



**2019**

**KeyBanc**  
Capital Markets  


# SAAS SURVEY RESULTS

10<sup>TH</sup> ANNUAL

# KBCM TECHNOLOGY GROUP 2019 PRIVATE SAAS COMPANY SURVEY

2019 Private SaaS Company Survey 

- This report provides an analysis of the results of a survey of private SaaS companies which KBCM Technology Group's software investment banking team (formerly Pacific Crest Securities) conducted in June – July 2019
  - Results include responses from senior executives of ~424 companies
  - Special thanks to our partners at Matrix Partners and the *ForEntrepreneurs* blog for help soliciting participants and republishing this report
- Representative statistics on the survey participants:
  - \$8.7MM median 2018 Ending ARR<sup>1</sup>, with 97 companies >\$25MM
  - Median organic growth in ARR in 2018 was +40% and +35% for companies >\$25MM
  - Median employees (FTEs): ~90
  - Median customer count: ~300
  - ~\$28K median annual contract value
  - 65% headquartered in the U.S.

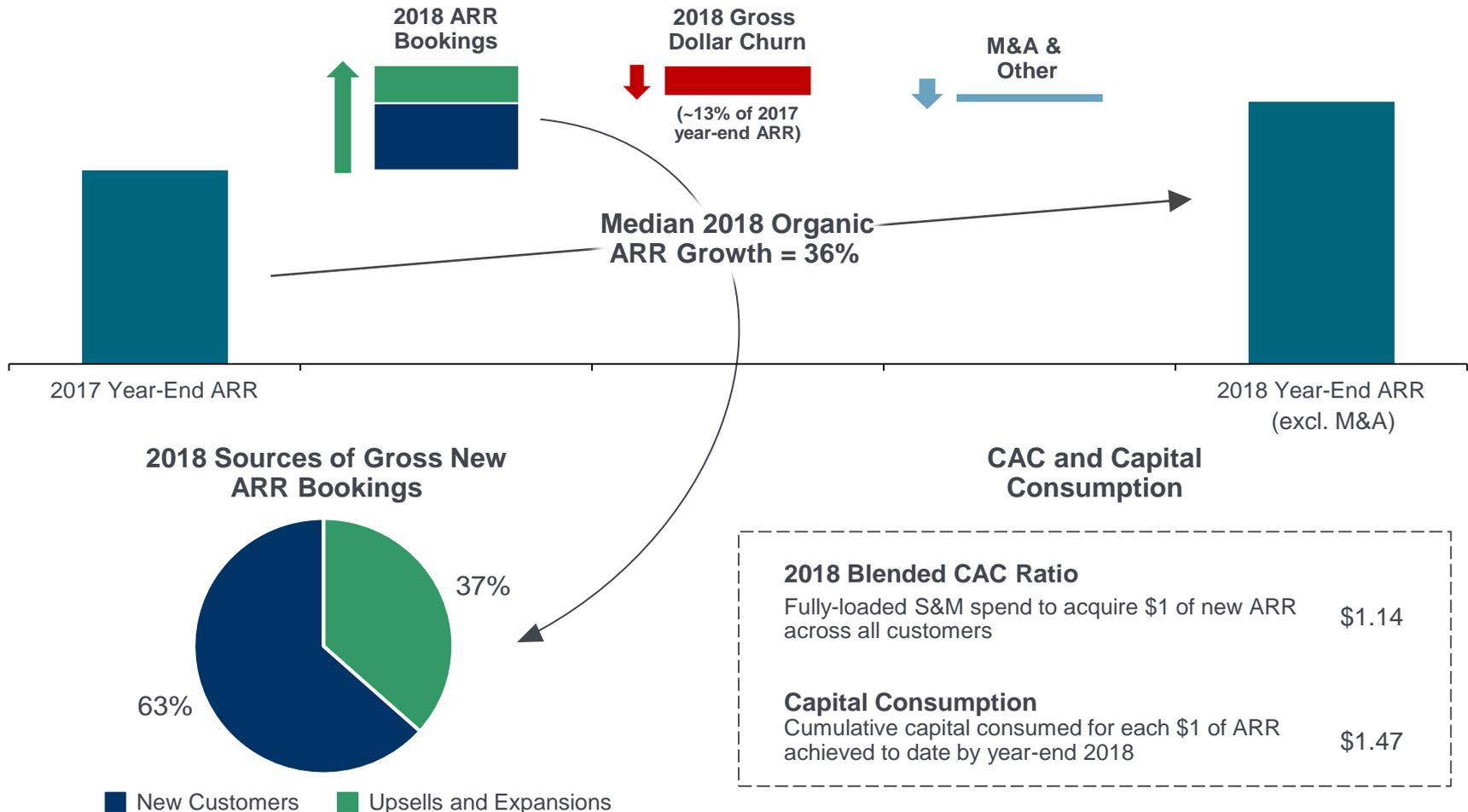


Our goal is to provide useful operational and financial benchmarking data to executives and investors in SaaS companies.

# SUMMARY VIEW OF MEDIAN 2018 SAAS METRICS PERFORMANCE

2019 Private SaaS Company Survey 

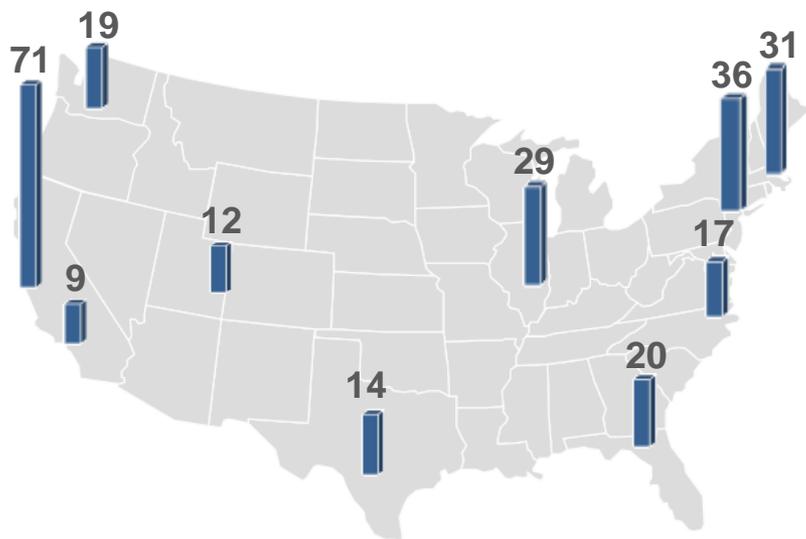
Excluding Companies <\$5MM in 2018 Ending ARR



# SURVEY PARTICIPANT COMPOSITION

# SURVEY PARTICIPANT GEOGRAPHY (HQ)

2019 Private SaaS Company Survey 



U.S. Regions	Number of Respondents	Median 2018 Ending ARR (\$ in MM)
Northern California / Silicon Valley	71	\$19.2
New York Metropolitan Area	36	16.0
Boston / New England	31	10.4
Midwest / Chicago	29	8.3
Southeast U.S.	20	9.2
Pacific Northwest	19	6.8
Mid-Atlantic / DC	17	9.0
Texas	14	8.6
Colorado / Utah	12	7.6
Southern California	9	14.7
Other U.S.	16	6.2
<b>Total U.S.</b>	<b>274</b>	<b>\$11.3</b>

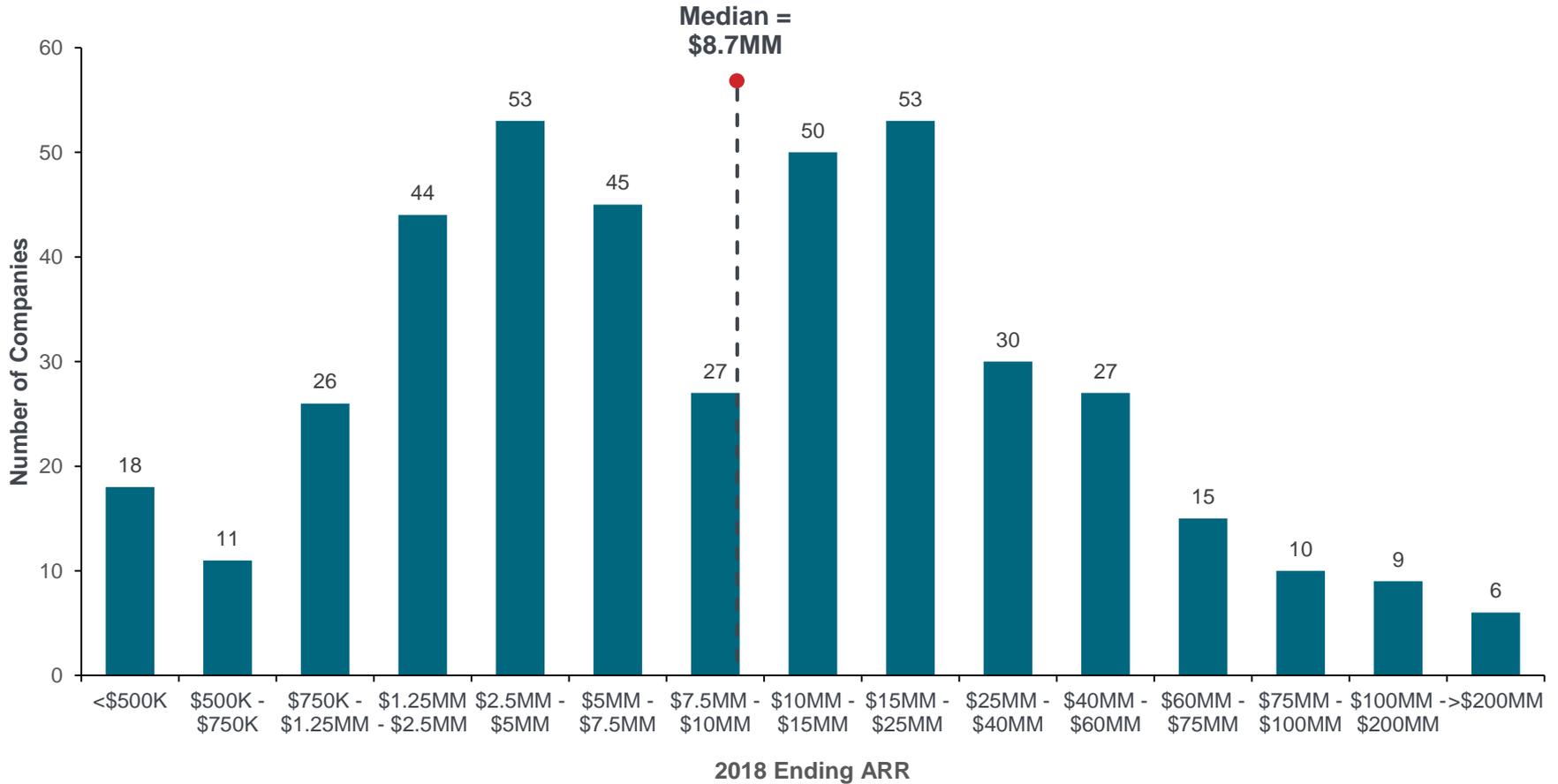


Other Locations	Number of Respondents	Median 2018 Ending ARR (\$ in MM)
Europe	81	\$6.6
Canada	30	5.2
Australia / New Zealand	13	1.8
Latin America	12	2.0
Israel	8	18.7
Asia	5	5.0
Middle East - Africa	1	0.1
<b>Total Non-U.S.</b>	<b>150</b>	<b>\$5.0</b>

<b>TOTAL</b>	<b>424</b>	<b>\$8.7</b>
--------------	------------	--------------

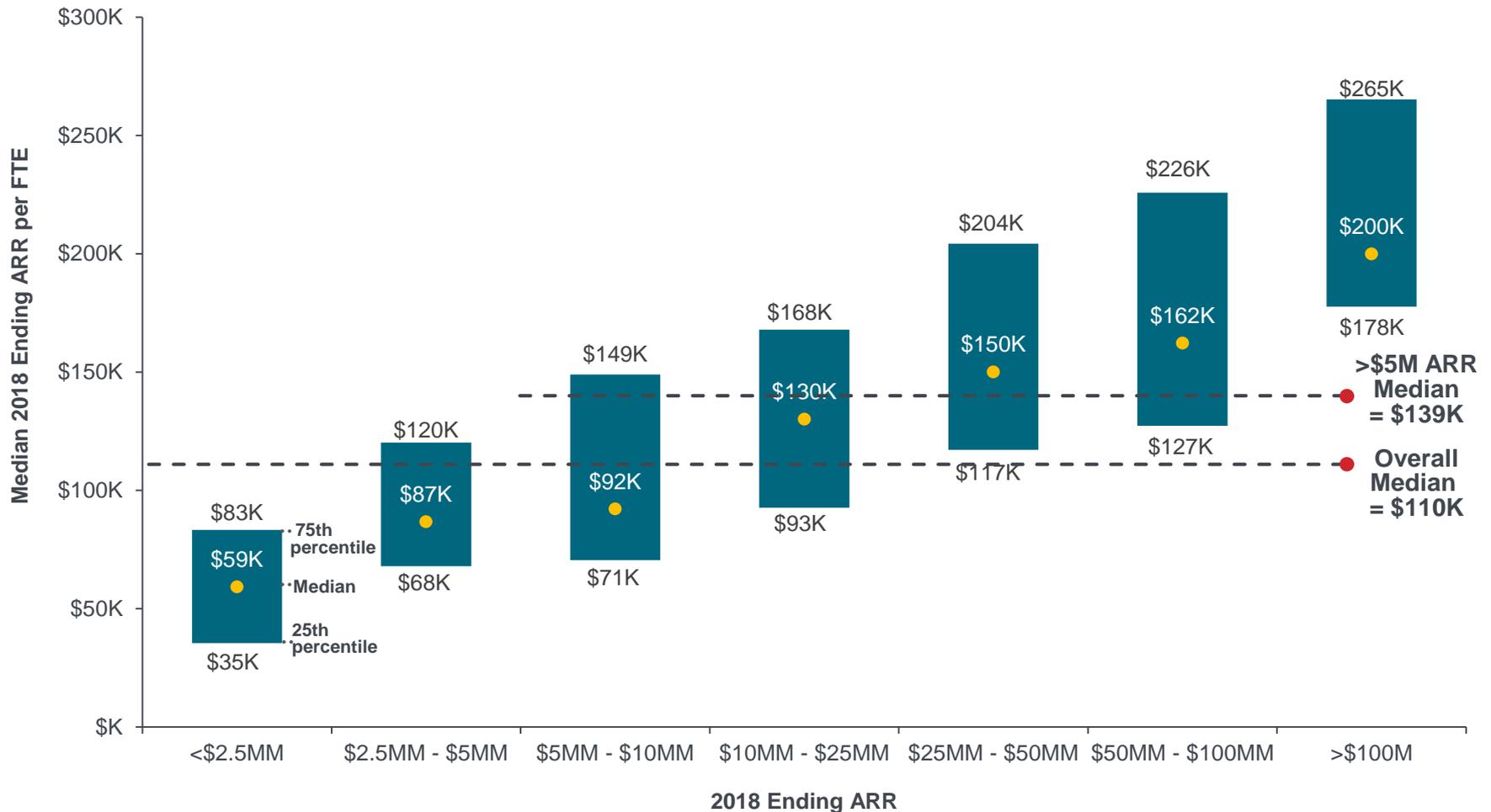
# SURVEY PARTICIPANT SIZE DISTRIBUTION

## 2018 ARR: Contracted Annual Recurring Revenue at Year-End 2018



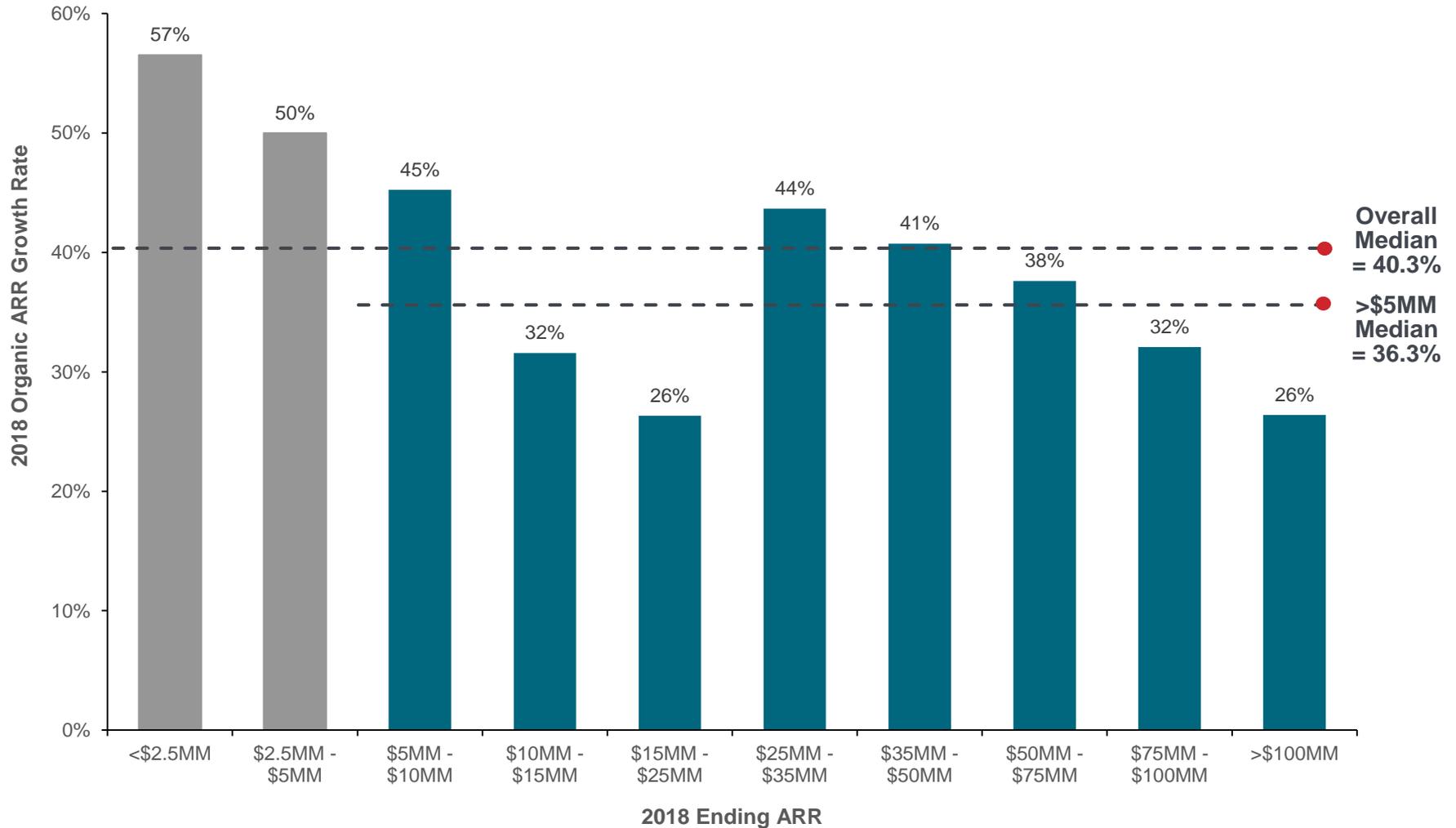
# HUMAN CAPITAL EFFICIENCY

## ARR per FTE



# GROWTH RATES

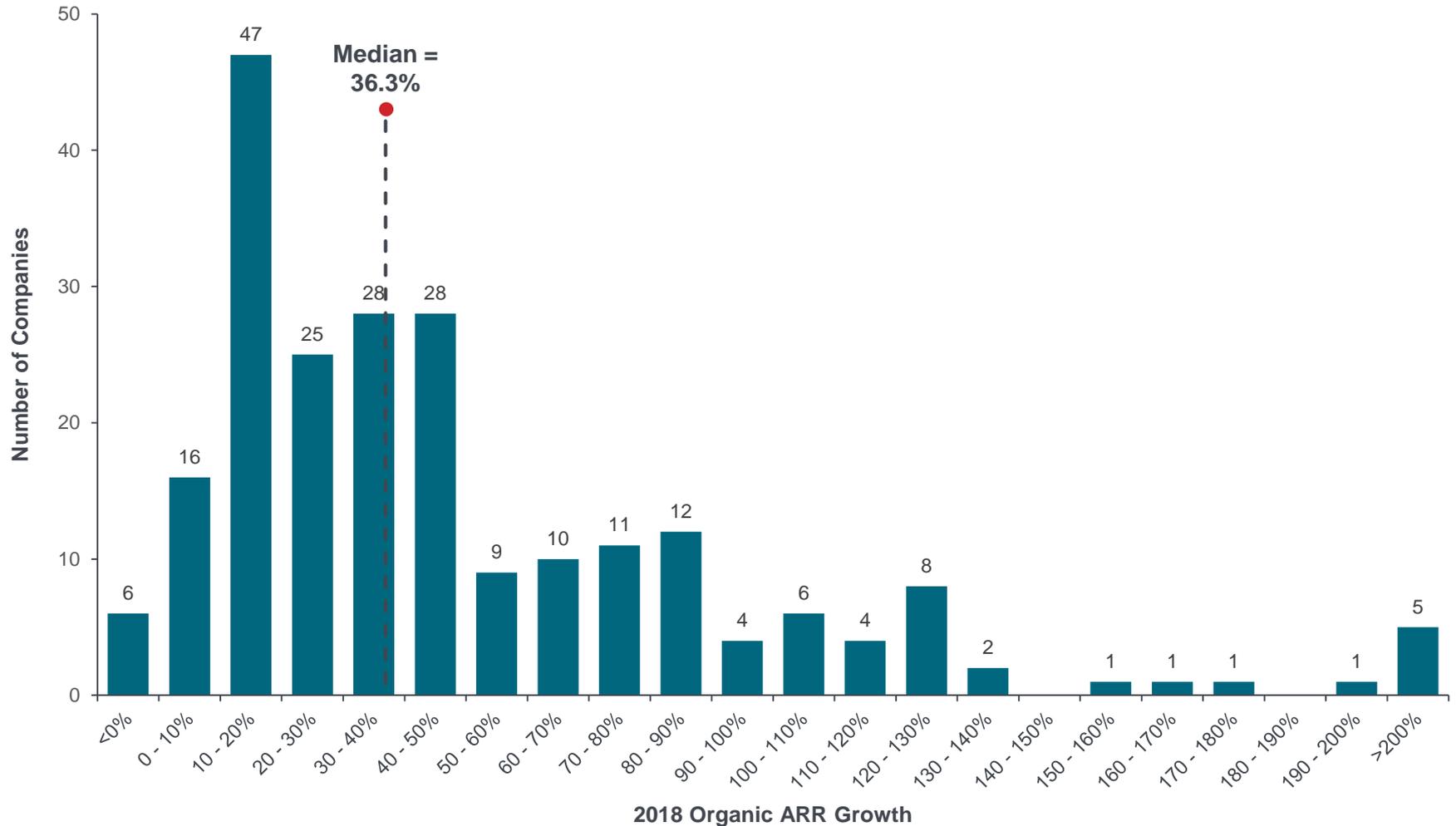
# ORGANIC ARR GROWTH



# ORGANIC ARR GROWTH HISTOGRAM

2019 Private SaaS Company Survey 

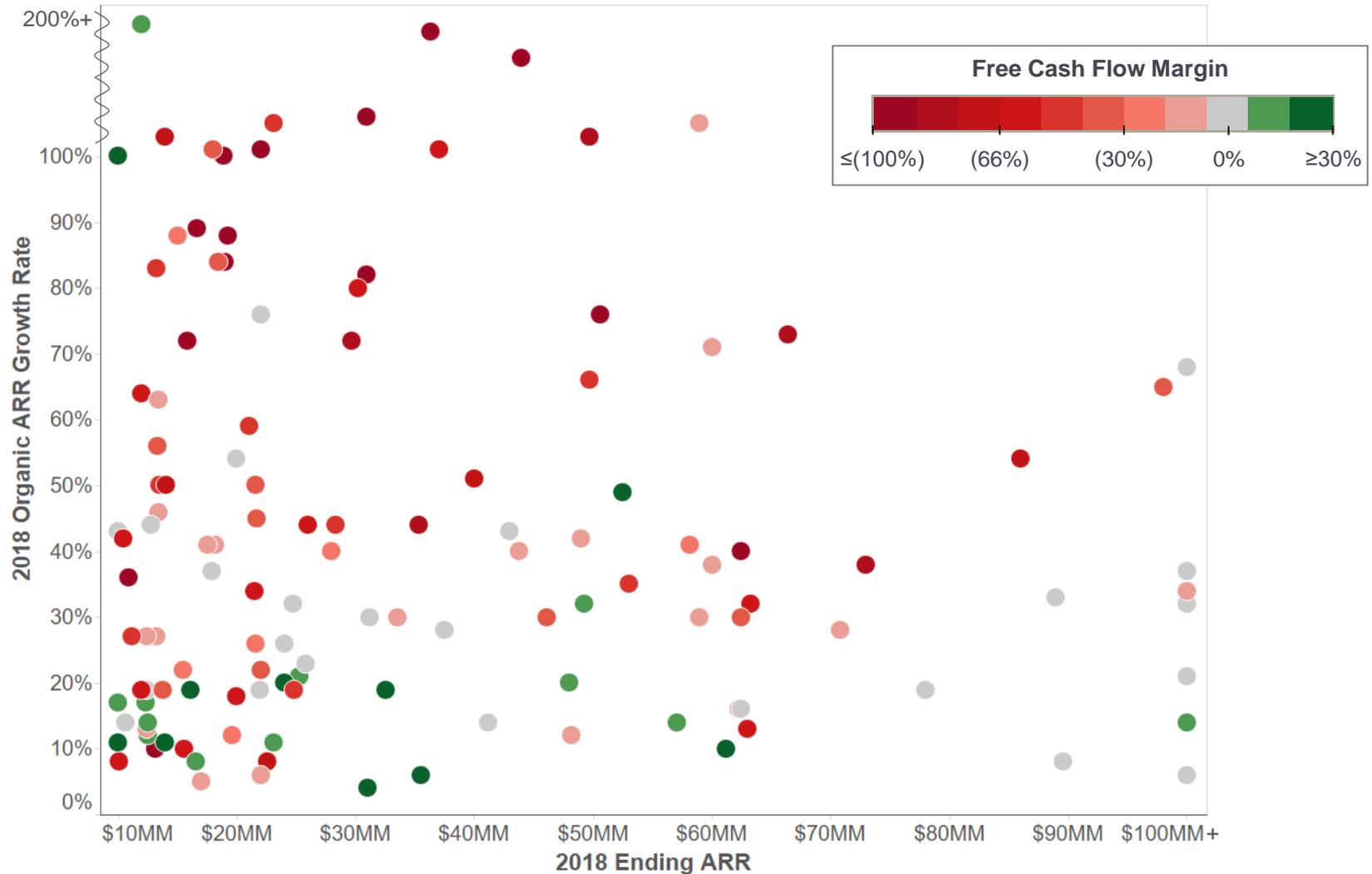
Excluding Companies <\$5MM in 2018 Ending ARR





