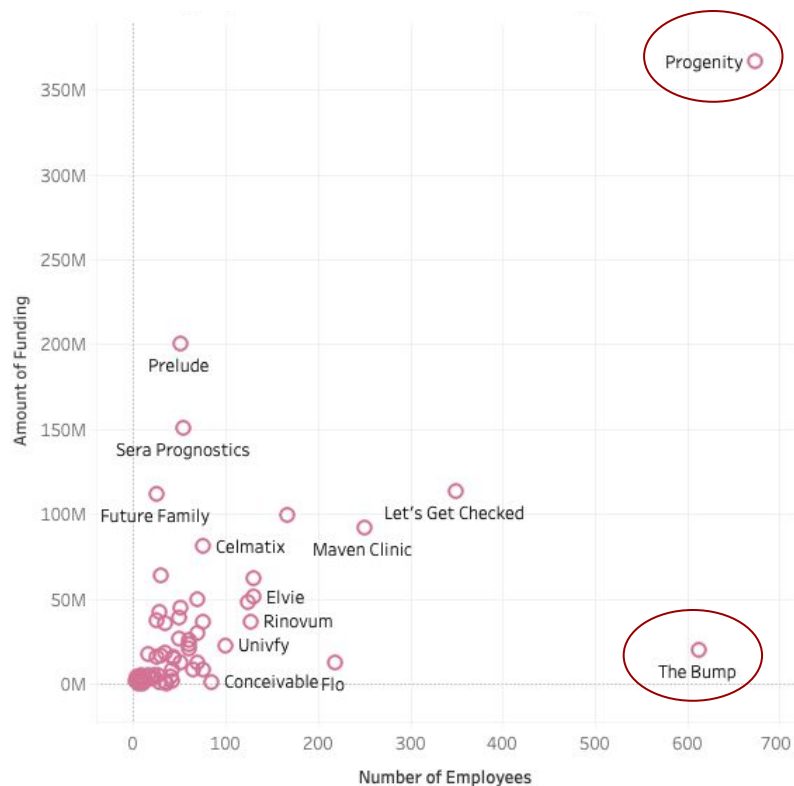


# Company Age



Not shown: Bloom (0)

# Number of Employees vs. Amount of Funding



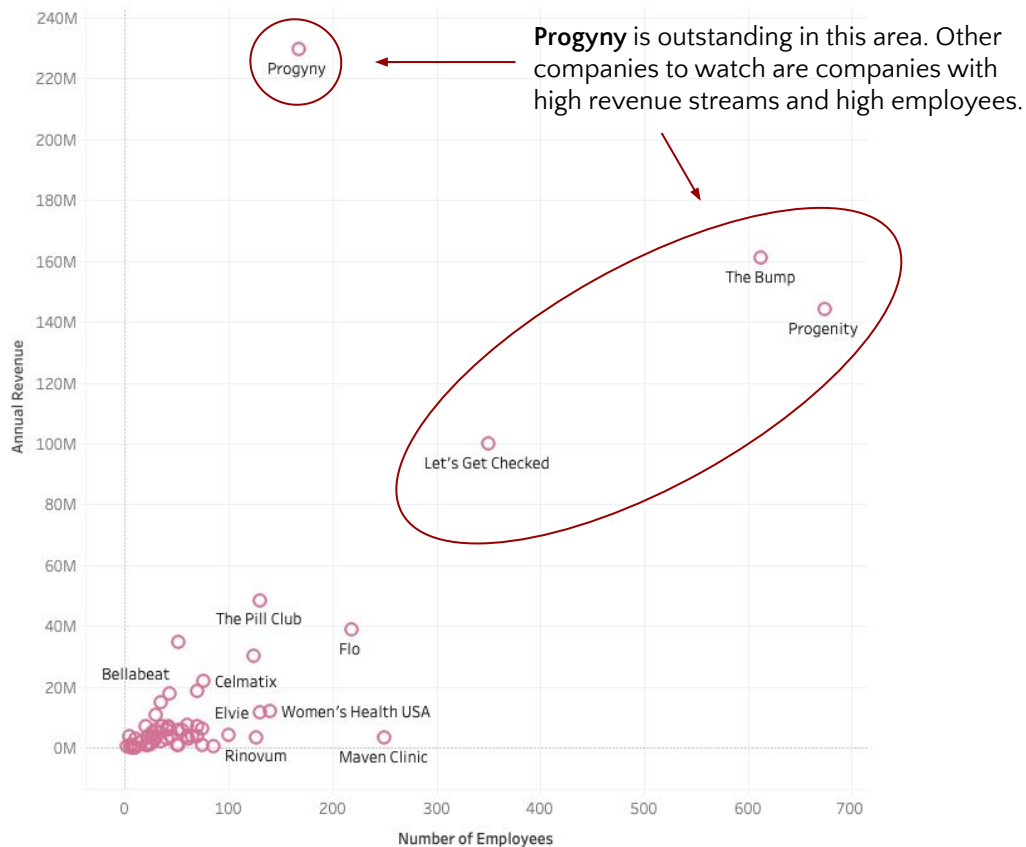
★ Companies to watch here are Progenity & The Bump



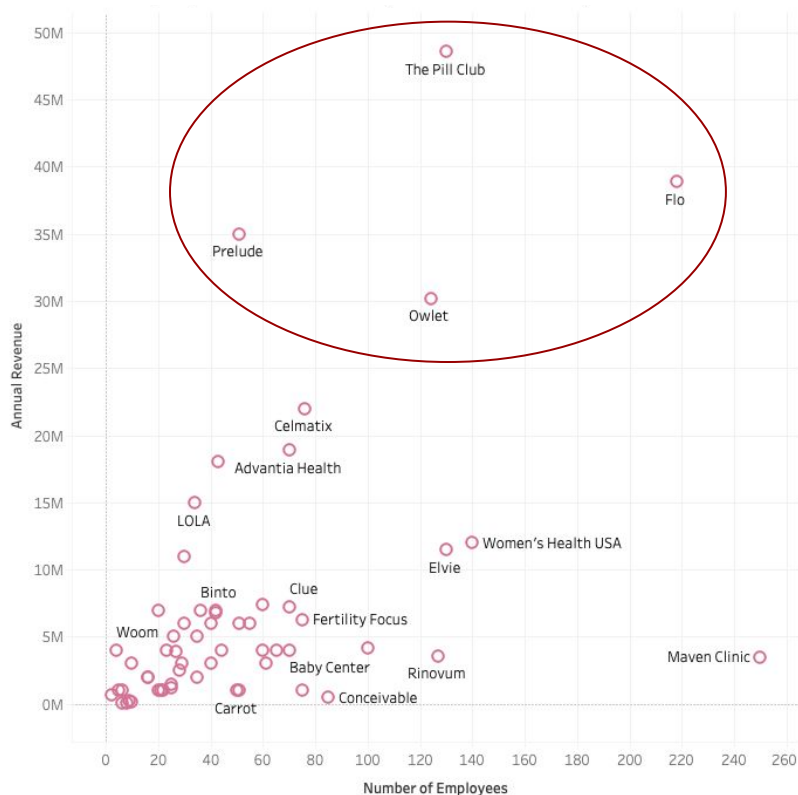
# Two Factor Analyses: VP's and Employees

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# Number of Employees vs. Annual Revenue

