QAPITA

409A Valuation.
The Complete Guide.

The mechanics behind fair market value, strike prices, and IRS safe harbor including the math appraisers actually run, the real cost of getting it wrong, and how to keep your option grants defensible.

CONTENTS

What is inside

This edition goes beyond definitions. It walks through the actual OPM backsolve math appraisers run, the real IRS safe harbors, and worked examples with real numbers so you know exactly what's happening inside the report you're paying for.

CHAPTER 01

What is a 409A valuation?

A 409A valuation is an independent appraisal that sets the fair market value (FMV) of your private company's common stock. Named for Section 409A of the U.S. Internal Revenue Code, it is the number that determines the lowest strike price you're legally allowed to set when you grant stock options, restricted stock units with deferral features, or other equity compensation to employees, contractors, and advisors.

The rule traces back to 2004, when Congress passed the American Jobs Creation Act in the wake of the Enron and WorldCom collapses. Executives at those companies had used deferred compensation arrangements including options priced well below actual value to control exactly when they recognized income. Section 409A closed that loophole: any option granted below fair market value is now treated as non-qualified deferred compensation, subject to strict timing rules and immediate taxation if those rules are broken.

In practice, this means every company issuing options needs a defensible answer to one question: what is a single share of our common stock actually worth today? Public companies get that answer from the stock market every second. Private companies have to construct it which is exactly what a 409A valuation does, using methodology the IRS has pre-approved.

Why it exists

To stop companies from handing insiders and early employees a built-in, untaxed profit by pricing options at a token amount like $0.01 regardless of what the business is actually worth.

What it sets

The FMV becomes your strike price floor for the next 12 months. Price below it, and the IRS can reclassify the entire spread as deferred compensation taxable immediately, whether or not shares were sold.

20–40%

Typical fair market value of common stock as a share of the preferred price your last investors paid, once the OPM allocation and marketability discount are both applied (Chapter 06).

CHAPTER 02

Why it matters: a real worked example.

The risk of an underpriced option grant doesn't sit with the company it lands on the employee holding the option, in the year it vests, whether or not they've touched a single dollar of actual cash. Here's what that looks like with real numbers.

Scenario: an engineer holds 100,000 vested options

Item	Amount
Strike price set by the company	$0.10 / share
FMV the IRS later determines was correct at grant	$0.50 / share
Taxable spread (100,000 × $0.40)	$40,000
20% federal Section 409A penalty tax	$8,000
Ordinary income tax on the spread (~32% bracket)	~$12,800
Additional California state penalty, if applicable	+5% of spread ($2,000)

That's roughly $23,000+ in taxes and penalties on $40,000 of paper value the employee never sold and the bill arrives the year the options vest, not the year they're exercised or sold. IRS interest, at the federal underpayment rate plus one point, compounds on top from the original grant date. For employees in California, the federal 20% penalty plus the state's 5% penalty combine to 25% before ordinary income tax is even applied. A $1,000,000 spread produces a federal penalty alone of $200,000, due immediately.

The company doesn't escape cleanly either. It can face withholding-tax liability for failing to report the deferred compensation correctly, and during fundraising or M&A due diligence, buyers' counsel routinely audits 409A history as one of the first items on their checklist a gap in coverage can delay a deal or shave dollars off the purchase price.

The upside

A properly documented, independent 409A valuation earns “safe harbor” status legally shifting the burden of proof to the IRS, which must then show your valuation was grossly unreasonable rather than you having to defend it. That protection typically costs a few thousand dollars; the exposure it prevents is measured in tens or hundreds of thousands per affected employee.

CHAPTER 03

When you need a 409A and how often.

The risk of an underpriced option grant doesn't sit with the company it lands on the employee holding the option, in the year it vests, whether or not they've touched a single dollar of actual cash. Here's what that looks like with real numbers.

1. **Granting options for the first time**

   There's no legal way to set a strike price without a documented FMV behind it, usually the first 409A a company commissions, often right after its first priced round closes.

2. **It's been ~12 months since your last valuation**

   IRS safe harbor under the independent-appraisal method is only valid for 12 months from the effective date. One day past that, every new grant reverts to unprotected status.

3. **You just closed a priced funding round**

   The most common refresh trigger. Best practice is completing the new 409A within 90 days of close, since the old valuation no longer reflects true value.