# GROWTH VS. BURN TRADEOFF

## Scatter View of Companies $\geq$ \$10MM in 2018 Ending ARR



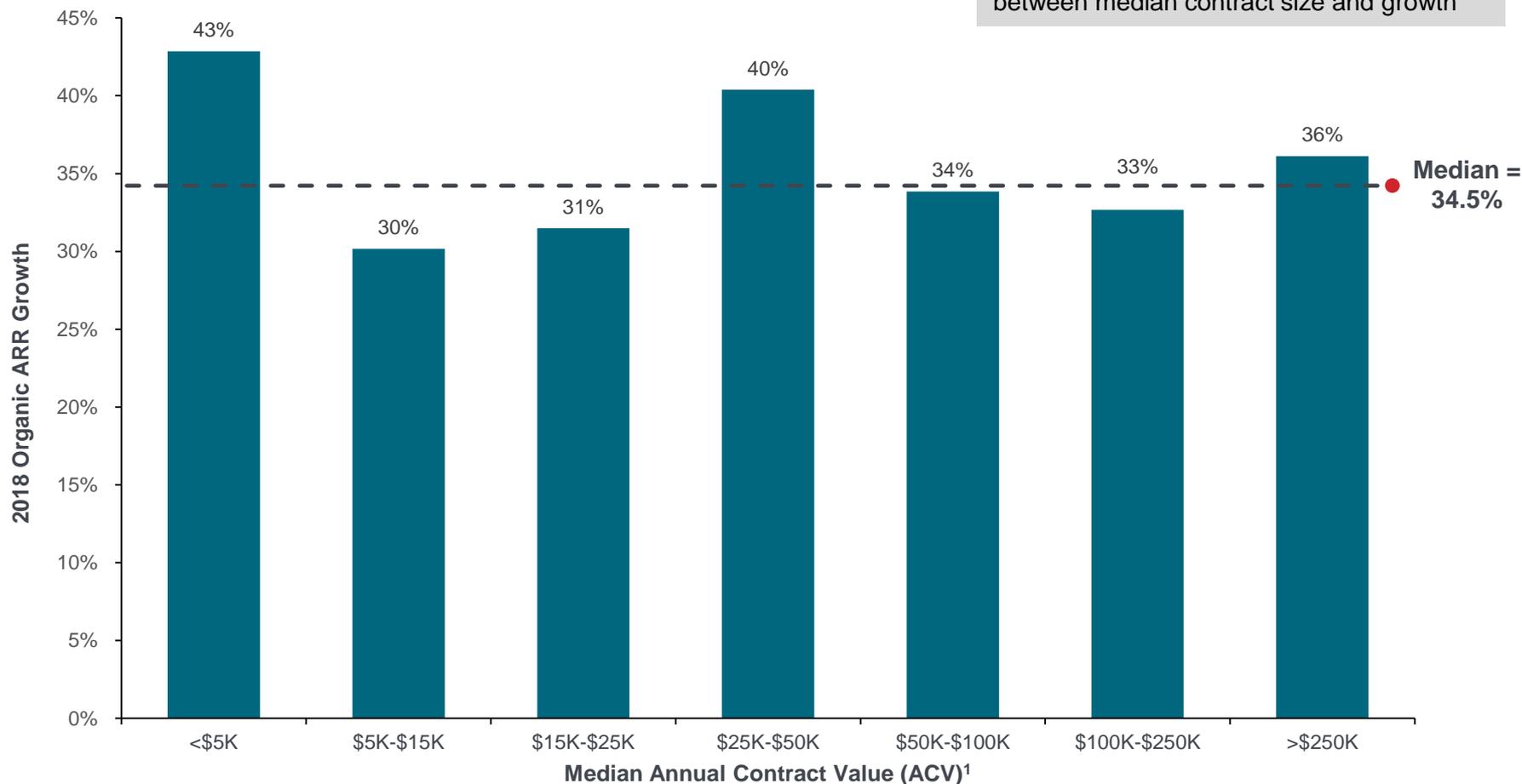
# MEDIAN GROWTH AS A FUNCTION OF CONTRACT SIZE

2019 Private SaaS Company Survey 

Excluding Companies <\$5MM in 2018 Ending ARR



There appears to be no obvious relationship between median contract size and growth



<sup>1</sup> Median Annual Contract Value (ACV): annual recurring SaaS revenues, excluding professional services, perpetual licenses and related maintenance for the median customer contract

Note: Median value may vary due to different sample population

Respondents/Median ARR: Total: 183, <\$5K: 27/\$14MM; \$5K-\$15K: 30/\$13MM; \$15K-\$25K: 15/\$18MM; \$25K-\$50K: 37/\$16MM; \$50K-\$100K: 25/\$19MM; \$100K-\$250K: 30/\$24MM; >\$250K: 19/\$33MM

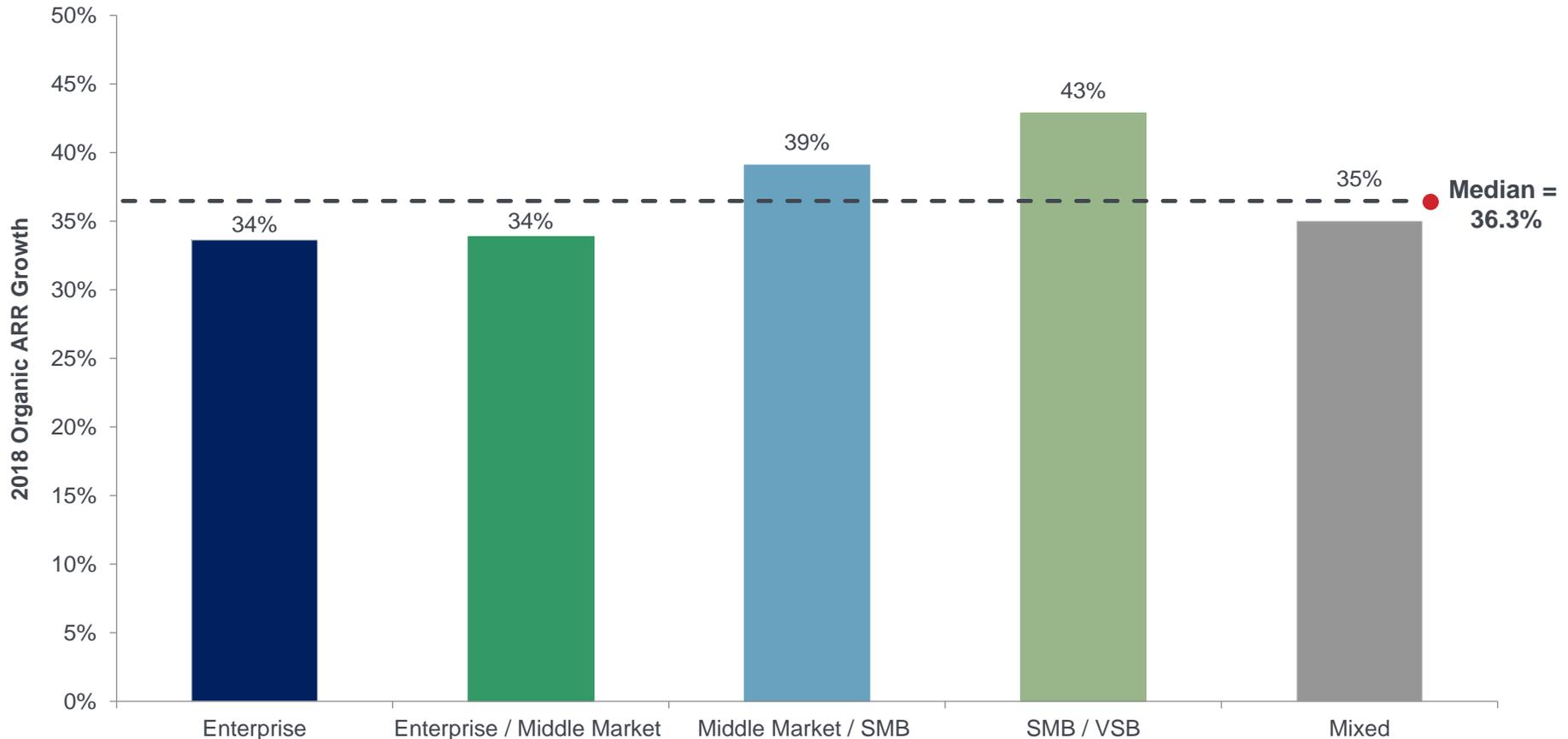
# MEDIAN GROWTH RATE AS A FUNCTION OF TARGET CUSTOMER<sup>1</sup>

2019 Private SaaS Company Survey 

Excluding Companies <\$5MM in 2018 Ending ARR



Companies focusing mainly on mid-sized and smaller customers, grew modestly faster than the other groups



<sup>1</sup> Target Customer Focus – At least 2/3rds of revenue come from designated customer base

Note: Enterprise companies defined as primarily targeting customers with >1000 employees, Middle Market as 100-999 employees, SMB as 20-100 employees and VSB as <20 employees

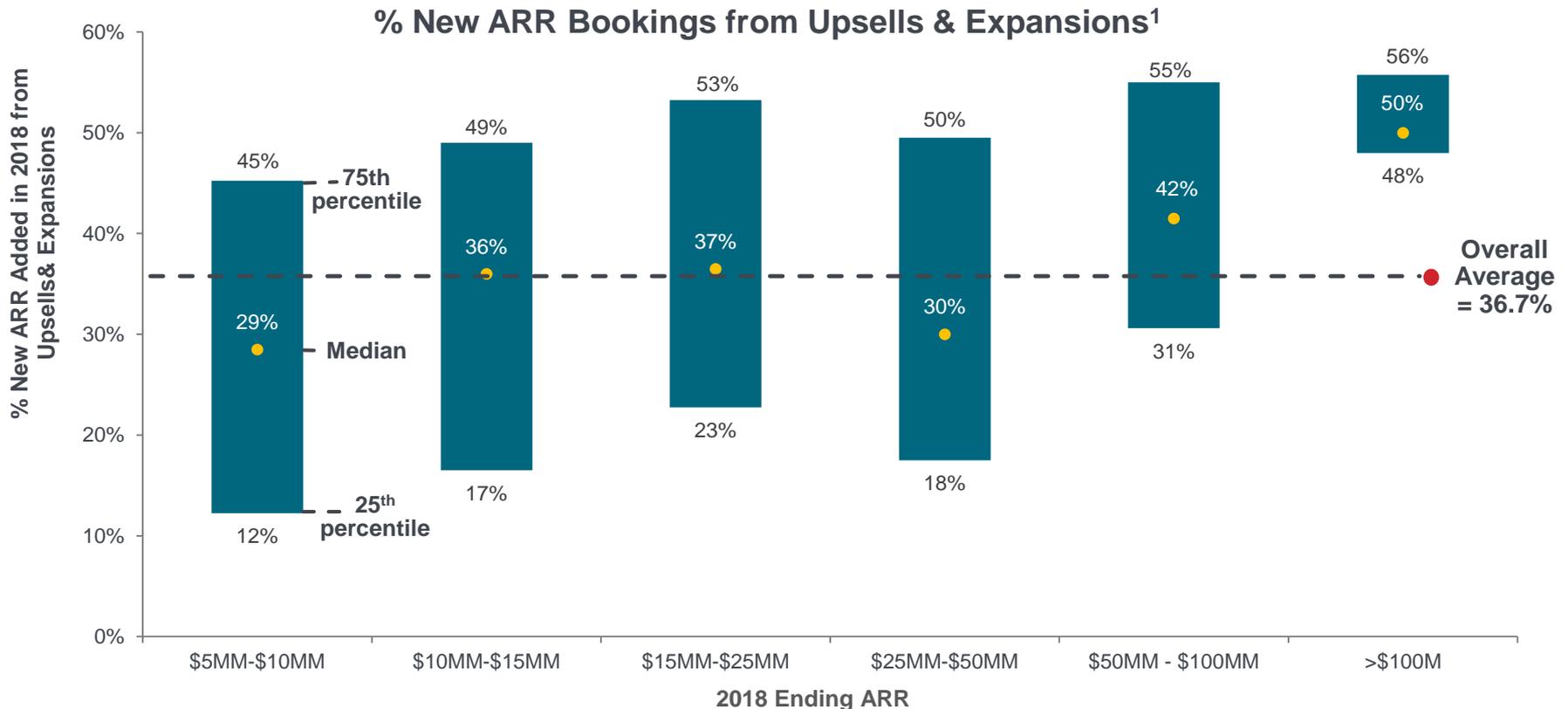
Respondents: Total: 225, Enterprise: 78, Enterprise / Middle Market & Middle Market: 85, Middle Market / SMB & SMB: 34, SMB / VSB & VSB: 17, Mixed: 11

# RELIANCE ON UPSELLS & EXPANSIONS

Excluding Companies <\$5MM in 2018 Ending ARR



The median respondent gets 37% of new ARR bookings from upsells & expansions; larger companies rely more heavily (~1.4x more) on upsells & expansions.



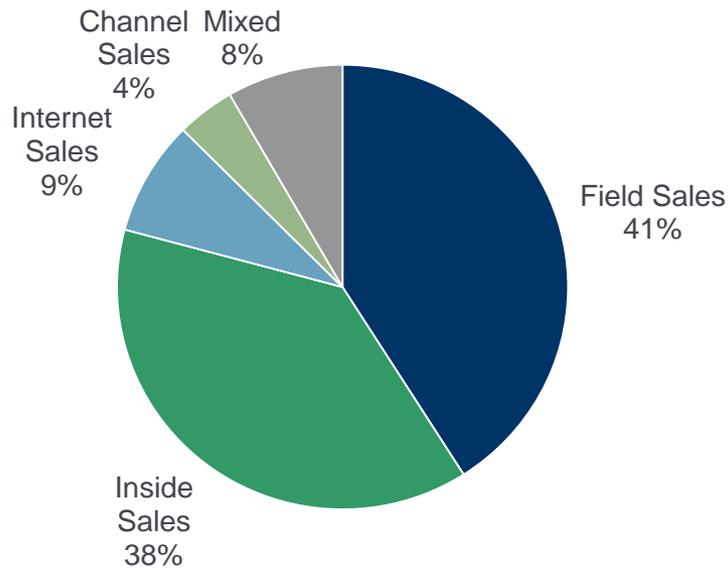
<sup>1</sup> Includes ~2.5% attributable to Price Increases

Respondents: Total: 214, \$5MM-\$10MM: 52, \$10MM-\$15MM: 35, \$15MM-\$25MM: 44, \$25MM-\$50MM: 39, \$50MM-\$100MM: 32, >\$100MM: 12

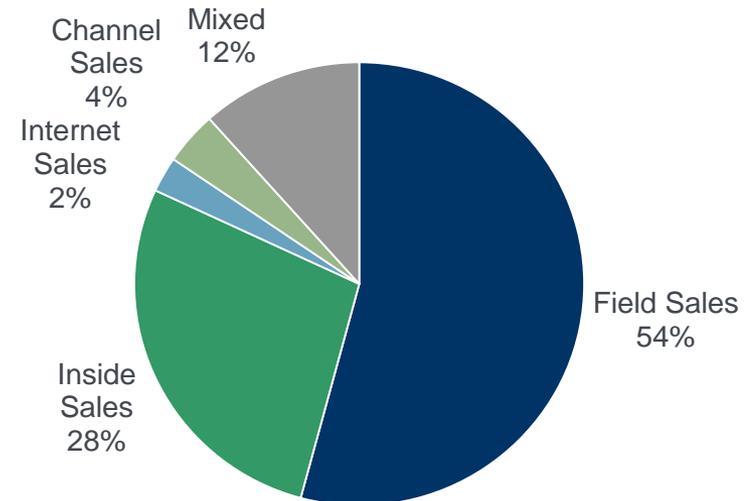
# GO-TO-MARKET AND SALES AND MARKETING

# PRIMARY MODE OF DISTRIBUTION<sup>1</sup>

## Smaller Companies <\$10MM in 2018 Ending ARR



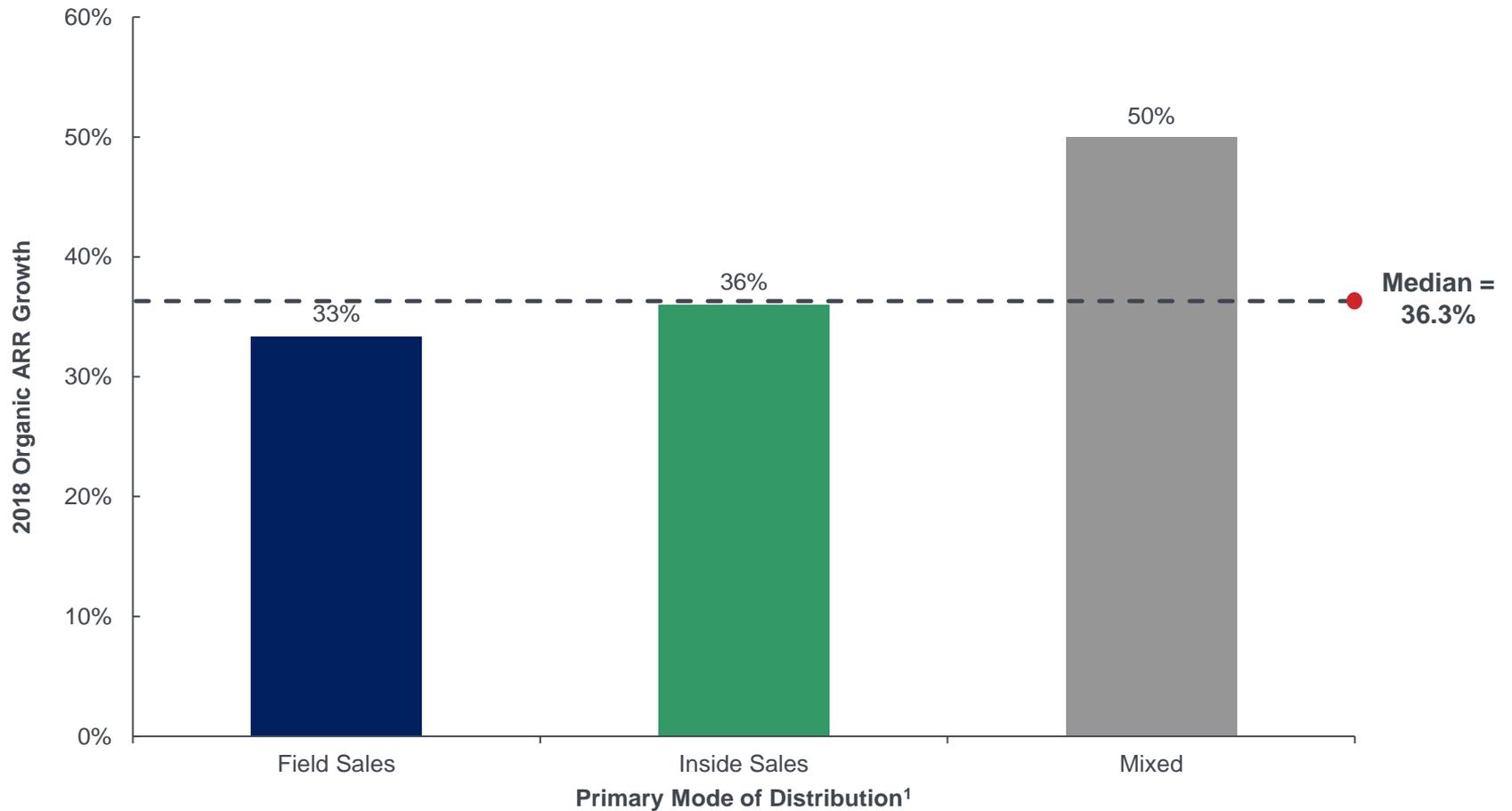
## Larger Companies ≥ \$10MM in 2018 Ending ARR