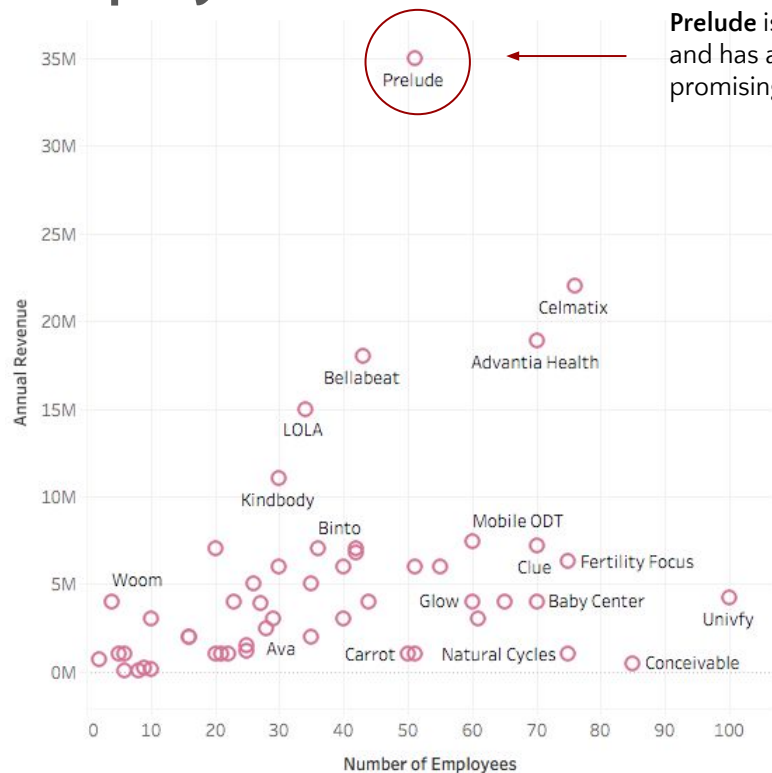


# Number of Employees vs. Annual Revenue (Outliers Removed)



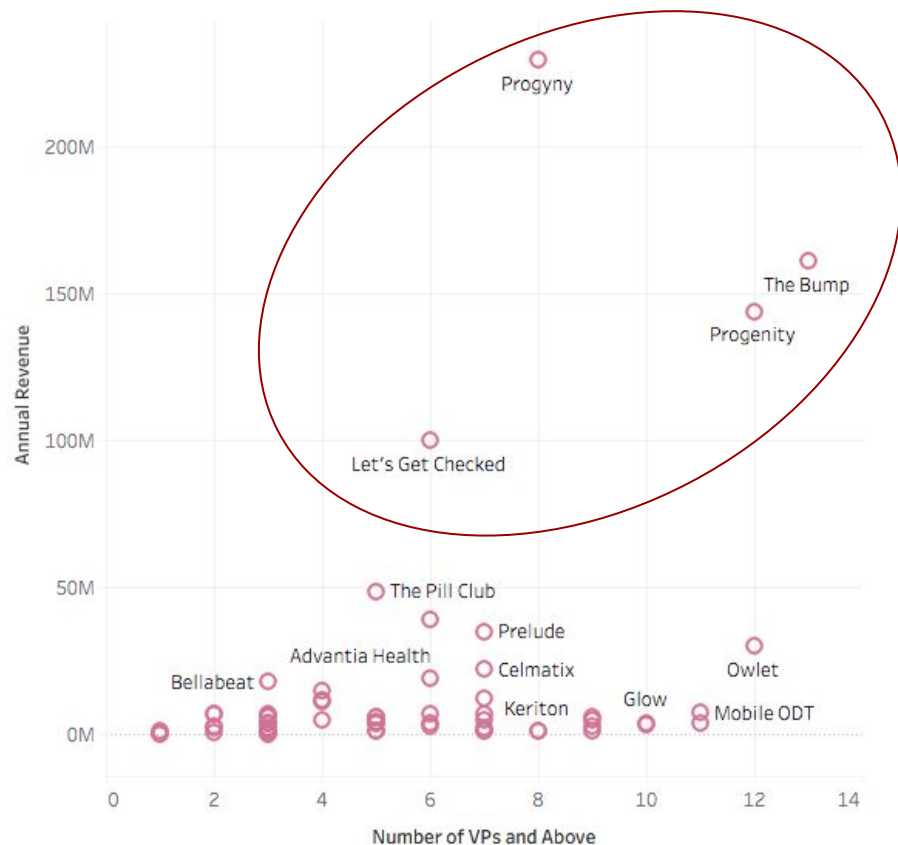
Outliers removed: The Bump, Progenity, Progyny, Let's Get Checked

# Number of Employees vs. Annual Revenue (Companies with <100 employees)

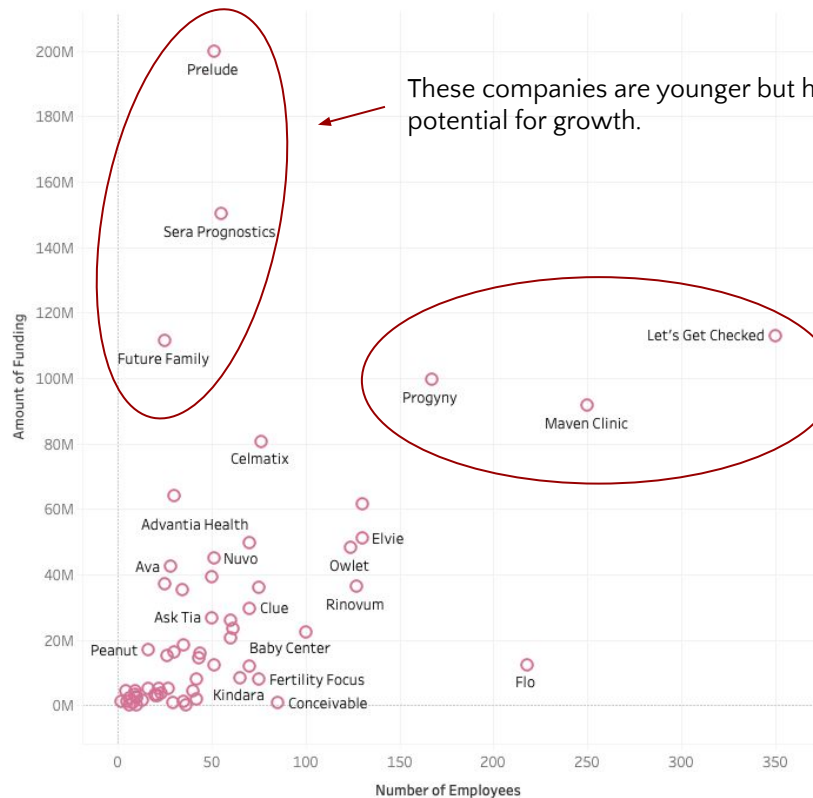


**Prelude** is a fairly new company (4 years) and has a high amount of funding with promising revenue streams.

# Number of VPs vs. Revenue



# Number of Employees vs. Amount of Funding (Outliers Removed)



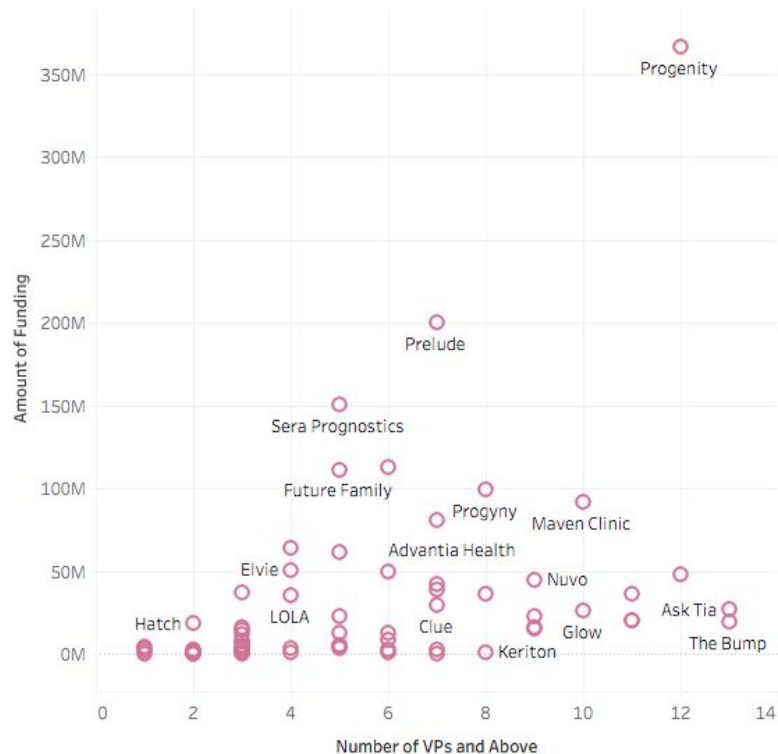
These companies are younger but have great potential for growth.

These are the companies that are established and have consistent revenue flows.

