



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

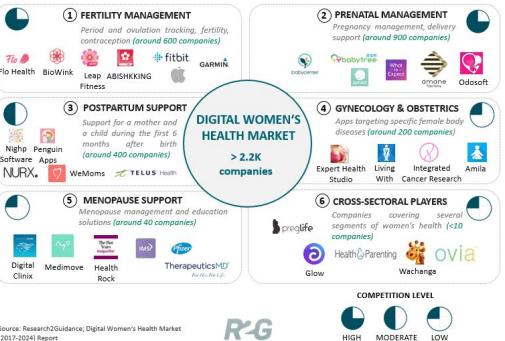
FEMTECH MARKET MAP



Womens Health Startups - Companies

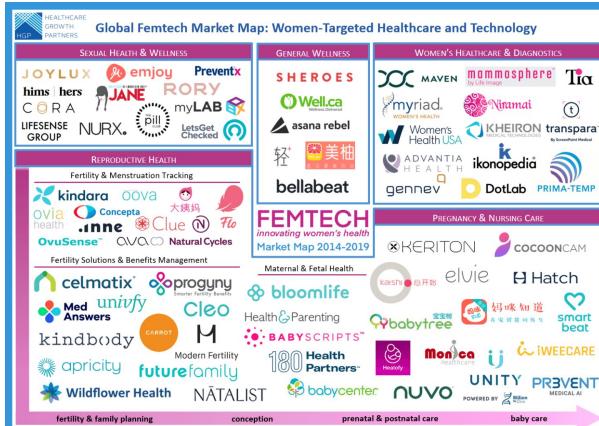


COMPETITION LEVELS IN THE DIGITAL WOMEN'S HEALTH MARKET



= 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:
Key Partners Who are our key partners? Who are our key suppliers? Which key resources are we acquiring from partners? Which key activities do partners perform? MOTIVATIONS FOR PARTNERSHIPS Diversification Reduction of risk and uncertainty Activation of particular resources and activities	Key Activities What key activities do our value propositions require? Our distribution channels? Customer relationships? Revenue streams? CATEGORIES Planning Problem Solving Performance	Value Propositions What value do we deliver to the customer? Which one of our customer's problems are we helping to solve? What kind of products and services are we offering to each customer segment? Which customer needs are we satisfying? CHARACTERISTICS Innovation Performance Customer "Getting the job done" Design Brand/Status Price Cost Reduction Risk Reduction Accessibility Government/Regulatory	Customer Relationships What type of relationship does each of our customer segments expect us to establish and maintain with them? Who are our most loyal customers? How are they integrated with the rest of our business model? How costly are they? EXAMPLES Personal assistance Self-service assistance Self-service Agent services Communities Co-creation	Customer Segments For whom are we creating value? Who are our most important customers? Most Market Niche Market Diversified Multi-sided Platform	
Key Resources What key resources do our value propositions require? Our distribution channels? Customer relationships? Revenue streams? TYPE OF RESOURCES Physical Intellectual (brand patents, copyrights, data) Human Financial	Channels Through which channels do our customer segments receive value? How are we reaching them now? How are our channels integrated? What are the costs? Which ones are most cost-efficient? How are we integrating them with customer routines? CHANNEL PHASES 1. How do we raise awareness about our company's products and services? 2. How do we help customers evaluate our organization's value proposition? 3. Purchase 4. Delivery or allow customers to purchase specific products and services? 5. After sales 6. How do we provide post-purchase customer support?				
Cost Structure What are the most important cost drivers in our business model? Which key resources are most expensive? Which key activities are most expensive? IN YOUR BUSINESS MODEL Cost drivers (shared cost structure, low price value proposition, maximum automation, extensive outsourcing) Fixed costs (salaries, rents, utilities) Variable costs (raw materials, value creation, premium value proposition) SAMPLE CHARACTERISTICS Fixed Costs (Salaries, Rents, Utilities) Variable Costs (Raw Materials, Value Creation) Economies of Scale Economies of Scope	Revenue Streams What real value are our customers really willing to pay? For what are they willing to pay? How are they currently paying? How would they prefer to pay? How much does each revenue stream contribute to overall revenues? TYPES Goods sale Usage fee Subscriptions Licensing/Renting/Lessing Co-creation Beverage fees Advertising	PRICE PRICING Lump sum dependent Product price dependent Customer segment dependent Volume dependent	Dynamic Pricing Intermediary Bargaining Yield Management Real-time Market		

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

Each canvas is separated into key segments of the business.

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

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

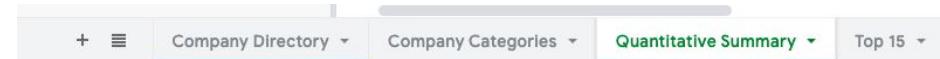
A	Directory
1	180 Health Partners
2	Advanced Maternity Innovations
3	Advantia Health
4	Ask Tia
5	Ava
6	Baby Center
7	Baby Scripts
8	Bellabeat
9	Binto
10	Bloom
11	Bloomlife
12	Carrot
13	Celmanix
14	Clue
15	Conceivable
16	Cycadia Health
17	Damiva
18	Elvie
19	Fertility Focus
20	FertilityIQ
21	Flo
22	Food Period
23	
	Company Directory
	Bin

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
- Celsatix
- Unify
- Progyny
- Ovia Health
- Pill Club
- Fertility Focus
- Modern Fertility
- Carrot
- Natalist
- WinFertility
- Kegg
- Conceivable
- Natural Cycles
- Kindbody
- Future Family
- Progenity
- Cycadia Health
- Kindara
- Ava
- Flo
- Oova
- Let's Get Checked
- Med Answers
- FertilityIQ
- Mira
- Stork Club
- Woom Fertility

Family/Postnatal Care

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

Menopause

- MenoGeniX
- Gennev

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

Pregnancy

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

31 total, 43.7%

11 total, 15.5%

2 total, 2.8%

21 total, 29.6%

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
- Cycadia 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.

We classified companies based upon health market

DTC	Payer	Provider	Employer	Pharma
<ul style="list-style-type: none"> Ava Baby Center Baby Scripts Bellabeat Binto Bloom Bloomlife Clue Conceivable Cycadia Health Damiva Elvie Fertility Focus FertilityIQ Flo Food Period Future Family Gennev Glow GoodStart Genetics) Hatch iWeeCare Jane Software, Inc. Kegg Kerriton Kindbody Let's Get Checked 	<ul style="list-style-type: none"> Lilia Maya Med Answers Mira Care Modern Fertility Monica Healthcare Myriad Genetics Natalist Natural Cycles Nuvo Oova Oula Ovia Health Owllet Peanut Prelude Prima Temp Rinovum Smart Beat The Bump The Pill Club Vagenie Wildflower Health Win Fertility Woom 	<ul style="list-style-type: none"> Ask Tia Progenity 	<ul style="list-style-type: none"> 180 Health Partners Advanced Maternity Innovations Advantia Health Celmatix Kindara Mahmee Mobile ODT Sera Prognostics Univfy Women's Health USA 	<ul style="list-style-type: none"> Carrot LOLA Mamava Maven Clinic Progyny Stork Club
52 total, 73.2%	2 total, 2.8%	10 total, 14.1%	6 total, 8.5%	1 total, 1.4%

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

Here are the most interesting 15 companies we will highlight

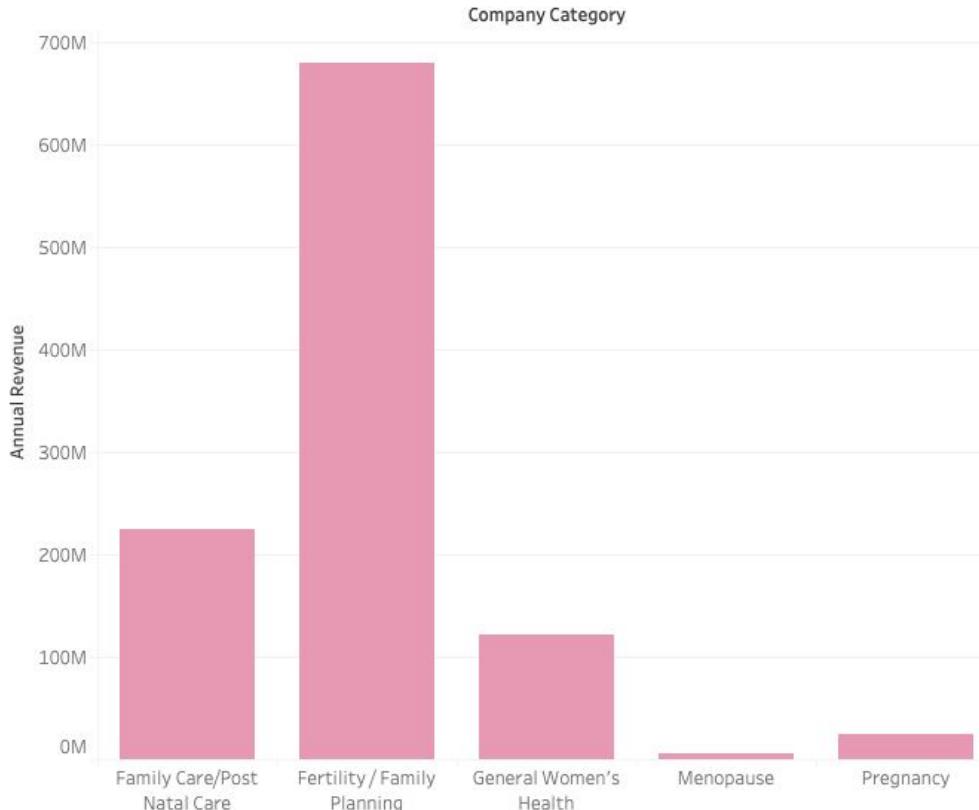
Name	Segment	Description	Market	Annual Revenue	Amount of Funding	Users	Employees
Advantia Health	Women's Software	A channel to OBGYN practices that use technology	Provider	\$18.9M	\$49.7M	N/A	70
Celmatix	Women's Software	Makes and sells a fertilome test (multigene test) to predict how DNA affects reproductive health	Provider	\$22M	\$80.8M	N/A	76
Elvie	Women's Software & Device	Wearable Breast Pump and other devices	DTC	\$11.5M	\$51M	N/A	130
Flo	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
Future Family	Other	Fertility Financing	DTC	\$1.2M	\$111.4M	N/A	25
Let's Get Checked	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

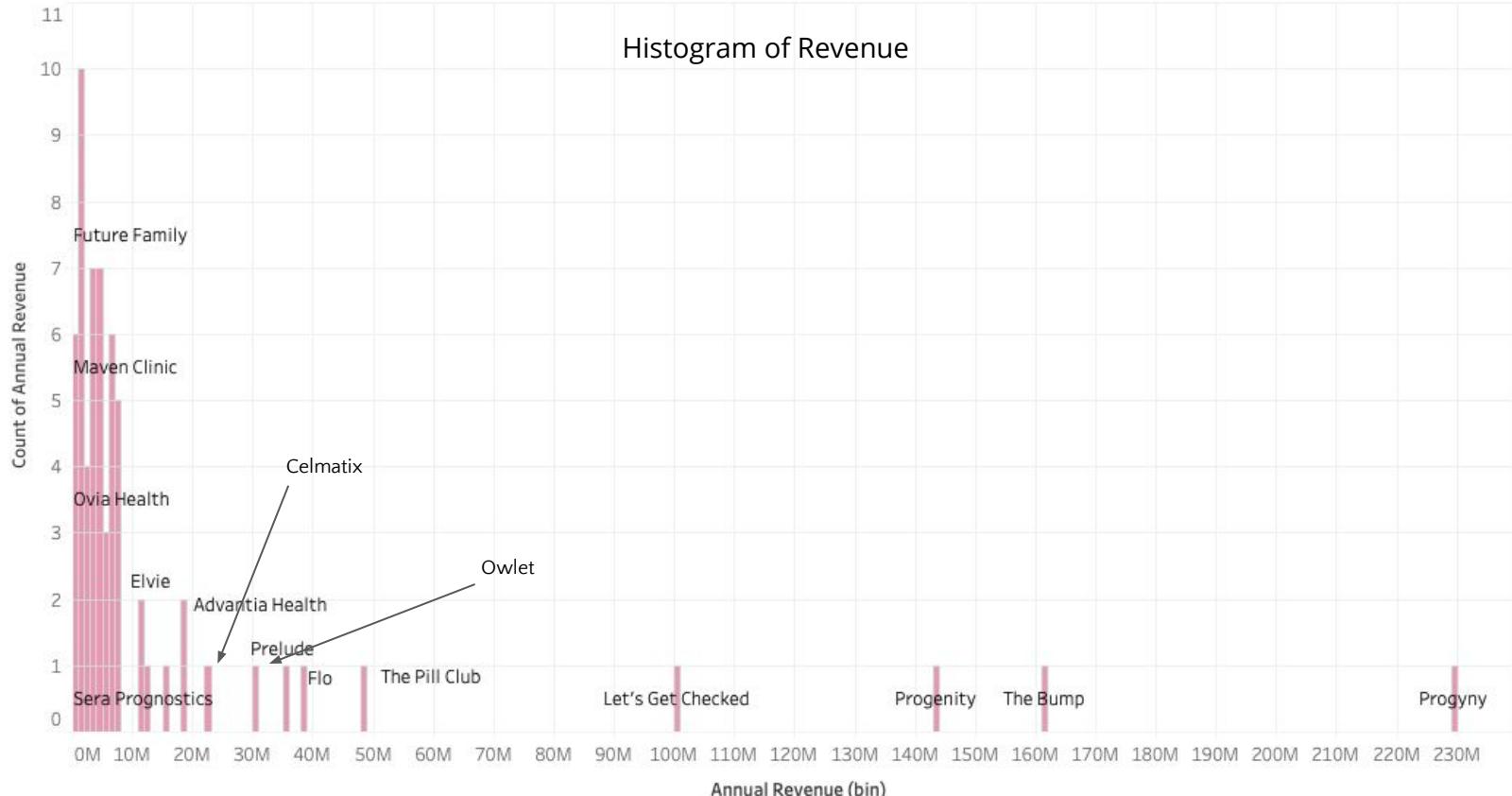
Maven Clinic	Other	Personalized Healthcare for Women and Families	Employer	\$3.5M	\$91.7M	5M	250
Ovia Health	Women's Software	Sells data-driven solutions for fertility, pregnancy, and parenting through apps	DTC	\$3M	\$23.3M	N/A	61
Owlet	Women's Software & Device	Baby vital monitor devices	DTC	\$30.2M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

Most revenues are pre and postnatal

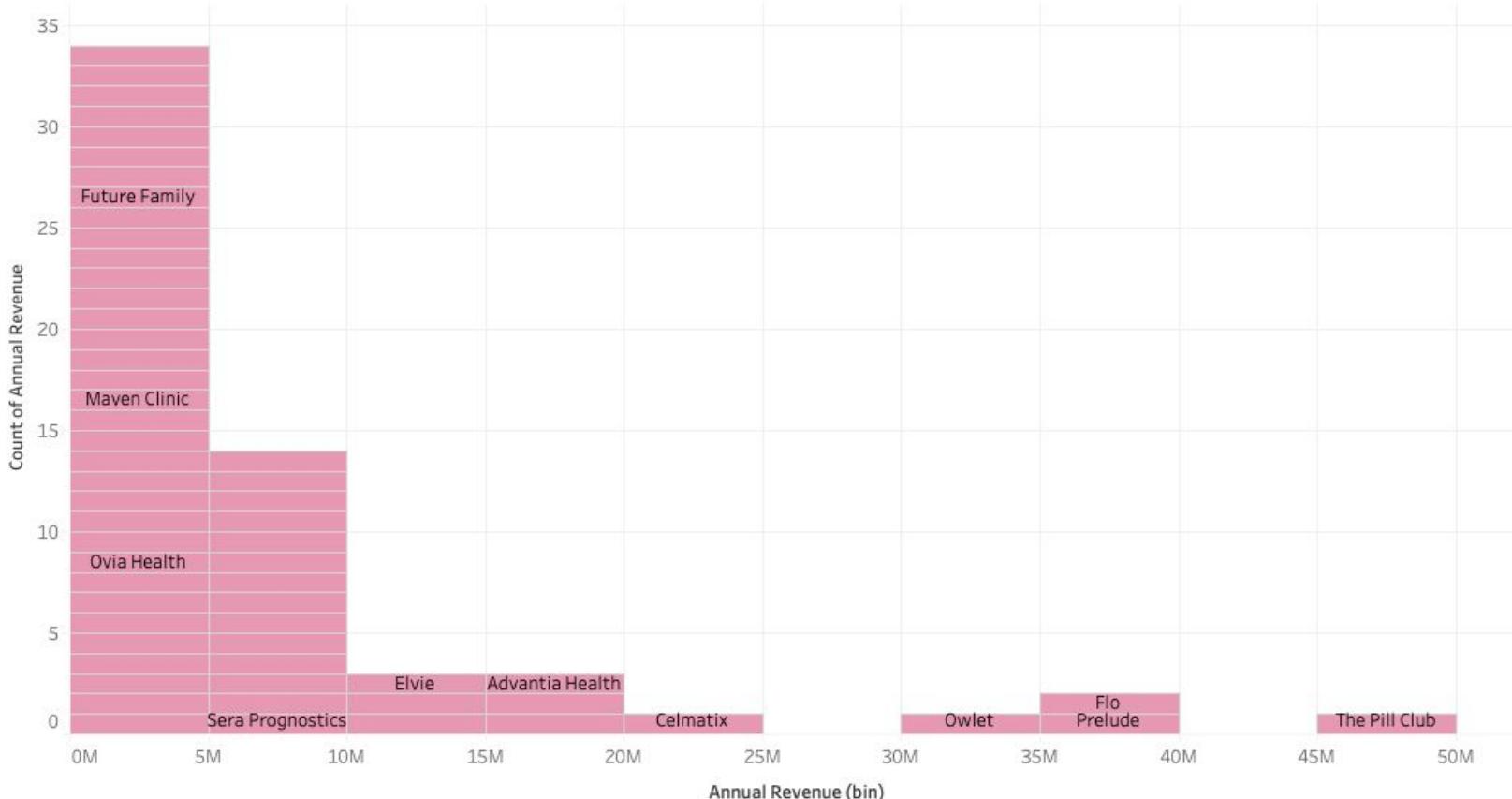
Sum of Annual Revenue vs. Company Category (Aggregate revenue for all companies)



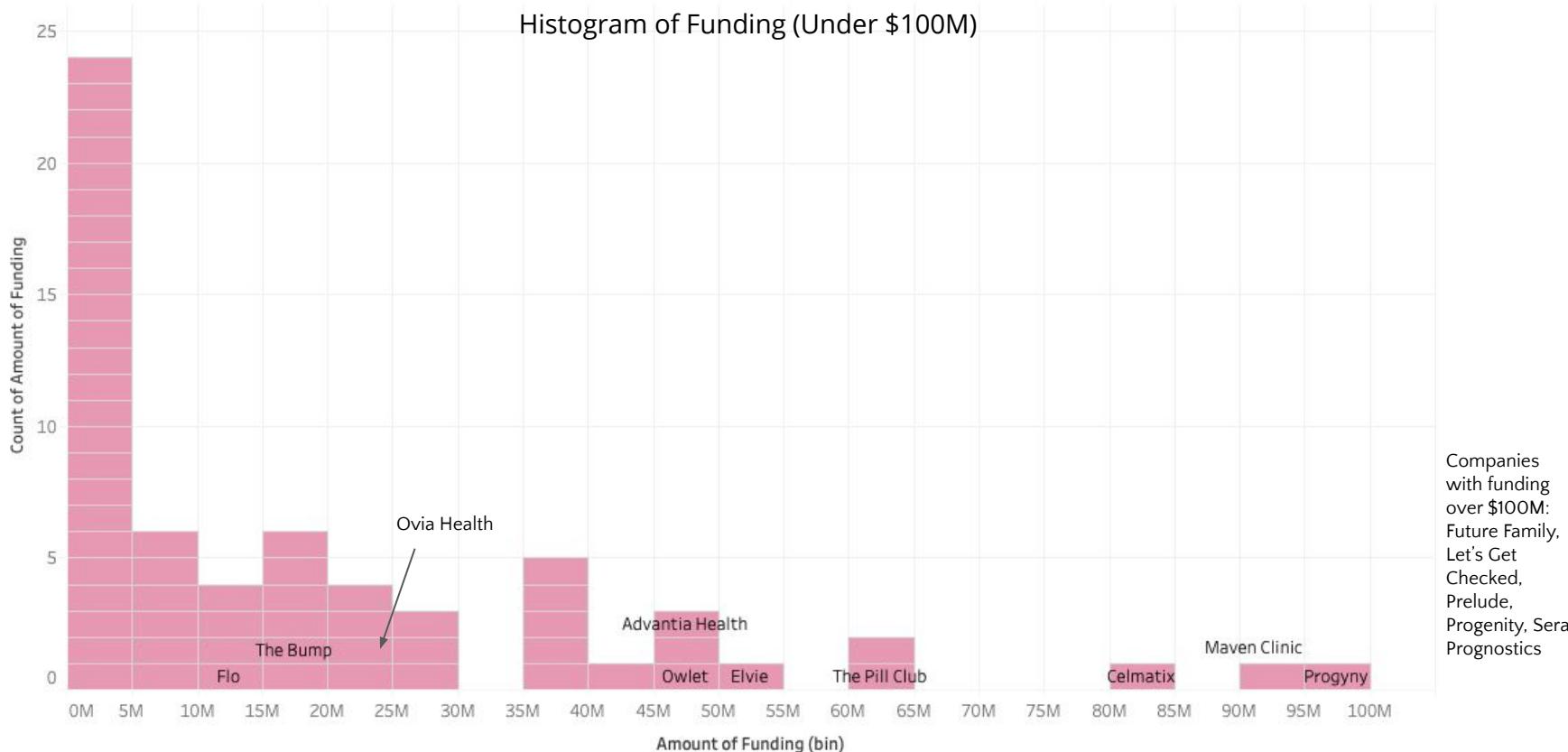
Progyny generates significantly more revenues



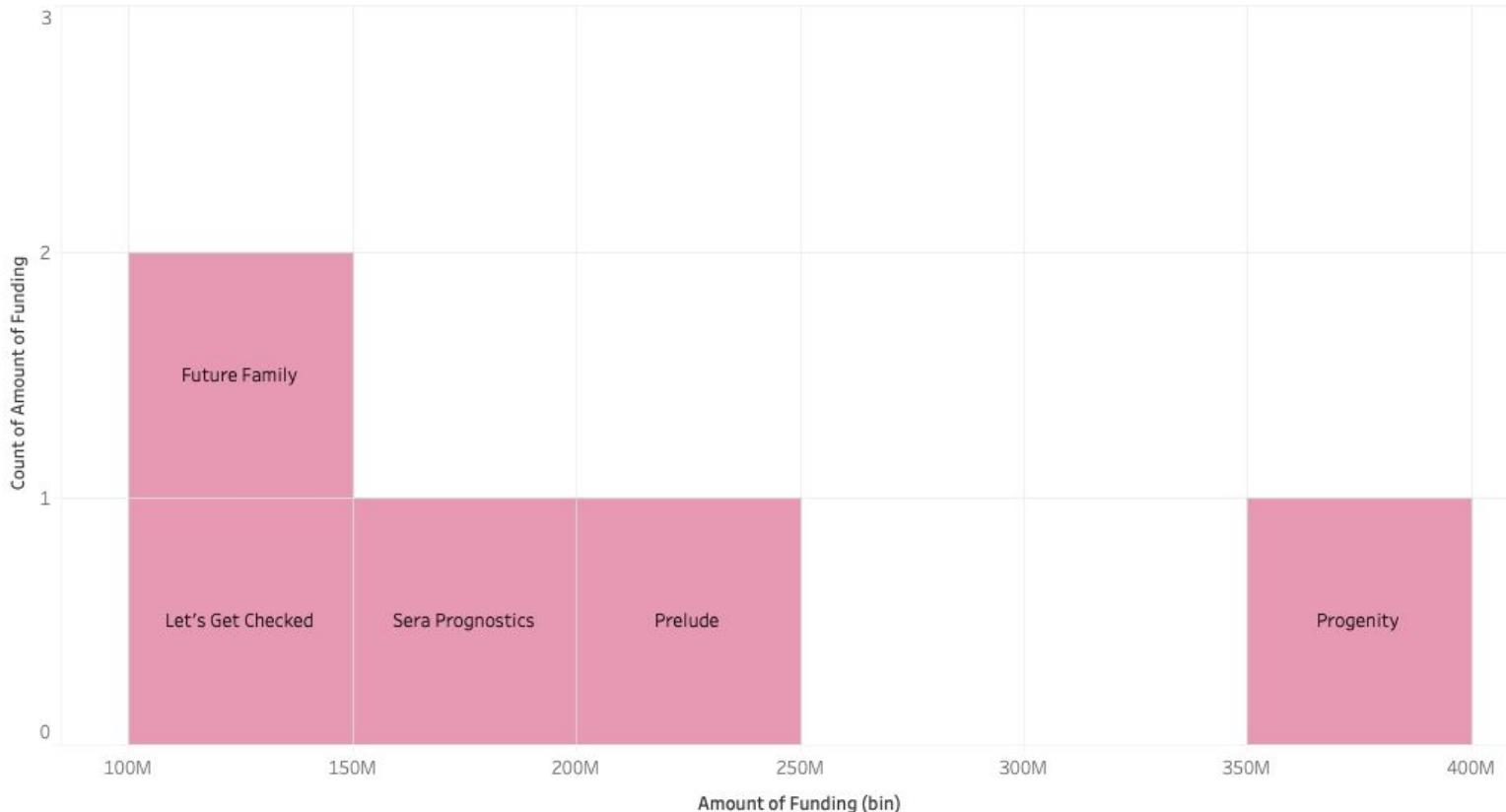
Histogram of Revenue (Under \$50M)



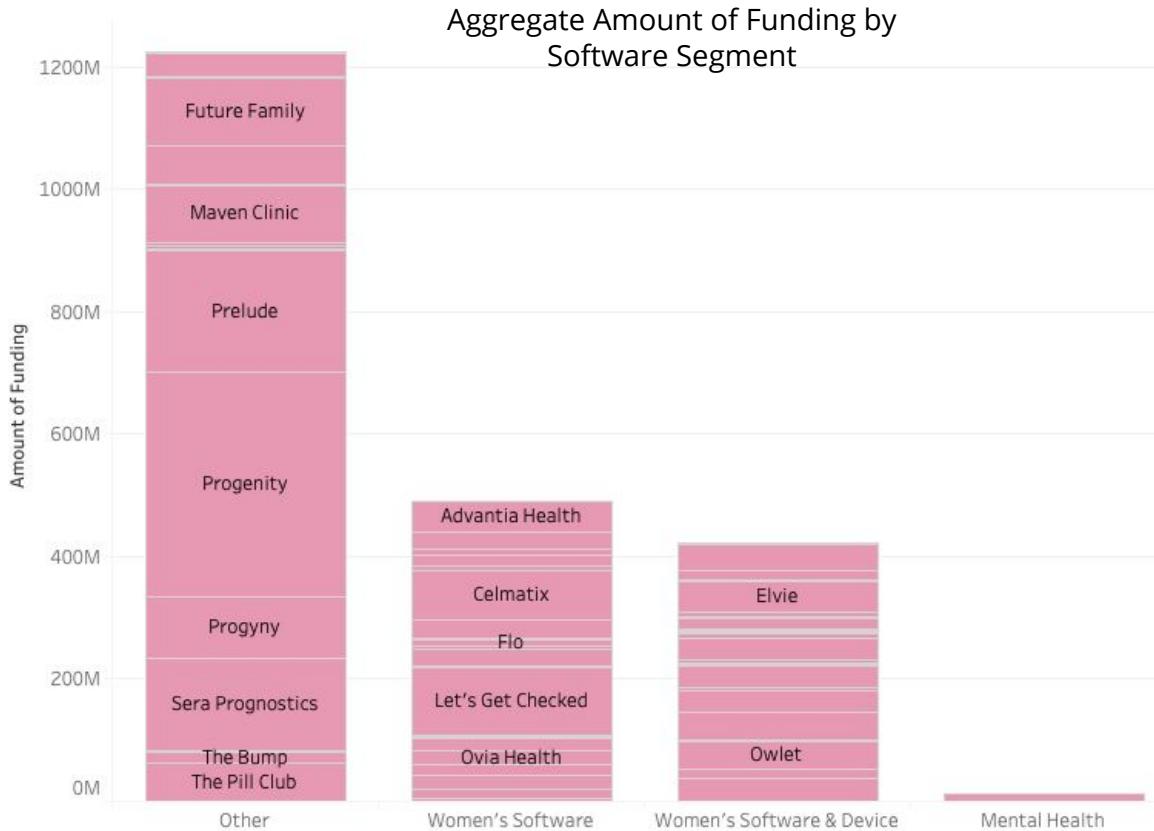
The leading companies have raised on average \$56.9M



Histogram of Funding (Over \$100M)

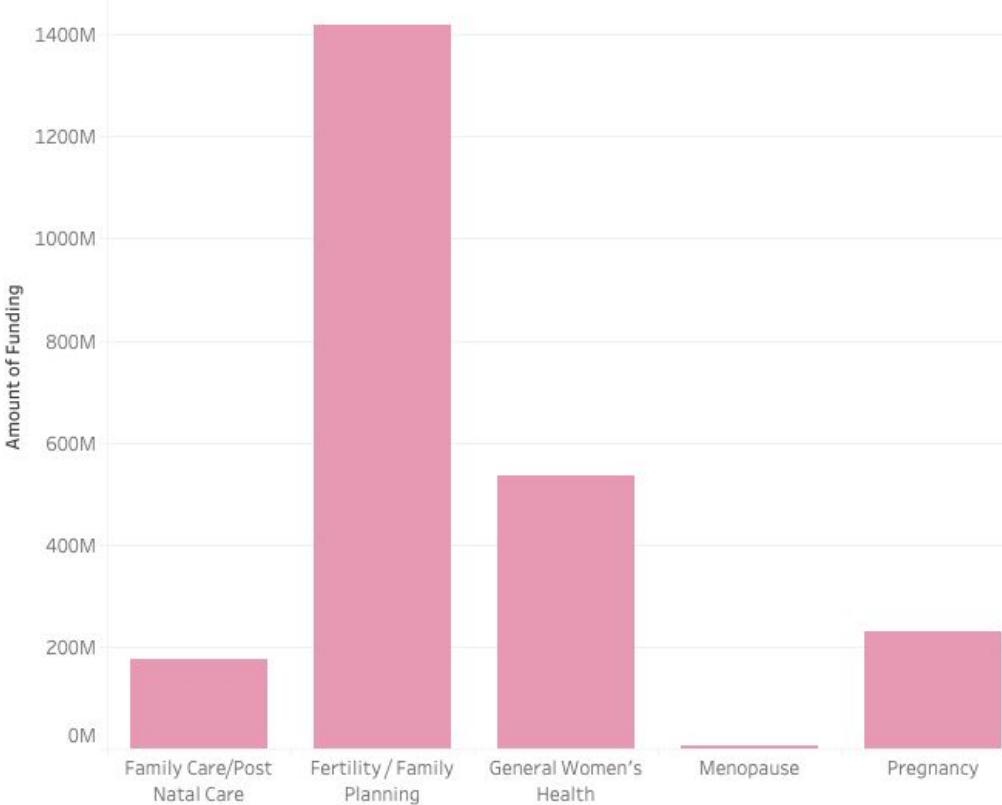


Beyond-software companies raise the most capital



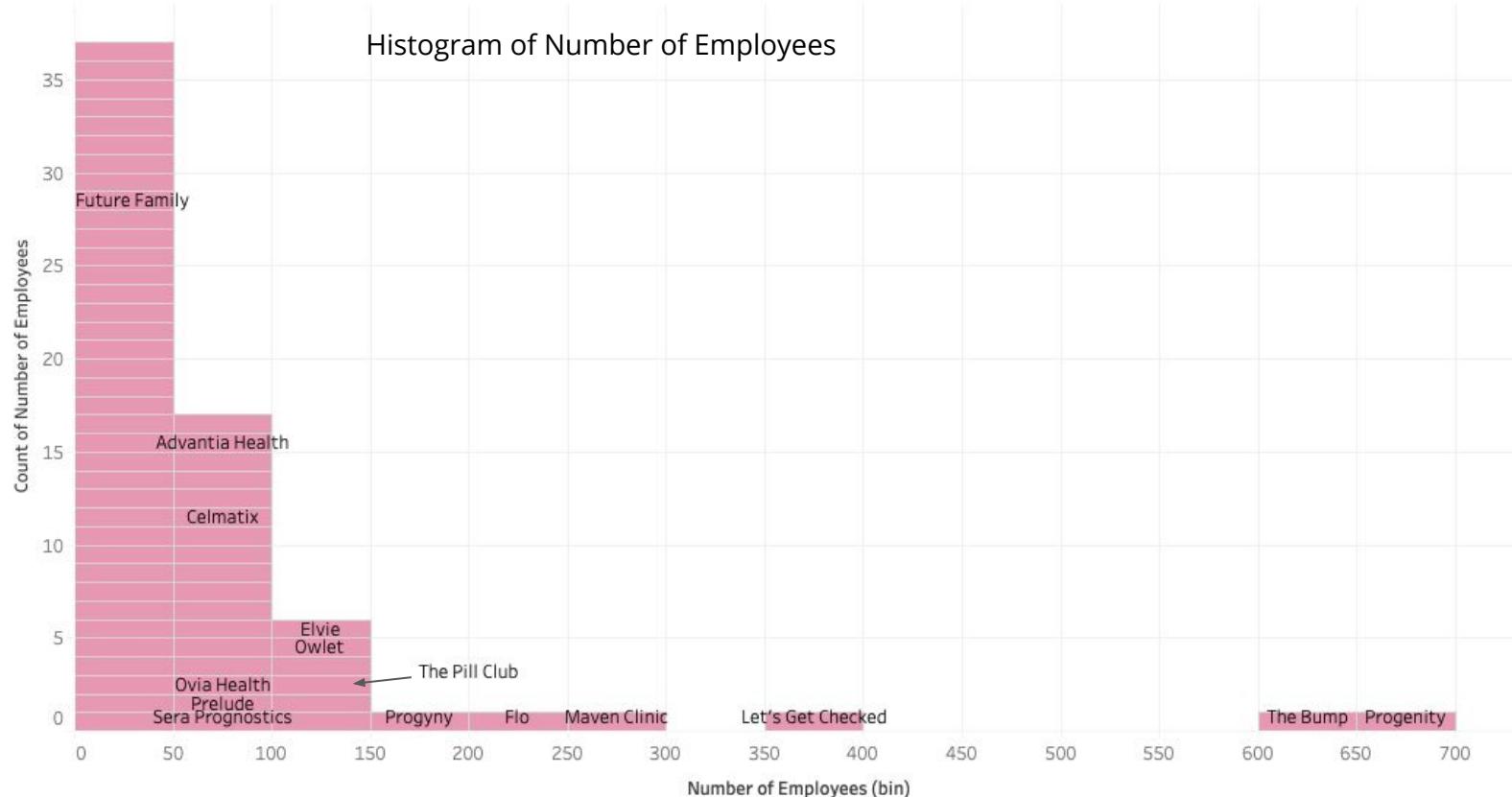
Investors show little interest in later-stage women's health

Aggregate Funding by Category

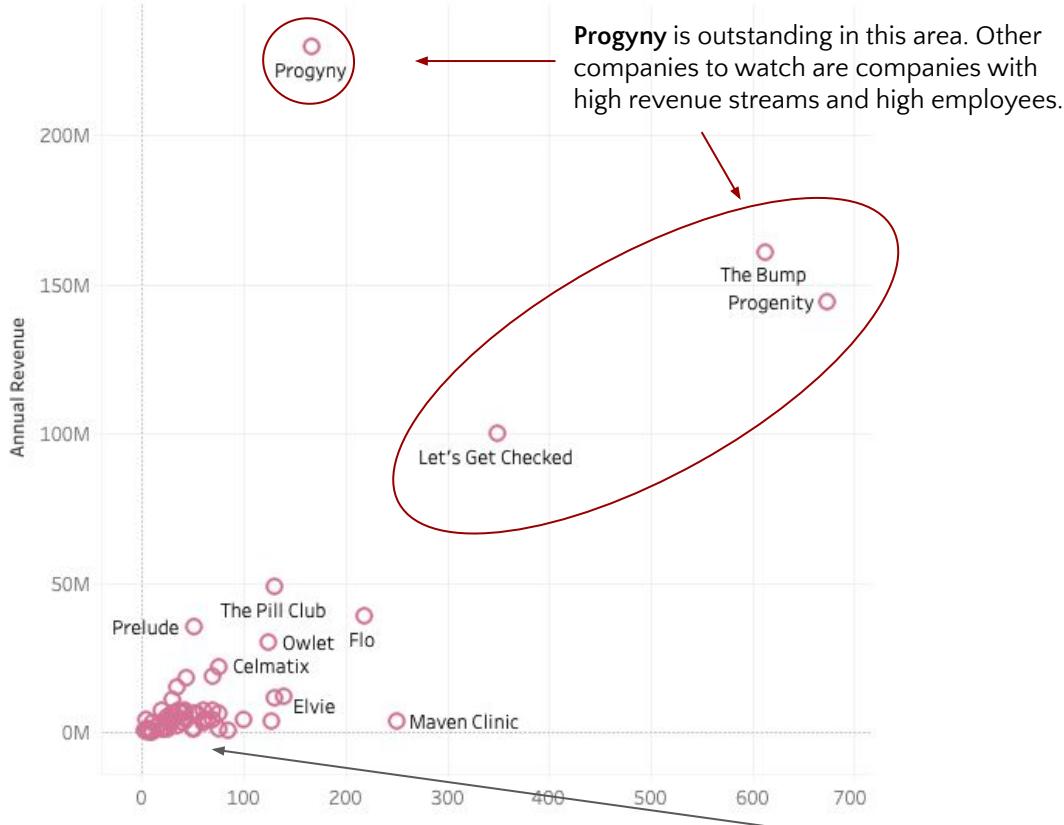


Key Insight: Majority of our top companies fall in Fertility/Family Planning, such as Myriad and Progyny.