4. **A material event occurred**

   Secondary sales, an acquisition offer, a major customer win or loss, a business model pivot, or revenue roughly doubling (or halving) can all invalidate a valuation early.

What counts as a “refresh,” precisely?

A refresh is a brand-new valuation report not an update or addendum that restarts your 12-month safe-harbor clock from its new effective date. Most companies budget for one refresh per year even without a funding event, since organic growth alone can move FMV enough to matter. Skip it, and every option granted after the old report expires loses safe-harbor protection retroactively.

CHAPTER 04

The data you'll need to hand over.

The faster you can produce this, the faster your report comes back and the more defensible it is. Most delays in a 409A come down to missing or stale documents, not the underlying analysis

Financial statements

Balance sheet, income statement, and cash flow for the trailing 12 months the appraiser's baseline for revenue, margin, and burn, and a direct input to any income-approach analysis.

Cap table

Every share class with its liquidation preference & conversion terms, every outstanding option/warrant with its strike price, & the fully diluted share count the raw input to the OPM waterfall.

Funding history & terms

Your most recent priced round's price per share, amount raised, & preference stack, plus anything currently being negotiated. The backsolve method depends entirely on this being accurate.

Industry & market benchmarks

Comparable public company multiples or recent M&A transactions in your sector, used as a primary market-approach input or a sanity check against the backsolve result.

Business plan, deck, or projections

Your growth narrative market size, roadmap, competitive position, forward projections which matters most for incomeapproach and PWERM valuations near an expected exit.

CHAPTER 05

The three valuation methods.

The IRS doesn't mandate a specific method it requires that whichever method you use be applied consistently and reasonably. In practice, the three approaches below cover almost every 409A ever performed.

Market Approach COMPARABLE TXNS / OPM BACKSOLVE	Infers value from real transactions the price your investors just paid (backsolve), or multiples from comparable public companies and M&A deals. Dominant for venture backed startups with a recent financing, since it's anchored to a real, arm's-length price.
Income Approach DISCOUNTED CASH FLOW (DCF)	Forecasts future free cash flows and discounts them to present value using a risk-adjusted rate. Requires enough operating history to make projections credible most reliable for revenue-generating companies, often run as a cross-check.
Asset Approach NET ASSET VALUE	Values the company on the fair value of its net assets, cash, equipment, IP, less liabilities rather than future earnings. Reserved almost exclusively for pre-revenue companies with no priced round

There's a second layer most founders never see: once enterprise value is established, it still has to be allocated across your specific cap table because common stock, preferred stock, and options don't share equally in that value. That's where the Option Pricing Model (OPM) and the Probability-Weighted Expected Return Method (PWERM) come in. Early-stage companies with a straightforward preferred round almost always use OPM; companies close to a known exit often shift to PWERM, modeling specific outcome scenarios with their own probabilities. Chapter 06 walks through exactly how the OPM version works, with real numbers.

How appraisers choose: stage, data availability, and industry drive the decision a pre-revenue startup leans on Asset; a company that just closed a round backsolves off that price; steady revenue brings in Income as a cross-check.

KEY TAKEAWAY

There's no single “right” method a defensible 409A blends one primary approach with a second as a sanity check, then allocates the result across your cap table using OPM or PWERM.

CHAPTER 06

The math behind your strike price.

This is the part most founders never see: how a $2.00 preferred share price turns into a $0.50 common stock strike price. Here's the actual mechanics of an OPM backsolve, the most common calculation behind a venture-backed 409A.

Step 1: Backsolve enterprise value

The appraiser treats each share class as a call option on total company value, strike equal to its liquidation preference, and solves for the one enterprise value at which the model's implied preferred price exactly matches what investors actually paid.

Step 2: Allocate across the waterfall

That solved enterprise value is distributed across every class in your cap table later preferred series first, then earlier series, then common and options following the exact terms in your charter.