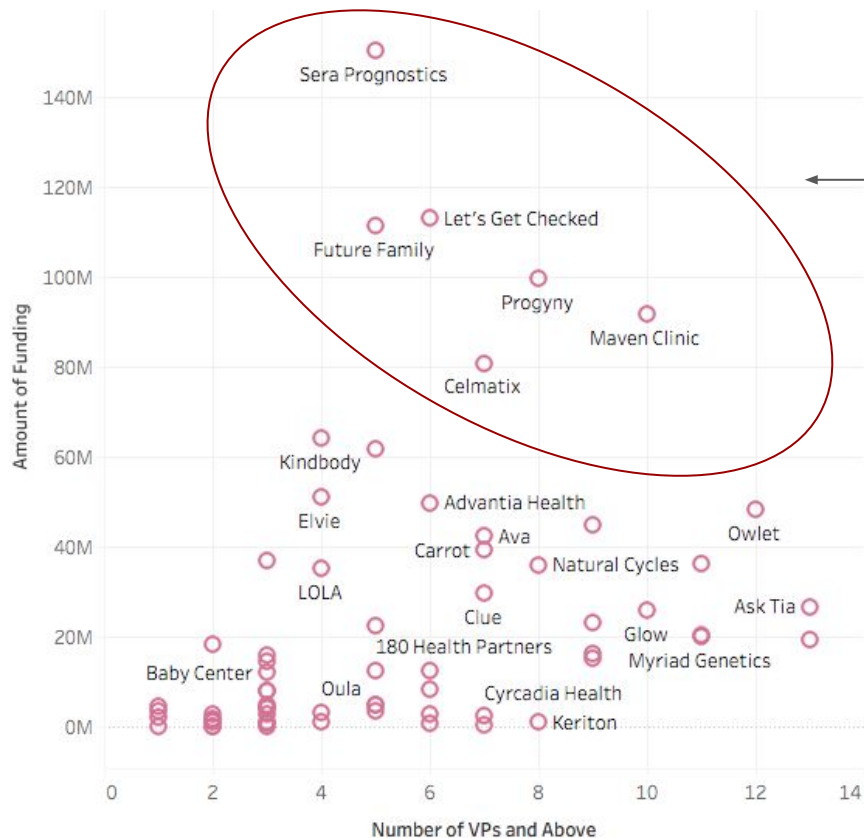
Outliers removed: The Bump, Progenity



# Number of VPs vs. Amount of Funding

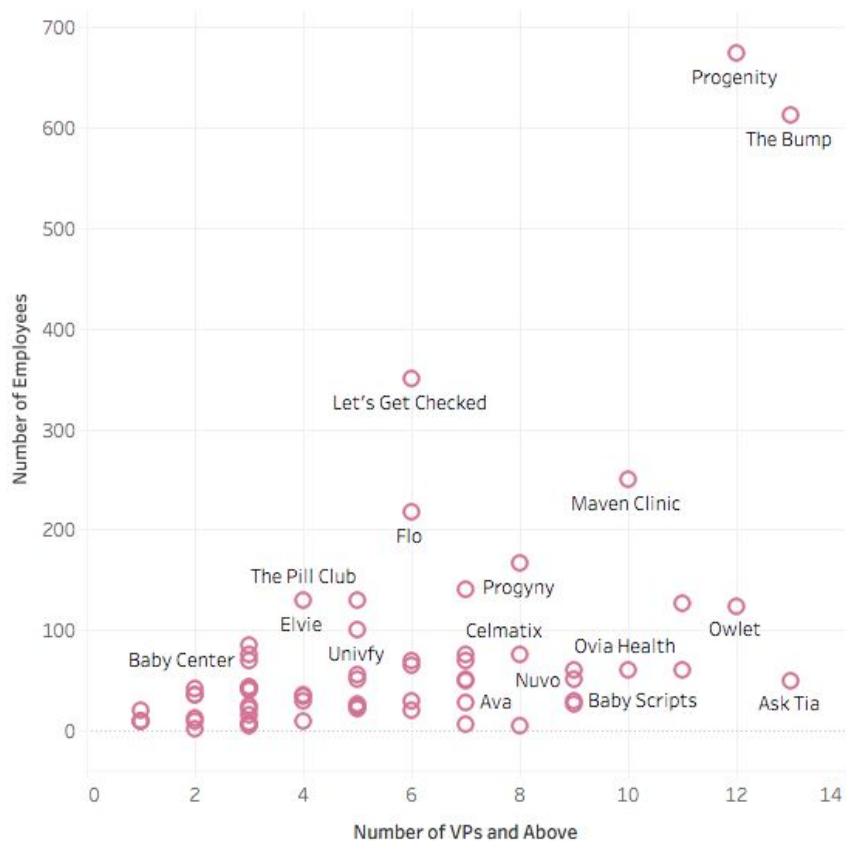


# Number of VPs vs. Amount of Funding (Outliers removed)

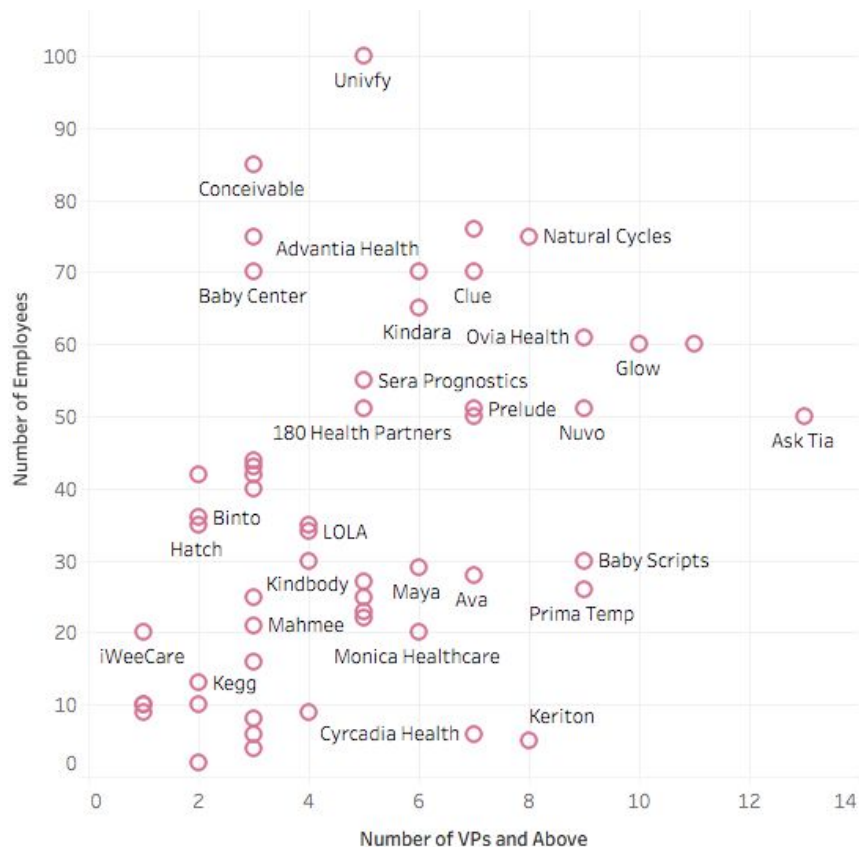


Outliers removed: Prelude & Progenity

# Number of VPs vs. Number of Employees

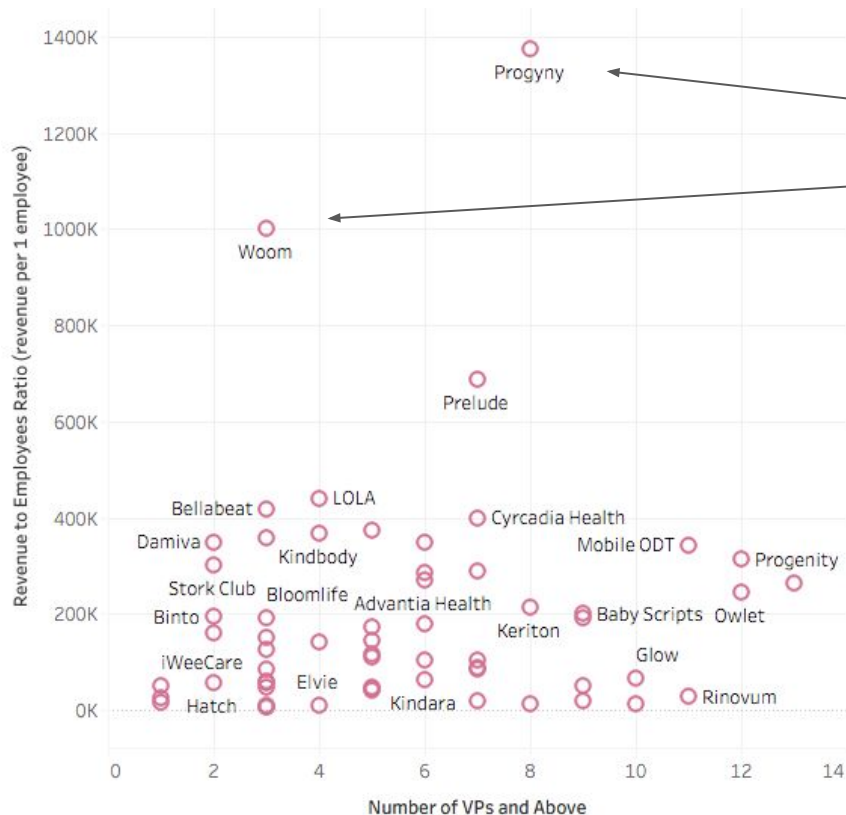


# Number of VPs vs. Number of Employees (<100 Employees)



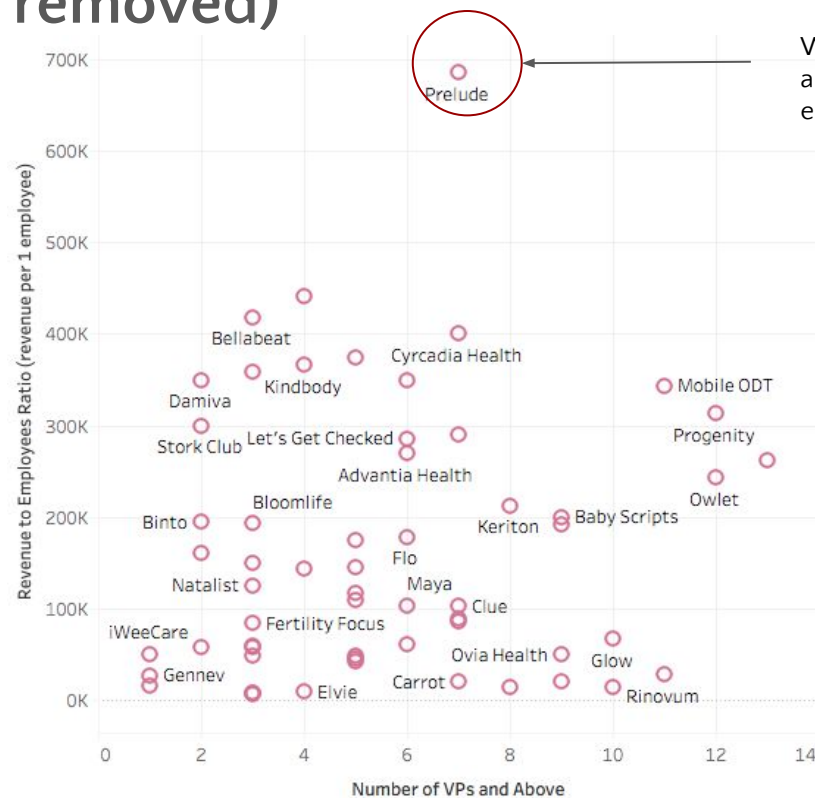
There is a general linear correlation between the number of employees and the number of VPs or above.