There are several large organizations, based upon employees

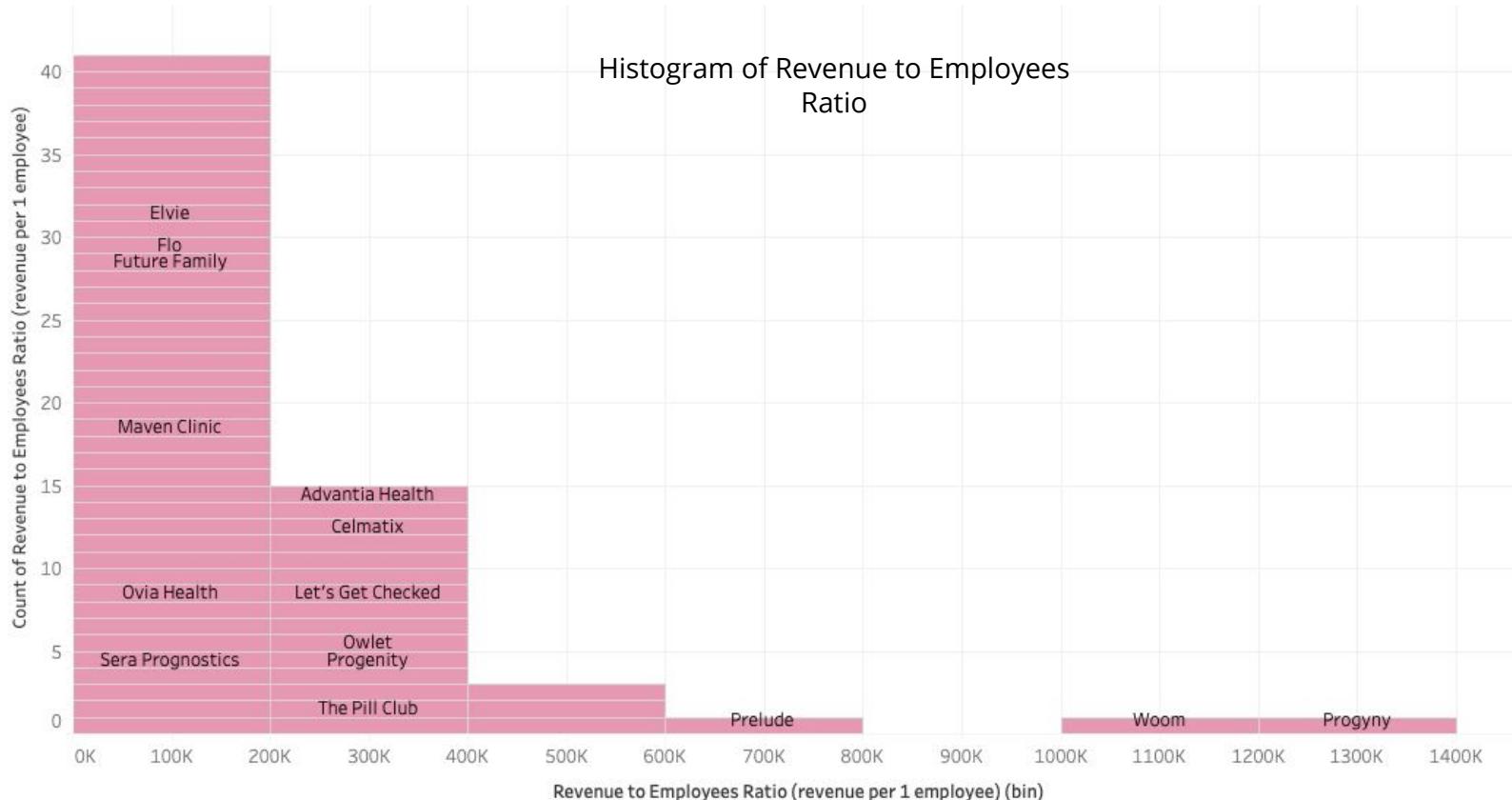


Number of Employees vs. Revenue

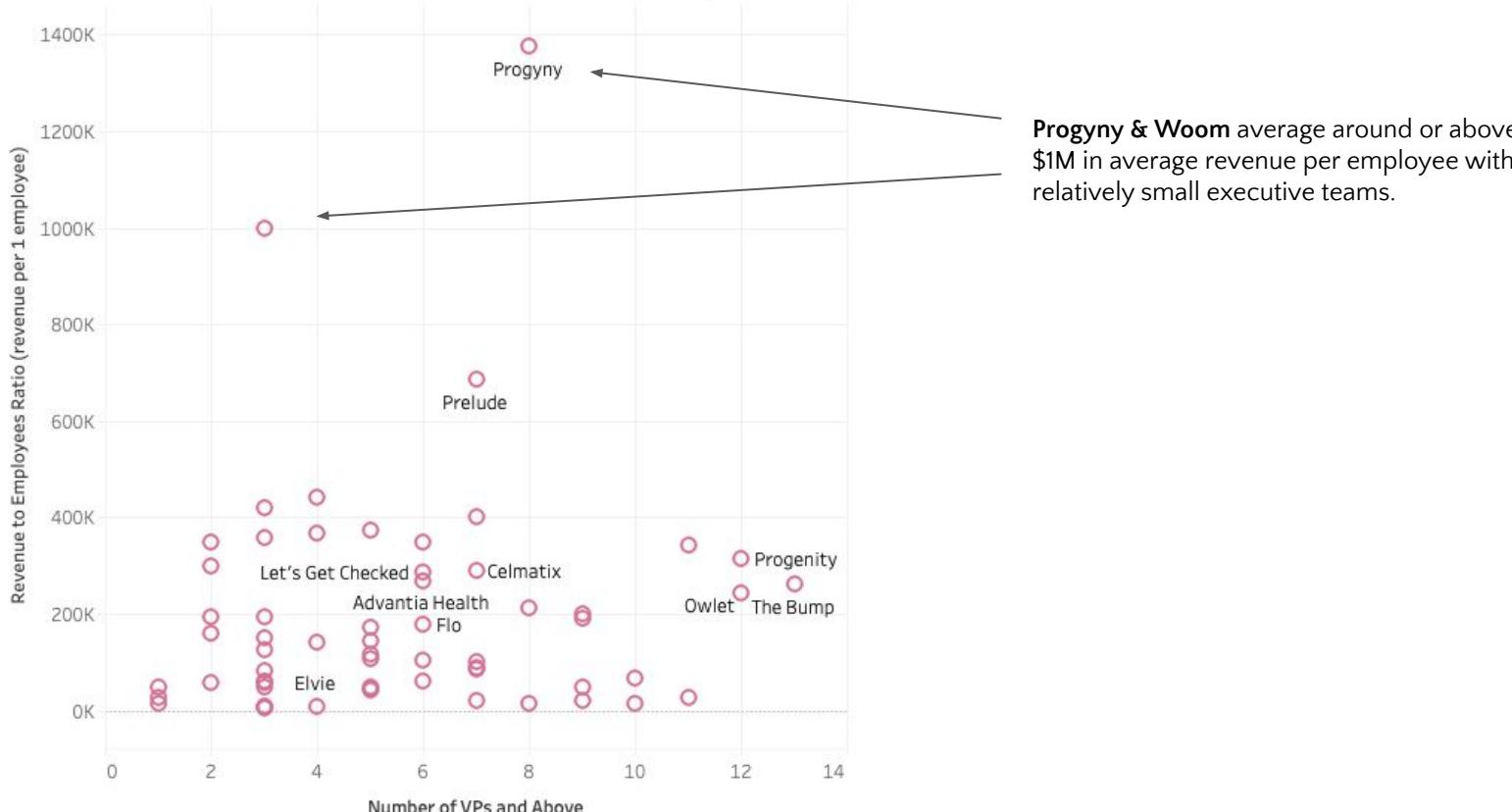


Sera Prognostics, Ovia Health, Future Family,
Advantia Health

Progyny has a highly successful revenue model

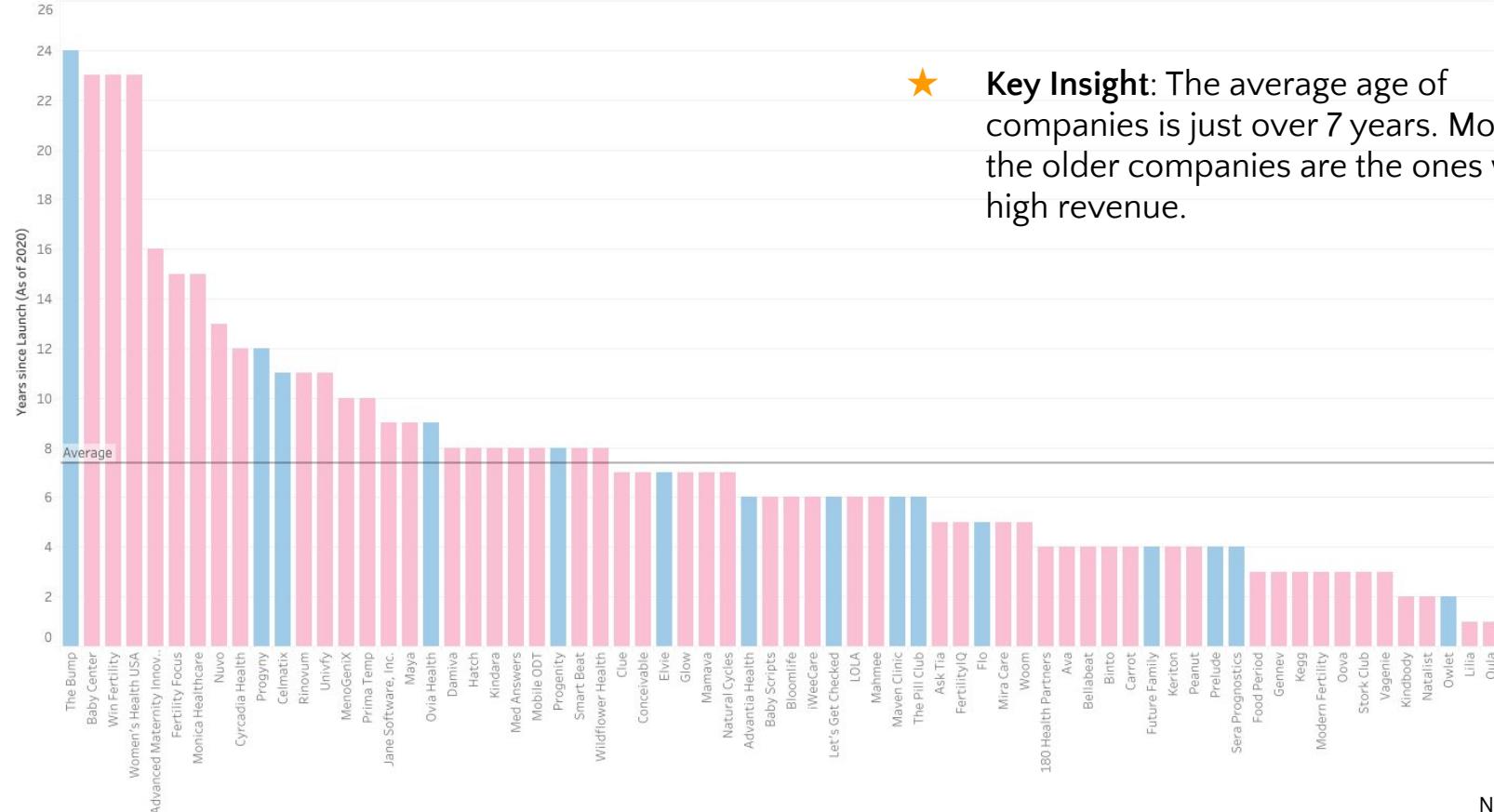


Number of VPs vs. Average Revenue per Employee



Company Age

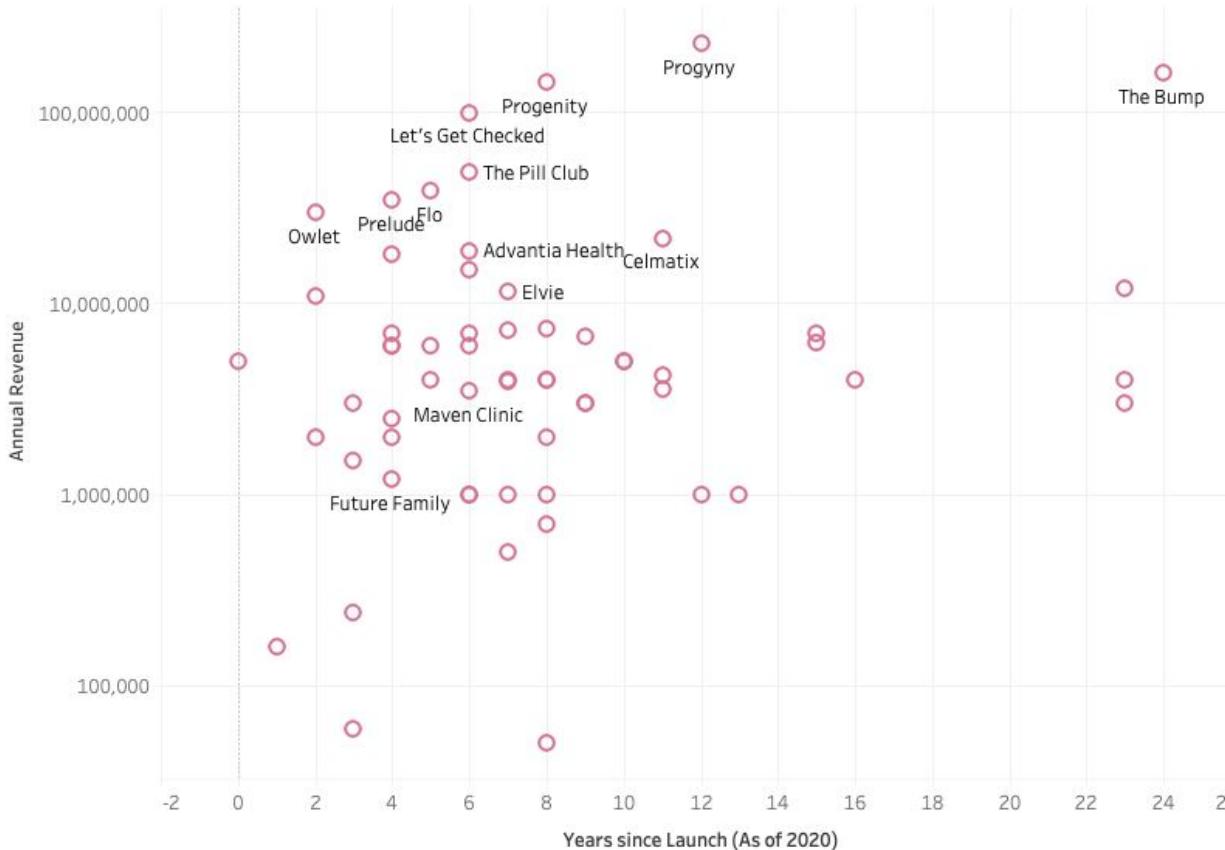
Company Name



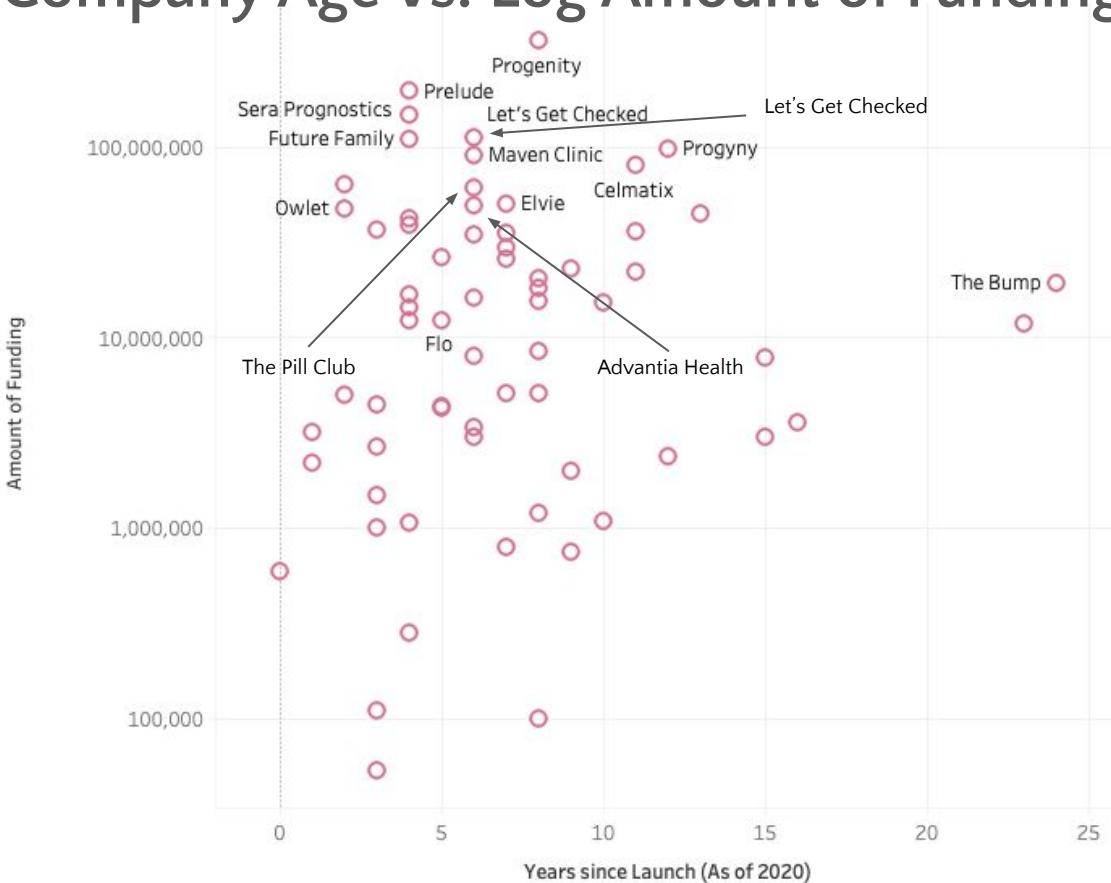
Key Insight: The average age of companies is just over 7 years. Most of the older companies are the ones with high revenue.

Not shown: Bloom (0)

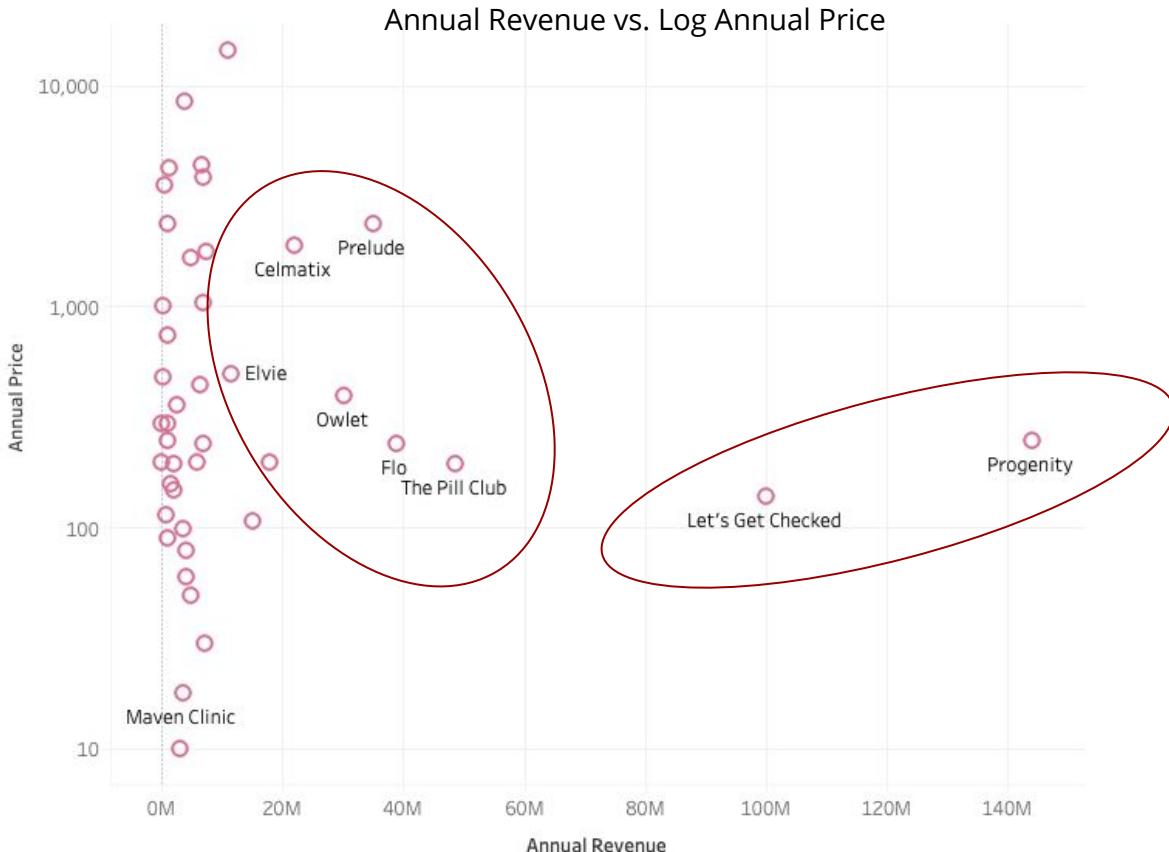
Company Age v. Log Annual Revenue



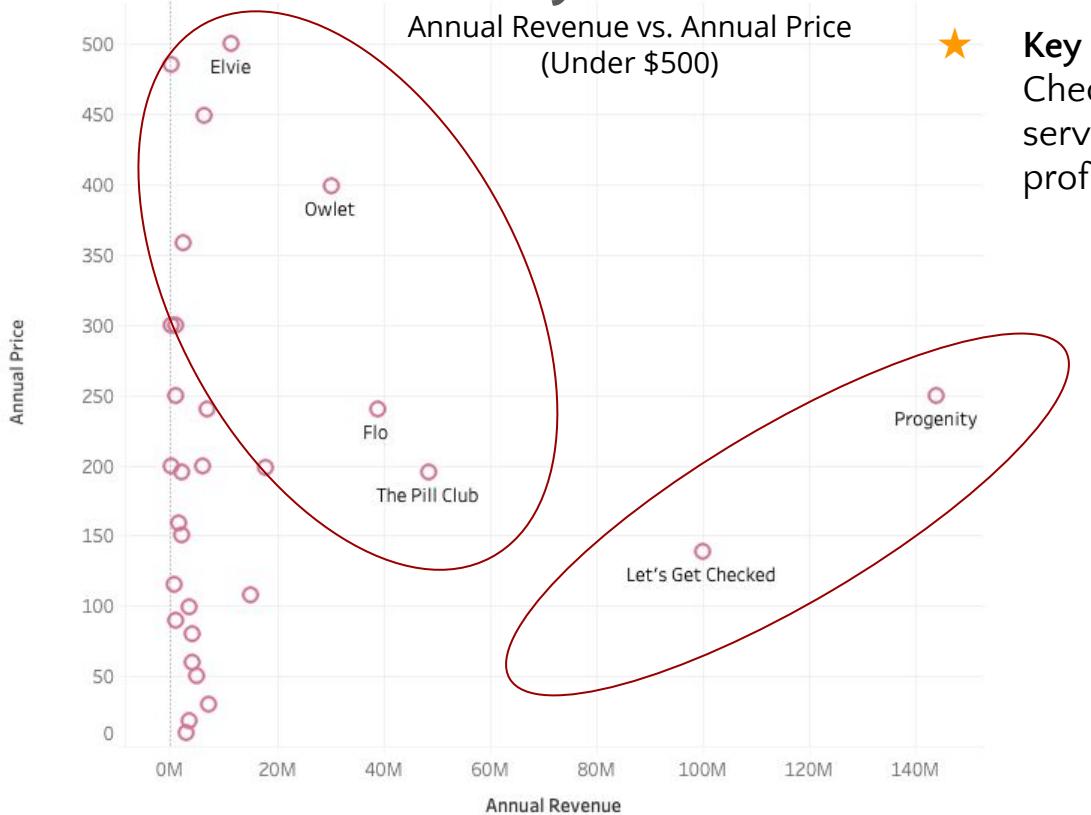
Company Age vs. Log Amount of Funding



Most users are paying less than \$500/year

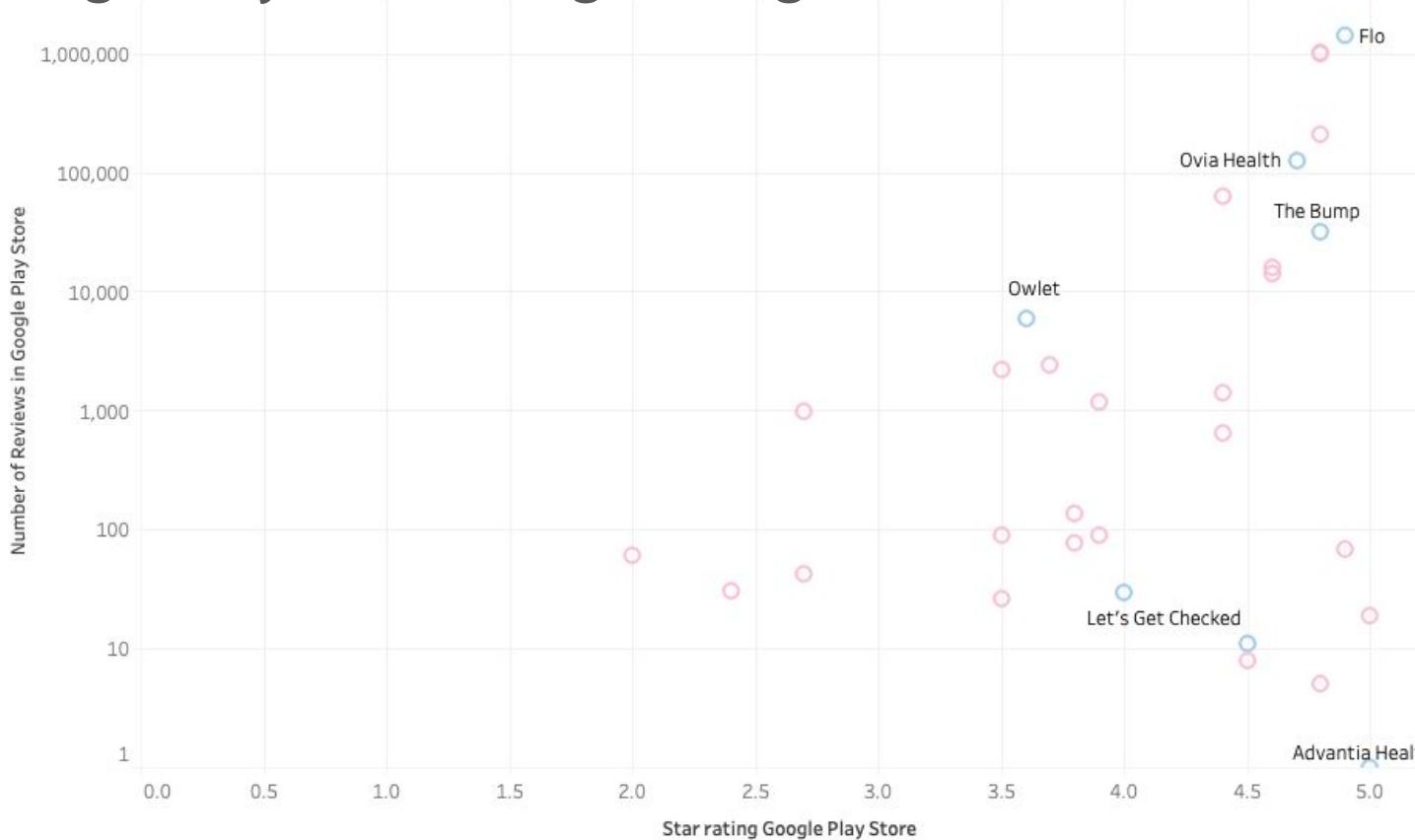


Many software companies, like Flo, generate high annual revenues/customer/year



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



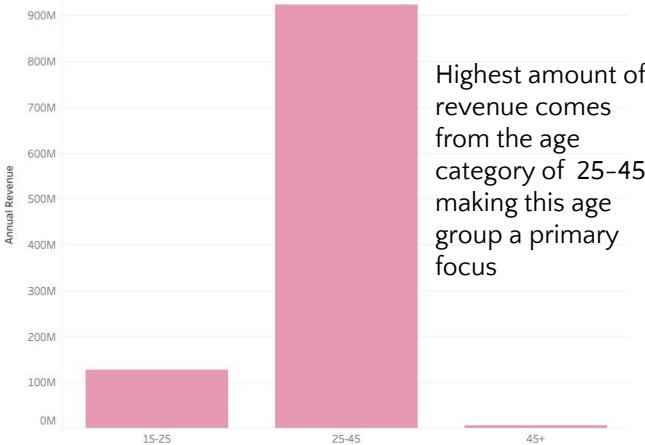
Conclusion

Annual Revenue

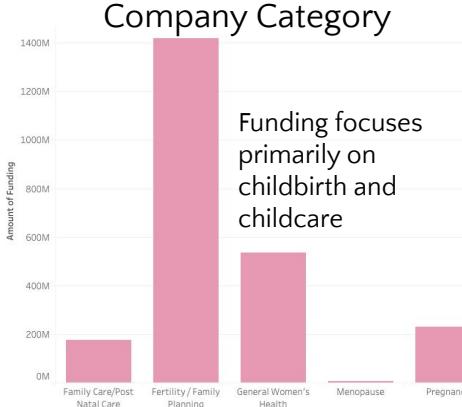


Annual Revenue

Estimated Consumer Age

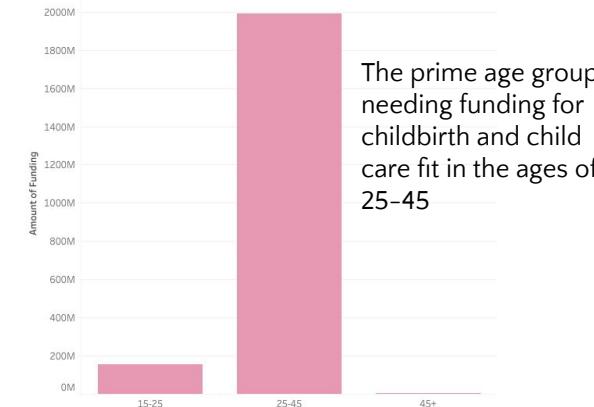


Amount of Funding



Amount of Funding

Estimated Consumer Age



Final Recommendations

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

Final Recommendations

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



Thank You

APPENDIX

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

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

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

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

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.



