SaaS Metrics 101

A Crash Course on the Most Important Metrics to Your Business

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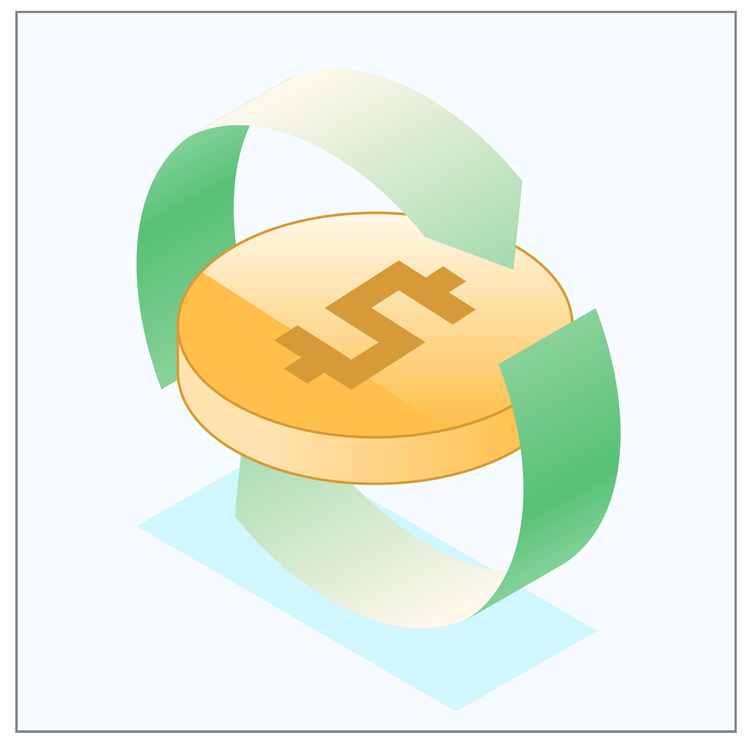
ARR



Annual recurring revenue (ARR) is the heartbeat of any SaaS business, which is why you need to know it inside and out. But it's not just for the clear reason that if you don't have revenue, you don't have a business. ARR growth is also the mile marker between funding rounds for VC-backed companies. The formula to calculate ARR is the following:

Total Revenue of Yearly Subscriptions + Total Expansion Revenue − Total Contraction Revenue

But your ability to calculate ARR is only as valuable as your ability to understand it on a deeper level. The path to deeper insight into your ARR data is slicing it by many different attributes.

- How quickly are you acquiring new ARR?
- Which of your products generates the most ARR?
- How good are you at expanding ARR within your customer base over time?
- How much ARR are you losing to churn? And what can you do to increase ARR retention?
- Who are your highest-paying customers?
- Which segment of your customer base delivers the greatest percentage of revenue?
- How are different customer cohorts performing in comparison to one another?

These are the kinds of questions you can ask to drive more valuable analysis. They help you investigate different ways to optimize, expand, and retain ARR. Getting this deep understanding is even more important given the economic headwinds of 2023. The days of growth at all costs are essentially over. Success is no longer solely about how quickly you can grow ARR — it's about how efficiently you can acquire that ARR and how well you can retain it. Asking second-level questions about your ARR data will help you uncover the efficient paths to growth.

STATS & BENCHMARKS

42%
median growth rate in 2021

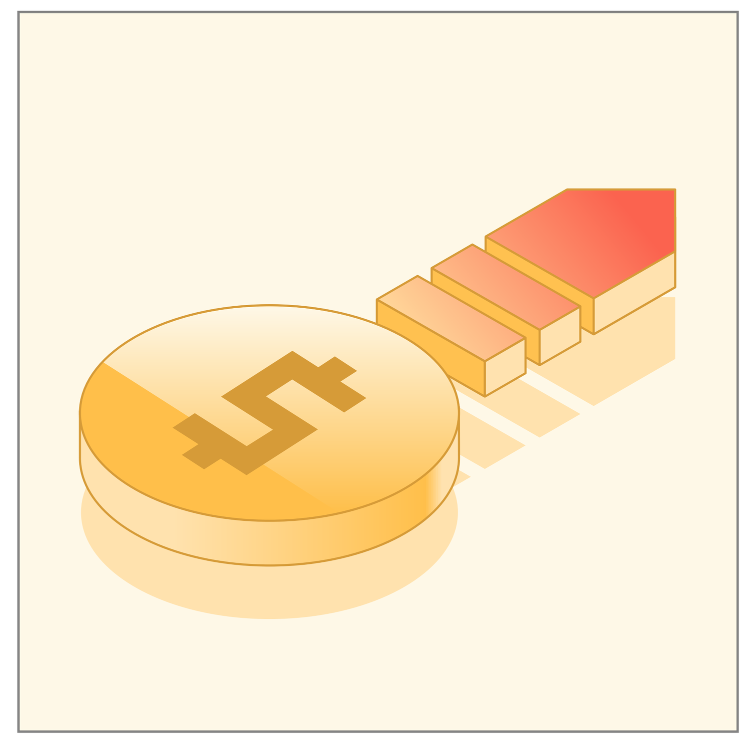
1-4
means growth is decent, but could use some optimization

4+
means your top-line growth is healthy and sustainable

Learn more about leveraging your ARR data with some of these resources:

- How to Run a Cohort Analysis in Excel & 4 Common Pitfalls
- A Guide to Customer Cohort Analysis
- ARR Snowball for SaaS Revenue Forecasting Explained (Plus Template)
- Revenue Forecasting & Planning Guide: 4 Models for Planning Your Top Line

Revenue Run Rate



Revenue run rate is a projection of your annual revenue based on recognized revenue for a given period. The highlighted stats here are all about growth expectations and benchmarks for SaaS because the real value of revenue run rate is its ability to help you see around corners in the business.

It's a good way to create a trend line for business performance and gives you an at-a-glance way to understand how the business will perform in future periods. The formula for revenue run rate is as follows:

Revenue in Period × Number of Periods in a Year

It's important to note that you calculate revenue run rate based on recognized revenue on your P&L. So, whereas ARR bookings give you and your investors directional insight into business growth, revenue run rate provides a clearer line of sight into the revenue flowing into your business.

Think about analyzing revenue run rate like driving a car down the highway. You don't just want to look at the road 10 feet in front of you. You want to keep an eye on the horizon so you can see potential issues up ahead and prepare accordingly. That's what tracking revenue run rate does for you. It's the historical trendline you can use to build assumptions about future performance.

This perspective often becomes important during investor meetings. They don't just want to know about the health of your ARR growth — they want to understand where recognized revenue will be in the next quarter and year, and how you're arriving at those conclusions. Drill down into your revenue run rate data the same way you'd slice ARR data to better understand:

- Opportunities to maximize revenue growth
- Inefficiencies in billing and collections processes
- Risks that could jeopardize your ability to attain booked revenue

Getting a more granular understanding of revenue run rate isn't just about slicing the data by product line, customer segment, or cohort. Use detailed bookings to revenue and bookings to cash waterfall models to see a full breakdown of revenue run rate calculations.

STATS & BENCHMARKS

2:1
ideal ratio of ARR added to headcount comp growth

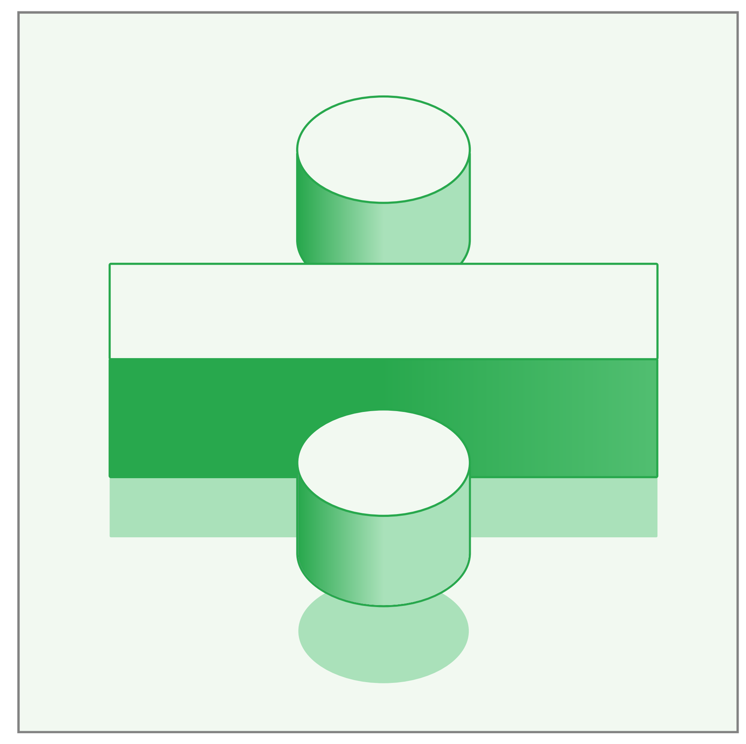
36%
expected median growth rate of ARR in 2022

11.3%
expected growth of business software spend in 2023

Learn more about understanding your revenue run rate with these resources:

- Revenue Run Rate Overview
- How to Create a SaaS Revenue Waterfall Model with Cohorts
- How to Build a Bookings to Cash Waterfall

SaaS Quick Ratio



SaaS quick ratio is a simple financial efficiency metric that compares ARR growth to ARR churn and contraction. If an investor ever comes to you looking for some sort of leaky bucket analysis, your SaaS quick ratio may be a good place to start.