# Number of VPs vs. Average Revenue per Employee



**Progyny & Woom** average around or above \$1M in average revenue per employee with relatively small executive teams.

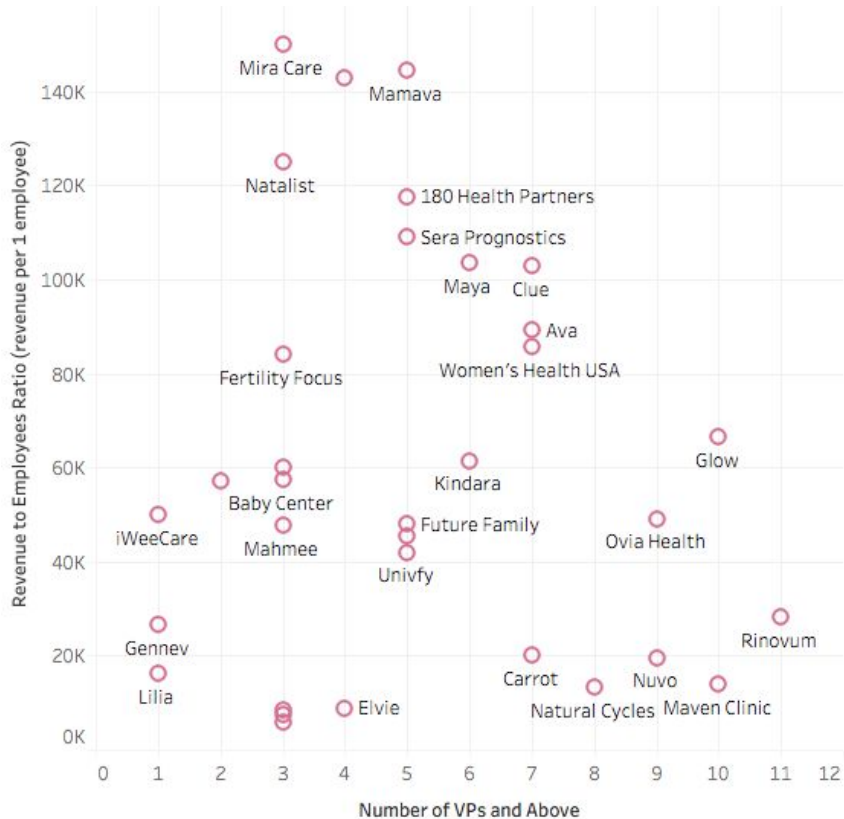
# Number of VPs vs. Average Revenue per Employee (Outliers removed)



Without other outliers, **Prelude** sticks out as a profitable company for executives and employees.

Outliers removed: Progyny & Woom

## Number of VPs vs. Average Revenue per Employee (<\$150K Revenue/Employee)





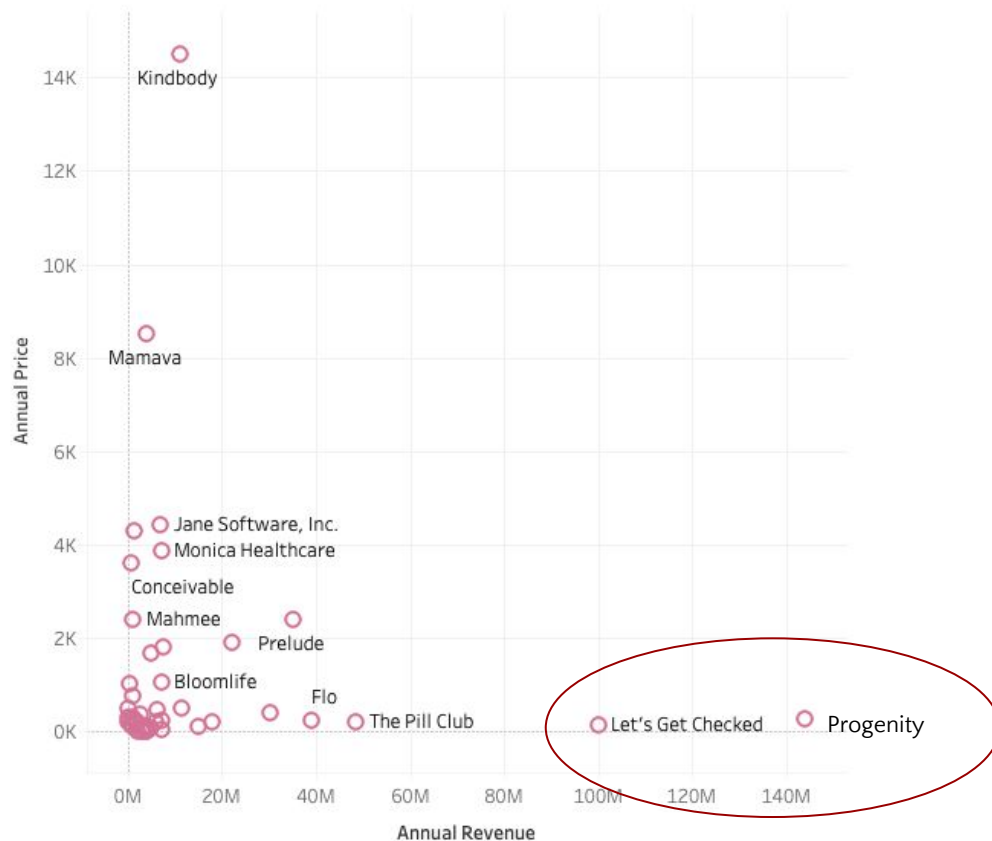


# Two Factor Analyses: Annual Price

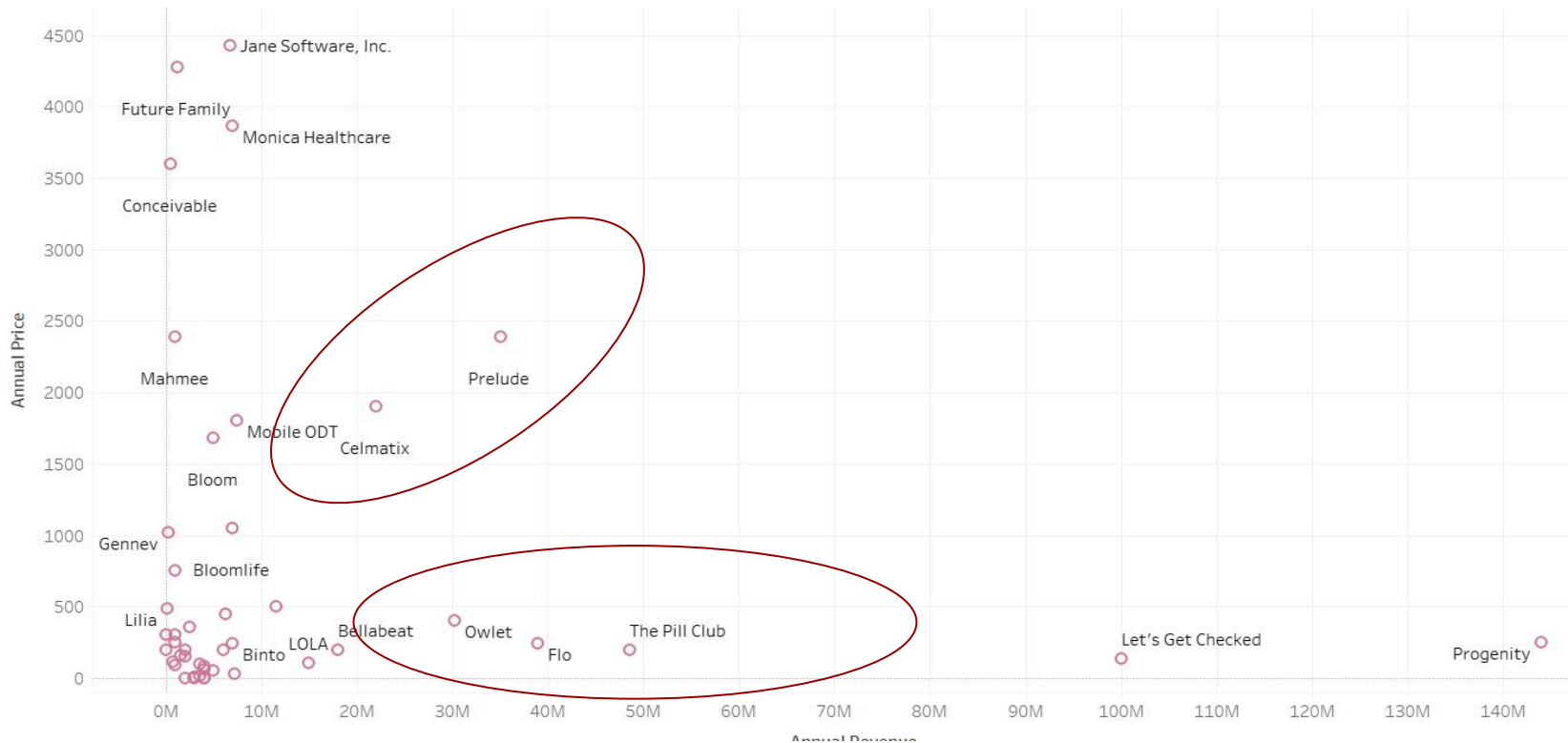
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# Annual Revenue vs. Annual Price