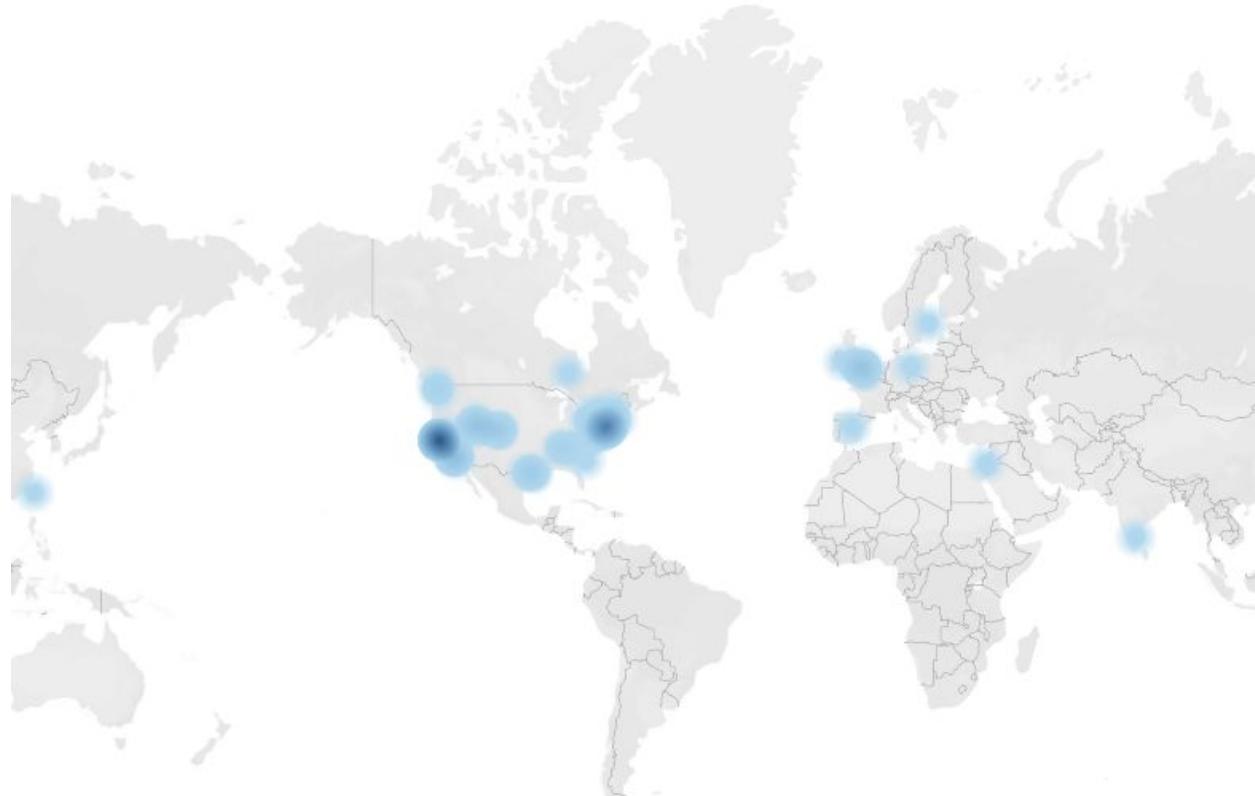
Data Analysis

Company Headquarters and Additional Offices Distribution

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

Specifically:

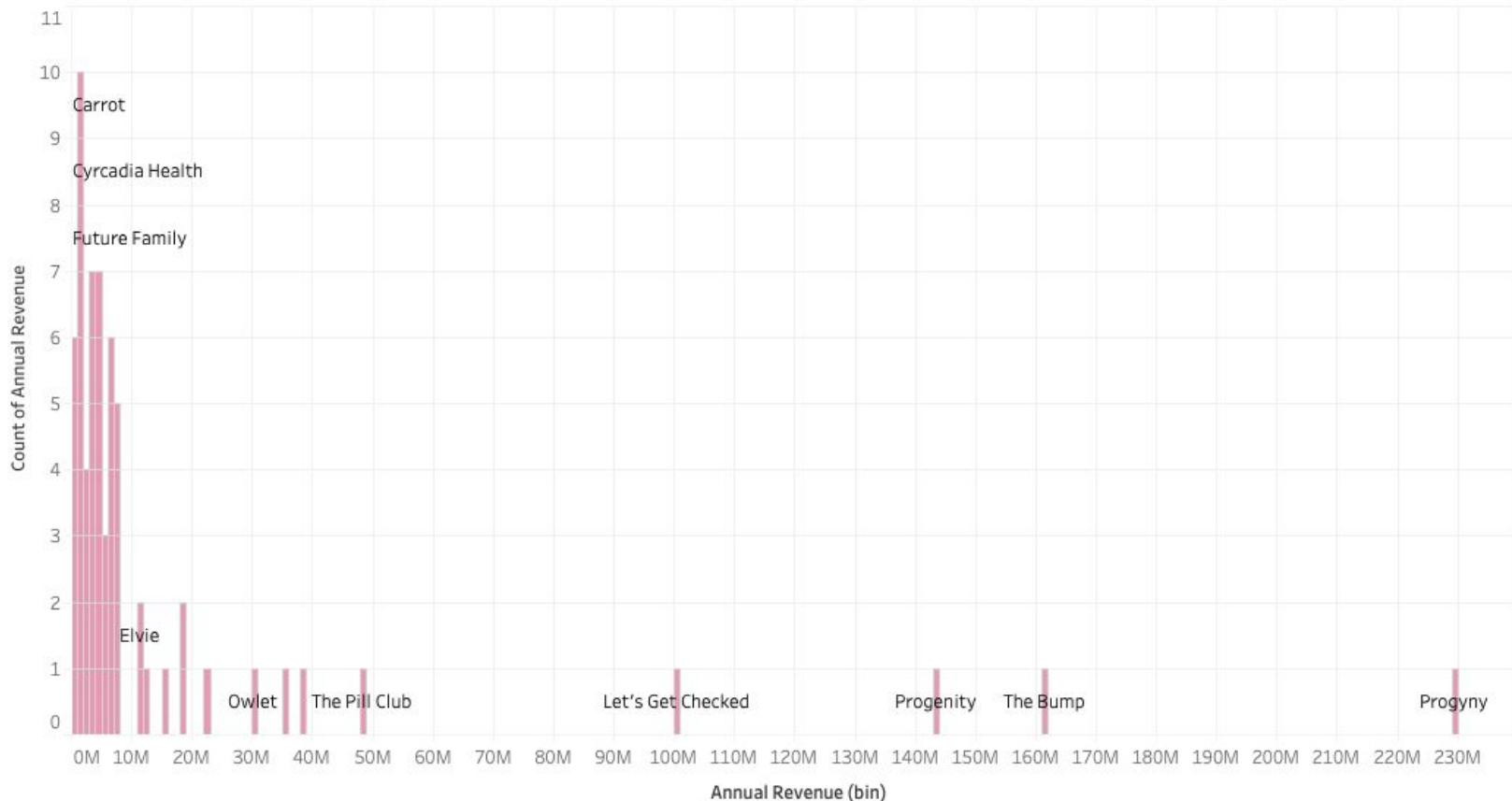
- 33.8% are located in California
- 11.3% are based in New York



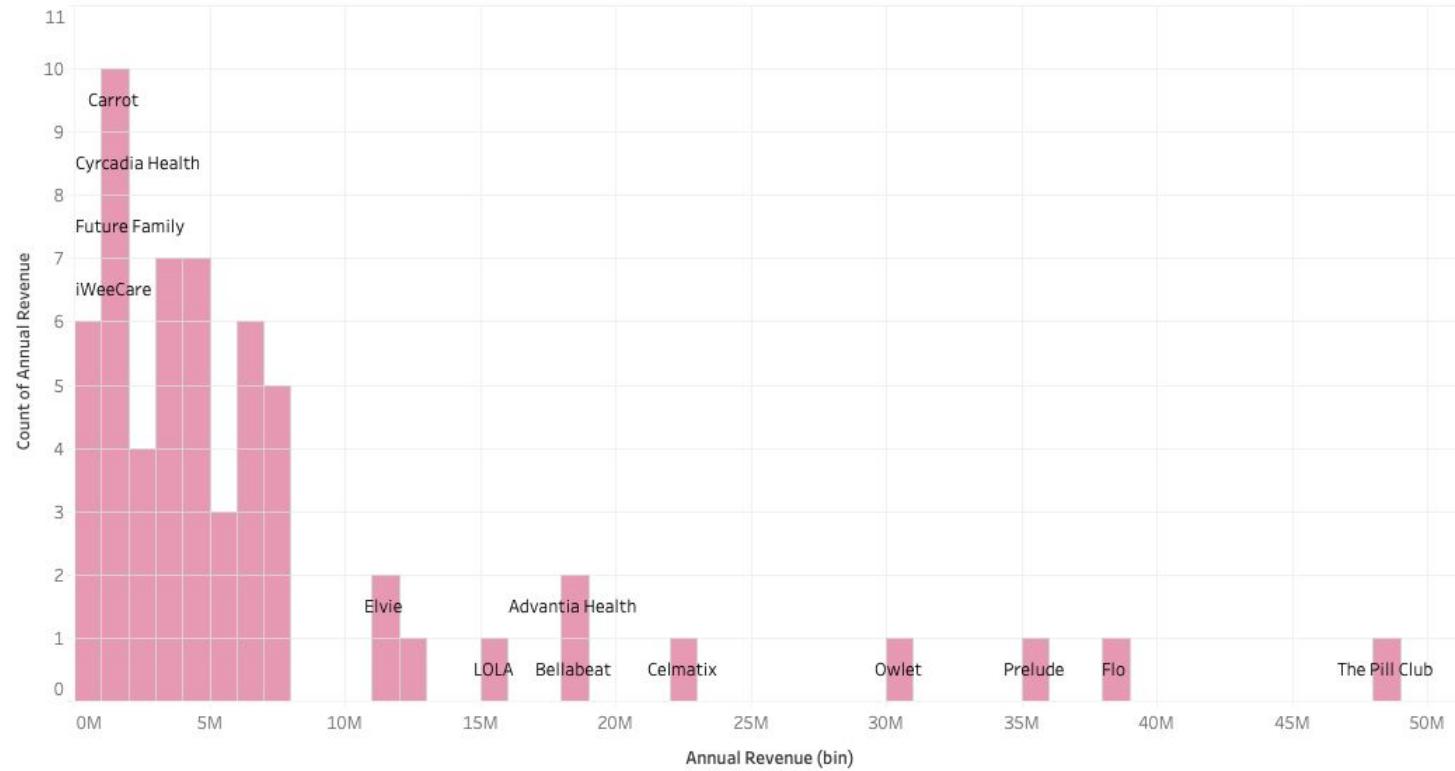


Revenue

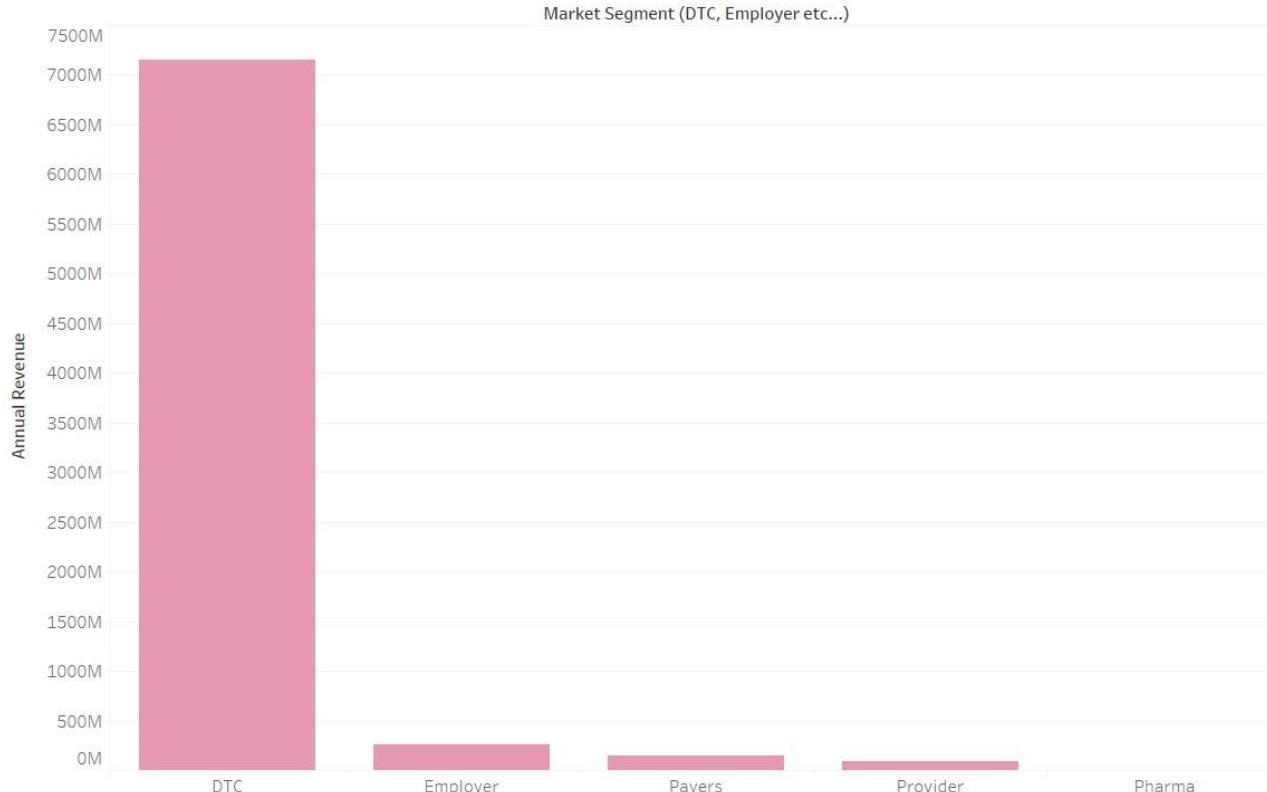
Histogram of Revenue



Histogram of Revenue (Under \$50 Million)

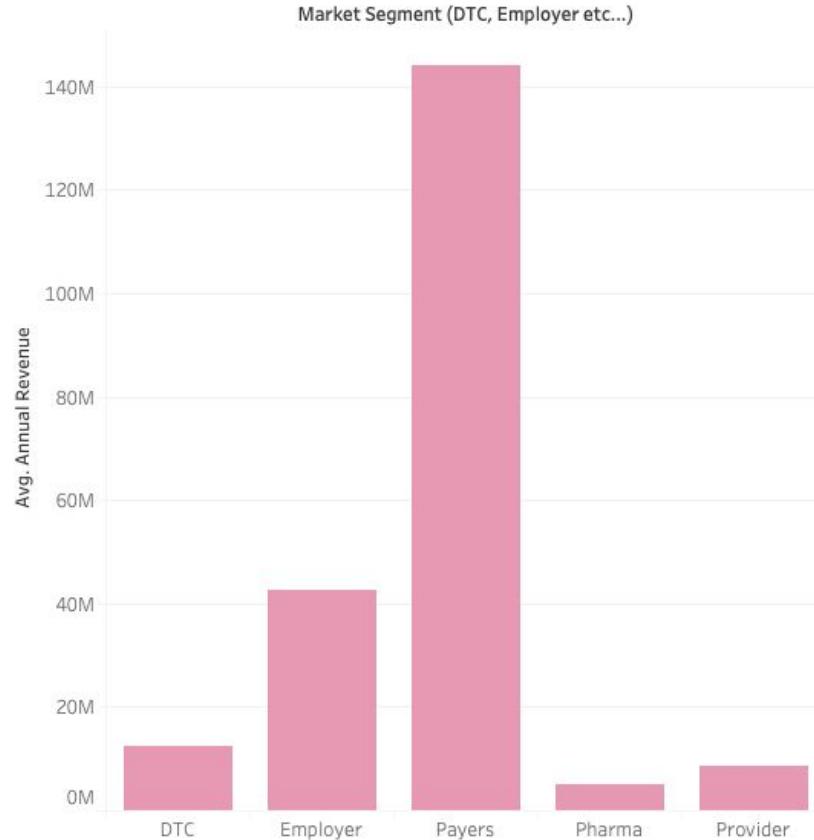


Sum of Annual Revenue vs. Market Segment



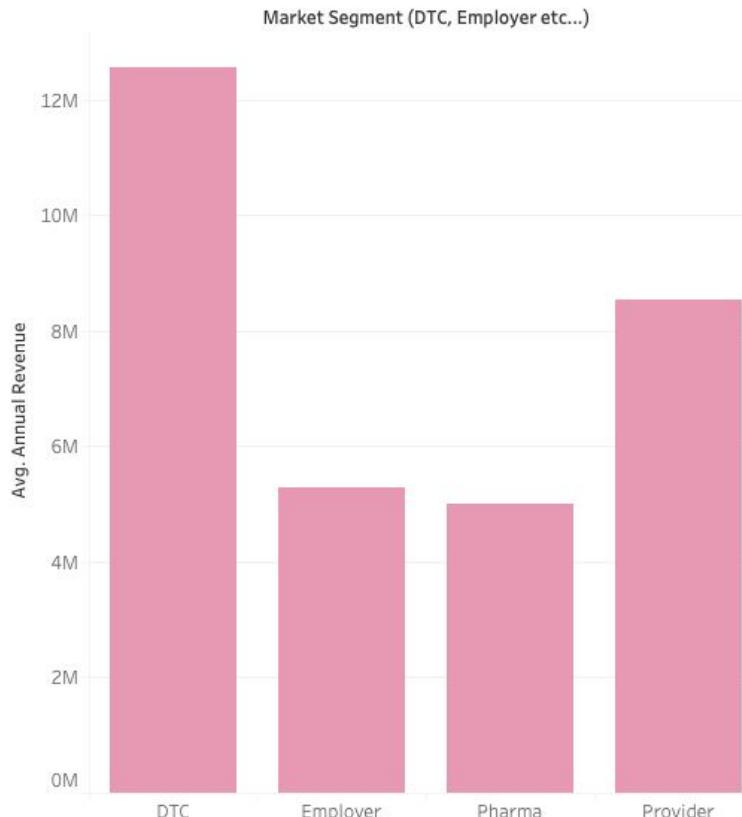
★ **Key Insight:** While there is a lot of revenue held in the DTC segment, it is very saturated.

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.

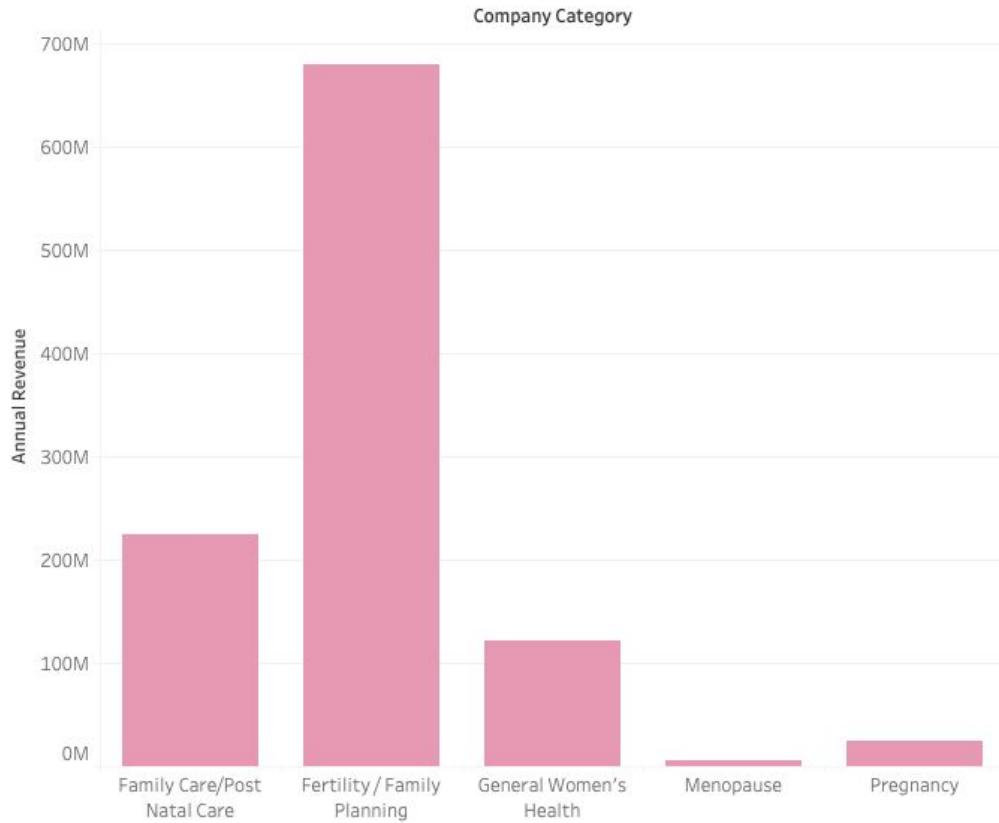
Average Annual Revenue vs. Market Segment (Progenity & Progyny Excluded)



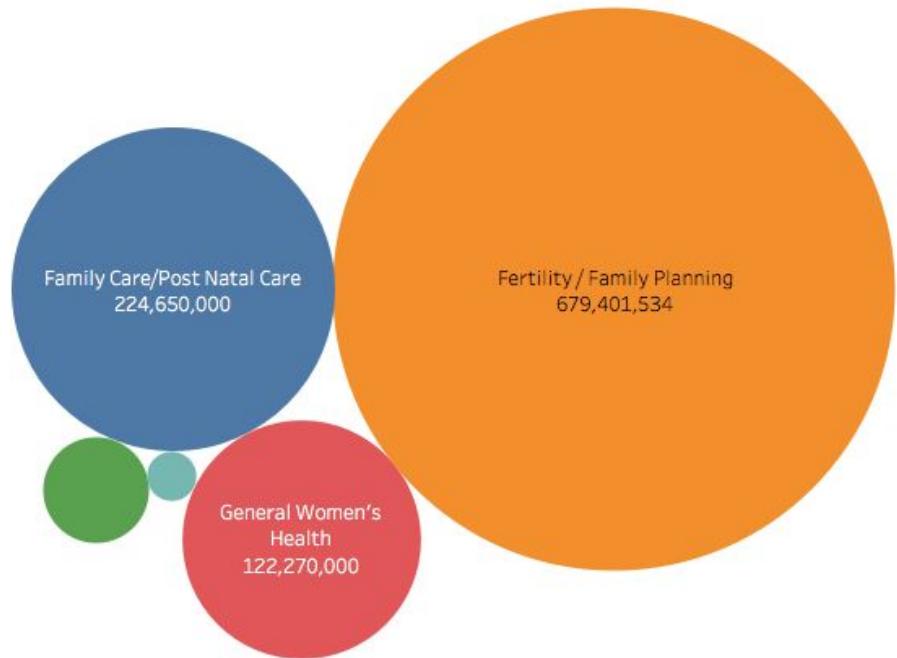
Key Insight: Without Progenity or Progyny, DTC and provider-focused companies yield the highest revenue.

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

Sum of Annual Revenue vs. Company Category

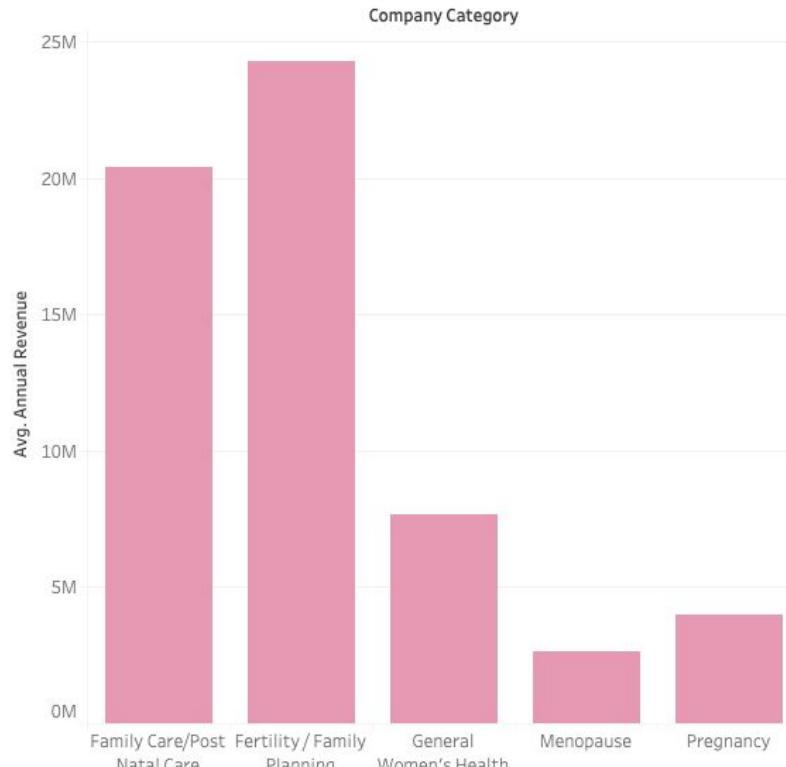


Sum of Annual Revenue v. Company Category



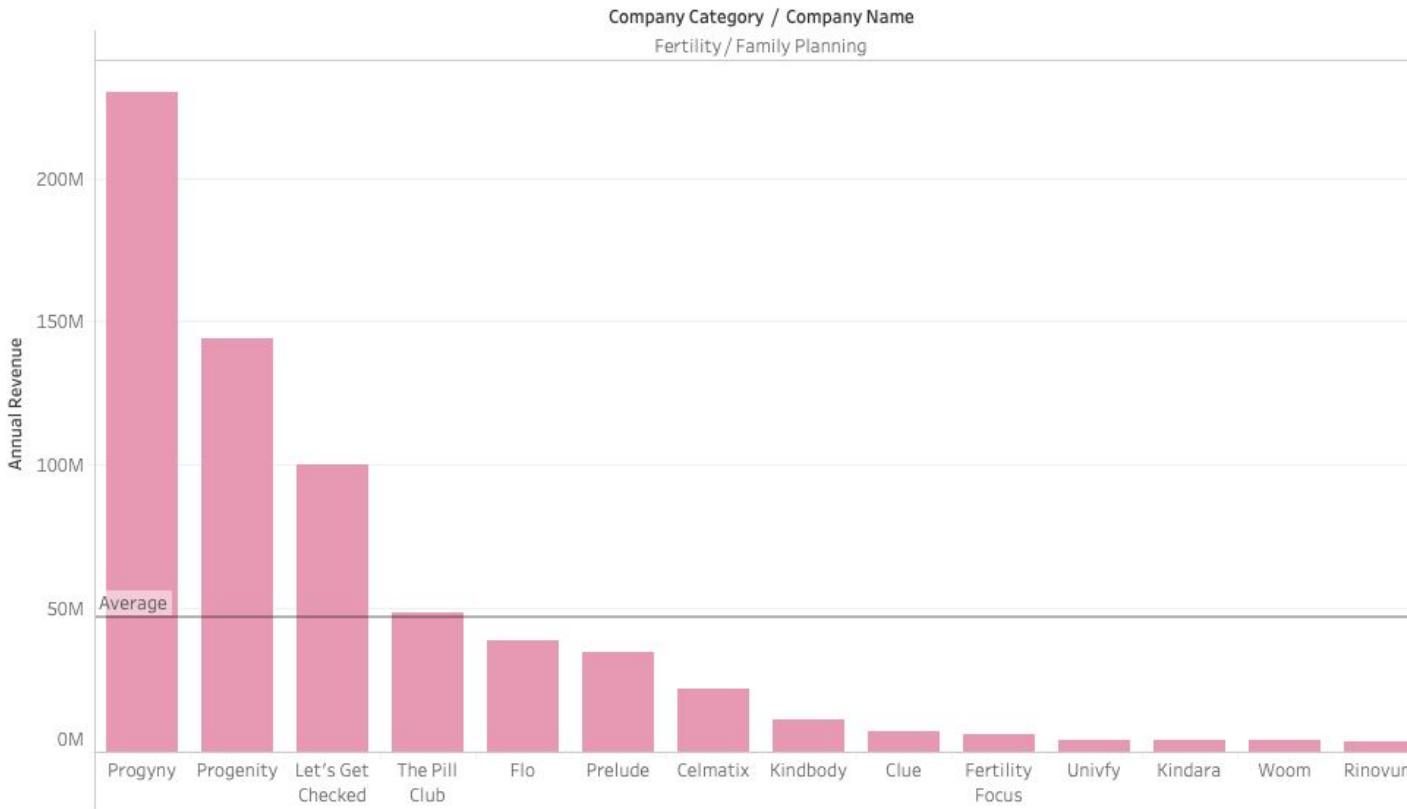
Average Annual Revenue vs. Company Category

Average Annual Revenue by Company Category

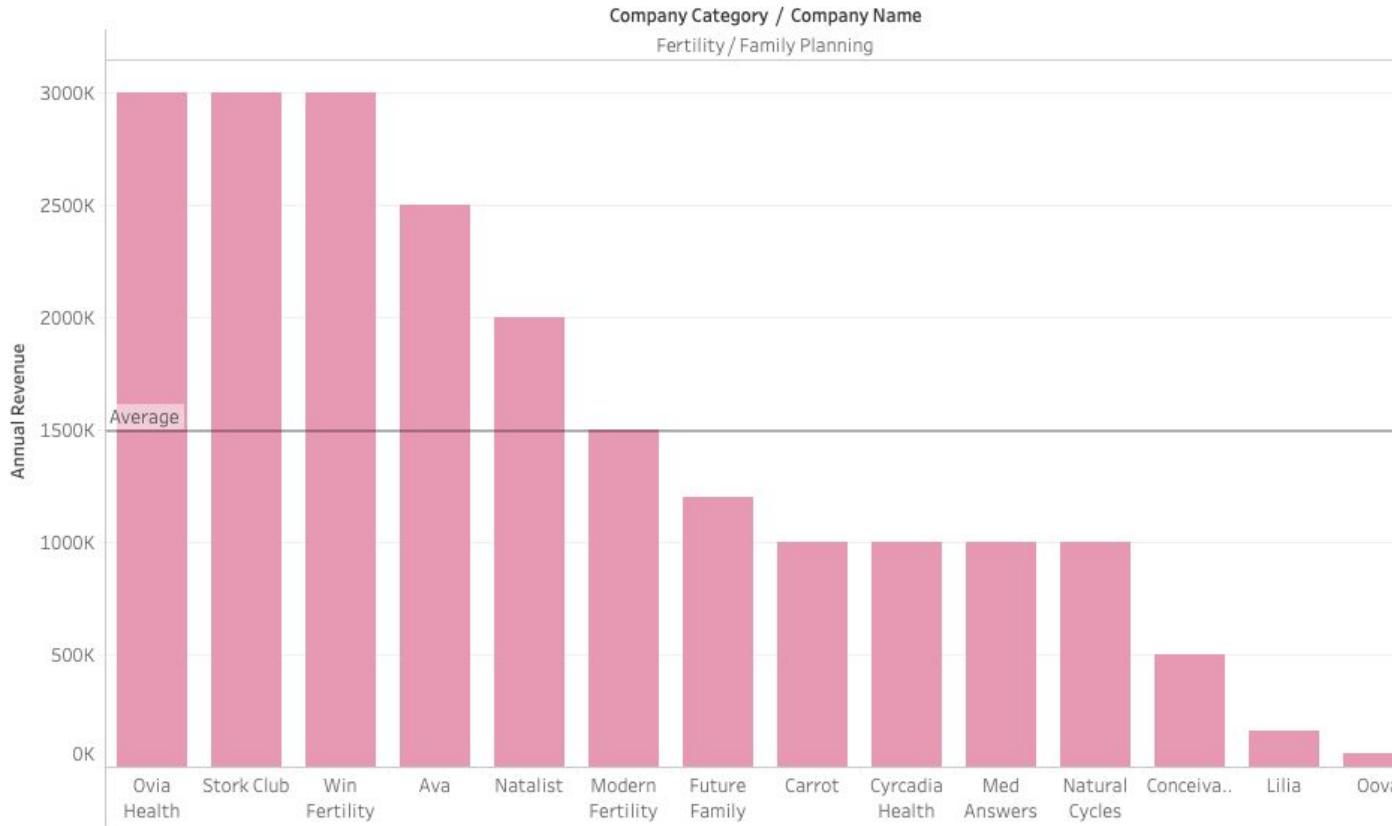


On average, fertility & family planning-focused companies have higher revenue, but we also have a larger sample of fertility-focused companies that we analyzed than other categories such as menopause.

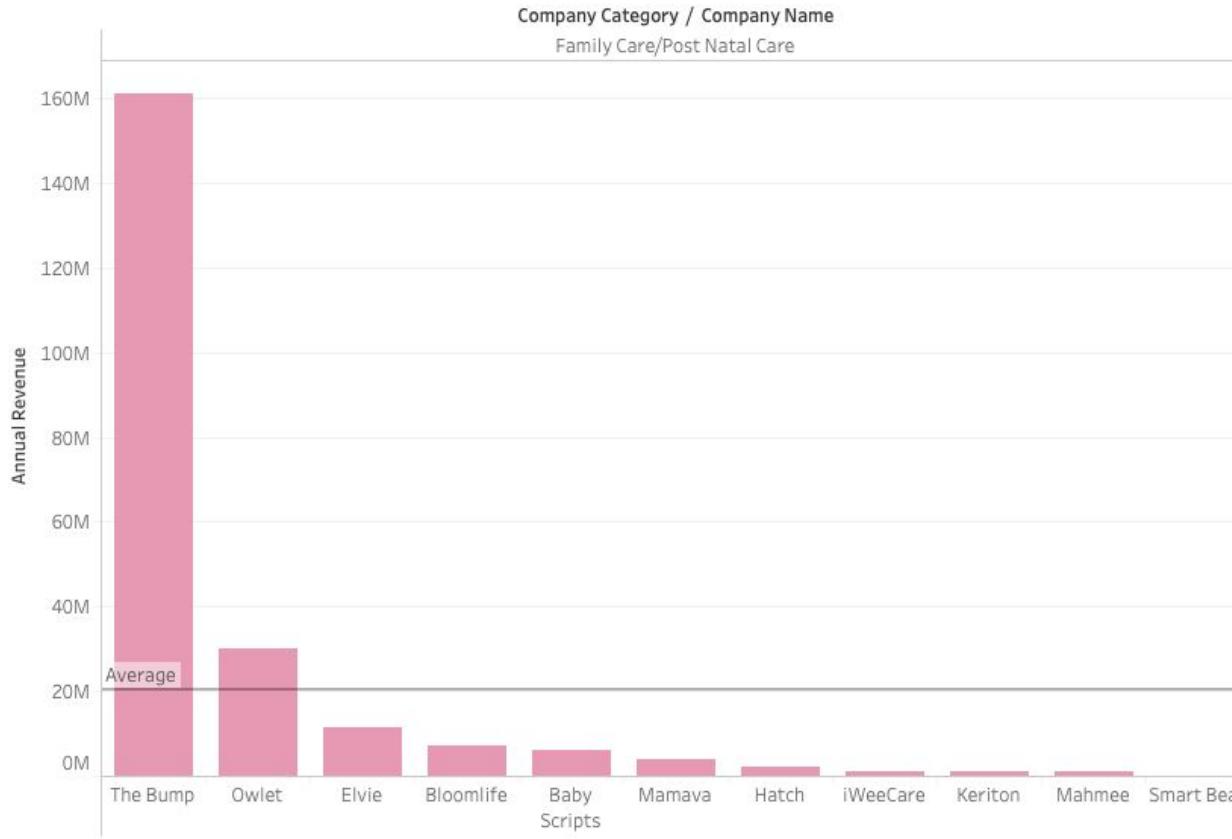
Annual Revenue vs. Fertility Segment Companies (Top Half)



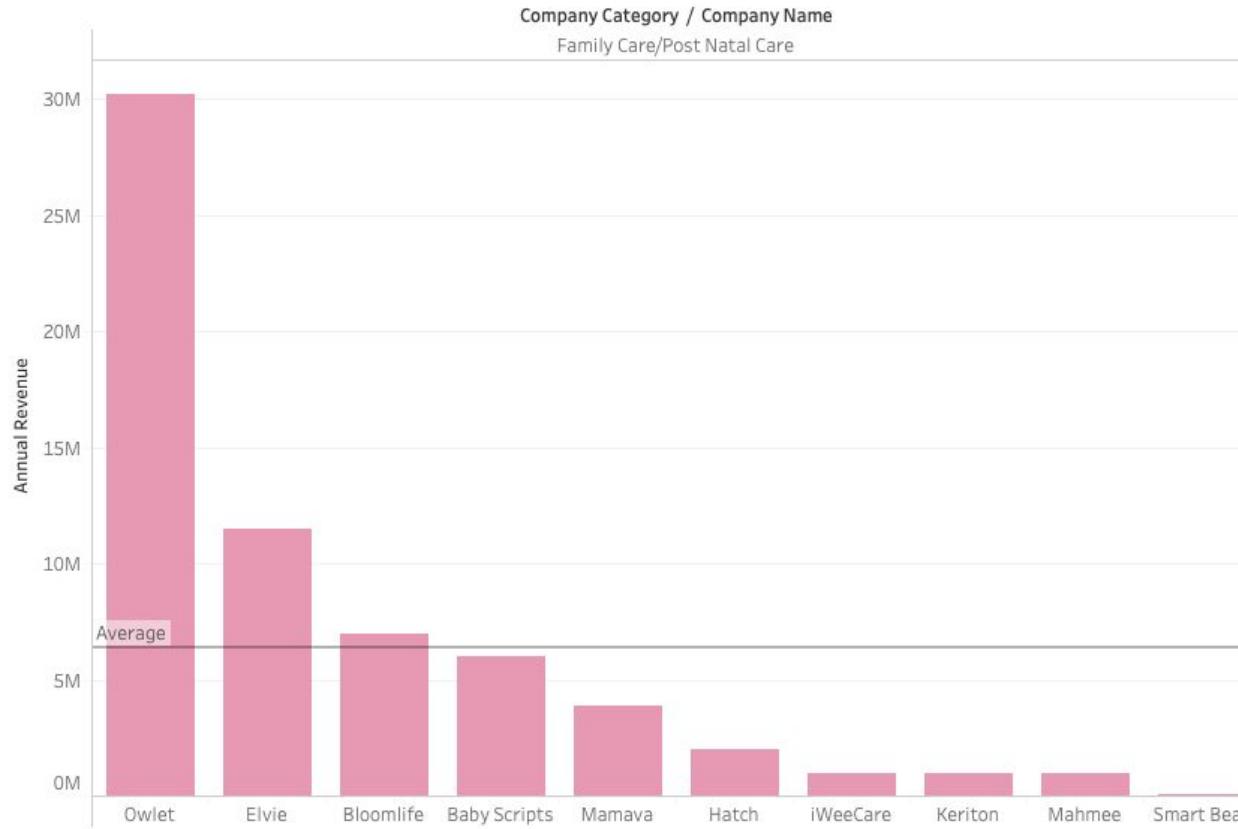
Annual Revenue vs. Fertility Segment Companies (Bottom Half)