Think about your ARR as water pouring into a bucket. As you bring in new customers, you're pouring more water (ARR) into the bucket. But your churn and downgrades are like holes in the bucket, leaking out water and preventing the overall revenue water line from rising.

Your SaaS quick ratio is a comparison of new ARR you're pouring into the business versus ARR that's leaking out. The formula is as follows:

$$\frac{(\text{New ARR} + \text{Expansion ARR})}{(\text{Lost ARR} + \text{Churn ARR})}$$

The SaaS quick ratio may be an investor favorite, but you shouldn't over-index on this at-a-glance metric. Just because you have a quick ratio of four or higher doesn't necessarily mean your growth is sustainable.

You may have experienced a particularly large spike in new bookings around a fundraising event, creating an outlier event that skews your quick ratio. Or, you may not have come up against your first major renewal cycle yet, so churn is deceptively low and the quick ratio isn't particularly helpful.

That's not to say that the SaaS quick ratio isn't a useful tool — you just shouldn't make major strategic decisions based on the at-a-glance number alone.

Instead, use the metric to provide visibility into when you need to investigate either the numerator or the denominator. Your SaaS quick ratio might be low because you're missing your top-line revenue targets.

Are you behind on your AE hiring plan? Are you facing unexpected economic headwinds that are dragging out sales cycles? Or, your ratio might be off because of the denominator. Is your product too expensive? Are new competitors coming to market and siphoning customers? Have you underinvested in customer support?

Effective analysis of your SaaS quick ratio starts with digging deeper than the surface-level metric. Start slicing that data by product line, support tier, customer cohort, and more to better understand the "why" behind the numbers.

STATS & BENCHMARKS

<1
means downgrades and churn are outpacing top-line growth

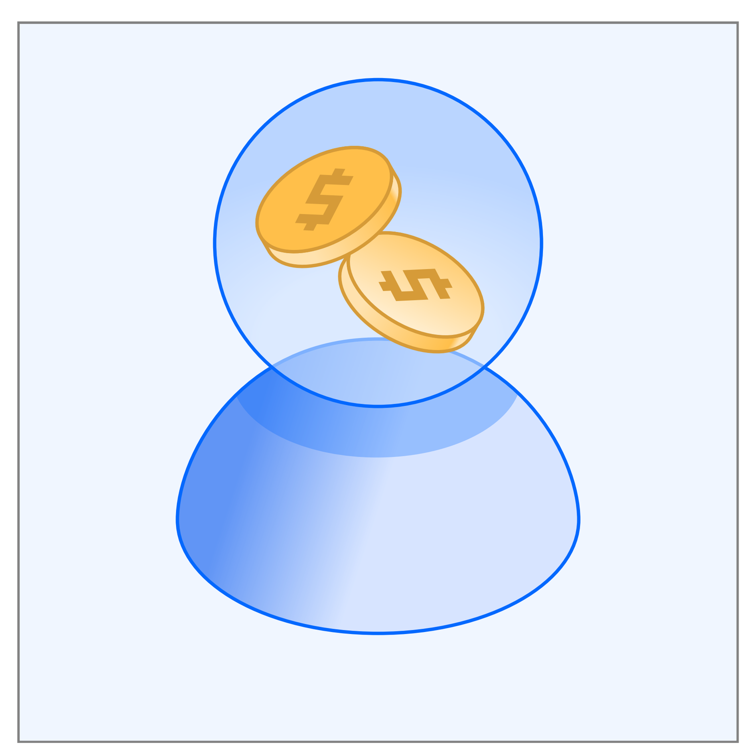
1-4
means growth is decent, but could use some optimization

4+
means your top-line growth is healthy and sustainable

Learn more about understanding your revenue run rate with these resources:

- SaaS Quick Ratio Overview
- Guide to Top-Line vs. Bottom-Line Growth
- Customer Retention Analysis: A Guide for SaaS Businesses

ARR Per Head



ARR per head is a measurement of how much ARR you earn on average for every full-time employee in the company. With a renewed focus on profitability and growth efficiency comes a much keener eye on the ROI of your biggest expenses. And there's no bigger expense in SaaS than headcount.

While ARR per full-time employee isn't the kind of leading indicator of growth that other customer acquisition, retention, and expansion metrics are, it's still a valuable mile marker for the health of your business. The formula to calculate ARR per head is as follows:

It's important not to look at ARR per head in a vacuum. Any benchmarks you look at should be contextualized to company maturity level. From a maturity level standpoint, it's natural for ARR per head to grow over time. That's why Brian Weisberg, Head of Finance and Business Operations at Tidelift, keeps two general benchmarks in mind for ARR per head.

For scaled-up companies, he says you should aim for $250k to $300k per full-time employee. But in early-stage startups, a rough goal of $150k to $200k per full-time employee will help you keep your hiring plans in check.

ARR per head is a metric for sanity-checking headcount expenses against revenue in your organization and making sure your "Revenue - Expenses" equation isn't too far out of balance. But beyond that basic benchmarking, you can use ARR per head to optimize hiring plans moving forward. If you're already seeing inefficiencies in ARR per head, you may have to collaborate with department heads on scaling back hiring plans. Does the engineering team need 30 new developers this year? Or can they make do with 20 so you can keep pace with AE hiring needs?

You know what your business needs to get to the next level better than anyone, so it's important not to get overly invested in ARR per head benchmarks. But still, keeping an eye on this metric will help you keep the business on a path to profitability.

STATS & BENCHMARKS

$120k
median ARR per head for $5M - $20M ARR1

$152k
median ARR per head for $20M - $50M ARR1

$20M+
ARR when ARR per head becomes a more valuable metric1

Learn more about optimizing ARR per head with these resources:

- Revenue Per Employee Overview
- Headcount Planning Guide for 2023
- Podcast episode: Enrique Esclusa, Co-Founder of Assemble, on Effective Headcount Planning

CAC

Customer acquisition cost (CAC) is the average amount of money you spend to acquire a single new customer. In a growth-at-all-costs environment, it was natural to accept the need for upfront investments in sales and marketing to drive hypergrowth. Even if the spend wasn't necessarily efficient, more spend generally meant more growth if you had product-market fit and a large enough total addressable market.

But now, you need a keener eye on the efficiency of your acquisition spend. And that starts with a CAC calculation.

$$\frac{\text{Current Period Total Acquisition Cost}}{\text{Current Period New Customers Acquired}}$$

Your CAC is the foundation for multiple efficiency metrics, including CAC payback period, CAC ratio, and LTV/CAC. But while the formula seems simple enough, the details are nuanced and easy to get wrong.

Ben Murray, The SaaS CFO, says there are two things you have to keep in mind to get CAC right.

- Make sure CAC is fully-burdened. Don't just include wages for your sales and marketing team in the CAC calculation. Roll in all relevant expenses, including wages, taxes, benefits, travel, SEO, paid ads, swag, and everything in between, to get the complete picture of acquisition costs. And remember to include a percentage of executive wages if they're involved in the selling process.
- Align sales cycle to the CAC period. Pay close attention to the length of your sales cycle when deciding the right time period to use for CAC calculations. If you're calculating CAC on a one-month time period, but your sales cycle is 50-60 days, you're missing out on sales expenses that went into closing the relevant deals.

One last thing to remember about calculating customer acquisition cost — it's not a set-it-and-forget-it kind of metric. Your CAC calculations should change as your business matures and the go-to-market motion evolves. (Listen to Ben's podcast episode linked below to hear why.)