# Annual Revenue vs. Annual Price (Kindbody, Mamava, Excluded)



# Annual Revenue vs. Annual Price (Under \$500, Free Apps Excluded)

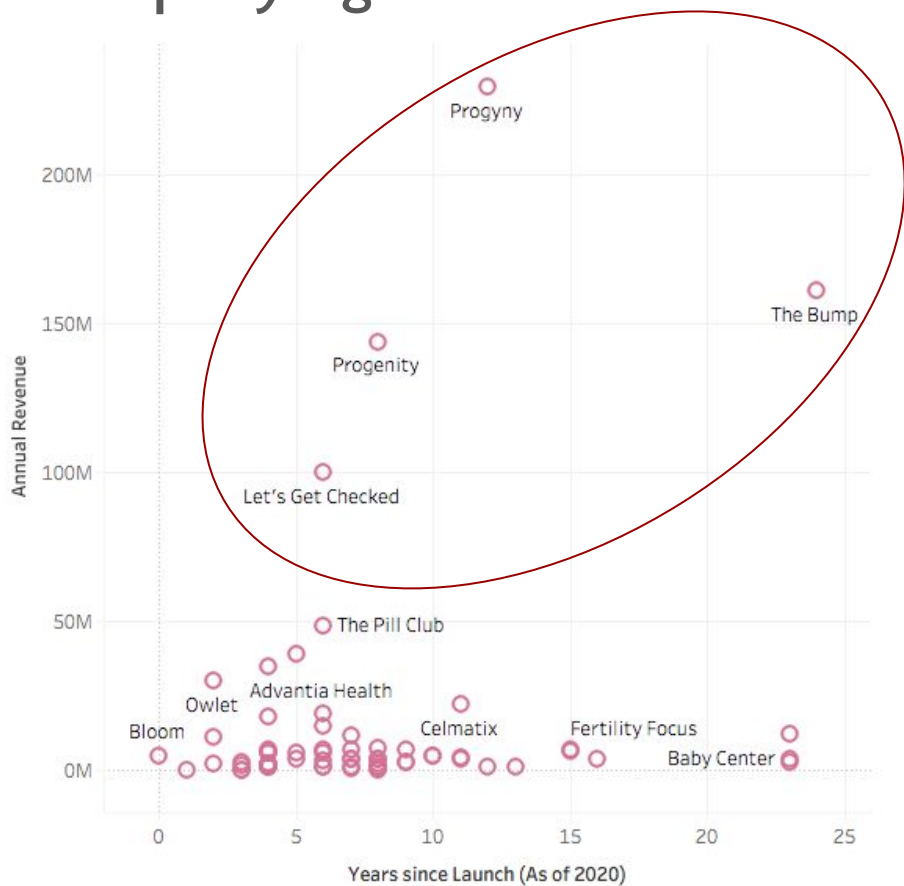




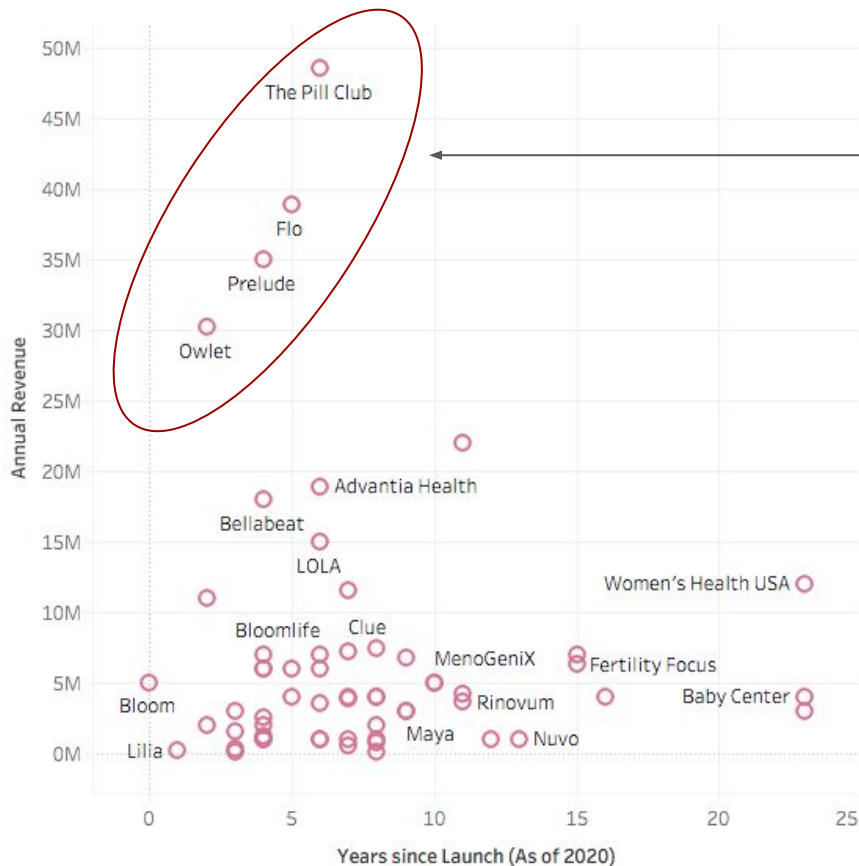
# Two Factor Analyses: Age

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# Company Age v. Annual Revenue



# Company Age v. Annual Revenue (Revenue <\$50M)



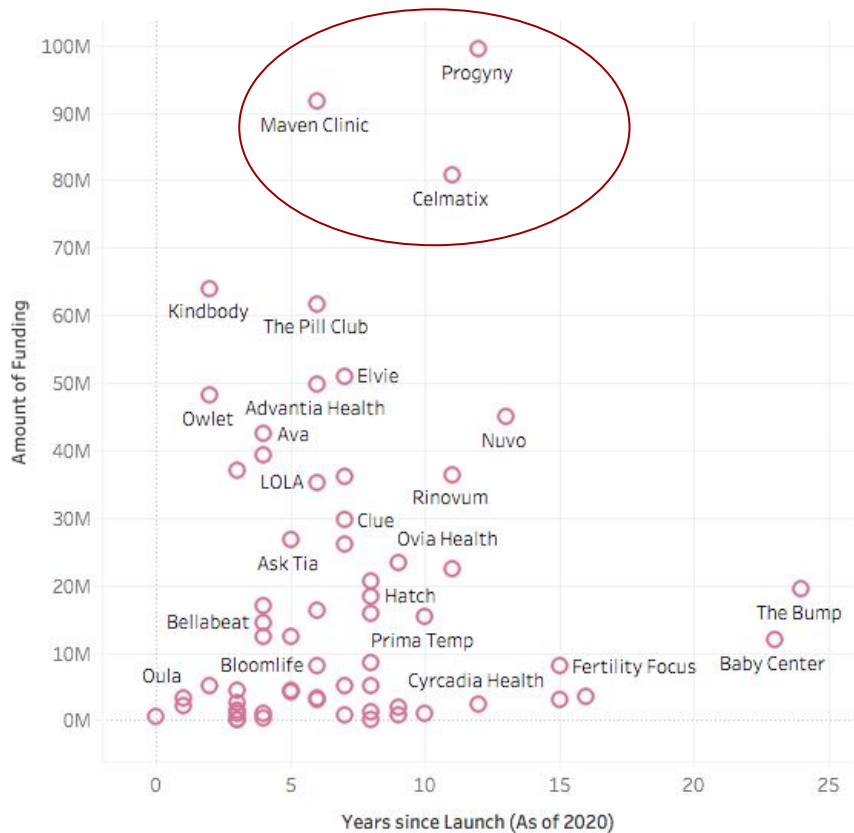
These are some of the mid-tier companies that should be closely followed. They have become profitable very quickly and will most likely continue to grow.