# MEDIAN GROWTH RATE AS A FUNCTION OF SALES STRATEGY

2019 Private SaaS Company Survey 

Excluding Companies <\$10MM in 2018 Ending ARR



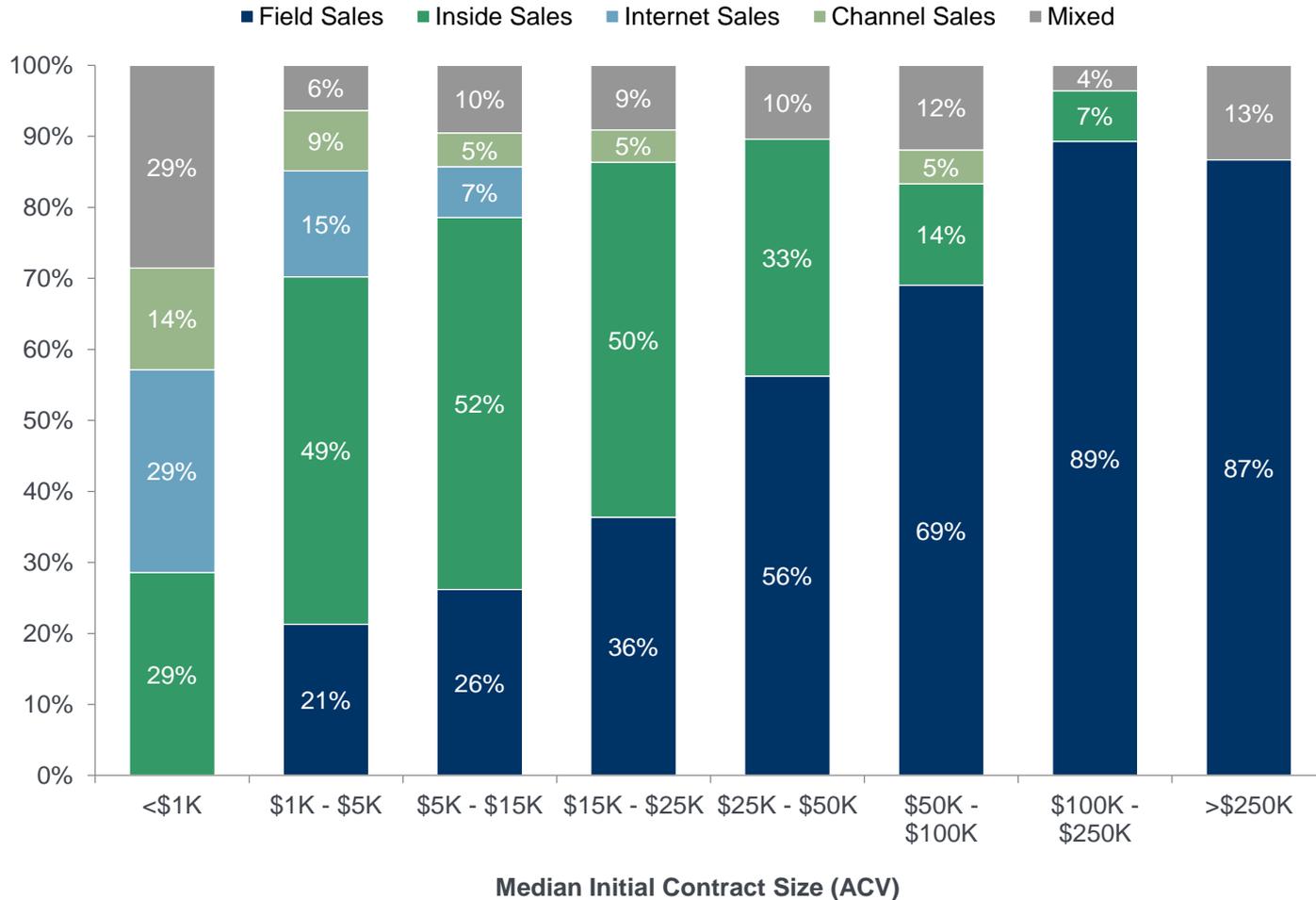
<sup>1</sup> See definition on page 17

Respondents/Median ARR: Total: 141, Field Sales: 84/\$22MM, Inside Sales: 40/\$15MM, Mixed: 17/\$24MM

Note: Internet Sales and Channel Sales excluded due to small sample size: Internet Sales: 3/\$17MM, Channel Sales: 5/\$12MM

# PRIMARY MODE OF DISTRIBUTION<sup>1</sup> AS A FUNCTION OF INITIAL MEDIAN CONTRACT SIZE

2019 Private SaaS Company Survey 



 Field Sales dominates for companies with median initial contracts over \$50K. Inside Sales strategies are most popular among companies with \$1K-\$25K initial deal sizes.

<sup>1</sup> See definition on page 17

Respondents: Total: 251, <\$1K: 7, \$1K-\$5K: 47, \$5K-\$15K: 42, \$15K-\$25K: 22, \$25K-\$50K: 48, \$50K-\$100K: 42, \$100K-\$250K: 28, >\$250K: 15.

# ANALYSIS OF FIELD VS. INSIDE SALES IN KEY CROSSOVER DEAL SIZE TIERS

2019 Private SaaS Company Survey 

## Excluding Companies <\$5MM in 2018 Ending ARR

Median	\$15K–\$50K Median Initial Annual Contract Size	
	Field-Dominated	Inside-Dominated
2018 Ending ARR	\$16MM	\$20MM
2018 Organic ARR Growth Rate	30%	29%
2018 FCF Margin	(18%)	(28%)
2018 Rule of 40	16%	(1%)
2018 ARR per FTE	\$134K	\$143K
S&M % of Revenue	45%	45%
Median Initial ACV per Customer	\$30K	\$31K
Average Contract Length	1.5 Years	1 Year
Professional Services Attach Rate	5.0%	2.5%
Commissions for New Sales to New Accounts – Direct	10%	10%
Annual Gross Dollar Churn <sup>1</sup>	14%	16%
% of New ARR from Upsells and Expansions	36%	29%
Net Dollar Retention Rate <sup>2</sup>	103%	96%
New CAC Ratio <sup>3</sup>	\$1.43	\$1.39
Capital Consumption Ratio	1.61x	2.32x

 Among companies selling \$15K-\$50K average ACV, we compared those favoring Field vs. Inside and found Field Sales driven companies had lower churn and higher net dollar retention rates although CAC Ratios were comparable.

<sup>1</sup> The % of dollar ARR under contract at the end of the prior year which was lost during the most recent year (excludes the benefits of upsells and expansions)

<sup>2</sup> The % change in ACV from existing customers, resulting only from the effect of churn, upsells / expansions and price increases

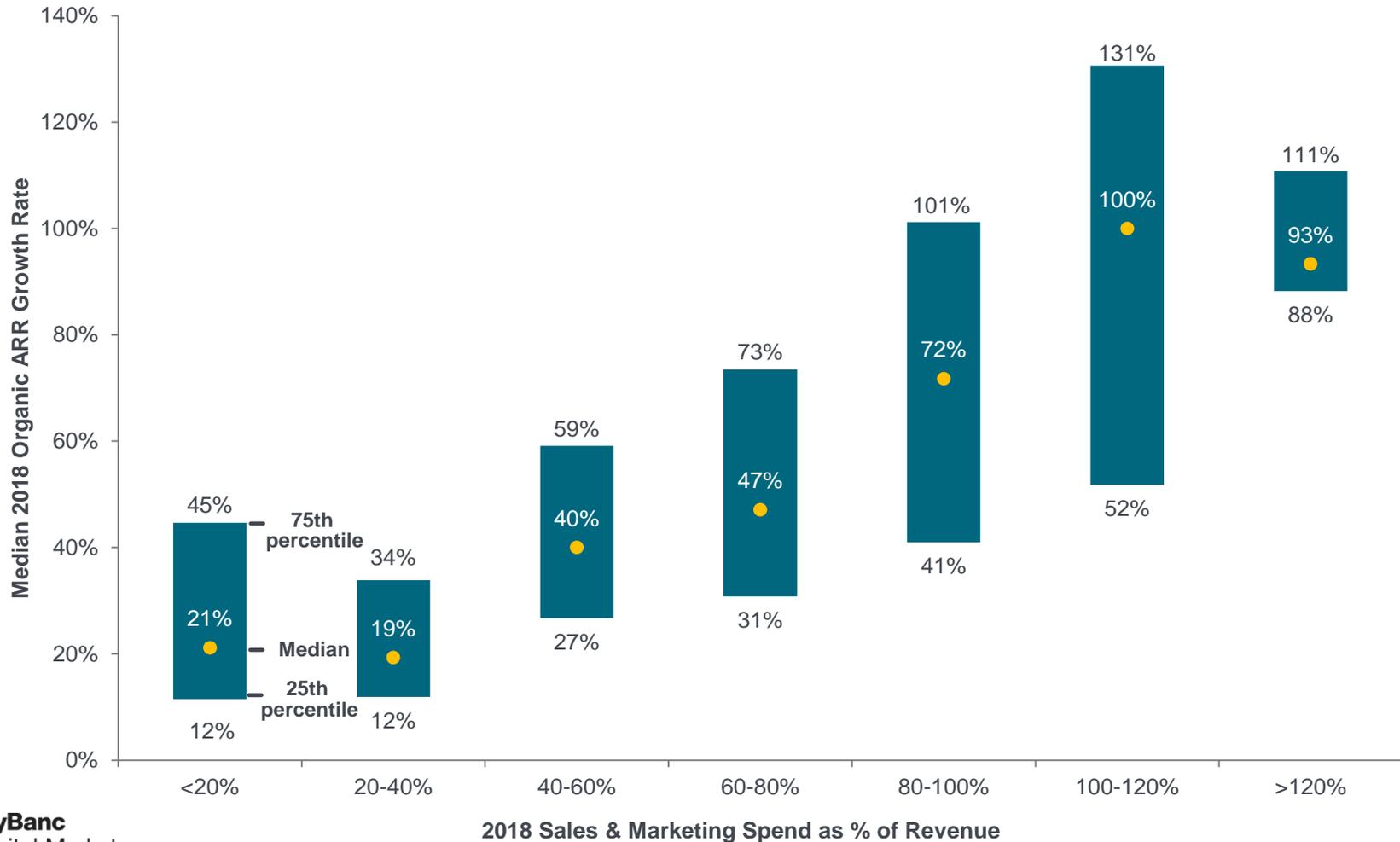
<sup>3</sup> Fully-loaded sales & marketing spend divided by new ARR components excluding churn

Respondents: Total: 44, Field-Dominated: 27, Inside-Dominated: 17

# SALES & MARKETING SPEND VS. GROWTH RATE

2019 Private SaaS Company Survey 

Excluding Companies <\$5MM in 2018 Ending ARR

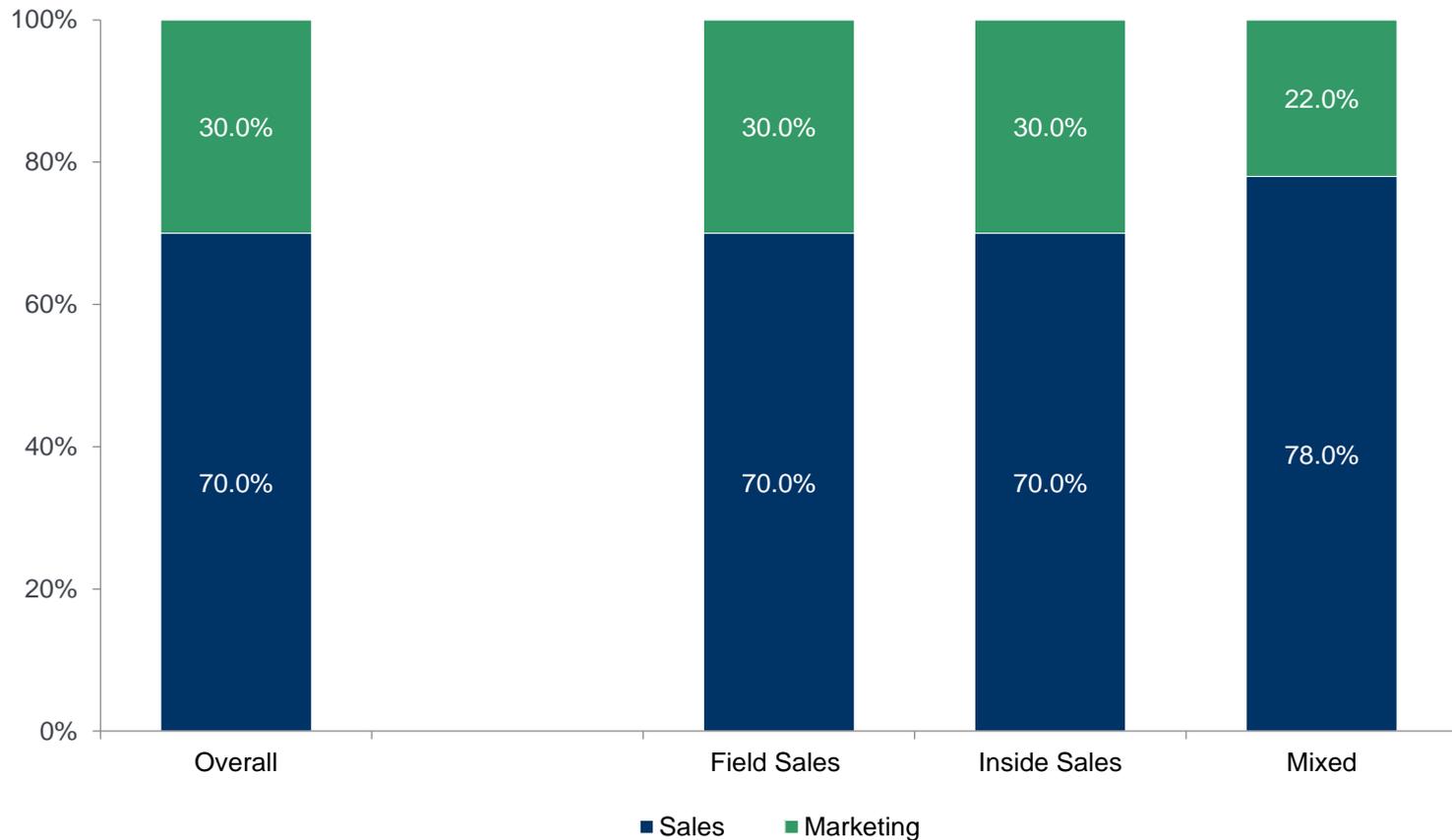


# S&M COMPOSITION: SALES VS. MARKETING COST

2019 Private SaaS Company Survey 

Excluding Companies <\$10MM in 2018 Ending ARR

### Sales vs. Marketing Spend of Companies by Primary Mode of Distribution<sup>1</sup>



<sup>1</sup> See definition on page 17

Respondents: Overall: 132, Field Sales: 78, Inside Sales: 38, Mixed: 16

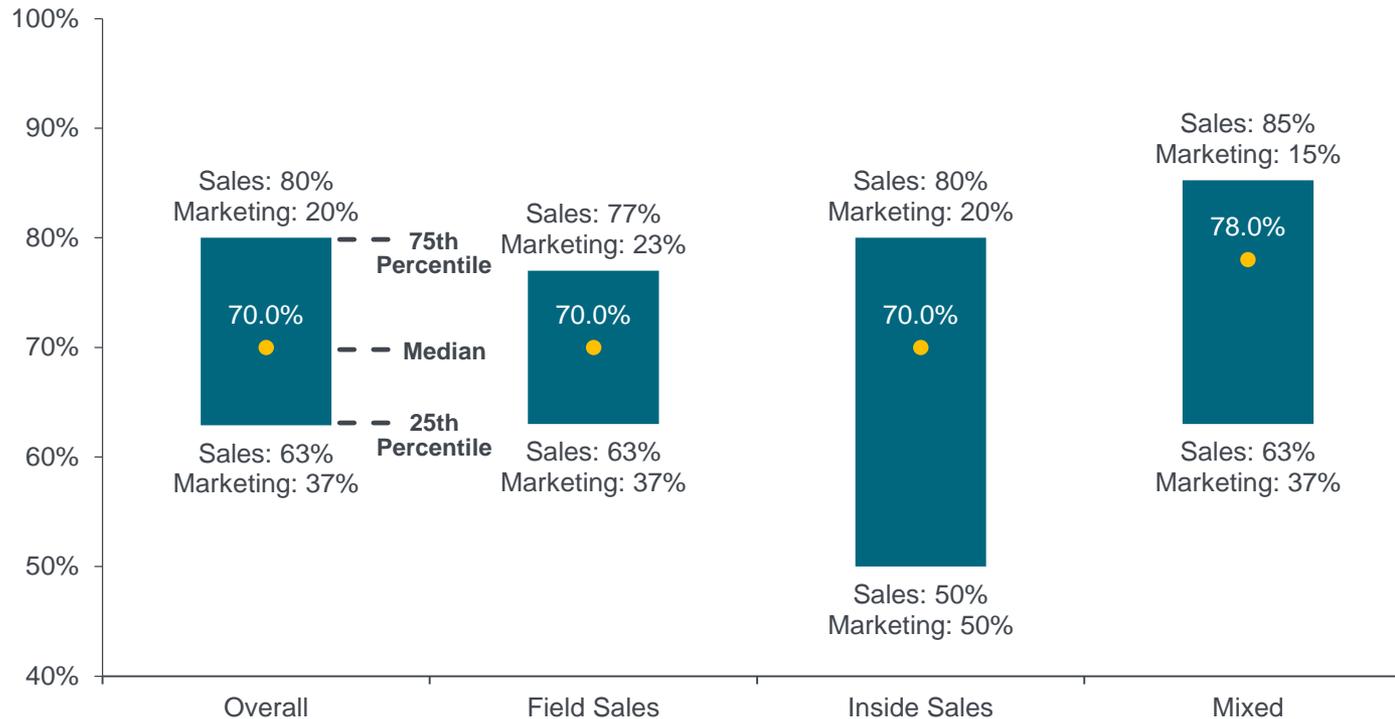
Note: Internet Sales 3 and Channel Sales 5, excluded due to small sample size.

# S&M COMPOSITION: SALES VS. MARKETING COST CLOSE-UP

2019 Private SaaS Company Survey 

Excluding Companies <\$10MM in 2018 Ending ARR

## Sales vs. Marketing Spend of Companies by Primary Mode of Distribution<sup>1</sup>



<sup>1</sup> See definition on page 17

<sup>2</sup> Respondents above the 75th percentile

<sup>3</sup> Respondents below the 25th percentile

Respondents: Overall: 132, Field Sales: 78, Inside Sales: 38, Mixed: 16

# CAC RATIOS AND CAC PAYBACK

# CAC RATIO DEFINITIONS

## Blended CAC Ratio

Fully-loaded S&M spend to acquire \$1 of new ARR across all customers



$$\frac{2018 \text{ Fully-loaded S\&M}}{2018 \text{ Gross ARR Bookings}}$$

## New Customer CAC Ratio

Fully-loaded S&M spend to acquire \$1 of new ARR from a new customer



$$\frac{2018 \text{ Fully-loaded S\&M Targeted at New Customers}}{2018 \text{ ARR Bookings from New Customers}}$$

## Upsell CAC Ratio

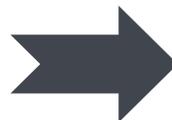
Fully-loaded S&M spend to acquire \$1 of new ARR from upsells



$$\frac{2018 \text{ Fully-loaded S\&M Targeted at Upsell}}{2018 \text{ ARR Bookings from Upsell}}$$

## Expansion CAC Ratio

Fully-loaded S&M spend to acquire \$1 of new ARR from expansions

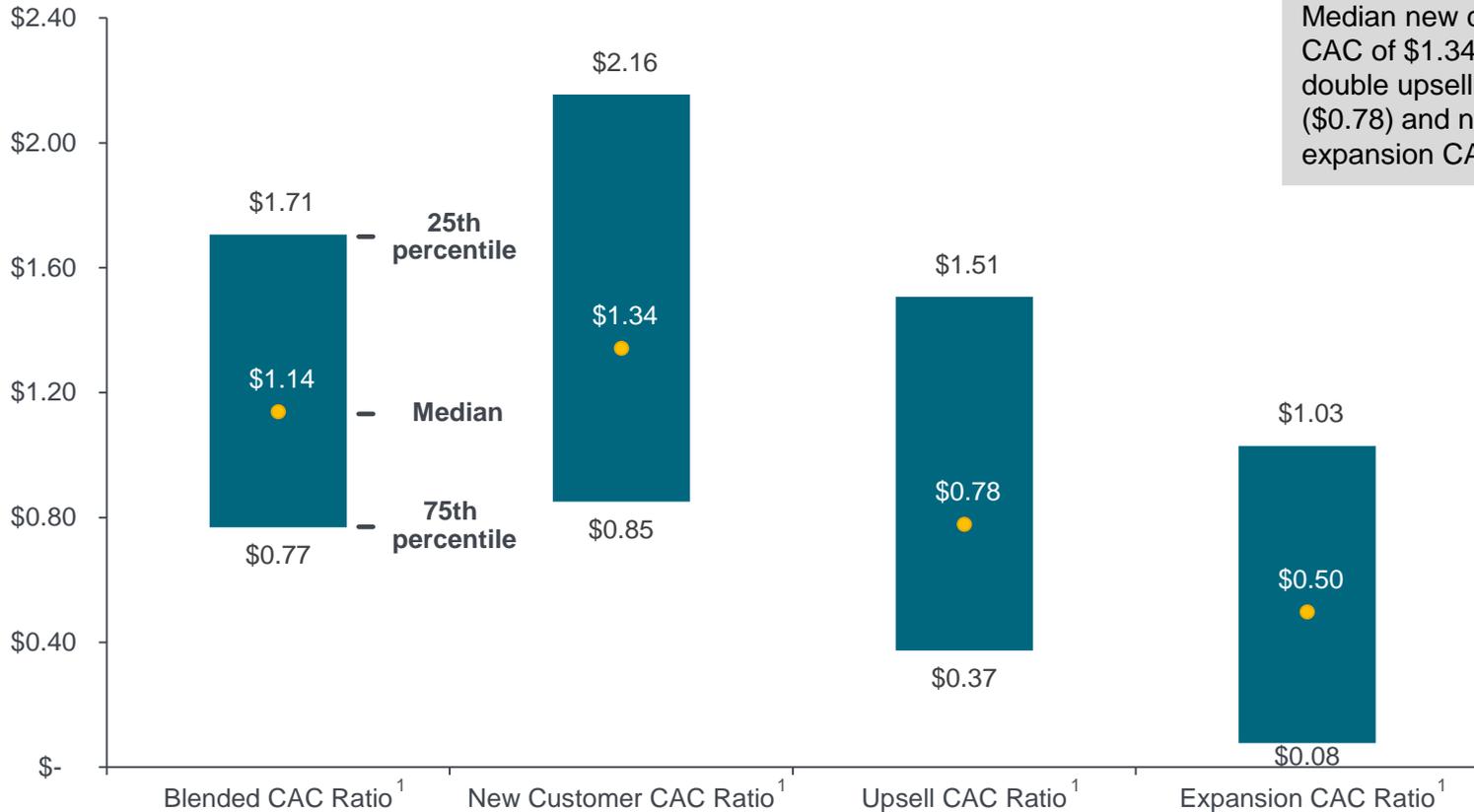


$$\frac{2018 \text{ Fully-loaded S\&M Targeted at Expansion}}{2018 \text{ ARR Bookings from Expansion}}$$

# DISTRIBUTION OF 2018 CAC RATIOS

Excluding Companies <\$5MM in 2018 Ending ARR

 The median blended CAC of \$1.14 provides an all-in benchmark. Median new customer CAC of \$1.34 is almost double upsell CAC (\$0.78) and nearly 3.0x expansion CAC (\$0.50).