STATS & BENCHMARKS

31%
median ARR per head for $5M - $20M ARR

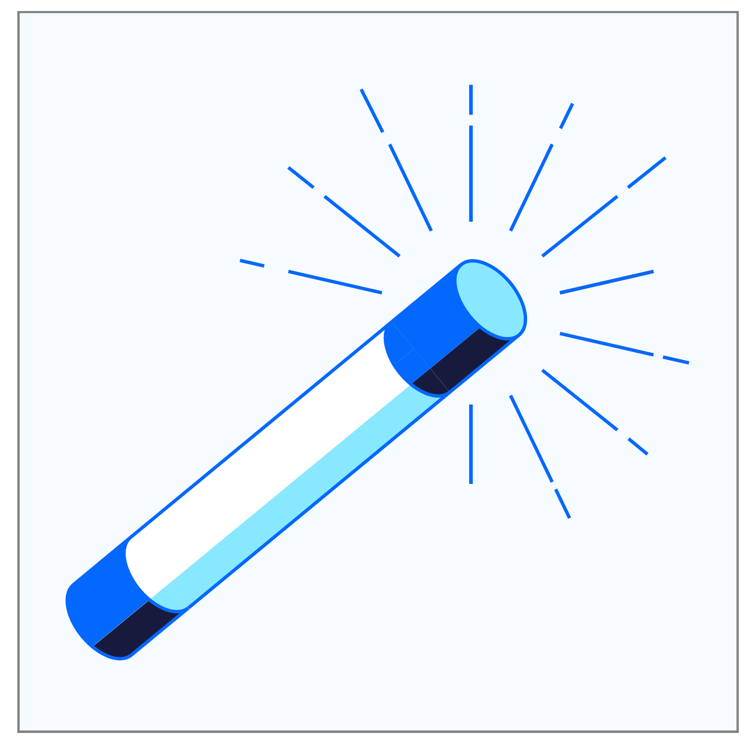
25%
median sales & marketing spend as % of revenue for companies $1.5M-$2M ARR

59%
median sales & marketing spend as % of revenue for companies growing 80%

Learn more about calculating and analyzing CAC with these resources:

- Customer Acquisition Cost Overview
- [Podcast] Ben Murray Gives a CAC Masterclass
- How Much Should You Spend on Ads? Three Ways to Forecast Ad Spend

SaaS Magic Number



SaaS magic number is a sales efficiency metric that shows how many dollars' worth of ARR you generate for each dollar spent on acquiring new customers.

More than perhaps any other metric in SaaS, magic number has become a buzzword for executives and finance leaders. It's not as critically important to the business as something like burn multiple or ARR growth, but investors have long looked to this metric to understand the current state and trajectory of early-stage SaaS companies. The formula to calculate magic number is as follows:

$$\frac{\left(\text{Current Quarter ARR} - \text{Prior Quarter ARR}\right)}{\text{Prior Quarter Acquisition Cost}}$$

The benchmarks for magic number have long been accepted. When investor Lars Leckie popularized the metric all the way back in 2008, he said:

"Fundamentally, the key insight is that if you are below 0.75 then step back and look at your business. If you are above 0.75 then start pouring on the gas for growth because your business is primed to leverage spend into growth. If you are anywhere above 1.5, call me immediately."

We aren't seeing a repeat of 2008 at the moment, but the current downturn makes Leckie's magic number commentary true once again. If you're wondering how you should think about investing in sales and marketing, the typical magic number benchmarks should give you some directional insight.

As always, remember to look at magic number in the context of other efficiency metrics. You always want to verify the insights you're getting by looking at metrics like CAC ratio and payback period.

STATS & BENCHMARKS

<0.5
means you're overspending on sales and marketing

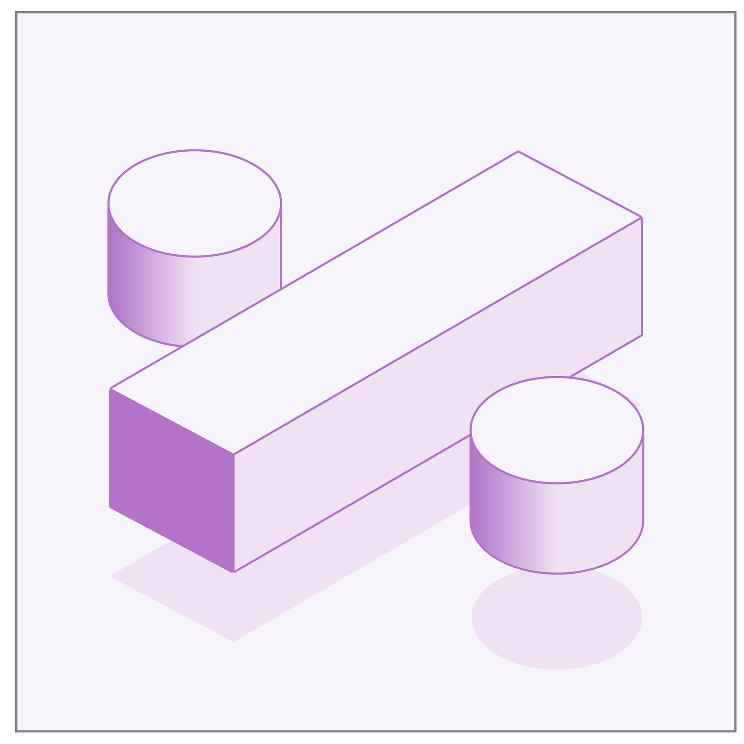
<0.75
means you can consider increasing sales and marketing investments

>0.75
means you should start pouring more money into sales and marketing

Learn more about calculating and analyzing SaaS magic number with these resources:

- SaaS Magic Number Overview
- Sales Performance and Efficiency Metrics

CAC Ratio



CAC ratio is an efficiency ratio that looks at the cost to acquire each incremental dollar of annual recurring revenue. If you follow Ray Rike of RevOps Squared and Ben Murray, The SaaS CFO, you may know that they prefer CAC ratio as a revenue efficiency metric to the classic magic number. They say that it provides a more granular perspective of acquisition efficiency for both new and expansion ARR. The three formulas to calculate blended CAC ratio, new CAC ratio, and expansion CAC ratio are as follows:

Blended CAC Ratio

$$\frac{\text{Sales \& Marketing Expenses}}{\text{New Customer ARR} + \text{Expansion ARR}}$$

Expansion CAC Ratio

$$\frac{\text{Sales \& Marketing Expenses}}{\text{Expansion ARR}}$$

New CAC Ratio

$$\frac{\text{Sales \& Marketing Expenses}}{\text{New Customer ARR}}$$

Ray Rike says that CAC ratio is the superior revenue efficiency metric because SaaS magic number doesn't provide insight into:

- How gross dollar retention impacts the metric calculation
- How much investment is required to acquire an incremental dollar of new ARR
- How much you need to invest to acquire an incremental dollar of expansion ARR

All of this is true. But it doesn't mean you should throw out your magic number calculations altogether.

The reality is that there are dozens of overlapping SaaS metrics, all of which may take a slightly different approach to reaching very similar end results. Part of your job is to decide which metrics are most relevant and impactful to your strategic decision-making. But your job is also to craft a narrative about the business in terms that stakeholders understand.

That means if your investors prefer to see revenue efficiency in terms of magic number, it's important to have that information readily available. And if they want to see more granular CAC ratio numbers, you should be able to share those metrics as well.

Learn more about tracking different types of CAC ratio with these resources:

- [Podcast] Ben Murray Gives a CAC Masterclass
- [Webinar] Cautious Capital: 5 Growth Efficiency Metrics Every SaaS Company Needs Now

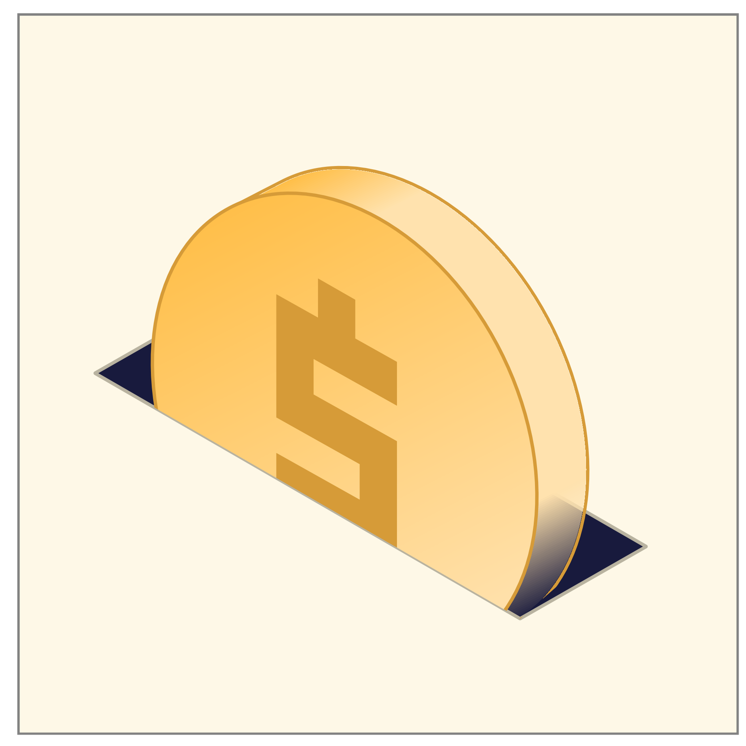
STATS & BENCHMARKS

$1.58
median new CAC ratio

$1.38
median blended CAC ratio

$0.85
median expansion CAC ratio

CAC Payback



CAC payback period shows the average amount of time it takes your business to recover customer acquisition costs. While CAC payback period has always played a role in SaaS valuations, it's stepped even further into the spotlight in the second half of 2022. Given the market downturn, CAC payback period has become a critical driver not just of your valuation — but your ability to raise funds at all. The formula to calculate the metric is as follows:

$$\frac{\text{Customer Acquisition Cost}}{\left(\text{ARR} - \text{Average Cost of Service}\right)}$$

