



# **Estimation quick reference**

A helpful guide to estimating your projects

It's time to expose the truth about humanity. People of planet Earth: you stink at estimating. You're really awful at it. And it's mostly not your fault (people have strong cognitive biases working against them). But let's talk about some practices that current service shops and internal organizations employ, just to prove the point.

*"But, wait!"* you say. *"My shop has a method. We just double everything to account for risk."* Please. Stop. Right there.

### **Problems with current estimating practices**

Here's a list of some of the not so scientific habits organizations during their estimation process:

- Just double the budget (where is the logic?)
- Estimating in small durations called hours that slip away like sand (oops, just lost one in traffic, have you seen it?)
- Doubling your worst-case budget (even this isn't enough for the Planning Fallacy)
- Estimating user stories, but not all the other project chores
- Leave out any administrative, project management, or buffer related tasks
- Leave out risk assessments
- Estimate in silos or not involving the team at all
- Refusing to provide a project range
- Selling a fixed bid, one line budget to clients
- Trying to predict how much revenue you'll generate for a client without measuring it and then charging a 'value price'
- Routinely underestimating tasks within ideal working conditions (aka leaving out complexity)
- Presenting a fixed bid, running your project like it's Agile, but not estimating any additions to the scope

And the number one bad habit of organizations doing estimation is: Not estimating any work at all. Even if you bill for all time and materials or run a more agile approach, if you run multiple projects, you want to have some idea of how your scope and budget will interact with the people who are splitting their time working on the project.

Don't get stuck in these traps, folks. They have razor sharp teeth and they cut to the bone.

## Steps to creating an estimate (poorly)

### How many creative or software shops estimate projects

Not every marketing, web, or product shop does it this way, but by far, these are the behaviours we see the most.

#### Step 1

Lead comes in.

#### Step 2

Salesperson or business developer/owner vets lead (usually alone).

#### Step 3

Salesperson sets budget in hours based on what the client or market will bear and often underestimates (usually by looking at past projects or just guessing how long phases might take—sometimes asking teammates independently how many hours their part will take). Sometimes they break tasks, screens, or flows in without considering risk or complexity.

#### Step 4

Salesperson or business developer writes or has project manager write contract.

#### Step 5

Salesperson or business developer emails PM with short summary of new project details and says, “Hey, how soon can we start?”

#### Step 6

PM tries to squeeze the project in as soon as possible. Chaos ensues.

Alright, the moment you’ve been waiting for: how to create an estimate. Before you learn how to do it the Louder Than Ten way, let’s look at how most organizations do it. We’ll focus on client service shops and internal teams. And remember: there is no right or wrong way. Just ways that get you closer or take you further from where you want to go as an organization.

### How many internal teams estimate projects

Sometimes internal teams will do more upfront forecasting and planning so they can constrain the amount of budget allocated to different projects, but often what happens is that additional unvetted tasks and projects trickle in because everyone connected to the project team can send in requests whenever they think of something, but triaging and prioritization seldom happen consistently. This results in internal departments running a thousand (okay maybe 30 plus) projects and tearing their hair out in agony.

This is usually how it goes, though:

#### Step 1

Executive stakeholder sends a request or ticket via email or ticketing application.

#### Step 2

Traffic manager or project lead (or support team) reviews ticket (alone) and responds with an estimate in hours.

#### Step 3

Traffic manager assigns tasks to team members (who may or may not follow up with an updated estimate).

#### Step 4

Project team begins the work as soon as their last incoming task is complete.

See any issues with the estimating approaches here? Yeah: virtually no estimation or prioritization—or very little actually happens. When estimating does occur in an organization it’s like trying to spit a sticky paper ball at a wall of moving ants (utter failure). No one is considering ranges, comparisons between high level and low-level estimates, nor patterns and probabilities. Worse? No one is actually looking at monthly revenue vs expenses to see if the project value is worth prioritizing or taking on or it needs to adjust to meet desired revenue targets.

## Steps to creating (better) estimates

Let's walk through estimating better step by step, and lest you hear a familiar drumbeat, remember: there is no one right way to do this. There are ways that take you closer to your goals. Find out what works for you and your organization. Question your assumptions and refine your approach. Keep doing it until you all own the process together. Maybe you'll come up with something even smarter and more effective.