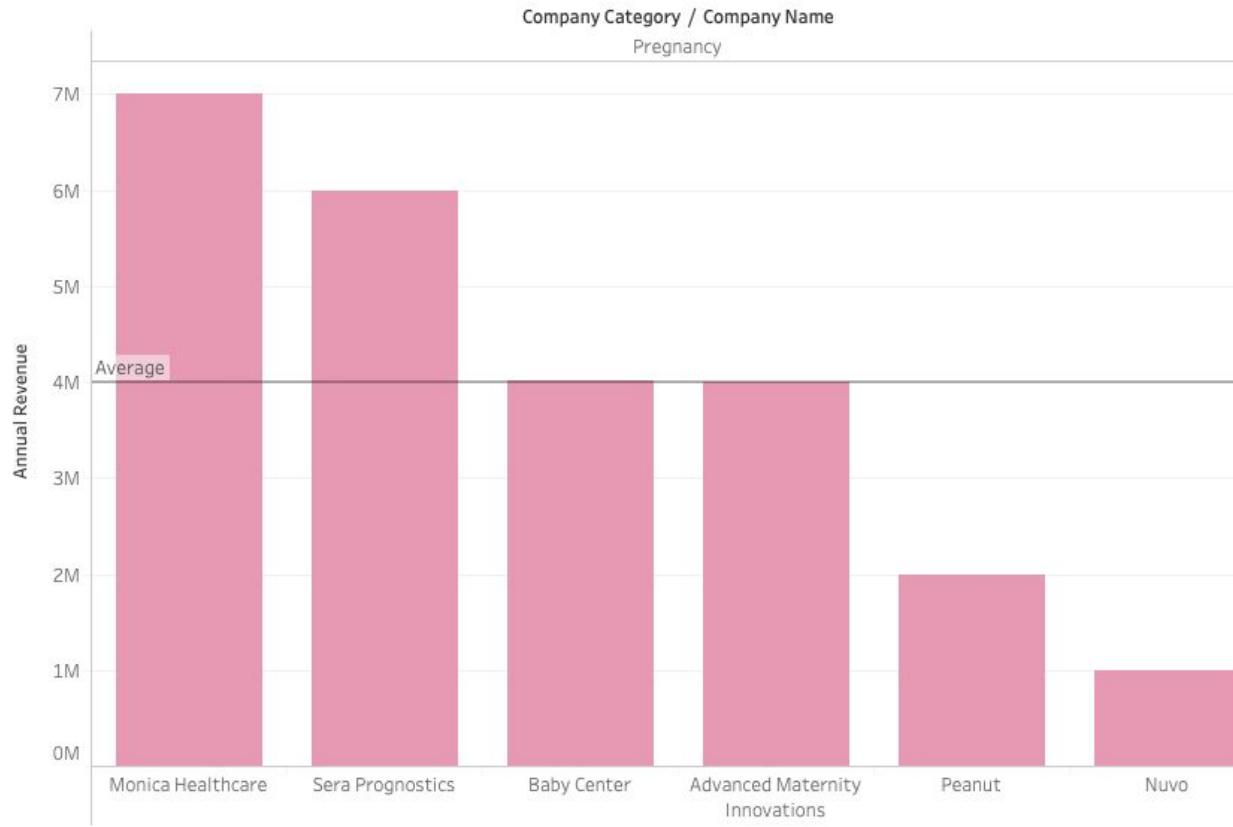
Annual Revenue vs. Family Care Segment Companies



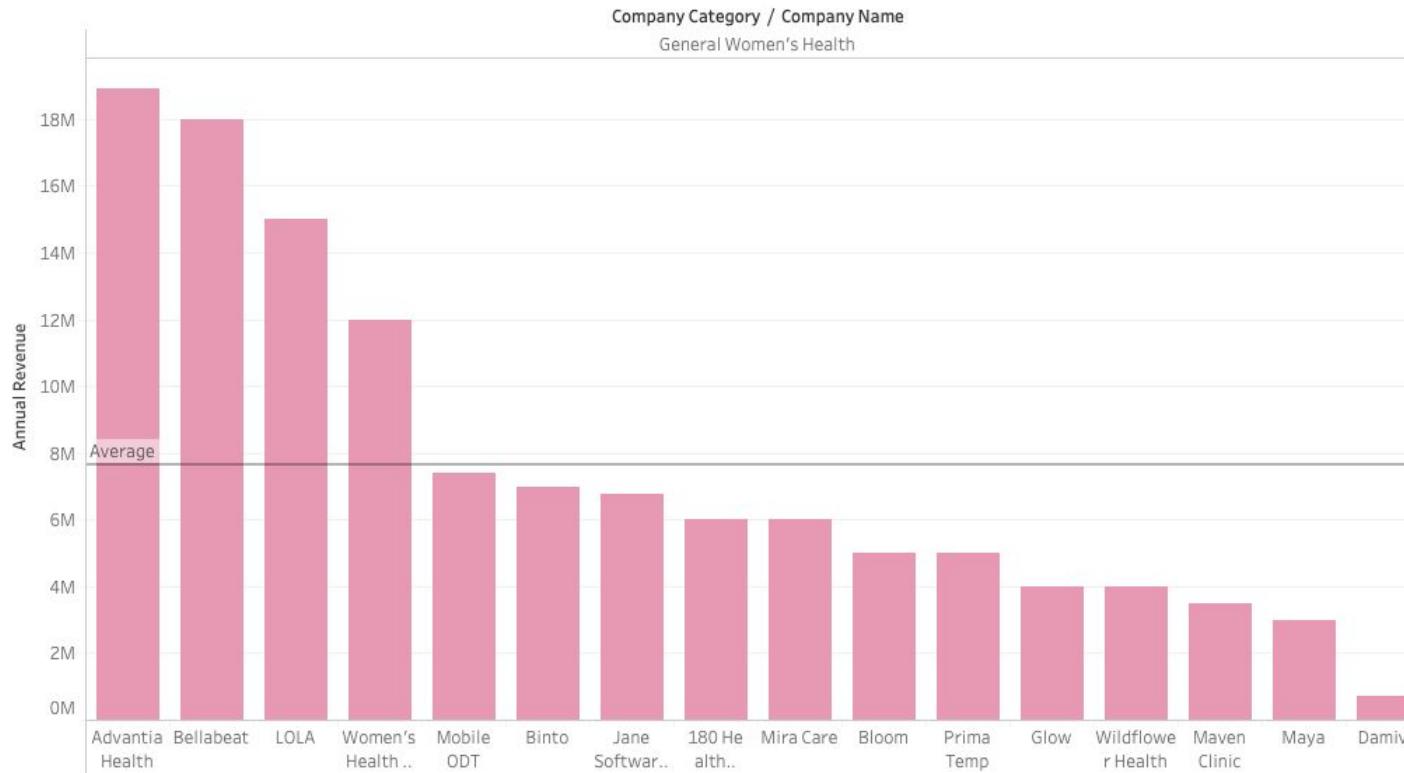
Annual Revenue vs. Family Care Segment Companies (Excluding The Bump)



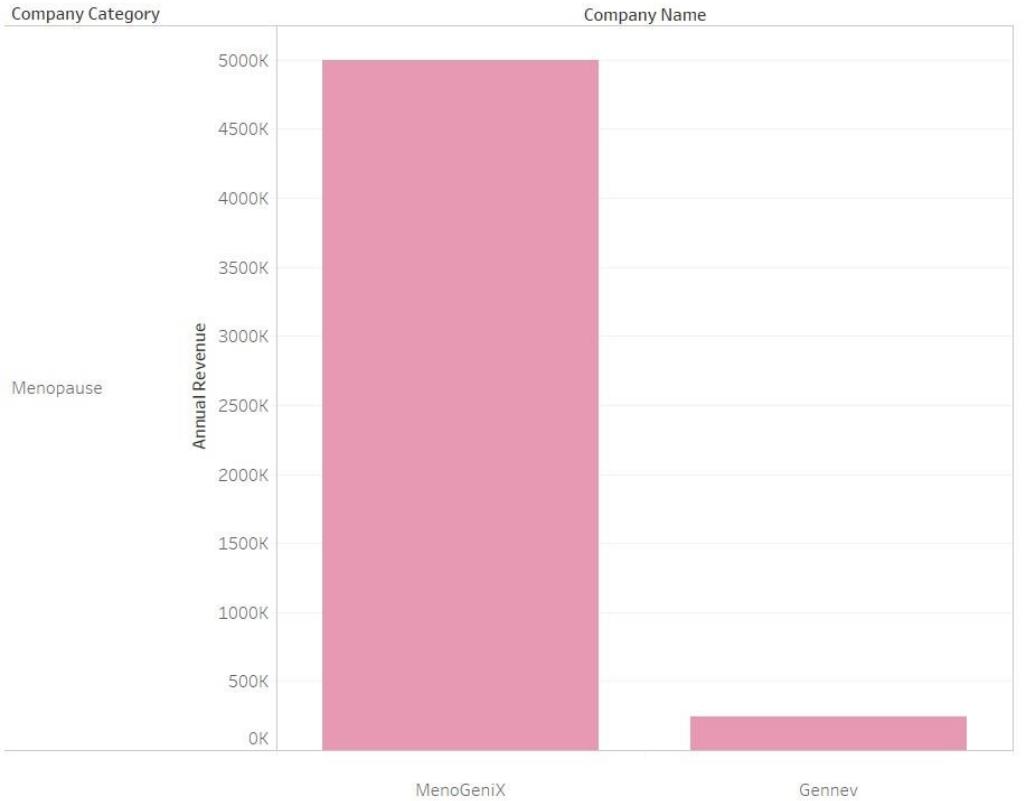
Annual Revenue vs. Pregnancy Segment Companies



Annual Revenue by General Women's Health Segment Companies



Average Annual Revenue vs. Menopause Segment Companies



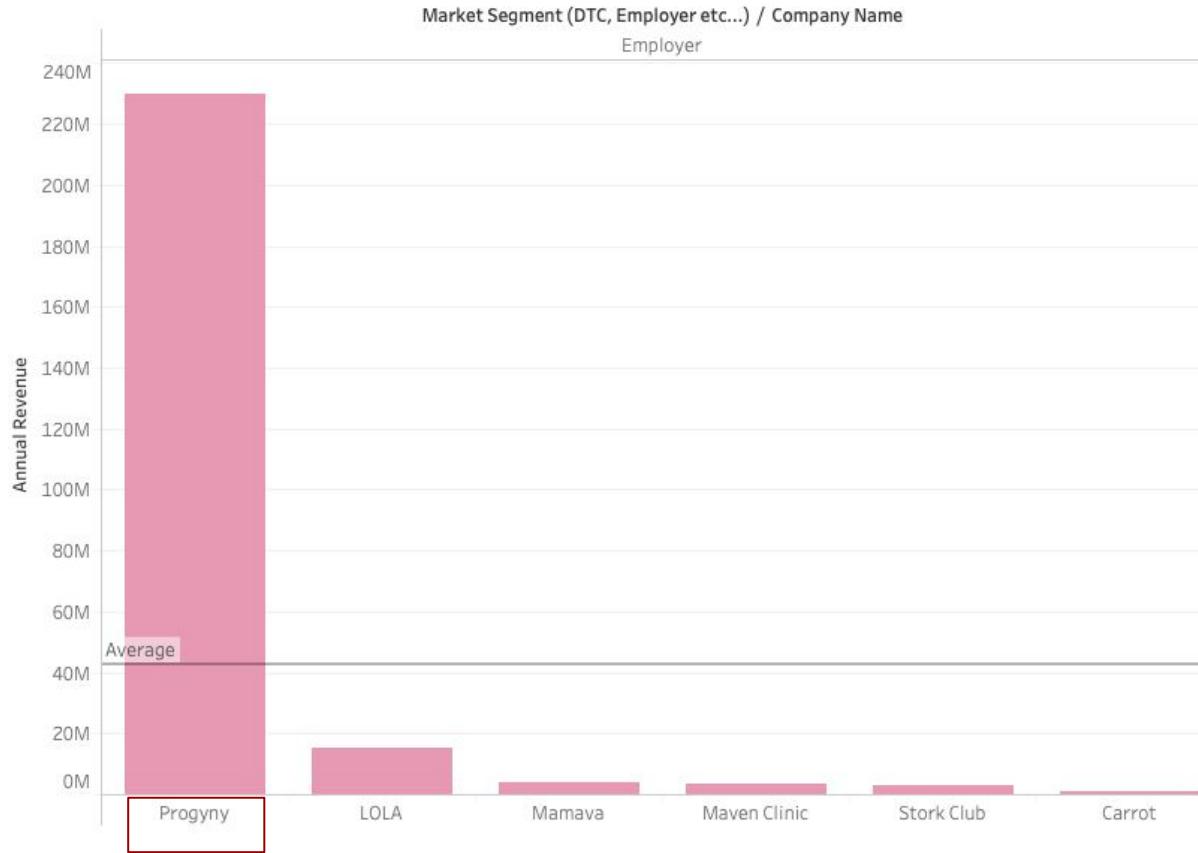
Market Segment

DTC	Payer	Provider	Employer	Pharma
<ul style="list-style-type: none"> Ava Baby Center Baby Scripts Bellabeat Binto Bloom Bloomlife Clue Conceivable Cycadia Health Damiva Elvie Fertility Focus FertilityIQ Flo Food Period Future Family Gennev Glow GoodStart Genetics) Hatch iWeeCare Jane Software, Inc. Kegg Kerriton Kindbody Let's Get Checked 	<ul style="list-style-type: none"> Lilia Maya Med Answers Mira Care Modern Fertility Monica Healthcare Myriad Genetics Natalist Natural Cycles Nuvo Oova Oula Ovia Health Owllet Peanut Prelude Prima Temp Rinovum Smart Beat The Bump The Pill Club Vagenie Wildflower Health Win Fertility Woom 	<ul style="list-style-type: none"> Ask Tia Progenity 	<ul style="list-style-type: none"> 180 Health Partners Advanced Maternity Innovations Advantia Health Celmatix Kindara Mahmee Mobile ODT Sera Prognostics Univfy Women's Health USA 	<ul style="list-style-type: none"> Carrot LOLA Mamava Maven Clinic Progyny Stork Club
52 total, 73.2%	2 total, 2.8%	10 total, 14.1%	6 total, 8.5%	1 total, 1.4%

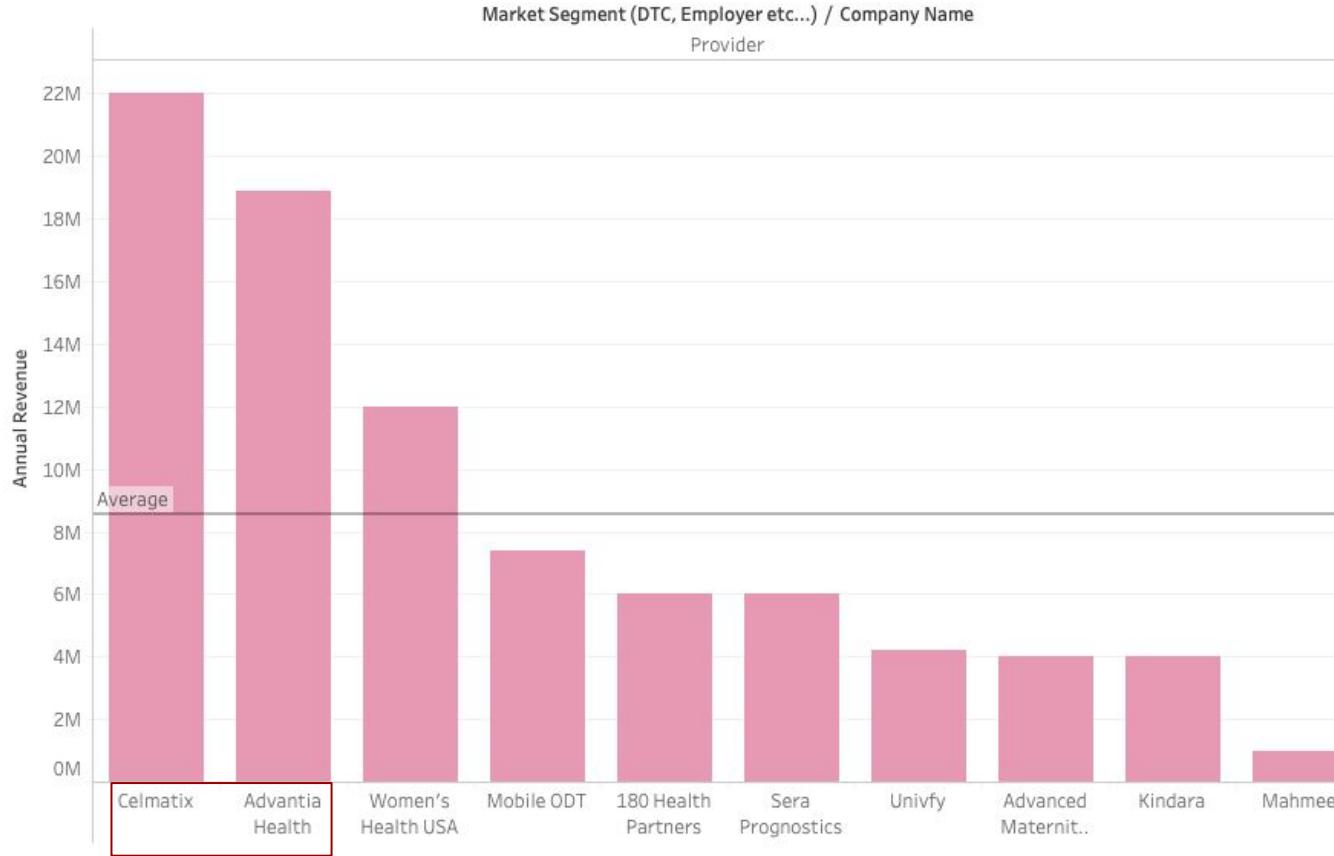


Key Insight: DTC is the most saturated segment of the FemTech Market

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
- Cycadia 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%

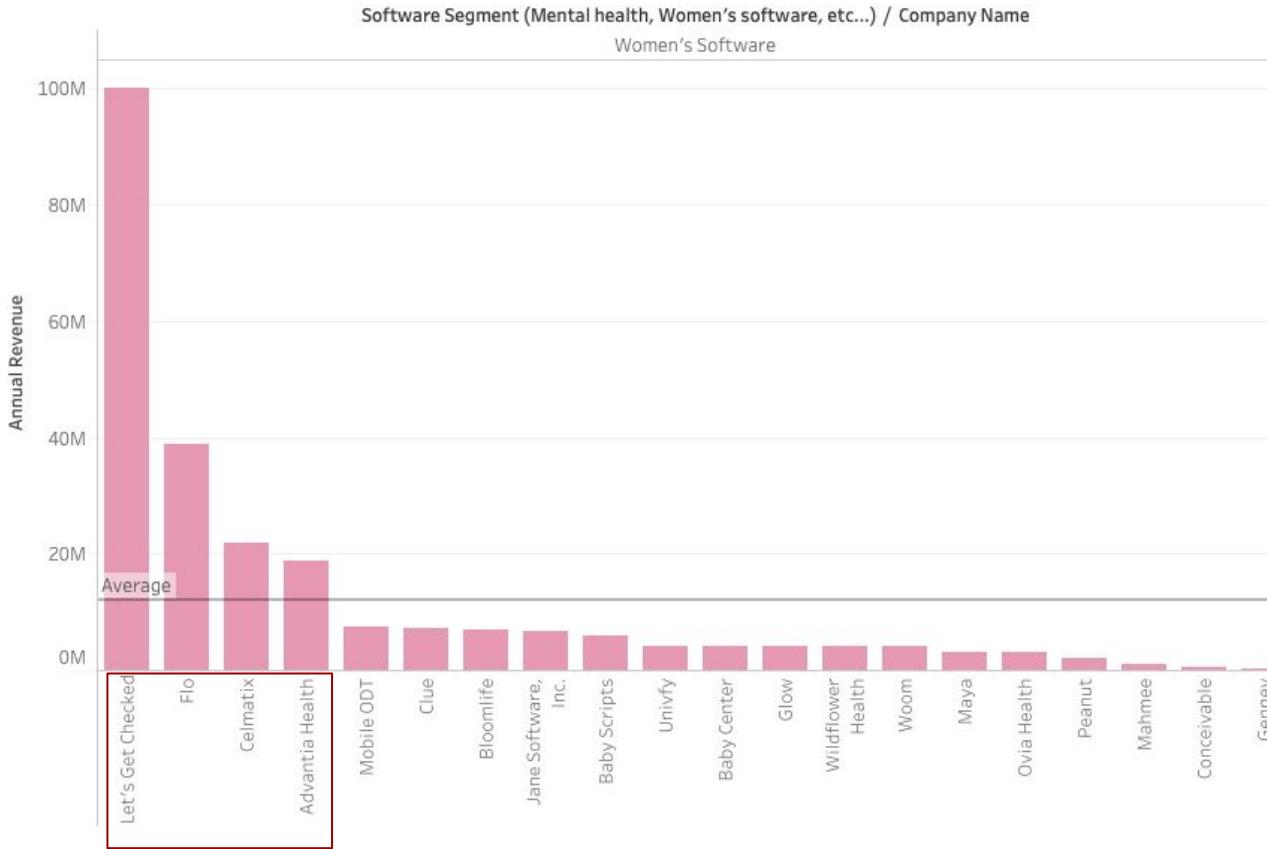


Key Insight: The mental health segment of the market is the least occupied.

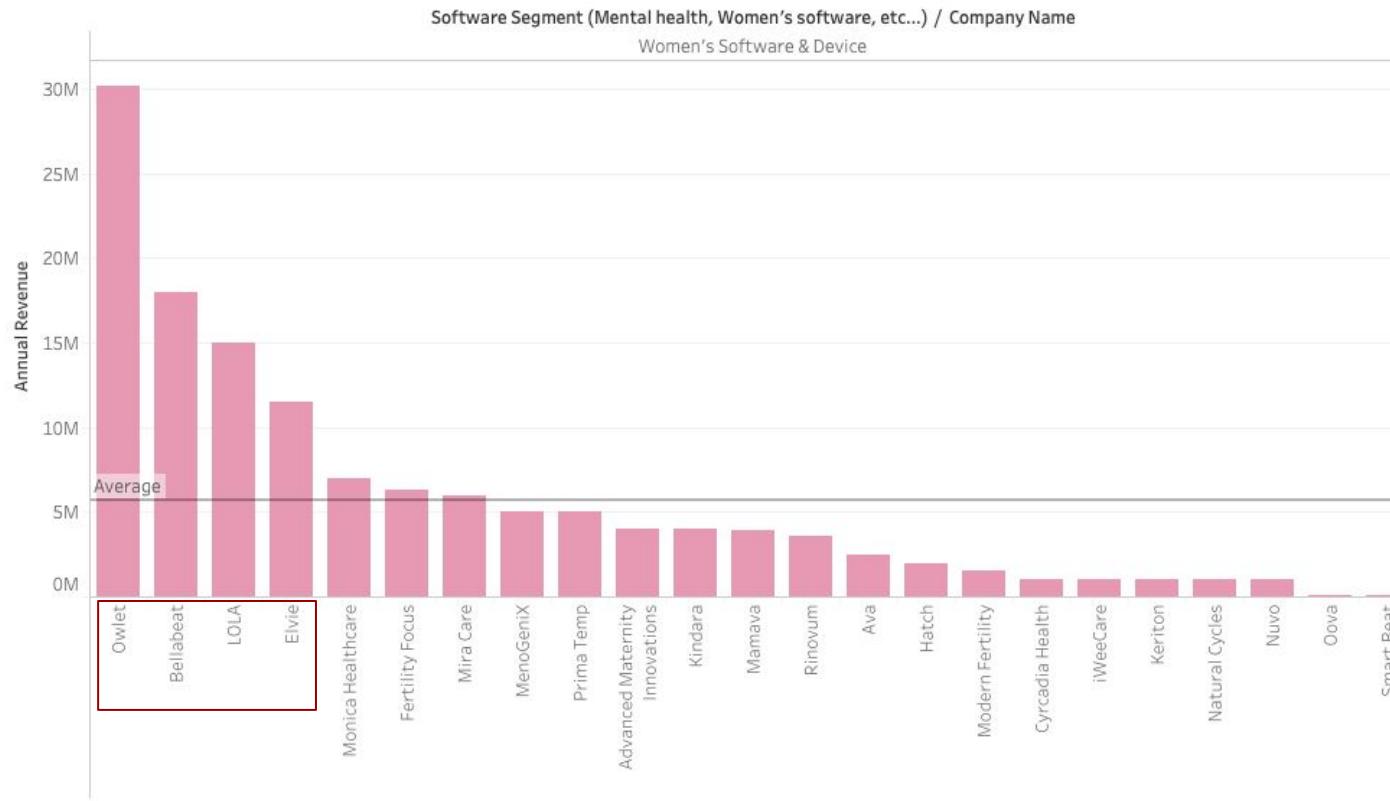
Sum of Annual Revenue by Software Segment



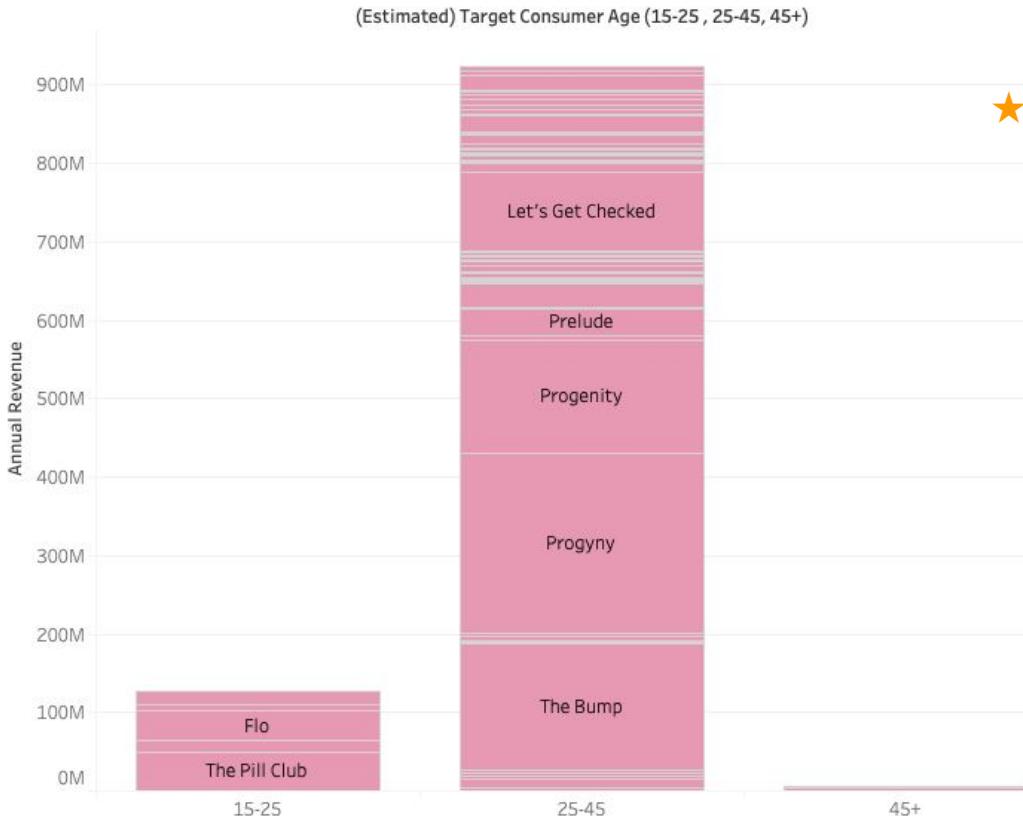
Annual Revenue by Women's Software Companies



Annual Revenue by Women's Software & Device Companies

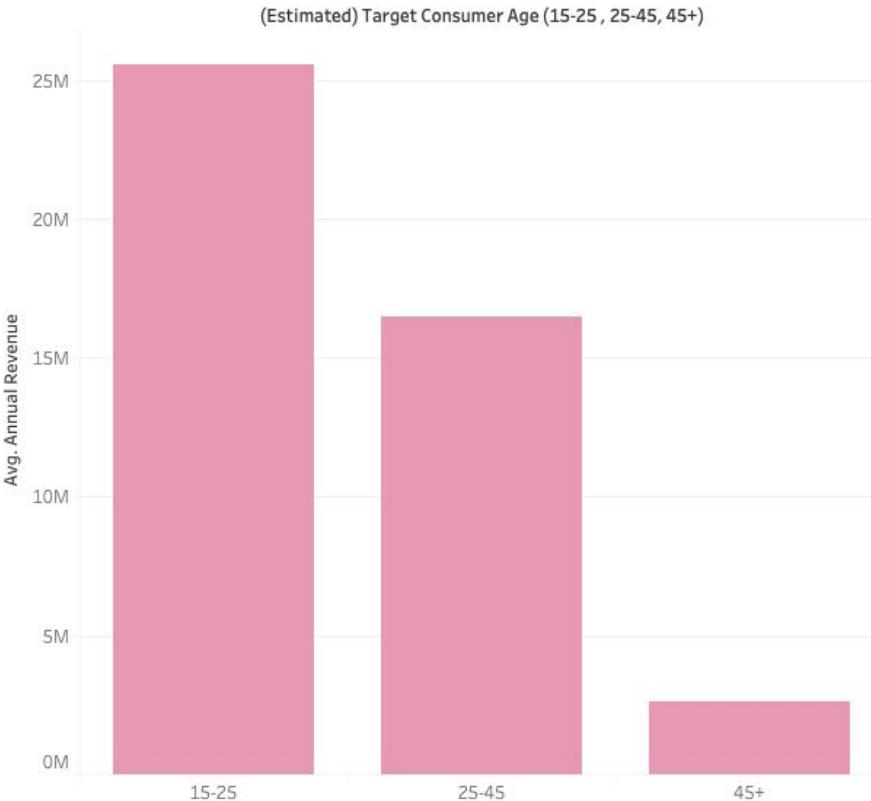


Sum of Annual Revenue by Target Consumer Age



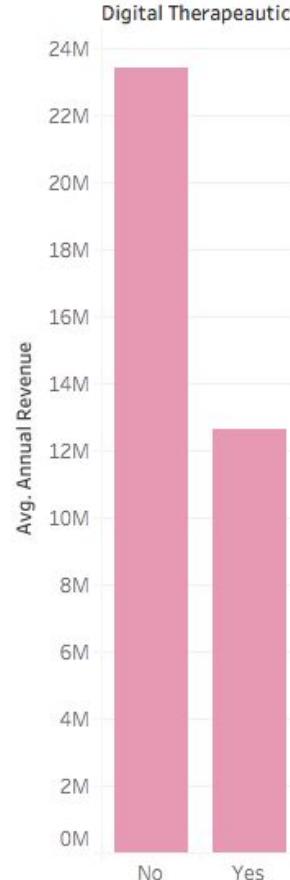
While many of these FemTech start-ups market to 15-25 year olds, the most money being made is in this 25-45 year old segment. There were not many companies that we estimated to be focused on the 45+ audience, and thus we do not have a large enough sample to come to concrete conclusions about that market.

Average Annual Revenue by Target Consumer Age

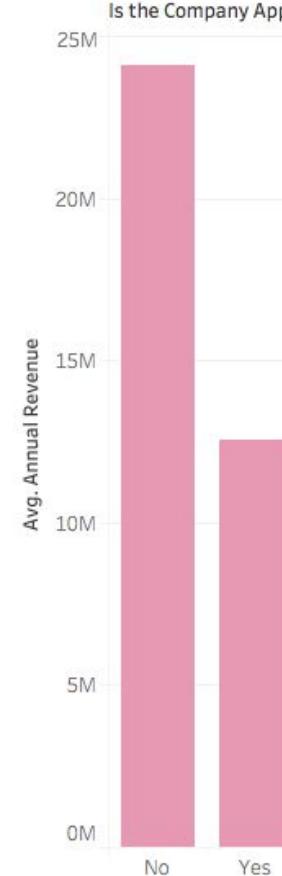


- ★ Due to the large amount of infant size companies in the 25-45 year old market, the average was brought down, but there are more large companies within that space.

Average Annual Revenue by Digital Therapeutic/App Based



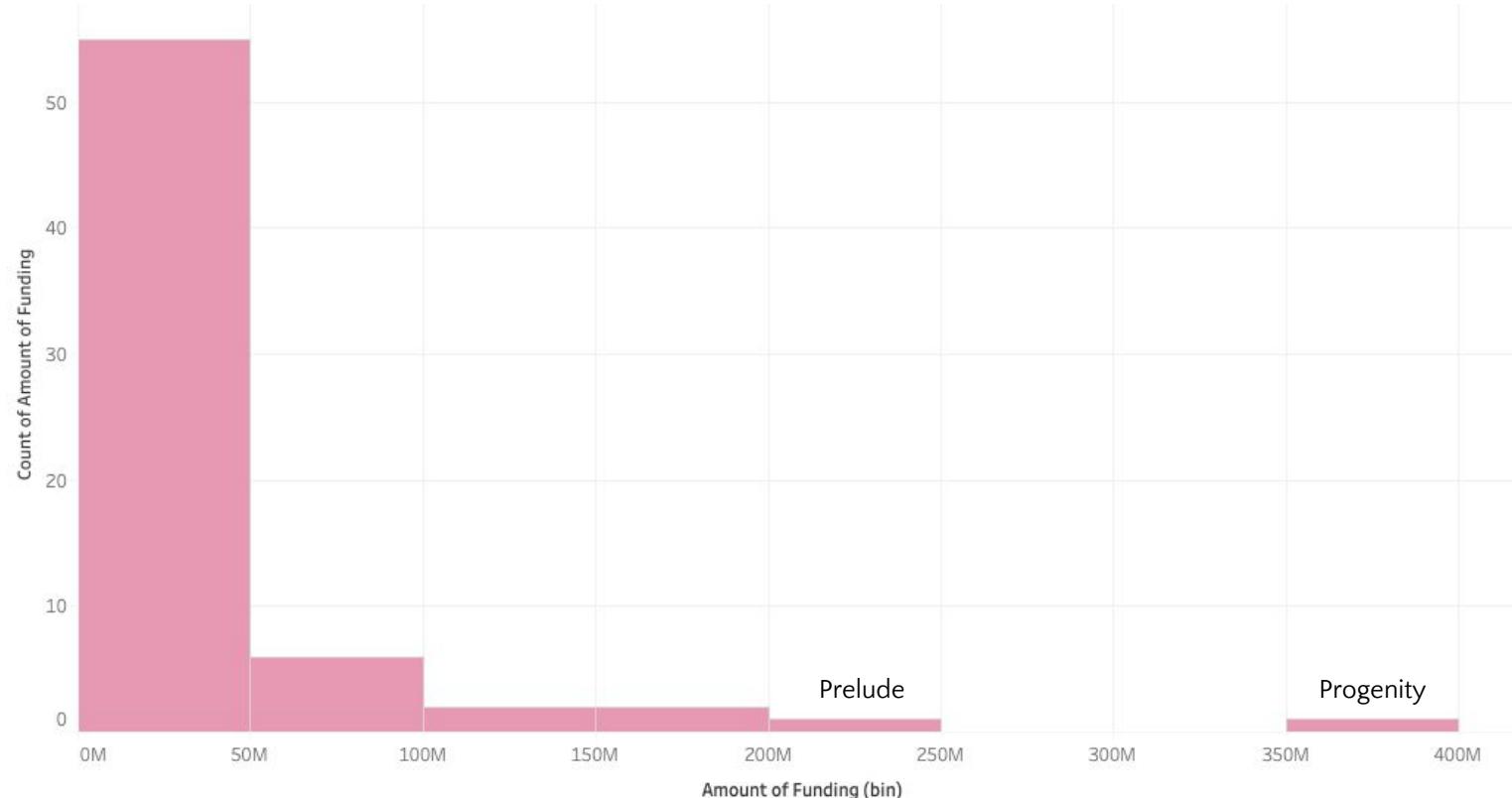
Key Insight: Those without an app and do not qualify as a digital therapeutic have, on average, higher annual revenues.