This is the most common way to calculate CAC payback period. However, you can get more granular by adjusting the calculation by gross margin and specifying the ARR metric as new ARR for the given period. Regardless of the formula you use, calculating CAC payback period can be complicated. Because CAC is foundational to the calculation, making sure that metric is fully-burdened is critical. John Luttig, Principal at Founders Fund, explained it this way:

"I think people make a few common mistakes [with CAC payback period]. One is that they don't fully burden the CAC with all attributes of customer acquisition costs. And so, it could be not including the full sales and marketing team headcounts. It's not just your ad spend. I think this is also tricky if there are non-sales and marketing org sellers within your company. If your CEO is doing the sales, they should be included in the CAC because, to the extent you're scaling the founders, that's going to require incremental costs to acquire your customers."

Unlike some SaaS metrics that are best benchmarked according to ARR segments, CAC payback period is more correlated to ACV. As ACVs increase, it makes sense that your acquisition costs would increase as well. That's why, when looking at benchmark reports, you should pay close attention to ACV segments and the go-to-market models of the survey respondents.

STATS & BENCHMARKS

16 months

median new CAC ratio

9-18 months

range for CAC payback at $10k-$25k ACV

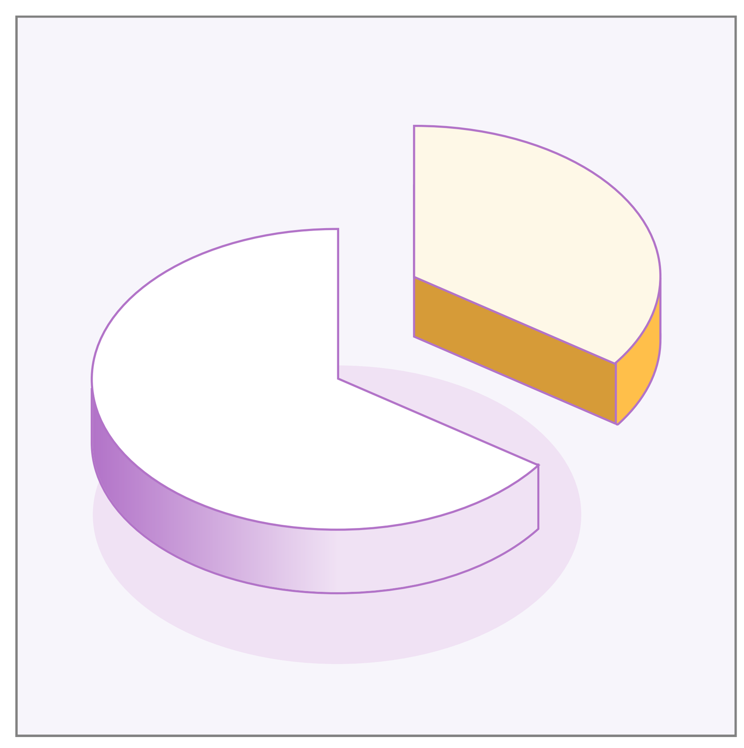
10-24

months range for CAC payback at $25k-$50k ACV

Learn more about getting CAC payback period right with these resources:

- CAC Payback Period Overview
- [Podcast] John Luttig on SaaS Pitch Decks
- [Podcast] Ben Murray Gives a CAC Masterclass

LTV:CAC Ratio



LTV:CAC is a revenue efficiency ratio that compares the average lifetime value of your customer base to the average cost to acquire those customers. The magic of a SaaS business is its ability to create compound revenue growth with its subscription model. That's why it's so important to factor lifetime value (LTV) into any measurements of revenue efficiency. By comparing the full LTV of your customer base to acquisition costs, you can better understand the ROI of your sales and marketing spend. The formula to calculate LTV:CAC ratio is as follows:

$$\frac{\left(\text{Average ARR per Customer} \;/\; \text{Churn \%}\right)}{\left(\text{Total Acquisition Spend} \;/\; \text{Current Period New Customers Acquired}\right)}$$

For years, the golden rule for LTV:CAC has been to achieve a 3x result. If your LTV:CAC ratio was 3:1, you could be considered a top performer in terms of sales and marketing ROI. But times have changed in recent years according to benchmark data from RevOps Squared.

Over the past three years, the median LTV:CAC ratio for all survey respondents has been between 4.0x and 4.2x rather than the standard 3x. What this means is that even before the market downturn, B2B SaaS businesses were getting better at driving LTV up and generating strong ROI for their acquisition spend.

But your LTV:CAC calculation is only as valuable as your ability to understand the different variables that make it up. For example, it's not enough to know that your LTV:CAC is below 2.5x. You could be churning customers faster than expected. Or, you may be over-investing in certain sales and marketing strategies and driving up CAC. Or, you could be experiencing countless other challenges.

The point is that you shouldn't assess LTV:CAC in a vacuum — even if you're hitting that exceptional 4.0x+ level. Understanding the "why" behind the metric will lead to better insights that drive strategic decisions about pouring more fuel on the sales and marketing fire or being more conservative.

STATS & BENCHMARKS

4.2
median LTV:CAC for companies $5M - $20M ARR

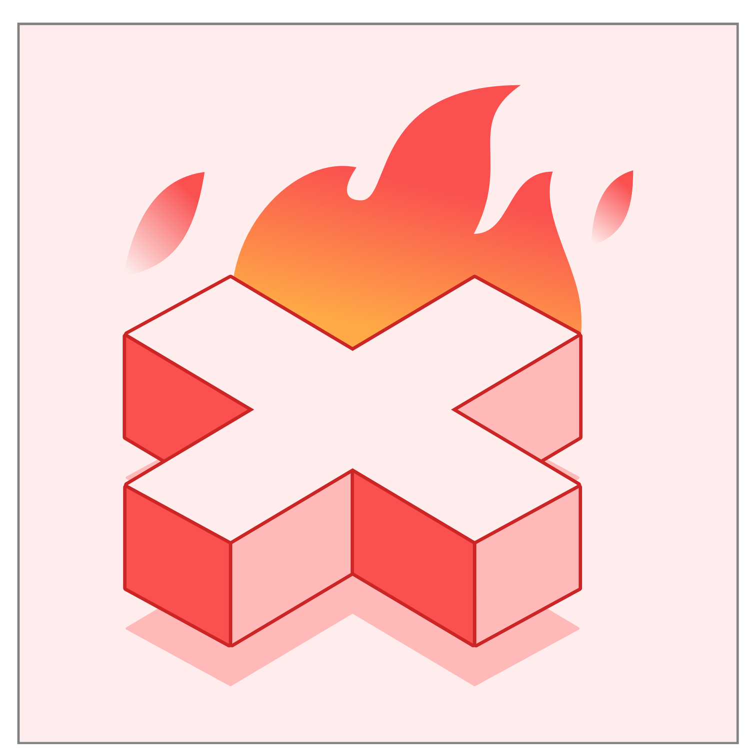
3.0
median LTV:CAC for companies $50M - $100M ARR

4.2
median LTV:CAC for companies $50M - $100M ARR

Learn more about optimizing both sides of the LTV:CAC equation with these resources:

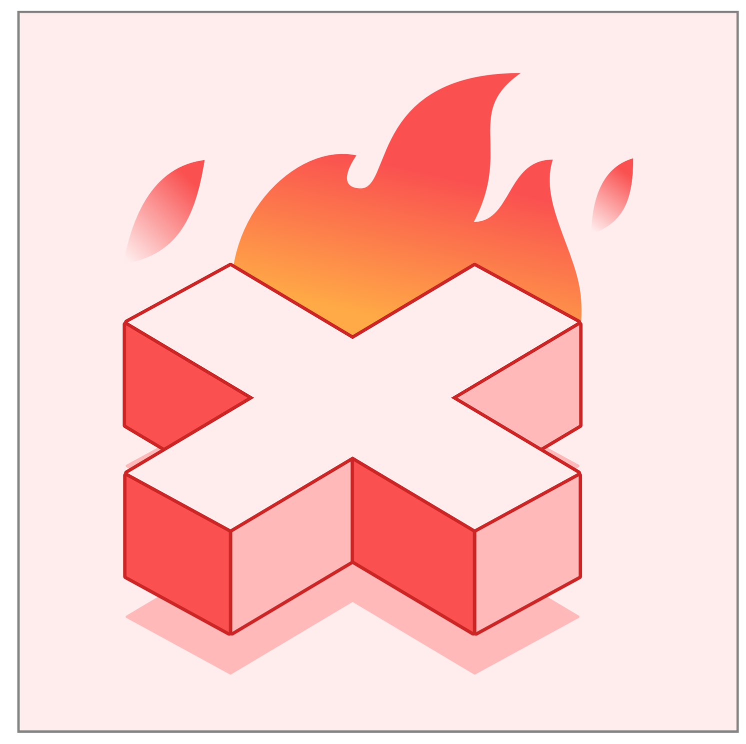
- LTV:CAC Ratio Overview
- Customer Retention Analysis Guide

Burn Multiple



Burn multiple is an emerging capital efficiency metric that shows how much cash you're spending per incremental unit of revenue generated in a given period. Some investors and analysts are predicting that market conditions will get worse, not better, throughout 2023. And as a result, founders and executives are hearing that they should aim to have upwards of 24-36 months worth of runway available as VC funds become increasingly tough to come by.

