# The unfortunate math behind consulting companies 

by Jason Cohen on February 7, 2011
Hiring even one person creates a lot less profit than you'd think, and launching a product rarely works out. Here are some tips for consulting companies.

"I dunno, lately I'm just not incentivized..."

Consulting can be a great way to fund a startup or make a bunch of cash. It's easy to start; Just pick an hourly rate and jump in. There are tons of online tools for timetracking, project-management, and billing.

But someday soon you'll notice there's only so many billable hours in the day, and you'll be tempted to expand. Maybe hire an employee for $\$ 30$ per hour and re-bill them at $\$ 60$. Easy money, right?

Unfortunately the math doesn't work that way.
Here's what really happens, and a few ways to combat it.

## Double is nothing

Suppose you hire an employee at $\$ 60,000 /$ year. There are 2,000 working hours in a year- 40 hours per week times 50 weeks-leaving two weeks vacation. So your cost per billable hour is:

Nominal Cost: \$30/hour

In terms of working days (WD), there's 250 in a 50 -week year. In America we have ten federal holidays bringing the annual WD count to 240 . Recomputing the cost of the remaining billable hours, we have:

20 WD/month, \$31/hour
We also have employment tax in America. Rules are complicated and vary by state, but as a rule of thumb you pay $15 \%$ in taxes including Medicare and Social Security. That changes the annual cost of your employee from $\$ 60,000$ to $\$ 69,000$ with an associated change in hourly cost:

20 WD/month, \$36/hour
We've assumed an 8 -hour work day, but any owner of a consulting company will tell you this rarely happens. Oh sure, founders work 60-80-hour weeks, but not employees. Besides, even if you're in the office 8 hours a day it's hard to be heads-down-on-task the entire time, and consulting is about billable hours. It's hard to be billable for 8 hours a day, every day. From what I've seen the weekly billables are more like 36 hours instead of 40 . That means you're short 16 hours per month, which is equivalent to missing two full (8-hour) days. With this loss, now we're at:

18 WD/month, \$40/hour
Then personal life intrudes. You come in at noon because you had a morning dentist appointment. You take off early to wait for the A/C repair guy. You're sick one day. All very reasonable and it doesn't sound like much, but two half-days and a sick day means another two days lost:

16 WD/month, \$45/hour

We've assumed you're able to keep your employee completely busy throughout the year without down-time between projects, but that's unrealistic. If you get two-week gigs, maybe there's a day between them where the timing didn't quite work out or you did some post-contract clean-up. If you land a six-month gig, that's better, except it's hard to time large deals like that to start and end exactly when you want, months in advance; in fact it's common to have 2-3 weeks of down-time between such things. Either way you lose at least $10 \%$ of your time, and that's assuming a healthy incoming project pipeline, so knock off another two days ( $10 \%$ of the 20-day workmonth):

## 14 WD/month, \$51/hour

And let's suppose you want to allocate just a little time for career development. After all, if you expect to hire and retain great people, they need time to keep learning, stay in front of the latest technology, and just have fun. Maybe that means going to a conference or two, or working on an open-source project, or learning some new tech that's needed for work. You see what's coming of course: That's another 10\%:

12 WD/month, \$60/hour
The true cost of an employee is double the nominal cost. If you bill out a so-called " $\$ 30 /$ hour" employee at $\$ 60 /$ hour, you'll only break even. You really need to bill out at $\$ 100 /$ hour to make any kind of profit.

Which is hard, because the client you're billing knows this person doesn't cost even close to $\$ 100 /$ hour. And when that client thinks about what's "fair," they won't go through the computation I just did; they'll base it on the person's nominal rate plus a little profit for you. This caps the amount you can actually re-bill before client feels ripped off.

I hear you say: "Yeah, but at $\$ 100 /$ hour that's $\$ 40$ /hour profit, or $\$ 80,000 /$ year to me! So that's still really good." But consider this: If your underling can be billed at $\$ 100 /$ hour, can't you bill at $\$ 150 /$ hour at least? And if
you worked just 20 hours/week (on average) at that rate you'd clear $\$ 150,000$ annually without the hassle of hiring and managing an employee. Isn't that better?

## What to do?

So how do you mitigate these issues? Lots of ways, few of which are compelling, but all of which are quite doable:

## Scale

If you had five of these employees you'd be clearing $\$ 300,000$ per year, which sounds better. Except not because scaling creates more time and expense:

- The client pipeline is much harder to maintain. Keeping 3-6 projects going year-round is a full-time job in itself-a job resting on your shoulders.
- Employee turnover becomes more common, so you're permanently in hiring mode. That in itself is timeconsuming and expensive, and it's hard to coordinate new hires exactly when other employees are leaving.
- With six people you'll need office space with the attendant expenses, or a significant, possibly international travel budget for quarterly gettogethers.
- With all these new tasks, there's no way you can also manage the projects and client relationships and internal product development, so you'll need a project manager or a sales person or an office manager or some kind of help, and all of those come out of your profits.
- None of these new tasks are fun or creative. It's drudgery, and it's all on you. Congrats, you're a business owner.

