

Negotiation

Negotiating an Offer

- Negotiating an offer
 - ***can initially seem scary***. You might be concerned about offending your potential employer, seeming greedy, etc.
 - ***is expected***. It's totally normal to negotiate and you're not going to upset anyone by trying.
 - ***is beneficial***. If you negotiate an offer correctly, you and the company you work for can end up much happier.
 - ***is critical***. You will miss out on a lot of lifetime income if you don't do this.

Why Negotiate?

Your Initial Salary

- The salary you receive in your first full-time job will set a baseline for your future earnings.
- Pay increases are often percentage-based:
 - If you're getting a raise inside the company, it will probably be given as a percent increase.
 - If you're switching companies, the company you're switching to will often offer a new salary that's a percentage bump over what you have when you apply as a way of luring you over.
- This means that your earnings are a function of your starting salary and the rate at which that salary increases.

The Math

- Your earnings at any point in time can be described by an equation of the form

$$Income(t) = BaseSalary \cdot e^{t \cdot rate}$$

- Your net income from time 0 to time t is the integral of this function evaluated from time 0 to t , which works out like this:

$$\begin{aligned} NetIncome(t) &\approx BaseSalary \cdot e^{t \cdot rate} / rate \\ &= BaseSalary \cdot (e^t)^{rate} / rate \\ &= BaseSalary \cdot (e^{rate})^{time} / rate \end{aligned}$$

The Math

$$\mathbf{NetIncome(t) \approx BaseSalary \cdot (e^t)^{rate} / rate}$$

- What can you do increase your net income?
 - Work longer (increase t).
 - Increase your base salary.
 - Increase your salary growth rate.
- Notice that your net income grows linearly with your base salary and superlinearly with the increase in rate.
- This can lead to *huge* differences over a lifetime!

Base Salary	Salary Growth Rate	Years Worked	Lifetime Income
\$100,000	2%	35	\$5,068,763
\$100,000	2%	40	\$6,127,704
\$100,000	3%	35	\$6,192,170
\$100,000	3%	40	\$7,733,723
\$100,000	4%	35	\$7,637,999
\$100,000	4%	40	\$9,882,581
\$100,000	5%	35	\$9,509,205
\$100,000	5%	40	\$12,778,112

Base Salary	Salary Growth Rate	Years Worked	Lifetime Income
\$125,000	2%	35	\$6,335,954
\$125,000	2%	40	\$7,659,630
\$125,000	3%	35	\$7,740,212
\$125,000	3%	40	\$9,667,153
\$125,000	4%	35	\$9,547,499
\$125,000	4%	40	\$12,353,226
\$125,000	5%	35	\$11,886,506
\$125,000	5%	40	\$15,972,640

The Math

$$\mathbf{NetIncome}(t) \approx \mathbf{BaseSalary} \cdot (e^t)^{\mathbf{rate}} / \mathbf{rate}$$

- What can you do increase your net income?
 - Work longer (increase t).
 - Increase your base salary.
 - Increase your salary growth rate.
- Notice that your net income grows linearly with your base salary and superlinearly with the increase in rate.
- This can lead to *huge* differences over a lifetime!

The Math

$$\mathbf{NetIncome}(t) \approx \mathbf{BaseSalary} \cdot (e^t)^{\mathbf{rate}} / \mathbf{rate}$$

What can you do increase your net income?

Work longer (increase t).

- Increase your base salary.
- Increase your salary growth rate.

Notice that your net income grows linearly with your base salary and superlinearly with the increase in rate.

This can lead to *huge* differences over a lifetime!

Getting into the Right Mindset

Advocating for Yourself

- Just because a company is offering to pay you a lot of money doesn't mean they won't / shouldn't pay more.
 - ***You have extremely valuable skills and come from an elite university.*** You are perfectly justified in asking for more if other companies are offering more.
- Do you find uncomfortable negotiating on behalf of yourself? Imagine that you're negotiating for someone else. Would you want them to get the best deal possible?