Burn Multiple



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This is drastically different from the 12-18 month runway that many companies operated with before the market downturn. So, if you're short on runway and can't expect another round of funding any time soon, what are you supposed to do? You have to start cutting expenses. And starting with a burn multiple calculation can help. The formula is as follows:

$$\frac{\text{Net Burn}}{\text{Net New ARR}}$$

Your burn multiple gives you a foundation for understanding whether or not you're deploying capital efficiently to generate revenue. If you're in what Craft Ventures calls the "danger zone" with a burn multiple of 2.0x or more, you know there's plenty of room to start cutting expenses — potentially without having to cut into the bone with a round of layoffs.

Dig into your P&L and start thinking about opportunities to cut spend in three buckets:

- **Forecasted spend.** The line items you budgeted but haven't spent money on yet. Can you cancel upcoming events or high-cost plans proactively? These are the easiest levers to pull.
- **Discretionary spend.** What are the mission-critical expenses that you can cut back on? Maybe you can get a lower price on new-hire laptops or be more conservative with gifting and swag. Again, these are easy levers to pull.
- **Variable spend.** What are the non-fixed costs you could potentially cut? These will be some of the departmental expenses that you need to talk to business partners about. It's a more nuanced lever to pull, but can be effective with proper collaboration.

STATS & BENCHMARKS

1.6x
median for companies at $25M - $75M ARR

1.4x
median for companies at $10M - $25M ARR

0.7x
median for companies at $0M - $10M ARR

Learn more about optimizing your burn multiple with these resources:

- Burn Multiple Overview
- [Ebook] Weathering the Storm of a Down Market
- [Podcast] Cash Flow Management with Andi Ruda

Cash Conversion

Cash conversion score is a capital efficiency metric that compares ARR generation to total capital raised to determine the ROI of each dollar deployed. Bessemer Venture Partners coined the cash conversion score in 2019 when venture capital was readily available and growth-at-all-costs was a fairly acceptable philosophy. In a world where startups were happy to burn massive amounts of cash to hit hypergrowth, BVP wanted to see which companies were raising money out of need — not as part of a “flawed dynamic in which companies seek market validation by raising capital.” Their cash conversion score is as follows:

$$\frac{\text{Current ARR}}{\left(\text{Total Capital Raised to Date} - \text{Cash on Balance Sheet}\right)}$$

Now that we’ve hit a wall where venture capital may be difficult to come by for the next year or two, is there still value in measuring your cash conversion score? Absolutely.

Your cash conversion score can give you a quick look at the sustainability of your business, especially given these current conditions. Use it to benchmark your historical efficiency and get a better understanding of how well-prepared you are for operating in this kind of environment.

The companies with 1.0x or better cash conversion scores are the kinds of businesses that can survive the economic downturn. If you aren't quite there yet, start evaluating your spend and work with business partners on righting the ship. Combine cash conversion score with more point-in-time capital efficiency metrics like burn multiple to track progress toward the best-in-class benchmarks.

STATS & BENCHMARKS

0.25x to 0.5x
is good, indicating an internal rate of return of 40%

0.5x to 1x
is better, indicating an internal rate of return of 80%

1.0x+
is best in class, indicating an internal rate of return of 120+%

Learn more about improving your capital efficiency with these resources:

- Capital Efficiency Overview
- [Webinar] Weathering the Storm: How to Navigate Through a Down Market
- Cash Flow Analysis Guide

Net Burn

Net burn is the amount of cash flowing out of your business on a monthly basis. Burn rate has always been an important SaaS metrics. But there hasn't been a brighter spotlight on it since the earliest days of the pandemic. Extending runway is everything for VC-backed SaaS businesses right now, which is why you need to dig deep into your burn rate to understand cash outflows on a granular level. The formula for net burn is as follows:

Cash Flow from Operations − Bank Transfers − Financing Transactions − Intercompany Activity

In an economic downturn, net burn becomes an indicator of your optionality as a business. While there are always recommendations from investors about how much runway you should aim for, at times like this, there's value in re-evaluating burn rate no matter how much cash you have on hand. The more efficient you can be with your burn, the more flexibility and optionality you'll have as a business to get through a recessionary period.

Research from OpenView Ventures backs that up. It's not surprising that they found companies with anywhere from 6-18 months of runway cut cash burn by 20+% from their original 2022 plans. But what is surprising is the fact that companies with 25+ months of runway still cut their cash burn by 26% on average — all in an effort to create optionality in the months ahead.

The opportunities to reduce net burn lie in the department-level and vendor-level data. Sit down with your executive team and build out a matrix for evaluating variable spend across the business with four buckets:

- Expenses that would drive big savings and have a low impact on operations
- Expenses that would drive marginal savings but have a major impact on the business
- Expenses that would drive big savings and also have a significant impact on operations
- Expenses that would deliver small savings and also have a high impact on operations

Mapping out your expenses this way will help you spot opportunities to cut back on spending without drastically hurting day-to-day operations — before you have to consider some sort of workforce reduction.

STATS & BENCHMARKS

$375k
median monthly burn rate for Series A businesses

$625k
median monthly burn rate for Series B businesses

$1.75m+
median monthly burn rate for Series C businesses

Learn more about improving your burn rate with these resources:

- Net Burn Overview
- How an Expense Dashboard Helps Track & Analyze Business Expenses
- [Podcast] Howard Katzenberg on Strategic Accounting

Runway

Cash runway is the amount of time (in months) before your company runs out of cash. Runway has always been the health meter for your business. But it's difficult to overstate the impact of the current market conditions on runway expectations. What seemed like a full health bar a year ago might feel more like one that's half empty now. In a recent report, Arjun Sethi and Jake Ellowitz at Tribe Capital explained why that's the case.

$$\frac{\text{Total Cash on Hand}}{\text{Net Burn (3-Month Average)}}$$

"There is demand for roughly $70B of capital (annualized) of investment at the Series B, but $25B of capital is being invested at an annualized rate, or roughly ⅓ of what is demanded. The $45B deficiency is the largest ever observed, and we expect conditions to worsen."

The supply and demand of venture capital is off in a way that the SaaS industry hasn't seen in over a decade. And that's why you're seeing investors recommend optimizing spend to extend runway to 24-36 months.

No one knows exactly how bad current market conditions will get or how long they'll take to rebound. But in any case, tips and strategies shared in previous messages about burn multiple, net burn, and cash conversion score will all help you extend runway and give yourself the most optionality possible during these difficult times.