Worked example — Series A, $2.00/share preferred

Step	Result
Series A investors paid	$2.00 / share
OPM-allocated common value (before discount)	~$0.60–$0.80 / share (30–40% of preferred)
Discount for Lack of Marketability (DLOM) applied	25–35%
Resulting 409A FMV / strike price floor	~$0.45–$0.60 / share
As a share of the preferred price	roughly 23–30%

The common/preferred ratio narrows as a company matures. Series A companies typically see common stock priced at 20–40% of the preferred round price; by Series C and later, that ratio often climbs to 45–70%, as the liquidation-preference stack shrinks proportionally and time-to-liquidity shortens.

Why DLOM is the number founders push back on most

It reflects one fact: unlike preferred investors, common stockholders can't sell shares on any public market. Empirical studies of restricted-stock and pre-IPO discounts show 20–35% discounts for otherwise-identical shares that merely lack a trading market higher at early stages, lower as liquidity approaches.

KEY TAKEAWAY

Two numbers do almost all the work in your strike price: the OPM allocation percentage and the DLOM. Ask your appraiser to show both explicitly.

CHAPTER 07

Safe harbor, explained.

“Safe harbor” is the IRS's term for a valuation method presumed reasonable unless the IRS can prove otherwise a materially higher bar than a valuation defending itself from scratch. Section 409A regulations specify three distinct ways to earn it.

Independent appraisal method

A qualified, genuinely independent third-party appraiser values the stock using a reasonable, consistently applied methodology; the report stays valid for 12 months. This is the standard route for venture-backed companies and the one this guide focuses on.`

Illiquid start-up method

Available only to companies less than 10 years old with no publicly traded stock and no reasonably anticipated liquidity event in the next 90 days (or IPO in 180). Must be in writing, by someone with 5+ years of relevant valuation/finance experience notably, that person can be an insider, unlike under the independent-appraisal method.

Binding formula method

Rare in practice applies when a company has a longstanding, formula-based buy-sell agreement valuing stock the same way for compensatory and non-compensatory transfers alike. Most startups don't have this, so it mainly suits closely-held businesses with pre-existing formula agreements.

What safe harbor actually shifts:

without it, if the IRS challenges your valuation, you bear the burden of proving it was reasonable. With it, the IRS must affirmatively prove your valuation was grossly unreasonable a standard courts interpret narrowly.

CHAPTER 08

The valuation process, step by step.

1. **Engage & scope**

   Choose an independent provider and share company basics stage, industry, most recent round terms, and timeline. Most providers confirm which safe harbor applies before starting.

2. **Data collection**

   Financials, cap table, funding history, and business plan go to the appraiser. This step is almost always the pacing item organized data rooms move noticeably faster.

3. **Analysis & modeling**

   The appraiser selects the applicable method(s), runs the OPM backsolve or DCF, and allocates the result across your cap table using the mechanics from Chapter 06.

4. **Draft & review**

   You receive a draft report to check for factual accuracy cap table details, round terms, business description before anything is finalized.

5. **Board approval**

   Your board formally approves the valuation and resulting strike price, documented in board minutes. This approval is what actually authorizes new grants at that price.

KEY TAKEAWAY

Board approval is the step that actually matters legally, a report sitting in your inbox without board minutes behind it doesn't authorize anything.

CHAPTER 09

Timeline & cost: what to expect.

Timeline

2–4 Weeks

Typical turnaround for a standard 409A

Runs faster with organized data; slower for multiple share classes, SAFEs, or thin history.

Cost

$1K–$15K

Typical price range across company stages

Scales with financing rounds, share classes, and method complexity.

Stage	Typical cost	Why
Pre-seed / seed, first 409A	$1,000–$3,000	Single method, minimal cap table complexity
Series A–B	$2,500–$6,000	OPM backsolve + DLOM, 1–2 preferred series
Series C+ / pre-exit	$5,000–$15,000+	PWERM modeling, multiple series, higher scrutiny

What moves the timeline and cost together:

- **Company complexity**
  Multiple share classes, SAFEs, or convertible notes each add a layer to the waterfall.
- **Data readiness**
  A clean, current cap table can cut a week or more off turnaround.
- **Method complexity**
  Moving to a full PWERM roughly doubles analyst time.

Planning a raise in 2–3 months?

If employees are waiting on grants now, get the current valuation done. Otherwise it's often more efficient to wait until the round closes.

CHAPTER 10

Choosing a valuation partner.