Gender Income Disparity

- It's well-established that as a group, women earn less than men.
- There is a *lot* of evidence that salary negotiation is a big factor here; without prompting, women tend to negotiate less than men.
 - (Source 1)
 - (Source 2)
 - (Source 3)
- Even if you feel uncomfortable negotiating, it's really important. There are both theoretical and empirical numbers demonstrating this.

The Other Side of the Desk

Why Companies Negotiate

- Companies are willing to negotiate because
 - you will generate a ton of revenue for them,
 - there aren't many people like you, and
 - they want you to be happy.
- For that first point: Google's market cap (number of shares times share price) is about \$500 billion. They report having 24,400 employees. That works out to about \$24 million per employee.

Why Companies Negotiate

- Companies usually won't give you absolutely everything you ask for because they have an incentive to keep wages down.
 - In software, wages make up a huge fraction of operating costs.
 - The companies don't want to set trends that in the long run causes a cost overrun.
 - Also, companies are profit-maximizing machines, so they have every incentive to pay you as low as you'll be happy with.
- Medium to large companies often have a range of salaries they're prepared to offer to different job titles. You can definitely improve your offer by negotiating, though you may hit institutional limits.
- Smaller companies are more freeform. They may have a range, or they may just do everything on a case-by-case basis.

Why Companies Negotiate

- Because companies generally have limits on what they consider reasonable, it's really important that you have multiple offers available.
- This also lets you reframe the conversation from “I think I should get paid more” to “*someone else* thinks I should get paid more.”
- It also gives you more bargaining leverage, which you should (nicely! politely!) take advantage of.

Before You Negotiate

Preparing to Negotiate

- ***Apply to lots of companies***. This will give you a better sense for what's out there. Having multiple offer letters definitely doesn't hurt!
- ***Research the field***. You can find the median salaries for Stanford CS/EE graduates with BS, MS, and Ph.D's from the Computer Forum. Look online to get a sense of what people at the company are typically paid.
- ***Understand your offers***. Read over what the initial offer is and make sure you understand the details – stock options, benefits, retirement, etc. It's perfectly reasonable to ask questions about it either before or during a negotiation.
- ***Compare your offers***. If you have multiple offers and one or two seem clearly worse than others, figure out *why* you think that. That helps identify what you might want to negotiate for.

What To Look At in Offer Letters

Ballpark Salary Numbers

- For software internships:
 - Good internships typically pay around \$6,500 - \$7,500 a month or around \$35 or \$40 an hour.
 - (Internship salaries are harder to negotiate, but that shouldn't stop you from trying! It's good practice.)
- For first full-time jobs with a CS/EE degree, as of 2015-2016:
 - With a BS: Median offer was \$107,500, with good offers going up to \$130,000. 90% of people got stock options, 95% of people got signing bonuses (average: \$14,652), and 50% were offered relocation assistance.
 - With an MS: Median offer was \$117,500 with good offers going up to \$150,000. 90% got stock options, 90% got signing bonuses (average: \$15,556), 30% got relocation assistance.
- Source: Computer Forum Salary Survey.

Offer Deadlines

- Most offers have an expiration date. It is almost always negotiable, but companies will rarely tell you this.
- If you're getting recruited through Stanford's Computer Forum, you are entitled to a certain amount of time in your offer letters - check with Connie Chan about this.
- Companies often do this to put pressure on you, but sometimes they have their own internal deadlines. Understand that it's a bargaining tactic and push back if you need more time.

Signing Bonuses

- Many companies these days are offering (patently absurd) signing bonuses.
- Although this is a one-time payment, it can be huge if you have student loans to pay off or if you're supporting family members.
- You can definitely try to negotiate this, especially if one of your offers has a huge bonus attached.
- You might also be able to get the company to comp you for a summer trip, for a new laptop, etc. From the company's perspective, it's an $O(1)$ cost.