STATS & BENCHMARKS

50%
reduction in headcount growth plans between Q1 2022 and Q3 2022

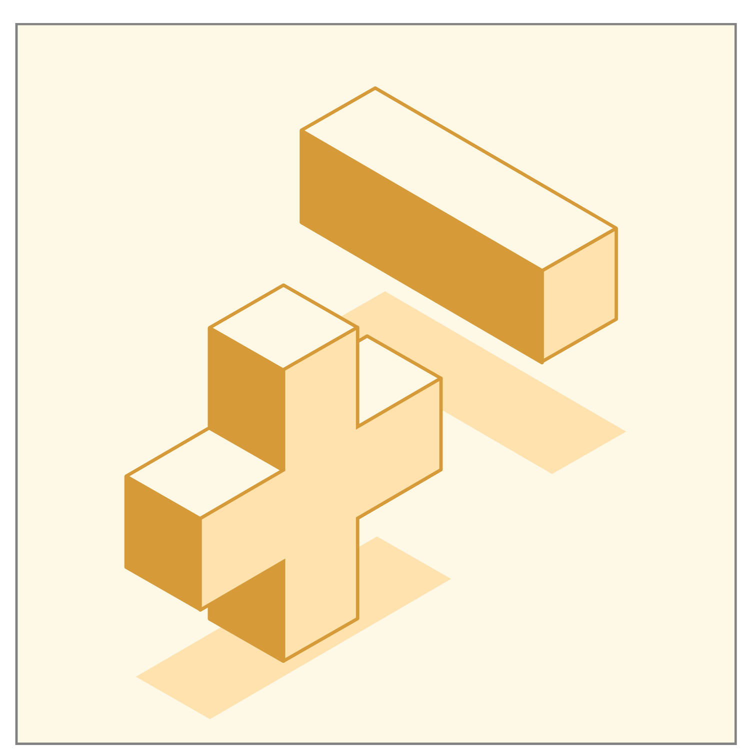
19%
plan to reduce or freeze headcount by the end of 2022

24+
months is the new recommendation for cash runway

Learn more about extending runway and optimizing cash flow with these resources:

- Cash Runway Overview
- Cash Flow Forecasting Guide
- Balance Sheet Forecasting Guide

Rule of 40



Rule of 40 is an efficiency metric that balances revenue growth and profitability to highlight the sustainability of your organization. We've spent a lot of time over the last two weeks talking about the overarching shift from growth-at-all-costs to a focus on sustainability in the current economic climate.

That shift has caused investors and business leaders to prioritize more efficiency metrics. But no metric has seen a resurgence quite as strong as the rule of 40. Now, the rule of 40 is the top driver of enterprise value:revenue multiples and it has to be a focal point for your analyses. The formula is as follows:

Revenue Growth Rate % + Profit Margin %

Investors are looking at rule of 40 calculations as a proxy for your ability to balance your operational focus between revenue growth and profitability. But this metric can also be helpful as an internal tool. If you aren't hitting that magic number of 40, it's time to dig into your income statement and figure out why.

Investors are looking at rule of 40 calculations as a proxy for your ability to balance your operational focus between revenue growth and profitability. But this metric can also be helpful as an internal tool. If you aren't hitting that magic number of 40, it's time to dig into your income statement and figure out why.

Break your financial reports down to the department and account levels to better understand the "why" behind misses on EBITDA/free cash flow, revenue growth, or both. Maybe you're missing revenue growth targets because of longer sales cycles in the current climate. If your spending doesn't reflect that change, you could see declines in both revenue growth percentage and profitability, driving down your rule of 40.

There's no-one-size-fits-all fix for optimizing rule of 40. It's up to you and your business partners to investigate the related financial and operational metrics to identify opportunities for improvement.

But one last thing to note about rule of 40 is that this metric is still mainly relevant to companies with more than $5M in ARR. Anything below that and growth rate percentages start to skew the calculation, making it seem like you're performing better than you actually are. At those earlier stages, other efficiency metrics like CAC ratio and magic number may be more helpful.

STATS & BENCHMARKS

3x

increase in rule of 40 impact on enterprise value to revenue multiples

29%

median rule of 40 for $5M – $20M ARR companies

41%

median rule of 40 for $50M – $100M ARR companies

Learn more about improving your burn rate with these resources:

- Net Burn Overview
- How an Expense Dashboard Helps Track & Analyze Business Expenses
- [Podcast] Howard Katzenberg on Strategic Accounting

Sales Rep Ramp

Sales rep ramp is the average amount of time it takes for a new AE to reach full productivity. Accurate calculations of sales rep ramp can make or break your ability to forecast revenue growth. If you assume ramp times will be shorter than they actually are, you risk overestimating ARR targets and underestimating how soon you need to hire AEs to hit those targets. Unfortunately, there's no formula to help you perfectly calculate sales rep ramp.

Your first option is to go with a basic assumption about employee onboarding — a three-month period where reps go from zero quota attainment to full productivity. But unless you're selling low ACV contracts to SMB clients, this guideline probably won't hold true.

Brian Weisberg, Head of Finance and Business Operations at Tidelift, says that in a fully-functioning and scaling B2B enterprise SaaS business, it can take 6 months for a rep to become fully productive — and double that for early-stage businesses. That's why the common refrain is that if you need a sales rep today, you should have hired them a year ago.

The other option is to take a more measured approach to sales ramp rate. You can assume that over their first four quarters, their ramp schedule will be 0%, 25%, 50%, and 100%, reaching full productivity at the end of their initial year.

This rough estimate may be accurate enough to keep your forecasts relatively accurate. But the best way to truly understand your sales rep ramp is to integrate CRM and HRIS data to look at quota attainment in a cohorted view. By normalizing AE start dates to time zero, you can see the inflection point where your AEs have historically reached full productivity.

Not every company will have the luxury of leaning on deep historical data to calculate sales rep ramp. But if you have it, your ability to make ramp assumptions as specific to your business as possible will boost the accuracy of your top-line forecasts.

STATS & BENCHMARKS

$673k
median ARR added by fully-ramped sales reps in 2021

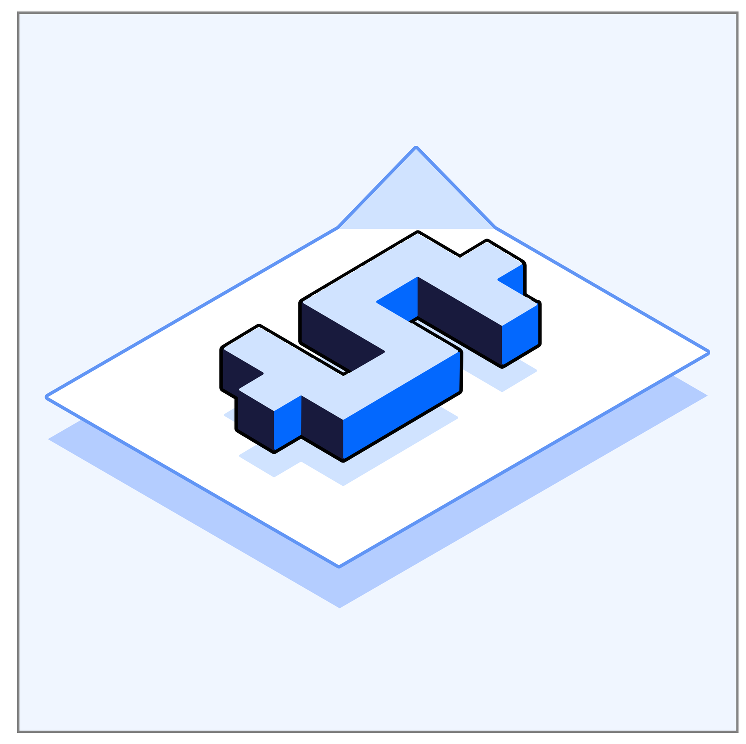
2 sales cycles
to properly assess a new rep's performance2

4 quarters
default ramp time

Learn more about sales rep ramp with these resources:

- Sales Rep Ramp Overview
- Sales Performance Metrics
- Guide to Sales Capacity Planning

ACV



Annual contract value (ACV) is the average revenue per customer per year. Annual contract value isn't the kind of metric you can benchmark against peers in a vacuum. Instead, it's more useful as a trendline for predicting future revenue growth while planning your top line. The formula for ACV is as follows:

$$\frac{\text{Total Contract Value}}{\text{Total Years in Contract}}$$

An accurate ACV calculation should help you set attainable quotas for your sales reps. If you know your goal is to add 30 new customers per quarter and you have two AEs, you know that each AE has to sign 15 customers quarterly. If your ACV is $60,000, you know that your rep's quarterly quota is $900,000 in bookings.

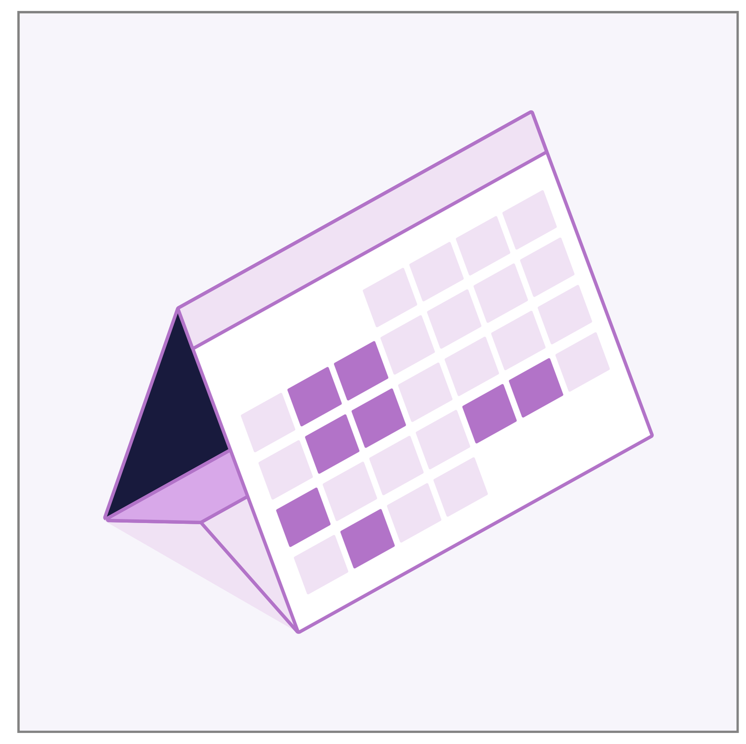
The metric becomes more useful when you start adding the context of other sales pipeline and performance metrics. Maybe your reps have only historically brought in 10 new customers per quarter — is it realistic to expect them to increase productivity by 50% every quarter? Probably not. This is the kind thing that finance and sales can collaborate on, working together to proactively map out the capacity of the team to make sure you're hiring new reps early enough.