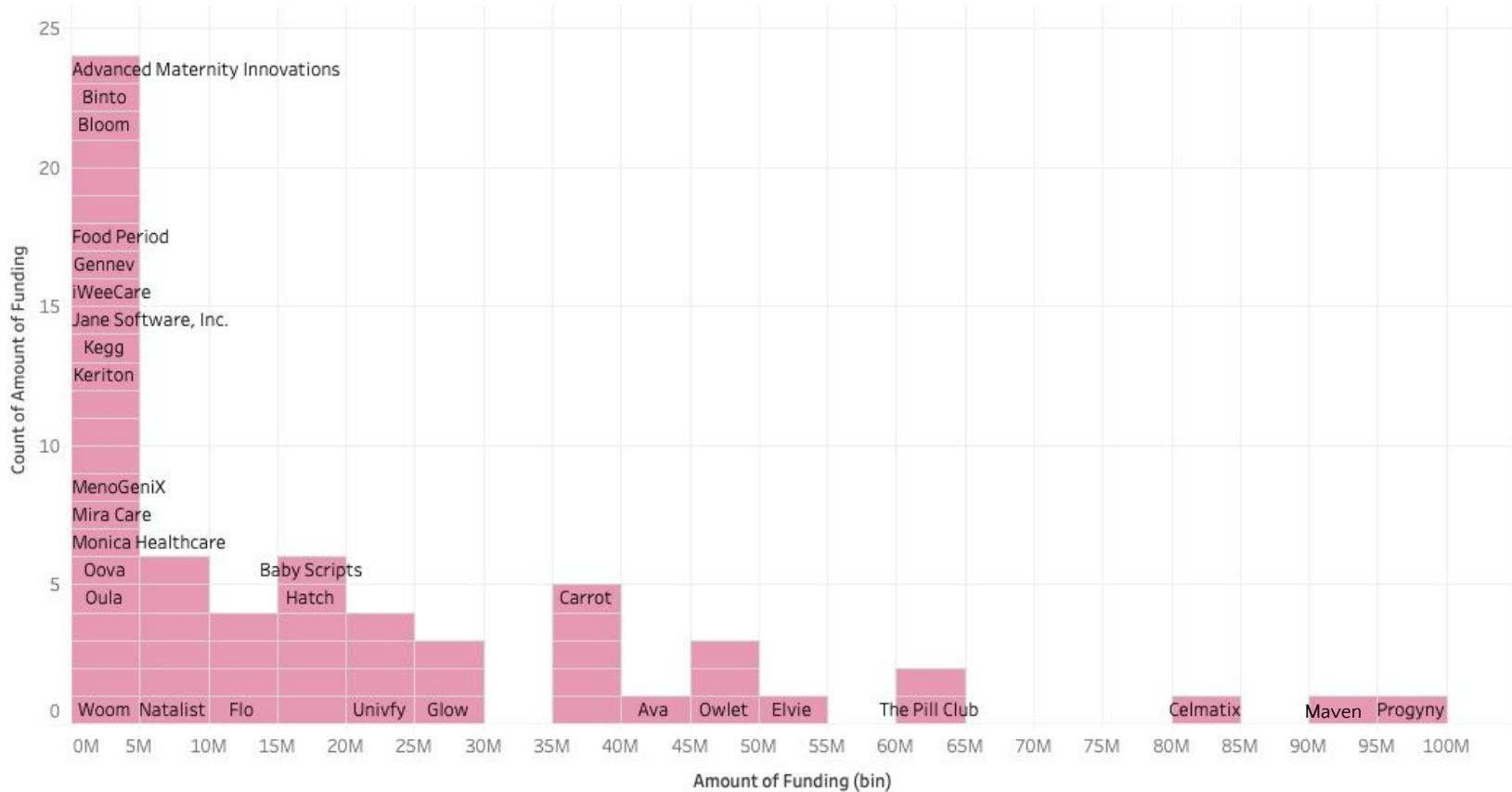


Funding

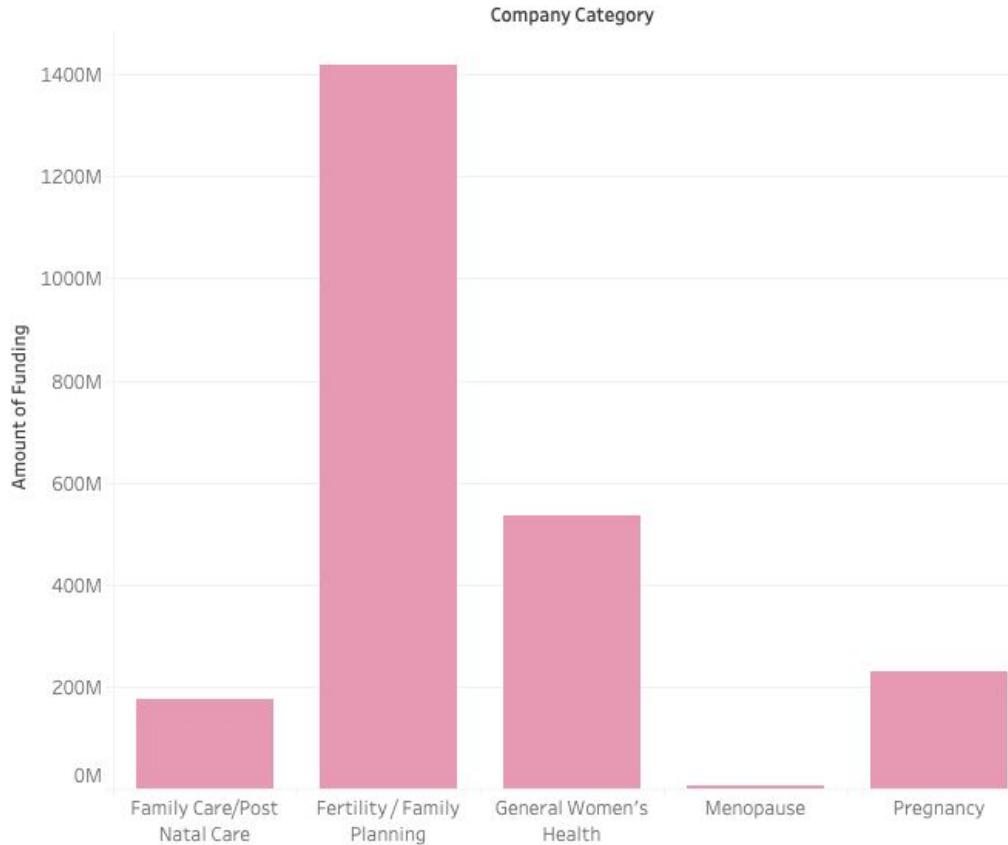
Histogram of Funding



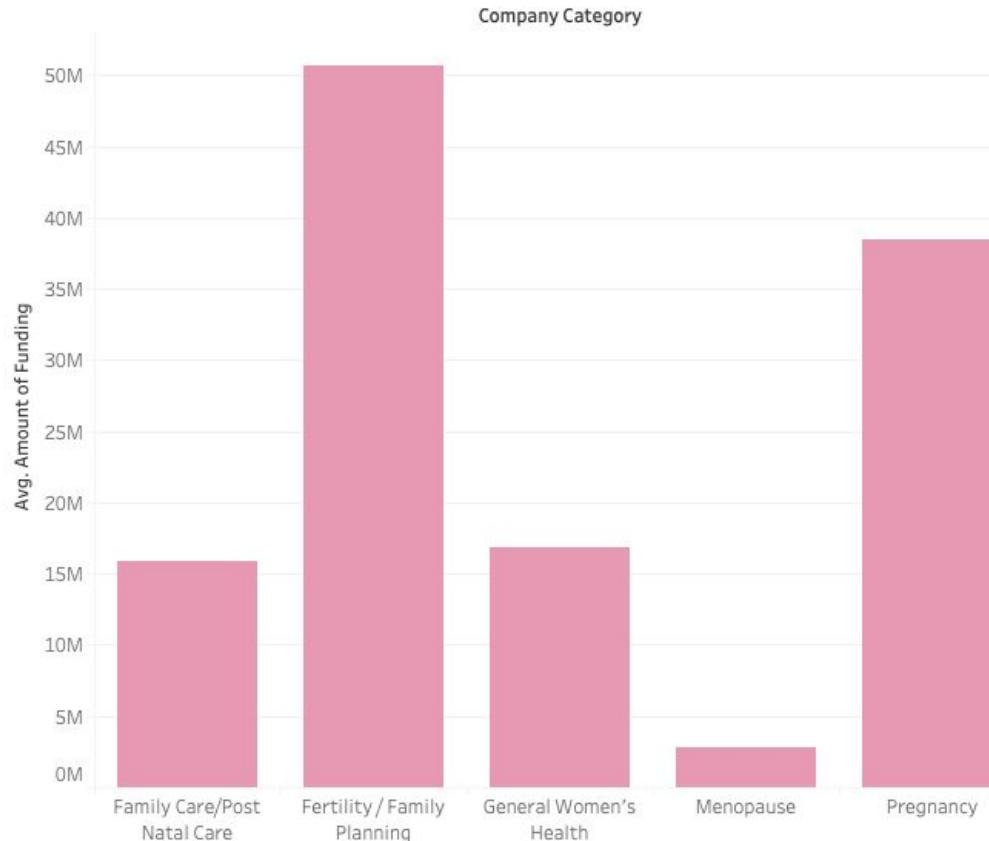
Histogram of Funding (Under \$100M)



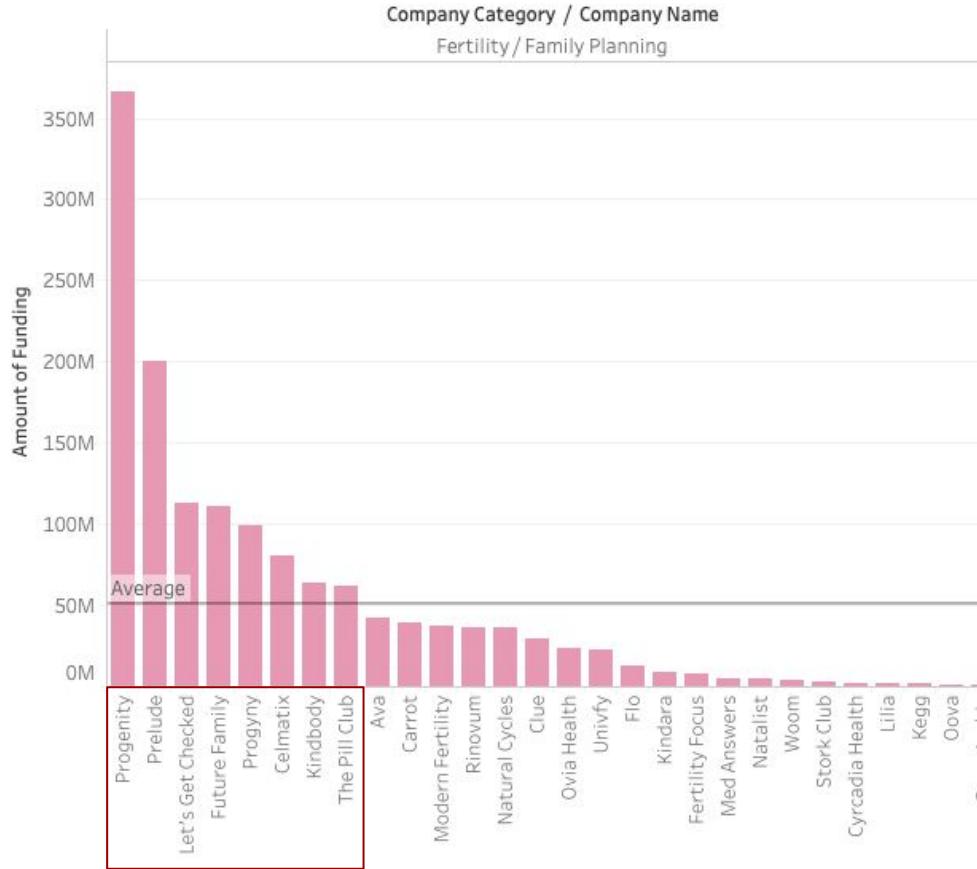
Category vs. Sum of Amount of Funding



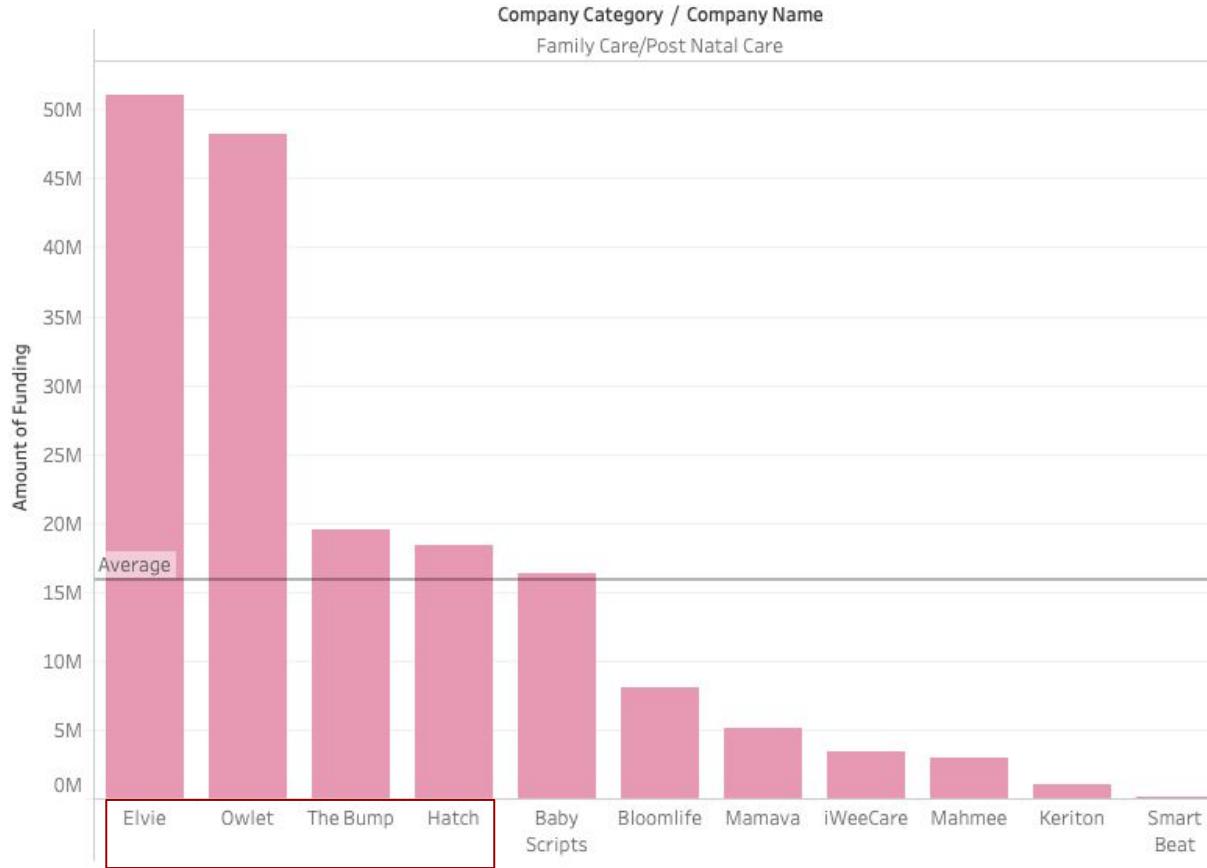
Category vs. Average of Amount of Funding



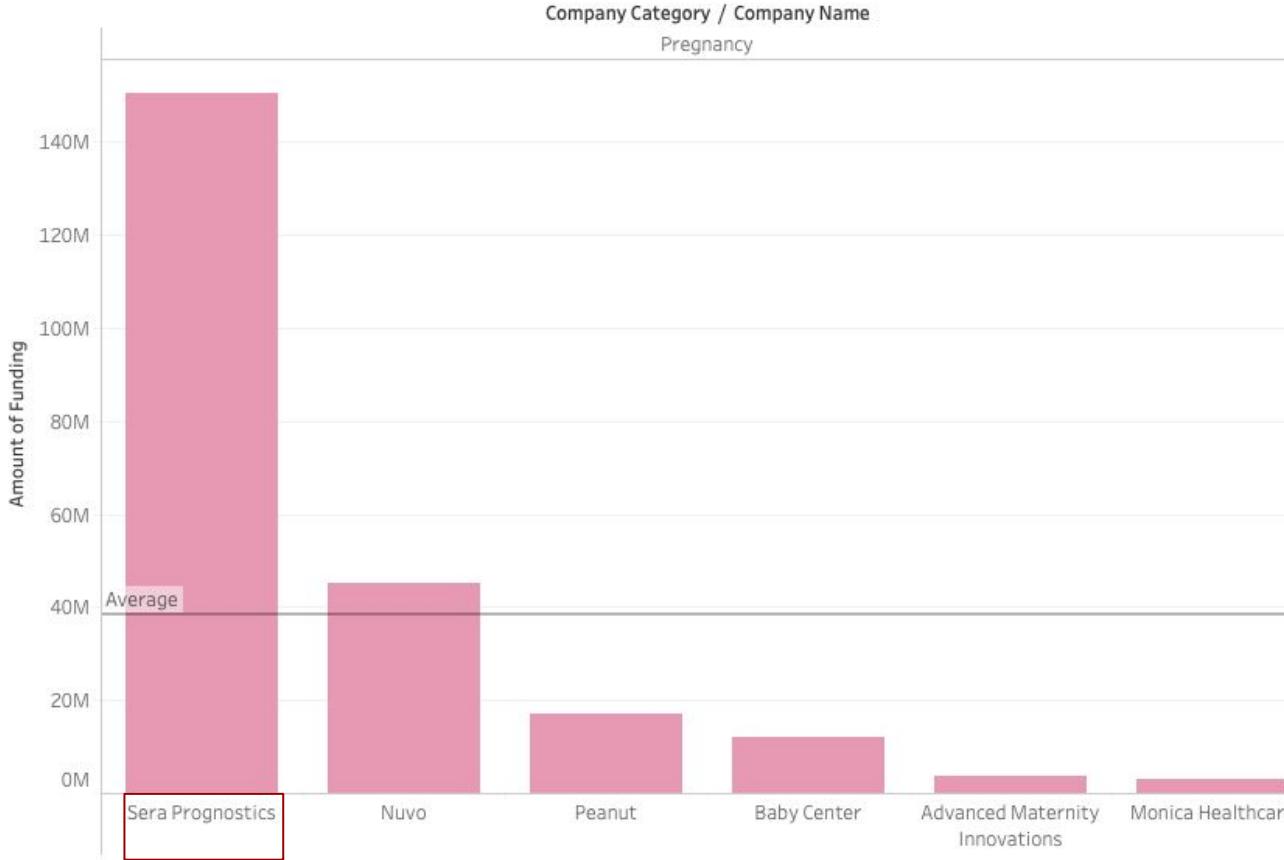
Fertility Companies vs. Amount of Funding



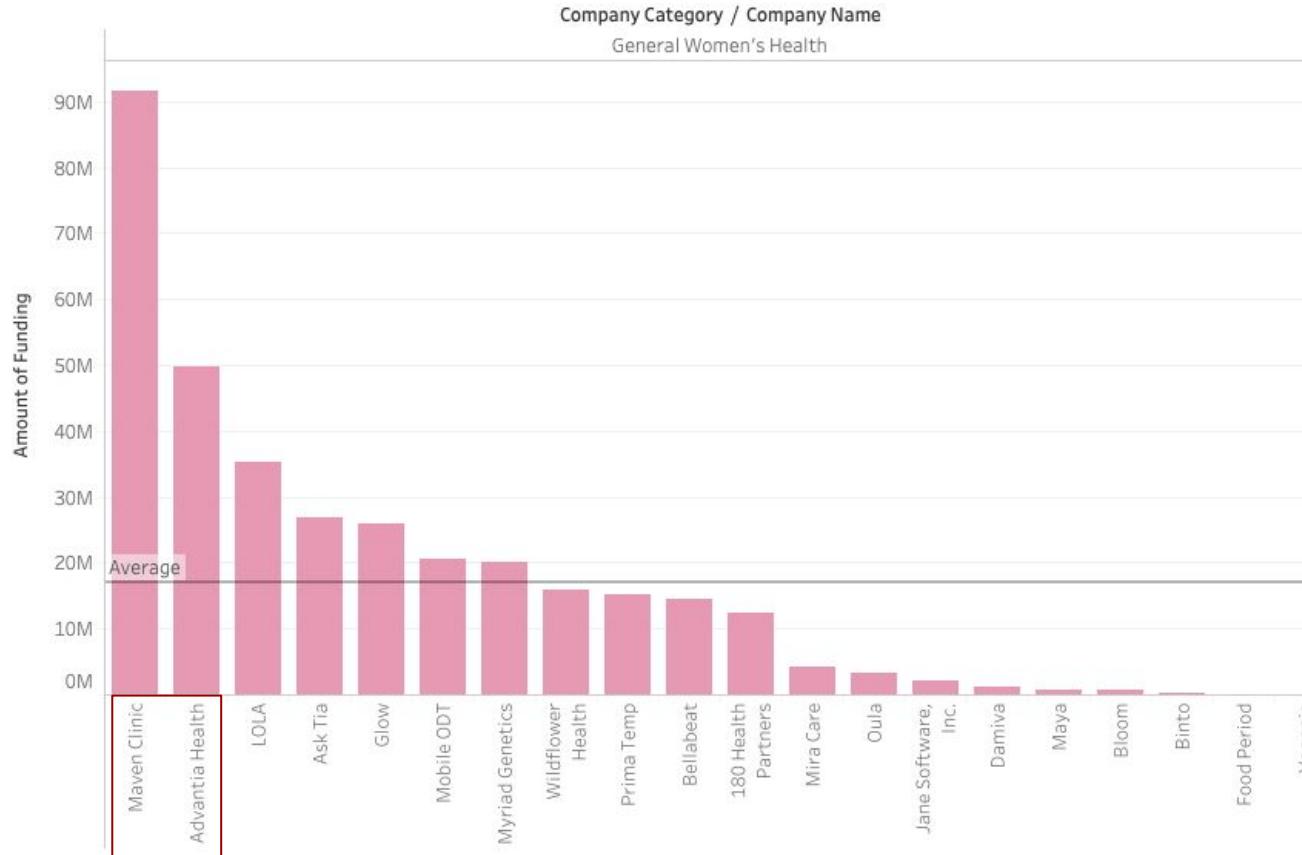
Family Care Companies vs. Amount of Funding



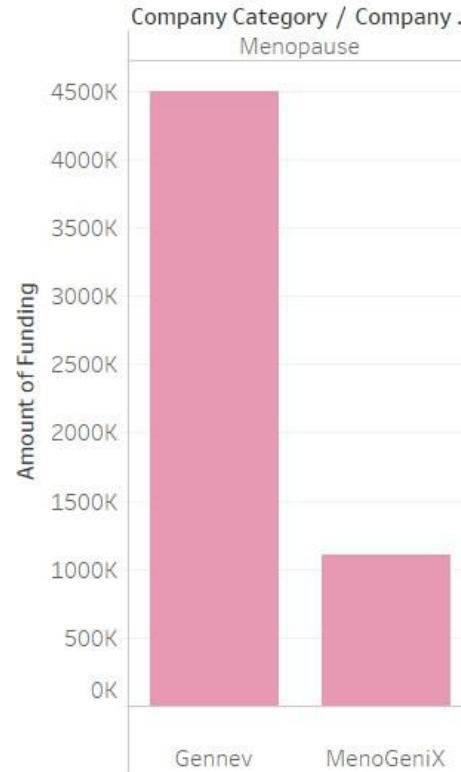
Pregnancy Companies vs. Amount of Funding



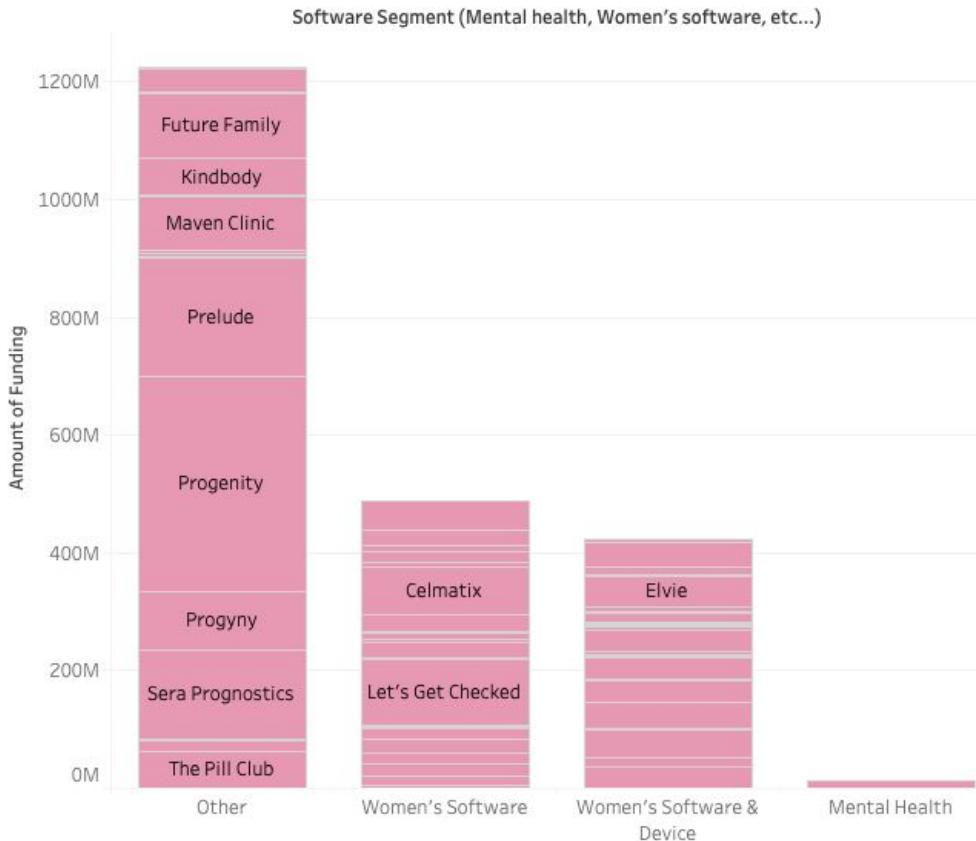
General Women's Health Companies vs. Amount of Funding



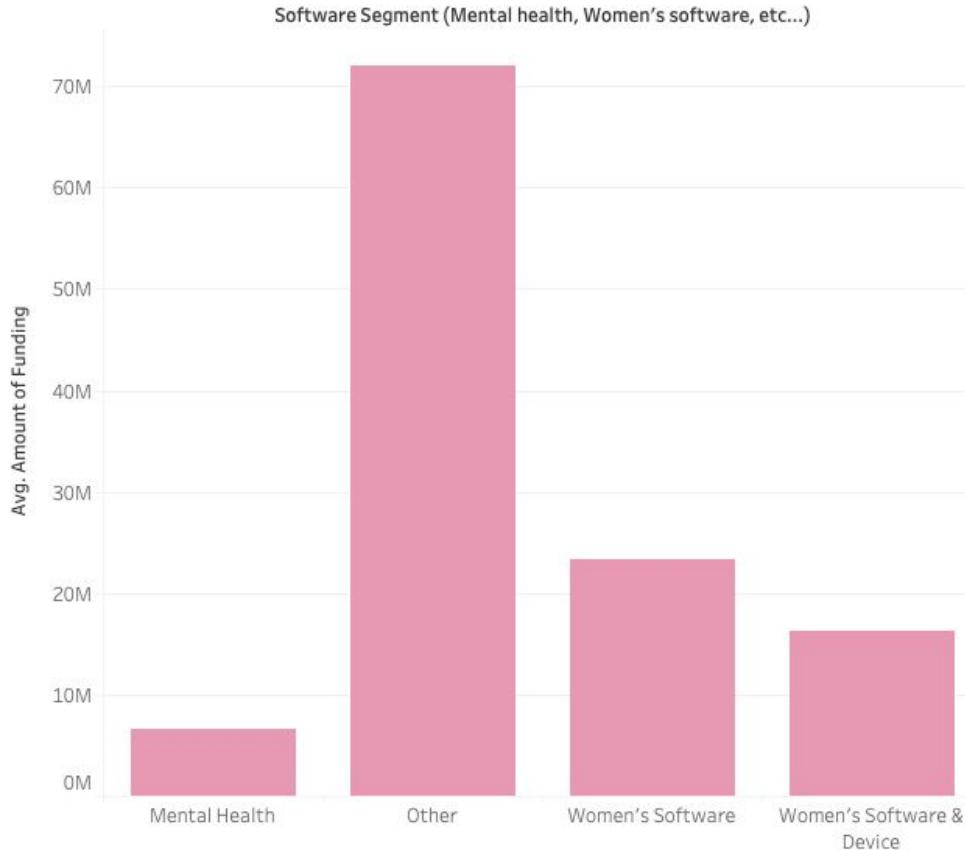
Menopause Companies vs. Amount of Funding



Sum of Amount of Funding by Software Segment

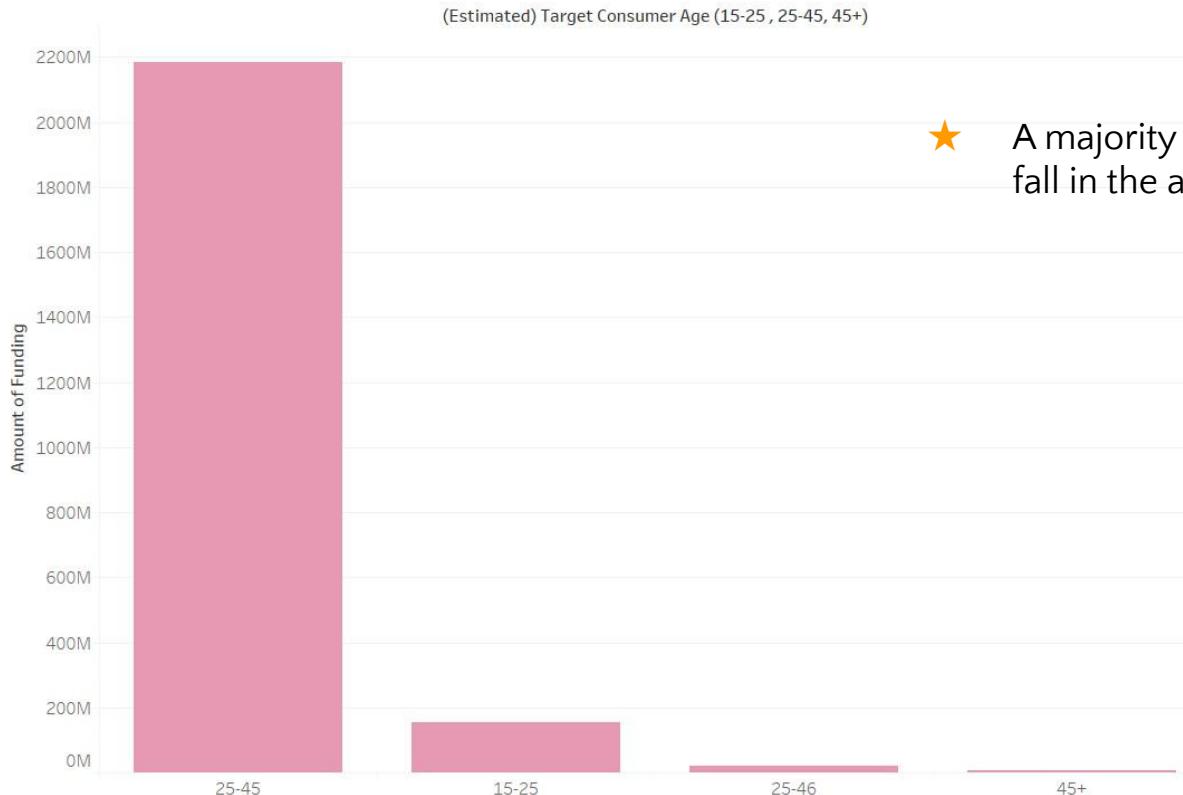


Average Amount of Funding by Software Segment



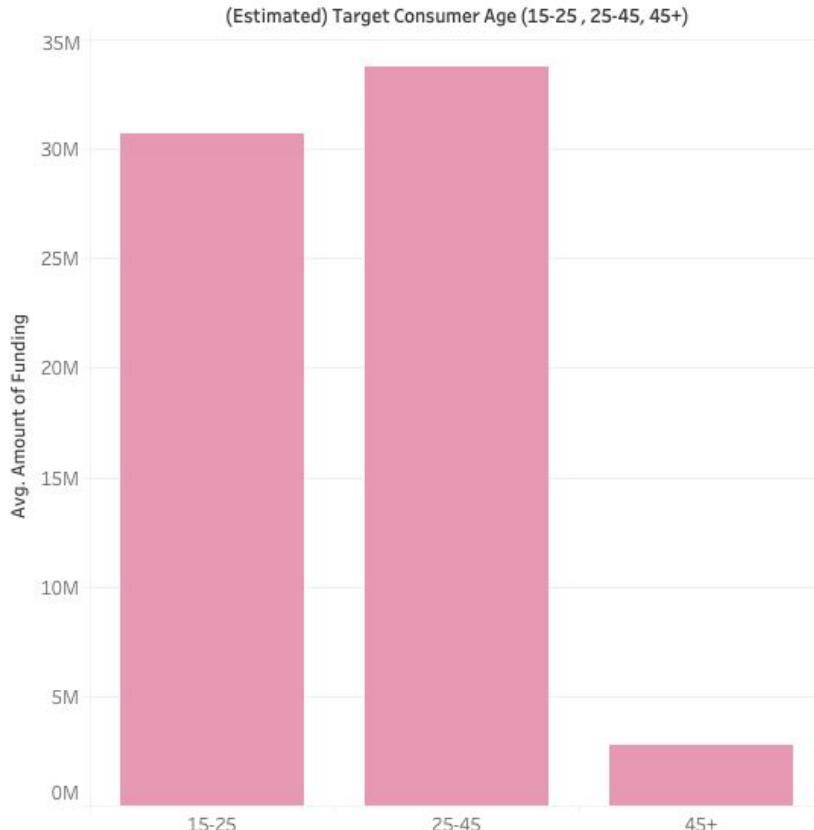
- ★ Some of the main companies in the “other” segment are:
Progyny, Prelude, Progenity,
Maven, The Pill Club
 - Many of these “other” companies consist of employer benefit or patient referring platforms

Sum of Amount of Funding by Target Consumer Age



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

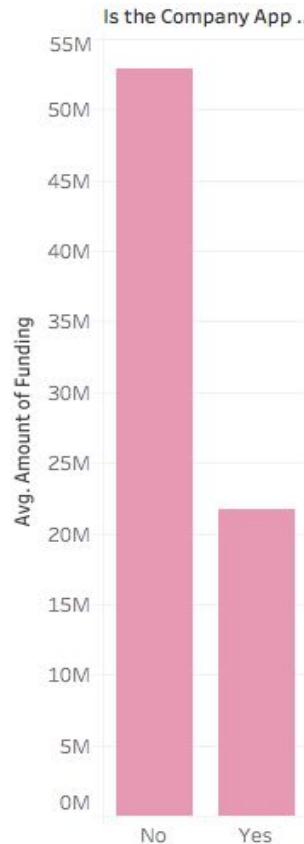
Average Amount of Funding by Target Consumer Age