Option	Safe harbor strength	Turnaround	Best for
Independent valuation firm	Highest	1–4 wks	Complex cap tables, pre-exit PWERM work
Software-enabled valuation	High	Days–1 wk	Straightforward OPM backsolve, Seed–Series B
DIY / internal estimate	Lowest	Fastest	Never meets safe harbor bar exposure without protection

What to check before you sign:

- Independence under the appraisal method, the signer cannot be an employee, officer, or equity holder in the outcome.
- Track record in your specific industry and stage DLOM and comparable-company judgment is where inexperienced appraisers go wrong.
- Transparent pricing with no surprise add-ons for refreshes or board-consent documentation.
- Relevant credentials ASA, ABV, or CFA charterholders with valuation focus, or documented AICPA/NACVA-aligned methodology.
- Shows its work a report disclosing the OPM allocation percentage and DLOM explicitly, not just a final per-share number.

KEY TAKEAWAY

Cheaper and faster isn't a bargain if it can't hold up in an audit safe-harbor strength is what actually protects you and your employees.

CHAPTER 11

Red flags that void safe harbor.

These are the patterns that most often draw IRS scrutiny and the fastest ways to lose safe-harbor protection.

- ✕ Appraiser isn't truly independent an internal finance hire signing an "independent appraisal" doesn't qualify
- ✕ Valuation is more than 12 months past its effective date
- ✕ A priced round or other material event wasn't reflected within a reasonable window (target: 90 days)
- ✕ Report doesn't disclose its OPM allocation percentage or DLOM just a final number, no visible method
- ✕ Common stock strike price equals or is close to the last preferred round price

Worked example: what "just using the round price" actually costs

Say a company skips the DLOM and OPM allocation and simply sets common stock strike price equal to its $2.00 Series A preferred price. An employee later exercises 50,000 options at that $2.00 strike. If the IRS determines the defensible FMV was actually $0.55/share (the OPM-and-DLOM-adjusted figure from Chapter 06), the company didn't underprice it technically overpriced this grant. Employees paid far more than necessary for equity carrying the same risk as any other common shareholder. The more common and costly failure runs the other direction: pricing below a properly discounted FMV, which is what triggers the penalties in Chapter 02.

CHAPTER 12

Frequently asked questions.

Who actually needs a 409A?

Any private U.S. company planning to grant stock options, RSUs with deferral features, or similar equity compensation to employees, contractors, or advisors.

Can I do it myself?

Only qualifies for safe harbor under the illiquid start-up method company under 10 years old, no anticipated liquidity event, signer with 5+ years of relevant experience. Most venture-backed companies past their first few years need the independent appraisal method instead.

How long is a valuation good for?

Up to 12 months from its effective date, or until a material event happens first whichever comes sooner.

What if I grant options without one?

Immediate taxation on the full spread, a 20% federal penalty, IRS interest at the underpayment rate plus one point, and in states like California an additional 5% state penalty 25% combined before ordinary income tax.

Why is my common stock worth less than my last round's price?

Preferred stock carries a liquidation preference and protections common stock doesn't have. OPM typically allocates common at 20–40% of preferred pre-DLOM, & the marketability discount reduces it further (Chapter 06).

What's the difference between OPM and PWERM?

OPM treats each class as an option on total company value and suits distant or uncertain exits. PWERM models specific, probability-weighted outcome scenarios and is more accurate once a company is close to a known exit.

Does every company need all three methods?

No. Most lean on one primary method suited to their stage, with a second used only as a directional sanity check.

Need a 409A valuation you can actually defend?

Our Expertise

Full-service support from a qualified team with each report prepared by a dedicated analyst, peer reviewed and signed to give you confidence.

Our support doesn't stop at the delivery of reports - we will help you address any questions from your auditors including Big 4.

We share and explain our valuation methodology and approach avoid the black box of valuations you can't understand.

What Qapita Valuations has to offer?

1. **409A Valuations**
   Market, Income, Asset approaches and CVM, OPM and PWERM in line with AICPA guidelines

2. **Equity Fair Value Reports**
   Black Scholes, Binomial, Monte Carlo Simulation

3. **Expense Amortization**
   ASC 718 and IFS 2 guidance and support with disclosures

500+
Signed reports yearly

US $100B+
Client market cap

30+
Countries served

15+
Auditors worked with

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