While ACV isn't a perfect metric — no average is — it's a foundational metric for other sales metric calculations and revenue forecasting.

Learn more about calculating and using ACV with these resources:

- ACV Overview
- Modeling the Top Line: Sales Capacity Model
- Revenue Forecasting Guide

Average Sales Cycle



Average sales cycle is the average amount of time it takes a prospect to close after entering your sales pipeline.

Most benchmarking data about average sales cycle is a trap. A quick search will give you high-level benchmarks for the SaaS industry as a whole. For example, one study claims that the average sales cycle in SaaS is 84 days — but that number isn't particularly helpful for anyone. In fact, it may do more harm than good. When thinking about average sales cycle, consider your own historical performance first and foremost. The formula is as follows:

$$\frac{\text{Total Days in Pipeline for Closed Deals}}{\text{Number of Closed Deals}}$$

The reason KeyBanc's sales cycle benchmarks are more valuable is because they're relative to ACV. Sales cycle data fluctuates depending on business model, go-to-market motion, and target market, and it's highly sensitive to changes in ACV. So, if you want to benchmark sales cycle data, it should at least be in the context of ACV.

Even better is comparing your sales cycle data to historical performance. Incremental improvements in average sales cycle can lead to significant performance improvements. Instead of trying to map your business to rough industry standards, focus on making those incremental improvements by:

- Tweaking your pricing strategy to better align with customer expectations
- Doubling down on pipeline quality over pipeline volume
- Assessing sales rep performance on a granular level to identify necessary changes
- Potentially investing in more XDRs to facilitate pipeline velocity

It's natural for sales cycles to get longer with more complex software, more senior target customers, and larger ACVs. But that doesn't mean there aren't opportunities to increase efficiency.

STATS & BENCHMARKS

2.3 months

months median sales cycle length for $5k – $15k ACVs

3.8 months

median sales cycle length for $15k – $25k ACVs

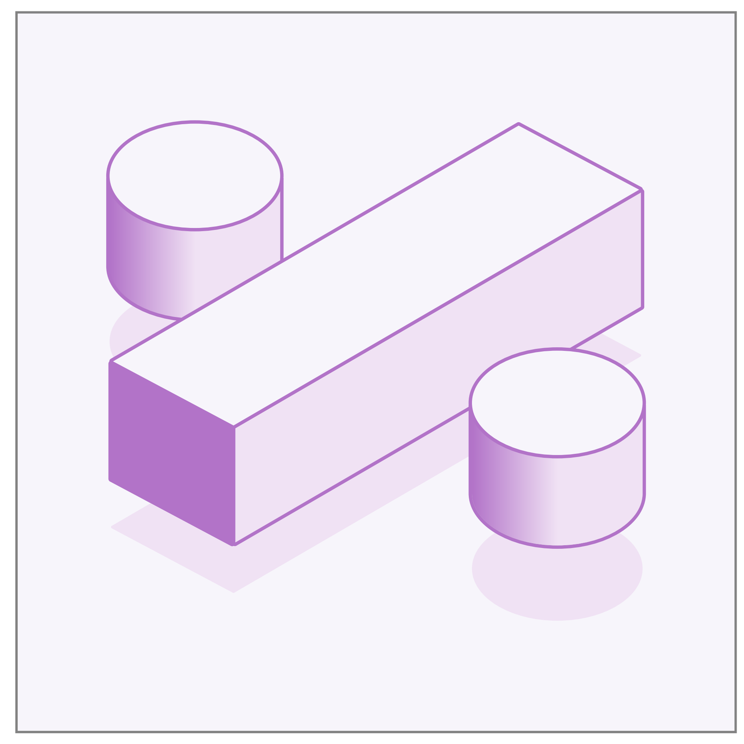
5.0 months

months median sales cycle length for $25k – $50k ACVs

Learn more about improving average sales cycle with these resources:

- Average Sales Cycle Overview
- SaaS Pricing Strategy Guide

Deal Conversion Rate



Deal conversion rate is the percentage of opportunities that convert to customers compared to the total number of closed opportunities in a period. The formula is as follows:

$$\frac{\text{Closed-Won Deals}}{\text{Total Closed Opportunities}}$$

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Sales Velocity

Sales velocity is the speed with which prospects move through the sales pipeline and generate revenue, measured in revenue per day.Sales velocity is another metric you likely won't find in many (or any) benchmark reports. It's not that the metric isn't valuable.

Sales velocity is another metric you likely won't find in many (or any) benchmark reports. It's not that the metric isn't valuable. But compared to other metrics, it's much more of an internal tool for alignment and gauging efficiency because of how dependent it is on your go-to-market model, distribution strategy, business model, and company maturity. The formula to calculate sales velocity is as follows:

$$\frac{\left(\text{Number of Opportunities} \times \text{Average Deal Value} \times \text{Win Rate}\right)}{\text{Sales Cycle}}$$

Trying to figure out what a "good" sales velocity looks like shouldn't necessarily be the goal. You always want to find customers who close fast and close often. So, no matter what your sales velocity is, you always want to find a way to increase it.

What's more important is your ability to align your strategy and your capital based on sales velocity insights. For example, if you want to expand your ICP from small and mid-market customers to true enterprise accounts. Whatever your sales velocity is now, you have to expect that it'll slow down significantly for the enterprise segment. You should expect:

- Much longer sales cycles
- High CAC and CAC ratios
- Lower conversion rates

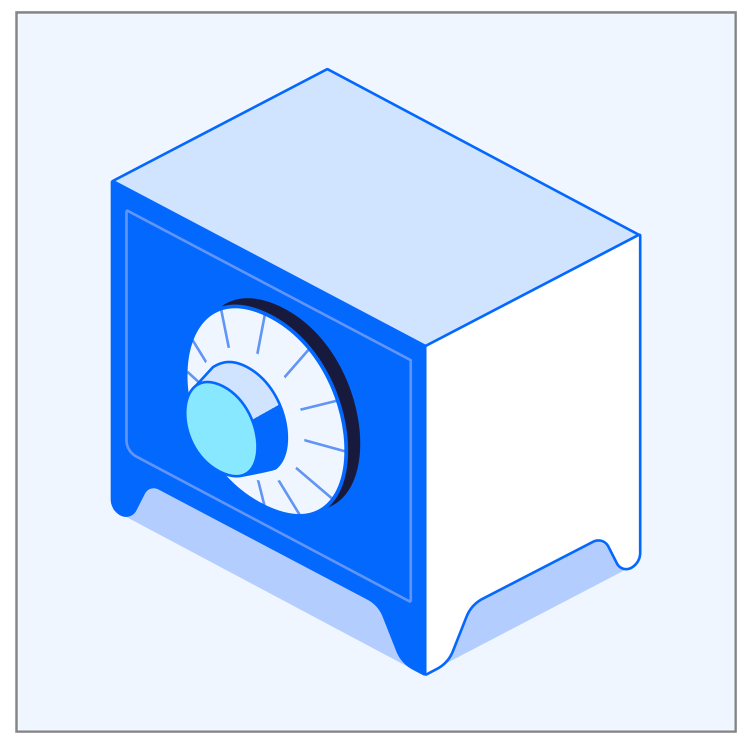
In short, it's going to cost a lot of money to make that strategy work. Does it make sense for your business to pursue the strategy based on your current capital? Projecting your sales velocity based on those sales cycle and CAC assumptions can help you gauge whether or not you have the resources to support the proposed expansion.

This is where finance teams have a chance to add strategic value to decision-making. Your perspective of both the sales performance side and operational efficiency side of the equation makes it easier to see whether or not go-to-market strategy and sales velocity are aligned.