# Company Age v. Amount of Funding





# Company Age v. Amount of Funding (Funding <\$100M)



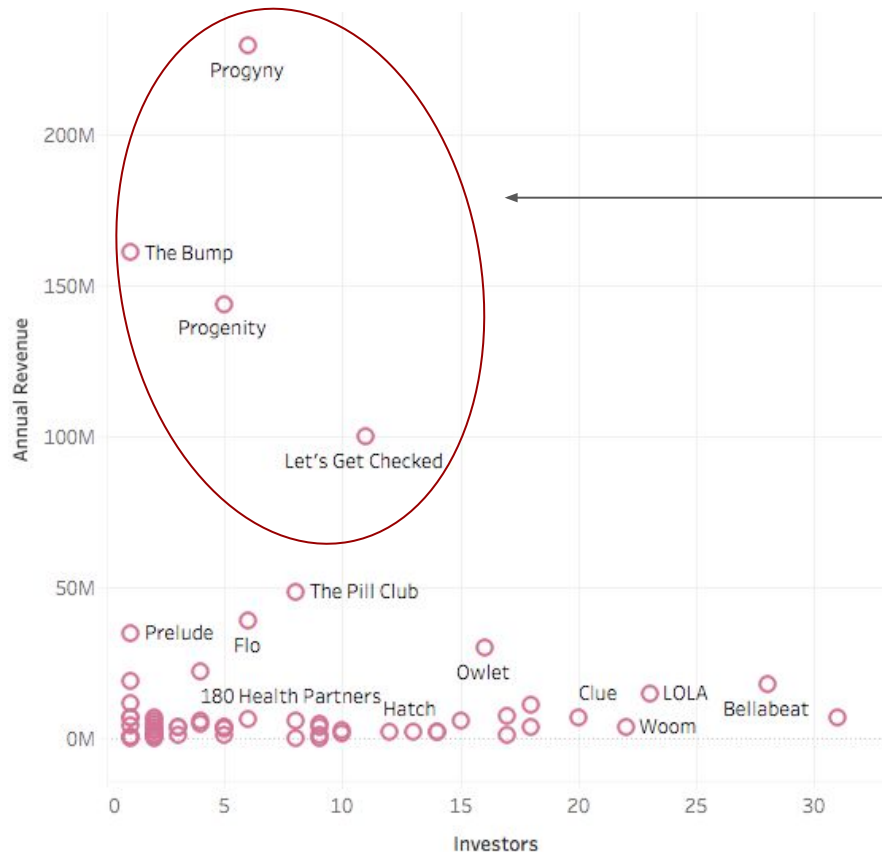




# Two Factor Analyses: Number of Investors

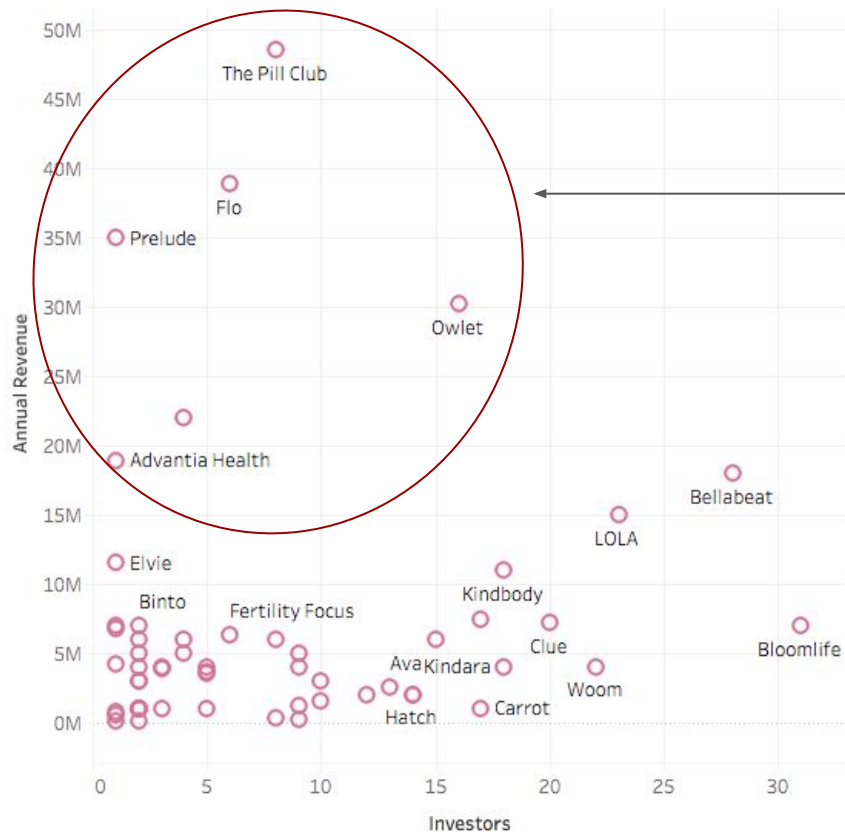
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# Number of Investors v. Revenue



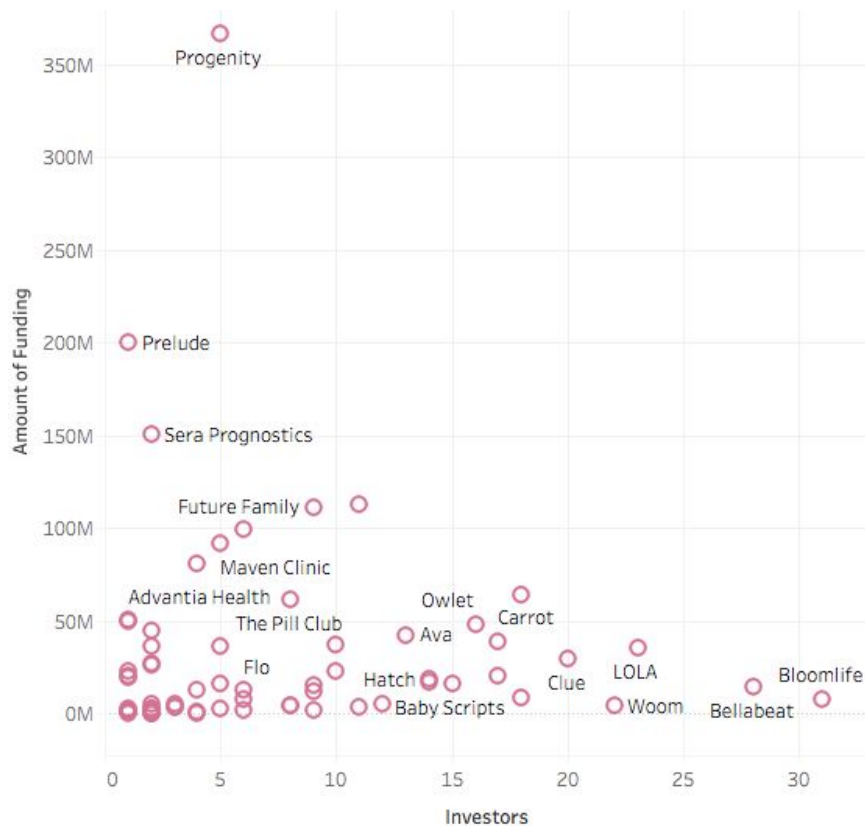
These are the most profitable companies for their investors. They know how to make their investors happy.

# Number of Investors v. Revenue (Revenue <\$50M)

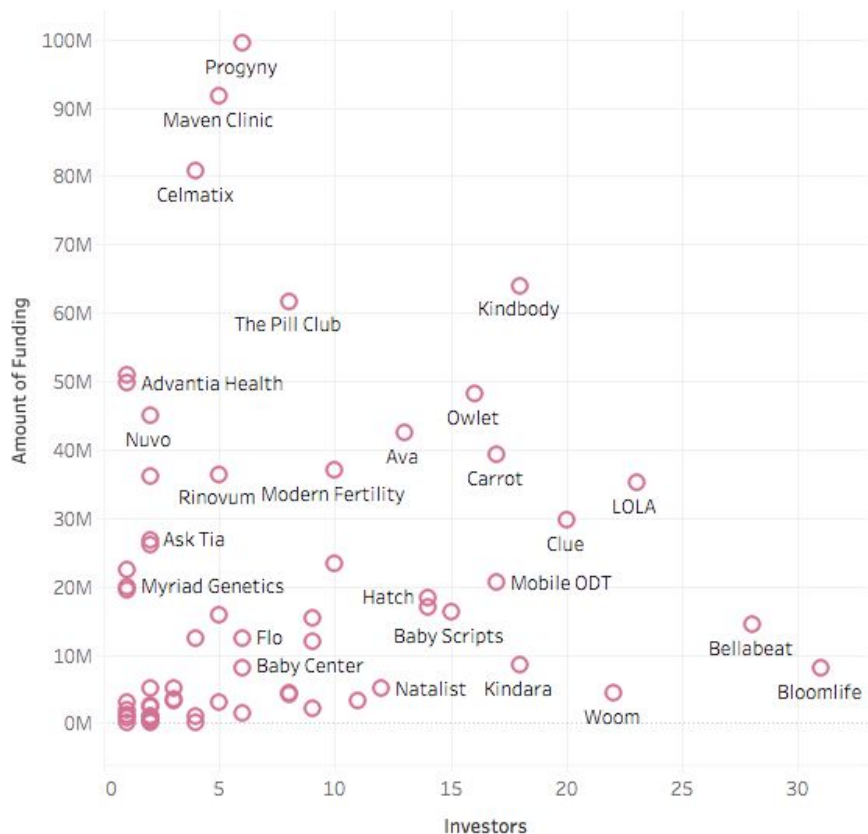


Again, these are some of the mid-tier companies that Happify should continue to watch.