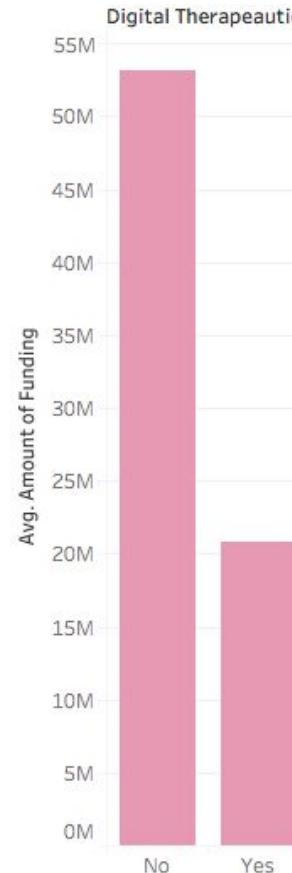
Companies that focus on the 25-45 year old age tend to be slightly larger in size

Average Amount of Funding by App based/Digital Therapeutic

**happify™
HEALTH**



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

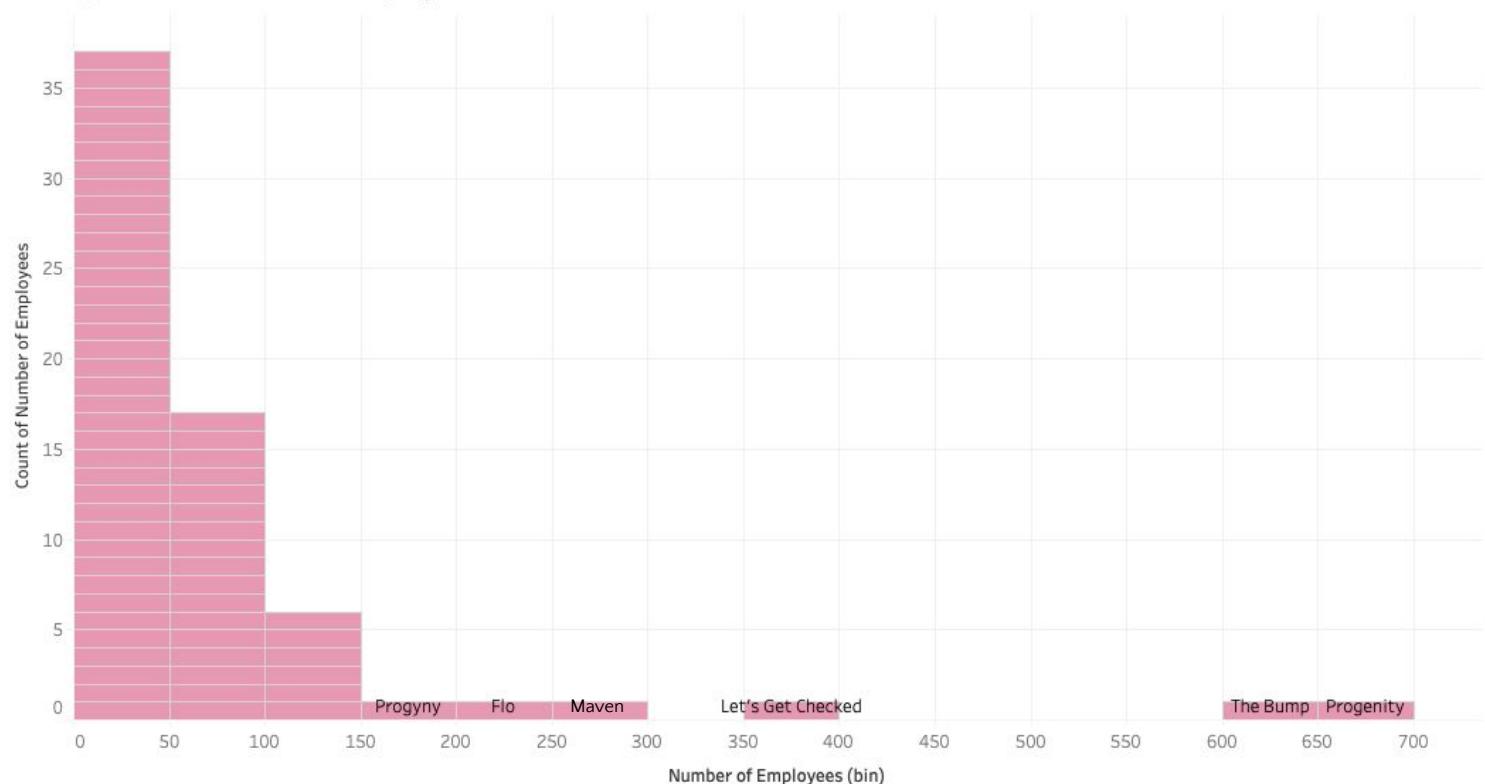




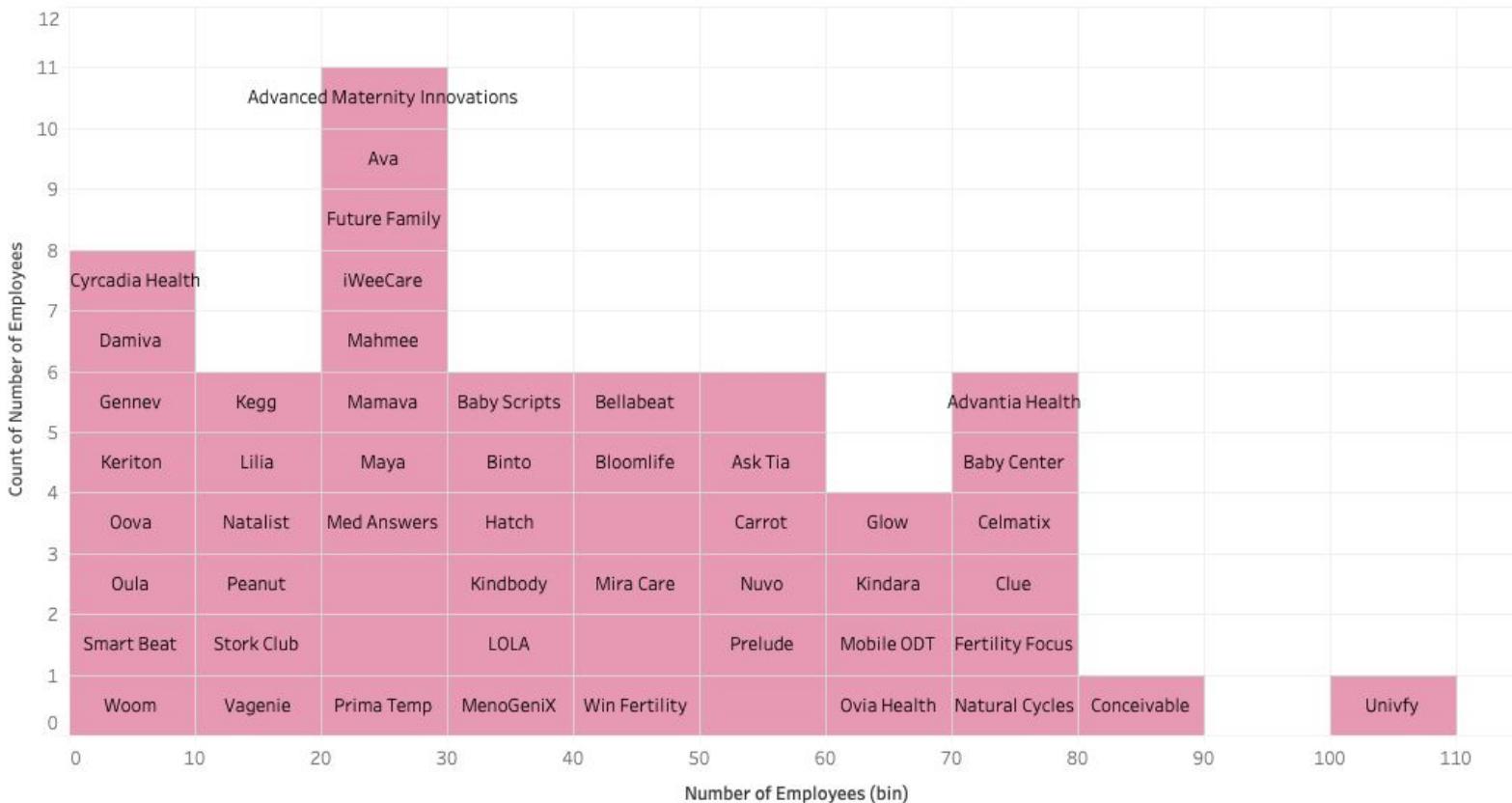
Number of Employees

Histogram of Number of Employees

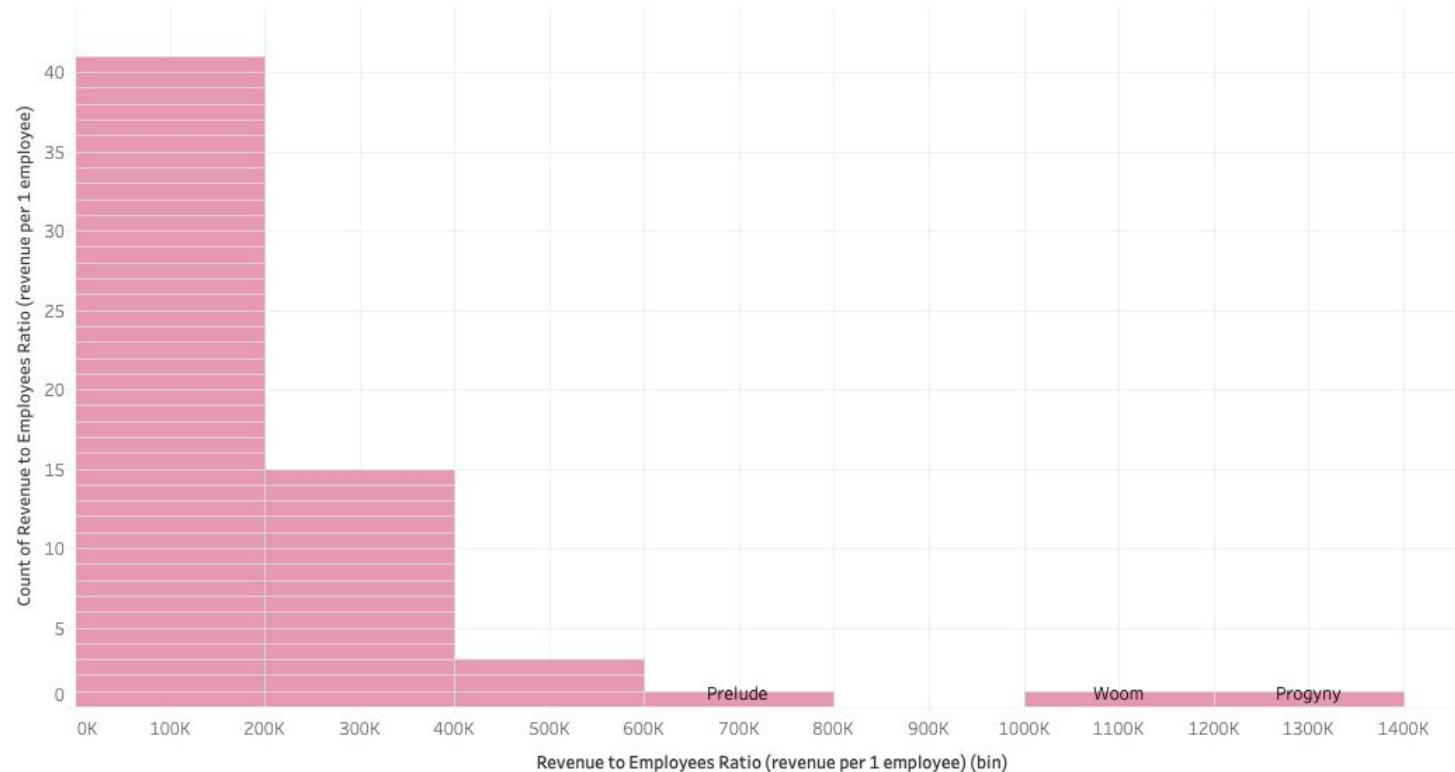
Histogram of Number of Employees



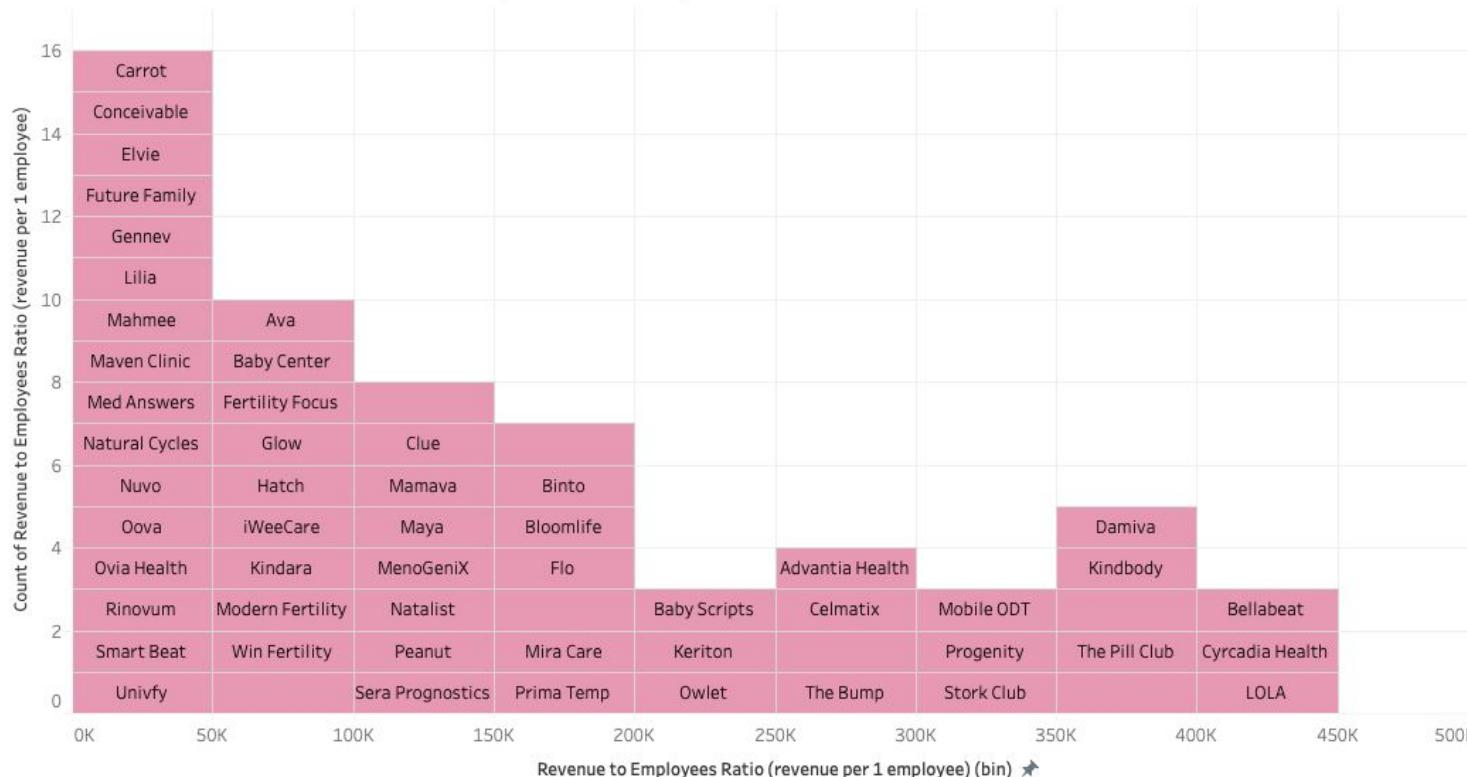
Histogram of Number of Employees (Under 100)



Histogram of Revenue Per Employee



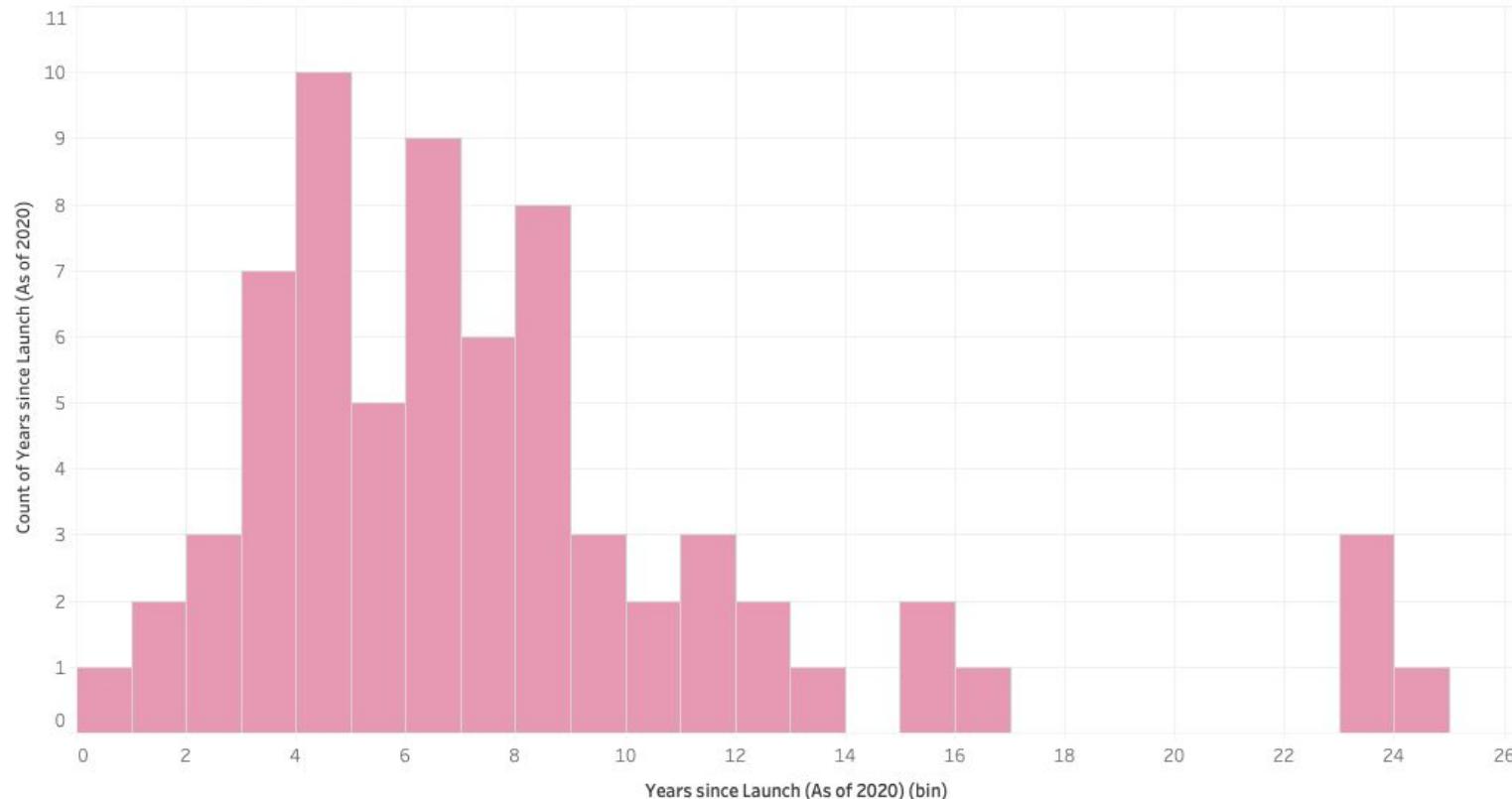
Histogram of Revenue Per Employee (Under \$500K)



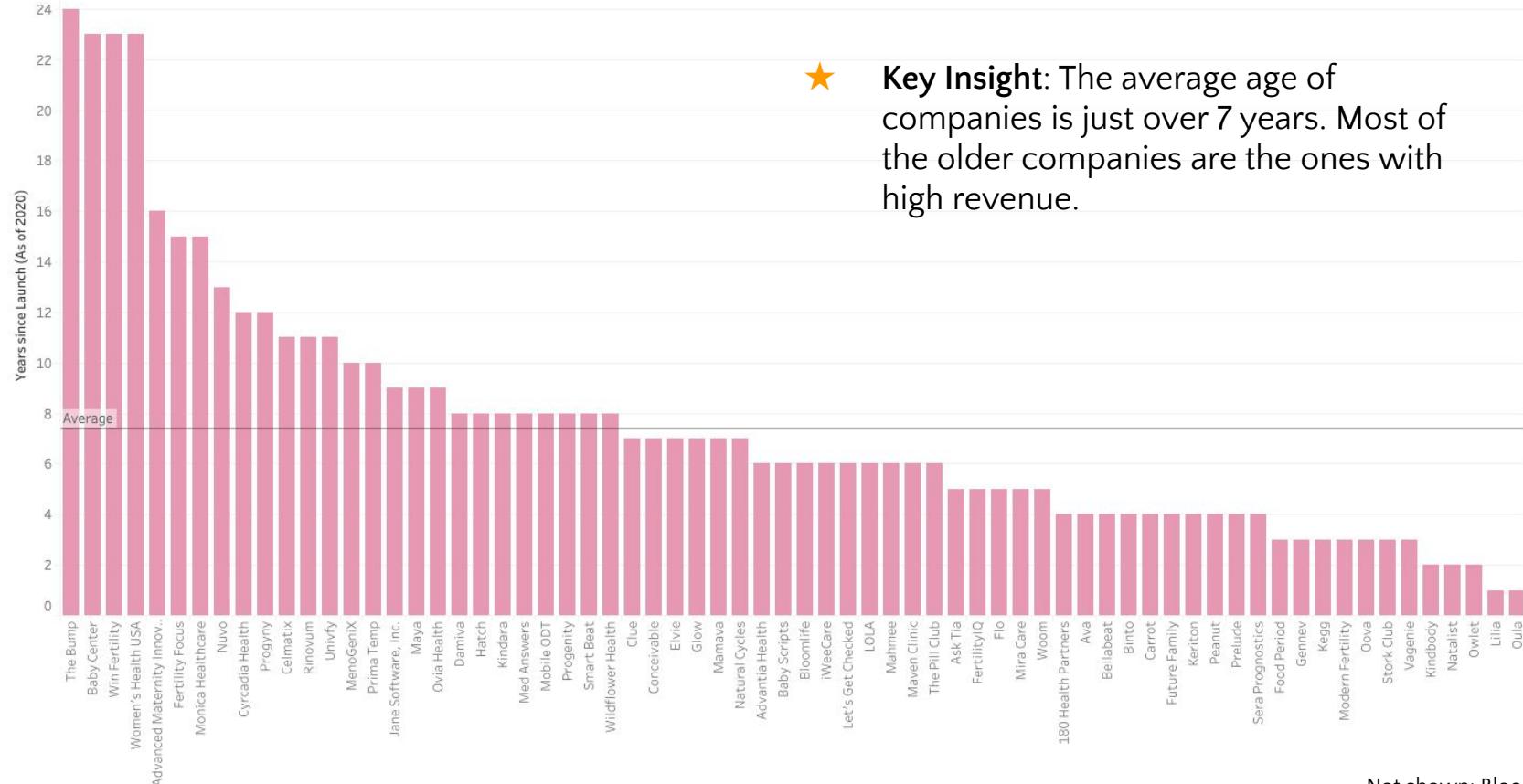


Company Age

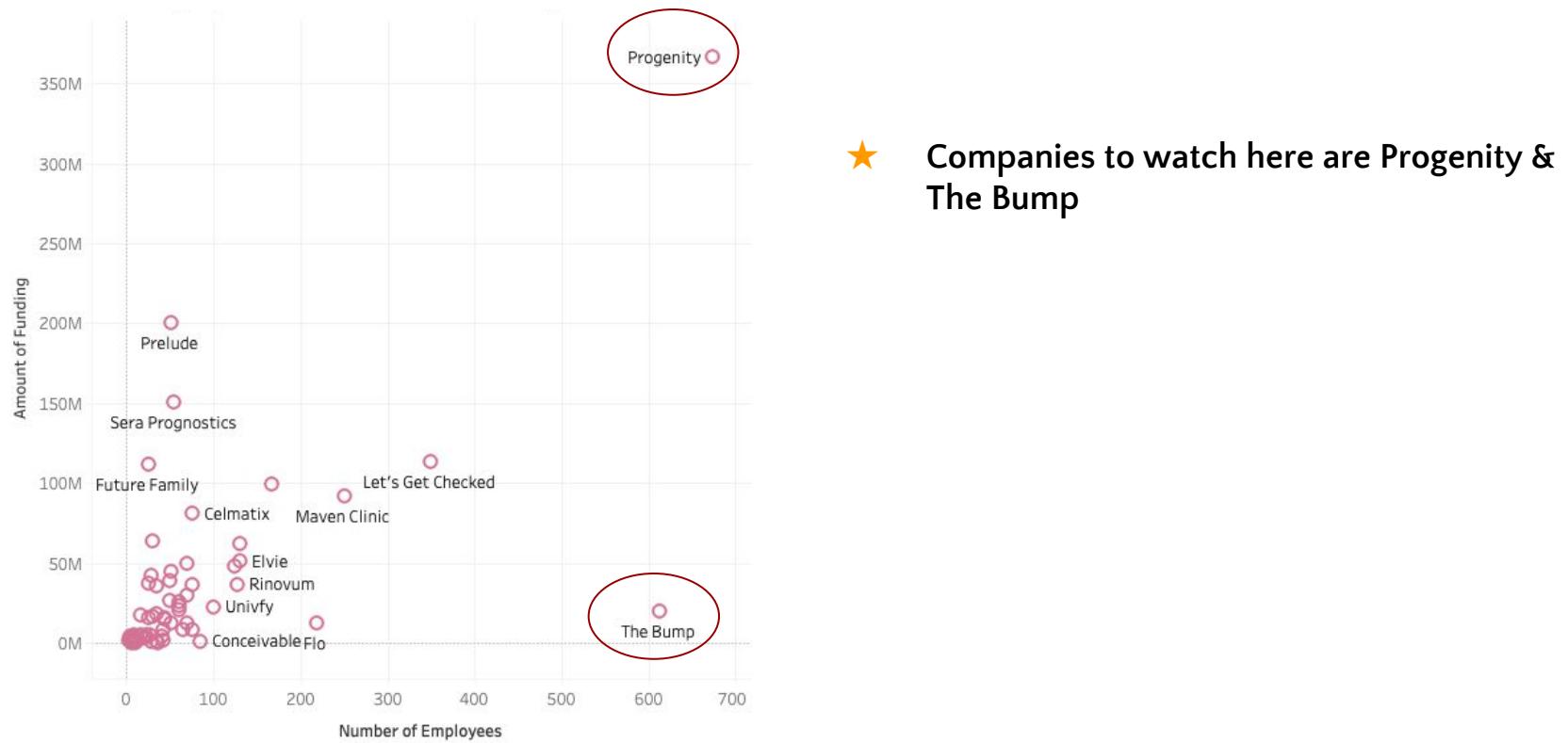
Histogram of Company Age in Years



Company Age



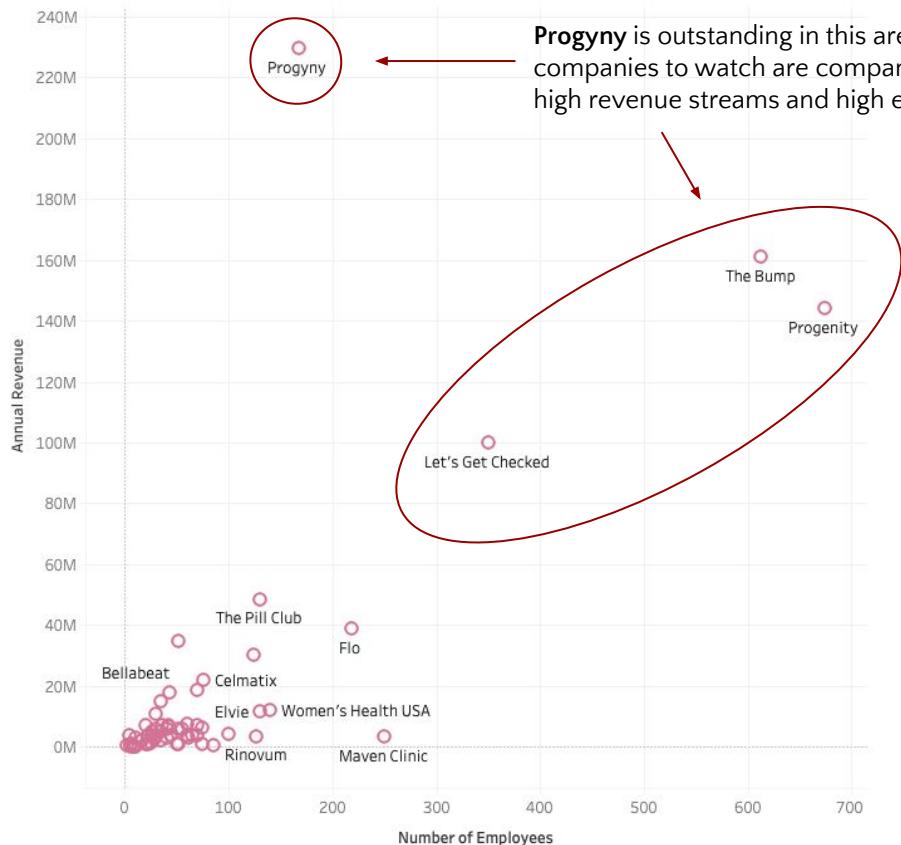
Number of Employees vs. Amount of Funding





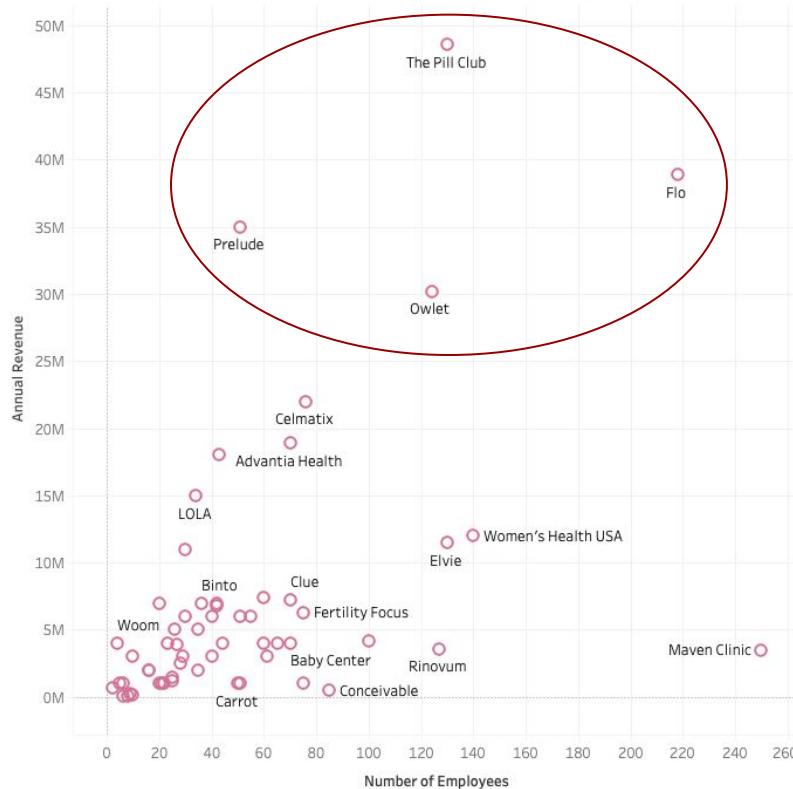
Two Factor Analyses: VP's and Employees

Number of Employees vs. Annual Revenue



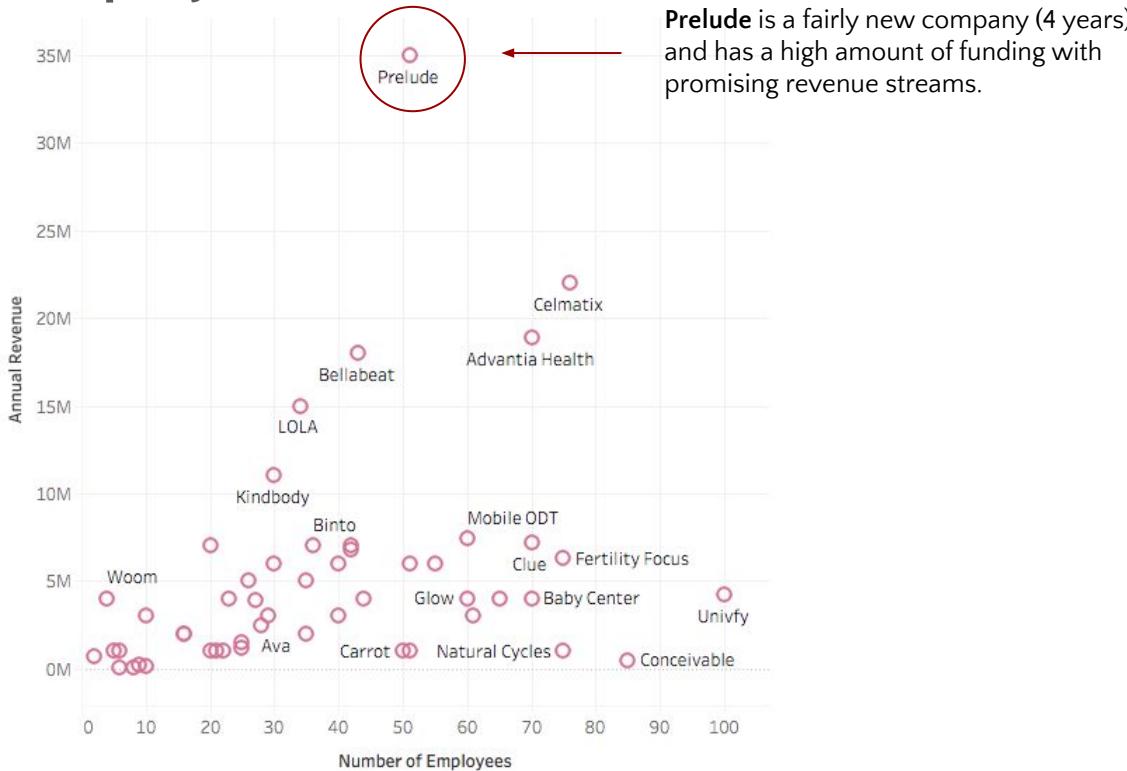
Progyny is outstanding in this area. Other companies to watch are companies with high revenue streams and high employees.