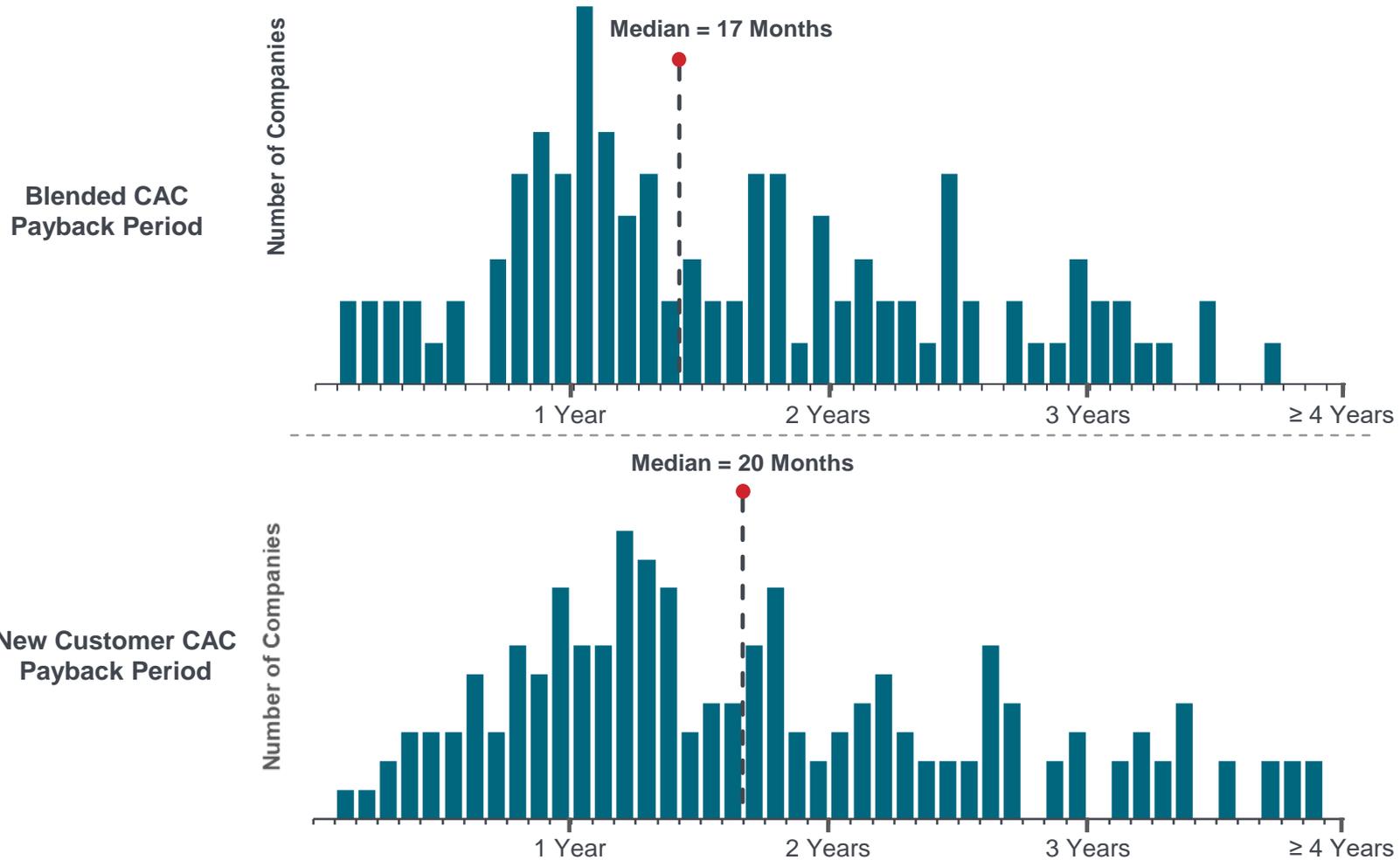


# CAC PAYBACK PERIOD<sup>1</sup> (GROSS MARGIN BASIS)

2019 Private SaaS Company Survey 

## Excluding Companies <\$5MM in 2018 Ending ARR

How Long Does It Take to Recover Blended CAC vs. New Customer CAC, Based on Gross Margin Subscription Dollars Received?

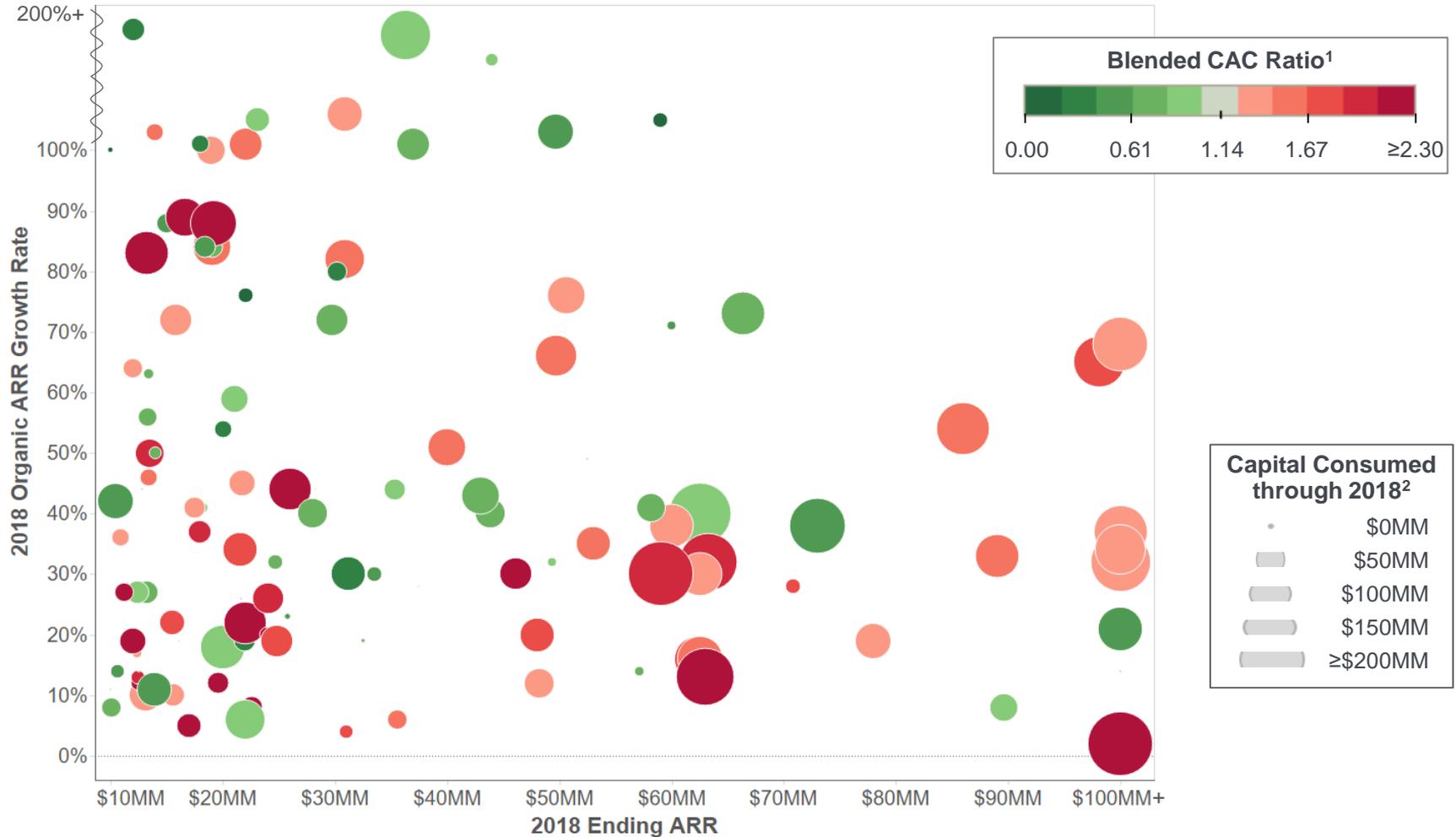


<sup>1</sup> Implied CAC Payback Period: Defined as # of months of subscription gross profit required to recover the fully-loaded cost of acquiring a customer; calculated by dividing CAC ratio by subscription gross margin

Respondents: New Customer CAC Payback: 162, Blended CAC Payback Period: 175

# CAC AND CAPITAL EFFICIENCY

## Size-Growth Scatter View of Companies $\geq$ \$10MM in 2018 Ending ARR



<sup>1</sup> See definition on page 25

<sup>2</sup> Capital consumed defined as total primary cumulative equity raised plus debt drawn minus cash on the balance sheet (adjusted for dividends / distributions)

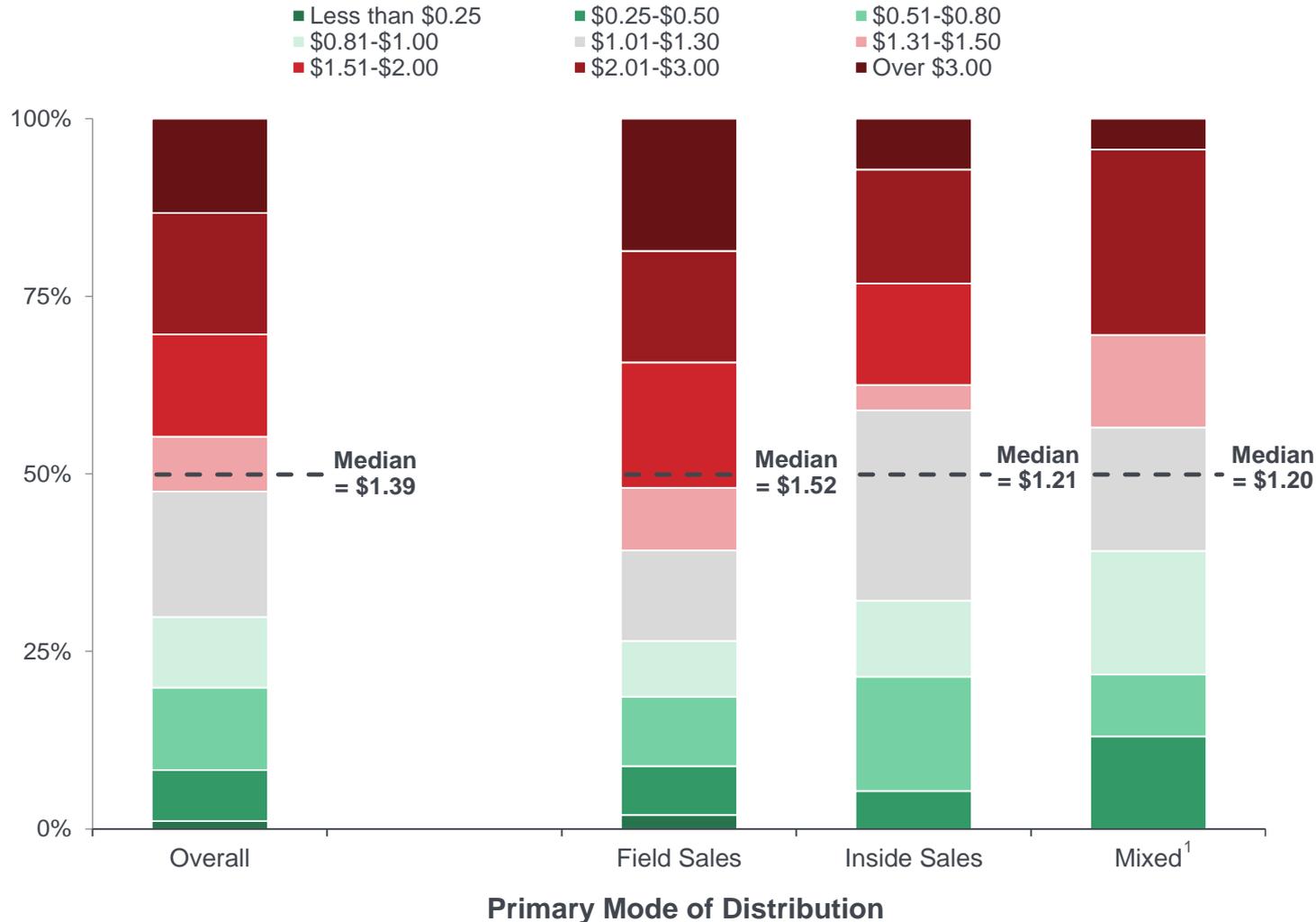
Note: Excludes companies with negative or no organic ARR growth

122 respondents

# NEW CUSTOMER CAC RATIO BY PRIMARY MODE OF DISTRIBUTION<sup>1</sup>

2019 Private SaaS Company Survey 

Excluding Companies <\$5MM in 2018 Ending ARR



<sup>1</sup> See definition on page 17

Respondents: Total: 181, Field Sales: 102, Inside Sales: 57, Mixed: 22. Excludes Channel Sales: 6, Internet Sales: 8

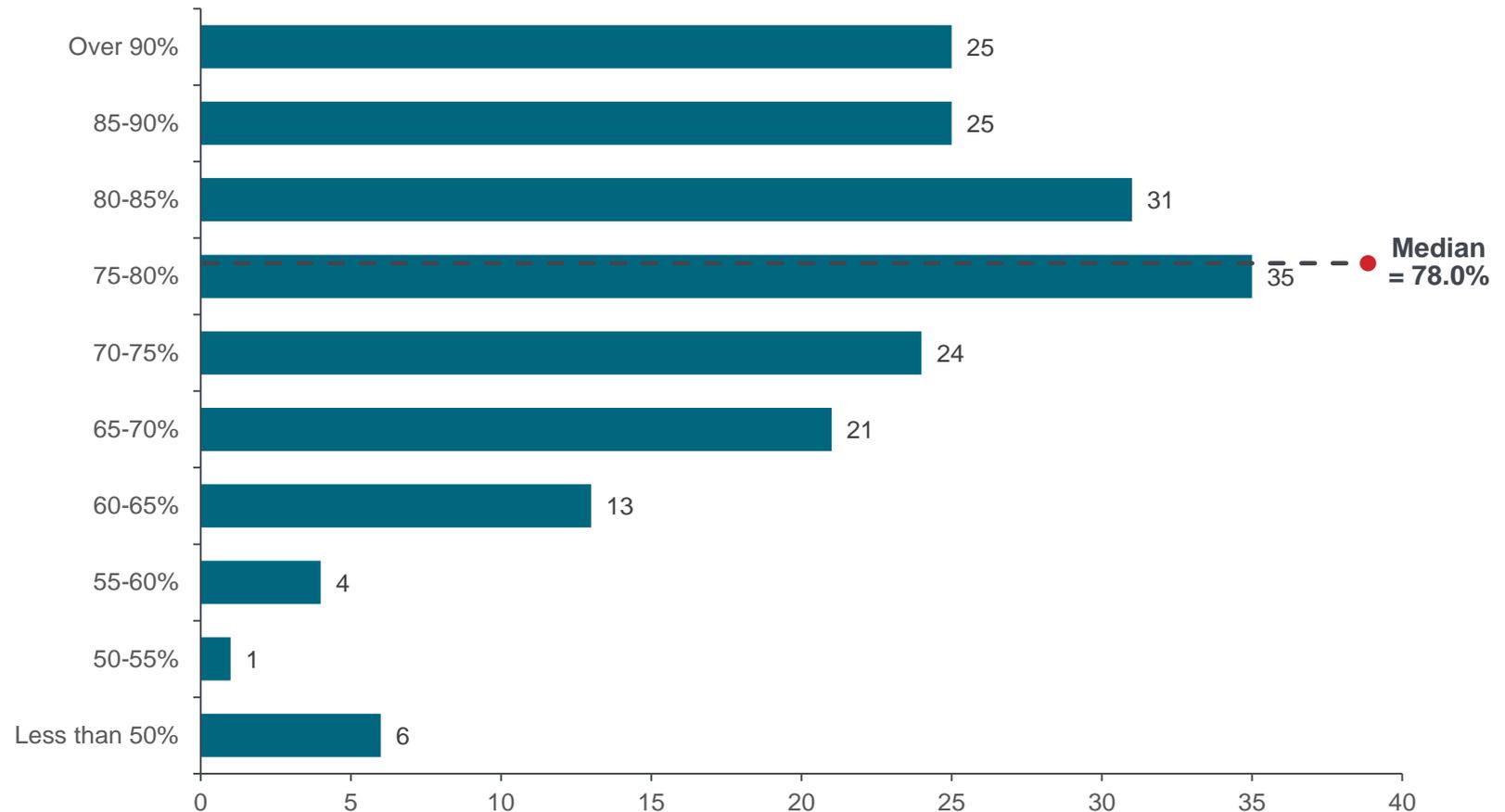
# OPERATIONS

# SUBSCRIPTION GROSS MARGIN

2019 Private SaaS Company Survey 

Excluding Companies <\$5MM in 2018 Ending ARR

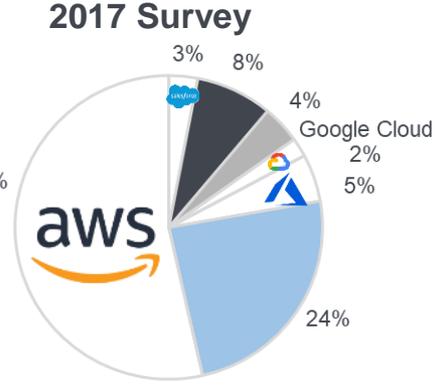
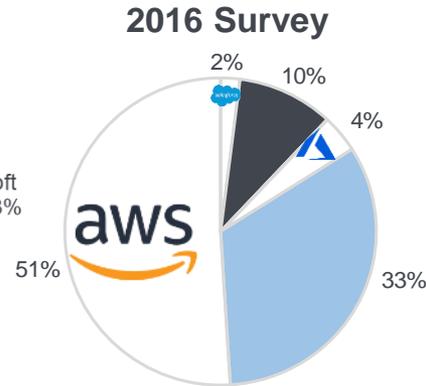
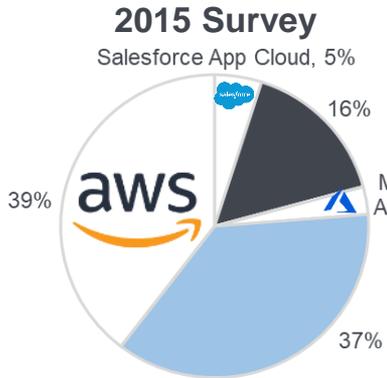
“What is Your Gross Profit Margin on Just Subscription / SaaS Revenues?”



# SAAS APPLICATION DELIVERY<sup>1</sup> TRENDS SINCE 2014

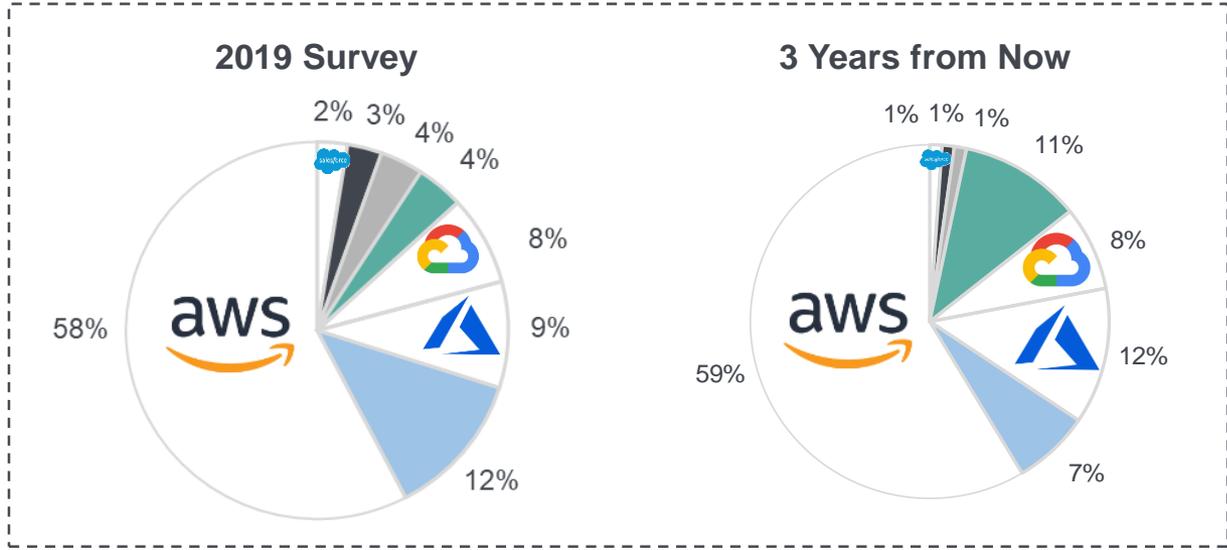
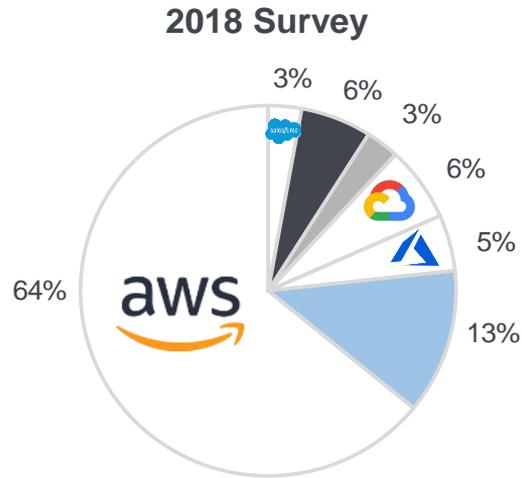
2019 Private SaaS Company Survey 

■ Self Managed Servers   
 ■ Other Third-Party IaaS or PaaS   
 ■ Hybrid / Multi-Cloud   
 ■ Other



 88% of participants use third parties predominantly; expectations for the future show a continuing shift to third-party application delivery.

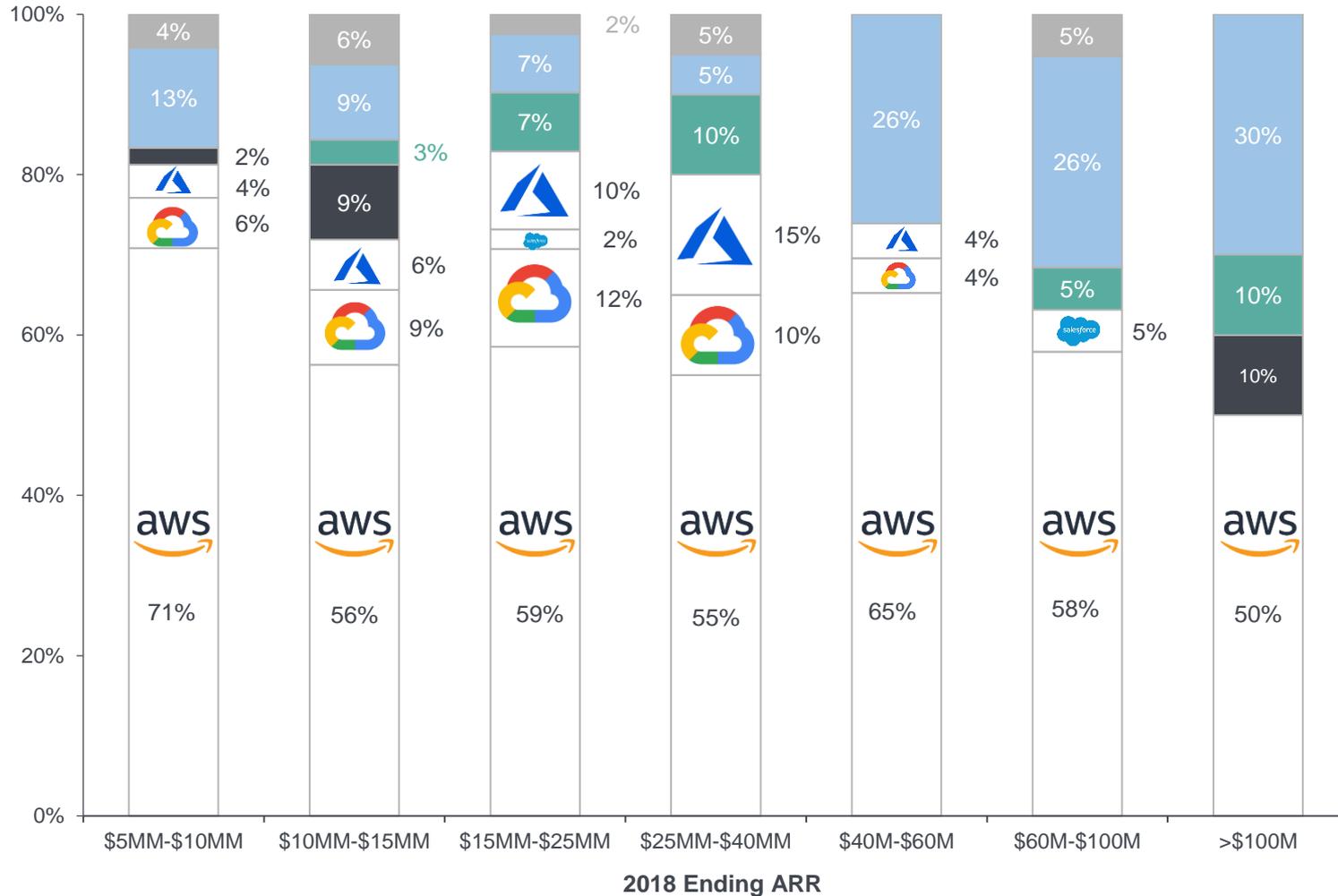
With increasing competitive pressure from Google Cloud and Microsoft Azure, AWS's share declined from 64% last year to 58%.