### How creative service shops can estimate better

Step by step, here we go! Note that this is more for an Agifall shop servicing clients with some sort of budget.

#### Step one

Lead comes in. If lead is 50% likely, sales vets initial lead with team-developed risk criteria.

#### Step two

If lead passes (more than 50-75% likely, sales sits down with project lead to brief them on the project. Project lead vets any additional risks or complexities.

#### Step three

If green light, anticipated project team gathers to make high-level estimate with both salesperson and project lead (if not, at least tech lead and project lead are involved and vetted by team before project sold as flexible estimate).

#### Step four

Sales confirms high-level estimate and probable discovery and informs project lead; project lead supports contract development if needed. Project start is scheduled.

#### Step five

After team brief and during discovery, project team sits down to develop detailed bottom-up estimate with 90% confidence (when possible) after defining scope and triaging importance with client.

Psst: we cover this in our apprenticeship, but here are the major types of estimation you can use:

- 3 pt estimate
- PERT estimate
- Story points/pointing poker
- 90th % confidence
- Double blind

#### Step six

Sales firms up more accurate project range and sells number of days, sprints, or months, with clear outline of how additional scope or changes will affect budget and timeline.

#### Step seven

Team rejoices and project lead folds hands on hips, smiling. OR sales sells a monthly rate and client agrees to review progress each month (aka hitting revenue targets). Scope and estimate depends on duration and goals.

### How internal teams can estimate better

Step by step, here's how internal teams within larger organizations can support better estimating practices.

#### Step one

Executive stakeholders sit down with project lead to forecast anticipated revenue.

#### Step two

Executive stakeholders and project team determine a roadmap of year's anticipated projects.

#### Step three

Project team scopes and estimates work to find high-level budget allocations. Project lead reports to executive stakeholders.

#### Step four

Project team creates bottom up estimates for priority projects over the quarter and communicates back to executive stakeholders. Execs communicate high-level roadmap to whole organization and outline triage of incoming any new requests.

#### Step five

Project ranges locked in for quarter and project team scheduled.

#### Step six

Any incoming requests are triaged and prioritized.

#### Step seven

Team and execs rejoice and everybody goes to Thailand.

**Estimates are never optimistic**

Estimates seldom fall on the low end (remember the Planning Fallacy), so set expectations for the highest number first

**Share confidence levels**

Consider sharing your confidence level in that range (e.g., 'We're 50% confident we can get this to you in one month, but we're 90% confident we can in two months')

**Bill round numbers**

Make it easy for your stakeholders to say yes. Bigger, rounder numbers are easier to process. Don't have nickels in your ranges for heaven sake

**Estimate in days not hours**

If you have to convert them back from days, that's okay, but please try it before you dismiss it—it will give you much better accuracy in your planning and scheduling

**Bill in days**

Avoid billing in hours, too, if possible: faster work shouldn't be penalized with a smaller budget

**Ranges are more important than hitting the number**

It is more important to get the range right than it is to nail one firm number—ranges give you more wiggle, more chances to try something new, and to prioritize a nice to have instead of being brutal about triaging only the most important tasks

**Modular estimates**

Try estimating more modularly—instead of pages or screens, break down and chunk similar types of work together (this works more easily in front end development, e.g., estimate UI pieces like images, forms, tiles or callouts, and tables before moving onto header and footer navigation and sidebars)

**Sell packages plus additions**

If you can't nail down the scope of a big project, estimate for a core 'package' of functionality. Anything more complex can be added in weeks or sprints. Gives a chance to refine

**Get to a Minimum Valuable Project (MVP)**

Just because you sold them, doesn't mean you don't have to estimate a thousand moving pieces all at once. Break scope down into multiple phases or sprints or even projects. They are easier to digest. They allow you to adjust on the fly.

**Avoid line items**

Whenever possible, don't break your estimates to clients down into line items on your invoices; share phases if you have to, but line items and estimates per task show them places they can cut and question rather than support; they often don't require this info (note ranges for design, development, or label sprints to avoid commoditizing value—would a plumber have a line item for his toilet snake?)