# Number of Investors v. Amount of Funding



# Number of Investors v. Amount of Funding (Funding <\$100M)



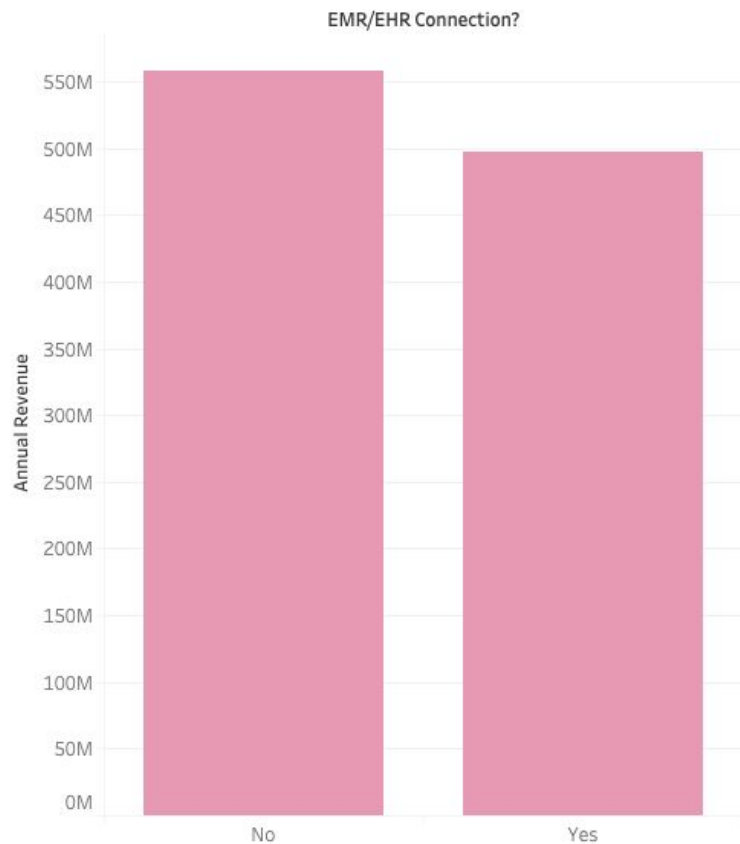




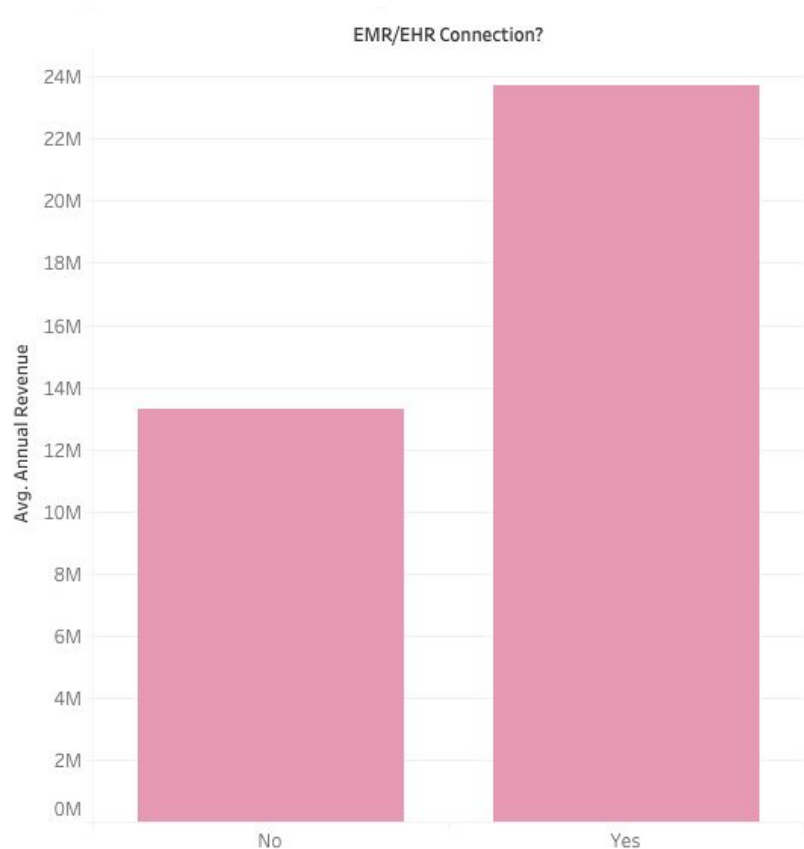
# Company Claims on EHR/EMR

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# Sum of Annual Revenue by EMR Connected Companies