<sup>1</sup> Reported "predominant" mode of delivery  
 Respondents: 2014: 297; 2015: 282; 2016: 289; 2017: 384; 2018: 245; 2019: 274; 3 Years from Now: 270

# SAAS APPLICATION DELIVERY MODE AS A FUNCTION OF SIZE OF COMPANY

2019 Private SaaS Company Survey 



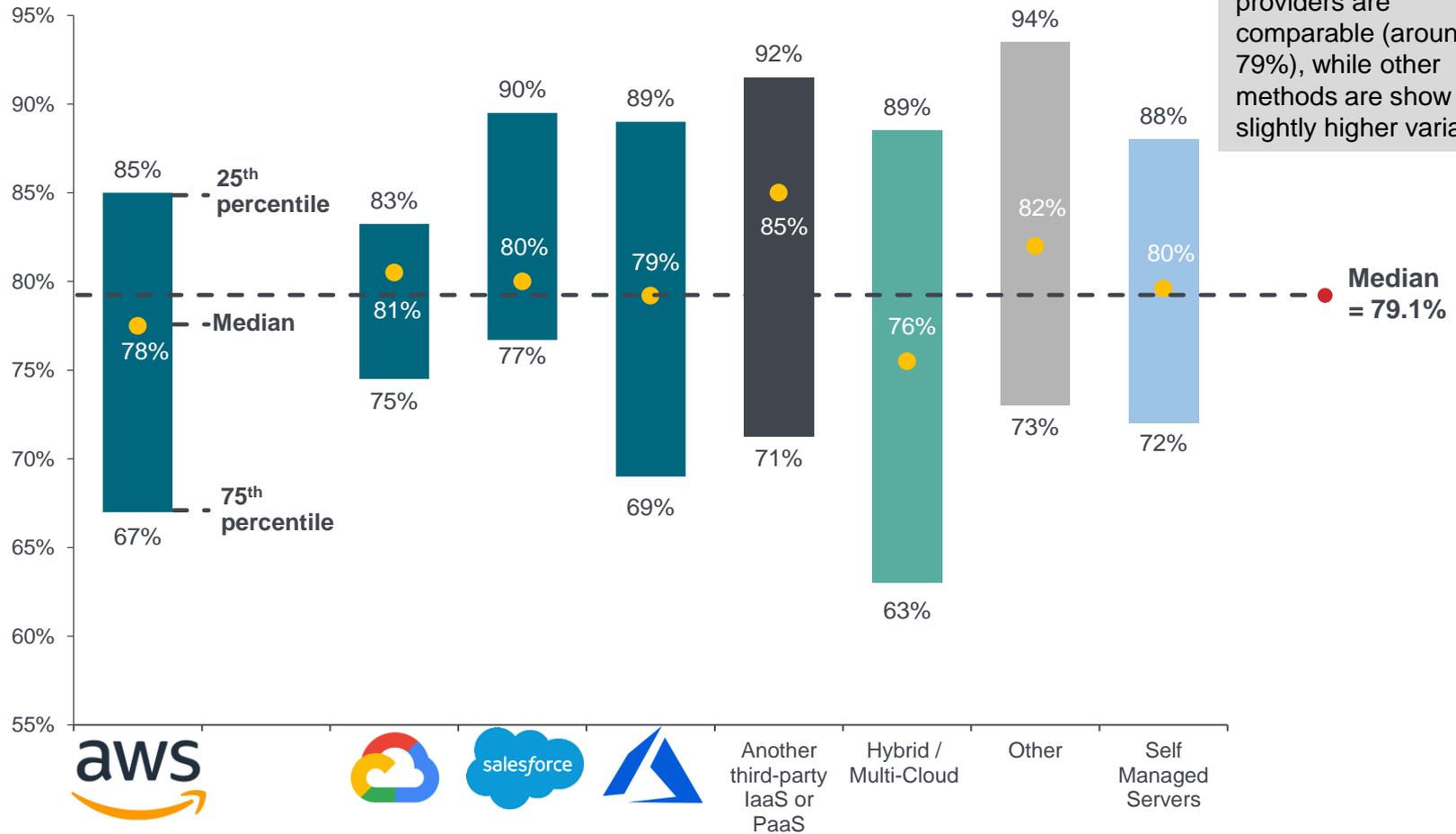
 AWS dominates across companies of every scale. While Self-Managed is used by a greater share of larger firms, Azure / Google have grabbed market share in the mid-sized space.

Another third-party IaaS or PaaS
  Hybrid / Multi-Cloud
  Self Managed Servers
  Other

# SUBSCRIPTION GROSS MARGIN AS A FUNCTION OF APPLICATION DELIVERY

2019 Private SaaS Company Survey 

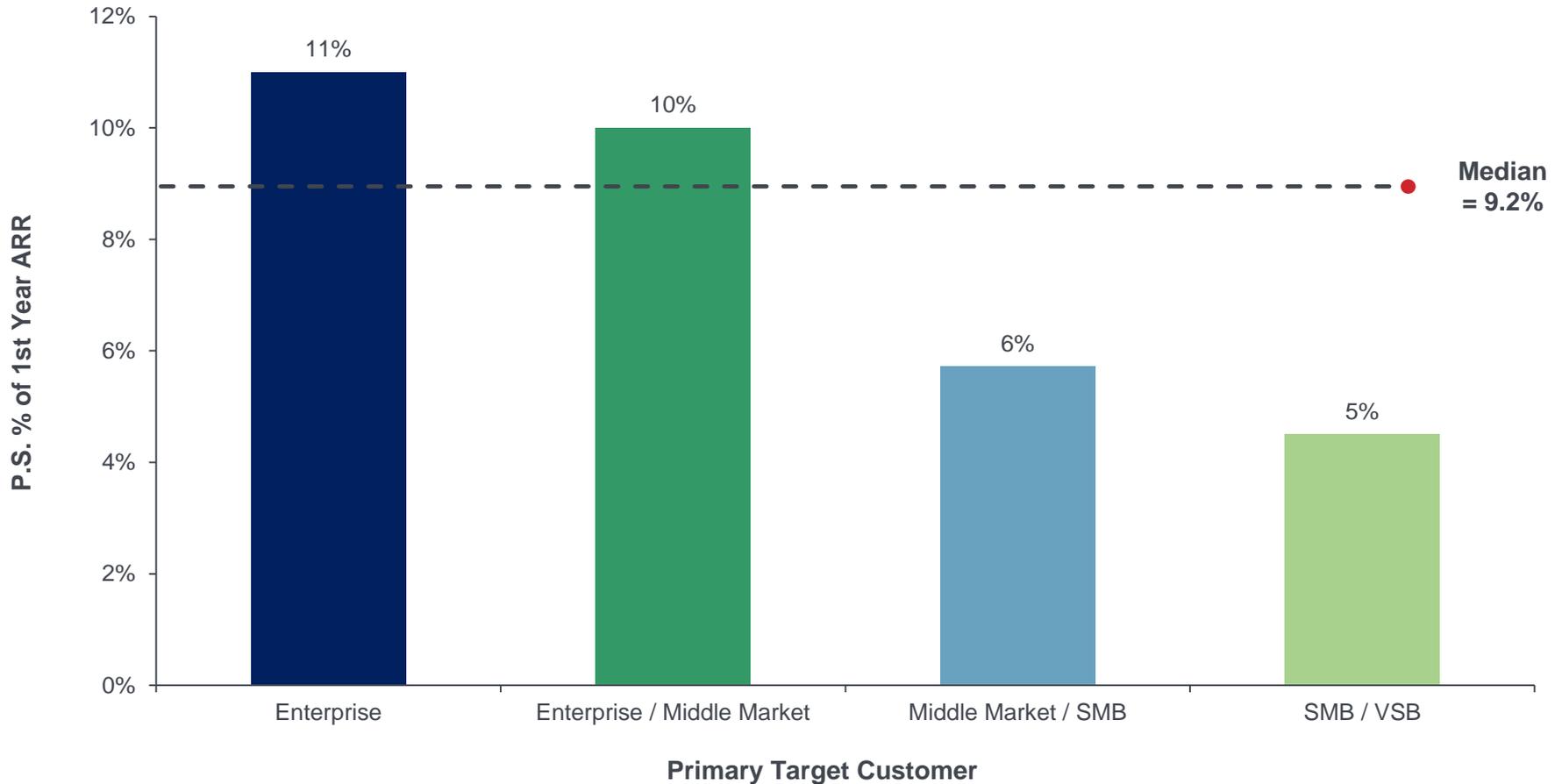
 Median subscription margins for all the major providers are comparable (around 79%), while other methods are show slightly higher variance



# PROFESSIONAL SERVICES (% OF 1ST YEAR ARR) AS A FUNCTION OF TARGET CUSTOMER<sup>1</sup>

2019 Private SaaS Company Survey 

Excluding Companies <\$5MM in 2018 Ending ARR



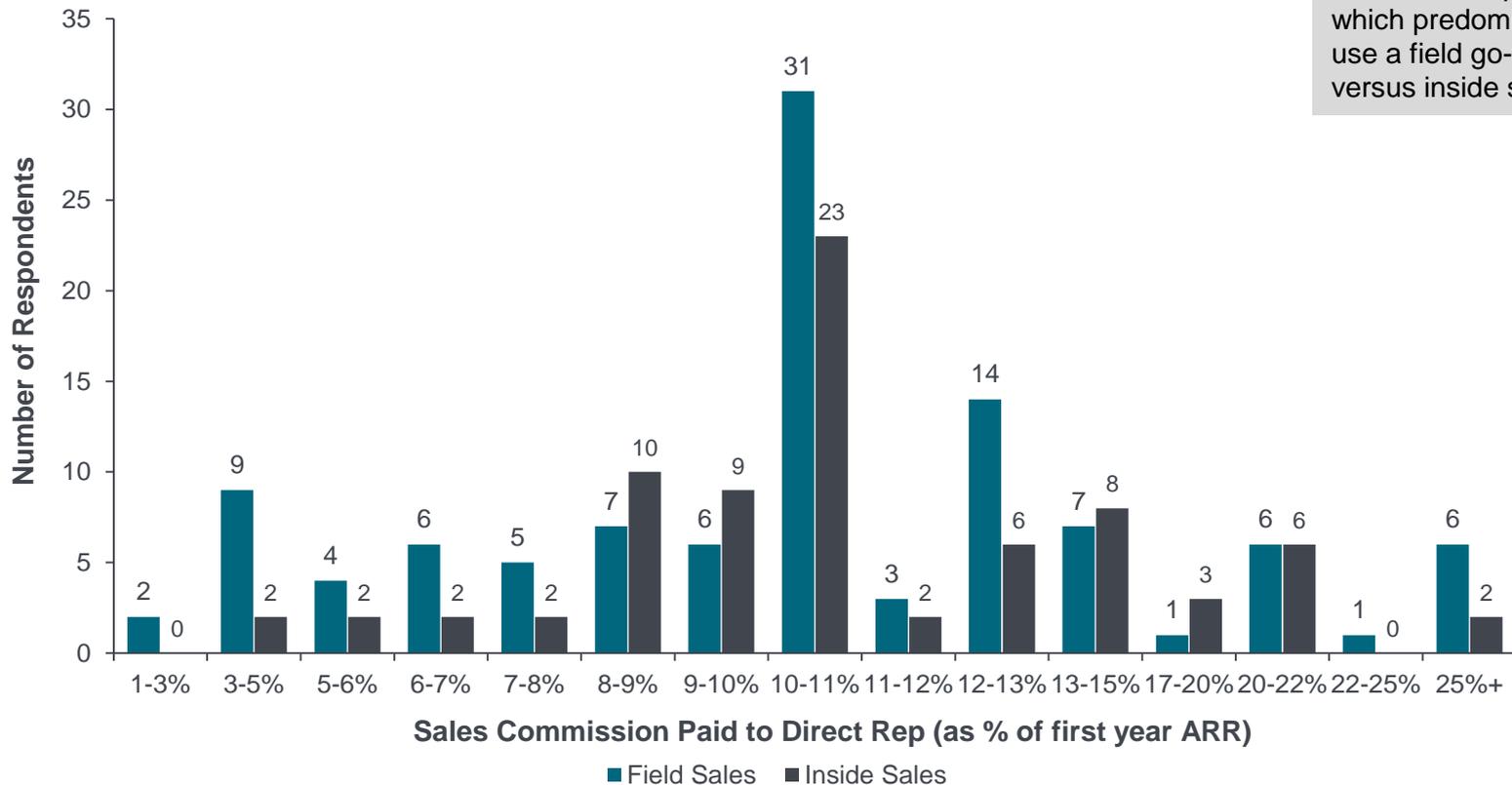
<sup>1</sup> See definition on page 14

Respondents: Total: 137, Enterprise: 52, Enterprise / Middle Market: 56, Middle Market / SMB: 22, SMB / VSB: 7, excludes Mixed: 4, due to small sample size and respondents indicating no professional services

# ANALYSIS OF SALES COMMISSION LEVELS

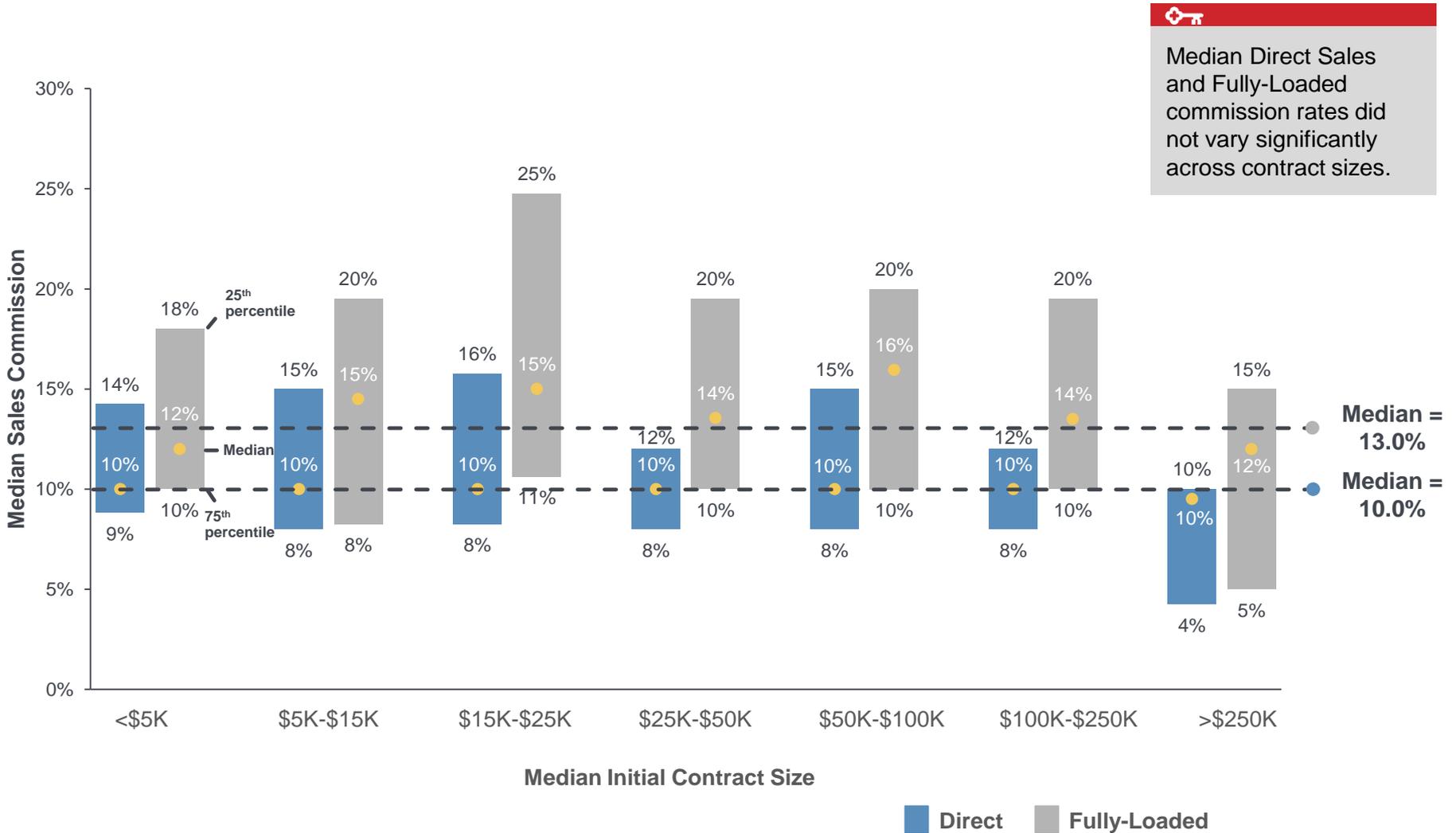
	Field Dominated	Inside Dominated
Median Direct Sales Commission	≈ 10.0%	≈ 10.0%
Median Fully-Loaded Sales Commission	≈ 12.0%	≈ 14.0%

 The survey results do not point to a significant difference in sales commission rates between companies which predominantly use a field go-to market versus inside sales.



# SALES COMMISSIONS AS A FUNCTION OF MEDIAN INITIAL CONTRACT SIZE

2019 Private SaaS Company Survey 



# DIRECT COMMISSIONS FOR RENEWALS, UPSELLS AND MULTI-YEAR DEALS

## Excluding Companies <\$5MM in 2018 Ending ARR



Commissions on simple renewals are going down every year– this year, almost 50% of the time not paid at all (vs. 35% last year). Meanwhile, commissions on upsells are also trending down (53% pay full commission in this year's results, vs. 68% last year).

Renewals	
Median commission rate on renewals <sup>1</sup>	3%
Percentage of respondents not paying any commission on renewals	47%

Upsells	
Median commission rate on upsells <sup>1</sup>	9%
Percentage (%) of respondents paying full commission <sup>2</sup>	53%

Additional Commission for Extra Years on Initial Contract	
Percentage of Respondents Paying	
No additional commission	27%
Partial commission	20%
Full commission	10%

<sup>1</sup> Among companies paying a commission

<sup>2</sup> Same rate (or higher) than new sales commissions

Respondents: Renewals: 177, Upsells: 178, Extra Years on Initial Contract: 187

# COST STRUCTURE

# COST STRUCTURE

## Excluding Companies <\$5MM in 2018 GAAP Revenue

Gross Margins:	2018 Median <sup>1</sup>
Subscription Gross Margin	78%
Total Gross Margin <sup>2</sup>	73%

Operating Expense Margins:	
Sales & Marketing	43%
Research & Development	27%
General & Administrative	20%

Profitability & Growth:	
EBITDA Margin	(19%)
FCF Margin	(14%)
YoY Organic ARR Growth Rate	35%

<sup>1</sup> All margins based on 2018 GAAP, adjusted for stock-based compensation add-back

<sup>2</sup> Gross margin determined based on including customer support in COGS

Note: Margins may differ from margins on other pages due to the fact that the \$5MM size threshold is based on companies' 2018 GAAP Revenue instead of 2018 ARR (consistent with previous years' surveys).

Respondents reporting: Subscription Gross Margin: 180, Gross Margin: 171, Sales & Marketing: 170, Research & Development: 166, General & Administrative: 168, EBITDA Margin: 173, FCF Margin: 170, YoY Organic ARR Growth Rate: 224

# MEDIAN COST STRUCTURE BY SIZE

2019 Private SaaS Company Survey 

## Excluding Companies <\$5MM in 2018 GAAP Revenue

	Size of Company (2018 GAAP Revenue)				
	All Respondents	\$5MM –\$25MM	\$25MM –\$50MM	\$50MM –\$100MM	>\$100MM
<b>Gross Margins:</b>					
Subscription Gross Margin	78%	77%	78%	79%	77%
Total Gross Margin	73%	73%	74%	72%	66%
<b>Operating Expense Margins:</b>					
Sales & Marketing	43%	45%	39%	50%	36%
Research & Development	27%	29%	27%	28%	17%
General & Administrative	20%	22%	18%	18%	11%
<b>Profitability and Growth:</b>					
EBITDA Margin	(19%)	(31%)	(15%)	(23%)	3%
FCF Margin	(14%)	(19%)	(14%)	(15%)	2%
YoY Organic ARR Growth Rate	35%	39%	40%	30%	21%

Note: Margins may differ from margins on other pages because here companies are excluded based on their 2018 GAAP Revenue instead of 2018 ARR, which is consistent with previous years' surveys

Note: Numbers do not add due to the fact that medians were calculated for each metric separately and independently

Average Number of Respondents: \$5MM-\$25MM: 113, \$25MM-\$50MM: 34, \$50MM-\$100MM: 21, >\$100MM: 10

# FOR COMPARISON: HISTORICAL RESULTS OF SELECTED PUBLIC SAAS COMPANIES

2019 Private SaaS Company Survey 

	Public SaaS at Historical Revenue Run-Rates		
	~\$25MM	~\$50MM	~\$100MM
	Median Values		
<b>Gross Margins:</b>			
Total Gross Margin	63%	66%	68%
<b>Operating Expense Margins:</b>			
Sales and Marketing	47%	44%	46%
Research and Development	23%	21%	20%
General and Administrative	23%	21%	20%
<b>Profitability and Growth:</b>			
EBIT Margin	(32%)	(22%)	(21%)
Adj. EBITDA Margin	(28%)	(12%)	(9%)
FCF Margin	(34%)	(19%)	(15%)
YoY Revenue Growth Rate <sup>1</sup>	88%	48%	40%

<sup>1</sup> YoY Revenue Growth compares against previous year's revenue of the companies at the time

Note: Excludes stock-based compensation (SBC)

Median includes ALRM, AMBR, APPF, APPN, APTI, ATHN, AVLRL, AYX, BCOV, BL, BNFT, BOX, BV, CARB, CNVO, COUP, COVS, CRM, CRWD, CSLT, CSOD, CTCT, CVT, DMAN, DOMO, DWRE, ECOM, ELLI, EOPN, ESTC, ET, EVBG, FIVN, FLT, FSLY, HUBS, INST, JIVE, KXS, LOGM, MB, MDB, MIME, MKTG, MKTO, MRIN, MULE, N, NEWR, NOW, OKTA, OPWR, PAYC, PCTY, PD, PFPT, PLAN, QLYS, QTWO, RNG, RNOW, RP, SEND, SFSF, SHOP, SMAR, SPSC, SQI, TENB, TLEO, TWLO, TWOU, TXTR, ULTI, VEEV, VOCS, WDAY, WK, WORK, XRO, XTLY, YDLE, ZS and ZUO

~\$25MM median excludes ALRM, AMBR, APPN, APTI, ATHN, AVLRL, BL, BNFT, CBLK, COUP, COVS, CRWD, CSLT, CVT, DOMO, ECOM, ELLI, EOPN, ESTC, FIVN, FLT, FSLY, KXS, MB, MDB, MIME, MKTG, MKTO, MULE, N, OKTA, PAYC, PCTY, PD, PFPT, PLAN, QLYS, RNG, RP, SEND, SFSF, SMAR, TENB, TWLO, ULTI, WK, WORK, WTC, XRO, YDLE, ZS and ZUO