**Bill in the currency of the client**

if you're a client service company, consider invoicing in the currency of the country they live if it's higher; be clear with this up front

**Rebaseline your estimate**

Once you have an idea of the risks involved (which we'll discuss next module, make sure you adjust your estimates to include the project environment, not just the product you're building:



## How to coach your teammates on 90th percentile estimation

**You:** “Hey Avery, how long will it take you to design a rough thumbnail sketch of logos for Tiny Bio?”

**Designer:** “I don’t know. Like a few hours?”

**You:** “What if we needed to put a range on that? What’s the least amount of time and the most amount of time it would take.”

**Designer:** “Hmmm. I think probably a half-day to maybe a full day. Yeah, I could do it in a day.”

**You:** “Okay, are you 90% confident you could do the sketches in a day? Remember, there are ten low fi sketches and the client has 110 stakeholders weighing in. Is there anything that would make it take longer than a day?”

**Designer:** “Oh, right. Well, I guess it could take up to three days then. If we had to make sure we had enough variety in the logo direction.”

**You:** “So three days? Remember that this is a range you’d hit nine times and only miss once if you had to do it over and over. If I bet you a \$1000 you could do it, would you still say it’s 3 days?”

**Designer:** “Ha! Um, no. I’d probably say something like seven, just to be sure.”

**You:** “Any other steps we should include? Or other requests we might get that we should work in so you can be sure you have enough buffer on this?”

**Designer:** “We should probably add some time to the higher fidelity logo lockups, too, now that I’m thinking about it.”

**You:** “Great! Let’s come back to that. So low estimate is .5 days and high is what, eight days? 90% confident? Willing to give up your favourite chair for it?”

**Designer:** “Yeah, honestly. It’s unlikely it’ll take any longer than that. But just in case, how about we make it 9. Sometimes these sketches can be finicky when you’re translating them to Photoshop, so if I can spend some more time getting them where I like them in this round, I’ll have less to do later.”

**You:** “Are you 90% confident? Yes? Okay. Done.”

Here’s an example convo you have with your designer, Avery. To create a 90th percentile confidence estimate, start broad and let your teammate narrow the focus naturally. Essentially, you’re just doing a broad risk assessment together and creating your minimum and maximum ranges—but with confidence.

See? Good questions and reframing the problem can help your team see the task from different angles and eyes. It takes practice, but don’t be nervous about asking obvious hypotheticals. It helps you understand what your teammates do, what kind of situations can impact their estimates, and by how much. And you’ve gotta be 90% confident they will hit this range.

Here are some other good questions to ask your teammates to model 90th percentile accuracy:

- Can you describe the process of approaching [x task]?
- How often does [x task] take longer than [highest number teammate gave]?
- What happens if you adjust/change/remove/add [y]?
- Can you tell me some things that could happen that might make that number higher?
- When do things tend to get complicated? What adds to that complexity?
- If you looked back at this project, what were all the things that went wrong? Now add those up: what’d we miss?

Use the 90th percentile estimation technique with the following other approaches, too:

- High-level estimates
- Three-point estimates
- Agile estimation
- Project ranges

Want a way to practice at home? Quick: what’s your 90th percentile confidence rate for how long it will take you to get home from work today? What’s your 90th percentile for how long it takes to get off the phone with your mother-in-law. See? You can project manage in your sleep.

For an excellent summary of how you can pull 90th percentile estimates out of your teammates, read this excerpt: Chapter 4: Just Enough Estimation of Forecasting and Simulating Software Development Projects; Troy Magennis

*When to Re-baseline Your Project* <https://lt10.co/2mPfsVg>

*Chapter 4: Just Enough Estimation of Forecasting and Simulating Software Development Projects*; Troy Magennis <https://lt10.co/2mLjcah>

*The Planning Fallacy* <https://lt10.co/2ooHgZ>

*4 Effective Strategies To Estimate Time For Your Design Projects* <https://lt10.co/2omQRrO>

*The Dark Art of Project Estimation* <https://lt10.co/2mN5PX9>

*The Ultimate Guide to Project Cost Estimating* <https://lt10.co/2mQBKpG>

*Your Agile Project Needs a Budget, Not an Estimate* <https://lt10.co/2oj3X8Y>

*A Brief Guide to Making Project Estimates More Accurate* <https://lt10.co/2mKyDiS>

Want to learn more about estimating?

Get in touch: it's part of what we teach apprentices in our Louder Than Ten program.

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