With these new expenses it's not unusual to see that socalled $\$ 300 \mathrm{k}$ in profits came back to $\$ 150 \mathrm{k}$. And now you're doing things you hate doing. Scaling is hard.

## Charge more

Any amount more you can charge goes straight to profits, so even charging a wee bit more (or a lot more) makes a big difference at the end of the year.

Often, though, charging more pushes away your existing client base, and you'll have to find a new breed of folks willing to spend the big bucks. These are generally bigger, more dysfunctional companies with 47-page Master Service Agreements and complex, ever-changing requirements (though without an acceptance of "agile" or "lean"). It's a living, it's just a different living than being a Cool Cat HTML/CSS whiz doing fun projects for other entrepreneurs.

This sword cuts both ways-even little discounts crater profitability. For example it's common practice to give a $10 \%$ discount if the client pre-pays, but although it's great to have cash up-front, that discount comes right off your bottom line. (A better idea is to raise your prices by P\%, then offer a P\% discount for pre-pay. Then your cash-rich customers are paying the same, but others are creating more profit in exchange for delayed payment-a reasonable trade for both parties.)

## Bill more hours

Billing even 5 hours more per week significantly increases profitability.

The problem is convincing your employees to work more, because to them that's "overtime" on a fixed salary. What's in it for them?

One answer: Split overtime billings with them. It's pure profit to you and your employee can earn a significant bonus.

## Build a product

Many consulting companies have a few ideas or even working internal projects which they hope to someday turn into money-making products. The usual story is:

We built this product because we needed it ourselves. It gives us an advantage in consulting because it accelerates our development and enhances our sales pitch.

But surely we're not the only software developers on Earth who would find this tool useful, so whenever we have a lull in client work we work on our product. Someday that will cash-flow by itself, at much better margins.

Indeed there are conspicuous companies who grew successful product lines in exactly this manner: 37signals, FogCreek, and Pivotal Labs. Unfortunately, for each of those there are hundreds if not thousands who toil away at pet projects which never see the light of day. Some reasons:

- Converting an internal project to a user-friendly one requires drudgery: Onboarding flows, documentation, intuitive user interface, installers, password-reset, and fixing those 200 bugs that internally you've just learned to work around. No one wants to do it, and it's no one's job to do it, so it doesn't happen.
- It's no one's job to market or sell the product. No one has the time, and it's quite possible that in a roomful of consultants no one has the skill-set either. So you "put it out there" hoping that the magical world of "social media word of mouth marketing" will bestow eager users upon your sign-up form. But, of course, that's not what happens.
- You have five kinda-cool projects, any of which might be awesome if given enough TLC, but because your attention is spread among all of them (and even then only in fits and spurts between client work) none gets to the stage of being usable by anyone else. Lack of focus kills.
- Billable hours trump product development; it's always second-class, so you get a second-class sideproject.
- Thinking that just because the product is "great for us," that there's a market out there. Usually there's not. (Here's how to figure it out).

Most of the problems above can be fixed by treating the product as a client:

- The product is listed as a client just like all the rest.
- The product is given a budget, even to the point of a separate bank account (and corporation?) so it's clear how much you've spent on it, and the project pays consulting fees (perhaps at cost instead of fullrate).
- Hours are scheduled and prioritized like other clients, and doesn't slip just because it's not a "real client."
- If the (potential?) income from the project cannot justify the cost, you might consider it a loss and stop completely rather than continue to limp along as a money-losing project.

But ultimately, it's just hard.

## Use subcontractors instead of employees

If you pay your underlings for exactly the number of hours you rebill them, you avoid all of the issues above: No employment taxes, no worries about 36 -hour weeks or vacations or project gaps. It's simple time-arbitrage.

Terrific! Unfortunately, subcontractors charge a lot by the hour-a lot more than employees. Of course they do... exactly for the reasons above!

You haven't eliminated those effects, you've just moved them to someone else's profit-and-loss report. If you hired that same employee as a consultant she would charge you $\$ 60 /$ hour instead of $\$ 30 /$ hour and your profits are still the same.

Still, there's a lot less headache using consultants, so this might still be worthwhile. Simpler taxes (in America), no bargaining for vacation time, no prodding them to bill 45 hours this week to make up for last week. Even from a psychological standpoint this might be better: It's easier to give up $\$ 60$ when you charge $\$ 100$, but it causes some consternation to pay someone for a "day's work" when there's no work to do.

## Is consulting really that bad?

Consulting is a great way to earn a living and a smart way to self-finance a startup.

The trick is to avoid all these traps. For example, you know billing a full 40 hours per week is critical, so make it a habit to review hours weekly to make sure no one is consistently falling behind. As another example, set up incentives where employees get to share in the profits.

It's always hard. Most consulting companies don't make much profit, and it's one in a thousand that has the discipline to launch a successful product during off-hours. If you're going to make it happen, you yourself need to be serious, disciplined, and relentless.

## But you can do it.

And if you do, you've just self-financed a startup, made a nice living, mitigated much of the risk of product-only startups, and built a great team in the process.