# Average Annual Revenue by EMR Connected Companies



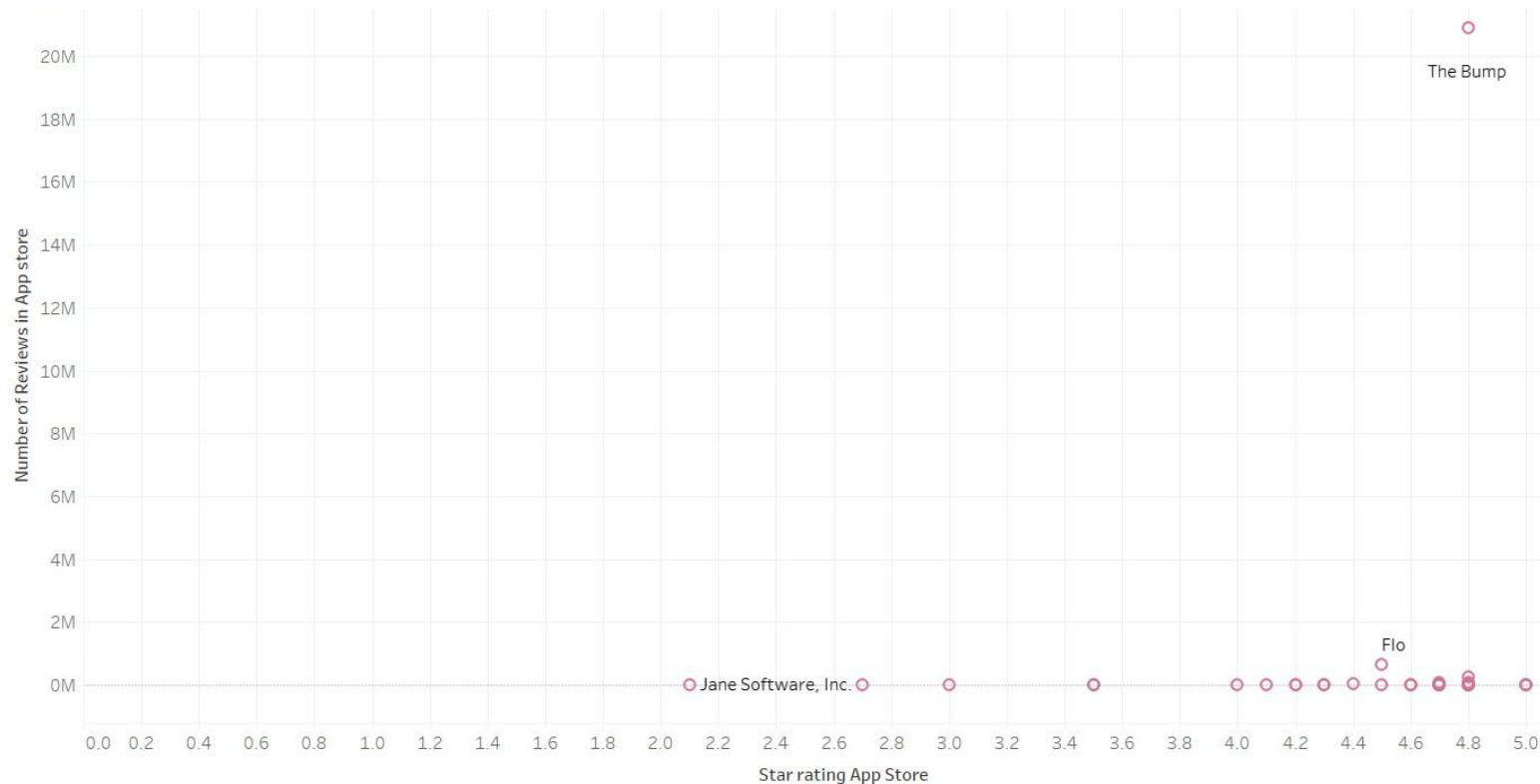




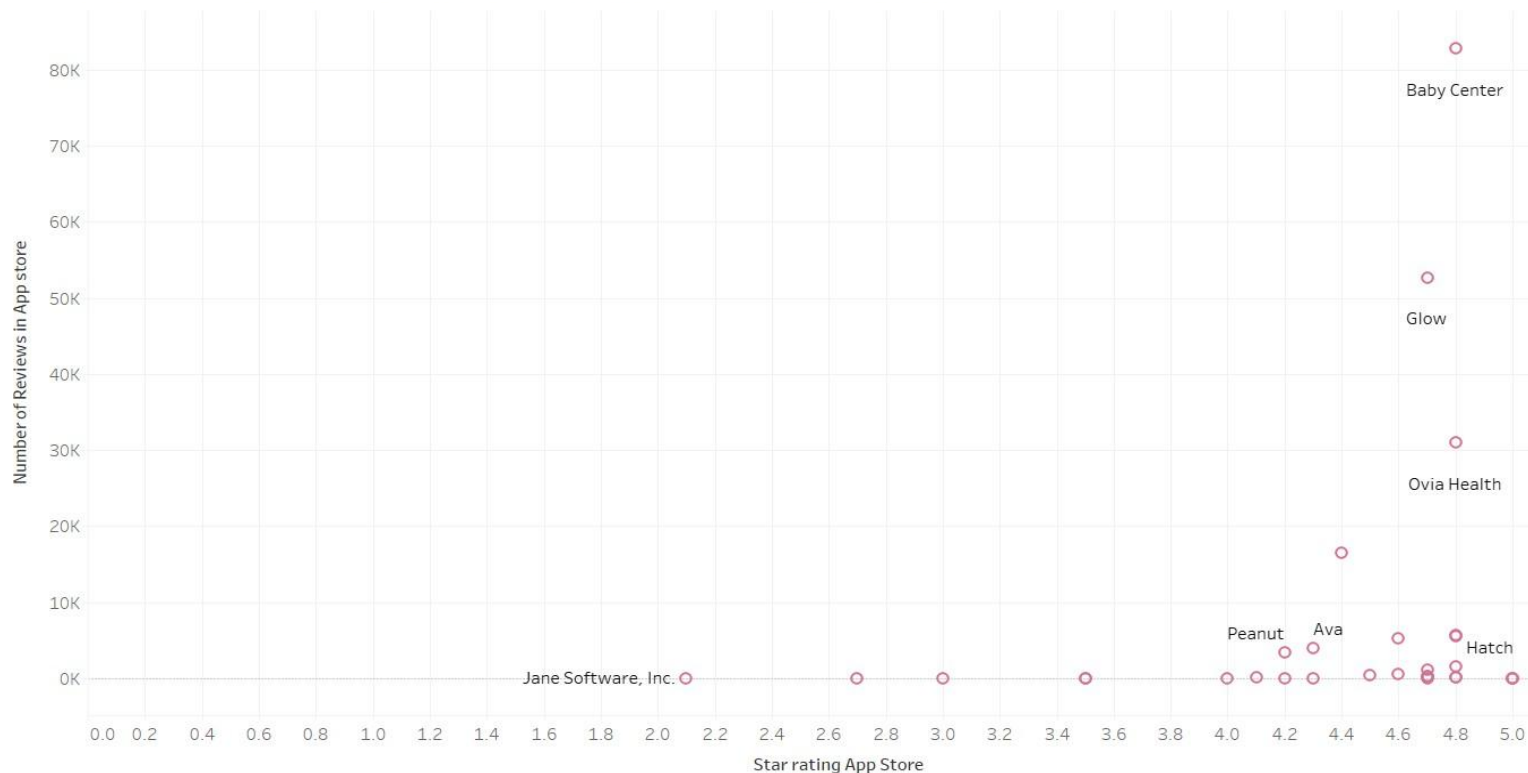
# Ratings and Downloads

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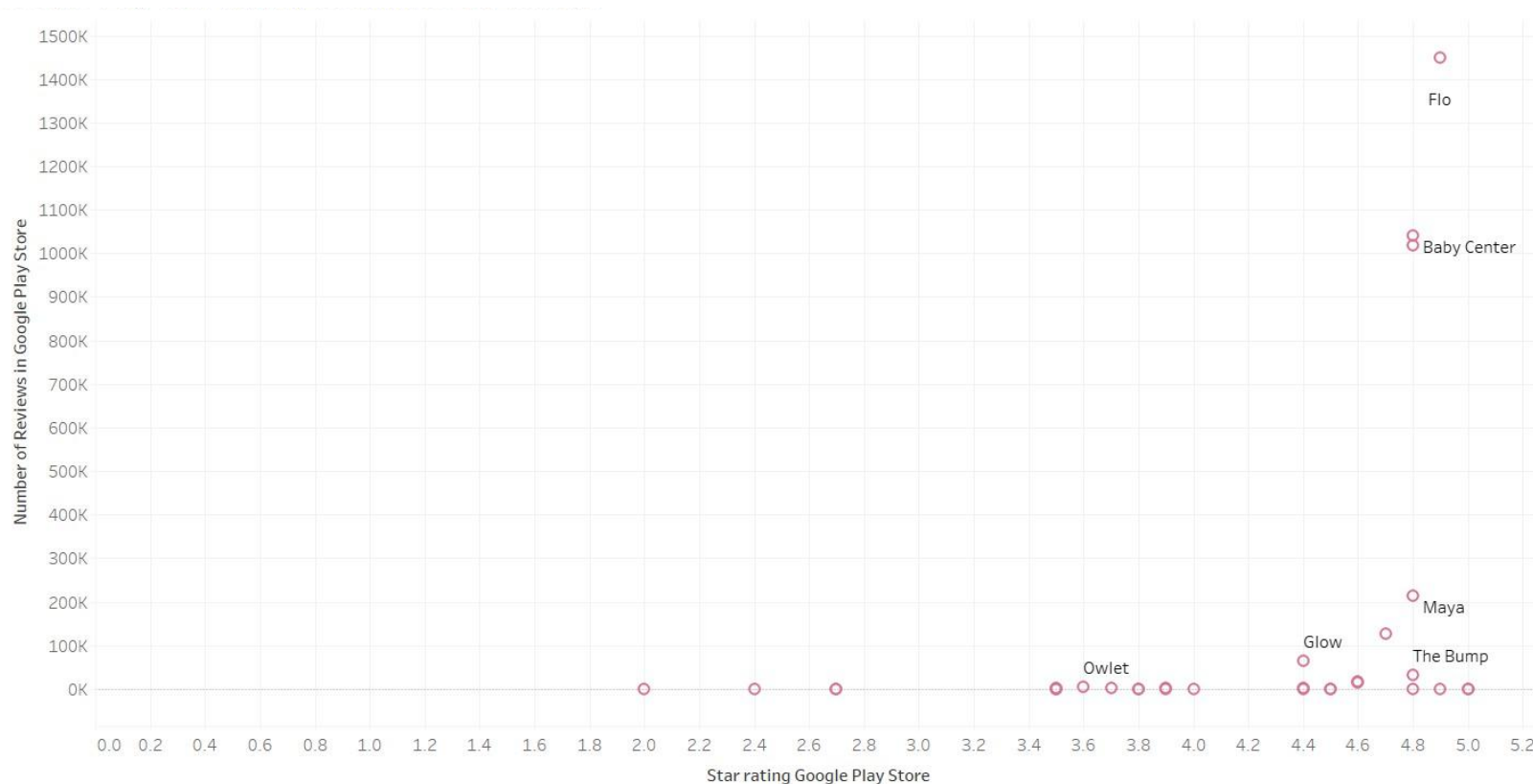
# Apple App Store Star Rating vs. Number of Reviews



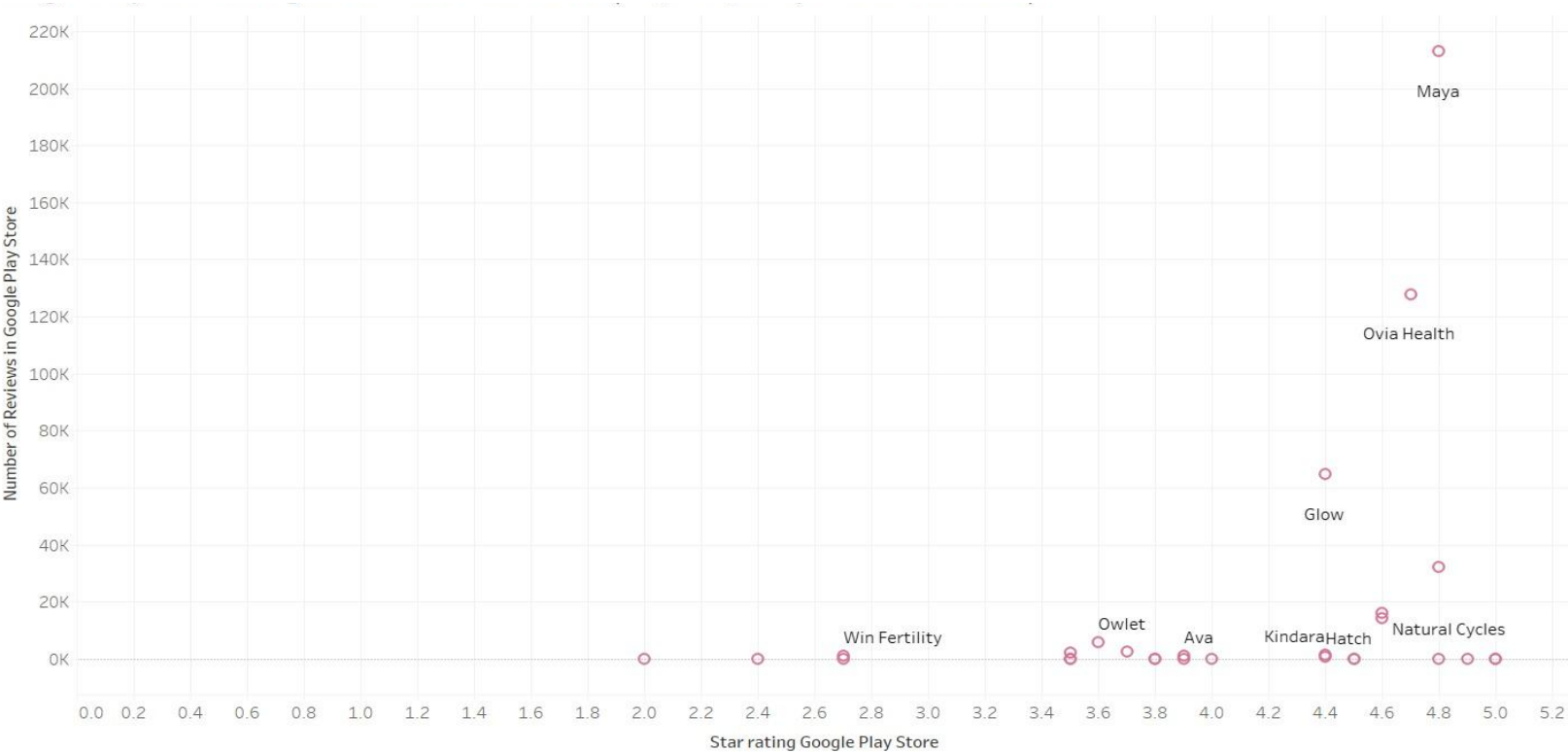
# Apple App Store Star Rating vs. Number of Reviews (The Bump, Flo, Clue Excluded)



# Google Play Star Rating vs. Number of Reviews



# Google Play Star Rating vs. Number of Reviews (Flo, Clue, Baby Center Excluded)







# Review of Conclusions

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# Key Insights, Conclusions & Recommendations

- The industry is growing extensively world-wide. Out of those companies with a US market presence, 33.8% have offices located in California, 11.3% in New York, and 19.7% are based outside the United States.
- 63% of the 71 companies are between 3–9 years in age since 2020. In the last decade, 76% of the 71 companies began.
- In year 2020, the 71 companies on average have an age of 7.73.
- Empirically-observed, older companies (10+) tend to not be directly focused on the FemTech market. Meaning, they have a product line devoted to it, but not their full product mix. Newer companies heavily concentrate on directing all of their services and products towards the FemTech market.
- Overall average revenue
  - The average revenue for companies classified as Fertility/Family Planning solutions is 18% higher than Family Care/Post-Natal Care solutions (which captures an average of 28% of annual revenue).
- TOTAL REVENUE: Based on the 71 companies, Fertility/Family Planning solutions dominate the revenue streams in the FemTech industry. Out of the total revenue generated by the 71 companies, Fertility/Family Planning solutions capture 64% (Family Care/Post-Natal Care solutions have 21%, General Women's Health solutions have 12%, Pregnancy solutions have 2.5%, and Menopause solutions have 0.5%.
- Those companies that do not have an app and do not qualify as a digital therapeutic have higher average annual revenues and average amounts of funding. Thus, being app-based and/or a digital therapeutic company does not add to annual revenue or amounts of funding.
- Companies that specifically cater to mental health needs are very
- Femtech industry will become a \$25 billion industry by year 2025 (Forbes).

# Key Insights, Conclusions & Recommendations

- **Top-tier companies** to watch for: Progyny, Progenity, Prelude, Let's Get Checked, The Bump, Sera Prognostics
  - These companies are in the ~\$100M category of either revenue or funding
  - These companies have been around for some time and have proven profitable
- **Mid-tier companies** to watch for: Flo, The Pill Club, Owlet, Woom, Advantia Health, Celmatix
  - These companies are in the mid-to-high tens of millions range in either funding or revenue
  - These companies have not been around for long. They are usually <10 year old
  - These companies are the most likely to become more profitable in the near future
- **Low-tier companies:** Almost all remaining companies
  - These companies are in their infant years
  - They have minimal funding and minimal revenue