Number of Employees vs. Annual Revenue (Outliers Removed)

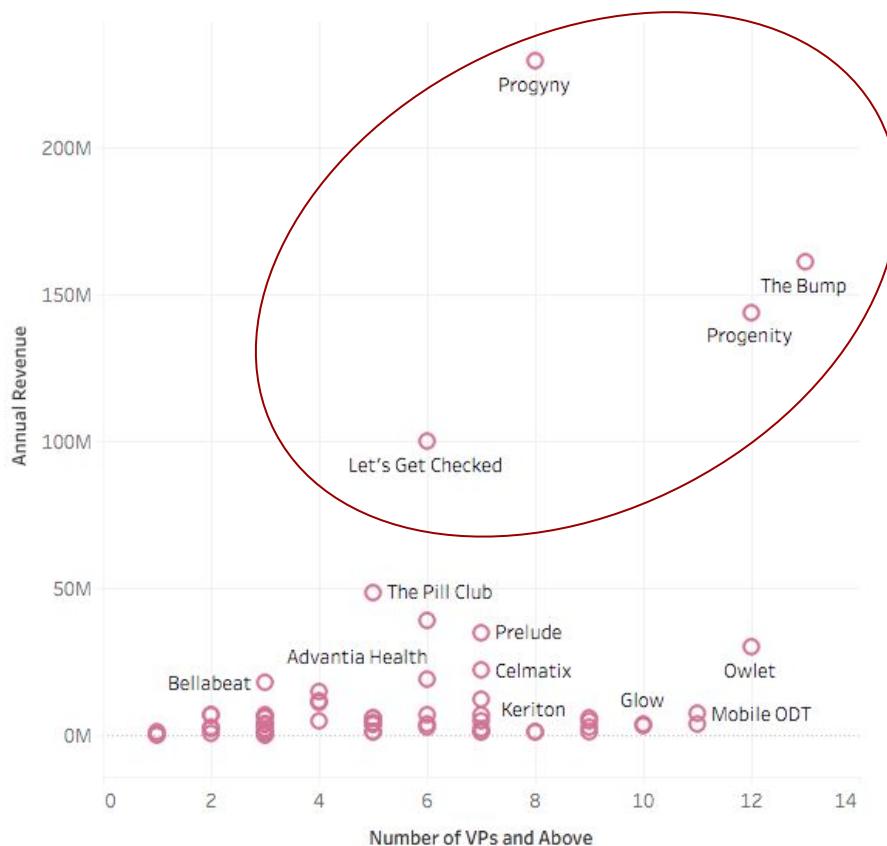


Outliers removed: The Bump, Progenity, Progyny, Let's Get Checked

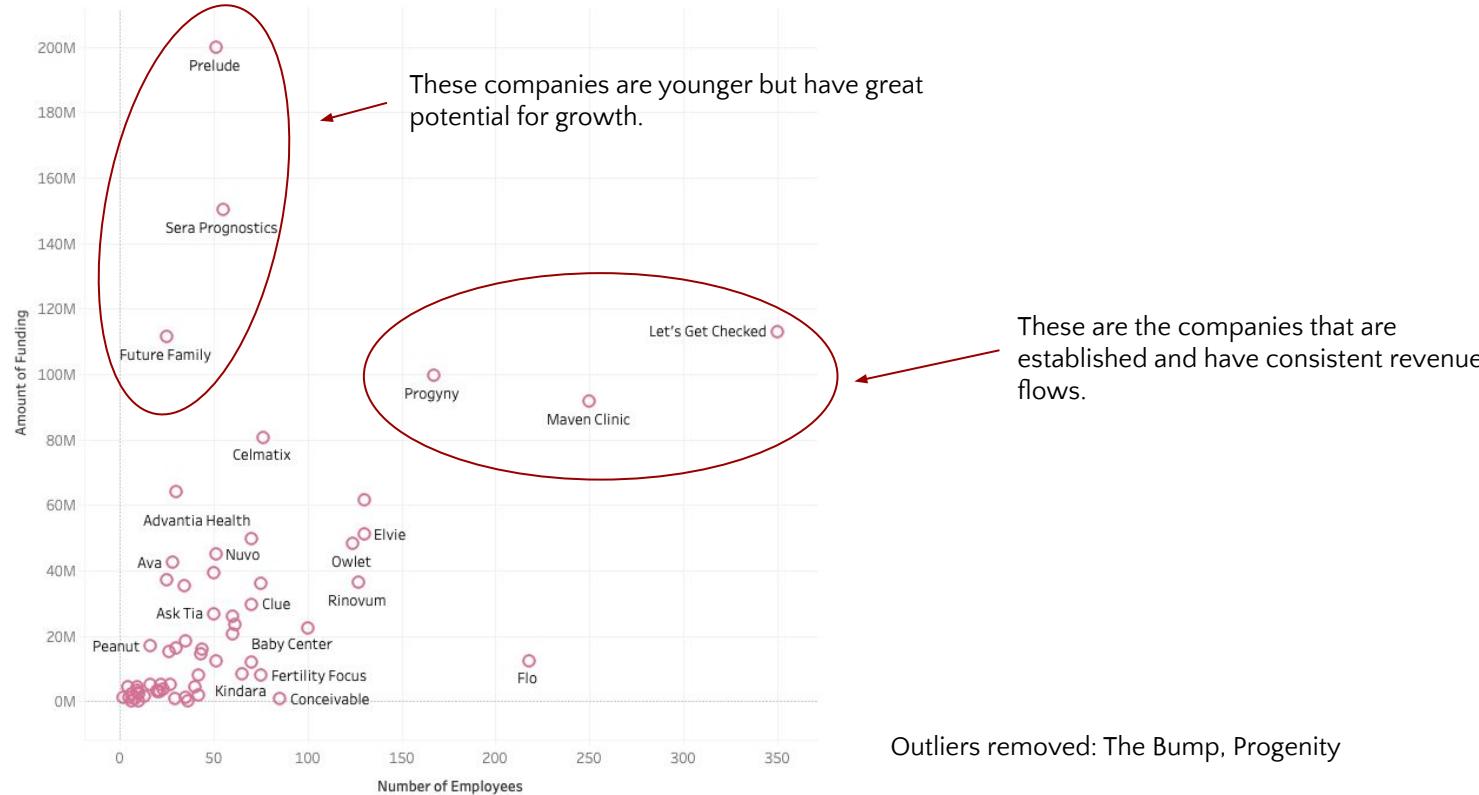
Number of Employees vs. Annual Revenue (Companies with <100 employees)



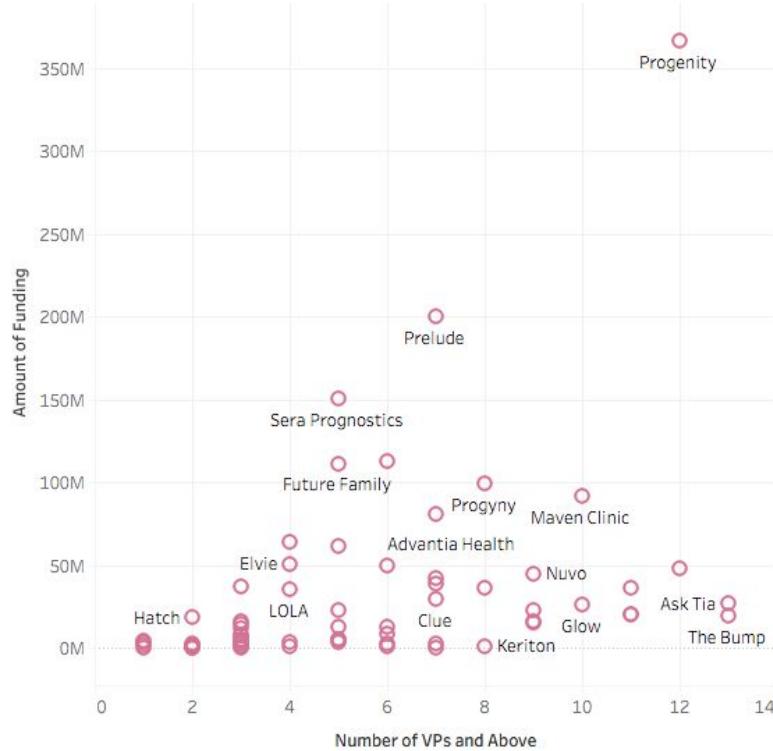
Number of VPs vs. Revenue



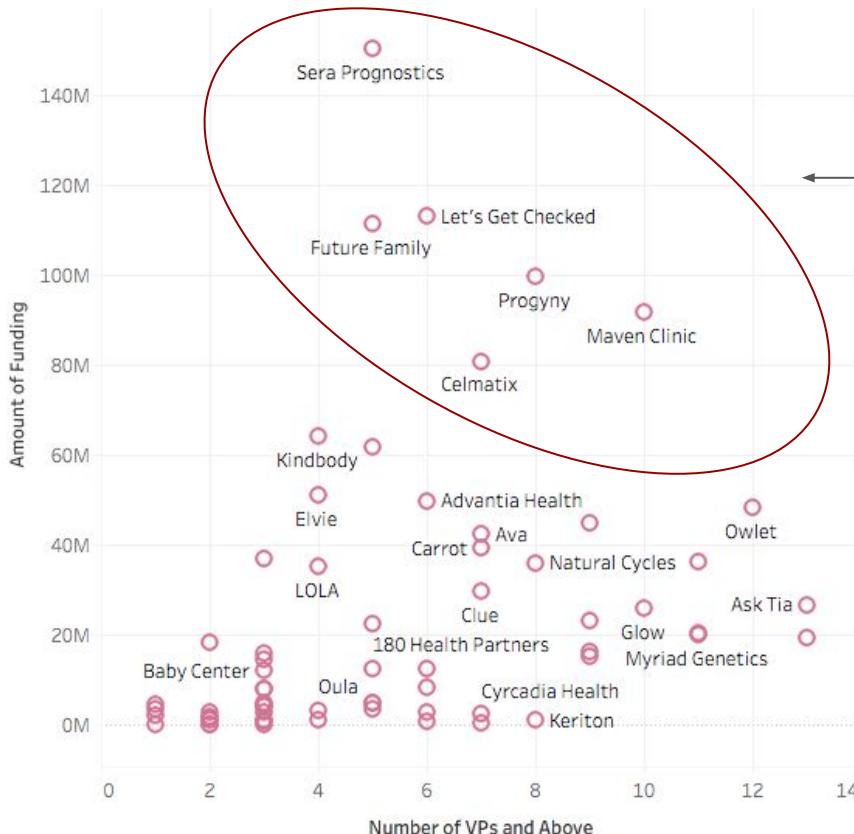
Number of Employees vs. Amount of Funding (Outliers Removed)



Number of VPs vs. Amount of Funding



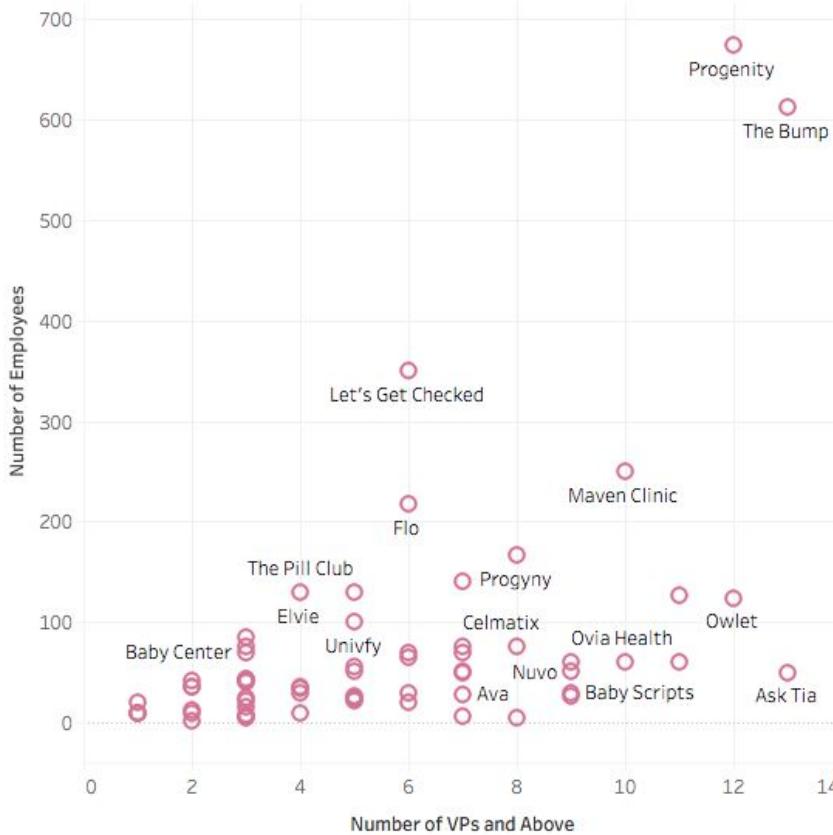
Number of VPs vs. Amount of Funding (Outliers removed)



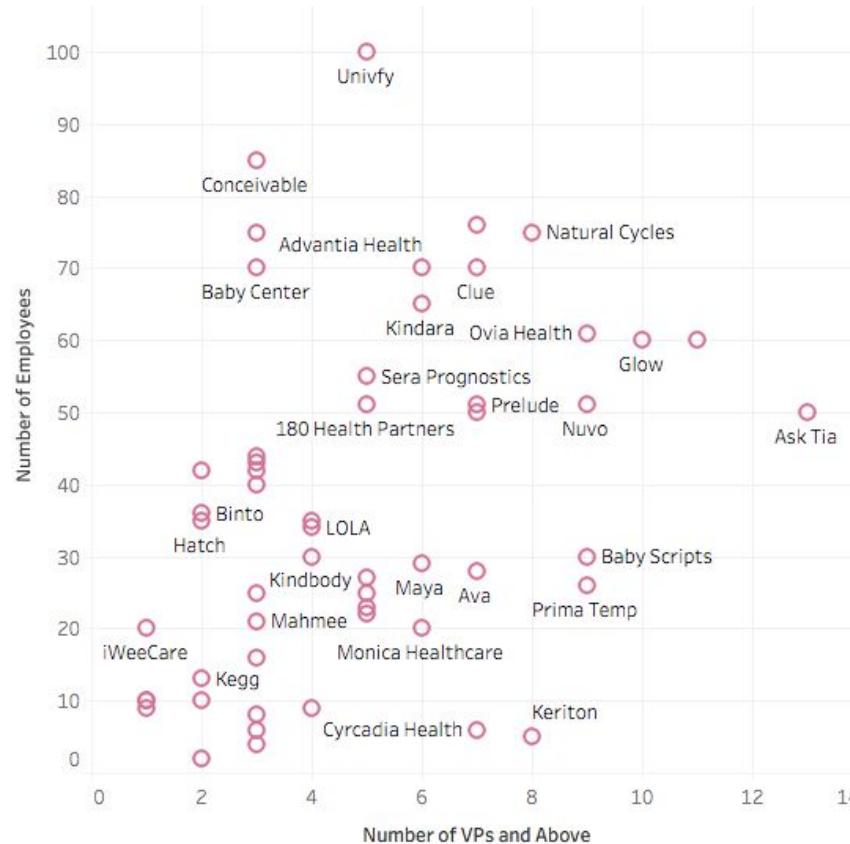
With the outliers removed we can better see this mid/top-tier companies.

Outliers removed: Prelude & Progenity

Number of VPs vs. Number of Employees

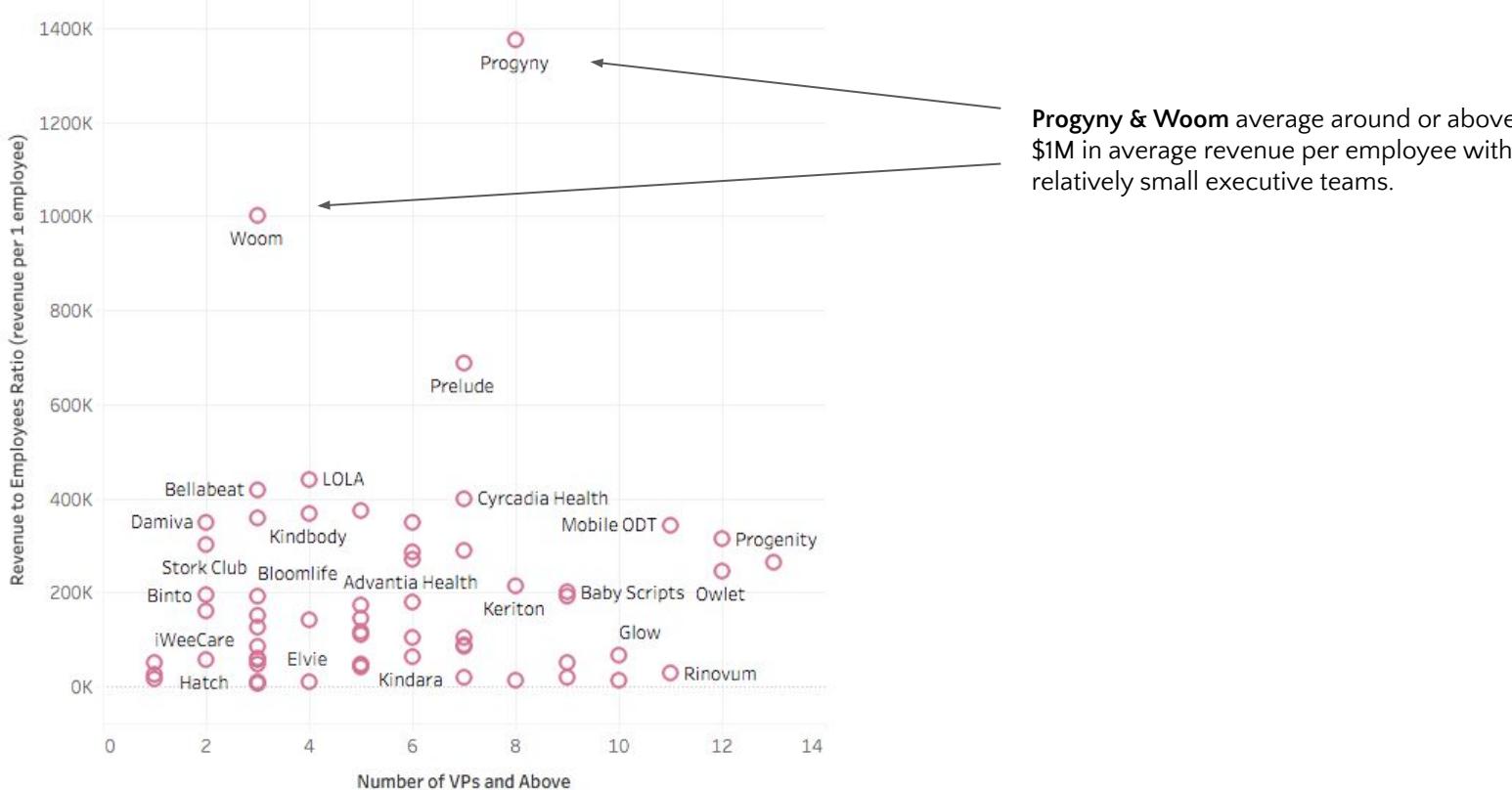


Number of VPs vs. Number of Employees (<100 Employees)



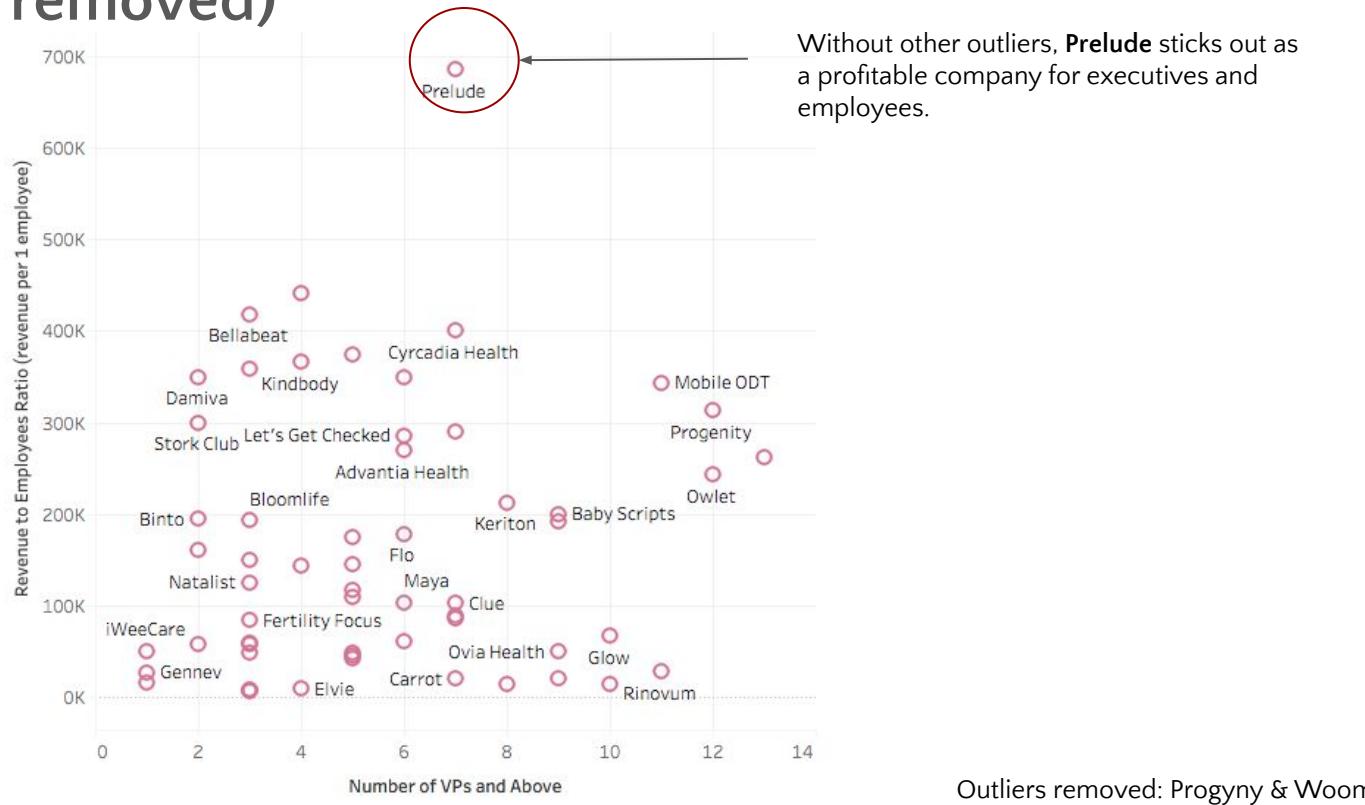
There is a general linear correlation between the number of employees and the number of VPs or above.

Number of VPs vs. Average Revenue per Employee

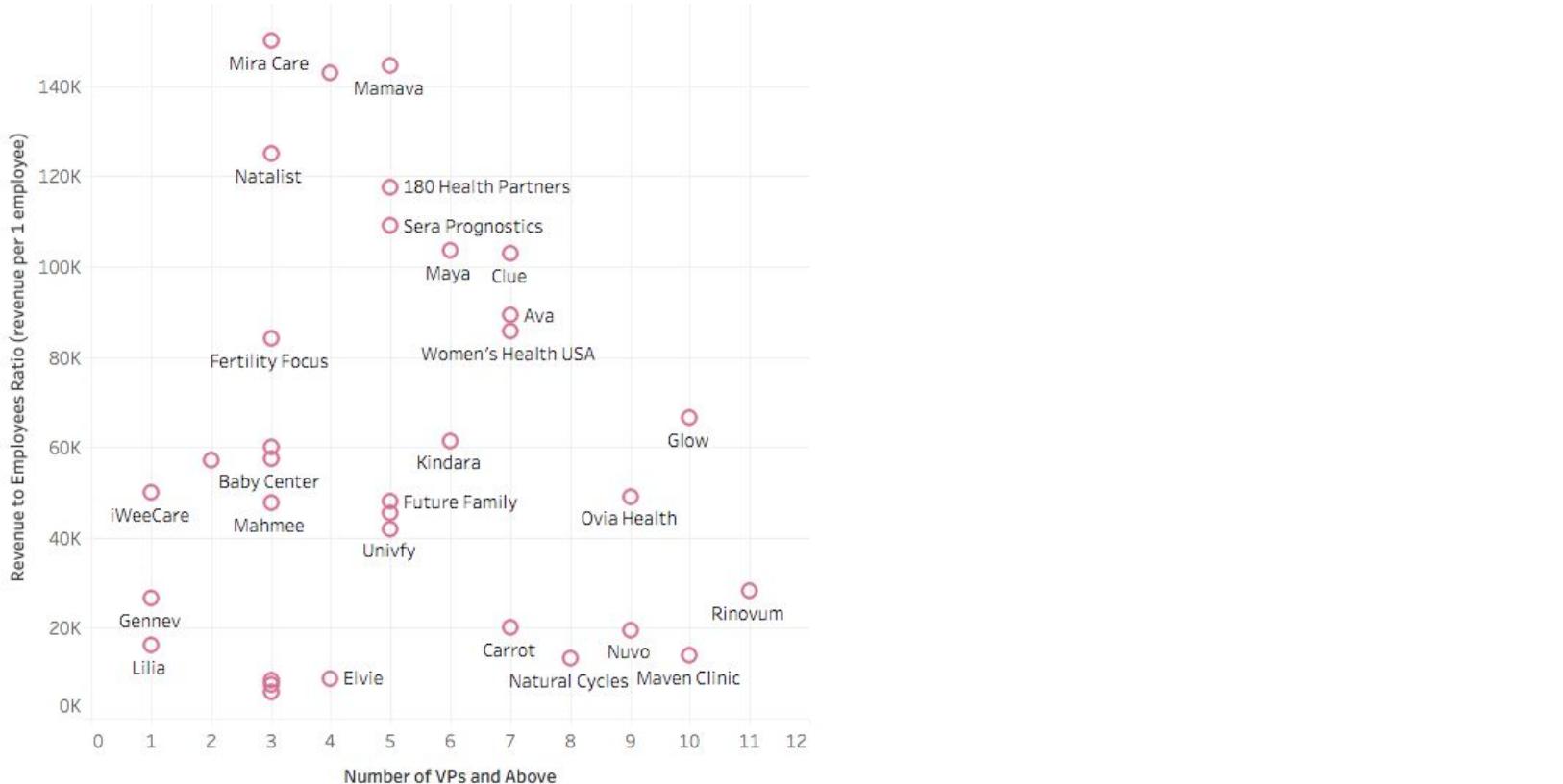


Progyny & Woom average around or above \$1M in average revenue per employee with relatively small executive teams.

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



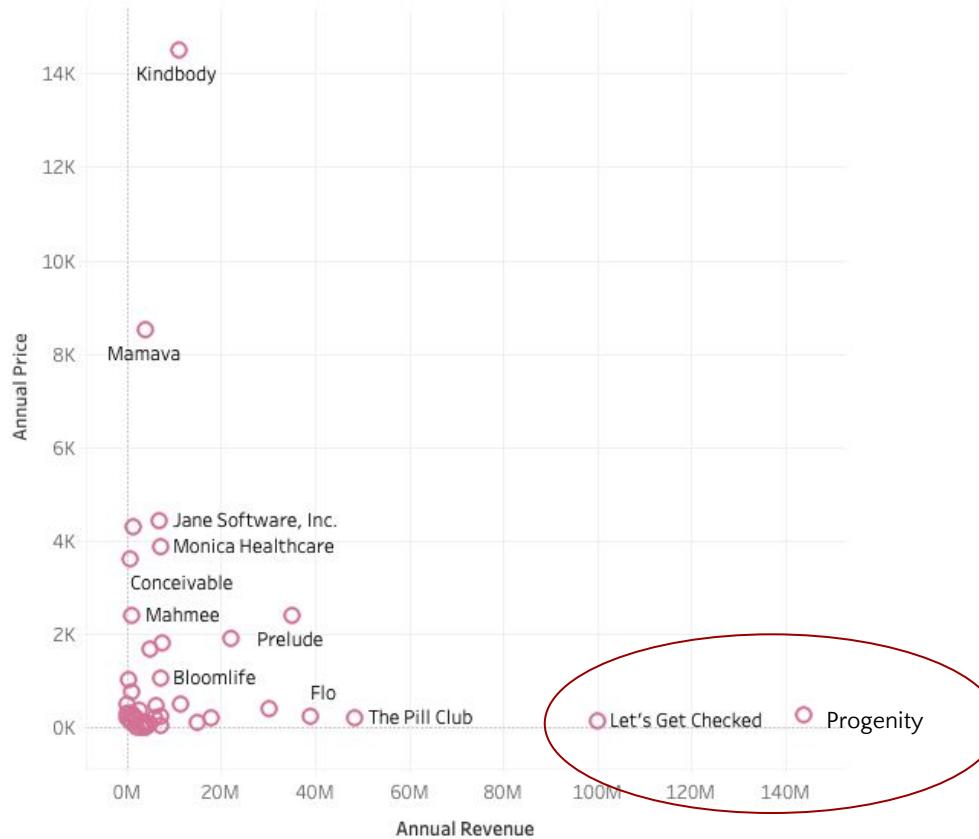
Number of VPs vs. Average Revenue per Employee (<\$150K Revenue/Employee)



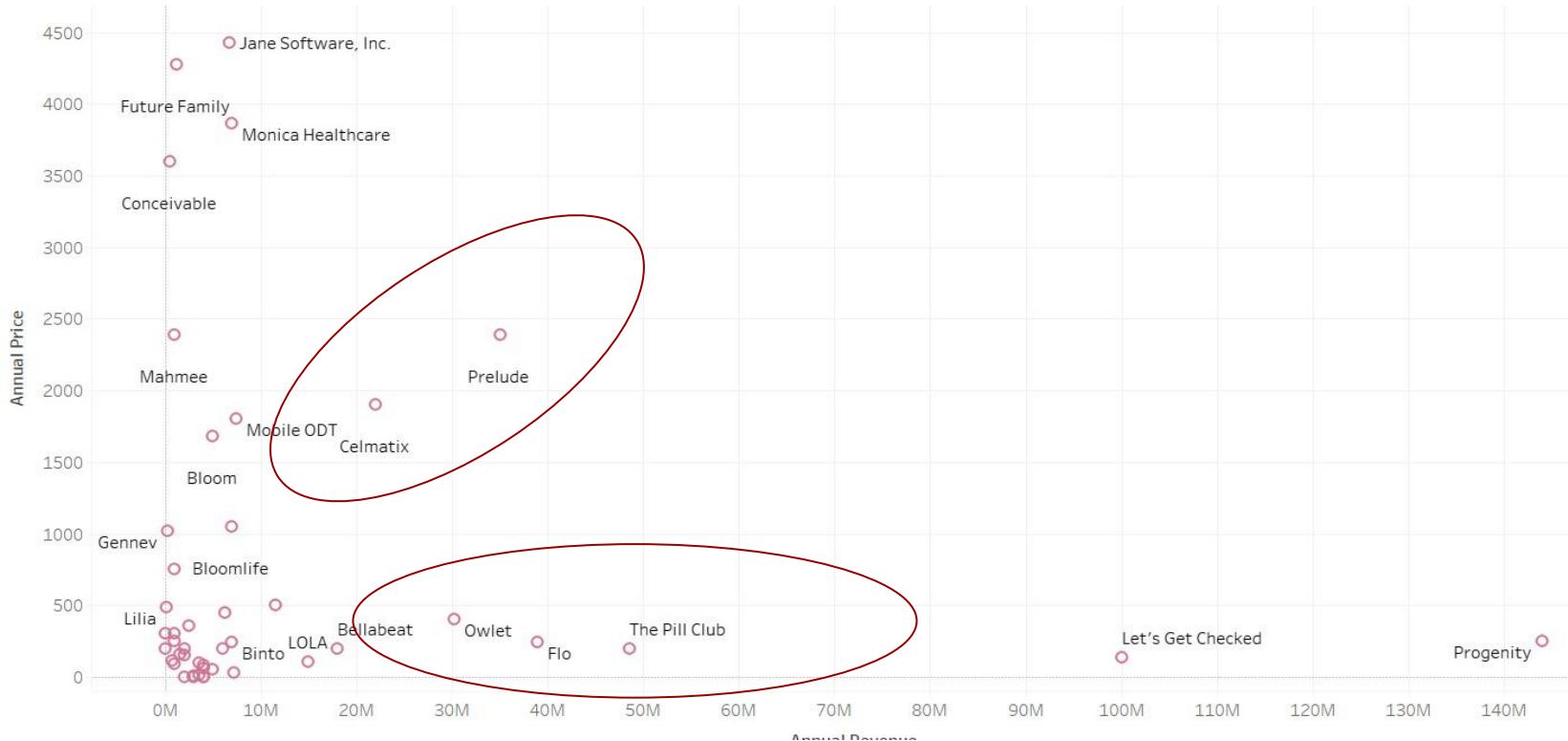


Two Factor Analyses: Annual Price

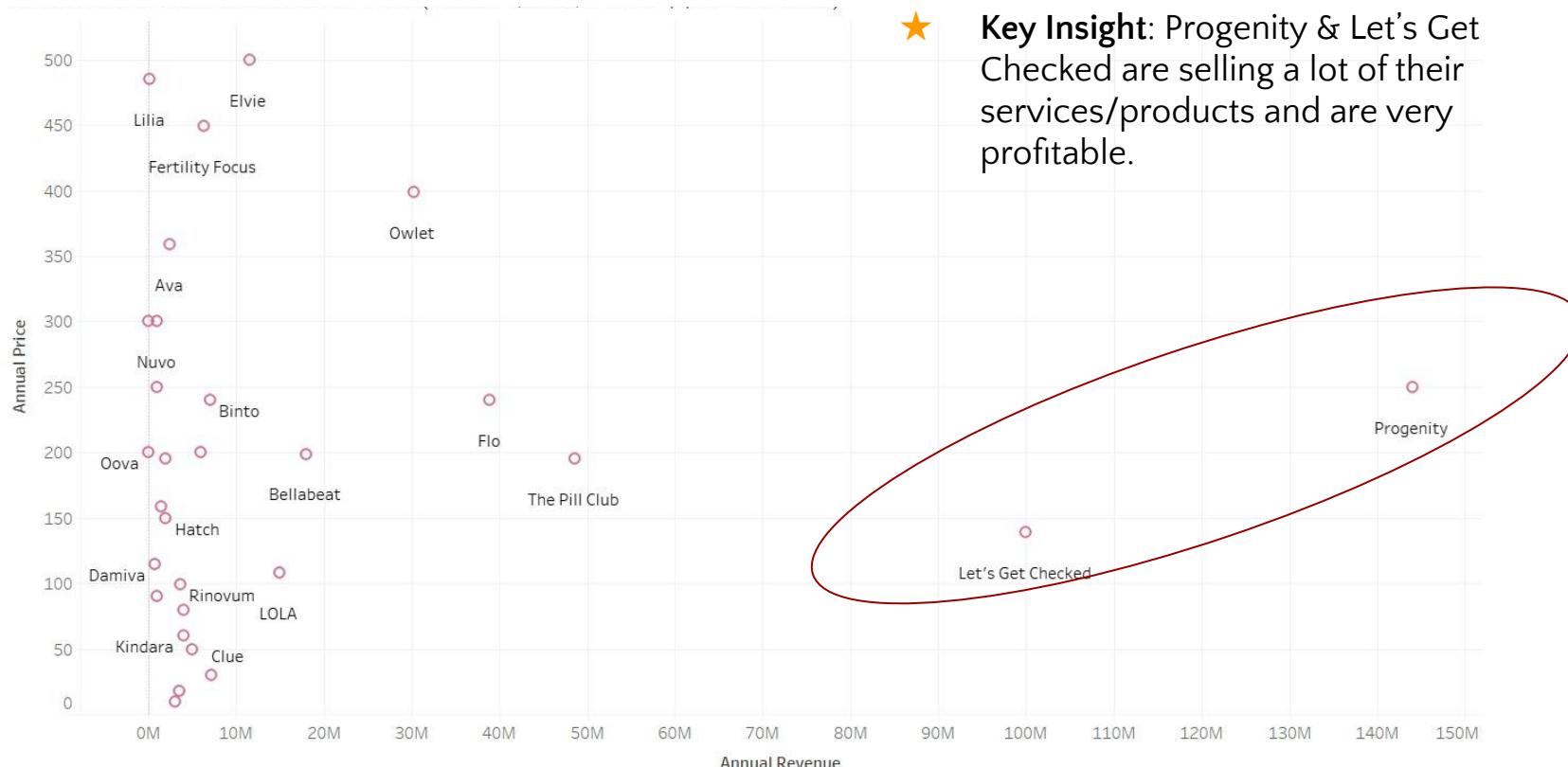
Annual Revenue vs. Annual Price



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



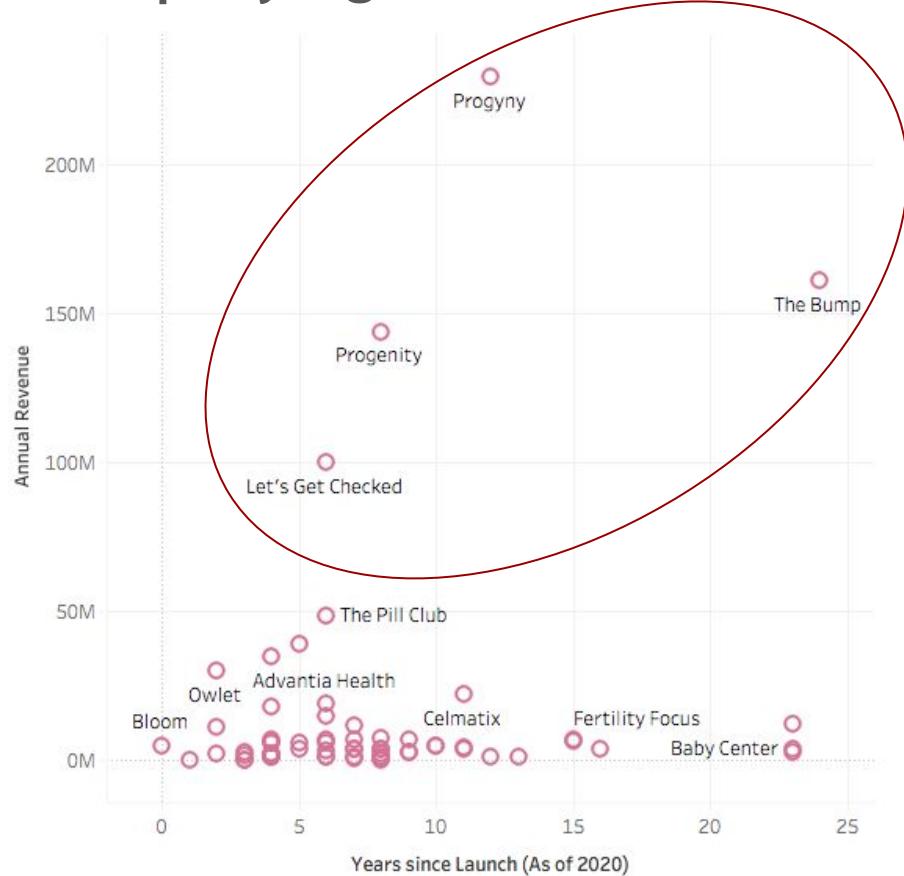
Annual Revenue vs. Annual Price (Under \$500, Free Apps Excluded)