Learn more about analyzing sales performance and efficiency with these resources:

- [Ebook] Finance's Guide to CRM Hygiene
- [Podcast] Jason Peretz on CRM Hygiene for Finance

Net Dollar Retention



Net dollar retention is a ratio comparing the ARR of customers in the given period to the ARR booked when customers initially signed. Net dollar retention (NDR) is among the most important metrics in SaaS because it highlights the snowball effect of the subscription-based business model. At its core, net dollar retention tells you whether or not you effectively get customers to pay you more year after year at scale. The formula to calculate net dollar retention is as follows:

$$\frac{\left(\text{Starting ARR} + \text{Change in ARR}\right)}{\text{Starting ARR}}$$

Investors are looking at rule of 40 calculations as a proxy for your ability to balance your operational focus between revenue growth and profitability. But this metric can also be helpful as an internal tool. If you aren't hitting that magic number of 40, it's time to dig into your income statement and figure out why.

The golden benchmark in SaaS is to hit 120+% net revenue retention — it's the threshold that sets the great companies apart from the good ones. But there's a major difference between simply reporting your net revenue retention to the board and building a narrative around the metric. After all, there's only one thing worse than not hitting the target benchmark — not knowing why you missed it.

Once you set the stage with a general view of both your ARR and net revenue retention, start digging deeper.

- Cut your NDR data by different attributes. Do you have multiple product lines? What does NDR look like for each one? Do you segment your customers by size? Which firmographic

returns the lowest NDR? Maybe you can identify an opportunity for improvement if you cut the data by support tier. Look for outliers in the data that show you where you're missing the mark.
- Compare insights to ARR composition. Maybe you see that your net revenue retention for enterprise accounts is much lower than other segments. But if that segment only accounts for 5% of revenue, does it really make sense to double down on addressing it?
- Run a cohort analysis to understand churn issues over the lifecycle of your customers. Is there a certain month where customers tend to drop off? What can you do to shore up that issue?

Customer retention analysis is one of finance's biggest opportunities to investigate the "why" behind the numbers and surface strategic insights for the business. Take advantage of the opportunity to show your value as a growth catalyst.

STATS & BENCHMARKS

110%
median net dollar retention at Series B

114%
median net dollar retention at Series C

105%
median net dollar retention across all companies in 2021

Learn more about analyzing net dollar retention with these resources:

- Net Revenue and Gross Revenue Retention Overview
- Customer Retention Analysis: A Guide for SaaS Businesses
- [Podcast] Steve Groccia on Keys to Effective Cohort Analysis

Gross Dollar Retention

Gross dollar retention is the percentage of revenue retained from your existing customer base in the given period, not including any price increases or expansion. Because gross dollar retention (GDR) doesn't factor in upsells or price increases, it's most closely related to logo retention. But whereas logo retention simply looks at the retention of accounts, GDR can give a more nuanced picture of retention — especially when your ACV is $5k or more. The formula for gross dollar retention is as follows:

$$\frac{\text{Starting ARR} - \text{Churn ARR} - \text{Downgrade ARR}}{\text{Starting ARR}}$$

Like any retention metric, it's important to benchmark yourself against peer companies with similar go-to-market strategies and pricing models. Gross dollar retention is most sensitive to changes in ACV, so at the very least you want to make sure you focus more on that guidepost for benchmarking.

The points we covered yesterday about digging into the "why" behind net revenue retention also apply here. You don't want to stop short at the company-wide gross dollar retention number. Cut it by product line. Look at it by customer cohort. Investigate other attributes like support tier. Any insights you can get into the nuances of your gross dollar retention could drive optimizations for your organization.

In times of an economic downturn, you might expect to see a dip in retention as customers reevaluate their budgets and renewal cycles become more complicated. This is all the more reason to focus on gross dollar retention as a way to go beyond logo retention. It's the Pareto principle — if you can identify the 20% of customers that generate 80% of revenue, you know which segment to focus more resources on renewing.

STATS & BENCHMARKS

87%
median gross dollar retention across all B2B SaaS

80%
gross dollar retention for companies at $1k – $5k ACV

89%
gross dollar retention for companies at $10k – $25k ACV

Learn more about analyzing retention with these resources:

- Net Revenue and Gross Revenue Retention Overview
- Customer Retention Analysis: A Guide for SaaS Businesses
- 7 Customer Retention Metrics for SaaS Businesses

Logo Retention

Logo retention is the inverse of logo churn, which shows the percentage of customers you retained period over period. Logo retention is perhaps the most fundamental retention metric. No matter your company size, business model, go-to-market motion, or industry, you need to have a clear understanding of your ability to retain customers because churn is a silent SaaS killer. The formula to calculate logo retention is as follows:

$$\frac{\text{Total Customers (End of Period)} - \text{Total New Customers}}{\text{Total Customers (Start of Period)}}$$

Like gross dollar retention, logo retention is most sensitive to ACV. Companies with high-ACV products targeting enterprise accounts should expect much higher logo retention than those with lower-ACV solutions. That's why gross dollar retention is the more insightful metric at higher ACVs.

But if you're selling a low-ACV product, logo retention becomes one of the North Star metrics for the health of your business. The 2022 SaaS metrics benchmark report from RevOps Squared notes that if you fall into that category, you should be measuring logo retention monthly on rolling three, six, and 12-month bases.

The different ways to look at logo retention don't differ from the strategies for gross and net dollar retention. However, logo retention is often the starting point for any retention analysis, sending you down the path of deeper investigation into related metrics like CAC payback period, CAC ratio, lifetime value, and more.

STATS & BENCHMARKS

85%
median logo retention across all B2B SaaS

60%
median logo retention at ACVs under $1k

90%
median logo retention at ACVs of $50k – $100k

Learn more about analyzing retention with these resources:

- Logo Retention Overview
- Customer Retention Analysis: A Guide for SaaS Businesses
- [Ebook] Outcome-Based Reporting

LTV

Customer lifetime value is the average amount of money you expect to receive from a customer over the course of their relationship with your business. Customer lifetime value is another metric that's nearly impossible to benchmark. There are too many variables unique to each individual business that factor into the calculation. But without an accurate view of your own LTV, you'll struggle to truly understand the ROI of any acquisition efforts. The formula for LTV is as follows:

Average ARR Per Customer

Churn Rate

On the surface, calculating LTV may seem relatively simple. But so many companies go wrong when trying to understand the true lifetime value of an account. Assuming you've got a clean CRM setup, you still need a streamlined way to track customer history at a granular level — every product line purchase, contract value, upsell, downgrade, renewal, and start/end date has to be accounted for.

The calculation can get particularly complex in earlier-stage companies when you haven't gone through multiple meaningful renewal cycles. Even small tweaks to the churn variable can significantly change LTV, which means you need as accurate a view as possible. If you don't have enough historical data, it's safest to look at existing data and make a more conservative assumption for the calculation.

Partners in sales and marketing will be looking to you for insight into LTV and how it relates to critical acquisition metrics. Having real-time, granular insight is critical, which is why you need to automate the calculation as much as possible instead of sinking your time into data cleansing and spreadsheet management.

STATS & BENCHMARKS

78%
median gross margin for subscription business

21%
median gross margin for services business

73%
median gross margin for all B2B SaaS

Learn more about measuring customer lifetime value with these resources:

- Customer Lifetime Value Overview
- [Podcast] Ben Murray on CAC

Customer Count

Customer count is the balance of logos you have signed to contracts at any given time. Because customer count is so closely correlated with ARR growth, it's important to think about this metric in terms of relevant growth benchmarks. Specific customer count growth will depend entirely on your business model. So instead, you can back into the necessary customer count growth by dividing your ARR target by your ACV.

At first glance, customer count may seem like an underwhelming metric to end the 25 Days of SaaS Metrics on. But it's the perfect bookend for our series — we started on ARR growth and now we're ending on the interconnected variable that drives that growth.

First and foremost, you want to have a real-time view of the additions and subtractions to your customer base. Seeing the trend line month over month will help you understand if and when there are problems to investigate:

- Is our customer acquisition slowing down at a particular time of the year? Do we have seasonality we didn't anticipate?
- Why did we lose so many customers during one particular month? Is there something wrong with the product?
- Why are we seeing a steady increase in monthly customer churn? Do we have an issue in customer support that we need to address?

These are the kinds of threads you can pull when looking closely at your customer count. And the more you pull those threads, the more insights you'll discover about your business. When you're able to identify hidden weaknesses and opportunities for growth, you'll become the strategic partner the business needs to succeed in any conditions.

STATS & BENCHMARKS

100%
median YoY growth rate for Series A companies

61%
median YoY growth rate for Series B companies

35%
median YoY growth rate for Series C companies

Learn more about planning and maintaining growth with these resources:

- [Ebook] The 2023 Financial Planning Blueprint
- Sales Capacity Planning Explained
- ARR Snowball Overview

Meet Mosaic

Now is the time for finance to take center stage. But first they need to put the right tools in place — the tools that finally solve the challenges that have held finance back. It's time to unleash the full potential of finance. Mosaic is here to help.

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