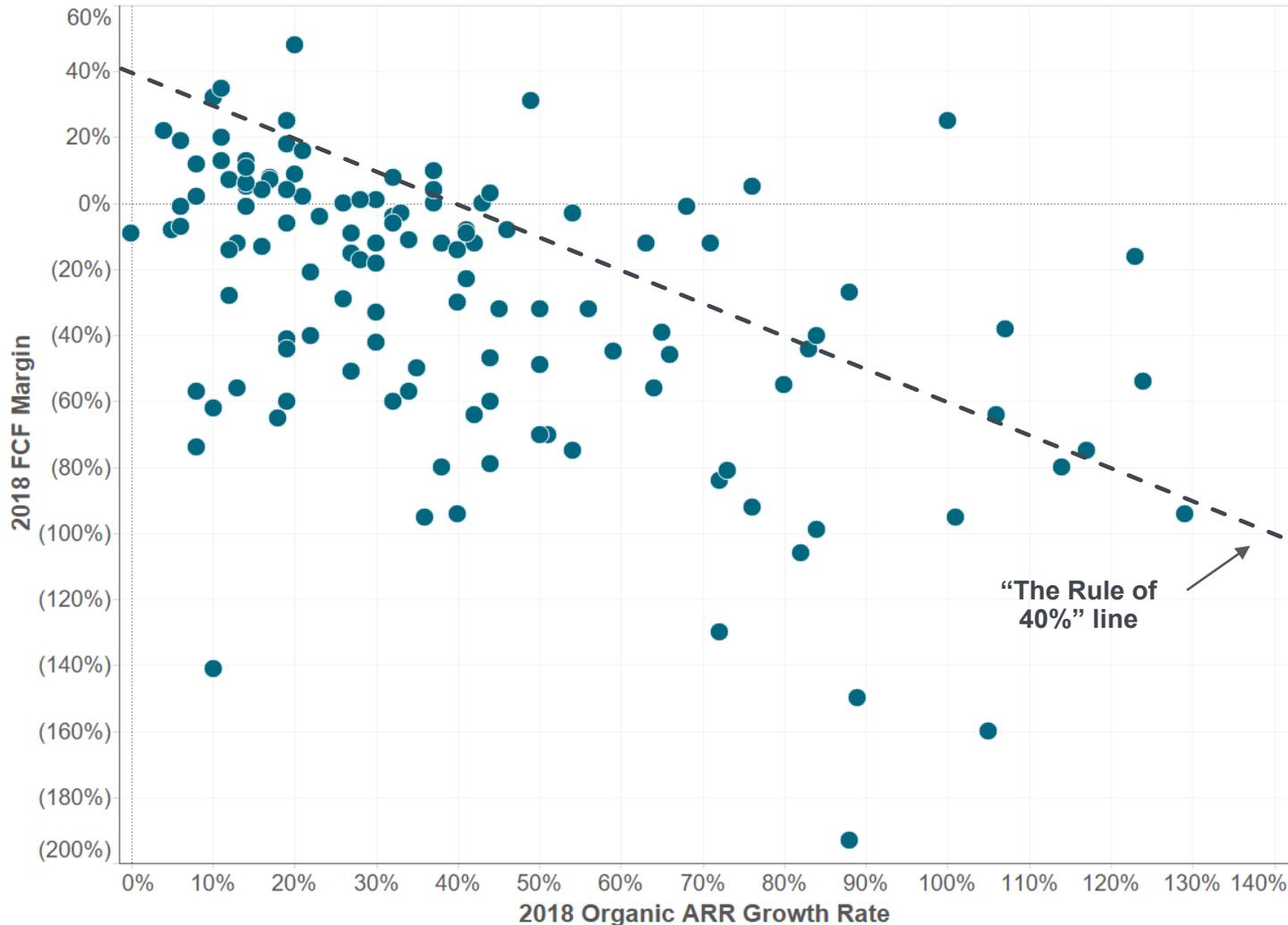
~\$50MM median excludes ALRM, APPN, APTI, AVLRL, BNFT, BV, CBLK, DOMO, FLT, FSLY, MDB, N, NEWR, PD, PLAN, RP, SFSF, TENB, WDAY, WORK and ZUO

~\$100MM median excludes BOX, EOPN, NOW and VEEV

# MEASURING SURVEY PARTICIPANTS AGAINST “THE RULE OF 40%”

2019 Private SaaS Company Survey 

## Excluding Companies <\$10MM in 2018 Ending ARR



Just ~20% (26 of 132) of the participants with >\$10MM ARR meet or exceed “The Rule of 40%”. The median {Growth + Profitability} for the group is +19%.

# COMPARISON OF “THE RULE OF 40%” QUALIFIERS VS. OTHERS

2019 Private SaaS Company Survey 

## Excluding Companies <\$10MM in 2018 Ending ARR

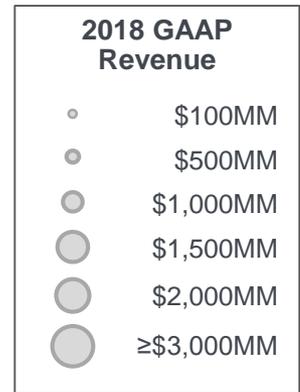
	Rule of 40% <sup>(1)</sup>	
	{G + P} ≥ 40% (Medians)	{G + P} < 40% (Medians)
<b>Respondents</b>	<b>26</b>	<b>106</b>
<b>Scale / Growth / Profitability:</b>		
2018 Ending ARR (MM)	\$23	\$25
2018 Organic ARR Growth Rate	66%	30%
2018 FCF Margin	0%	(21%)
% of Gross Bookings from New Customers	56%	61%
<b>Churn &amp; CAC:</b>		
Annual Gross Dollar Churn	13%	12%
Net Dollar Retention Rate	109%	102%
% of Bookings from Upsells and Expansions	42%	36%
Blended CAC Ratio	\$0.51	\$1.26
CAC Ratio for New Customers	\$0.78	\$1.51
<b>Margins:</b>		
Subscription Gross Margins	80%	78%
Sales & Marketing Expense	31%	46%
Research & Development Expense	22%	30%
General & Administrative Expense	17%	20%
<b>Business Focus / Go-To-Market:</b>		
% of Companies with a Vertical Focus	35%	19%
% of Companies with an Enterprise / Middle Market Focus	54%	77%
% of Companies with an SMB / VSB Focus	38%	17%
% of Companies with an Inside Sales GTM	23%	21%
% of Companies with a Field Sales GTM	46%	41%
Median ACV per Customer	\$24K	\$46K
<b>Capital / Maturity:</b>		
Capital Consumed	\$10MM	\$42MM
Capital Consumption Ratio	0.7x	1.5x

 The median results of those respondents meeting or exceeding “The Rule of 40%” shows that while the best G+P performers are of similar size (ARR) vs. those under “Rule of 40”, they have significantly lower CAC and capital consumption ratios. Gross churn rates are not substantively different though Net Dollar Retention is better for the strong G+P performers.

# FOR COMPARISON: “THE RULE OF 40%” FOR PUBLIC SAAS COMPANIES



For comparison, public SaaS companies' median growth + profitability is 36%. Notably, 74% of the market cap of public SaaS is above the 40% threshold, as of the date of this report.



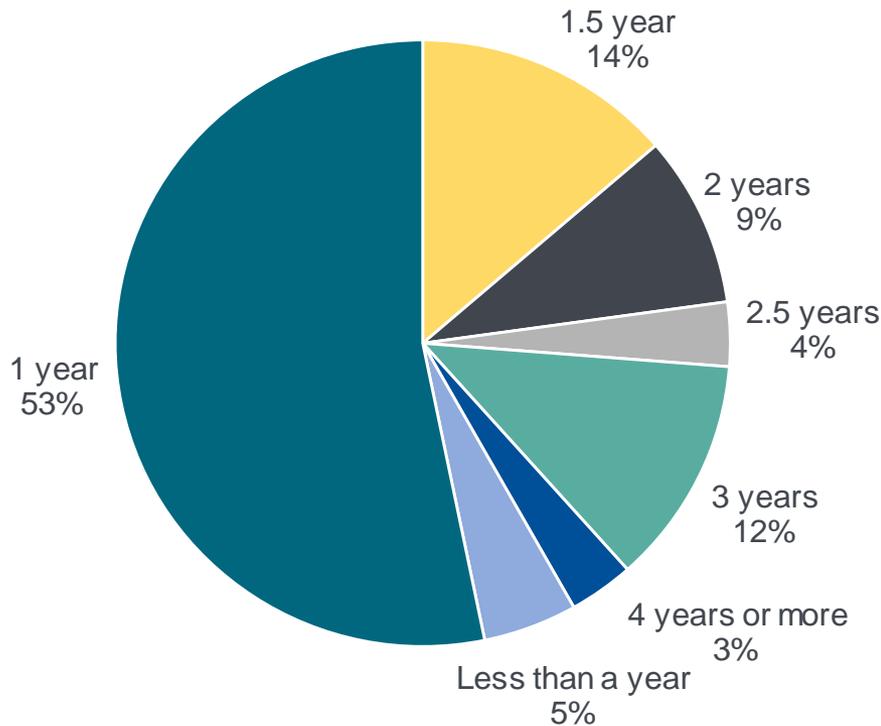
# CONTRACTING AND PRICING

# MEDIAN / TYPICAL CONTRACT TERMS FOR THE GROUP

2019 Private SaaS Company Survey 

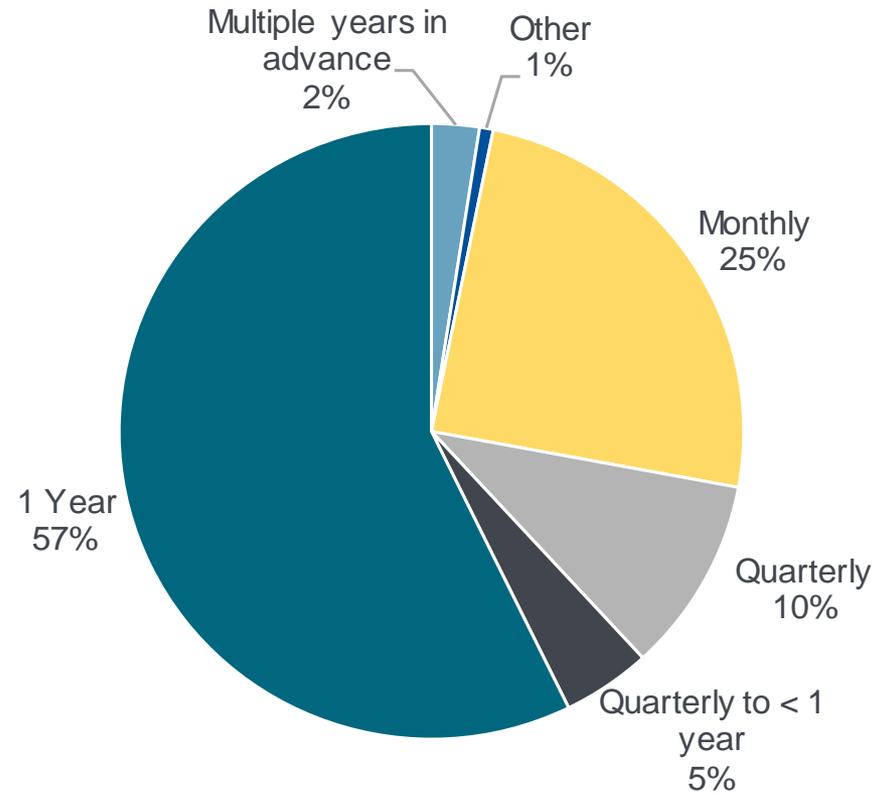
### Average Contract Length

Median = 1 year



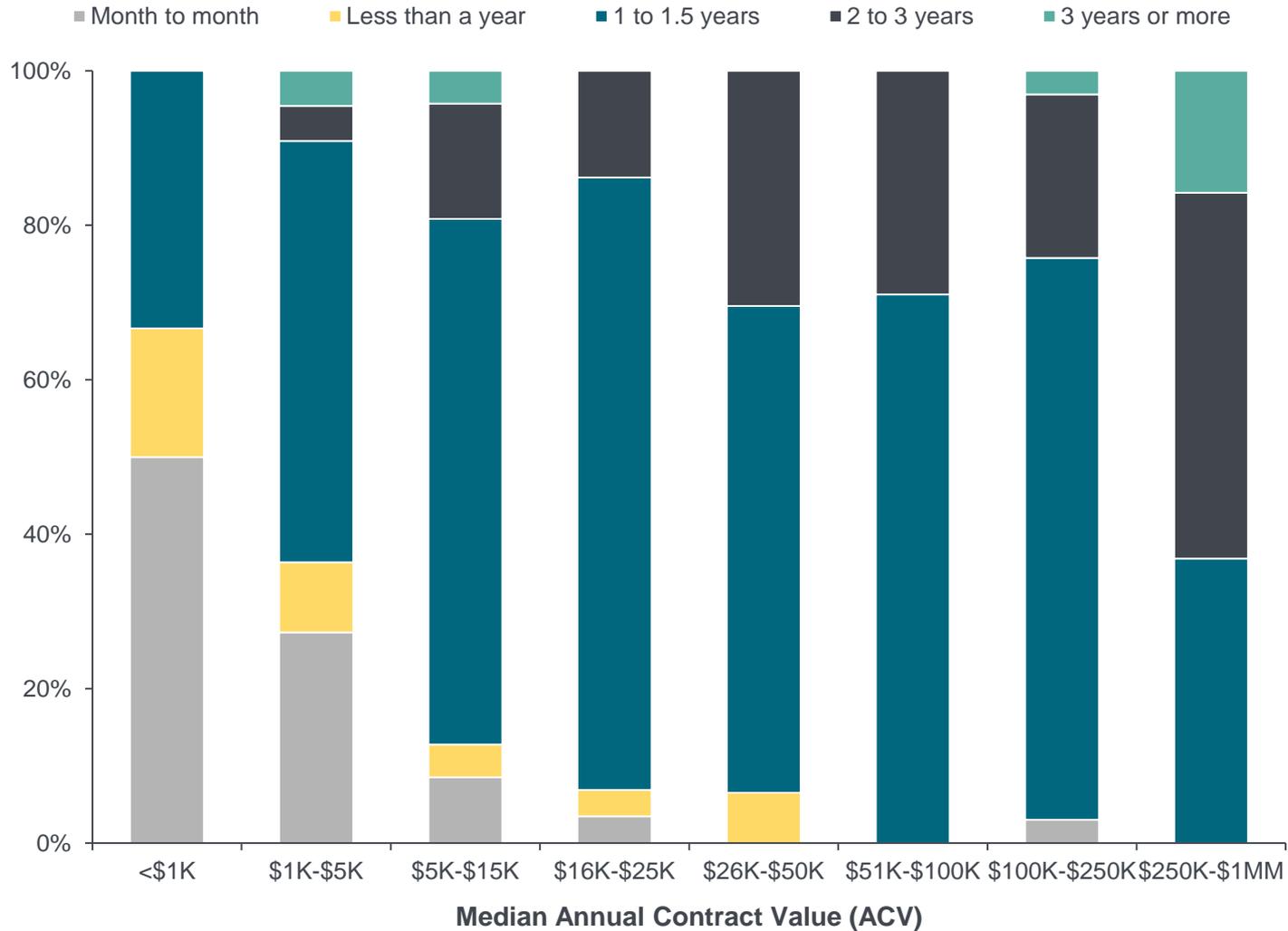
### Average Billing Frequency

Median = 1 year



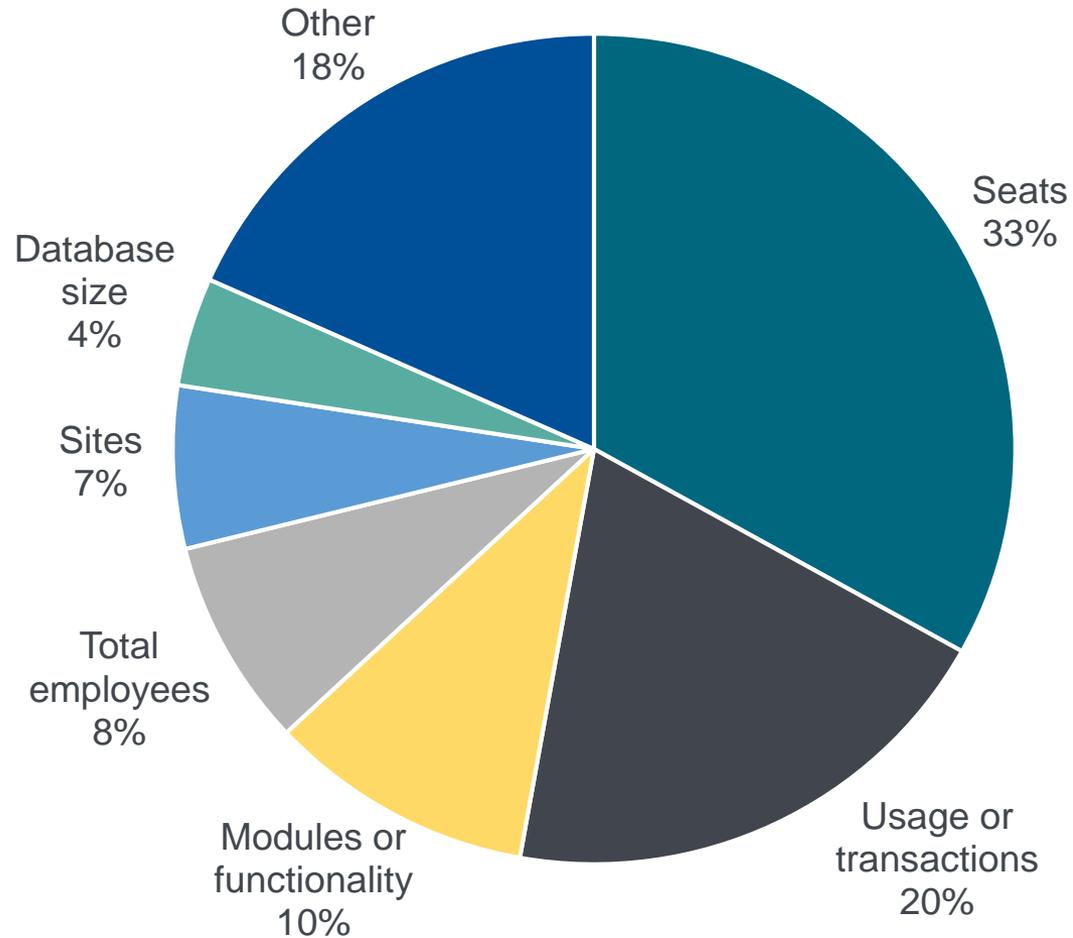
# CONTRACT LENGTH AS A FUNCTION OF CONTRACT SIZE

2019 Private SaaS Company Survey 



# WHAT IS YOUR PRIMARY PRICING METRIC?

2019 Private SaaS Company Survey 

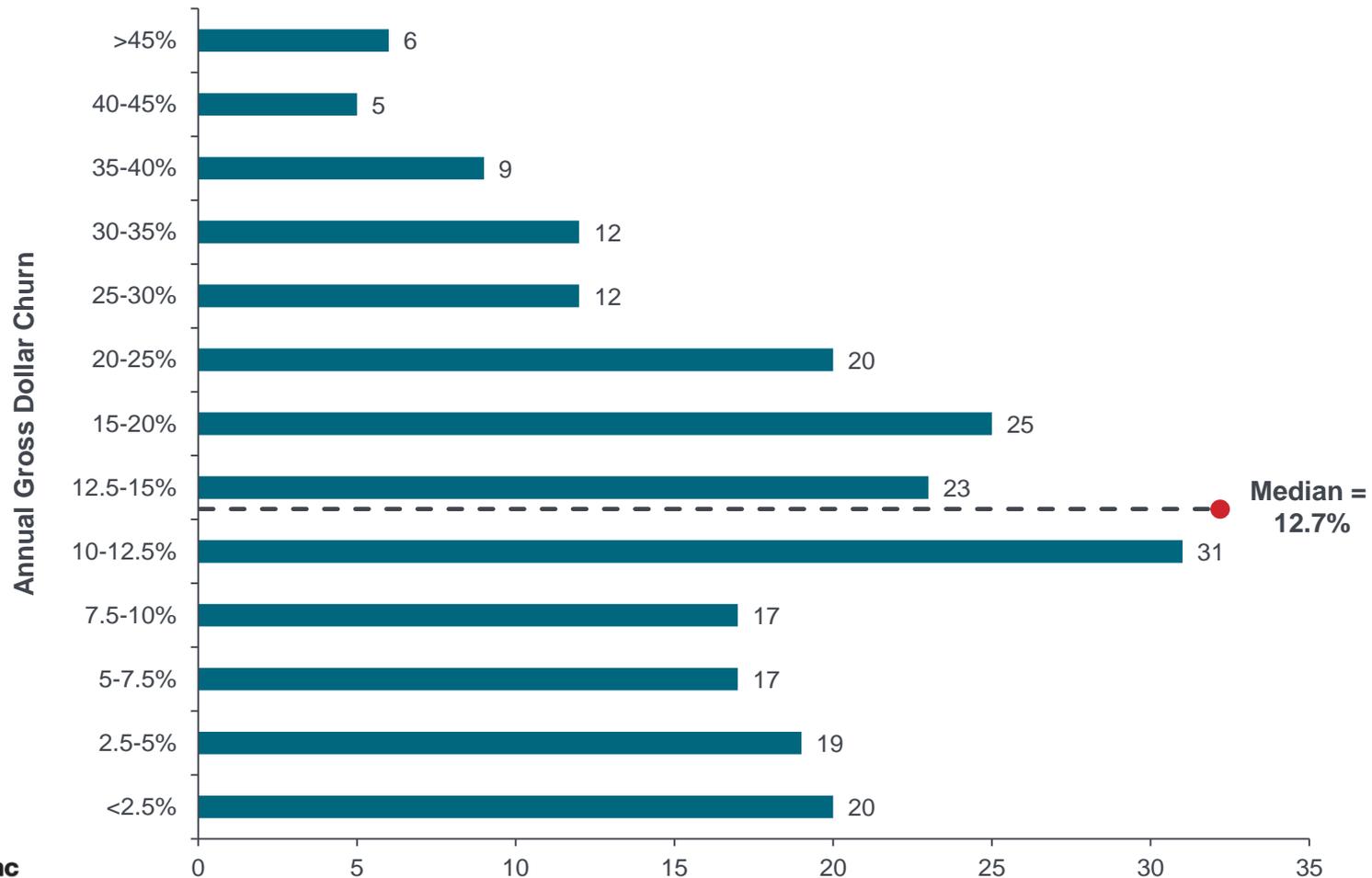


# RETENTION AND CHURN

# ANNUAL GROSS DOLLAR CHURN

## Excluding Companies <\$5MM in 2018 Ending ARR

On a dollar basis, what percent of ARR contracted as of 12/31/17, churned during 2018?  
(Excluding benefits of upsells and expansions)