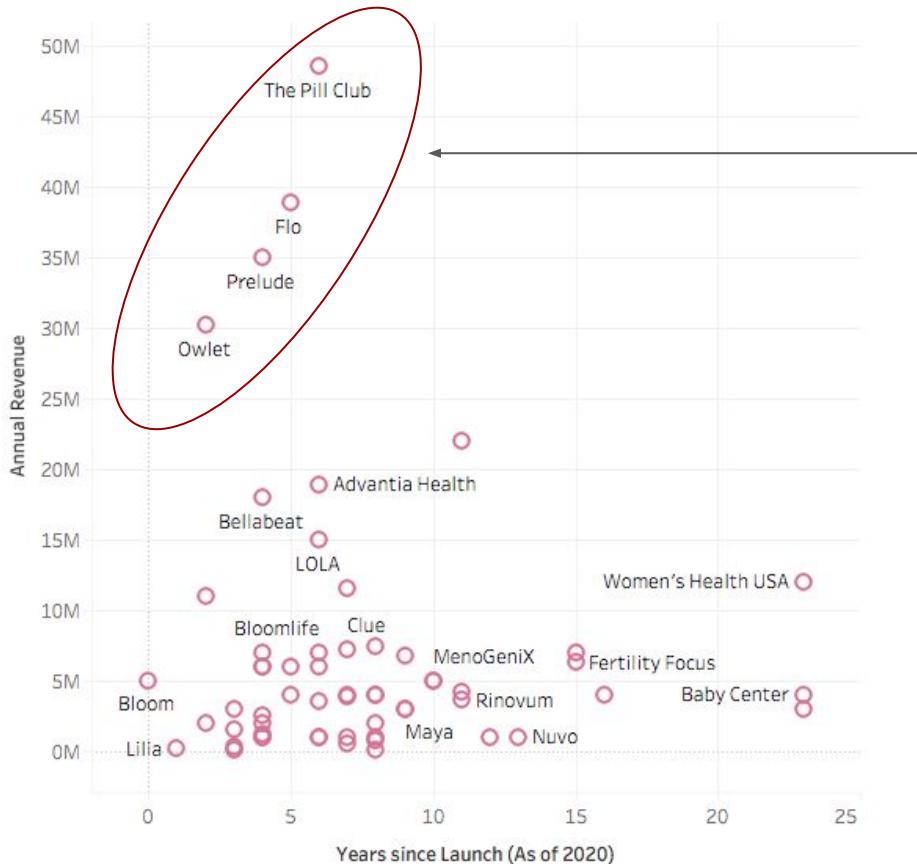


Two Factor Analyses: Age

Company Age v. Annual Revenue



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

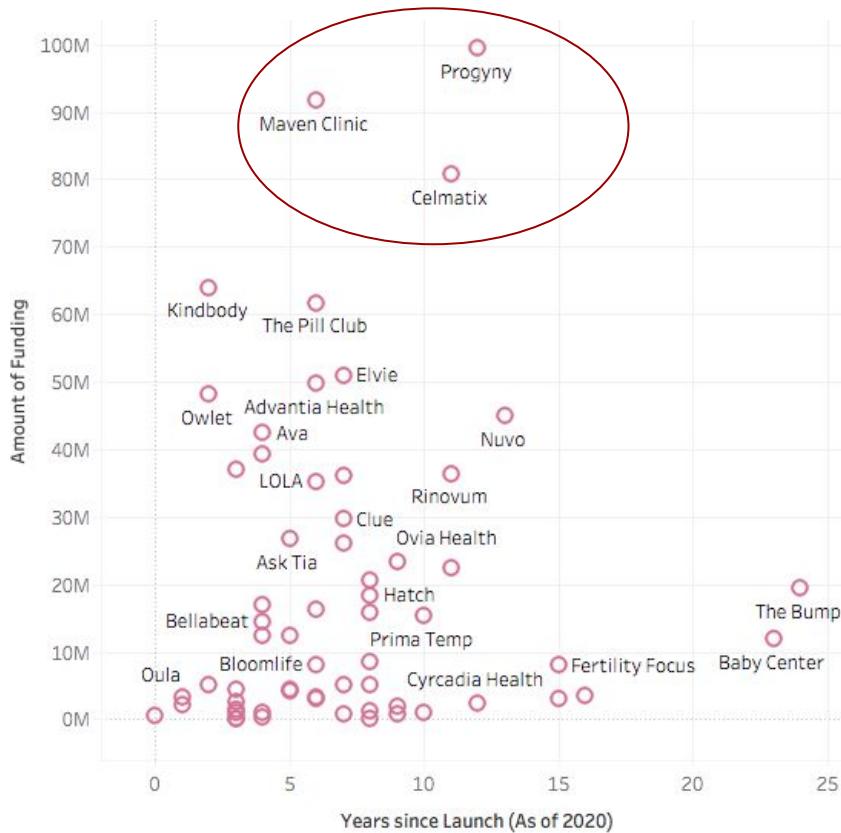


These are some of the mid-tier companies that should be closely followed. They have become profitable very quickly and will most likely continue to grow.

Company Age v. Amount of Funding



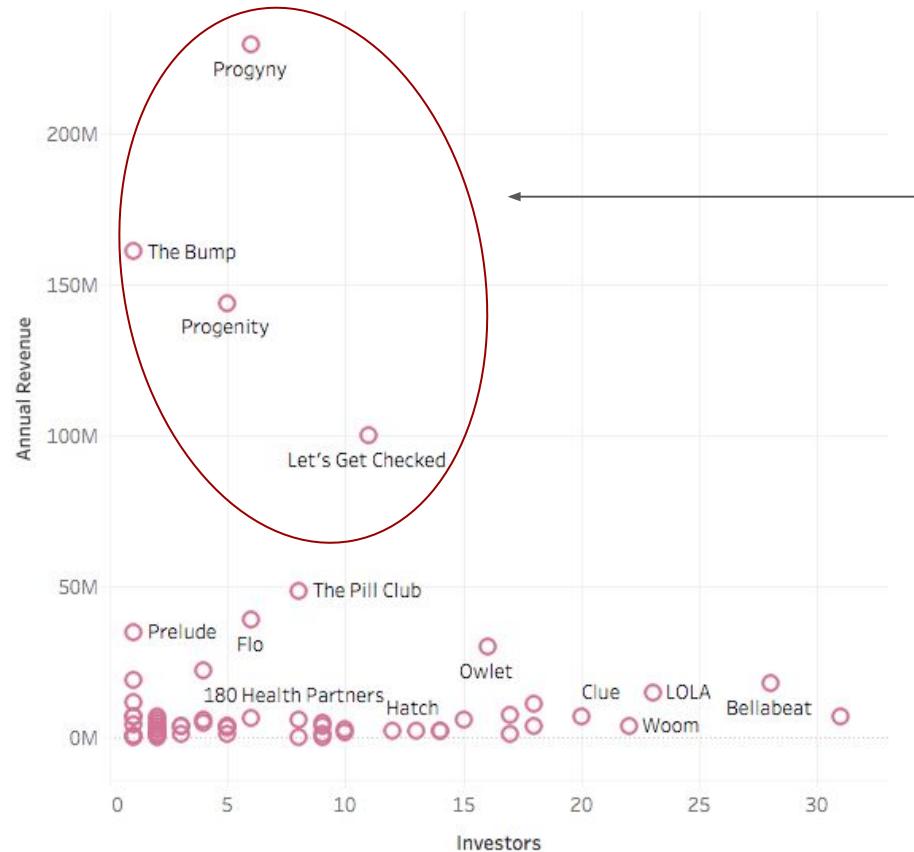
Company Age v. Amount of Funding (Funding <\$100M)





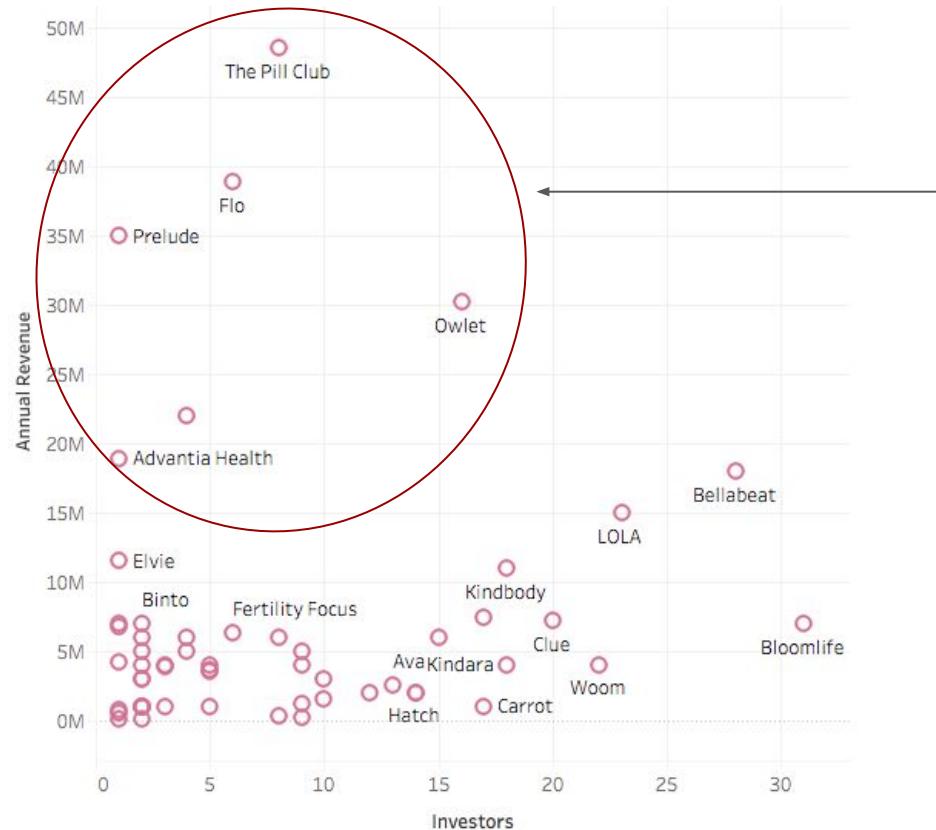
Two Factor Analyses: Number of Investors

Number of Investors v. Revenue



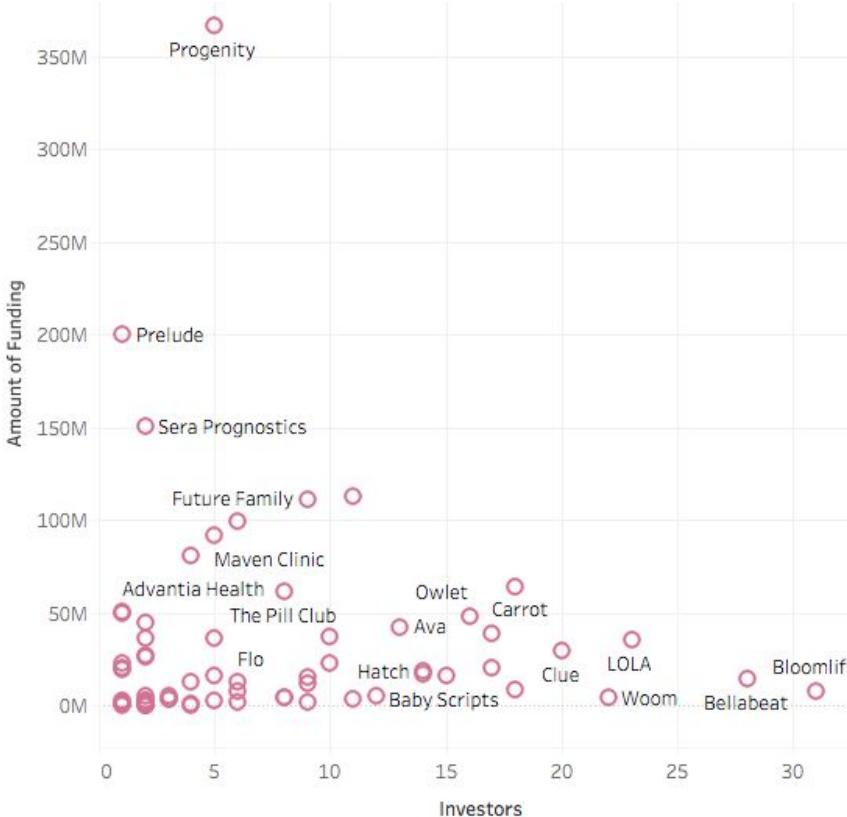
These are the most profitable companies for their investors. They know how to make their investors happy.

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

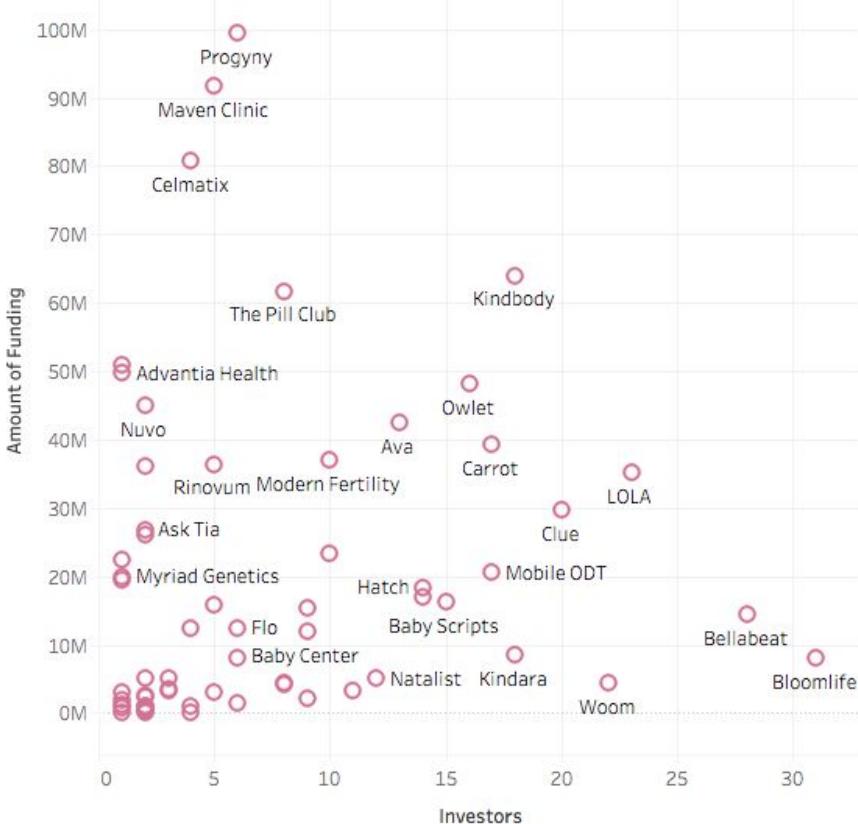


Again, these are some of the mid-tier companies that Happify should continue to watch.

Number of Investors v. Amount of Funding



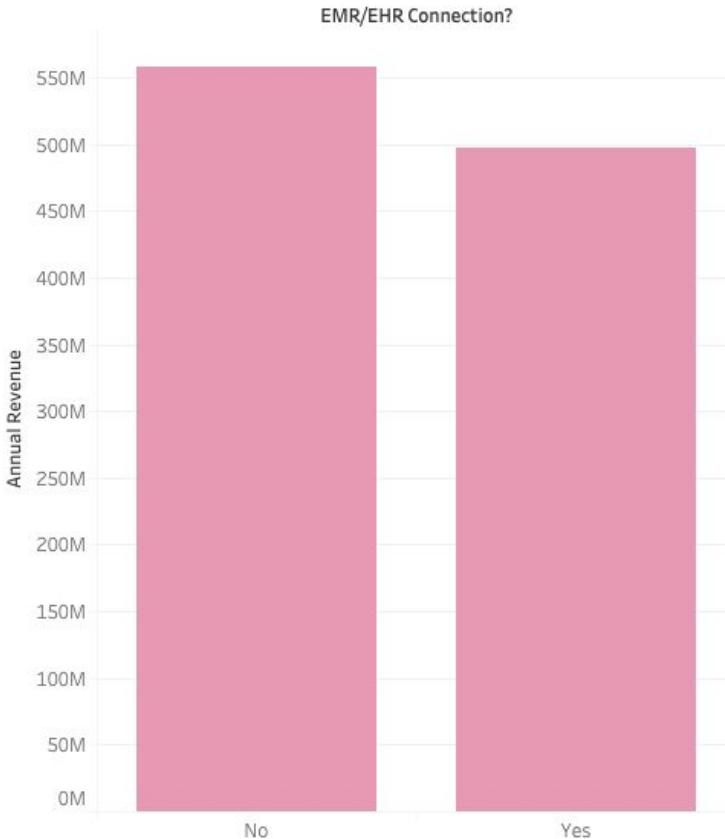
Number of Investors v. Amount of Funding (Funding <\$100M)



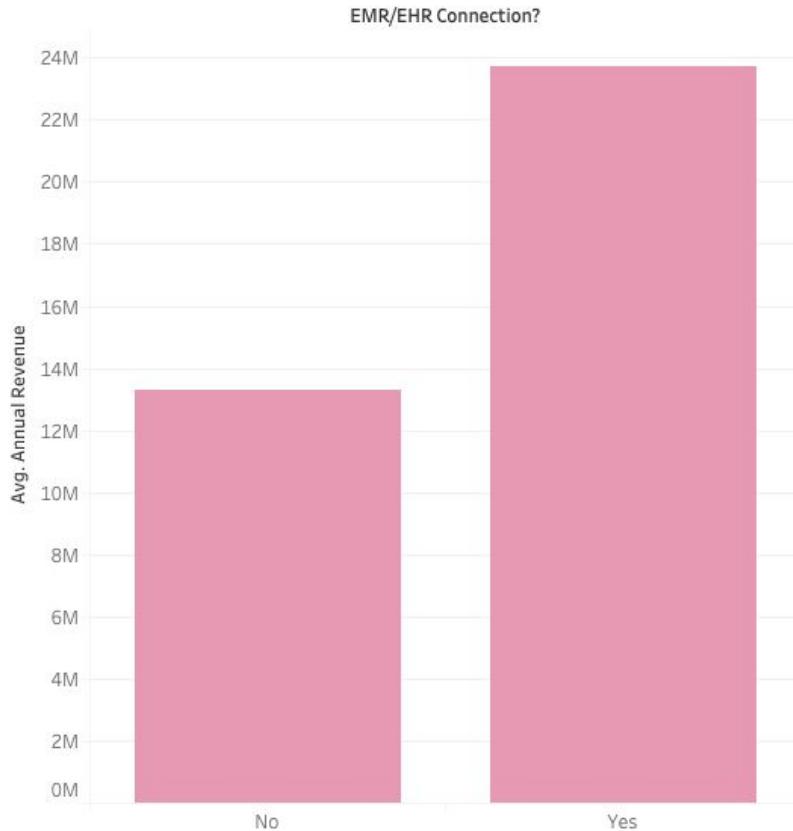


Company Claims on EHR/EMR

Sum of Annual Revenue by EMR Connected Companies



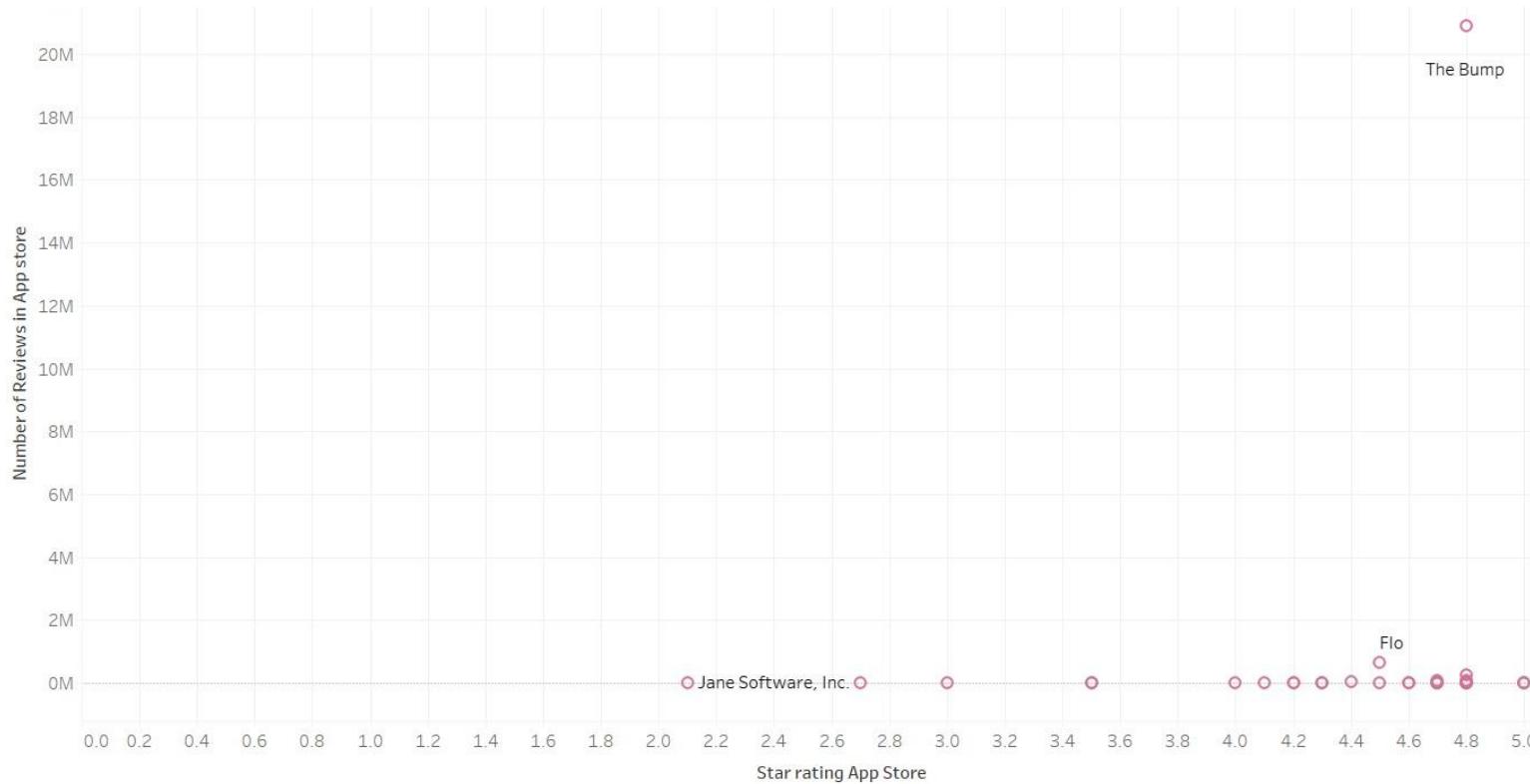
Average Annual Revenue by EMR Connected Companies



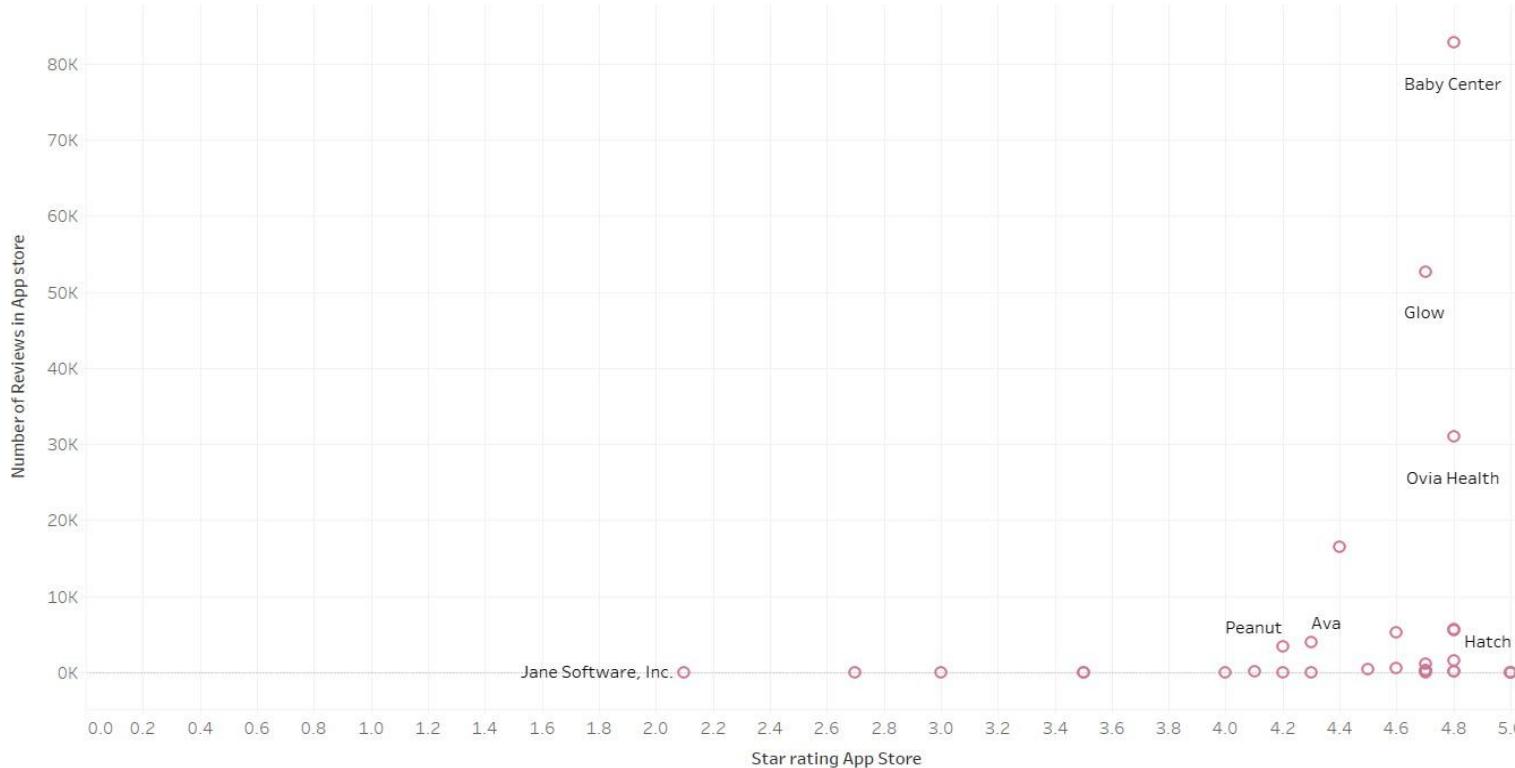


Ratings and Downloads

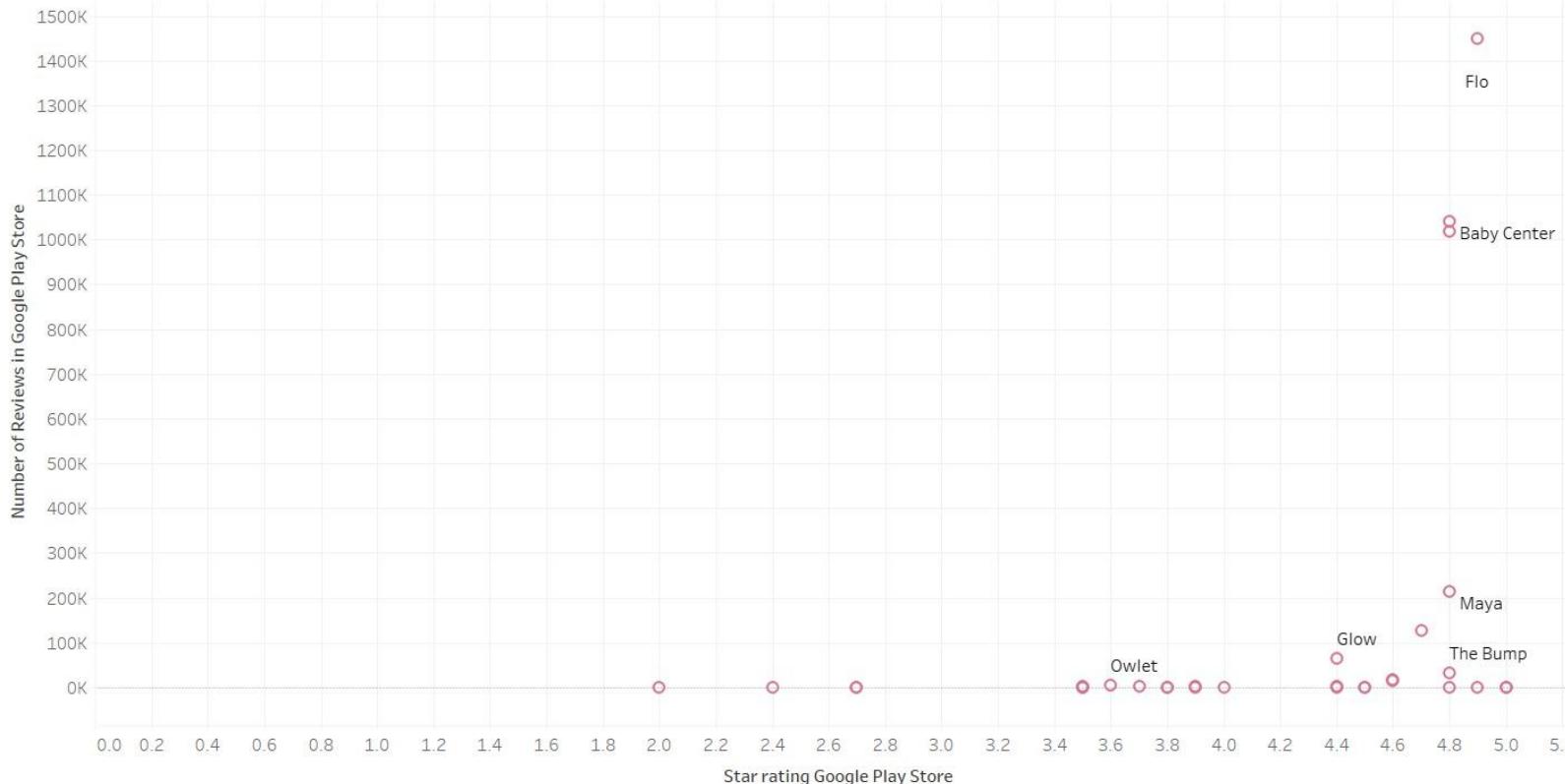
Apple App Store Star Rating vs. Number of Reviews



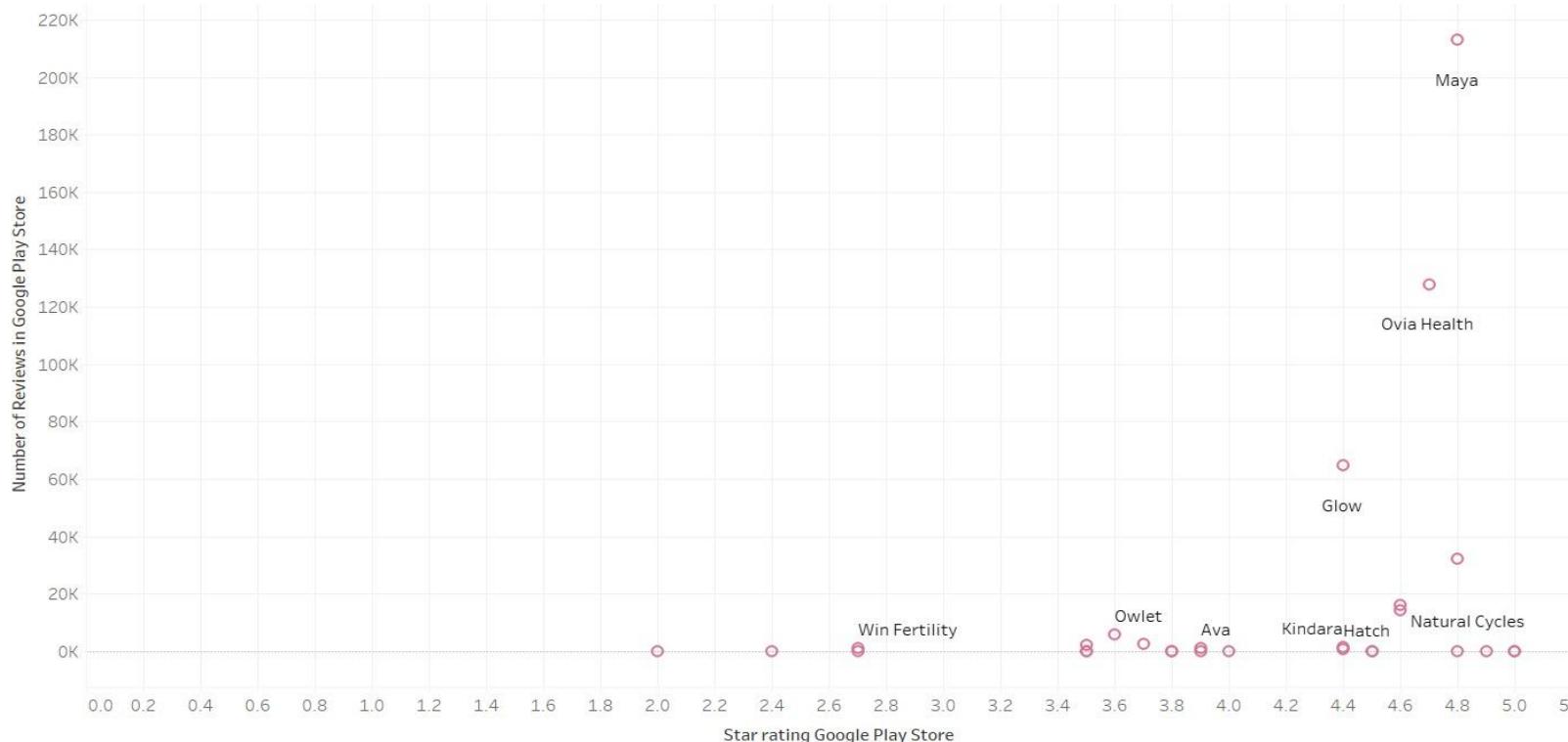
Apple App Store Star Rating vs. Number of Reviews (The Bump, Flo, Clue Excluded)



Google Play Star Rating vs. Number of Reviews



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





Review of Conclusions

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