Equity

- Many companies will offer you some amount of equity (stock) in the company as part of your compensation.
- Usually, you'll get some number of shares that vest over a fixed time period (i.e. you get nothing immediately, then they start transferring things to you.)
- ***Equity is high-risk, high-reward***. It can be utterly worthless, or it could make you a millionaire overnight.
- Assess your own needs and risk profile when thinking about how much of this that you want.
 - If you have loans to pay off, family to support, or medical bills you need to pay, you may want to go for a lower-risk strategy until things are stable.
 - If you don't, you may want to take on more risk. The younger you are, the less it impacts you if your risks don't pay off.

Retirement Matching

- Many companies will set up 401(k) retirement accounts for their employees.
- They'll withhold money from your paycheck and put it into your retirement account.
 - The income that's withheld is not taxed, which lowers you immediate tax burden.
 - You're taxed many years later when you withdraw the money.
- Many companies will match some of your retirement investments. Take a look at this – this can be hugely valuable long-term.

Vacation Days

- Take a look at the company's vacation policy.
- Most companies give you a fixed bank of vacation days to use. See if you like the number.
- Some companies have a “take off whatever seems reasonable” policy. Be careful – this might indicate a hard-working culture.

Maternity / Paternity Leave

- The tech industry used to be notorious for having awful maternity leave and paternity leave policies. That is starting to change.
- If you are in a position where you think or know this will affect you, you should *definitely* ask about it.

The Negotiation Itself

General Negotiation Advice

- ***Appeal to objective criteria.***
 - You negotiate from a stronger starting point if you can objectively justify what you're asking for. It takes the focus off of you and puts it on the request.
- ***Arrive with a sense of what to accomplish.***
 - Knowing what you'd like to achieve makes it much easier to argue for it. Plus, it means you'll be able to do your research.
- ***Treat negotiations as relationship building.***
 - You will almost certainly interact with the other person again. Do not think of the outcome of a negotiation as a “win” or a “loss.”

Specific Advice

- ***Don't lie.***
 - If a company isn't your first choice, don't say that it is. If a company isn't offering you \$130,000 a year, don't say that one is. You definitely do not want to get caught lying. It can damage your reputation.
- ***Understand who you're talking to.***
 - You may be talking to a recruiter rather than a manager. Recruiters often are preauthorized to adjust offers in particular ways.
 - Considerations: does your offer set a precedent for other people?
 - You can ask different things of recruiters and of managers. You also probably won't directly work for your recruiter. 😊

Specific Advice

- ***Frame the conversation positively.***
 - You want to be happy working for the company. They want you to be happy working for them. Try to find a way to make everything win/win.
- ***Ask questions.***
 - If you don't fully understand parts of the offer, ask questions about them. If you think you could get paid more, ask the company how they arrived at your salary numbers.

The Longer-Term View

Increasing Your Income

- If you perform well at a company, they'll probably give you a raise. (Hopefully, that doesn't come as a surprise.)
- At times, you will need to advocate on your own behalf and ask for a raise.
 - This might be because you're at a place where employees put themselves up for promotion.
 - This might be because you think you can get compensated more for the work you're doing.

The Honest Truth

- You can often get a larger pay raise by switching companies than by sticking with a fixed company for a long time.
- If you are trying to maximize your income – or if you want to feel like you're getting paid a fair rate – you need to be willing to migrate around between companies.
- That said, staying at the same place offers a ton of stability, and that might be more valuable to you based on your situation or goals.

Negotiating a Raise

- When negotiating a raise, you probably want to follow the same general advice as before.
 - Do your research – is there a clear “scale” that you should be climbing up? If so, are you meeting the objectives of the next level of the scale?
 - Get good numeric estimates – can you figure out how much someone in your same position would get paid?
- That said, you need to be prepared to leave. Do the cost-benefit analysis. Is the increase in pay worth the switch? Chances are the answer is “yes” unless you're not happy with the place you'll be going.