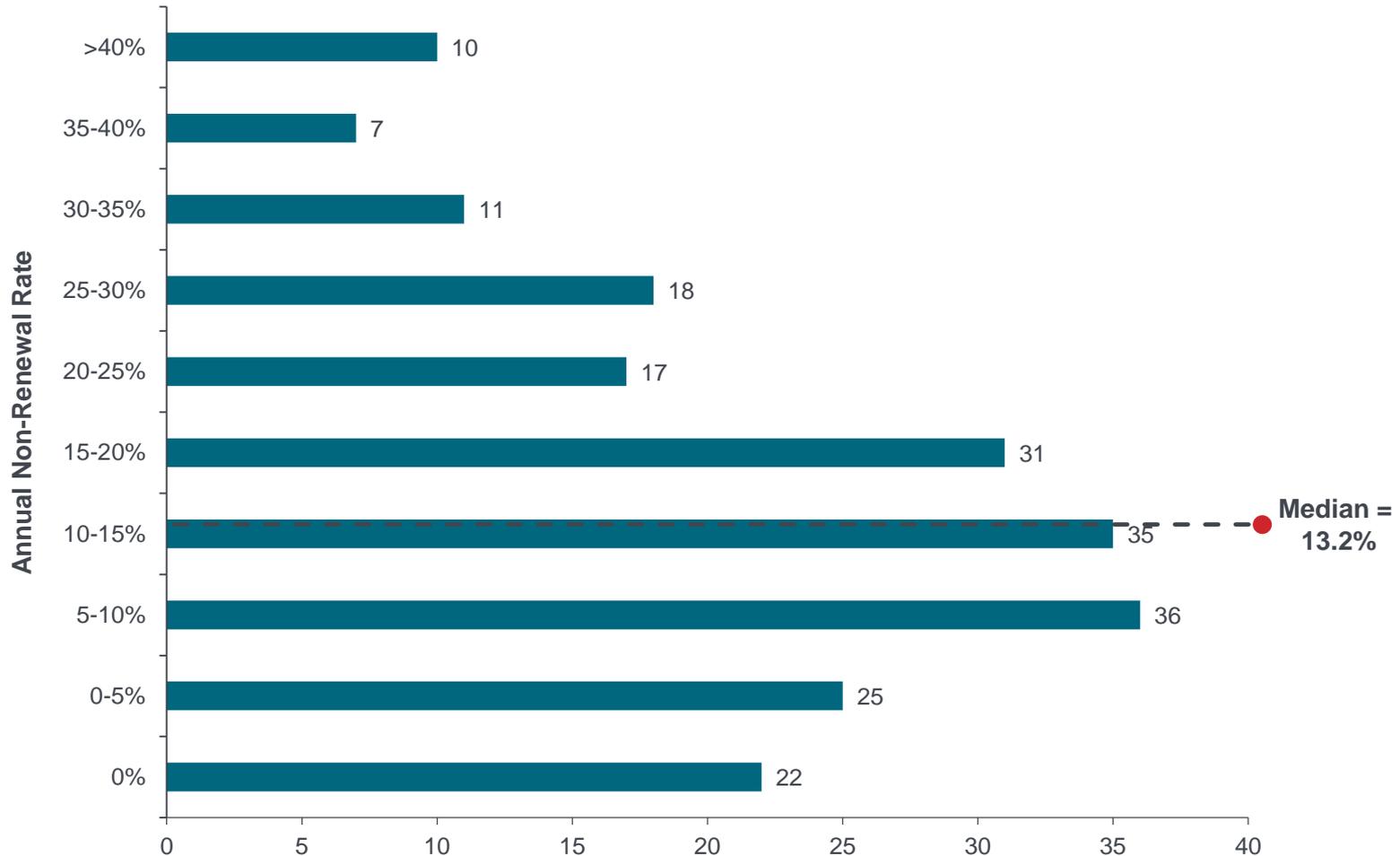


# ANNUAL NON-RENEWAL RATE

2019 Private SaaS Company Survey 

## Excluding Companies <\$5MM in 2018 Ending ARR

On a dollar basis, what percent of ARR up for renewal during 2018 did not renew?  
(Excluding benefits of upsells and expansions)

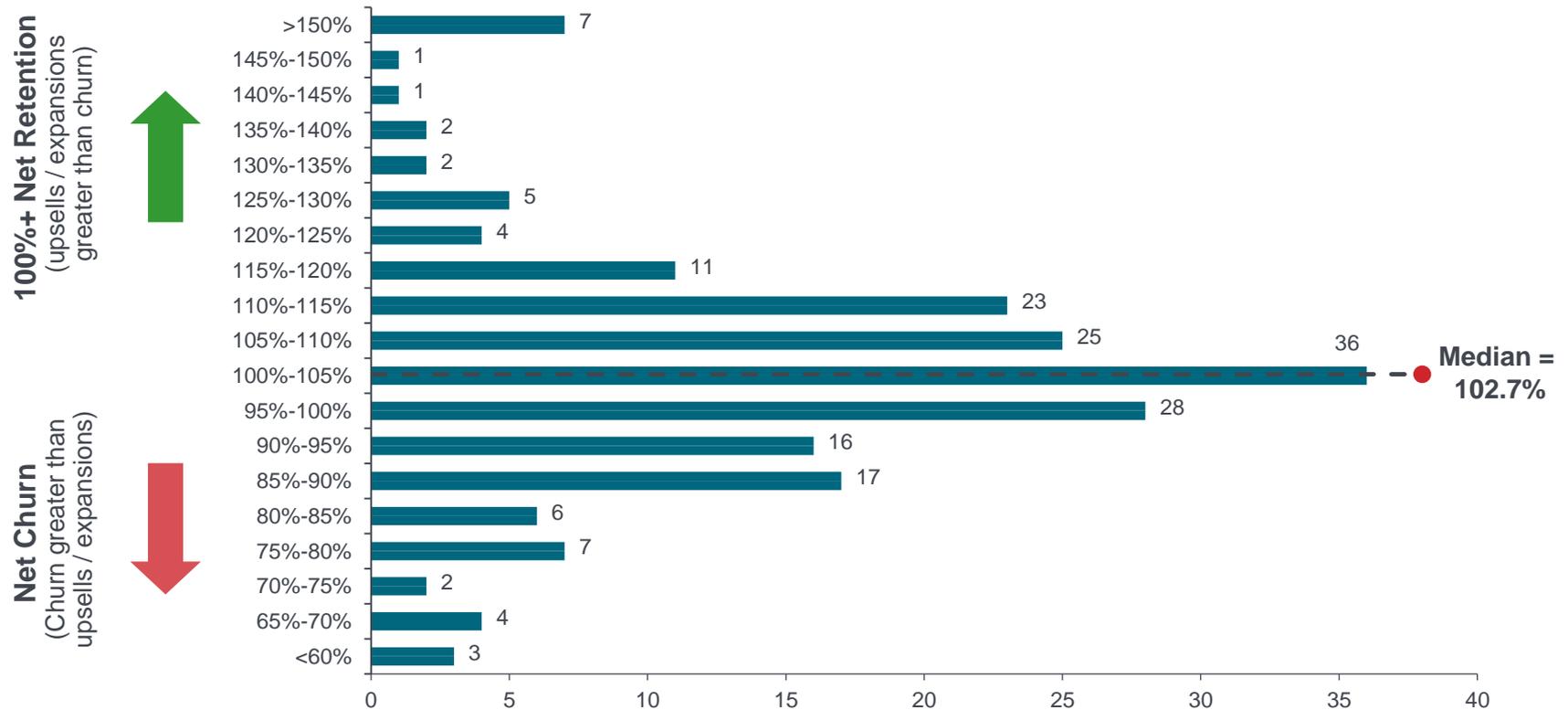


# ANNUAL NET DOLLAR RETENTION FROM EXISTING CUSTOMERS

2019 Private SaaS Company Survey 

## Excluding Companies <\$5MM in 2018 Ending ARR

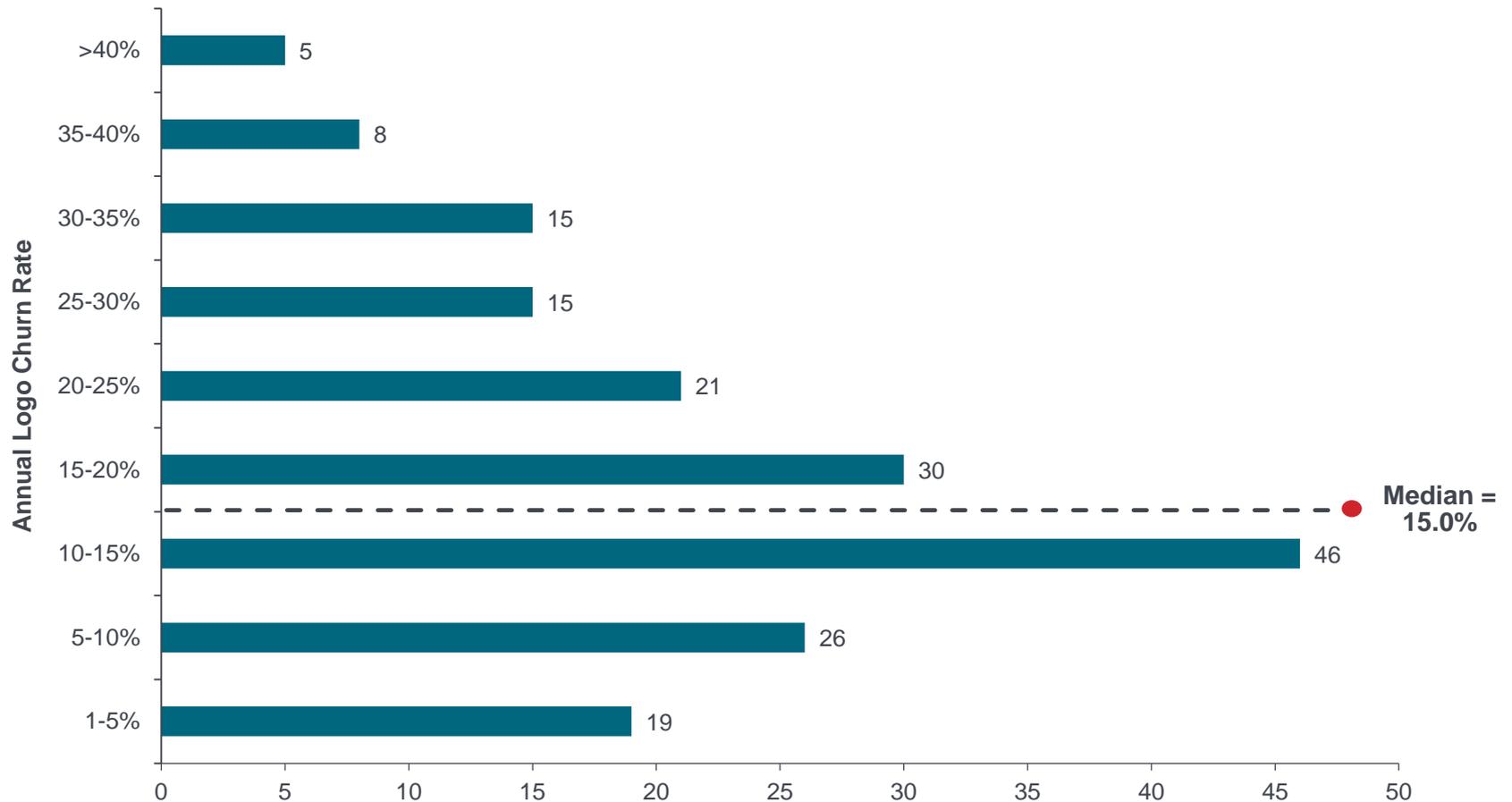
How much did your existing ARR base at the end of 2017 expand or contract, adding upsells and expansions from existing customers, subtracting gross dollar churn<sup>1</sup>?



# ANNUAL LOGO CHURN

## Excluding Companies <\$5MM in 2018 Ending ARR

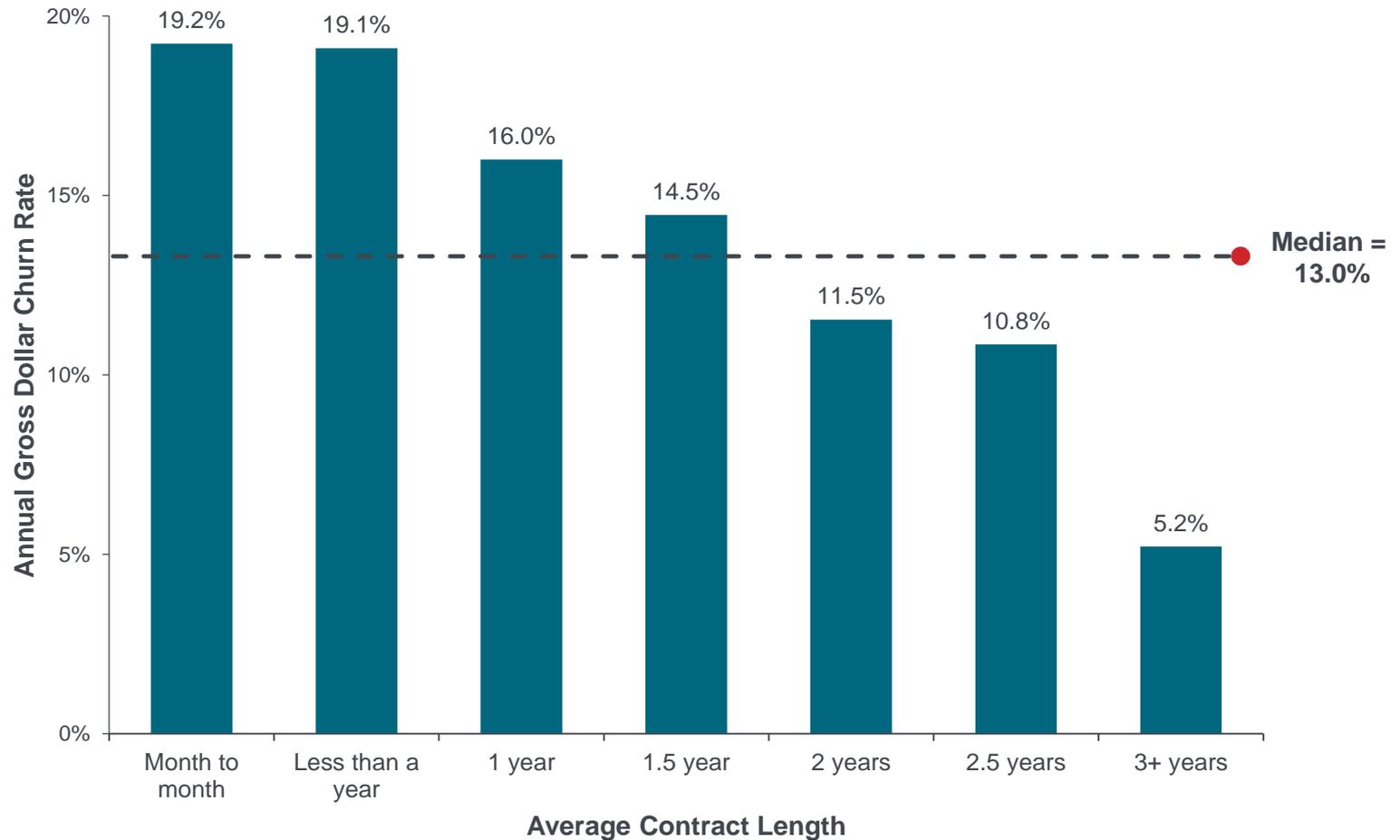
Annual Logo Churn: Number of Pre-existing Customers Lost During 2018 Divided by Total Number of Customers at Year-End 2017



# ANNUAL GROSS DOLLAR CHURN AS A FUNCTION OF CONTRACT LENGTH

2019 Private SaaS Company Survey 

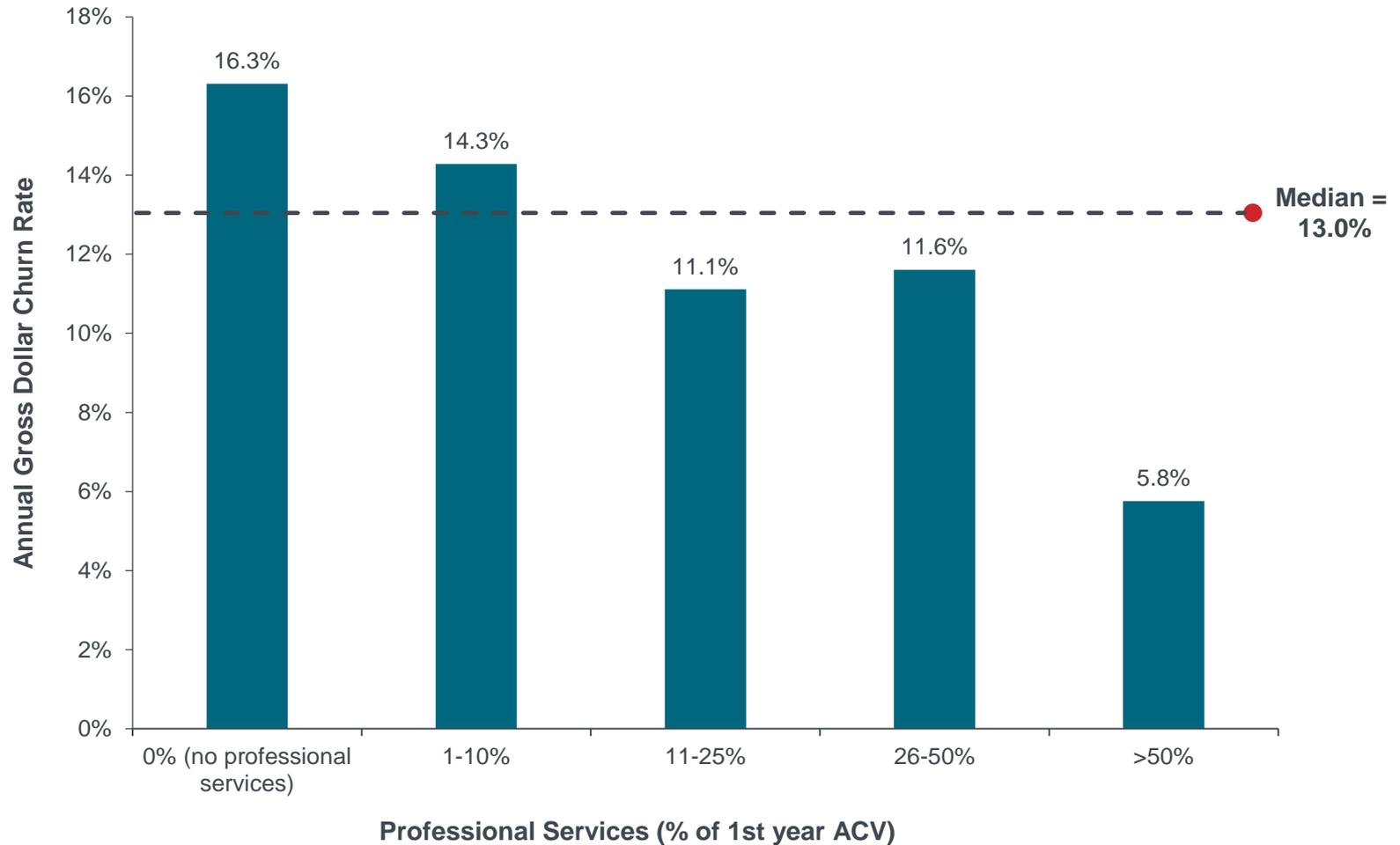
Excluding Companies <\$5MM in 2018 Ending ARR



# ANNUAL GROSS DOLLAR CHURN AS A FUNCTION OF UPFRONT PROFESSIONAL SERVICES

2019 Private SaaS Company Survey 

Excluding Companies <\$5MM in 2018 Ending ARR



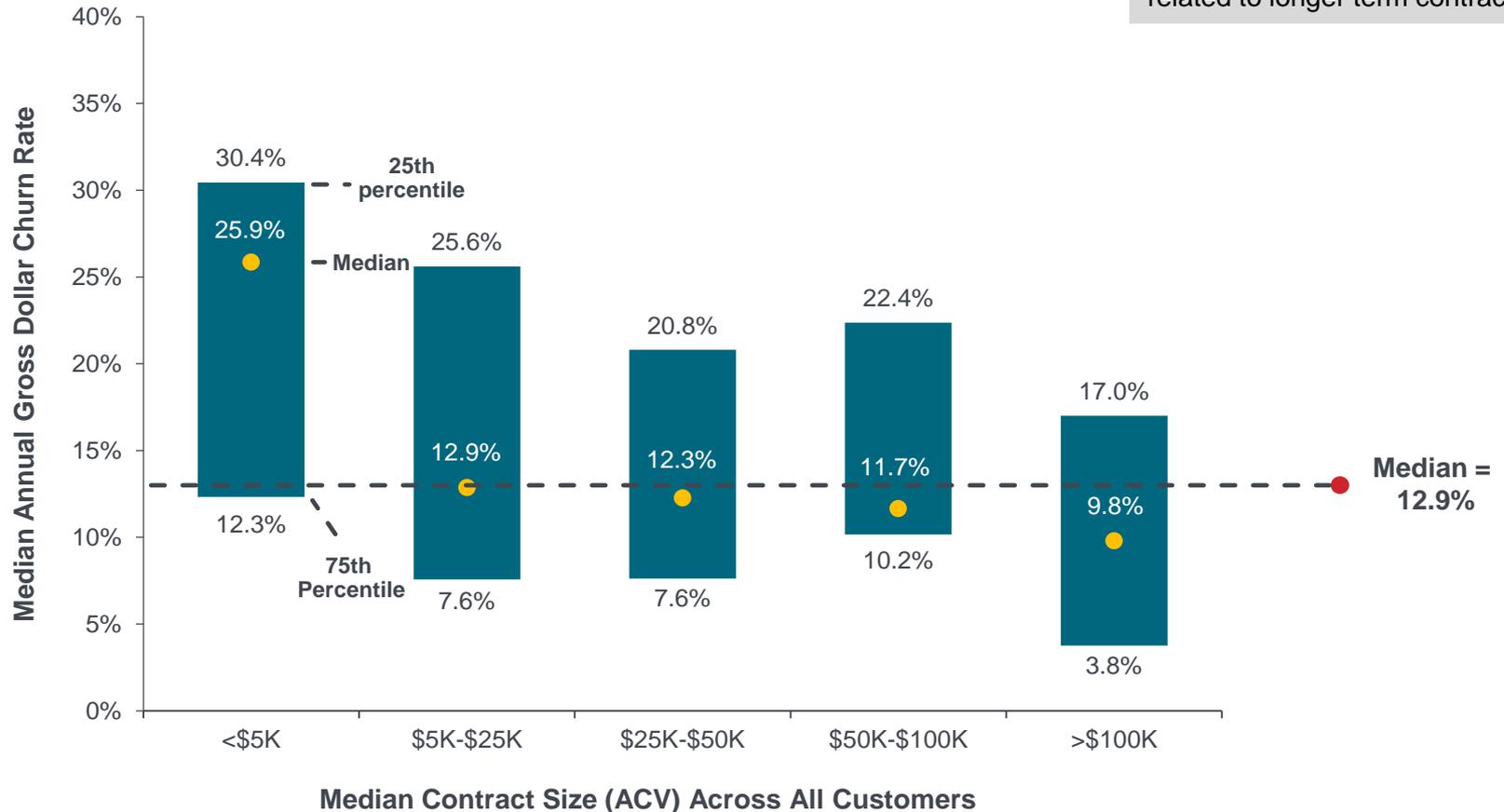
# ANNUAL GROSS DOLLAR CHURN AS A FUNCTION OF MEDIAN CONTRACT SIZE

2019 Private SaaS Company Survey 

Excluding Companies <\$10MM in 2018 Ending ARR



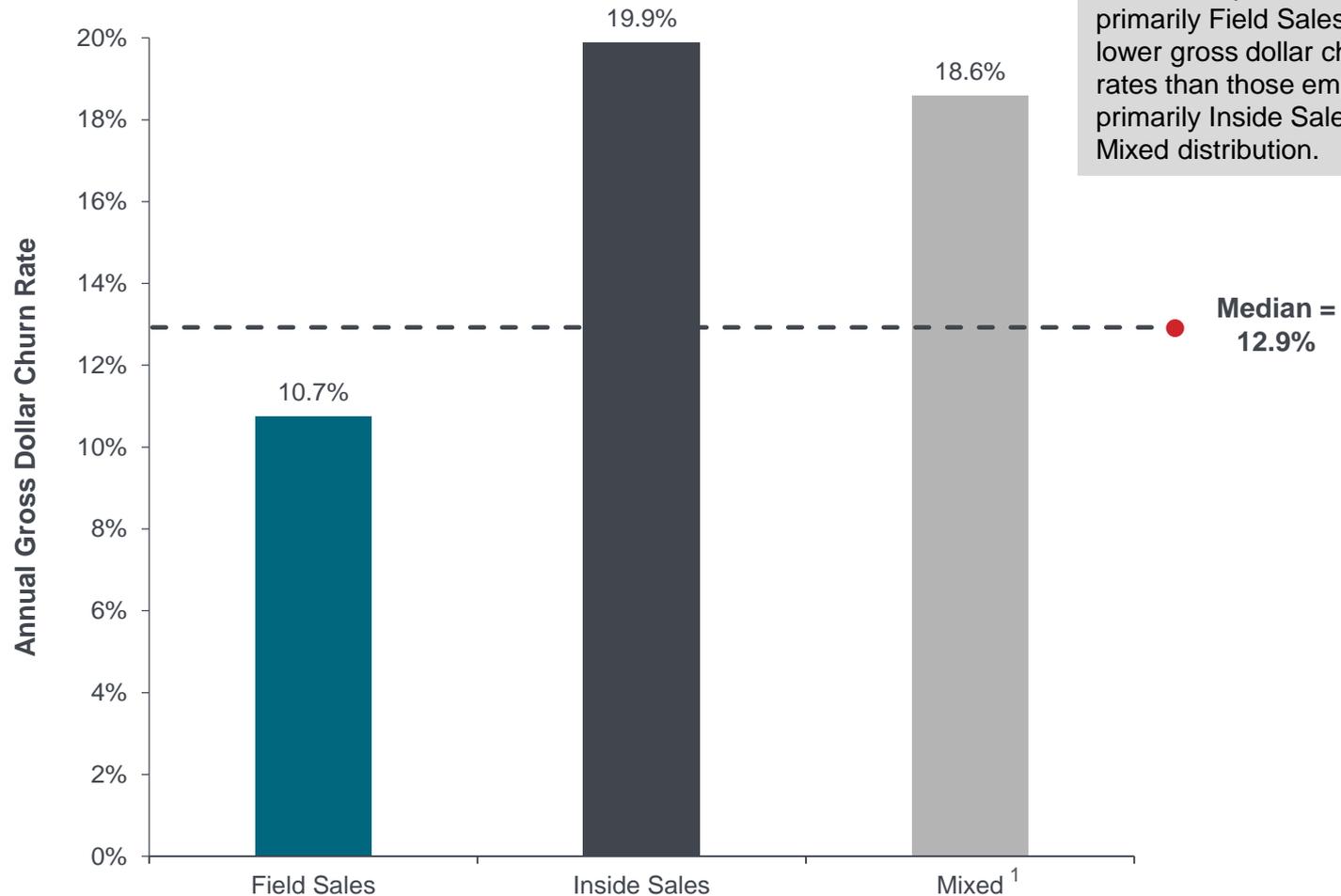
As contract sizes increase, gross dollar churn consistently trends downwards (presumably related to longer term contracts).



# ANNUAL GROSS DOLLAR CHURN AS A FUNCTION OF PRIMARY DISTRIBUTION MODE<sup>1</sup>

2019 Private SaaS Company Survey 

Excluding Companies <\$10MM in 2018 Ending ARR



 Those companies employing primarily Field Sales had lower gross dollar churn rates than those employing primarily Inside Sales or Mixed distribution.

<sup>1</sup> See definition on page 17

Respondents: Total: 144, Field Sales: 83, Inside Sales: 43, Mixed: 18, excluding Channel: 5, Internet: 6 due to small sample size

# CAPITAL REQUIREMENTS AND USE OF DEBT FINANCING

# CAPITAL EFFICIENCY

## Time and Investment Required to Reach Selected ARR Thresholds

Threshold	Medians	
	Years Required	Total Capital Consumed (MM) <sup>1</sup>
\$5MM ARR	4.6	\$8.3
\$10MM ARR	4.6	\$14.8
\$25MM ARR	5.9	\$28.0
\$50MM ARR	7.0	\$55.9

<sup>1</sup> Capital consumed defined as total cumulative primary equity raised plus debt drawn minus cash on the balance sheet (adjusted for dividends / distributions)

Years Required Respondents: Total: 355, \$5MM ARR Threshold: 116, \$10MM ARR Threshold: 139, \$25MM ARR Threshold: 67, \$50MM ARR Threshold: 33

Capital Consumed Respondents: 332, \$5MM ARR Threshold: 113, \$10MM ARR Threshold: 129, \$25MM ARR Threshold: 61, \$50MM ARR Threshold: 29

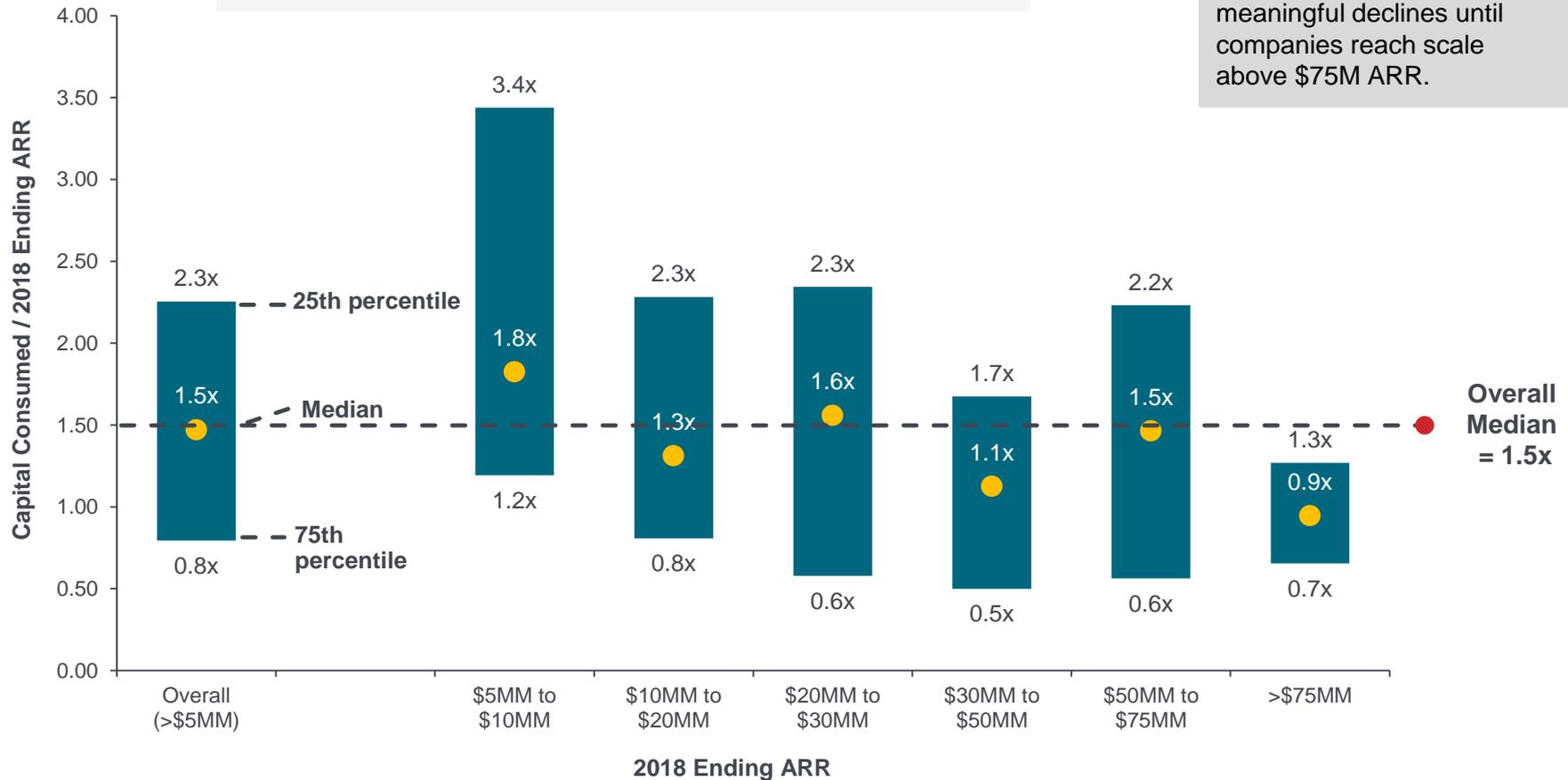
# CAPITAL CONSUMPTION RATIO<sup>1</sup>

Excluding Companies <\$5MM in 2018 Ending ARR

$$\text{Capital Consumption Ratio} = \frac{\text{Total Cumulative Capital Consumed}^1}{\text{ARR Achieved}}$$



Capital consumption median is 1.5x (for companies over \$5M ARR) and doesn't show meaningful declines until companies reach scale above \$75M ARR.



<sup>1</sup> Capital consumed defined as total primary cumulative equity raised plus debt drawn minus cash on the balance sheet (adjusted for dividends / distributions)

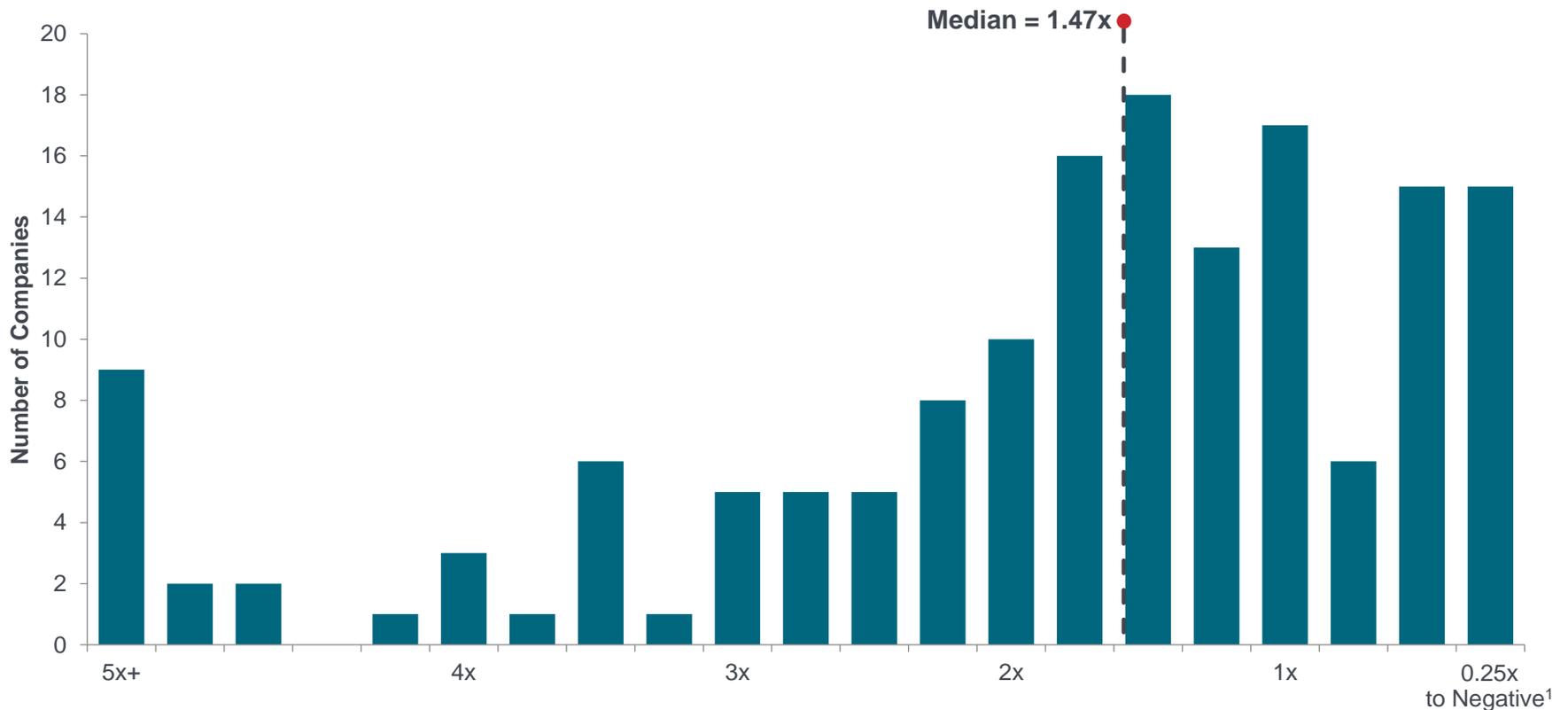
Respondents: Total: 158, \$5MM to \$10MM: 40, \$10MM to \$20MM: 44, \$20MM to \$30MM: 22, \$30MM to \$50MM: 23, \$50MM to \$75MM: 18, >\$75MM: 11

# CAPITAL CONSUMPTION RATIO HISTOGRAM

2019 Private SaaS Company Survey 

Excluding Companies <\$5MM in 2018 Ending ARR

$$\text{Capital Consumption Ratio} = \frac{\text{Total Cumulative Capital Consumed}}{\text{ARR Achieved}}$$



# USE OF DEBT CAPITAL

2018 ARR Range	Median		
	% Using Debt	Debt Availability	Debt-to-MRR Ratio
Less than \$5MM	55%	\$1MM	3.0x MRR
\$5MM to \$10MM	55%	\$3MM	4.5x MRR
\$10MM to \$15MM	78%	\$5MM	3.5x MRR
\$15MM to \$25MM	72%	\$5MM	5.0x MRR
\$25MM to \$40MM	63%	\$8MM	3.5x MRR
Greater than \$40MM	57%	\$19MM	5.0x MRR

# ACCOUNTING-RELATED QUESTIONS: 606 ADOPTION AND CUSTOMER SUPPORT

2019 Private SaaS Company Survey 

ASC – 606 Adoption		
	% of Entire Survey Group	% of Companies >\$25M ARR
ASC – 606	40%	49%
ASC – 605	38%	42%
IFRS	8%	7%
FRS102	3%	1%
Cash	1%	0%
Other Foreign Standard	10%	1%

Allocation of Costs Associated with Customer Support / Account Management		
	Average for Entire Survey Group	Average for Companies >\$25M ARR
COGS	56%	62%
Sales & Marketing	33%	34%
General & Administrative	11%	4%

# TOP QUARTILE BENCHMARKS

# BENCHMARKS FOR COMPANIES IN THE TOP QUARTILE GROWTH TIER

2019 Private SaaS Company Survey 



Top quartile performance based on growth alone required minimum 70-80% annual growth for companies up to \$50M ARR, and 45% growth for companies over \$50M ARR. Interestingly, while these companies have somewhat better net dollar retention metrics, on average, they don't have markedly better gross churn or capital consumption metrics than the broader population.

	2018 Year-End ARR Tier (\$MM)				
	\$1 – \$5	\$5 – \$15	\$15 – \$25	\$25 – \$50	> \$50
<b>Overall Survey Group</b>					
Total # of Respondents Providing Growth Data	83	95	47	40	45
Overall Median 2018 ARR Growth	50%	42%	26%	41%	33%
<b>Top Quartile Growth Tier</b>					
# of Respondents <sup>1</sup>	10	18	9	7	8
2018 ARR Growth Threshold	118%	84%	80%	72%	45%
2018 ARR Growth Median	150%	119%	89%	110%	70%
2018 FCF Margin Median	(96%)	(115%)	(95%)	(89%)	(28%)
2018 {Growth + FCF} Median	NM	NM	6%	35%	43%
Subscription Gross Margin Median	78%	78%	68%	68%	68%
Blended CAC Ratio <sup>2</sup> Median	\$0.58	\$1.03	\$1.13	\$0.96	\$1.00
New Customer CAC Ratio <sup>1</sup> Median	\$0.65	\$1.41	\$1.27	\$1.17	\$1.07
Gross Dollar Churn <sup>2</sup> Median	11%	15%	15%	12%	16%
Net Dollar Retention <sup>2</sup> Median	126%	108%	110%	115%	112%
Capital Consumption Ratio <sup>1</sup> Median	2.5x	2.0x	1.7x	1.4x	1.0x

# BENCHMARKS FOR COMPANIES IN THE TOP QUARTILE {GROWTH + FCF} TIER

2019 Private SaaS Company Survey 



Top quartile performance based on Rule of 40 (Growth + Profitability performance) required minimum 30-40% G+P. The median company in this group maintained break-even performance on a FCF basis, plowing its cash flow into growth. Unsurprisingly these businesses showed significantly lighter capital consumption than the broader population; meanwhile, gross dollar churn was similar to the broader population; net dollar retention was modestly better.

	2018 Year-End ARR Tier (\$MM)				
	\$1 – \$5	\$5 – \$15	\$15 – \$25	\$25 – \$50	> \$50
<b>Overall Survey Group</b>					
Total # of Respondents Providing Growth and FCF Data	41	74	37	31	34
Overall Median 2018 ARR Growth + FCF Margin	27%	18%	13%	25%	19%
<b>Top Quartile {Growth + FCF} Tier</b>					
# of Respondents	10	18	9	7	8
2018 {Growth + FCF} Threshold	61%	42%	35%	35%	27%
2018 {Growth + FCF} Median	139%	67%	61%	40%	53%
2018 ARR Growth Median	136%	80%	76%	43%	43%
2018 FCF Margin Median	4%	2%	(3%)	0%	2%
Subscription Gross Margin Median	90%	75%	82%	85%	81%
Blended CAC Ratio <sup>1</sup> Median	\$0.52	\$0.69	\$0.45	\$0.82	\$0.81
New Customer CAC Ratio <sup>1</sup> Median	\$0.64	\$0.98	\$0.57	\$0.83	\$0.95
Gross Dollar Churn <sup>1</sup> Median	10%	13%	13%	12%	13%
Net Dollar Retention <sup>1</sup> Median	111%	107%	108%	102%	107%
Capital Consumption Ratio <sup>1</sup> Median	1.2x	1.1x	0.9x	0.2x	0.8x

# KBCM TECHNOLOGY GROUP LEADERSHIP IN SOFTWARE TRANSACTION EXECUTION

2019 Private SaaS Company Survey 

2011–2019 YTD Software IPOs			
Rank	Firm	Deals	Value (\$MM)
1	<b>KBCM Technology Group</b>	<b>62</b>	<b>\$12,990.6</b>
2	Morgan Stanley	58	14,733.2
3	J.P. Morgan	53	13,595.3
4	Goldman Sachs	49	12,754.6
5	William Blair & Co	39	8,535.1
6	JMP Securities	37	10,744.1
7	Credit Suisse	36	8,403.8
8	Canaccord	35	7,575.6
9	Barclays	31	8,122.8
10	Raymond James	31	5,601.0
11	RBC Capital Markets	30	8,491.3
12	Stifel	30	6,219.6
13	Bank of America	29	8,720.4
14	Deutsche Banke	25	5,633.5
15	UBS	24	6,639.9
16	Needham & Co.	20	4,086.8
17	Allen & Co.	18	4,932.3
18	Jefferies	17	6,740.8
19	Citi	17	4,841.7
20	Piper Jaffray & Co.	16	5,095.1
21	Oppenheimer & Co.	14	2,714.4
22	Wells Fargo	12	4,278.1
23	Cowen & Co.	9	2,004.6
24	Robert W. Baird & Co.	8	1,378.6
25	SunTrust	8	2,839.8

Equity Capital Markets		
Selected Transactions		
<p>August 2019</p>  <p>Dynatrace (DT)</p> <p>\$655,216,848</p> <p>Initial Public Offering</p>	<p>June 2019</p>  <p>Slack (WORK)</p> <p>Direct Listing</p>	<p>April 2019</p>  <p>Zoom (ZM)</p> <p>\$864,000,000</p> <p>Initial Public Offering</p>
<p>April 2019</p>  <p>PagerDuty (PD)</p> <p>\$250,332,000</p> <p>Initial Public Offering</p>	<p>October 2018</p>  <p>SolarWinds (SWI)</p> <p>\$431,300,000</p> <p>Initial Public Offering</p>	<p>October 2018</p>  <p>Anaplan (PLAN)</p> <p>\$303,025,000</p> <p>Initial Public Offering</p>
<p>September 2018</p>  <p>DocuSign (DOCU)</p> <p>\$443,330,250</p> <p>Follow-on Offering</p>	<p>June 2018</p>  <p>Avalara (AVLR)</p> <p>\$207,000,000</p> <p>Initial Public Offering</p>	<p>March 2018</p>  <p>Dropbox (DBX)</p> <p>\$869,400,000</p> <p>Initial Public Offering</p>
<p>November 2017</p>  <p>SendGrid (SEND)</p> <p>\$150,880,000</p> <p>Initial Public Offering</p>	<p>November 2017</p>  <p>Bandwidth (BAND)</p> <p>\$80,000,000</p> <p>Initial Public Offering</p>	<p>September 2017</p>  <p>Everbridge (EVBG)</p> <p>\$103,500,000</p> <p>Initial Public Offering</p>

Advisory		
Selected Transactions		
<p>Not Disclosed</p>  <p>has been acquired by</p>  <p>a portfolio company of</p> 	<p>\$425,000,000</p>  <p>has been acquired by</p>  <p>a portfolio company of</p> 	<p>Not Disclosed</p>  <p>a portfolio company of</p>  <p>has been acquired by</p>  <p>a portfolio company of</p> 
<p>Not Disclosed</p>  <p>has been acquired by</p> 	<p>Not Disclosed</p>  <p>has received an investment from</p> 	<p>\$325,000,000</p>  <p>a portfolio company of</p>  <p>is being acquired by</p> 
<p>Not Disclosed</p>  <p>has been acquired by</p> 	<p>Not Disclosed</p>  <p>has received an investment from</p> 	<p>\$165,000,000</p>  <p>has received an investment from</p> 
<p>Not Disclosed</p>  <p>has been acquired by</p> 	<p>Not Disclosed</p>  <p>has been acquired by</p> 	<p>Not Disclosed</p>  <p>has been acquired by</p> 

# DISCLOSURES

KeyBanc Capital Markets is a trade name under which corporate and investment banking products and services of KeyCorp and its subsidiaries, KeyBanc Capital Markets Inc., Member FINRA/SIPC (“KBCMI”), and KeyBank National Association (“KeyBank N.A.”), are marketed. Securities products and services are offered by KBCMI and its licensed securities representatives, who may also be employees of KeyBank N.A. Banking products and services are offered by KeyBank N.A.

The material contained herein is based on data from sources considered to be reliable; however, KeyBanc Capital Markets does not guarantee or warrant the accuracy or completeness of the information. This document is for informational purposes only. Neither the information nor any opinion expressed constitutes an offer, or the solicitation of an offer, to buy or sell any security. This document may contain forward-looking statements, which involve risk and uncertainty. Actual results may differ significantly from the forward-looking statements. This report is not intended to provide personal investment advice and it does not take into account the specific investment objectives, financial situation and the specific needs of any person or entity.

This communication is intended solely for the use by the recipient. The recipient agrees not to forward or copy the information to any other person outside their organization without the express written consent of KeyBanc Capital Markets Inc.

KBCMI IS NOT A BANK OR TRUST COMPANY AND IT DOES NOT ACCEPT DEPOSITS. THE OBLIGATIONS OF KBCMI ARE NOT OBLIGATIONS OF KEYBANK N.A. OR ANY OF ITS AFFILIATE BANKS, AND NONE OF KEYCORP’S BANKS ARE RESPONSIBLE FOR, OR GUARANTEE, THE SECURITIES OR SECURITIES-RELATED PRODUCTS OR SERVICES SOLD, OFFERED OR RECOMMENDED BY KBCMI OR ITS EMPLOYEES. SECURITIES AND OTHER INVESTMENT PRODUCTS SOLD, OFFERED OR RECOMMENDED BY KBCMI, IF ANY, ARE NOT BANK DEPOSITS OR OBLIGATIONS AND ARE NOT INSURED BY THE FDIC.

**If you have questions or comments, please contact:**

**David Spitz, Managing Director**  
**[dspitz@key.com](mailto:dspitz@key.com)**

**Adam Noily, Director**  
**[anoily@key.com](mailto:anoily@key.com)**